

Multi-Functional Video Center

User Manual

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Preface

Applicable Models

This manual is applicable to the DS-B31 series multi-functional video center.

Default Parameters

Type	Default Parameter
Device	• Login user name: admin • IP address: 192.0.0.64
SSH connection	

Caution

To improve system security, it is highly recommended to change password regularly. In order to protect your privacy and corporate data and avoid network security issues, it is recommended to set strong password that meets security requirements.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Note	Provides additional information to emphasize or supplement important points of the main text.
Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

Caution

In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.

Note

- Provide a surge suppressor at the inlet opening of the device under special conditions such as the mountain top, iron tower, and forest.
- + identifies the positive terminals of the device which is used with, or generates direct current, and - identifies the negative terminals of the device which is used with, or generates direct current.
- The serial port of the device is used for debugging only.
- The interface varies with the models. Please refer to the product datasheet for details.
- The USB port of the device is used for connecting to a mouse, a keyboard, or a USB flash drive only. The current for the connected device shall be not more than 0.1 A.

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Chapter 1 Introduction

1.1 Overview

Designed with reference to the Advanced Telecommunications Computing Architecture (ATCA), the Multi-Functional Video Center (hereinafter referred to as the device) supports matrix switching of analog and digital videos, video encoding and decoding, and network real-time preview. It integrates image processing, network functions, log management and device maintenance, simplifies the installation, maintenance and the whole system, and has good compatibility and expandability. Thus, the device can be widely used in various video system and command control system. The device has the following advantages:

- Supports the video input and video output via various ports.
- Supports the network encoding and real-time preview of signal sources.
- Supports the decoding and output of various network signal sources.
- Supports the screen splicing, roaming window, and other operations.
- Supports the management on users, network, operation, alarm and logs.

1.2 First-Time Configuration Process

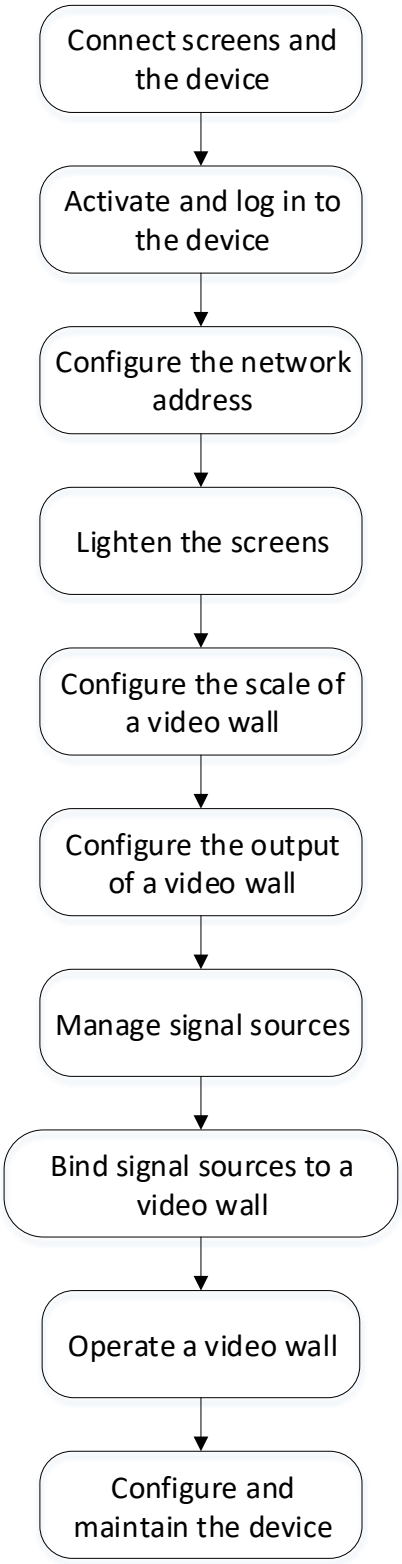


Figure 1-1 First-Time Configuration Process

Chapter 2 Device Basic Settings

2.1 Connect Screen and Device

- Connect an LCD screen and the device: Use a video cable to connect an output port of the device output board to an LCD screen.
- One LED screen consists of multiple LED cabinets. Use multiple network cables to connect an LED controller to multiple LED cabinets, and then use a video cable to connect an output port of the device output board to the external LED controller.

Note

The figure below is for illustration only.

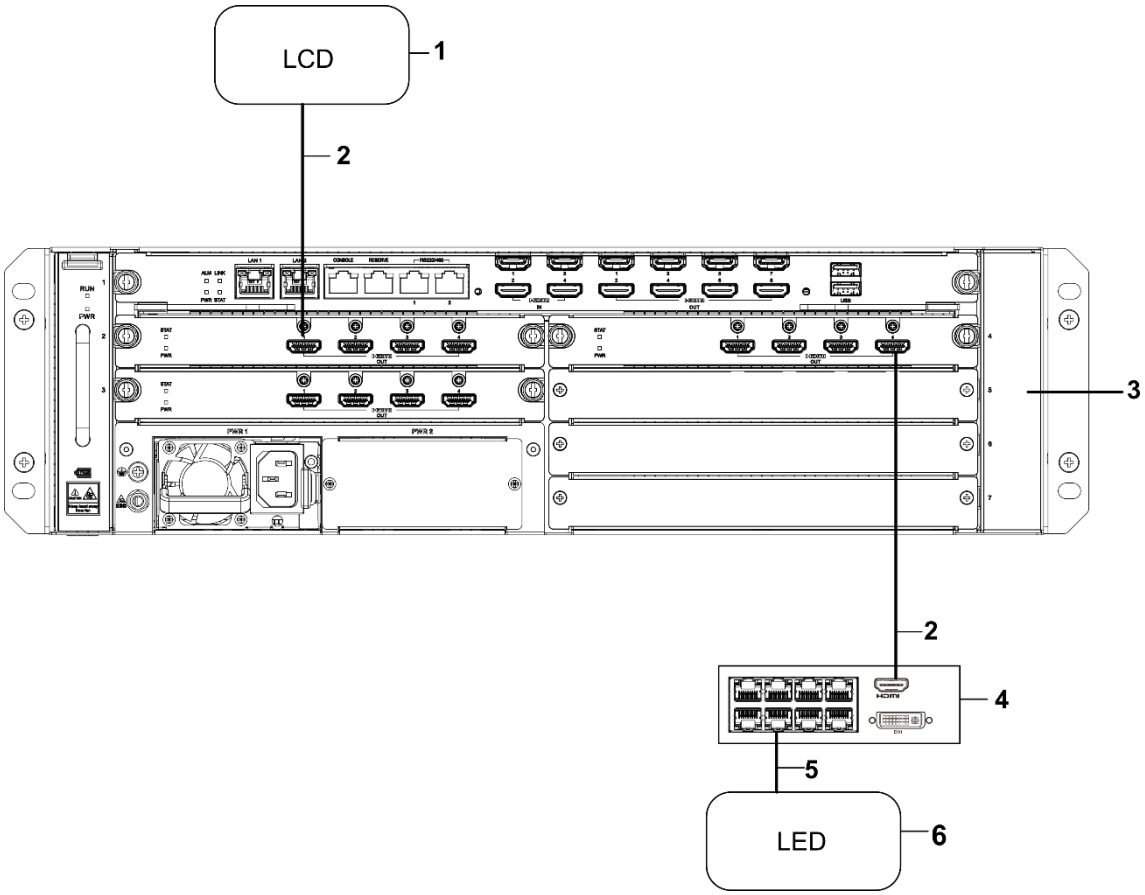


Figure 2-1 Connect Screen and Device

1. LCD screen	2. HDMI video cable	3. Device
4. LED controller	5. Network cable	6. LED screen

2.2 Activate and Log In to Device

You should activate the device before using the device for the first time. When activating the device, obey the following requirements to set the password:

- To improve system security, it is highly recommended to change password regularly. In order to protect your privacy and corporate data and avoid network security issues, it is recommended to set strong password that meets security requirements.
- Password should contain 8 to 16 characters and at least 2 of the following types: digits, lowercase letters, uppercase letters, and special characters.
- Password cannot contain user name, 123, admin, 4 or more continuously ascending or descending digits, or 4 or more consecutive repeated characters.
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#$QWER, p@ssword, passw0rd, or p@ssw0rd.

Activate the Device via SADP Client

Step 1 Connect the device and computer to the same LAN. Make sure the device and computer in the same network segment.

Step 2 Download and install the SADP client on the computer.

Step 3 Open the SADP client.

Step 4 Select the device that is not activated, enter the activation password and confirm it, and click **Activate**.

If the device cannot be found, you can restart the SADP client.

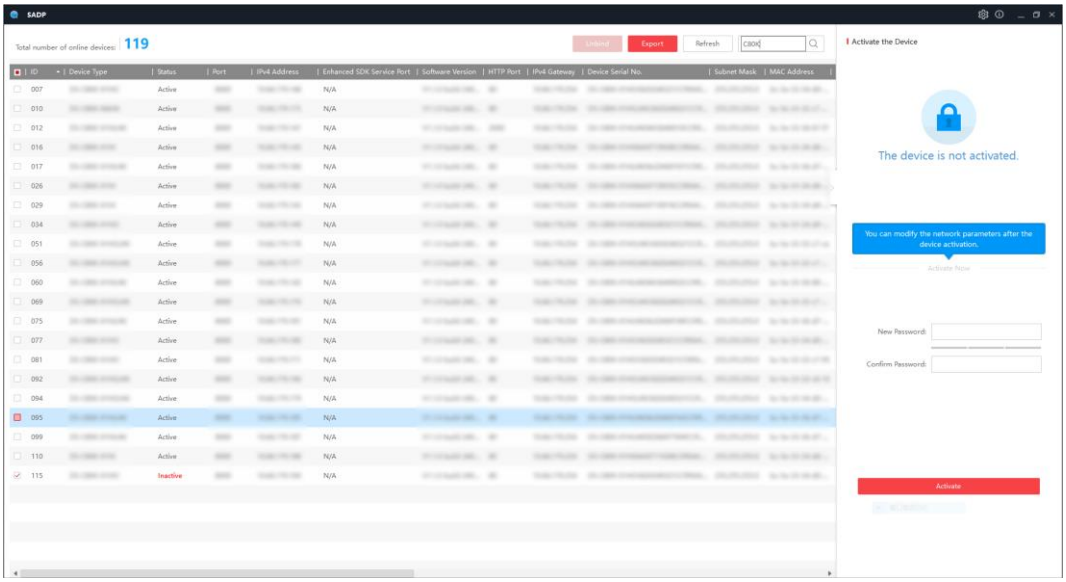


Figure 2-2 Activate the Device via SADP Client

Step 5 View the device IP address in the SADP client and enter the device IP address in the computer browser.

Step 6 Enter the user name and the set activation password, and then click **Log In**.

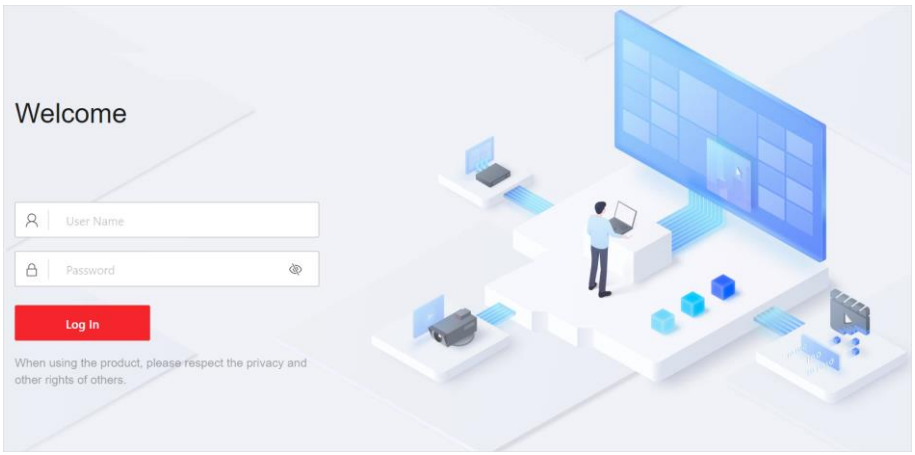


Figure 2-3 Login Page

Step 7 (Optional) To edit the password, you can click the username in the upper right corner of the web page and then click **Change Password**.

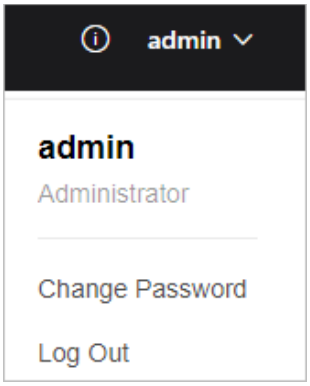


Figure 2-4 Change Password

Activate the Device via Web Browser

Step 1 Use a network cable to connect a computer to the device.

Step 2 Set the computer IP address to any IP address in the range of 192.0.0.2 to 192.0.0.253 (excluding 192.0.0.64) and set the computer gateway address to 192.0.0.1.

By default, the device IP address is 192.0.0.64 and the gateway address is 192.0.0.1.

Step 3 Enter 192.0.0.64 in the computer browser to enter the device activation page.

Step 4 Set the activation password, and then click **Activate**.

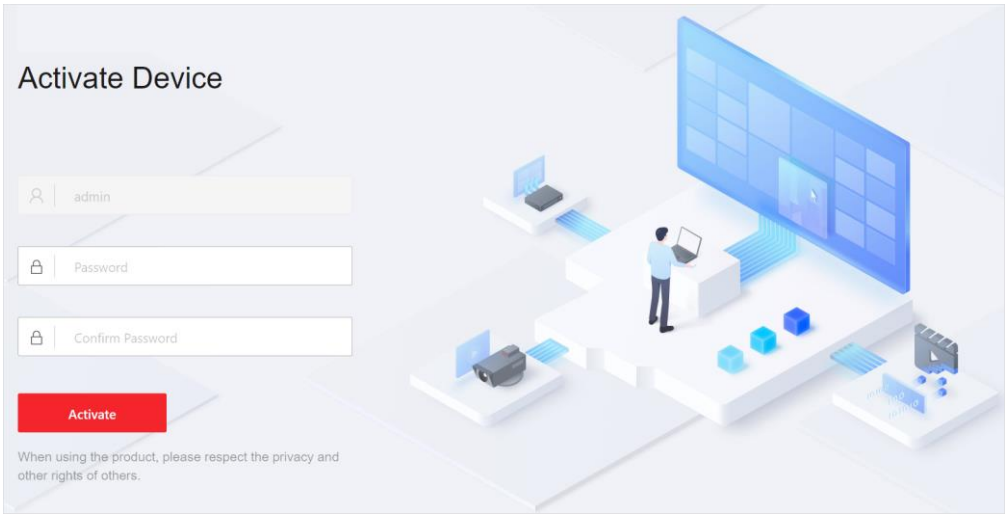


Figure 2-5 Activate the Device via Browser

Step 5 Enter the user name and the set activation password on the login page, and then click **Log In**.

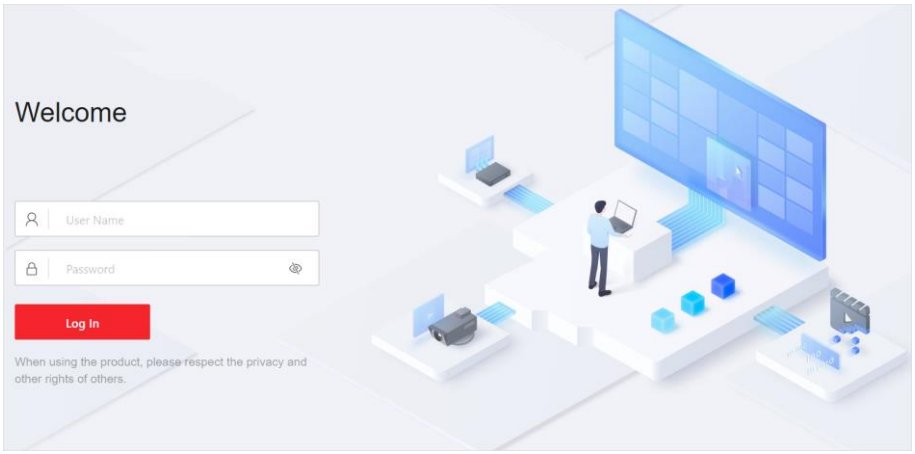


Figure 2-6 Login Page

Step 6 (Optional) To edit the password, you can click the username in the upper right corner of the web page and then click **Change Password**.

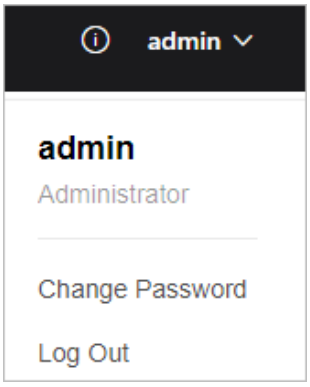


Figure 2-7 Change Password

2.3 Configure the Network Address

2.3.1 Configure TCP/IP

Step 1 Go to **Configuration** → **Network** → **Network Configuration** → **TCP/IP**.

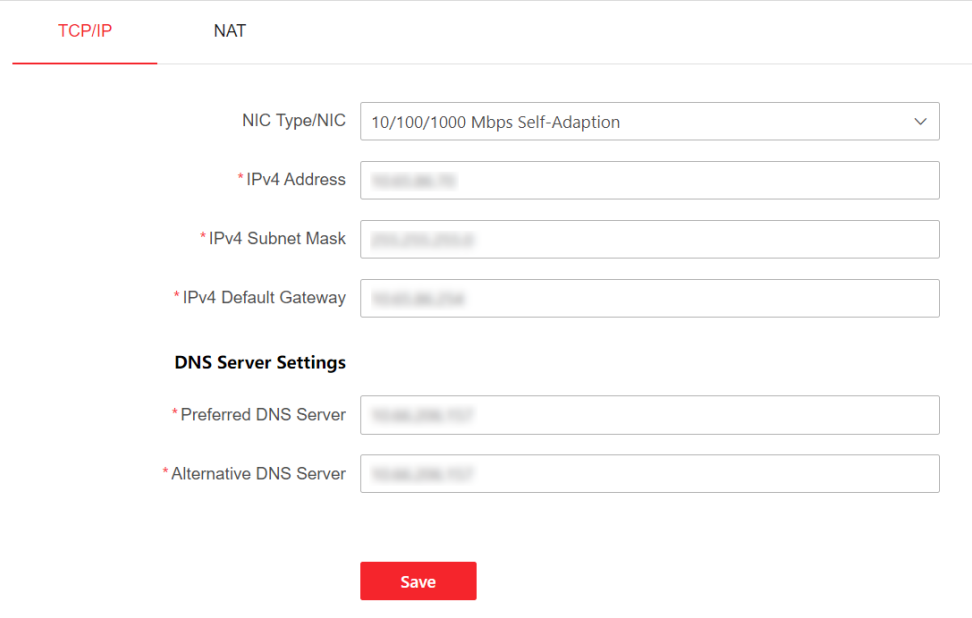


Figure 2-8 Configure the Device IPv4 Address

Step 2 Select the NIC type.

Step 3 Set the IPv4 address, IPv4 subnet mask, and IPv4 gateway.

Step 4 If you use the domain name to access the device, set the preferred and alternative DNS server.

Step 5 Click **Save**.

Step 6 Remove the network cable that connects the device and computer, and use the network cable to connect the device to the same network as the computer.

Make sure that the computer and device in the same network segment.

Step 7 Enter the configured device IP address in the web browser of the computer to log in to the web page of the device.

2.3.2 Configure NAT

With NAT (Network Address Translation) enabled, the device can use a single IP address to communicate with other devices in the external network. By default, the IP address of the main control board is used as the NAT address, and NAT is enabled. If the device slot 4, 5, 6, or 7 is installed with a board, you must configure NAT address 1 to allow the board communicating with other devices in the external network. The NAT address 1 must be in the same network segment as the IP address of the main control board, but the NAT address 1 and the IP address of the main control board cannot be consistent.

Step 1 Go to **Configuration** → **Network** → **Network Configuration** → **NAT**.

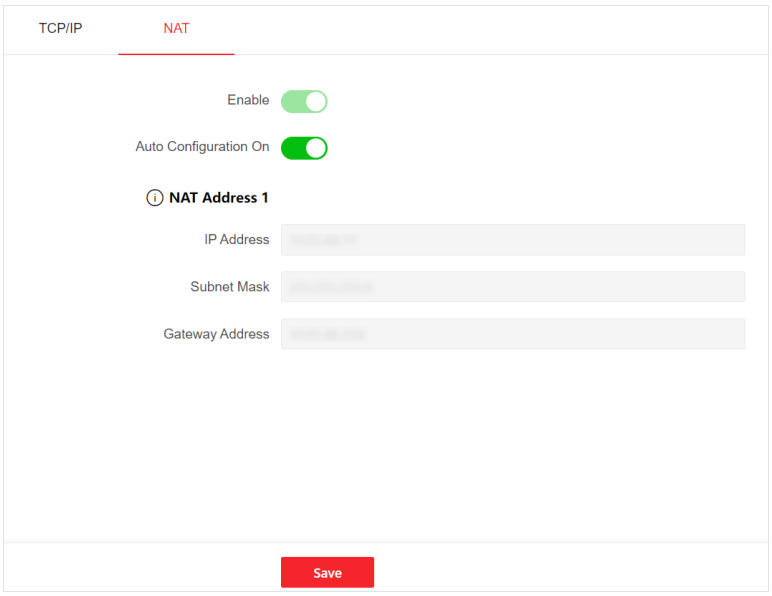


Figure 2-9 Configure NAT

Step 2 Choose either of the following methods to configure NAT:

- Enable **Auto Configuration On**. The system will automatically use an IP address that is in the same network segment as the device as the NAT address 1.
- To use a static IP address as the NAT address 1, enter the IP address that is in the same network segment as the device, subnet mask, and gateway address.

Step 3 Click **Save**.

Chapter 3 Video Wall Management

3.1 Configure a Video Wall

3.1.1 Configure the Video Wall Scale

Step 1 Go to **Video Wall Configuration**, select a video wall in the upper left corner. Click **Configure** to configure the video wall scale.

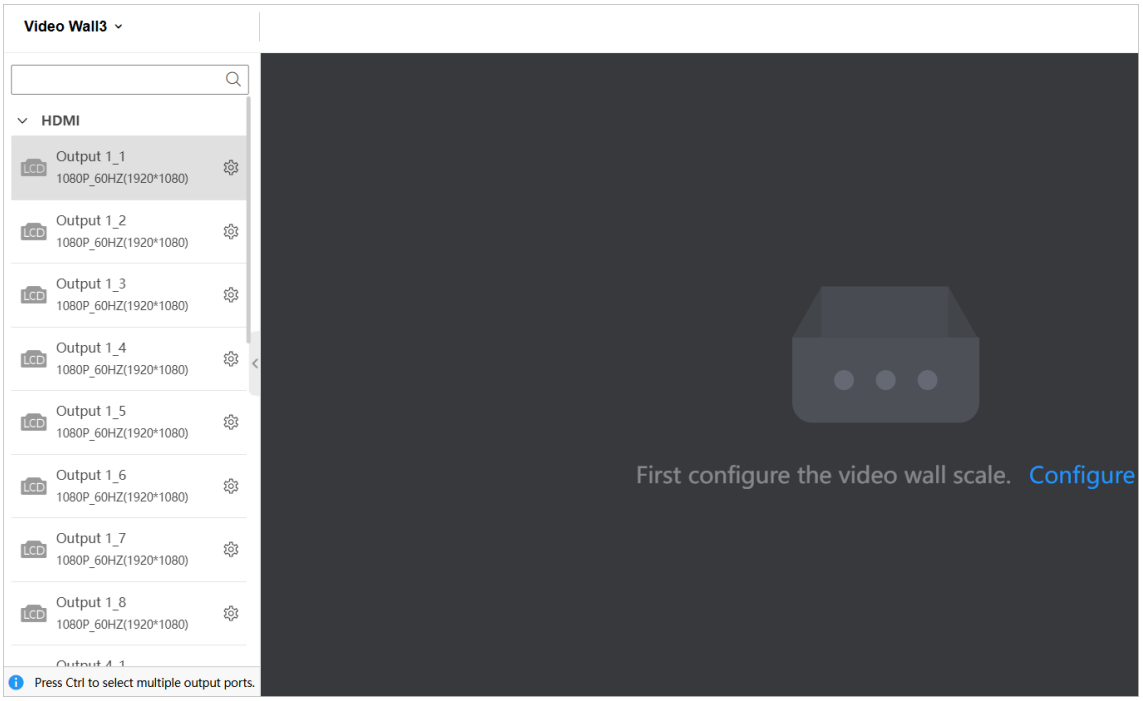


Figure 3-1 Video Wall Configuration Page

Step 2 According to the actual screen quantity, set the video wall scale and click **Save**.

You can also drag the mouse with the left button held to scale the video wall.

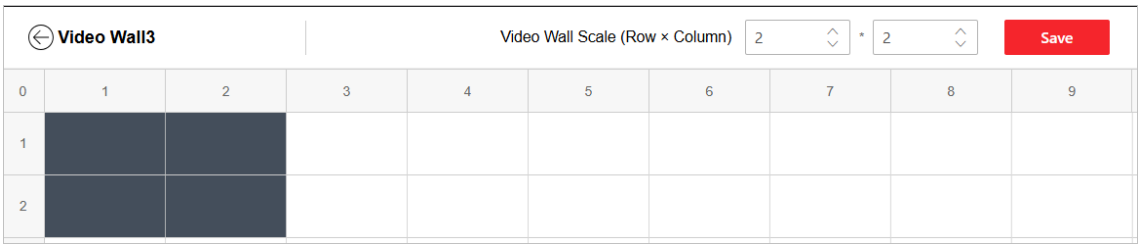


Figure 3-2 Set the Video Wall Scale

Note

After setting the video wall scale, you can click **Edit Video Wall Scale** to change the video wall scale.

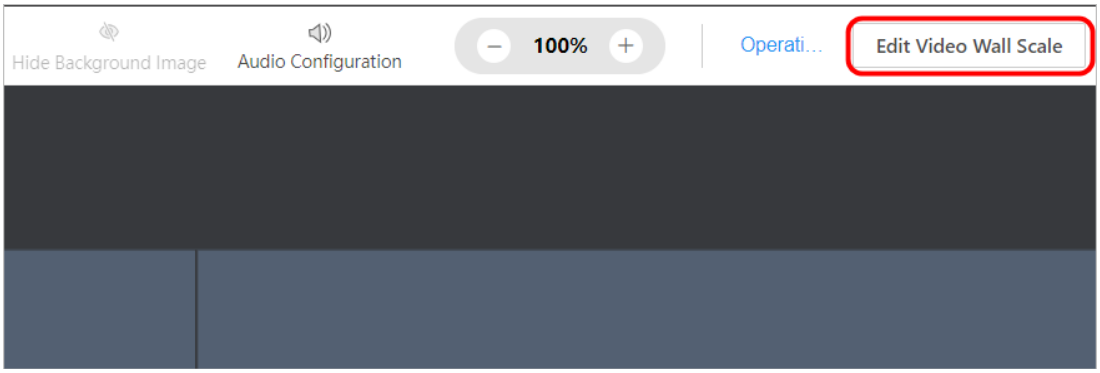


Figure 3-3 Edit Video Wall Scale

3.1.2 Configure the Output of a Video Wall

Edit the Output Port Parameters

Go to **Video Wall Configuration**, click ⚙ of an output port of an output board to configure the following items:

- Set the output mode of the device according to the actual connection between the device and screen. You can select HDMI, DVI, or AUTO.
  - The DVI mode has better compatibility and the HDMI mode supports embedded audio output.
  - If you select AUTO mode, the device will automatically use the output mode that is supported by the screen.
- If you select LCD output method, select the LCD screen resolution as required.
- If you select LED output method, make sure that the configured width and height of the output port is same as the width and height of the LED screen.
  - If you select the loading mode, enter the width and height of the LED screen. Make sure that the configured resolution (width × height) is smaller than 2.6 MP.
  - If you select the clipping mode, enter the width and height of the LED screen. Make sure that the configured resolution is smaller than the reference resolution that is shown when you select the LCD output method.
- Set the audio sampling rate.
- Click **Copy To** to copy the current output configuration to other selected output ports.

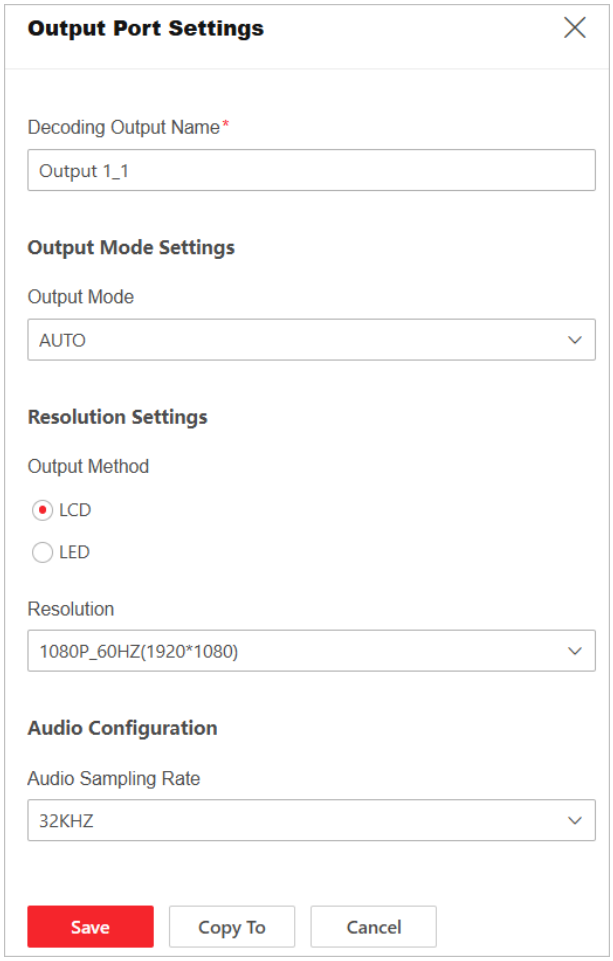


Figure 3-4 Configure HDMI Output Port

Bind Output Ports with Video Wall

A video wall can contain one screen or multiple screens. At a time, one screen can join only one video wall, and one output port can be bound with only one screen.

Step 1 Go to **Video Wall Configuration**, click **Display Output No.** to display the output port number on the actual screen.

Step 2 According to the output number shown on the actual screen, drag the corresponding output ports to the screens of the video wall.

- To batch bind output ports with the video wall, press **Ctrl** to select multiple output ports and drag the output ports to the screens of the video wall.
- To cancel the linkage between a screen and an output port, click  in the upper right corner of the screen.
- To cancel the linkage between all screens and output ports, click **Unlink All Output Ports**.

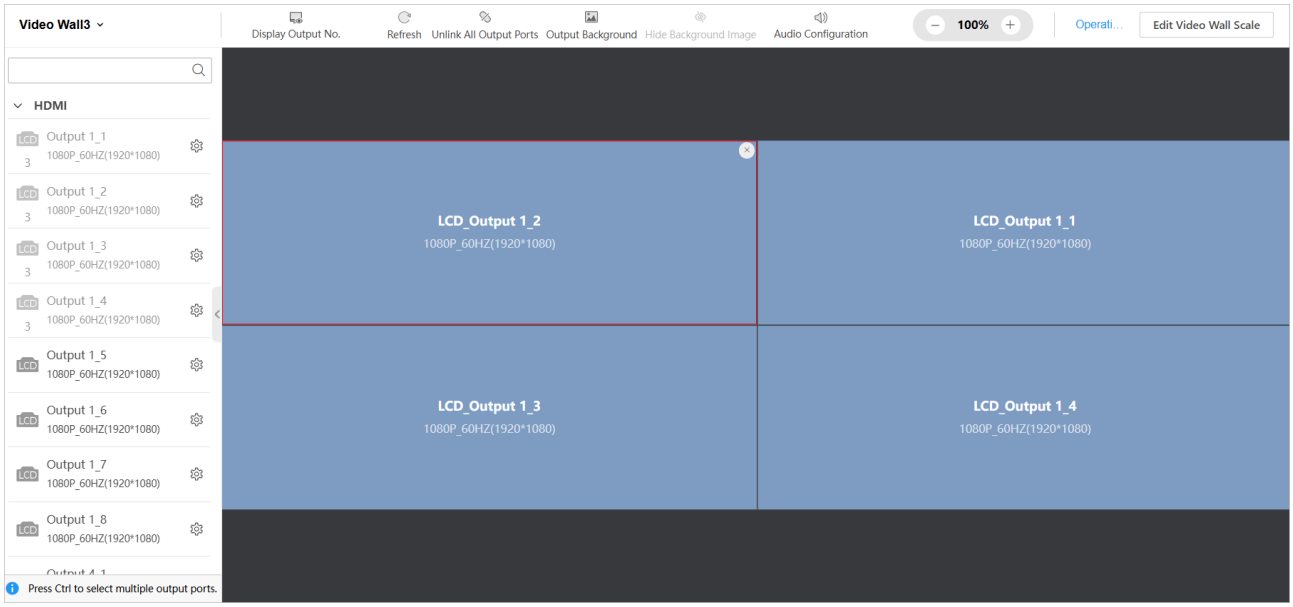


Figure 3-5 Bind Output Ports with Video Wall

Step 3 (Optional) If the screens that are used to configure the video wall support control linkage function, you can perform the following operations to auto bind output ports to the screens of the video wall.

1) Make sure all screens are enabled with the control linkage function.
2) Use the remote control to set the location information for all actual screens.
3) Click **Edit Wall Scale** and select **Auto Configure**.

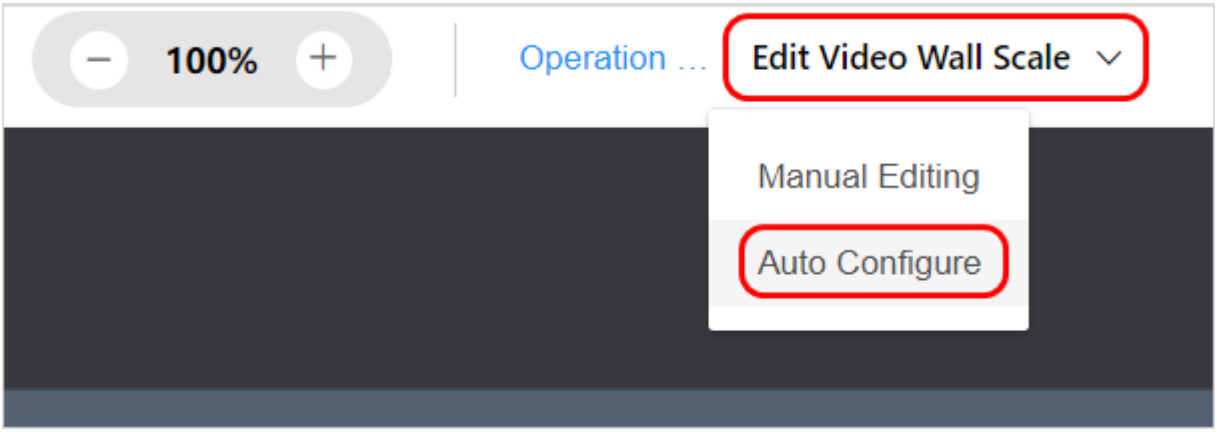


Figure 3-6 Auto Bind Output Ports with Screens

Configure an Audio Output

Go to **Video Wall Configuration** → **Audio Configuration** → **Link to Audio**, click  at the upper right corner of an audio output to set it as the audio output of the video wall.

- After setting the audio output of a video wall, you need to go to the **Video Wall Operation** page to enable audio to allow the audio output.
- One video wall can be linked with only one audio output.

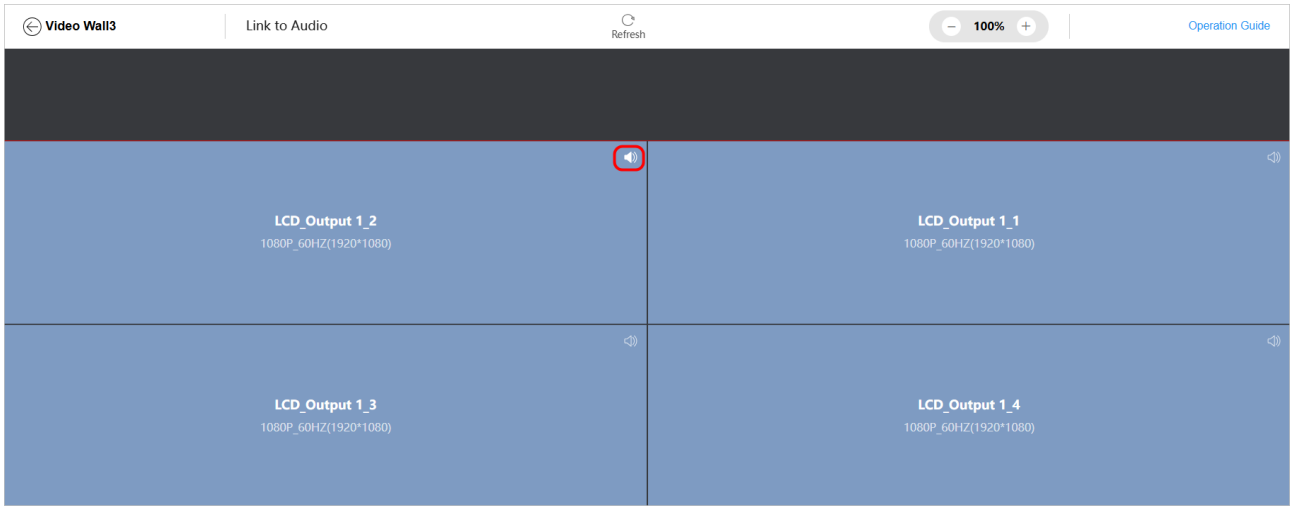


Figure 3-7 Set Output Audio

Configure Other Output Parameters

At the top of the **Video Wall Configuration** page, you can perform the following operations as required:

- Click **Output Background** to edit the background color or import images.

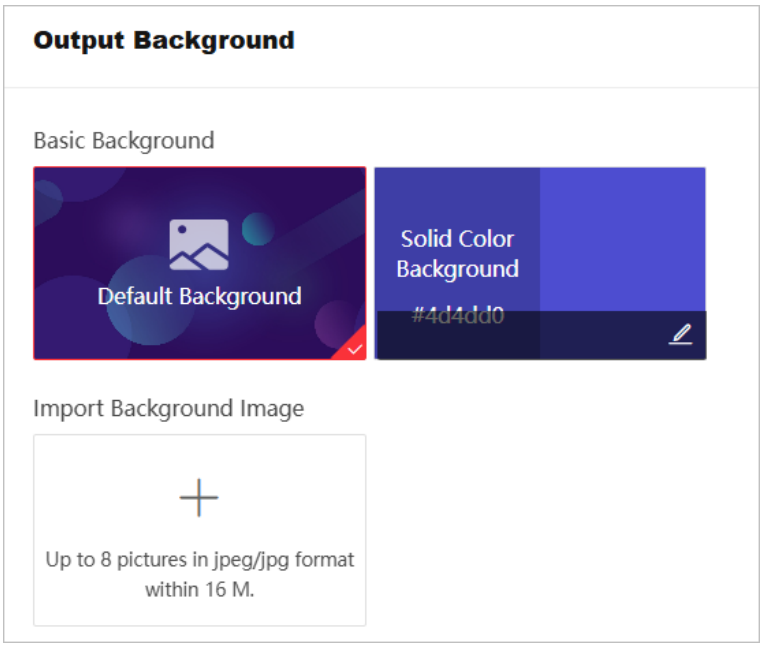


Figure 3-8 Edit Output Background

- After importing an image as the background, you can click **Hide Background Image** or **Show Background Image**.

3.1.3 Add a Network Signal Source

Add a Network Signal Source via IP Address

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **IP Address**.

Step 2 Enter the signal source information and stream media information.

- Select an added group or click **Add Group** to create a new group.
- Click **More** to select the transmission protocol, stream type, encrypted stream, device manufacturer, and streaming media information. After enabling **Get Stream via Streaming Server**, you can perform live view data forwarding through the streaming server to reduce network stress.
- If you add an IPC or NVR that has multiple channels, all channels of the IPC or NVR will be automatically added to the device.

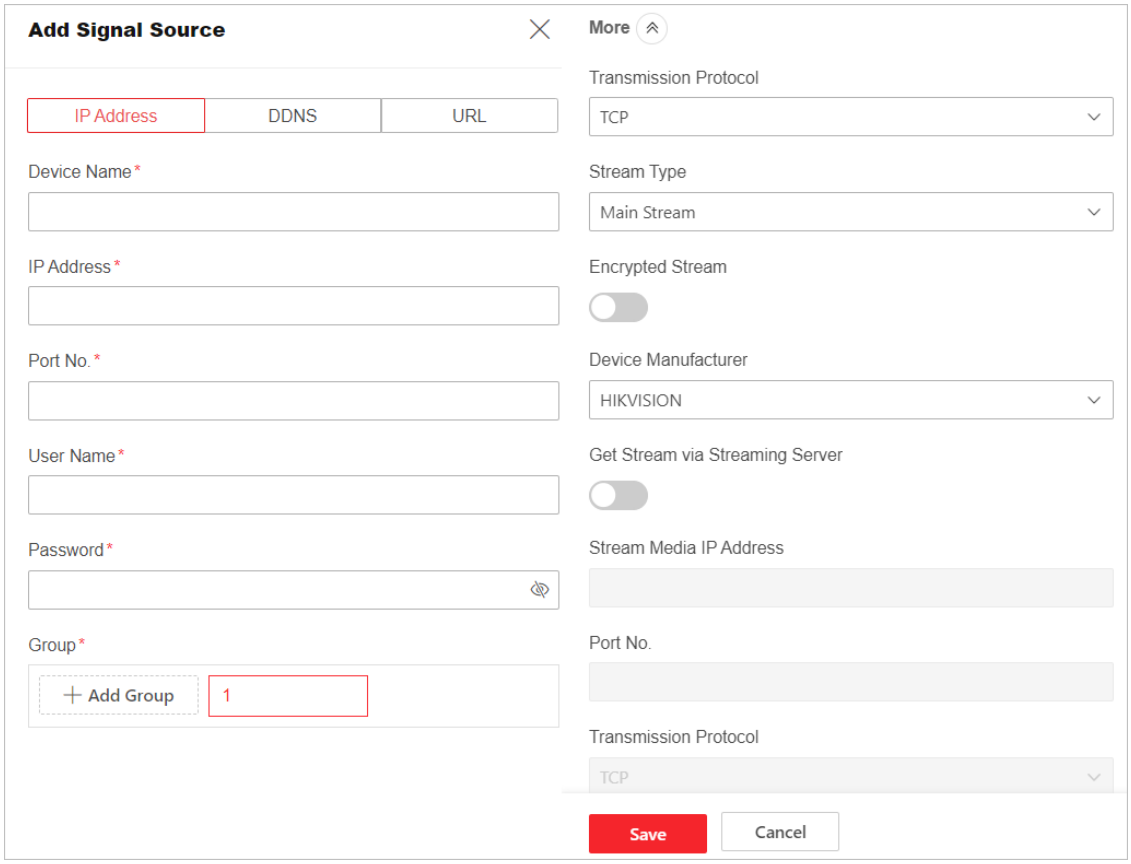


Figure 3-9 Add a Network Signal Source via IP Address

Step 3 Click **Save**.

Add a Network Signal Source via DDNS

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **DDNS**.

Before adding network signal sources via DDNS, you should configure DNS servers on the **TCP/IP** page.

Step 2 Enter the signal source information and stream media information.

- Select an added group or click **Add Group** to create a new group.
- Click **More** to select the transmission protocol, stream type, encrypted stream, device manufacturer, and streaming media information. After enabling **Get Stream via Streaming Server**, you can perform live view data forwarding through the streaming server to reduce network stress.
- If you add an IPC or NVR that has multiple channels, all channels of the IPC or NVR will be automatically added to the device.

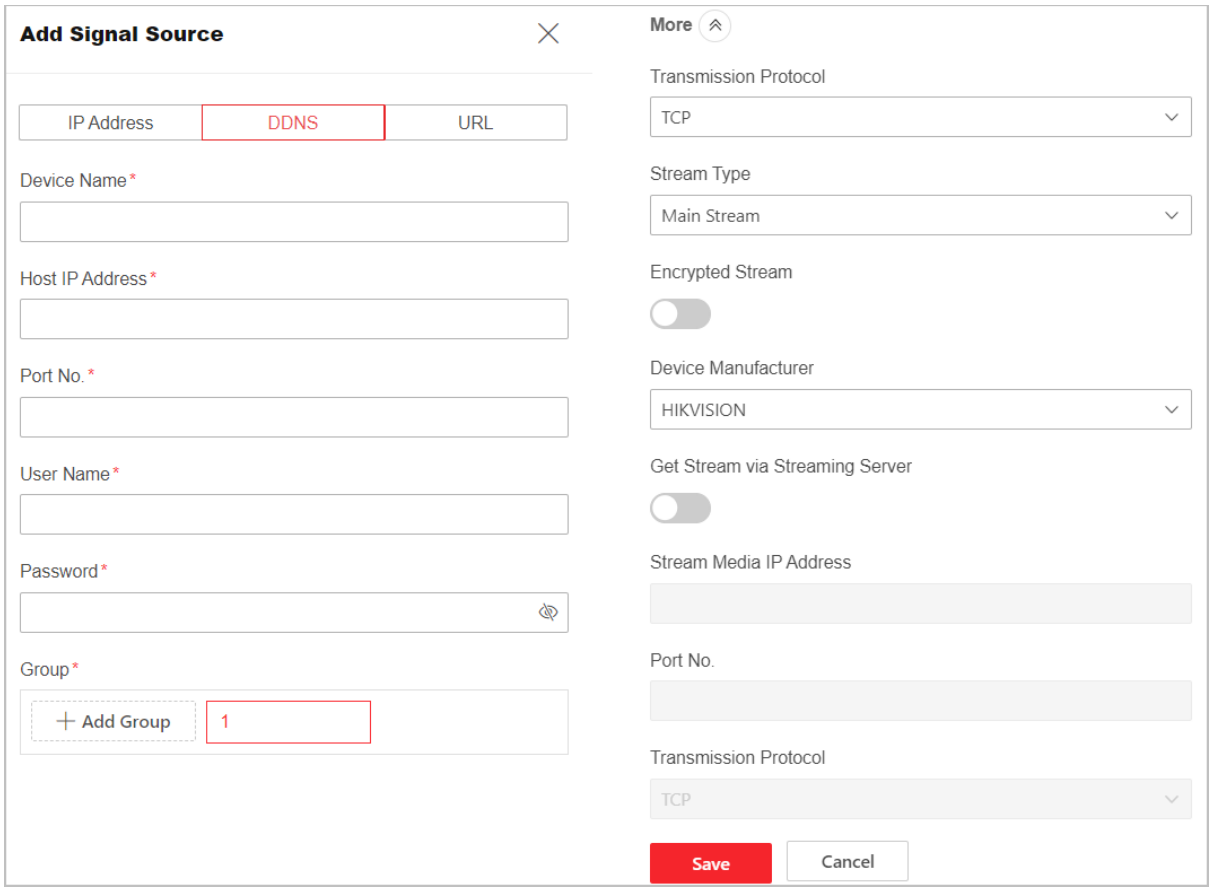


Figure 3-10 Add a Network Signal Source via DDNS

Step 3 Click **Save**.

Add a Network Signal Source via URL Address

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **URL**.

Step 2 Enter the signal source information.

- Enter the URL address of the signal source. The format of URL address can be any of the foolwing format:

- rtsp://stream media IP address:554/network camera IP address: port number:HIKDS8000HC: channel number: main steam: username: password/av_stream?linkmode=tcp?smversion=2
- rtsp://stream media IP address:554/hikvision://network camera IP address: port number: channel number: main stream?username=user name?password=password?linkmode=tcp?smversion=4
- rtsp://network camera IP address:554/ch01/main/av_stream
- rtsp://username: username password@front-end device IP address:554/ch01

- (Optional) Enable encrypted stream and enter secret key.
- Select an added group or click **Add Group** to create a new group.

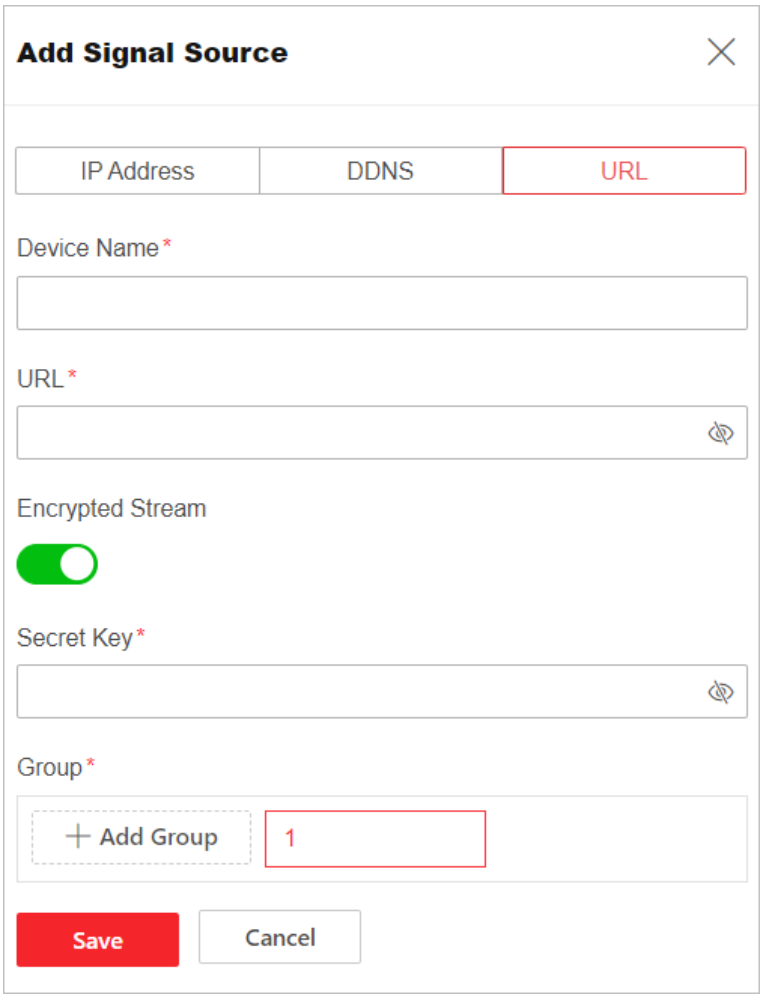


Figure 3-11 Add a Network Signal Source via URL Address

Step 3 Click **Save**.

3.1.4 Batch Delete Network Signal Sources

To batch delete invalid network signal sources, you can select multiple network signal sources with Ctrl or Shift pressed and then click .

3.1.5 Bind Output Ports with Video Wall

A video wall can contain one screen or multiple screens. At a time, one screen can join only one video wall, and one output port can be bound with only one screen. Go to **Video Wall Operation** and then select a video wall. Take either of the following methods to bind signal sources with the video wall:

- Select a signal source and then drag it rightward to the video wall.
  - If you bind a signal source to an LCD video wall, the signal source window fully covers a single screen by default.
  - If you bind a signal source to an LED video wall, the signal source window fully covers the LED video wall by default.
- Drag a default signal source group or a newly created signal source group rightwards to the video wall.
  - By default, the local signal sources join the video input signal group.
  - Before dragging a network signal source to the video wall, make sure that the decoding board is in the device.
- Batch bind multiple signal sources:
  - Press **Ctrl** or **Shift** to select multiple network signal sources of the same signal source group, and drag signal sources rightward to the video wall.
  - Press **Ctrl** to select multiple local signal sources of the same signal source group, and drag signal sources rightward to the video wall.

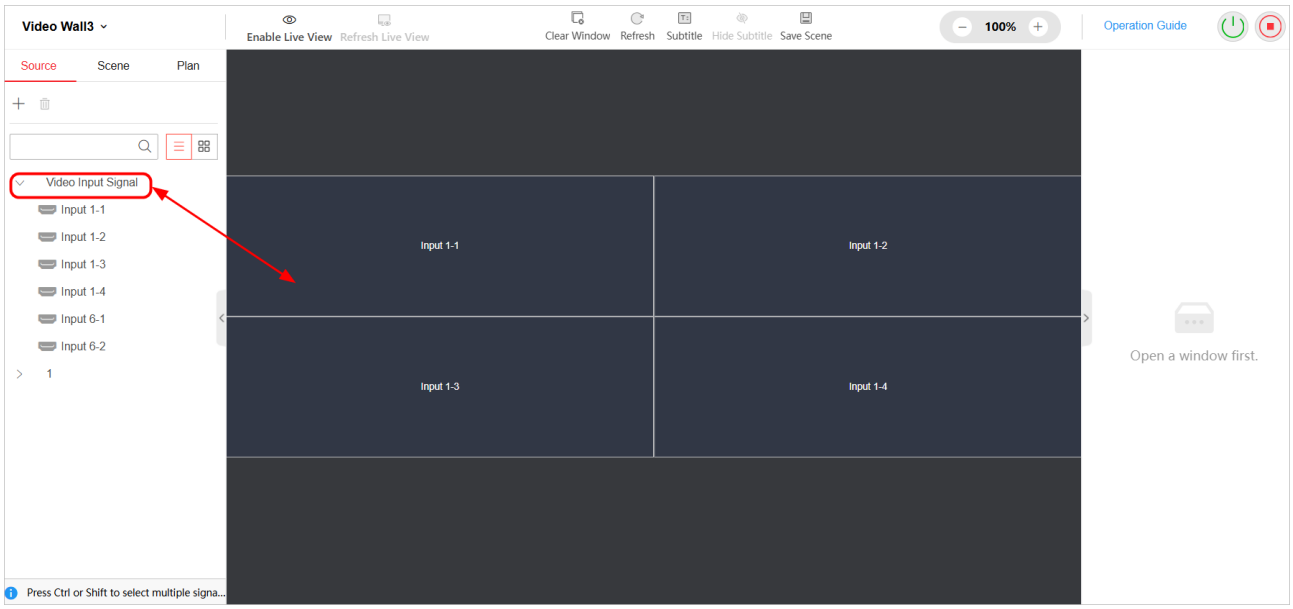


Figure 3-12 Batch Bind Signal Sources to Video Wall

3.2 Operate a Video Wall

3.2.1 Edit Signal Source Window Parameters

Edit a Signal Source Window

On the **Video Wall Operation** page, select a video wall. Select a signal source window and perform the following operations as required:

- Adjust the window position: Move the window directly or enter the specific X and Y values.
- Divide the window: Click a window division icon.
- Adjust the window size:
  - Drag the window edge to adjust its size.
  - Enter W and H values.
  - Click in the upper right corner of the window to make it fully cover the occupied output ports and click to restore the original size.
  - Double click the window to make it fully cover the occupied output ports and double click the window again to restore the original size.
- Set the window to the bottom: Click .

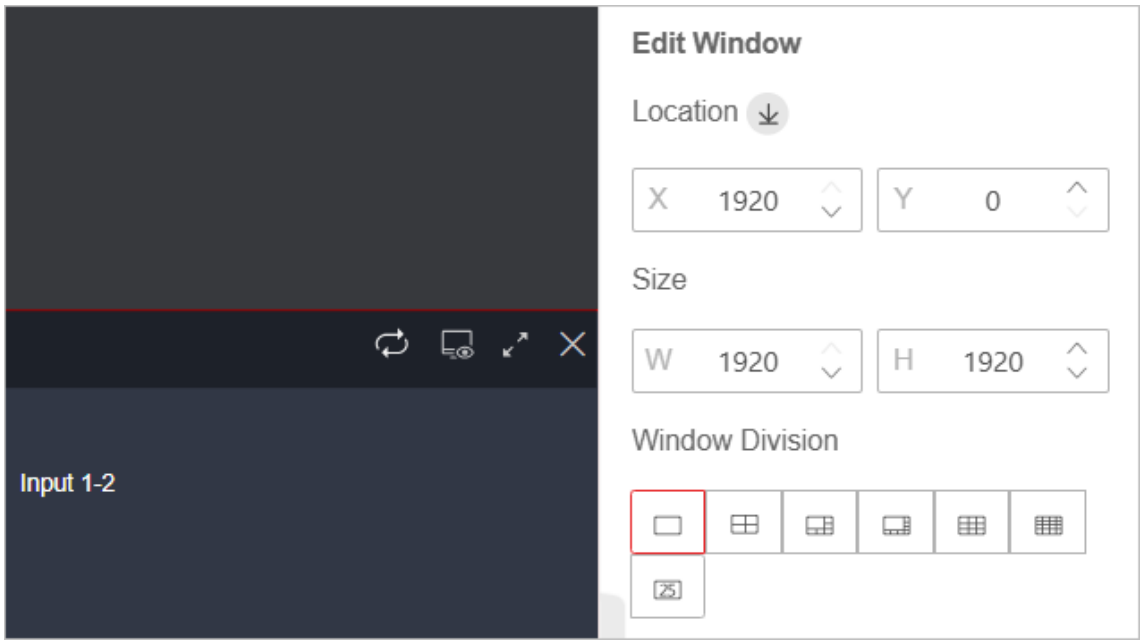


Figure 3-13 Adjust Position of a Signal Source Window

- Enable audio:
  1) Go to **Video Wall Configuration** → **Audio Configuration** → **Link to Audio**, configure the audio output for the video wall.
  2) Click a signal source window and click **Audio On**.

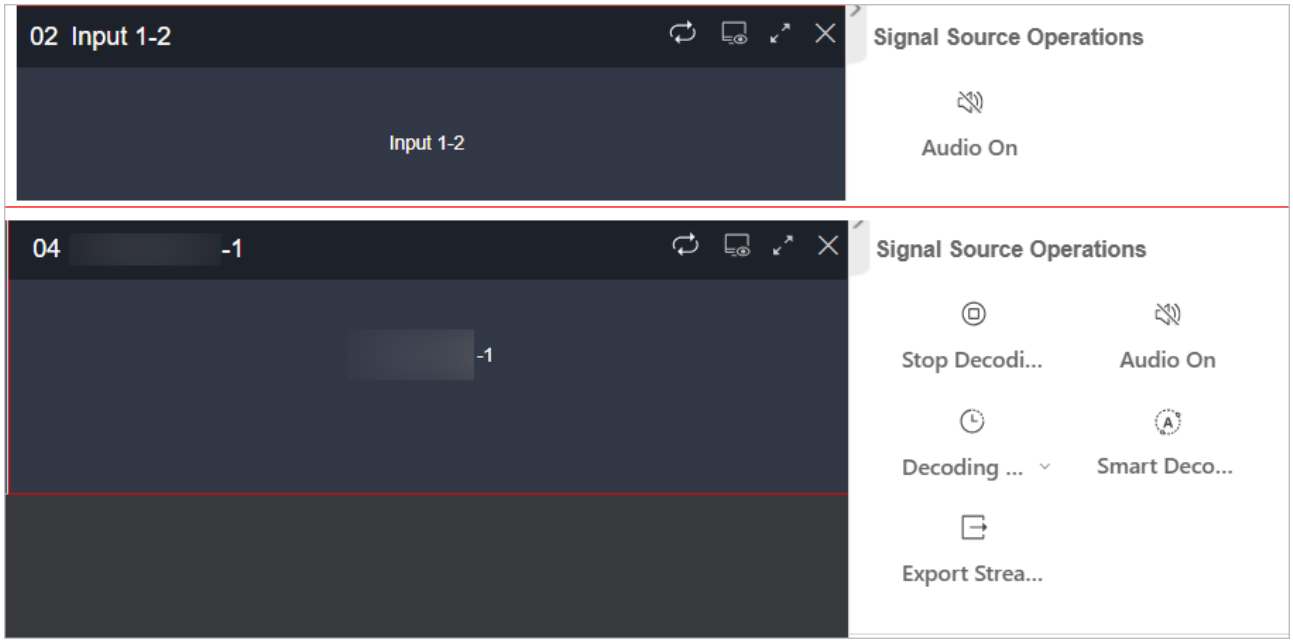


Figure 3-14 Enable Audio

- Set the decoding delay level of the device:
  - Click a network signal source window of any video wall, and then click **Decoding Delay** to set the decoding delay level.
  - Go to **Configuration** → **Other Settings** → **Decoding Delay**, and select a decoding delay level.
- Decode the network camera information: Click a network signal source window and click **Smart Decoding On**.
- Export stream:
  1) Go to **Maintenance and Security** → **Security Management** → **Websocket,** enable Websocket.
  2) Click a network signal source window and click **Export Stream**.

Note

Once Websocket is enabled, the network signal source windows with decoding exceptions on the **Video Wall Operation** page will be displayed in red. Click the red window to view the detailed decoding exception information.

- Set the signal source group auto-switching: Click in the upper right corner of the signal source window, select a signal source group, set the image interval, and then click **Start Auto-Switch**.

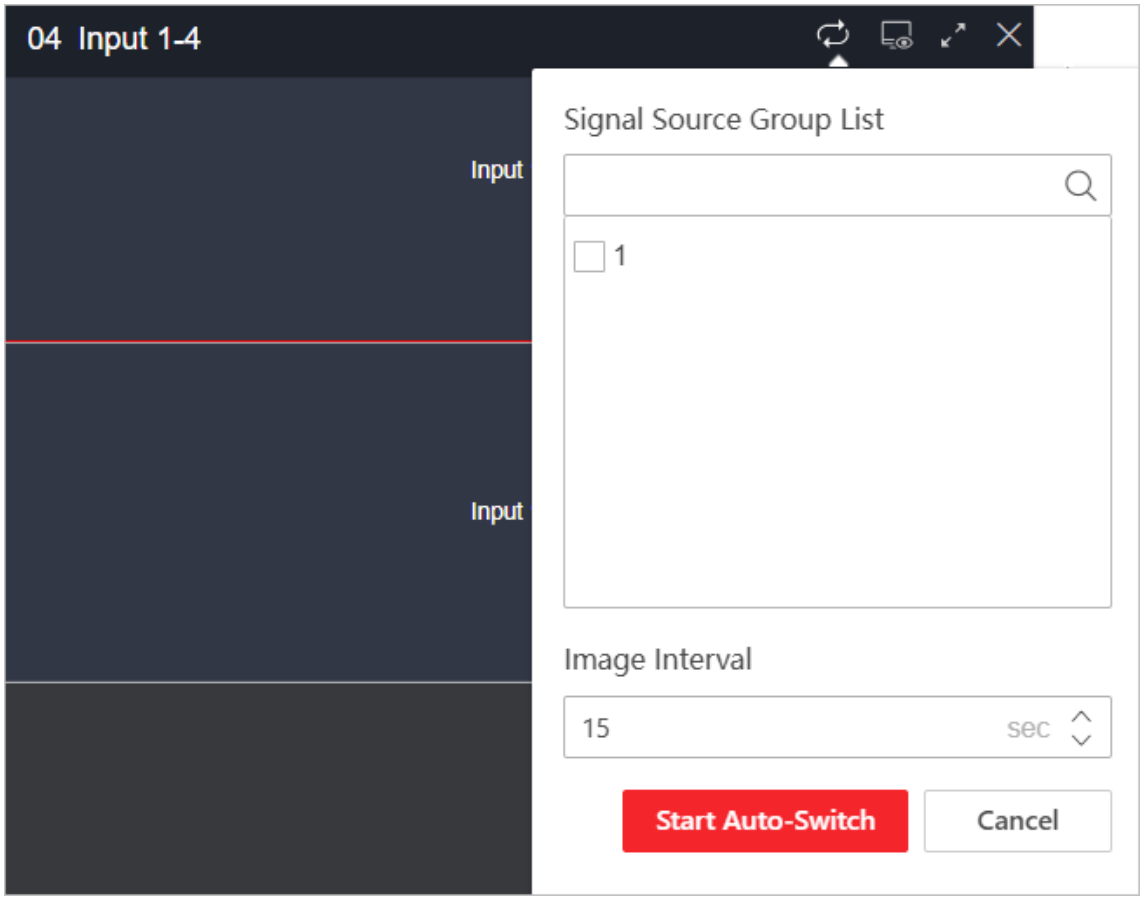


Figure 3-15 Set Signal Source Group Auto-Switching

- View the window status: You can click **Show All** to enter decoding status list to view details.

Edit Multiple Signal Source Windows

On the **Video Wall Operation** page, select a video wall and perform the following operations as required:

- Preview the signal sources:
  - Click in the upper right corner of a signal source window to preview the signal source. Click to cancel the live view.
  - Click **Enable Live View** at the top of the **Video Wall Operation** page to preview all signal sources on the video wall. Click **Close Live View** to stop previewing all signal sources on the video wall.
  - Click **Refresh Live View** at the top of the **Video Wall Operation** page to refresh the live view of all signal sources.

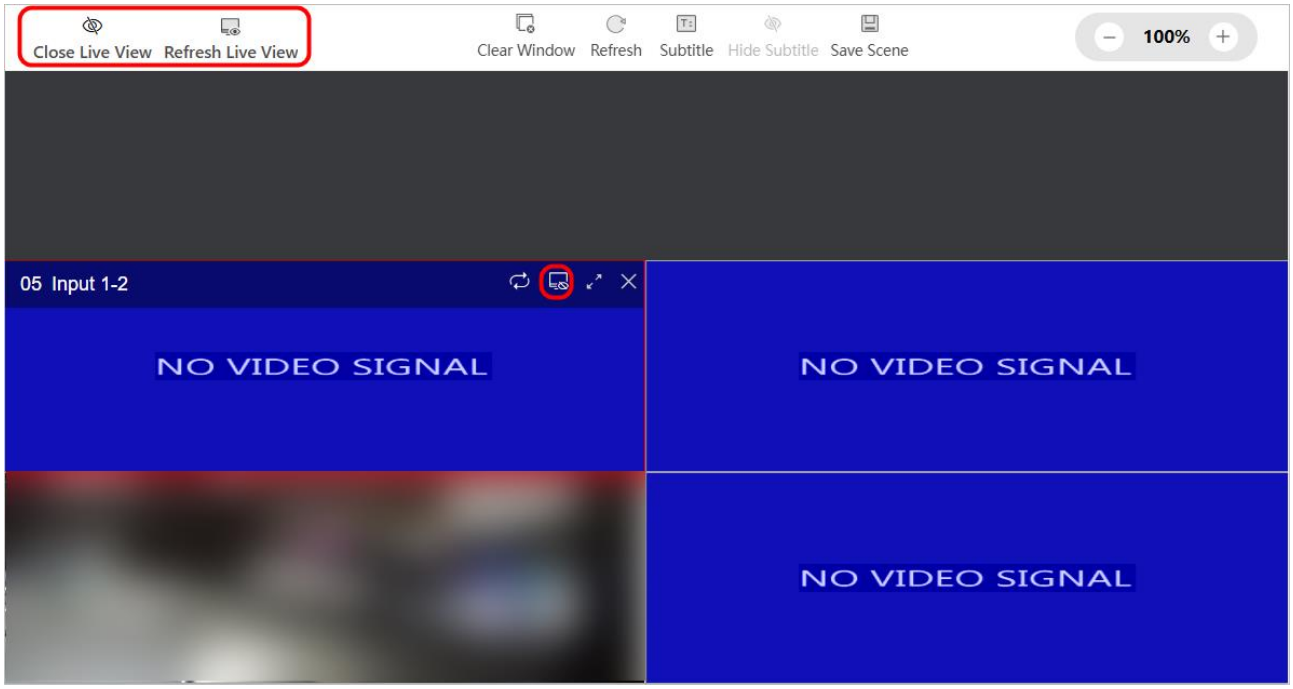


Figure 3-16 Preview Signal Source

Note

Before previewing the network signals, make sure the device is installed with the decoding board.

- Clear all bound signal source windows: Click **Clear Window**.

3.2.2 Configure Subtitles

Go to **Video Wall Operation**, click **Subtitle**, press and hold the left mouse button to drag subtitles to the video wall. To add multiple subtitles, you can drag the remaining subtitles.

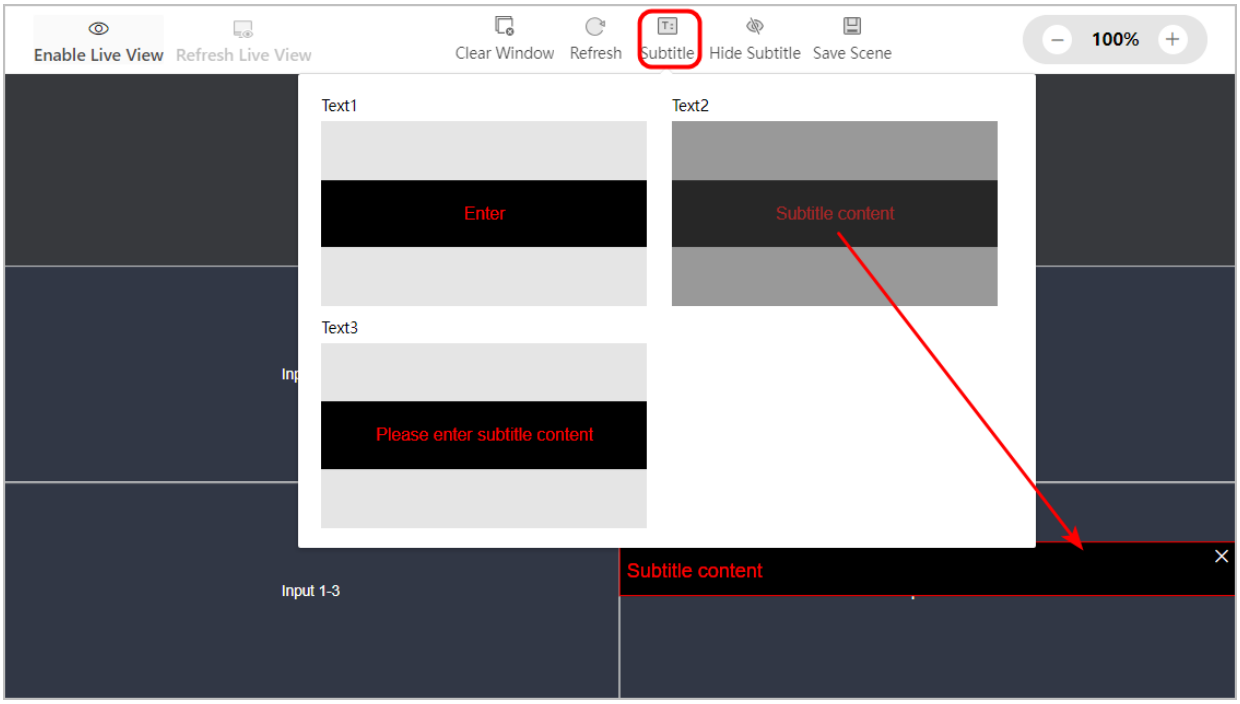


Figure 3-17 Add a Subtitle

- Add a text subtitle:
  1) Select **Text** for the subtitle type.
  2) Enter the subtitle content, adjust the subtitle position and size, and set the text and background.
  3) (Optional) Enable **Move** to set the movement speed.

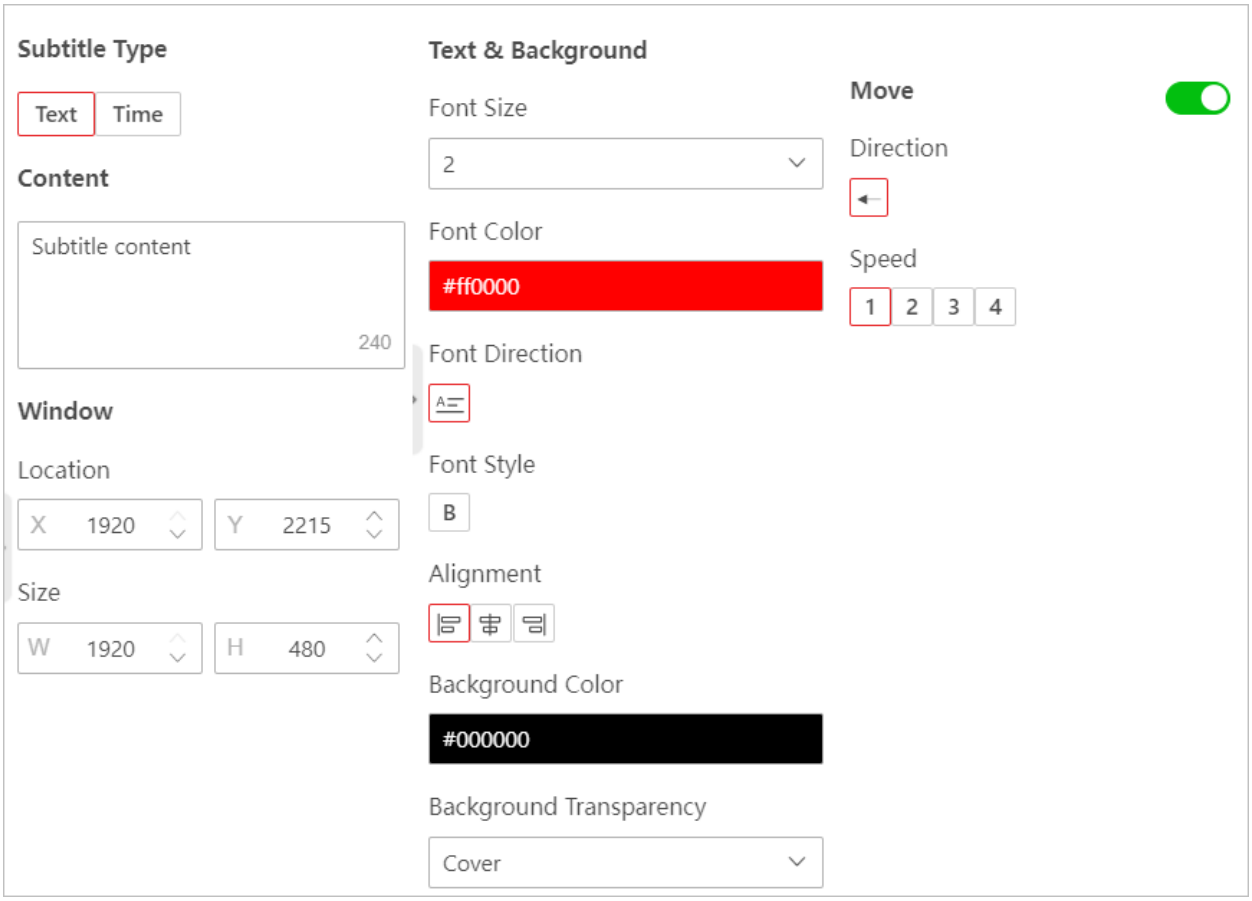


Figure 3-18 Add a Text Subtitle

- Add a time subtitle:
  1) Select **Time** as the subtitle type.
  2) Adjust the subtitle position and size, adjust the time format, and set the text and background.

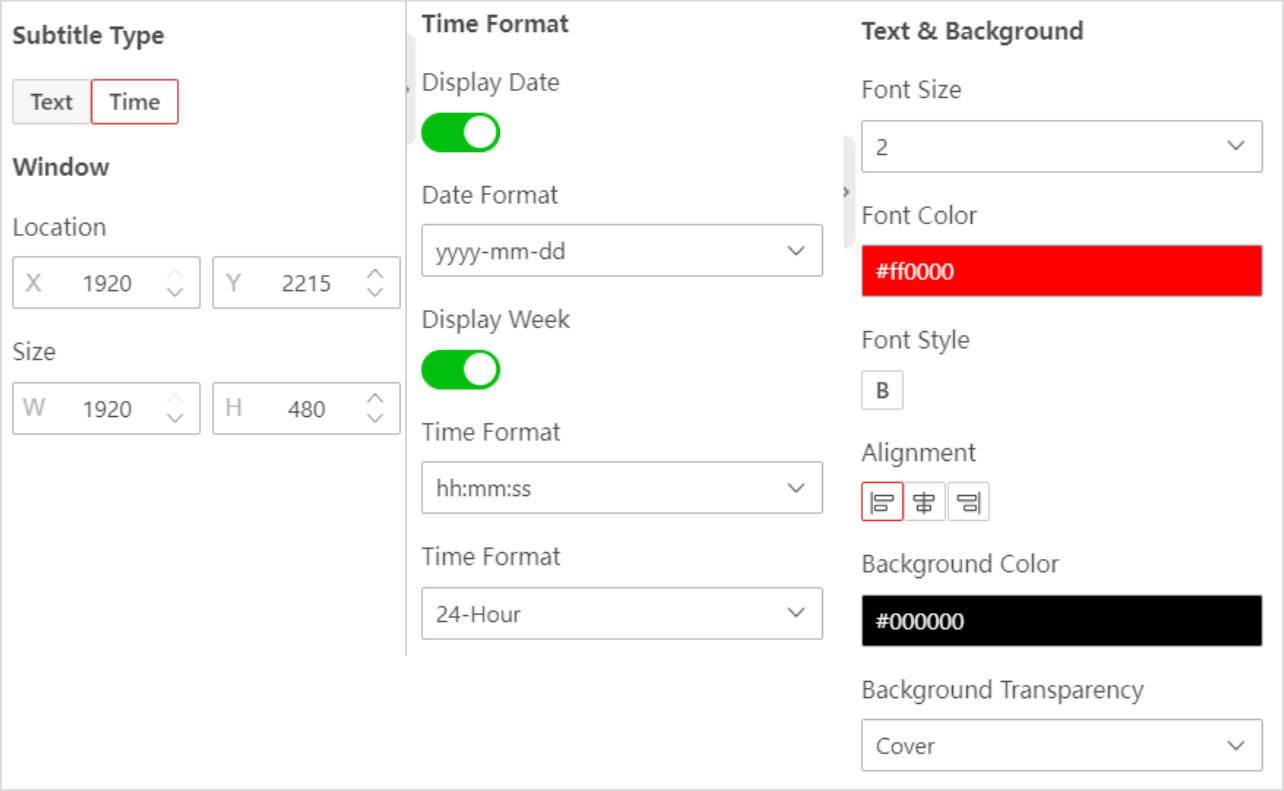


Figure 3-19 Add a Time Subtitle

3.2.3 Manage Scenes

Up to 128 scenes are supported. Go to **Video Wall Operation** to manage scenes.

- Click **Save Scene** to save the current video wall configuration as a new scene or overwrite the existing scene.

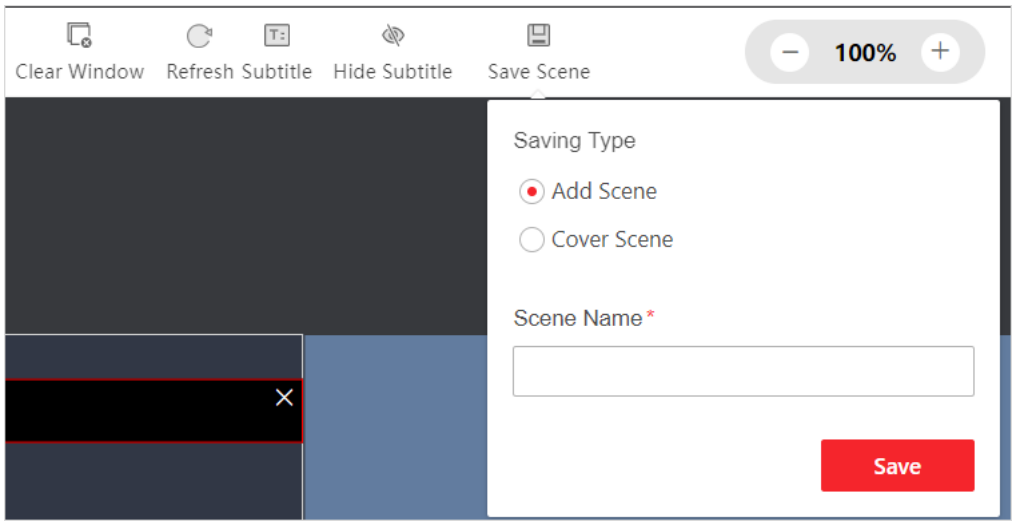


Figure 3-20 Save Scene

- Click **Scene**. Hover over a scene and then click to call the scene.
- Click **Scene**. Hover over a scene and then click to edit the scene name.

- Click **Scene**. Hover over a scene and then click to delete the scene.

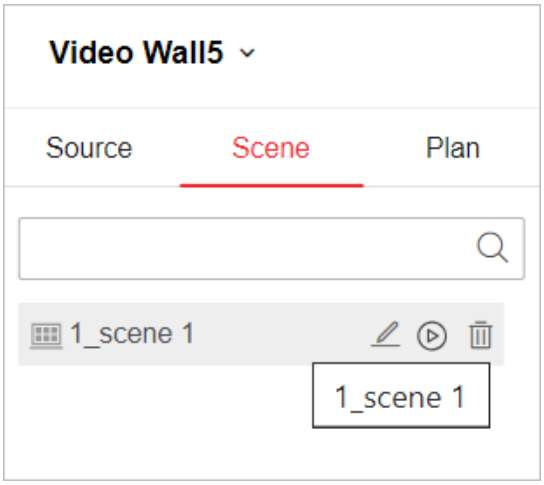


Figure 3-21 Manage Scene

3.2.4 Manage Plans

You can add multiple scenes and set the scene schedule in a plan. Go to **Video Wall Operation** and click **Plan** to manage plans.

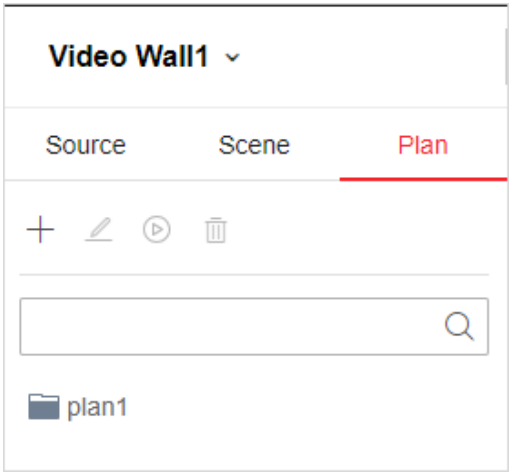


Figure 3-22 Manage Plan

- Click to add a plan:

1) Set the plan name.
2) Add tasks.
3) (Optional) Execute the plan automatically and set the schedule.
4) Click **Save**.

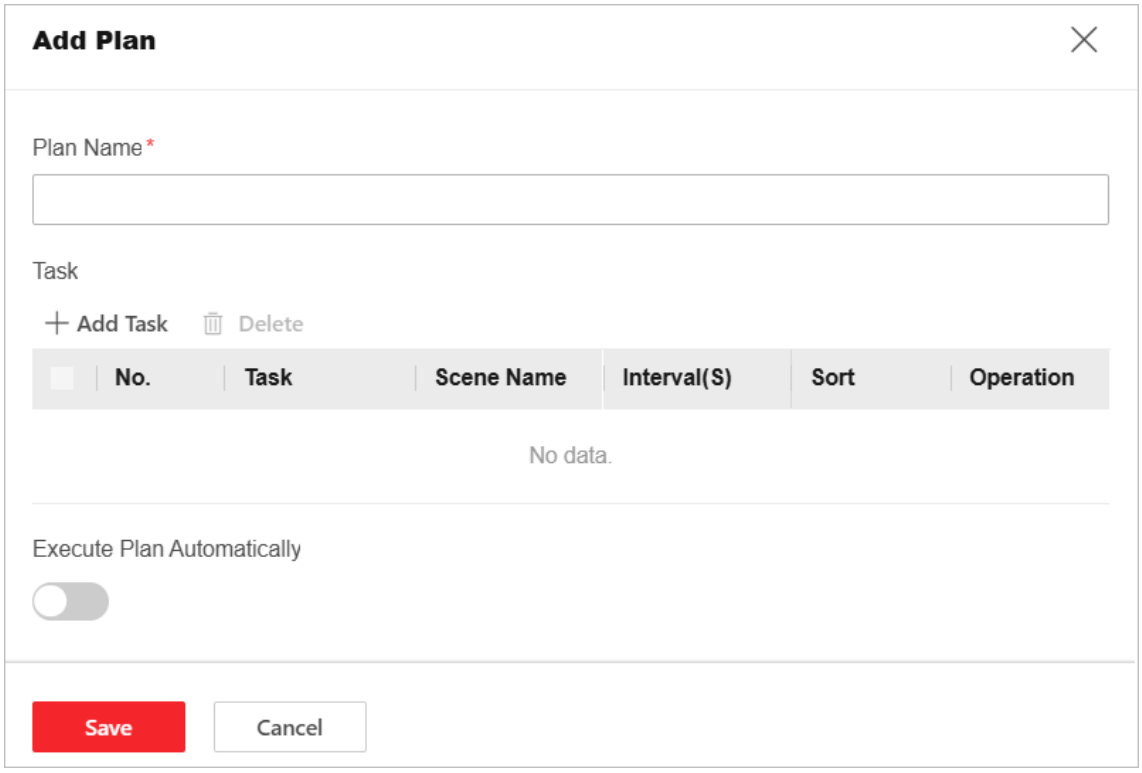


Figure 3-23 Add a Plan

- Click a plan and then click to edit the plan.
- Click a plan and then click to call the plan.

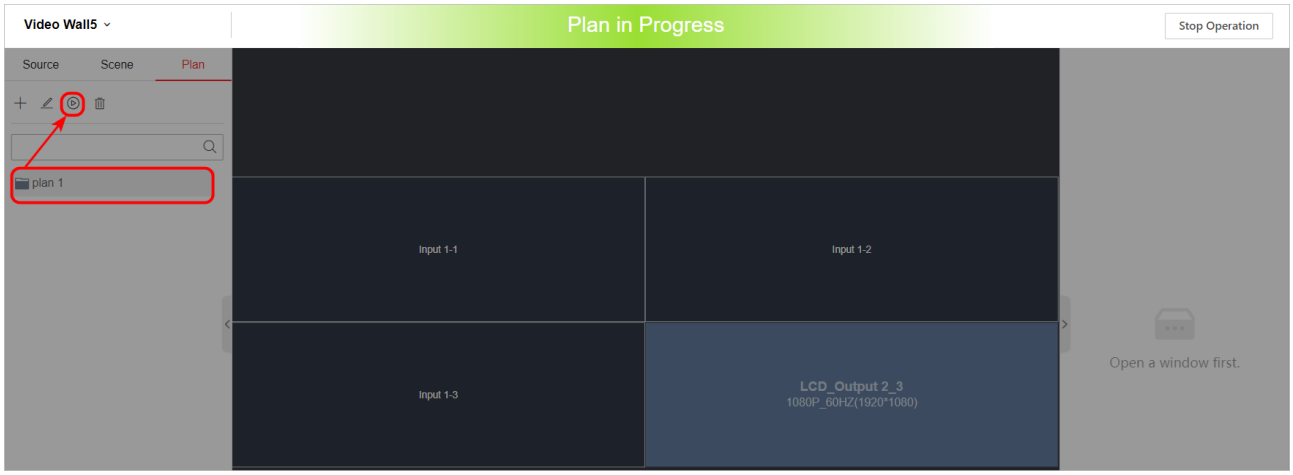


Figure 3-24 Call a Plan

- Click a plan and then click to delete the plan.

3.2.5 Maintain LCD Screens

Maintain LCD Screen via Serial Port

Step 1 Go to **Configuration** → **System** → **Serial Port Settings** → **Main Node Serial Port**, select serial port 2, select **Screen Control** as the working mode, set the baud rate of the device same as the baud rate of the LCD screen, and set other serial port parameters.

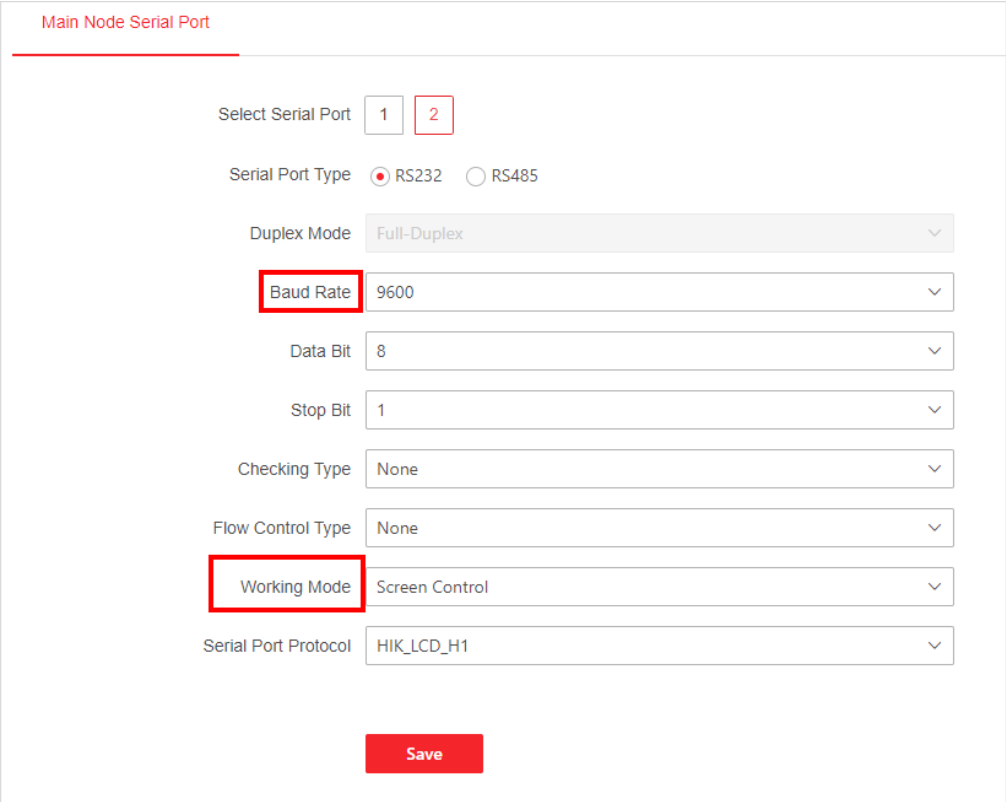


Figure 3-25 Configure Serial Port

Note

The serial port also supports the keyboard control working mode. If you need to use the serial port for keyboard control, select **Keyboard Control** as the working mode, and set the baud rate of the device same as the baud rate of the keyboard.

Step 2 Use a serial port cable to connect an LCD screen and the device RS-485 or RS-232 port.

Step 3 Go to **Screen Maintenance** and select a video wall.

Step 4 Select the LCD screen that is connected with the serial port cable, and perform the following operations as required:

- Select an image mode.
- Adjust the backlight.

- Click  or  to power on or power off the LCD screen that is connected with the serial port cable.

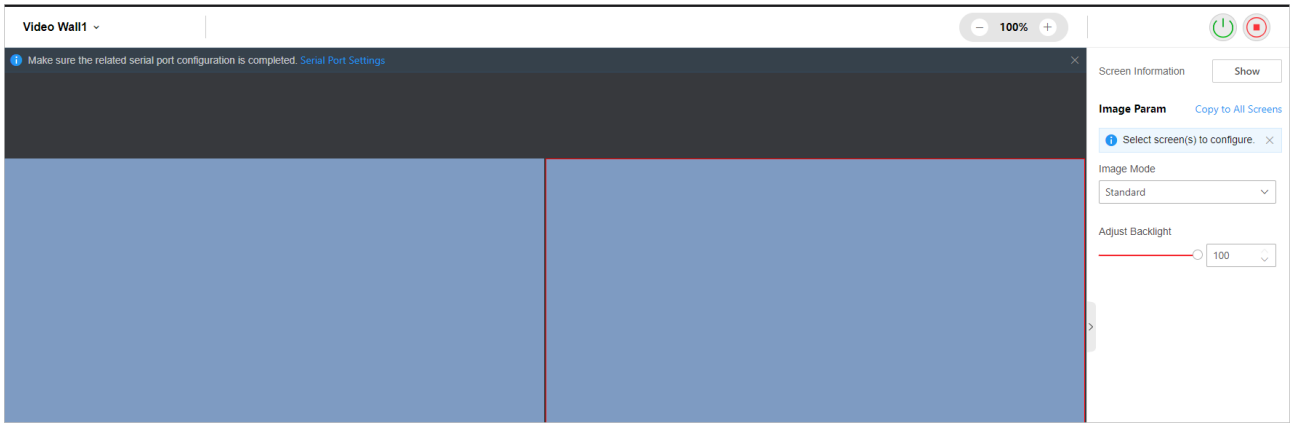


Figure 3-26 Maintain LCD Screen via Serial Port

Maintain LCD Screens via HDMI Ports

Before You Start

Make sure all LCD screens of the current video wall support the control linkage function and all screens are enabled with the control linkage function. Make sure that you have connected the multiple LCD screens to the device via HDMI cables.

Steps

Go to **Screen Maintenance**, select a video wall, and perform the following operations as required:

- Select an LCD screen, and set its image mode and backlight. If you want to copy the adjusted screen parameters to other screens of the current video wall, click **Copy to All Screens**.
- Click **Show** to show the serial number, software version, work duration and device temperature on all LCD screens of the current video wall.
- Click  or  to power on or power off all LCD screens of the current video wall.

Note

At the upper right corner of the **Video Wall Operation** page, you can click  or  to power on or power off all LCD screens of the current video wall.

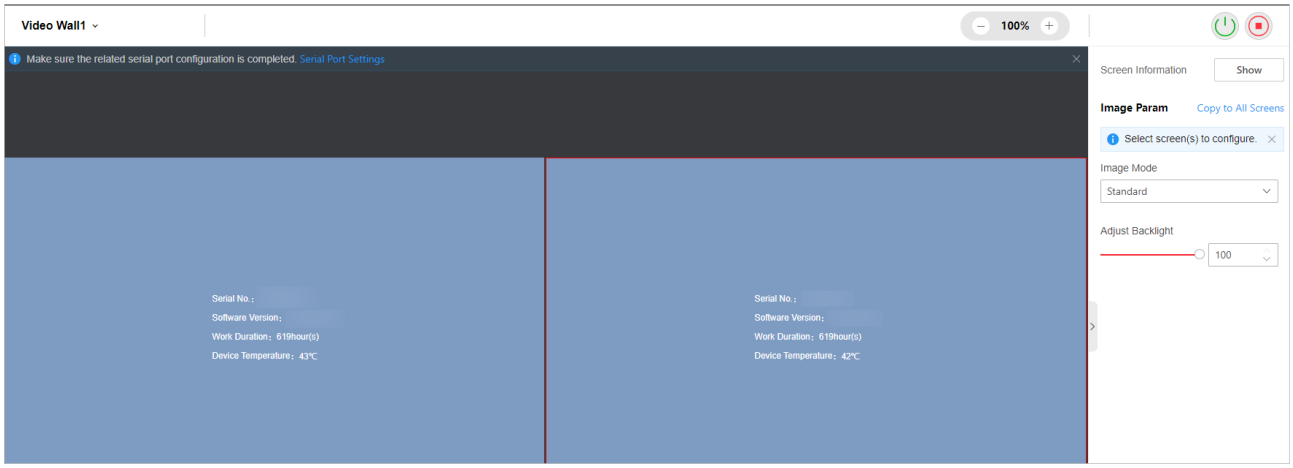


Figure 3-27 Maintain LCD Screens via HDMI Ports

3.3 Configure Display Effect

3.3.1 Edit a Signal Source

Edit a Local Signal Source

Go to **Video Wall Operation**, hover over a local signal source and then click  to edit its parameters:

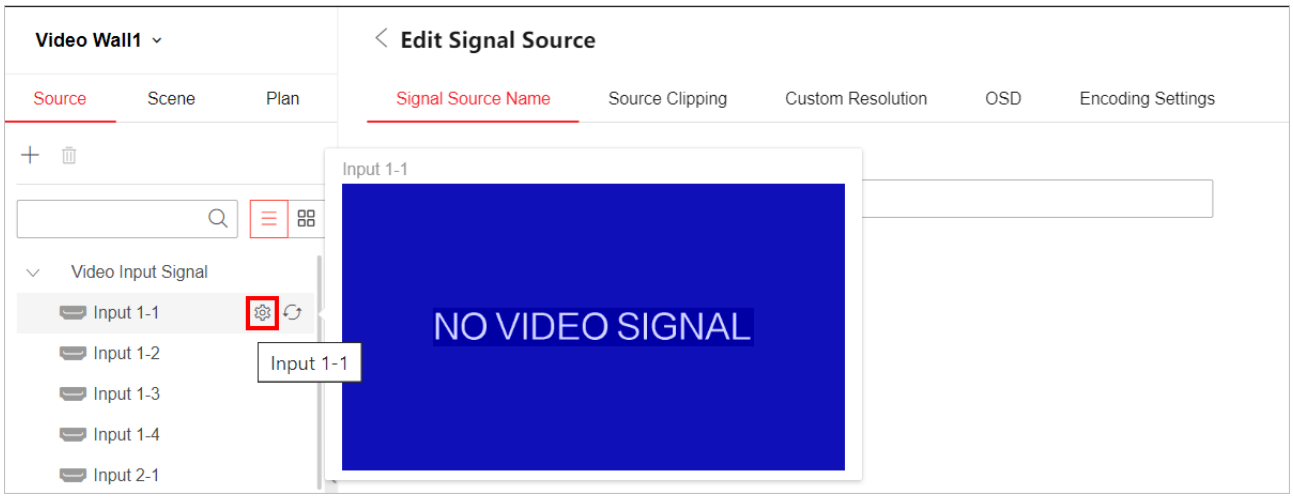


Figure 3-28 Edit a Local Signal Source

- Edit the signal source name.
- Click **Source Clipping**, and set the clipping value at top, bottom, left, and right edges.

  The clipping value ranges from 0 to 200. The clipping value at the top and bottom edges should be a multiple of 2, and the clipping value at the left and right edges should be a multiple of 4.

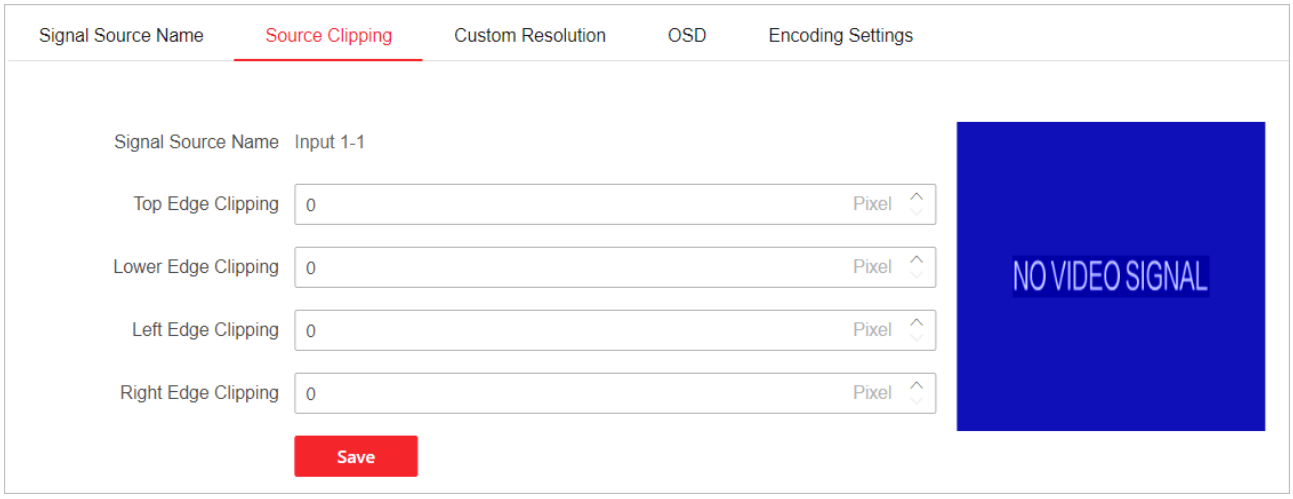


Figure 3-29 Clip a Signal Source

- If the resolution of a signal source does not match the resolution of the screen, you can customize the resolution of signal source.
  1) Click **Custom Resolution**.
  2) Enable custom resolution and set the refresh rate and resolution. The width should be a multiple of 4 and the height should be a multiple of 2.
  3) (Optional) Click **Copy To** to copy the current signal source configuration to other signal sources.
  4) Click **Save**.

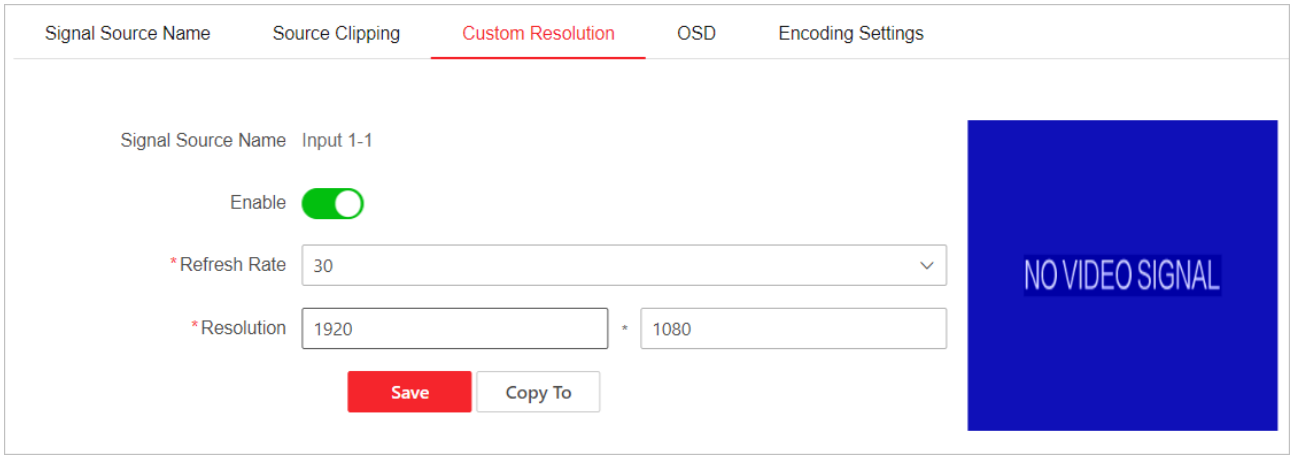


Figure 3-30 Customize Resolution

- You can add multiple OSDs (On-Screen Displays) to the input signal image.
  1) Click **OSD**.
  2) Configure the font size, font color, and font direction.
  3) (Optional) Overlay the channel name to the input signal image. Set the channel name and adjust the channel name position. You can enter the position values or directly drag the character to adjust the position.
  4) (Optional) Overlay date and time to the input signal image. Select the format and adjust the position.

5) (Optional) Overlay text to the input signal image. Switch on **Enable**, enter content, select font size and color, and adjust the text position.
6) Click **Save**.
7) (Optional) Click **Copy To** to copy the current signal source configuration to other signal sources.

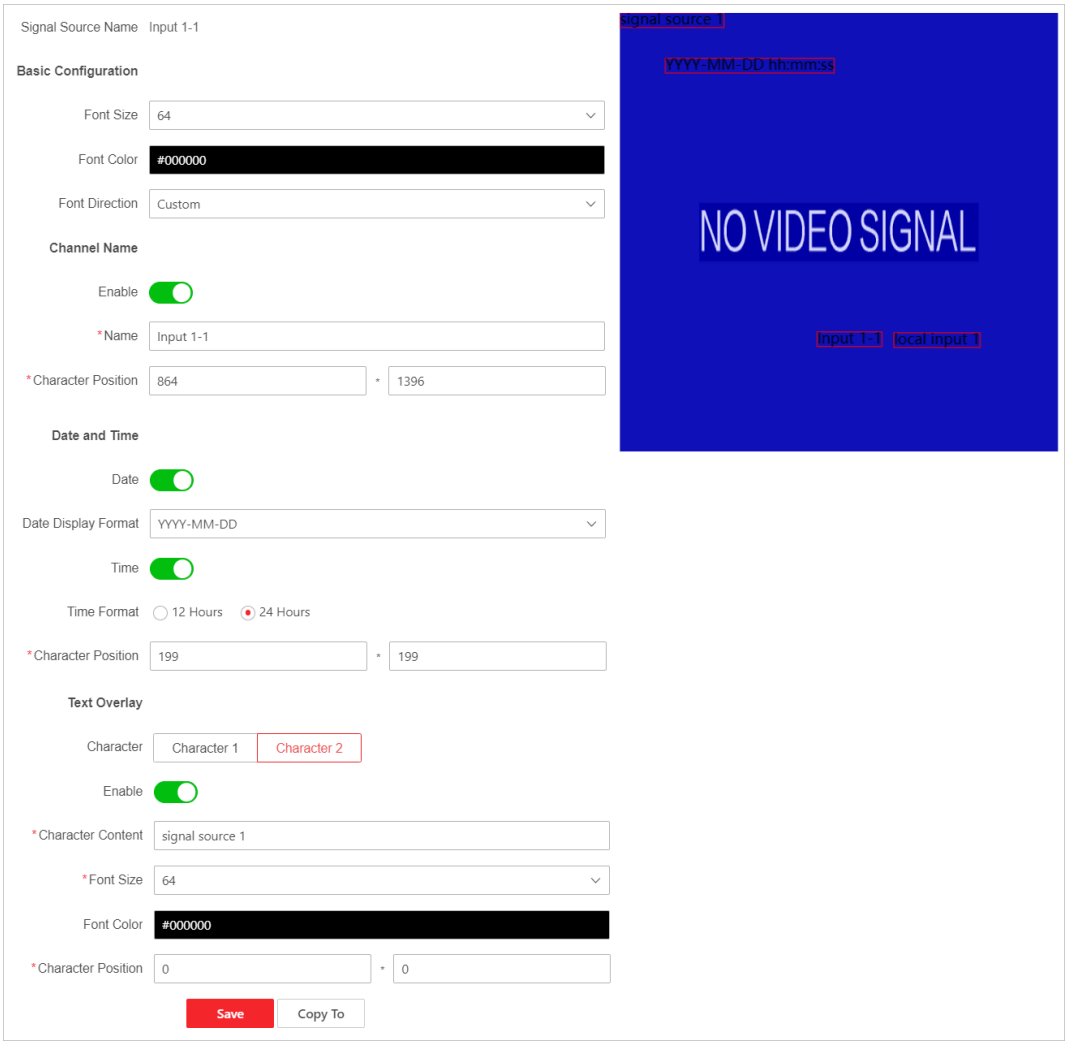


Figure 3-31 Add OSDs

- Edit the encoding parameters:
  1) Click **Encoding Settings**.
  2) Set the video encoding parameters.
     - Set the bit rate type and maximum bit rate. If you select **Constant Bit Rate**, the device uses the average bit rate for transmission and uses fast compression speed. The video mosaic might occur. If you select **Variable Bit Rate**, the device automatically adjusts the bit rate for transmission as long as the bit rate is within the limit and uses slow compression speed to ensure the image definition in complex scenarios.
     - If you select **Variable Bit Rate**, you should select a video quality. The higher video quality, the higher the bandwidth requirement.

– Enter an I-frame interval. The larger the I-frame interval, the smaller the stream fluctuation, and the lower the image quality.

– Select a resolution. The higher resolution, the higher the bandwidth requirement.

– Select an encoding type and video type.

3) Select an audio encoding type and an input audio mode.

4) Click **Save**.

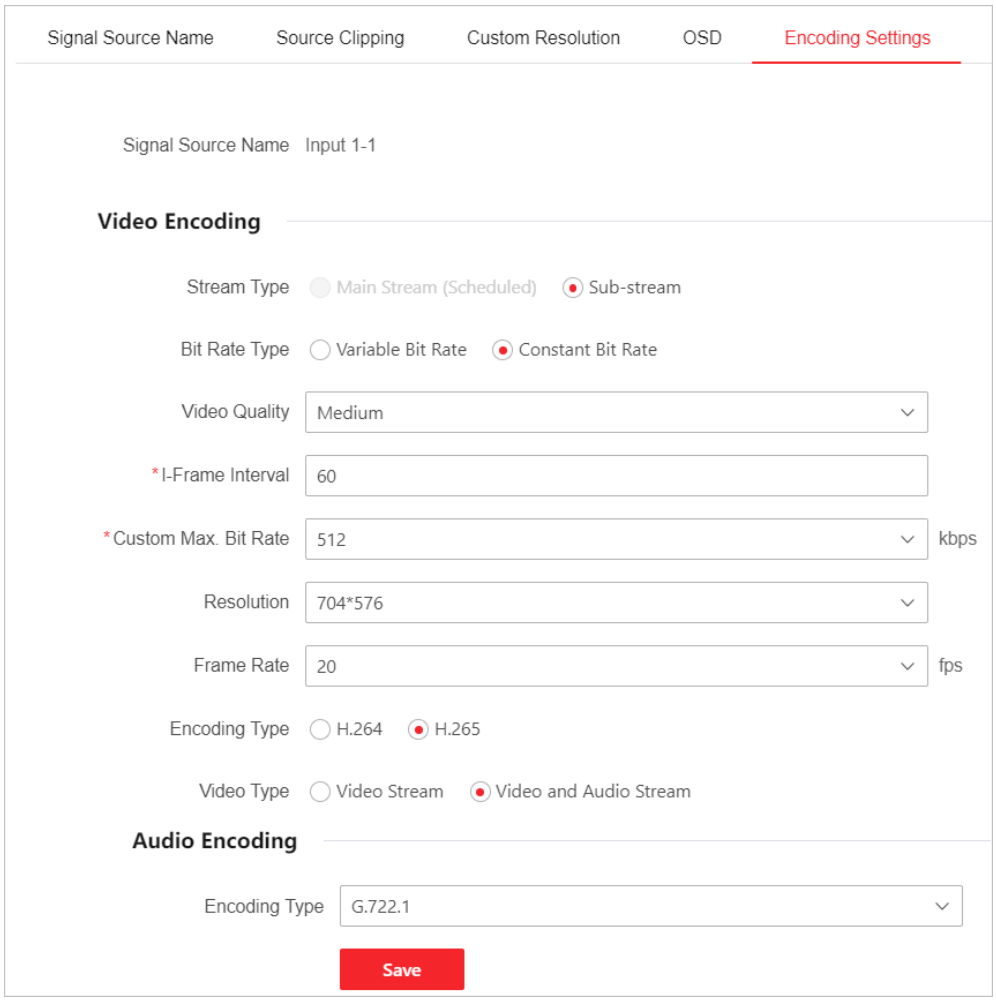


Figure 3-32 Set Encoding Parameters

Edit a Network Signal Source

Go to **Video Wall Operation**, hover over a network signal source and then click  to edit its parameters.

When the added network signal source supports multiple channels, you can click **Copy to** to copy the user name, password, and encrypted stream information to other channels of the same network signal source.

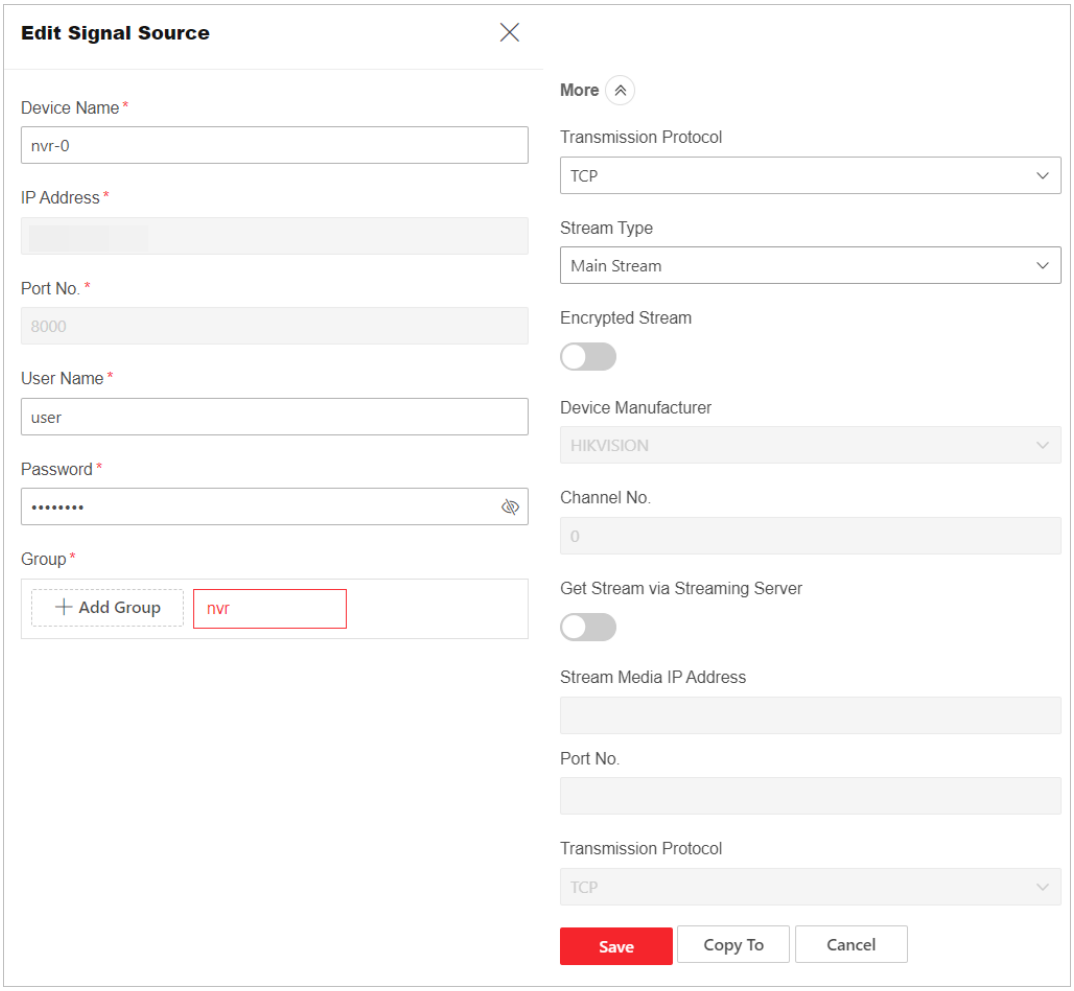


Figure 3-33 Edit a Network Signal Source

3.3.2 Set Other Parameters

Go to **Configuration** → **Other Settings** to set the following parameters:

- Enable **Sub-Stream Auto-Switch** and set the window division threshold.

  If the window division reaches the window division threshold, the device will automatically use sub-stream to get the images. In low bandwidth networks, you can use sub-stream to get relatively smooth images with a small bandwidth footprint.

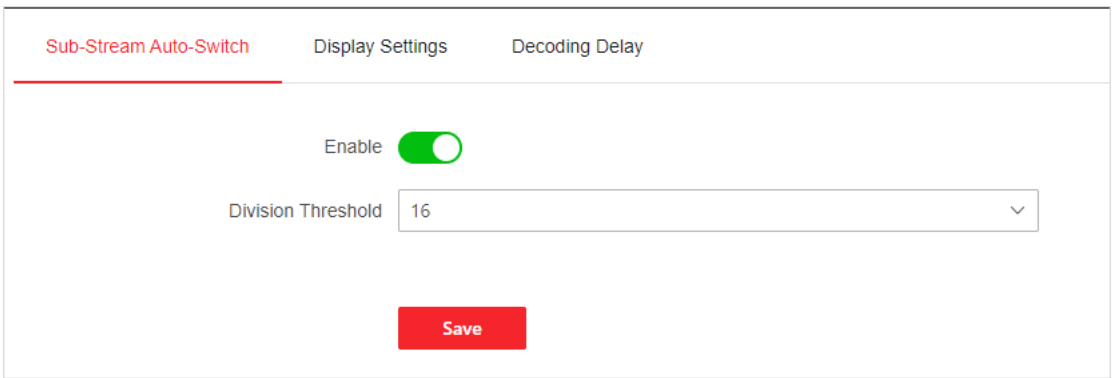


Figure 3-34 Set Sub-Stream Auto-Switch

- Click **Display Settings** to configure the content displayed when decoding ends, when streaming fails, and when the decoding resource is insufficient.

  If you select **Connection Exception**, the specific streaming failure reason will be displayed on the screen.

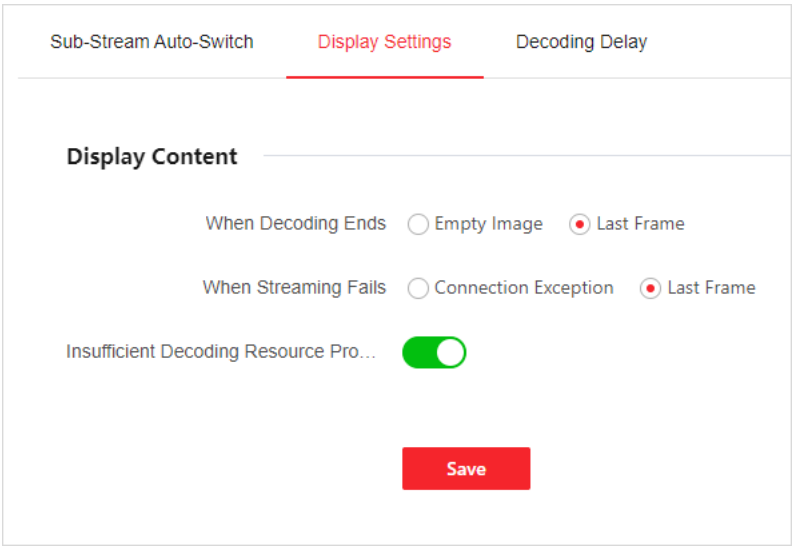


Figure 3-35 Set Display Content

- Click **Decoding Delay** and select a default decoding delay level.

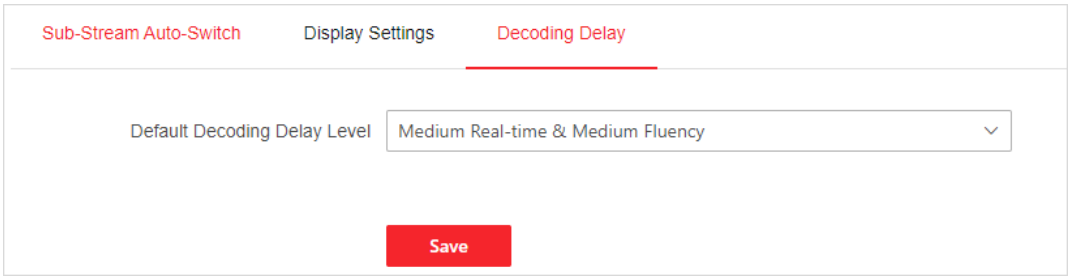


Figure 3-36 Set Decoding Delay

Chapter 4 Device Maintenance

4.1 View Device Status

Click **Overview** to view the decoding resource status, network status, and device status.

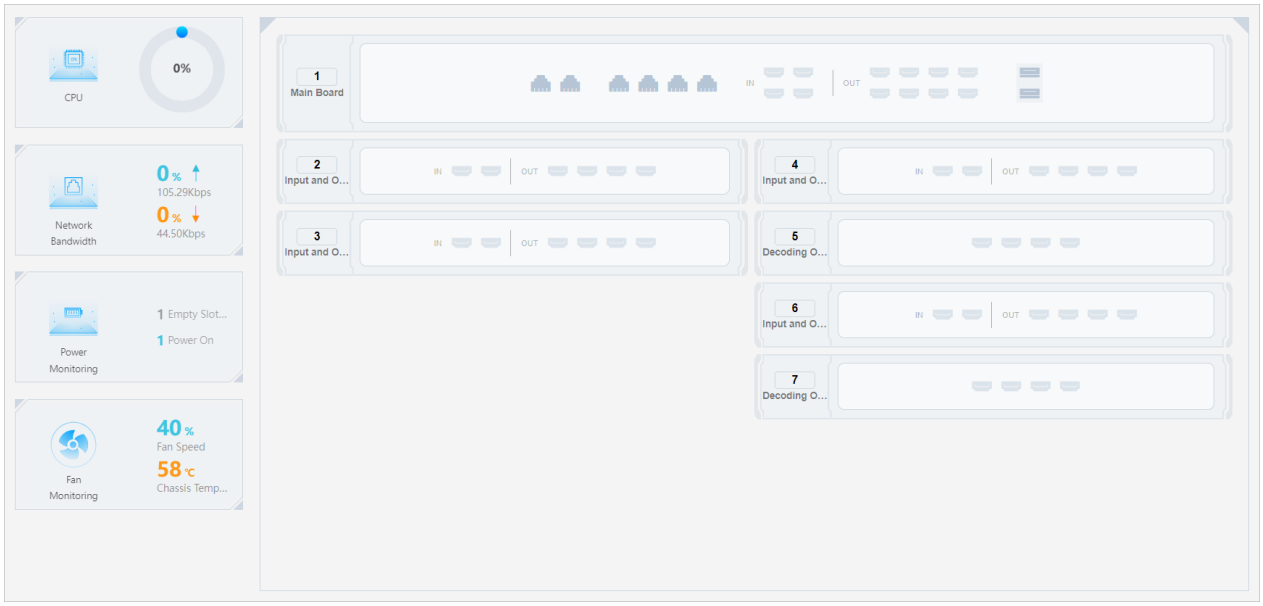


Figure 4-1 View Device Status

4.2 Configure System Parameters

Go to **Configuration** → **System** to configure the following parameters:

- Go to **System Settings** → **Basic Information** to view the device information and edit the device name as required. You can click **Upgrade** to go to the **Upgrade** page.

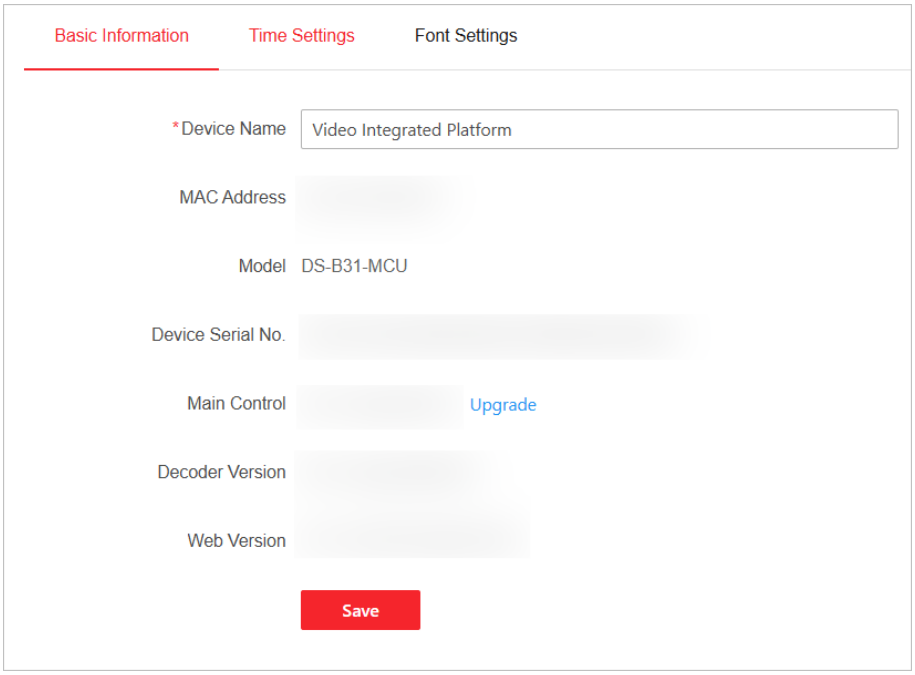


Figure 4-2 View Basic Information

- Go to **System Settings** → **Time Settings**, if you select **NTP Sync**, the device clock synchronizes with the clock of the NTP server at the specified interval.
  - Set the address and port number of the NTP server.
  - Set the synchronization interval.

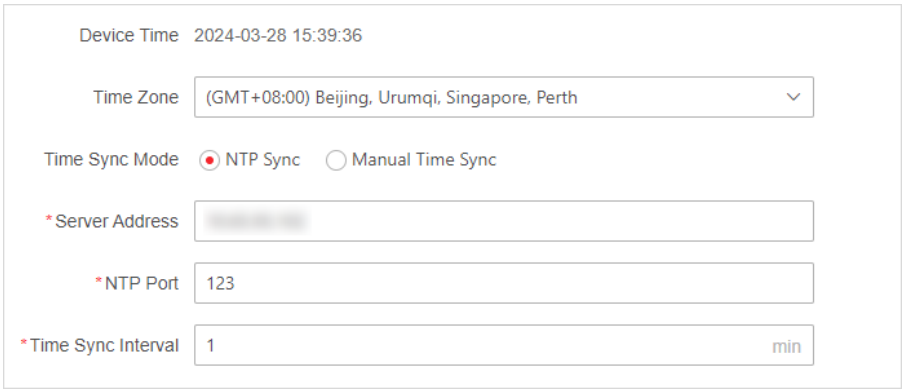


Figure 4-3 Select NTP Sync

- On the **Time Settings** page, if you select **Manual Time Sync**, you can click **Sync with Computer** to make the device time same as the computer time.

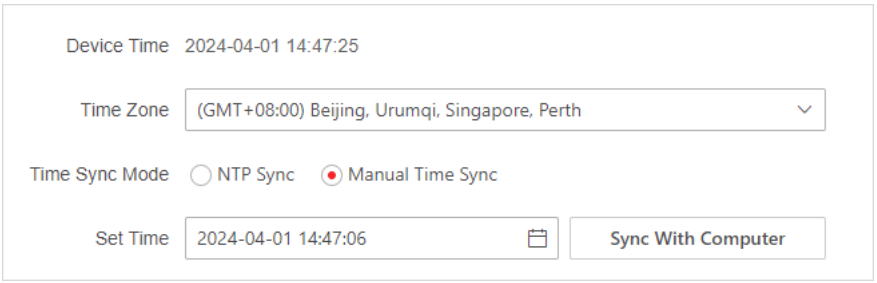


Figure 4-4 Select Manual Time Sync

- On the **Time Settings** page, if you enable DST (Daylight Saving Time), the device clock is set forward a specified time during the summer months.
  - Set the start time and end time.
  - Set the bias time.

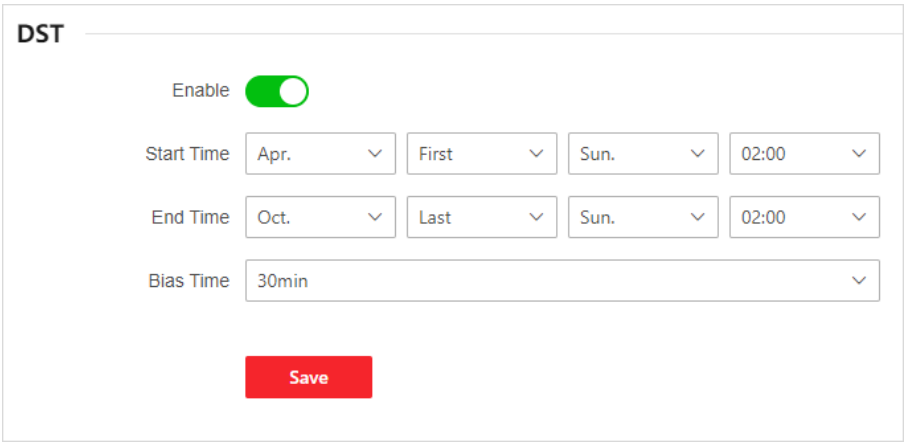


Figure 4-5 Enable DST

- Go to **System Settings** → **Font Settings** to set the font of OSDs and subtitles. You can use the default font, or click **Add** to import a new font.

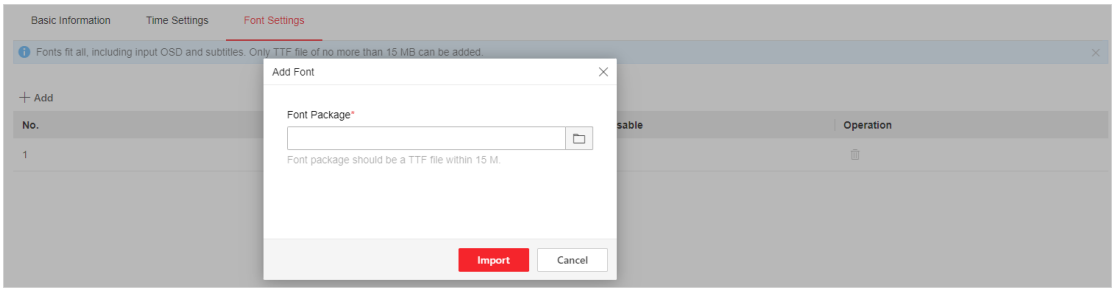


Figure 4-6 Set Font

- Go to **User Management** → **User Managemen**t to add users, edit the user name or password, or delete the users. When the user type is administrator, you cannot edit or delete it.

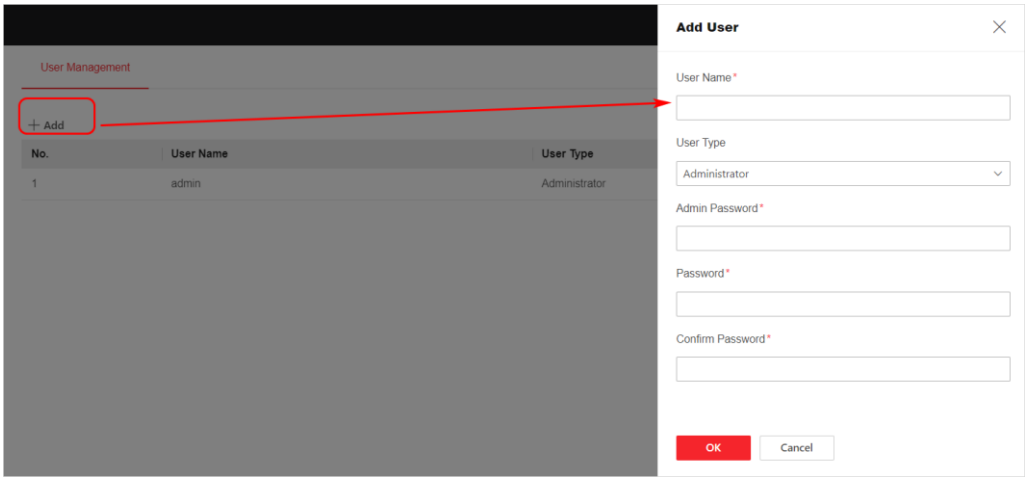


Figure 4-7 Manage Users

4.3 Configure HTTP(S) Parameters

Step 1 Go to **Configuration** → **Network** → **Network Service** → **HTTP(S)**.

Step 2 Set the HTTP port number.

The port number can be either 80 or any value from 2000 to 65535. After editing the HTTP port, you need to enter HTTP://Device IP Address: Port in the browser to access the device.

Step 3 Enable HTTPS and then set the HTTPS port.

The default port number is 443. After editing the HTTPS port, you need to enter HTTPS://Device IP Address: Port in the browser to access the device.

Step 4 (Optional) Enable redirect to HTTPS automatically. Thus, the device access via HTTPS is used by default.

Step 5 Click **Save**.

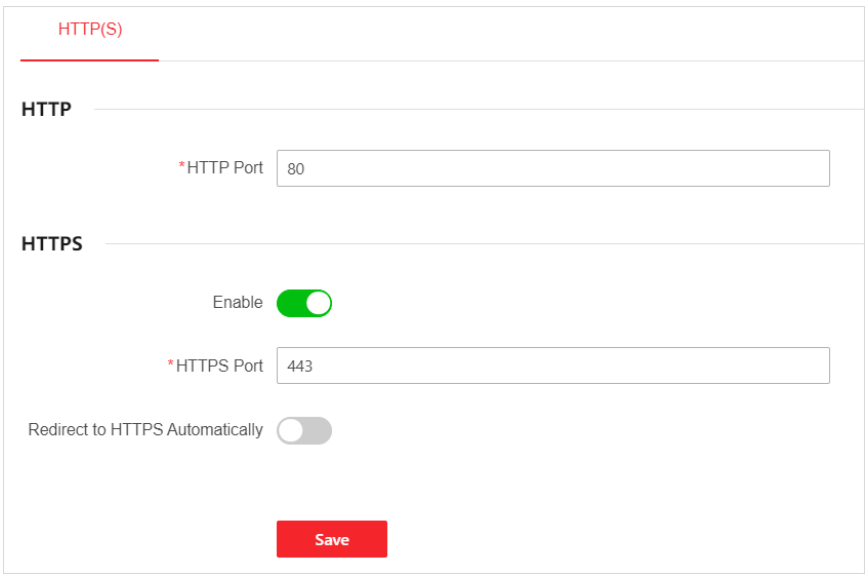


Figure 4-8 Configure HTTP (S) Parameters

4.4 Configure Event

Step 1 Go to **Configuration** → **Event**.

Step 2 Set the highest temperature and lowest temperature thresholds for the device.

Step 3 Configure the audible warning and alarm reporting to the platform when the following exceptional events occur:

- The IP address of the device is the same as that of other devices in the network.
- Incorrect user name or password.
- Network is disconnected.
- The device temperature is too high or too low.
- The fan status is abnormal.
- The video loss occurs.
- The decoding signal source is abnormal.

Step 4 Click **Save**.

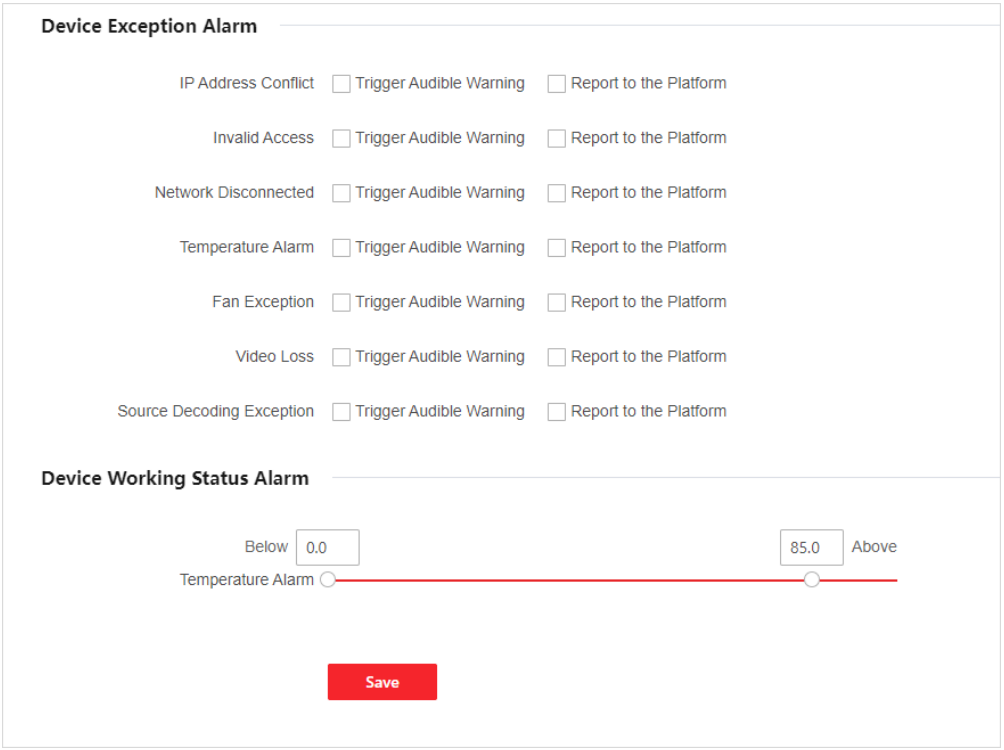


Figure 4-9 Set Device Exception Alarm

4.5 Maintain the System

Go to **Maintenance and Security** → **System Maintenance** to configure the following parameters:

- Click **Restart** to restart the device.

- Click to select an upgrade file, and click **Upgrade**. You need to get the upgrade file in advance and save it locally.

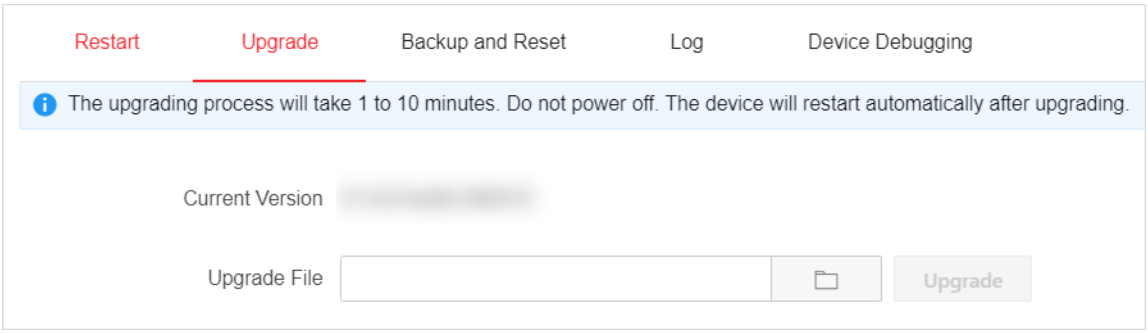


Figure 4-10 Upgrade the System

- Backup the device parameters.
- Backup the scene parameters.
- Reset the device:
  - Click **Restore Default** to restore the parameters except for user information and network parameters to the default settings. Please use this function with caution.
  - Click **Restore Factory** to restore all functions and parameters of the device to the factory settings. Please use this function with caution.
  - Click to select a device parameter file saved locally, and click **Import** to import device parameters.
  - Click to select a scene parameter file saved locally, and click **Import** to import scene parameters.

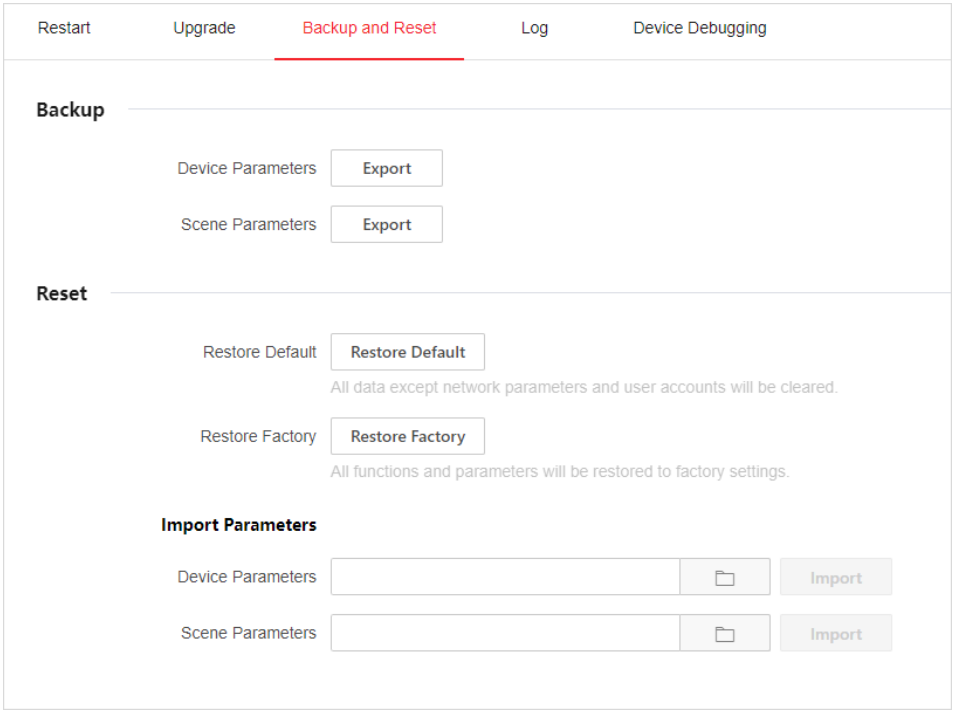


Figure 4-11 Backup and Reset Device Parameters

- Search logs: Click **Log** to set the search condition and click **Search**. You can view the searched logs in the list below. You can click **Export CSV File** to export the searched logs.

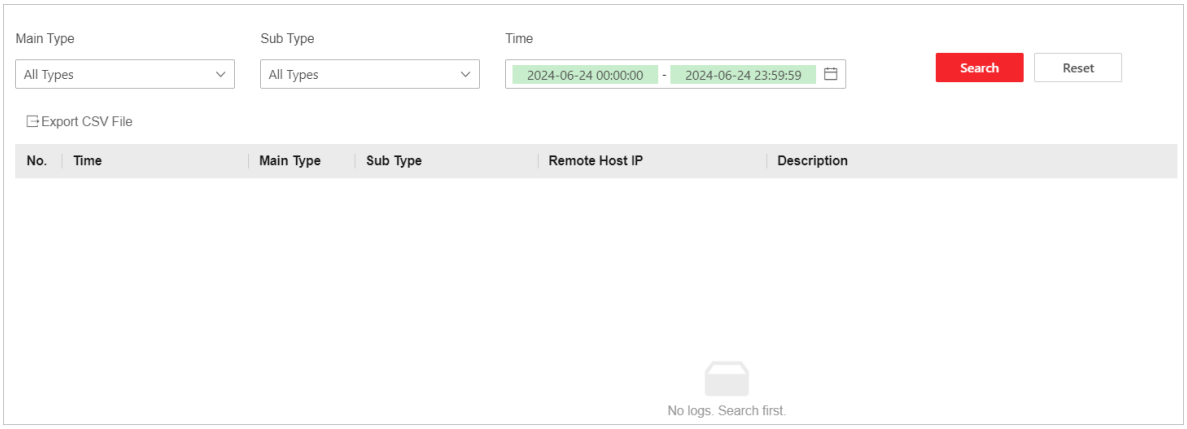


Figure 4-12 Search Logs

- Click **Device Debugging** to configure the following parameters:
  - Enable SSH (Secure Shell), enter the port number and click **Save**. With SSH enabled, you can use a computer installed with the SSH client to access the device.
  - Format the USB flash drive before inserting it into the device. Only the USB flash drives in FAT32 format are supported. Insert a USB flash drive into the device, and click **Start Exporting** to export the logs to the USB flash drive.
  - Select a sub-system, click **Start Capturing** and then you can download the obtained packet capture file.
  - Send a shell command and then check the response message.

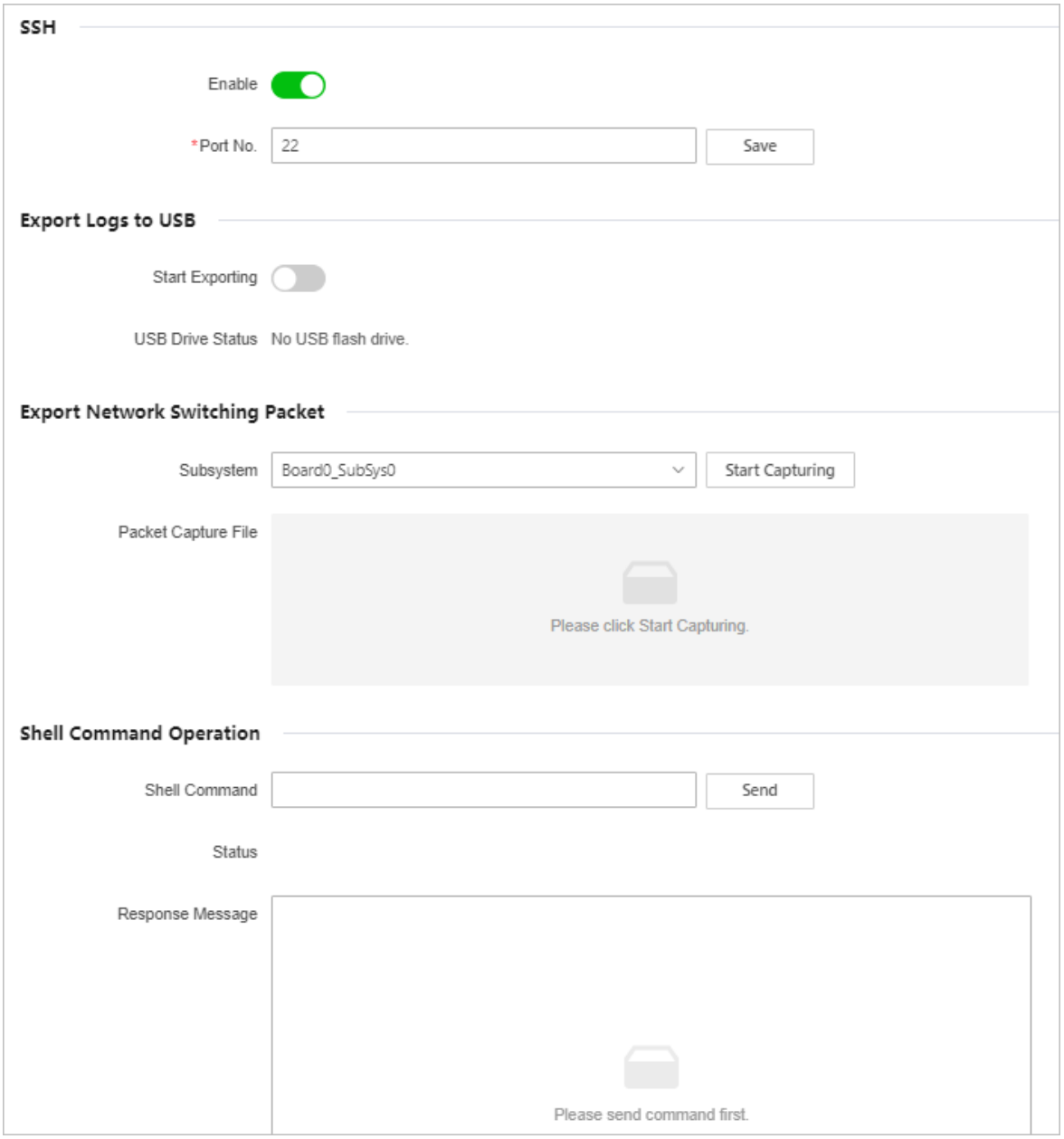


Figure 4-13 Debug the Device

4.6 Maintain the Device Security

Go to **Maintenance and Security** → **Security Management** to configure the following parameters:

- Configure the IP addresses that are allowed to or forbidden to access the device.

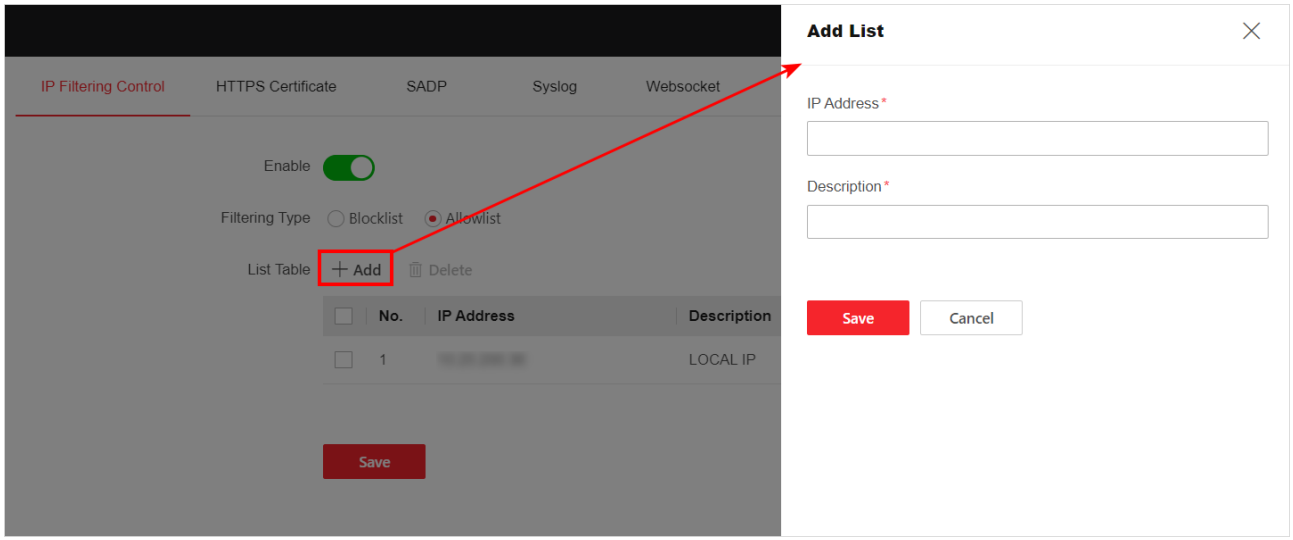


Figure 4-14 Configure IP Address Filter

- Import the locally saved HTTPS certificate and secret key.

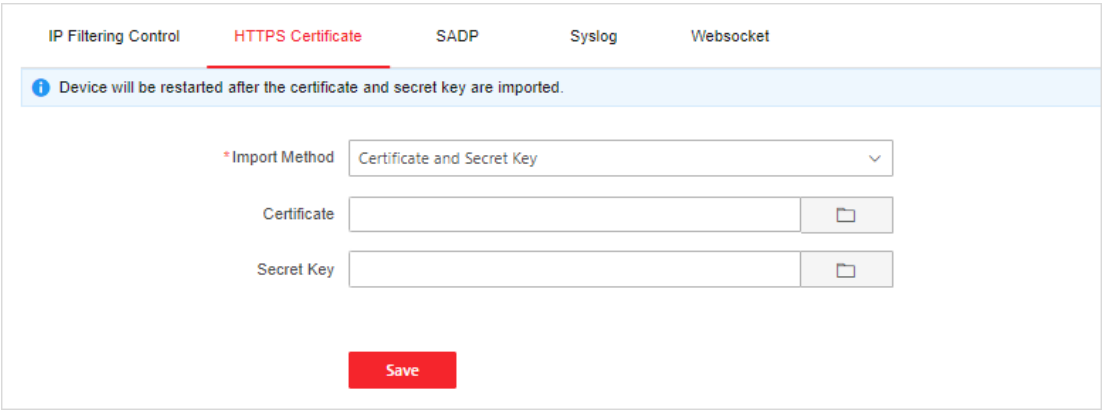


Figure 4-15 Import HTTPS Certificate and Secret Key

- Enable SADP as required. With SADP enabled, you can use the SADP software to search the device when it is in the same network segment with the computer.
- Enable Syslog as required. With Syslog enabled, the device logs can be uploaded to the Syslog server.

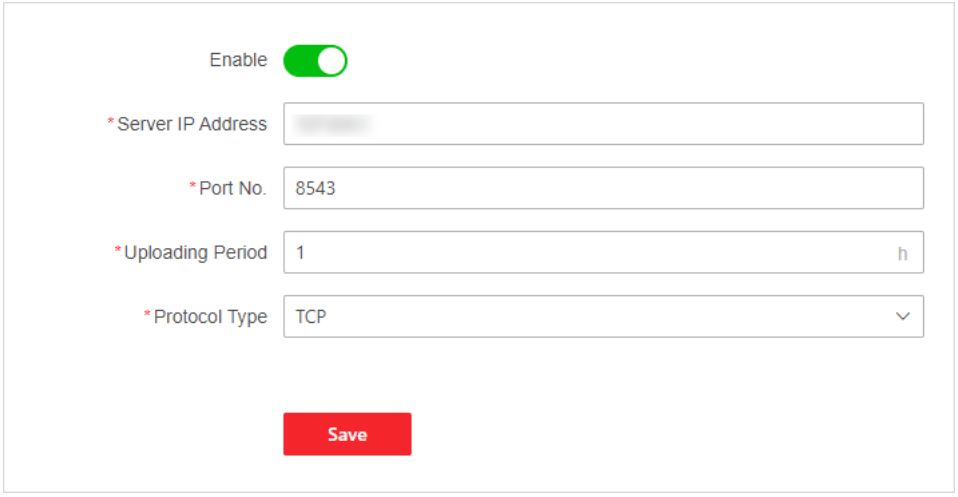


Figure 4-16 Enable Syslog

- Enable Websocket as required. With Websocket enabled, you can export the stream of network signal sources.


See Far, Go Further