# General Surveillance Management Center

## User's Manual

V8.2.0

# Foreword

## General

This user's manual introduces the functions and operations of the general surveillance management center (hereinafter referred to as "the system" or "the platform").

## Safety Instructions

The following signal words might appear in the manual.

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

## Frequently Used Functions

| Icon/Parameter | Description |
|---|---|
| | View the details of an item. |
| | Clear all selected options. |
| | Search for items by keywords or specified content. |
| or **Delete** | Delete items one by one or in batches. |
| or | Edit an item. |
| 、 , **Enable**, or **Disable** | Enable or disable items one by one or in batches. |
| or **Export** | Exported the selected content to your local computer. |
| or **Refresh** | Refresh the content. |
| * | A parameter that must be configured. |

## Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

# About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

# Important Safeguards and Warnings

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

## Operation Requirements

A suitable operating environment is the foundation for the device to work properly. Confirm whether the following conditions have been met before use.

- Use the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the operating temperature and humidity of the device.
- Use the device on a stable base.
- Do not let any liquid flow into the device to avoid damage to internal components. When liquid flows into the device, immediately disconnect the power supply, unplug all cables connected to it, and contact after-sales service.
- Do not plug or unplug RS-232, RS-485 and other ports with the power on, otherwise, the ports will be easily damaged.
- Back up data in time during deployment and use, in an effort to avoid data loss caused by abnormal operation. The company is not liable for data security.
- The company is not responsible for damages to the device or other product problems caused by excessive use or other improper use.

## Installation Requirements

 **DANGER**

- Make sure that the power is off when you connect the cables, install or disassemble the device.
- For devices with earthing systems, make sure they are grounded to avoid being damaged by static electricity or induced voltage, and prevent electrocution from occurring.
- All installation and operations must conform to local electrical safety regulations.
- Use accessories suggested by the manufacturer, and installed by professionals.
- Do not block the ventilator of the device, and install the device in a well-ventilated place.
- Do not expose the device to heat sources or direct sunlight, such as radiator, heater, stove or other heating equipment, which is to avoid the risk of fire.
- Do not place the device in explosive, humid, dusty, extremely hot or cold sites with corrosive gas, strong electromagnetic radiation or unstable illumination.
- Avoid heavy stress, violent vibration, and immersion during installation.

 **WARNING**

Safe and stable power supply is a prerequisite for proper operation of the device.

- Make sure that the ambient voltage is stable and meet the power supply requirements of the device.
- Prevent the power cord from being trampled or pressed, especially the plug, power socket and the junction from the device.

- For devices that can be powered by multiple supplies, do not connect them to two or more kinds of power supplies; otherwise, the device might be damaged.
- Refer to the specific user's manual for the power requirements of single device.

It is recommended to use the device with a lightning protector for better lightning-proof effect.

## Transportation Requirements

- Pack the device with packaging provided by its manufacturer or packaging of the same quality before transporting it.
- Avoid heavy stress, violent vibration, and immersion during transportation.
- Transport the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the transporting temperature and humidity of the device.

## Storage Requirements

- Store the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the storing temperature and humidity of the device.
- Avoid heavy stress, violent vibration, and immersion during storage.

## Maintenance Requirements


- Contact professionals for regular inspection and maintenance of the device. Do not disassemble or dismantle the device without a professional present.
- Use accessories suggested by the manufacturer, and maintain the device by professionals.

# Table of Contents

# 1 Overview

## 1.1 Introduction

DSS General Surveillance Management Center is a high-performance security management platform based on Linux OS and pre-installed DSS software. It provides higher performance in the low-end and mid-end market, offering a reasonably low price for a highly efficient and carefully designed system.

## 1.2 Highlights

- Easy to Use
  All-in-One, plug & play.
- Cost-effective
  - One-time payment for hardware and whole software capacity.
  - Lower price per channel.
- Stable and Reliable
  - Linux OS based design with high efficiency and reliability.
  - Less maintenance investment.

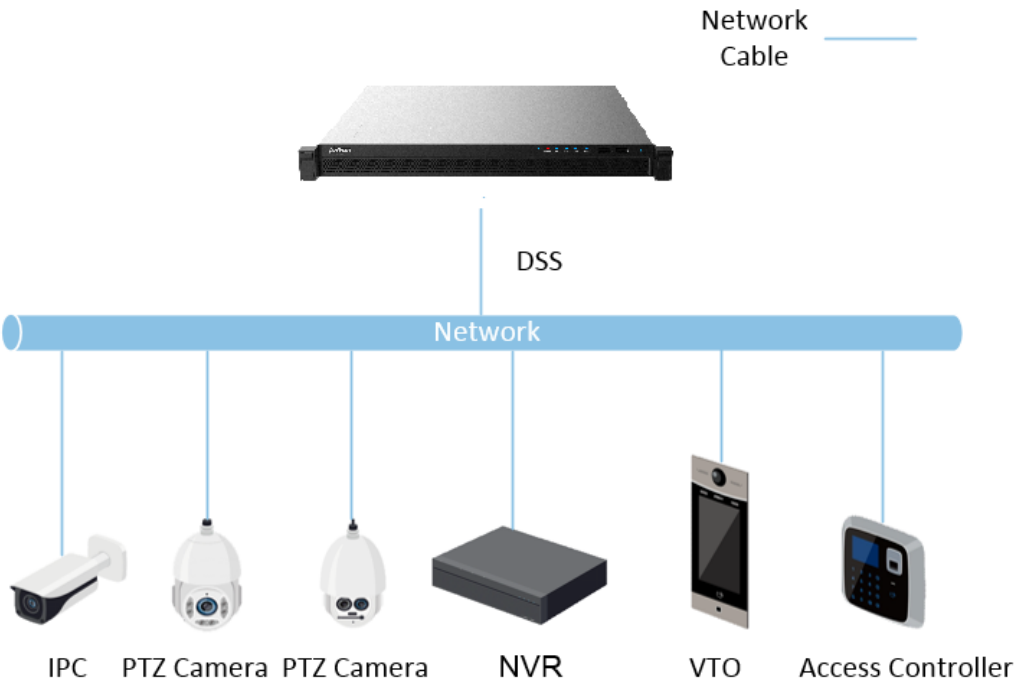
# 2 Installation and Deployment

The system supports standalone deployment, and LAN to WAN mapping.

## Standalone Deployment

For projects with a small number of devices, only one server is required.

Figure 2-1 Standalone deployment




## LAN to WAN Mapping

Perform port mapping when:

- The server of the platform and devices are on a local area network, and the DSS client in on the internet. To make sure that the DSS client can access the platform server, you need to map the platform IP to the Internet.
- The platform is on a local area network, and the devices are on the Internet. If you want to add devices to the platform through automatic registration, you need to map the IP address and ports of the platform to the Internet. For devices on the Internet, the platform can add them by their IP addresses and ports.

⚠

The configuration system does not differentiate service LAN ports and WAN ports. Make sure that the WAN ports and LAN ports are the same.

# 2.1 Configuring Single-server Deployment

Configure the basic settings for each server before deployment.

## 2.1.1 Configuring Basic Parameters

### Procedure

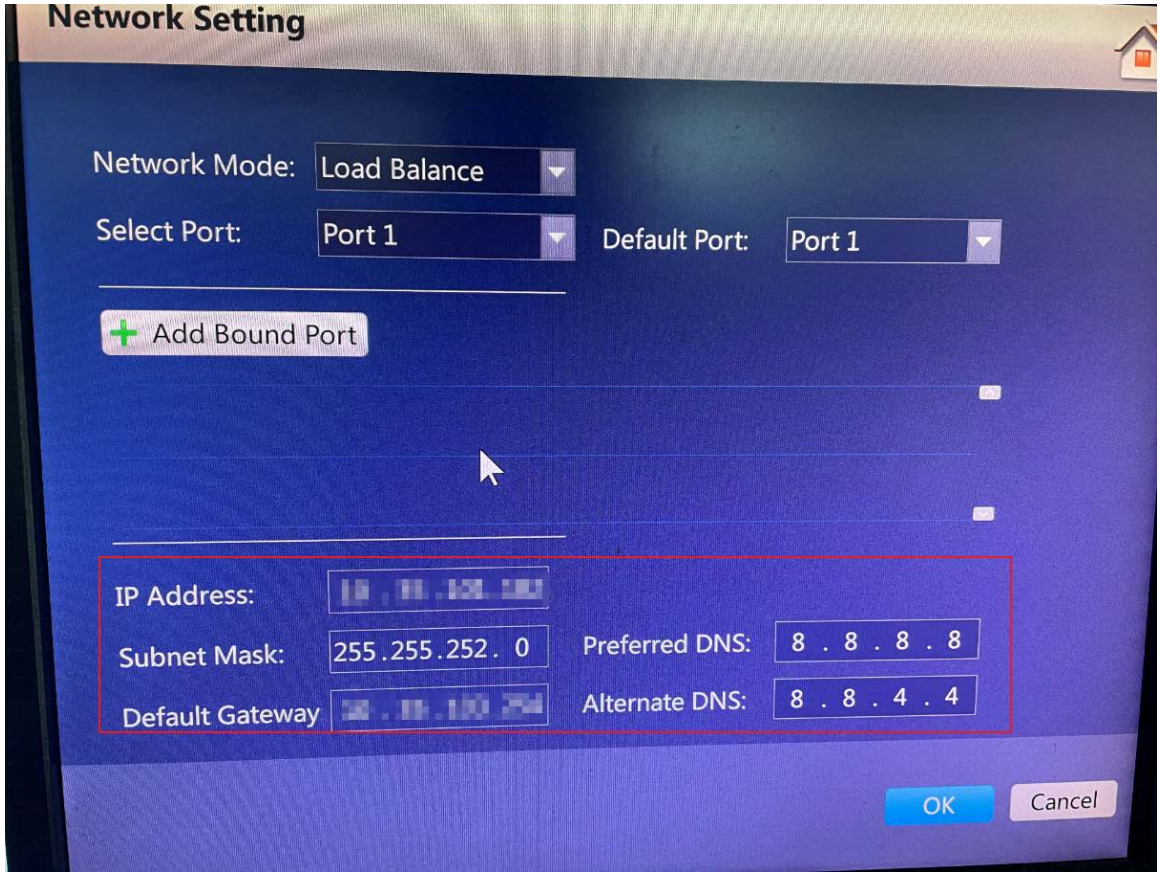
Step 1 Turn on the platform, and then click **Network**.

Figure 2-2 Network


Step 2 On the **Select Port** drop-down list, select the port that is connected to the network card you want to configure, and then on the **Default Port** drop-down list, select the default network card of the platform.

Step 3 Configure the IP address, subnet mask, default gateway, and DNS, and then click **OK**. The platform will automatically restart.

Figure 2-3 Network settings




Step 4 Go to https://*IP address that you configured*/config in the browser.

For first-time login, follow the on-screen instructions to set a password, security questions, and time zone.

Step 5 Configure network parameters.

1) Select **Quick Guide** > **NIC Config**, or **Network Config** > **NIC Config**.
2) Configure the parameters, and then click **Apply and Restart**.

Default network card and its parameters have been configured in step 2 and 3.

Table 2-1 Network card parameter description

| Parameter | Description |
|---|---|
| Select NIC Mode | • Multi-address<br>Multiple network card (hereinafter referred to as NIC) mode. You can configure different network parameters for different NIC to access to multiple network segments and achieve high network reliability. For example, ISCSI storage expansion solution. When setting ISCSI storage expansion, NIC 1 can be used for communication, NIC 2 is reserved and NIC 3 and NIC 4 can be used for ISCSI storage.<br>• Load Balancing<br>Multiple NICs share one IP and work at the same time to share the network load, providing greater network capacity than the single NIC |

| Parameter | Description |
|---|---|
| | mode. When one of them fails, the network load will be re-distributed among the rest NICs to ensure network stability.<br>• Fault-tolerant<br>Multiple NICs share one IP. Normally, one of them works. When the working NIC fails, another one will automatically take over the job to ensure network stability.<br>• Link Aggregation<br>Bind NICs so that all the bound NICs work at the same time and share network load. For example, bind two NICs and set multi-address for the other two NICs. Then the server has three IPs. The bandwidth of the two bound NICs is 2K and the other two are 2K respectively. This is applicable to stream forwarding, not storage. |
| Add Network Card | When the NIC mode is fault tolerance, load balance or link aggregation, you need to add network card.<br>Select NIC to bind. You can bind 2 NICs as needed. |
| Network Card Config | After NIC is selected or added, its information will be displayed. |
| MAC Address | Displays the MAC address of the server. |
| IPv4 | After selecting a network card, you can set its IP address, subnet mask, default gateway and DNS server address. |
| IPv6 | Enable IPv6 and configure the parameters to connect the platform to an IPv6 network, you can add devices with IPv6 address to the platform. |
| Default Network Card | Select the default NIC. This NIC will be used as the default NIC to forward data package between non-consecutive network segments such as WAN or public network. |

Step 6 Set server time zone and time.

1) After restart completes, log in to the configuration system again, and then select **Basic Config** > **Time Config**.
2) Configure the parameters, and then click **Application**.

Table 2-2 Parameters description

| Parameter | Description |
|---|---|
| Time Zone | Select time zone of the server. |
| Date/Time | Click the box to select the date and time. |
| Sync PC | Click **Sync PC** to synchronize the time of the server with the computer you are using. |

## 2.1.2 Configuring Dual Network Cards

Two network cards are usually used for network segmentation. For example, the platform and devices are on two different network segments. You can log in to the platform through the IP address of the default network card, and the platform can access devices through another network

card.

### Prerequisites

Set the network card mode to multi-address mode, and then configure the parameters of each network card. For details, see "2.1.1 Configuring Basic Parameters".

### Procedure

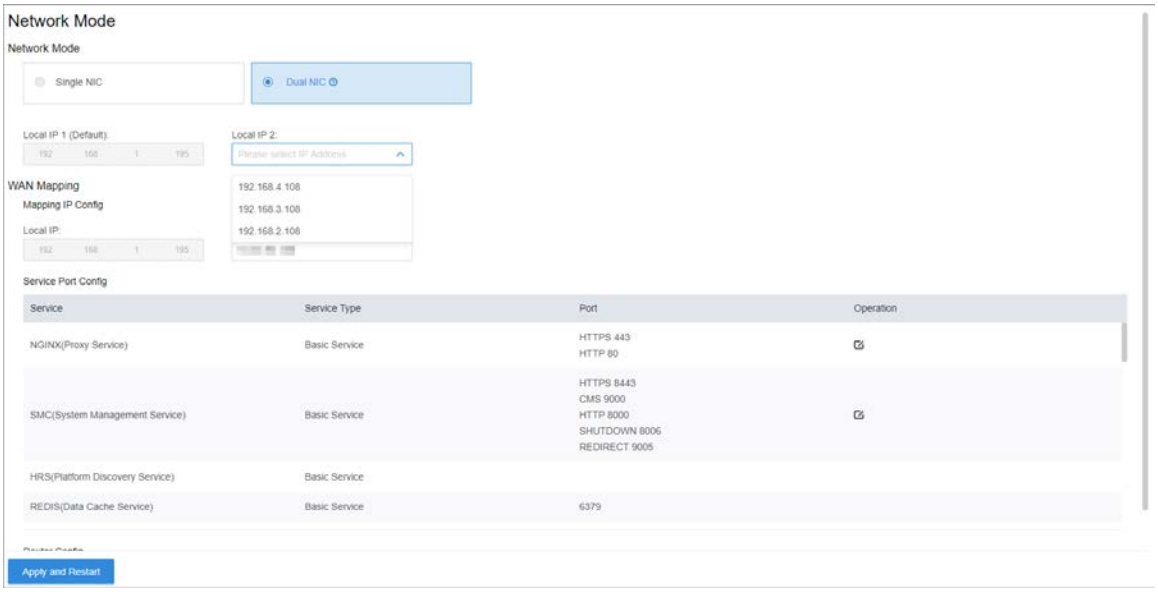
Step 1 Go to https://*platform IP address*/config in the browser.

Step 2 Enter the username and password, and then click **Login**.

Step 3 Select **Network Config** > **Network Mode**, and then select **Dual NIC**.

Step 4 On the **Local IP 2** drop-down box, select the IP address of the other network card, and then click **Apply and Restart**.

Figure 2-4 Dual network cards mode




### Related Operations

In dual network cards mode, you can configure LAN and WAN mapping for the default network card. For details, see "2.5 Configuring LAN or WAN".

# 2.2 Configuring Distributed Deployment

# 2.3 Configuring Hot Standby

Configure hot standby server so that when the main server fails, the spare server can take over the job and ensure system stability.

### Prerequisites

- Connect network cables.
  - ◇ Use network port 1 as business network port, and then configure an IP address on the business network segment for the network port 1. Connect network port 1 to the same LAN via switch, and the virtual IP address and the one of network port 1 need to be in the same

segment.

- ◇ Take network port 2 as heartbeat network port, which is used to keep data from both servers in synchronization. Configure an IP address for network port 2 that is on another network segment than network port 1, but the IP address of network port 2 of both servers need to be in the same network segment. You can check and configure the IP address of network port 2 on the config system.

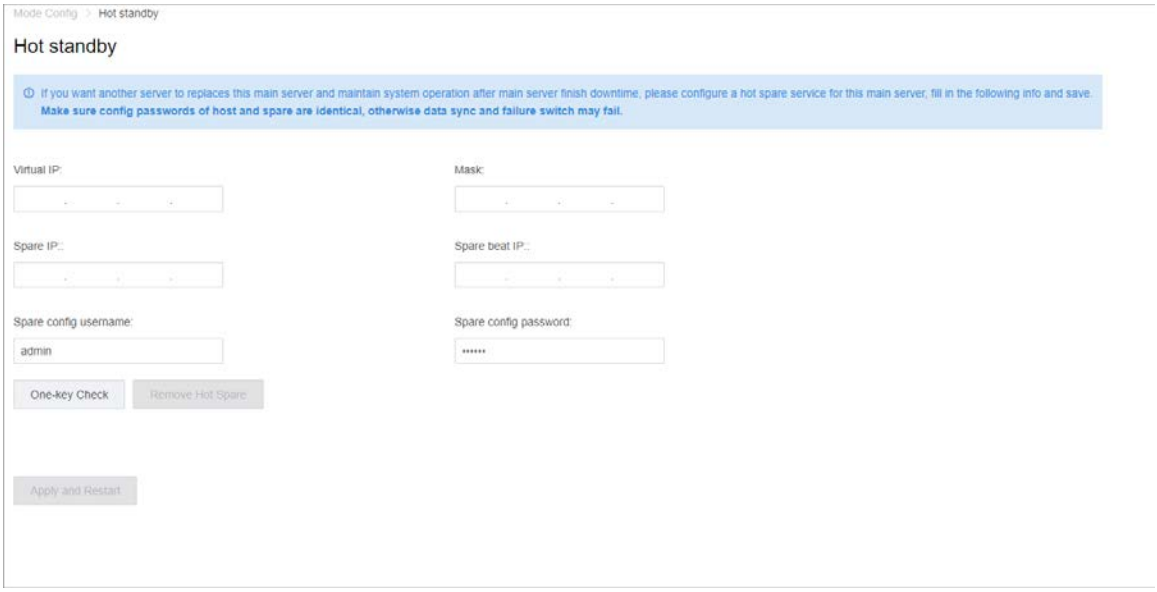
- The network mode is set to multi-IP mode. For details, see "3.4.1 NIC Config".
- NTP time synchronization has been enabled on both servers. For details, see "8.2.3 Time Synchronization".
- Prepare an IP address that is not used in the business network segment. After the configuration is complete, you can access this IP address to access the platform.
- Hot standby is the synchronization of the databases of the two servers. If you need to change any configuration that does not involve the databases, such as a port number, you must make sure this port number is the same on both servers.

## Procedure

Step 1 Log in to the Config system.

Step 2 Select **Mode Config** > **Hot standby**.

Figure 2-5 Hot standby




Step 3 Configure the parameters.

The NIC mode must be **Multi-address** for hot spare to work normally. For details, see "3.2 Quick Guide".

Table 2-3 Hot standby parameter description

| Parameter | Description |
|---|---|
| Virtual IP | After setting virtual IP, it can have access to platform via the virtual IP. |
| Mask | It is in accordance with the mask of network port 1. |
| Spare IP | IP address of spare server network port 1. |

| Parameter | Description |
| --- | --- |
| Spare beat IP | IP address of spare server network port 2. |
| Spare config username | The login username and password of spare server Config system.<br><br>• The login password to Config system of the main and spare servers must be the same.<br>• The password cannot be changed after hot standby is configured. |
| Spare config password | |
| One-key Check | Click **One-key Check** to confirm username and password. |
| Remove Hot Spare | After clicking **One-key Check** and the platform indicates everything is OK, you can click this button to remove the hot spare configuration.<br>If you need to completely remove the hot spare configuration, you need to click this button on the main server first, and then on the spare server.<br><br>For this operation, you must access the LAN IP addresses of the servers. |

Step 4 Click **Apply and Restart**.

# 2.4 Configuring N+M

On the main server, enable the sub server, and then create the sub-standby relationship.

## Prerequisites

- The relevant servers have been well deployed.
- The DSS client has been installed. For details, see "4.1.1 Installing and Logging into DSS Client".

## Procedure

Step 1 Log in to the DSS client of the main server. On the **Home** page, click > **System Deployment**.

Step 2 Click .

Step 3 Click to enable the sub servers.

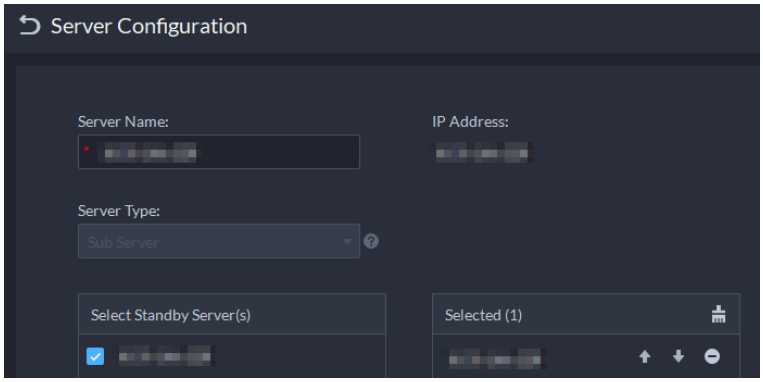
Step 4 Configure a standby server.

1) Click of a sub server.
2) Select **Standby Server** for **Server Type**, and then click **OK**.

Step 5 Configure the sub-standby relationship in either of the following ways.

- Go to the **Configure Server** interface of the sub server to select a standby server.
  1. Click of a sub server.
  2. On the **Select Standby Server(s)** interface, select one or more standby servers.

Figure 2-6 Select a standby server




3. Click **OK**.

- Go to the **Configure Server** interface of the standby server to select a sub server.
  1. Click ⚙ of a standby server.
  2. On the **Select Sub Server(s)** interface, select one or more sub servers.
     You can click ⇅ to adjust the priority.
  3. Click **OK**.

# 2.5 Configuring LAN or WAN

## 2.5.1 Configuring Router

If the platform is in a local network, you can visit it from the public network by performing DMZ mapping. For the list of the ports to be mapped, see the table below.

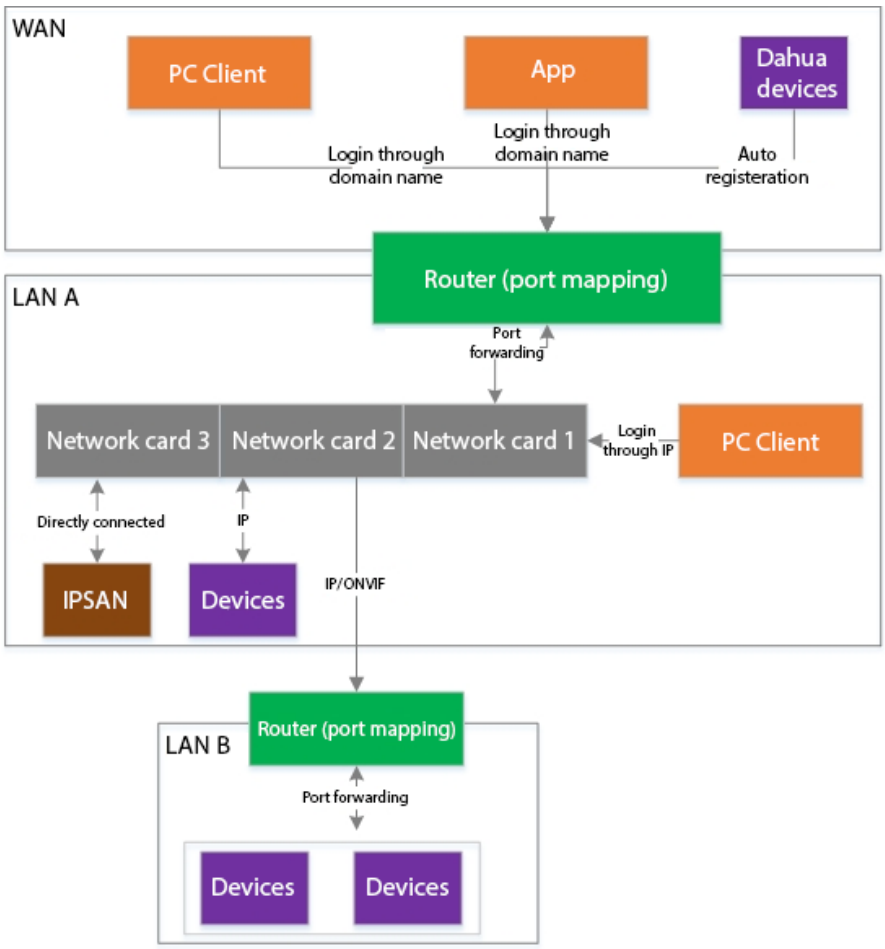
Table 2-4 Port matrix

| Function | Port | Service | Must be Mapped |
|---|---|---|---|
| PC client login | 80 (nginx http) | HTTP | No |
| | 443 (nginx https) | HTTPS | Yes |
| | 1883 (MQ service mobile App connection) | MQ-mqtt (encryption) | Yes |
| | 61616 (MQ service PC client connection) | MQ-openwire (encryption) | Yes |
| Live video | 9100 (MTS service RTSP) | RTSP | Yes |
| | 9102 (MTS service RTSPS) | RTSP over TLS | No |
| Playback | 9320（SS service RTSP） | RTSP | Yes |
| | 9322（SS service RTSPS） | RTSP over TLS | No |
| ANPR | 40000-50000（PTS image stream） | RTP | Yes |

| Function | Port | Service | Must be Mapped |
|---|---|---|---|
| Video intercom | 5080 (SC service) | SIP registration (UDP) | Yes |
| | 20000-30000 (SC service audio stream) | Audio stream forwarding port (UDP) | Yes |
| Automatic registration | 9005 (admin service) | Redirection of automatic registration | No |
| | 9500 (ARS service) | Dahua second-generation protocol | Yes |

- Make sure that the number of the WAN ports is consistent with that of the LAN ports.
- You can configure LAN and WAN mapping and dual network cards mode at the same time. For how to configure dual network cards, see "2.1.2 Configuring Dual Network Cards".

Figure 2-7 Topology of deploying LAN and WAN mapping and dual networks cards




## 2.5.2 Mapping IP or Domain Name

If the platform is deployed in a local network, you can map the IP address of the server to a fixed

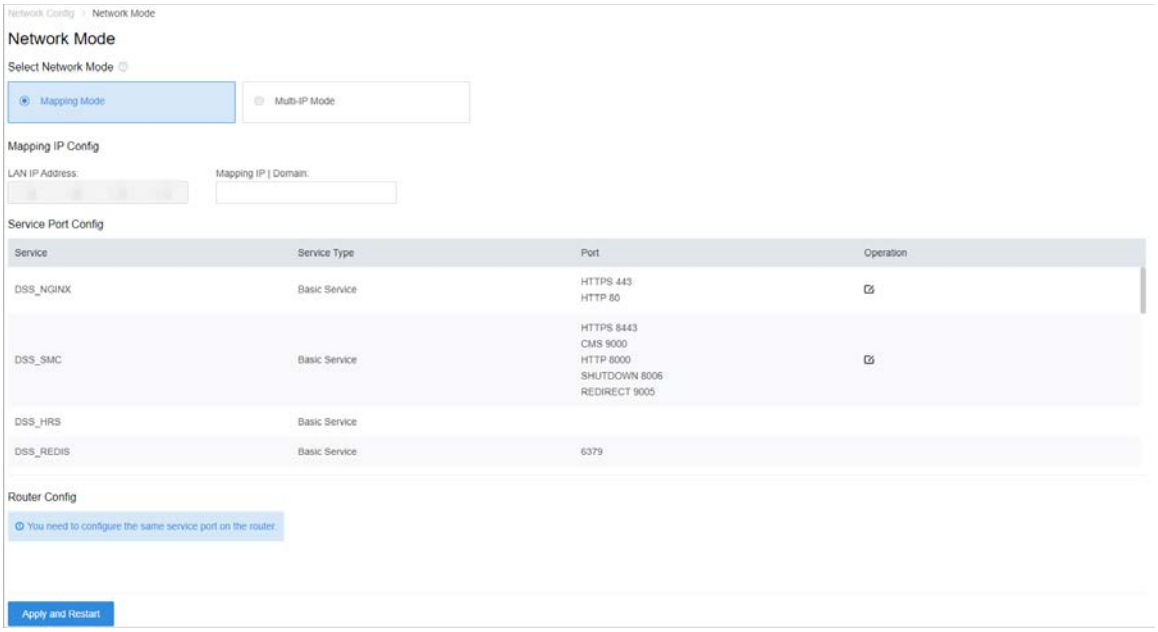
WAN IP or a domain name, and then log in to the server using the WAN IP or domain name.

## Procedure

Step 1 Log in to the Config system.

Step 2 Select **Network Config** > **Network Mode**.

Figure 2-8 Network mode




Step 3 Enter a fixed WAN IP address or a domain name in the **Mapping IP | Domain** box, and then click **OK**.

- If you want to use a domain name, you need to make related configurations on the domain name server.
- The DNS information of the network card must be the same as the domain name server.

Step 4 Click **OK** and then the services will restart.

# 3 Configuring Basic Settings

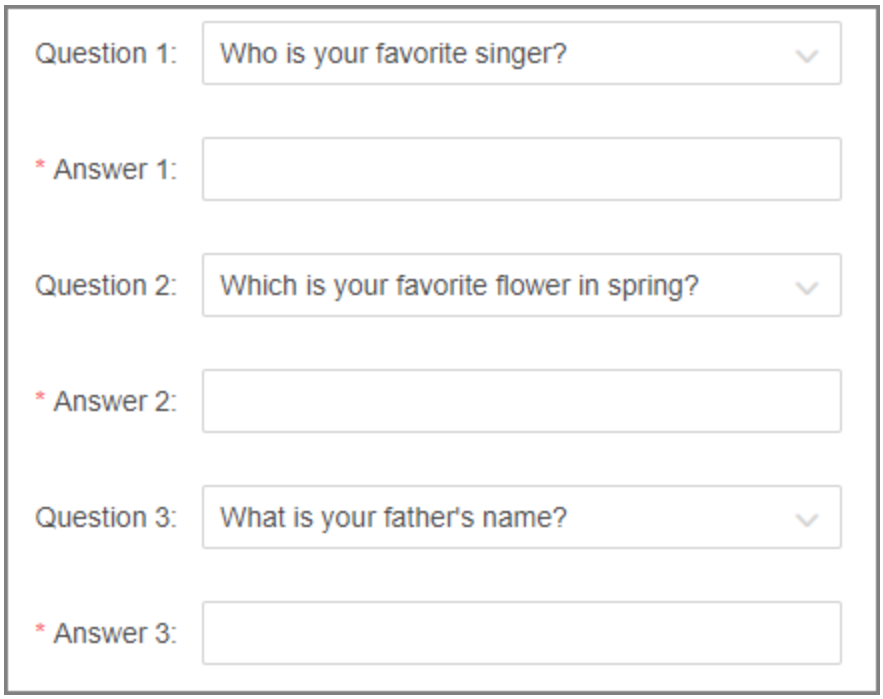
Log in to the Config system (configuration system) to quickly configure network parameters, basic parameters, safety parameters, as well as system update and self-check.

## 3.1 Login and Password Initialization

### Procedure

Step 1 Go to https://*DSS platform IP address*/config in the browser.
The password resetting interface is displayed.

Figure 3-1 Reset password




Step 2 Enter a password and confirm it, and then click **Next**.

Step 3 Set security questions, and then click **Next**.

Step 4 Configure the time and time zone, and then click **Finish**.
Service is restarted and you need to log in to the system again.

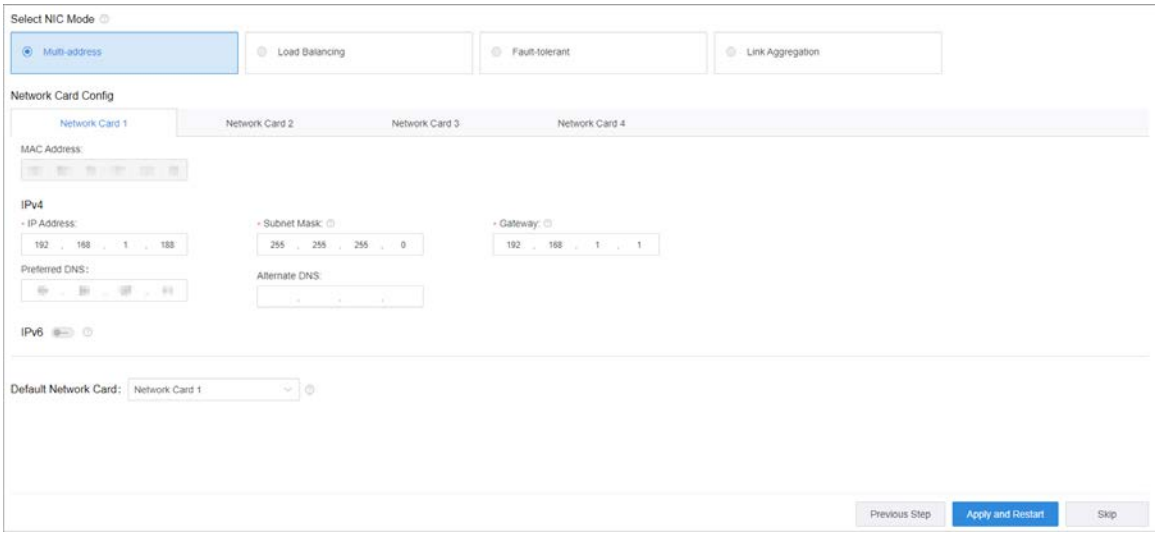
## 3.2 Quick Guide

On the **Quick Guide** interface, you can quickly configure network settings, and LAN to WAN mapping.

### Procedure

Step 1 Log in to the Config system, and then select **Quick Guide** > **Network Card Config**.

Figure 3-2 Network card configuration




Step 2 Configure the parameters.

Table 3-1 Network card parameter description

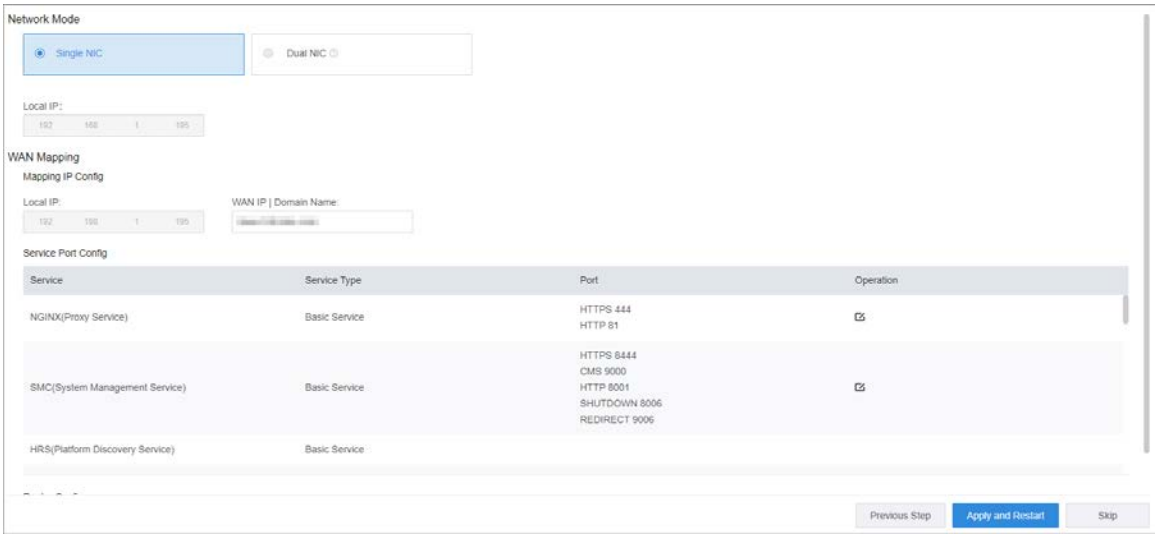
| Parameter | Description |
|---|---|
| Select NIC Mode | • Multi-address<br>Multiple network card (hereinafter referred to as NIC) mode. You can configure different network parameters for different NIC to access to multiple network segments and achieve high network reliability. For example, ISCSI storage expansion solution. When setting ISCSI storage expansion, NIC 1 can be used for communication, NIC 2 is reserved and NIC 3 and NIC 4 can be used for ISCSI storage.<br>• Load Balancing<br>Multiple NICs share one IP and work at the same time to share the network load, providing greater network capacity than the single NIC mode. When one of them fails, the network load will be re-distributed among the rest NICs to ensure network stability.<br>• Fault-tolerant<br>Multiple NICs share one IP. Normally, one of them works. When the working NIC fails, another one will automatically take over the job to ensure network stability.<br>• Link Aggregation<br>Bind NICs so that all the bound NICs work at the same time and share network load. For example, bind two NICs and set multi-address for the other two NICs. Then the server has three IPs. The bandwidth of the two bound NICs is 2K and the other two are 2K respectively. This is applicable to stream forwarding, not storage. |
| Add Network Card | When the NIC mode is fault tolerance, load balance or link aggregation, you need to add network card.<br>Select NIC to bind. You can bind 2 NICs as needed. |
| Network Card Config | After NIC is selected or added, its information will be displayed. |

| Parameter | Description |
|---|---|
| MAC Address | Displays the MAC address of the server. |
| IPv4 | After selecting a network card, you can set its IP address, subnet mask, default gateway and DNS server address. |
| IPv6 | Enable IPv6 and configure the parameters to connect the platform to an IPv6 network, you can add devices with IPv6 address to the platform. |
| Default Network Card | Select the default NIC. This NIC will be used as the default NIC to forward data package between non-consecutive network segments such as WAN or public network. |

Step 3 Click **Apply and Restart**.

Step 4 Log in to the Config system, and then select **Quick Guide** > **Network Mode**.

Figure 3-3 Network mode




Step 5 Configure the parameters.

Table 3-2 Network mode parameter description

| Mode | Parameter | Description |
|---|---|---|
| Network Mode | Single NIC | The platform will only use the default network card, and you can only access the platform through the IP address of this network card. |
| | Dual NIC | If the platform has more than one network cards, you can configure an additional one so that the platform can access more devices on another network segment.<br>To use Dual NIC, you must set the network mode to multi-IP address mode, and then configure the parameters of the network cards. |
| WAN Mapping | WAN IP \| Domain Name | Map the LAN IP to a WAN IP, so that you can access the platform through the WAN IP. If the WAN IP changes frequently, you can map it to a domain name, and use it to access the platform. |

| Mode | Parameter | Description |
|---|---|---|
| | Service Port Config | Displays all services used by the platform and their ports. Click to change their port numbers as needed.<br>For introduction to each service, see "Appendix 1 Service Module Introduction". |

Step 6 Click **Apply and Restart**.

# 3.3 Self-check

- Click **System Status**, and then select **Service Status**, **CPU Status**, **Network Status**, or **Local Disk Status** to check the different status of the platform.
- Hover the mouse over or click the icons of at the upper left corner to check the status of the ports, IP addresses, network, CPU, and disks.

# 3.4 Network Config

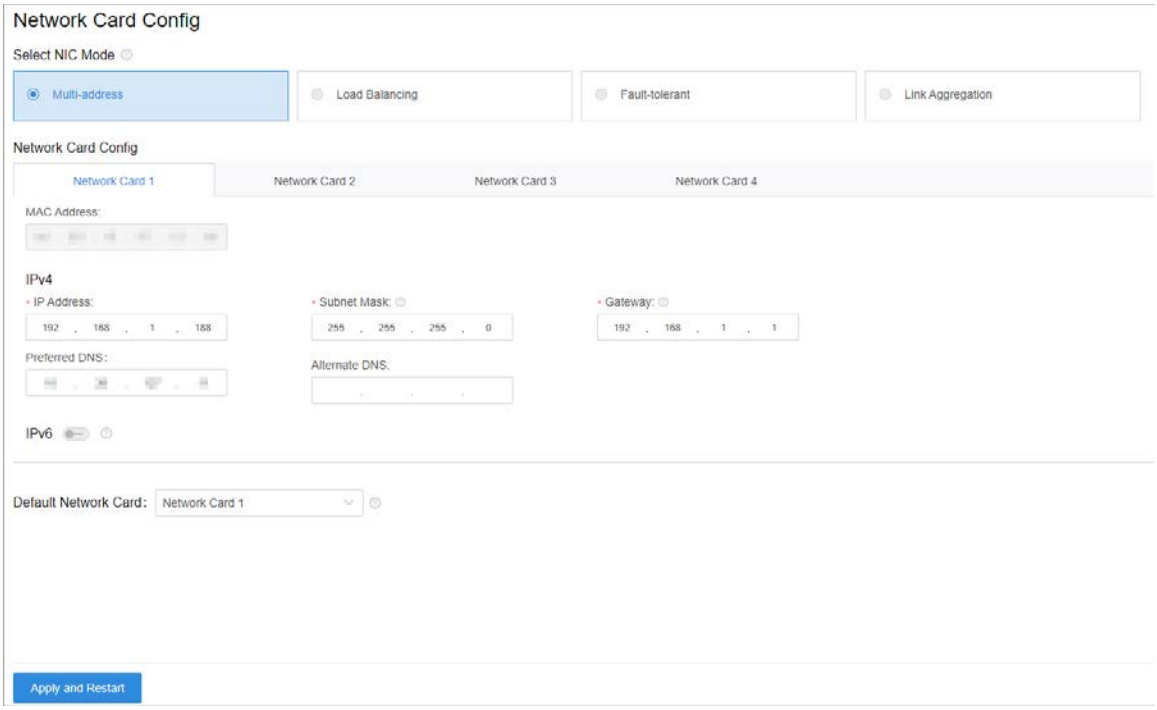
## 3.4.1 NIC Config

Configure the parameters so that the platform can connect to the network.

### Procedure

Step 1 Select **Network Config** > **NIC Config**.

Figure 3-4 Network card configuration




Step 2 Configure the parameters, and then click **Apply and Restart**.

Table 3-3 Network card parameter description

| Parameter | Description |
|---|---|
| Select NIC Mode | • Multi-address<br>Multiple network card (hereinafter referred to as NIC) mode. You can configure different network parameters for different NIC to access to multiple network segments and achieve high network reliability. For example, ISCSI storage expansion solution. When setting ISCSI storage expansion, NIC 1 can be used for communication, NIC 2 is reserved and NIC 3 and NIC 4 can be used for ISCSI storage.<br>• Load Balancing<br>Multiple NICs share one IP and work at the same time to share the network load, providing greater network capacity than the single NIC mode. When one of them fails, the network load will be re-distributed among the rest NICs to ensure network stability.<br>• Fault-tolerant<br>Multiple NICs share one IP. Normally, one of them works. When the working NIC fails, another one will automatically take over the job to ensure network stability.<br>• Link Aggregation<br>Bind NICs so that all the bound NICs work at the same time and share network load. For example, bind two NICs and set multi-address for the other two NICs. Then the server has three IPs. The bandwidth of the two bound NICs is 2K and the other two are 2K respectively. This is applicable to stream forwarding, not storage. |
| Add Network Card | When the NIC mode is fault tolerance, load balance or link aggregation, you need to add network card.<br>Select NIC to bind. You can bind 2 NICs as needed. |
| Network Card Config | After NIC is selected or added, its information will be displayed. |
| MAC Address | Displays the MAC address of the server. |
| IPv4 | After selecting a network card, you can set its IP address, subnet mask, default gateway and DNS server address. |
| IPv6 | Enable IPv6 and configure the parameters to connect the platform to an IPv6 network, you can add devices with IPv6 address to the platform. |
| Default Network Card | Select the default NIC. This NIC will be used as the default NIC to forward data package between non-consecutive network segments such as WAN or public network. |

## 3.4.2 Network Mode

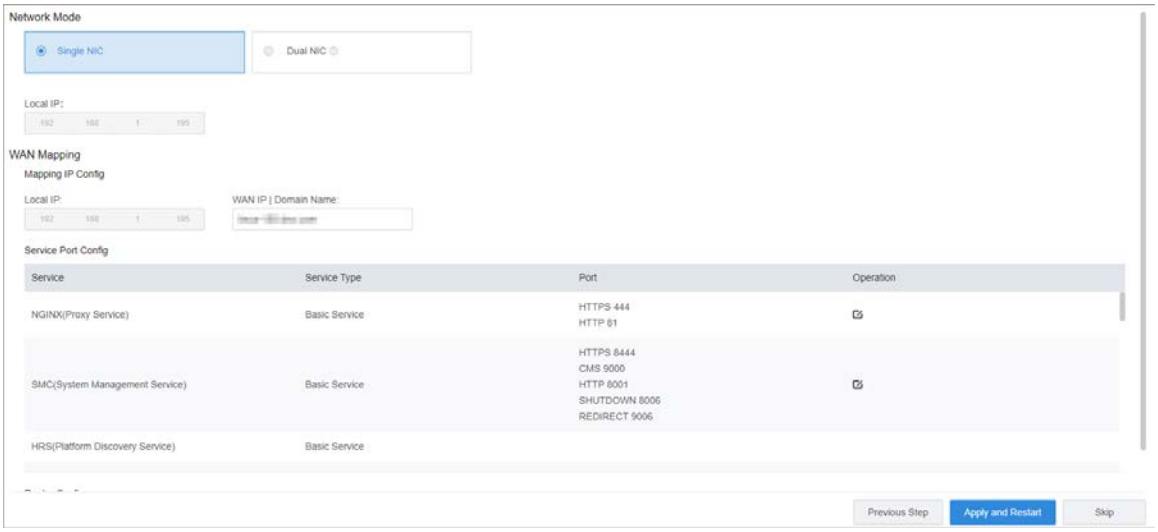
You can set the platform to work in mapping mode or multi-IP mode. In mapping mode, you can configure LAN IP to WAN IP mapping, or LAN IP to domain name mapping, so that you can use the WAN IP or domain name to visit the platform deployed in a local network. In multi-IP mode, you can

assign an IP address to the platform and use it to visit and operate the platform.

## Procedure

Step 1 Select **Network Config** > **Network Mode**.

Figure 3-5 Network mode




Step 2 Configure the parameters.

Table 3-4 Network mode parameter description

| Mode | Parameter | Description |
|---|---|---|
| Network Mode | Single NIC | The platform will only use the default network card, and you can only access the platform through the IP address of this network card. |
| | Dual NIC | If the platform has more than one network cards, you can configure an additional one so that the platform can access more devices on another network segment.<br>To use Dual NIC, you must set the network mode to multi-IP address mode, and then configure the parameters of the network cards. |
| WAN Mapping | WAN IP \| Domain Name | Map the LAN IP to a WAN IP, so that you can access the platform through the WAN IP. If the WAN IP changes frequently, you can map it to a domain name, and use it to access the platform. |
| | Service Port Config | Displays all services used by the platform and their ports. Click to change their port numbers as needed.<br>For introduction to each service, see "Appendix 1 Service Module Introduction". |

Step 3 Click **Apply and Restart**.

## 3.4.3 Connection Detection

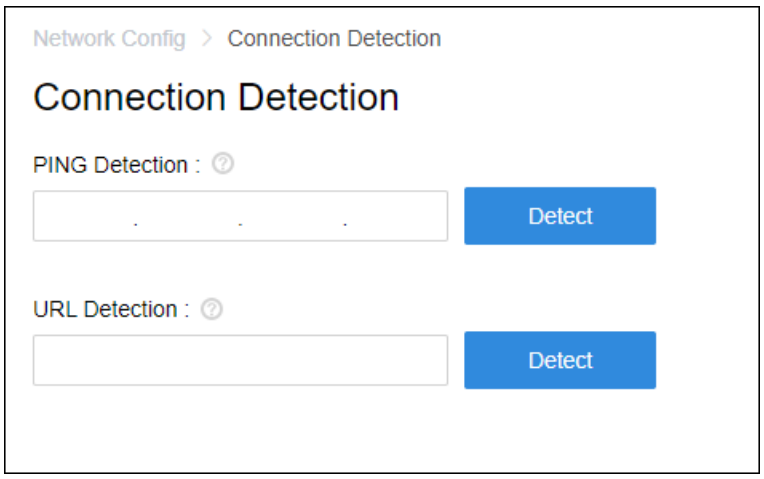
Check whether the IP address or URL is connected normally to validate the network interconnection

between servers or between the devices and the server.

## Procedure

Step 1 Select **Network Config** > **Connection Detection**.

Figure 3-6 Connection detection




Step 2 Enter IP address or URL, and then click **Detect**.

# 3.4.4 Route Setup

Add static route to establish access between servers in different network segments.

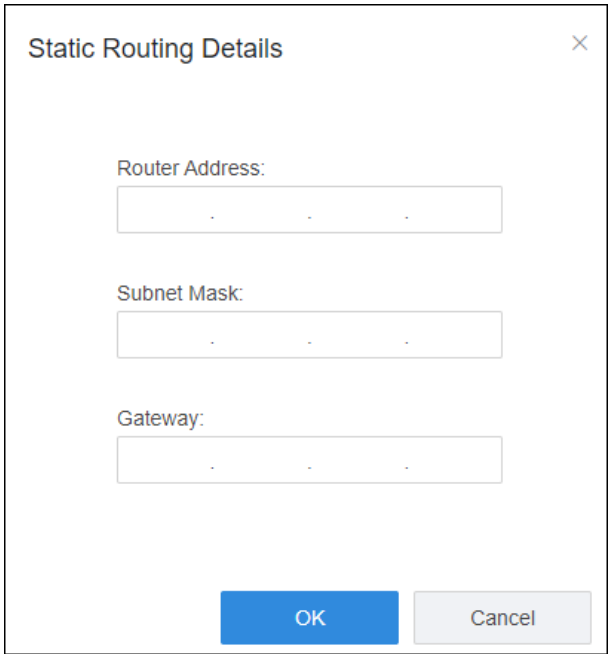
## Procedure

Step 1 Select **Network Config** > **Routing Settings**.

Figure 3-7 Route setup


Step 2 Click **Manually Add**.

Figure 3-8 Add statistic router




Step 3 Enter router IP address, subnet mask and default gateway.

Table 3-5 Parameter description

| Parameter | Description |
|---|---|
| Router Address | The IP address or the network segment of the host you want to access. |
| Subnet Mask | The subnet mask of the network you want to access. |
| Gateway | The IP address of the default gateway or the next hop. |

Step 4 Click **OK**.

# 3.5 Mode Config

## 3.5.1 Configuring Main/Sub

When configuring distributed deployment or N+M deployment, set the server to be main or sub according to the actual situation.

### Procedure

Step 1 Select **Quick Guide** > **Service Mode**, or select **Mode Config** > **Service Mode**.

Step 2 Select **Main Server** or **Sub Server** according to actual configuration.

If the server is set to **Sub Server**, enter IP address and HTTPS port of the main server.

Step 3 Click **Apply and Restart**.

### 3.5.2 Configuring Hot Standby

Configure hot standby server so that when the main server fails, the spare server can take over the job and ensure system stability. For details, see "2.3 Configuring Hot Standby".

## 3.6 Security Setup

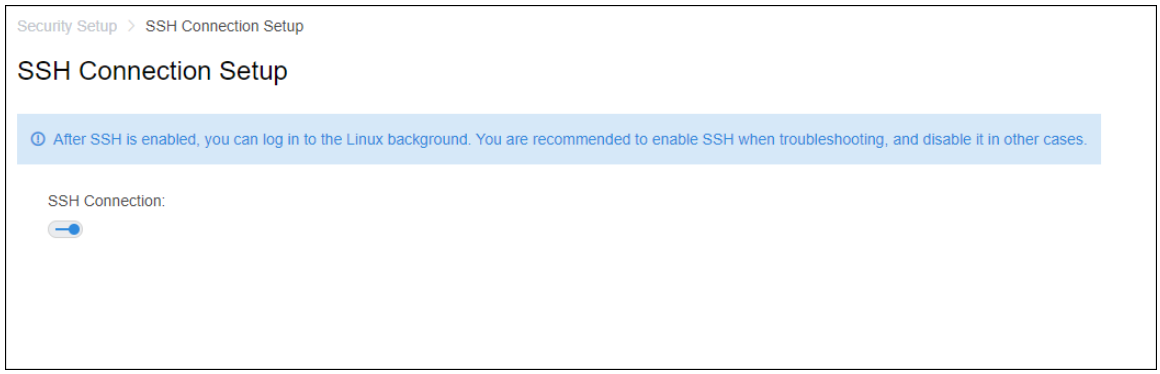
### 3.6.1 SSH Connection Setup

After enabling SSH connection, the debugging terminal can log in to platform server to debug device via SSH protocol.

#### Procedure

Step 1 Select **Security Config** > **SSH Connection Service**.

Figure 3-9 SSH connection




Step 2 Enable **SSH Connection**.

Disable **SSH Connection** after debugging.

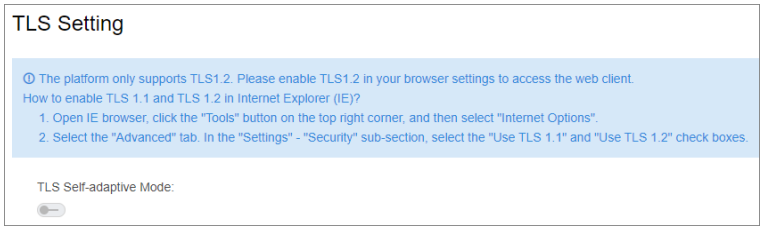
### 3.6.2 Enabling TLS

By default, the platform only supports TLS1.2. You must enable TLS1.2 according to the on-screen instructions to normally access the Config system. If you must use TLS1.0 or TLS1.1, you must enable TLS self-adaptive mode on the platform. Please be advised that TLS1.0 and TLS1.1 poses security risks. We recommend you disable TLS self-adaptive mode and enable TLS1.2 to avoid unnecessary risks to your system.

#### Procedure

Step 1 Select **Security Config** > **TLS Config**.

Figure 3-10 TLS self-adaptive mode




Step 2 Click , and then click **OK**.

The platform will restart.

Step 3 Open Internet Explorer, click on the upper-right corner, and then select **Internet Options** > **Advanced**.

Step 4 In the **Security** section, select **TLS1.0** or **TLS1.1**, click **Apply**, and then click **OK**.

# 3.7 System Maintenance

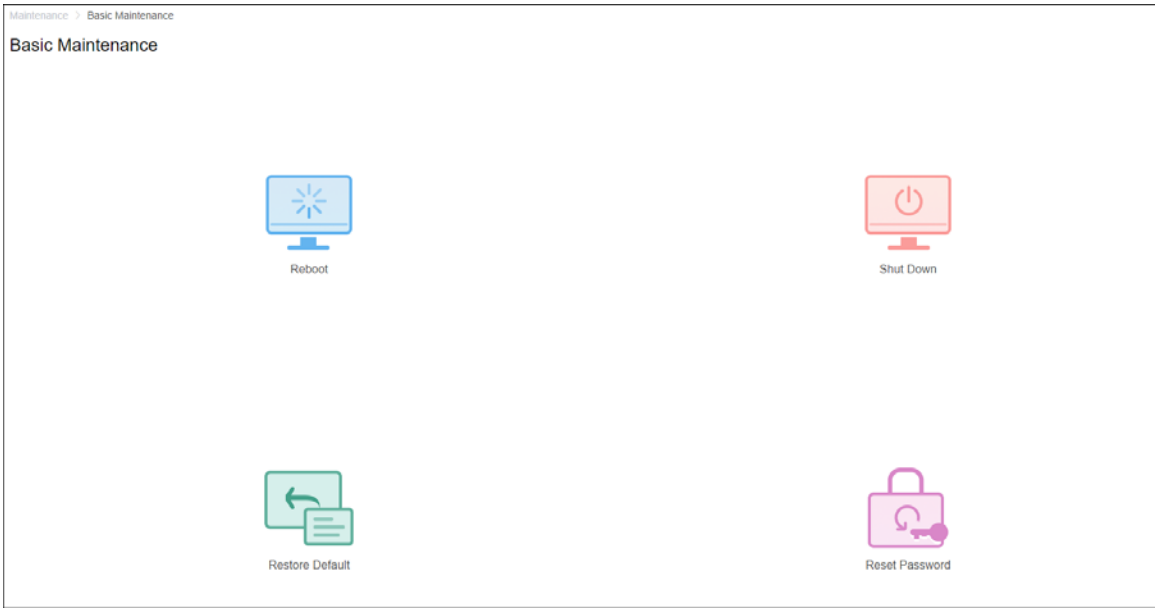
## 3.7.1 Basic Maintenance

Restart, shut down and reset the server. You can also reset password.

### Procedure

Step 1 Select **System Maintenance** > **Basic Maintenance**.

Figure 3-11 Maintenance




Step 2 Click the icons for various functions.

- **Reboot**: Restart the server.
- **Shut Down**: Shut down the server.
- **Restore Default**: Restore the server to default settings.
- **Reset Password**: Verify your current password to reset the password. Wait for the server to restart, and then go to the config system to set a new password.

## 3.7.2 Log

You can download the logs of all services to your computer.

### Procedure

Step 1 Select **System Maintenance** > **Service Log**.

Step 2 Select the date, and then click **Download** to download the logs.

## 3.7.3 Updating System

We recommend you update the system regularly to enjoy enhanced performance and functions. Before updating your system, contact technical support to get the update package.

### Prerequisites

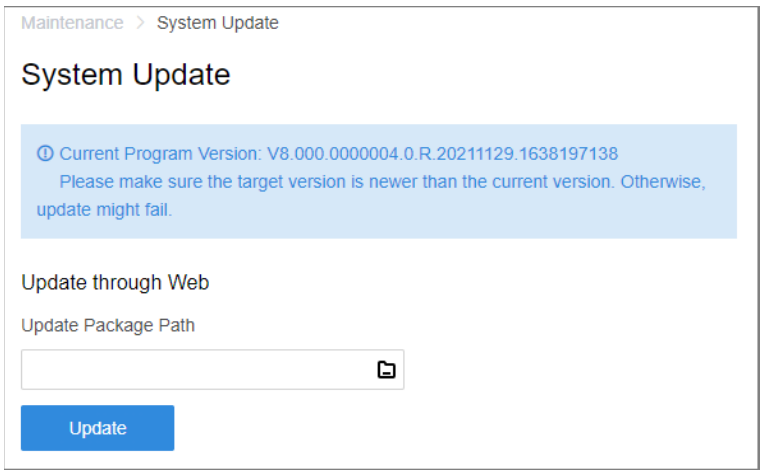
Unzip the update package to get the update file in .bin format.

### Procedure

Step 1 Select **System Maintenance** > **System Update**.

Step 2 Click , and then select the update file.

Figure 3-12 Update




Step 3 Click **Update**.

# 3.8 Basic Config

## 3.8.1 Managing Account

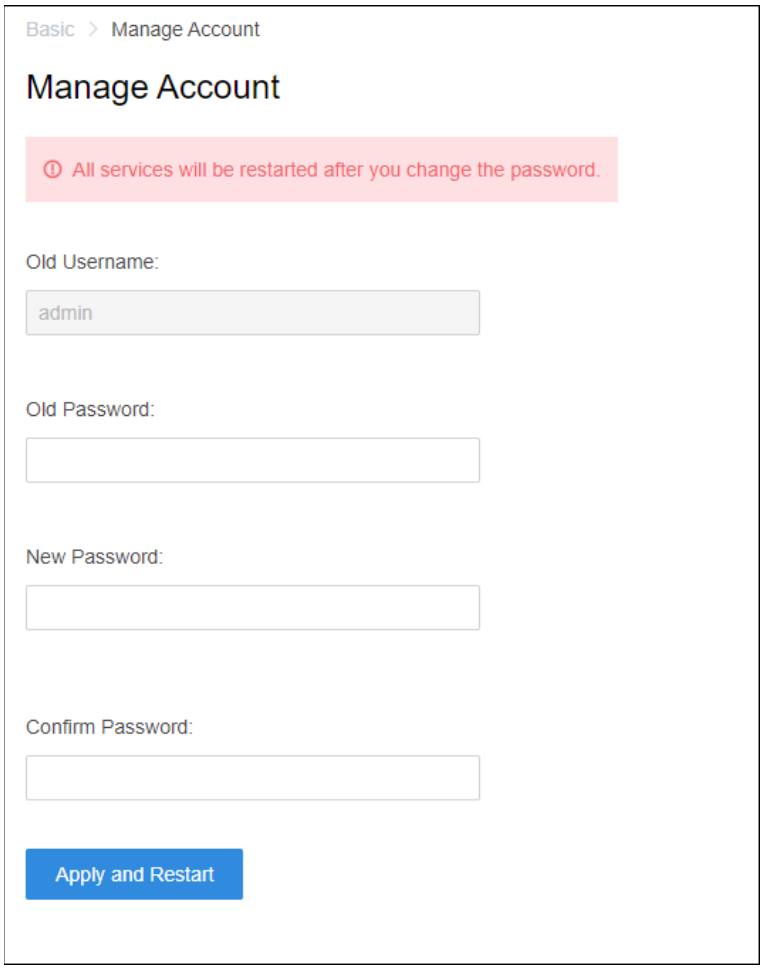
You can change the login password of admin user.

All services will be restarted after changing the password. Check if the services have been restarted successfully during use.

### Procedure

Step 1 Select **Basic Config** > **Manage Account**.

Figure 3-13 Manage account




Step 2 Enter **Old Password**, **New Password** and **Confirm Password**.

Step 3 Click **Apply and Restart**.

It will restart all services after modifying password. Check if the services have been restarted successfully during use.

## 3.8.2 Time Setup

Set time zone and time where the server is located.

### Procedure

Step 1 Select **Basic Config** > **Time Config**.

Step 2 Configure the parameters.

Table 3-6 Parameters description

| Parameter | Description |
| --- | --- |
| Time Zone | Select time zone of the server. |
| Date/Time | Click the box to select the date and time. |
| Sync PC | Click **Sync PC** to synchronize the time of the server with the computer you are using. |

Step 3 Click **Application**.

# 4 Basic Configurations

Configure basic settings of the system functions before using them, including system activation, organization and device management, user creation, storage and recording planning, and event rules configuration.

## 4.1 Preparations

### 4.1.1 Installing and Logging into DSS Client

Install the DSS client before licensing it.

#### 4.1.1.1 Installing DSS Client

You can visit the system through the DSS Client for remote monitoring.

##### 4.1.1.1.1 DSS Client Requirements

To install and use the DSS Client, we recommend you prepare a computer that meets the following requirements.

- CPU: Intel Core i7, 64 bits 4 Core Processor
- Memory: 16 GB
- Graphics card: NVIDIA® GeForce® GTX 1060 3 GB
- Network card: 1000 Mbps
- Hard drive capacity: 200 GB for the DSS client

##### 4.1.1.1.2 Downloading and Installing DSS Client

Procedure

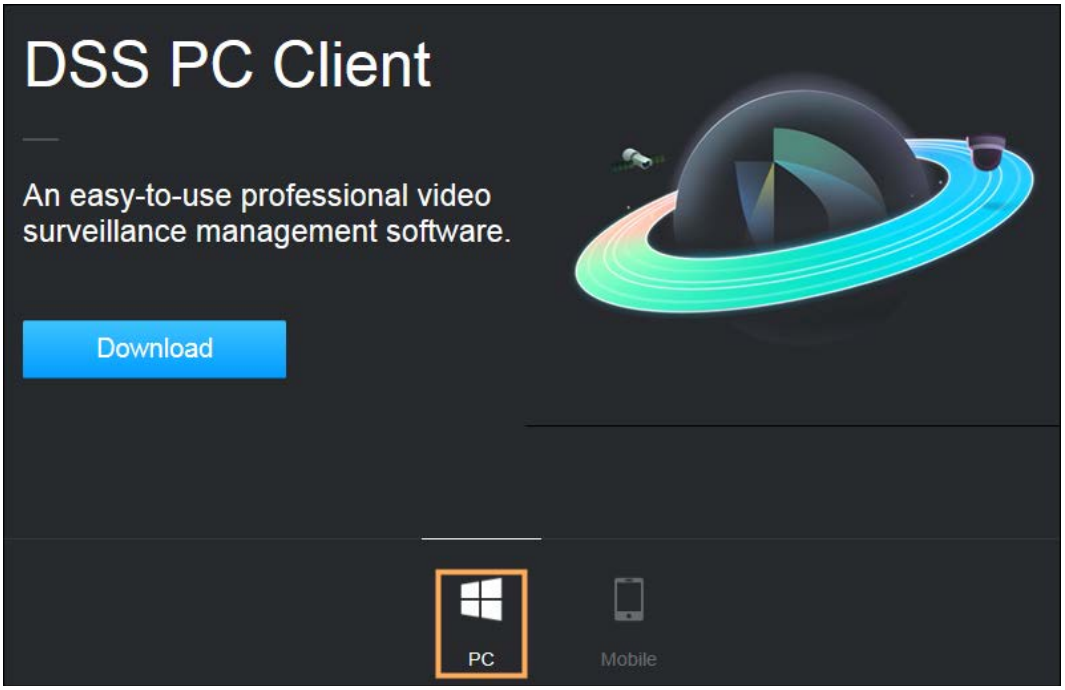
Step 1 Go to https://*IP address of the platform* in the browser

Step 2 Click **PC**, and then **Download**.

If you save the program, go to Step 3.

If you run the program, go to Step 4.

Figure 4-1 Download DSS Client




Step 3 Double-click the DSS Client program.

Step 4 Select the checkbox of **I have read and agree to the DSS agreement** and then click **Next**.

Step 5 Select installation path.

Step 6 Click **Install**.

System displays the installation progress. It takes about 5 minutes to complete.

### 4.1.1.2 Logging in to DSS Client

#### Procedure

Step 1 Double-click  on the desktop.

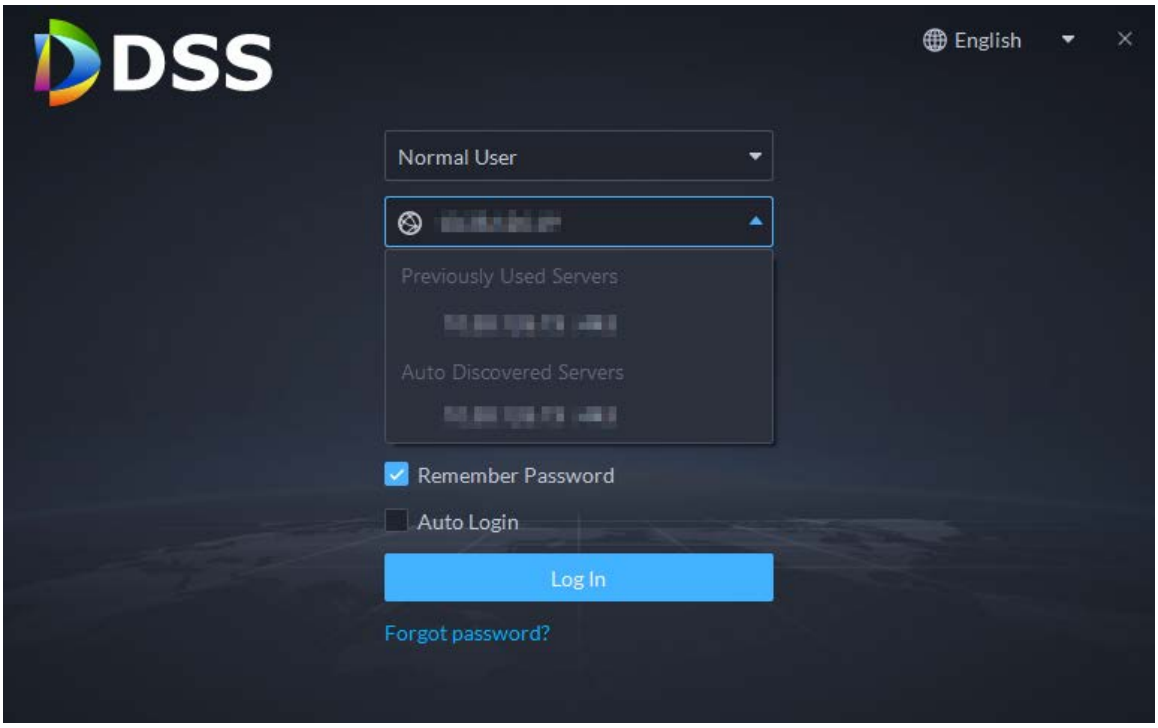
Step 2 Select a language.

Step 3 Enter the IP address and port number of the platform.

On the drop-down list, platforms that are in the same network as your computer will be shown.

If you want to log in to the platform using its domain name, you must link its IP address to a domain name first. For details, see "2.5.2 Mapping IP or Domain Name".

Figure 4-2 Automatically discovered platform




Step 4 Click anywhere else on the page to start initializing the platform.

For first-time login, you will be automatically directed to the initialization process.

If you are not logging in for the first time, enter the IP address, port number of the platform, username, and password, and then click **Login**.

1) The default user is system. Enter and confirm the password, and then click **Next**.
   The password must consist of 8 to 32 non-blank characters and contain at least two types of characters: Uppercase, lowercase, number, and special character (excluding ' " ; : &).
2) Select your security questions and enter their answers, and then click **OK**.
   The client will automatically log in to the platform by using the password you just set.

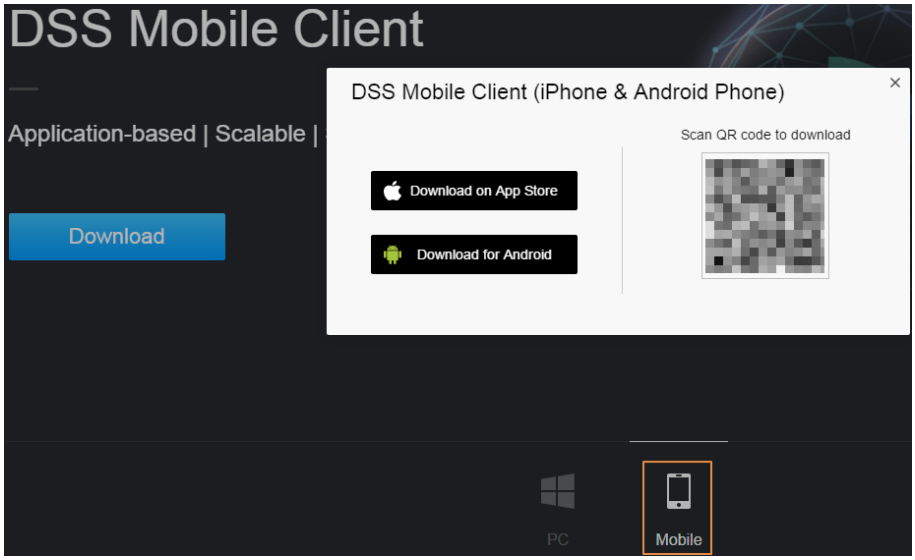
## 4.1.2 Installing Mobile Client

### Procedure

Step 1 Enter IP address of the DSS in the browser and then press Enter.

Step 2 Click **Mobile** > **Download**, and then scan the QR code to download the App.

Figure 4-3 Download App by scanning QR code




# 4.2 Managing Resources

Manage system resources such as devices, users, and storage space. You can add organizations and devices, configure recording plans, bind resources, and more.

## 4.2.1 Adding Organization

Classify devices by logical organization for the ease of management. The default organization is **Root**. If the parent organization is not specified, newly added devices are attached to **Root**.

### Procedure

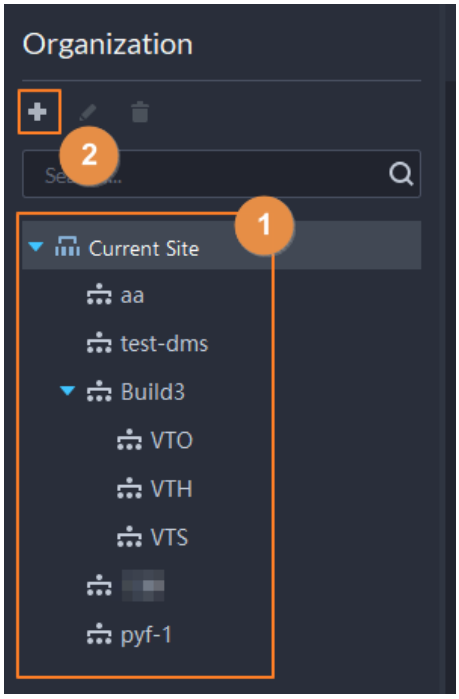
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Add an organization.

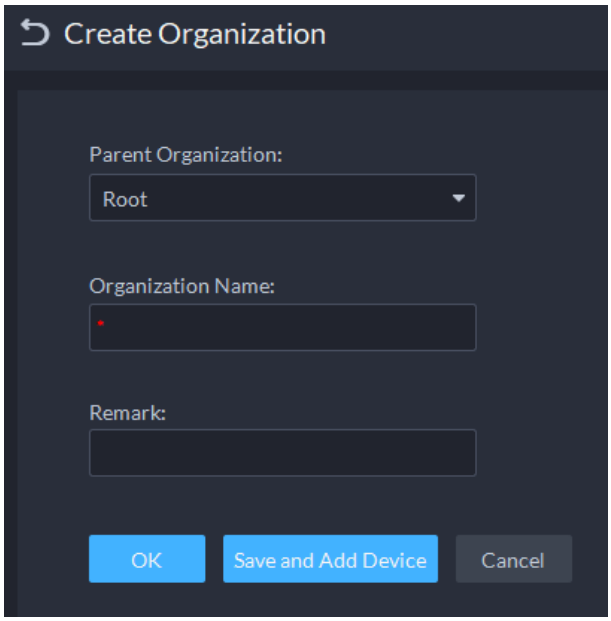
1) Select a parent organization.
2) Click .

Figure 4-4 Add an organization




3) Enter the name of the organization, and then click **OK**.

Figure 4-5 Add an organization




You can also right-click the root organization, and then click **Create Organization** to add an organization.

## Related Operations

- Change organization name
  Right-click the organization, and then click **Rename**.
- Delete an organization
  Organization with devices cannot be deleted.
  Select the organization, click , or right-click an organization and select **Delete**.

- Change the organization of devices
  Select one or more devices, and then click **Move To** to move them to another organization.

## 4.2.2 Managing Device

Add devices before you can use them for video monitoring. This section introduces how to add, initialize, and edit devices and how to change device IP address.

### 4.2.2.1 Searching for Online Devices

Search for devices on the same network with the platform before you can add them to the platform.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

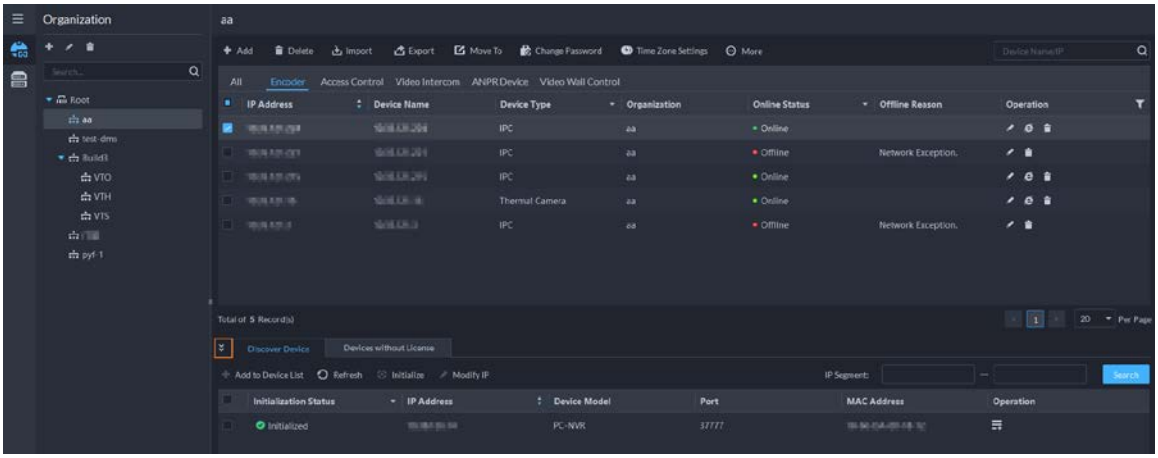
Step 2 Click .

Step 3 Click .

The icon changes to when devices are searched.

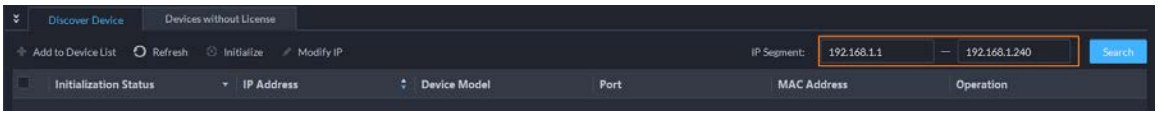
- When using the platform for the first time, the platform automatically searches for devices on the same network segment.
- If not the first time, the platform automatically searches for the devices in the network segment you configured last time.

Figure 4-6 Search for devices




Step 4 Specify **IP Segment**, and then click **Search**.

Figure 4-7 IP segment search



## 4.2.2.2 Initializing Devices

You need to initialize the uninitialized devices before you can add them to the platform.

### Procedure

Step 1 Search for devices. For details, see "4.2.2.1 Searching for Online Devices".

Step 2 Select an uninitialized device, and then click **Initialize**.

- You can select multiple devices to initialize them in batches. Make sure that the selected devices have the same username, password and email information. The information of these devices will be the same after initialization, such as password and email address.
- Click next to **Initialization Status** to quickly sort out devices in certain status.

Step 3 Enter the password, and then click **Password Security**.

Step 4 Enter the email address, and then click **Change IP**.

The email is used to receive security code for resetting password.

Step 5 Enter the IP address, and then click **OK**.

When setting IP addresses in batches, the IP addresses increase in an ascending order.

## 4.2.2.3 Changing Device IP Address

You can change IP addresses of the devices that have not been added to the platform.

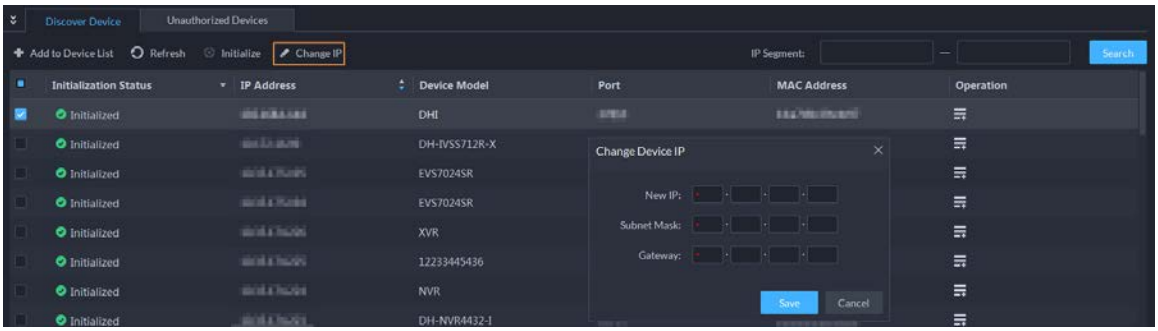
### Procedure

Step 1 Search for devices. For details, see "4.2.2.1 Searching for Online Devices".

Step 2 Select a device, and then click **Change IP**.

For devices that have the same username and password, you can select and modify their IP addresses in batches.

Figure 4-8 Change IP address




Step 3 Enter **New IP**, **Subnet Mask** and **Gateway**, and then click **Save**.

When setting IP addresses in batches, the IP addresses increase in sequence.

Step 4 Enter the username and password used to log in to the devices, and then click **OK**.

## 4.2.2.4 Adding Devices

You can add different types of devices, such as encoder, decoder, ANPR device, access control, and video intercom. This section takes adding an encoder as an example. The configuration pages shown here might be different from the ones you see for other types of devices.

When you add devices by using automatic registration, IP segment, or importing, some devices will fail to be added if they exceed the number of devices or channels allowed to be added to the platform. These devices will be displayed in **Devices without License**.

### 4.2.2.4.1 Adding Devices One by One

There are multiple ways you can add devices to the platform, including using domain names, serial numbers, IP addresses, IP segments, and automatic registration.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Click **Add**.

Step 4 Enter device login information, and then click **Add**.

In the **Add Mode** drop-down list,

- **IP Address**: Add a device. We recommend selecting this option when you know the IP address of the device.

  Only **Encoder** devices support IPv6. If you want to add devices to the platform through IPv6 addresses, you must first configure an IPv6 address for the platform. For details, see "3.4.1 NIC Config".

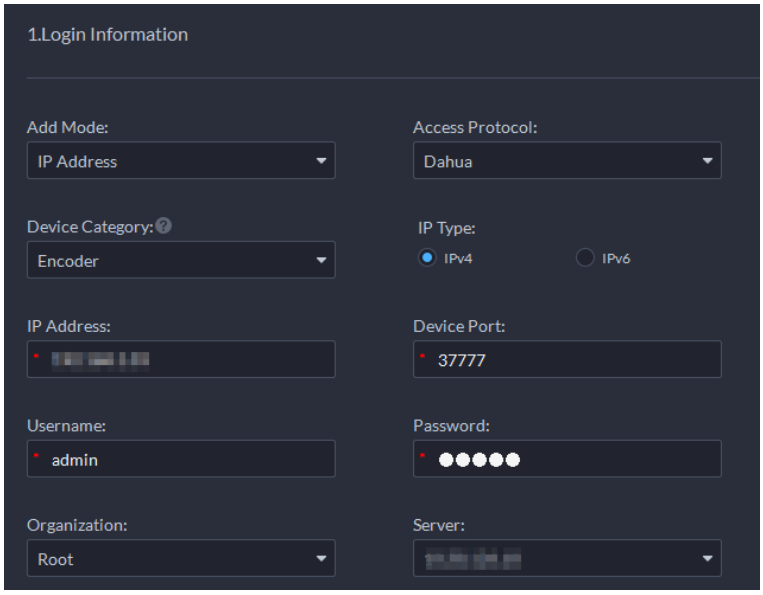
- **IP segment**: Add multiple devices in the same segment. We recommend selecting this option when the login username and password of the multiple devices in the same segment are the same.
- **Domain Name**: We recommend selecting this option when the IP address of the device changes frequently and a domain name is configured for the device.
- **Auto Registration**: We recommend this method when the IP address of a device might change. The ID of auto register has to be in accordance with the registered ID configured on the device you want to add. The port number must be the same on the platform and on the device. The auto register port is 9500 on the platform by default. To change the auto register port number, log in to the config system, select **Network Config** > **Network Mode**, and then change the port number of DSS_ARS service.

- After a device is added through auto registration, hover the mouse over its IP address on the device list, and then you can see its local IP address and the IP address it uses to connect to the platform.
- Sleep function is supported for IPCs that use 4G mobile network to communicate and are solar-powered only when they are added to the platform through automatic registration.

- **P2P**: Add devices under a P2P account to the platform. The platform must be able to access the P2P server. There is no need to apply for the dynamic domain name of the device, perform port mapping or deploy a transit server when using it.

The parameters vary with the selected protocols.

Figure 4-9 Add an encoder




Step 5 Enter the information.

Step 6 Click **OK**.

- To add more devices, click **Continue to add**.
- To go to the web manager of a device, click .

### 4.2.2.4.2 Adding Devices through Searching

Devices on the same network with the platform server can be added using the automatic search function.

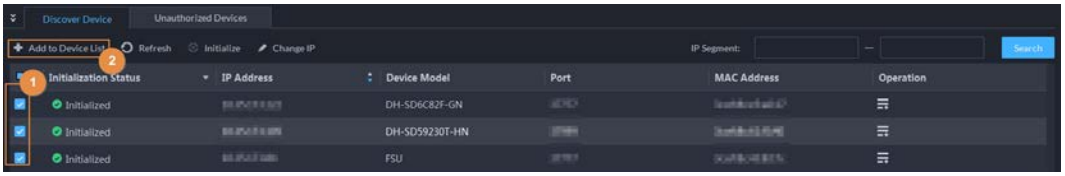
## Procedure

Step 1 Search for devices. For details, see "4.2.2.1 Searching for Online Devices".

Step 2 Select a device, and then click **Add to Device List** or .

If devices have the same username and password, you can select and add them in batches.

Figure 4-10 Add in batches




Step 3 Select the server and organization, enter username and password, and then click **OK**.

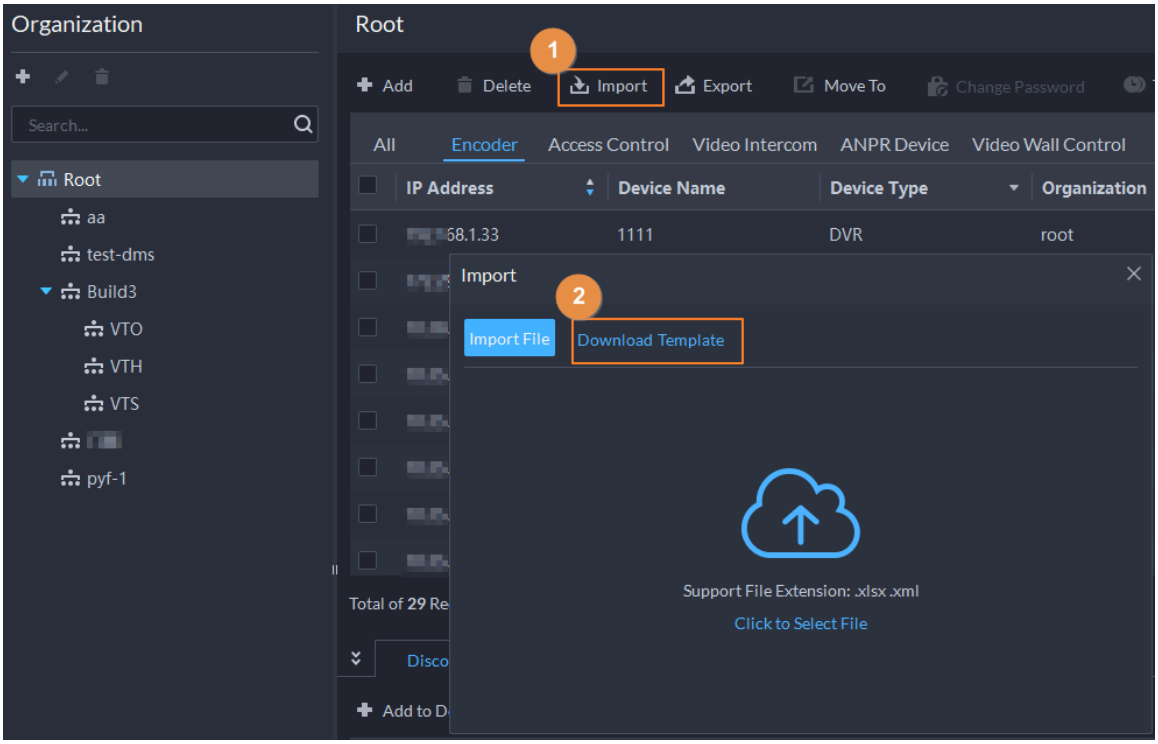
### 4.2.2.4.3 Importing Devices

Enter the device information in the template, and then you can add devices in batches.

## Prerequisites

You have downloaded the template, and then enter device information in the template.

Figure 4-11 Download template



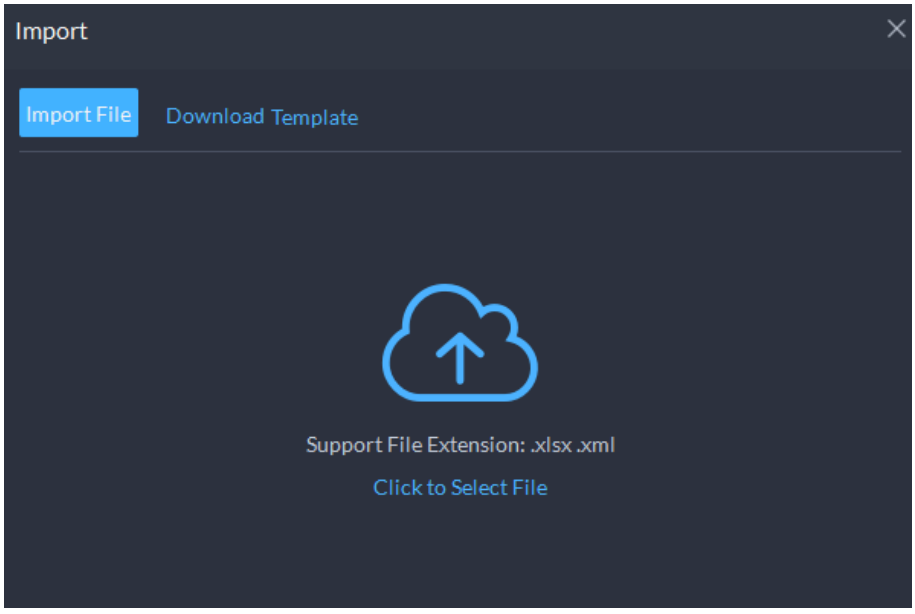

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Click **Import**.

Figure 4-12 Import devices




Step 4 Click **Import File**, and then select the completed template.

Step 5 Click **OK**.

## 4.2.2.5 Editing Devices

Edit the information of devices.

### 4.2.2.5.1 Changing IP Address

For the devices that have been added to the platform, and their IP addresses have been changed, you can edit their IP addresses directly on the platform so that they can connect to the platform normally.

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click **Device Config**.

Step 3 Click of a device.

Step 4 Edit the IP address, and then click **OK**.

### 4.2.2.5.2 Modifying Device Information

Procedure

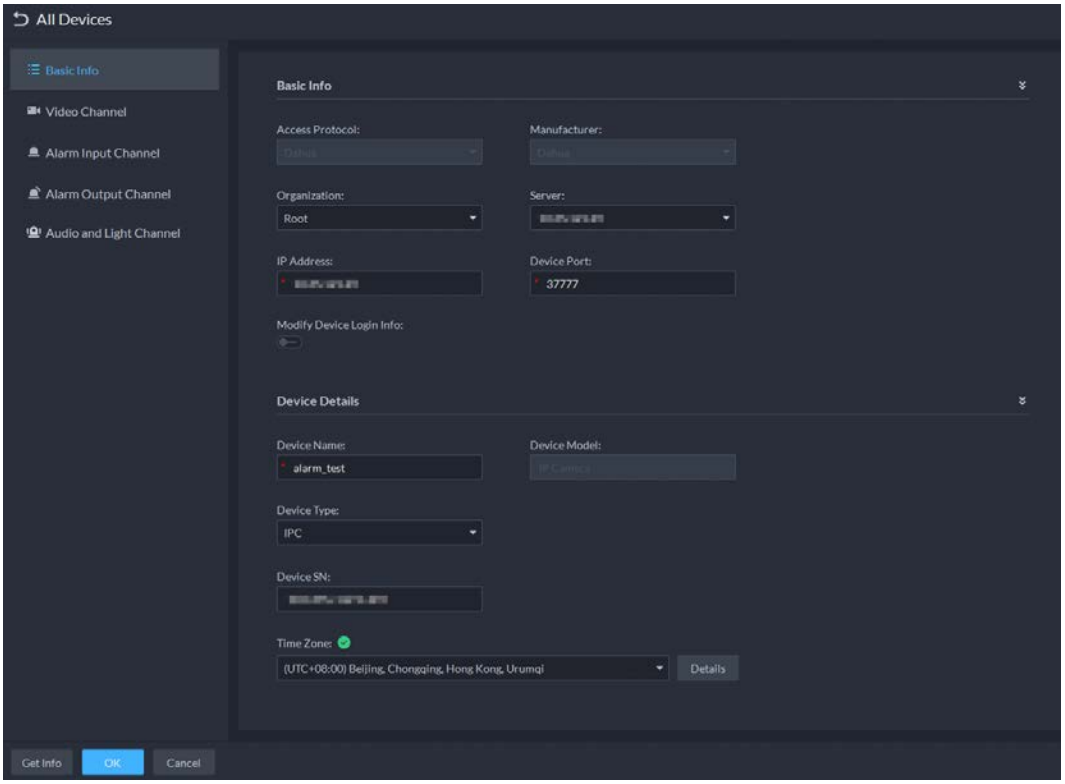
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Click of a device, and then edit device information.

Click **Get Info** and the system will synchronize device information.

Figure 4-13 Basic information




Step 4 Click **Video Channel**, and then configure the channel information, such as the channel name and channel features.

- The features that you can set for channels vary with the types of devices.
- If the device is added through the ONVIF protocol, you can configure the stream type of it video channels.

Step 5 Click the **Alarm Input Channel** tab, and then configure number, names, and alarm types of the alarm input channels.

Skip the step when the device does not support alarm input.

- Alarm type includes external alarm, Infrared detect, zone disarm, PIR, gas sensor, smoke sensor, glass sensor, emergency button, stolen alarm, perimeter and preventer move.
- Alarm type supports custom. Select **Customize Alarm Type** in the **Alarm Type** drop-down list. Click **Add** to add new alarm type. It supports up to 30 custom alarm types.

Step 6 Click the **Alarm Output Channel** tab and then edit the number and names of alarm output channels.

Step 7 Click the **Audio and Light Channel** tab, and then edit the number and names of the audio and light channels.

This tab will only appear if the device has audio and light channels.

Step 8 Click **OK**.

#### 4.2.2.5.3 Configuring Channel Features in Batches

Configure the channel features in batches so that devices can work normally. The platform also displays the number of each type of channels features allowed to be configured to help you plan the types and number of devices you will use.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

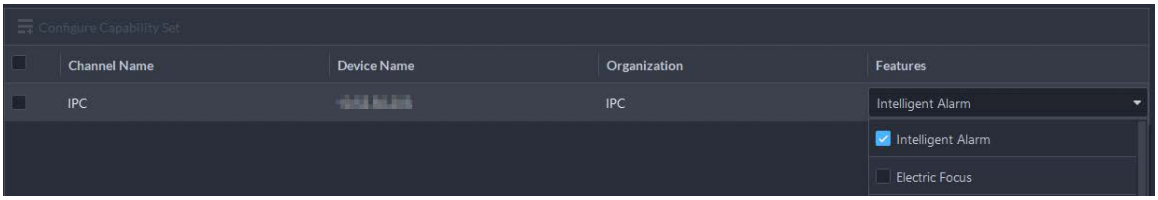
Step 2 On the top of the page, select **More** > **Capability Set Management**.

Step 3 In the **Capability Set Type** drop-down list, select a type, and then the platform will only display devices and channels that are configured with that type of capability set.

Step 4 Select the channels you want to configure.

Step 5 Click the area below the **Features** column, and then select one or more features.

Figure 4-14 Select capability sets




Step 6 Complete configuration.

- If configuration is complete, click **Complete** to save the settings and exit the page.
- If you want to configure more channels, click **Save** to save your current settings, and then continue your configuration. When it is complete, click **Complete** to save the settings and exit the page.

#### 4.2.2.5.4 Modifying Device Organization

You can move a device from an organization node to another one.

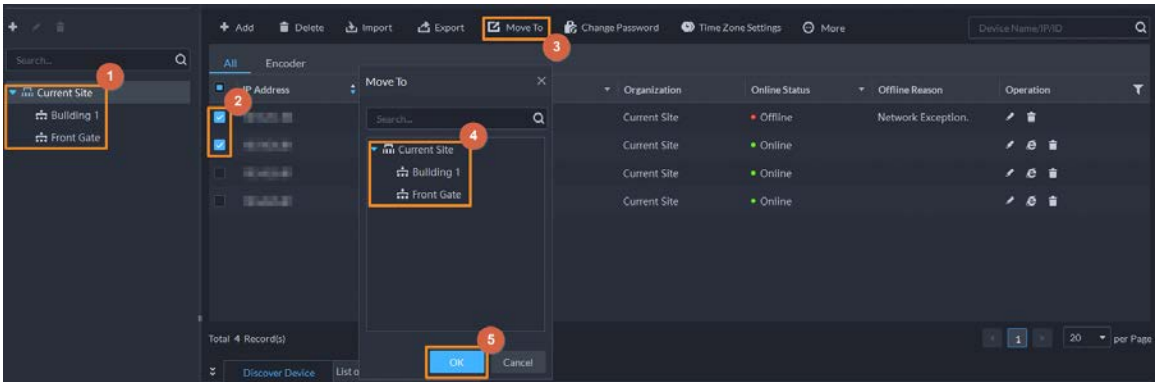
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device to be moved, click **Move To**, select the target organization, and then click **OK**.

Figure 4-15 Move a device




### 4.2.2.5.5 Changing Device Password

You can change device usernames and passwords in batches.

## Procedure

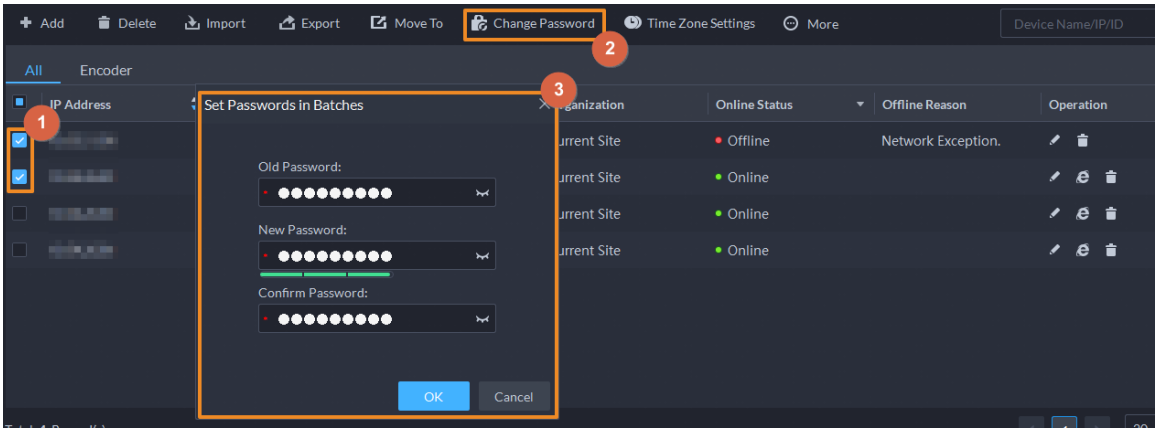
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Change Password**.

You can select multiple devices and change their passwords at the same time.

Figure 4-16 Change device password

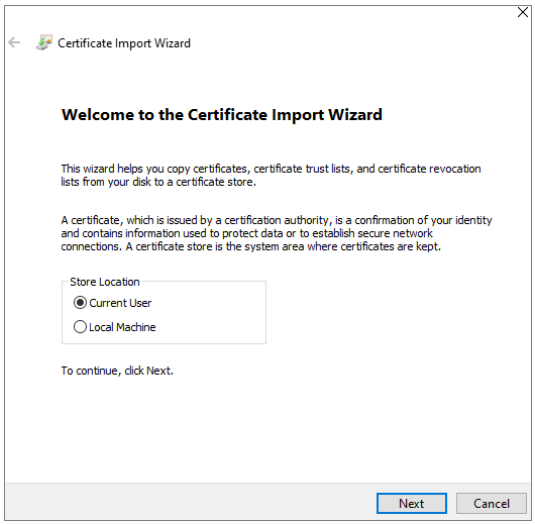



Step 4 Enter the old and new passwords, and then click **OK**.

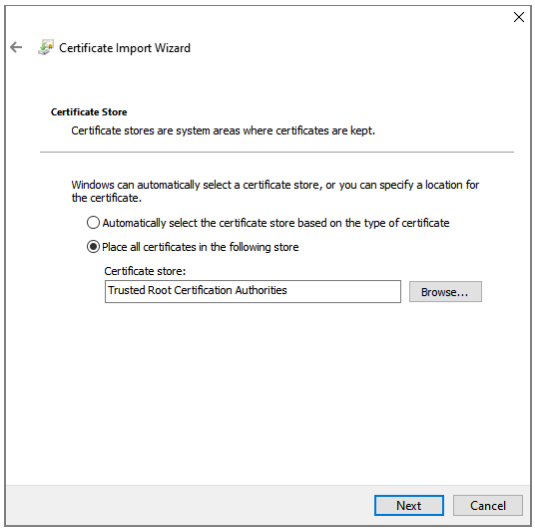
## 4.2.2.6 Logging in to Device Webpage

After a device is added to the platform, you can click to go to the webpage of the device. The platform supports accessing the webpage of a device through the HTTPS protocol. If you want to use this function, you must complete the following steps. For details procedures on the device webpage, see the user's manual of the device.

1. Log in to the webpage of the device, and then download the trusted CA root certificate.
2. Double-click the certificate, and then click **Install Certificate**.
3. Select **Current User**, and then click **Next**.




4. Store the certificate to **Trusted Root Certification Authorities**, and then click **Next**.




5. Click **Finish**.
6. On the webpage of the device, create a device certificate, and then apply it.

   For the IP address in the certificate, you must enter the IP address of the computer that visits the webpage.

## 4.2.2.7 Exporting Devices

You can export the information (except username and password for login) of all the devices on the DSS client. When you need to switch or configure a new platform, you can quickly add them all by importing them, but you need to enter the username and password for login again. You can export up to 100,000 devices at a time.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 (Optional) Select only the devices that you need.

Step 4 Click **Export**.

Step 5 Enter the password used to log in to the DSS client, encryption password, and range, and then click **OK**.

You can configure whether to verify the password. For details, see "8.2.1 Configuring Security Parameters".

- The encryption password is used to protect the export file. It consists of 6 uppercase or lower case letters, numbers, or their combination. You need to enter it when using the export file.
- You can select **All** to export all the devices, or **Selected** to export the devices you selected.

Step 6 Select a path on your PC, and then click **Save**.

### 4.2.2.8 Modifying Device Time Zone

Configure device time zone correctly. Otherwise you might fail to search for recorded video.

If a device is accessed through ONVIF and the ONVIF version is earlier than 18.12, the device DST cannot be edited on the platform. You can only edit manually.

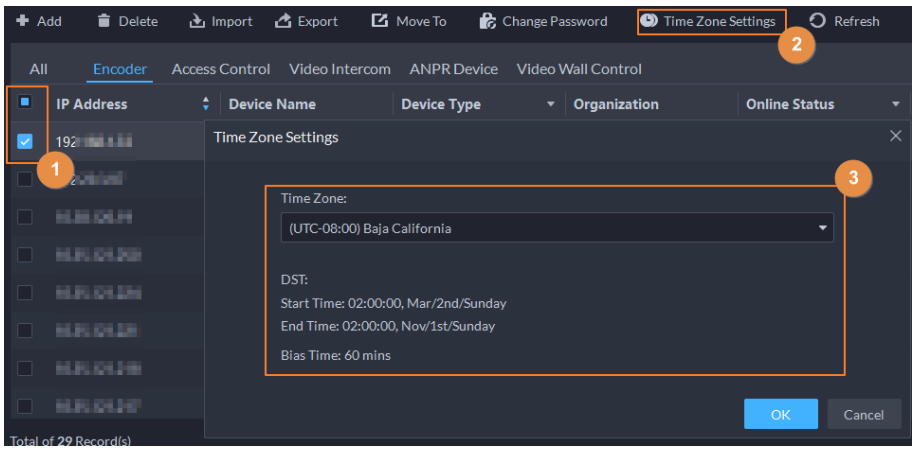
#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Time Zone Settings**.

Figure 4-17 Modify device time zone




Step 4 Select a time zone.

Step 5 Click **OK**.

## 4.2.3 Binding Resources

The platform supports binding resources for linked actions. You can link a video channel with an alarm input channel, ANPR channel, access control channel or another video channel, so that you

can view the associated video for alarm, face and other businesses.

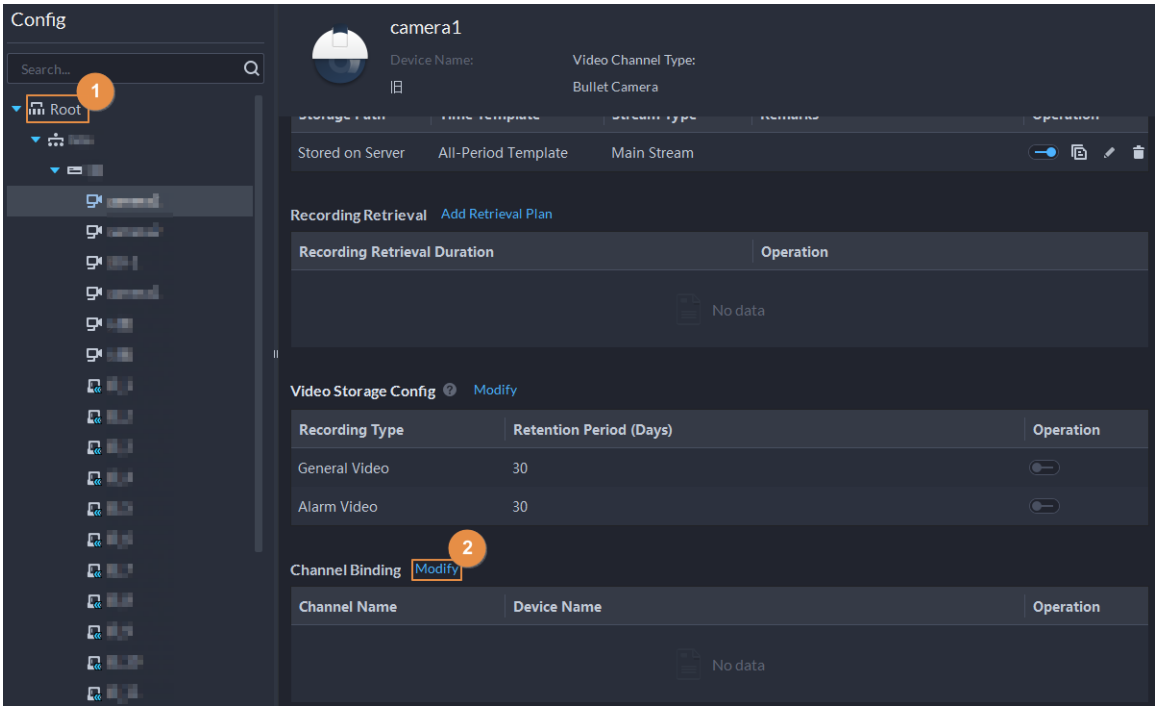
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a channel, and then click **Modify**.

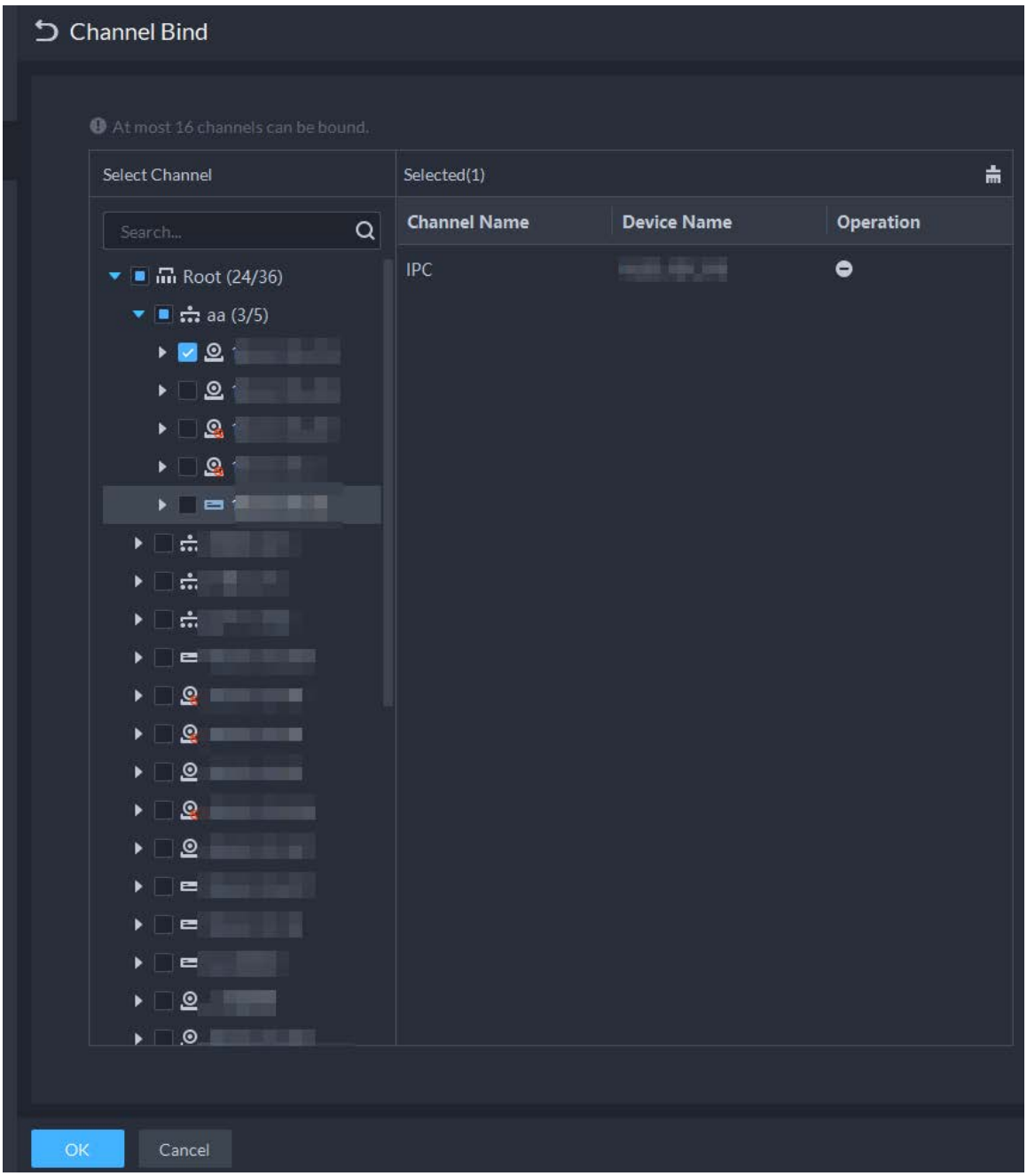
Figure 4-18 Bind channel




Step 4 Select a channel, and then click **OK**.

Multiple channels can be selected.

Figure 4-19 Select the channels you want to bind to the camera




Step 5 Click **OK**.

## 4.2.4 Adding Recording Plan

Configure recording plans for video channels so that they can record videos accordingly.

You can configure 2 types of recording plans for a channel. One is general recording plan, and a device will continuously record videos during the defined period. The other is motion detection recording plan, and a device will only continuously record videos when motion is detected.

### 4.2.4.1 Adding Recording Plan One by One

Add a center recording plan or device recording plan for a channel, so that it can make general or motion detection videos within the defined period.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

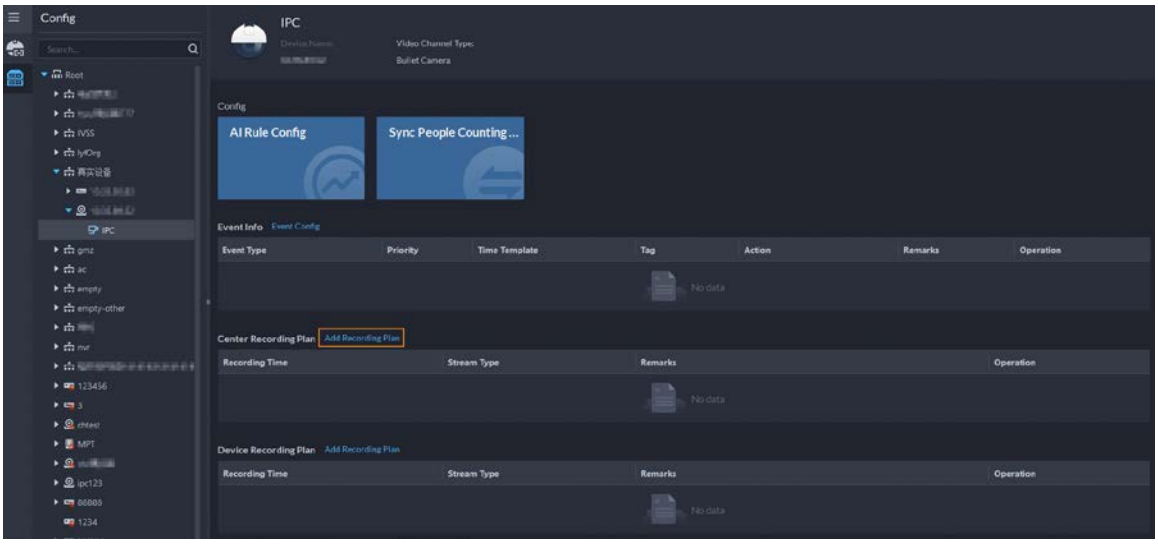
Step 2 Click .

Step 3 Select a channel, and then configure a recording plan.

- Configure a center recording plan.

1) Click **Add Recording Plan** next to **Center Recording Plan**.

Figure 4-20 Add a center recording plan (1)




2) Configure the parameters, and then click **OK**.

Table 4-1 Parameter description

| Parameter | Description |
|---|---|
| Enable | Turn on or off the recording plan. |
| Position | Videos will be stored on the server by default. It cannot be changed. |
| Recording Type | • General recording: The device will continuously record videos within the defined periods.<br>• Motion detection recording: The device will continuously record videos within the defined periods on motion detections. |
| Stream Type | Select **Main Stream**, **Sub Stream 1** or **Sub Stream 2**.<br>Videos recorded on the main stream will have the best quality, but they require more storage. |
| Remarks | Customizable description for the recording plan. |
| Recording Time | Select a default time template or click **Create Time Template** to add a new time template. See "4.2.5 Adding Time Template". |

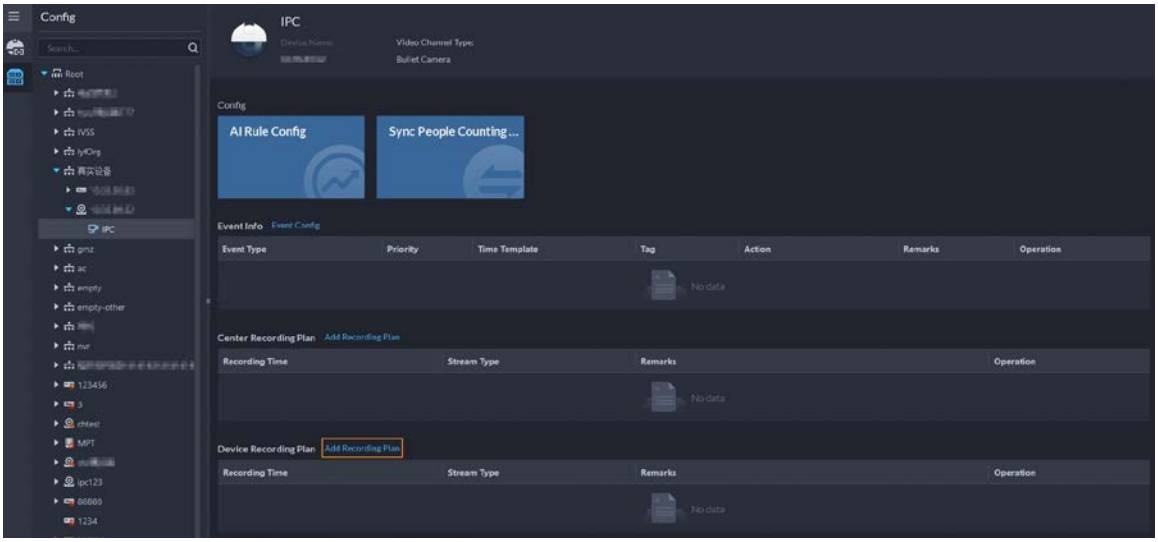
3) Click **OK**.

- Configure a device recording plan.

The platform can obtain and display the recording plan that has been configured on EVS of the latest versions. You can check if recording plan are obtained and displayed on the page to know if your EVS is of the latest version.

1) Click **Add Recording Plan** next to **Device Recording Plan**.

Figure 4-21 Add a device recording plan (1)




2) Configure the parameters, and then click **OK**.

Table 4-2 Parameter description

| Parameter | Description |
|---|---|
| Enable | Turn on or off the recording plan. |
| Position | Videos will be stored on the device by default. It cannot be changed. |
| Stream Type | The device will make recordings using the main stream by default. It cannot be changed. |
| Remarks | Customizable description for the recording plan. |
| Recording Time | Select a default time template or click **Create Time Template** to add a new time template. See "4.2.5 Adding Time Template". |

## Related Operations

- Enable/disable a recording plan
  means that the plan has been enabled. Click the icon and it becomes , and it means that the plan has been disabled.
- Click : Copy the recording plan to other channels.
- Edit a recording plan
  Click of corresponding plan to edit the plan.
- Click to delete recording plans one by one.

## 4.2.4.2 Adding Center Recording Plans in Batches

Add a center recording plan of general or motion detection videos for multiple channels at the same

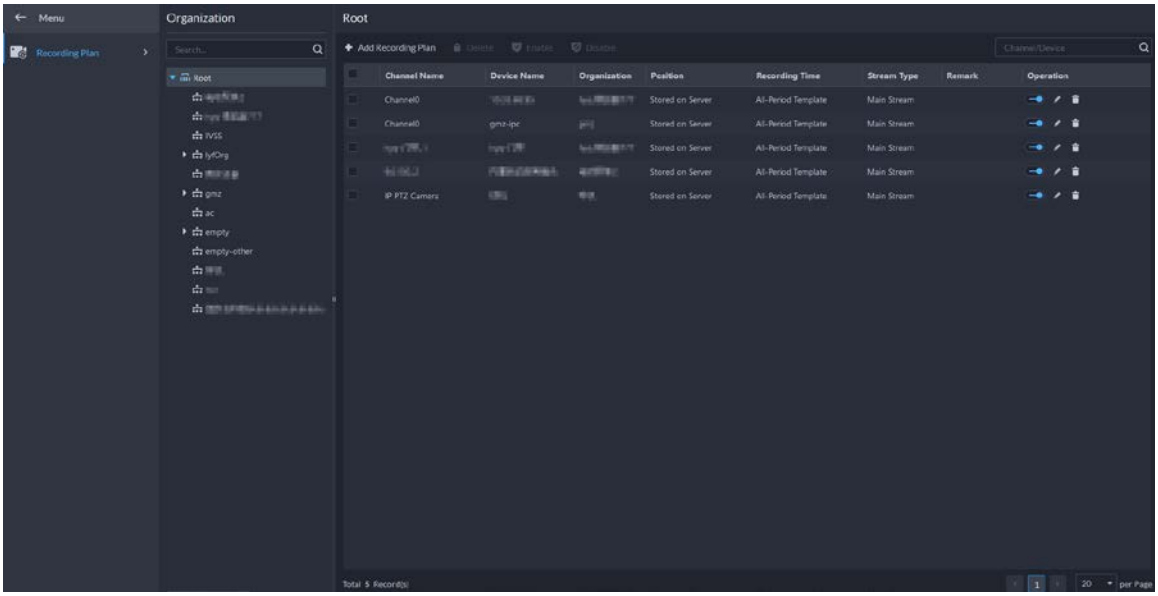
time.

#### 4.2.4.2.1 General Recording Plan

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Storage Plan** > **Recording Plan**.

Figure 4-22 Center recording plan




Step 2 Select **General Recording Plan** > **Add General Recording Plan**.

Step 3 Configure the parameters, and then click **OK**.

Table 4-3 Parameter description

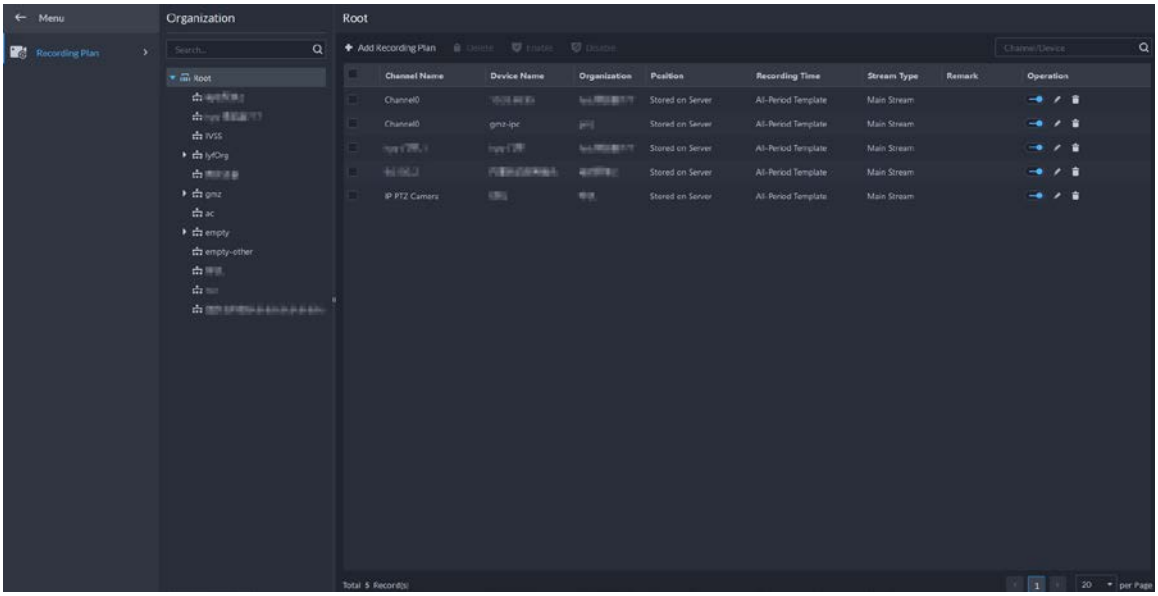
| Parameter | Description |
|---|---|
| Enable | Turn on or off the recording plan. |
| Position | Videos will be stored on the server by default. It cannot be changed. |
| Stream Type | Select **Main Stream**, **Sub Stream 1** or **Sub Stream 2**.<br>Videos recorded on the main stream will have the best quality, but they require more storage. |
| Remarks | Customizable description for the recording plan. |
| Recording Time | Select a default time template or click **Create Time Template** to add a new time template. See "4.2.5 Adding Time Template". |
| Recording Channel | Select the channels you want to add the recording plan for. |

#### 4.2.4.2.2 Motion Detection Recording Plan

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Storage Plan** > **Recording Plan**.

Figure 4-23 Center recording plan




Step 2 Select **Motion Detection Recording Plan** > **Add Motion Detection Recording Plan**.

Step 3 Configure the parameters, and then click **OK**.

Table 4-4 Parameter description

| Parameter | Description |
|---|---|
| Enable | Turn on or off the recording plan. |
| Position | Videos will be stored on the server by default. It cannot be changed. |
| Recording Type | • General recording: The device will continuously record videos within the defined periods.<br>• Motion detection recording: The device will continuously record videos within the defined periods on motion detections. |
| Stream Type | Select **Main Stream**, **Sub Stream 1** or **Sub Stream 2**.<br>Videos recorded on the main stream will have the best quality, but they requires more storage. |
| Remarks | Customizable description for the recording plan. |
| Recording Time | Select a default time template or click **Create Time Template** to add a new time template. See "4.2.5 Adding Time Template". |
| Recording Channel | Select the channels you want to add the recording plan for. |

## Related Operations

- Enable/disable a recording plan

  means that the plan has been enabled. Click the icon and it becomes , and it means that the plan has been disabled.
- Edit a recording plan

  Click of corresponding plan to edit the plan.
- Edit a recording plan

  Click of corresponding plan to edit the plan.
- Delete: Select multiple channels, and then delete them at the same time.
- Enable and Disable: Select multiple channels, and then enable or disable them at the same time.

## 4.2.5 Adding Time Template

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

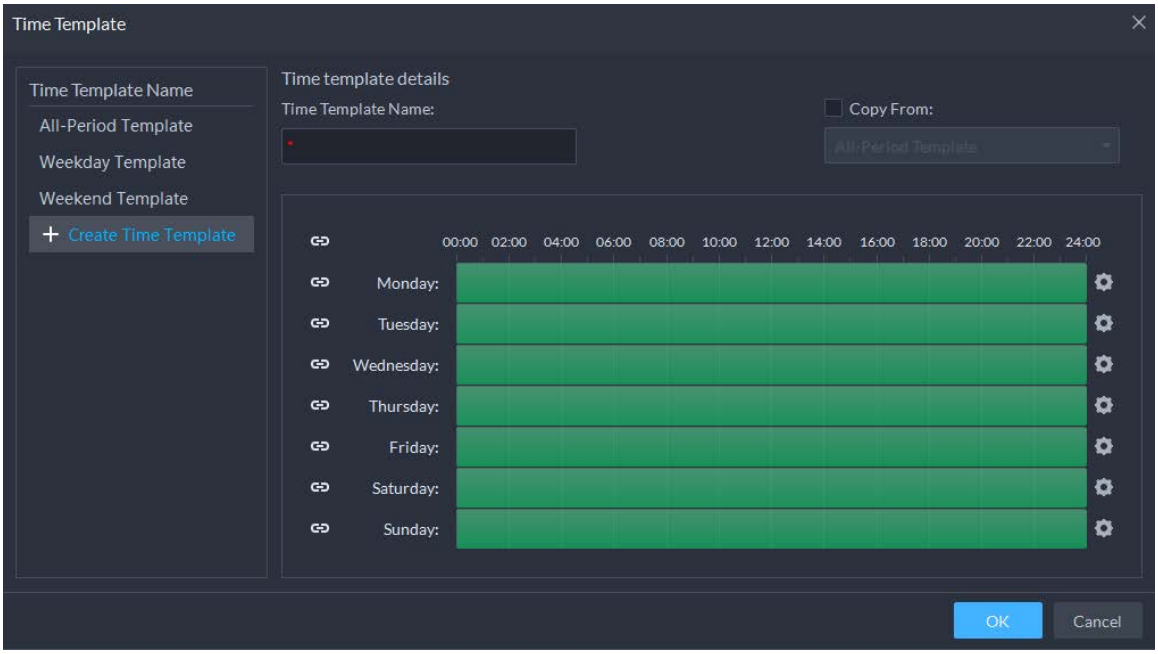
Step 2 Click .

Step 3 Select a channel, and then add a recording plan.

Step 4 In the **Recording Time** drop-down list, select **Create Time Template**.

Creating time template in other pages is the same. This chapter takes creating time template in **Record Plan** page as an example.

Figure 4-24 Create time template




Step 5 Configure name and periods. You can set up to 6 periods in one day.

Select the **Copy From** check box, and then you can select a template to copy from.

- On the time bar, click and drag to draw the periods. You can also click , and then draw the periods for multiple days.
- You can also click to configure periods.

Step 6 Click **OK**.

## 4.2.6 Configuring Video Retention Period

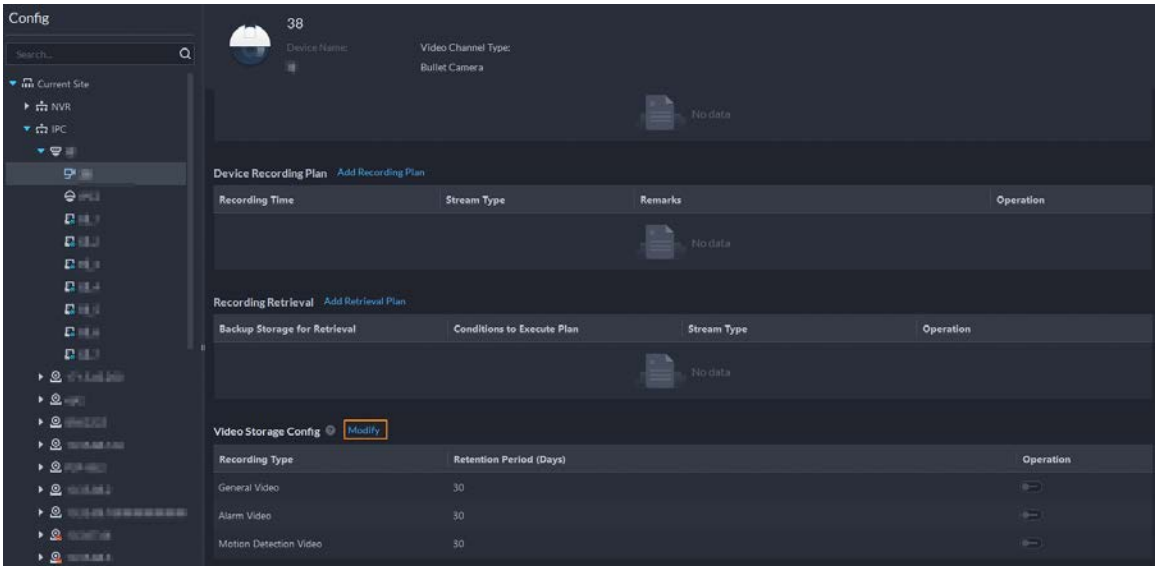
For videos stored on the platform, you can configure video retention period. When the storage space runs out, new recorded videos will cover the oldest videos automatically.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device** > **Device Config**.

Step 2 Select a camera, and then click **Modify**.

Figure 4-25 Go to recording storage configuration page




Step 3 Click to enable the storing of different type of video, and then configure the retention period.

Step 4 Click **OK**.

## Related Operations

Enable/disable record plan

In the operation column, means that the recoding storage configuration has been enabled. Click the icon and it becomes , meaning that the configuration has been disabled.

# 4.2.7 Configuring Events

You need to set up the event configuration on a device or its channels to receive alarms on the platform.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click

Step 3 Select a channel or a device, and then click **Event Config**.

Events that can be configured are different for different types of devices. If you select **Device**, you can only configure general events. If you select **Channels**, various events supported by different types of channels will be displayed.

Figure 4-26 Go to the event configuration (device)

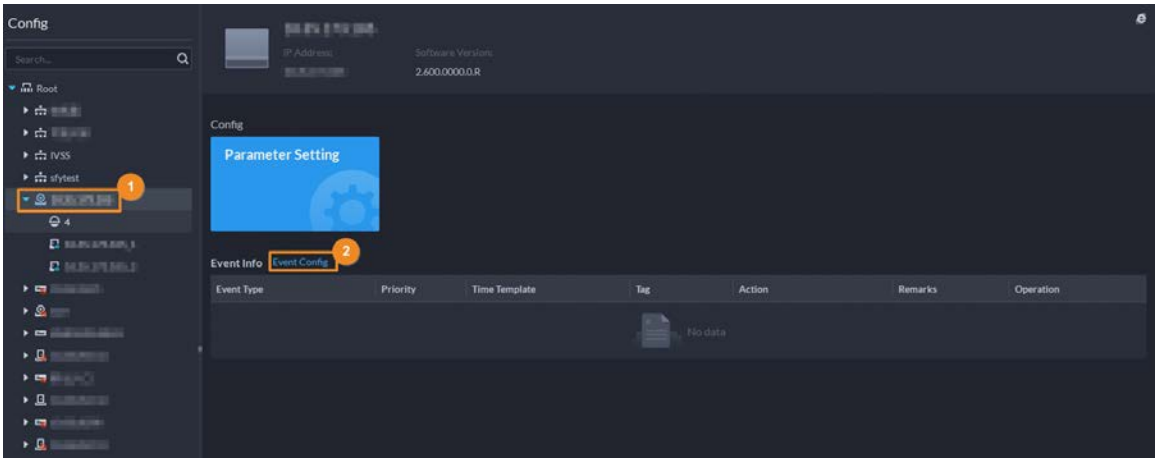
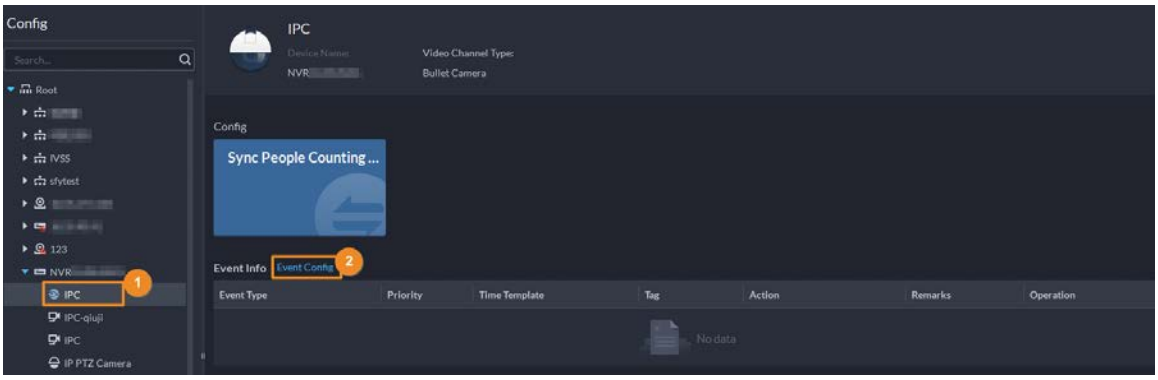



Figure 4-27 Go to the event configuration (channel)




Step 4 Configure events. For details, see "5.1 Configuring Events".

## 4.2.8 Configuring Device Parameters

Configure the camera properties, video stream, snapshot, video overlay, and audio configuration for the device channel on the platform. The platform only supports configuring the channels added via IP in Dahua protocols.

Device configuration might vary depending on the capacities of the devices. The pages in the section are for reference only, and might differ from the actual ones.

### 4.2.8.1 Configuring Camera Properties

Configure camera image parameters for the **Daytime**, **Night**, and **Regular** modes to ensure high image quality.

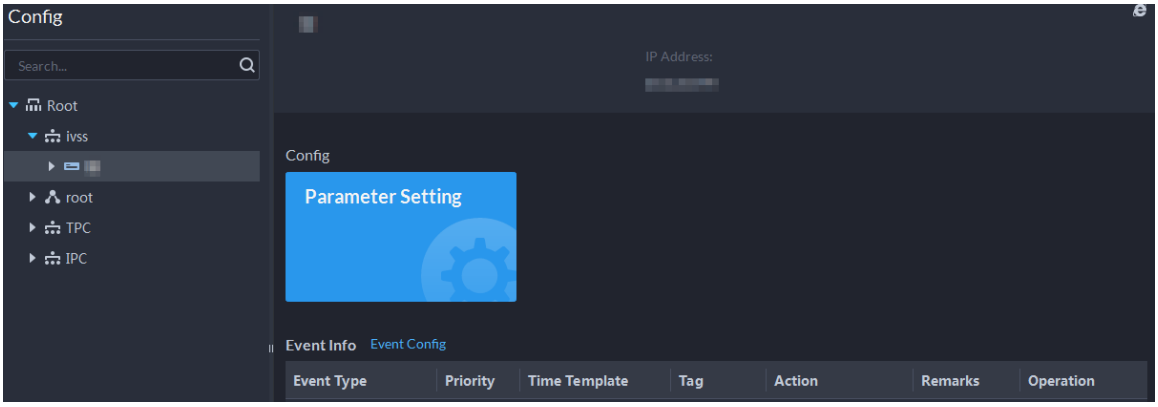
#### 4.2.8.1.1 Configuring Property Files

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device** > **Device Config**.

Step 2 Select a device, and then click **Parameter Setting**.

Figure 4-28 Device configuration




Step 3 Select **Camera** > **Camera** > **Camera Properties**.

- To go to the device web page, you can click **Link to Device Webpage**.
- A PTZ control panel will be displayed if the device has PTZ function.

Table 4-5 PTZ operation

| Icon/Function | Description |
|---|---|
| Arrow keys | Click it and the camera will rotate to the corresponding direction. |
|  | Adjust the speed. The higher the value, the faster the camera rotates. |
|  | Zoom in and out. |
|  | Adjust the focus level. |
|  | Adjust the aperture. |

Step 4 In the **Profile Management** drop-down list, select a mode.

The parameters you configured will be applied to the mode.

Step 5 Click **Image**, and then configure the parameters.

Table 4-6 Parameter description

| Parameter | Description |
|---|---|
| Style | You can set the image style to be **Standard**, **Soft**, or **Vivid**. |
| Brightness | You can adjust the overall image brightness through linear tuning. The higher the value, the brighter the image and vice versa. If this value is set too high, images tend to look blurred. |

| Parameter | Description |
|---|---|
| Contrast | Adjusts the contrast of the images. The higher the value, the bigger the contrast between the bright and dark portions of an image and vice versa. If the contrast value is set too high, the dark portions of an image might become too dark, and the bright portions might be over-exposed. If the contrast value is set too low, images tend to look blurry. |
| Saturation | Adjusts color shade. The higher the value, the deeper the color and vice versa. The saturation value does not affect the overall brightness of the images. |
| Sharpness | Adjusts the edge sharpness of images. The higher the value, the sharper the image edges. Setting this value too high might result in noises in images. |
| Gamma | Changes image brightness by non-linear tuning to expand the dynamic display range of images. The higher the value, the brighter the image and vice versa. |

Step 6 Click **Exposure**, and then configure the parameters.



If the device that supports real wide dynamic (WDR) has enabled WDR, long exposure is not available.

Table 4-7 Parameter description

| Parameter | Description |
|---|---|
| Anti-flicker | • **50Hz** and **60Hz**: With the 50/60 Hz household power supply, exposure can be automatically adjusted based on the brightness of the scene to ensure that no horizontal stripe appears on the image.<br>• **Outdoor**: In an outdoor scenario, you can switch the exposure modes to achieve your target effect. |
| Mode | The following options are available for different exposure modes of the camera:<br>• **Auto**: Auto tuning of the image brightness based on the actual environment.<br>• **Gain Priority**: Within the normal exposure range, the device adjusts itself automatically first in the preset range of gains as per the brightness of the scenes. If the image has not achieved the target brightness when the gains hit the upper limit or lower limit, the device adjusts the shutter automatically to achieve the best brightness. The gain priority mode also allows for adjusting the gains by setting up a gain range.<br>• **Shutter Priority**: Within the normal exposure range, the device adjusts itself automatically first in the preset range of shutter values as per the brightness of the scenes. If the image has not achieved the target brightness when the shutter value hits the upper limit or lower limit, the device adjusts the gains automatically to achieve the best brightness.<br>• **Aperture Priority**: The aperture is fixed at a preset value before the device adjusts the shutter value automatically. If the image has not achieved the target brightness when the shutter value hits the upper limit or lower limit, |

| Parameter | Description |
|---|---|
| | the device adjusts the gains automatically to achieve the best brightness.<br>• **Manual**: You can set up the gains and shutter values manually to adjust image brightness.<br>• If the **Anti-flicker** is set to **Outdoor**, you can set the **Mode** to **Gain Priority** or **Shutter Priority**.<br>• Different devices have different exposure modes. The actual pages might be different. |
| 3D NR | Reduces the noises of multiple-frame (at least two frames) images by using inter-frame information between two adjacent frames in a video. |
| Grade | When 3D NR is **On**, you can set up this parameter.<br>The higher the grade, the better the noise reduction effect. |

Step 7 Click **Backlight**, and then configure the parameters.

- Turning on **Backlight Correction** avoids silhouettes of relatively dark portions in pictures taken in a backlight environment.
- Turning on **Wide Dynamic** inhibits too bright portions and makes too dark portions brighter, presenting a clear picture overall.
- Turning on **Glare Inhibition** partially weakens strong light. This feature is useful in a toll gate, and the exit and entrance of a parking lot. Under extreme lighting conditions such as deep darkness, this feature can help capture the details of the faces and license plates.

Table 4-8 Parameter description

| Backlight Mode | Description |
|---|---|
| Backlight Correction | • When selecting the **Default** mode, the system adjusts exposure automatically to adapt to the environment and make the images taken in the darkest regions clear.<br>• When selecting the **Custom** mode and setting up a custom region, the system exposes the selected custom region to give the images taken in this region proper brightness. |
| HLC | Glare inhibition. The system inhibits the brightness in bright regions and reduces the size of the halo, to make the entire image less bright. |
| Wide Dynamic | To adapt to the environmental lighting conditions, the system reduces the brightness in bright regions and increases the brightness in dark regions. This ensures clear display of objects in both bright and dark regions.<br>The camera might lose seconds of video recordings when switching from a non-wide dynamic mode to wide dynamic. |
| SSA | The system adjusts image brightness automatically based on the environmental lighting conditions to show image details clearly. |

Step 8 Click **WB**, and then configure the parameters.

The WB feature can be used to display colors more accurately. For example, white objects

will appear consistently white in various lighting conditions.

Table 4-9 Parameter description

| WB Mode | Description |
|---|---|
| Auto | The system automatically corrects different color temperatures to ensure normal display of image colors. |
| Natural Light | The system automatically corrects the scenes without manmade lighting to ensure normal display of image colors. |
| Street Lamp | The system automatically corrects the outdoor scenes at night to ensure normal display of image colors. |
| Outdoor | The system automatically corrects most outdoor scenes with natural lighting and artificial lighting to ensure normal display of image colors. |
| Manual | You can set up the red gains and blue gains manually for the system to correct different color temperatures in the environment accordingly. |
| Regional Custom | You can set up custom regions and the system corrects different color temperatures to ensure normal display of image colors. |

Step 9 Click **Day/Night**, and then configure the parameters.

You can set up the display mode of images. The system can switch between the **Colored** mode and the **Black&White** mode to adapt to the environment.

Table 4-10 Parameter description

| Parameter | Description |
|---|---|
| Mode | The **Day/Night** settings are independent of the **Config Files** settings.<br>• Colored: The camera displays colored images.<br>• Auto: The camera automatically selects to display colored or black&white images based on the environmental brightness.<br>• Black&White: The camera displays black&white images. |
| Sensitivity | Defines the sensitivity of the camera in switching between the Colored mode and the Black&White mode.<br>You can set up this parameter when the **Day & Night** mode is set to **Auto**. |
| Delayed recording | Defines the delay of the camera in switching between the **Colored** mode and the **Black&White** mode. The lower the delay, the faster the switch between the **Colored** mode and the **Black&White** mode.<br>You can set up this parameter when the **Day & Night** mode is set to **Auto**. |

Step 10 Click **Defog**, and then configure the parameters.

Image quality drops when the camera is placed in the foggy or hazy environment. You can turn on **Defog** to make the images clearer.

Table 4-11 Defog parameters

| Defog Mode | Description |
|---|---|
| Manual | You can set up the defog intensity and the atmospheric light intensity manually. The system adjusts the image quality as per such settings. The atmospheric light intensity mode can be set to **Auto** or **Manual** for light intensity adjustment. |
| Auto | The system adjusts the image quality automatically to adapt to the surrounding conditions. |
| Off | Defog disabled. |

Step 11 Click **IR Light**, and then configure the parameters.

Table 4-12 Parameter description

| IR Light Mode | Description |
|---|---|
| Manual | You can set up the IR light brightness manually. The system provides light for images as per the preset IR light brightness. |
| SmartIR | The system adjusts the brightness of the light to adapt to the surrounding conditions. |
| Zoom Priority | The system adjusts the illuminator according to the lighting condition.<br>• When the environment turns dark, the low beam will be used first. If the low beam is not enough, the high beam will be used.<br>• When the environment turns bright, the high beam will be adjusted or turned off first. If it is still too bright, the low beam will be adjusted or turned off.<br>• When the focal length is adjusted to a wide angle value, the high beam will not be used to avoid overexposure on the objects near the camera, but you can manually adjust the brightness of the low beam by reducing or increasing the light compensation value. |
| Off | IR light disabled. |

Step 12 Click **Apply**.

Repeat the steps above if you want to set up the configuration files for other modes.

#### 4.2.8.1.2 Applying Configuration Files

Apply the image parameters as configured in the pre-defined periods.

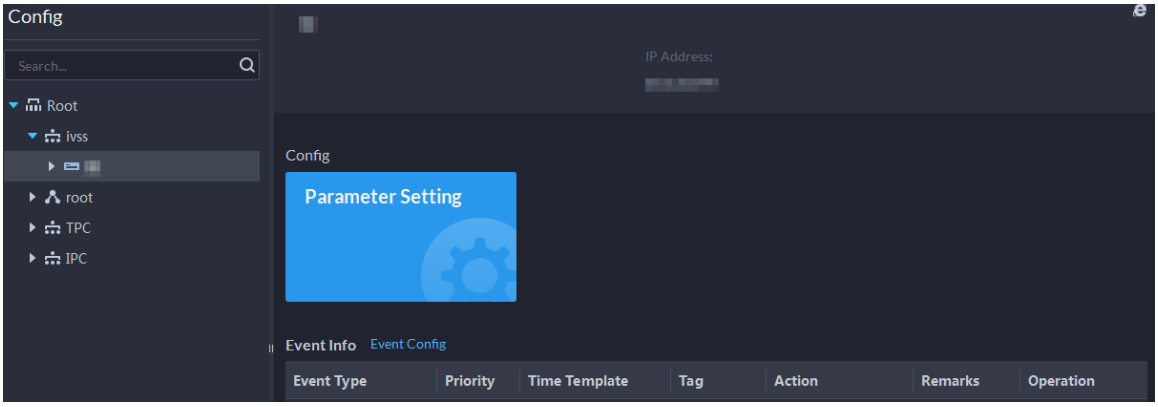
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Device Config**.

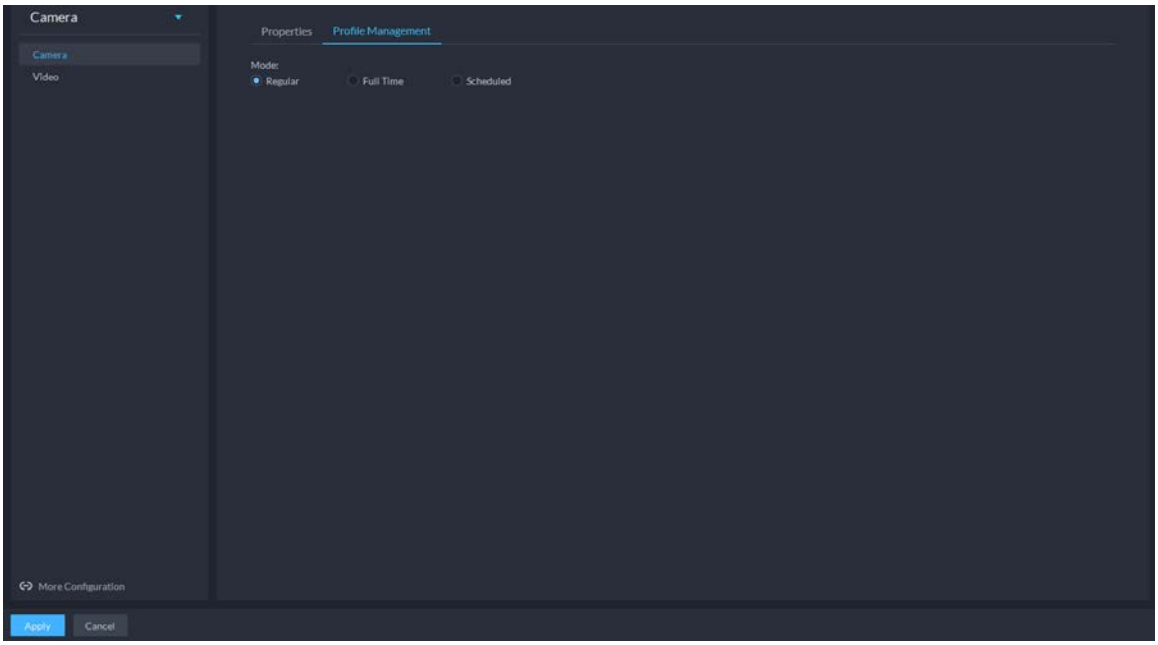
Figure 4-29 Device configuration




Step 4 Click **Profile Management**, and set configuration files.

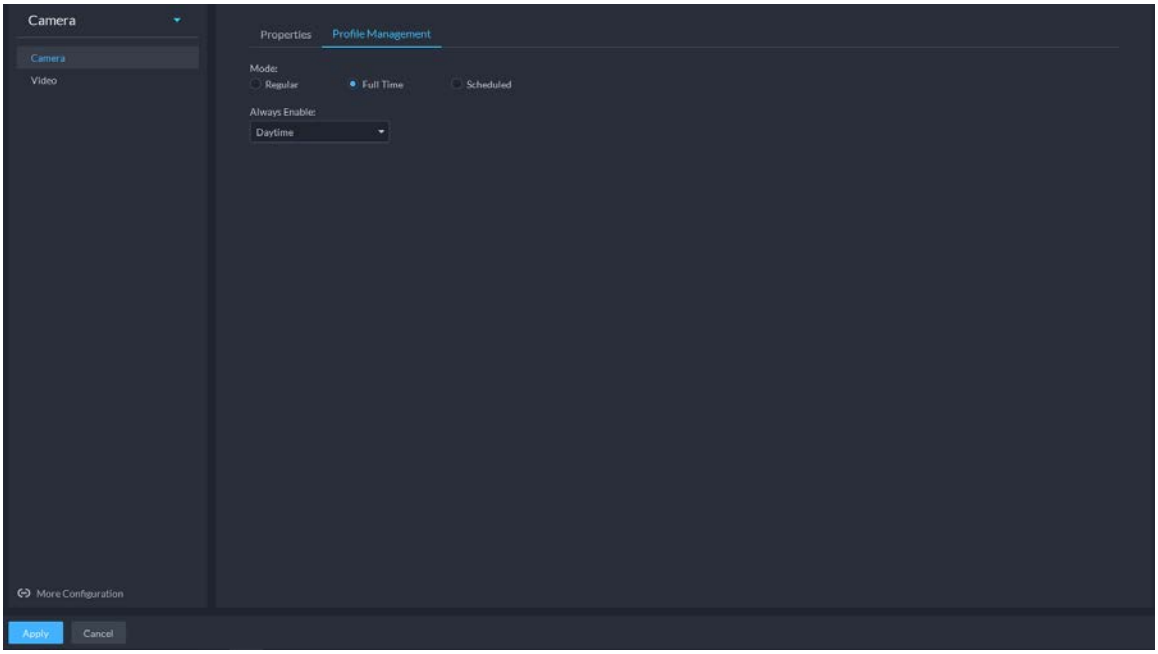
- When the mode is set to **Regular**, the system monitors the objects as per regular configurations.

Figure 4-30 Set configuration files as regular



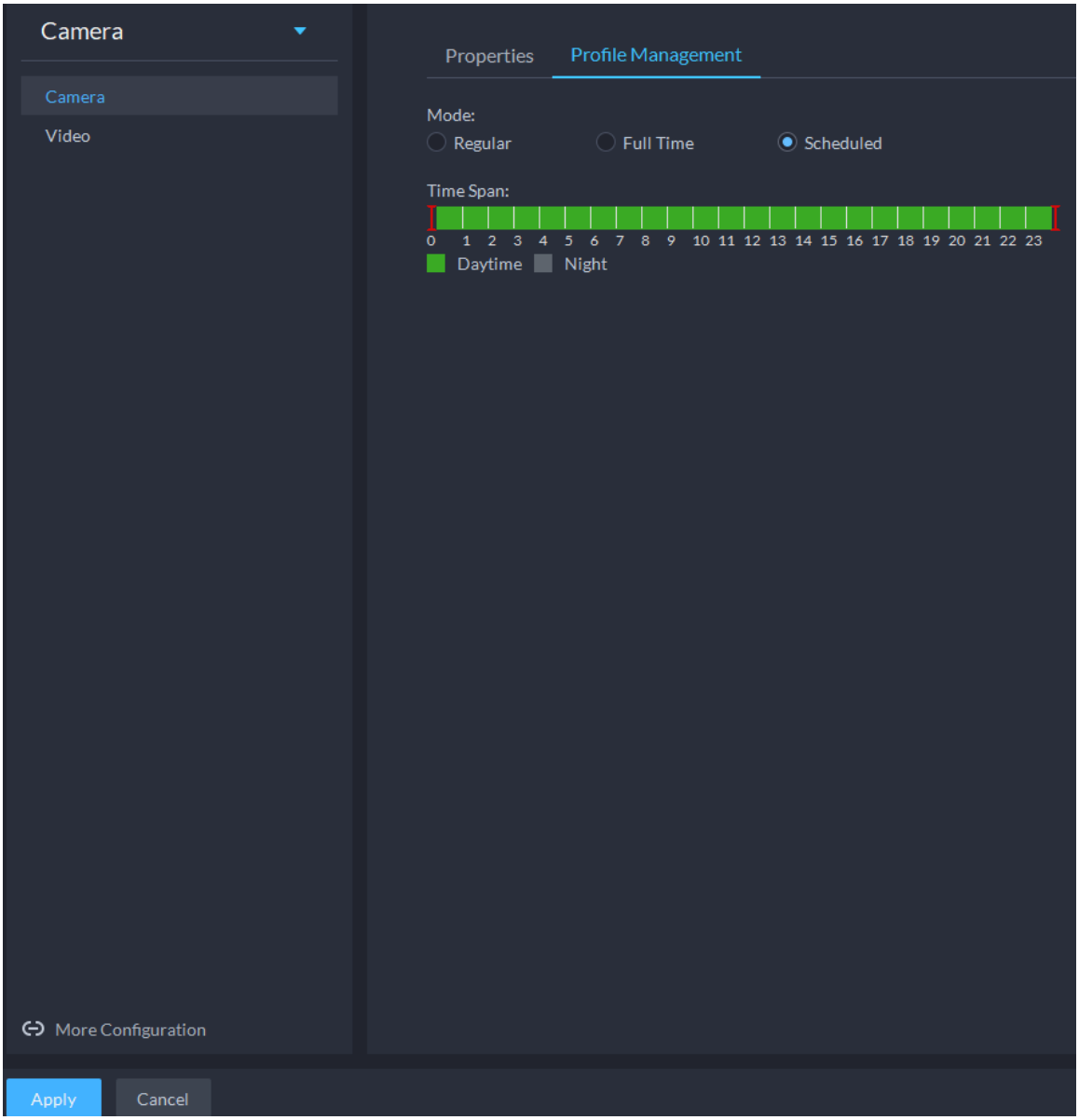

- When the mode is set to **Full Time**, you can set **Always Enable** to **Daytime** or **Night**. The system monitors the objects as per the **Always Enable** configurations.

Figure 4-31 Set configuration files as full time




- When the mode is set to **Shift by time**, you can drag the slider to set a period of time as daytime or night. For example, you can set 8:00–18:00 as daytime, 0:00–8:00 and 18:00–24:00 as night. The system monitors the objects in different time periods as per corresponding configurations.

Figure 4-32 Set configuration files as shift by time




Step 5 Click **OK** to save the configurations.

## 4.2.8.2 Video

Set video parameters such as video stream, snapshot stream, overlay, ROI and saving path.

### 4.2.8.2.1 Video Stream

Set the video stream parameters such as stream type, encoding mode, resolution, frame rate, stream control, stream, I frame interval, SVC, and watermark.

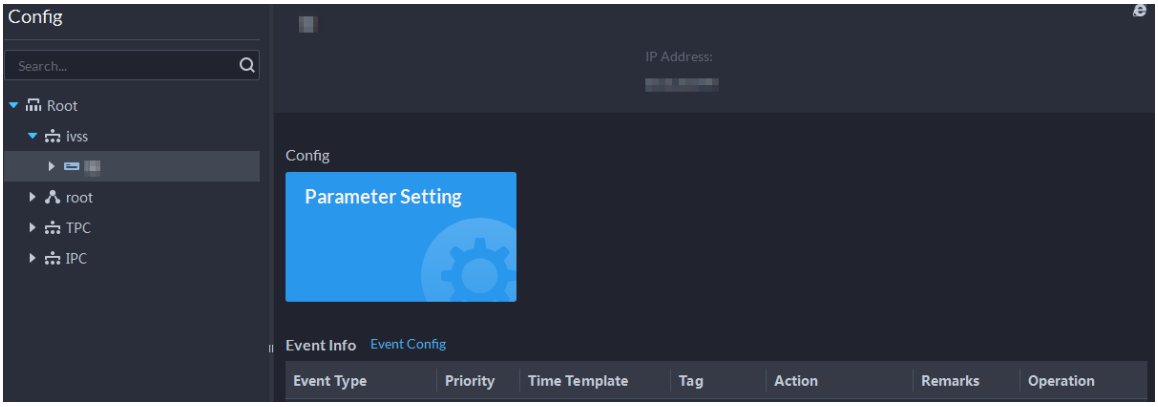
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Device Config**.

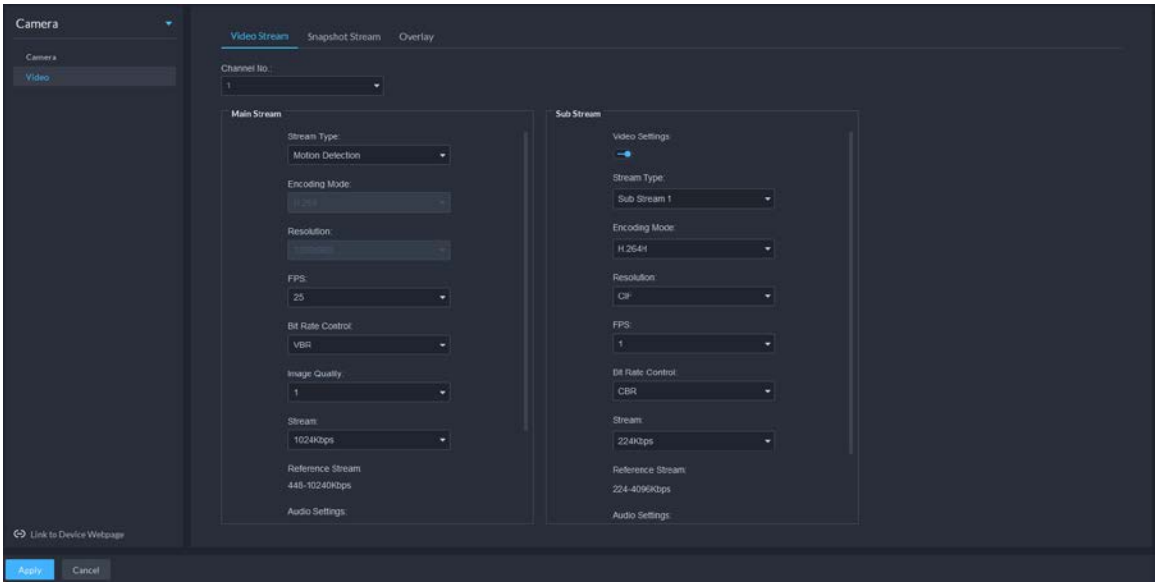
Figure 4-33 Device configuration




Step 4 Select **Camera** > **Video** > **Video Stream**.

Step 5 Set **Video Stream**.

Figure 4-34 Configure video stream settings




The default values of streams are for reference only, and the actual pages might be different.

Table 4-13 Video stream parameters

| Parameter | Description |
|---|---|
| Video Settings | Enable or disable **Sub Stream** parameters. |
| Encoding Mode | • H.264: H.264B (Baseline Profile), H.264 (Main Profile), H.264H (High Profile). Bandwidth consumption level at the same image quality: H.264B > H.264 > H.264H.<br>• H.265: Main Profile encoding, consuming less bandwidth than H.264 at the same image quality.<br>• MJPEG: Frame-by-frame compression, requiring large bandwidth and high video stream to ensure clear image. To achieve better video image, it is recommended that you select the largest stream value from the given options. |

| Parameter | Description |
|---|---|
| | • SVAC (Surveillance Video and Audio Coding): It is a standard for security surveillance applications in China. |
| Smart Codec | Turning on **Smart Codec** will compress the images to save storage space.<br>When smart code is on, the device does not support sub stream 2, ROI, IVS event detection. |
| Resolution | The resolution of the videos. Different devices might have different max resolutions. |
| FPS | The number of frames per second in a video. The higher the FPS, the more distinct and smooth the images. |
| Bit Rate Control | The following video stream control modes are available:<br>• BRC_CBR: The bit stream changes slightly around the preset value.<br>• BRC_VBR: The bit stream changes according to the monitored scenes.<br>When the **Encode Mode** is set to **MJPEG**, **BRC_CBR** remains the only option for stream control. |
| Image Quality | This parameter can be set only when **Stream Ctrl** is set to BRC_VBR.<br>Video image quality is divided into six grades: Best, Better, Good, Bad, Worse and Worst. |
| Stream | This parameter can be set only when **Stream Ctrl** is set to **BRC_CBR**.<br>You can select the proper stream value from the drop-down box based on actual scenarios. |
| Reference Stream | The system will recommend an optimal range of stream values to users based on the resolution and FPS set up by them. |
| I Frame Interval | Refers to the number of P frames between two I frames. The range of I Interval changes with FPS.<br>It is recommended to set the I Interval to be two times as the FPS value. |
| SVC | FPS is subject to layered encoding. SVC is a scalable video encoding method on time domain. |
| Watermark | Turn on **Watermark** to enable this feature.<br>You can verify the watermark characters to check whether the video has been tempered or not.<br>Characters for watermark verification. The default value is DigitalCCTV. |

Step 6 Click **Apply**.

#### 4.2.8.2.2 Snapshot Stream

Set snapshot parameters, including snapshot type, picture size, picture quality, and snapshot speed.

## Procedure

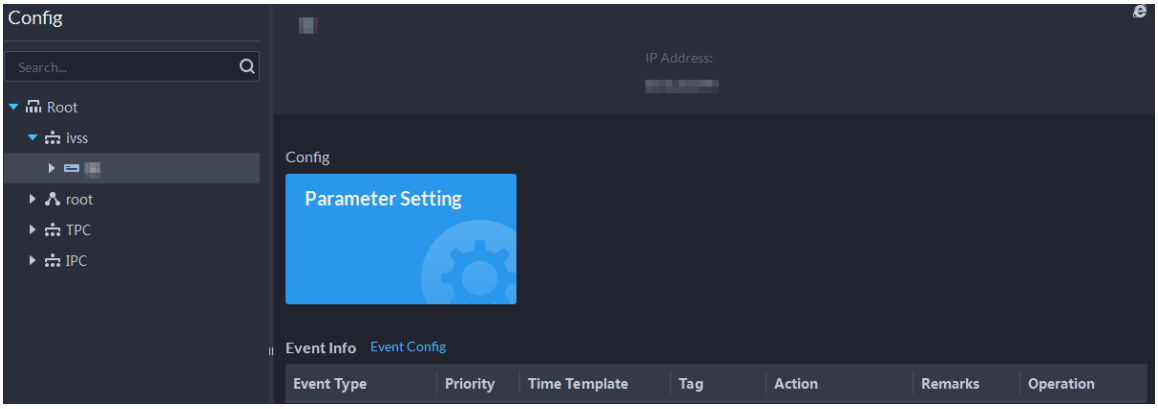
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config**

section, select **Device**.

Step 2 Click .

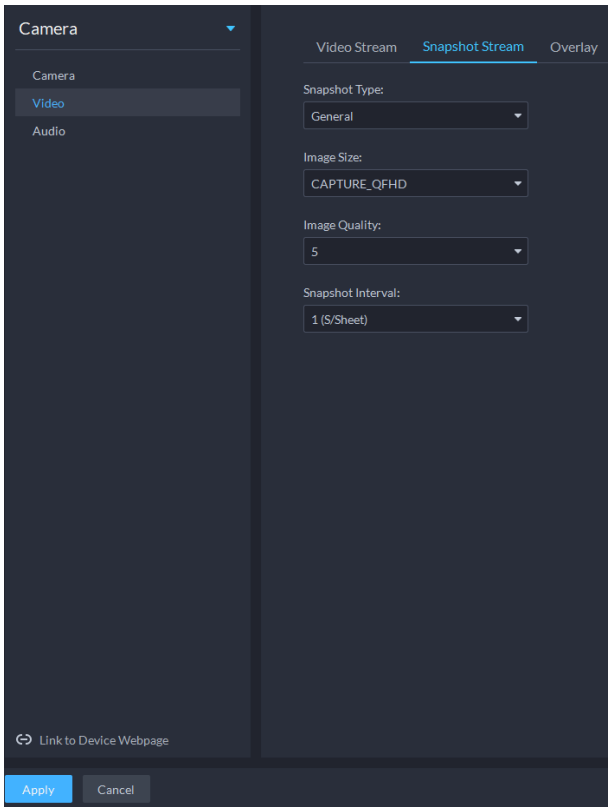
Step 3 Select a device, and then click **Device Config**.

Figure 4-35 Device configuration




Step 4 On the **Device Config** page, select **Camera** > **Video** > **Snapshot Stream**.

Figure 4-36 Configure snapshot stream settings




Step 5 Set **Snapshot Stream**.

Table 4-14 Snapshot stream parameters

| Parameter | Description |
| --- | --- |
| Snapshot Type | It includes **General** and **Trigger**.<br>• **Regular** refers to capturing pictures within the time range set up in a time table.<br>• **Trigger** refers to capturing pictures when video detection, audio detection, IVS events, or alarms are triggered, provided that video detection, audio detection, and corresponding snapshot functions are enabled. |
| Image Size | Same as the resolution in **Main Stream**. |
| Image Quality | Sets up image quality. It is divided into six grades: Best, better, good, bad, worse and worst. |
| Snapshot Interval | Sets up the frequency of snapshots.<br>Select **Custom** to manually set up the frequency of snapshots. |
| Link to Device Webpage | Go to the web page of the device. |

Step 6 Click **OK**.

#### 4.2.8.2.3 Overlay

Set video overlay parameters, including tampering, privacy mask, channel title, period title, geographic position, OSD, font, and picture overlay.

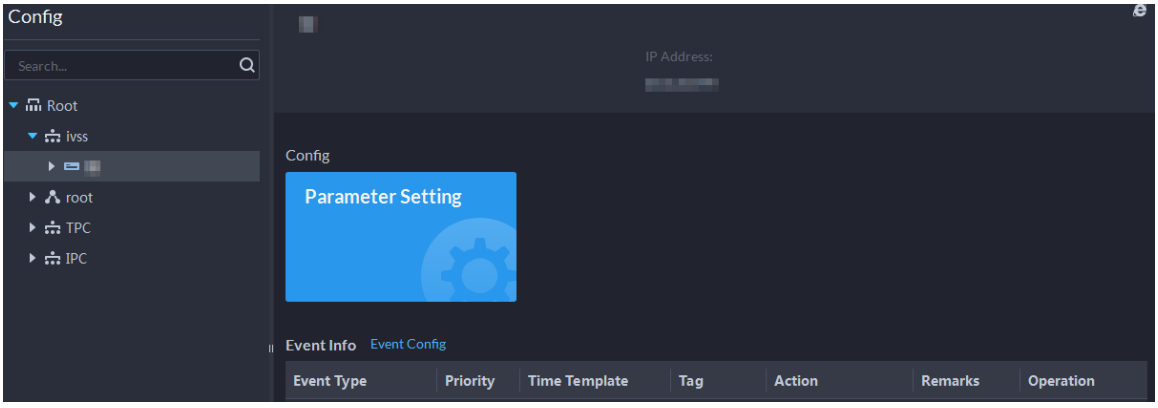
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Device Config**.

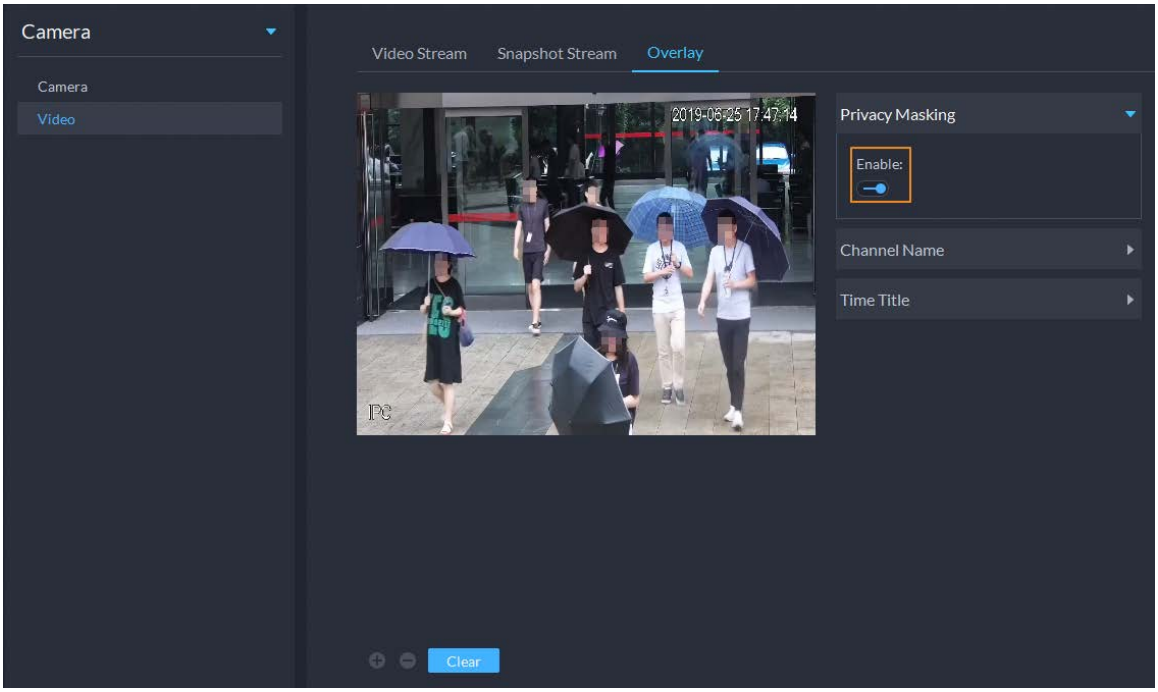
Figure 4-37 Device configuration




Step 4 On the **Device Config** page, select **Camera** > **Video** > **Overlay**.

Step 5 Set privacy mask.

Figure 4-38 Overlay

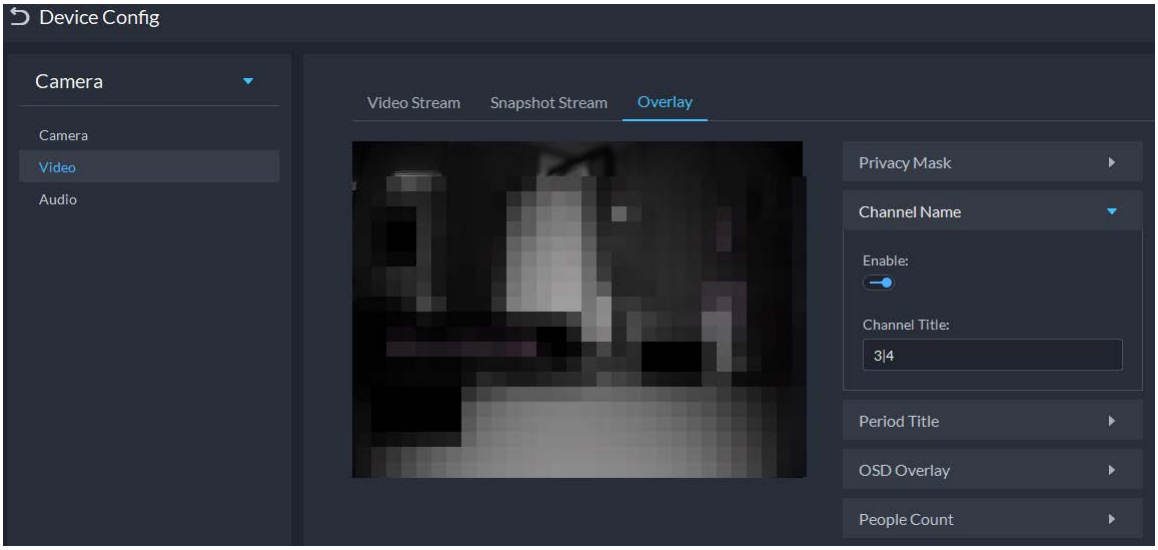



1) Click the **Privacy Mask** tab.
2) Click to enable the function.
3) Click to adjust the size and position of the area frame. You can add 4 area frames at most.

Step 6 (Optional) Set the channel name to display on the video.

1) Click the **Channel Name** tab.

Figure 4-39 Set channel name

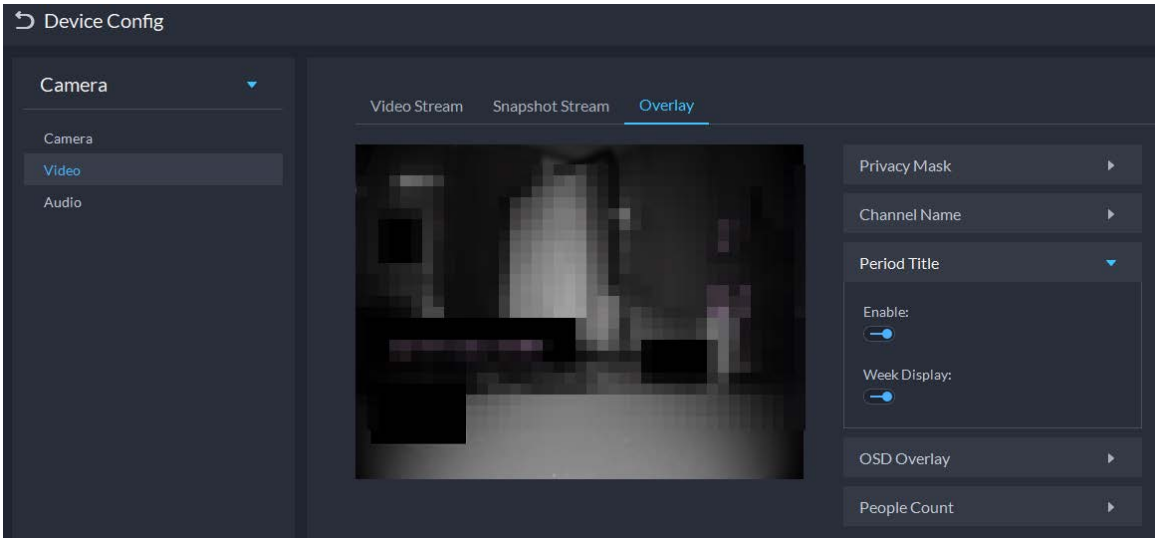



2) Click to enable the function.
3) Adjust the size and position of the name frame.

Step 7 (Optional) Set the period title to display on the video.

1) Click the **Period Title** tab.

Figure 4-40 Set period title

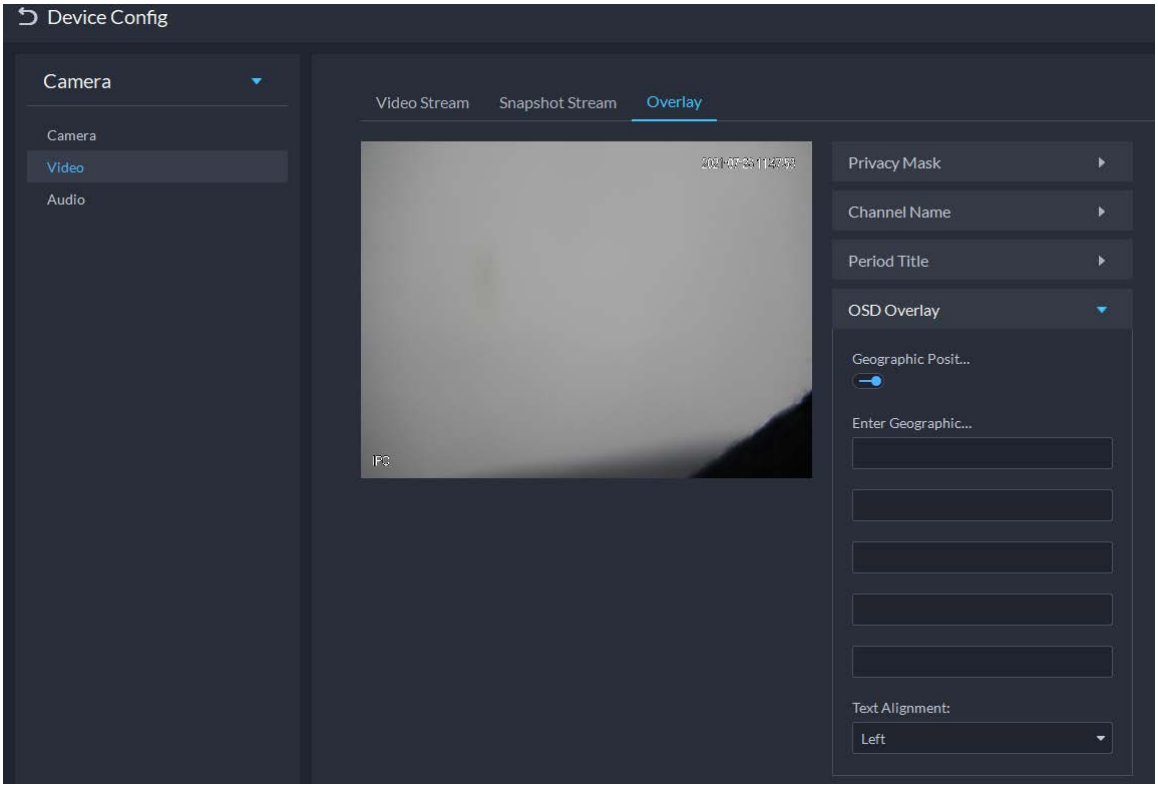



2) Click  to enable the function.
3) (Optional) Select **Week Display** so that the week information displays in video images.
4) Adjust the size and position of the frame.

Step 8 OSD overlay.

1) Enable **Geographic Position**, and then enter the geographic information of the camera.
2) Select a text alignment method.

Figure 4-41 OSD overlay




Step 9 Click **OK**.

## 4.2.8.3 Audio

Set audio parameters such as encoding mode, sampling frequency, audio input type, and noise filtering.

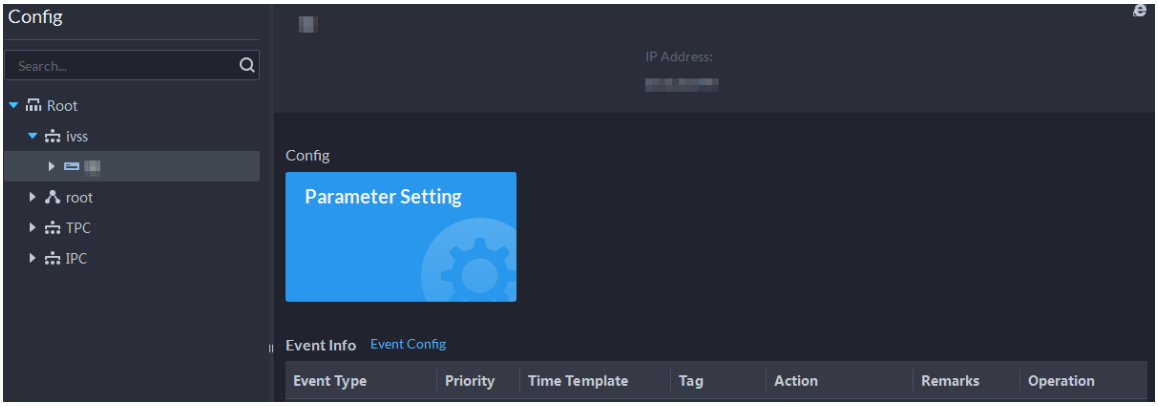
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select a device, and then click **Device Config**.

Figure 4-42 Device configuration




Step 4 On the **Device Config** page, select **Camera** > **Audio**.

Step 5 Set parameters.

Figure 4-43 Configure audio settings

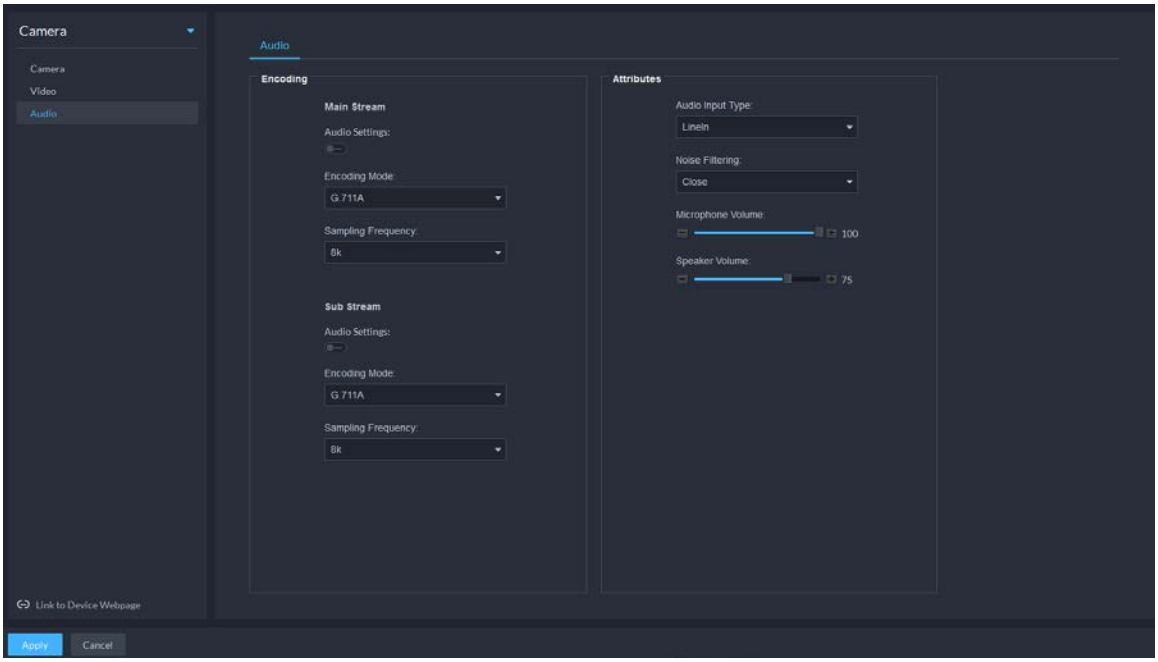



Table 4-15 Audio parameters

| Parameter | Description |
|---|---|
| Audio Settings | Audio settings can be enabled when video has been enabled.<br>After disabling **Audio Settings** in **Main Stream** or **Sub Stream** sections, the network transmits a mixed flow of videos and audios. Otherwise, the |

| Parameter | Description |
| --- | --- |
| | transmitted flow only contains video images. |
| Encoding Mode | The encoding modes of audios include G.711A, G.711Mu, AAC, PCM, and G.726.<br>The preset audio encode mode applies to audio talks. |
| Sampling Frequency | Available audio sampling frequencies include 8K, 16K, 32K, 48K, and 64K. |
| Audio Input Type | The following types of audios connected to devices are available:<br>• LineIn: The device must connect to external audio devices.<br>• Mic: The device does not need external audio devices. |
| Noise Filtering | After enabling noise filtering, the system automatically filters out the noises in the environment. |
| Microphone Volume | Adjusts the microphone volume.<br>Only some devices support adjusting microphone volume. |
| Speaker volume | Adjusts the speaker volume.<br>Only some devices support adjusting speaker volume. |

Step 6 Click **Apply**.

## 4.2.9 Synchronizing People Counting Rules

If you create, edit or delete people counting rules on a device, you have to manually synchronize them to the platform.

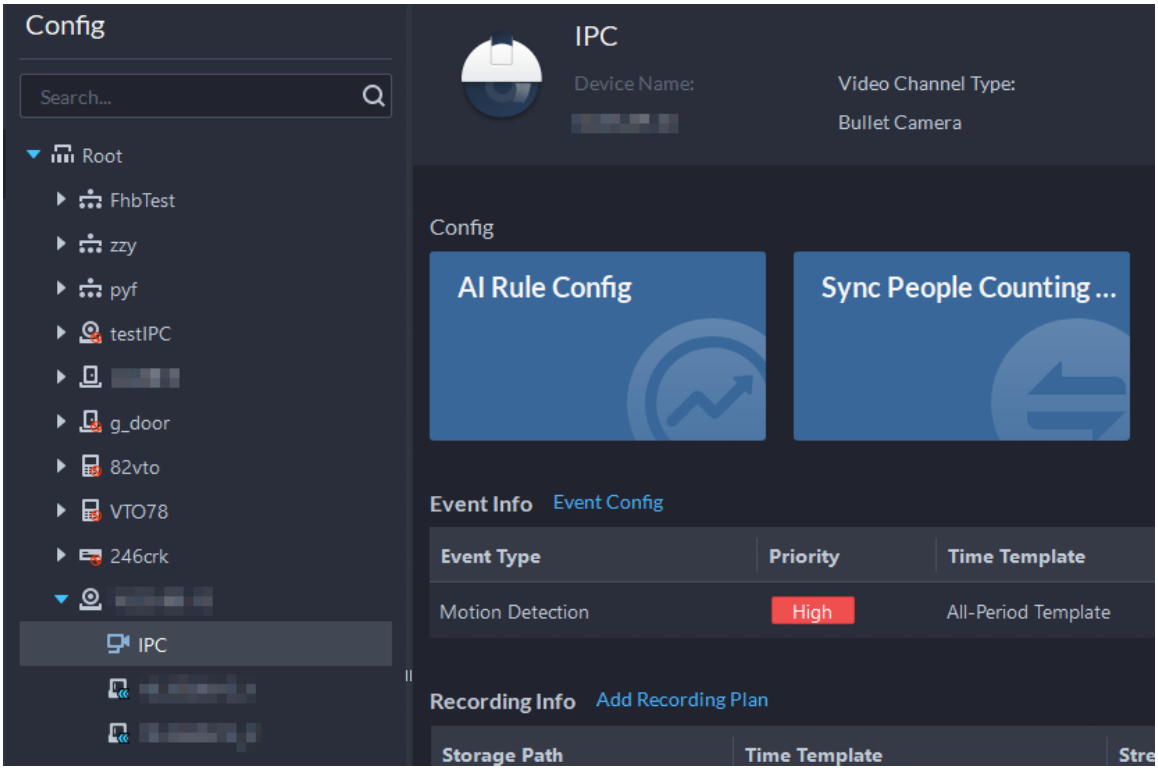
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

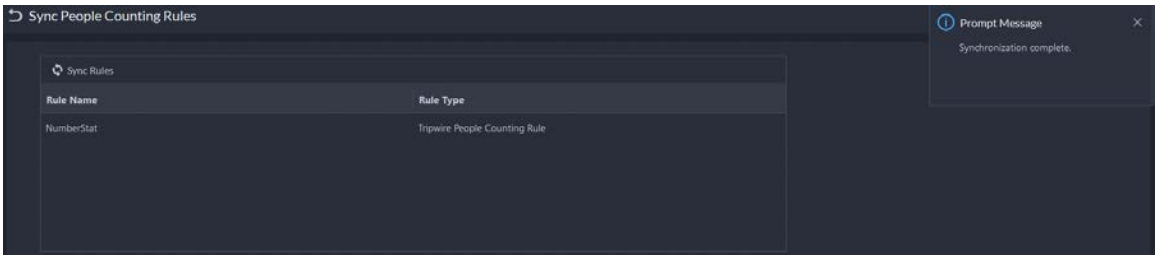
Step 3 Select a channel, and then click **Sync People Counting Rules**.

Figure 4-44 Synchronize people counting rules from the device




Step 4 Click **Sync Rules**, and then the system prompts **Synchronization Complete**.

Figure 4-45 Synchronize people counting rules from the device




# 4.3 Adding Role and User

Users of different roles have different menus and permissions of device access and operation. When creating a user, assign a role to it to give the corresponding permissions.

## 4.3.1 Adding User Role

A role is a set of permission. Classify users of the platform into different roles so that they can have different permissions for operating the devices, functions and other system resources.

- Super administrator: A default rule that has the highest priority and all the permissions. This role cannot be modified. A super administrator can create administrator roles and common roles. The system supports 3 super administrators at most.
- Administrator: A default rule that cannot be modified and has no permission of authorization, backup and restoring. An administrator can create other administrators.
- Common role: A common role that has no permission of authorization, backup and restoring,

user management, and device management.

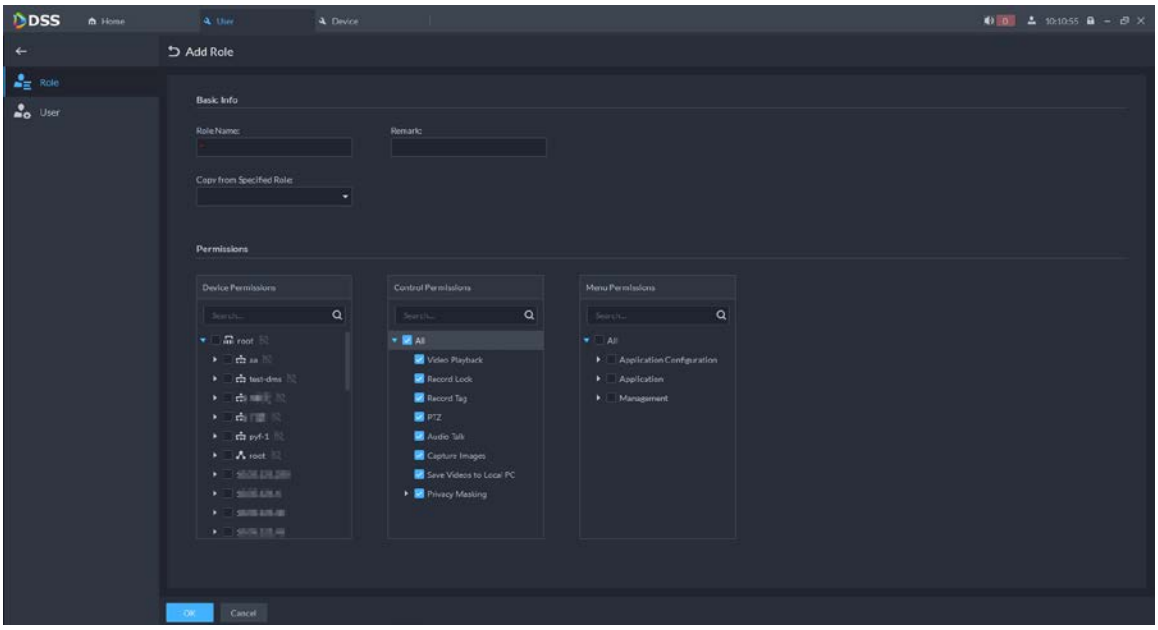
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **User**.

Step 2 Click .

Step 3 Click **Add**, set role information, and then select device and control permissions and assign the rule to users.

Figure 4-46 Add a role




- If a device is not selected under **Device Permissions** or a menu not selected under **Menu Permissions**, all users assigned with this role will not be able to see the device or menu.
- Click of a selected organization. All permissions of subsequently added devices under this organization will also be assigned to users of this role.

Step 4 Click **OK**.

# 4.3.2 Adding User

Create a user account for logging in to the platform.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **User**.

Step 2 Click **Add**, and then configure the user information.

Table 4-16 Parameter description

| Parameter | Description |
|---|---|
| Username | Used to log in to the client. |

| Parameter | Description |
|---|---|
| Multi-client Login | Allow the user to log in to multiple clients at the same time. |
| Password | Used to log in to the client. |
| Confirm Password | |
| Enable Forced Password Change at First Login | The user is required to change the password at first-time login. |
| Enable Password Change Interval | Force the user to change the password regularly. |
| Enable Password Expiry Time | The password must be changed after it expires on the defined date. |
| PTZ Control Permissions | The PTZ control priority of the user. The larger the value, the higher the priority. For example, User A has a priority of 2 and User B has a priority of 3. When they operate on the same PTZ camera, which is locked, at the same time, the PTZ camera will only respond to the operations from User B. |
| Email Address | Used to reset password and receive alarm emails. |
| Bind MAC Address | Limit the user to log in from specific computers. One user can be bound to 5 MAC addresses at most. |
| Role | Select one or more roles to assign the user permissions, such as which devices are allowed to be operated. |

Step 3 Click **OK**.

### Related Operations

- Click to lock user. The locked user cannot log in to the DSS Client and App.
- Click to modify information of a user except the username.
- Click to delete a user.

## 4.3.3 Password Maintenance

The platform supports modifying user password, and resetting system user password when it is forgotten. Only the system user can reset password. Other users, when their passwords are forgotten, can ask the system user to modify the passwords.

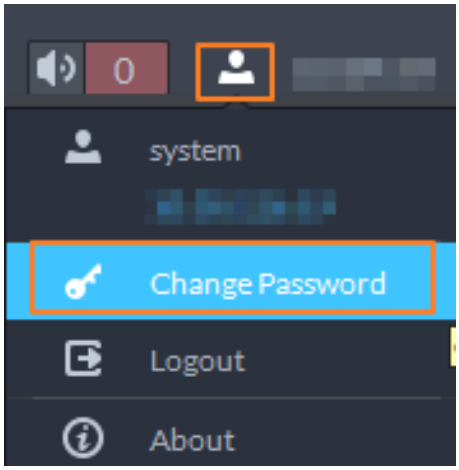
### 4.3.3.1 Changing Password for the Current User

We recommend changing your password regularly for account safety.

### Procedure

Step 1 Log in to the DSS Client, click at the upper-right corner, and then select **Change Password**.

Figure 4-47 Change password




Step 2 Enter the old password, new password, and then confirm the new password. Click **OK**.

### 4.3.3.2 Changing Password for Other Users

The system user can change the password for other users without the need to verify the old password.

#### Procedure

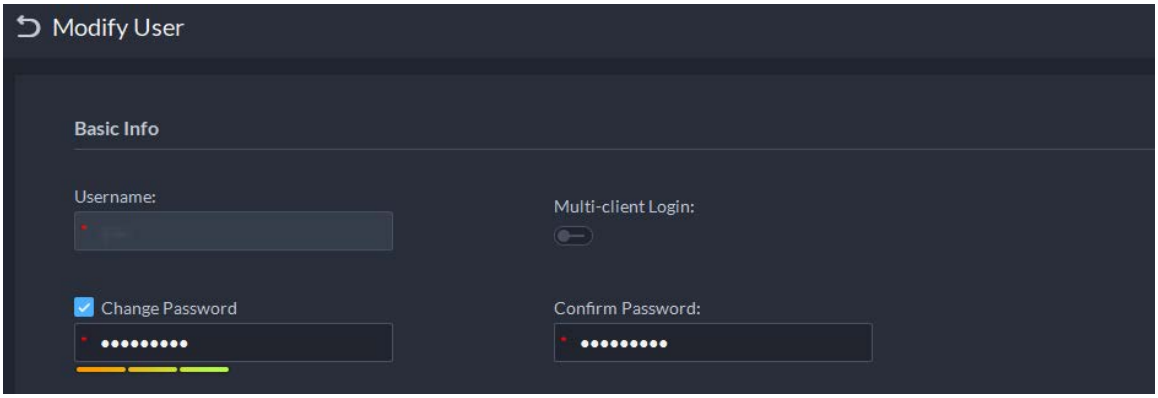
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **User**.

Step 2 Click .

Step 3 Select a user, and then click .

Step 4 Enable **Change Password**, enter the new password and confirm password, and then click **OK**.

Figure 4-48 Change user info




### 4.3.3.3 Resetting User Password

You can reset the password of a user by security questions or email address, but only the system account supports resetting the password by security questions.

#### Procedure

Step 1 On the login page, click **Forgot password?**.

Step 2 Enter the account that you want to reset the password for, and then click **Next Step**.

Step 3 Select how you want to reset the password.

- By security questions. This is only applicable to the system account.
  1. Click **Reset Password through Security Questions**.
  2. Answer the questions, and then click **Next Step**.
- By email address. This is applicable to all accounts, but an email address must be configured first. For details, see "4.3.2 Adding User".
  1. Click **Reset Password through Email Verification**.
  2. Click **Send Verification Code**.
  3. Enter the verification code that you received from the email address, and then click **Next Step**.

Step 4 Set a new password and confirm it, and then click **Next Step**.
The password has been reset.

# 4.4 Configuring Storage

Manage the storage of the platform, including adding network disks, setting storage types to store different types of files, and setting the storage location and retention period of the images and recorded videos from devices.

## 4.4.1 Configuring Network Disk

- The storage server is required to be deployed.
- One user volume of the current network disk can only be used by one server at the same time.
- User volume must be formatted when adding network disk. Check if you have backed up the data.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Storage**.

Step 2 Select .

Step 3 Click **Add**.

Step 4 Select server name and mode, enter the IP address of network disk, and click **OK**.

- Normal mode: All volumes of the network disk will be added. Those used by any user will be in red.
- User mode: Enter the username and password of a user. Only volumes of the network disk assigned to this user will be added.

Figure 4-49 Add network disk (normal mode)

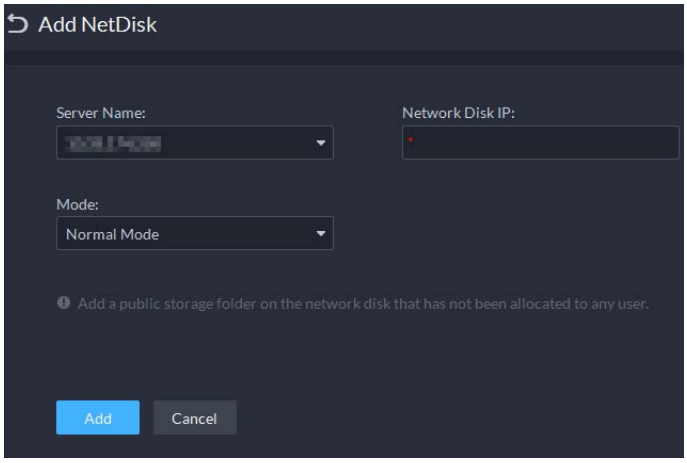
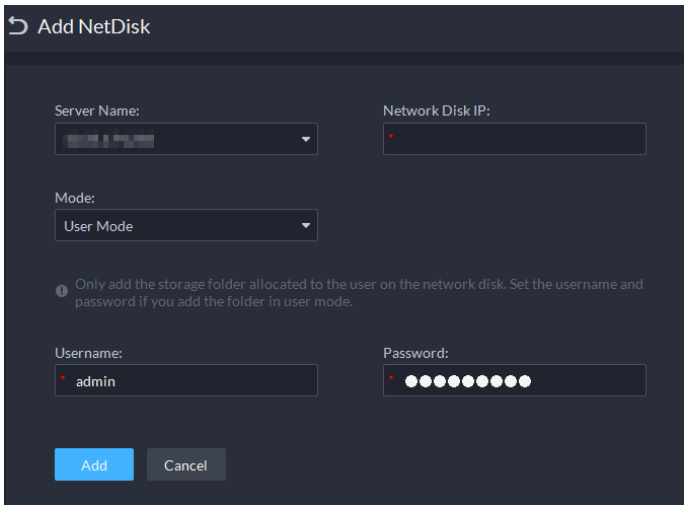



Figure 4-50 Add network disk (user mode)

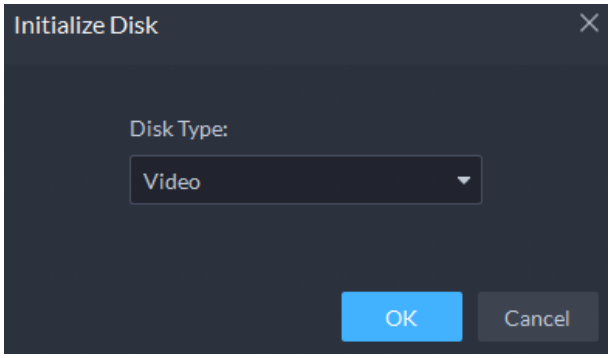



Step 5 Select disk, and then click to format the corresponding disk.

1. Select user volume, and then click .
2. Select format disk type, and then click **OK**.

- **Video**: Stores videos.
- **Image and File**: Stores all types of images.

Figure 4-51 Format disk




## Related Operations

- To configure disk type, click .
- To format a disk, click .

Formatting will clear all data on the disk. Please be advised.

## 4.4.2 Configuring Server Disk

Configure local disk to store different types of files, including videos, ANPR snapshots, and face or alarm snapshots. In addition to the local disks, you can also connect an external disk to the platform server, but you have to format the external disk before using it.

- To set up local storage, you need a physical disk with only one volume or any volume of one physical disk. Back up the data of the disk or volume before setting its disk type, which will format and erase all data from it.
- One physical disk with only one volume or any volume of one physical disk can only store one type of files. If you need to store more than one type of files, you need more than one physical disks or volumes, but it cannot be the one where you installed the operating system of the server.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Storage**.

Step 2 Select .

Step 3 Format a disk to set a storage type

This operation will clear all data on the disk. Please be advised.

1) Select user volume, and then click .
2) Select storage type, and then click **OK**.
   - **Video**: Stores videos.
   - **Images and Files**: Stores all types of images.

   If you do not set up one or more disk types, you will not be able to properly use corresponding functions. For example, if you do not set up an **Image and File** disk, you will not see images in all alarms.

Step 4 Manage local disks.

- Initialize disk
  Click .
- To configure disk type: Click .
- To format a disk: Select a disk or user volume, click

## 4.4.3 Configuring Device Storage

When there are a large number of devices on the platform, it will put too much pressure on the network disks or local disks because they might produce a lot of face, video metadata, and event images, and videos that need to be stored. The platform supports setting the storage location and

retention period of the images and videos for storage devices, such as an IVSS, to reduce the pressure on the server.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Storage** > **Device Storage Config**.

Only organizations with storage devices are displayed.

Step 2 Select an organization, click of a device on the right.

Step 3 Configure the parameters, and then click **OK**.

Table 4-17 Parameter description

| Parameter | Description |
|---|---|
| Event Image Storage Location | • **Save to Central Storage**: All images produced by the channels connected to this device will be stored on the network disks or local disks of the platform.<br>• **Link to Images on Device**: All images produced by the channels connected to this device will be stored on the device itself. The platform will obtain images from the device. |
| Event Video Storage Location | • **Save to Central Storage**: All alarm videos produced by the channels connected to this device will be stored on the network disks or local disks of the platform.<br>• **Link to Videos on Device**: All alarm videos produced by the channels connected to this device will be stored on the device itself. The platform will obtain videos from the device.<br>To make sure that alarms videos are complete, we recommend you set a 24-hour recording plan for the device. Otherwise, the platform might not be able to obtain videos. For example, a recording plan of 00:00–14:00 has been configured on the device so that the channels connected to it will record videos during that period. If an alarm is triggered on 14:01, the platform will not be able to obtain videos for this alarm. |
| Retention Time of Images and Videos on Device | This function is applicable to the images and videos stored on the device.<br>After enabled, the platform will obtain the value from the device, and you can change it to 1–180. The images and videos that have been stored longer than this value will be automatically deleted.<br>Deleted files cannot be recovered. Please be advised. |

# 5 Businesses Configuration

This chapter introduces the basic businesses, such as storage plan, video monitoring, access control, video intercom, target detection, face recognition, parking lot, and intelligent analysis.

## 5.1 Configuring Events

To receive alarms triggered by devices, you need to configure them on the platform.

### 5.1.1 Configuring Event Linkage

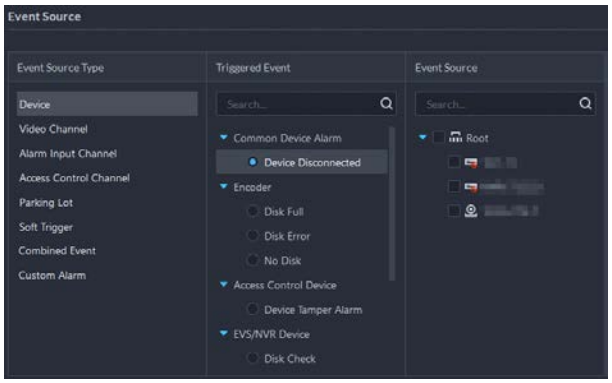
Configure the event source, and the linked actions. When the event is triggered, the platform will perform the actions you defined, such as taking a snapshot recording a video.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Event** > **Event Config**.

Step 2 Click **Add**.

Figure 5-1 Configure the event source




Step 3 Configure the event source.

Table 5-1 Parameter description of event source types

| Parameter | Description |
|---|---|
| Device, video channel, alarm input channel, access control channel, and parking lot | Select the type according to the type of the device or channel.<br><br>• Before configuring the event, check whether the channel features match the event type; otherwise the event type cannot be selected as the alarm source. To configure channel features, see "4.2.2.5.2 Modifying Device Information".<br>• If **Alarm Input Channel** is selected, check whether the **Triggered Event** that you select matches the channel feature of the alarm input channel you select. Otherwise, the event will not be triggered. |

| Parameter | Description |
|---|---|
| Soft Trigger | This is a type of event that is manually triggered. Click **Add Soft Trigger Event Type** to customize its name and icon. When viewing the live video image of the configured channel in the **Monitoring Center**, you can click the icon to trigger an alarm manually. |
| Combined Event | When a combined event is triggered, the platform performs the defined linked actions. For how to configure combined events, see "5.1.2 Configuring Combined Events". |
| Custom Alarm | This is used for events that devices support, but the platform currently does not.<br>Click **Add Extended Standard Event**, and then configure the alarm source, name, and alarm code. |

Step 4 Configure the priority, when the event can be triggered, and other information.

Table 5-2 Parameter description

| Parameter | Description |
|---|---|
| Priority | The priority level is used to quickly know the urgency of the event when it is triggered. |
| Time Template | Select a time template for when the event can be triggered. If you want to create a new template, see "4.2.5 Adding Time Template". |
| Holiday Template | Select a holiday template for when the event will not be triggered. To create a new template, follow the steps below.<br>1. In the drop-down box, click **Create Custom Holiday Template**.<br>2. Enter a name for the holiday.<br>3. Click **Add**, and then add a period and adjust the time.<br>You can add up to 50 periods.<br>4. (Optional) If there are other holiday templates, you can select **Copy From**, and then select a template to copy its periods.<br>5. Click **OK**. |
| Tag | Enter some content that is used for filtering among a large amount of events. |

Step 5 Configure alarm linkage actions.

- To link video, enable **Linked Action** > **Link Video**, and then configure the parameters.

Table 5-3 Parameter description

| Parameter | Description |
|---|---|
| Camera | • Event source: The camera of the alarm itself is linked when the alarm occurs.<br>• Bound camera: If the alarm channel is bound to a video channel, you can view the video of the bound channel. To bind a channel, see "4.2.3 Binding Resources".<br>• Select camera: Select a camera so that you can view the camera video when the associated alarm is triggered. |

| Parameter | Description |
| --- | --- |
| When an alarm is triggered, display camera live view on client | Enable this parameter, and then the platform will open the real-time video of the channel where an alarm is triggered, and play it in the defined stream type.<br>After the event is configured, select **Local Settings** > **Alarm**, enable **Open Alarm Linkage Video** and set how the video will be opened, **As Pop-up** or **Open in Live View**. For details, see "9.3.4 Configuring Alarm Settings". |
| Event Recording | Start recording when an alarm is triggered. The video will be saved to ..\DSS\DSS Client\Record by default. |
| Stream Type | Define the stream type of the recorded video. If you select main stream, the recorded video will be in higher quality than sub stream, but it requires more storage. |
| Recording Time | The duration of the recorded video. |
| Prerecording Time | When there is recorded video that is stored on the device or platform before the alarm is triggered, the platform will take the defined duration of that video, and then add it to the alarm video. For example, when the prerecording time is set to 10 s, then the platform will add 10 s of video before the alarm is triggered to the alarm video.<br>• If the alarm video is stored on the device, we recommend you configure a 24-hour recording plan to make sure that there is prerecorded content to add to the alarm video.<br>• If the alarm video is stored on the platform, the platform will record videos and use certain input bandwidth continuously.<br>• This parameter is not applicable to alarms in parking lots. |

- To trigger a snapshot, enable **Trigger Snapshot**. The platform takes 2 snapshots, and save them to the Image and File disk.
  Select a video channel, and then it will take a snapshot when an alarm is triggered.
- To link a PTZ action, click **Link PTZ**, and then select the PTZ channels and presets to be linked.
- Click **Alarm Output**, select an alarm output channel, and then set the duration. The channel will send out alarm signal when an alarm is triggered.
- To link audio and light, click **Link Audio and Light**, select the audio and light channels, and then select the action duration.
- Click **Link Access Control Device**, select door channels, and then select a linked action. When an alarm is triggered, the door channels you selected will be locked, unlocked, normally open or normally closed.
- To play alarm video on the video wall, click **Link Video Wall**, select a camera on the left of the page, and then select a video wall window on the right of the page.

Make sure that you have added decoders to the platform, configured video wall and set alarm window.

- To execute an HTTP URL; command, click **Link HTTP URL Command**. Click **Add**, and then configure its request method, HTTP URL, and remarks. You can click to test if the command is valid.
- To link emails, enable **Email**, and click to add the email address, and then an email will be sent to the selected email address when an alarm is triggered. You can also manually enter an email address, but you must press Enter to make it valid.
  To configure the email template, select **Add Email Template** from the **Email Template** drop-down list.
- Apply an alarm protocol to help users process alarms when they are triggered. Click **Alarm Protocol**, and then select a protocol from the **Protocol Template** drop-down list.
  Or you can click **Add protocol template** to create a new protocol.

Step 6 Select one or more users who will receive the notification when an alarm is triggered.
The users will only receive notifications when they are logged in. If you need to add more users, see "4.3 Adding Role and User".

If the page becomes too long because you need to configure many parameters, you can use the pane on the right to quickly go to different positions.

Step 7 Click **OK**.

## 5.1.2 Configuring Combined Events

Configure the relation between the time of trigger of 2 events, and then you can configure what actions to performed when the event is triggered.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Event** > **Combined Event Rule Config**.

Step 2 Click to add a rule for combined events.

Step 3 Enter a name for the rule, and then configure the details.
For example, select **event B occurs** and configure the **X** and **Y** to be 10 and 50 seconds respectively. If event B occurs during the 10 seconds to 50 seconds after event A occurs, a combined event is triggered, and then the platform will perform defined linked actions.

Step 4 Click **OK**.
The previous page displays.

Step 5 Click **Add**, and then configure the parameters of the combined event.

Table 5-4 Parameter description

| Parameter | Description |
|---|---|
| Name | Enter a name for the combined event. |
| Rule | Select a rule. |

| Parameter | Description |
| --- | --- |
| Source of Combined Event | Select the event and event source for event A and B. |

Step 6 Click **OK**.

### Related Operations

Configure the linked actions for the combined event. For details, see the previous section.

## 5.1.3 Filtering Repetitive Alarms

If certain alarms are frequently triggered, you can configure an interval during which they can only be triggered once. For example, a tripwire alarm can only be triggered once in 10 seconds.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Event** > **Alarm Config**.

Step 2 Click **Add**.

Step 3 Select an event, and then configure the interval.

Step 4 Click **OK**.

# 5.2 Configuring Map

## 5.2.1 Preparations

- Devices are deployed. For details, see device user's manuals.
- Basic configurations of the platform have been finished. For details, see "4 Basic Configurations".
- A map picture is prepared.
- To show device alarms on the map, make sure that **Map flashes when alarm occurs** is enabled in **Home** > **Management** > **Local Settings** > **Alarm**.

## 5.2.2 Adding Map

A raster map is suitable for places where you want to view their detailed information, such as a parking lot. You can add multiple ones.

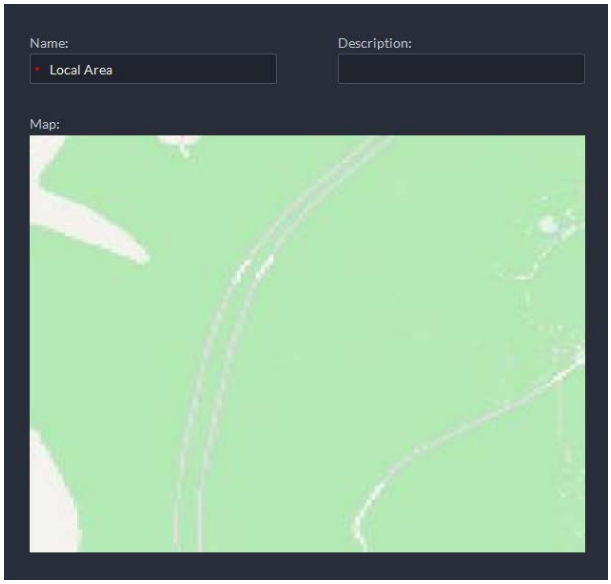
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Map**.

Step 2 Select **Main Map**, and then click **Add Map**.

Step 3 Enter the map name, select the picture and then click **OK**.

Figure 5-2 Add main map




Step 4 Add a sub map.

1) Click the added raster map, and then click **Add Sub Map**.
2) Enter the map name, upload the picture, and then click **Next Step**.
3) Drag the picture to the desired position and click **OK**.

## Related Operations

- Hide Device Name
  Only display the icons of devices.
- Delete resources
  To delete a device from the map, click it and then click **Delete Device**.
- Show device
  Select which type of resources you want to display on the map.
- Move
  To move a device, click **Move** and then drag the device on the map.
- Select
  To select one or more devices, click **Select**, and then click the devices on the map one by one.
- Pane
  To select devices in batches, you can click **Pane**, and then draw a frame on the devices to select the device.
- Clear
  To clear all markings on the map, click **Clear**.
- Add Sub-map
  To add a sub map on the current map, click **Add Sub Map**, click on the map to locate it, enter a name, upload a map picture and then click **OK**.
- Map scale
  Select **Map Scale** > **Configure the map scale**, draw a line one the map, and then enter its actual distance.
- Length
  Select **Box** > **Length**, connect two points with a line on the map (double-click to finish drawing), and then the distance between the points is shown.

- Area
  Select **Box** > **Area**, select a region on the map (double-click to finish drawing), and then the area is measured.
- Add Mark
  Select **Box** > **Add Mark**, and then mark information on the map.
- Reset
  Select **Box** > **Reset** to restore the map to its initial position and zoom level.

### 5.2.3 Marking Devices

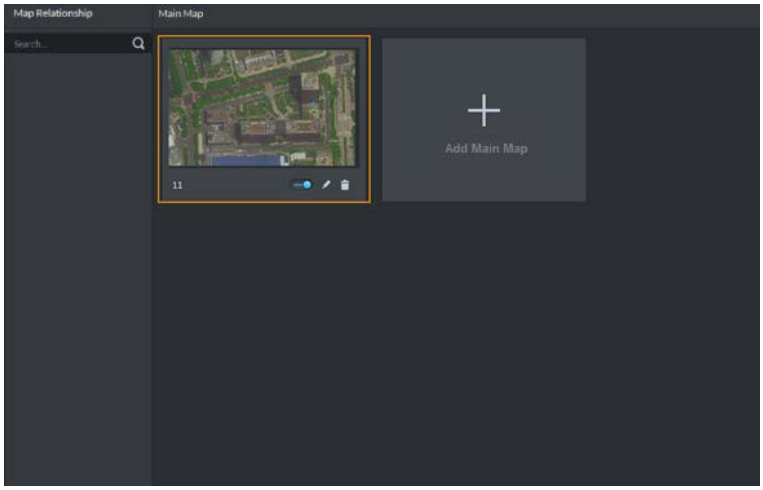
Link a device to the map by dragging it to the corresponding location on the map according to its geographical location.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Map**.

Step 2 Click the map.

Figure 5-3 Map




Step 3 Drag the device channel from the left device tree to the corresponding location of the map.

## 5.3 Personnel and Vehicle Management

Configure personnel and vehicle information for the applications of access control, vehicle control, and video intercom.

- Personnel information contains card number, password, face picture, and more. People bound with vehicle information will be displayed in the vehicle list.
- Vehicle information helps to confirm the entry of the vehicle into a certain area. Vehicle bound with personnel information will be displayed in the personnel list.

## 5.3.1 Adding Person and Vehicle Groups

Add person and vehicle groups to easily manage people and vehicles. People and vehicles use the same groups. Only administrators can add, edit, and delete person and vehicle groups.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click **Person List** or **Vehicle List**.

Step 3 Click , and then configure the parameters.

Table 5-5 Parameter description

| Parameter | Description |
|---|---|
| Parent Group | This is for permission control. For example, if a user cannot access Group A, then the user cannot access all the groups under Group A. |
| Group Name | Enter a name for the group. |
| Roles Allowed Access | Only the roles and their users can view this group.<br><br>Click to see the users assigned with the roles. |

Step 4 Complete configuration.

- Click **Add** to add the group and exit the page.
- Click **Save and Add Person** to add people to the group. For details, see "5.3.2 Configuring Personnel Information".

## 5.3.2 Configuring Personnel Information

Add people to the platform and grant them access to different access control devices, entrance and exits permissions, and more.

To collect fingerprints or card number, connect a fingerprint collector or card reader to the computer where the PC client is installed.

### 5.3.2.1 Adding a Person

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click .

Step 3 Click **Add**.

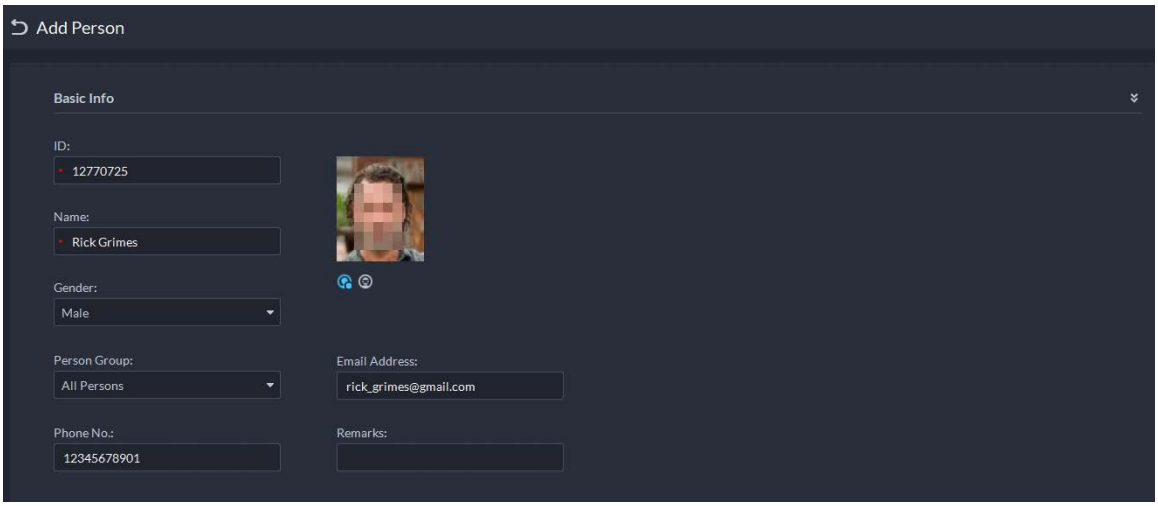
Step 4 Click the **Basic Info** tab to configure person information.

1) Hover over the profile, and then click **Upload** to select a picture or click **Snapshot** to take a photo.

- You can upload 2 pictures or take 2 snapshots.
- Click on the **Snapshot** page, and then you can select camera, pixel format, resolution, and image quality. These settings are only effective with the current client.

2) Enter personnel information as necessary. ID is required and must be unique. It can be up to 30 characters, and letter-number combination is also supported.

Figure 5-4 Personnel information




Only certain devices support the second picture or snapshot. The second picture or snapshot can be the person's face being blocked, such as wearing a mask or a hat.

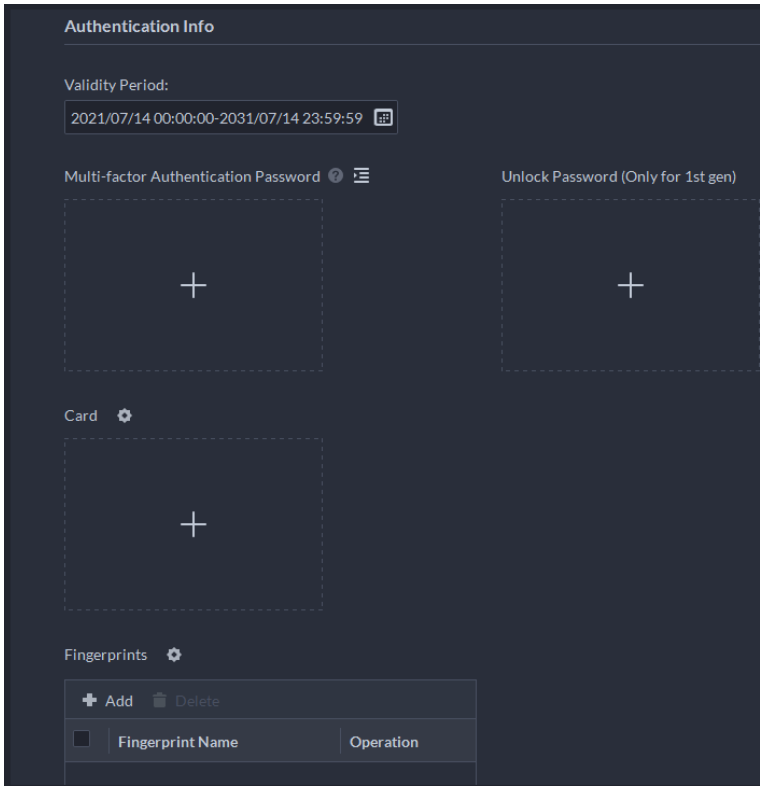
Step 5 Click », and then set person details as required, including nickname, ID, address, birthday, region, company, job title, and more.

Step 6 If the person is resident, Click » next to **Resident Info**, and then bind room number.

- **Room No.**: The number of the apartment in which this person lives. The room number is displayed in the access records and video intercom operation records. Access permission of the corresponding VTO is also included when authorizing access control permission to this person.
- **Homeowner**: When several people live in one apartment, you can set one of them as the homeowner.

Step 7 Click the **Authentication Info** tab, and then set validity period and access control information.

Figure 5-5 Authentication Info



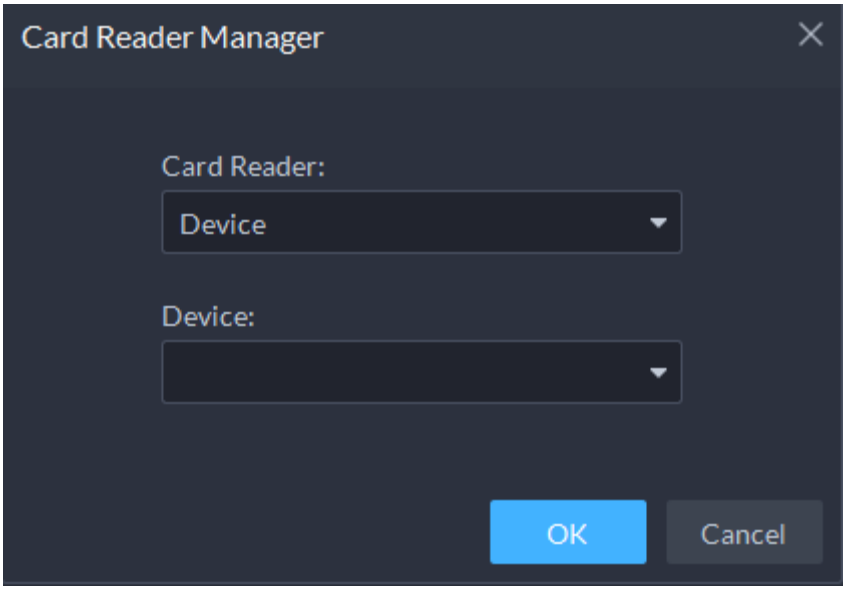

1) Configure effective periods, within which the face, card, password, and fingerprint are effective.
2) When access controllers are added and passwords are required to unlock the door, configure the password first.
   - A multi-factor authentication password must be used with a card, person ID, or fingerprint to unlock the door. It is only applicable to second-generation access control devices.
   - Click and you can set up an unlock password that can be used to directly unlock the door. It is only applicable to first-generation access control devices.

Step 8 Issue cards to personnel.

One person can have up to 5 cards. There are two ways to issue cards: by entering card No. or by a card reader. A card number is 8-16 numbers. Only second-generation access control devices support 16-digit card numbers. When a card number is less than 8 numbers, the system will automatically add zeros prior to the number to make it 8 digits. For example, if the provided number is 8004, it will become 00008004. If there are 9-16 numbers, the system will not add zero to it.

- Issue a card through a card issuer or a device with a card reader.
  1. Click next to **Card**, select a card issuer or a reader of a device, and then click **OK**.

Figure 5-6 Card reader manager




2. Click , swipe a card on the device you select, the card number will be recognized and displayed.
3. Click .

- Manually enter the card number.
  Click , enter card number, and then click .

Figure 5-7 Reader manager

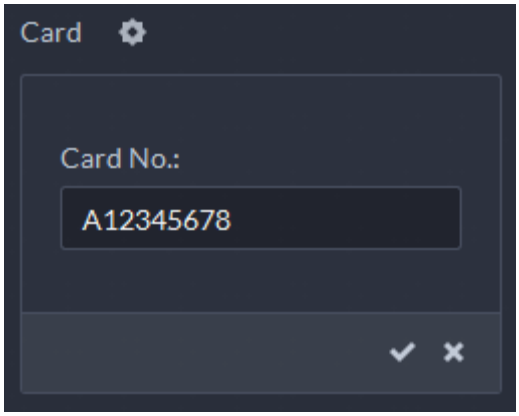



Table 5-6 Card operations

| Icon | Description |
|---|---|
| | If a person has more than one card, only the main card can be issued to the first-generation access control device. The first card of a person is the main card by default.<br>Click on an added card, the icon turns into , which indicates that the card is a main card. |
| | Set a card as duress card. When opening door with a duress card, there will be a duress alarm.<br>Click this icon, it turns into , and is displayed at upper right, which indicates that the card is set as a duress card. To cancel the duress setting, click . |
| | Change card for the person when the current card does not work. |
| | Remove the card, and then it has no access permissions. |

Step 9 Collect one or more fingerprints of the person.

To open doors with fingerprints, you need to collect the fingerprints from the person. A person can have up to 3 fingerprints.

1) Click next to **Fingerprint**.
2) Click **Add**.
3) Select a fingerprint collector from the **Fingerprint Collector** drop-down list, and then click **OK**.
4) Click **Add**.

Figure 5-8 A collected fingerprint

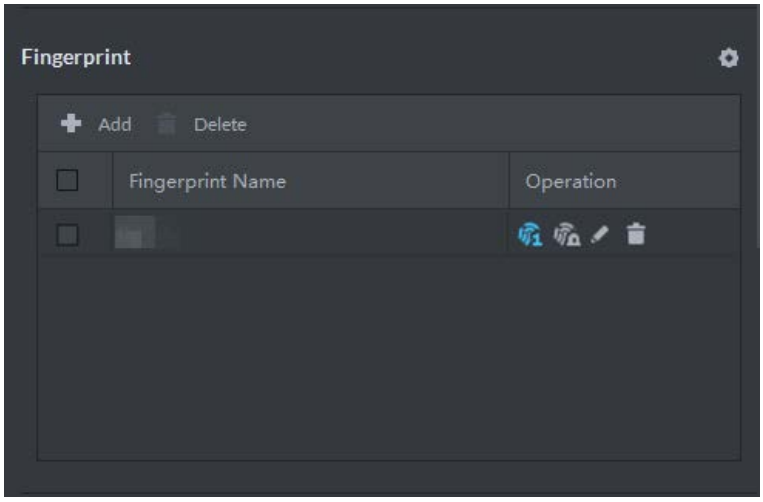



Table 5-7 Fingerprint operations

| Icon | Description |
|---|---|
| | One can have 3 fingerprints, but only these fingerprints can be issued to devices. Click this icon, and then it turns into , which indicates that this fingerprint has been set as a main one. To cancel the main fingerprint setting, click . |
| | Set a fingerprint as duress fingerprint. When opening door with a duress fingerprint, there will be a duress alarm. Click this icon, it turns into , which indicates that the fingerprint has been set as a duress fingerprint. To cancel the duress setting, click . |
| | Modify fingerprint name. |
| | Remove the fingerprint, and then it has no access permission. |

Step 10 If the person has one or more vehicles, click next to **Vehicle Information** to add vehicle information, so that you can grant access permissions to this person's vehicles later.

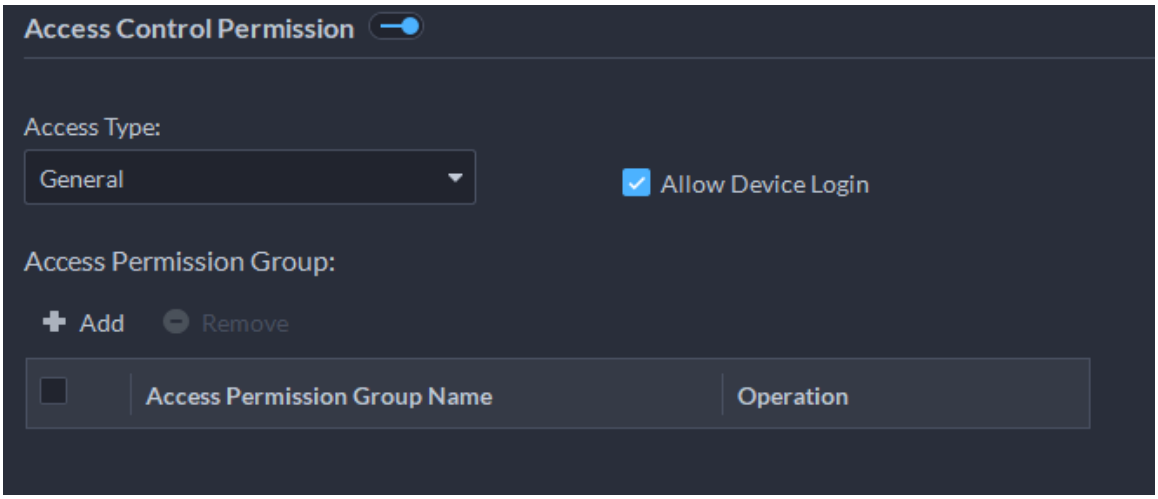
- If vehicles have been added to the platform, click **Select from Vehicle List**, and then select the vehicles for this person.
- If vehicles have not been added to the platform, click , and then enter the plate number, and select a color and brand.

Step 11 If the person needs access control permission, enable the permission first.

1) Click next to **Access Control Permission**.

2) Select **Access Type**, and select **Allow Device Login** check box as needed.
   - **Allow Device Login**: People have permission to go into web page from the device.
   - Select **General** if you want to set the person to be a first-card user.
3) Click **Add**, and then select access control permission group. For details, see "5.4.1.1 Creating Face Comparison Group".

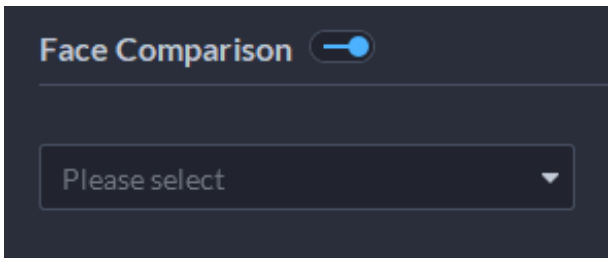
Figure 5-9 Add to access control permission group




Step 12 Enable **Face Comparison** to recognize the person by images.

1) Click next to **Face Comparison**.
2) Select a face comparison group.

Figure 5-10 Face comparison

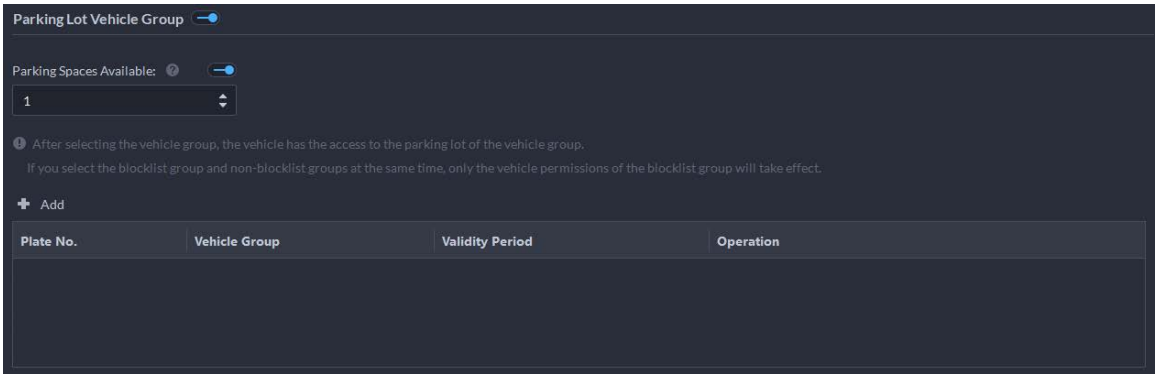



You need to create a face comparison group first.

Step 13 If the vehicle needs access to the parking lot, enable and configure **Vehicle Group** first.

1) Click next to **Parking Lot Vehicle Group**.
2) Enable **Parking Space Available** and configure the number of the parking space for the vehicle owner.
3) Click **Add** to select a vehicle of the person, and then select which vehicle group it belongs to, and for how long it has permission to park in the parking lot.

Figure 5-11 Parking lot vehicle group




Step 14 Click **OK**.

To delete a person, you can select the person, and then click ; to delete all people on this page, select the **Select All** check box, and then click **Delete**.

## Related Operations

- To edit basic information of a person, select the person, and then click .
- To delete a person:
  - Click to delete a person and associated permissions.
  - Select multiple people, and then click **Delete** to delete them and their permissions.
  - Click **Delete All** to delete all the people and their permissions in the group.
- To view authorization exception, click .
- To search for a person, enter key words in the ID/Name/Plate No. .

# 5.3.2.2 Importing Multiple Persons

To quickly add a number of personnel, you can download a personnel template, fill in it and then import it to the platform. You can also import an existing personnel file.

## Prerequisites

Prepare an .xlsx file that includes the information of the people you want to import, their face images (optional), and then compress them into a zip file. The .xlsx file can include information of up to 5,000 people. The zip file cannot be larger than 1 GB.

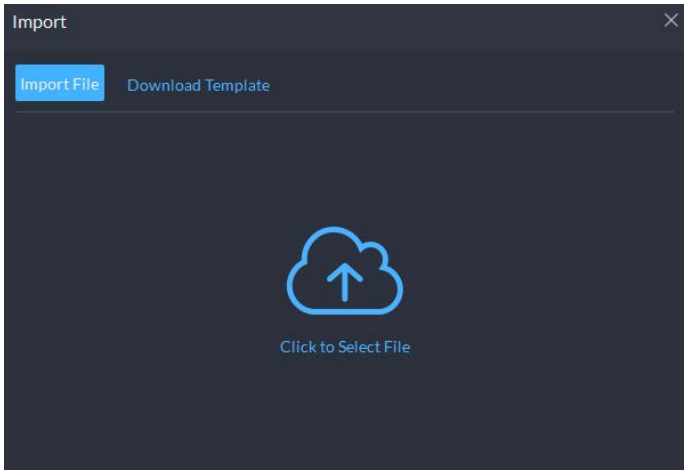
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click .

Step 3 Select **Import** > **Import from File**.

Figure 5-12 Import personnel information




Step 4 Import the personnel information file.

If there is no personnel information file, click **Template Download** and follow the instructions on the page to create personnel information.

Step 5 Click **OK**.

The following cases might occur during an import:

- If there are failures, you can download the failures list to view details.
- Read carefully the instructions in the template to make sure all the information is correct.
- Cannot read the contents with a parsing error reported directly.

## Related Operations

- Export personnel information.
  Select an organization, click **Export**, and then follow the instructions on the page to save the exported information to a local disk.
- Download template.
  To add personnel information in batches, you can download the template, fill in the information, and then import it.

## 5.3.2.3 Extracting Personnel Information

When personnel information has been configured on access control devices or door stations, you can directly synchronize the information to the platform.

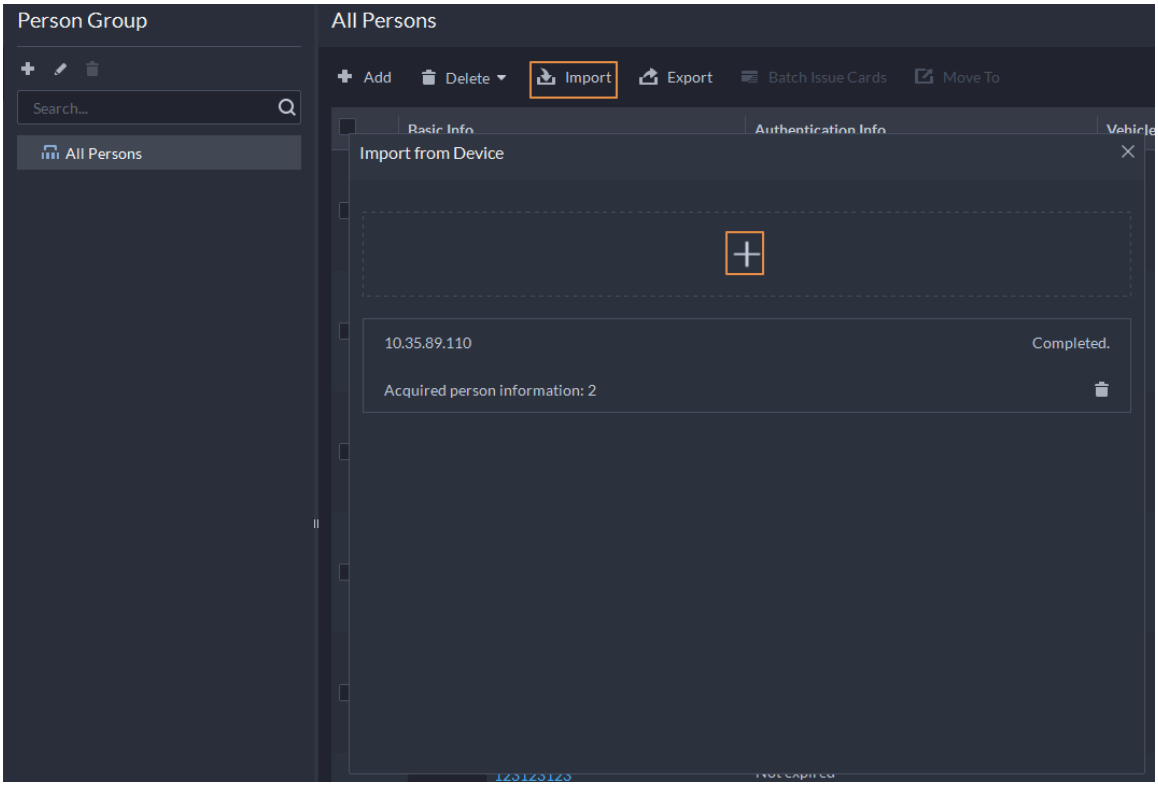
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click .

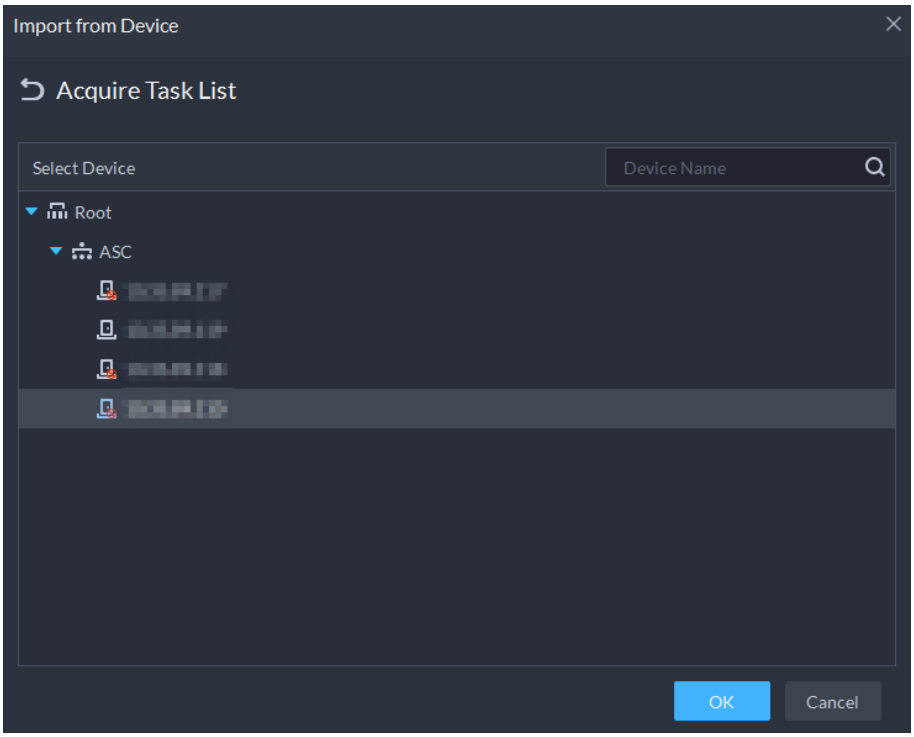
Step 3 Click **Import**, and then select **Import from Device**.

Figure 5-13 Import from device




Step 4 Click , select a channel from an access control device or door station, and then click **OK**.

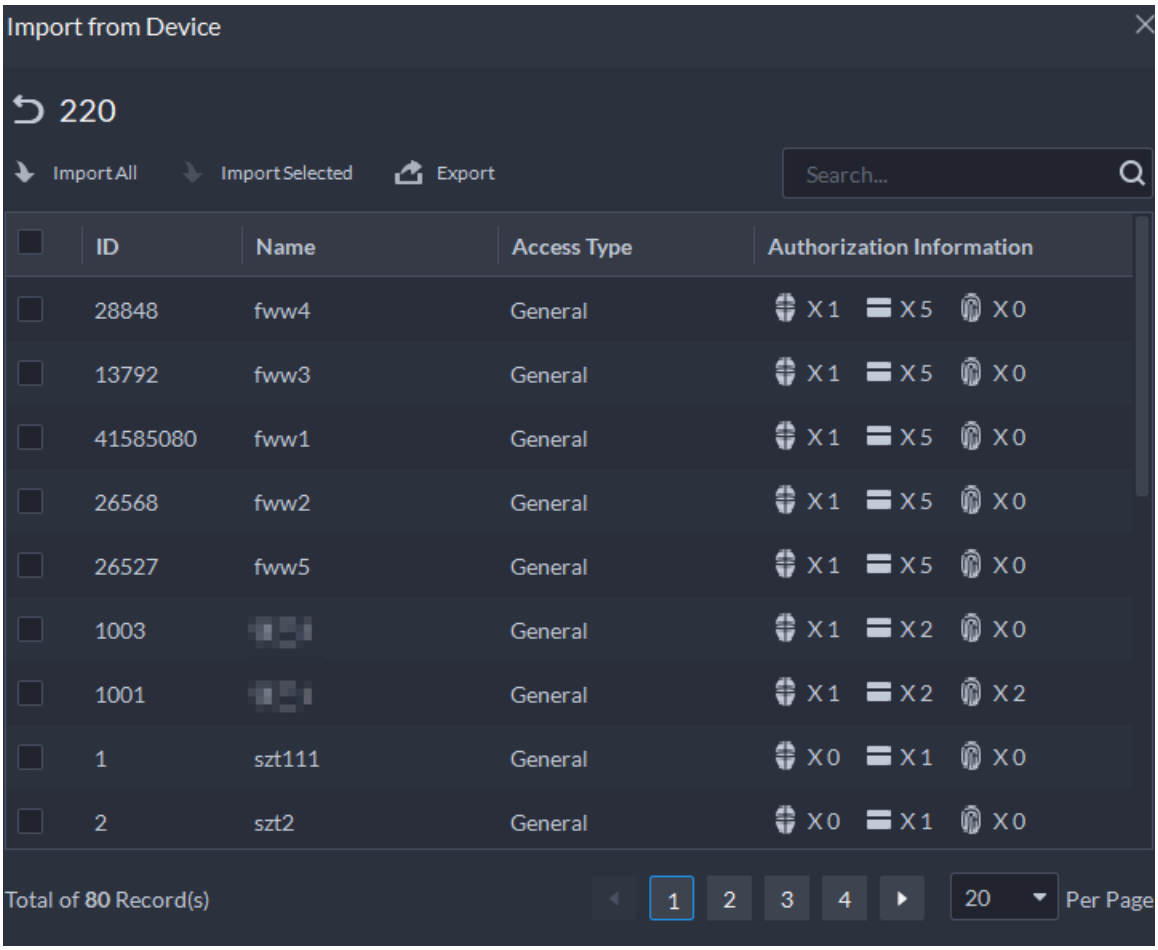
Figure 5-14 Extract task list




Step 5 Double-click a result to view the detailed information.

Step 6 Synchronize personnel information to the platform, or export information.

Figure 5-15 Personnel extraction results




- To add all the personnel information to the platform, click **Import All**.
- To add part of the information, select the people of interest, and then click **Import selected.**
- To export information, select the people you want, and then click **Export**.

## 5.3.2.4 Issuing Cards in Batches

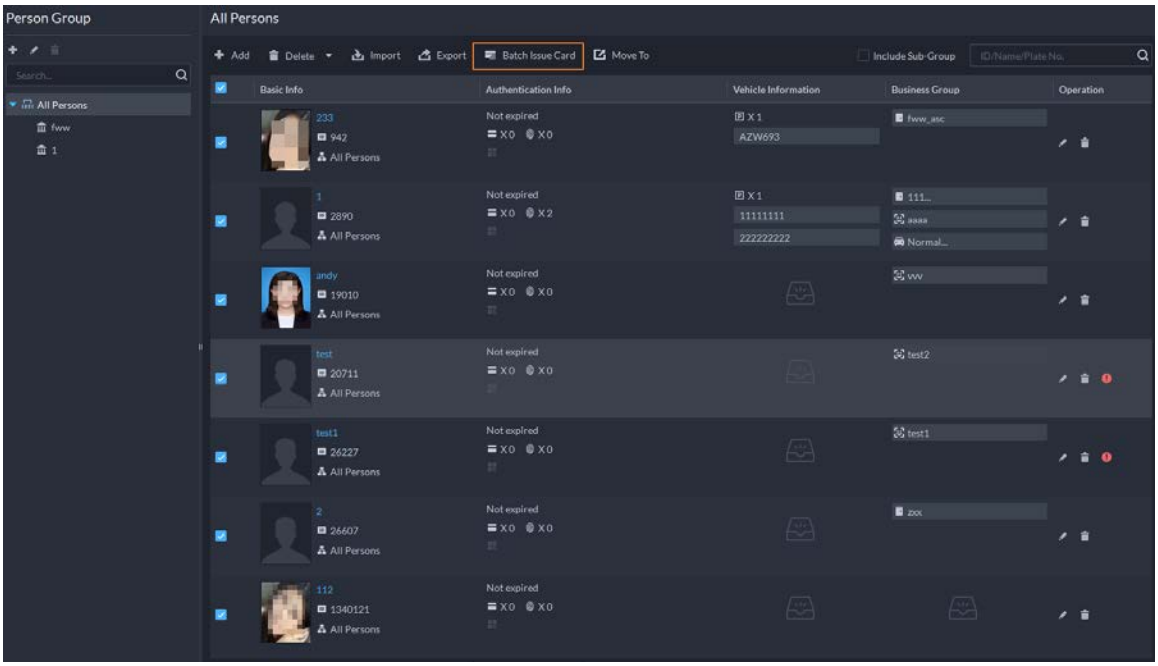
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click .

Step 3 Select the people to issue card to, and then click **Batch Issue Card**.

Figure 5-16 Issue card in batches



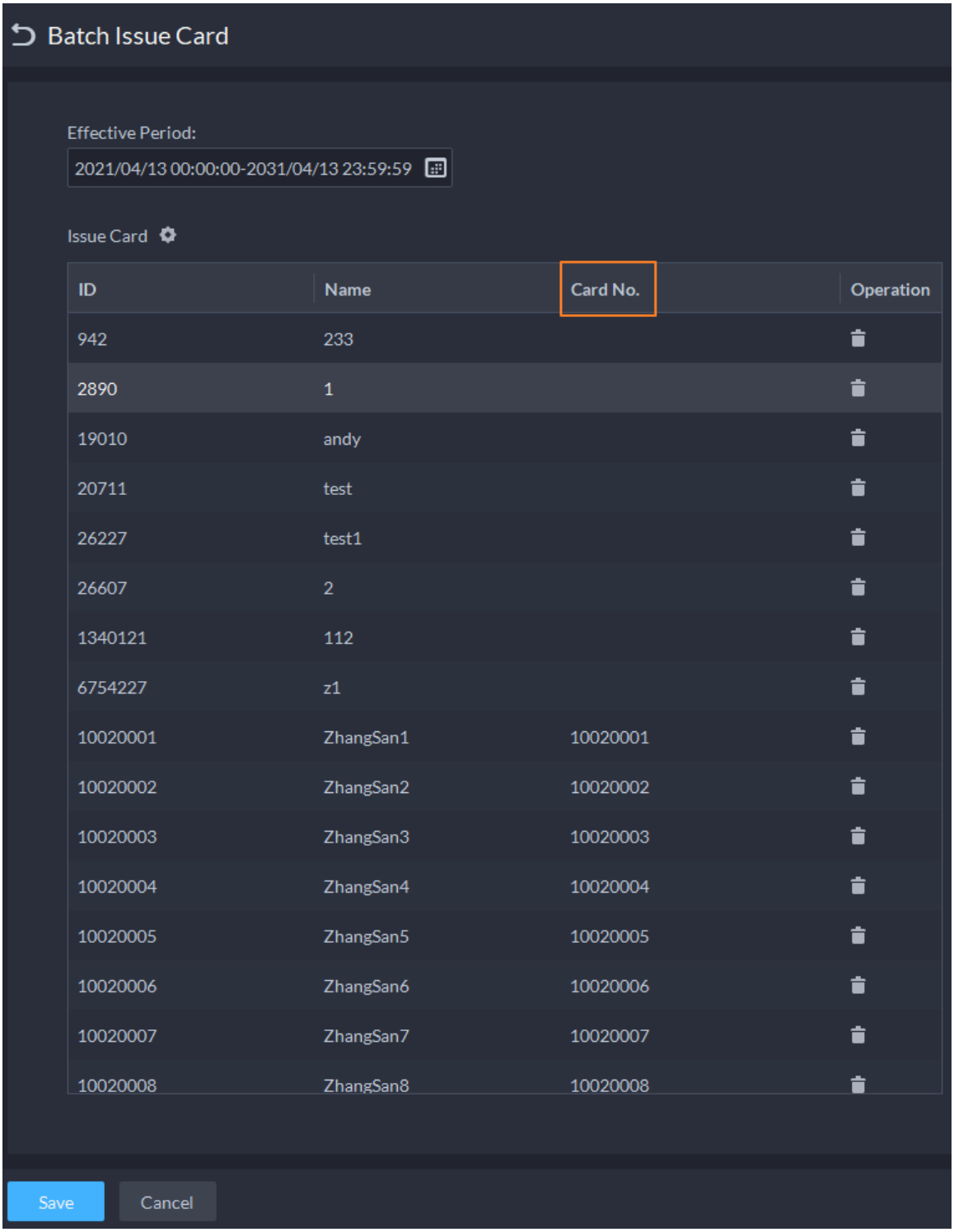

Step 4 Set term of validity.

Step 5 Issue cards to personnel.

Step 6 Support issuing cards by entering card number or by using a card reader.

- By entering card number

Figure 5-17 Enter card number

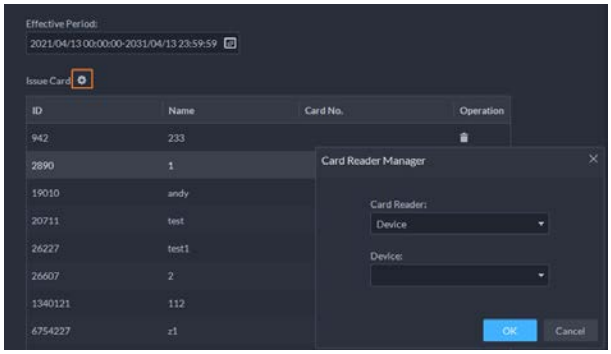



1) Double-click the **Card No.** input boxes to enter card numbers one by one.
2) Click **OK**.

- By using a card reader

1) Click .
2) Select a card reader or device, and then click **OK**.

Figure 5-18 Reader manager




3) Select people one by one and swipe cards respectively until everyone has a card number.
4) Click **OK**.

### 5.3.2.5 Editing Person Information

Modify personnel information including basic information, authentication details, and authorization. Person ID cannot be modified.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**.

Step 2 Click .

Step 3 Click to edit information. For details, see "5.3.2.1 Adding a Person".

## 5.3.3 Vehicle Management

Manage vehicle information including vehicle type, owner, entry and exit permissions and arming groups.

#### Procedure

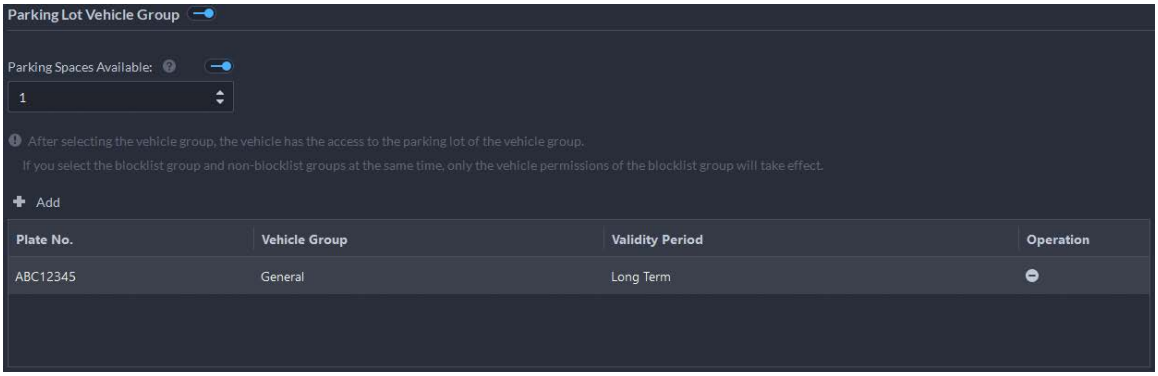
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Personal and Vehicle Info**..

Step 2 Click .

Step 3 Click **Add** to add vehicle information.

- Add vehicles one by one
  1. In the **Owner Info** section, click **Select from Person List** to select the owner of the vehicle.
  2. Configure the information of the vehicle in the **Vehicle Info** section, such as the vehicle group, plate number (required and unique), vehicle color, brand and more. If you have selected an owner, you can add multiple vehicles.
  3. Click to enable **Parking Lot Vehicle Group**, and then you can set the available parking spots for the selected person, and grant access permissions by adding vehicles into entrance and exit vehicle groups.

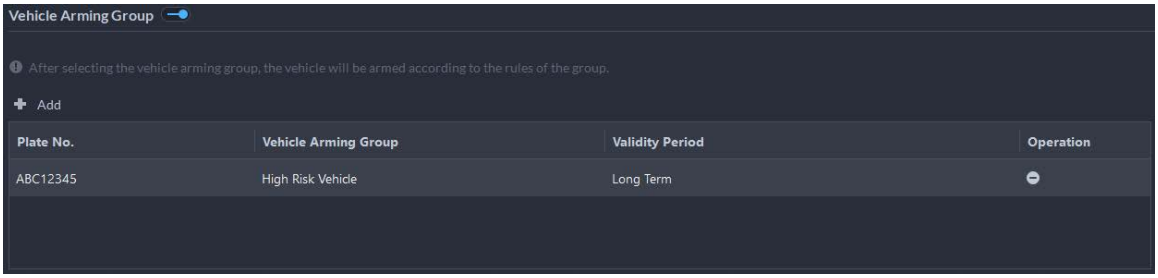
Figure 5-19 Parking lot vehicle group




If the owner has more vehicles than the set parking spots, once no parking spots available, owner cannot access the parking lot.

4. Click to enable **Vehicle Arming Group**, and then click **Add** to arm the vehicles you have just added.

Figure 5-20 Vehicle arming group




For arming group details, see "5.4.2.1 Creating Vehicle Arming Group".

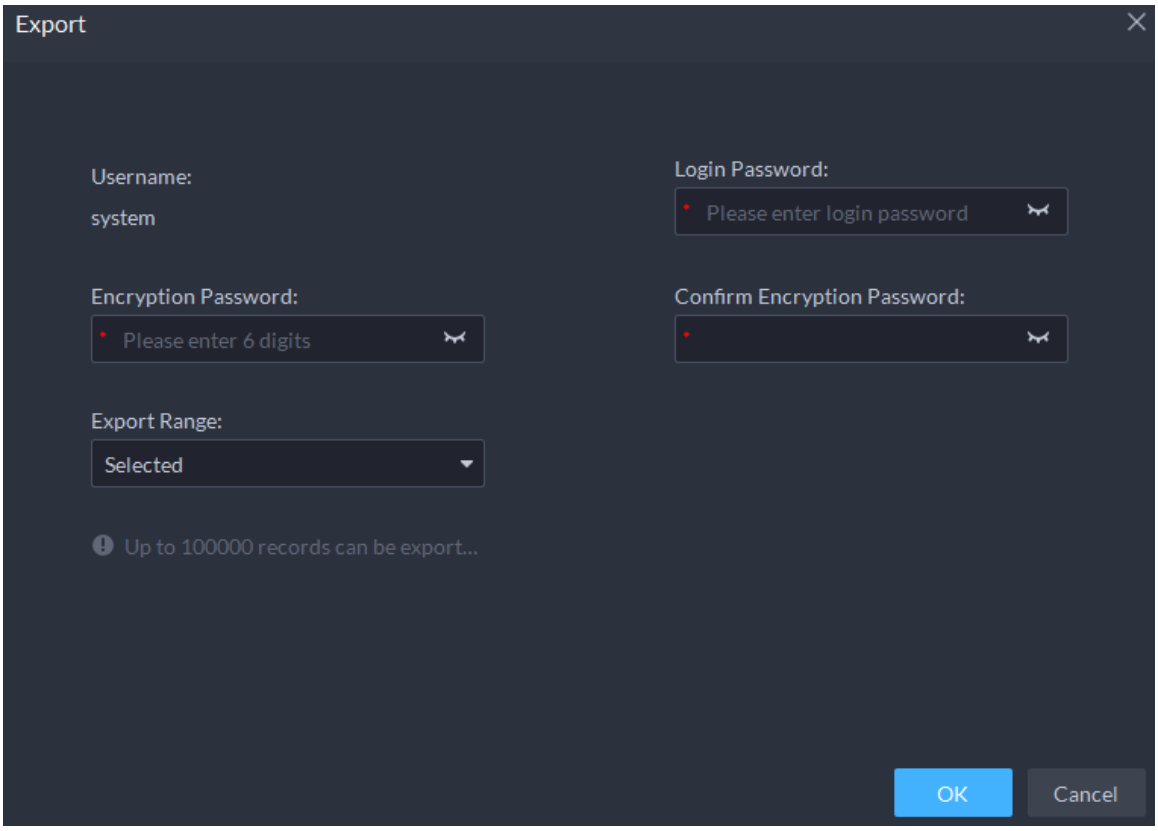
- Add vehicles in batches
  1. Click **Import** at the top, and then click **Template Download**.
  2. Fill in the template, and then select **Import** > **Import File**. Click to select the file and import.

The platform supports downloading files that failed to import for you to check and fix.

Step 4 Click **OK**.

Step 5 (Optional) You can export vehicle information to local storage as needed.

Figure 5-21 Export vehicle information




- Click **Export** and then enter required information, such as passwords for login and encryption, to export all the items.
- Select vehicles, and then click **Export** to export only the selected information.

### Related Operations

- You can search vehicles by entering keywords in search box at the upper-right corner.
- Click or double-click the column to edit the vehicle information.
- Click to delete vehicles one by one. You can also select multiple vehicles and then click **Delete** at the top to delete in batches.

## 5.4 Watch List Configuration

Configure face and vehicle watch list for future investigation.

- For face watch list, you can create and arm face comparison groups to recognize faces.
- For vehicle watch list, you can create vehicle comparison groups, add vehicles and then link devices for plate recognition.

## 5.4.1 Face Watch List

Configure face watch list and issue the list to devices for recognition and alarm.

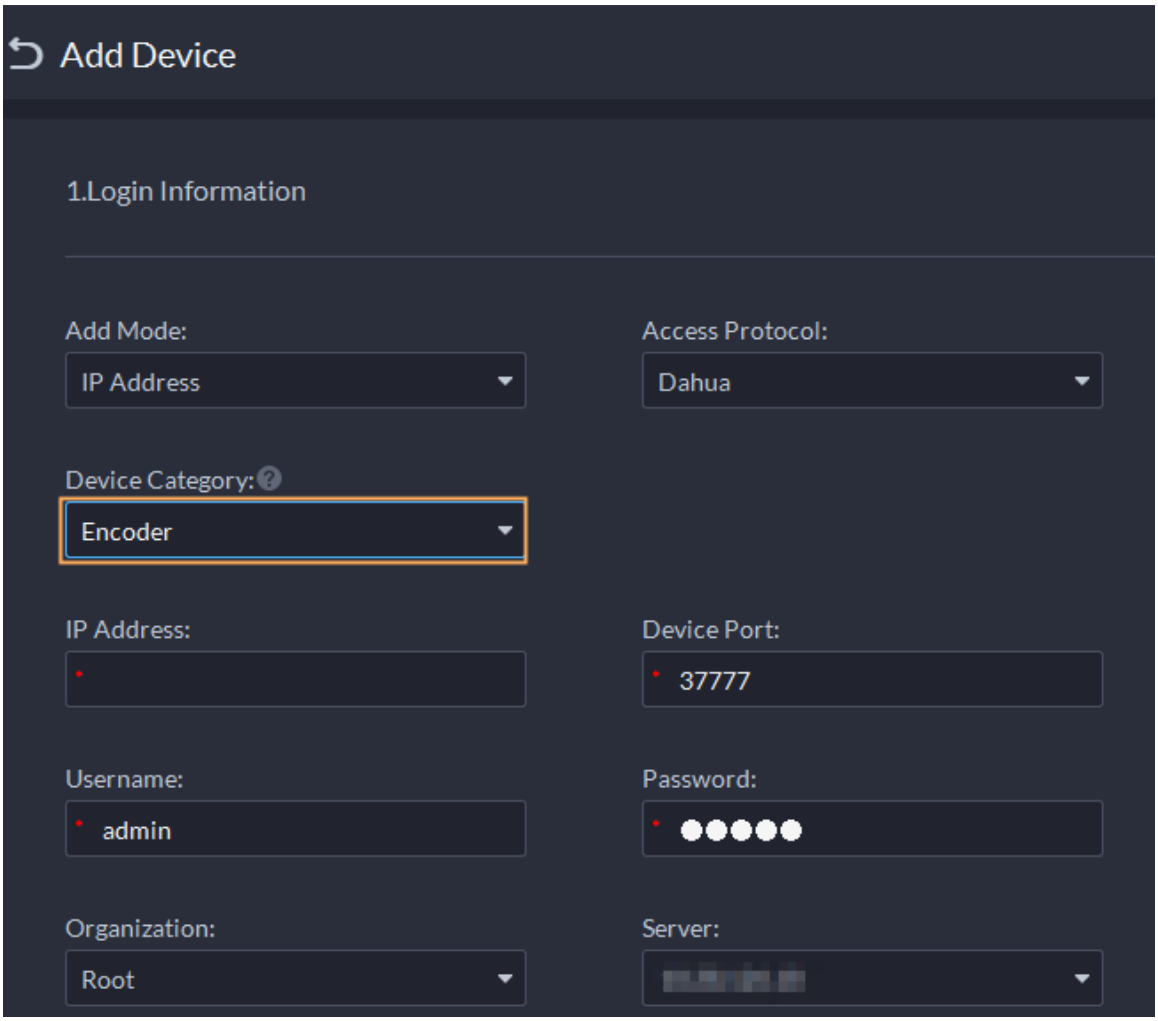
### 5.4.1.1 Creating Face Comparison Group

Only administrators can add, edit, and delete person and face comparison groups.

#### Prerequisites

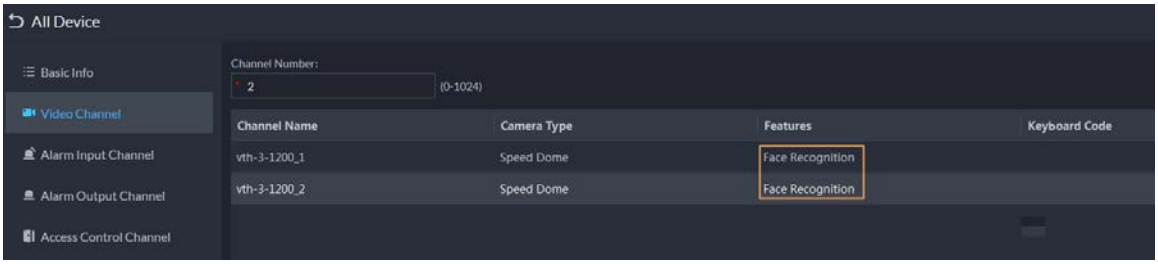
- Make sure that the devices for face recognition have been successfully configured onto the Platform.
- Make sure that the basic configuration of the Platform has completed. For details, see "4 Basic Configurations". During the configuration, you need to pay attention to following parts.
  - ◇ When adding devices on the **Device** page, set the **Device Category** to **Encoder**.

Figure 5-22 Device category




  - ◇ When adding devices like NVR or IVSS which support face recognition, set the device feature to **Face Recognition**. For details, see "4.2.2.5 Editing Devices".

Figure 5-23 Feature configuration




- Make sure that you have configured at least one disk with the type of **Images and Files** to store face images. Otherwise, the snapshots cannot be displayed.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Watch List** > **Face Watch List**.

Step 2 Click **Add**, and then configure the parameters.

Table 5-8 Parameter description

| Parameter | Description |
|---|---|
| Face Comparison Group Name | Enter a name for the group. |
| Color | You can use colors to quickly differentiate each group. For example, red indicates key targets. |
| Roles Allowed Access | Only the roles and their users can view this group.<br><br>Click to see the users assigned with the roles. |

Step 3 Click **Add**.

## 5.4.1.2 Adding Faces

Add people to face comparison groups. Their faces will be used for face comparison.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Watch List** > **Face Watch List**.

Step 2 Click of a group you want to add people to it.

- Add people by person groups. This is the most efficient way, provided that you have created person groups based on the access permissions. For details, see "5.3.2 Configuring Personnel Information".
  Click **Add by Person Group**, select one or more groups, and then click **OK**. You can also select **Include Sub Groups** to include the people in the sub groups of the groups you select.
- Select the people you want to add. This is applicable to people in different person groups have the same access permissions.
  Click **Add by Person**, select the people you want to add, and then click **OK**.

### 5.4.1.3 Arming Faces

The faces of the people in comparison groups will be sent to devices for real-time face recognition. If the similarity reaches the defined threshold, alarms will be triggered.

## Procedure

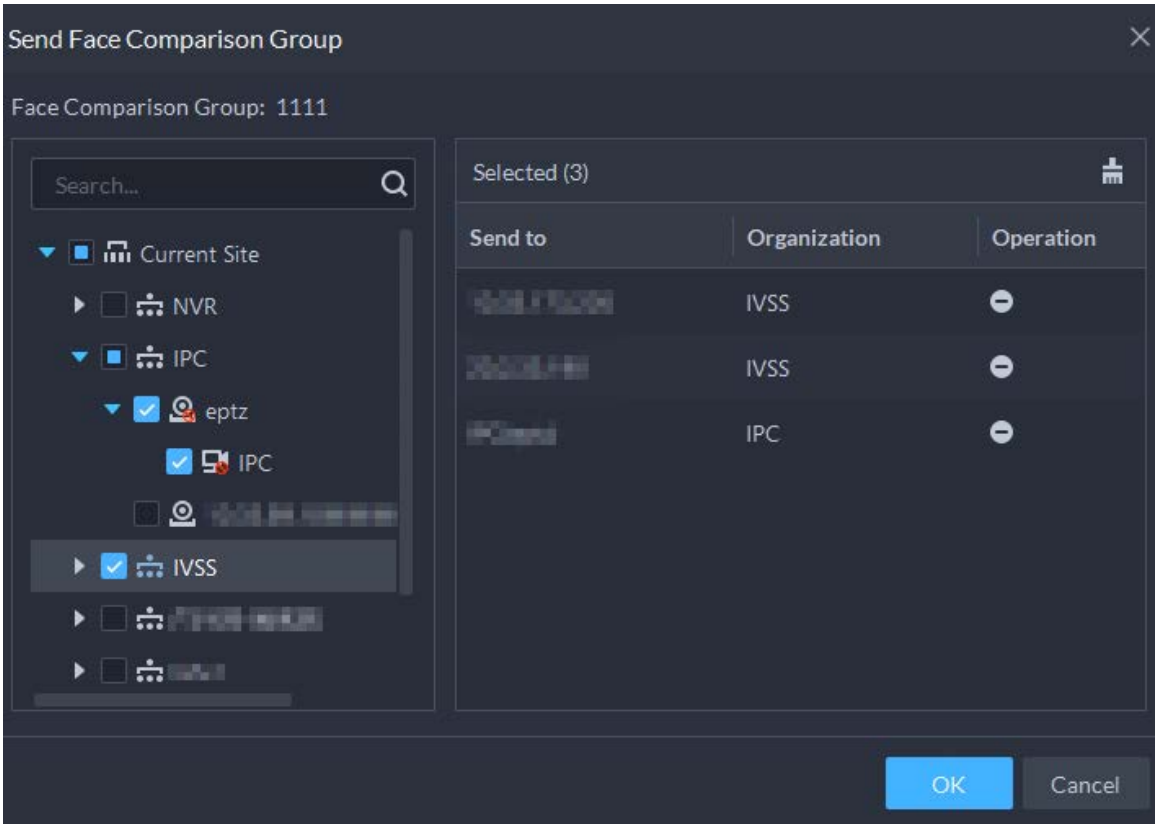
Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Watch List** > **Face Watch List**.

Step 2 Click of the face comparison group you want to arm.

Step 3 Click **Add**, select one or more devices or channels, and then click **OK**.

The platform will send the information of the face watch list to the devices and channels you selected, and display the progress. If exceptions occur, you can click to see the reason.

Figure 5-24 Send face comparison group

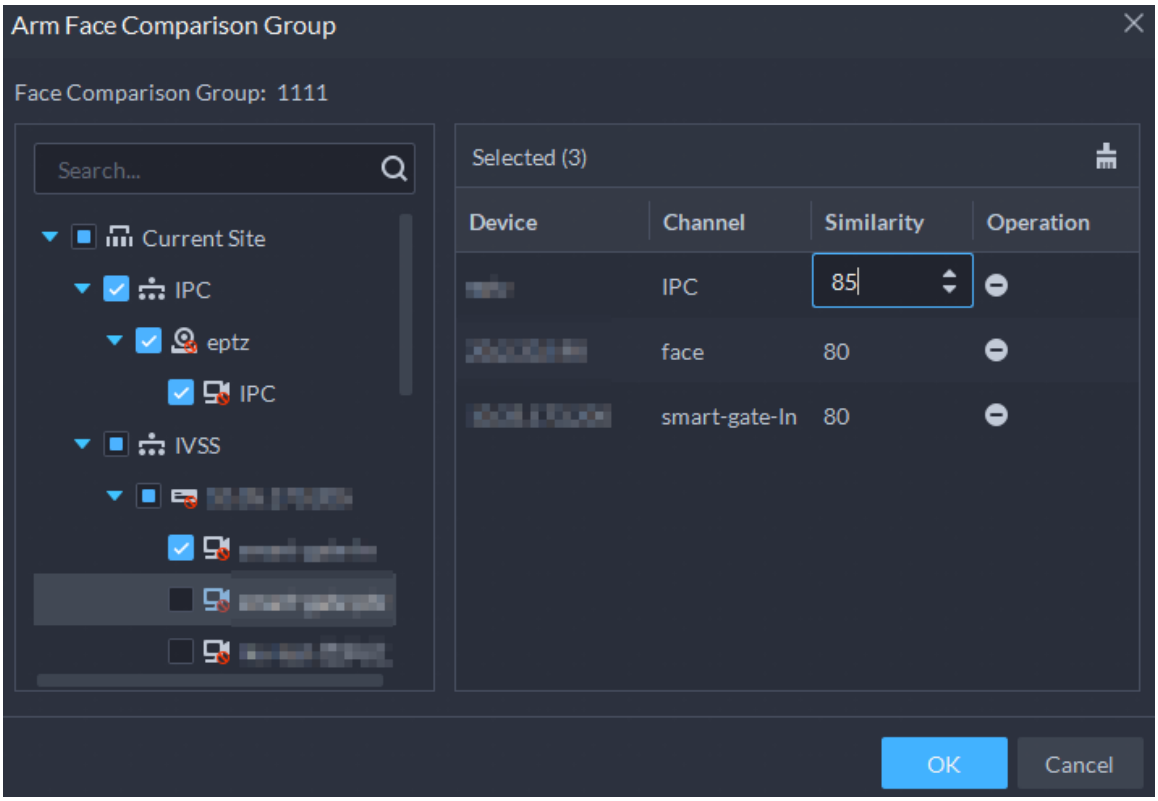



Step 4 After the face watch list is successfully sent, click **Next Step**.

Step 5 Click **Add**, select the channels you want to arm, and then configure the similarity for each channel.

When the similarity between the face captured by the channel and a face in the face watch list reaches or is greater than the defined value, it is considered a match.

Figure 5-25 Arm face comparison group




Step 6 Click **OK**.

Step 7 (Optional) View exceptions and arm the face comparison group again.

1) Click to view why arming failed and address the issue.
2) Click **Send Again** to arm the face comparison group again.

## 5.4.2 Vehicle Watch List

Create a vehicle comparison group and add vehicles to it. After a vehicle comparison group is sent to ANPR cameras for recognition, alarms will be triggered if the vehicles in the group are captured and recognized.

### 5.4.2.1 Creating Vehicle Arming Group

A vehicle arming group contains the information of multiple vehicles. When arming the group, you can arm all the vehicles inside the group at the same time. Only administrators can add, edit, and delete person and face comparison groups. You can add up to 8 vehicle arming groups.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then click **Watch List** > **Vehicle Watch List**.

Step 2 Click **Add**, and then configure the parameters.

Table 5-9 Parameter description

| Parameter | Description |
| --- | --- |
| Vehicle Arming Group Name | Enter a name for the group. |
| Color | You can use colors to quickly differentiate each group. For example, red indicates key targets. |
| Roles Allowed Access | Only the roles and their users can view this group.<br>Click to see the users assigned with the roles. |

Step 3 Click **Add**.

## 5.4.2.2 Adding Vehicles

Add vehicles to vehicle arming groups. After armed, devices will recognize their plate numbers and trigger alarms.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then click **Watch List** > **Vehicle Watch List**.

Step 2 Click of a group, or double-click a group, an then click **Select from Vehicle List**.

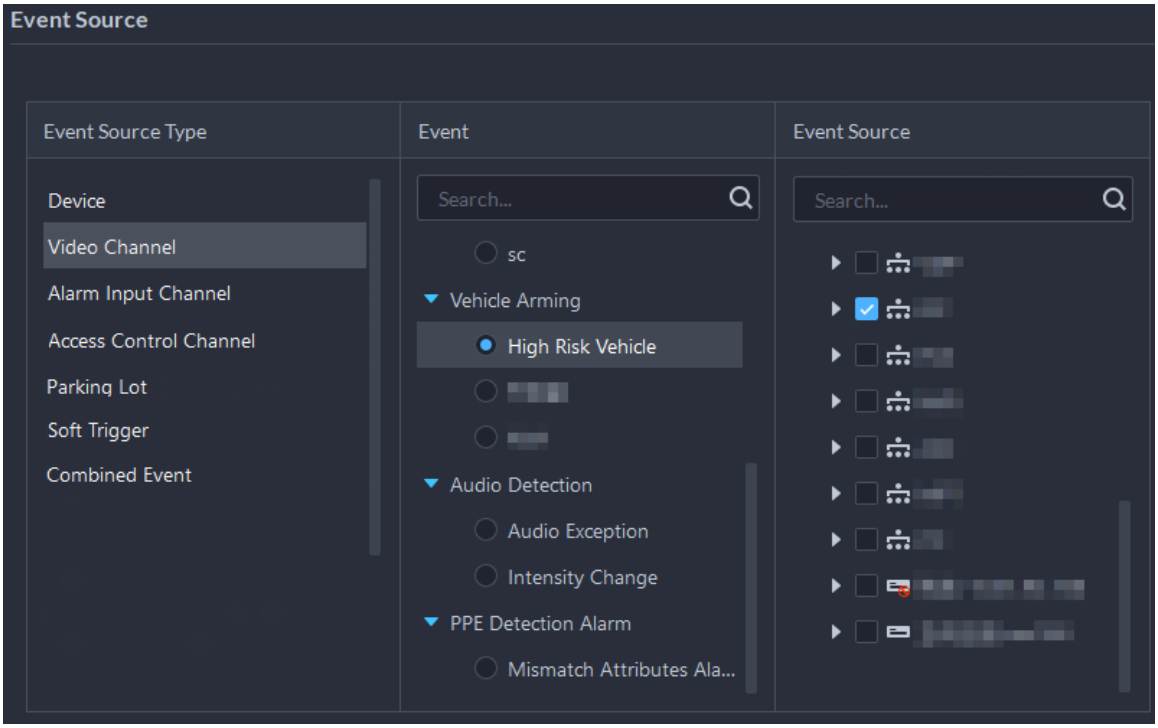
- Add vehicles by vehicle groups. This is the most efficient way, provided that you have created vehicle groups. For details, see "5.3.2 Configuring Personnel Information".
  Click **Add by Vehicle Group**, select one or more groups, and then click **OK**. You can also select **Include Sub Groups** to include the vehicles in the sub groups of the groups you select.
- Select the vehicles you want to add. This is applicable to vehicles that you want to add are in different vehicle groups.
  Click **Add by Vehicle**, select the vehicles you want to add, and then click **OK**.

## 5.4.2.3 Arming Vehicles

The plate numbers of the vehicles in comparison groups will be sent to devices for real-time recognition and trigger alarms.

Log in to the DSS Client. On the **Home** page, click , and then arm the vehicle on the **Event** page. Click **Add** to add an event to arm a vehicle watch list. For how to configure events, see "5.1 Configuring Events".

Figure 5-26 Arm vehicle event




# 5.5 Access Control

Issue cards, collect fingerprints and face data, and apply permissions, so that the authorized people can open door by using card, face or fingerprint.

## 5.5.1 Preparations

Make sure that the following preparations have been made:

- Access control devices are correctly deployed. For details, see the corresponding user's manual of the device.
- Basic configurations of the platform have been finished. See "4 Basic Configurations" for details.
  - When adding access control devices, select **Access Control** for device category.
  - (Optional) On the **Bind Resource** page, bind video channels for access control channels.
  - Personnel information is added correctly. For details, see "5.3 Personnel and Vehicle Management".

## 5.5.2 Configuring Door Groups

Door groups allow you to easily manage access permissions by granting them to people in batches. A normal user can only access a door group if it can access all the channels in the group. Administrators can access all door groups by default. You can add up to 50 door groups.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Door Groups**.

Step 2 Click add, and then enter the group name, select a time template and a holiday schedule, select device channels, and then click **OK**.

After the time template and channels are configured, people assigned with the permission can only unlock the doors during the defined periods.

- In the **Time Template** drop-down list, select **Create Time Template**. For details, see "4.2.5 Adding Time Template".
- If you have added holiday plans, select one in the **Holiday Plan** drop-down list. You can also create new holiday plans. For details, see "5.5.8 Configuring Holiday Plans".

## 5.5.3 Configuring Access Permission Groups

By adding multiple door groups to an access permission group, you can quickly assign people permissions to access all the channels in the door groups. Only administrators can edit the door groups in access permission groups.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Access Permission Group**.

Step 2 Click **Add**, and then configure the parameters.

Table 5-10 Parameter description

| Parameter | Description |
|---|---|
| Access Permission Group Name | Enter a name for the group. |
| Door Groups | Select one or more door groups. |
| Roles Allowed Access | Only the roles and their users can access this group.<br><br>Click to see the users assigned with the roles. |

Step 3 Click **OK**.

Step 4 Click and select people to grant them access to the access control channels in batches.

- Add people by person groups. This is the most efficient way, provided that you have created person groups based on the access permissions. For details, see "5.3.2 Configuring Personnel Information".

  Click **Add by Person Group**, select one or more groups, and then click **OK**. You can also select **Include Sub Groups** to include the people in the sub groups of the groups you select.
- Select the people you want to add. This is applicable to people in different person groups have the same access permissions.

  Click **Add by Person**, select the people you want to add, and then click **OK**.

## 5.5.4 Configuring Public Passwords

Anyone with a pubic password can unlock associated doors. You can add up to 1,500 passwords.

Only second-generation access control devices and video intercom devices support this function.

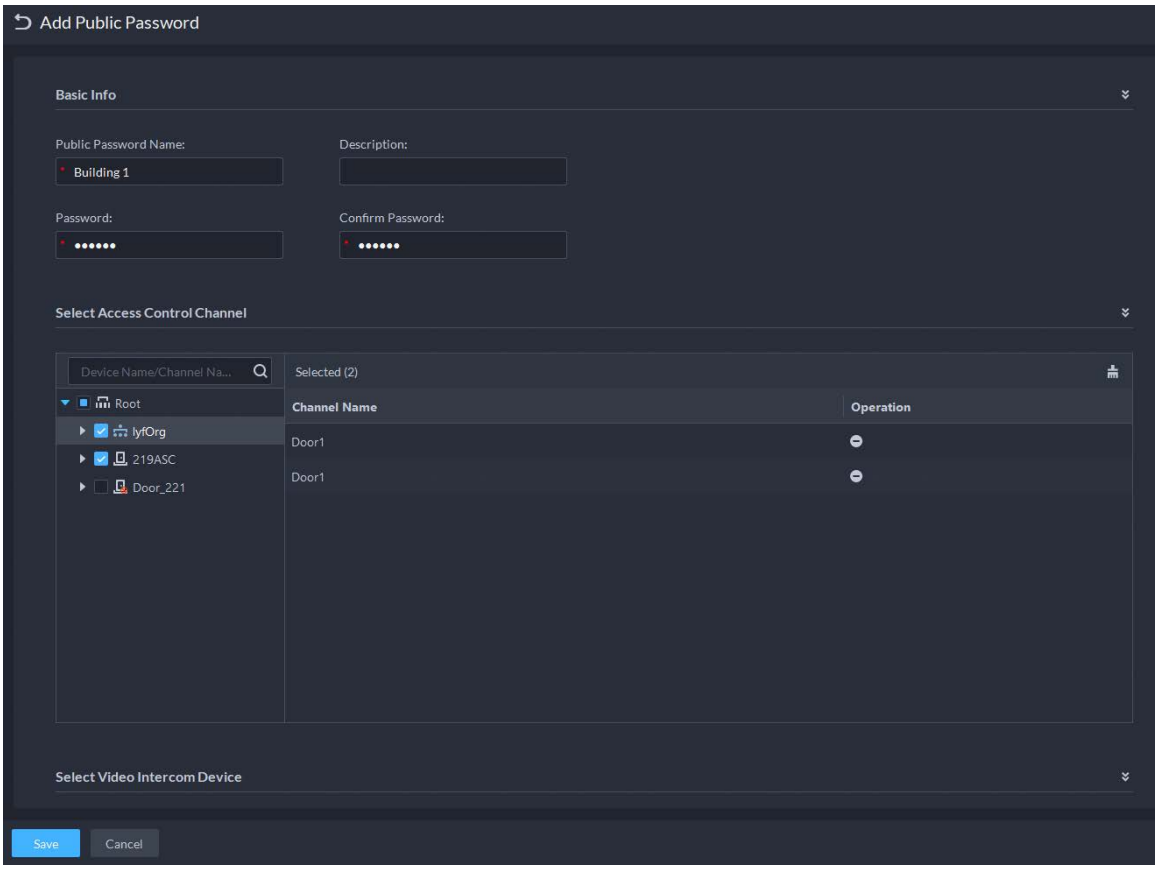
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Door Groups**.

Step 2 Click .

Step 3 Click **Add**, enter a name and a password, and then select the access control channels and video intercom devices as needed.

Figure 5-27 Add a public password




Step 4 Click **Save**.

## 5.5.5 Anti-passback

The anti-passback feature requires a person to enter and exit from the specific doors. For the same person, an entry record must pair with an exit record. If someone has entered by tailing someone else, which means there is no entry record, this person cannot unlock the door to exit.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Door Groups**.

Step 2 On the **Access Control** page, click .

Step 3 Click the **Anti-passback** tab.

Step 4 Click **Add**.

Step 5 Configure the parameters, and then click **OK**.

Figure 5-28 Anti-passback parameters

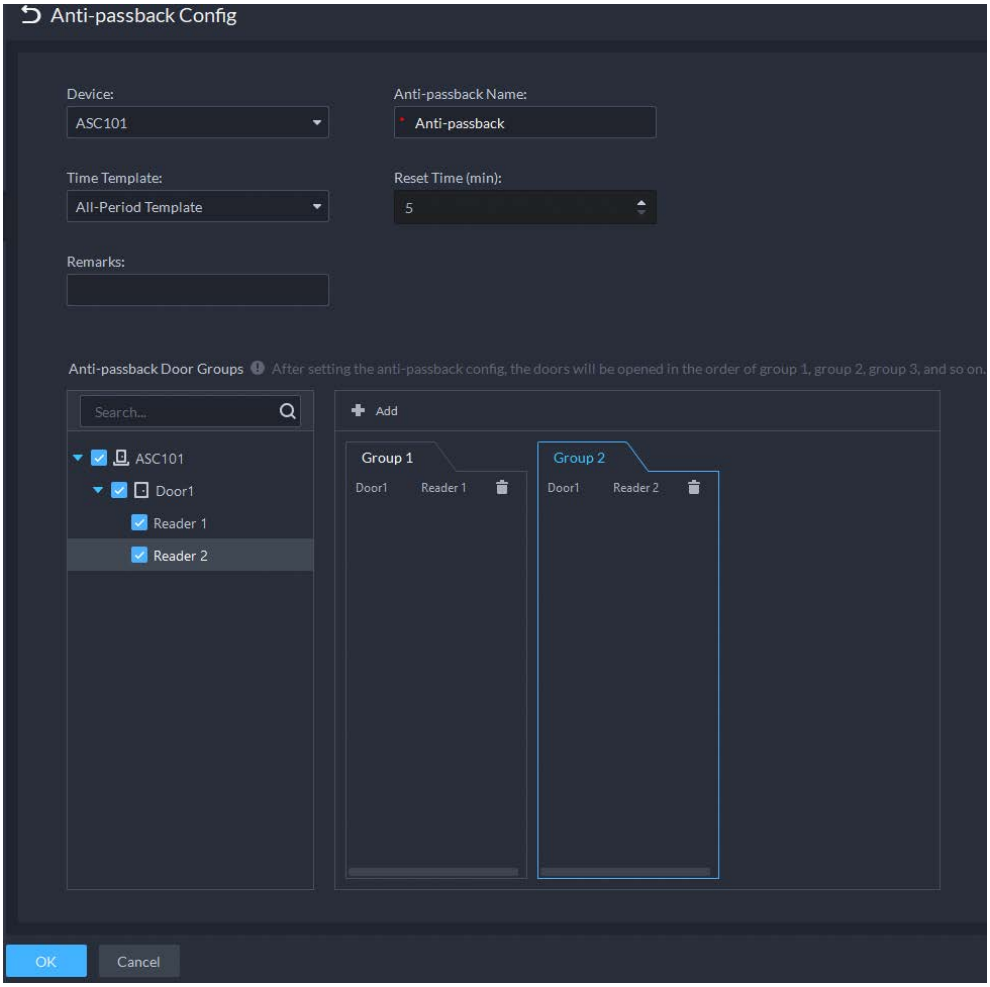



Table 5-11 User selection information description

| Parameter | Description | |
|---|---|---|
| Device | You can select the device to configure the anti-passback rules. | |
| Anti-passback name | You can customize the name of an anti-passback rule. | |
| Reset Time(min) | The access card becomes invalid if an anti-passback rule is violated.<br>The reset time is the invalidity duration. | When the selected device is a multi-door controller, you must set up these parameters. |
| Time Template | You can select the time periods to implement the anti-passback rules. | |
| Remark | Description information. | |

| Parameter | Description | |
|---|---|---|
| Group X<br>(X is a number) | The group sequence here is the sequence for swiping cards. You can add up to 16 readers for each group. Each group can swipe cards on any of the readers. | |

Step 6 Click  , and then it changes to  The function is enabled.

## 5.5.6 Synchronizing Records

If access control devices go offline and then online again, the platform can automatically synchronize records from them during that period to make sure that access control records are complete and up-to-date.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click  , and then in the **App Config** section, select **Access Control** > **Auto Sync Records**.

Step 2 Click  to enable the function.

Step 3 Set up a time, and then click **Save**.

The platform will synchronize records on a regular basis.

Click **Extract Now** to immediately synchronize records from devices to the platform.

How records are synchronized:

- If records on a device was automatically synchronized to the platform, then the platform will synchronize all records from the time of the latest record from the last automatic synchronization to the time you set. For example, the latest record from the last automatic synchronization was on 2022-10-18 16:00, time of automatic synchronization is set to 04:00 every day. The device was offline on 2022-10-18 18:00, and then reconnected on 2022-10-20 16:00, then the platform, on 2022-10-21 04:00, will synchronize the records generated on the device from 2022-10-18 16:00 to 2022-10-21 04:00.
- If records on a device has not been automatically synchronized to the platform, and the device went offline and online multiple times, the platform will synchronize all the records from the time of the latest record uploaded before the first offline, to the time you set. For example, time of synchronization is set to 04:00 every day. The device first goes offline on 2022-10-18 16:00 with the latest record uploaded on 2022-10-18 15:00. Before the time of synchronization, the device goes offline and online multiple times. Then on 2022-10-19 04:00, the platform will synchronize the records generated on the device from 2022-10-18 15:00 to 2022-10-19 04:00.
- If records on a device has not been automatically synchronized to the platform, and records were not generated on the device and uploaded to the platform when the device is online, then on the time of synchronization, the platform will synchronize the records on the device within the past 24 hours.

## 5.5.7 Configuring Time Templates

Configure time templates for different access control strategies. For example, employees can only gain access to their offices during work time.

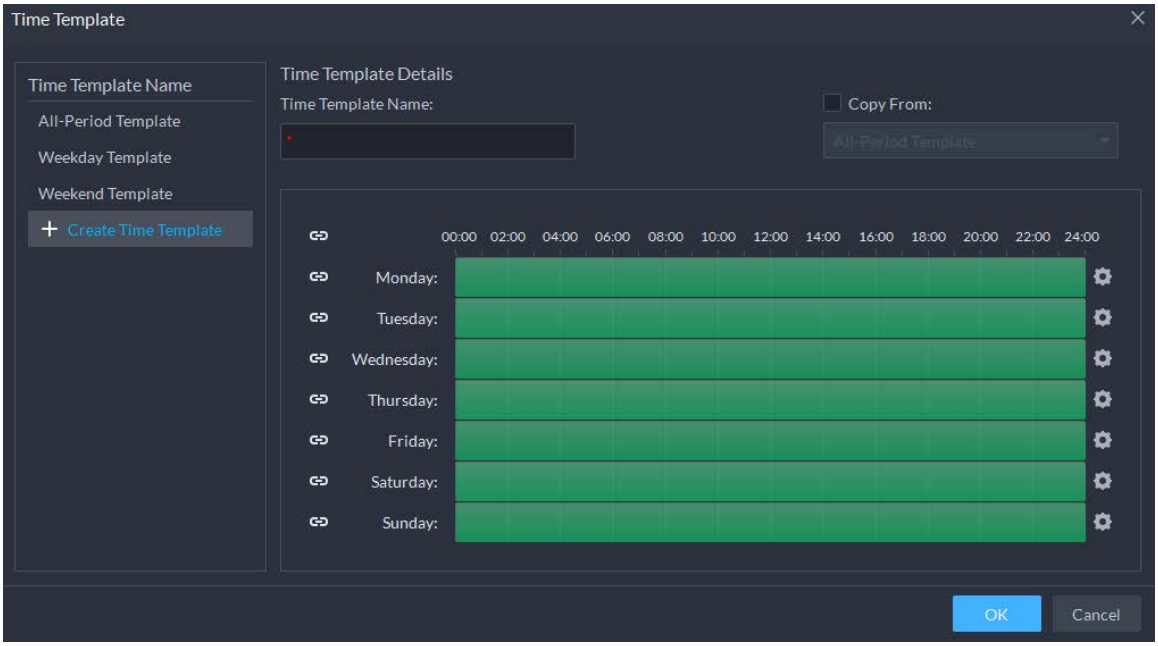
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Door Groups**.

Step 2 Click .

Step 3 Click **Create Time Template** from the **Time Template** drop-down list when adding or editing a door group.

Figure 5-29 Time template




Step 4 Enter the template name, set time periods, and then click **OK**.

There are two ways to set time periods:

- Drag your mouse cursor on the time bars to select time sections. To remove a selected time section, click on the time bar and drag.
- Click , and then set time periods in the **Period Setup** dialog box.

- You can add up to 6 periods for each day.
- To use an existing template, select the **Copy From** check box and then select a template in the drop-down list.

## 5.5.8 Configuring Holiday Plans

People can only unlock doors during the periods defined in the holiday plan. If a time template is also configured, then the holiday plan will take priority. For example, the time template and holiday plan involve the same day. The effective periods of the time template on this day is 8:00-24:00, and the holiday plan is 9:00-17:00. Then, people can only unlock the doors in the door group during 9:00-

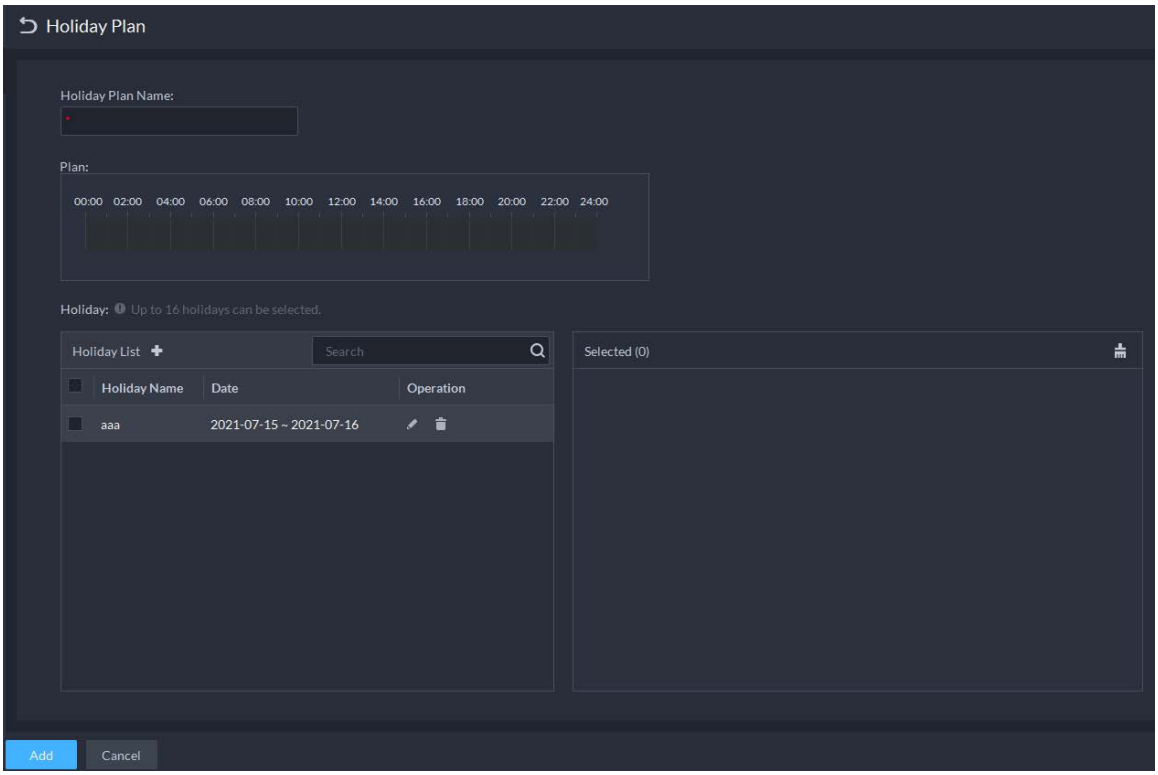
17:00 on this day.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Access Control** > **Door Groups**.

Step 2 Click **Add Holiday Schedule** from the **Holiday Schedule** drop-down list when adding or editing a door group.

Figure 5-30 Add a holiday plan




Step 3 Configure the parameters.

1. Enter a name for the holiday plan.
2. Configure the periods when the holiday will be effective.
3. Click to add a holiday: Enter the holiday name, set a start date, and how long this holiday lasts, and then this holiday will be effective within the periods you set from the previous step.

Step 4 Click **Add**.

You can add up to 4 holiday plans.

# 5.5.9 Configuring Access Control Devices

After an access control device is added, and if it is online, you can restart it, and synchronize its time with the platform.

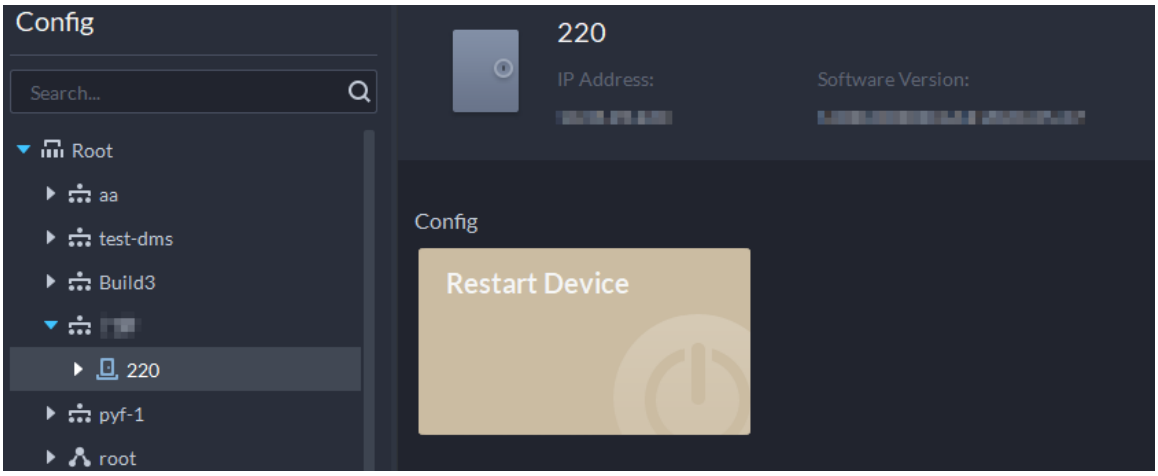
## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Click .

Step 3 Select an access control device from the device tree.

Figure 5-31 Select an access control device




Step 4 Configure the access control device.

- Click **Restart Device** to restart the device.
- Click at the upper-right corner to go to the web page of the device.

## 5.5.10 Configuring Door Information

You can configure door status, Always-Open or Always-Close period, alarm and more.

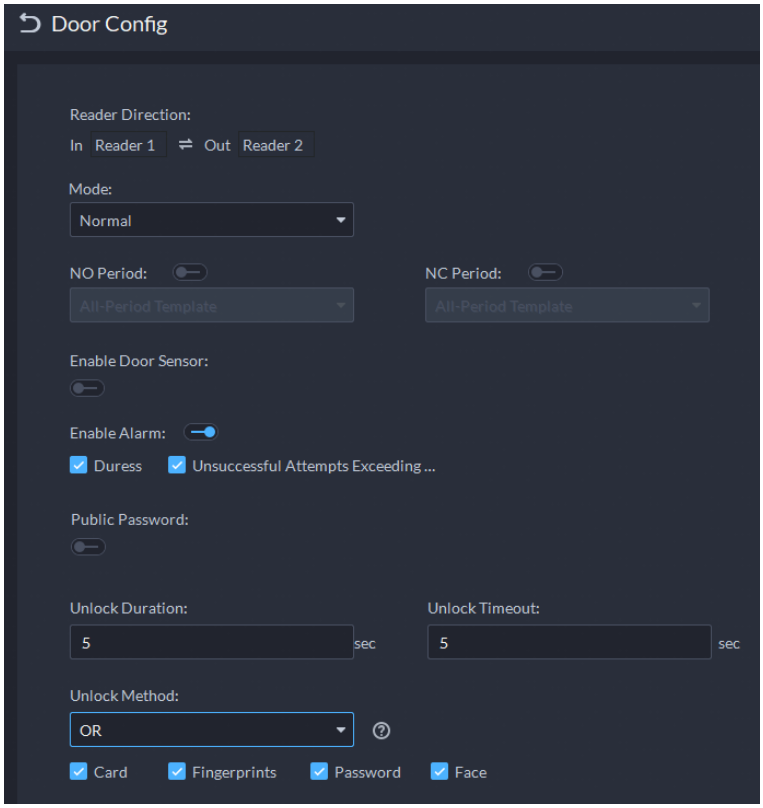
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.

Step 2 Select a door channel in the device tree, and then click **Door Config** on the right.

Step 3 Configure door information, and then click **OK**.

Figure 5-32 Door configuration




The page is only for reference, and might vary with different access control devices.

Table 5-12 Parameters description

| Parameter | Description |
|---|---|
| Reader Direction | Indicates the in/out reader based on the wiring of ACS. |
| Door Status | Set access control status to Normal, Always Open, or Always Close. |
| NO Period | If enabled, you can set up a period during which the door is always open. |
| NC Period | If enabled, you can set up a period during which the door is always closed. |
| Door Sensor Enable | You can only enable intrusion and timeout alarms when the door sensor is enabled. |
| Enable Alarm | • Intrusion: If the door is unlocked by methods you have not configured, the door contact is split and triggers an intrusion alarm.<br>• Unsuccessful Attempts Exceeding Limit: If failed to unlock the door for certain times, an alarm will be triggered.<br>• Duress: Entry with the duress card, duress password, or duress fingerprint triggers a duress alarm.<br>• Timeout: Unlock duration timeout triggers a timeout alarm. |
| Public Password | Enable this function, and then you can use a public password to unlock the door. For how to configure a public password, see "5.5.4 Configuring Public Passwords". |

| Parameter | Description |
|---|---|
| Unlock Duration | Sets up for how long the door will unlock. The door locks automatically after the duration. |
| Unlock Timeout | Unlock duration exceeding the **Unlock timeout** triggers a timeout alarm. |
| Unlock Method | You can use any one of the methods, card, fingerprint, face, and password, or their combinations to unlock the door.<br>• Select **And**, and select unlock methods. You can only open the door using all the selected unlock methods.<br>• Select **Or** and select unlock methods. You can open the door in one of the ways that you configured.<br>• Select **Unlock by period** and select unlock mode for each time period. The door can only be opened by the selected method(s) within the defined period. |

# 5.6 Video Intercom

## 5.6.1 Preparations

Make sure that the following preparations have been made:

- Access control devices are correctly deployed. For details, see the corresponding user's manuals.
- Basic configurations of the platform have been finished. To configure, see "4 Basic Configurations".
  - ◇ When adding video intercom devices on the **Device** page, select **Video Intercom** as the device category.
  - ◇ When adding access control devices that support intercom, select **Device Category** to **Access Control** in **Login Information**, and then select **Door Station access Controller** or **Fence Station Access Controller** according to the type of your device.

## 5.6.2 Call Management

Create call group, management group and relation group respectively and define restricted call relations. This function is only available for administrators.

⚠

Click on the page of call group, management group or relation group, the system will restore management group and relation group to their original status.

### 5.6.2.1 Configuring Call Group

Only devices in the same call group can call each other.

- A call group will be automatically generated after you add to the platform a VTO or access control device that supports intercom. All VTHs in the same unit will also be automatically added to the group, then the devices in the group can call each other.

- A call group will be automatically generated after you add a second confirmation station to the platform. Add the VTHs in the same house to the group, then the second confirmation station and the VTHs can call each other.
- A call group will be automatically generated after you add a fence station to the platform. All the VTHs on the platform will be automatically added to the group by default, then the fence station and the VTHs can call each other. You can also click to edit the VTHs in the group, so that the fence station can only call certain VTHs.
- After added to the platform, VTHs will be automatically added to corresponding groups if they are associated with VTOs, second confirmation stations, or fence stations, so that they can call each other.

### 5.6.2.2 Adding Manager Group

Divide administrators into different groups and link them to call groups in different combinations. This is useful when certain administrators can only answer calls from certain devices. Administrators include VTS and users with permissions to use the video intercom function and operate the devices. VTS will be automatically added to the default manager group after added.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

Step 2 Click .

Step 3 Click **Manager Group Config**.

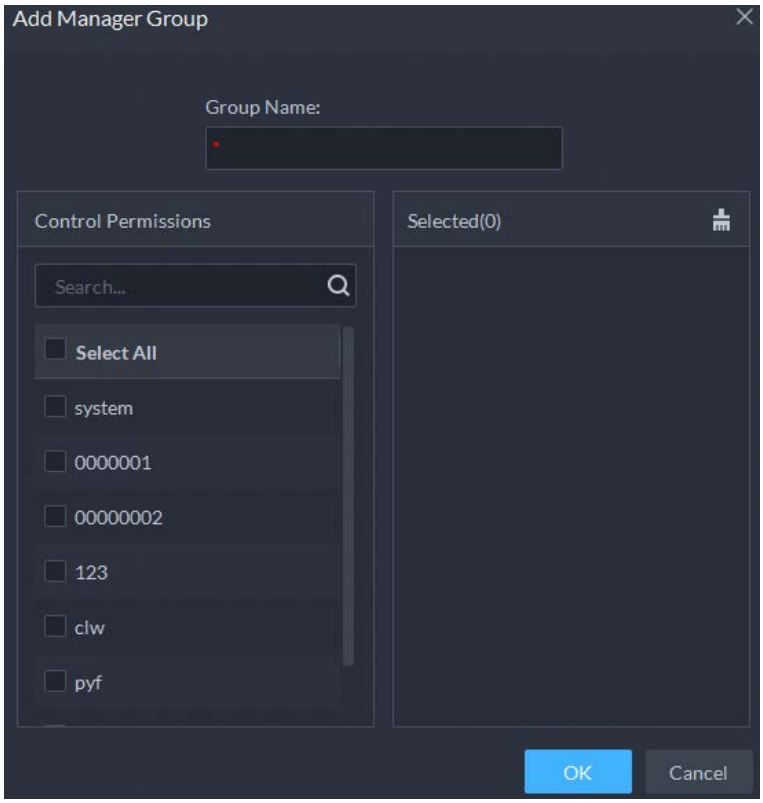
Step 4 Click **Add Group**.

Step 5 Enter group name, select administrator account or VTS, and click **OK**.

The added management group is displayed in the list.

- To transfer members, click and move the member to other groups.
- To manage group members, click to add or delete group members.

Figure 5-33 Edit manager group




## 5.6.2.3 Configuring Relation Group

Link call groups and manager groups, and VTOs or VTHs in a call group can only call administrators or VTSs of a linked manager group. There are 2 types of relations:

- A call group links to 1 manager group.
  All online administrators in the manager group will receive the call when any device is calling. If an administrator answers, it will stop ringing for other administrators. The call will only be rejected if all administrators reject it.
- A call group links to multiple manager groups.
  Priorities vary for different manager groups. When any device is calling, all online administrators in the manager group with the highest priority will receive the call first. If no one answers for 30 seconds, then the call will be forwarded to the manager group with the second highest priority. If still no one answers, the device will prompt that there is no response for the call.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

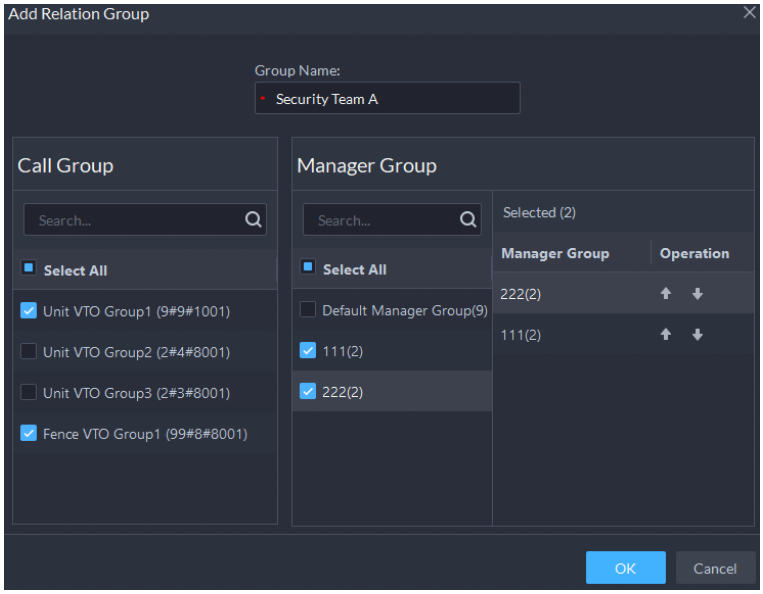
Step 2 Click .

Step 3 Click **Relation Group Config**.

Step 4 Click **Add**.

Step 5 Enter the group name, and then select one or more call groups and manager groups.

Figure 5-34 Add a group relation




Because only up to 2 manager groups will receive a call, we recommend you select no more than 2 manager groups.

Step 6 Click or to adjust priorities of the manager groups, and then click **OK**.

The upper manager group has higher priority.

## 5.6.3 Configuring Building/Unit

Make sure the status of building and unit of the DSS client is the same as the VTO. If building and unit are enabled on the platform, they must also be enabled on the device, and vice versa; otherwise, the VTO will be offline after it is added. That also affects the dialing rule. Take room 1001 unit 2 building 1 as an example, the dialing rule is as follows:

- If building is enabled while unit is not, the room number is "1#1001".
- If building is enabled, and unit is enabled as well, the room number is "1#2#1001".
- If building is not enabled, and unit is not enabled either, the room number is "1001".

Select a call mode to specify the order of calling VTH and App.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

Step 2 Click .

Step 3 Enable or disable building and unit as required, and then click **OK**.

This configuration must be the same as the device configurations. Otherwise, information of the devices might be incorrect. For example, if only **Building** is enabled on a VTO, you must only enable **Building** on the platform.

Step 4 Click **Save**.

## 5.6.4 Synchronizing Contacts

Synchronize contacts information to VTO and then you can view contacts on the VTO or its web page.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

Step 2 Click .

Step 3 Select an organization node (VTO), and then click **Send Contacts**.

Step 4 Select one or more VTHs as needed, and then click **OK**.

Now you can view contacts on the VTO or web page.

## 5.6.5 Setting Private Password

Set room door passwords so that the room door can be opened by entering password on the VTO (outdoor station).

Make sure that contacts are sent to the VTO; otherwise you cannot set private password.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

Step 2 Click .

Step 3 Select a VTO, and then you can see all the VTHs linked to this VTO.

Step 4 Select a VTH and click , or select several VTHs and click **Change Password**.

Step 5 Enter password, and then click **OK.**

You can use the new password to unlock on the VTO.

The format should be **room number + private password**, and the room number consists of 6 digits. For example, a person who lives in 1001 with the private password of the VTO in the building being 123456, can enter **001001123456** to unlock the door.

## 5.6.6 App User

You can view information of App users, freeze user, modify login password and delete user.

### Prerequisites

App users have registered by scanning the QR code on the platform or the VTH. For details, see the user manual of the App.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Video Intercom**.

Step 2 Click .

Table 5-13 Parameter description

| Operation | Description |
|---|---|
| Freeze APP user | The App user cannot log in for 600 s after being frozen.<br>The account will be frozen when invalid password attempts exceeds 5 by an App user. |
| Change APP user login password | Click and enter a new password on the **Reset Password** page, and then click **OK**.<br>• The password must be 8 to 16 characters and include numbers and letters.<br>• Click to display password, or to mask password. |
| Refresh the list of App users | Click **Refresh** to display the App users that recently registered. |
| Delete APP user | Click to delete App users one by one, or select multiple App users, click **Delete**, and then follow the instructions to delete the users. |

# 5.7 Visitor Management

After visitor information is registered, the visitor can have access permission. Access permission is disabled after the visitor leaves.

## 5.7.1 Preparations

- Access control devices have been added into the platform.
- Basic configurations of the platform have been finished. To configure, see "4 Basic Configurations".

## 5.7.2 Configuring Visit Settings

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Visitor**.

Step 2 Configure the parameters.

- Automatic visit
  Enable the function, and then select the channels as needed. Visitors with appointment can verify their identities on the selected channels without registering.
- Automatic leave
  - Enable the function, and then select the channels as needed. Visitors who are visiting can verify their identities on the selected channels to end their visits automatically.
  - Sign out regularly: Expired visits will be automatically ended at the defined time

point.

- ◇ Daily sign-out time: For visitors who do not arrive for their appointment before the daily sign-out time, their appointment will be canceled.
- ◇ Sign out now: For visitors who missed their appointment when you click this button, their appointment will be canceled.

- Default visitor permissions: Set the default access permissions for visitors.
- Email template: You can set up an email template and automatically send emails when visitors make an appointment, arrive for their appointment, and end their visit. You can customize the email subject and content with the visitor information, such as visitor's name and ID number.
- Visitor pass remarks: Customize the content of remarks on a visitor pass.

Figure 5-35 Customize visitor pass remarks

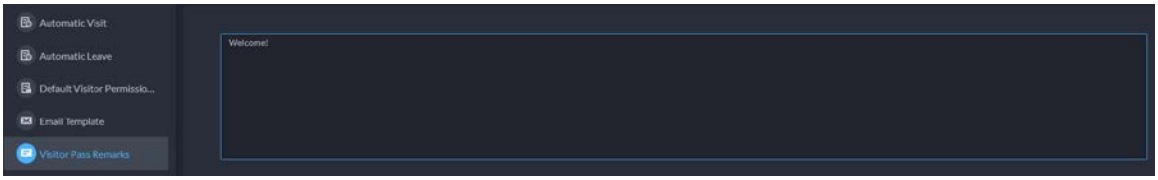
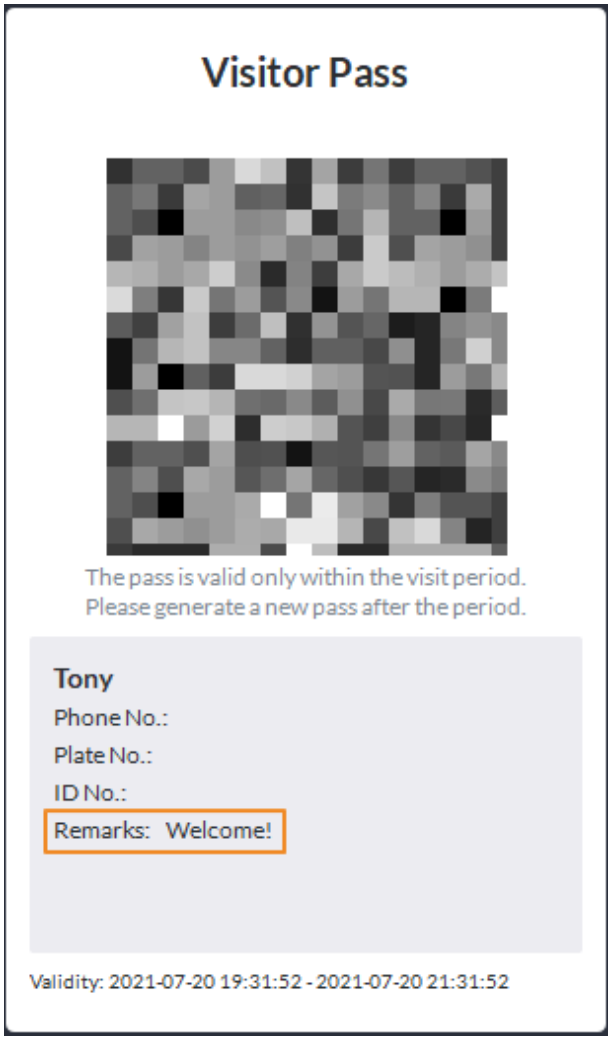



Figure 5-36 Visitor pass remarks




Step 3 Click **Save**.

# 5.8 Parking Lot

Control vehicle entrance and exit control with the functions such as ANPR, number of parking space, alarm, and search. In case the vehicle is not recognized by the ANPR camera, visitors can use VTO to call the management center, and then the management center can remotely open the barriers after verifying the identity of the visitor.

## 5.8.1 Preparations

Make sure that the following preparations have been made:

- Devices, such as ANPR cameras, VTOs, barriers, are added to the platform.
- Basic configurations of the platform have been finished. To configure, see "4 Basic Configurations".
  - ◇ When adding an ANPR camera, select **Access ANPR Device** as the device category.
    After you have added ANPR cameras, you can bind video channels to their channels. This is useful when you have installed other cameras at the entrance to view and record videos of the entire scene, not just the vehicle. You can view video from the bound camera when checking the alarm details. For how to bind channels, see "4.2.3 Binding Resources".
  - ◇ When adding an NVR, select **Encoder** as the device category.
  - ◇ Select **Entrance ANPR** from **Features** for the corresponding NVR channels.
  - ◇ When adding VTO, select **Video Intercom** as the device category.
    Also, you need to add the information of people and assign them permissions so that they can use the VTO normally. For details, see "5.3 Personnel and Vehicle Management".

    Make sure that the configuration of building and unit on the DSS client is the same as the device. If building and unit are enabled on the platform, they must also be enabled on the device, and vice versa. Otherwise, the VTO will be offline after being added. For details, see "5.6.3 Configuring Building/Unit".
  - ◇ Snapshots taken by ANPR cameras are stored in the **Images and Files** disks. You must configure at least one **Images and Files** disk so that snapshots of vehicles can be normally displayed. For details, see "4.4 Configuring Storage".

## 5.8.2 Configuring Parking Lot

A parking lot includes parking spaces, entrances and exits, barrier control rules and other information. Link an ANPR camera for recognizing license plates, and a VTO for verifying identities.

### 5.8.2.1 Basic Information

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Parking Lot** > **Parking Lot Configuration** > **Parking Lot Basic Config**.

Step 2 Click the root node named **Current Site**, and then click **Add**.

Step 3 Configure the basic information of the parking lot, and then click **Next Step**.

Table 5-14 Parameter description

| Parameter | Description |
|---|---|
| Parking Lot Name | To differentiate from other parking lots. |
| Enable Parking Space Counting | Configure the total parking spaces and available ones.<br>• Total Parking Spaces: The total number of parking spaces in the parking lot.<br>• Available Parking Spaces: The number of parking spaces in the parking lot that are not in use. |
| Fuzzy Match of Entrance & Exit Plate No. Snapshot | • First Character Rule<br>◇ 1 character added to the front of the plate number: It will still be considered as a match when an additional character is added to the plate number. For example, AB12345 is recognized as AAB12345.<br>◇ Missing the first character of the plate number: It will still be considered as a match when the first character is missing from the plate number. For example, AB12345 is recognized as B12345.<br>• Last Character Rule<br>◇ 1 character added to the end of the plate number: It will still be considered as a match when an additional character is added to the end of the plate number. For example, AB12345 is recognized as AB123455.<br>◇ Missing the last character of the plate number: It will still be considered as a match when the last character is missing from the plate number. For example, AB12345 is recognized as AB1234.<br>• Misread Character Rule: It will still be considered as a match if a character is recognized incorrectly, but the number of characters are correct. For example, AB12345 is recognized as AB12B45.<br>When you enable multiple rules, the platform will check if each rule is satisfied. Only when one or more rules are satisfied will platform consider it to be a match. For example, 1 character added to the front of the plate number, and missing the first character of the plate number are both enabled. When the plate number AB12345 is recognized as AAB12345, it satisfied 1 character added to the front of the plate number, but not missing the first character of the plate number. This will be considered as a match. If the plate number AB12345 is recognized as AB112345, it does not satisfy both rules. This will not be considered as a match. |

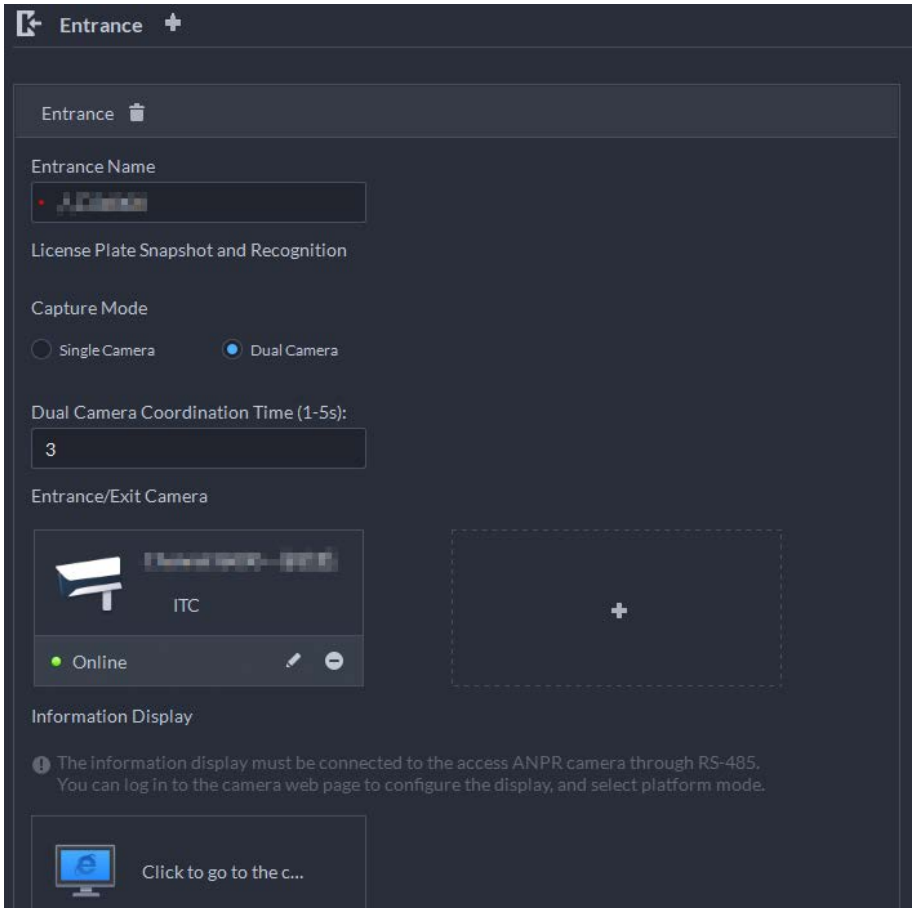
| Parameter | Description |
|---|---|
| Auto overwrite when captured vehicle has not existed | If a vehicle entered the parking lot but has not exited, a new entry record will be generated when the vehicle is recognized to have entered again. |

Step 4 Configure the entrance and exit points, and then click **Next Step**.

The platform supports up to 6 entrances and exits.

1) Click or **Add Entrance and Exit Point**.
2) Enter a name, and then click **OK**.
3) If there is an entrance point, click next to **Entrance**.
4) Enter a name for the point, select a capture mode, and then add a camera, video intercom device (optional), or information display (optional).
   If limited by the surroundings, you can install two cameras for this point, and then set **Capture Mode** to **Dual Camera** to improve the successful rate of recognition number plates.
   In **Dual Camera** mode, the vehicles captured by the two cameras within the defined **Dual Camera Coordination Time** will be considered as the same one. You must configure the time properly according to the installation positions of the cameras and the distance between them.

Figure 5-37 Entrance point configuration




5) If there is an exit point, click next to **Exit**, and then configure the parameters.
   The parameters are similar to the ones in **Entrance**. For details, see the steps above.

Step 5 Configure the passing rules, and then click **Save and Exit**.

1) Select a vehicle entrance rule, and then configure the parameters.

Table 5-15 Parameter description

| Parameter | Description |
|---|---|
| Registered Vehicles | • **Registered Vehicles Access Rule**<br>Click **Add**, and then select **By Parking Lot** or **By Point**.<br>By parking lot: The vehicle groups will be added to all entrance and exit points of the parking lot, and the vehicles in these group can enter and exit through any entrance or exit.<br>By point: You can add different vehicle groups to different entrance or exit points. For example, vehicle group is added to East entrance but not South entrance, then the vehicles in the group can only enter the parking lot through East entrance.<br>• **Allow Passage When Available Space is 0**: After enabled, vehicles are allowed to enter the parking lot even if there are no available parking space.<br>Click  to enable this function for an entrance point. |
| All Vehicles | All vehicles can enter the parking lot.<br>• **Vehicles on the Blocklist to Enter**: After enabled, vehicles on the blocklist are also allowed to enter the parking lot.<br>• **Registered Vehicles Access Rule**<br>Click **Add**, and then select **By Parking Lot** or **By Point**.<br>By parking lot: The vehicle groups will be added to all entrance and exit points of the parking lot, and the vehicles in these group can enter and exit through any entrance or exit.<br>By point: You can add different vehicle groups to different entrance or exit points. For example, vehicle group is added to East entrance but not South entrance, then the vehicles in the group can only enter the parking lot through East entrance. |
| Custom | You can customize the passing rule for the entrance.<br>• For how to configure **Registered Vehicles Access Rule** and **Allow Passage When Available Space is 0**, see the content above.<br>• **All Vehicles**: Select a default time template or create a new one, and then any vehicle can enter the parking lot within the specified duration.<br>For how to create a new time template, see "4.2.5 Adding Time Template".<br>• **Open Barrier by Verification**: After enabled, the access permission of a vehicle must be verified, and then an administrator can manually open the barrier for it. If **Open Barrier by Card Swiping After Verification** is also enabled, the driver can swipe a card, and then the barrier will |

| Parameter | Description |
| --- | --- |
| | automatically open if the can verify the driver to be the owner of the vehicle.<br>• **Open Barrier by Card Swiping Without Verification**: The barrier will automatically open if the card has access permission.<br>  <br>You can enable **Open Barrier by Verification** or **Open Barrier by Card Swiping Without Verification** at the same time.<br>• **Available Parking Space Counting**:<br>  <br>You must enable parking space counting and select **Count parking spaces by entering and exiting vehicles**.<br>◇ **Count each vehicle as an occupied parking space**: The number of parking spaces decreases after a vehicle enters.<br>◇ **Count each unregistered vehicle as an occupied parking space**: The number of parking spaces decreases only after a vehicle that is not registered to the platform enters.<br>◇ **Custom**: Configure which vehicles in the vehicle groups will be used to calculate parking spaces. |

For how to configure vehicle groups, see "5.8.3 Managing Vehicle Group".

2) Select a vehicle exit rule, and then configure the parameters.
   The parameters are similar to the ones in the entrance. See the previous step.
3) Enable **Send Plate No. to Devices**, and then add vehicle groups to the allowlist and blocklist.
   Devices can use this information to determine which vehicles to let in when the platform is offline.

## Related Operations

- : Edit the passing rules of the parking lot.
- : Edit the available parking space of the parking lot.
- : Edit the information of the parking lot.
- : Delete the parking lot.

# 5.8.2.2 Event Parameter

Configure events for a parking lot so that you can receive notifications when alarms are triggered.

## Procedure

Step 1 Configure an event, and you need to select **Parking Lot** as the type of event source. For how to configure an event, see "5.1 Configuring Events".

Step 2 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section,

select **Parking Lot** > **Parking Lot Configuration** > **Event Parameter Config**.

Step 3 Select a parking lot, the events that were configured will be displayed on the right.

Blocklist alarm will not be displayed because there are no additional parameters to be configured.

Step 4 Click to configure an event.

Table 5-16 Parameter description

| Parameter | Description |
|---|---|
| Parking Overtime | • **Overtime Parking Threshold**: The unit is minute. Alarm will be triggered if a vehicle has parked for longer than the defined value.<br>• **Detection Interval**: How long the platform will check which vehicles have parked overtime. For example, select 5 minutes, then the platform will check whether there are vehicles that have parked overtime in the parking lot. If yes, then an alarm will be triggered.<br>• **Vehicles to Trigger Alarms**:<br>◇ **All Vehicles**: All vehicles will trigger alarms if they park overtime, but VIP vehicles are not included. If you enable **Include VIP Vehicles**, VIP vehicles will also trigger alarms when they park overtime.<br>◇ **Non-registered Vehicle and Vehicle in the Blocklist**: The vehicles whose information is not registered to the platform will trigger alarms when they park overtime.<br>◇ **Custom**: Enable **Non-registered Vehicle**, and then the vehicles whose information is not registered to the platform will trigger alarms when they park overtime; enable **Registered Vehicle** and add vehicle groups, and then the vehicles in these groups will trigger alarms when they park overtime.<br>You can enable **Non-registered Vehicle** and **Registered Vehicle** at the same time. |
| No Entry and Exit Record | • **No Entrance/Exit Record Duration**: The unit is day. If a vehicle has not entered or exited the parking lot for longer than the defined duration, then an alarm will be triggered.<br>• **Statistical Time Point**: The platform will start calculating the duration of a vehicle that has not entered or exited the parking lot on the defined time.<br>• **Entrance and Exit Vehicle Group of Interest**: Only calculate the duration for the vehicles in the vehicle groups that are added. |

### 5.8.3 Managing Vehicle Group

Add vehicles to different groups, so that you can quickly apply different parking lot functions to multiple vehicles at the same time. General, VIP, and blocklist are the default groups. If you need to use them, you can directly add vehicles to them.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Parking Lot** > **Vehicle Groups**.

Step 2 Click **Add**.

Step 3 Enter a name and select a color for the group, and then click **Add**.

Step 4 Click of a group, or double-click a group and click **Select from Vehicle List**, select the vehicles that you want to add to the group, and then click **OK**.

## 5.9 Intelligent Analysis

Before using the people counting and scheduled report functions, you must configure them first.

- People counting: Create a people counting group and add multiple people counting rules from one or more devices to it. Then, you can view the real-time and historical number of people of the group.
- Scheduled report: Configure the when to send a report with historical people counting data, the email address to send the report to, and the content of the email.

### 5.9.1 People Counting Group

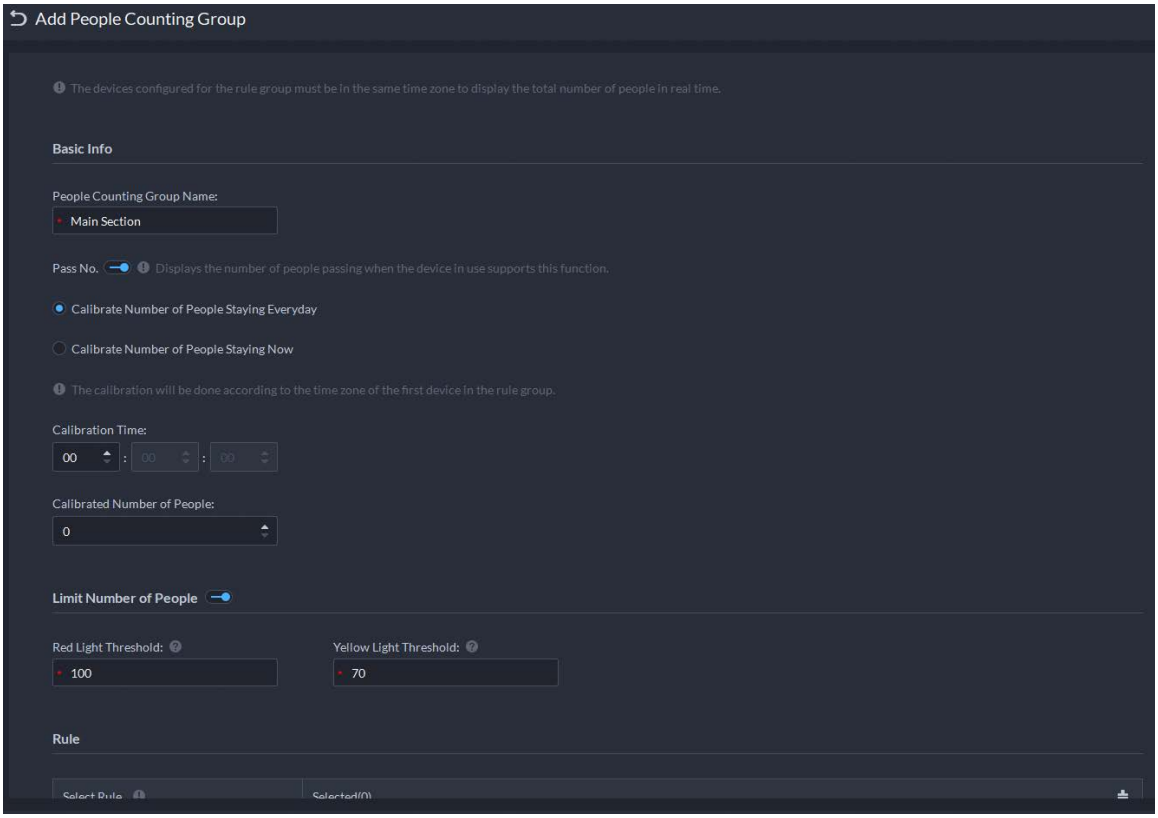
Create a people counting group, and then add multiple people counting rules from one or more devices. In Intelligent Analysis, you can view the real-time and historical number of people of the group.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Intelligent Analysis** > **People Counting Group Config**.

Step 2 Click **Add** at the upper-left corner.

Figure 5-38 Add a people counting group




Step 3 Configure the parameters, and then click **Add**.

Table 5-17 Parameter description

| Parameter | Description |
|---|---|
| People Counting Group Name | Name of the people counting group. |
| Pass No. | The calibration time can only be configured on the hour. It is the start of a counting cycle.<br>• The number of people staying everyday will be set to the defined value every day on the calibration time.<br>• After **Pass No.** is enabled, the number of people pass by will be displayed. The value will be set to 0 every day on the calibration time by default. |
| Calibrate Number of People Staying Everyday | |
| Calibration Time | |
| Calibrated Number of People | |
| Calibrate Number of People Staying Now | The number of people staying will be set to the defined value after this group is added. The value will not be calibrated every day. |
| Calibrated Number of People | |
| Limit Number of People | When enabled, you can configure the red and yellow light threshold of the people in the group.<br>• When the number of people in the group reaches the defined value, the light will turn red.<br>• When the number of people in the group reaches the defined value but smaller than the red light value, the light will turn yellow. |
| Red Light Threshold | |
| Yellow Light Threshold | |
| Rule | Select the devices whose people counting rules you want to include in the group, and then their data will be combined together. |

## 5.9.2 Scheduled Report

Historical data will be sent on a regular basis to one or more email address that you set on the scheduled time.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Intelligent Analysis** > **People Counting Group Config**.

Step 2 Configure one or more types of report.

- Daily report: Data from yesterday will be sent to your email at a defined time. If set to 03:00:00, the data from the day before (00:00:00–23:59:59) will be sent to your email at 03:00:00 every day.
- Weekly report: Data from last week will be sent to your email at a defined time. If set to 03:00:00 on Wednesday, the data from Wednesday to Tuesday of each week will be sent to your email at 03:00:00 every Wednesday.
- Monthly report: Data from last month will be sent to your email at a defined time. If set to 03:00:00 on 3rd, the data from 3rd of last month to 2nd of the current month will be sent to your email at 03:00:00 on 3rd of each month.

Step 3 Configure one or more email addresses to send the report to, and the content of the email.

1) Click to select the users that have been configured email addresses, or enter an email address, and then press Enter.

Figure 5-39 Invalid email address, you must press Enter

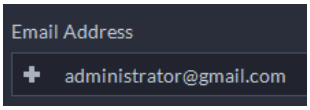
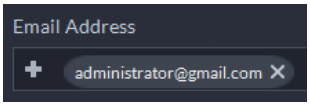



Figure 5-40 Valid email address




2) Configure the content of the email.

Step 4 Send the report.

- Click **Send Now** to immediately send the report that you configured.
- Click **Save**, and then the report will be sent at the defined time.

# 6 Businesses Operation

## 6.1 Monitoring Center

The monitoring center provides integrated real-time monitoring applications for scenarios such as CCTV center. The platform supports live video, license plate recognition, target detection, access control, emap, snapshots, events, video playback, video wall, and more.

### 6.1.1 Main Page

Provides frequently used functions such as video and event and alarm.

Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Figure 6-1 Monitoring center

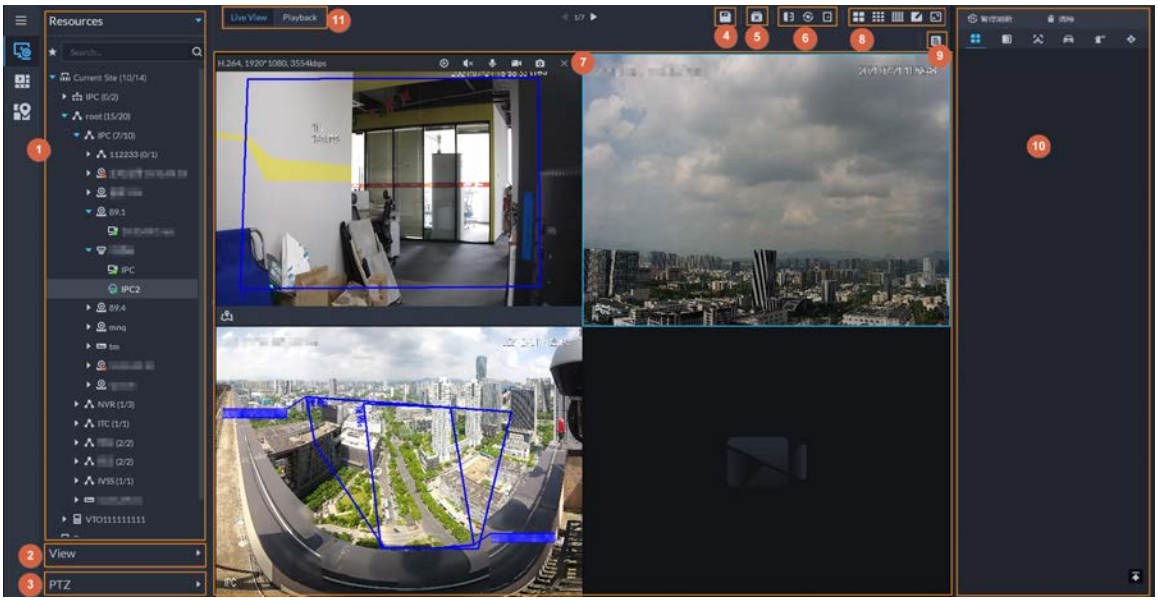



Table 6-1 Interface description

| No. | Parameter | Description |
|---|---|---|
| 1 | Favorites and device tree | • List of resources including devices, browser, and maps.<br>• You can search for a device or channel in the search field. Fuzzy search is supported so that you can simply enter part of the name and then select the exact one from the provided name list.<br>• Add, delete or rename the favorites. You can also tour the channels in favorites. |

| No. | Parameter | Description |
|---|---|---|
| 2 | View | • Save the current view of window split and video channels in the live view section, and name the view. You can directly select the view from the **View** tab to display it quickly next time.<br>• Channels under a view or view group can be displayed by tour (in turn). You can set the tour interval to be 10 s, 30 s, 1 min, 2 min, 5 min or 10 min. Maximum 100 views can be created. |
| 3 | PTZ | PTZ control panel. |
| 4 | Save view | Click to save current video window as a view. |
| 5 | Close all windows | Close all windows in live view. |
| 6 | Channel control | Control the door channels in live view. |
| 7 | Real-time videos | Drag a channel to the windows and view its real-time video. |
| 8 | Window split mode and full screen | • Set window split mode. Supports 1, 4, 6, 8, 9, 13, 16, 20, 25, 36 or 64 splits, or click to set a customized split mode.<br>If the live-view channel number is more than the number of current windows, then you can turn page(s) by clicking at the bottom of the page.<br>• Switch the video window to **Full Screen** mode. To exit **Full Screen**, you can press the Esc key or right-click on the video and select **Exit Full Screen**. |
| 9 | Event panel button | Display or hide the event panel. |
| 10 | Event and alarms | Events and alarms. |
| 11 | Live view and playback | • Live view: View real-time videos.<br>• Playback: View recordings. See "6.1.3 Playback". |

## 6.1.2 Video Monitoring

View live videos. For ANPR and face cameras, you can view information of ANPR, face detection and face recognition. For video metadata cameras, you can view metadata information.

### 6.1.2.1 Viewing Live Video

View the live video of connected devices.

This section only introduces viewing live video. For map live view, see "5.2 Configuring Map".

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then click **Monitoring Center**.

Step 2 Click .

Step 3 View real-time video.

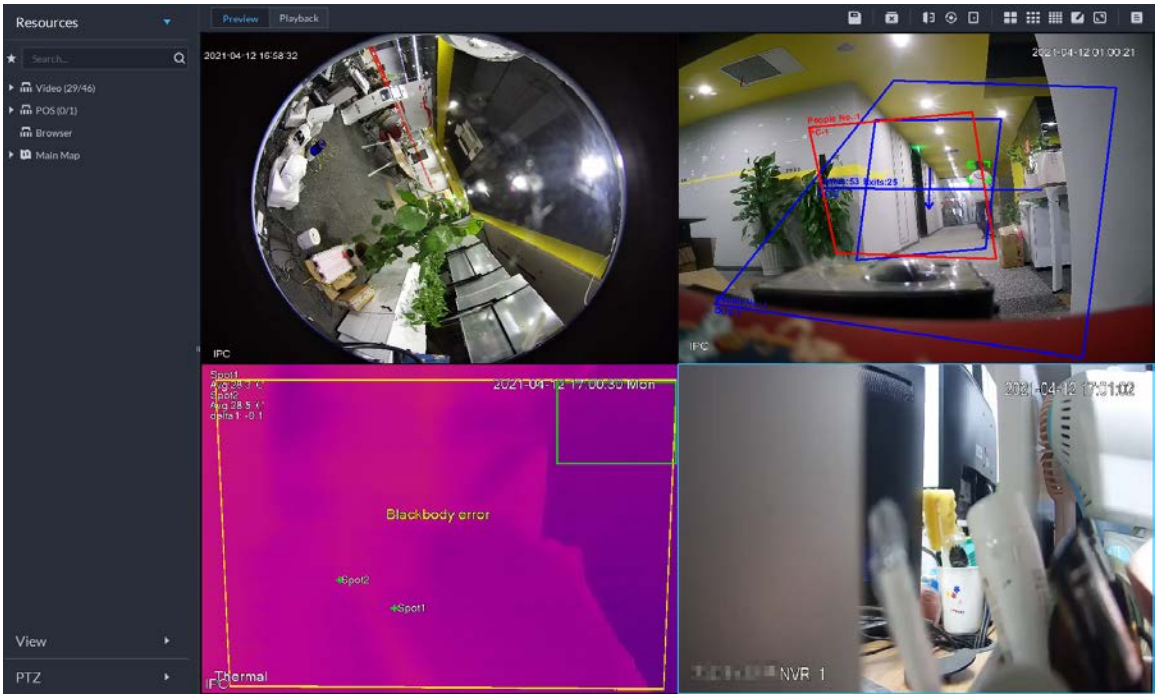
You can view live video in the following ways:

- Double-click a channel or drag the channel from the device list on the left to one window on the right.
- Double-click a device to view all channels under the device.
- Right-click a node, select **Tour**, and then set tour interval. The channels under this node will play in turn according to the defined interval.

◇ If the number of splits in the window is more than the number of online channels, video of all channels will be displayed in the window. Otherwise, click 1/6 on the top of the page to turn pages.

◇ Close the on-going tour before starting live view.

Figure 6-2 Live view




Step 4 You can perform the following operations during live view.

- Display intelligent snapshots.
  When viewing live video of face detection cameras, face recognition cameras, ANPR cameras, or target detection cameras, right-click the monitoring image, and then select **Start Picture Overlay**. The snapshot will be displayed on the upper-right corner of the live window. If no more images are captured, a snapshot will be displayed up to 5 s by default, and it will disappear after 5 s.
  Point to the live window, and then select type of images to be displayed.
- Point to the video window, and then you can see the shortcut menu on the upper-right corner.

Figure 6-3 Live window

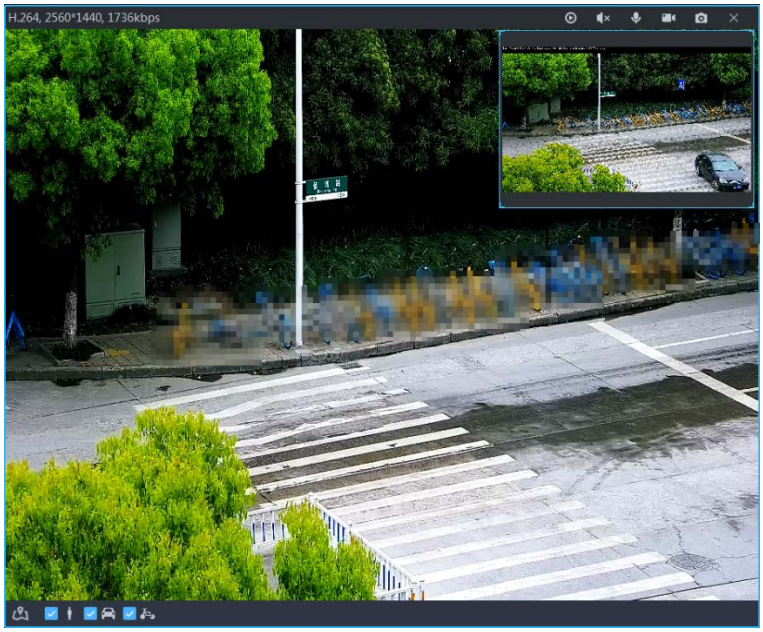
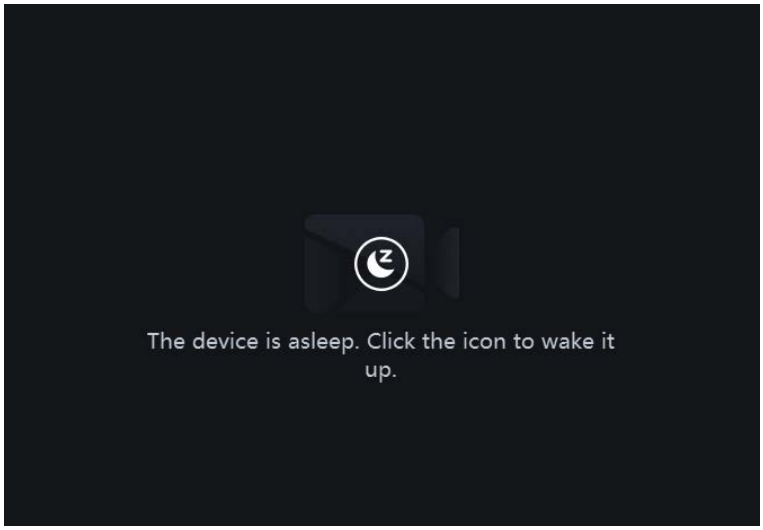



Table 6-2 Parameter description

| Icon | Name | Description |
|---|---|---|
| | Instant playback | Open/close instant playback. |
| | Audio | Open/close audio. |
| | Audio communication | Open/close two-way audio. |
| | Local record | Click it, and then the system begins to record local file and you can view the record time on the upper left. Click again, and then system stops recording and saves the file to your PC. The recorded video is saved to ..*DSS**DSS Client**Record* by default. To change the storage path, see "9.3.5 Configure File Storage Settings". |
| | Snapshot | Take a snapshot. The snapshots are saved to ..*DSS**DSS Client**Picture* by default. To change the snapshot storage path, see "9.3.5 Configure File Storage Settings". |
| | Close | Close the video. |

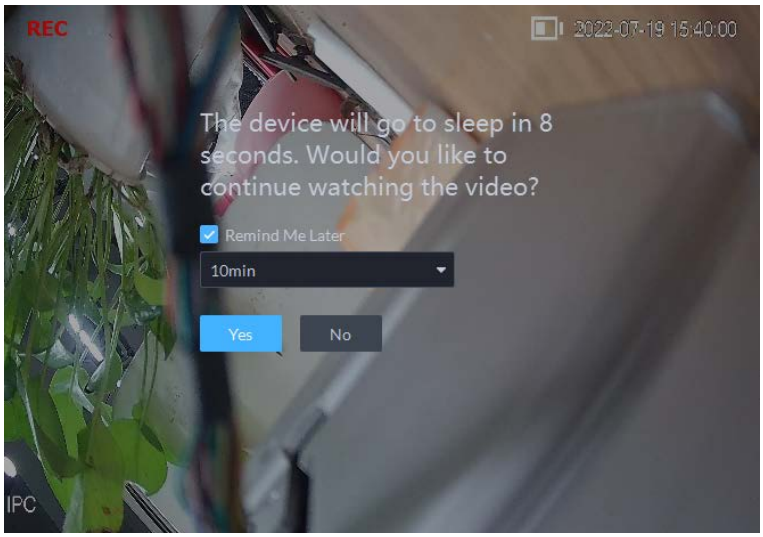
- Sleep function is supported for IPCs that use 4G mobile network to communicate and are solar-powered.
  - ◇ When the device is asleep, you can click to wake it up.

Figure 6-4 Wake up the device




- The device will regularly request to sleep to save battery. When you are viewing its live video, the device will request to sleep every 2 minutes. When you are not viewing its live video, the device will request to sleep every 1 minute. You can accept or reject so that you can continue to watch live video. When rejecting the request, you can choose whether to delay the next request from the device.

Figure 6-5 Request to sleep from the device




- Right-click the live video, and then the shortcut menu is displayed.

The menu varies depending on device functions.

Figure 6-6 Live video operation menu

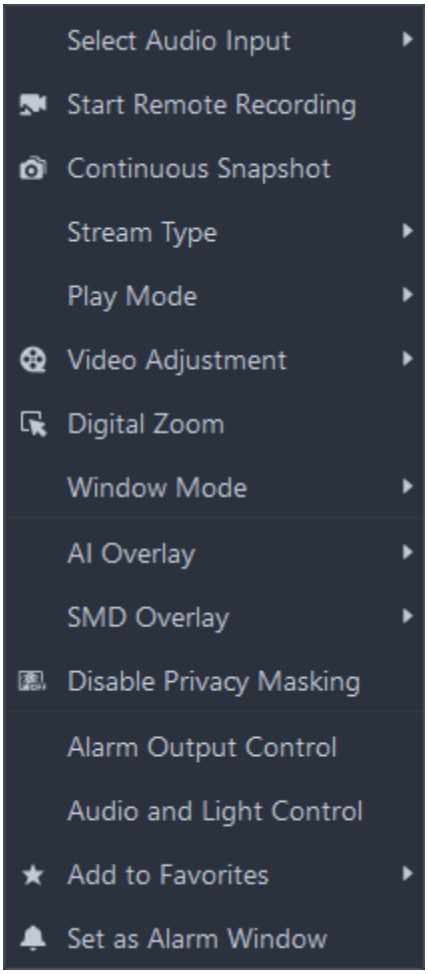



Table 6-3 Description

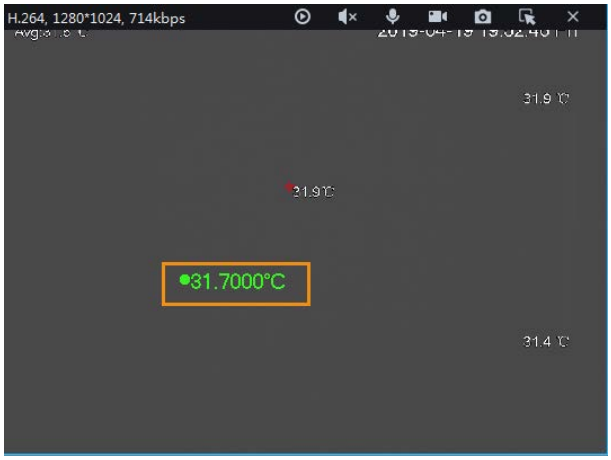
| Parameters | Description |
|---|---|
| Audio Input Selection | If the camera has more than one audio input channels, you can select one or select the mixed audio. This configuration is effective with both live view and playback. |
| Start Remote Recording | Record the audio and video in the current window.<br>If a channel already has a center recording plan, you cannot start remote recording.<br>If a video storage disk is configured on the platform, the videos will be saved to the platform server. |
| Continuous Snapshot | Take snapshots of the current image (three snapshots each time by default). The snapshots are saved to ..*DSS**DSS Client**Picture* by default. To change the snapshot storage path, see "9.3.5 Configure File Storage Settings". |
| Stream Type | Select stream type as required. Generally, main stream requires the most bandwidth, and sub stream 2 the least. The smaller the bandwidth is required by the stream, the smoother the video image. |

| Parameters | Description |
| --- | --- |
| Play Mode | • Real-Time Priority: The video is in real-time, but video quality might be reduced.<br>• Fluency Priority: The video is fluent, but video lagging might occur.<br>• Balance Priority: Real-time priority or fluency priority, depending on actual conditions.<br>• Custom: Configure the video buffer time from **Local Settings** > **Video**. The larger the value, the more stable the video quality. |
| Video Adjustment | Adjust the brightness, contrast, saturation, and chroma of the video for video enhancement. |
| Digital Zoom | Click it, and then click and hold the video image to zoom in on the image. Right-click the image, and then select **Digital Zoom** again to exit zooming in. |
| Window Mode | Divide one window into 2 (1+1 mode), 4 (1+3 mode), and 6 (1+5 mode). One window will play the real-time video, and the others play different defined areas of the real-time video.<br>If a device supports target tracking, you can enable this function in any window mode, the windows that play defined areas of the real-time video will follow the target when detected, until it disappears. |
| AI Overlay | Displays rule lines, bounding box on targets, and detection area for intelligent rules, except for motion detection. After enabled, the configuration will be saved, and only works on the current channel in the live view and playback.<br>AI overlay information is not displayed by default. |
| SMD Overlay | Displays the bounding box on targets. After enabled, the configuration will be saved, and only works on the current channel in the live view and playback. |
| Disable Privacy Masking | For a camera that supports privacy masking of human face, you can disable the masking here to view the face image. |
| Alarm Output Control | Turn on or turn off alarm output channels. |
| Audio and Light Control | You can turn on or off the audio and light channels one by one or at the same time. |
| Add to Favorite | You can add the active channel or all channels into Favorite. |
| Set as Alarm Window | When selecting open alarm linkage video **In Preview** (in live window) from **Local Settings** > **Alarm**, then the video will be displayed on the window which is set to alarm window. If multiple alarms are triggered, the video linked to the latest alarm will be opened. If the number of alarm windows is fewer than the number of linkage videos, the video linked to the earliest-triggered alarm will be opened. After enabling **Set as Alarm Window**, the window frame is displayed in red. |

| Parameters | Description |
| --- | --- |
| Fisheye View | This function is available on fisheye cameras only. When changing the video stream, the fisheye view mode will maintain the current configuration.<br>According to different installation methods, the fisheye view can be varied.<br>• In-ceiling mount: 1P+1, 2P, 1+2, 1+3, 1+4, 1P+6, 1+8.<br>• Wall mount: 1P, 1P+3, 1P+4, 1P+8.<br>• Ground mount: 1P+1, 2P, 1+3, 1+4, 1P+6, 1+8. |

- To view real-time temperature of a point on the thermal camera view, hover over that point.

Figure 6-7 View temperature




- If a channel supports electronic focus, you can enable electronic focus for it on the platform to adjust video definition and size.

The page might vary according to the lens types of cameras. Lens types include embedded zoom lens and external CS electronic lens. The following figure is for reference only.

Figure 6-8 Live view

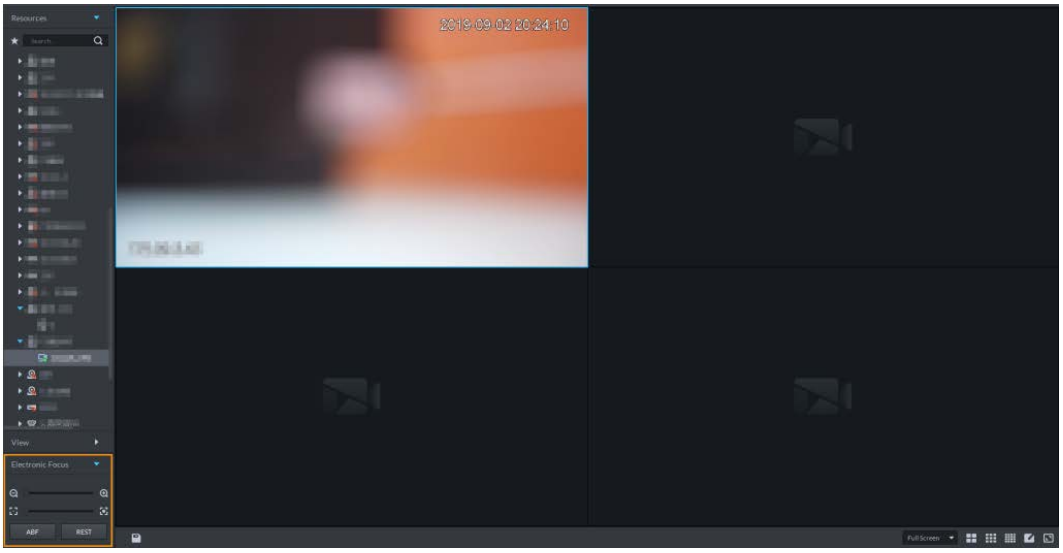


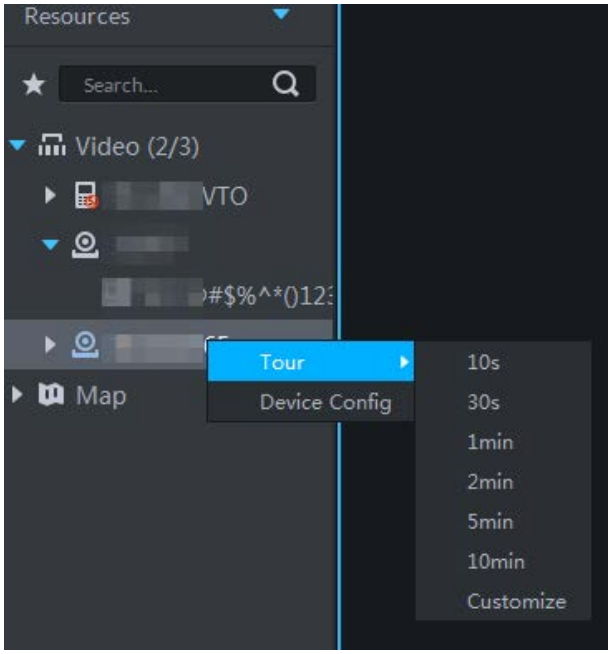
Table 6-4 Description

| Parameters | Description |
|---|---|
| Zoom +/- (for embedded zoom lens) | Zoom in/out.<br>Click or click and hold or , or drag the slider to the left or right to zoom in/out. |
| Focus +/- | Adjust camera focus to achieve the best video definition.<br>Click or click and hold or , or drag the slider to the left or right to adjust focus. |
| Auto Focusing (for embedded zoom lens) | Adjust image definition automatically.<br>Other focusing operations are unavailable during auto focusing. |
| ABF (auto back focusing, for external CS electronic lens) | |
| Reset | When image definition is imperfect, or after many times of zooming or focusing operations, you can click **Reset** to reset the lens, so as to eliminate lens deviation. |

- Tour

  On the live view page, right-click a device or node, select **Tour**, and then select an interval. The channels under this device or node will be played in turn at the pre-defined interval. You can also customize the interval.

Figure 6-9 Start tour




- To view remaining time of a channel during tour, check 00:02.
- To pause, click .
- To exit tour play, click .

- Region of interest (RoI)

  A window can be divided into 4 or 6 regions during live view. One area is used to play live video and other regions are used to zoom in regional image.

  On the live view page, right-click the window, select **Window Mode**, and then select a mode. For example, select a 1+3 mode.

To exit the **Window Mode**, right-click the window and then select .

Figure 6-10 Split mode

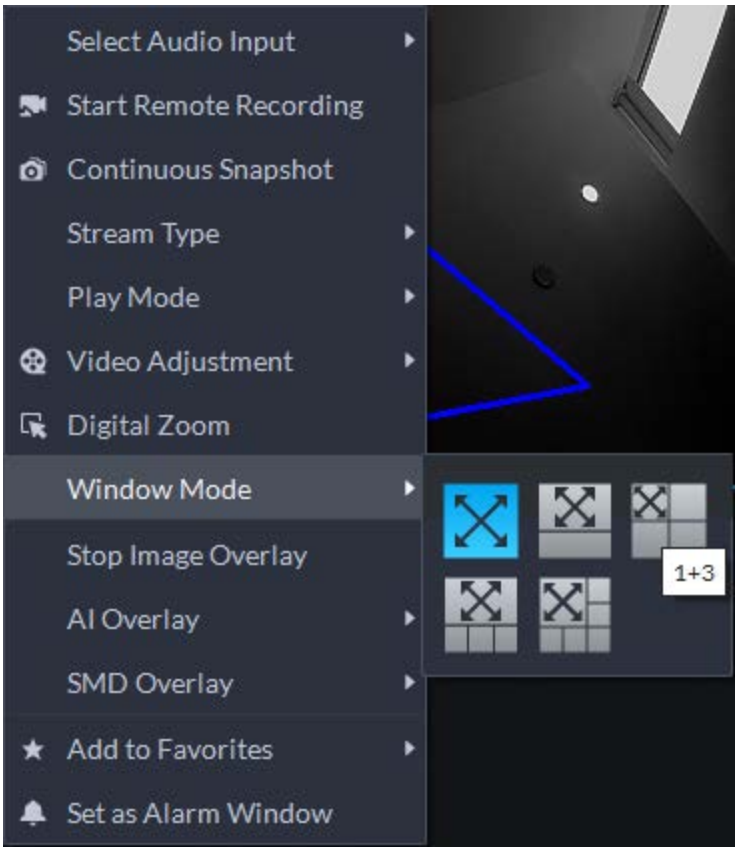
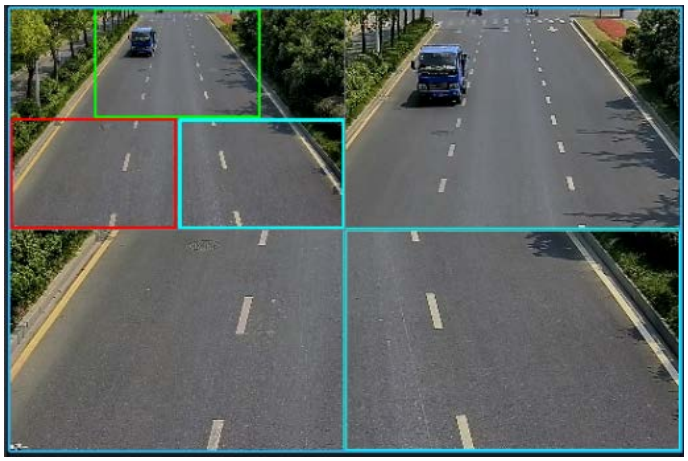



Figure 6-11 1+3 mode



- View real-time events.
  Click to open the event panel, which displays the real-time alarm events of the channel.
  - Click the event type on the top of the event panel to view the corresponding event.
  - Click event record to view the snapshot. Video playback is also supported. Operations related to different events might be different.
  - Refreshes events in real time. Stops refreshing.
  - Click to clear the events in the event panel.

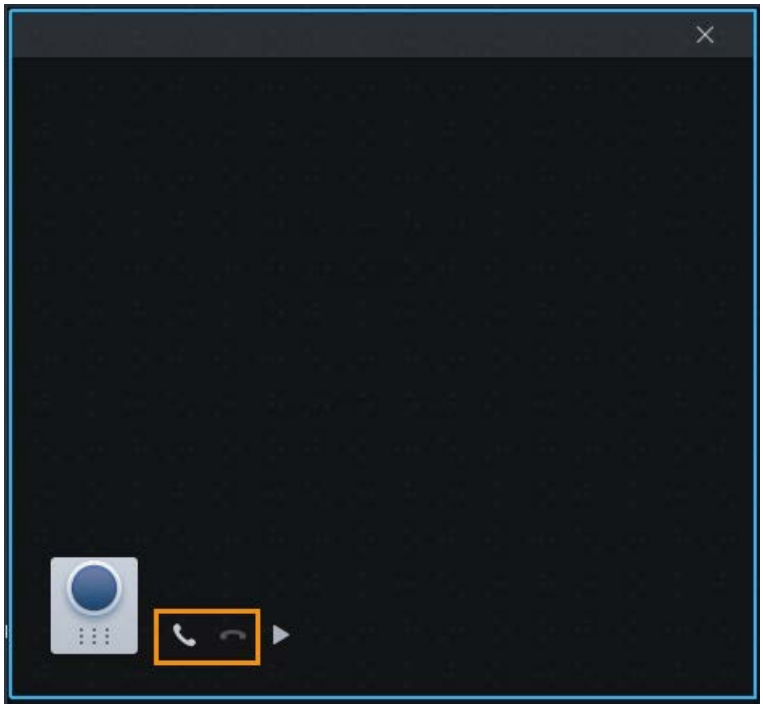
◇ Click to quickly view the latest events.

- Remotely unlock the door.
  When viewing the access control channel, you can remotely control the status of the door on the upper-right corner: Normally open ( ), normally closed ( ), or normal status ( ). You need to enter the login password of the current user before operation. Restore the door to normal status first, and then the door can be opened and closed according to defined period or through face recognition.
  In the video window of the access control channel, you can remotely lock or unlock the door.

Figure 6-12 Lock/unlock the door


- Video intercom.
  When viewing the video intercom channel, you can answer or hang up the call.

Figure 6-13 Video intercom



## 6.1.2.2 View

The current layout and resources can be saved as a view for quick play next time. Views are categorized into different groups, which include three levels: First-level root node, second-level grouping and third-level view. Tour is supported for first-level root node and second-level grouping. The tour time can be 10 s, 30 s, 1 min, 2 min, 5 min, 10 min, or customized (5 s–120 min). Up to 100 views can be created.

### 6.1.2.2.1 Creating View

Views are categorized into different groups, convenient for management and quick use. Group includes three levels, first-level root node, second-level grouping and third-level view.

## Procedure

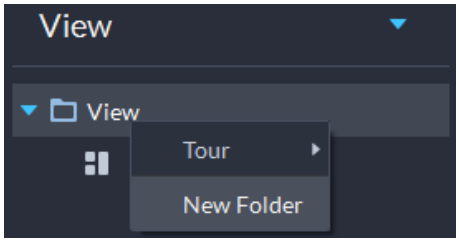
Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click .

Step 3 Create a view group.

1) Click the **View** tab.
2) Right-click **View**, select **New Folder**.

Figure 6-14 Create a new folder




3) Enter a folder name, click **OK**.

Step 4 Create view.

1) Customize the window split mode, view real-time videos of channels in the windows, and then click on the upper-right corner.
2) Enter a name for the view, select a view group it belongs to, and then click **OK**.

#### 6.1.2.2.2 Viewing View

- Live view
  On the **Monitoring Center** page, select a view, double-click or drag it to the window to start viewing.
- Tour
  On the **Monitoring Center** page, right-click view group or root node, select **Tour** and tour period.

Figure 6-15 Go to video tour page

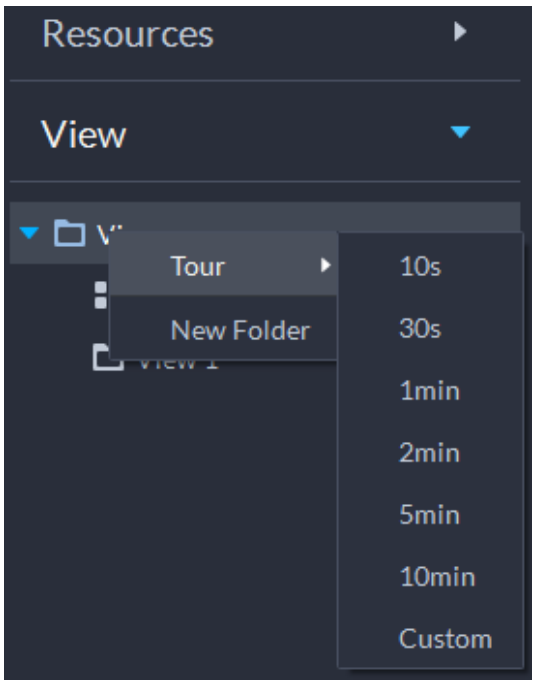
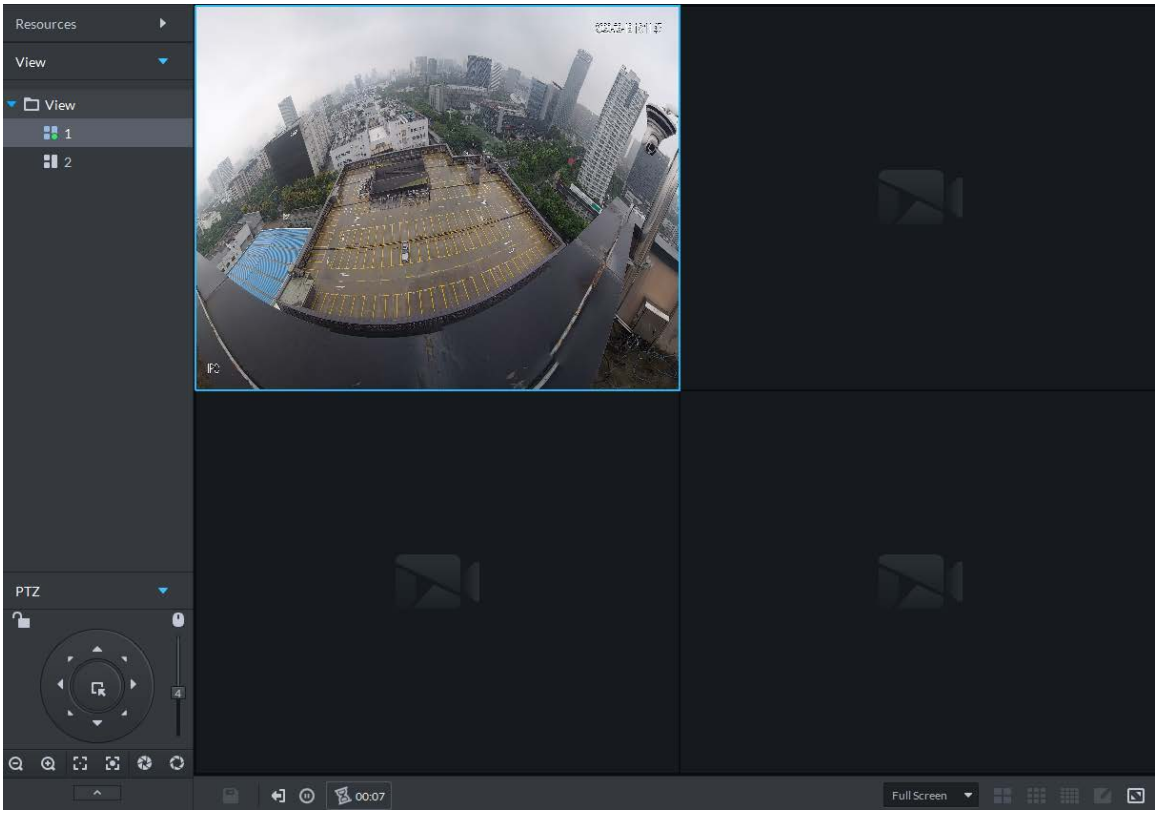


Figure 6-16 View tour




- To view remaining time of a channel during tour, check 00:02.
- To pause, click .
- To exit tour play, click .

## 6.1.2.3 Favorites

Add frequently used channels to favorites to realize quick search and call.

### 6.1.2.3.1 Creating Favorites

## Procedure

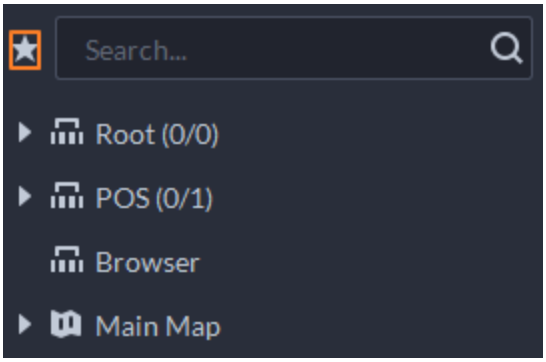
Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click .

Step 3 Create favorites.

1) Click .

Figure 6-17 Favorites



2) Right-click root node or created favorites, and then select **New Folder**.
3) Enter a folder name, click **OK**.
   Lower-level favorites are generated under the selected root node or favorites.
4) Click .
   The system goes back to the device list.

Step 4 Add channels to favorites.

- In the device list, right-click a channel, and then select **Add to Favorite**.
- Right-click the window with live video, and then select **Add to Favorite**.

#### 6.1.2.3.2 Viewing Favorites

- Live view
  On **Monitoring Center** page, click , open favorites list, select favorites or channels, double-click or drag to video window and the system starts to play live video.
- Tour
  On **Monitoring Center** page, click , open favorites list, select the root node or favorites, select **Tour** and then set duration. The system starts to play the channels in tour.
  - To view remaining time of a channel during tour, click 00:02.
  - To pause, click .
  - To exit tour play, click .

### 6.1.2.4 PTZ

Operate PTZ cameras during live view on the DSS Client.

#### 6.1.2.4.1 Configuring Preset

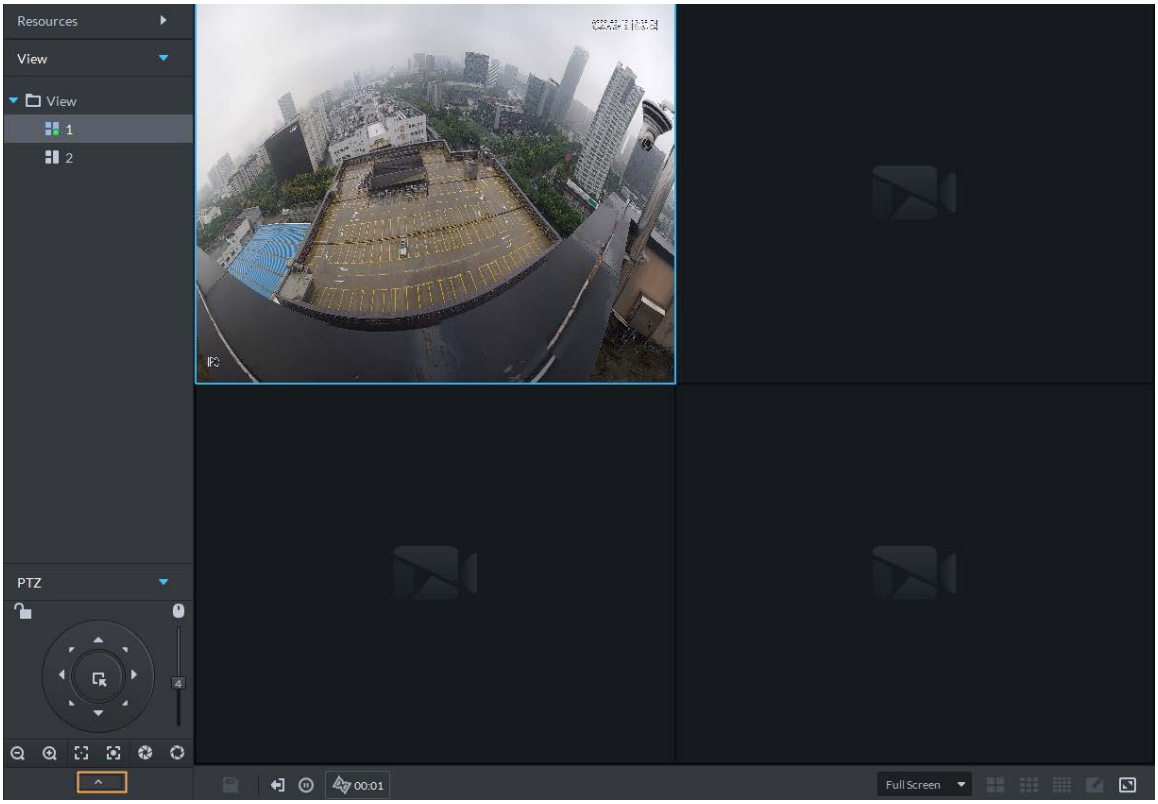
A preset is a set of parameters involving PTZ direction and focus. By calling a preset, you can quickly rotate the camera to the pre-defined position.

## Procedure

Step 1 On the **Monitoring Center** page, open the video of a PTZ camera.

Step 2 Click .

Figure 6-18 Go to PTZ control panel




Step 3 Click .

Step 4 Add a preset.

1) Rotate the PTZ camera to a specific point.
2) Click , enter the preset name, and then click .

## Related Operations

Call a preset: Click of a specific preset, and then camera will rotate to the related position.

### 6.1.2.4.2 Configuring Tour

Set the tour parameters so that a camera can go back and forth among different presets. Set tour to enable camera to automatically go back and forth between different presets.

## Prerequisites

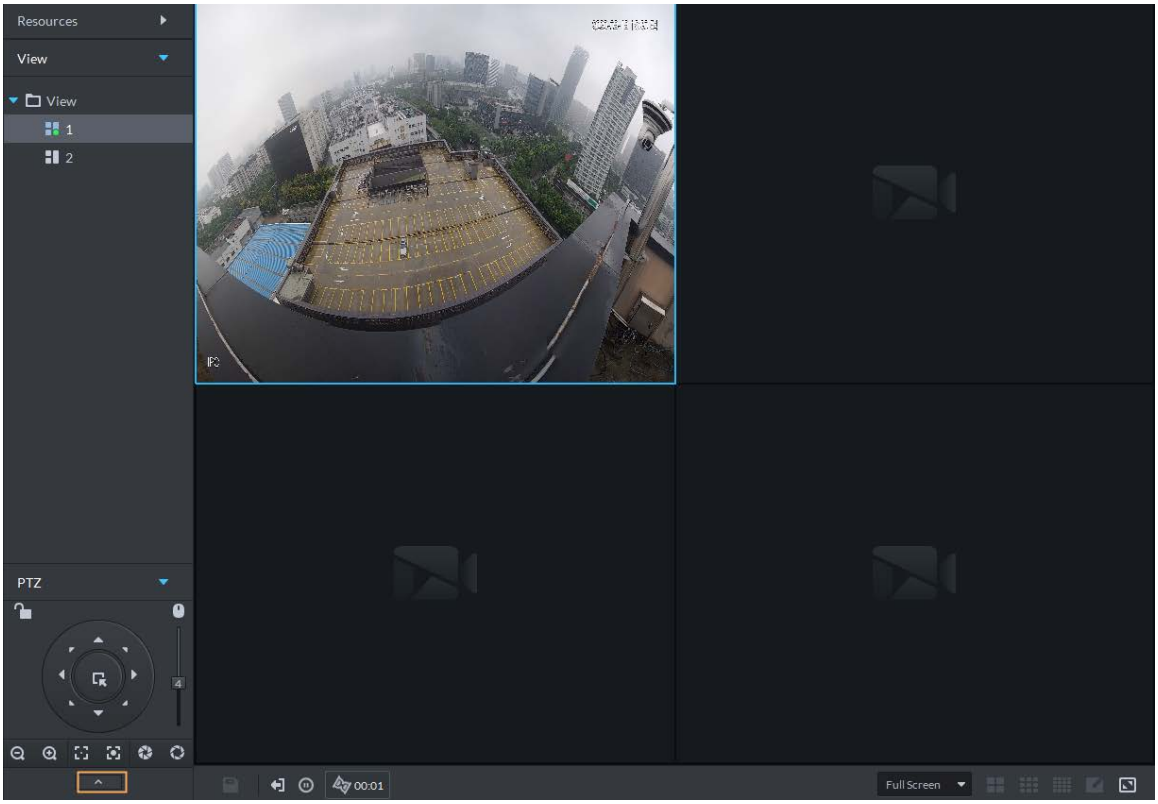
You have added at least 2 presets.

## Procedure

Step 1 On the **Monitoring Center** page, open the video of a PTZ camera.

Step 2 Click .

Figure 6-19 Go to PTZ control panel




Step 3 Click .

Step 4 Click .

Step 5 Add tours.

1) Enter tour name, and click .
2) Select a preset from the drop-down list on the left.
3) Repeat the previous 2 steps to add more presets.
4) Click **OK**.

## Related Operations

To start tour, click , then camera goes back and forth among the presets.

### 6.1.2.4.3 Configuring Pattern

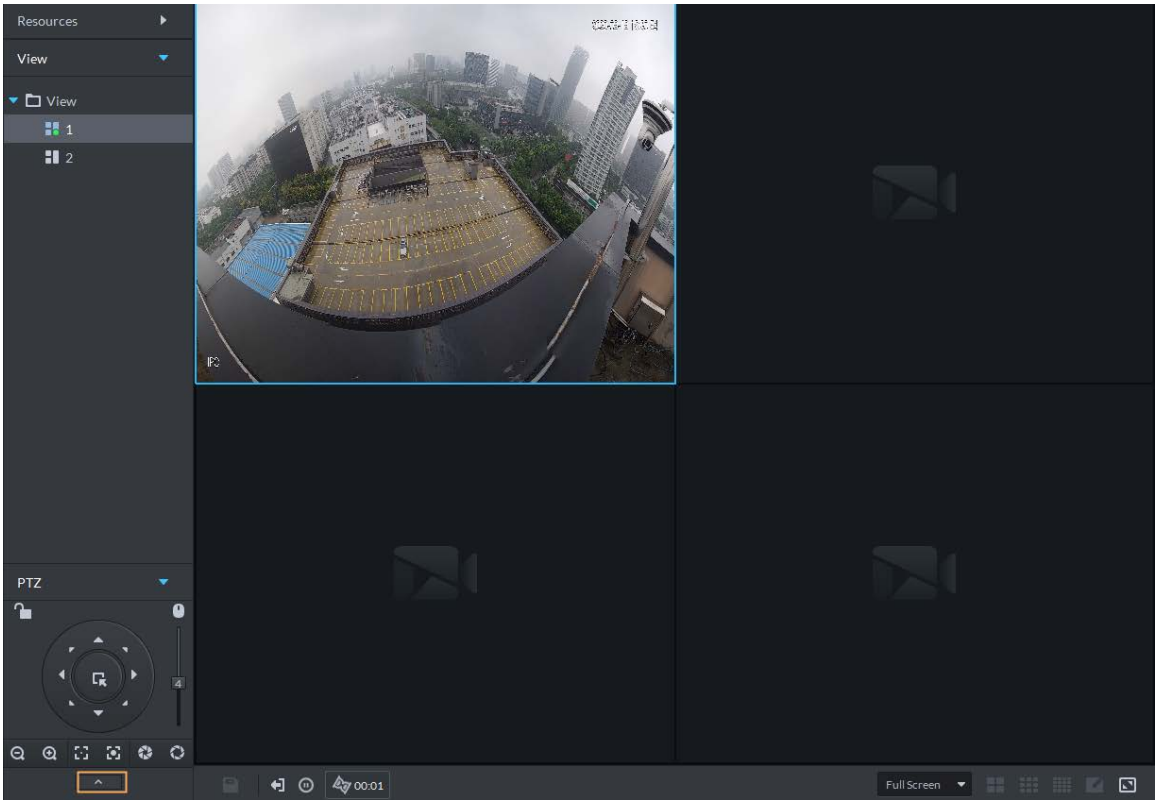
A pattern is a record of a consecutive series of PTZ operations. You can select a pattern to repeat the corresponding operations quickly. See pattern configuration instructions as follows.

## Procedure

Step 1 On the **Monitoring Center** page, open the video of a PTZ camera.

Step 2 Click .

Figure 6-20 Go to PTZ control panel




Step 3 Click .

Step 4 Click , and then operate the 8 PTZ buttons of PTZ to set pattern.

Step 5 Click .

## Related Operations

Call pattern: Click , and then the camera will automatically repeat the pattern that you have configured.

### 6.1.2.4.4 Enabling/Disabling Pan

On the **Monitoring Center** page, open the video of a PTZ camera. Click , and then click . PTZ rotates 360° at a specified speed. Click to stop camera rotation.

### 6.1.2.4.5 Enabling/Disabling Wiper

Enable/disable the PTZ camera wiper. Make sure that the camera supports wiper function.

On the **Monitoring Center** page, open the video of a PTZ camera. Click , and then click to turn on wiper. Click to turn off wiper.

### 6.1.2.4.6 Enabling/Disabling Light

Turn on/off camera light. Make sure that the camera supports light.

On the **Monitoring Center** page, open the video of a PTZ camera. Click , and then click to turn on light. After enabling light, click to turn off light.

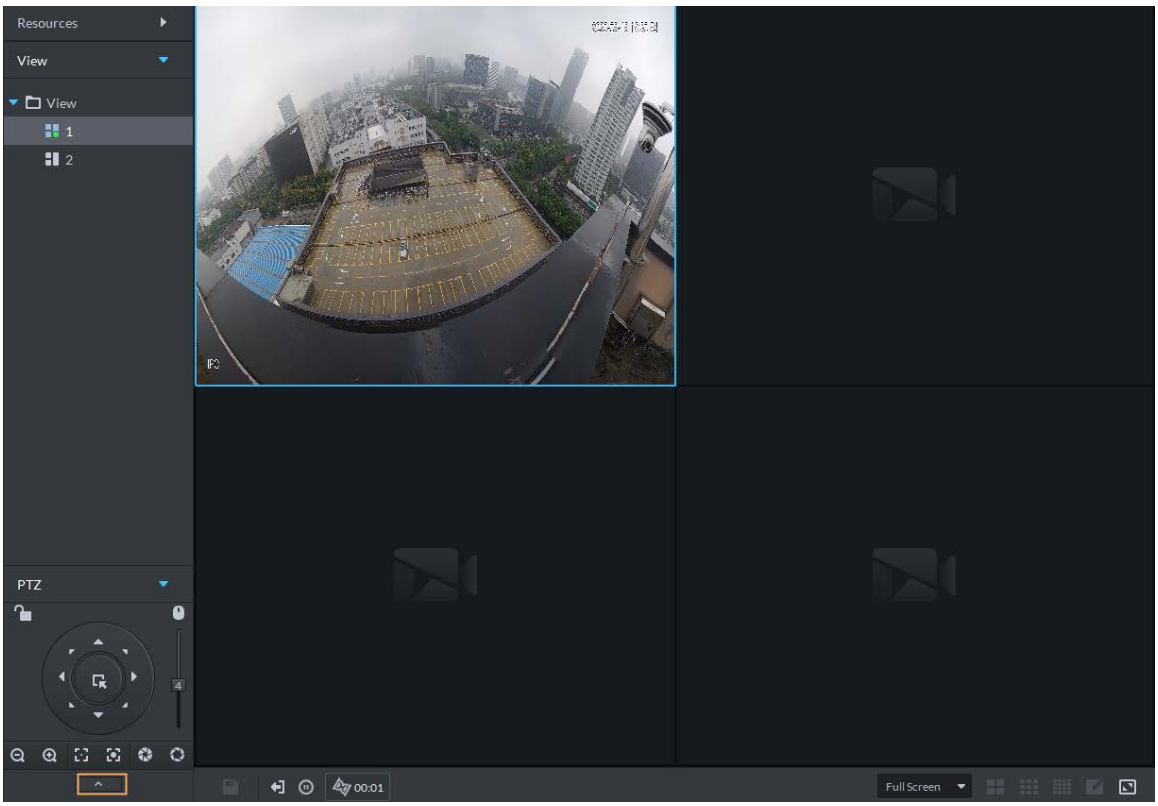
### 6.1.2.4.7 Configuring Custom Command

## Procedure

Step 1 On the **Monitoring Center** page, open the video of a PTZ camera.

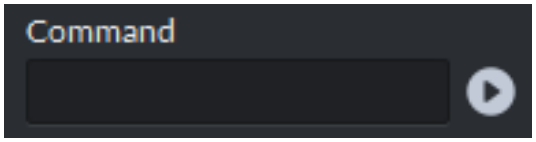
Step 2 Click .

Figure 6-21 Go to PTZ control panel




Step 3 Enter your command in the **Command** box.

Figure 6-22 Custom command




Step 4 Click to show the command functions.

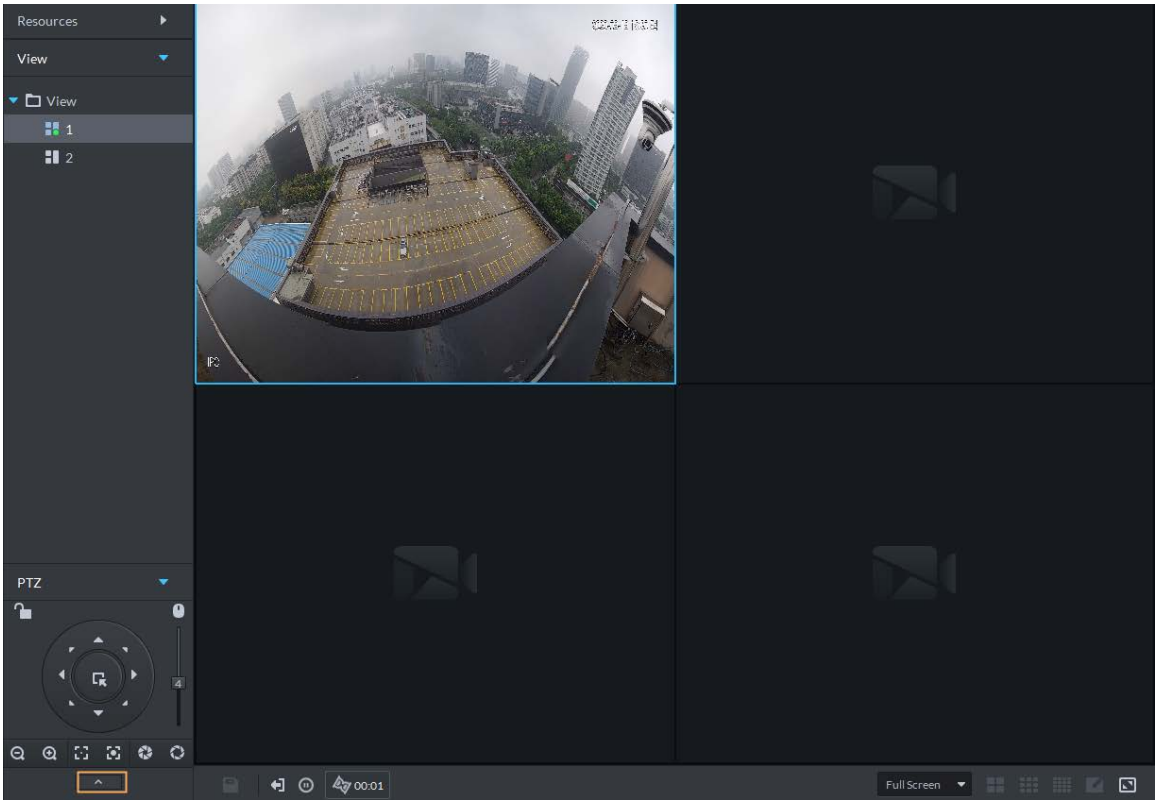
### 6.1.2.4.8 PTZ Menu

## Procedure

Step 1 On the **Monitoring Center** page, open the video of a PTZ camera.

Step 2 Click .

Figure 6-23 Go to PTZ control panel




Step 3 Click .

Step 4 Click .

Step 5 Use the panel to go to the menu configuration page.

Figure 6-24 Go to PTZ menu configuration page

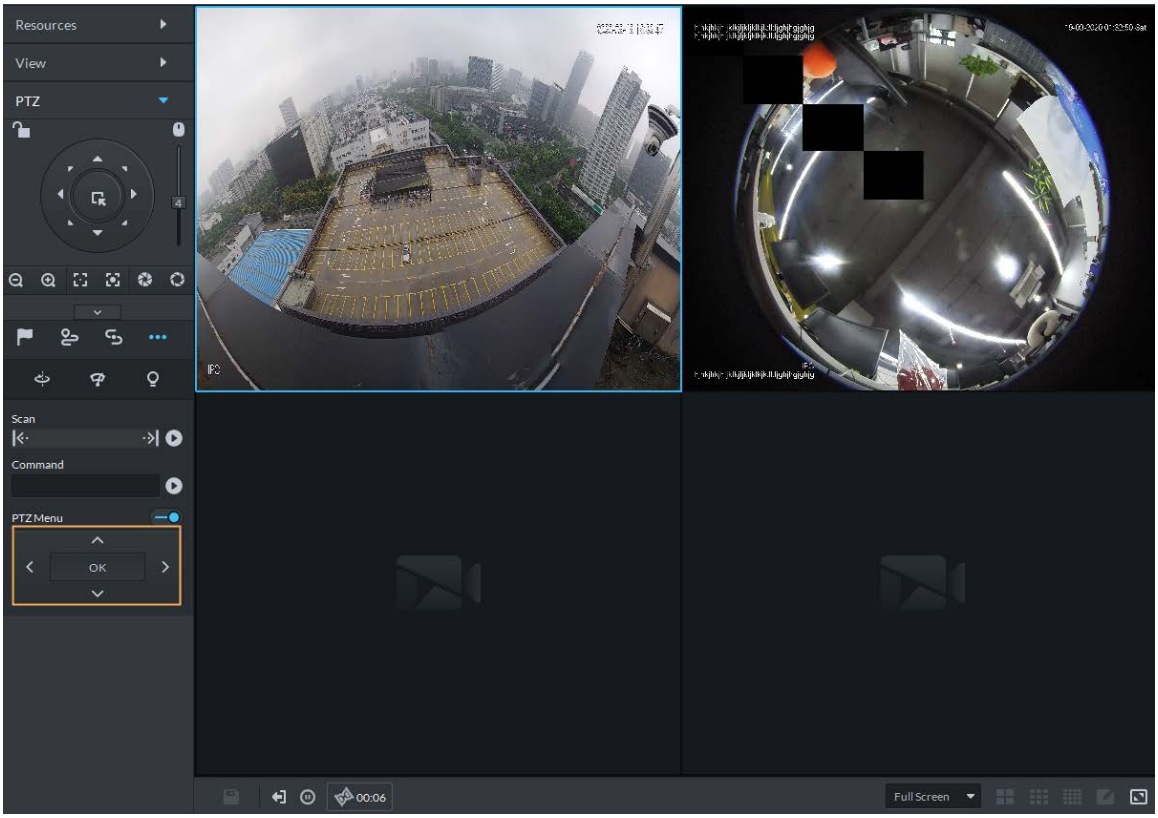


Table 6-5 PTZ menu description

| Parameters | Description |
|---|---|
|  | Up/down. |
|  | Left/right. Point to set parameters. |
|  | Click  to enable PTZ menu function. System displays main menu on the monitor window. |
|  | Click  to close PTZ menu function. |
| OK | It is the confirm button. It has the following functions.<br>• If the main menu has the sub-menu, click **OK** to enter the sub-menu.<br>• Point to **Back** and then click **OK** to go to go back to the previous menu.<br>• Point to **Exit** and then click **OK** to exit the menu. |
| Camera | Point to **Camera** and then click **OK** to enter camera settings sub-menu page. Set camera parameters. It includes picture, exposure, backlight, day/night mode, focus and zoom, defog, and default. |
| PTZ | Point to **PTZ** and then click **OK** to go to PTZ sub-menu page. Set PTZ functions. It includes preset, tour, scan, pattern, rotation, PTZ restart, and more. |
| System | Point to **System** and then click **OK** to go to system sub-menu page. Set PTZ simulator, restore camera default settings, video camera software version and PTZ version. |
| Return | Point to the **Return** and then click **OK** to go back to the previous menu. |
| Exit | Point to the **Exit** and then click **OK** to exit PTZ menu. |

## 6.1.2.5 Fisheye-PTZ Smart Track

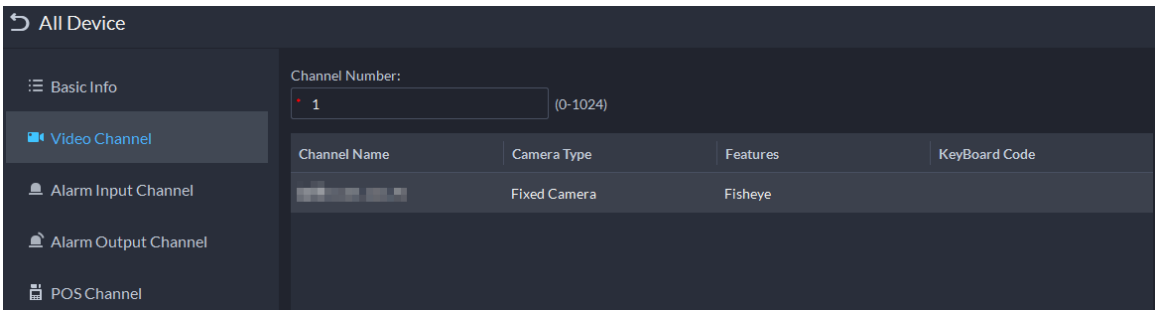
Link a PTZ camera to a fisheye camera so that when the fisheye camera detects a target, the PTZ camera automatically rotates to it and track.

### 6.1.2.5.1 Preparations

Make sure the following preparations have been completed:

- Fisheye camera and PTZ camera are well deployed. For details, see corresponding user's manuals.
- Basic configurations of the platform have been finished. For details, see "4 Basic Configurations".
  - When adding cameras, select **Encoder** from **Device Category**.
  - **Features** of fisheye camera is set to **Fisheye**. For details, see "4.2.2.5.2 Modifying Device Information".

Figure 6-25 Set fisheye camera features



### 6.1.2.5.2 Configuring Fisheye-PTZ Smart Track

## Procedure

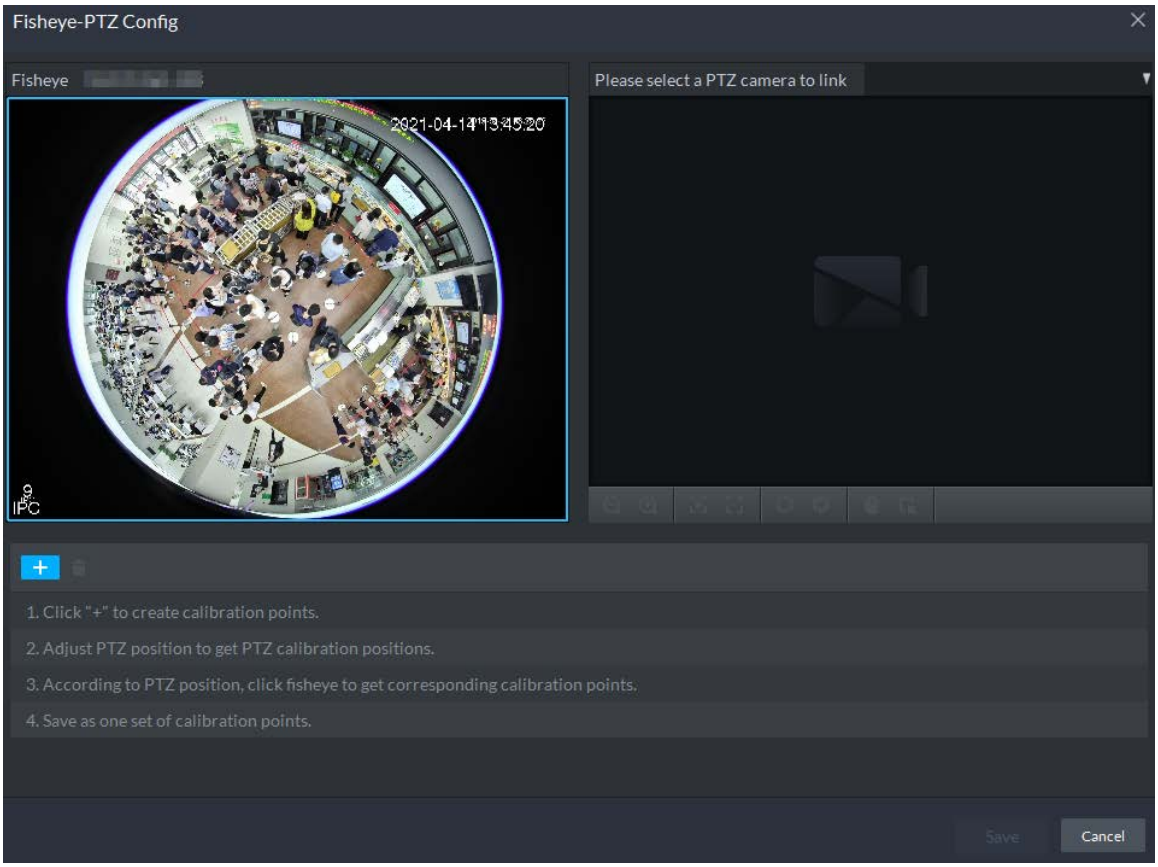
Step 1 Log in to the DSS Client. On the **Home** page, click , and then click **Monitoring Center**.

Step 2 Click .

Step 3 In the device tree on the left, right-click a fisheye camera, and then select **Modify Smart Track**.

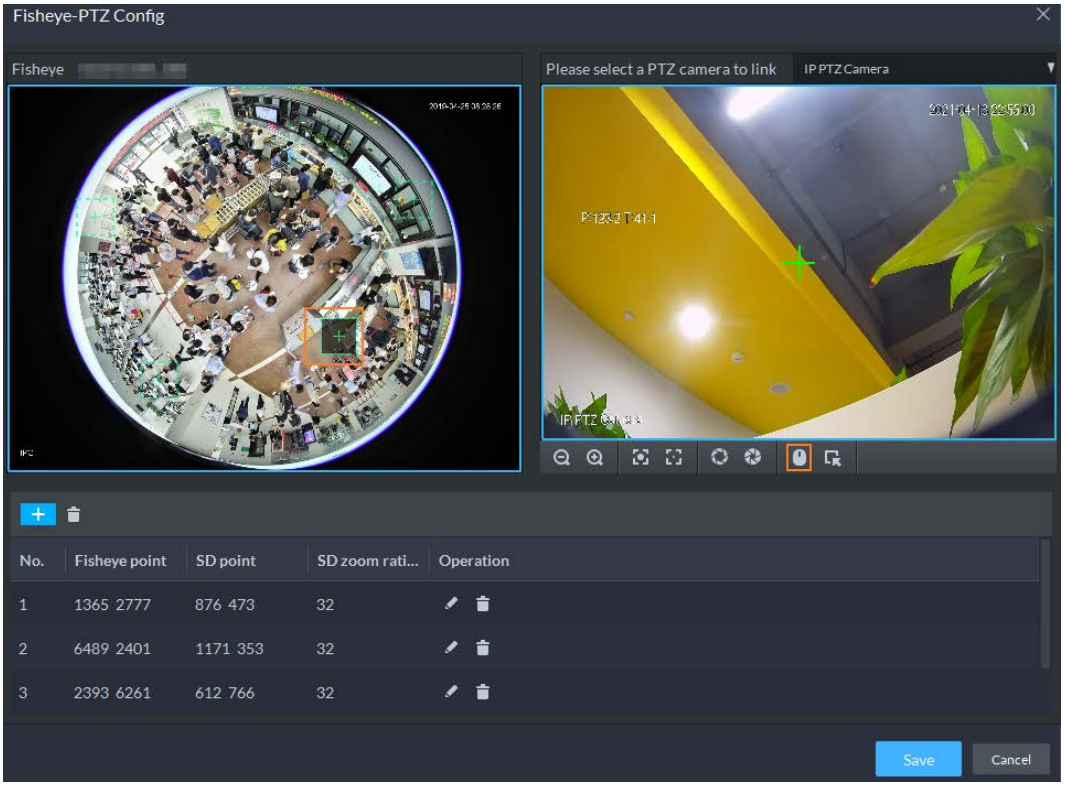
Step 4 Click next to **Please select a PTZ camera to link**, and then select a PTZ camera.

Figure 6-26 Set smart track rules (1)




Step 5 Click and then move the of the fisheye on the left to select a position. Click of the PTZ camera to find the position. Adjust the PTZ camera to find the position and move the PTZ to the center position (The green cross on the image).

Figure 6-27 Set smart track rules (2)




- Select 3-8 mark points on fisheye camera.
- When you find mark point on the right side of the PTZ camera, click to zoom out PTZ.
- Click to 3D position, and when you click a certain point on the left side of PTZ camera, it will automatically move to the center.

Step 6 Click to save the calibration point.

See above steps to add at least three calibration points. These three points shall not be on the same straight line.

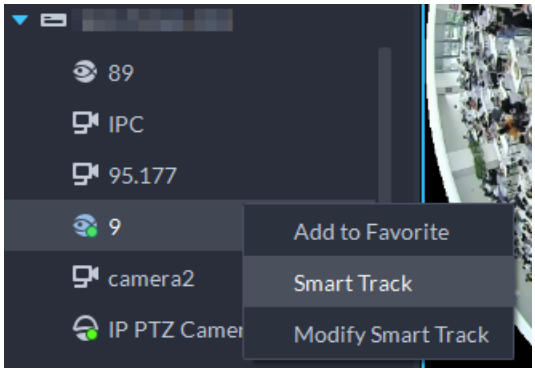
Step 7 Click **Save**.

### 6.1.2.5.3 Applying Fisheye-PTZ Smart Track

## Procedure

Step 1 Log in to the DSS Client. On the **Monitoring Center** page, select the fisheye camera on the device tree and then right-click to select **Smart Track**.

Figure 6-28 Select a smart track channel




Step 2 Click any point on the left of fisheye, PTZ camera on the right will automatically rotate to corresponding position.

## 6.1.3 Playback

Play back recorded videos.

### 6.1.3.1 Page Description

Log in to the DSS Client. On the **Home** page, click , and then click **Monitoring Center**. Click the **Playback** tab.

Figure 6-29 Playback page

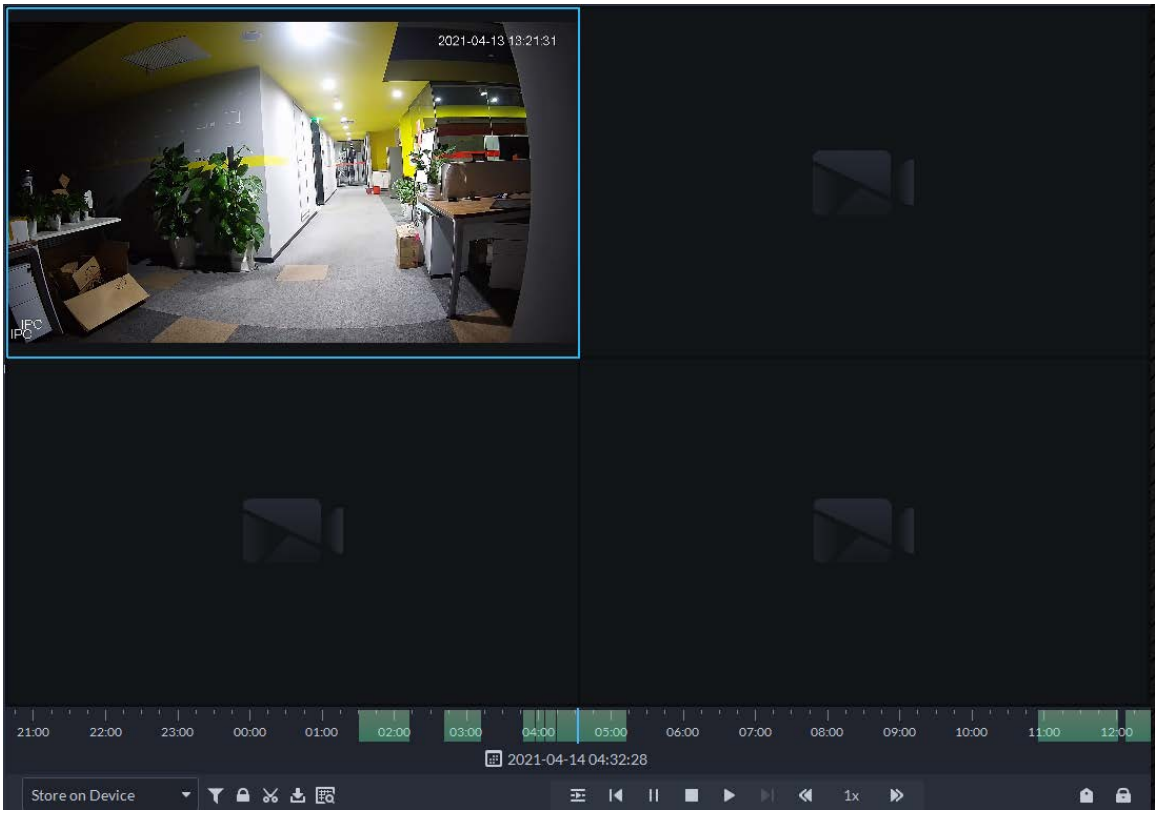
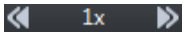
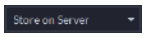


Table 6-6 Function description

| Icon | Description |
|---|---|
|  | Lock the video stored to the server within some period of designated channel. Locked video will not be overwritten when disk is full. |
|  | Select and downdload a duration of video on the progress bar. |
|  | Download the video. |
|  | Filter video according to record type. |
|  | Make dynamic detection analysis over some area of the record image, and it only plays back the video with dynamic image in the detection area. |
|  | Play multiple recorded videos from the same time. For example, you are playing recorded videos from 3 channels at the same time. Select channels, configure when you want to play the recorded video from, and then click this icon. All 3 channels will play recorded videos from the same time. |
|  | Stop/pause the video. |
|  | Frame by frame playback/frame by frame backward. |
|   | Fast/slow playback. Max. supports 64X or 1/64X. |
|   | During playback, you can drag time progress bar to play back record at the specific time. |
|   | Select the storage location of the video to be searched. Supports searching for the video on the platform server or storage device. |
|  | Tag records. |
|  | Lock records. |

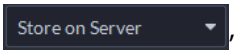
## 6.1.3.2 Playing Back Recordings

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click  , and then select **Monitoring Center**.

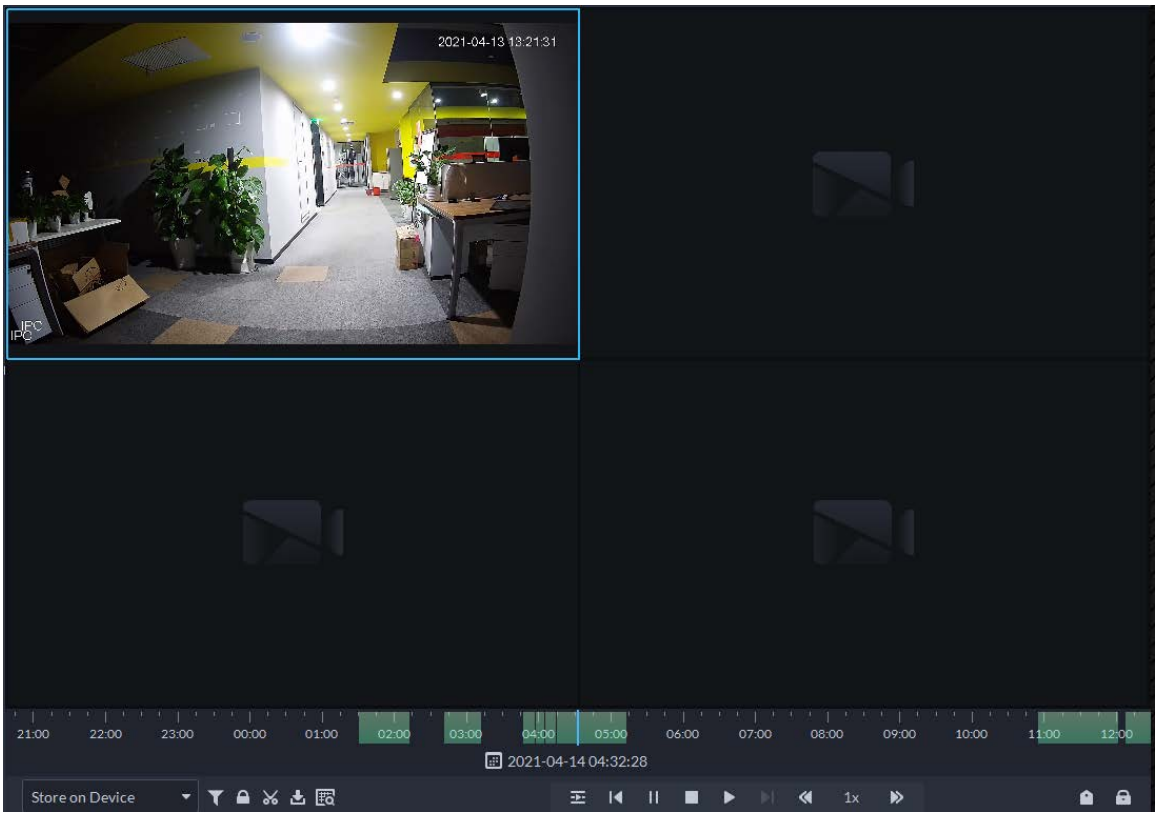
Step 2 Click the **Playback** tab.

Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Select the storage path of recorded video from  , and then click  to select the date.

Dates with blue dot means there are recordings.

Figure 6-30 Playback page




Step 5 Click ▶ to play the video.

Step 6 Hover over the video, and then the icons appear. You can perform the following actions.

Figure 6-31 Video playback

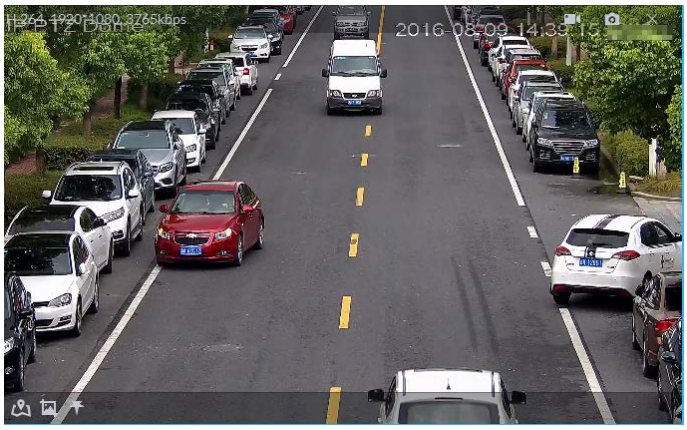



Table 6-7 Function description

| Icon | Name | Description |
|---|---|---|
| | Take a recording on the device | Click this icon to start recording. The recorded video is stored locally. The saving path is C:\DSS\DSS Client\Record\ by default. |
| | Take a snapshot on the device | Take a snapshot of the current image and save it locally. The saving path is C:\DSS\DSS Client\Picture\by default. |
| | Close | Close the window. |

| Icon | Name | Description |
|---|---|---|
| | Map location | If the device has been marked on the map, click the icon to open the map in a new window to display map location of the device. |
| | Search by snapshot | Capture the target in the playback window. Click to select the search method, and then the system goes to the page with search results. More operations:<br>• : Move the selection area.<br>• : Adjust the size of the selection area.<br>• Right-click to exit search by snapshot. |
| | Tag | Tag the videos of interest for easy search in the future. |

Right-click the video, and then you can perform the following actions.

Figure 6-32 Shortcut menu

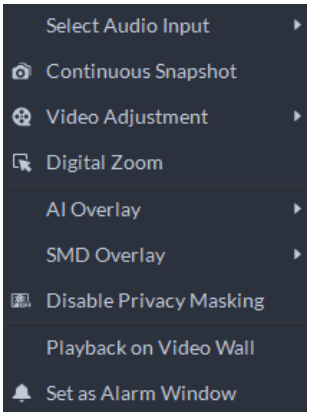



Table 6-8 Description

| Parameters | Description |
|---|---|
| Select Audio Input | If the camera has more than one audio input channels, you can select one or select the mixed audio. This configuration is effective with both live view and playback. |
| Continuous Snapshot | Take snapshots of the current image (three snapshots each time by default). The snapshots are saved to ..\DSS\DSS Client\Picture by default. To change the snapshot saving path, see "9.3.5 Configure File Storage Settings". |
| Video Adjustment | Adjust the brightness, contrast, saturation, and chroma of the video for video enhancement. |
| Digital Zoom | Click it, and then double-click the video image to zoom in the image. Double-click the image again to exit zooming in. |
| AI Overlay | The client does not show rule lines over live video by default. When needed, you can click **AI Overlay** and enable **Rule Overlay** and **Bounding Box Overlay**, and then the live video shows rule lines if the AI detection rules are enabled on the device. This configuration is effective with the current selected channel both in live view and playback. |

| Parameters | Description |
| --- | --- |
| SMD Overlay | Enable **SMD Overlay** to show target bounding box over live video. When SMD is enabled on the device, you can enable **SMD Overlay** for the device channel, and then the live video will display dynamic target bounding boxes. This configuration is effective with the current selected channel both in live view and playback. |
| Disable Privacy Masking | For a camera that supports privacy masking of human face, you can disable the masking here to view the face image. |
| Playback on Video Wall | Play the video of the current channel on video wall. Make sure that video wall is configured (see "6.1.5 Video Wall"). |
| Set as Alarm Window | When selecting open alarm linkage video **In Preview** (in live window) from **Local Settings > Alarm**, then the video will be displayed on the window which is set to alarm window. If multiple alarms are triggered, the video linked to the latest alarm will be opened. If the number of alarm windows is fewer than the number of linkage videos, the video linked to the earliest-triggered alarm will be opened. After enabling **Set as Alarm Window**, the window frame is displayed in red. |

### 6.1.3.3 Locking Videos

Lock the video stored on the server within a period of a specific channel. The locked video will not be overwritten when disk is full.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click the **Playback** tab.

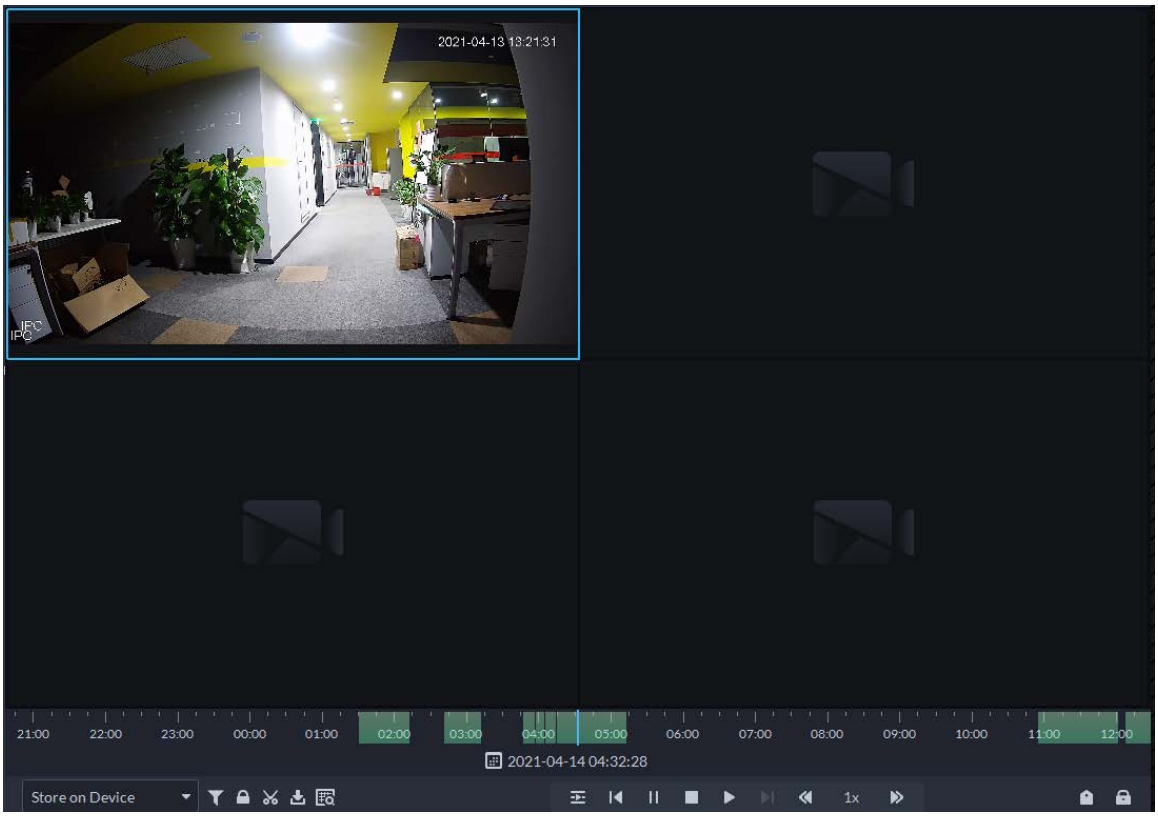
Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Select the storage path of recorded video from Store on Server, and then click to select the date.

The search results are displayed.

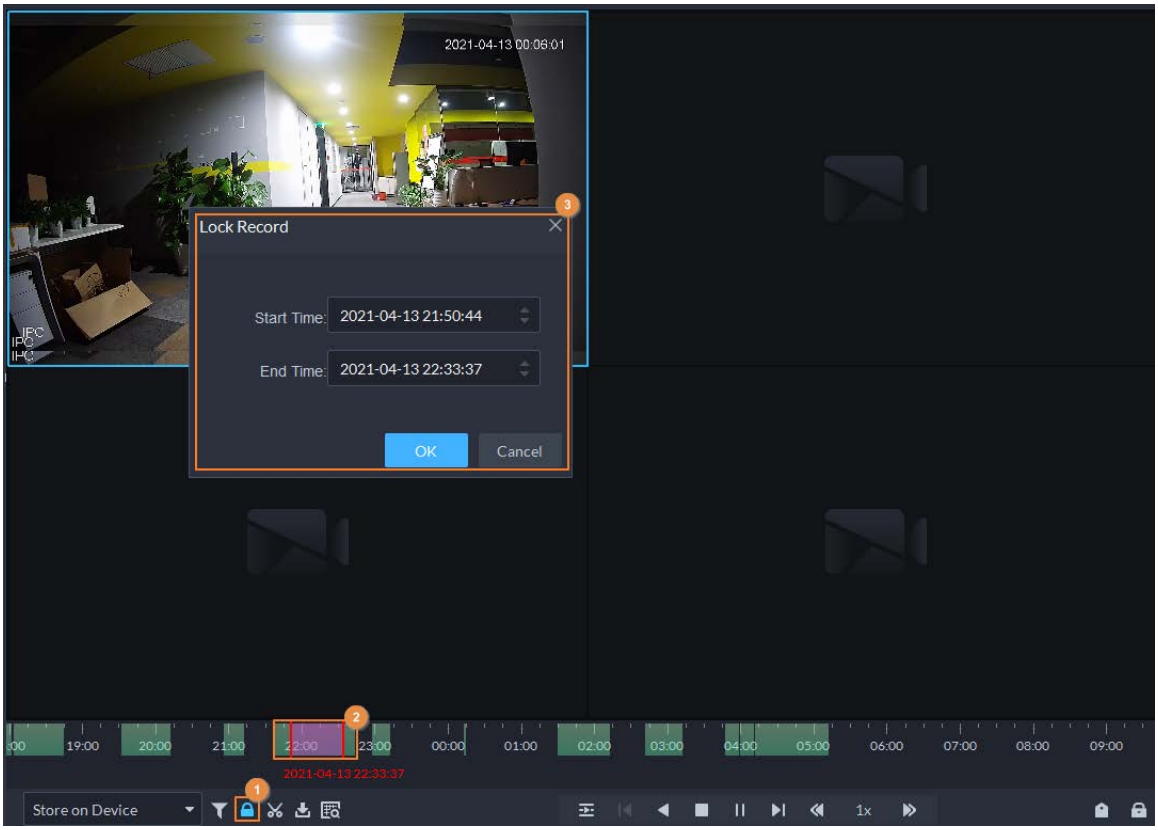
Dates with blue dot means there are video recordings.

Figure 6-33 Playback page




Step 5 Select a window that has recorded video, and then click on the bottom of the page, and then click on the timeline to mark the start point and end point of the video clip you need.

Figure 6-34 Lock record




Step 6 Confirm the start and end time, and then click **OK**.

## Related Operations

Click on the lower-right corner, and then all the recordings locked by the user currently logged in to the client are displayed. Double-click one to quickly play the recording.

## 6.1.3.4 Tagging Videos

You can tag records of interest for quick search.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click the **Playback** tab.

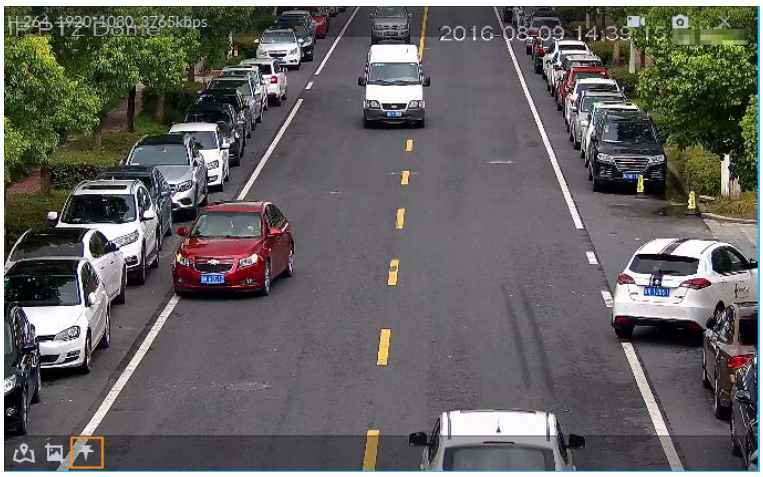
Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Select the storage path of recorded video from Store on Server, and then click to select the date.

The search results are displayed.

Dates with blue dot means there are video recordings.

Figure 6-35 Playback page



Step 5 Point to the window that is playing record, and then click .

Step 6 Name the tag, and then click **OK**.

### 6.1.3.5 Filtering Recording Type

Filter video according to record type, record type includes scheduled record, alarm record, and motion detection record.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

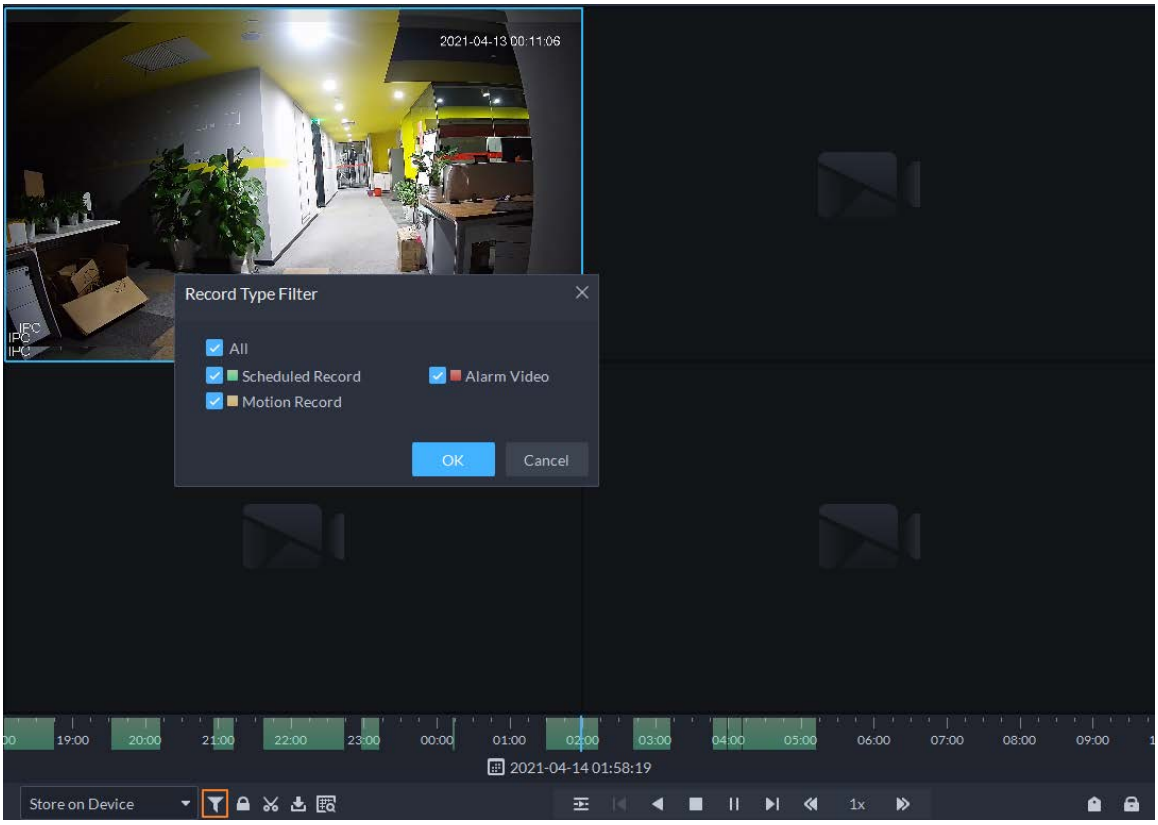
Step 2 Click the **Playback** tab.

Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Click , select a record type (or types), and then click **OK**.

The system only displays videos of the selected type. Each section on the time bar in green indicates a recorded video of the type you selected.

Figure 6-36 Filter record type




## 6.1.3.6 Clipping Videos

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click the **Playback** tab.

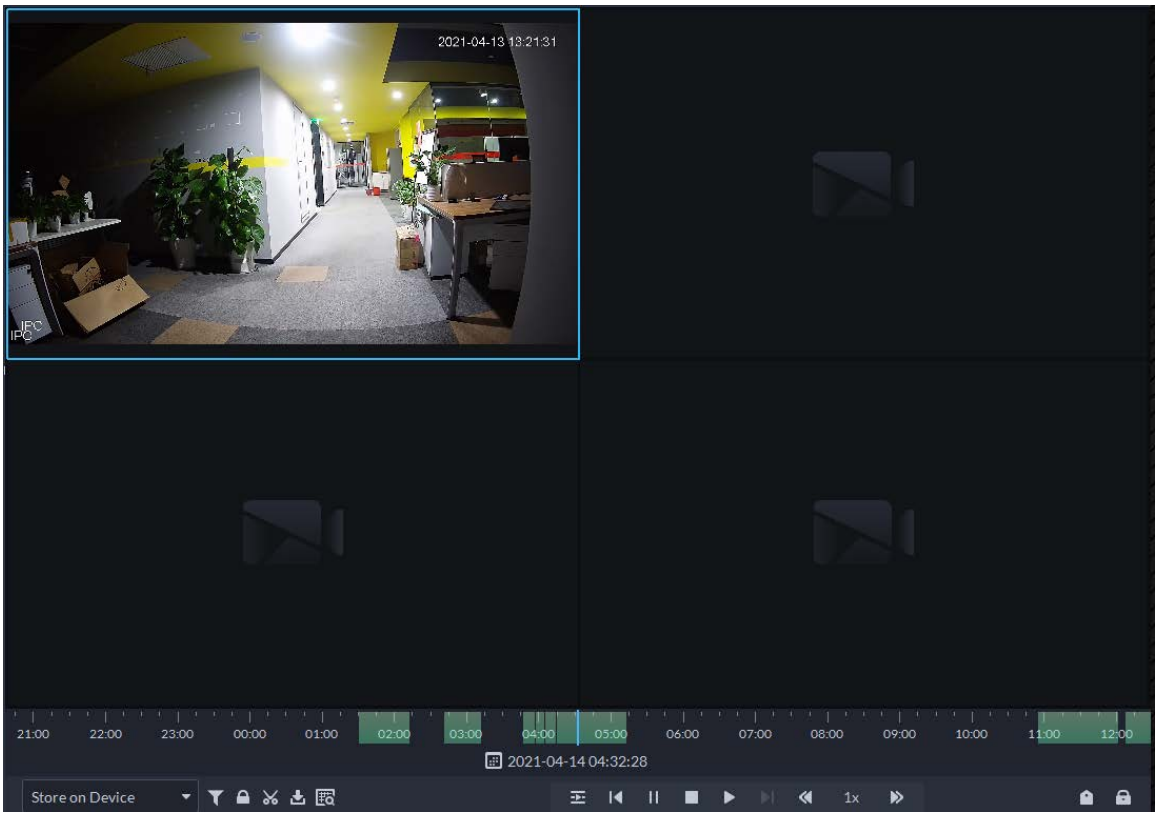
Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Select the storage path of recorded video from Store on Server, and then click to select the date.

The search results are displayed.

Dates with blue dot means there are video recordings.

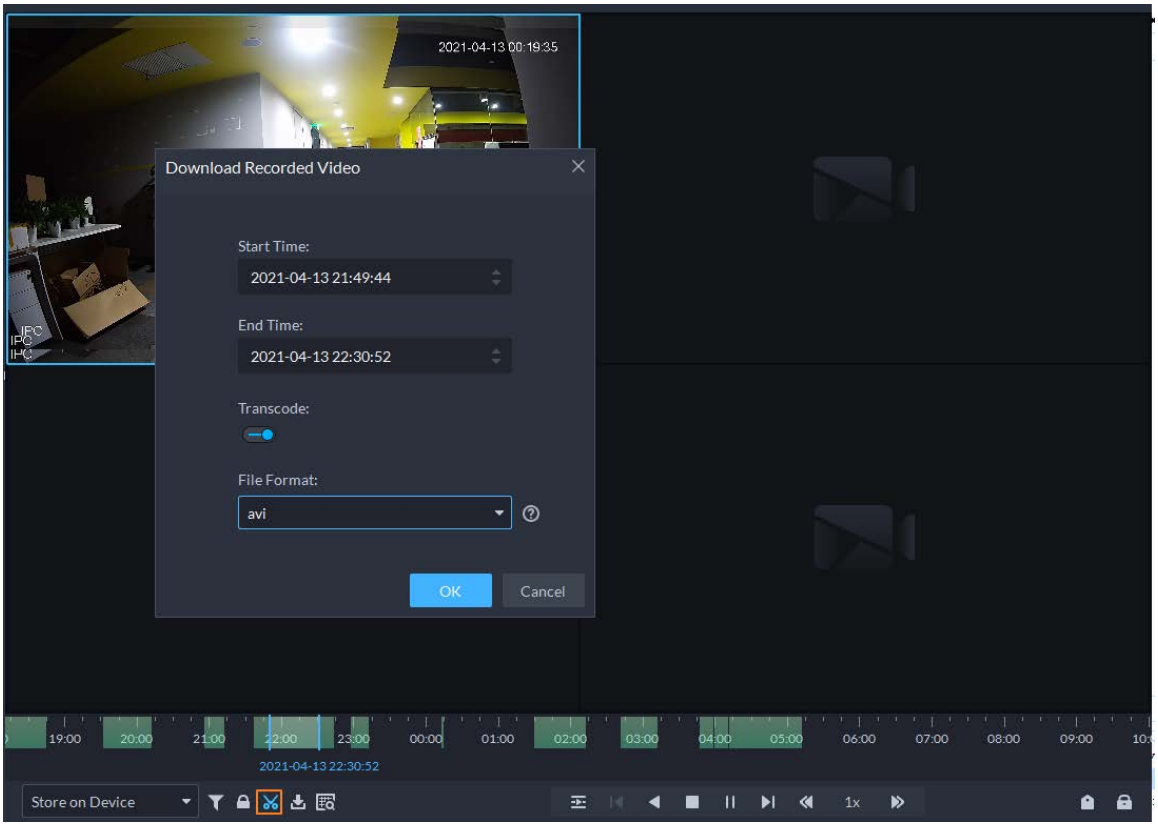
Figure 6-37 Playback page




Step 5 Select a date with video recordings, and then click .

Step 6 On the timeline, click the point with green shade to start clipping, drag your mouse, and then click again to stop clipping.

Figure 6-38 Download recorded video




Step 7 Enter the password of the current user.

Step 8 (Optional) Enable **Transcode**, and then select the file format.

Step 9 Click **OK**.

## 6.1.3.7 Smart Search

With the smart search function, you can select a zone of interest on the video image to view motion records within this section. The relevant camera is required to support Smart Search; otherwise the search result will be empty.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click the **Playback** tab.

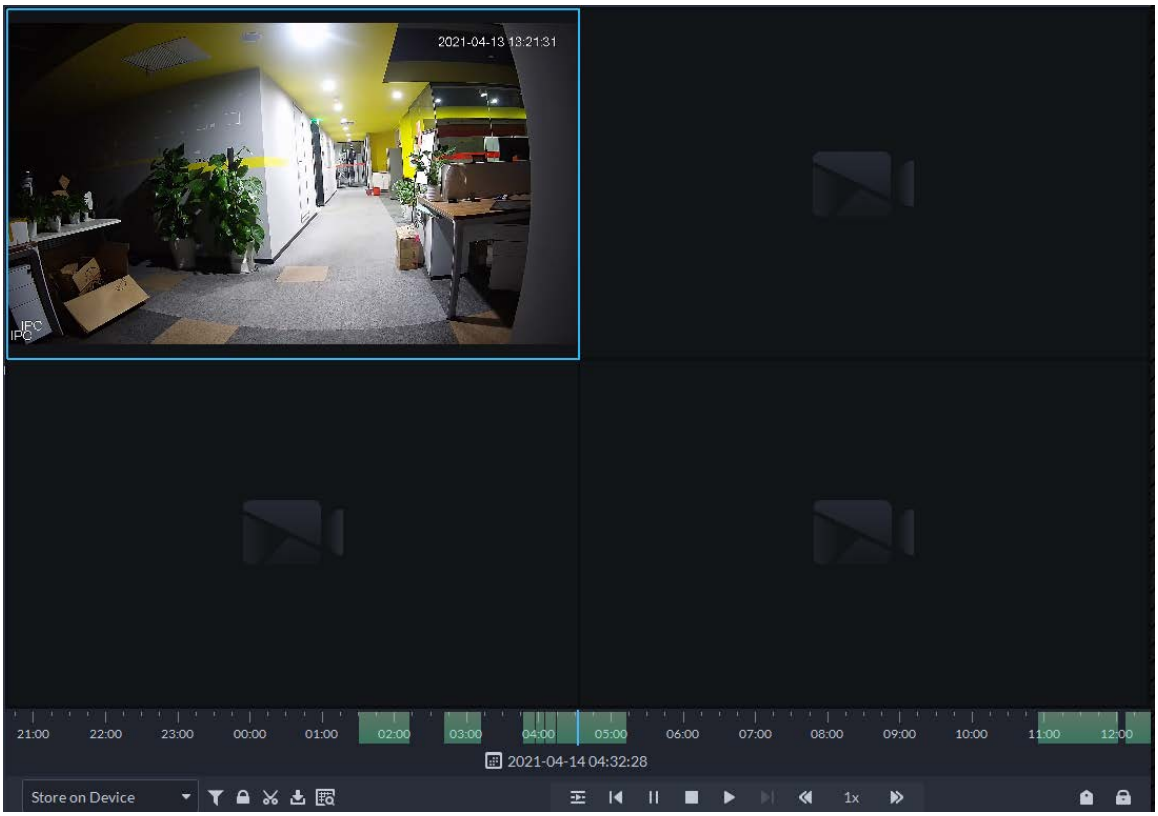
Step 3 Select a channel from the device tree, and then double-click it, or drag it to the window.

Step 4 Select the storage path of recorded video from Store on Server, and then click to select the date.

The search results are displayed.

Dates with blue dot means there are video recordings.

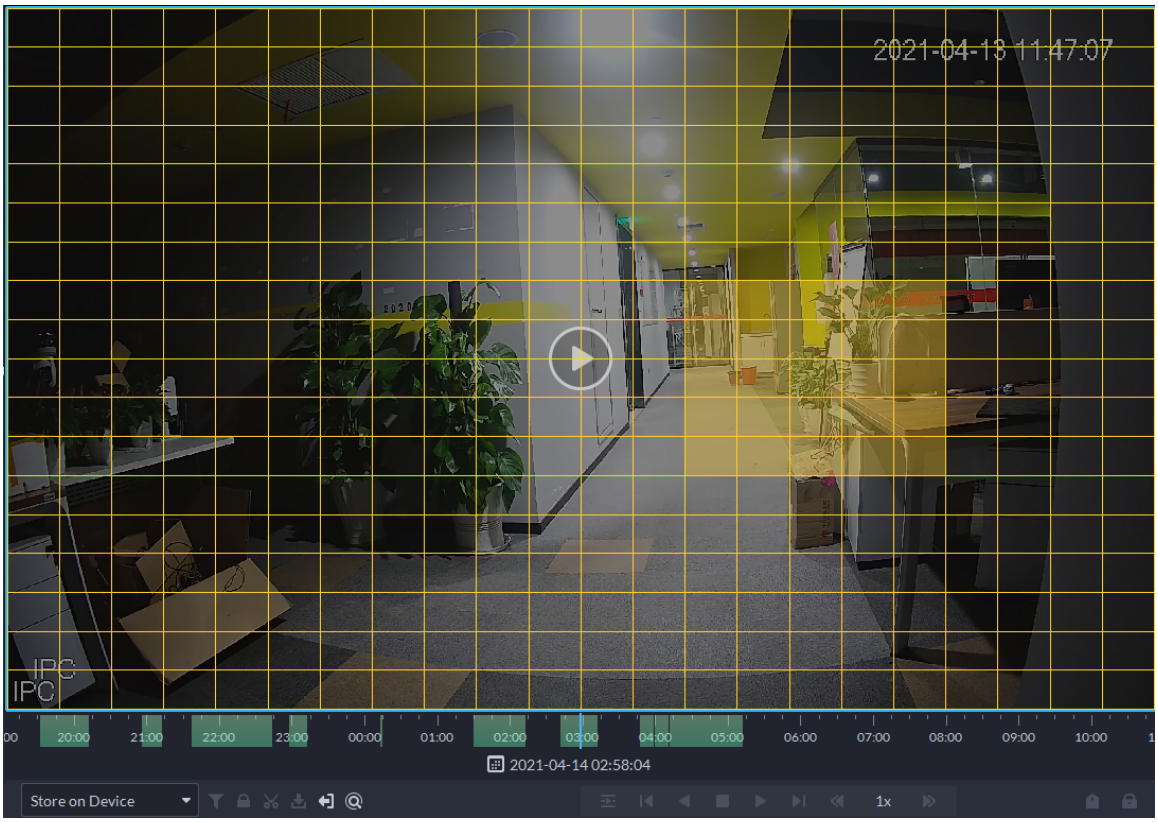
Figure 6-39 Playback page




Step 5 Select a window that has videos, click , and then select a type.

The smart search page is displayed, with 22 × 18 squares in the window.

Figure 6-40 Smart search




Step 6 Click the squares and select detection areas.

- Select a detection area: Point to image, click and drag to select a square.
- For the selected area, click again or select square to cancel it.

Step 7 Click to start smart search analysis.

- If there are search results, the time progress bar will become purple and display dynamic frame.
- It will prompt that the device does not support smart search if the device you selected does not support the function.

Click to select the detection area again.

Step 8 Click the play button on the image or control bar.

The system plays search results, which are marked purple on the timeline.

Step 9 Click to exit smart search.

## 6.1.4 Map Applications

On the map, you can view real-time videos of devices, locations of channels that trigger alarms, cancel alarms, and more.

### Prerequisites

Make sure that you have configured a map. For details, see "5.2 Configuring Map".

## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select > **Monitoring Center**.

Step 2 Click .

Step 3 In the list of maps, click a map.

Step 4 View video, cancel alarms, and more.

The functions vary with the types of maps and devices. Slight differences might be found in the actual page.

Table 6-9 Function Description

| Function | Description |
|---|---|
| Hide Device Name | Only displays the icons of devices or channels. |
| Zoom in and out on the map | Rotate the wheel or click and to zoom in and out on the map. When zooming out on the map, the same type of devices or channels will be merged together if they are near each other.   |
| View live video | Click **Pane**, select devices on the map, and then click to view videos in batches; or click on the map, and then select to view videos. |
| Playback | Click **Pane**, select devices on the map, and then click to view videos in batches; or click on the map, and then select to view videos. |
| View alarms | Click to view all alarms that are triggered. Click an alarm and the map will zoom in to the location of the device that triggered the alarm. Alarms will be automatically canceled after 30 s. |
| Cancel alarms | Click a device on the map, and then select . The alarm will also be automatically canceled after 30 s. |
| Monitor a radar | • The alarm area and detection area are displayed on the map by default. If a target is detected, its real-time location will be displayed in these areas.<br>• Click a radar channel, you can view its information and use the following functions:<br>◇ : View the raster map on the radar. You can use this function to check if the maps on the radar and the platform are consistent.<br>◇ : View the real-time videos of the linked PTZ cameras.<br>◇ : Search for and view recordings of the linked PTZ cameras.<br>◇ : View the real-time videos of the channels bound to the radar. You can use this function to monitor the area around the radar. |

| Function | Description |
| --- | --- |
| | ◇ : If the alarm area and detection area of the radar are keeping you from operating other channels, you can click this icon to hide these areas. |
| Show devices | Select the types of devices and channels you want to display on the map.<br><br>You can click an alarm output channel to control whether it will output alarm signals. |
| Visual area | If a device supports visual area, click **Visual Area** and double-click a device on the map to show its monitoring area.<br><br>This function is only available on GIS maps. |
| Initial angle | If a device supports initial angle, click **Initial Angle** and double-click a device on the map to show the initial angle.<br><br>This function is only available on GIS maps. |
| Measure distance | Select **Box** > **Length**, connect two points with a line on the map (double-click to finish drawing), and then the distance between the points is shown.<br><br>This function is only available on GIS maps. |
| Measure area | Select **Box** > **Area**, select a region on the map (double-click to finish drawing), and then the area is measured.<br><br>This function is only available on GIS maps. |
| Clear | To clear all markings on the map, click **Clear**. |
| Add marks | Select **Box** > **Add Mark**, and then mark information on the map. |
| Reset | Select **Box** > **Reset** to restore the map to its initial position and zoom level. |
| Sub maps | Click to view the information of the sub map. |
| | Double-click , and then the platform will go to the sub map, where you can view the resources on it. |

## 6.1.5 Video Wall

A video wall, which consists of multiple video screens, is used for displaying videos on the wall, instead of small PC displays.

Complete video wall settings before you can view videos on the wall.

# 6.1.5.1 Configuring Video Wall

## 6.1.5.1.1 Page Description

Before using the video wall function, you should get familiar with what you can do on the video wall page.

Figure 6-41 Video wall

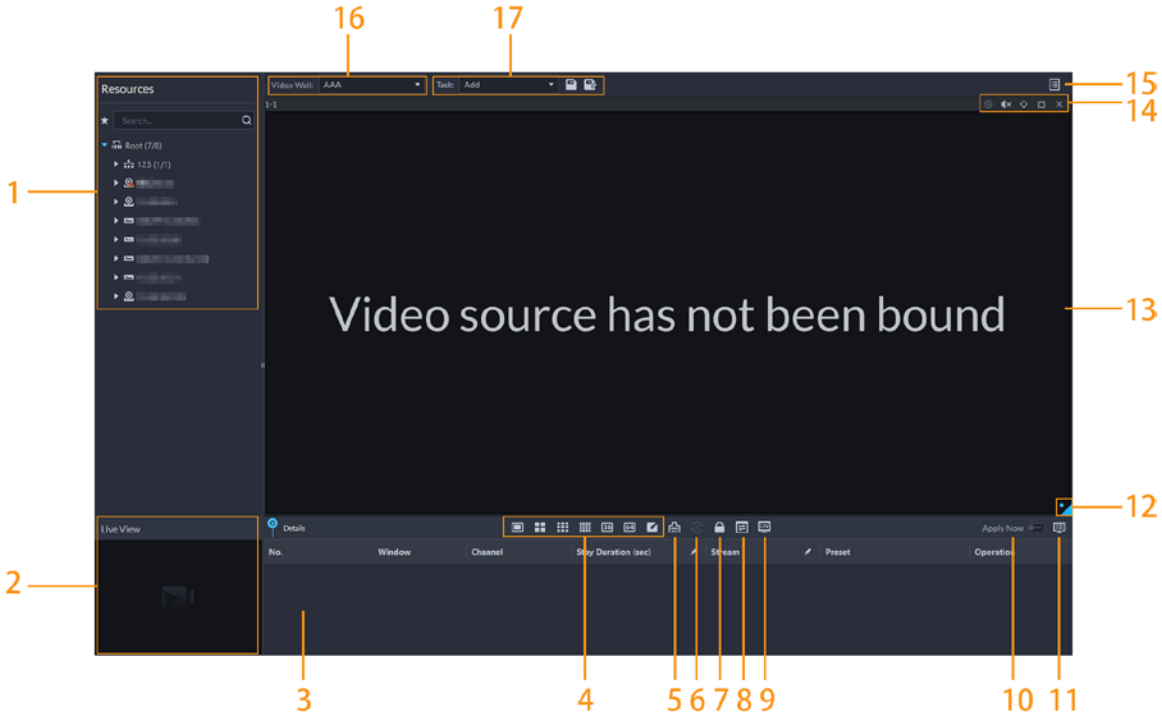



Table 6-10 Page description

| No. | Function | Description |
|---|---|---|
| 1 | Device tree | If you have selected **Device and Channel** in **Local Settings** > **General**, the device tree will display all devices and their channels. Otherwise, it will only display all channels.<br>Click to view channels that you have saved to favorites.<br>You can enter keywords in Search... to search for the channels you want. |
| 2 | Live view | View live videos from channels. |
| 3 | Detailed information | View the channel information in a screen of the video wall.<br>• Click and view the live video of the channel in **Live View** on the lower-left corner. This can be helpful when you need to make sure whether it is the channel you want.<br>• Click to adjust the order of channels.<br>• Click to delete the channel from the screen.<br>• Click **Stay Duration (sec)** or to define the for how long the live video of the channel will be displayed during each tour.<br>• Click **Stream** or to change the video stream of the channel. |
| 4 | Window split | Select how you want the window to split. |

| No. | Function | Description |
|---|---|---|
| 5 | Clear screen | Clear all the screens. |
| 6 | Stopping or starting all tours | Stop or start all tours. |
| 7 | Lock window | If multiple screens in a video wall are configured to be a combined screen, then you can perform video roaming on the window that has been locked. |
| 8 | Display mode | Display the real-time video, or a snapshot of the real-time video every 10 minutes of the bound channel in the screen.<br>If nothing happens after operation, you can just click another screen, then click the screen you want, and then it should work properly. |
| 9 | Turning on or off screens | Turn on or off the screens configured for the currently selected video wall. |
| 10 | Decoding to wall immediately after configuration | When a task has been configured, the platform will immediately decode channels to the video wall. |
| 11 | Decoding to wall | Manually decode channels to the video wall. |
| 12 | Video wall layout | Click to view the layout of the current video wall. |
| 13 | Video wall display area | The display area for video walls. |
| 14 | Screen operations | Includes stopping tour for the screen, muting, pasting, maximizing or restoring the screen, and closing the screen, |
| 15 | Video wall plan | Configure a timed or tour plan for the video wall. For detailed procedures, see "6.1.5.1.5 Configuring Video Wall Plans". |
| 16 | Video wall selection | Select the video wall you want to configure. |
| 17 | Display task management | Add, save, and delete tasks. |

### 6.1.5.1.2 Preparations

To display video on the wall, make sure that:

- Cameras, decoders and video wall are well deployed. For details, see the corresponding user's manuals.
- Basic configurations of the platform have been finished. For details, see "4 Basic Configurations".
  During configuration, make sure that:
  - When adding a camera, select **Encoder** from **Device Category**.
  - When adding a decoder, select **Video Wall Control** from **Device Category**.

### 6.1.5.1.3 Adding Video Wall

Add a video wall layout on the platform.

## Procedure

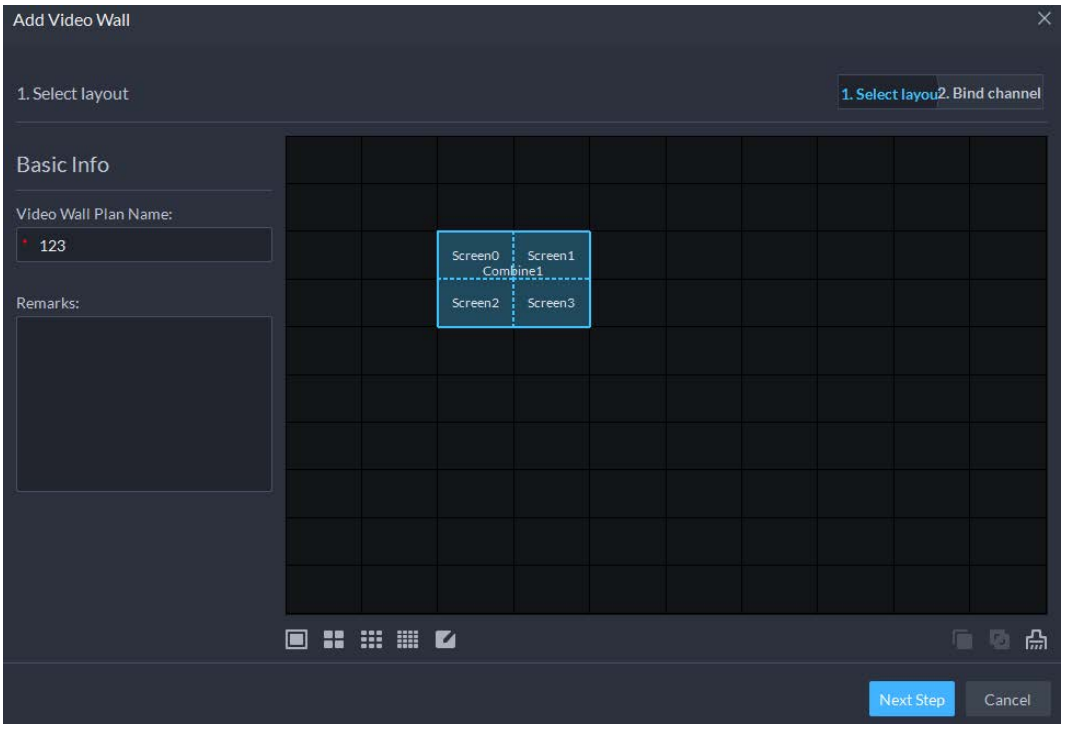
Step 1 Log in to the DSS Client, and on the **Home** page, select **Monitoring Center** > .

Step 2 From the **Video Wall** drop-down list, select **Add New Video Wall**.

Step 3 Enter **Video Wall Name**, and then select a window splicing mode.

- Select a splicing mode from among 1 × 1, 2 × 2, 3 × 3, 4 × 4 or set a custom mode by clicking .
- A multi-screen splicing mode is a combined screen by default. You can perform video roaming on it. For example, with a 2×2 combined screen, if you close 3 of them, the other one will be spread out on the combined screen. To cancel combination, click the combined screen, and then click .
- To create a combined screen, press and hold Ctrl, select multiple screens, and then click .
- To clear the created screen, click .

Figure 6-42 Add a video wall




Step 4 Click **Next Step**.

Step 5 Select the encoders which need to be bound in the device tree, and drag it to the corresponding screen.

- You can set whether to show ID in the screen, Show Screen ID means that the screen ID is disabled; click the icon and it becomes Show Screen ID, which means that screen ID is enabled.
- Each screen in a combined screen must be bound with a decoding channel.

Step 6 Click **Finish**.

### 6.1.5.1.4 Configuring Video Wall Display Tasks

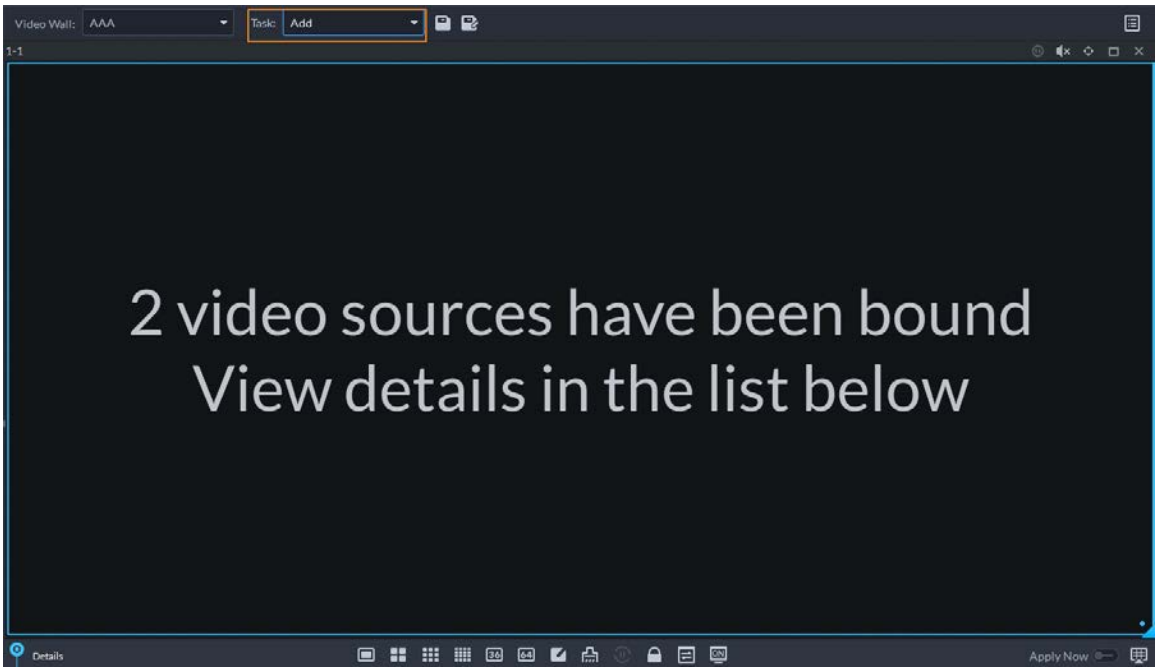
Display videos on the wall manually or in accordance with the pre-defined configuration.

## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select **Monitoring Center** > .

Step 2 In the **Task** drop-down list, select **Add**.

Figure 6-43 Add a video wall task




Step 3 From the device tree, select a camera, and then drag it to a screen, or select a window, drag the camera to the **Detail** section.

If you do not close video wall display in advance, this action will delete the bound camera and play the selected camera on the wall.

Step 4 Click .

If you have selected an existing task in the **Task** drop-down list, after dragging the video channel to the window, click to save it as a new task, which will be played on the wall immediately.

Step 5 Name the task, and then click **OK**.

- During video wall display of a task, if you have rebound the video channel, click to start video wall display manual.
- During video wall display, click or to stop or start tour display.

Step 6 Click  to start video wall display.

#### 6.1.5.1.5 Configuring Video Wall Plans

## Configuring Timed Plans

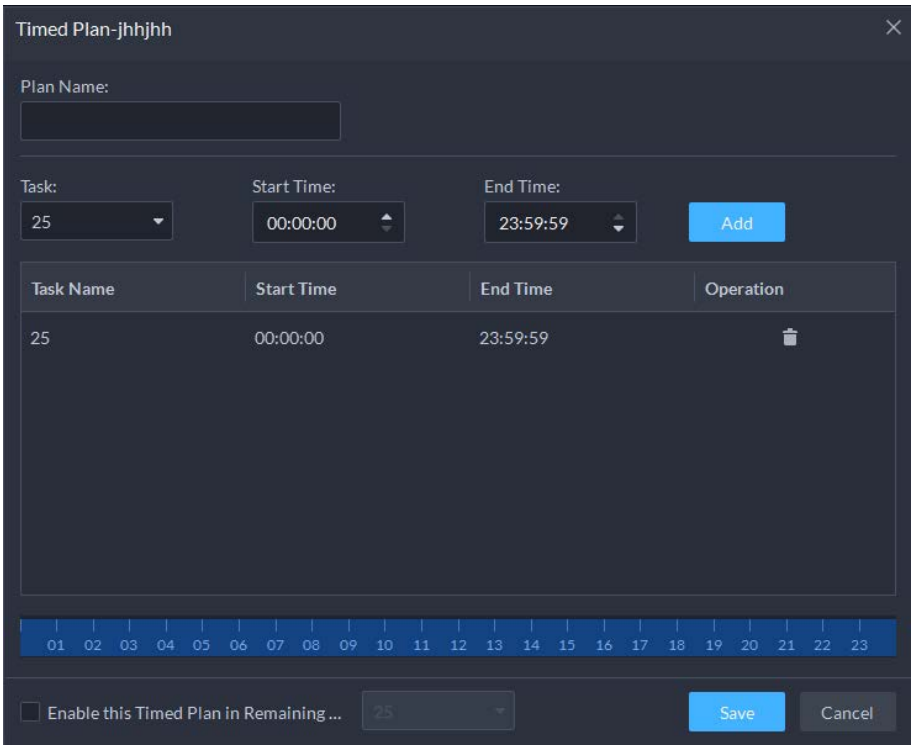
## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select **Monitoring Center** >  .

Step 2 Click  on the upper-right corner.

Step 3 Hover over , and then select .

Figure 6-44 Set timed plan




Step 4 Enter the plan name.

Step 5 Select a video task, set start time and end time, and then click **Add**.

Repeat this step to add more tasks. The start time and the end time of tasks cannot be repeated.

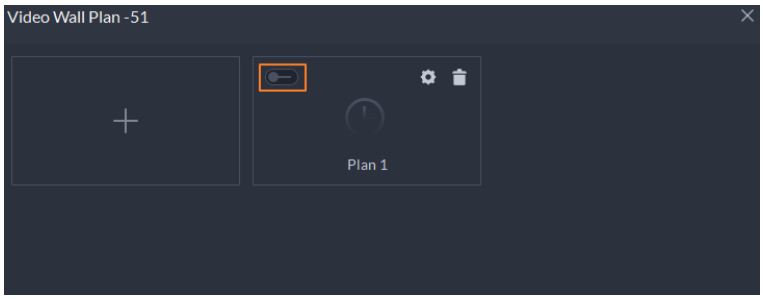
Select the **Enable This Timed Plan in Remaining Time** check box, and then set the task. The video wall displays the selected task during the remaining period.

Step 6 Click **Save**.

Step 7 Click  to start the plan.

You cannot display multiple plans on the wall at the same time. When a plan is enabled, the previous plan on the wall is automatically terminated.

Figure 6-45 Enable timed plan




- Modify plan:
- Delete plan:

## Configuring Tour Plans

After setting video wall tasks, you can configure the sequence and interval of tasks so that they can automatically play in turn on the wall.

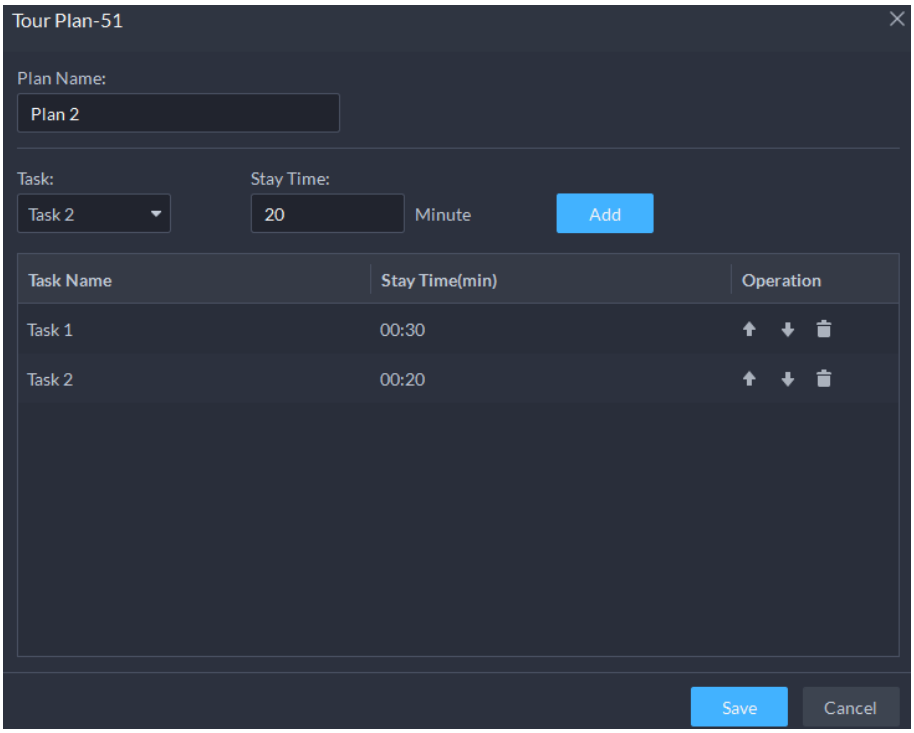
## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select **Monitoring Center** > .

Step 2 Click on the upper-right corner.

Step 3 Hover over , and then select .

Figure 6-46 Tour plan

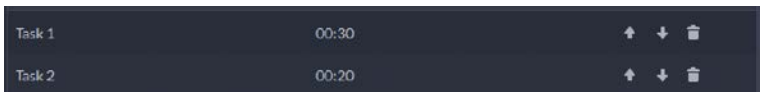



Step 4 Enter task name, select a video task and then set stay time. Click **Add**.

Repeat this step to add more tasks.

Click to adjust task sequence; click to delete a task.

Figure 6-47 Tour information

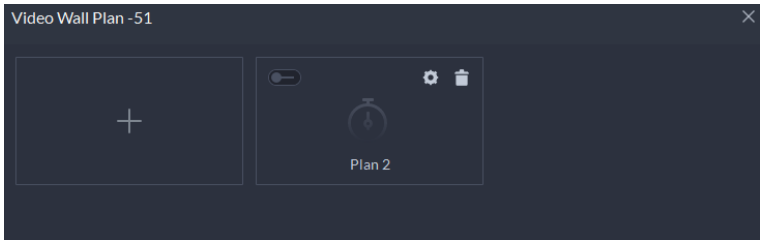



Step 5 Click **Save**.

Step 6 Click to start the tour plan.

You cannot display multiple plans on the wall at the same time. When a plan is enabled, the previous plan on the wall is automatically terminated.

Figure 6-48 Enable tour plan




- Modify plan: Click .
- Delete plan: Click .

## 6.1.5.2 Video Wall Applications

Make sure that decoder video ports are connected to the video wall screens.

### 6.1.5.2.1 Instant Display

Drag a camera to the video wall screen for instant display on the wall.

The video wall display task is configured. For details, see "6.1.5.1.4 Configuring Video Wall Display Tasks".

## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select **Monitoring Center** > .

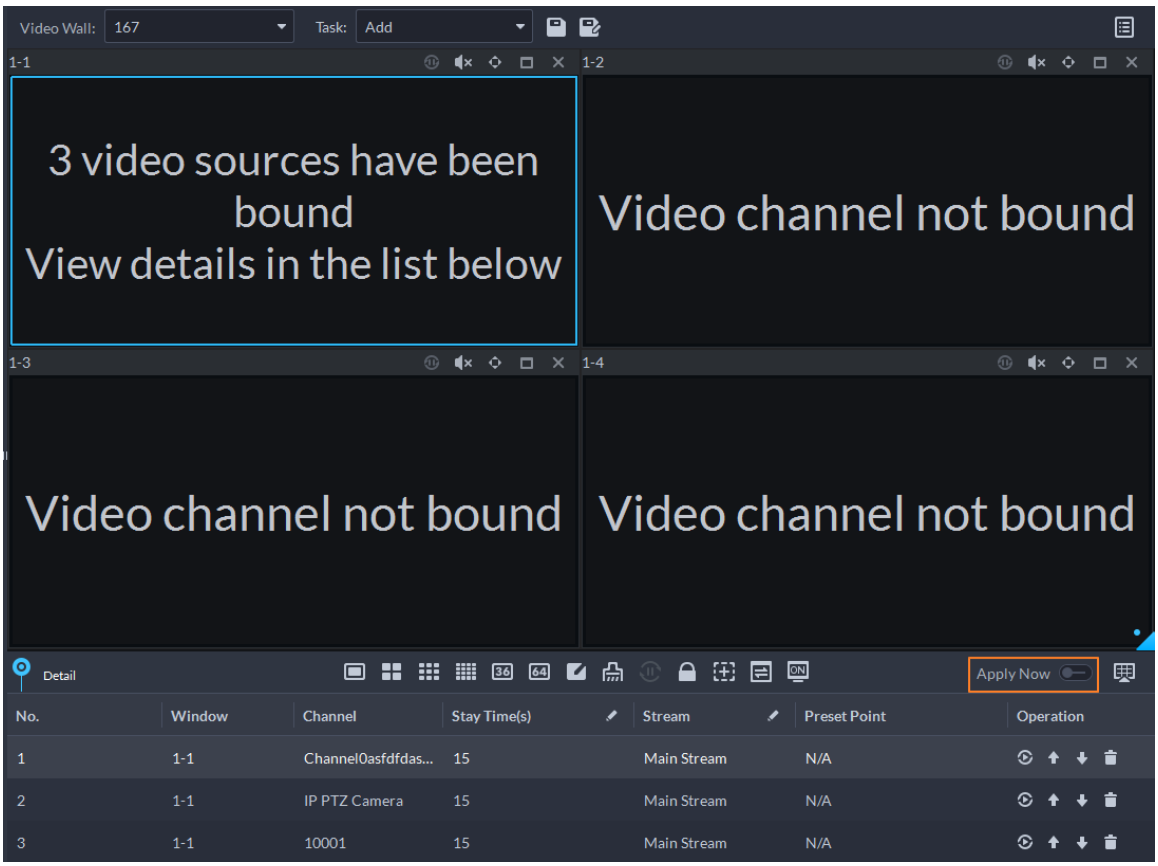
Step 2 In the **Video Wall** drop-down list, select a video wall.

Step 3 Click Apply Now to start video wall display.

Step 4 Drag a camera from the device tree to a screen, or select a window and drag the camera to the **Detail** section.

- A window can be bound to multiple video channels.
- The binding mode, which includes **Tour**, **Tile**, and **Inquiry**, can be set in **Local Settings** > **Video Wall**. For details, see "9.3.3 Configuring Video Wall Settings".
- For a fisheye camera, right-click it to select the installation mode for fisheye dewarping.

Figure 6-49 Bind video channel




Step 5 Select a screen, and then click **Detail** to view detailed information about the screen and channel, including stream type, preset and display sequence.

- Click to view live video of the current channel on the lower left.
- Click to adjust sequence.
- Click to delete the video channel on the current window.

### 6.1.5.2.2 Video Wall Task Display

Display a pre-defined task on video wall.

## Procedure

Step 1 Log in to the DSS Client, and on the **Home** page, select **Tools** > **Video Wall**.

Step 2 In the **Task** drop-down list, select a task.

Step 3 Operations available.

- After changing the video channel that is being displayed, click at the lower-right corner before you can see the effect on video wall.
- Click / to pause or stop.
- Select a screen, and then click **Detail** to view detailed information about the screen and

channel, including stream type, preset and display sequence.

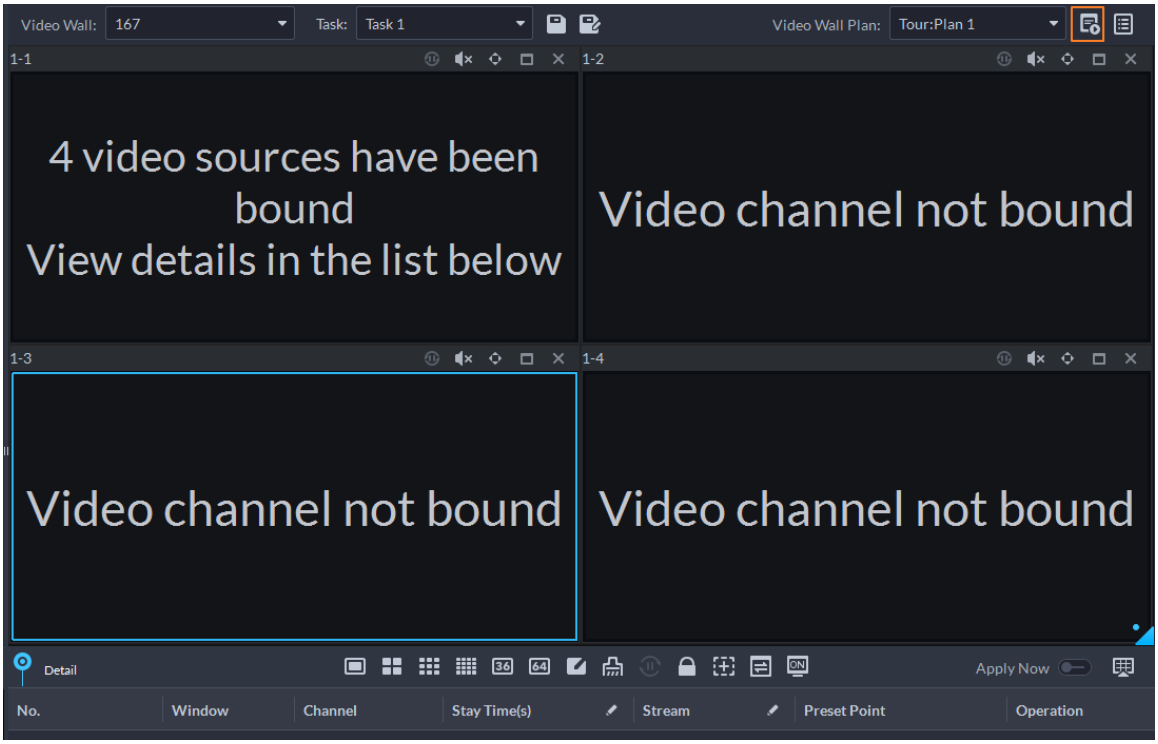
#### 6.1.5.2.3 Video Wall Plan Display

Display a pre-defined plan on video wall.

Make sure that there are pre-defined plans. For details, see "6.1.5.1.5 Configuring Video Wall Plans".

The video wall automatically works as the plans have been configured. To stop the current plan, click on the upper-right corner of the **Video Wall** page, and then it changes to . Click to start displaying video on wall again.

Figure 6-50 Display video wall plan




# 6.2 Event Center

When alarms are triggered, you will receive notifications on real-time alarms. You can view their details, such as snapshots and recordings, and process them. If you miss alarms occurred during a certain period, or want to check certain alarms, such as high priority alarms occurred in the past day or all alarms that have not been processed in the past week, you can set the search conditions accordingly and search for these alarms.

Make sure you have configured and enabled alarm events. To configure, see "5.1 Configuring Events".

## 6.2.1 Real-time Alarms

View and process real-time alarms.

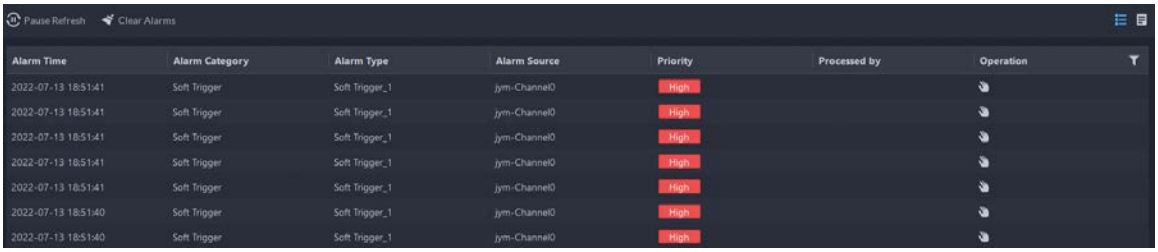
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Event Center**.

Step 2 Click .

The alarm list is refreshed in real time. To stop refreshing, click **Pause Refresh**. To continue receive alarms, click **Start Refresh**.

Figure 6-51 Real-time alarms




Step 3 Click to claim an alarm.

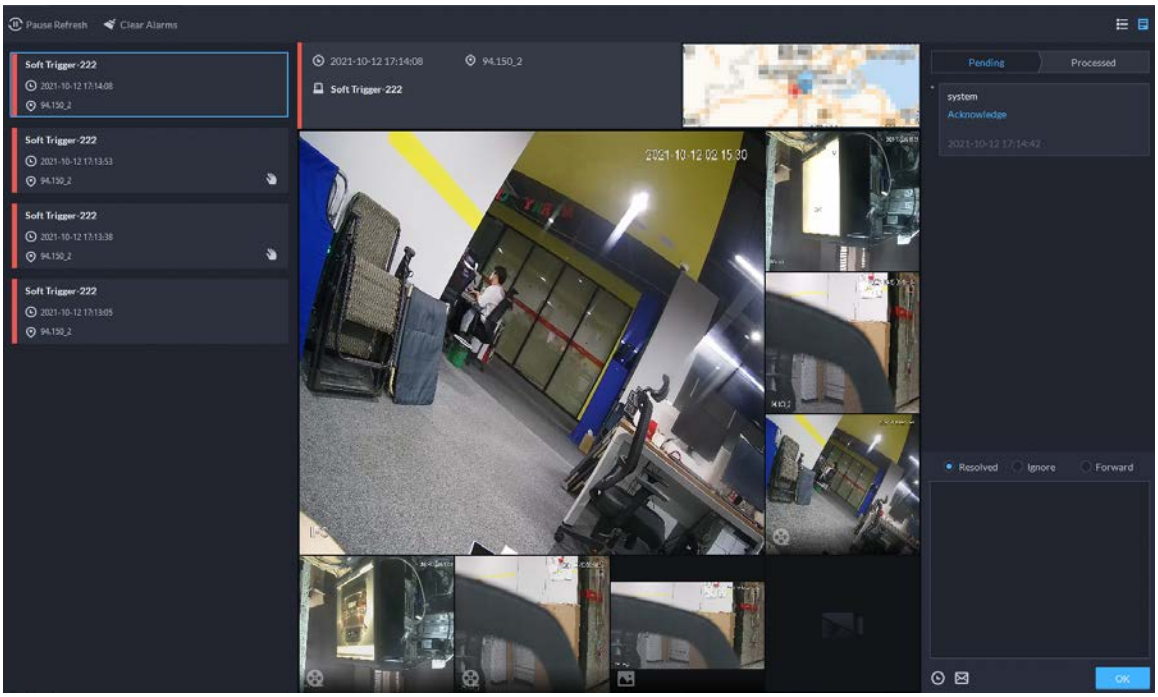
After an alarm has been claimed, the username of your account will be displayed under the **Processed by** column.

Step 4 Process alarms.

You can use the up and down arrow keys on the keyboard to quickly select other alarms.

1. Click or double-click the alarm.

Figure 6-52 Alarm details

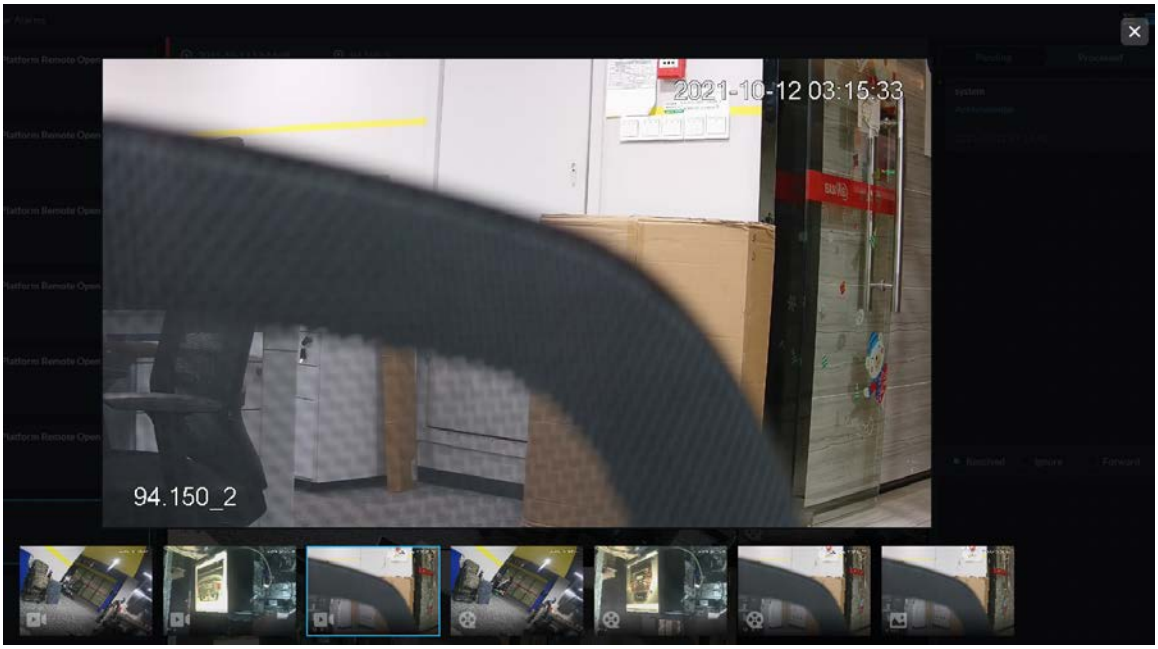



2. The middle area displays the time when the alarm was triggered, name and location of the alarm source, alarm type, and the live video images of linked channels, alarm

videos, and alarm snapshots.

Double-click a window to view them in larger size. Click ✕ to go back.

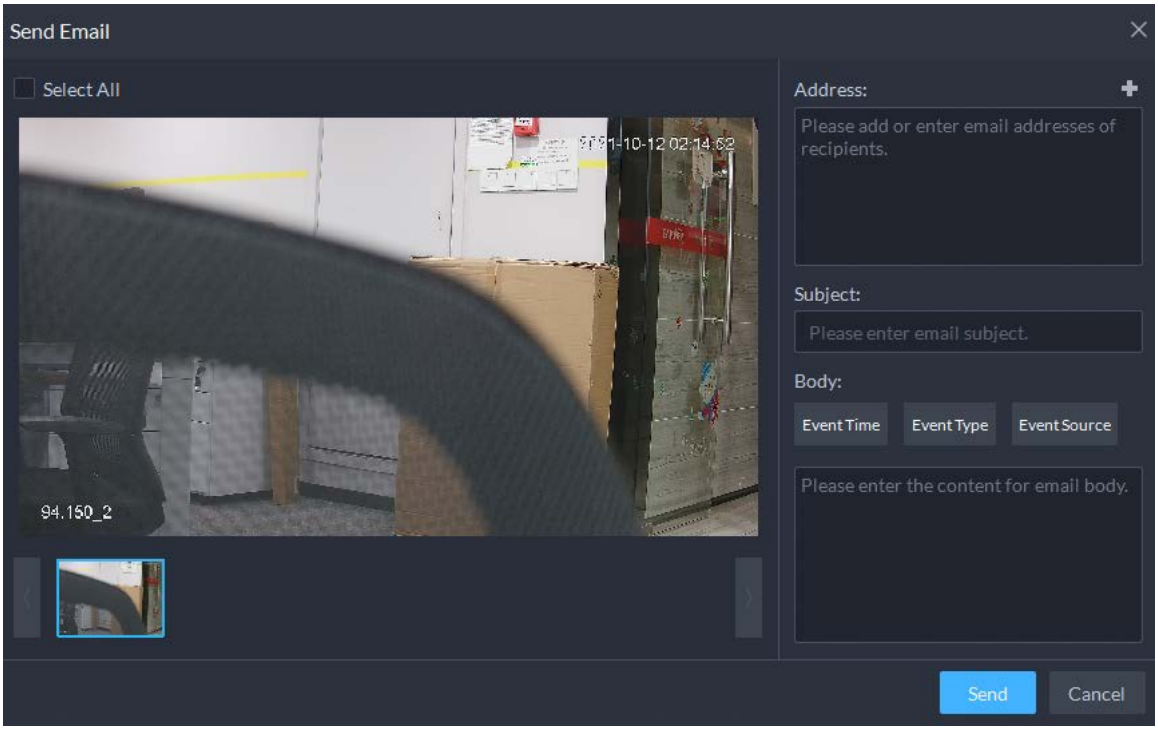
Figure 6-53 Alarm linkage media




3. On the right side, select how to process the alarm from **Resolved**, **Ignore**, or **Forward**. Enter comments, and then click **OK**.

   **Forward** allows you to forward the alarm to another user who will process it.
4. (Optional) Click to disarm the alarm. This alarm will not be triggered within the defined period.
5. (Optional) Click to send the alarm information to other users as a prompt or an email.

Figure 6-54 Send email



## 6.2.2 History Alarms

Search for and process history alarms.

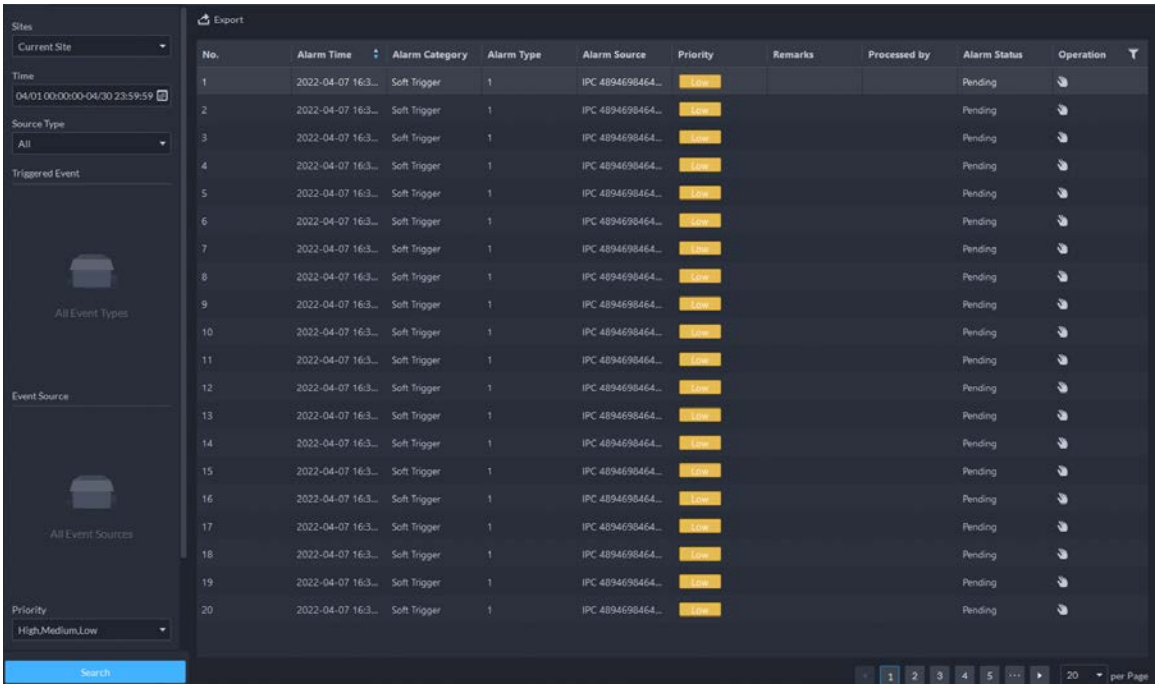
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Event Center**.

Step 2 Click .

Step 3 Set search conditions, and then click **Search**.

Figure 6-55 History alarms




Step 4 Claim and process alarms. For details, see "6.2.1 Real-time Alarms".

You can use the up and down arrow keys on the keyboard to quickly select other alarms.

# 6.3 DeepXplore

You can set multiple search conditions to view records of people, vehicle snapshots and access that you are interested in.

## 6.3.1 Searching for Records

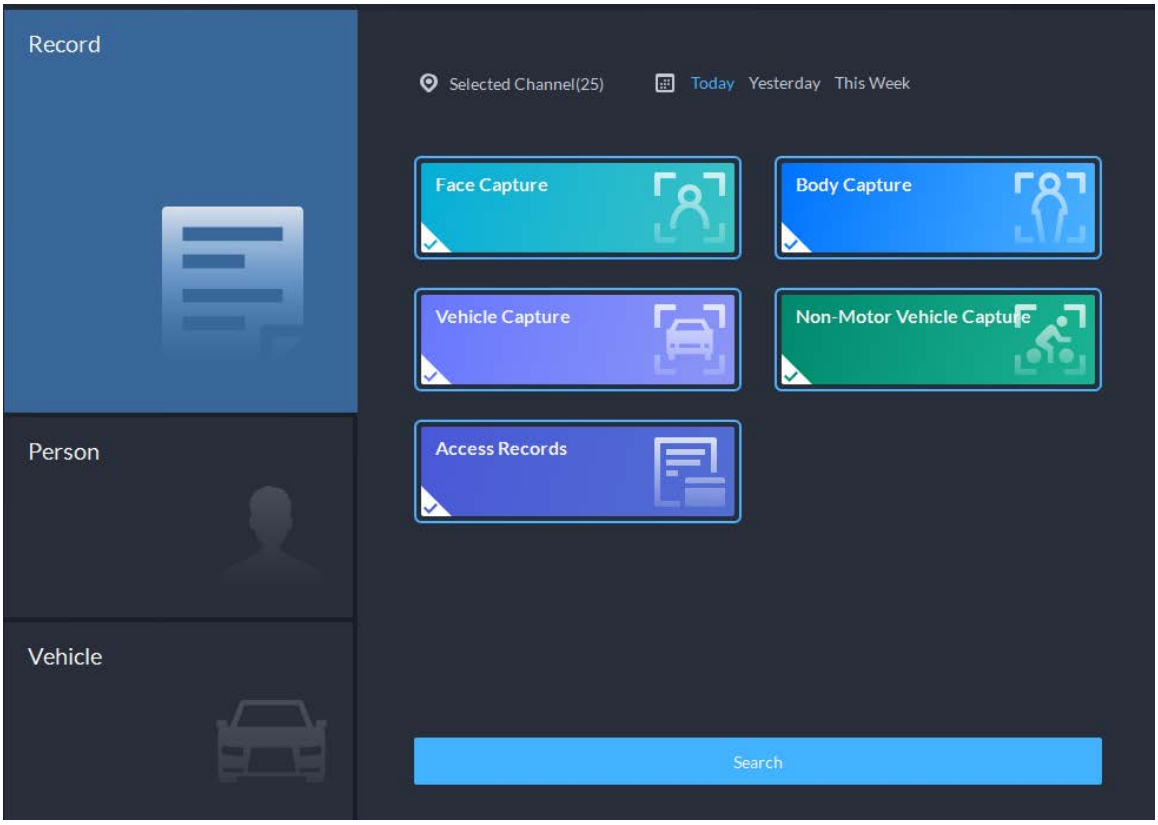
In this section, you can view integrated records of people, vehicle, and access control..

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

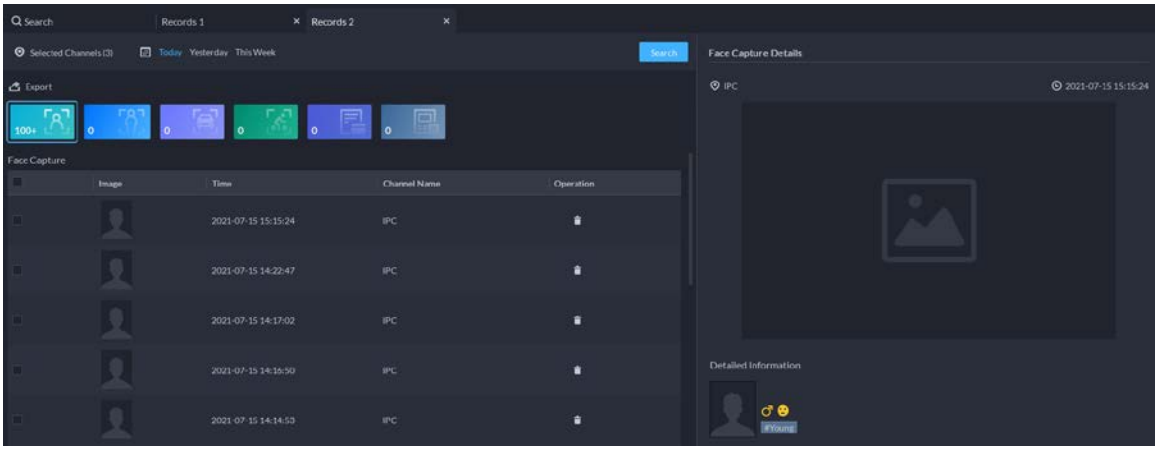
Step 2 Click , and then select **Record**.

Figure 6-56 Record search




Step 3 Set the search object, channel and time, and then click **Search**.

Figure 6-57 Search result




For the search result, you can perform following operations.

- For face capture records, you can hover the mouse over the small image on the right, and then click to search for images similar to this one. For details, see "6.3.2 Searching for People".
- Click next to the record to delete it one by one.

  Access records cannot be deleted.
- Click **Export** to export records to the local storage.

Step 4 Select a record, and on the right side, you can see the details. Click on the video image to view the linked recording.

## 6.3.2 Searching for People

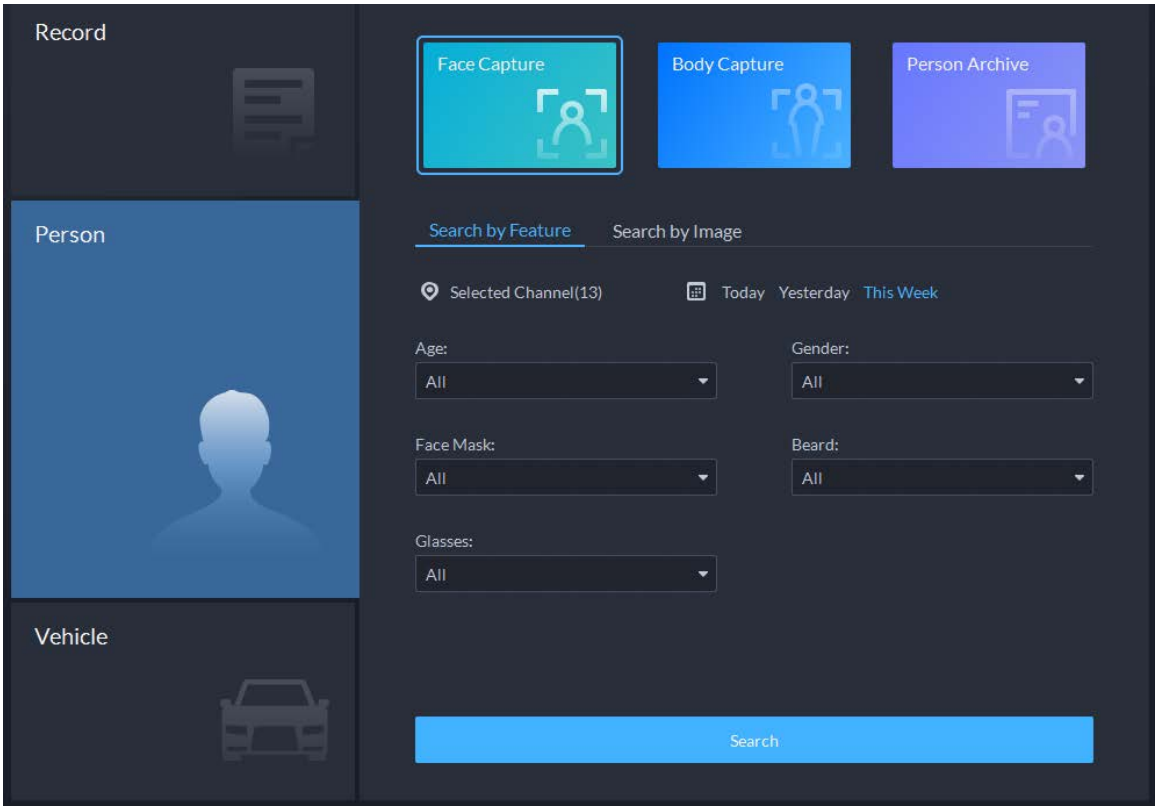
Based on the defined search conditions, you can view capture records of faces, bodies and other information.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

Step 2 Click , and then select **Person**.

Figure 6-58 Person search




- Search object
  - **Face Capture**: Search for records in face capture database.
  - **Body Capture**: Search for records in body capture database.
  - **Person Archive**: Search for records in person information database.
- Search type
  - **Search by Feature**: Search for records by the defined features such as age, gender, clothes color, ID and more.
  - **Search by Image**: Search for records by the uploaded image, and only records above the set **Similarity** will be displayed.

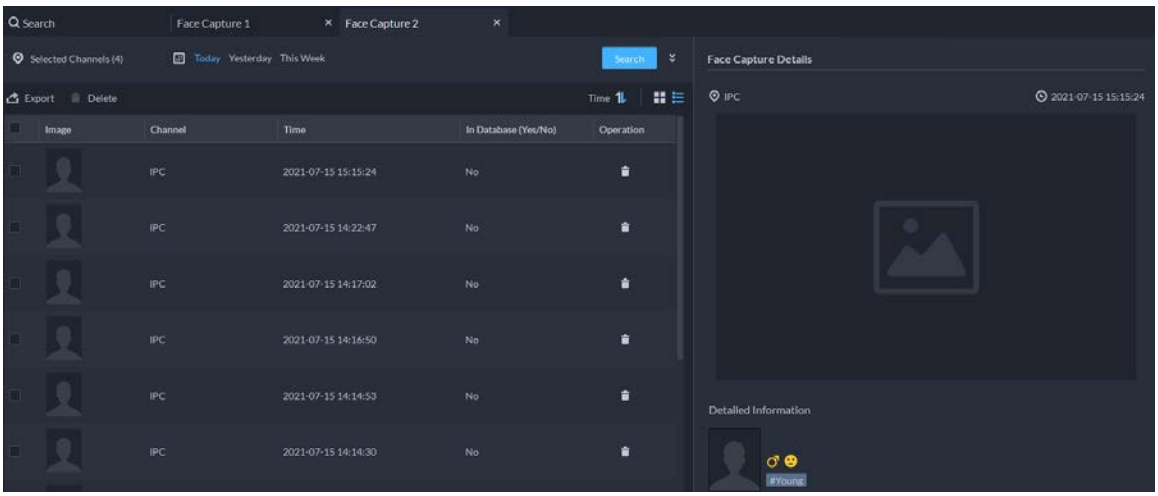
    Only new versions of IVSS devices support displaying similarity.
  - Search channel: Select device channels of the records by clicking **Selected Channel**.
  - Search time: Select time period of the records from **Today**, **Yesterday** and **This Week**.

Only available for face and body capture records.

- Search conditions: Set search conditions such as age, gender, top color, ID, name and more to search for specific records.

Step 3 Set the search object, type and conditions, and then click **Search**.

Figure 6-59 Search result




For the search result, you can perform following operations.

- Click next to **Search** to change search conditions.
- Click Time to change records arrangement.
- Click next to the record to delete it one by one, or you can select records, and then click **Delete** to delete them in batches.
- Click **Export** to export records to the local storage.

Step 4 Select a record, and on the right side, you can see the details. Click the video image to view the linked recording.

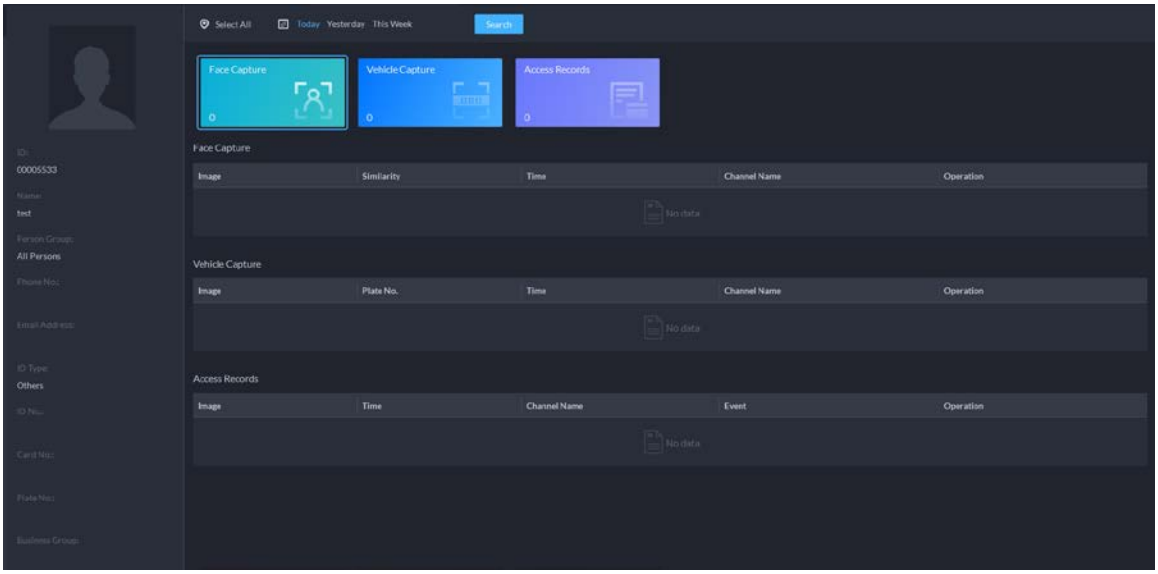
Step 5 Go back to Step2, and then click **Person Archive**.

Step 6 Enter the ID, name or card number of the person you want to search for.

Step 7 Double-click the record.

You can see the face capture, vehicle capture, access records and other information of the corresponding person.

Figure 6-60 Person information



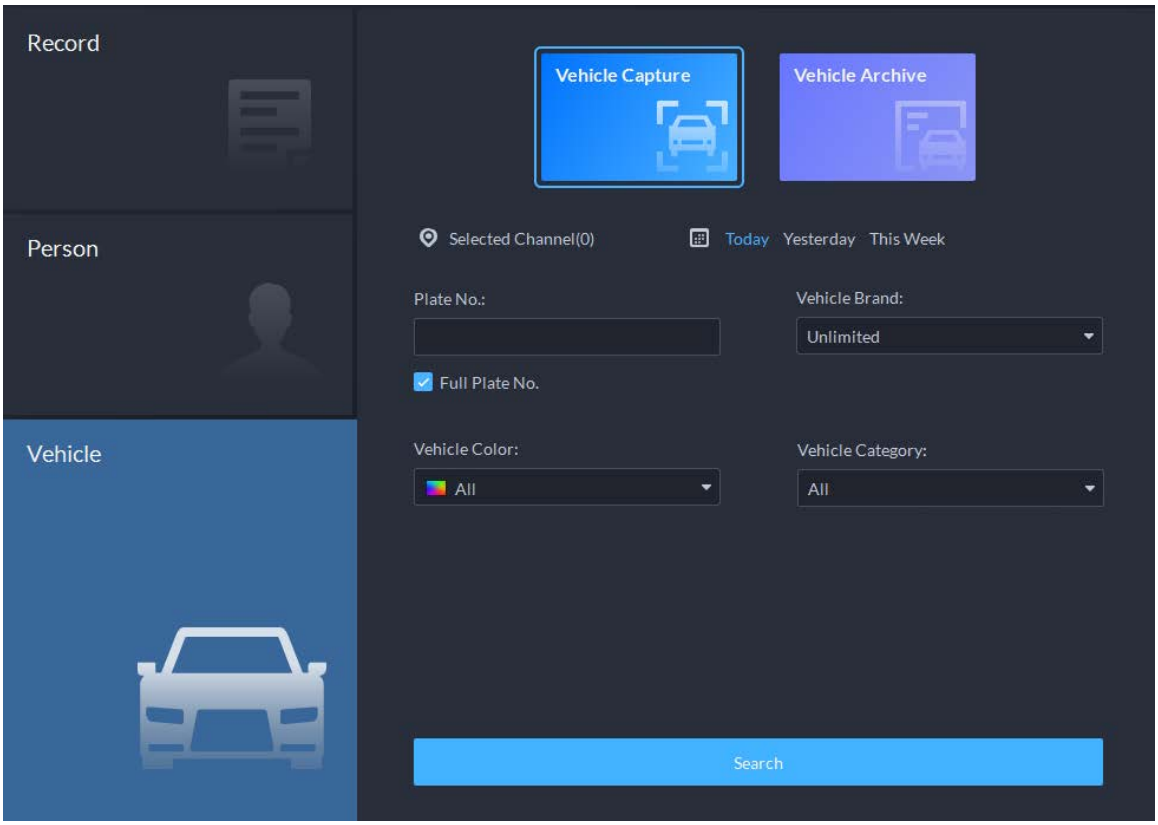

## 6.3.3 Searching for Vehicles

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

Step 2 click , and then select **Vehicle**.

Figure 6-61 Vehicle search




- Search object
  - **Vehicle Capture**: Search for records in vehicle capture database.
  - **Vehicle Archive**: Search for records in vehicle information database.

- Search type
  - Search channel: Select device channels of the records by clicking **Selected Channel**.
  - Search time: Select time period of the records from **Today**, **Yesterday** and **This Week**.

    Only available for vehicle capture records.
- Search conditions: Set search conditions such as plate number (full plate number optional), vehicle brands, owner name and more to search for specific records.

Step 3 Set the search conditions, and then click **Search**.

For the search result, you can perform following operations.

- Click next to **Search** to change search conditions.
- Click Time to change records arrangement.
- Click next to the record to delete it one by one, or you can select records, and then click **Delete** to delete them in batches.
- Click **Export** to export records to the local storage.

Step 4 Select a record, and on the right side, you can see the details. Click on the video image to view the linked recording.

Click at the upper-right corner to view all records added to temporary records. Inside it, you can click to generate target track, and click to remove the record form the bank.

# 6.4 Access Management

On the **Access Management** page, you can do operations on access control, video intercom, and visitor.

## 6.4.1 Access Control Application

You can unlock and lock doors, view details of bound videos and event, and the access control logs. Make sure that you have finished the access control configuration before application. For details, see "5.5 Access Control". You can also click Access Control Configur... to go to the access control configuration page.

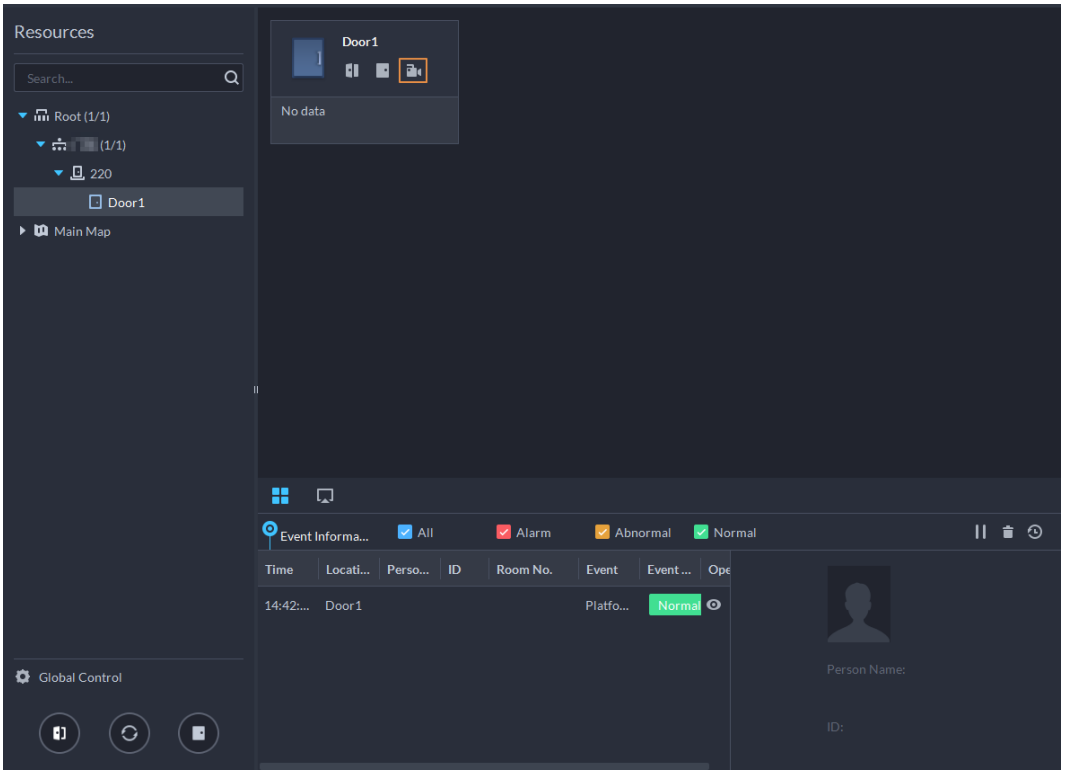
### 6.4.1.1 Viewing Videos

If you have already bound a video channel to the access control channel, you can view the real-time videos of the channels on the console. To bind video channels, see "4.2.3 Binding Resources".

Log in to the DSS Client. On the **Home** page, select > **Access Management** > > **Access Control Console**, and then view the linked real-time videos by the following two methods.

- On the right side of the console page, click in the access control channel list.

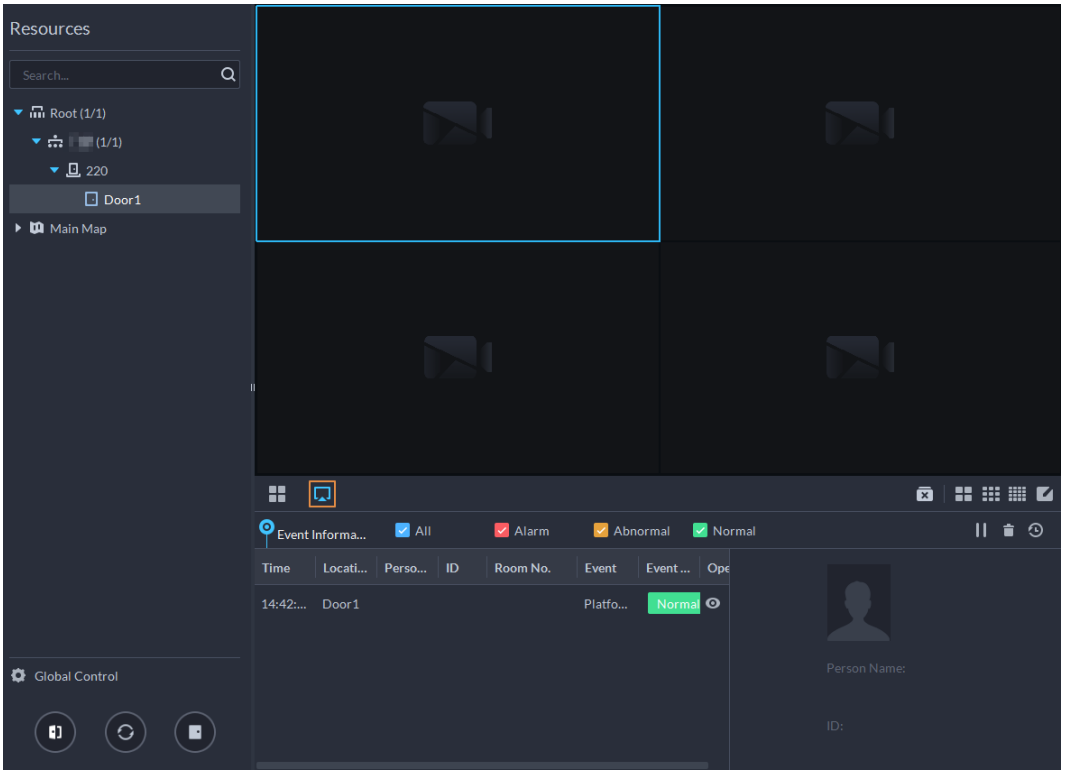
Figure 6-62 Viewing video (1)




- Click on the console page. The video page is displayed. Drag the access control channel on the left side of the screen to the live view page on the right side. The system displays videos in

real time.

Figure 6-63 Viewing video (2)




## 6.4.1.2 Unlocking Door

In addition to normally open status or linked unlock in specified periods, the console also supports unlocking by manually controlling the access control channel. After unlock, the door automatically locks up after a specified period (5 s by default, and 10 s in this example) set up in **Door Config**.

This section introduces the unlocking operations on the client. For unlocking by fingerprint, card, and face recognition, you can operate on devices. If advance functions have been configured, unlock doors according to the requirements of advance functions.

There are the following ways to unlock door:

- On the left side of the page, right-click an access control channel in the device list, and select **Remote Unlock** in the pop-up menu. After unlocking, a timed log will be displayed under the channel on the right.
- Click of a door channel on the right to unlock the door.
- When viewing videos bound to the channel, click on the window to unlock the door.
- Set multiple doors to be normally open

  Select door channels in global control, and then you can set the door to be normally open.

  1. Click on the lower left of the console page of the **Access Control Console** module.
  2. Select an access control channel to be set to Always Open through global control, and click **OK**.
  3. Click on the lower-left corner of the page, and then click **OK**.

If you want to go back to scheduled control or face-recognition access for these channels, Click  to restore them to the default status.

### 6.4.1.3 Locking Door

In addition to normally open status or linked lock in specified periods, the console also supports locking by manually controlling the access control channel. You can lock the door in the following ways:

- On the left side of the page, right-click an access control channel in the device list, and select **Remote Lock** in the pop-up menu.
- Click of a door channel on the right to unlock the door.
- When viewing videos bound to the channel, click on the video page to lock the door.
- Set multiple doors to be normally closed
  Select multiple door channels in global control, and then you can set them to be normally closed.
  1. Click on the lower left of the console page of the **Access Control Console**.
  2. Select multiple door channels, and click **OK**.
  3. Click at lower-left of the page, and then click **OK**.

  If you want to go back to scheduled control or face-recognition access for these channels, Click  to restore them to the default status.

### 6.4.1.4 Viewing Event Details

View details of the events reported on door locking and unlocking, including event information, live view, snapshot, and recording.

#### Background Information

- Live view is only available when a video channel is bound to the access control channel. To bind video channels, see "4.2.3 Binding Resources".
- To see snapshots and videos of access control, you need to configure video linkage action for the access control channels. For details, see "5.1 Configuring Events".
- Details except locking door are displayed on the console, such as unlocking door, entry with the duress card, and no right.

#### Procedure

Step 1 In the event list below the console page, click next to the event records.

For a face recognition controller, the face snapshots will be displayed in the records; for other controllers, the records display the captured image and person profile.

Figure 6-64 Event information

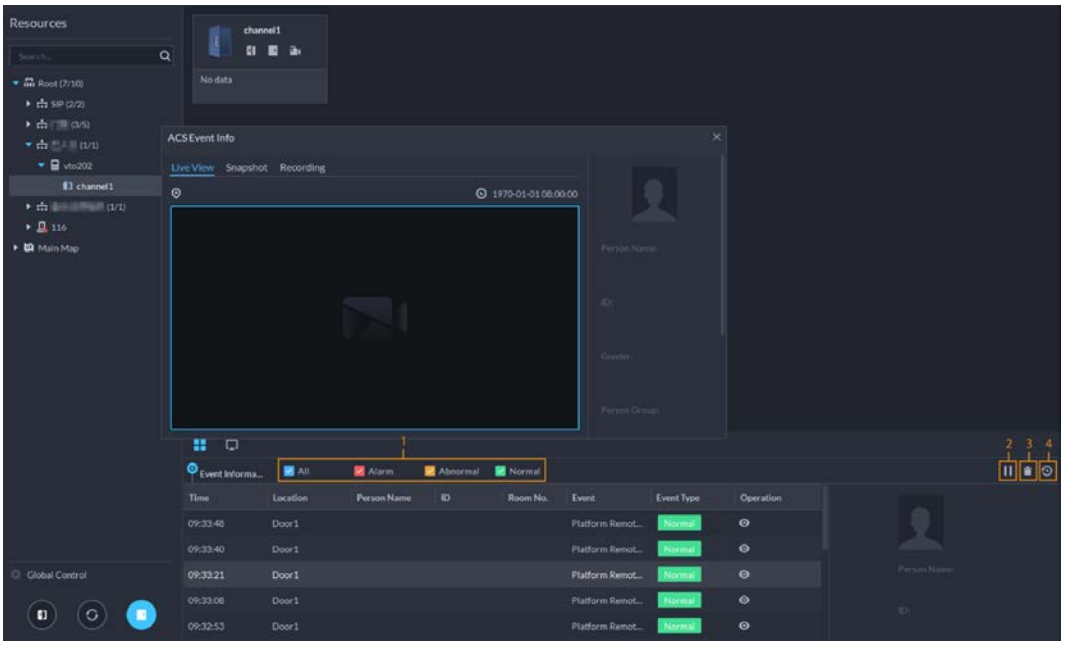



Table 6-11 More operations

| No. | Description |
|---|---|
| 1 | You can choose to view the events of certain event types. For instance, if you select **Normal**, the list only displays **normal** events. |
| 2 | • Click to stop displaying reported event information. In this case, the page no longer displays the reported new events. After clicking, the button changes to .<br>• Click to start refreshing reported event information. The page does not display events during the stopping period. After clicking, the button changes to . |
| 3 | Clear the events from the current event list without removing them from the log. |
| 4 | Click to view access control records. |

Step 2 Click the corresponding tab to view the live view, snapshots, and video recordings of the linked video channel.

## 6.4.1.5 Viewing Access Control Records

You can view access control records on the platform or directly on a device. For records on a device, see "9.1 Managing Logs".

### 6.4.1.5.1 Online Records

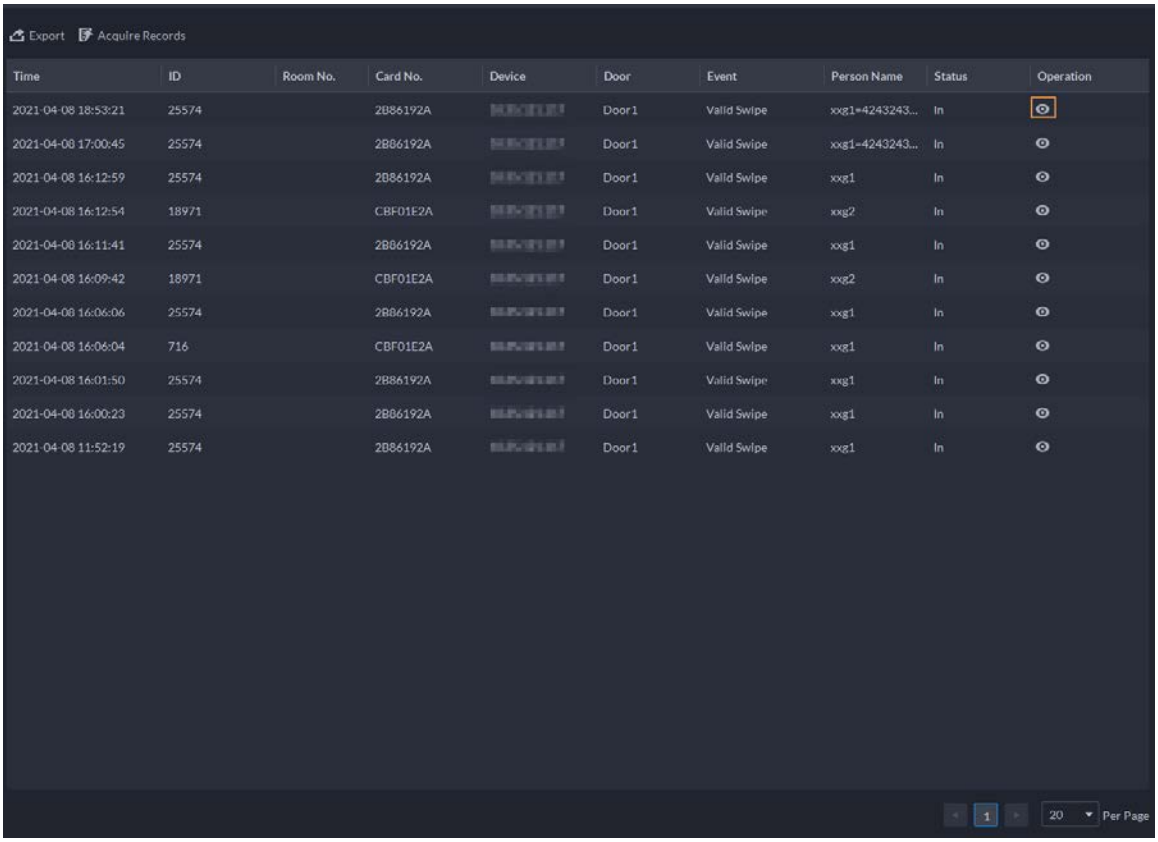
The access control records stored on the platform.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Access Control Record**.

Step 2 Set search conditions, and then click **Search**.

Figure 6-65 Search result




Step 3 Manage event records.

- Click , and you can view live view, snapshot and recording, and person information access control events.
- Click **Export** at the upper-left corner of the page, and then export records as the screen instructs.

### 6.4.1.5.2 Offline Records

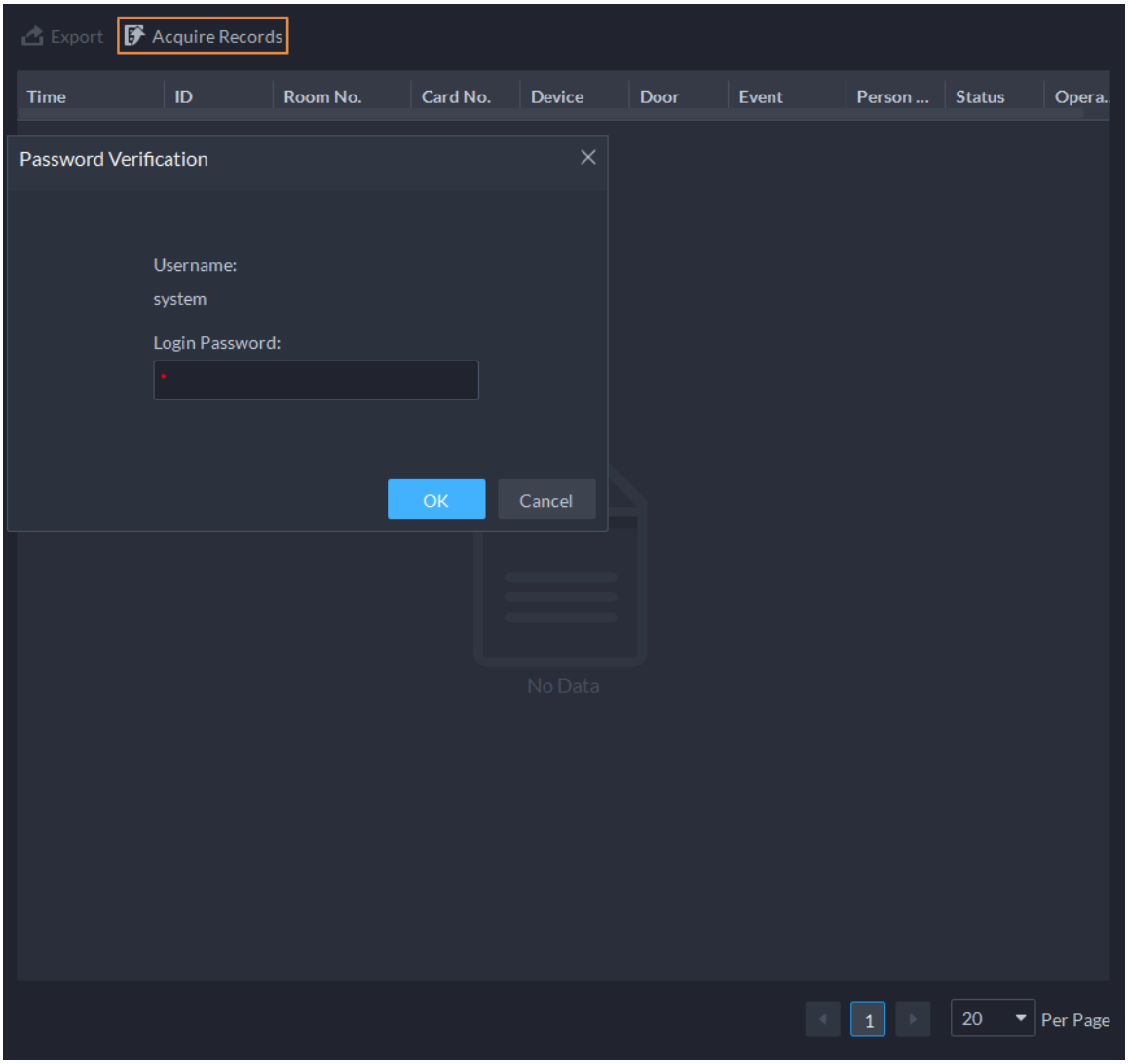
The access control records stored in the device when it was disconnected from the platform. After the device gets reconnected to the platform, you can retrieve the records generated during the disconnection.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Access Control Record**.

Step 2 Click Acquire Records on the upper-left corner.

Figure 6-66 Extract records during disconnection




Step 3 Enter the login password for verification.

Step 4 Click to set period, select **Card-swiping Records** or **Alarm Log**, and then select device.

- You can select up to one week.
- The types of logs supported include door not closed in time alarms, intrusion alarms, anti-passback alarms, duress alarms, device temper alarms, blocklist alarms, too many attempts on invalid passwords and cards alarms.

Step 5 Click **OK**.

## 6.4.2 Video Intercom Application

- You can call, answer, release information and view video intercom records.
- Make sure that you have configured the video intercom configuration before application. For details, see "5.6 Video Intercom". You can also click Video Intercom Configur... to go to the video intercom

configuration page.

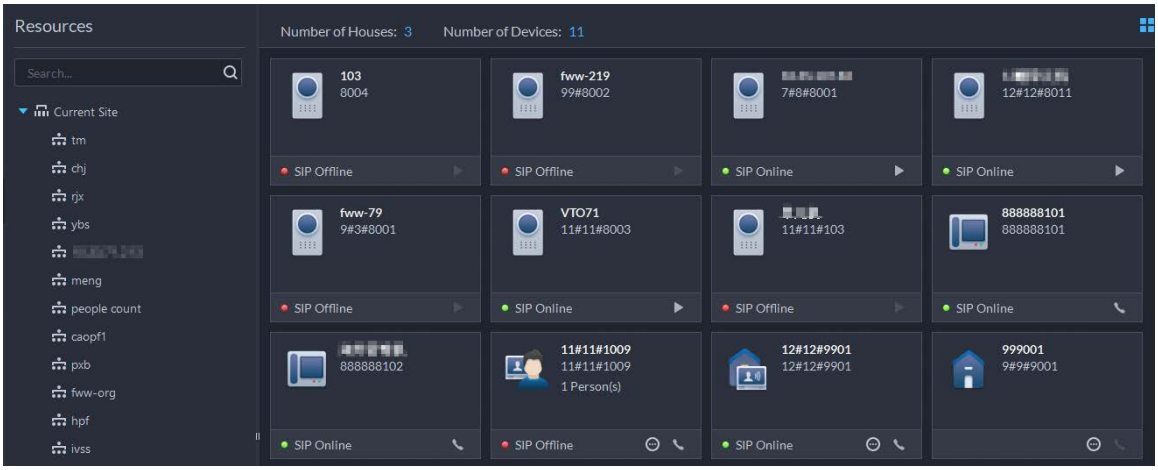
### 6.4.2.1 Call Center

The platform, VTOs, VTHs, second-generation door station access controllers, and second-generation fence station access controllers can call each other.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Call Center**.

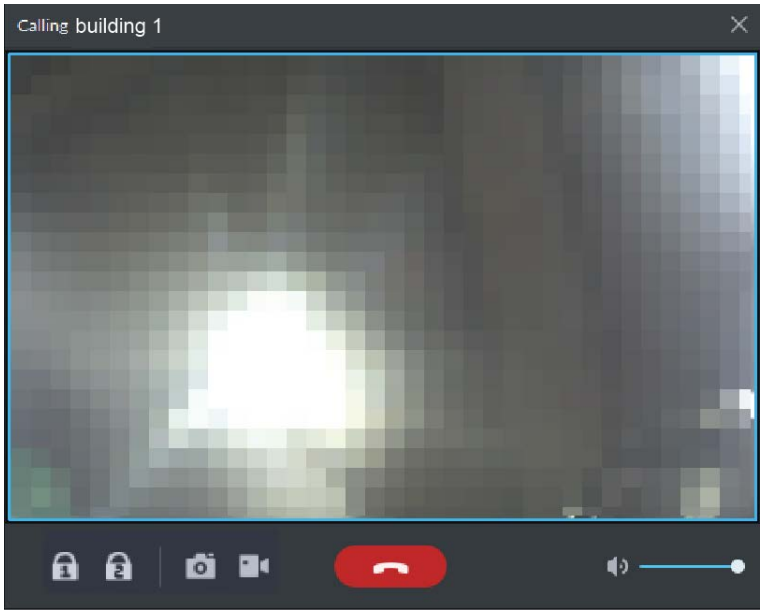
Figure 6-67 Call center




Step 2 You can call different devices.

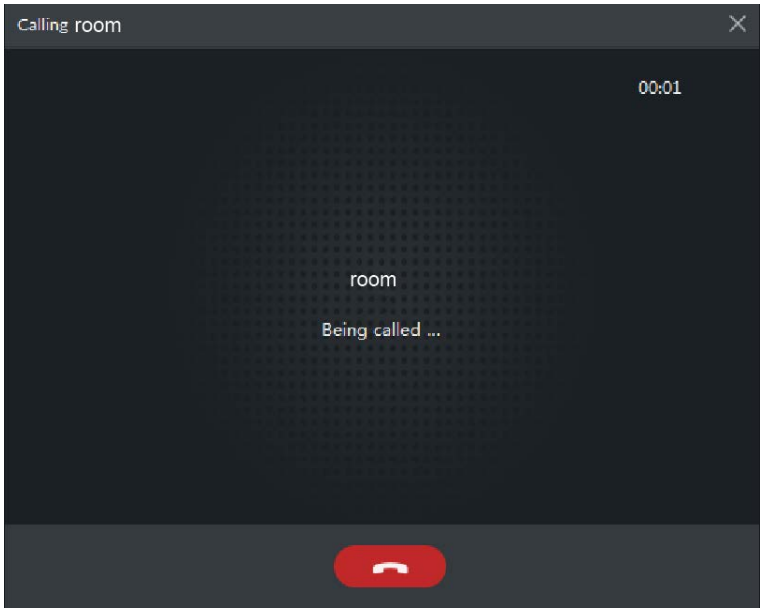
- Call from the platform to VTO
  Select VTO in the device list; click corresponding of VTO or dial a number on the dial pad to call the VTO. The system pops out call page. The following operations are supported during call.
  - : If VTO is connected to lock, click this icon to unlock.
  - : Click this icon to capture picture, the snapshot is saved into the default directory. To change the path, see "9.3.5 Configure File Storage Settings".
  - : Click this icon to start record, click again to stop record. The video is saved in default path. To change the path, see "9.3.5 Configure File Storage Settings".
  - : Click this icon to hang up.

Figure 6-68 Call




- Call from the platform to VTH
  Select VTH from the device list, click on the VTH or dial corresponding VTH on the right (such as 1#1#101). The system pops up the dialog box of **Calling now, please wait...**. There are two modes for answering the call.
  - Answer by VTH, bidirectional talk between client and VTH. Press to hang up when you answer the call.
  - If VTH fails to answer in 30 s, hangs up or is busy, then it means the call is busy.

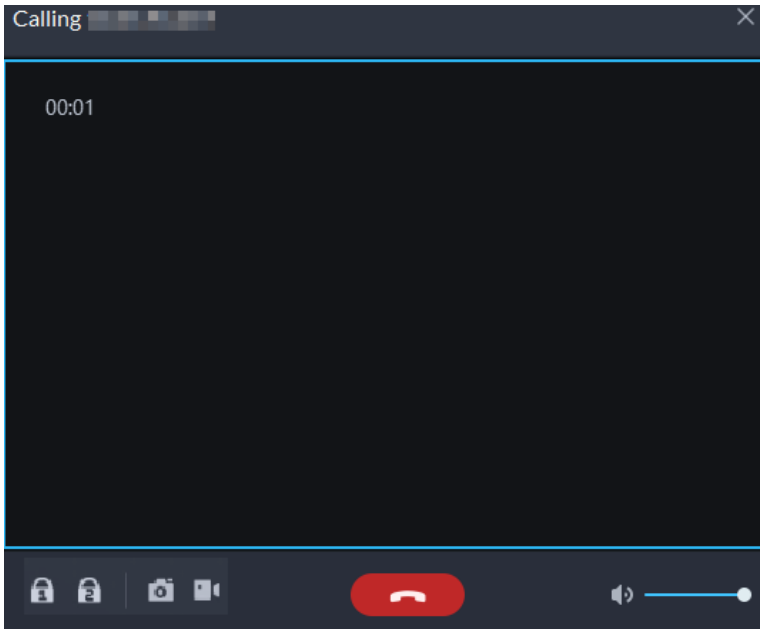
Figure 6-69 Calling




- Call from the platform to an access control device that supports video intercom
  Select a device from the device list, click on it or dial its number on the right (such as 1#1#101). The system pops up the dialog box of **Calling now, please wait...**. There are two modes for answering the call.
  - Answer by the device, bidirectional talk between client and the device. Press to hang up when you answer the call.

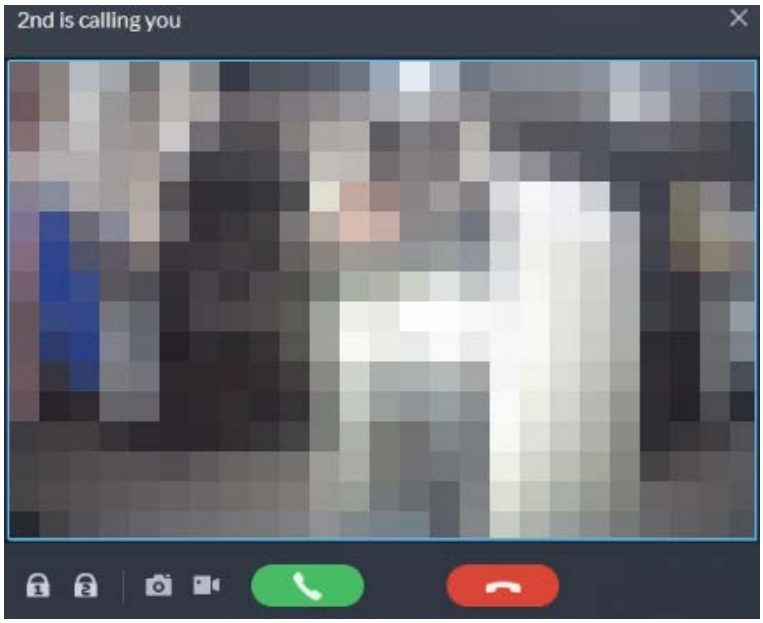
- If the device fails to answer over 30 s, busy or hang up directly, then it means the call is busy.

Figure 6-70 Calling




- Call from VTO to the platform
  When a VTO calls, a window pops up.
  - : Unlock the door if the VTO is connected to a door.
  - : Answer the call.
  - : Hang up.

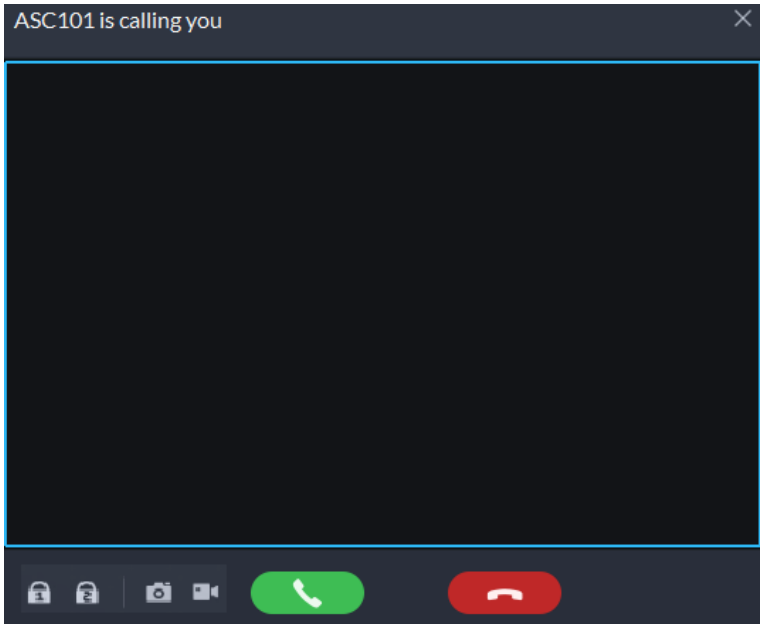
Figure 6-71 VTO Call




- When VTH is calling the platform
  The client pops out the dialog box of VTH calling. Click to talk with VTH.
  - Click to answer VTO, realize mutual call after connected.
  - Click to hang up.
- When an access control device that supports video intercom is calling the platform
  The client pops out the dialog box. Click to talk with the device.

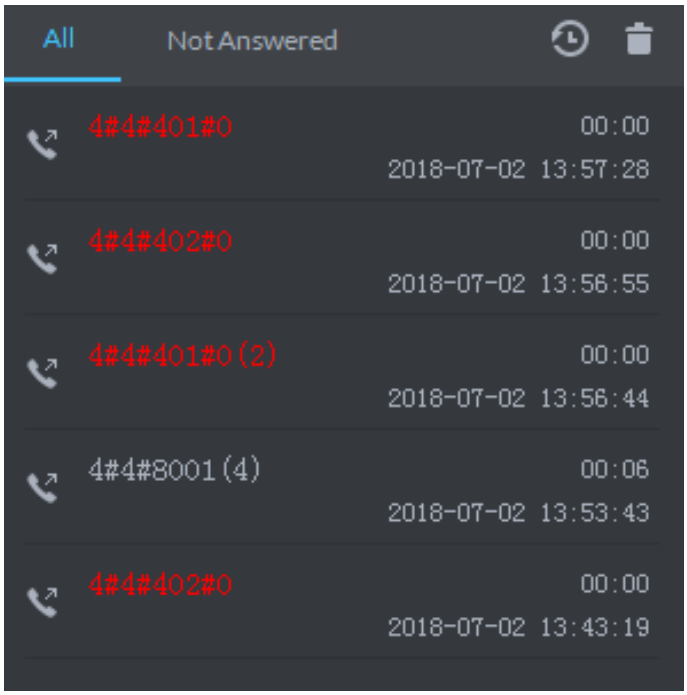
Click to hang up.

Figure 6-72 Call from an access control device that supports video intercom




- Call through call records
  All the call records are displayed in the **Call Record** at the lower-right corner of the page of **Video Intercom**. Click the record to call back.

Figure 6-73 Call records




## 6.4.2.2 Releasing Messages

Send message to VTHs.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > **Video**

**Intercom** > **Information Release**.

Step 2 Click **Add New Message**, select one or more VTHs, and then configure the information you want to send.

Step 3 (Optional) Enable **Schedule Release**, and then configure the time.

Step 4 Send the message.

- If no scheduled release time is configured, click **Instant Release**, or click **Save**, and then click to send the message immediately.
- If a scheduled release time is configured, click **Save**, and then the message will be sent on the defined time.

### 6.4.2.3 Video Intercom Records

View log records and you can trace recorded calls.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Video Intercom Record**.

Step 2 Set conditions, and then click **Search**.

The platform displays all the records according to the configured conditions.

Step 3 (Optional) Click **Export**, and then follow the prompts to export all or partial records to your computer.

## 6.4.3 Visitor Application

After visitor information is registered, the visitor can have access permission. Access permission is disabled after the visitor leaves.

### 6.4.3.1 Preparations

- You have configured the deployment of the video intercom devices, access control devices and entrance and exit device. For details, see the corresponding user's manual.
- You have configured the basic configuration of the platform. For details, see "4 Basic Configurations".
- Make sure that you have configured the visitor configuration before application. For details, see "5.7 Visitor Management". You can also click Visitor Configuration to go to the video intercom configuration page.

### 6.4.3.2 Visitor Appointment

Register the information of visitors on the platform before they arrive for their visits. This will greatly reduce the time that visitors have to wait for their information to be recorded.

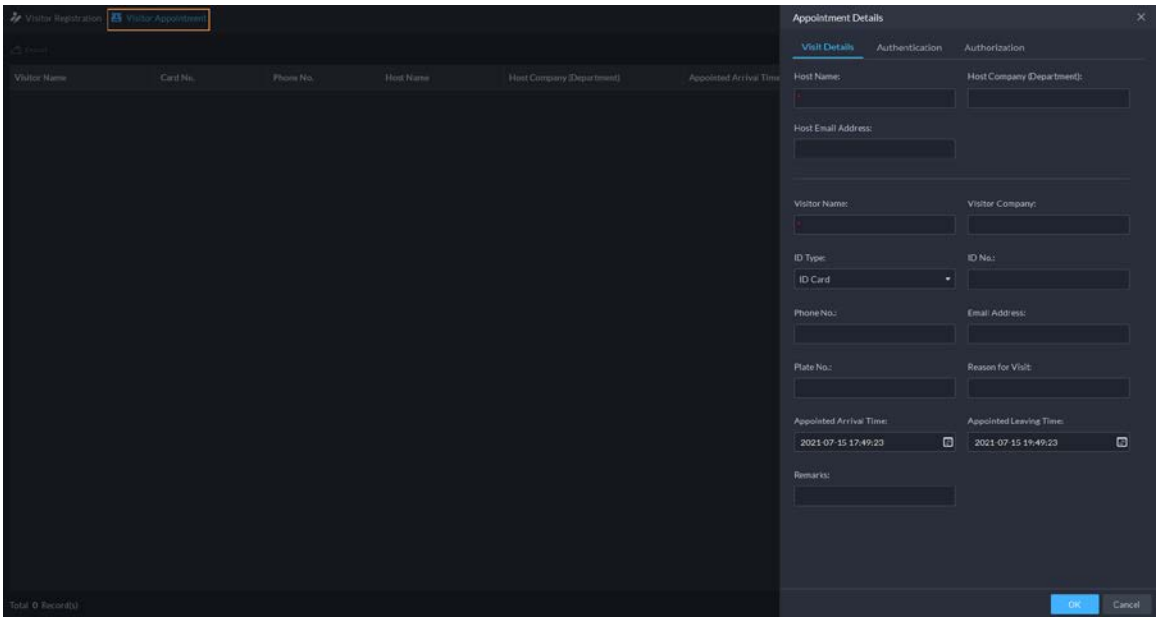
#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Visitor Management**.

Step 2 Click **Visitor Registration**.

Step 3 Click the **Visitor Details** tab, enter the information of the visitor and the one to be visited.

Figure 6-74 Visitor details

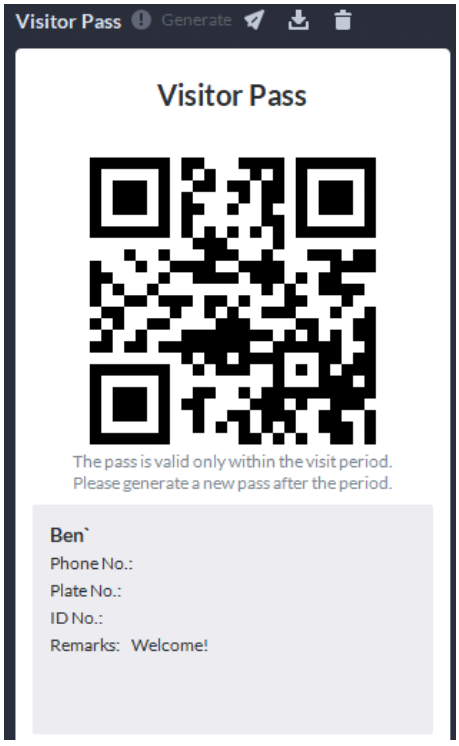



Click in the appointment list to enter the **Visitor Details** tab.

Step 4 (Optional) Click the **Authentication** tab, select the room number to be visited, and then click **Generate** to generate the QR code of the pass.

You can click to download the QR code, and click to send it to the visitor by email.

Figure 6-75 Authentication




Step 5 Click **OK**.

### 6.4.3.3 Checking In

When a visitor with an appointment arrives, you need to confirm their information and give them access permission. On-site registration is supported when there is a walk-in visitor. Visitors can get access by card swipe or face recognition.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select > **Access Management** > > **Visitor Management**.

Step 2 (Optional) Click the **Authentication** tab, and then set authorization information.

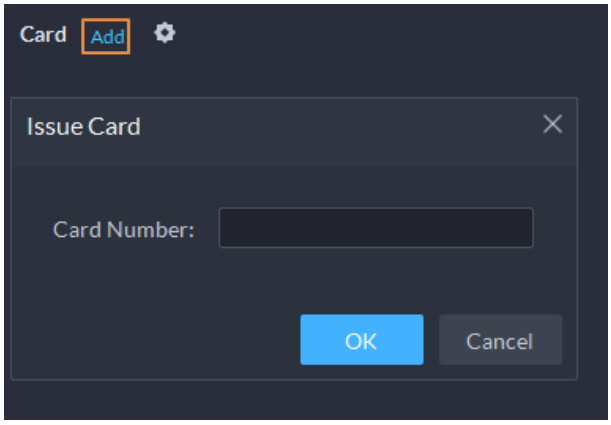
1) Select the room number.
2) Issue cards.

   You can issue cards by entering card number manually or by using a card reader. A card number is 8-16 numbers. Only second-generation access control devices support 16-digit card numbers. When a card number is less than 8 numbers, the system will automatically add zeros prior to the number to make it 8 digits. For example, if the provided number is 8004, it will become 00008004. If there are 9-16 numbers, the system will not add zero to it.

   - Issue cards by entering card numbers manually

     Click **Add** next to **Card**, enter the card number, and then click **OK**.

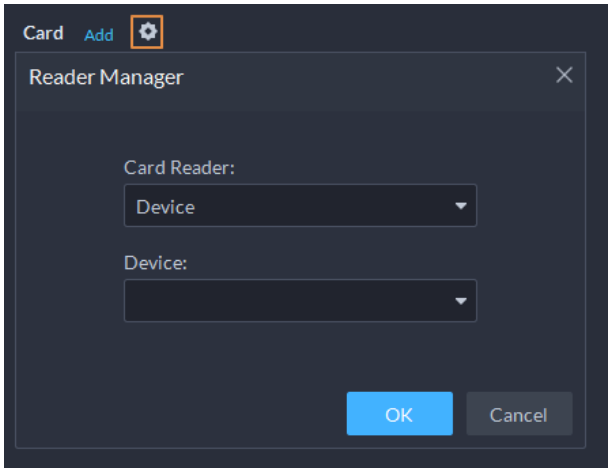
     Figure 6-76 Issue card

   - Issue card by using a card reader

     Click , select a card reader or device, and then click **OK**. Swipe card through the reader or device, and then a new card will be issued.

Figure 6-77 Reader manager

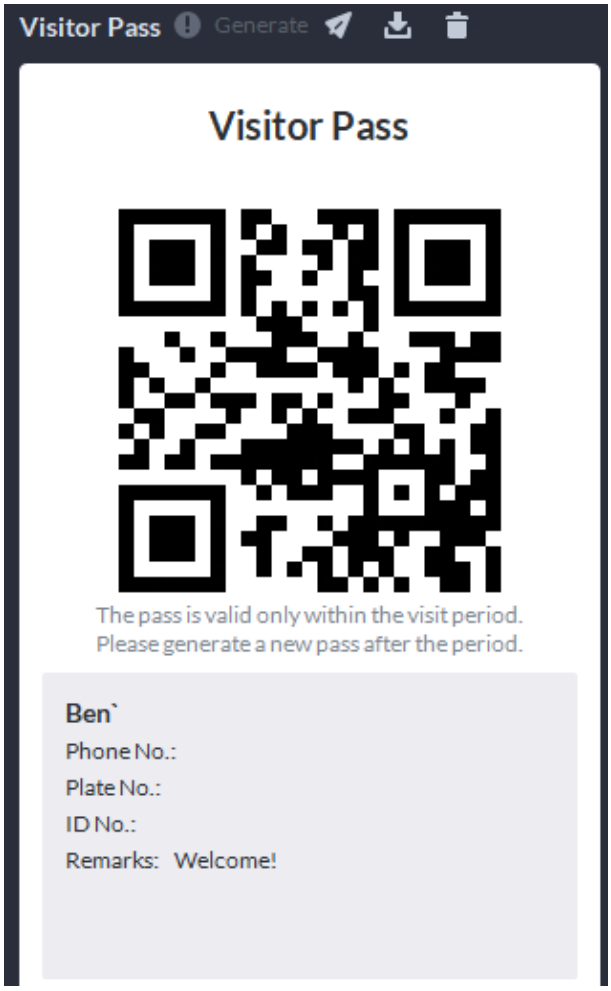



3) Set face picture. Position your face in the snapshot area, and click **Upload Picture** to select a picture or click **Snapshot** to take a photo.

Figure 6-78 Take a face photo


4) Click **Generate** to generate a QR code for the pass.
You can click to download the QR code, and click to send it to the visitor by email.

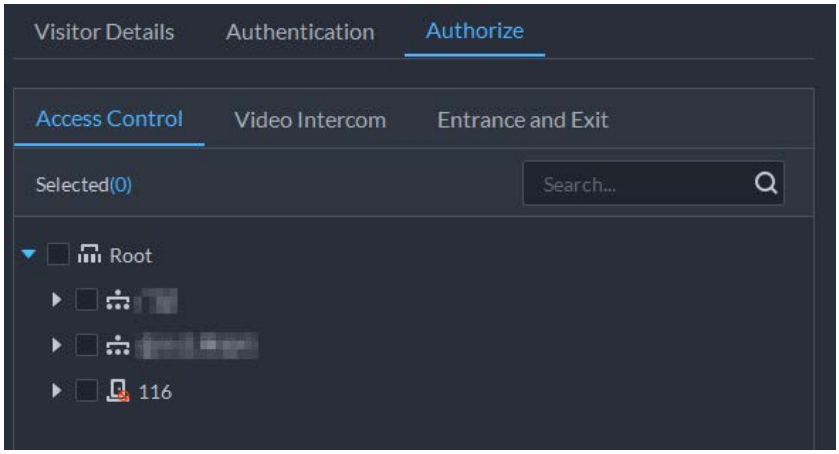
Figure 6-79 Authentication




Step 3 Click the **Authorize** tab, and then select access permissions for the visitor.

If you want to set video intercom devices and entrance and exit permissions, you must set host room number and number plate for the visitor.

Figure 6-80 Authorize




Step 4 Click **OK**.

## Related Operations

- End visit.

Click to end a visit.

- View card swiping records.
  Click the **Card-swiping Record** tab, or click in visitor record to view visitor card swiping records.
- Cancel appointment.
  Click , and cancel the appointment as the screen instructs.

### 6.4.3.4 Checking Out

When visitors are leaving, remove their access permissions.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Visitor Management**.

Step 2 Find the appointment record of the visitor, and then click .

Step 3 Click **OK** to remove access permission.
If you have issued a card to a visitor, make sure the visitor returns the card before leaving.

### 6.4.3.5 Searching for Visit Records

Search for visit records, and view visitor details and card swiping records.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Access Management** > > **Visitor Record**.

Step 2 Set search conditions, and then click **Search**.
The results are displayed.

In addition to entering the card number, you can also click , select a card reader and then get the card number by swiping card.

Step 3 Click to view visitor details and card swiping records.

## 6.5 Parking Lot

You can monitor vehicles that enter and exit in real time, view vehicle information, and search for on-site vehicle, exit vehicle and snapshot records.

### 6.5.1 Entrance and Exit Monitoring

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Parking Lot** > **Entrance and Exit Monitoring**.

Step 2 Select the number of windows you want from .

Step 3 Click **Please click to select the entrance and exit.**, select an entrance or exit point, and

then click **OK**.

The real-time video of that point will be opened in the window.

Figure 6-81 Monitor entrances and exits

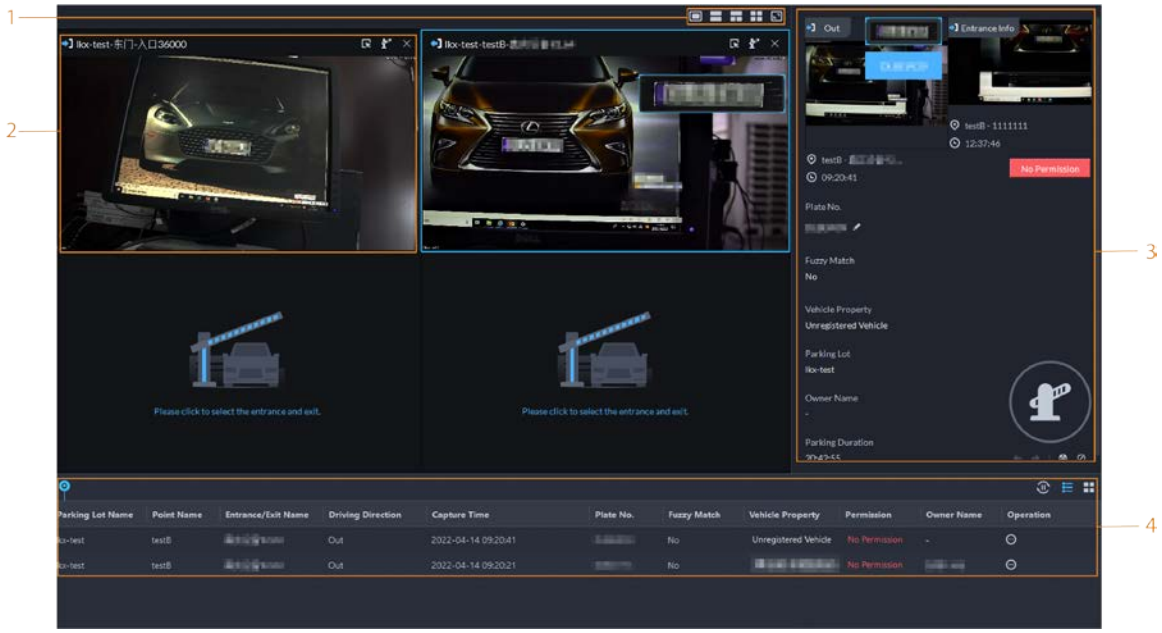



Table 6-12 Page description

| No. | Description |
|---|---|
| 1 | Select the number of windows you want. Each window can display the real-time video of one entrance or exit point. |
| 2 | The real-time video of an entrance or exit point.<br>• Click to open the real-time video of another entrance or exit point in the window.<br>• Click to open the barrier for vehicles.<br>◇ **Open without Recording Plate Info**: Open the barrier for vehicles without recording their plate numbers. If you select **Count Parking Spaces** at the same time, the number available parking spaces in the parking lot will decrease or increase depending on whether the vehicles are entering or leaving. This operation will not generate an enter or leave record.<br>◇ **Open and Record Plate Info**: This is applicable to when the ANPR cameras cannot recognize the number plates. You can manually enter the number plate, and a snapshot will be taken, and then the platform will generate an entrance or exit record. |
| 3 | Displays records of barriers not opened.<br>• Click to open the barrier for the vehicle.<br>• If the plate number is incorrect, you can click to manually edit it.<br>• Click to view the recorded video from the corresponding channel. |

| No. | Description |
|---|---|
| 4 | All entrance and exit records.<br>• ▶/⏸: Pause or resume refreshing the entrance and exit records.<br>• 💬: View the details and recorded video of a record. |

## 6.5.2 Searching for Records

Search for entry and exit records, forced exit records, and snapshot records.

Log in to the DSS Client. On the **Home** page, click ⊞, and then select **Vehicle Entrance and Exit**.

Click Entrance and Exit Config... to go to the entrance and exit configuration page.

### 6.5.2.1 Searching for Entrance Records

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click ⊞ > **Parking Lot** > **Info Search**.

Step 2 Click the **Entrance Records** tab.

Step 3 Configure the search conditions, and then click **Search**.

Click **Show More** and you can search by vehicle owner, company, person group, and more.

Step 4 Manage the records.

- Click the image, and then a bigger one will be displayed.
- Double-click a record or click 💬, and the detailed information is displayed on the right. Click the play icon to play the recorded video, and then click ⬇ to download it. Click ✎ to modify the information of the vehicle, such as the plate number, brand and color. For the dual camera mode, click each channel to view the information it captured.
- Forced exit.
  If **No** is displayed under **Already Exited** when the vehicle has exited, click 🚗 to change the status to **Yes**.
- Export records.
  Select the records to be exported, click **Export**, and then export them according to the on-screen instructions. You can also click **Export**, and the then export all records according to the on-screen instructions.
- Click ▼ and then select the items to be displayed.

### 6.5.2.2 Searching for Exit Records

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click ⊞ > **Parking Lot** > **Info Search**.

Step 2 Click the **Exit Records** tab.

Step 3 Configure the search conditions, and then click **Search**.

Click **Show More** and you can search by vehicle owner, company, person group, and more.

Step 4 Manage the records.

- Click the image, and then a bigger one will be displayed.
- Double-click a record or click , and the detailed information is displayed on the right. Click the play icon to play the recorded video, and then click to download it. Click to modify the information of the vehicle, such as the plate number, brand and color. For the dual camera mode, click each channel to view the information it captured.
- Export records.
  Select the records to be exported, click **Export**, and then export them according to the on-screen instructions. You can also click **Export**, and the then export all records according to the on-screen instructions.
- Click and then select the items to be displayed.

## 6.5.2.3 Searching for Forced Exit Records

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Parking Lot** > **Info Search**.

Step 2 Click the **Forced Exit Records** tab.

Step 3 Configure the search conditions, and then click **Search**.

Click **Show More** and you can search by vehicle owner, company, person group, and more.

Step 4 Manage the records.

- Click the image, and then a bigger one will be displayed.
- Double-click a record or click , and the detailed information is displayed on the right. Click the play icon to play the recorded video, and then click to download it. Click to modify the information of the vehicle, such as the plate number, brand and color. For the dual camera mode, click each channel to view the information it captured.
- Export records.
  Select the records to be exported, click **Export**, and then export them according to the on-screen instructions. You can also click **Export**, and the then export all records according to the on-screen instructions.
- Click and then select the items to be displayed.

## 6.5.2.4 Searching for Capture Records

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Parking Lot** > **Info Search**.

Step 2 Click the **Capture Records** tab.

Step 3 Configure the search conditions, and then click **Search**.

Click **Show More** and you can search by vehicle owner, company, person group, and more.

Step 4 Mange records.

- Click the image, and then a bigger one will be displayed.
- Double-click a record or click , and the detailed information is displayed on the right. Click the play icon to play the recorded video, and then click to download it. Click to modify the information of the vehicle, such as the plate number, brand and color. For the dual camera mode, click each channel to view the information it captured.
- Restore entry
  If **Yes** is displayed under **Exited** when the vehicle is still in the parking lot, click to change the status to **No**.
- Export records.
  Select the records to be exported, click **Export**, and then export them according to the on-screen instructions. You can also click **Export**, and the then export all records according to the on-screen instructions.
- Click and then select the items to be displayed.

# 6.6 Intelligent Analysis

View real-time and history people counting data, heat maps, and number of people in an area.

## 6.6.1 People Counting

View the real-time and historical people count from all the devices in a people counting group.

### 6.6.1.1 Real-time Count

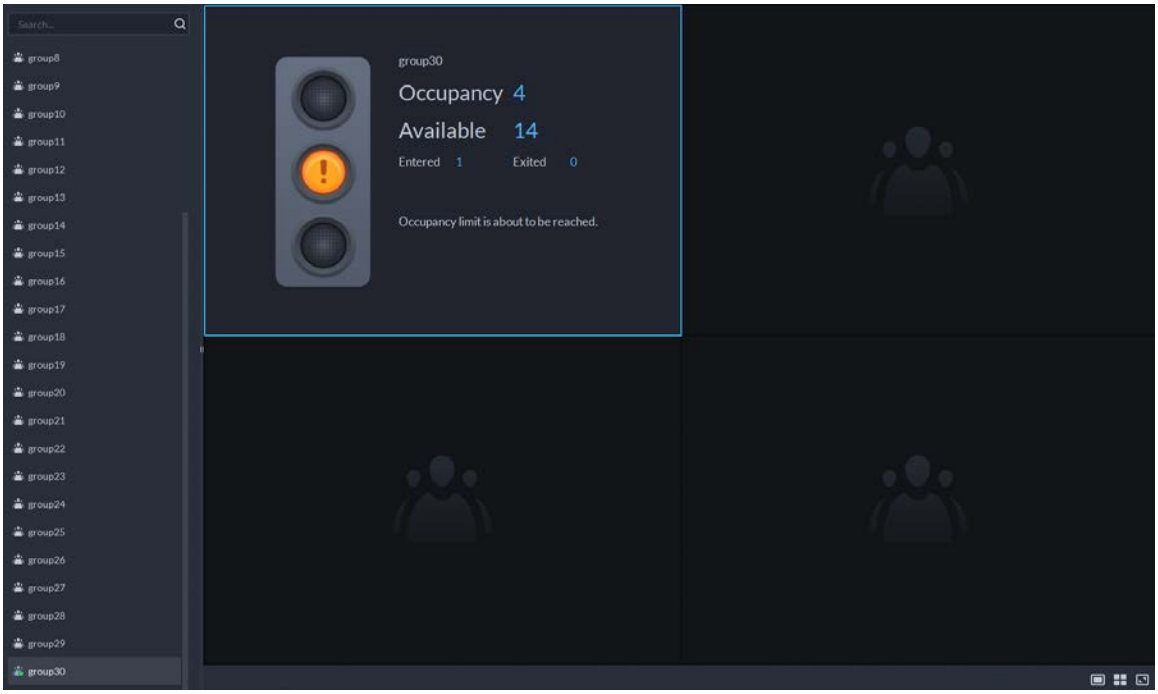
#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Intelligent Analysis** > > **Real-time Count**.

Step 2 Double-click a group or drag it to a window on the right to display its real-time data.

- **Occupancy**: The number of people currently inside this group, which will be reset to the defined value at the defined calibration time.
- **Entered**: The number of people entered this group, which will be reset to zero at the defined calibration time.
- **Exited**: The number of people who left this group, which will be reset to zero at the defined calibration time.
- Color of the light:
  - Red light: Occupancy≥ red light threshold.
  - Yellow light: Yellow light threshold≤ occupancy < red light threshold.
  - Green light: Occupancy < yellow light threshold.

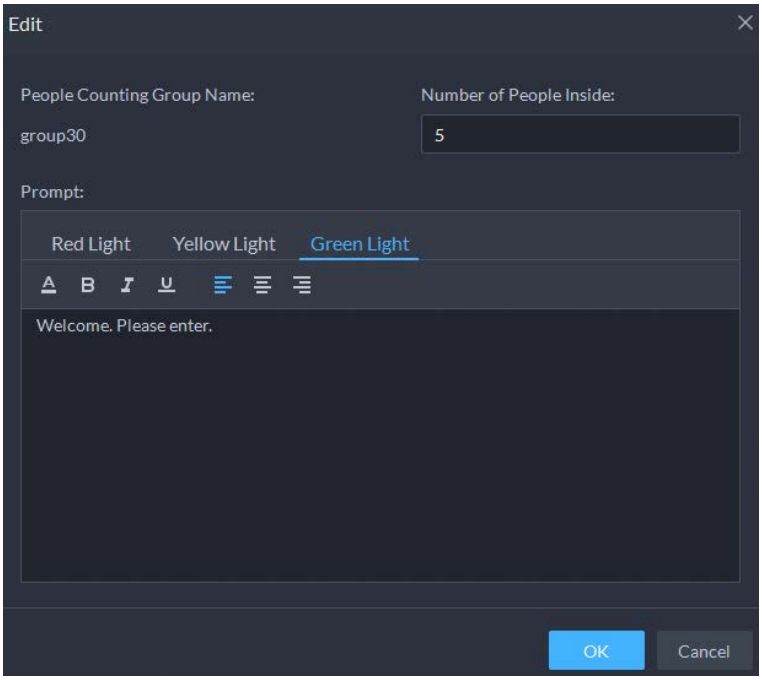
Figure 6-82 Real-time count




Step 3 Hover you mouse on the window displaying real-time data, and then click .

Step 4 You can enter a number of people to overwrite the current data, and customize the content to be displayed for green, yellow and red light.

Figure 6-83 Edit the content and data




Step 5 Click **OK**.

## 6.6.1.2 Historical Count

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Intelligent Analysis** > **People Counting** > **Historical Count**.

Step 2 Select the groups you want in **Groups**, or select the channels in **Resources**.

Step 3 Configure the search settings, and then click **Search**.

- **Groups**: Groups are people counting groups, which allow you to combine and calculate the people flow data from multiple rules across different devices and channels. You can search for historical people flow data from one or more people counting groups.
- **Resources**: Search for historical people flow data from one or more channels. The data from all the rules of a channel will be included.

If a device is offline, it will upload all the data to the platform when it is online again.

Figure 6-84 Historical people counting data


## Related Operations

- : Change the display format of the data.

  Only weekly report supports will display the number of retention.

- **Export**: Export the data into a .zip file to your computer.

# 6.6.2 Heat Maps

View heat maps generated by devices. A heat map shows the distribution of people flow by different colors, such as red for many people have visited an area and blue for only a few people have visited an area. The platform supports generating general heat maps and advanced heat maps. Only fisheye cameras support advanced heat maps.

## Prerequisites

Configure the channel feature for either type of heat maps. For details, see "4.2.2.5.2 Modifying

Device Information".

- General heat map: Select the **General Heat Map** from the channel features.
- Advanced heat map: Select the **Advanced Heat Map** from the channel features.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Intelligent Analysis** > .

Step 2 Select a channel, and then generate a heat map.

You can generate a heat map with data from up to one week.

- Generate a general heat map.
  Configure the time, and then click **Search**.
- Generate an advanced heat map.

1) Select how you want to generate the heat map, **Number of People** or **Time**.
2) Configure the threshold.

   - When you select **Number of People**, the area with the closest number of people to the threshold will be in red.
   - When you select **Time**, the area where people stay for a duration closest to the threshold will be in red.
3) Set the time, and then click **Search**.

Step 3 Click **Export** on the upper-right corner to export the heat map to your PC.

## 6.6.3 In-area People Counting

View statistics on the number of in-area people.

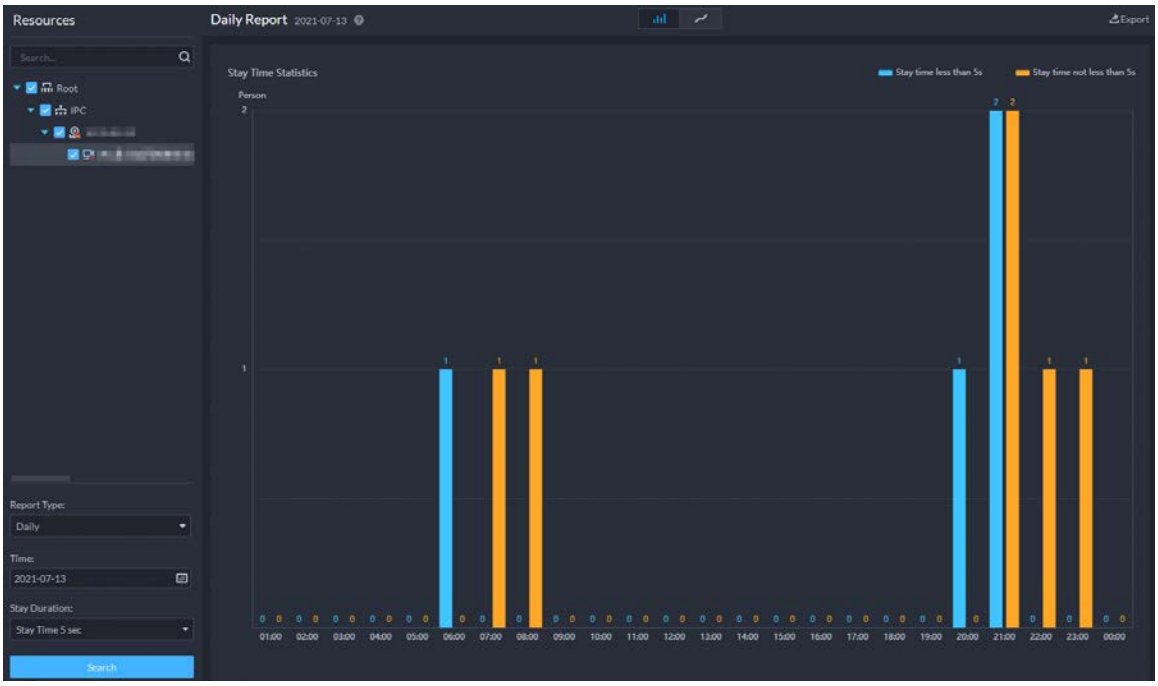
### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click > **Intelligent Analysis** > **In Area No. Analysis**.

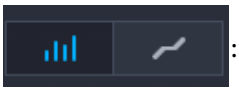
Step 2 Select a channel and configure the search settings, and then click **Search**.

If a device is offline, it will upload data within the past 24 hours to the platform when it is online again.

Figure 6-85 In-area people number statistics




## Related Operations

-  : Change the display format of the data.
- **Export**: Export the data to your PC.

# 7 General Application

This chapter introduces the general businesses, including target detection, face recognition, and ANPR.

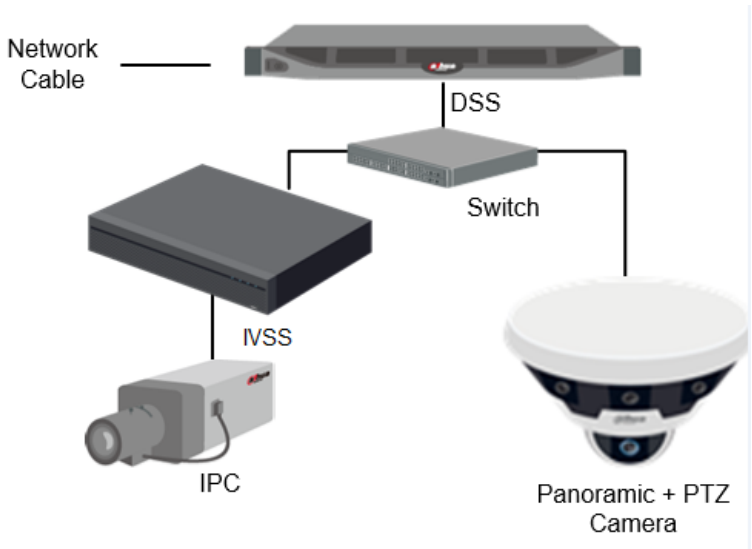
## 7.1 Target Detection

View and search for the metadata of people, vehicle, and non-motor vehicle.

Target detection can be done by video metadata cameras + a platform, or IPCs + IVSSs + platform.

### 7.1.1 Typical Topology

Figure 7-1 Typical topology




- General cameras record videos.
- Video metadata cameras such as panoramic + PTZ camera record videos and analyze people, and motor and non-motor vehicles.
- IVSS manages cameras and analyzes people, and motor and non-motor vehicles.
- The platform centrally manages IVSS and cameras, receives analysis results from cameras and displays the reports.

### 7.1.2 Preparations

Make sure the following preparations have been completed:

- Cameras and IVSS are correctly deployed, and video metadata is enabled on them. For details, see corresponding user's manuals.
- Basic configurations of the platform have been finished. To configure the parameters, see "4 Basic

Configurations".

- When adding a camera or IVSS, select **Encoder** for device category.
- After adding the camera or IVSS to the platform, select **Target Detection** from **Features** of the device.

## 7.1.3 Live Target Detection

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center** > **Monitor**.

Step 2 Select a window, double-click the channel or drag the channel to the window.

Figure 7-2 Live view


Step 3 Click and then click to view live metadata events.

Step 4 View live video, and human body, vehicle, and non-motor vehicle information.

- Click an event record to view the event snapshot. You can play back the video of the event. Different events support different operations.
- When playing back video, click to download the video to a designated path.
- Click to play back the video before and after the snapshot.
- Click to delete event information.
- Click to view the most recent events.

## 7.1.4 Searching for Metadata Snapshots

Search for metadata snapshots by setting search criteria or uploading images.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

Step 2 Click .

Step 3 Set search criteria.

You can search for metadata snapshots in the **Record**, **Person** or **Vehicle** section. For details, see "6.3 DeepXplore".

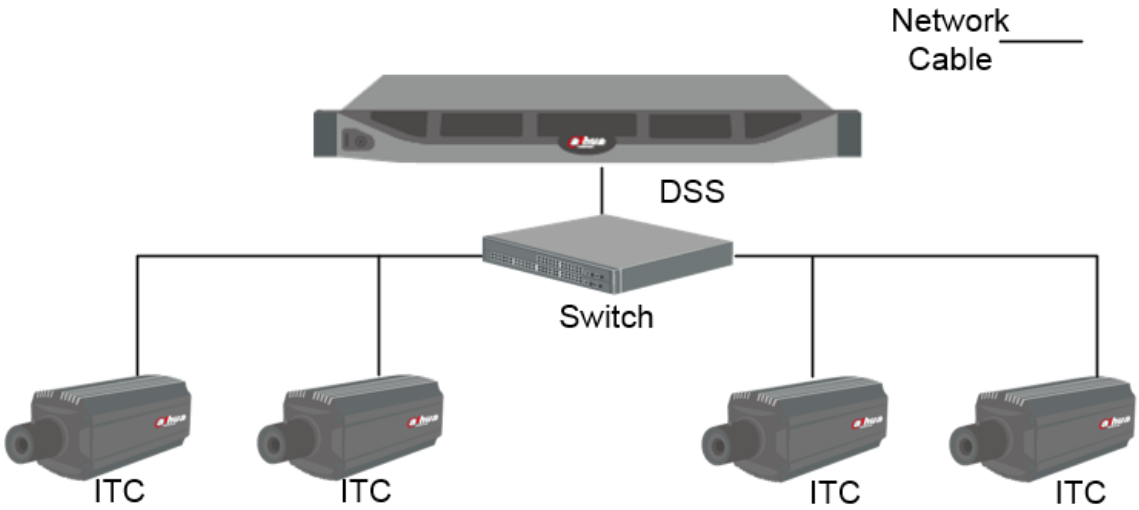
# 7.2 ANPR

View automatic number plate recognition in real time or search for records.

- Automatic number plate recognition
  The platform displays vehicle snapshots and ANPR results in real time.
- Vehicle records
  Search for vehicle records according to the filtering conditions you have set.

## 7.2.1 Typical Topology

Figure 7-3 Typical topology




- ANPR cameras (ITC camera) capture and recognize vehicles.
- DSS centrally manages ANPR cameras, receives and displays vehicle snapshots and information uploaded from the cameras.

## 7.2.2 Preparations

Make sure that the following preparations have been made:

- ANPR cameras are added to the platform, and the ANPR function is configured. For details, see corresponding user's manuals.
- Basic configurations of the platform have been finished. To configure, see "4 Basic Configurations".
  - ◇ When adding an ITC camera, select **ANPR** for device category, and then select **ANPR Device** for **Device Type**.
  - ◇ ANPR snapshots are only stored on **ANPR Picture** disks. On the **Storage** page, configure at

least one **ANPR Picture** disk. Otherwise vehicle pictures cannot be viewed.

## 7.2.3 Live ANPR

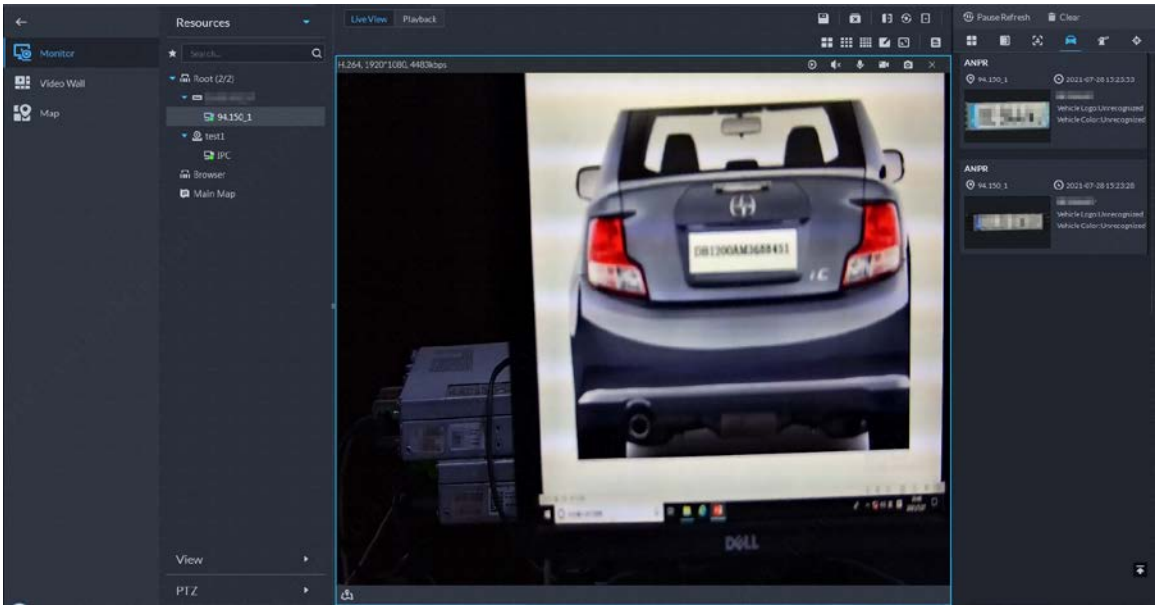
View ANPR live video and plate snapshots.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitor Center** > **Monitor**.

Step 2 Select a window, double-click the channel or drag the channel to the window.

Figure 7-4 Live view




Step 3 Click and then click .

Step 4 View live ANPR events.

- Click an event record to view event snapshots. You can also play back the video of the event. Different events support different operations.
- When playing back a video, click to download the video to a designated path.
- Click to play back the video before and after the snapshot.
- Click to delete event information.
- Click to view the most recent events.

## 7.2.4 Searching for Vehicle Snapshot Records

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

Step 2 Click .

Step 3 Configure the search conditions.

You can search for vehicle snapshots in the **Record** or **Vehicle** section. For details, see "6.3 DeepXplore".

# 7.3 Face Recognition

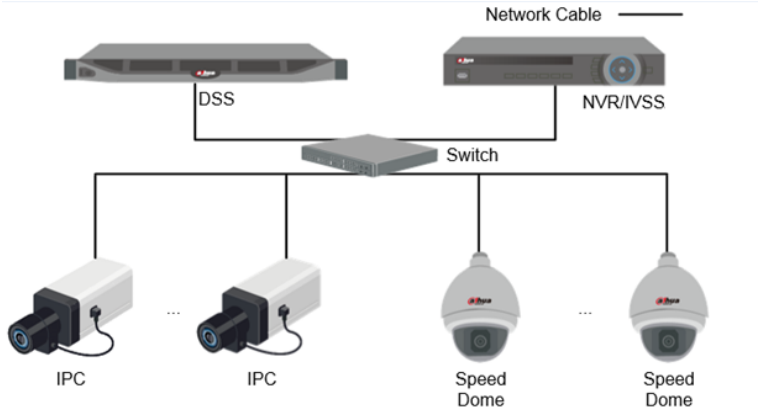
Configure face recognition settings on the device and the platform before you can view face recognition results on the platform.

## 7.3.1 Typical Topology

The face recognition feature is available on select models of NVR, IVSS and FR cameras.

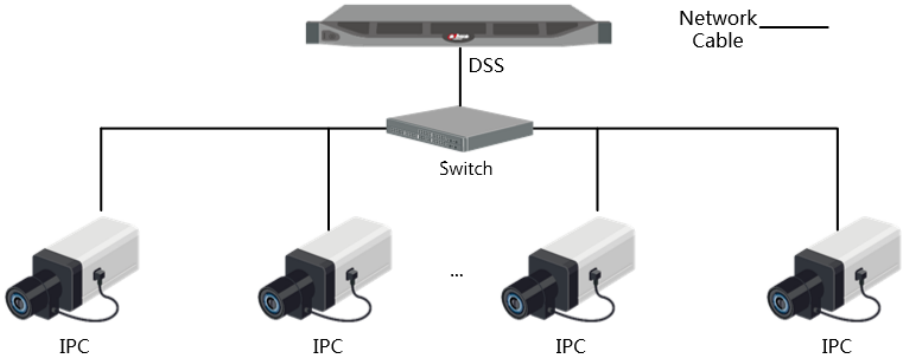
- Face recognition by NVR/IVSS

Figure 7-5 Typical topology (NVR/IVSS)




  - Cameras record videos.
  - NVR/IVSS is used for face recognition and storage.
  - DSS centrally manages cameras, NVRs, and the face database, and provides live view and face search.
- Face recognition by camera

Figure 7-6 Typical topology (camera)




  - Cameras record face videos, and detect and recognize faces.
  - DSS centrally manages cameras, NVRs, and the face database, and provides live view and face search.

## 7.3.2 Preparations

Make sure that the following preparations have been made:

- Face recognition devices are correctly configured. For details, see corresponding user's manuals.
- Basic configurations of the platform have been finished. To configure, see "4 Basic Configurations".
  - When adding face recognition devices, select **Encoder** for device category.
  - After adding a face recognition NVR or IVSS, select **Face Recognition** for **Features** of the corresponding channels.
  - After adding face recognition cameras or face detection cameras, select **Face Recognition** or **Face Detection** for **Features**.
  - Face snapshots are stored in the **Face/Alarm and Other Pictures** disk. Configure at least one local disk for picture storage. Otherwise, the platform cannot display snapshots.

## 7.3.3 Arming Faces

Before arming faces, you need to add the persons to face recognition group. For details, see "5.4.1 Face Watch List".

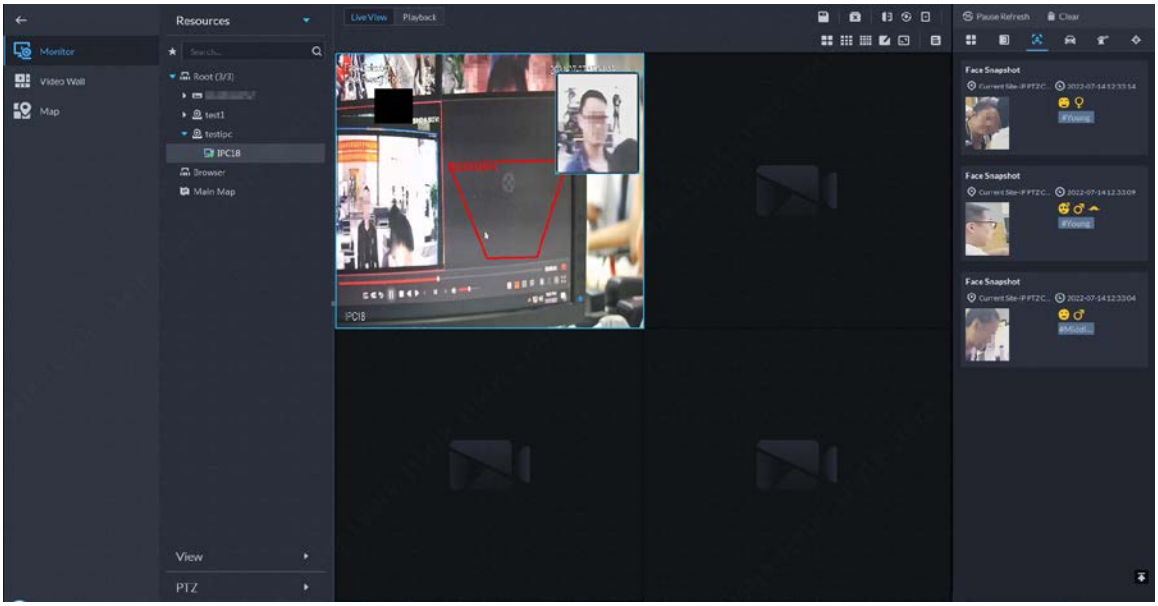
## 7.3.4 Live Face Recognition

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitor Center** > **Monitor**.

Step 2 Select a window, double-click the channel or drag the channel to the window.

Figure 7-7 Live view




Step 3 Click and then click to view live face recognition information.

Step 4 View live video, and human body, vehicle, and non-motor vehicle information.

- Click an event record to view event snapshots. You can play back the video of the event. Different events support different operations.
- When playing back video, click to download the video to designated path.
- Click to play back the video before and after the snapshot.

- Click to refresh events; click to pause refreshing.
- Click to delete event information.
- Click to view the most recent events.

## 7.3.5 Searching for Face Snapshots

Search for face snapshots by setting search criteria or uploading images.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **DeepXplore**.

Step 2 Click .

Step 3 Configure the search conditions.

You can search for vehicle snapshots in the **Record** or **Person** section. For details, see "6.3 DeepXplore".

# 8 System Configurations

This chapter introduces system parameters configuration, license information, service management, and backup and restore.

## 8.1 License Information

Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **License**.

On this page, you can view the types of devices and the number of channels that can be connected to the platform, and the number of App users that can be registered.

## 8.2 System Parameters

Configure security parameters, storage retention duration, email server, time sync, remote log, login method, and more.

### 8.2.1 Configuring Security Parameters

- HTTPS (Hyper Text Transfer Protocol over Secure Socket Layer) is a safe HTTP transmission protocol. It is safe and stable, and guarantees the security of user information and devices. When HTTPS certificate is configured, you can log in to the platform through HTTPS protocol to ensure transmission security.
- Protect your data by verifying login password when download or export information, and encrypting the export files.
- After the firewall of the server is enabled, you need to add the IP address of the computer where the DSS Client is installed to the HTTP allowlist so that it can access the server.
- After the firewall of the server is enabled, only the IP addresses in the RSTP allowlist can request video stream through the media gateway service. The IP addresses of decoders will be added automatically. If there are other IP addresses that need to request video stream through media gateway service, you need to manually add them to the RSTP allowlist.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter** > **Security Parameter**.

Step 2 Click to upload the SSL certificate and private key, and then click **Save**.

Step 3 Enable **File Export or Download Password Authentication** and **Encrypt Exported File**, and then click **Save**.

- **File Export or Download Password Authentication**:
  - ◇ You need to enter the password of the current account to export or download files.
  - ◇ For all users that log in to the platform, they do not need to enter the password

when exporting or downloading files.

- **Encrypt Exported File**: When you use the exported file, you need to verify the password.

Step 4 Add IP addresses to the HTTP and RSTP allowlist.

## 8.2.2 Configuring Retention Period of System Data

Set the retention periods for logs, alarm messages, face recognition records, vehicle passing records, access snapshot records, video communication records, visitor records, and more. Records beyond the defined retention period will be automatically deleted.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter**.

Step 2 Click **Message Retention Period**.

Step 3 Double-click a number to change its value.

Step 4 Click **Save**.

## 8.2.3 Time Synchronization

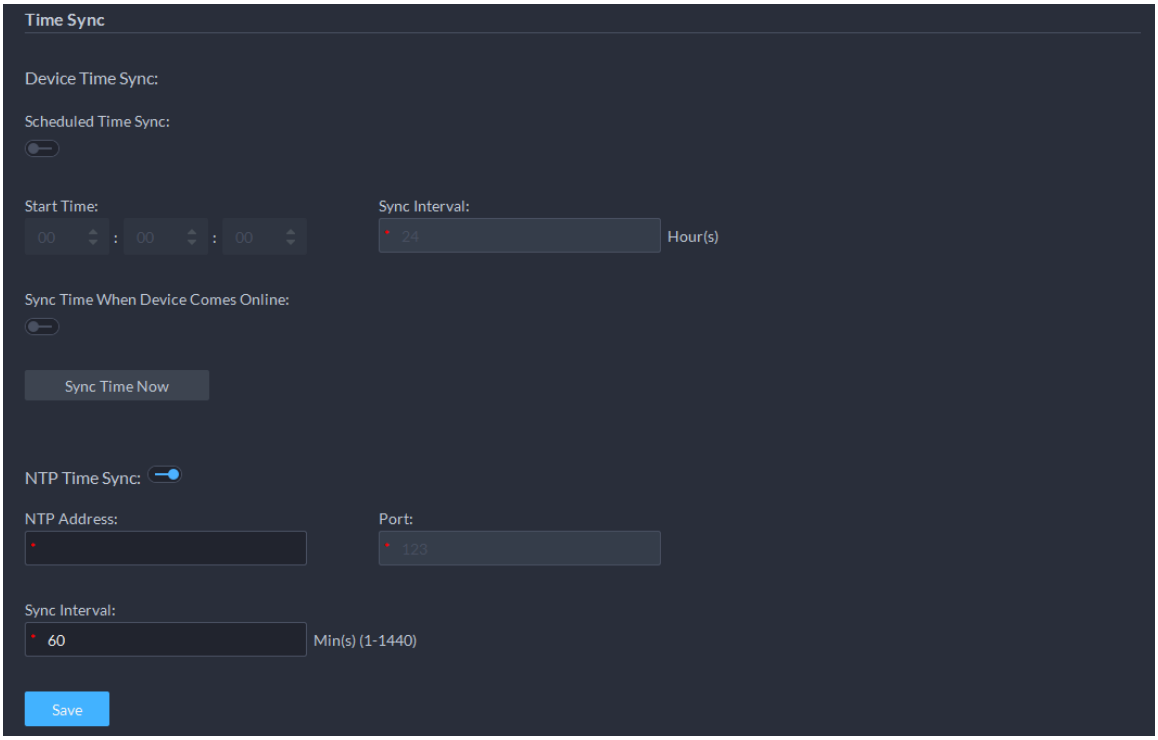
Synchronize the system time of all connected devices, PC client, and the server. Otherwise the system might malfunction. For example, video search might fail. The platform supports synchronizing the time of multiple devices, which have the same time zone as the platform. You can synchronize the time manually or automatically.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter**.

Step 2 Click the **Time Sync** tab. Enable the sync methods, and then set parameters.

Figure 8-1 Enable time synchronization




- Scheduled Time Sync: Enable the function, enter the start time in time sync for each day, and the interval.
- Sync Time When Device Comes Online: Syncs device time when the device goes online.
- NTP Time Sync: If there is an NTP server in the system, you can enable this function to let the system enable time with the NTP server.

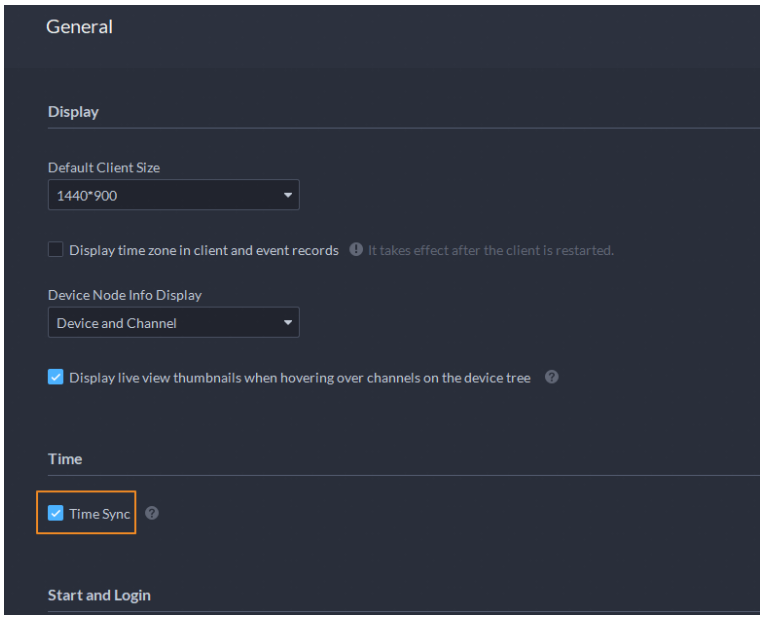
Step 3 Click **Save**.

Step 4 (Optional) Enable time synchronization on DSS Client.

1) Log in to the DSS Client, and then in the **Management** section, click **Local Settings**.
2) Click the **General** tab, select the check box next to **Time Sync**, and then click **Save**.

The system immediately synchronizes the time after you restart the client to keep the time of the server and the PC client the same.

Figure 8-2 Enable time sync




3) Restart the client for the configuration to take effect.

## 8.2.4 Configuring Email Server

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter**.

Step 2 Click the **Email Server** tab, enable **Email Server**, and then configure parameters as required.

Figure 8-3 Set email server

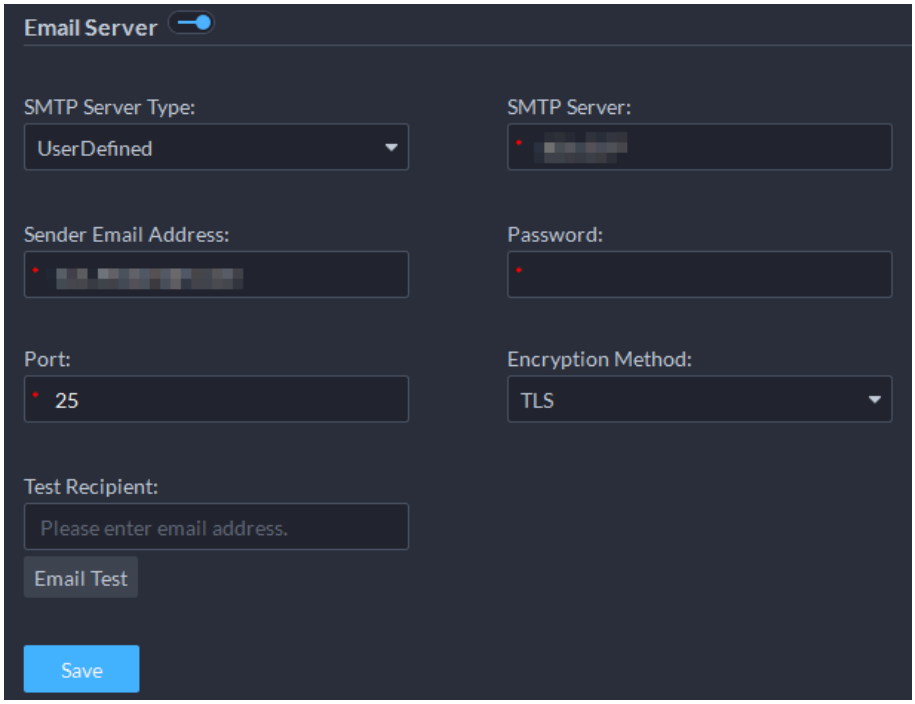



Table 8-1 Description of email server parameters

| Parameter | Description |
|---|---|
| SMTP Server Type | Select according to the type of SMTP server to be connected. The types include **Yahoo**, **Gmail**, **Hotmail**, and **UserDefined**. |
| Sender Email Address | The sender displayed when an email is sent from DSS. |
| SMTP Server | IP address, password, and port number of the SMTP server. |
| Password | |
| Port | |
| Encryption Method | Supports no encryption, TLS encryption, and SSL encryption. |
| Test Recipient | Set the recipient, and then click **Email Test** to test whether the mailbox is available. |
| Email Test | |

Step 3 Click **Save**.

## 8.2.5 Configure Device Access Parameters

To ensure that you can safely use the devices, we recommend using the security mode if devices support this mode to avoid security risks. The platform also supports enabling and disabling adding devices through P2P.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter** > **Device Adding Config**.

Step 2 Select a device login mode, and then click **Save**.

Step 3 Enable or disable the P2P function.

If disabled, you cannot add devices to the platform through P2P.

## 8.2.6 Remote Log

To ensure safe use of the platform, the system sends administrator and operator logs to the log server for backup at 3 A.M. every day.

### Procedure

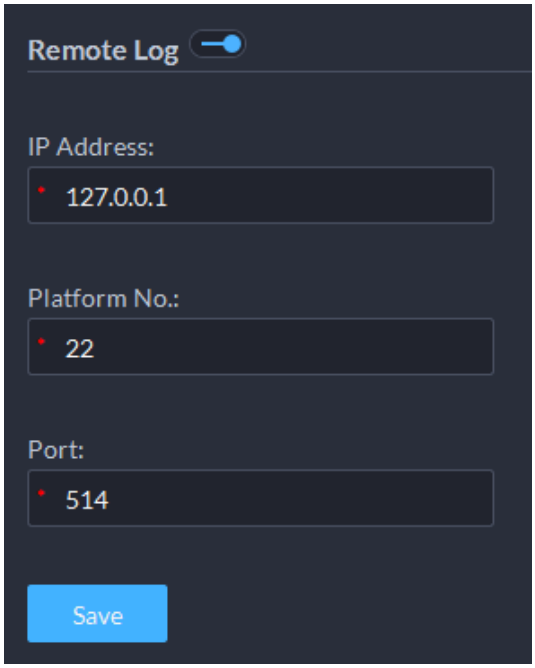
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameter**.

Step 2 Click the **Remote Log** tab.

Step 3 Enable the function, and then set parameters as required.

The **Platform No.** must be the same on the remote server and the platform.

Figure 8-4 Enable remote log




Step 4 Click **Save**.

## 8.2.7 Configuring Push Notification and Certificate for App

Enable or disable the push notification function, and manage the VoIP certificate for App. The certificate is used to push calls to App when it is offline.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameters** > **Mobile App Config**.

Step 2 Enable or disable push notification.

If disabled, the app will not receive any notifications, such as alarms and calls.

Step 3 Update the VoIP certificate.

1) Contact technical support to obtain the certificate.
2) Click **Update Certificate**, and upload the certificate according to on-screen instructions.

   After upload, the platform will display the expiration time of the certificate.

# 8.3 Backup and Restore

The platform supports backing up configuration information and saving it to a computer or server, so that you can use the backup file for restoring settings.

## 8.3.1 System Backup

Use the data backup function to ensure the security of user information. Data can be manually or automatically backed up.

- Manual backup: Manually back up the data, and the DSS platform will save it locally.
- Automatic backup: The DSS platform automatically backs up the data at a defined time, and saves it to the installation path of the platform server.

### Procedure

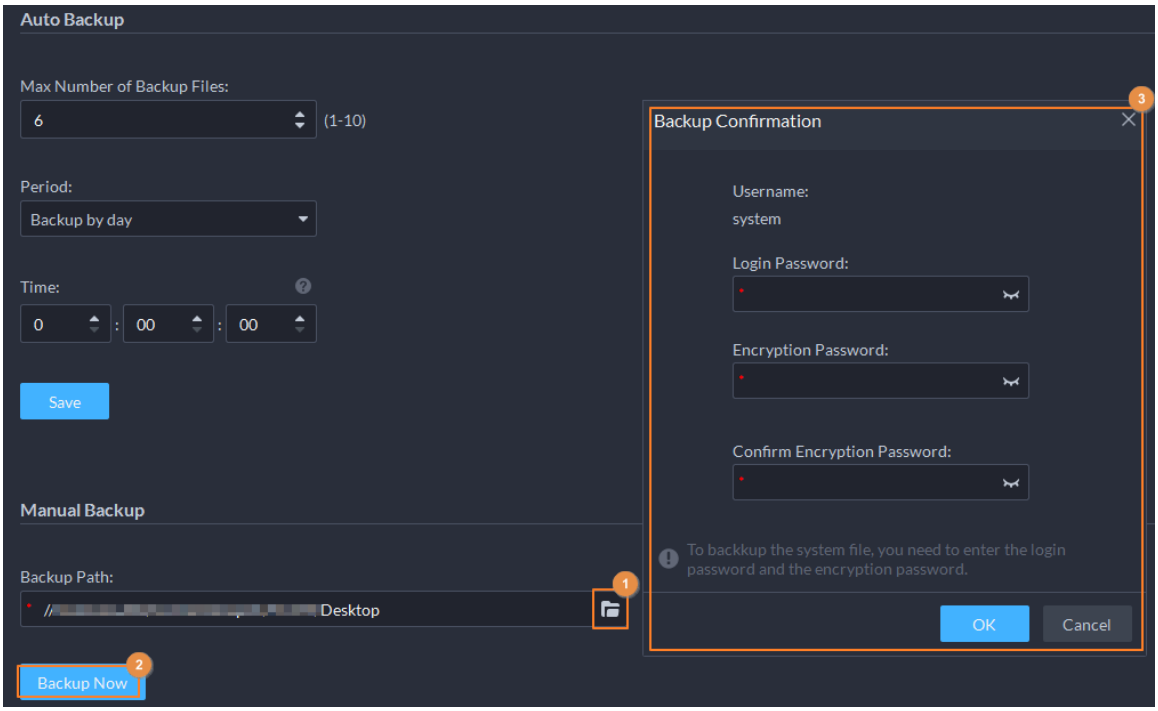
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **Backup and Restore**.

Step 2 Click the **Backup** tab.

Step 3 Back up data.

- Manual backup: In the **Manual Backup** section, select the data saving path, click **Backup Now**. The **Login Password** is the same as the system user's. Create an **Encryption Password** to protect data.

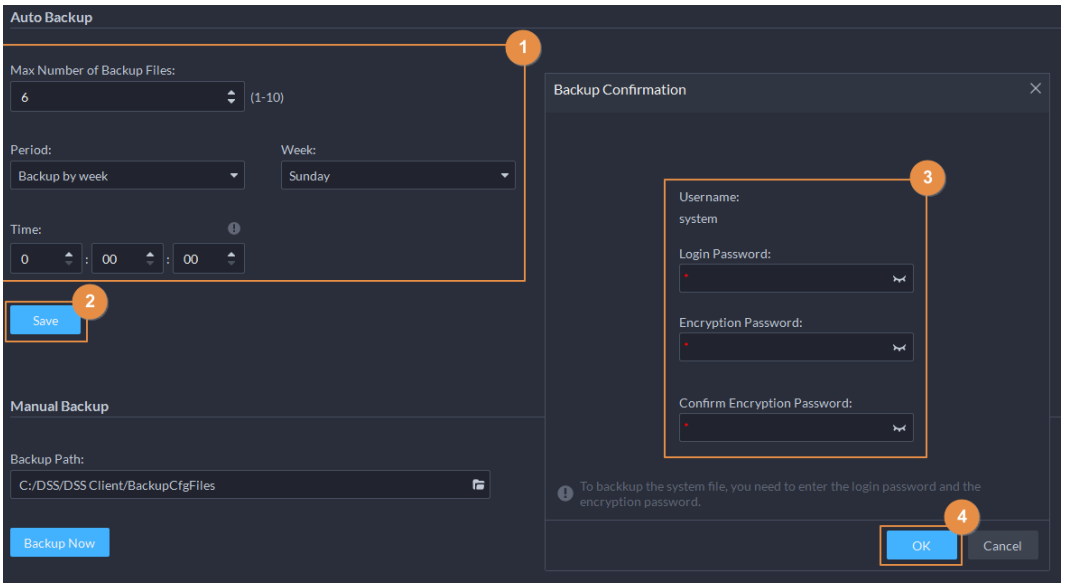
Figure 8-5 Manual backup




- Auto backup: In the **Auto Backup** section, configure backup parameters, and then click **OK**. The **Login Password** is the same as the system user's. Create an **Encryption Password** to protect the data. The platform automatically backs up data according to the defined time and period. The backup path is the installation path of the platform server by default.

**Max Number of Backup Files** means you can only save defined number of backup files in the backup path.

Figure 8-6 Auto backup




## 8.3.2 System Restore

Restore the data of the most recent backup when the database becomes abnormal. It can quickly restore your DSS system and reduce loss.

- Local Restore: Import the backup file locally.
- Server Restore: Select the backup file from the server.

- Users must not use the platform when you are restoring the configurations.
- Restoring the configurations will change the data on the platform. Please be advised.

### Procedure

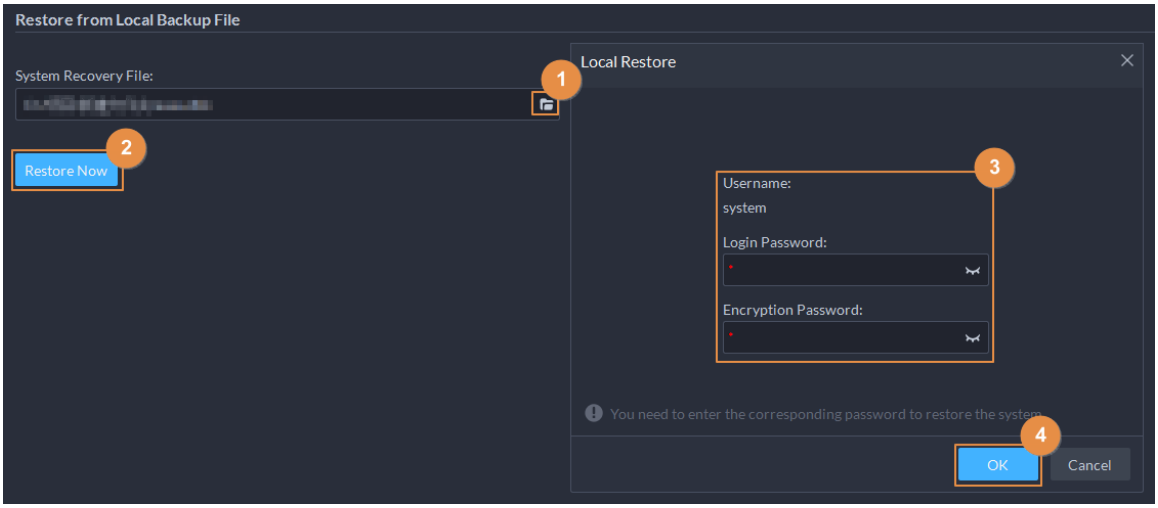
Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **Backup and Restore**.

Step 2 Click the **Restore** tab.

Step 3 Restore data.

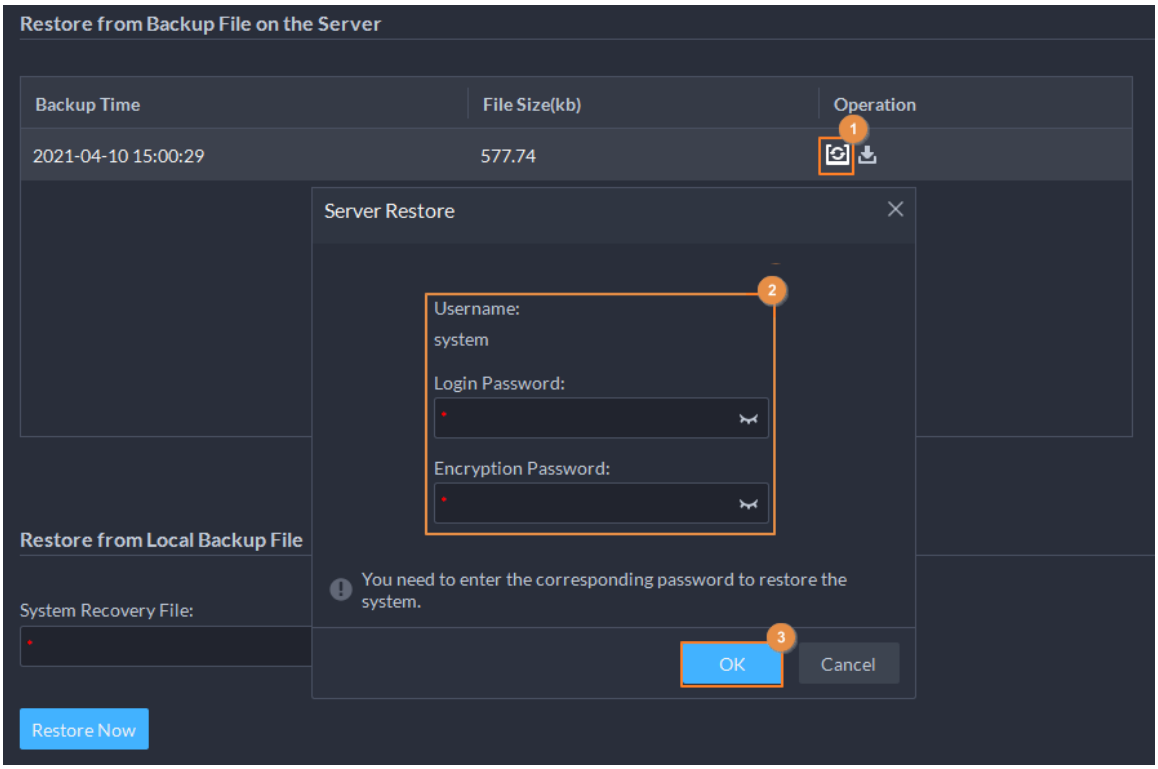
- Restore from local backup file: In the **Restore from Local Backup File** section, select the backup file path, click **Restore Now**, and then enter the passwords (the **Password** is the same as the system user's. The **Encryption Password** is the one created when the file was backed up).

Figure 8-7 Local restore




- Restore from backup file on the server: In the **Restore from Backup File on the Server** section, click , enter the passwords (the **Password** is the same as the system user's. The **Encryption Password** is the one created when the file was backed up), and then click **OK**. After restoration, the platform will automatically restart.

Figure 8-8 Restore from backup files on the server




You can click to download the backup file.

# 9 Management

## 9.1 Managing Logs

View and export operator logs, device logs and system logs, and enable the service log debug mode for troubleshooting.

### 9.1.1 Operation Log

View and export logs that record users' operations, such as viewing the real-time video of a channel.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Logs** > **Operation Logs**.

Step 2 Click , select one or more types of log you want to search for, specify the time and keywords, and then click **Search**.

Step 3 To export the logs, click **Export** and follow the on-screen instructions.

### 9.1.2 Device Log

View and export logs generated by devices.

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Logs** > **Device Logs**.

Step 2 Select a device and time, and then click **Search**.

Step 3 To export the logs, click **Export** and follow the on-screen instructions.

### 9.1.3 System Log

#### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Logs** > **System Logs**.

Step 2 Click , and then select one or more types of logs you want to search for.

Step 3 Configure the time and enter the keyword, and then click **Search**.

Step 4 (Optional) Click **Export** and follow the on-screen instructions.

### 9.1.4 Service Log

Services will generate logs when they are running. These logs can be used for troubleshooting. If you need even more detailed logs, enable the debug mode so that the platform will generate detailed

logs.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Logs** > **Extract Service Logs**.

Step 2 Click to download the logs of the service within a specified period to your computer.

Step 3 (Optional) Click to enable the debug mode of a service, and then click to download the detailed logs within a specified period to your computer.

After the debug mode is enabled, the platform will generate a large amount of logs that occupy more disk space. We recommend you disable the debug mode after you have finished troubleshooting.

## 9.2 Downloading Videos

You can download videos stored on the server or the device. They can be saved in are in .avi, .mp4, or .asf formats. Three ways to download videos are:

- Download a portion of a video by selecting a duration on the timeline.
- Download videos by files. The system will generate files every 30 minutes from the time the video starts. If the video does not start on the hour or the half hour, the first file will start from the earliest start time to the half hour or the hour. For example, if a video starts from 4:15, the first file will be from 4:15 to 4:30.
- Download a period before and after a tag.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Download Center**.

Step 2 Configure the search conditions, and then click **Search**.

Step 3 Download videos.

You need to verify your password by default before download. You can configure whether to verify the password. For details, see "8.2.1 Configuring Security Parameters".

- Download a video by selecting a duration on the timeline.
  Click the **Timeline** tab, and then select a period on the timeline.
  You can also click **Select All** on the upper-left corner, and then you can select and download the same period of all videos at the same time.
- Download a video by file.
  Click the **File** tab, and then click of a file.
  You can also select multiple files, and then click **Download Selected File** on the upper-left corner to download them at the same time.
- Download a period of a video before and after a tag.
  Click the **Tag** tab, click of the file you want to download.
  You can also select multiple tags, and then click **Download Selected Tagged File** to configure and download them at the same time.

Step 4 (Optional) Click , select the format of the video, and then click **OK**.

- **Timeline**: You can further adjust the start and end time of the duration.

  If you set the **Search Type of Device Video Stream** to **Main Stream and Sub Stream 1**, you can download videos recorded in main stream or sub stream for videos stored on devices. For details, see "9.3.2 Configuring Video Settings".

- **File**: If you download multiple files at the same time, you cannot configure the formats of the videos you want to save.
- **Tag**: You can configure how many seconds or minutes before and after the tag you want to download.

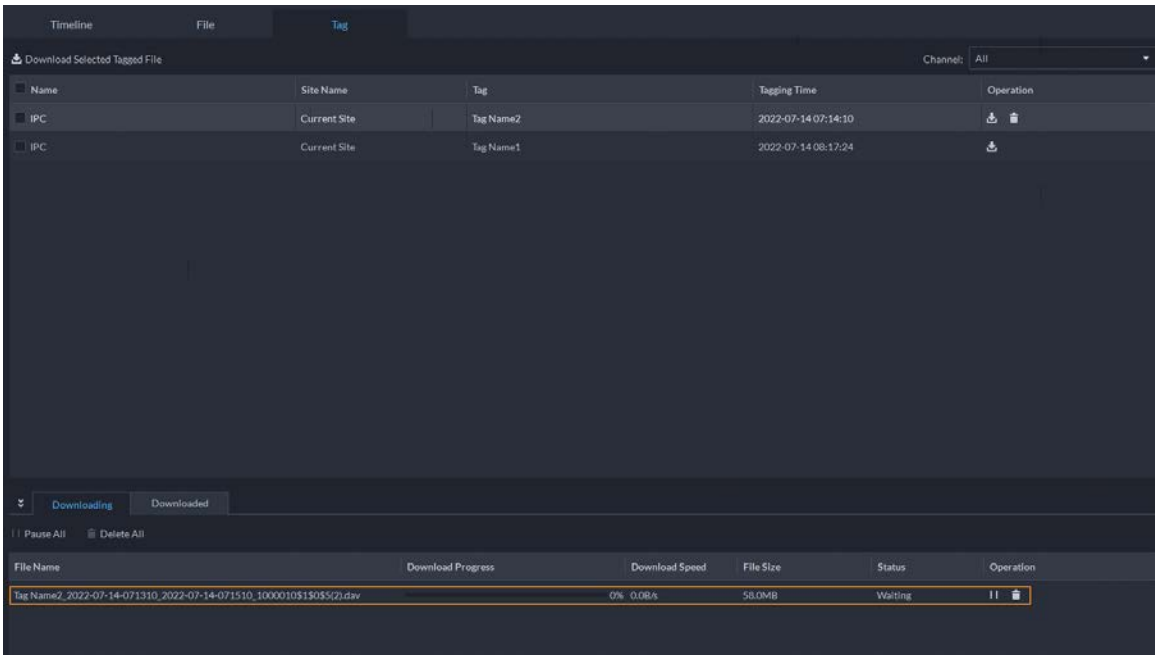
  After download, you can click to delete the tag.

Step 5 When downloading clipped videos, in the **Download Recorded Video** dialogue box, confirm the time span, and then, if necessary, click to select a video format. Click **OK**.

## Related Operations

- You can pause, resume, and delete a download task.

Figure 9-1 Download progress




- After download completes, click to go to the path where the video is saved to, or click in the prompt on the upper-right corner to play the video directly in **Local Video**. For details, see "9.4 Playing Local Videos".

# 9.3 Configuring Local Settings

After logging in to the client for the first time, you need to configure the following fields under system parameters: Basic settings, video parameters, record playback, snapshot, recording, alarm, video wall, security settings and shortcut keys.

## 9.3.1 Configuring General Settings

Configure client language, client size, time, and more.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **General**, and then configure the parameters.

Figure 9-2 General parameters

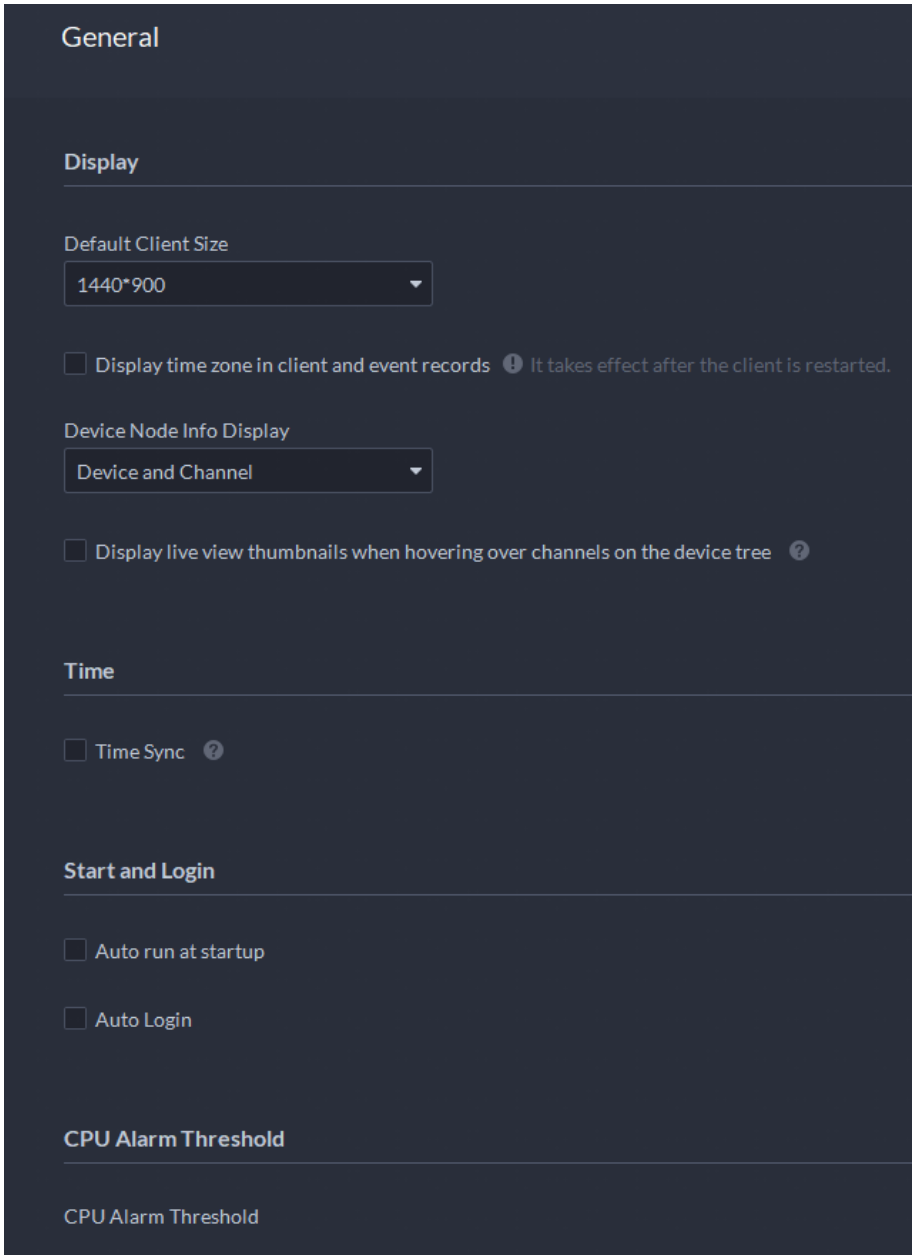



Table 9-1 Parameter description

| Parameters | Description |
|---|---|
| Default Client Size | Select a proper resolution for the client according to PC display screen. |
| Display time zone in client and event records | When selected, the client and the time of alarms will show both the time and time zone. |

| Parameters | Description |
|---|---|
| Device Node Info Display | Select that the device tree displays devices and their channels or only channels. |
| Display live view thumbnails when hovering over channels on the device tree | When selected, you can hover the mouse over a channel in the device tree in **Monitoring Center** and a snapshot of its live video image will be displayed. |
| Time Sync | If enabled, the client starts to synchronize network time with the server to complete time synchronization. |
| Auto run at startup | • If **Remember Password** has been selected on the **Login** page, select **Auto restart after reboot**, and the system will skip the login page and directly open the homepage after you restart the PC next time.<br>• If **Remember Password** is not selected on the **Login** page, select **Auto restart after reboot**, the client login page will appear after you restart the PC. |
| Auto Login | Enable the system to skip the login page and directly open the homepage when logging in next time.<br>• If **Remember Password** and **Auto Login** have been selected on the **Login** page, the function is already enabled.<br>• If **Remember Password** has been selected while **Auto Login** is not selected on the **Login** page, select **Auto Login** on the **Basic** page to enable this function.<br>• If neither **Remember Password** nor **Auto Login** has been selected on the **Login** page, select **Auto Login** on the **Basic** page and you then to enter the password when logging in next time to enable the function. |
| CPU Alarm Threshold | The user will be asked to confirm whether to open one more video when the CPU usage exceeds the defined threshold. |
| Audio and video transmission encryption | Encrypt all audio and video to ensure information security. |
| Auto Lock Client | The client will be locked after the defined period and you cannot perform any operation. Click **Click to Unlock Client** and verify the password of the current account to unlock the client.<br>You can configure up to 60 minutes. |
| Self-adaptive audio talk parameters | If enabled, the system automatically adapts to the device sampling frequency, sampling bit, and audio format for audio talk. |

Step 3 Click **Save**.

## 9.3.2 Configuring Video Settings

Configure window split, display mode, stream type and play mode of live view, and instant playback

length.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **Video**, and then configure the parameters.

Figure 9-3 Video parameters

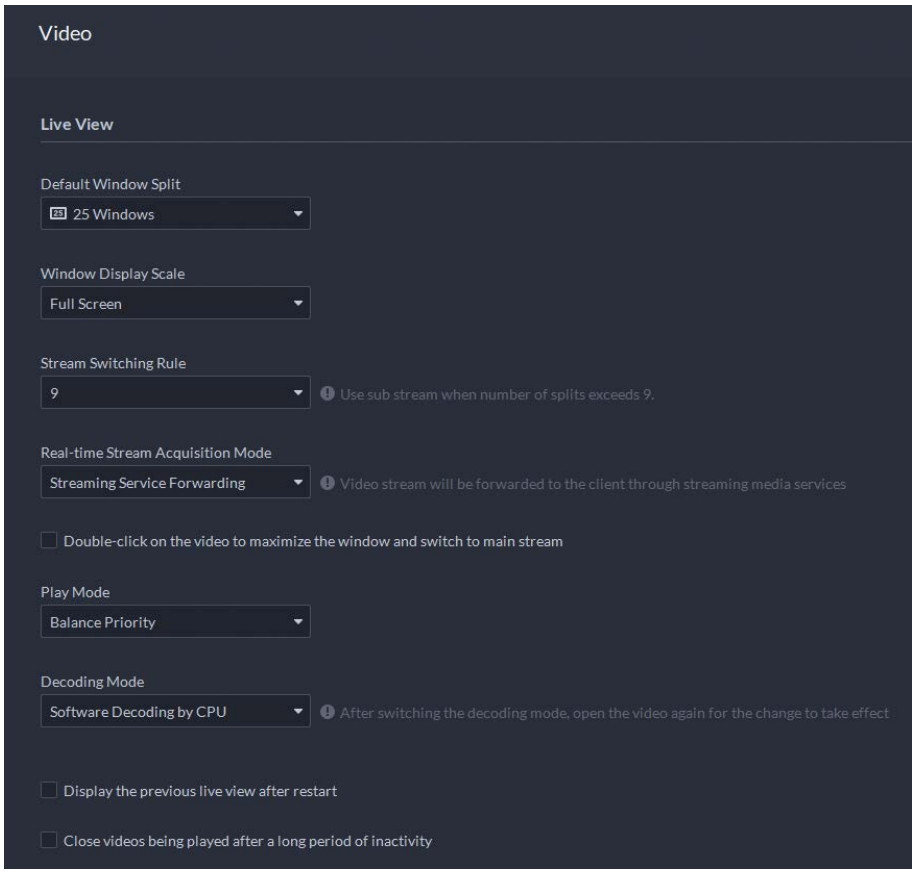



Table 9-2 Parameter description

| Parameters | Description |
|---|---|
| Default Window Split | Set split mode of the video window. |
| Window Display Scale | Select from **Original Scale** and **Full Screen**. |
| Stream Switching Rule | When the number of window splits is greater than the defined value, the live video will switch from the main stream type to sub stream type. |
| Real-time Stream Acquisition Mode | Select the one according to your situation. If you select **Acquire directly from the device**, clients will acquire video streams directly from the channel. If direct acquisition fails, the platform will forward the video streams to clients. |

| Parameters | Description |
|---|---|
| | When the device and clients are properly connected to the network, direct acquisition can reduce the use of the platform's forwarding bandwidth. If too many clients are acquiring video streams from a channel, acquisition might fail due to insufficient performance of the device. Video streams will be forwarded to clients by the platform. |
| Double-click on the video to maximize the window and switch to main stream | If selected, you can double-click a video window to maximize it and switch from sub stream to main stream. Double-click again to restore the window size, and then the system will switch it back to sub stream. |
| Play Mode | • **Real-time Priority**<br>The system might lower the image quality to avoid video lag.<br>• **Fluency Priority**<br>The system might lower the image quality and allow for lag to ensure video fluency. The higher the image quality, the lower the video fluency will be.<br>• **Balance Priority**<br>The system balances real-time priority and fluency priority according to the actual server and network performance.<br>• **Custom**<br>The system adjusts video buffering and lowers the impact on video quality caused by unstable network. The bigger the value, the more stable the video quality will be. |
| Decoding Mode | • **Software Decoding by CPU**: All videos will be decoded by the CPU. When you are viewing live videos from large amount of channels, it will take up too much resources of the CPU that affects other functions.<br>• **Software Decoding by GPU**: All videos will be decoded by the GPU. The GPU is better at concurrent operation than the CPU. This configuration will free up resources of the CPU significantly.<br>• **Performance Mode (CPU First)**: All videos will be decoded by the CPU first. When the resources of the CPU is taken up to the defined threshold, the platform will use the GPU to decode videos. |
| CPU Threshold | |
| Display previous live view after restart | If selected, the system displays the last live view automatically after you restart the client. |
| Close videos being played after long period of inactivity | The system closes live view automatically after inactivity for a pre-defined period of time. Supports up to 30 minutes. |
| Inactivity Time | |
| Instant Playback Time | Click on the live view page to play the video of the previous |

| Parameters | Description |
|---|---|
| | period. The period can be user-defined. For example, if you set 30 seconds, the system will play the video of the previous 30 seconds. |
| Search Type of Device Video Stream | Select a default stream type when you play back recordings from a device.<br>If **Only Sub Stream 2** is selected, but the device does not support sub stream 2, then recordings of sub stream 1 will be played. |
| Extract frames when playing back HD videos | If selected, when the playback stream is big due to high definition, certain frames will be skipped to guarantee fluency and lower the pressure on decoding, bandwidth and forwarding. |
| Continuous Snapshot Interval | Set the number and interval between each snapshot.<br>For example, if the **Continuous Snapshot Interval** is 10 seconds and the **Number of Continuous Snapshots** is 4, when you right-click on the live/playback video and select **Snapshot**, 4 images will be taken every 10 seconds. |
| Number of Continuous Snapshots | |

Step 3 Click **Save**.

## 9.3.3 Configuring Video Wall Settings

Configure the default binding mode and stream type of video wall.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **Video Wall**, and then configure the parameters.

Figure 9-4 Configure video wall settings

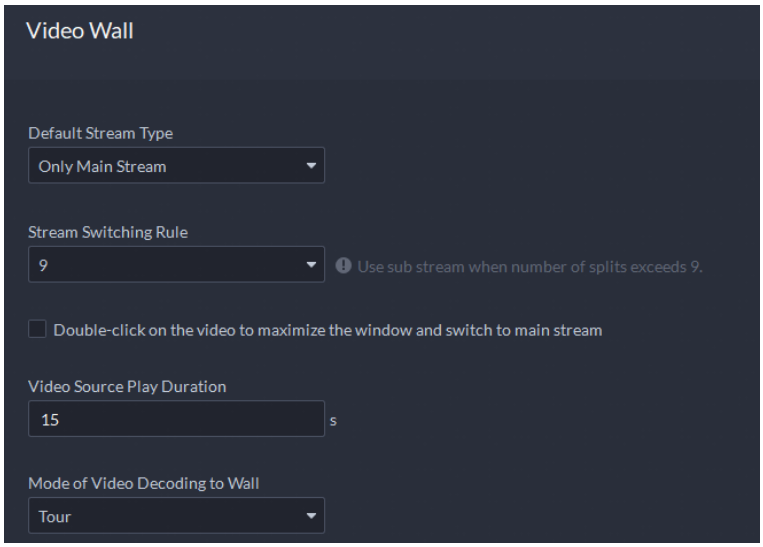


Table 9-3 Parameter description

| Parameter | Description |
| --- | --- |
| Default Stream Type | Select **Main Stream**, **Sub Stream 1**, **Sub Stream 2** or **Local Signal** as the default stream type for video wall display. |
| Stream Switching Rule | When the number of window splits is greater than the defined value, the live video will switch from the main stream type to sub stream type. |
| Double-click on the video to maximize the window and switch to main stream | Double-click the video to maximize the window, and then its stream type will switch to main stream. |
| Video Source Play Duration | Set the default time interval between the channels for tour display.<br>For example, if 5 seconds is configured and you are touring 3 video channels, the live video image of each channel will be played 5 seconds before switching to the next channel. |
| Mode of Video Decoding to Wall | • **Tour**: Multiple video channels switch to decode in one window by default.<br>• **Tile**: Video channels are displayed in the windows by tile by default.<br>• **Ask Every Time**: When dragging a channel to the window, the system will ask you to select tour or tile mode. |

Step 3 Click **Save**.

## 9.3.4 Configuring Alarm Settings

Configure the alarm sound and alarm display method on the client.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **Alarm**, and then configure the parameters.

Figure 9-5 Configure alarm settings

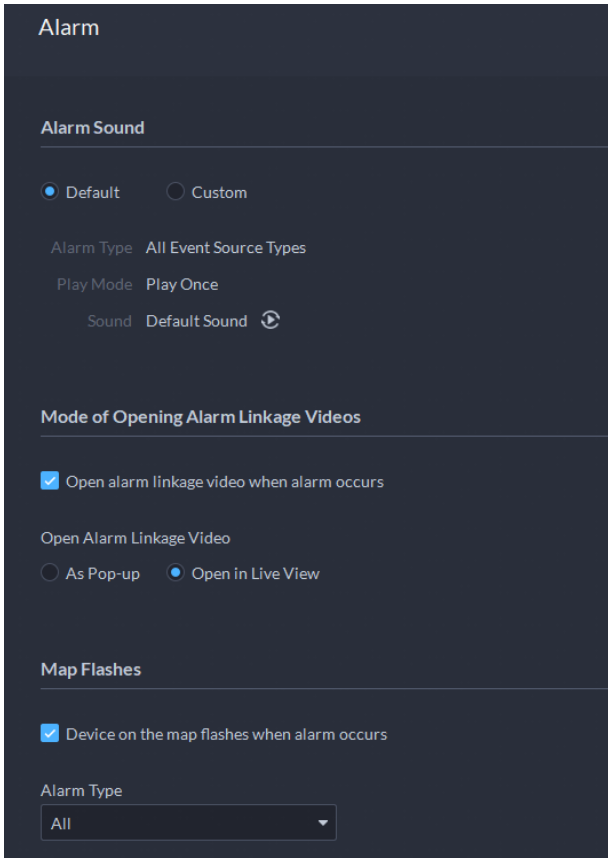



Table 9-4 Parameter description

| Parameters | Description |
|---|---|
| Default | All types of alarms will use the same default alarm sound when triggered. |
| Custom | Click **Modify Alarm Sound**, and then you can change the alarm sound and its play mode of each type of alarm. |
| Open alarm linkage video when alarm occurs | If selected, the platform will automatically open linked video(s) when an alarm occurs.<br>• **As Pop Up**: The alarm video will be played in a pop-up window.<br>• **Open in Live View**: The alarm video will be played in a window in **Monitoring Center**.<br>For this function to work properly, you must enable **When an alarm is triggered, display camera live view on client** when configuring an event. For details, see "5.1 Configuring Events". |
| Open Alarm Linkage Video | |
| Device on the map flashes when alarm occurs | Set one or more alarm types for alarm notification on the map. When an alarm occurs, the corresponding device will flash on the map. |

Step 3 Click **Save**.

## 9.3.5 Configure File Storage Settings

Configure the storage path, naming rule, file size, and format of recordings and snapshots.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **File Storage**, and then configure the parameters.

Figure 9-6 Configure file storage settings

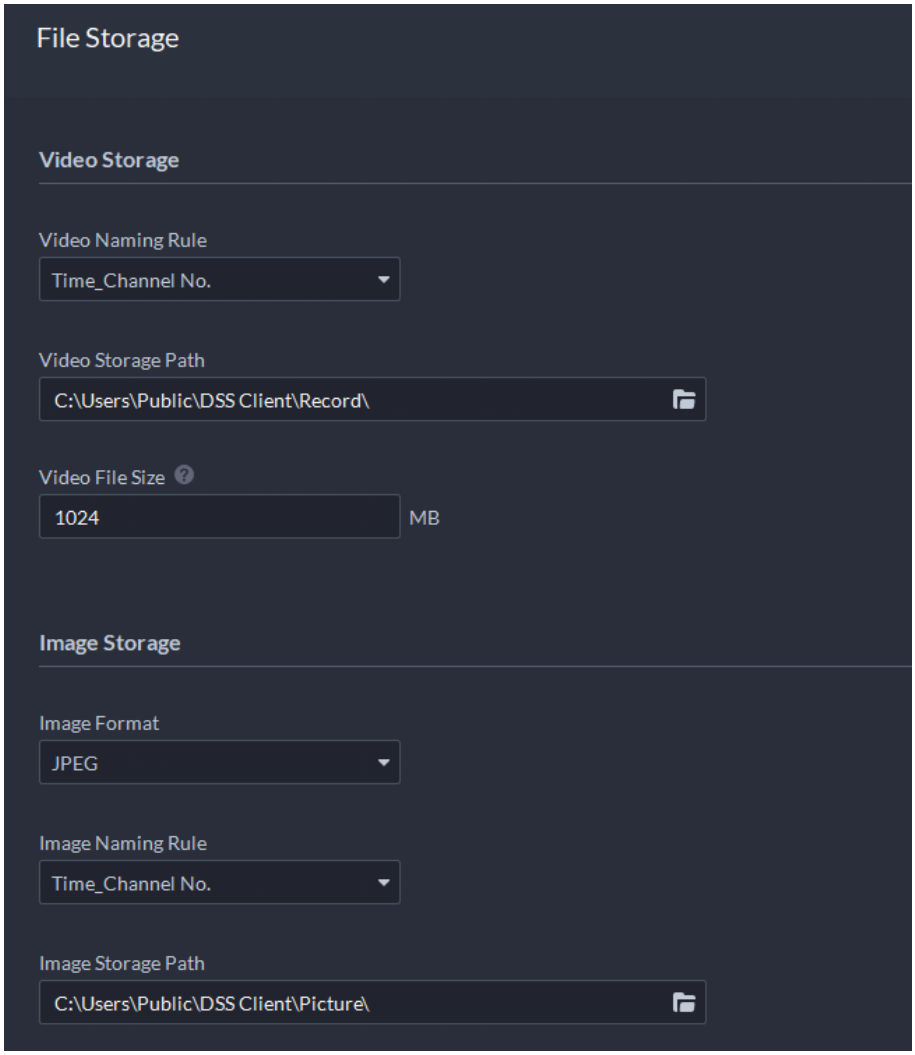



Table 9-5 Parameter description

| Parameters | Description |
|---|---|
| Video Naming Rule | Select a naming rule for manual recordings. |
| Video Storage Path | Set a storage path of manual recordings during live view or playback. The default path is C:\Users\Public\DSS Client\Record. |
| Video File Size | Configure the maximum size of a single recording file. |
| Image Format | Select a format for snapshots. |
| Image Naming Rule | Select a naming rule for snapshots. |

| Parameters | Description |
| --- | --- |
| Image Storage Path | Set a storage path for snapshots. The default path is C:\Users\Public\DSS Client\Picture. |

Step 3 Click **Save**.

## 9.3.6 Viewing Shortcut Keys

View shortcut keys for operating the client quickly.

### Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Settings**.

Step 2 Click **Shortcut Key** to view shortcut keys of the PC keyboard and USB joystick.

Figure 9-7 View shortcut keys

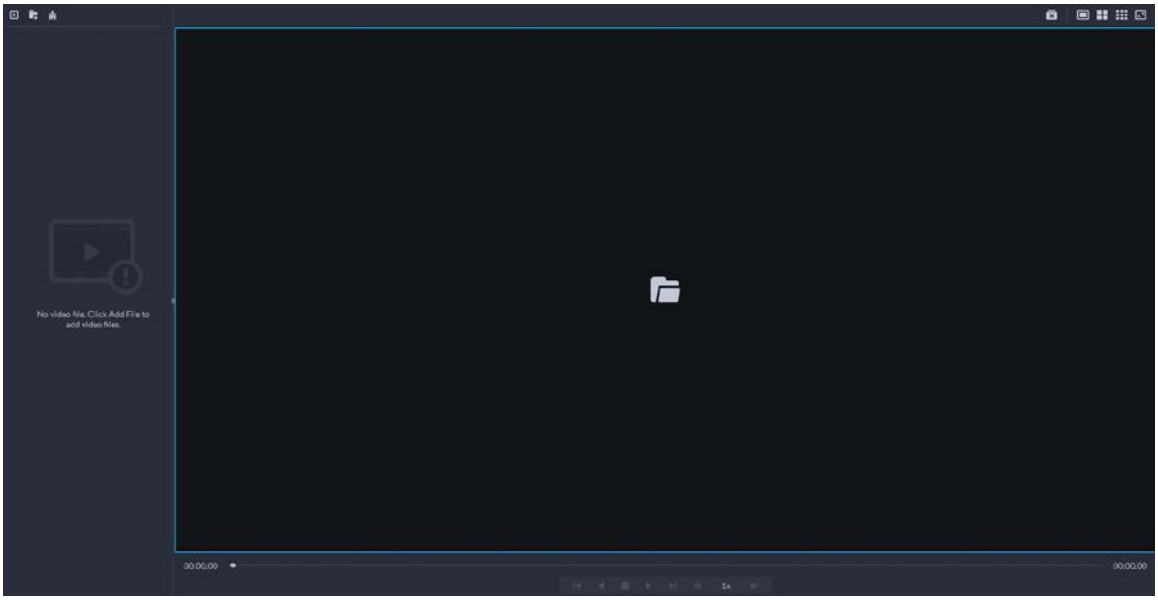

# 9.4 Playing Local Videos

You can play local videos directly on the platform.

### Procedure

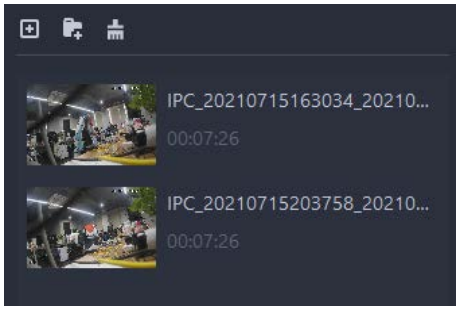
Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Local Video**.

Figure 9-8 Local video



Step 2 Click to select one or more files, or to open all files in a folder.

Figure 9-9 Play list




Step 3 Drag a file to the window on the right or right click it to play.

## Related Operations

Table 9-6 Interface operation

| Icon/Function | Description |
|---|---|
| Right-click menu | • **Continuous Snapshot**: Take snapshots of the current image (three snapshots each time by default). The snapshots are saved to ..*DSS**DSS Client**Picture* by default. To change the snapshot saving path, see "9.3.5 Configure File Storage Settings".<br>• **Video Adjustment**: Adjust the brightness, contrast, saturation, and chroma of the video for video enhancement.<br>• **Digital Zoom**: Click it, and then double-click the video image to zoom in the image. Double-click the image again to exit zooming in. |
| | Close all playing videos. |
| | Split the window into multiple ones and play a video in full screen. |
| | Take a snapshot of the current image and save it locally. The path is C:\DSS\DSS Client\Picture\ by default. |
| | Close the window. |
| | Stop/pause the video. |

| Icon/Function | Description |
| --- | --- |
| 1x | Fast/slow playback. Max. supports 64X or 1/64X. |
| / | Frame by frame playback/frame by frame backward. |
| | Capture the target in the playback window. Click to select the search method, and then the system goes to the page with search results. More operations:<br>• : Move the selection area.<br>• : Adjust the size of the selection area.<br>• Right-click to exit search by snapshot. |

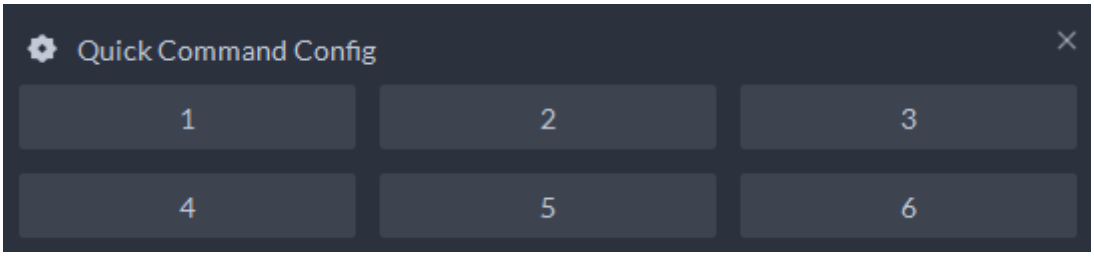
# 9.5 Quick Commands

Customize HTTP commands and execute them quickly. Request methods of GET, POST, PUT and DELETE are supported.

## Procedure

Step 1 Log in to the DSS Client. On the **Home** page, select **Management** > **Quick Commands**.

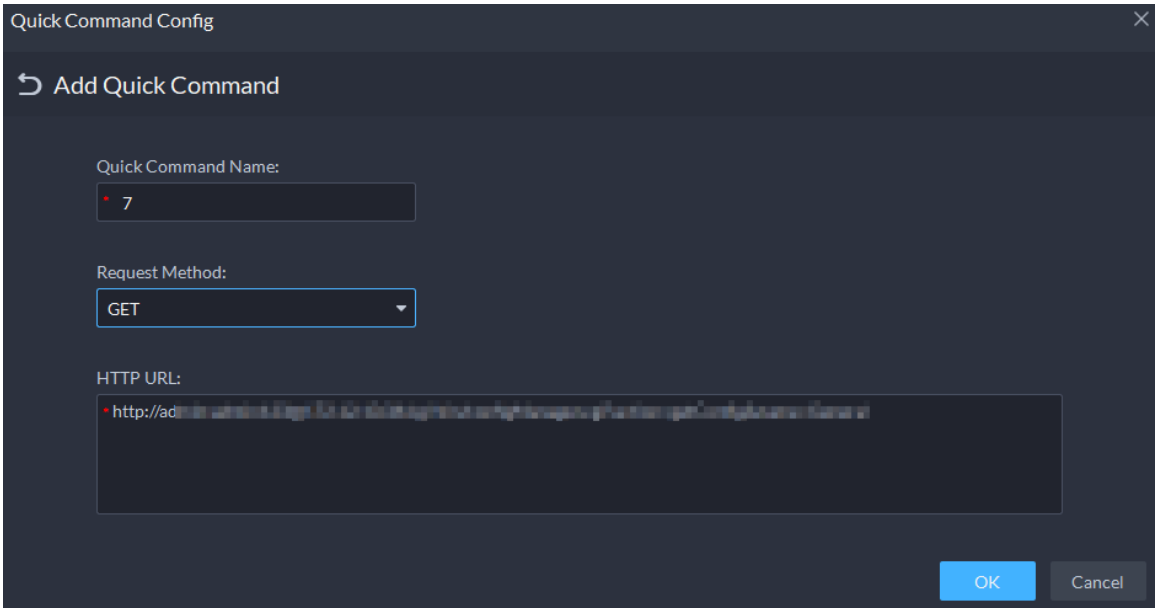
Figure 9-10 Quick commands




Step 2 Click .

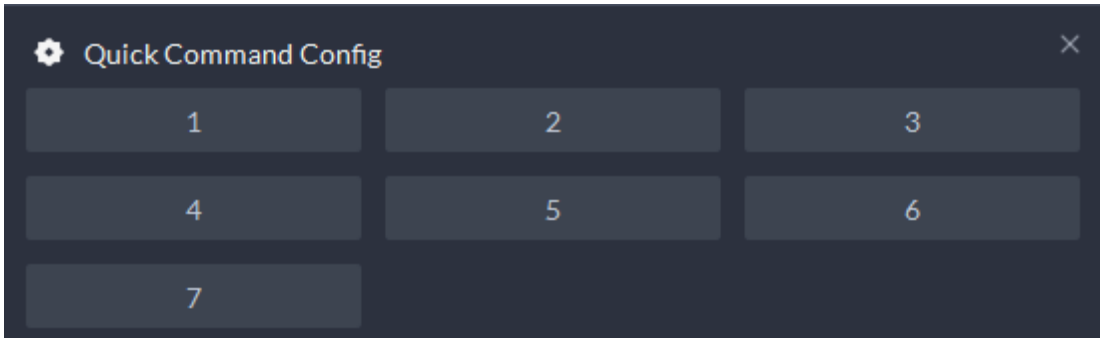
Step 3 Click **Add**.

Figure 9-11 Add a quick command




Step 4 Configure the parameters, and then click **OK**.

Figure 9-12 Execute a quick command




Step 5 Click the name of a quick command to execute it.

If successful, a prompt message will appear at the upper-right corner.

# Appendix 1 Service Module Introduction

| Service Name | | Function Description |
|---|---|---|
| Access Service | NGINX | Reverses user requests to distributed system management services. |
| System Management Service | SMC | Manages services and provides access to various pages. |
| Device Discovery Service | HRS | Broadcasts platform information to discover devices. |
| Data Cache Service | REDIS | Stored temporary business data from the platform. |
| Database | MySQL | Stores platform business data. |
| Message Queue Service | MQ | Transfers messages between platforms. |
| Configuration Service | CFGS | Manages disks, such as read-and-write operations. |
| Device Management Service | DMS | Registers encoders, receives alarms, transfers alarms, and sends out the sync time command. |
| Media Transmission Service | MTS | Gets audio/video bit streams from front-end devices and then transfers the data to DSS, the client and decoders. |
| Storage Service | SS | Stores, searches for and plays back recordings. |
| Device Search Service | SOSO | Searches for device information. |
| Auto Register Service | ARS | Listens, logs in, or gets bit streams to send to MTS. |
| ProxyList Control Proxy Service | PCPS | Logs in to ONVIF device, and then gets the stream and transfers the data to MTS. |
| Alarm Dispatch Service | ADS | Sends alarm information to different objects according to defined plans. |
| Access Controller Access Service | MCDDOOR | Manages access controller access and related operations. |
| External Alarm Controller Access Service | MCDALARM | Manages alarm controller access and other related operations. |
| Access Control Service | ACDG | Manages access control and other related operations. |
| Video Intercom Switch Center | SC | Manages PC client and App client login as SIP client, and also forwards audio-talk streams. |
| Object Storage Service | OSS | Manages storage of face snapshots and intelligent alarm pictures. |

| Service Name | | Function Description |
|---|---|---|
| Picture Transfer Service | PTS | Manages picture transmission. |
| Video Matrix Service | VMS | Logs in to the decoder and sends tasks to the decoder to output on the TV wall. |
| Media Gateway | MGW | Sends MTS address to decoders. |
| Power Environment Server | PES | Manages access of dynamic environment monitoring devices. |
| DA Management Service | DAMS | Manages DA_BSID and DA_POC. |
| Link Management Service | DA_BSID | 1. Accesses devices that uses the 4G network.<br>2. Downloads files from devices to the platform.<br>3. Redirects to the webpage of devices added through automatic registration. |

# Appendix 2 Cybersecurity Recommendations

## Security Statement

- If you connect the product to the Internet, you need to bear the risks, including but not limited to the possibility of network attacks, hacker attacks, virus infections, etc., please strengthen the protection of the network, platform data and personal information, and take the necessary measures to ensure the cyber security of platform, including but not limited to use complex passwords, regularly change passwords, and timely update platform products to the latest version, etc. Dahua does not assume any responsibility for the product abnormality, information leakage and other problems caused by this, but will provide product-related security maintenance.
- Where applicable laws are not expressly prohibited, for any profit, income, sales loss, data loss caused by the use or inability to use this product or service, or the cost, property damage, personal injury, service interruption, business information loss of purchasing alternative goods or services, or any special, direct, indirect, incidental, economic, covering, punitive, special or ancillary damage, regardless of the theory of liability (contract, tort, negligence, or other) , Dahua and its employees, licensors or affiliates are not liable for compensation, even if they have been notified of the possibility of such damage. Some jurisdictions do not allow limitation of liability for personal injury, incidental or consequential damages, etc., so this limitation may not apply to you.
- Dahua's total liability for all your damages (except for the case of personal injury or death due to the company's negligence, subject to applicable laws and regulations) shall not exceed the price you paid for the products.

## Security Recommendations

**The necessary measures to ensure the basic cyber security of the platform:**

1. **Use Strong Passwords**

   Please refer to the following suggestions to set passwords:

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

2. **Customize the Answer to the Security Question**

   The security question setting should ensure the difference of answers, choose different questions and customize different answers (all questions are prohibited from being set to the same answer) to reduce the risk of security question being guessed or cracked.

**Recommendation measures to enhance platform cyber security:**

1. **Enable Account Binding IP/MAC**

It is recommended to enable the account binding IP/MAC mechanism, and configure the IP/MAC of the terminal where the commonly used client is located as an allowlist to further improve access security.

2. **Change Passwords Regularly**
   We suggest that you change passwords regularly to reduce the risk of being guessed or cracked.
3. **Turn On Account Lock Mechanism**
   The account lock function is enabled by default at the factory, and it is recommended to keep it on to protect the security of your account. After the attacker has failed multiple password attempts, the corresponding account and source IP will be locked.
4. **Reasonable Allocation of Accounts and Permissions**
   According to business and management needs, reasonably add new users, and reasonably allocate a minimum set of permissions for them.
5. **Close Non-essential Services and Restrict the Open Form of Essential Services**
   If not needed, it is recommended to turn off NetBIOS (port 137, 138, 139), SMB (port 445), remote desktop (port 3389) and other services under Windows, and Telnet (port 23) and SSH (port 22) under Linux. At the same time, close the database port to the outside or only open to a specific IP address, such as MySQL (port 3306), to reduce the risks faced by the platform.
6. **Patch the Operating System/Third Party Components**
   It is recommended to regularly detect security vulnerabilities in the operating system and third-party components, and apply official patches in time.
7. **Security Audit**
   - Check online users: It is recommended to check online users irregularly to identify whether there are illegal users logging in.
   - View the platform log: By viewing the log, you can get the IP information of the attempt to log in to the platform and the key operation information of the logged-in user.
8. **The Establishment of a secure Network Environment**
   In order to better protect the security of the platform and reduce cyber security risks, it is recommended that:
   - Follow the principle of minimization, restrict the ports that the platform maps externally by firewalls or routers, and only map ports that are necessary for services.
   - Based on actual network requirements, separate networks: if there is no communication requirement between the two subnets, it is recommended to use VLAN, gatekeeper, etc. to divide the network to achieve the effect of network isolation.

## More information

Please visit Dahua official website security emergency response center for security announcements and the latest security recommendations.