



User Guide

Network Video Recorder

Contents

About This Guide	1
Get Started	2
1.1 Connect the Hardware.....	3
1.2 Log In to Your NVR	3
1.3 Set Up NVR via Quick Setup Wizard	5
Configure Your Network Camera.....	7
2.1 Add Cameras to the NVR.....	8
2.1.1 Add Cameras Singly or in Batches	8
2.1.2 Add a Camera to a Certain Screen.....	16
2.1.3 Add Cameras Manually.....	17
2.1.4 Modify IP Addresses of Cameras.....	19
2.2 Plug and Play Settings	22
2.3 Configure Image Effects	22
2.3.1 Configure Image Settings.....	23
2.4 Configure OSD Settings.....	24
2.5 Configure Privacy Mask	25
2.6 Configure Stream Settings	26
2.6.1 Configure Main Stream and Substream	26
2.6.2 Configure ROI.....	28
2.6.3 PoE Channel (Only for PoE NVR).....	28
2.7 Configure Pan&Tilt (Only for PT Cameras).....	30
2.7.1 Preset and Call Positions	31
2.7.2 Preset and Call Paths in Patrol Scan.....	32
2.7.3 Preset and Call Patterns in Pattern Scan	32
2.7.4 Enable Park.....	33
2.7.5 Preview Preset Settings.....	34
2.8 Manage Your Cameras	36
2.8.1 Modify Camera Connection Parameters.....	36
2.8.2 Change the Password and Reset Email.....	37
2.8.3 Upgrade the Firmware.....	38
2.8.4 Configure Scheduled Reboot.....	39
2.8.5 Remove Cameras from the NVR.....	40

Live View	43
3.1 Configure the Screen Layout.....	44
3.1.1 Change the Screen Layout Quickly.....	44
3.1.2 Rearrange Channels in Settings.....	45
3.2 Configure Live View Settings via Toolbar.....	47
3.3 Change Picture Mode	48
Recording and Storage.....	49
4.1 Configure Recording Schedules.....	50
4.1.1 Configure Recording Schedule for all Channels.....	50
4.1.2 Customize Recording Schedule	50
4.1.3 Configure Advanced Recording Settings.....	54
4.2 Recording Controls.....	54
4.2.1 Configure Storage Disk Group.....	54
4.2.2 Configure Disk Quota.....	55
4.3 Record Manually.....	56
4.4 Manage Hard Drive.....	57
4.4.1 View and Configure Settings of Hard Drive.....	58
4.4.2 Add External Hard Drive to NVR (Only for some models).....	59
4.4.3 Bad Sector Detection.....	59
4.4.4 S.M.A.R.T Detection.....	60
4.5 Export Recordings.....	61
4.6 Expansion Storage (Only for some models).....	65
4.7 Long-term Storage (Only for some models)	65
4.8 Backup Recordings.....	66
Playback.....	68
5.1 Instant Playback.....	69
5.2 Play Normal Recordings.....	69
5.3 Play Recordings with Tags	72
5.4 Playback Recordings of Events.....	74
5.5 Playback Operations	76
5.5.1 Basic Playback Operations	76
5.5.2 Set Smart Playback Rules.....	76
5.5.3 Edit Recordings.....	77
5.5.4 Export Recordings	79

Events and Alerts	80
6.1 Motion Detection	81
6.2 Video Tampering.....	82
6.3 Area Intrusion.....	84
6.4 Line Crossing Detection	86
6.5 Video Signal Loss	89
6.6 Offline and IP Conflict	91
6.7 Disk Exception	92
6.8 Login Exception.....	93
6.9 Hardware Exception (Only for PoE models).....	94
Network Management	95
7.1 Configure Network Connection	96
7.1.1 Configure Basic Settings.....	96
7.1.2 Configure Advanced Settings	97
7.2 Configure Ports	98
7.3 Configure UPnP.....	99
7.4 Enable Remote Management via Cloud Services	100
NVR Management	102
8.1 Upgrade the NVR Firmware	103
8.2 Restart/Log Out/Shut Down the NVR.....	104
8.3 Reset the NVR.....	105
8.4 Configure Reboot Schedule for NVR	105
8.5 Diagnose the NVR.....	106
System Management	109
9.1 Configure Basic Settings	110
9.2 Modify System Time	111
9.3 Configure Interface Output.....	112
9.4 Manage User Accounts.....	113
9.5 Import and Export Settings.....	115
9.6 View System Logs	117
9.7 View System Messages	119
FAQ	124


About This Guide

This User Guide provides information for using and managing NVR. It explains functions of NVR and shows you how to configure them.

Conventions

When using this guide, notice that:

- Features available in NVR may vary due to your region, device model, and firmware version. All images, steps, and descriptions in this guide are only examples and may not reflect your actual experience.
- The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute the warranty of any kind, express or implied. Users must take full responsibility for their application of any products.
- This guide uses the specific formats to highlight special messages. The following table lists the conventions that are used throughout this guide.

<u>Underlined</u>	Indicates hyperlinks. You can click to redirect to a website or a specific section.
Bold	Indicates contents to be emphasized and texts on the web page, including the menus, tabs, buttons and so on.
>	The menu structures to show the path to load the corresponding page.
 Caution	Reminds you to be cautious, and Ignoring this type of note might result in device damage or data loss.
Note	Indicates information that helps you make better use of your device.

More Information

- For technical support, the latest version of the User Guide and other information, please visit <https://www.tp-link.com/support>.
- The Quick Installation Guide can be found where you find this guide or inside the package of the product.
- To ask questions, find answers, and communicate with TP-Link users or engineers, please visit <https://community.tp-link.com> to join TP-Link Community.



Get Started

This chapter guides you on how to set up your NVR for the first time. The quick setup wizard brings you convenience and flexibility to configure VIGI NVR. This chapter includes the following sections:

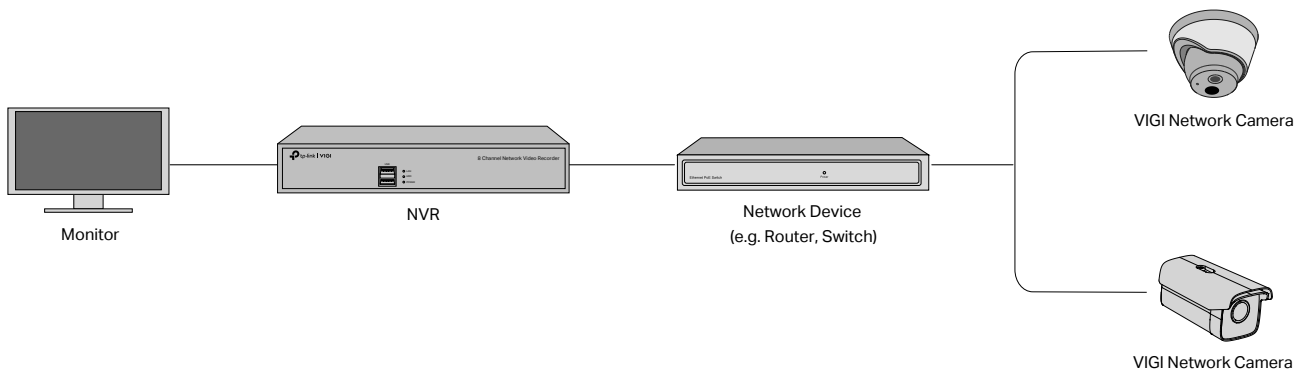
- [Connect the Hardware](#)
- [Log In to Your NVR](#)
- [Set Up NVR via Quick Setup Wizard](#)

The VIGI network video recorder (NVR) coordinates with camera systems to help you view, store, and playback videos. With the support of ONVIF, you can easily add cameras of different brands. Also, it supports detecting events and sending you up-to-date notifications. Moreover, you can manage and monitor the NVR and cameras remotely via the VIGI app or VIGI Security Manager.

♥ 1.1 Connect the Hardware

To manage multiple cameras, you should prepare a network device, such as a switch or a router. Connect the NVR and cameras to the network device to ensure they are in the same network. Follow the steps below to connect the devices.

1. Connect your monitor to the HDMI or VGA port according to the connection port it supports.
2. Connect your monitor to a power source and turn it on.
3. Connect the LAN port of the NVR to a network device with an Ethernet cable.
4. Connect the provided USB Mouse to the USB Interface of the NVR (front panel).
5. Connect the power adapter to the NVR.
6. Connect the cameras to the network device.



♥ 1.2 Log In to Your NVR

With a user interface displayed on monitor, it is easy to configure and manage the NVR. Follow the steps below to log in to your NVR for the first time. We take VIGI NVR11104H-4P as the example.

1. Select your country/region and set the language.

The screenshot shows a 'Welcome' screen with the following configuration options:

- Country/Region:** A dropdown menu with 'Please select' as the current selection.
- Language:** A dropdown menu with 'English' as the current selection.
- Power Line Frequency:** A dropdown menu with '50Hz' as the current selection.
- Next:** A button at the bottom of the screen.

2. Set the login password for your NVR and preset a password for the cameras. Enter a password reset email for your NVR and cameras, which is used to reset the password if you forgot it. Click **Complete**.

The screenshot shows a 'Welcome' screen with the following configuration options:

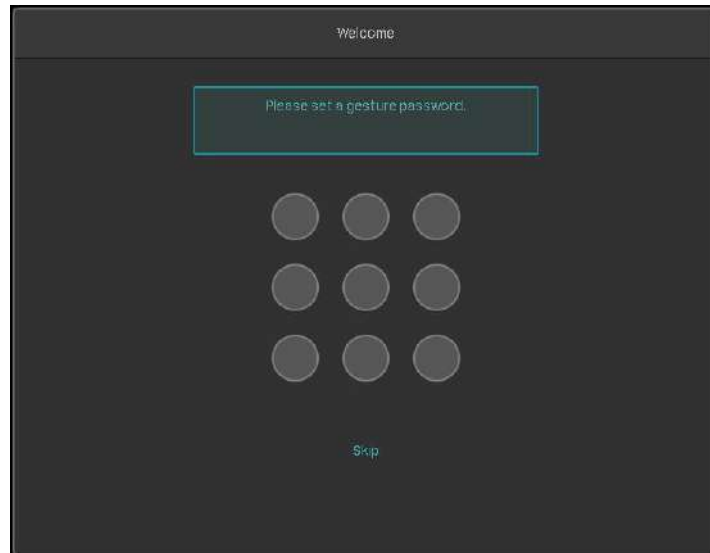
- Username:** admin
- Please set the login password:**
 - New Password:** A password input field with a lock icon.
 - Confirm Password:** A password input field with a lock icon.
 - Password Reset Email for NVR:** An email input field.
- Please preset the camera's password:**
 - Camera's Password:** A password input field with a lock icon.
 - Password Reset Email for Camera:** An email input field.
 - Same as NVR
- Complete:** A blue button at the bottom of the screen.

New Password	Set the password of your NVR.
Confirm Password	Confirm the password of your NVR.
Password Reset Email for NVR	Set an email address to reset the password of your NVR.
Camera's Password	Set a password for cameras added to your NVR. The password will be applied to the cameras without passwords.
Password Reset Email for Camera	Set an email address to reset the passwords of your cameras.

Same as the NVR

(Optional) Click the checkbox if you want to apply the password and the email address of the NVR to your cameras.

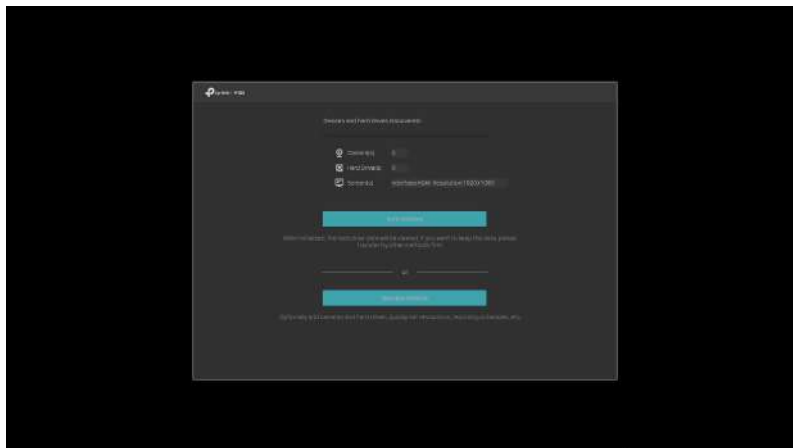
3. Set the gesture password for easy login. If you don't want a gesture password, click **Skip**.



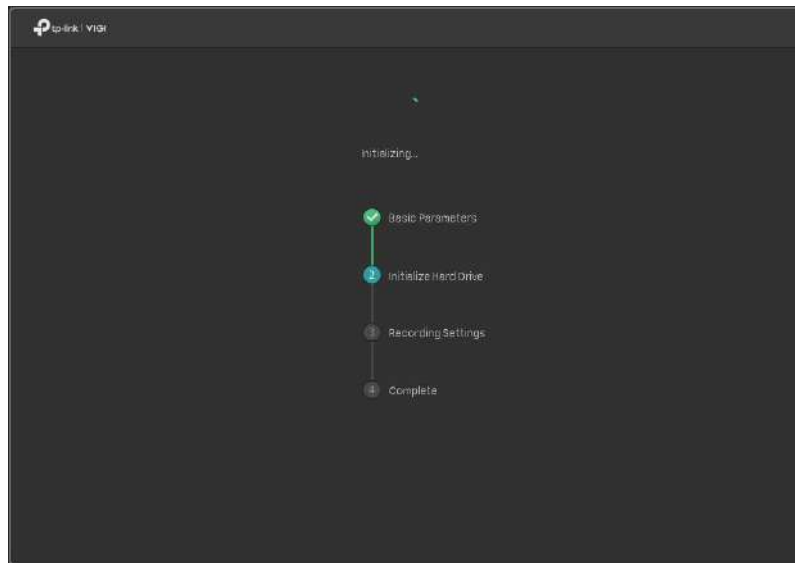
♥ 1.3 Set Up NVR via Quick Setup Wizard

The Quick Setup Wizard guides you through the process to set up your NVR.

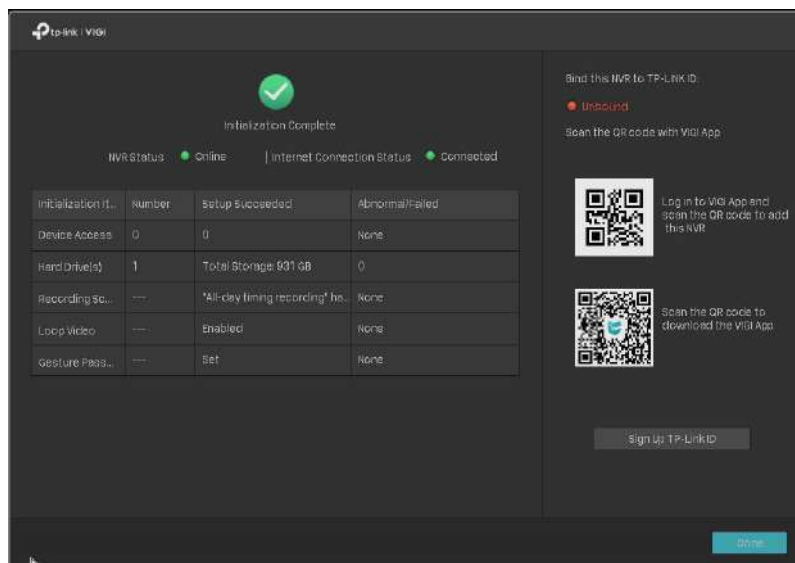
1. Click Auto Initialize to set up the NVR, or you can click Manually Initialize to set the NVR manually.



2. Wait until the process completes.



4. Done. The set up is complete. You can Sign Up TP-Link ID to create a TP-Link ID and bind the NVR to your TP-Link for remote management, or you click Done to close the wizard.



2

Configure Your Network Camera

This chapter introduces how to add your cameras to NVR and configure them. You can customize image effects and configure OSD (On Screen Display), Privacy Mask, Stream, and Pan&Tilt. This chapter contains the following sections:

- [Add Cameras to the NVR](#)
- [Plug and Play Settings](#)
- [Configure Image Effects](#)
- [Configure OSD Settings](#)
- [Configure Privacy Mask](#)
- [Configure Stream Settings](#)
- [Configure Pan&Tilt \(Only for PT Cameras\)](#)
- [Manage Your Cameras](#)

♥ 2.1 Add Cameras to the NVR

VIGI NVR can add cameras singly, in batches or to a certain screen. You can also manually add cameras by entering their IP addresses and passwords. The processes vary depending on whether the camera has a password and whether Plug and Play is enabled. TP-Link security cameras have no passwords in default settings.

Choose one of the methods below and follow the steps to add your cameras:

- [Add Cameras Singly or in Batches](#)
- [Add a Camera to a Certain Screen](#)
- [Add Cameras Manually](#)

Connect cameras to the same network as the NVR. When adding TP-Link security cameras, the NVR will automatically modify the IP addresses to ensure every camera has a unique IP address and they are in the same subnet as your NVR. To add cameras from other brands, it is recommended to refer to their user guides before adding. If the cameras cannot be automatically found by the NVR, refer to [Add Cameras Manually](#).

2.1.1 Add Cameras Singly or in Batches

To add cameras without passwords, refer to [Add Cameras without Passwords](#). To add cameras with passwords, refer to [Add Cameras with Passwords](#).

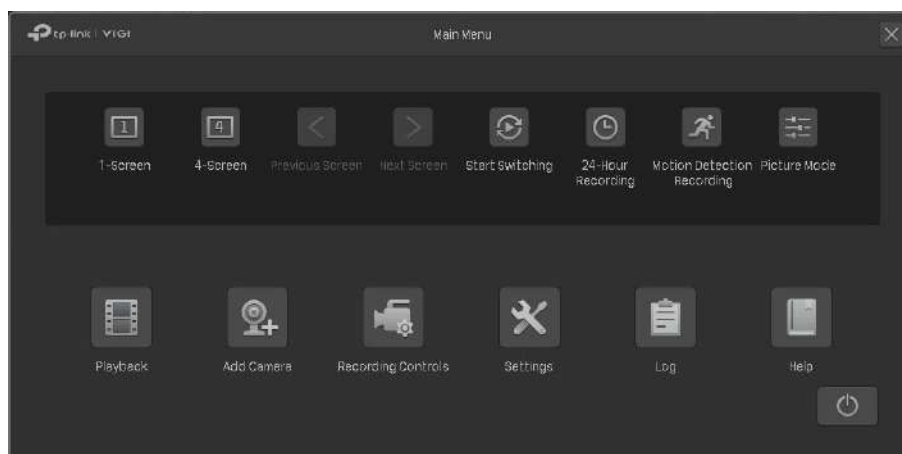
Note: If you forget the camera's password, refer to [FAQ](#) to reset the password.

Add Cameras without Passwords

- **When Plug and Play Enabled**

Note: After you connect the cameras to the network device, stay in the Live View screen and wait for the NVR to add the cameras automatically.

1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Add Device**.



- 2. Click **+** to add a single camera. If you want to add cameras in batches, click the checkbox of cameras and click **Add in Batches**.

The screenshot shows a dark-themed 'Add Camera' window. At the top, there are three toggle switches: 'Smart Coding' (on), 'Plug and Play' (on), and 'Switch to H.265' (on). Below these is a table with the following data:

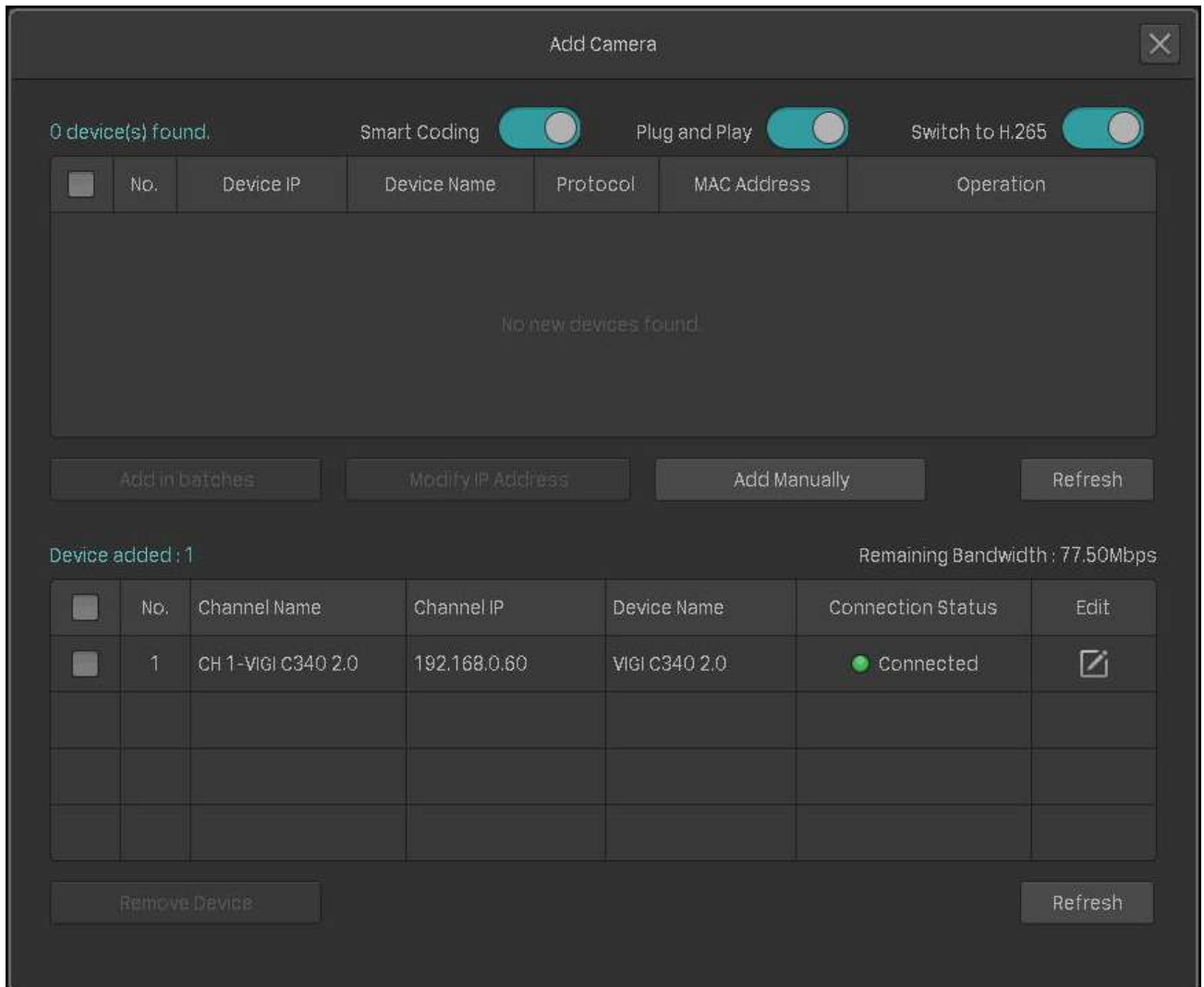
<input type="checkbox"/>	No.	Device IP	Device Name	Protocol	MAC Address	Operation
<input type="checkbox"/>	1	192.168.0.60	VIGI C340 2.0	TP-Link	30-DE-4B-F5-FA-52	Forgot Password +
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						

Below the table are four buttons: 'Add in batches', 'Modify IP Address', 'Add Manually', and 'Refresh'. Underneath, it says 'Device added : 0' and 'Remaining Bandwidth : 80.00Mbps'. A second table is shown with the following data:


<input type="checkbox"/>	No.	Channel Name	Channel IP	Device Name	Connection Status	Edit
No devices added.						

At the bottom, there are two buttons: 'Remove Device' and 'Refresh'.

3. After the cameras are added, you can view the cameras in the **Device Added** list.



The screenshot shows the 'Add Camera' interface. At the top, there are three toggle switches: 'Smart Coding' (checked), 'Plug and Play' (checked), and 'Switch to H.265' (checked). Below these is a table with the following columns: No., Device IP, Device Name, Protocol, MAC Address, and Operation. The table is currently empty, displaying 'No new devices found'. Below the table are four buttons: 'Add in batches', 'Modify IP Address', 'Add Manually', and 'Refresh'. At the bottom, it shows 'Device added : 1' and 'Remaining Bandwidth : 77.50Mbps'. Below this is another table with the following columns: No., Channel Name, Channel IP, Device Name, Connection Status, and Edit. The table contains one row with the following data:

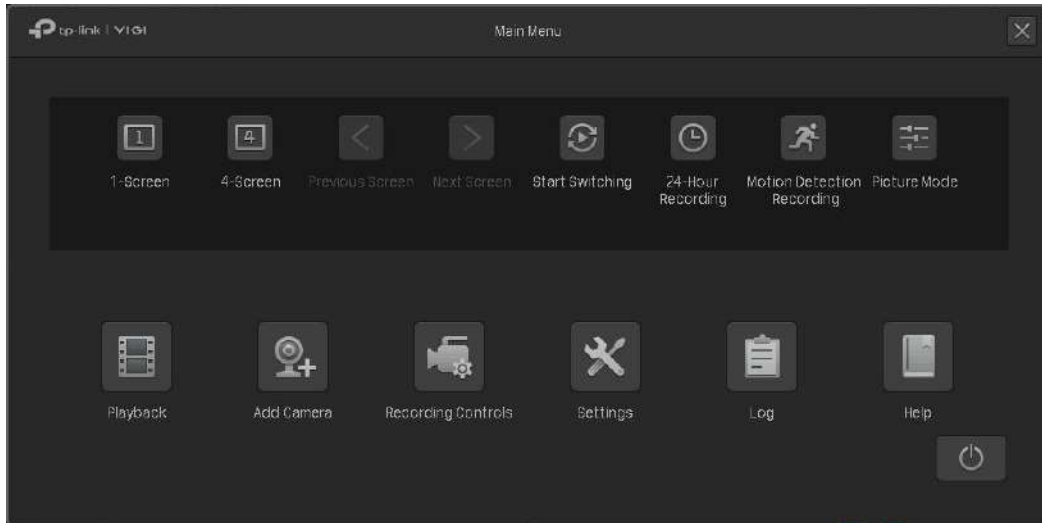
No.	Channel Name	Channel IP	Device Name	Connection Status	Edit
1	CH 1-VIGI C340 2.0	192.168.0.60	VIGI C340 2.0	Connected	

Below the table are two buttons: 'Remove Device' and 'Refresh'.

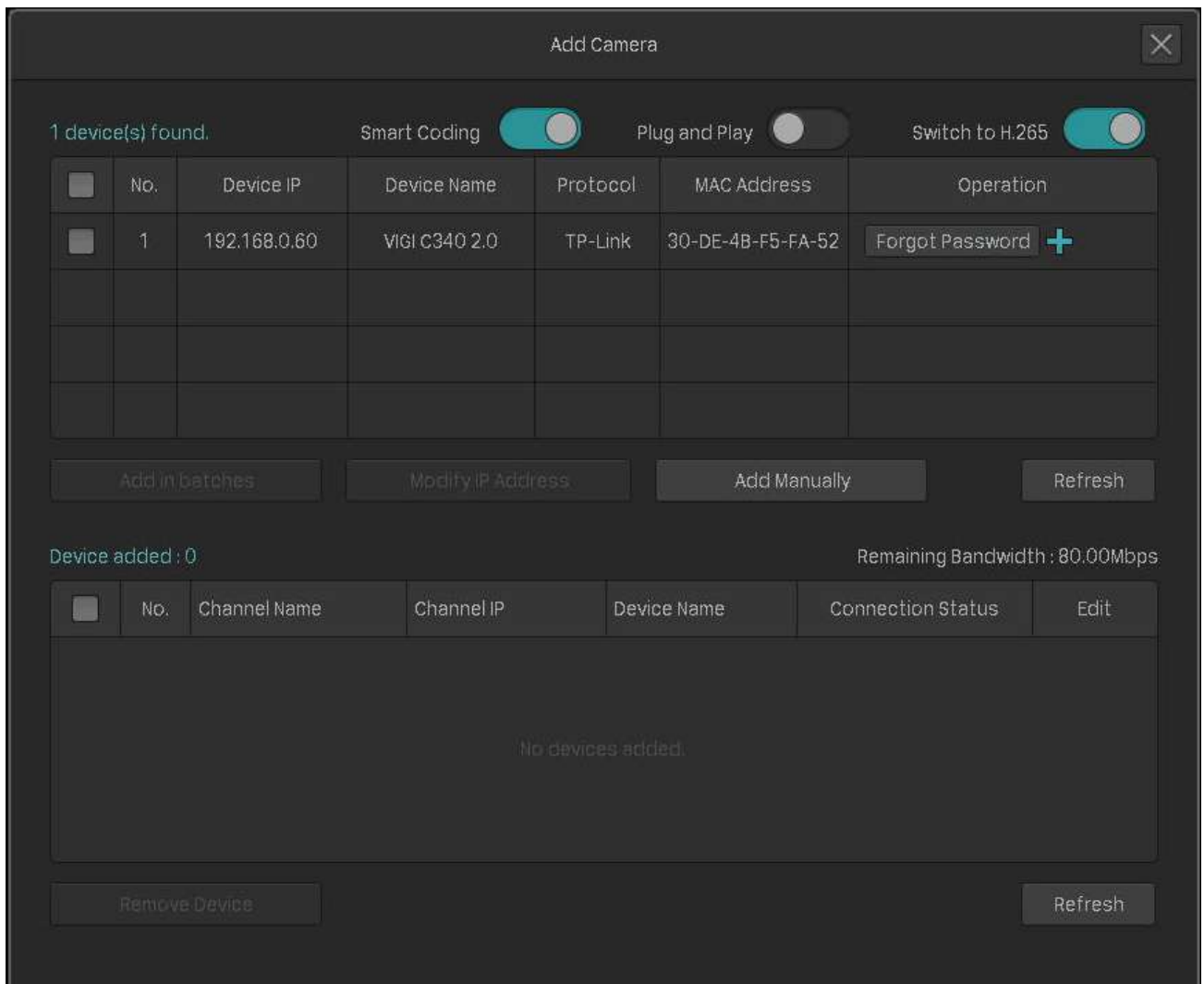
■ When Plug and Play Disabled

Follow the steps below to add the cameras.

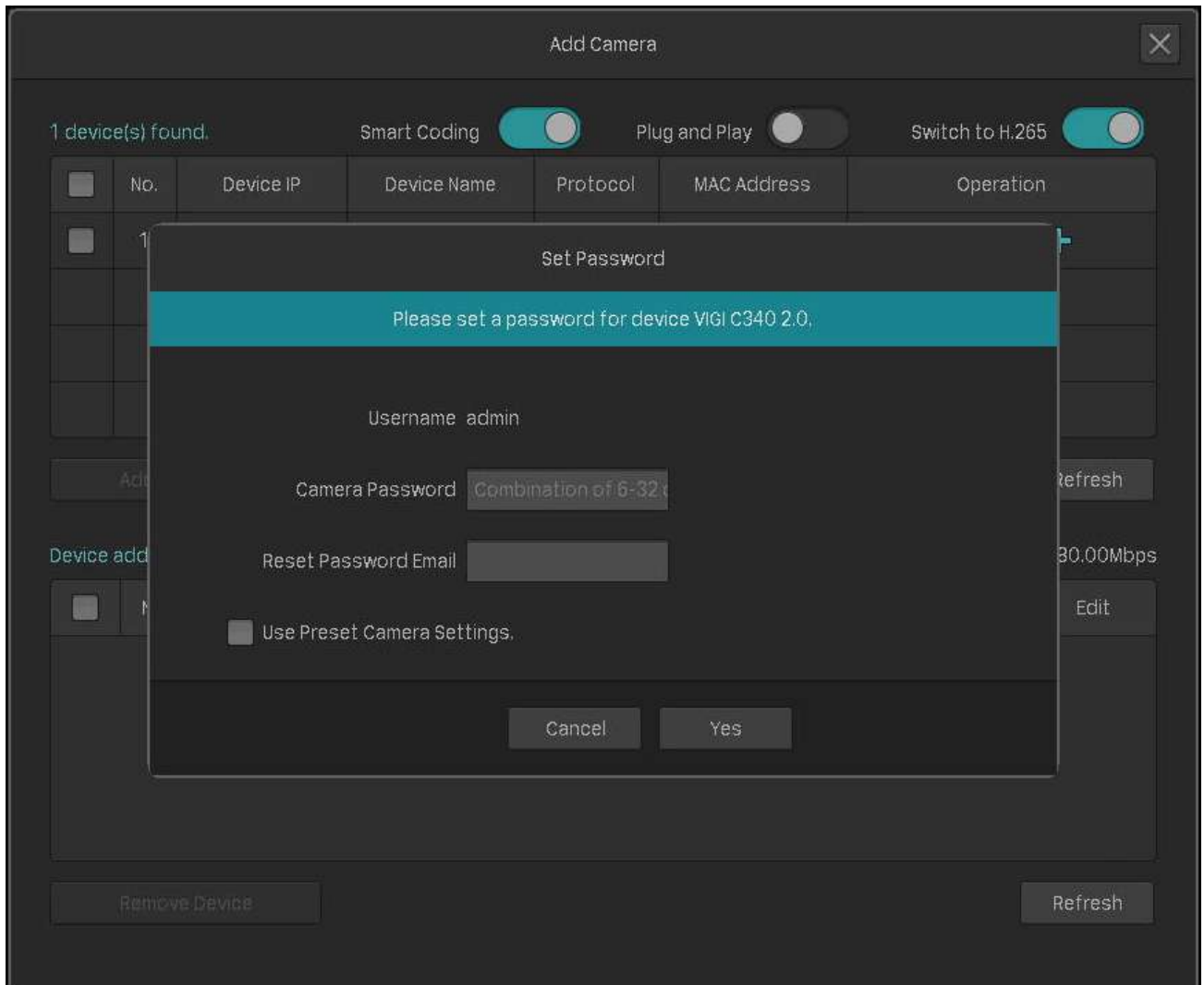
1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Add Device**.



2. Click **+** to add a single camera. If you want to add cameras in batches, click the checkbox of cameras and click **Add in Batches**.



3. Set a password for your cameras. You can also click the checkbox to use the preset password settings for cameras. Click **Yes**. After the cameras are added, you can view the cameras in the **Device Added** list.

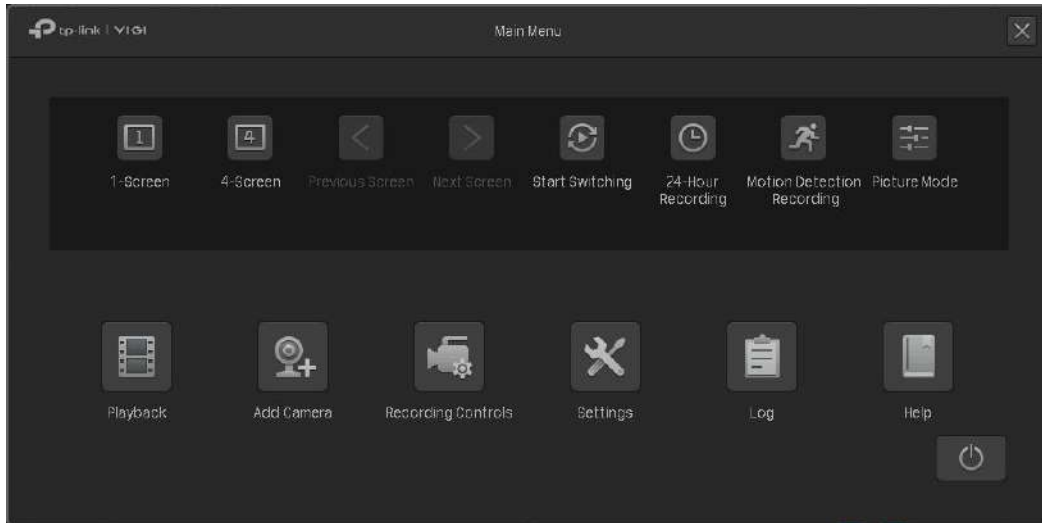


Add Cameras with Passwords

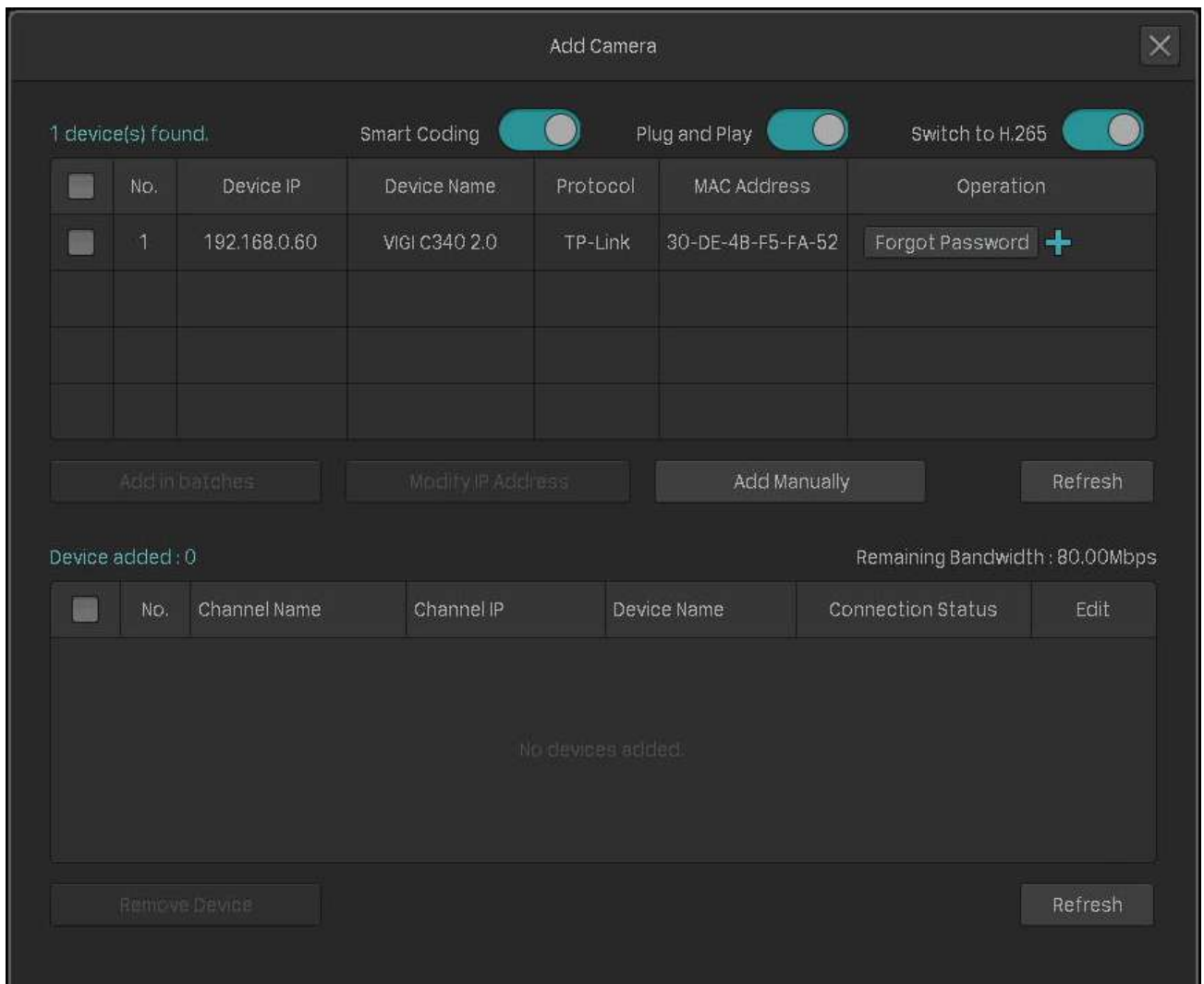
■ When Plug and Play Enabled


When plug and play is enabled, follow the steps below to add cameras.

1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Device Access > Add Device**.



2. Click **+** to add a single camera. If you want to add cameras in batches, click the checkbox of cameras and click **Add in Batches**.



- Click  **Edit** in the connected device list. Then enter the password in **Edit Channel** and click **Save**. After a successful verification, the connected status will change from **Not certified** to **Connected**.


Add Camera ✕

0 device(s) found.
Smart Coding
Plug and Play
Switch to H.265

<input type="checkbox"/>	No.	Device IP	Device Name	Protocol	MAC Address	Operation
No new devices found.						

Add in batches
Modify IP Address
Add Manually
Refresh

Device added : 1
Remaining Bandwidth : 80.00Mbps

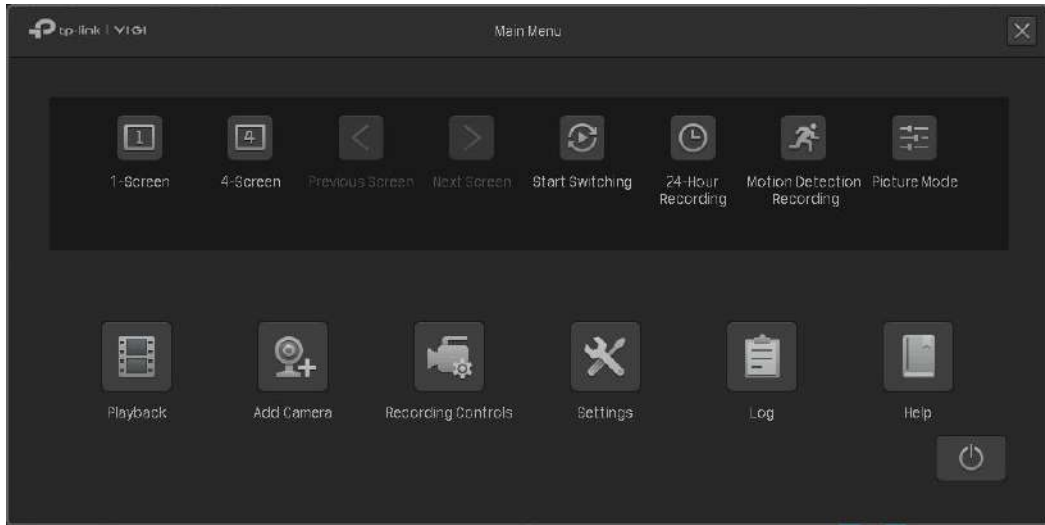
<input type="checkbox"/>	No.	Channel Name	Channel IP	Device Name	Connection Status	Edit
<input type="checkbox"/>	1	CH 1-VIGI C340 2.0	192.168.0.60	VIGI C340 2.0	● Not certified	
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						

Remove Device
Refresh

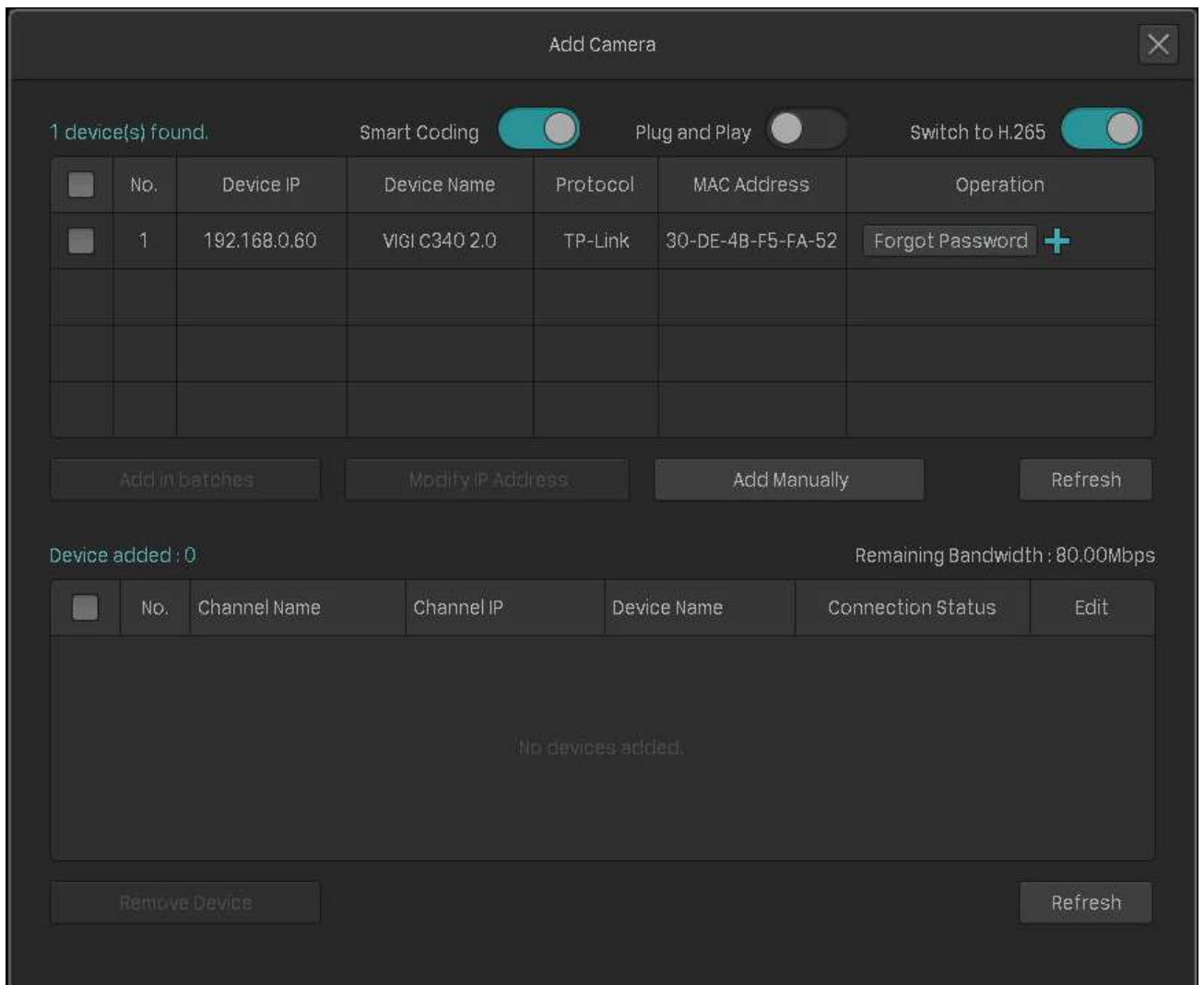
■ When Plug and Play Disabled

When plug and play is disabled, follow the steps below to add cameras.

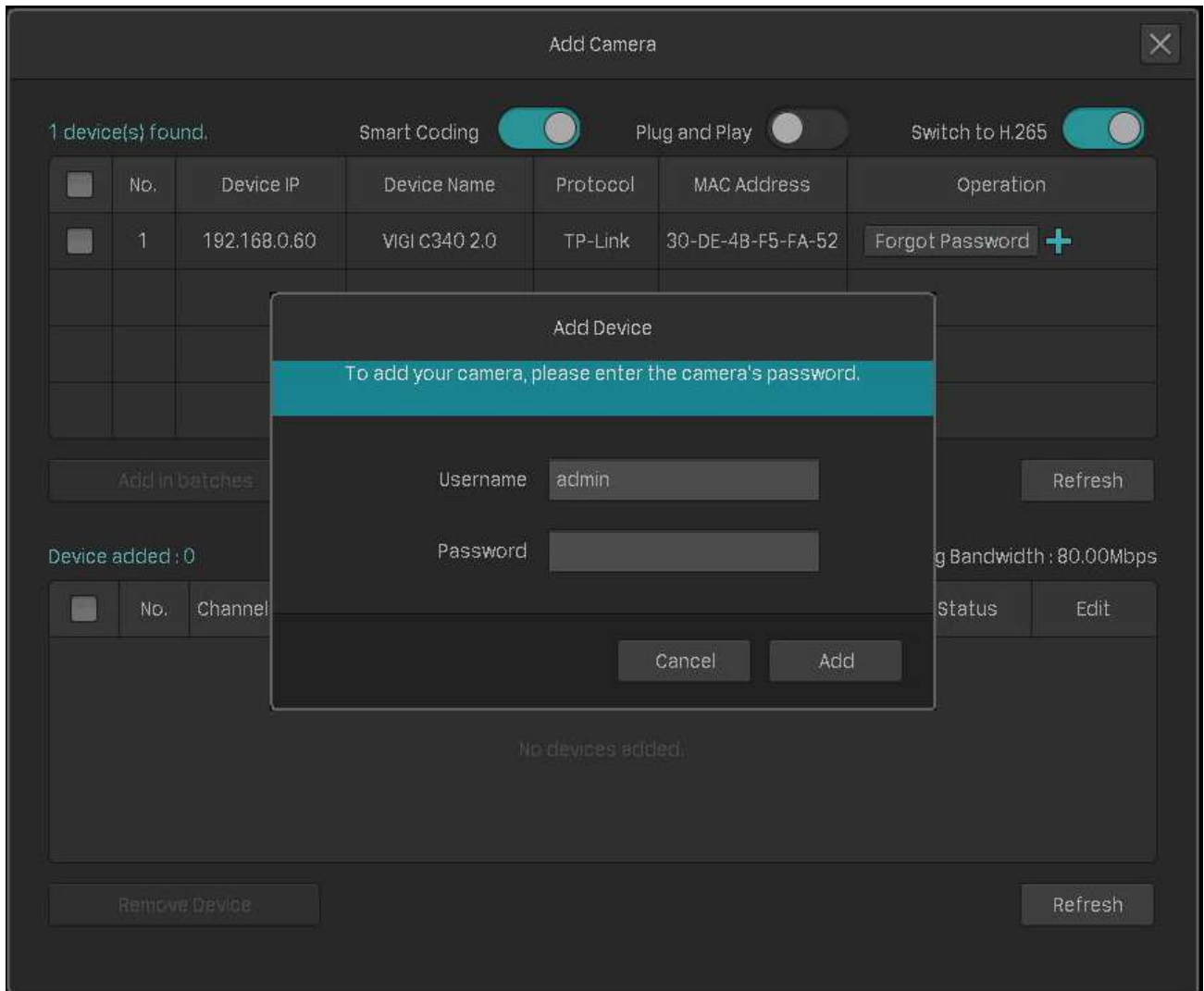
1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Add Device**.



2. Click **+** to add a single camera. If you want to add cameras in batches, click the checkbox of cameras and click **Add in Batches**.




3. Enter the password manually to verify it. Click **Add**. After the cameras are added, you can view the cameras in the **Device Added** list.



2. 1. 2 Add a Camera to a Certain Screen

You can add a camera to a certain channel in the Live View screen. Follow the steps below to finish the configuration.


1. Click a screen in the Live View screen and click  on the bottom left corner.



2. Click .

Add camera to the current screen ✕

1 device(s) found. Switch to H.265

No.	Device IP	Device Name	Protocol	MAC Address	Operation
1	192.168.0.60	VIGI C340 2.0	TP-Link	30-DE-4B-F5-FA-52	Forgot Password 

Add Manually
Refresh

Camera Connected to the Current Screen Remaining Bandwidth: 80.00Mbps

Channel Name	Channel IP	Device Name	Connection Status	Edit
No devices added.				

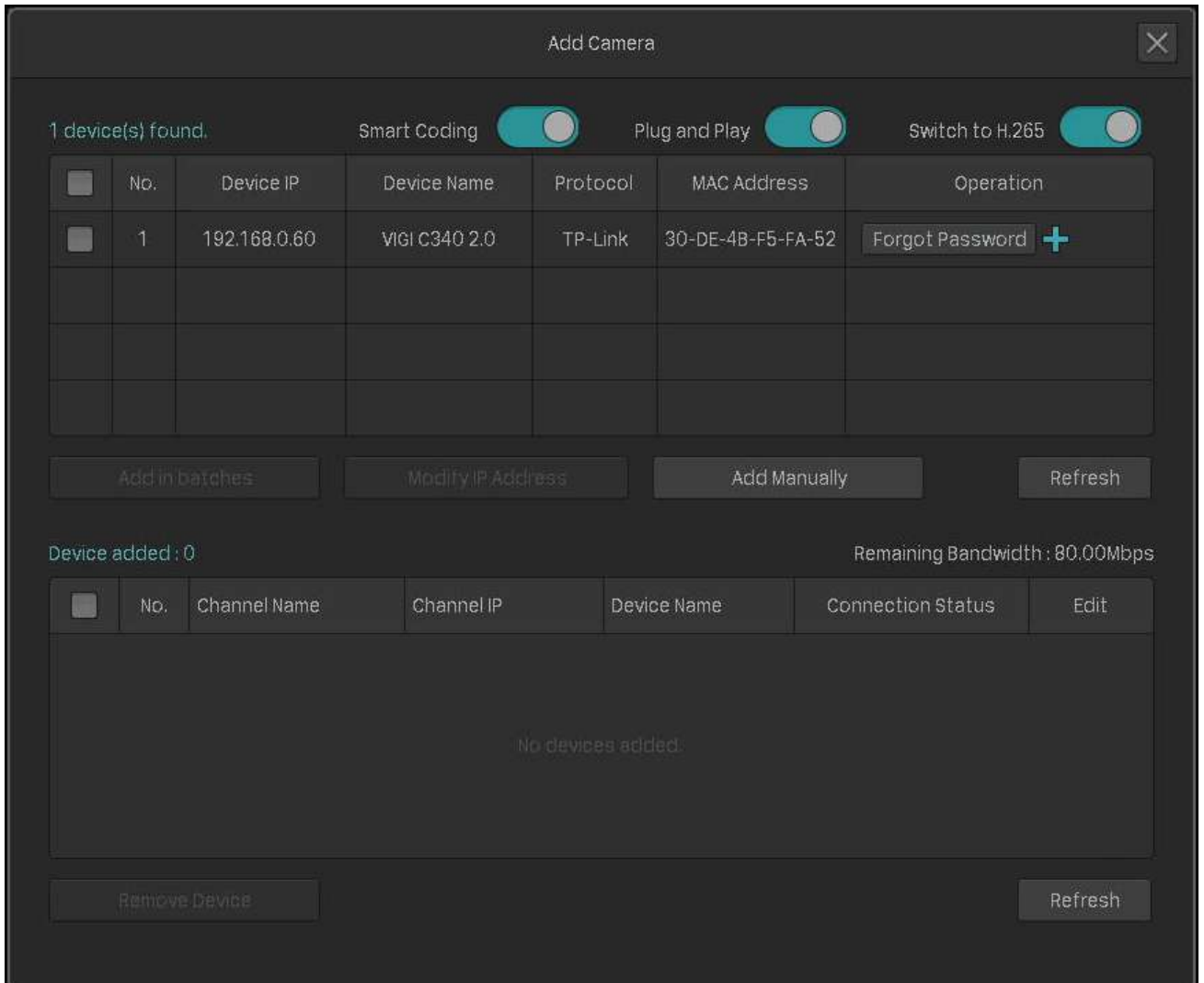
Remove Device
Refresh

3. Follow the web instructions to add the camera.

2. 1. 3 Add Cameras Manually

If the devices cannot be automatically found by the NVR, you can add cameras manually using its information. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Add Device**.
2. Click **Add Manually**.



3. Enter the information of the camera to add it. For VIGI security camera, enter the IP address and password. Click **Add**.

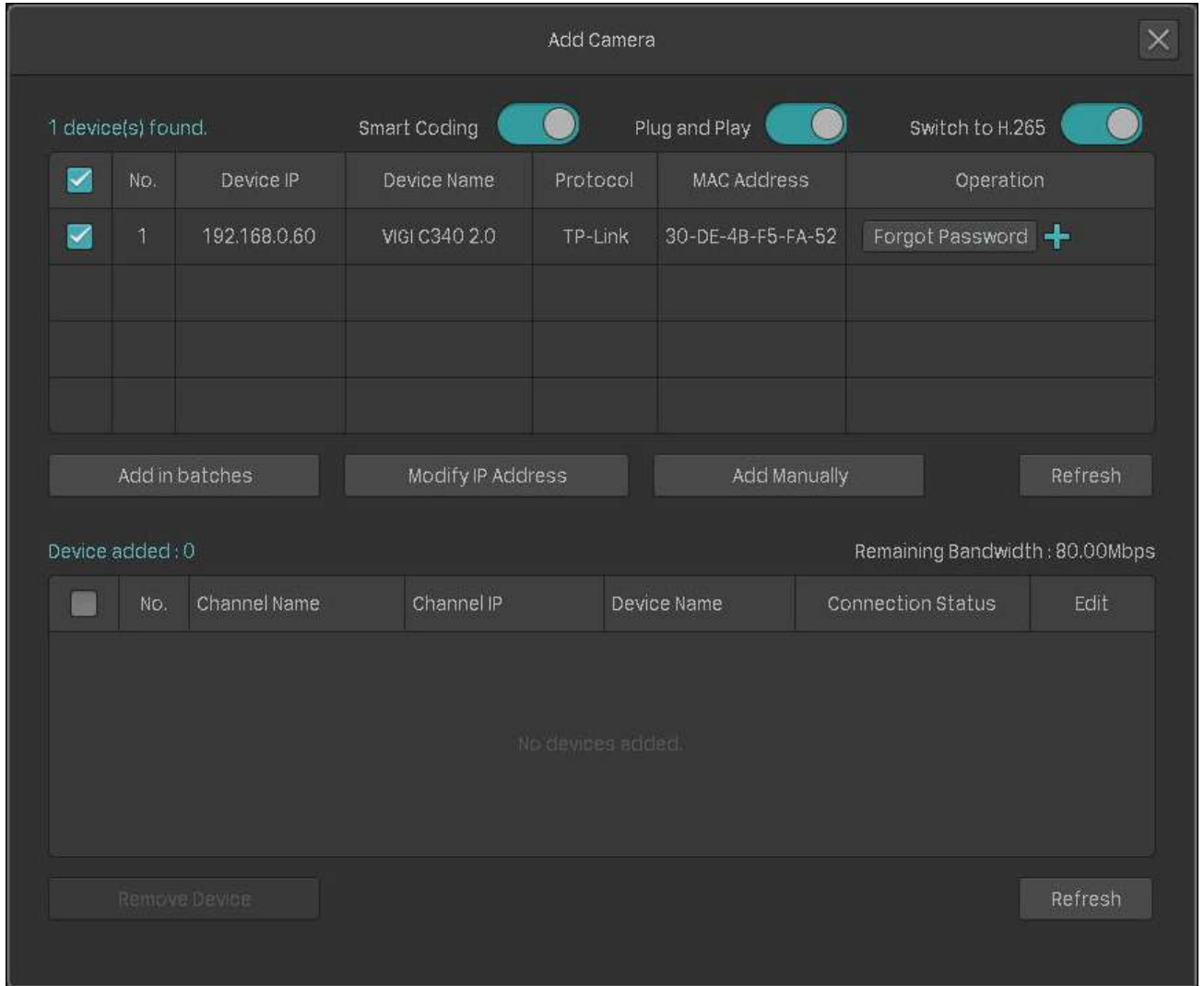
IP Address	The IP address of the camera.
Control Protocol	Select a protocol that your camera supports. The global protocol that allows surveillance and security devices from different manufacturers to operate together seamlessly.
Transfer Protocol	TCP(Transfer Control Protocol) that provides reliable, ordered delivery of a stream of bytes from one device to another device.
Management Port	The management port to configure, maintain, and support a network device.
Username	The username of the camera.
Password	The password of the camera.

2. 1. 4 Modify IP Addresses of Cameras

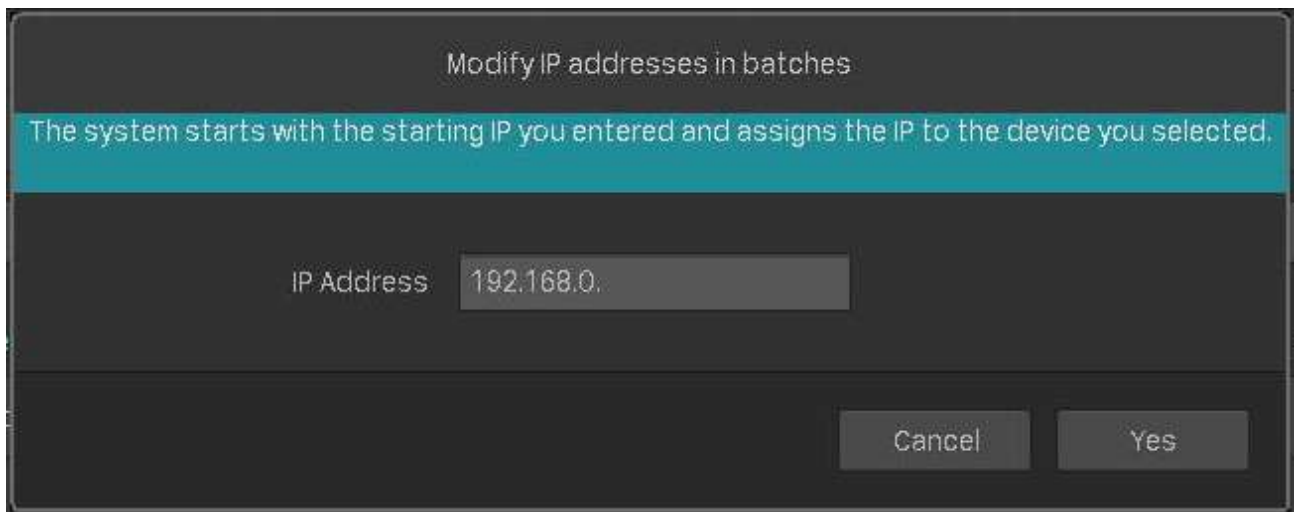
To avoid IP conflict and make sure your cameras are in the same subnet, you can modify the IP addresses manually. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Add Camera** in the pop-up Main Menu. Alternatively, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Add Device**.

- 2. Click the checkbox of camera(s) and click **Modify IP Address**. You can select multiple cameras to modify their IP addresses in batches.

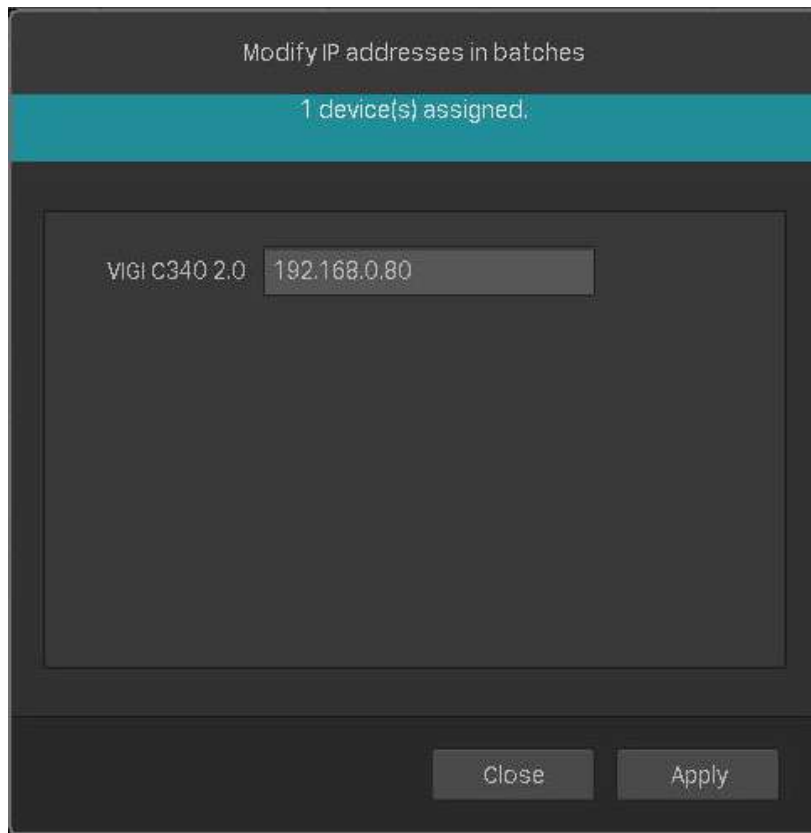


- 3. Set the starting IP address you assigned for the camera(s). Click **Yes**.



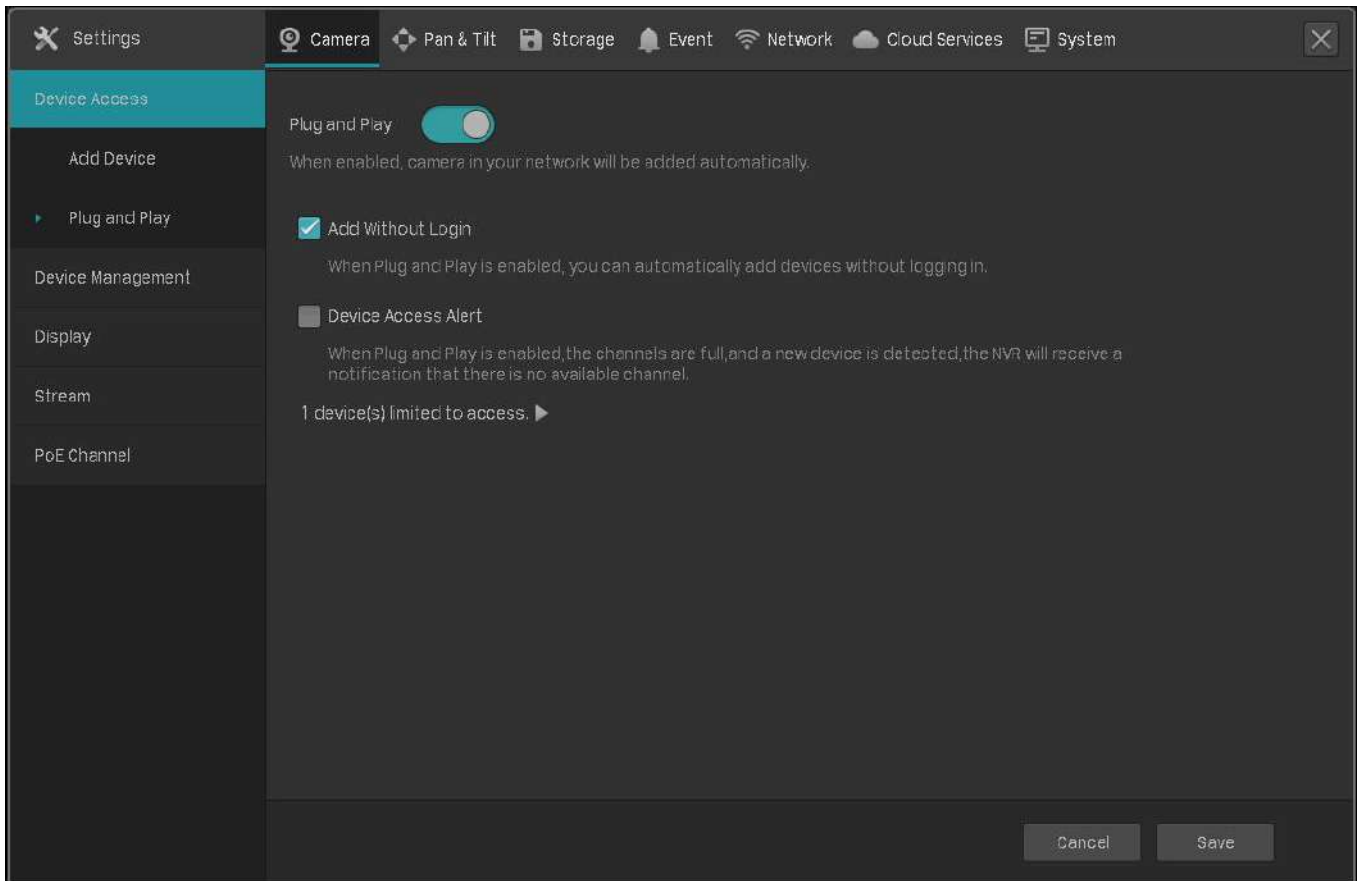
4. Click **Apply** to confirm the new IP address(es).

Note: The IP address(es) will be assigned to camera(s) in order.



♥ 2.2 Plug and Play Settings

Plug and Play function enables NVR to automatically find and add cameras. You can enable or disable this function according to your needs. To configure and view the settings, right click on the Live View screen and click **Settings** in the pop-up Main Menu, then go to **Camera > Device Access > Plug and Play**.



■ Add Without Login

When the cameras and your NVR are in the same network, the cameras will be automatically added without your account logged in.

■ Device Access Alert

If a new camera is found when the channels are full, your NVR will receive a notification.

■ Devices Limited to Access

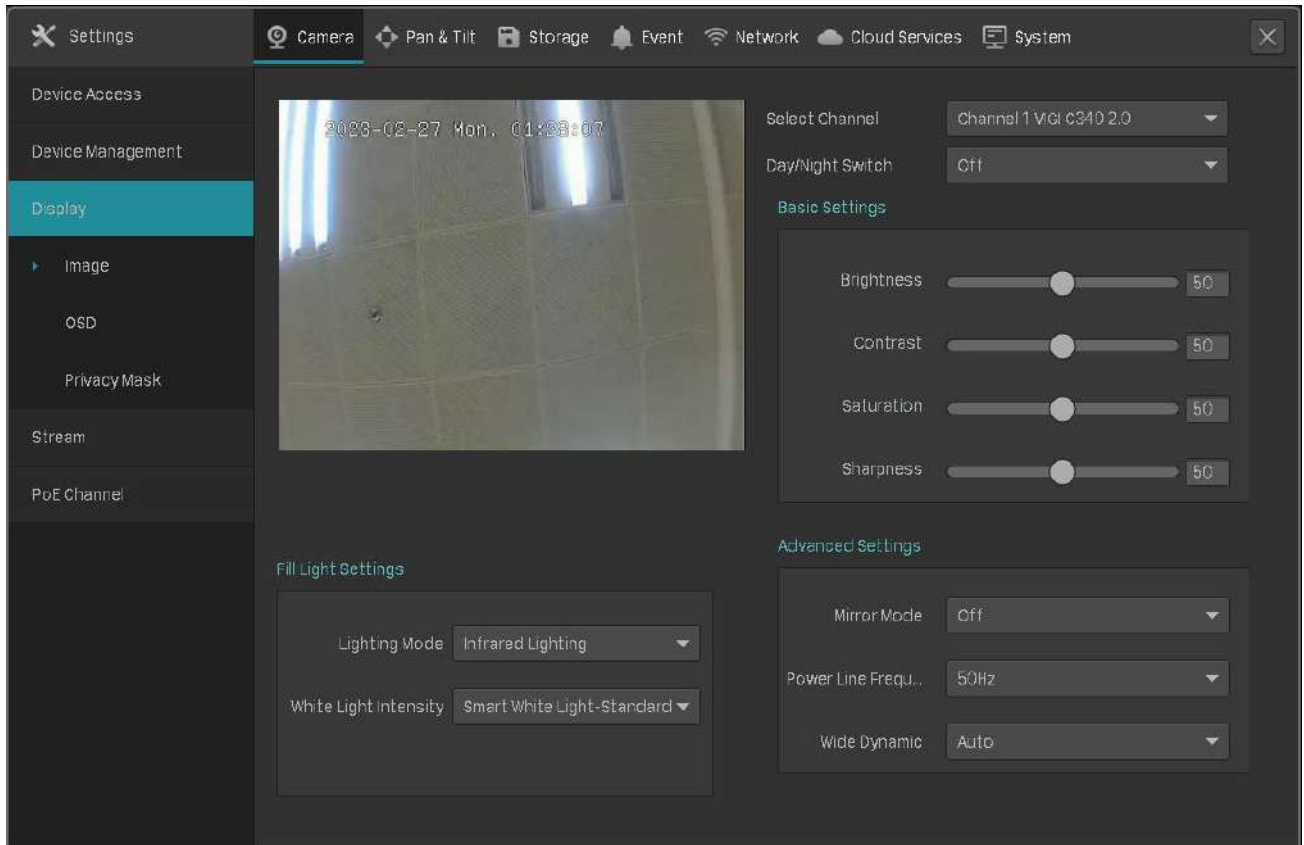
After the cameras are added to the NVR, they will be automatically added to the list, which means they cannot be added to the NVR again automatically. If you want to automatically add the cameras for the second time, remove the cameras from the devices limited access list.

♥ 2.3 Configure Image Effects


To adjust the image effect, you can configure the picture mode and image settings.

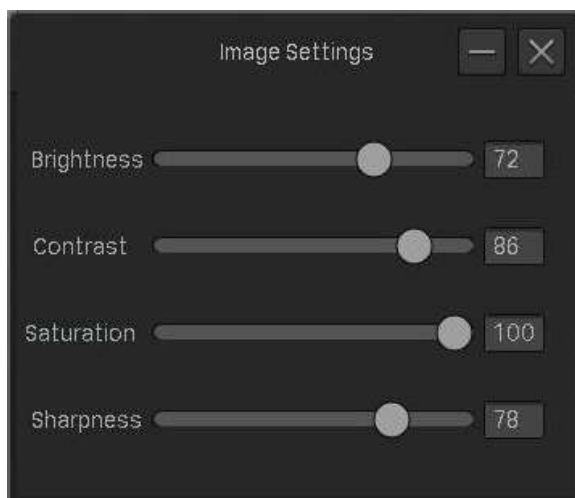
2.3.1 Configure Image Settings

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Display > Image**.
2. Select a channel and configure the following parameters.



Brightness	Adjust the brightness of image. The image gets brighter when the value increases.
Contrast	Adjust the contrast of image. The image contrast gets stronger when the value increases.
Saturation	Adjust the saturation of image. The color of image gets richer when the value increases.
Sharpness	Adjust the sharpness of image. The image gets sharper when the value increases.
Mirror Mode	Select a mirror mode. When you select Off , the image displays normally.
Wide Dynamic	Wide Dynamic can improve the image effects in backlit scenes. Auto: The camera adjust the image effects automatically. Manual: You can adjust the image effects manually. The effects get stronger when the value increases.

You can also select a channel on the Live View screen to reveal the toolbar and click  to edit the basic parameters.

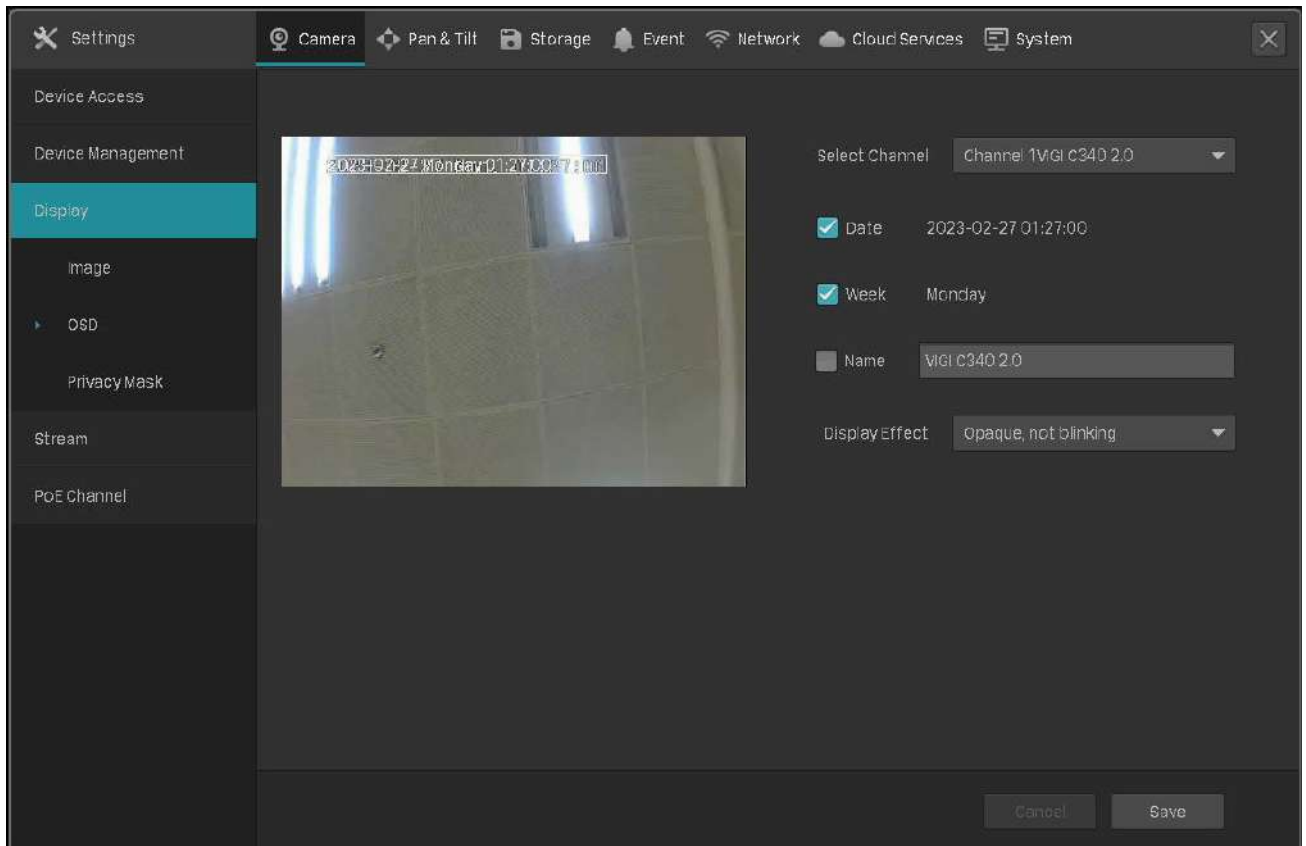


♥ 2.4 Configure OSD Settings


You can configure OSD (On Screen Display) to edit the information displayed in Live View and recordings. Follow the steps below to configure OSD.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Display > OSD**.

2. Select a channel, click the checkbox to display or hide the information, and select a display effect. Click **Save**.



Note: If you change **Name** in the OSD setting, you also change the camera name.

You can also select a channel on the Live View screen to reveal the toolbar and click  to configure OSD settings.

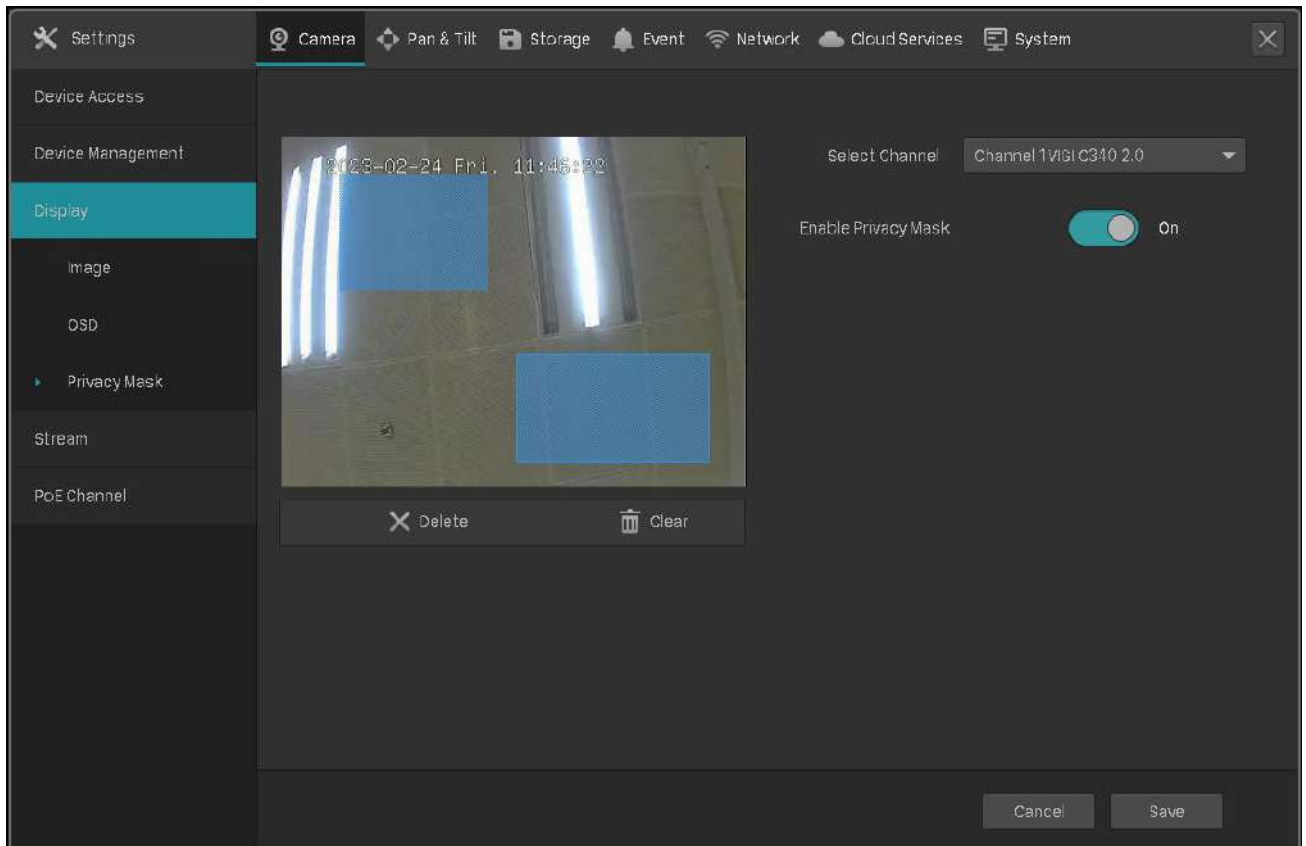
♥ 2.5 Configure Privacy Mask

With Privacy Mask, you can set privacy area in the image. The area cannot be recorded and monitored.

Follow the steps below to configure Privacy Mask.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Display > Privacy Mask**.
2. Select a channel and enable **Privacy Mask**. Draw the privacy areas on the preview screen (the blue squares in the picture below). Use the mouse to adjust the size and location of areas. To remove a

certain privacy area, select it and click **Delete**. To remove all privacy areas, click **Clear**. Click **Save** to finish the configuration.



♥ 2.6 Configure Stream Settings

In Stream Settings, you can configure video stream levels and ROI (Region of interest) level.

Video stream levels decide the video quality in Live View and recording for each channel, and you can adjust the video quality of certain area by specifying the ROI level.

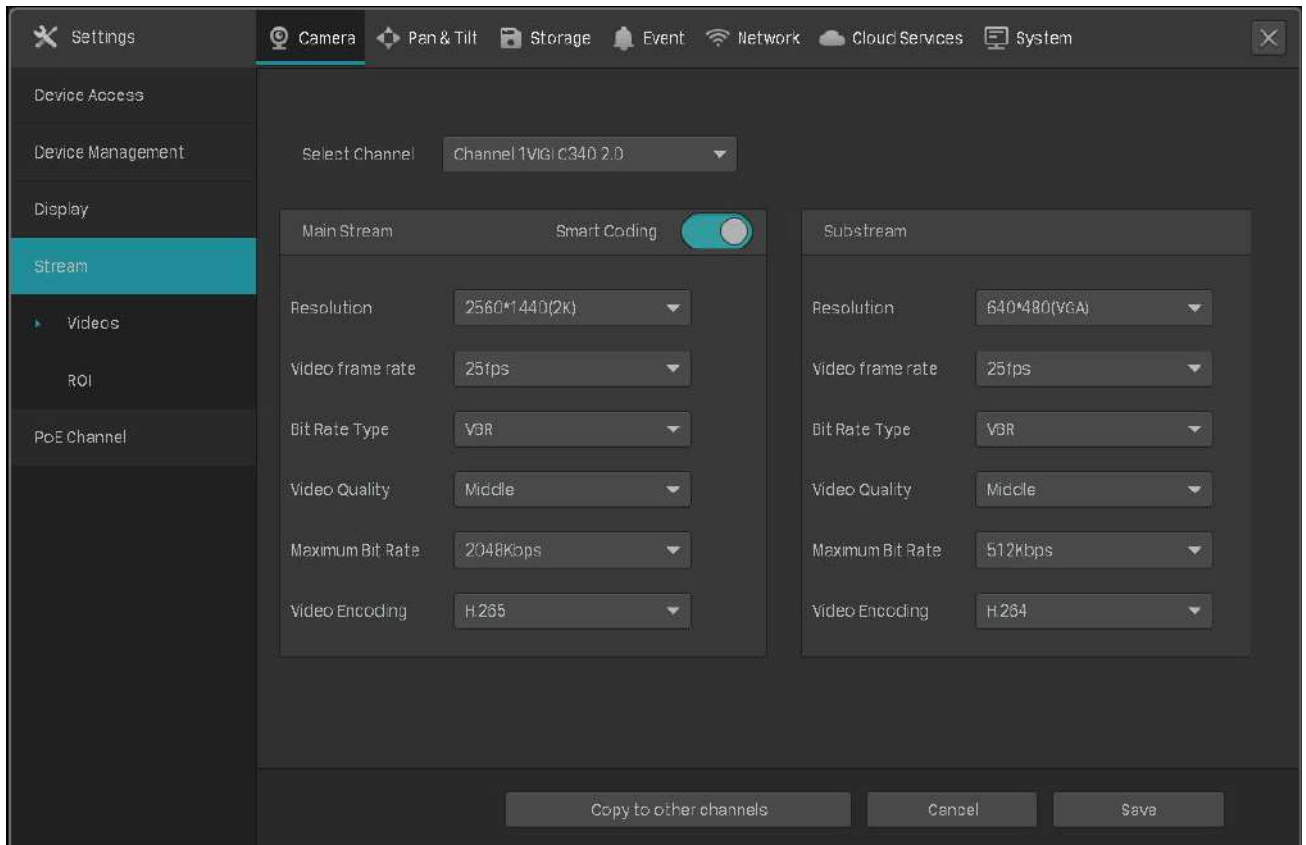
2.6.1 Configure Main Stream and Substream

The NVR supports two stream levels, main stream and substream. In Live View, the NVR decides which stream is applied to the channels automatically based on network bandwidth and device performance. In Recording Controls, you can apply them to the channels to record with different stream settings. After configuring the streams, refer to [4.2 Recording Controls](#) to apply them to recordings.

Follow the steps below to configure the stream settings.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Stream > Videos**.

2. Select a channel and configure the following parameters. Click **Save**.



Smart Coding

Enable Smart Coding to improve compression performance.

Resolution

Specify the resolution of the video stream. The screen displays images more clearly when the resolution increases.

Video Frame Rate

Specify the frame rate of videos. The video is more fluent when the rate increases.

Bit Rate Type

Select a type of bit rate.

VBR: The bit rate changes with the image within Maximum Bit Rate.

CBR: The bit rate is Maximum Bit Rate all the time.

Video Quality

When VBR selected as the bit rate type, set the video quality as high, medium, or low.

Maximum Bit Rate

When VBR selected as the bit rate type, specify the upper limit of bit rate.

When CBR selected as the bit rate type, specify the bit rate.

Video Encoding

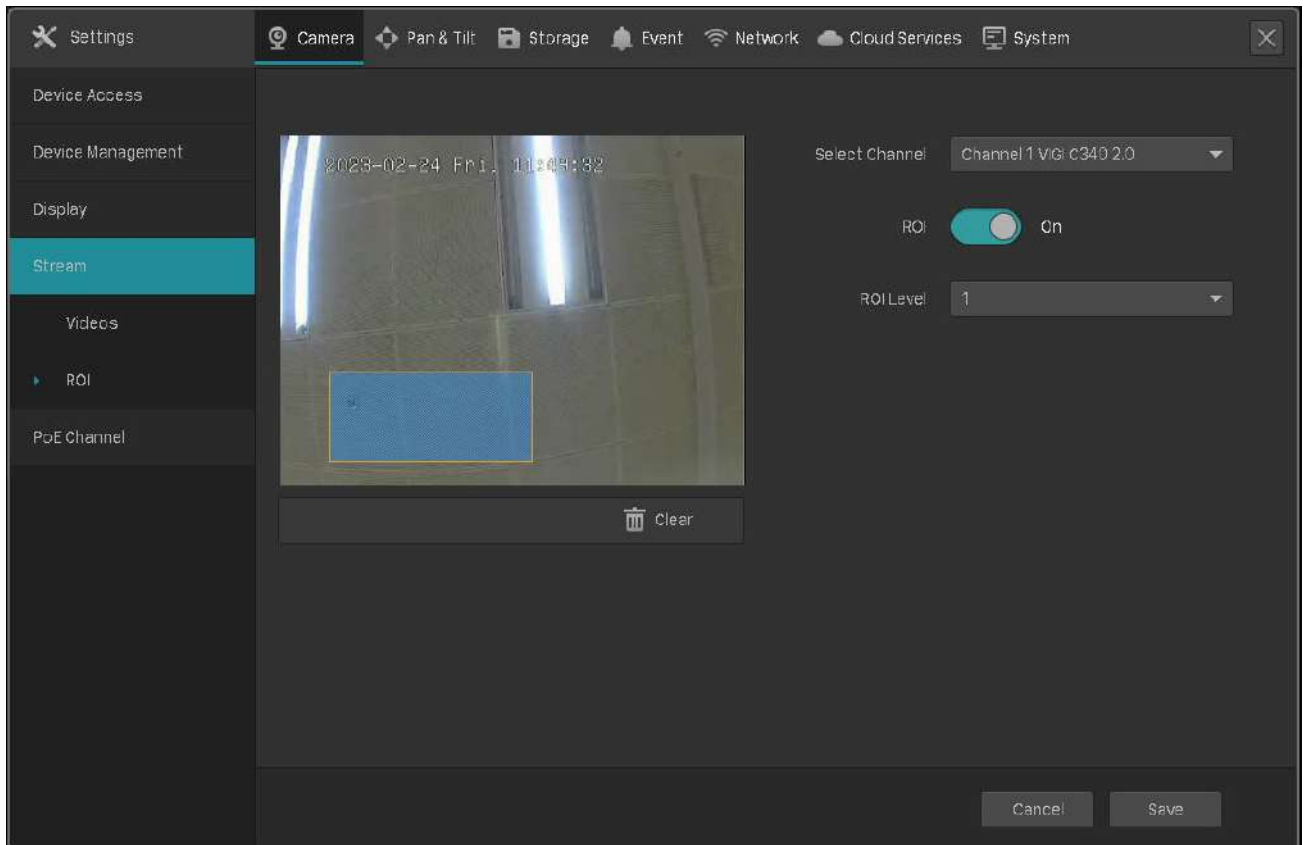
Select the encoding type of the stream. Compared with H.264, H.265 is improved in reducing the file size and saving the bandwidth.

3. (Optional) If you also want to apply the stream settings to other channels, click **Copy to Other Channels** and select the channels. Click **Save**.

2.6.2 Configure ROI

In ROI, you can configure the interest level of a specified area in each channel. The level 1–6 is ranked from low to high. The higher the ROI level, the better image quality.

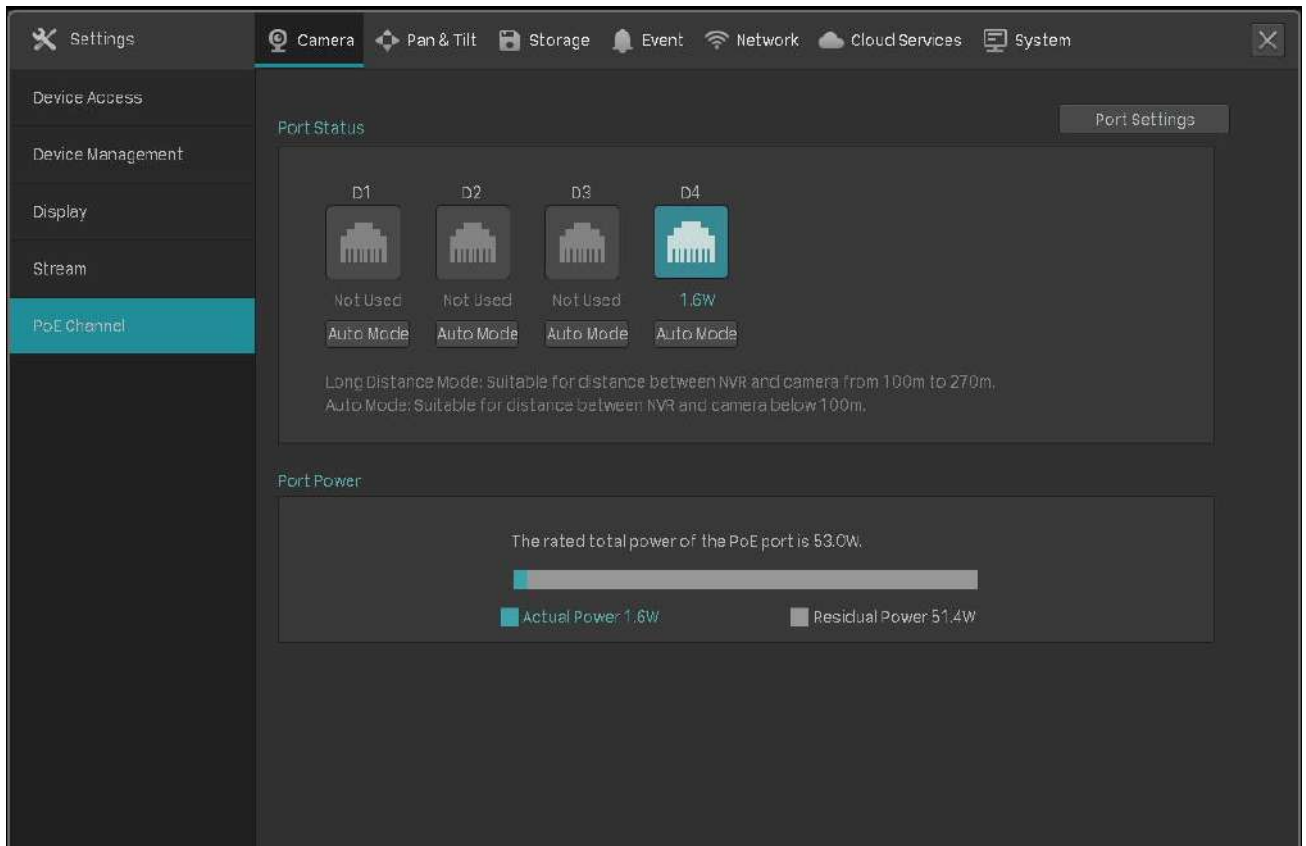
1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Stream > ROI**.
2. Select a channel and enable ROI. Draw an area on the preview screen (the blue square in the picture below). Use the mouse to adjust the size and location of areas. Specify the ROI level and click **Save**.



2.6.3 PoE Channel (Only for PoE NVR)

In PoE channel, you can check the port status, rated power, change the port status and configure the port settings to determine whether the port can provide power supply.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > PoE Channel**.



Port Status

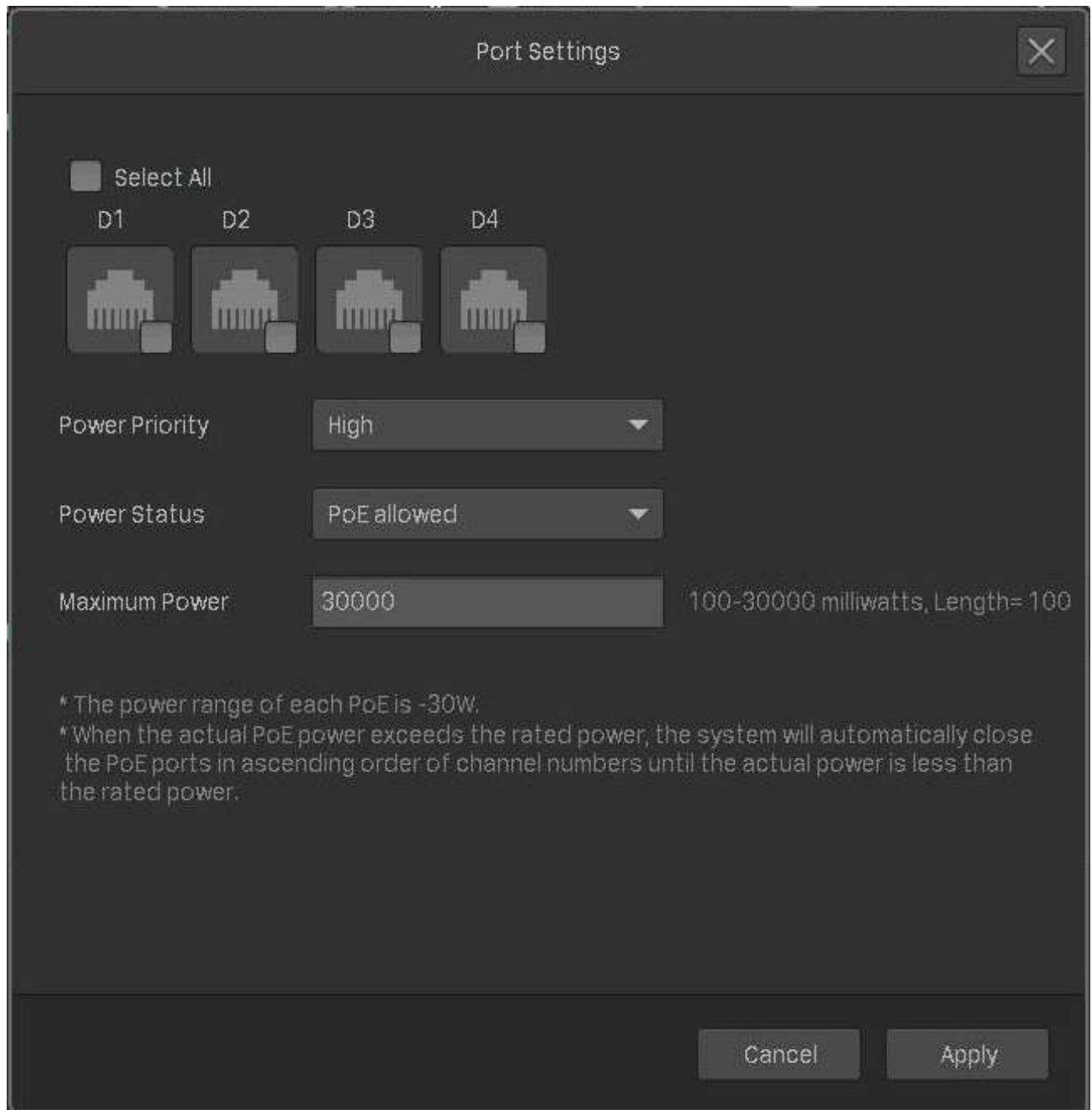
Click to change port mode.

Auto Mode: This mode is suitable for distance between NVR and camera below 100m.

Long Distance Mode: This mode is suitable for distance between NVR and camera from 100m to 270m

Port Settings

Click to configure port settings. Select the port, and set its power priority, power status and maximum power.



Port Settings

Select All

D1 D2 D3 D4

Power Priority: High

Power Status: PoE allowed

Maximum Power: 30000 (100-30000 milliwatts, Length=100)

* The power range of each PoE is -30W.
* When the actual PoE power exceeds the rated power, the system will automatically close the PoE ports in ascending order of channel numbers until the actual power is less than the rated power.

Cancel Apply

♥ 2.7 Configure Pan&Tilt (Only for PT Cameras)

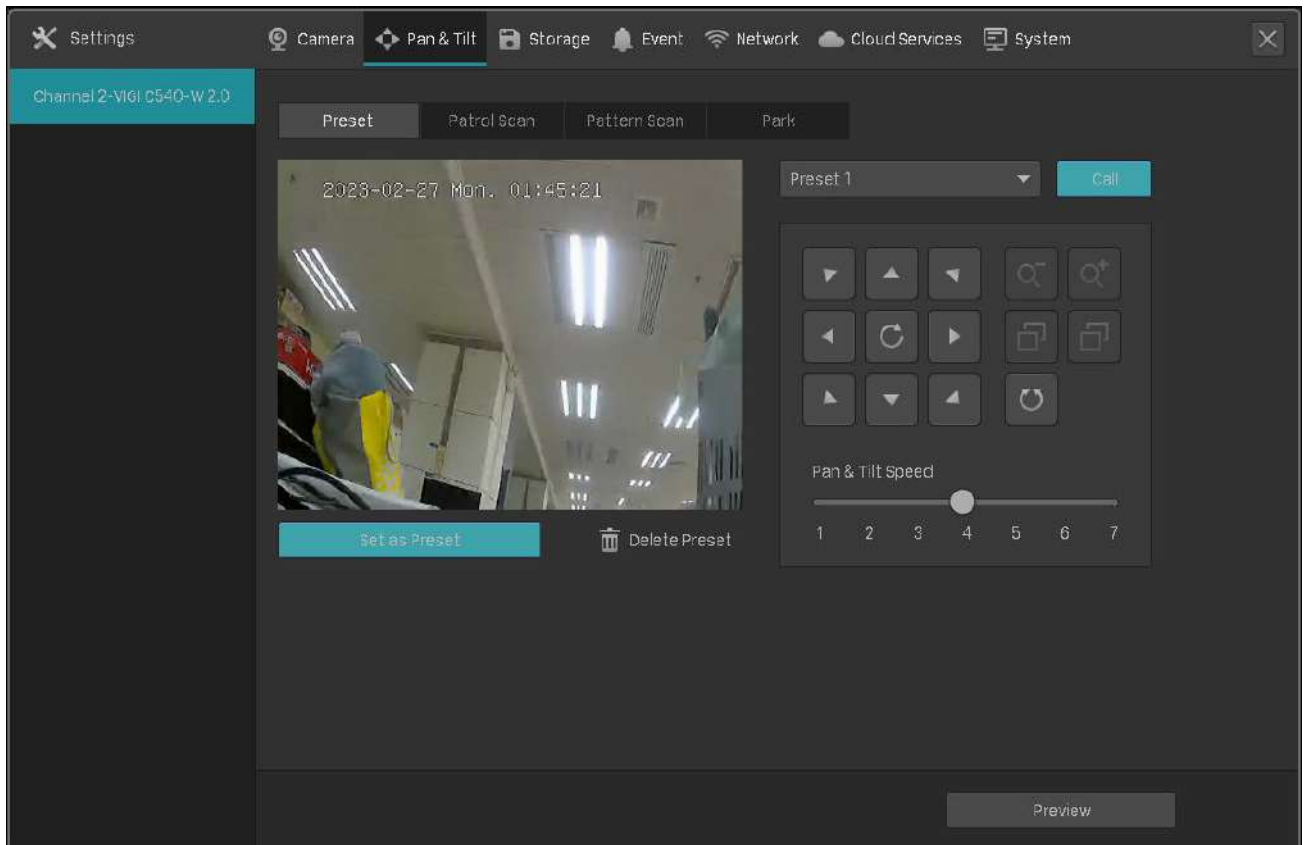
In Pan&Tilt, you can preset the positions, paths and pattern for each channel and call a preset to change the status of lens quickly and conveniently. Also, you can enable Park to trigger the preset automatically when there is no operation.

Note: Only the cameras with Pan&Tilt support this feature. Some of the Pan&Tilt features are only supported by some models.

2.7.1 Preset and Call Positions

The settings of a position include the direction of lens, the status of zoom and focus, and the rotation speed. Follow the steps below to preset a position.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Pan & Tilt**.
2. Select a channel listed on the left panel, click **Preset**, and select a Preset number from the drop-down list. Click the buttons to adjust the position and adjust the slide bar to specify the Pan&Tilt speed. Click **Set as Preset** to save the Preset settings.



Use the eight directional buttons to adjust the lens direction. Click the directional button to rotate a certain degree in the corresponding direction. Long press the button to continuously rotate in the corresponding direction.



Click to rotate horizontally. Click it again to stop rotating when it is in the proper position.



Click to zoom out. Long press to continuously zoom out.



Click to zoom in. Long press to continuously zoom in.



Click to adjust the focus and the near objects get clearer.



Click to adjust the focus and the distant objects get clearer.

To call the preset, select a Preset number and click **Call**. Then, the camera will adjust to the position.

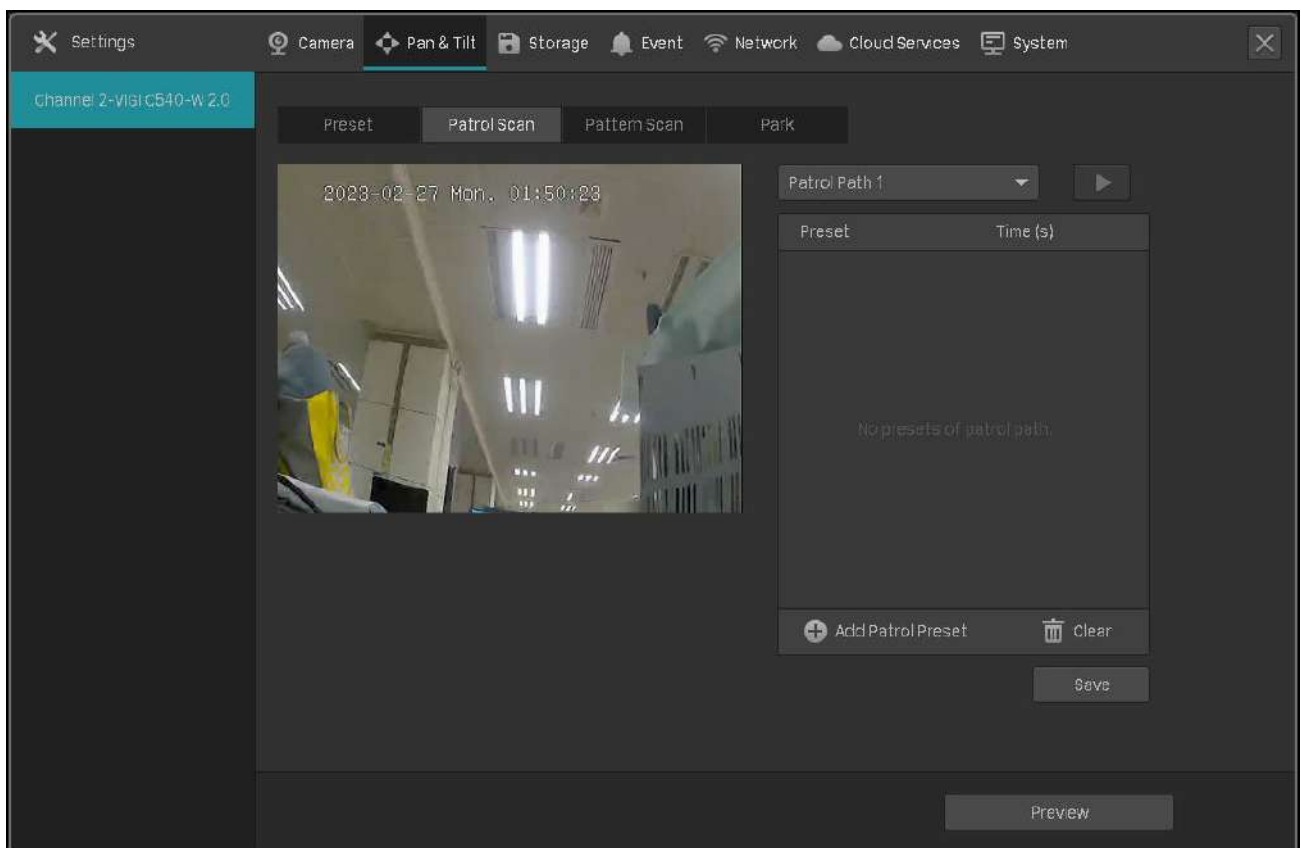
2.7.2 Preset and Call Paths in Patrol Scan

In Patrol Scan, you can configure paths for patrol. A path consists of several preset positions, and your camera stays in each position for a preset duration.

Note: Before configuring Patrol Scan, you need preset the positions that the path involves.

Follow the steps below to preset a path.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Pan&Tilt**.
2. Select a channel listed on the left panel, click **Patrol Scan**, and select a Patrol Path number from the drop-down list. Click **+ Add Patrol Preset** to add the position and enter the seconds that the camera stays. Click **Save** to save the Patrol Path settings.

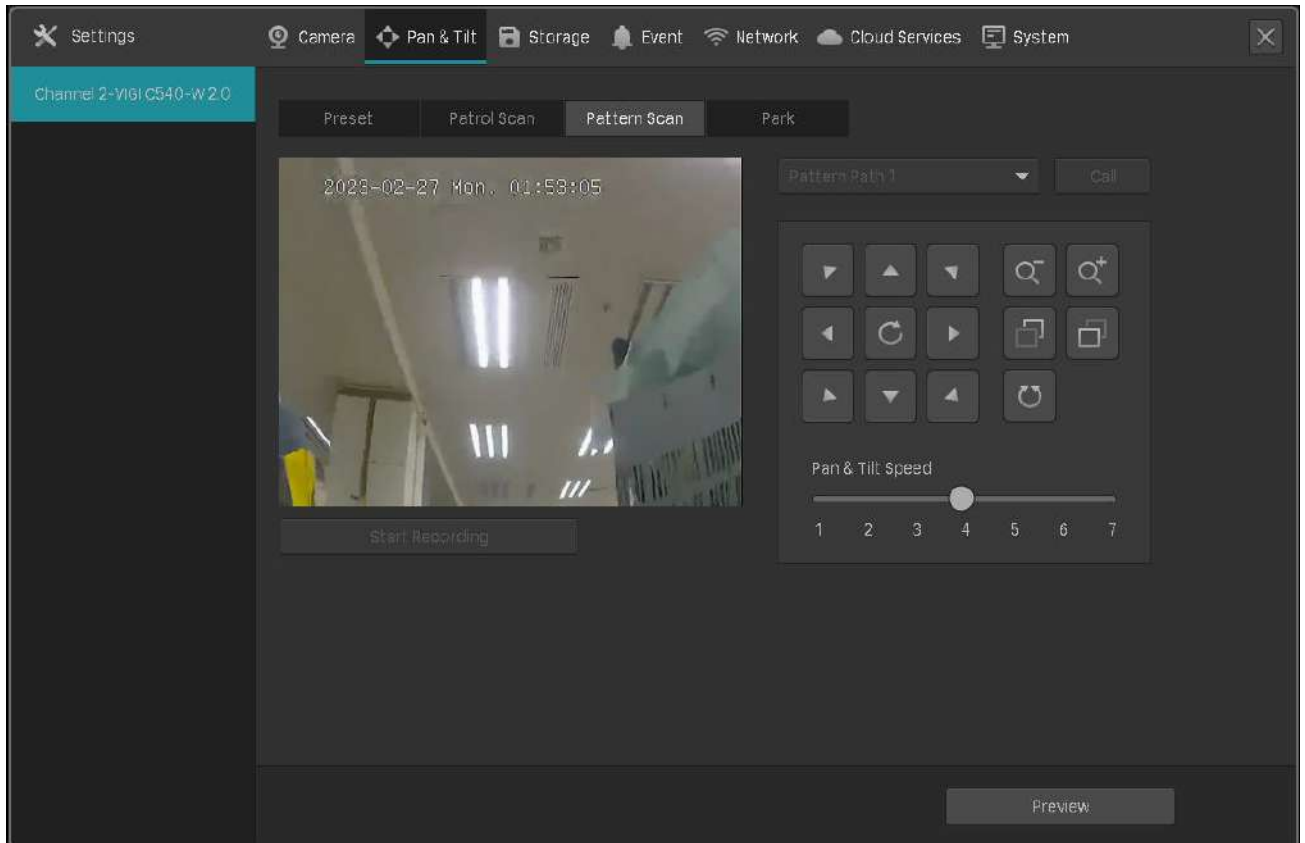


To call the preset, select a Patrol Path number and click **Call**. Then, the camera patrols following the configured path.

2.7.3 Preset and Call Patterns in Pattern Scan

In Pattern Scan, you can record the movement to customize the patterns. Follow the steps below to preset a pattern.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Pan&Tilt**.
2. Select a channel listed on the left panel, click **Pattern Scan**, and select a Pattern Path number from the drop-down list. Click **Start Recording** and click the buttons to adjust the position. Click **Stop Recording** to save the movements as a pattern.



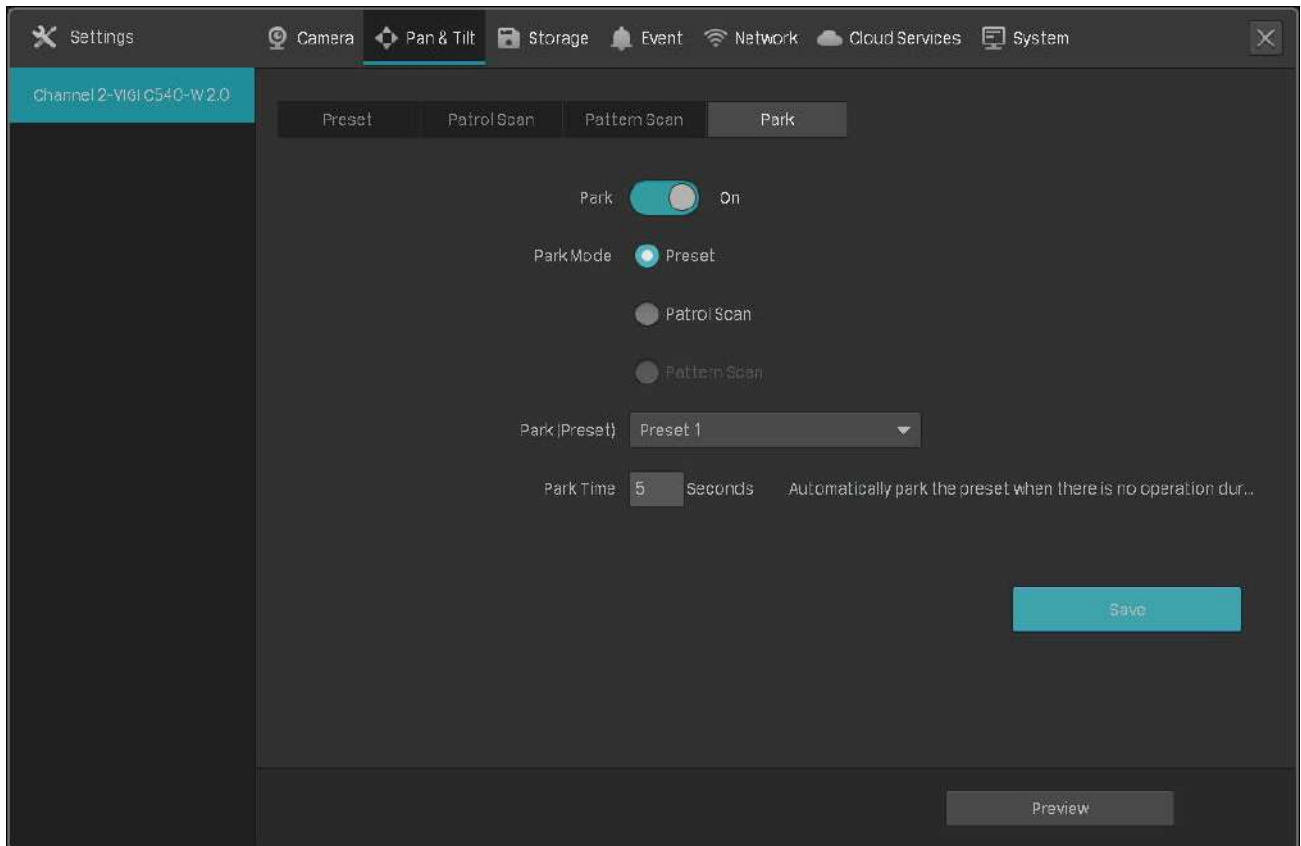
To call the preset, click **Call**, and the camera moves following the recorded pattern.

2.7.4 Enable Park

When Park enabled, the camera will perform the preset position, path, or pattern automatically if there is no operations in specified time. Follow the steps below to enable Park.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Pan&Tilt**.

2. Select a channel listed on the left panel and click **Park**. Enable **Park**, select a mode and a preset, and enter the park time. Click **Save**.



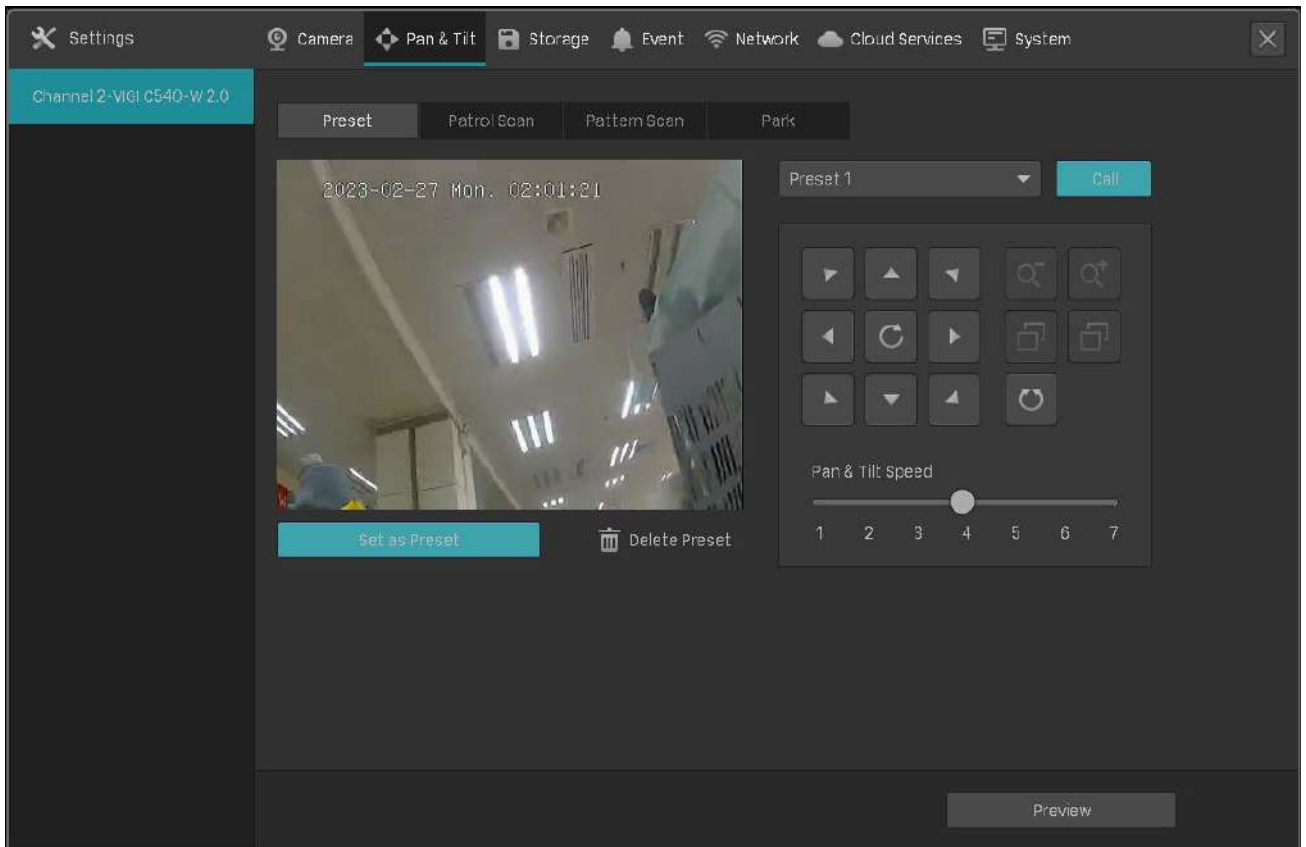
Park Mode	Select a mode to decide what kind of preset the camera will perform.
Park (Preset)	Select a preset from the drop-down list. The presets in the list vary based on the selected park mode.
Park Time	When there is no operations during this time, the camera will perform the preset.

2.7.5 Preview Preset Settings

Follow the steps below to preview all Preset settings and edit the preset name.








1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu.

2. Go to **Pan&Tilt**. Select a channel listed on the left panel and click **Preview**.



3. Select a preset mode to view the presets. Click the icons in the list to adjust the position, preview the preset and edit its name.



	Click to enable 3D positioning. Use the mouse to adjust the position of camera.
	Click a point on the screen, and the point will be moved to the center of the screen.
	Hold down the left mouse button and draw a rectangular area from left to right. Then the camera zooms in focusing on the specified area.
	Hold down the left mouse button and draw a rectangular area from right to left. Then the camera zooms out focusing on the specified area.
	Click to enable Center. Click a point on the screen, and the camera adjusts the position to center on the point.
	Click to enable Park. To configure the park mode and time, click Pan & Tilt Settings at the bottom and click the Park tab.
	Click the preset in the list and click the icon to edit the name.
	(Only for Preset) Click to move to the preset position.
	(Only for Cruise Scan and Pattern Scan) Click to perform the Cruise or Pattern scan.
	(Only for Cruise Scan and Pattern Scan) Click to stop the scan.


♥ 2.8 Manage Your Cameras

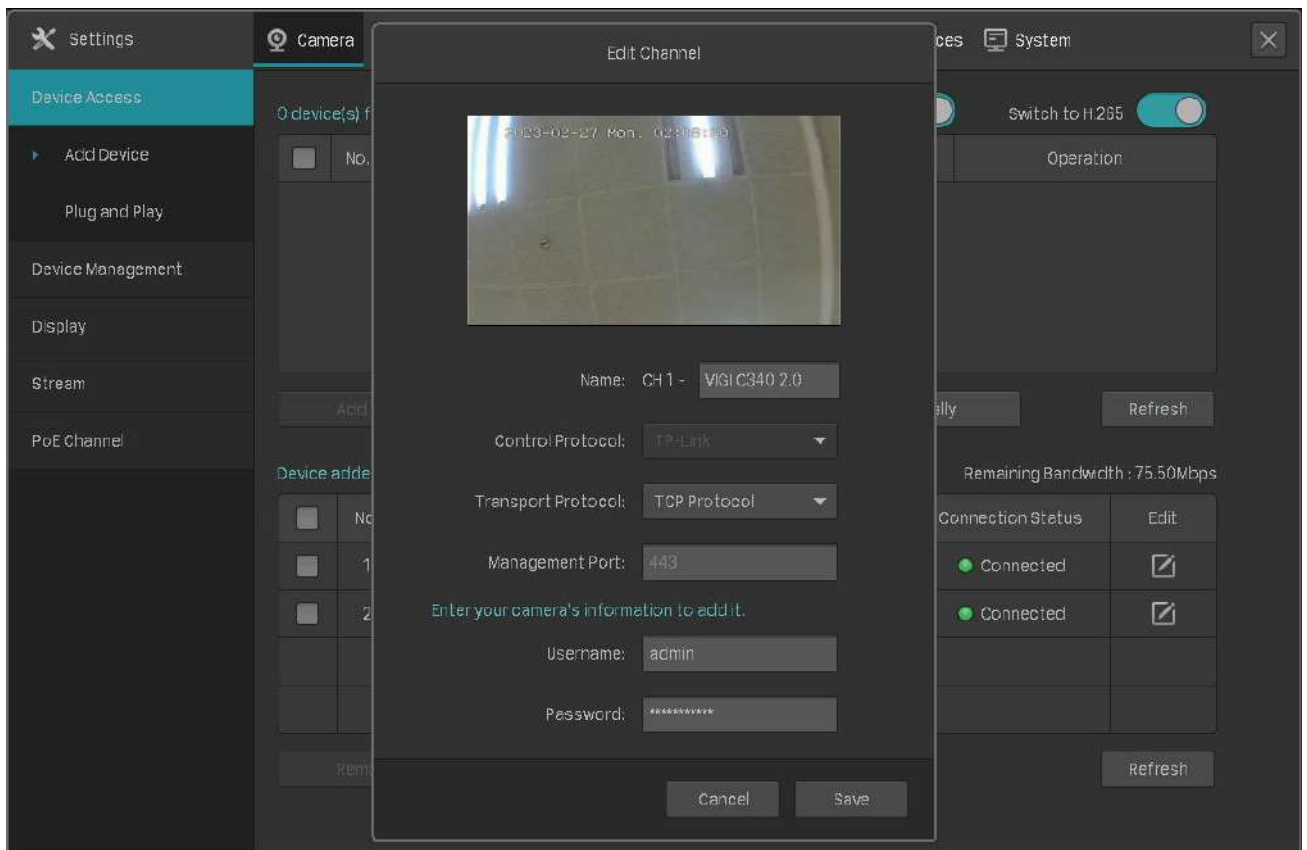
For an added camera, you can manage its name, network configurations, account, firmware, and restart time, or just remove it.

2.8.1 Modify Camera Connection Parameters

Note: The cameras should be in the connected status.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Device Access > Add Device**.

- Click  in the table and modify the name, protocols, and management port. Click **Save**.




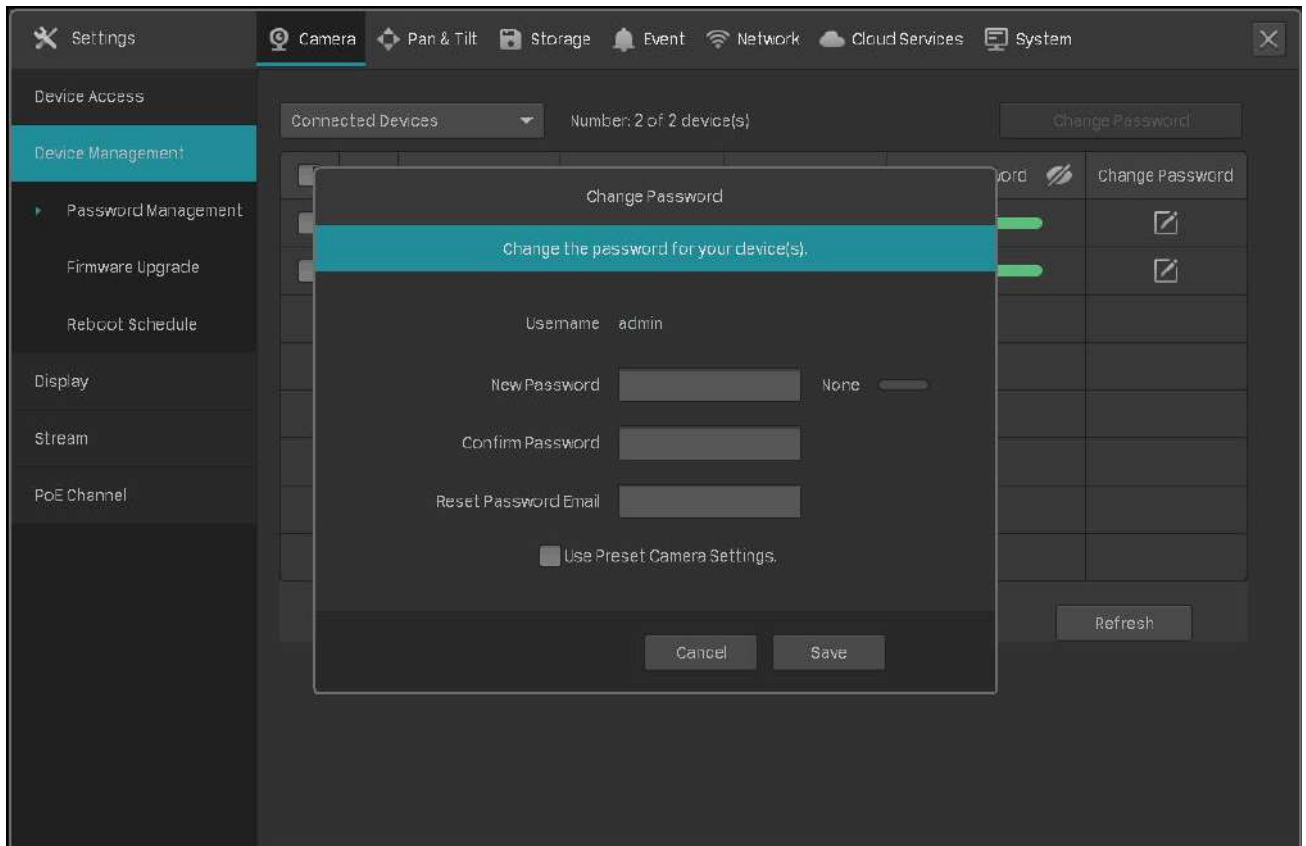
Name	Specify the camera name.
Control Protocol	Display the protocol used to control the camera.
Transport Protocol	Displays the protocol used for communication.
Management Port	Specify the management port.

2.8.2 Change the Password and Reset Email


You can change the device password and reset email to enhance the security.

- Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Device Management > Password Management**.

- To change the settings of a single camera, click  in the table. To change the password of multiple cameras in batches, select the cameras and click **Change Password**. Enter the new settings and Click **Save**.



Note:

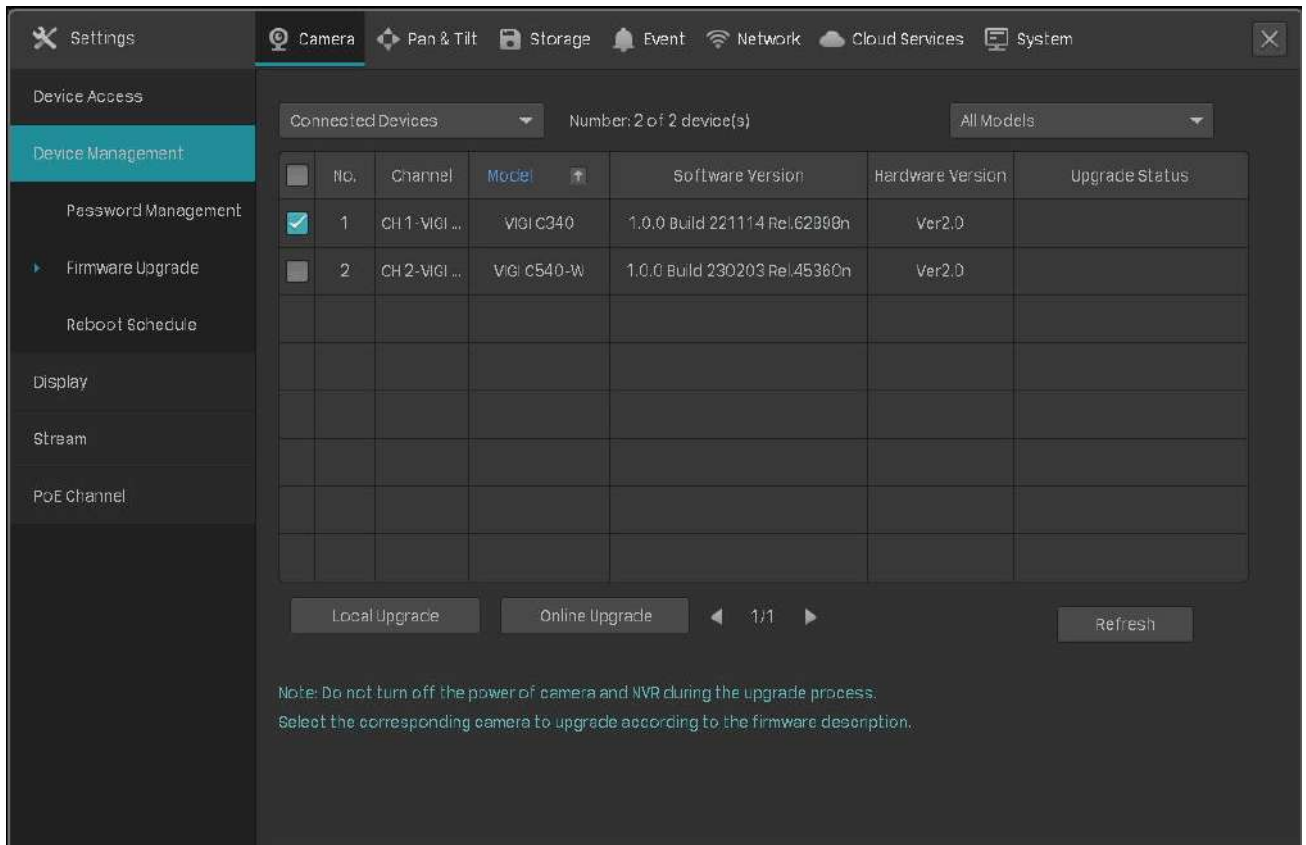
- The cameras should be in the connected status.
- If you click **Use Preset Camera Settings**, the camera uses the password and reset email configured in NVR Quick Setup. To view and modify the preset camera settings in NVR, go to **System > User Management** in **Settings** and click  of the administrator.
- If you have added a camera to the NVR but cannot find it in the table, check the connection to make sure the camera is connected properly. Click **Refresh** to refresh the data.

2.8.3 Upgrade the Firmware

Two methods are supported to upgrade the firmware, Local Upgrade and Online Upgrade. Follow the steps below to upgrade the firmware.

- Get ready to upgrade the firmware.
 - (For Local Upgrade) Place the firmware in an external storage device and plug the external storage device into the NVR.
 - (For Online Upgrade) Connect the NVR and cameras to the internet first.
- Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Device Management > Firmware Upgrade**.

3. Select the cameras and click **Local Upgrade** or **Online Upgrade** to upgrade them.



- For Local Upgrade, select the firmware from the external storage device and click **Upgrade**.
- For Online Upgrade, the device detects the new firmware online and upgrade automatically.

Note:

- The cameras should be in the connected status.
- Make sure to use the correct firmware to upgrade the corresponding camera.
- When upgrading, please do not turn off the power of camera and NVR.

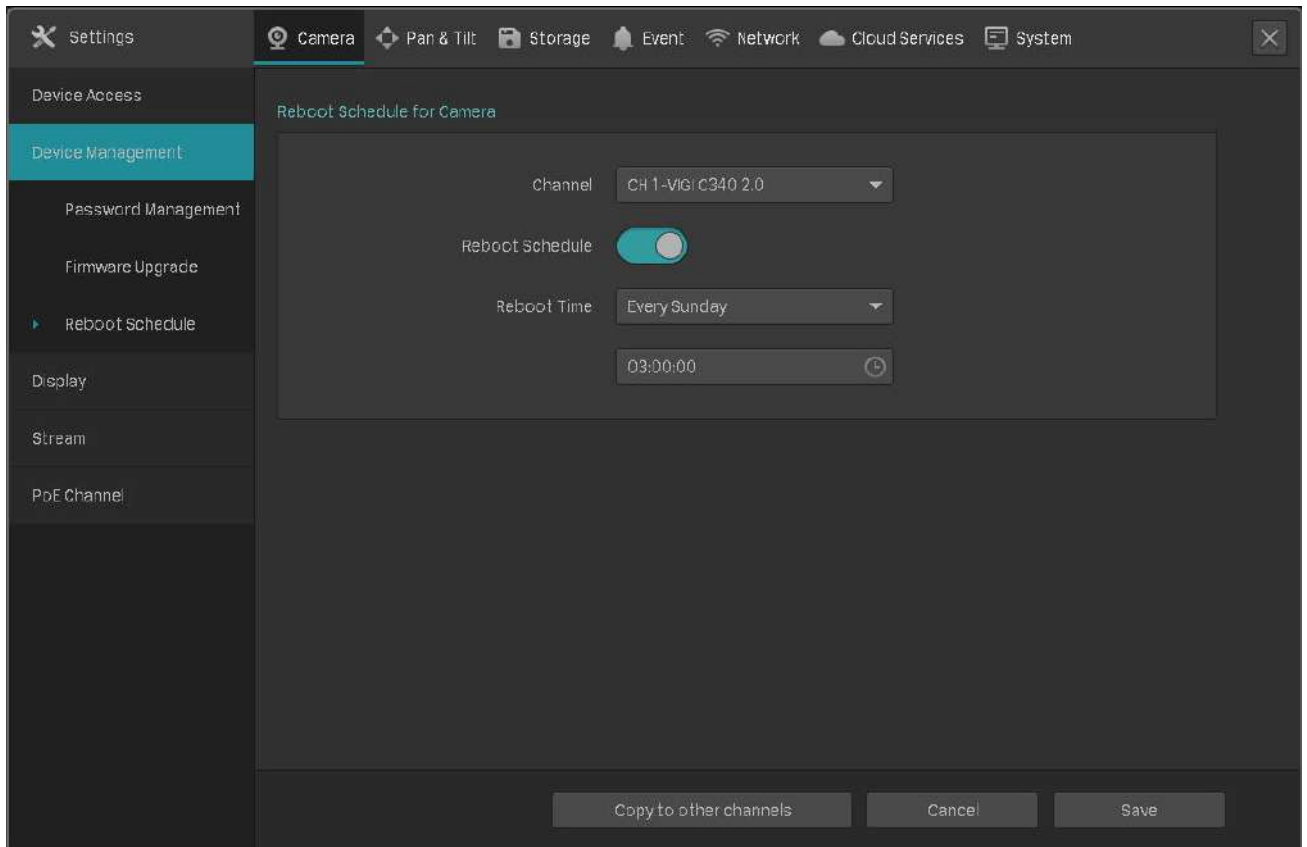
2.8.4 Configure Scheduled Reboot

When Reboot Schedule is enabled, the camera reboots automatically and regularly at the specified time.

Note: The cameras should be in the connected status.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Device Management > Reboot Schedule**.

2. Select a channel, enable **Reboot Schedule**, and specify the reboot time. Click **Save**.



3. (Optional) If you also want to apply the schedule settings to other channels, click **Copy to Other Channels** and select the channels. Click **Save**.

2.8.5 Remove Cameras from the NVR

After removing the camera from the NVR, you cannot configure and manage it via NVR.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **Camera > Device Access > Add Device**.

2. Select the cameras to be removed. Click **Remove Device**.

The screenshot displays the 'Camera' configuration page in a web interface. The top navigation bar includes 'Settings', 'Camera', 'Pan & Tilt', 'Storage', 'Event', 'Network', 'Cloud Services', and 'System'. The left sidebar has 'Device Access' selected, with sub-options for 'Add Device', 'Plug and Play', 'Device Management', 'Display', 'Stream', and 'PoE Channel'. The main content area shows '0 device(s) found.' and three toggle switches for 'Smart Coding', 'Plug and Play', and 'Switch to H.265'. Below this is a table with columns: No., Device IP, Device Name, Protocol, MAC Address, and Operation. A message 'No new devices found.' is centered in the table area. Below the table are buttons for 'Add in batches', 'Modify IP Address', 'Add Manually', and 'Refresh'. A status bar indicates 'Device added : 2' and 'Remaining Bandwidth : 75.50Mbps'. A second table shows the added devices with columns: No., Channel Name, Channel IP, Device Name, Connection Status, and Edit. The 'Remove Device' button is visible at the bottom left of the interface.

No.	Device IP	Device Name	Protocol	MAC Address	Operation
No new devices found.					

No.	Channel Name	Channel IP	Device Name	Connection Status	Edit
1	CH 1-VIGI C340 2.0	192.168.0.60	VIGI C340 2.0	Connected	
2	CH 2-VIGI C540-W 2.0	192.168.0.2	VIGI C540-W 2.0	Connected	

3

Live View

In Live View, you can monitor the channels in real time and respond to abnormal conditions with quick operations, such as viewing instant playback, zooming in the image, and enabling real-time talk. This chapter contains the following sections:

- [Configure the Screen Layout](#)
- [Configure Live View Settings via Toolbar](#)
- [Change Picture Mode](#)

♥ 3.1 Configure the Screen Layout

The NVR displays the videos of each channel via several screens. You can flexibly configure the screen layout in both Live View and Settings.

3.1.1 Change the Screen Layout Quickly

The NVR supports multiple layout modes, which display multiple screen(s) in one page separately. To change the screen layout quickly, right click on the Live View screen and click the buttons in Main Menu.



Click the corresponding buttons to change the number of displayed screens.

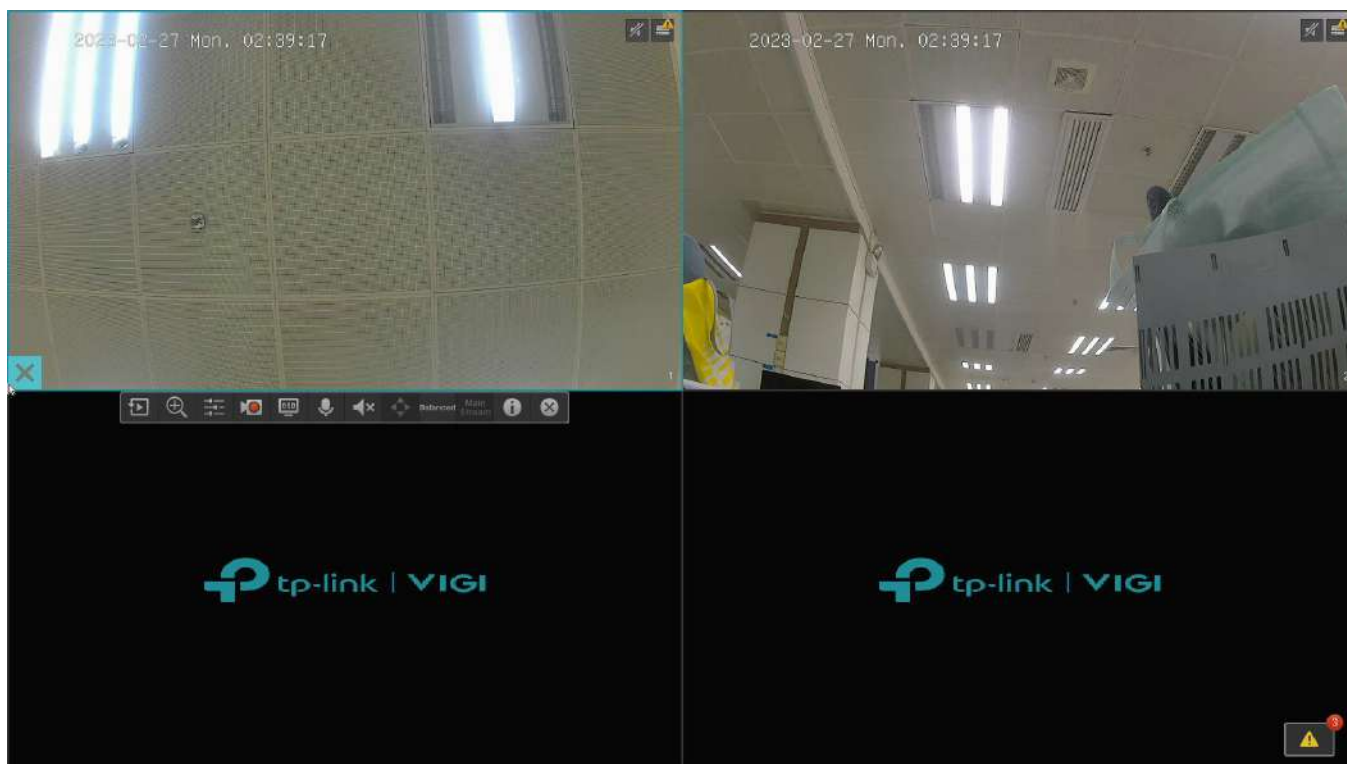


Click to jump to the previous/next page when the channels is more than the screens displayed in one page.



Click to enable/disable **Switching**. For example, 4 channels are displayed in Live View screen and 8 cameras are added to the NVR. When Switching is enabled, the NVR switch screens in Live View regularly to display the live view of 8 channels. To configure Switching Interval, click **Settings** and go to **System > Basic Settings > Basic Settings**.

For the layout mode with multiple screens, you can change the location of a channel by clicking and dragging it to another location. To view a channel in the full screen, double click it. Double click it again to go back to multi-screen layout mode.

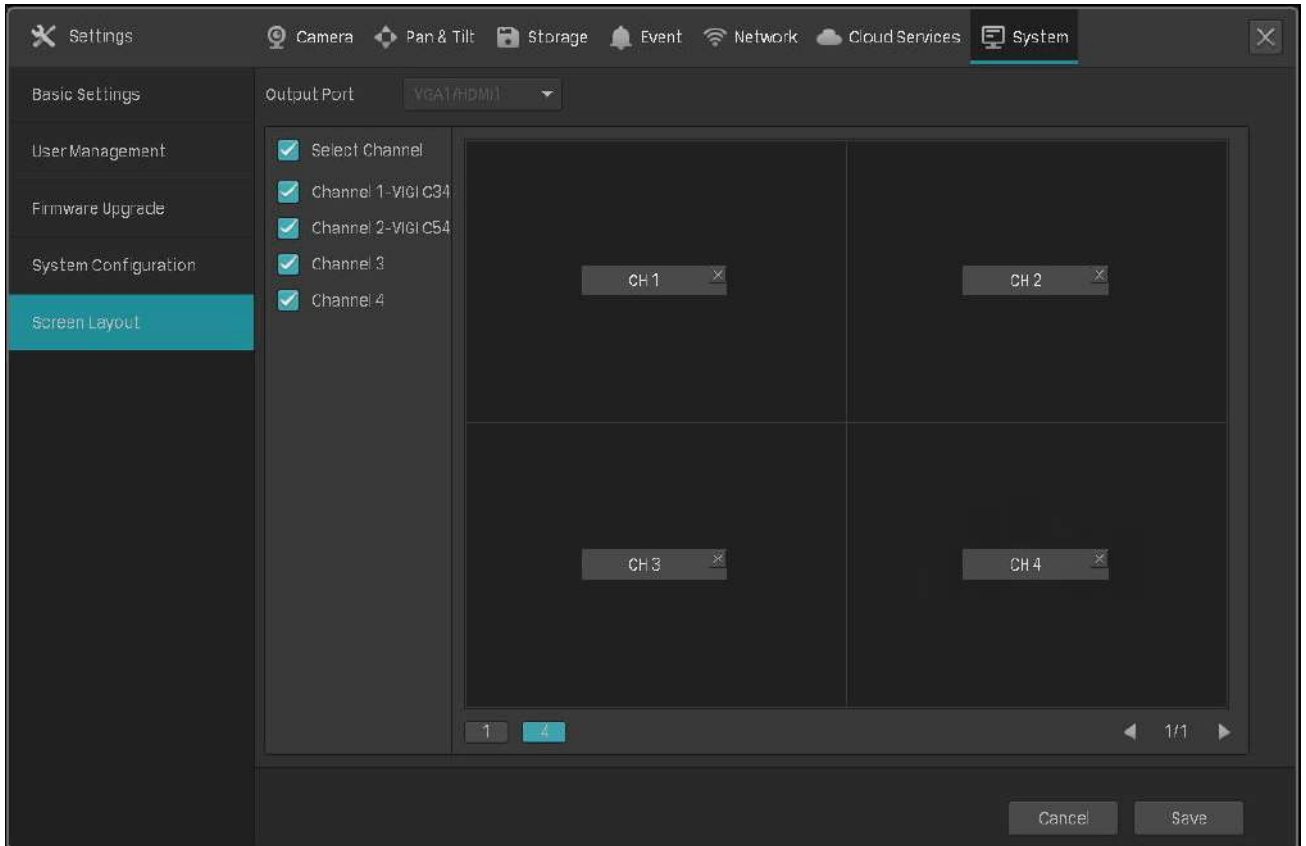


3. 1. 2 Rearrange Channels in Settings

In Settings, you can rearrange the channels in different layout modes more flexibly. Follow the steps below to rearrange the layout.

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **System > Screen Layout**.

2. Select a layout mode below and the current layout displays. Each square indicates a region on the screen. Click a square and click the checkbox of a channel to rearrange the channel in Live View. Click **Save**. (Here we take VIGI NVR1104H as the example.)



♥ 3.2 Configure Live View Settings via Toolbar

Select a channel in Live View to reveal the toolbar. Click the following icons to configure Live View settings, such as digital zoom, image settings, OSD, stream, and strategy.



Click to view the playback of this channel. Click **5-min Playback** to view instant playback and **History** to search and view the recordings in Normal Playback, Tag Playback, and Event Playback. For detailed configuration, refer to [Playback](#).



Click to zoom in/out the live image.



Click to adjust the image settings, including brightness, contrast, saturation, and sharpness.



Click to start/end the recording manually.



Click to configure the information displayed in Live View, including the time and camera name.



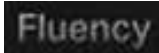
(Microphone needed and only for certain cameras) Click the icon and then Start Talk to talk. With this function, your can talk to people in the monitor area in real time.



(Only for certain cameras) Click and use the slide bar to adjust the volume.



(Only for the camera with Pan&Tilt) Click to enter the Preview of Pan&Tilt. You can adjust the camera location and call the presets. For details, refer to [2. 7. 5 Preview Preset Settings](#).



Click to select the Live View strategy.

Shortest Delay: Display the latest image with the shortest delay, which may lower the video fluency.

Fluency: Display each frame to guarantee the fluency. The video may be delayed.

Balanced: Display the video with a balance between timeliness and fluency.



Displays the stream applied to this channel. You can configure the main stream and substream on the NVR, and the NVR decides which stream is applied to the channels automatically based on network bandwidth and device performance.

To view and configure stream settings, refer to [2. 6 Configure Stream Settings](#).



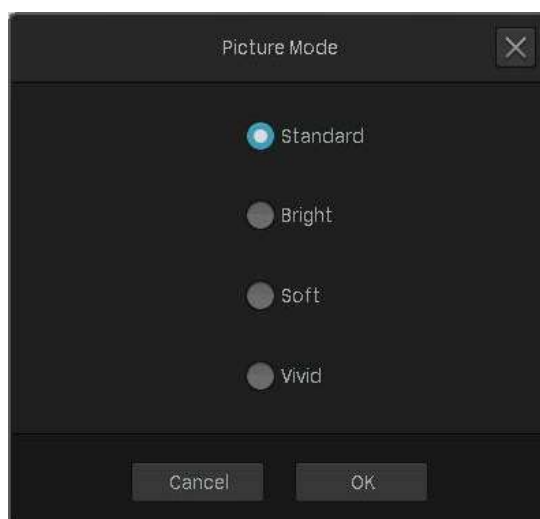
Hover your cursor to view the video information, including its channel, frame rate, bit rate, resolution, and encoding method.



Click to hide the toolbar.

♥ 3.3 Change Picture Mode

1. Right click on the Live View screen and click **Picture Mode** in the pop-up Main Menu.
2. Select a mode to adjust the image. Click **OK**.



4

Recording and Storage

This chapter guides you on how to view and configure recording and storage settings on your NVR. VIGI NVR allows you to set your own recording schedules and parameters, assign disk quota to connected cameras, manage and detect the installed hard drive, as well as export and back up recordings. This chapter includes the following sections:

- [Configure Recording Schedules](#)
- [Recording Controls](#)
- [Record Manually](#)
- [Manage Hard Drive](#)
- [Export Recordings](#)
- [Expansion Storage \(Only for some models\)](#)
- [Long-term Storage \(Only for some models\)](#)
- [Backup Recordings](#)

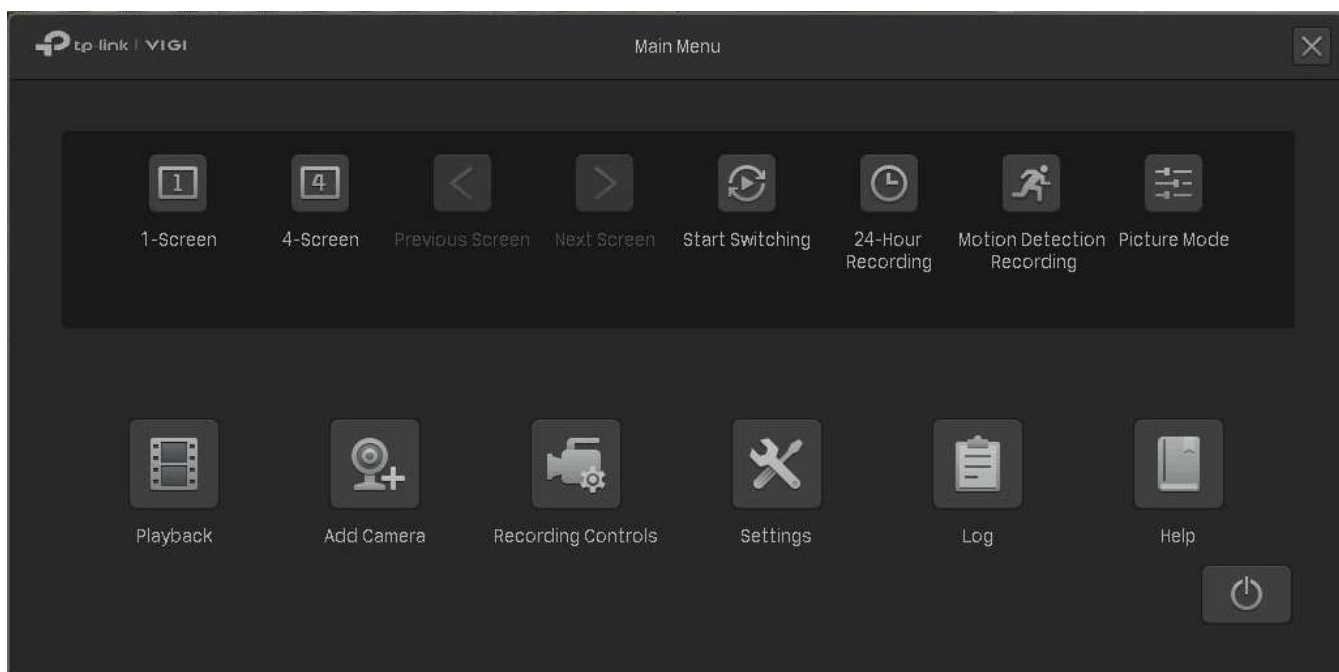
♥ 4.1 Configure Recording Schedules

Recording schedule section provides convenience and flexibility for the daily monitoring of your NVR. You can customize the recording schedule for all channels at a time or specify a recording schedule for certain channels. You can set different schedules for each day. In **Advanced Settings** page, you can set the pre-recorded time and delay time for recording.

4.1.1 Configure Recording Schedule for all Channels

Right click on the Live View screen and click **24-Hour Recording** in the pop-up main menu, all of the channels will be set to record continuously (24/7).

Right click on the Live View screen and click **Motion Detection Recording** in the pop-up main menu, all the channels start to record when motion detection is triggered.



4.1.2 Customize Recording Schedule

Recording schedule in **Storage** enables users to customize the everyday recording plan for each channel according to their needs.

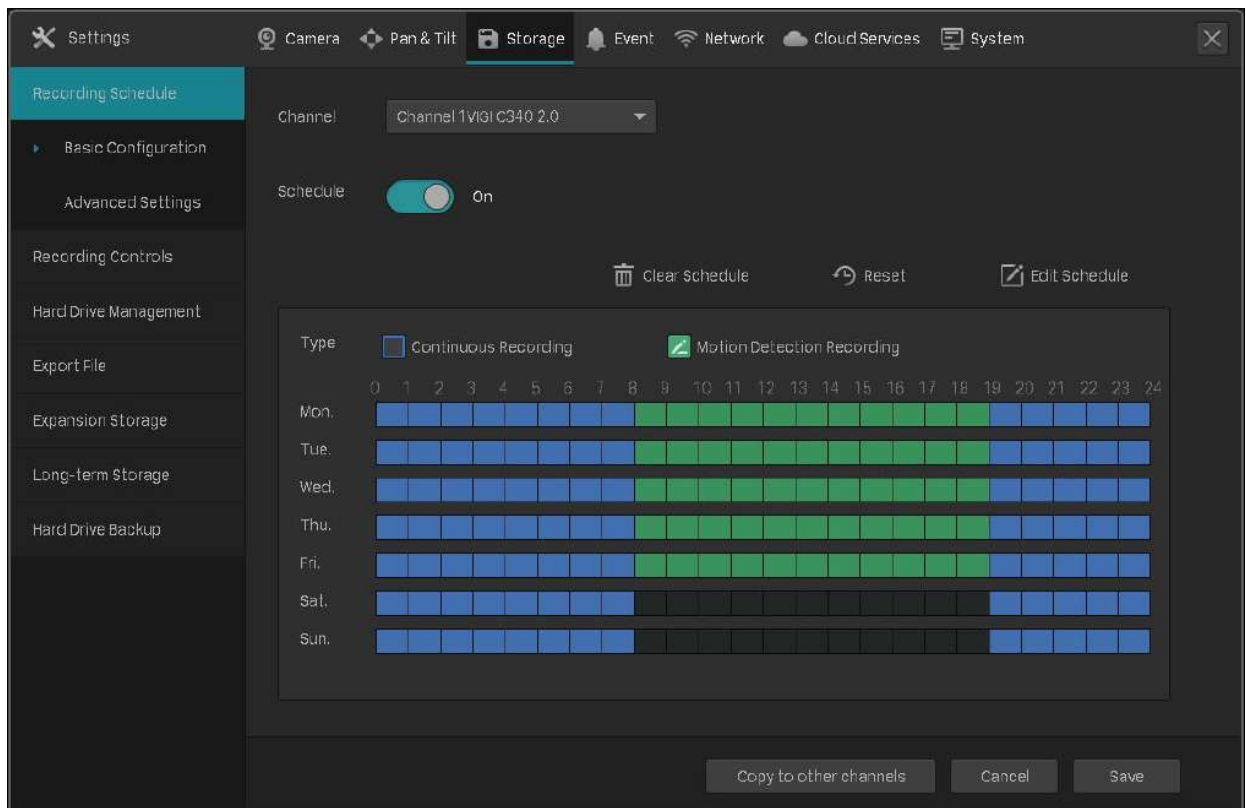
You can set all channels to record continuously (24/7), or set two cameras (Channel 1 and 2) to record based on a schedule of motion detection during a specified time and record continuously for the rest of time in weekdays; on weekends.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Storage > Recording Schedule > Basic Configuration**.
2. Select the channel from the drop-down list.
3. Enable **Schedule**. By default, it is enabled.

4. Customize the recording schedule with one of the following methods.

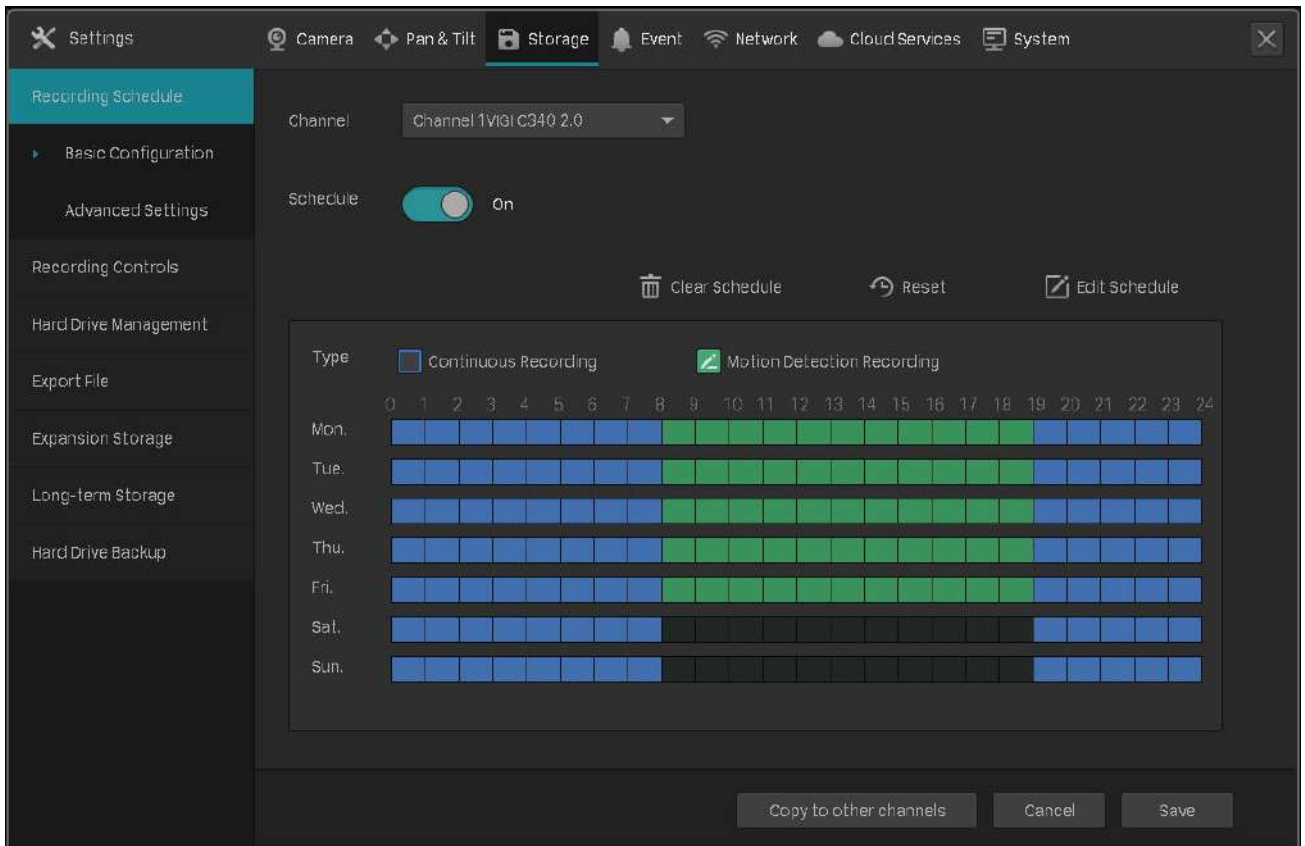
■ **Method 1: Via Time Bar**

- 1) Select **Motion Detection Recording** and drag the cursor on time bar to set the time for motion detection recording from Monday to Friday. The color of these rectangles will change from blue to green.
- 2) Select **Continuous Recording** and drag the cursor to set the time for no recording on Saturday and Sunday. The color of these rectangles will be erased.
- 3) Click **Save** in **Basic Configuration** to save the settings.

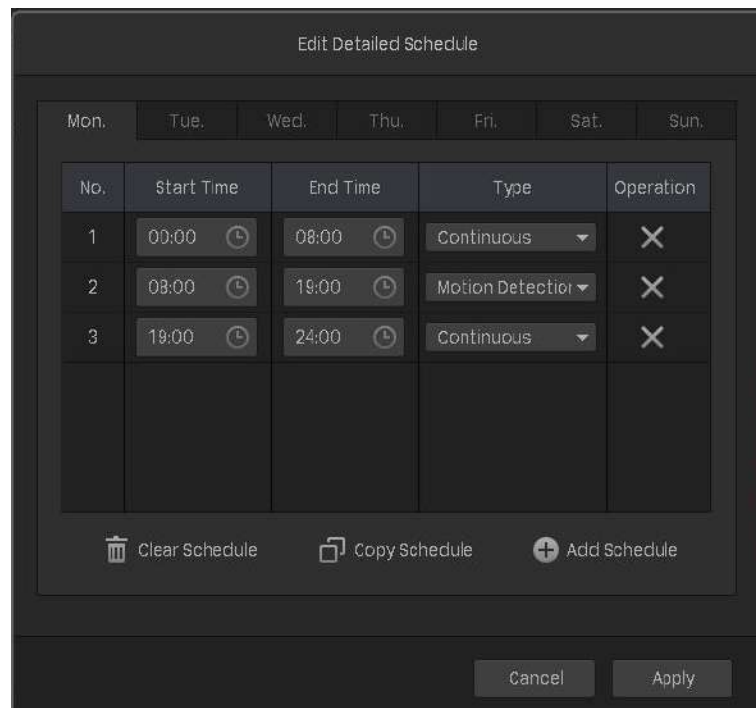


Method 2: via Edit Schedule

1) Click  Edit Schedule.




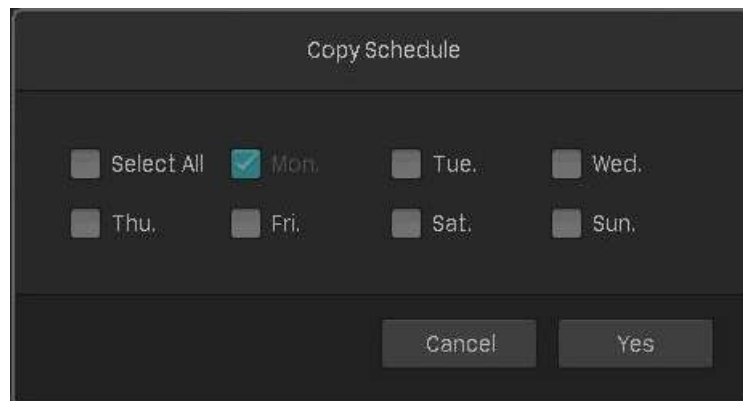
2) Click  Add Schedule, select the recording type and set the start time and end time.



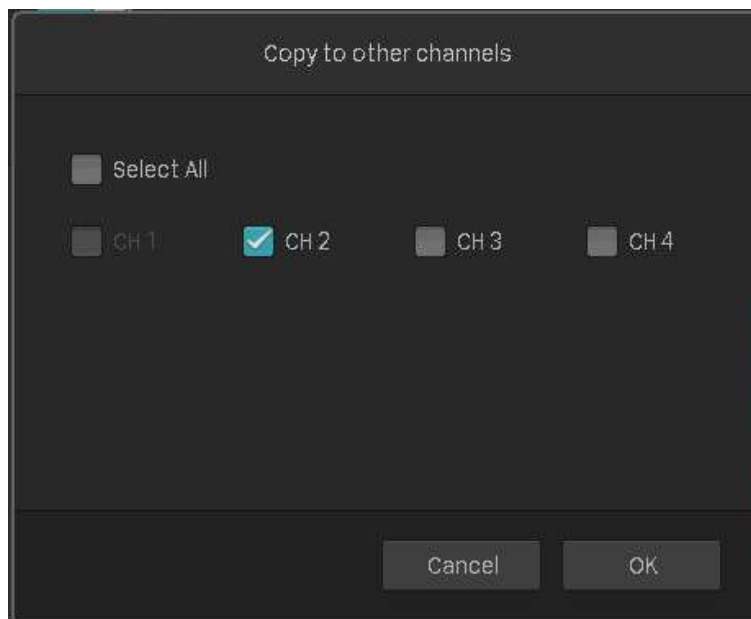
Note:

- Make sure the periods for different recording types are not overlapped.

- The scheduled time can be accurate to the second.
- 3) Click  **Copy Schedule** and select the repeating days for this schedule in a week and click **Yes**.



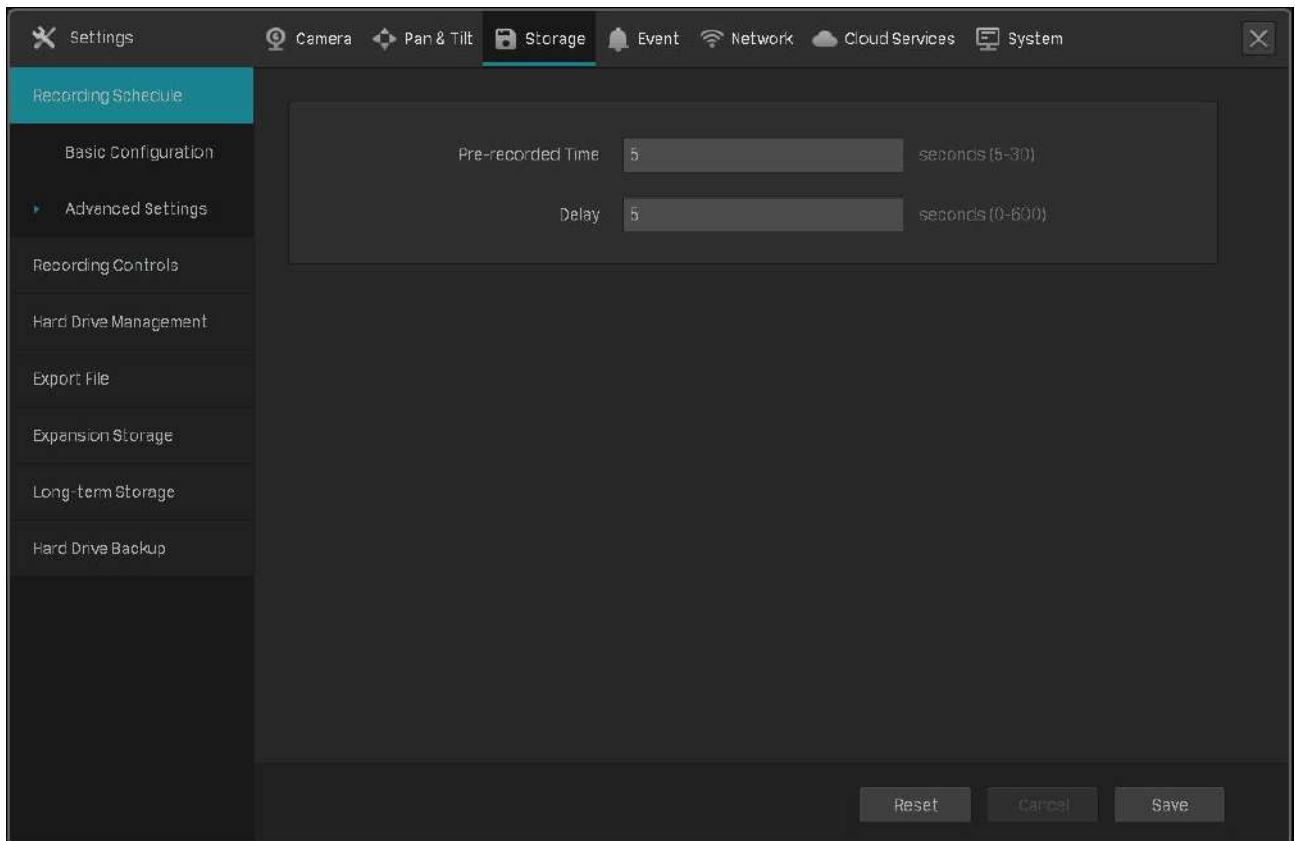
- 4) Click **Apply** on the **Edit Detailed Schedule** page.
- 5) Click **Save** in **Basic Configuration** to save the settings.
5. Click **Copy to other Channels** and select the channel to apply the settings, then click **OK**.



6. Click **Save** in **Basic Configuration** to save the settings.

4.1.3 Configure Advanced Recording Settings

To configure the pre-recorded and delay time for cameras, go to **Storage > Recording Schedule > Advanced Settings**. Click **Save** after you finish the configuration.



Pre-recorded Time

The time is set for cameras to record before the scheduled time or event. For example, the schedule for continuous recording starts at 10:00. If you set the pre-recorded time as 5 seconds, the camera starts to record at 9:59:55.

Note: It is recommended to remain the default setting of 5 seconds.

Delay

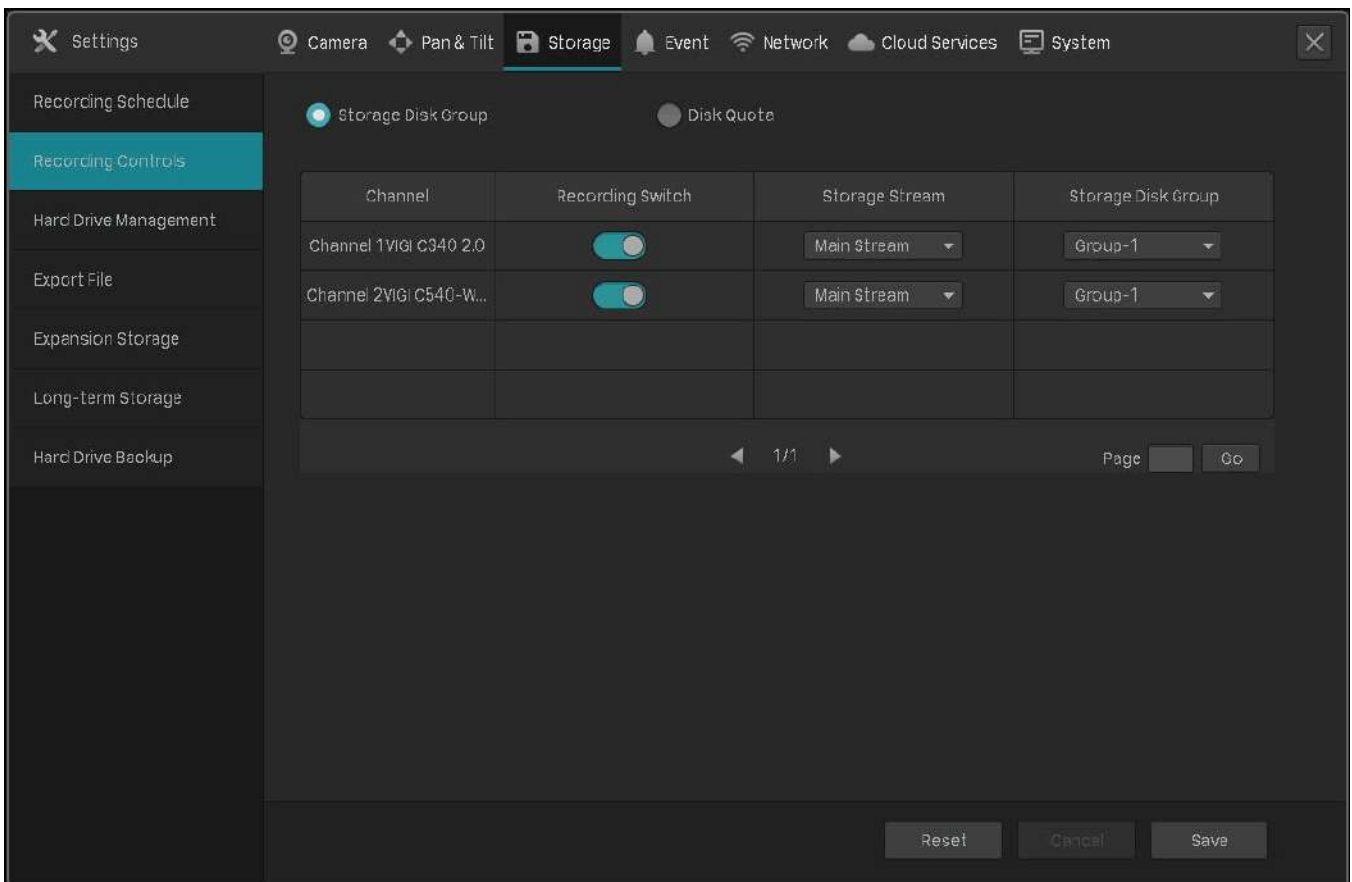
The time is set for cameras to record after the scheduled time or event. For example, if you set the post-record time as 5 seconds, it records till 11:00:05 as motion detection ends at 11:00.

♥ 4.2 Recording Controls

4.2.1 Configure Storage Disk Group

In **Storage Disk Group**, you can manually start and stop recording on certain channels, select the storage stream for recording, and select the hard drive group.

To configure these settings, right click on the Live View screen and click **Settings** in the pop-up main menu. Then go to **Storage > Recording Controls** and select **Storage Disk Group**. Click **Save** after you finish the configuration.



Channel Displays the name of camera in this channel.

Recording Switch Start/stop recording on the selected channel.

Select the stream for recording.

Storage Stream **Main (Main Stream):** The size of recording files will be larger when selected.

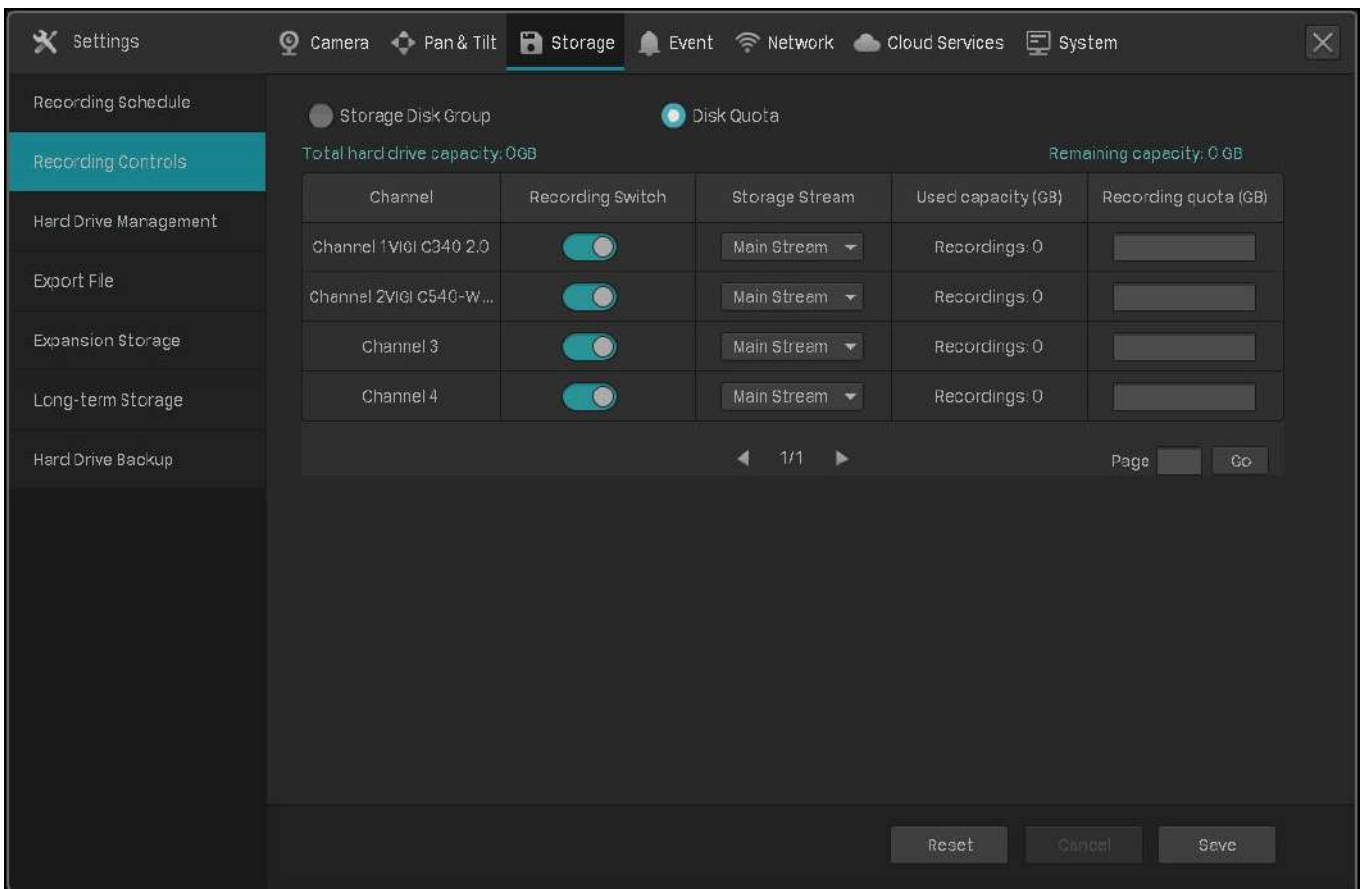
Substream: The size of recording files will be smaller when selected.

Storage Disk Group Select the disk group for the NVR with multiple hard drives.

4.2.2 Configure Disk Quota

In **Disk Quota**, you can manually start and stop recording on certain channels, select the stream for the storage of recordings, check the used capacity of hard drive on certain channels, and assign the disk quota to cameras to store recordings.

To configure these settings, right click on the Live View screen and click **Settings** in the pop-up main menu. Then go to **Storage > Recording Controls** and select **Disk Quota**. Click **Save** after you finish the configuration.



Channel Displays the name of camera in this channel.

Recording Switch Start/stop recording on the selected channel.

Select the stream for recording.

Storage Stream **Main (Main Stream):** The size of recording files will be larger when selected.

Substream: The size of recording files will be smaller when selected.


Used Capacity Displays the used space of hard drive for this channel.

Recording Quota Assign the disk quota to your cameras for recording storage.

♥ 4.3 Record Manually

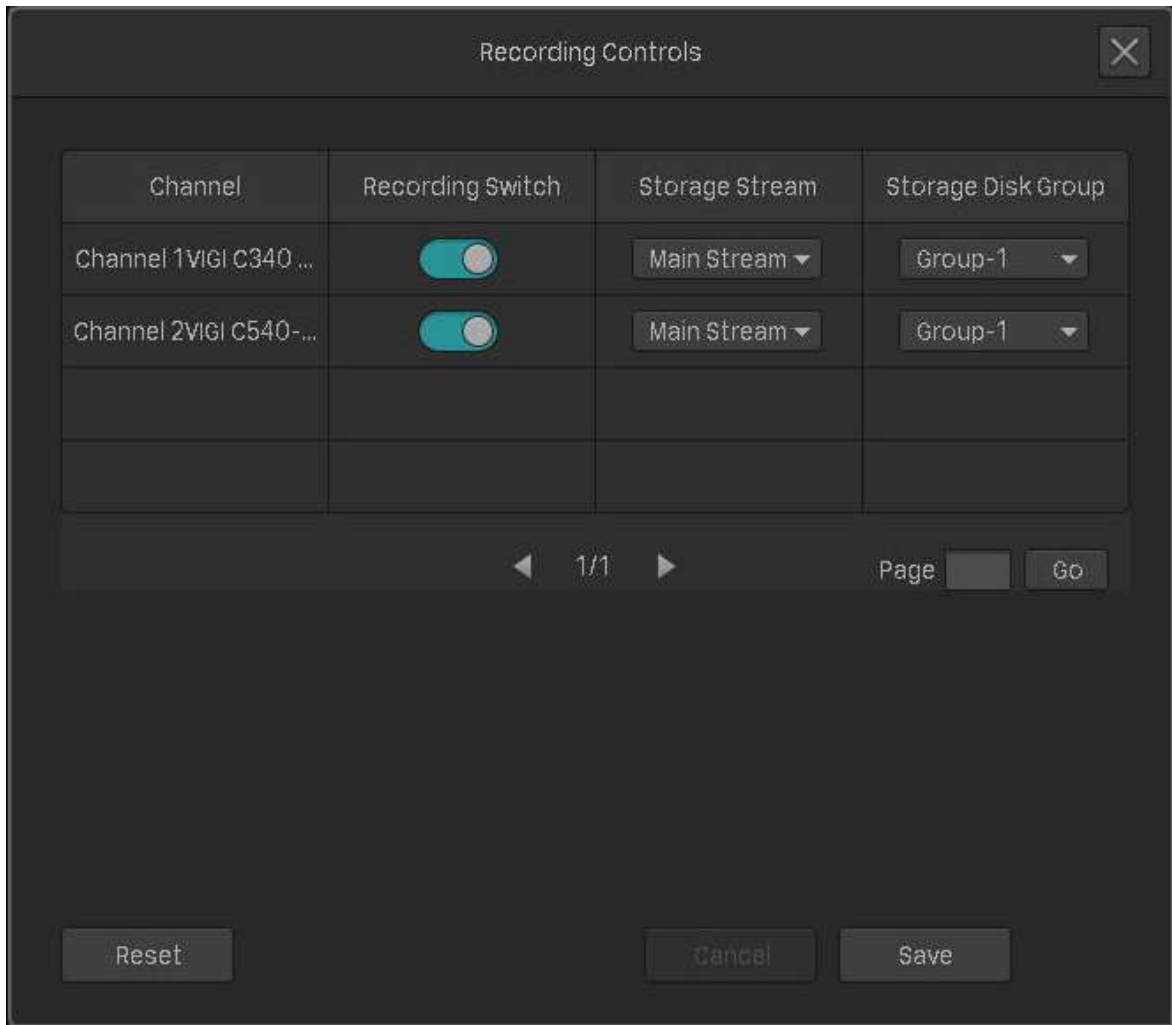
You can manually start or stop recording in Live View or Recording Controls.

Method 1: Via Live View

Click  on the tool bar at the bottom of the Live View screen to start or stop recording.

Method 2: Via Recording Controls

1. Right click on the Live View screen and click **Recording Controls** in the pop-up main menu.
2. (Optional) Select the recording stream and disk group for storage.
3. Click **Recording Switch** to start or stop recording.
4. Click **Save** after you finish the configuration.



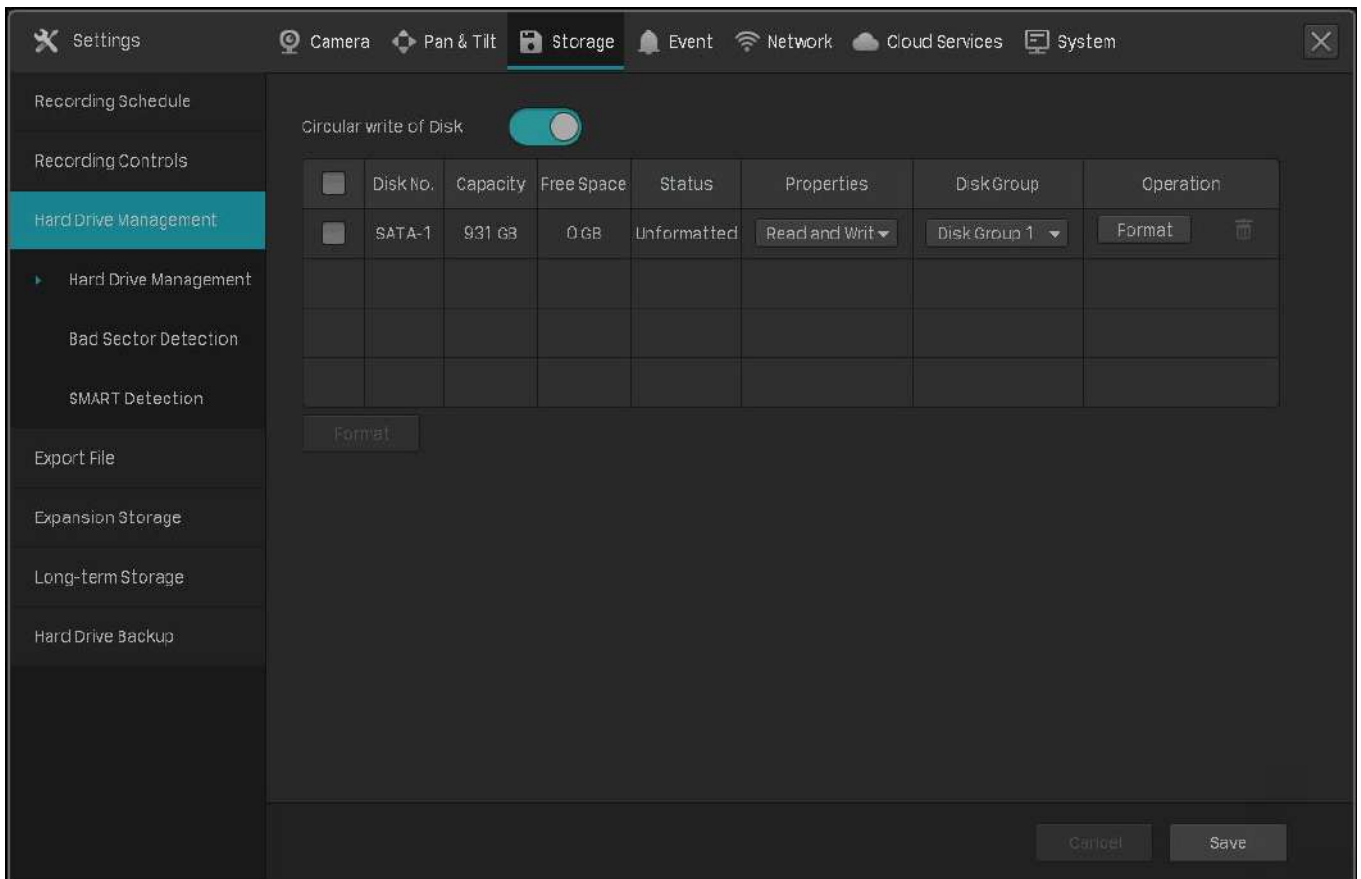
♥ 4.4 Manage Hard Drive

In **Hard Drive Management** section, you can view and customize the settings of hard drive, and choose different detection methods to check the bad sectors and the status of the installed hard drive.

4.4.1 View and Configure Settings of Hard Drive

In **Hard Drive Management**, you can view the parameters and configure the properties and disk group of hard drive. You can also enable the NVR to overwrite the earlier recording files when the hard drive is full.

To view and configure the settings of hard drive, right click on the Live View screen, click **Settings** in the pop-up main menu, then go to **Storage > Hard Drive Management > Hard Drive Management**. Click **Save** after you finish the configuration.



Circular Write of Disk	Enable the NVR to overwrite the earlier recording files when the hard drive is full.
Disk No.	Displays the number of hard drive.
Capacity	Displays the total space of hard drive.
Free Space	Displays the remaining storage capacity of hard drive.
Status	Displays the status of hard drive.
	Select the properties of hard drive.
Properties	<p>Read-write: The data can be read and written on the hard drive.</p> <p>Read-only: The hard drive can only read data.</p>

Disk Group	Select the disk group for the NVR with multiple hard drives.
Operation	Click Format to format the hard drive. Note: The data stored in the hard drive will be lost after you format it.

4.4.2 Add External Hard Drive to NVR (Only for some models)

If you want to store more recordings on your NVR, add an external hard drive to expand its storage space.

Right click on the Live View screen, click **Settings** in the pop-up main menu, then go to **Storage > Hard Drive Management > Hard Drive Management**. Click **+** and the hard drive will be automatically added to your NVR.

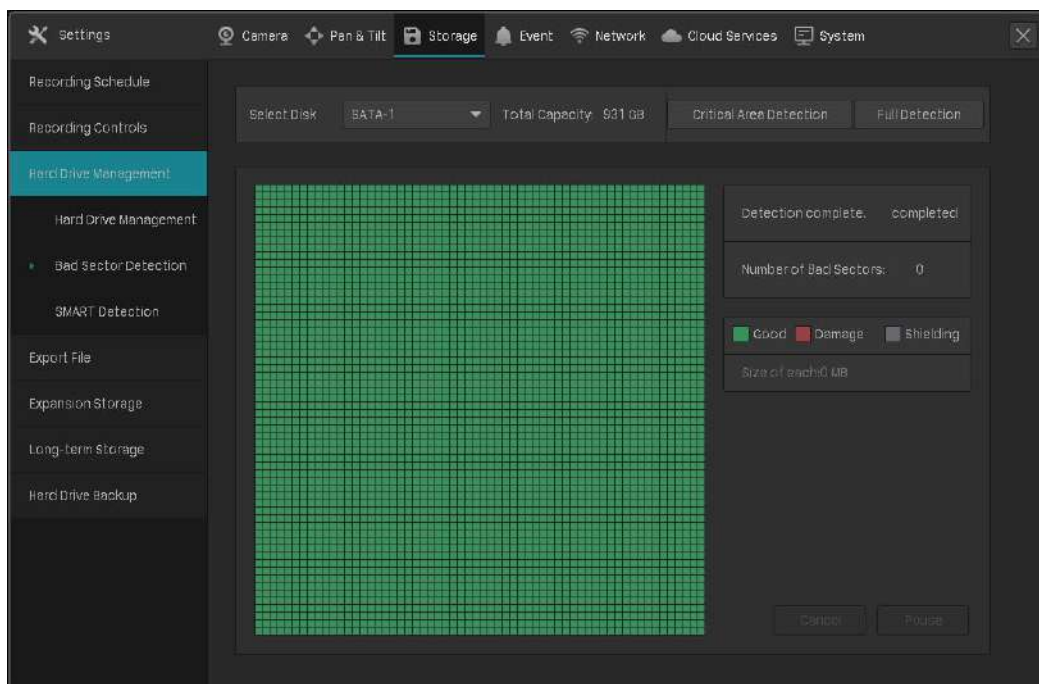
Note: The capacity of the external hard drive should exceed 120G.

4.4.3 Bad Sector Detection

Bad sector detection conducts a check on the entire hard drive or its critical area, and display the number of bad sectors of the hard drive. Follow the steps below to finish the bad sector detection.

1. Right click on the **Live View** screen and click **Settings** in the pop-up main menu.
2. Go to **Storage > Hard Drive Management > Bad Sector Detection**.
3. Select the hard drive and click **Critical Area Detection** or **Full Detection** at the top.

Different colors of the small blocks represent the good, damaged and shielded sectors on your hard drive.



4.4.4 S.M.A.R.T Detection

S.M.A.R.T detection detects and reports various indicators of drive reliability and presents an overall assessment of the installed hard drive. Follow the steps below to finish the S.M.A.R.T detection.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu.
2. Go to **Storage > Hard Drive Management > S.M.A.R.T Detection**.
3. Select the disk and self-checking type.

Short: A scan of major components of the hard drive .

Extended: A complete surface scan of the drive.

Transmission: A scan of the mechanical parts of the hard drive detecting handling damages.

4. Click **Start Detection** on the right.

The screenshot shows the S.M.A.R.T Detection interface. The 'Storage' tab is active, showing 'SATA-1' selected for the disk with a total capacity of 931 GB. The 'Self-checking Type' is set to 'Short'. A 'Start Detection' button is visible. Below, the detection process is completed, showing a table of attributes and their status.

ID	Attribute Name	Status	Flags	Threshold	Value	Worst	Raw Value
1	Raw_Read_Error_Rate	OK	0x000f	006	079	063	93432109
3	Spin_Up_Time	OK	0x0003	000	097	097	0
4	Start_Stop_Count	OK	0x0032	020	100	100	208
5	Reallocated_Sector_Ct	OK	0x0033	010	100	100	0
7	Seek_Error_Rate	OK	0x000f	045	088	060	720878446
9	Power_On_Hours	OK	0x0032	000	067	067	29069

Temperature Displays the operating temperature of the hard drive.

Use Time (day) Displays the usage time of the hard drive.

Self Assessment

Overall Assessment Displays the current status of the hard drive.

Attribute Name Displays the name of attributes concerning the health of hard drive.

Status	Displays the status of these attributes.
Flags	Displays the code of S.M.A.R.T ID.
Threshold	Displays the threshold value of these attributes. Threshold marks the value at which the hard drive could fail.
Value	Displays the current value of these attributes. When it gets closer to the threshold, the hard drive is less likely to be healthy.
Worst	Displays the minimum values of these attributes. When Worst values are extremely lower than the current value, it indicates the hard drive errors or extreme working environment of the hard drive.
Raw Value	Displays the data used for calculating Value .

♥ 4.5 Export Recordings

You can export the recordings stored in the hard drive according to your needs. These recordings can be played on your media devices.

Follow the steps below:

1. Prepare an external storage device and plug it into the USB slot of the NVR.
2. Right click on the Live View screen and click **Settings** in the pop-up main menu.
3. Go to **Storage > Export File**.

4. Select the start time and end time for searching recordings.

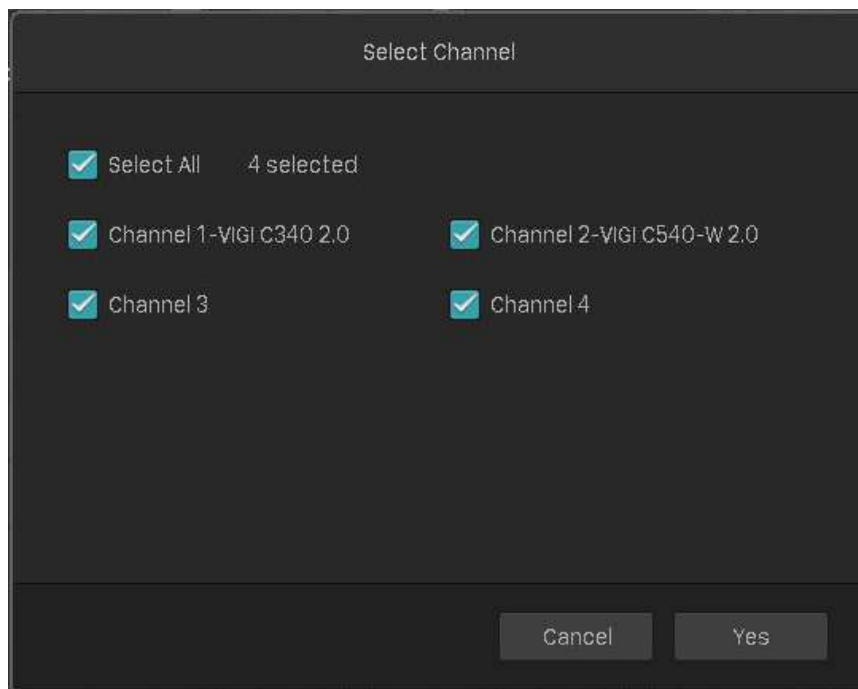
The screenshot shows the 'Storage' settings page. At the top, there are navigation tabs: Settings, Camera, Pan & Tilt, Storage (selected), Event, Network, Cloud Services, and System. On the left, a sidebar lists various settings: Recording Schedule, Recording Controls, Hard Drive Management, Export File (highlighted), Expansion Storage, Long-term Storage, and Hard Drive Backup. The main area is titled 'Storage' and contains search filters for Start Time (2023-02-27, 00:00:00) and End Time (2023-02-27, 23:59:59). Below these is an 'Advanced Time Filtering' dropdown set to 'Every Day Full Day' and a 'Search' button. Further down, there are dropdowns for 'Channel' (All channels selected), 'Recording Type' (All), and 'File Type' (All). A table lists recordings with columns for Channel, Start Time, End Time, Size, Recording Type, and File Type. At the bottom, there is a 'Fast Export' button, a pagination indicator '1/2', and a 'Page Go' button.

Channel	Start Time	End Time	Size	Recording Type	File Type
1	2023-02-27 06:25:23	2023-02-27 06:32:21	16.0 MB	CR	Unlocked
1	2023-02-27 06:32:21	2023-02-27 06:32:35	856.1 KB	MDR	Unlocked
1	2023-02-27 06:32:35	2023-02-27 06:33:47	25 MB	CR	Unlocked
2	2023-02-27 06:25:13	2023-02-27 06:27:01	26 MB	CR	Unlocked
2	2023-02-27 06:27:01	2023-02-27 06:27:15	572.3 KB	MDR	Unlocked
2	2023-02-27 06:27:15	2023-02-27 06:27:39	549.5 KB	CR	Unlocked
2	2023-02-27 06:27:39	2023-02-27 06:27:58	509.8 KB	MDR	Unlocked

5. Click **Advanced Time Filtering** and select the time span and repeated days of the week. Then click **Yes**.

The screenshot shows the 'Advanced Filtering' dialog box. It has a title bar 'Advanced Filtering'. Below the title, there is a section 'Time span of each day' with two time pickers: '00:00' and '23:59'. Below that is a section 'Repeat Time' with seven days of the week, each with a checked checkbox: Mon., Tue., Wed., Thu., Fri., Sat., and Sun. At the bottom, there are two buttons: 'Cancel' and 'Yes'.

- Click **Channel** to select Channel for recording export. Then click **Yes**.



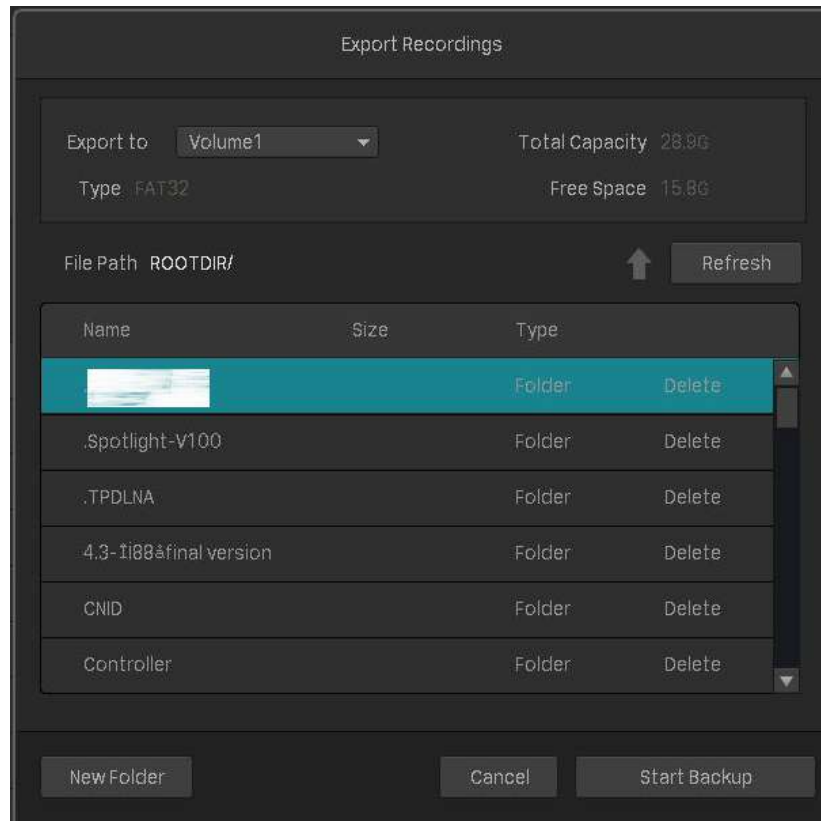
- Select **Continuous** for the recording type and **All** for the file type.

Locked	Files will not be overwritten when loop recording is enabled.
Unlocked	Files will be overwritten when loop recording is enabled.
All	Display the locked and unlocked files.

- Click **Search**.
- Select the files you need and click **Fast Export**.

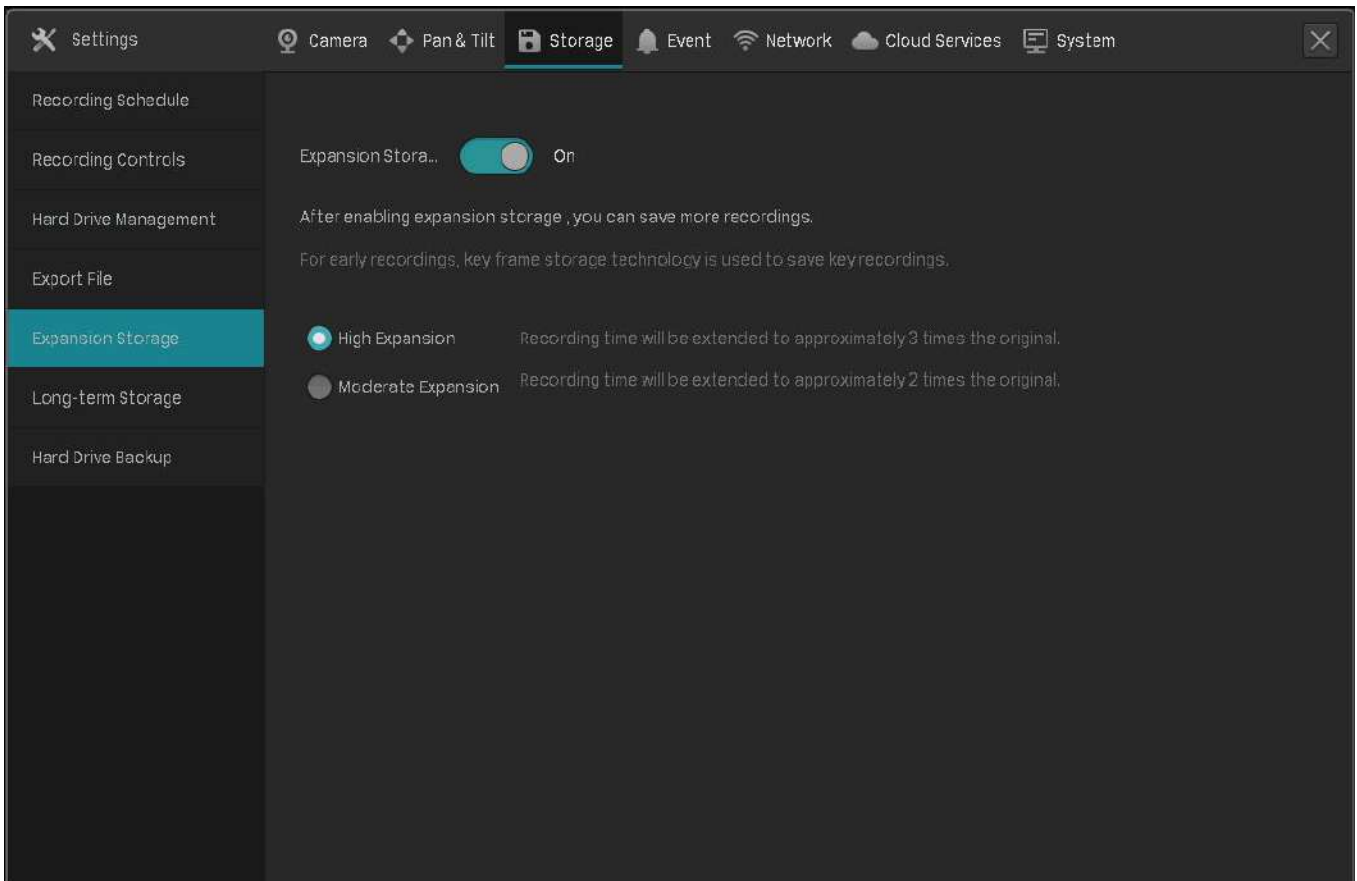
Note: The format of the audio in exported videos may be incompatible with some playback software.

10. Select the folder or create a new folder and click **Start Backup** to export the files to your external storage device.



♥ 4.6 Expansion Storage (Only for some models)

Expansion storage uses key frame storage technology to compress the earlier videos and release a large amount of storage space, and thus increases the recording time. After expansion storage is enabled, select the expansion type based on your needs.



High Expansion Extend the recording time to 3 times the original.

Moderate Expansion Extend the recording time to twice the original.

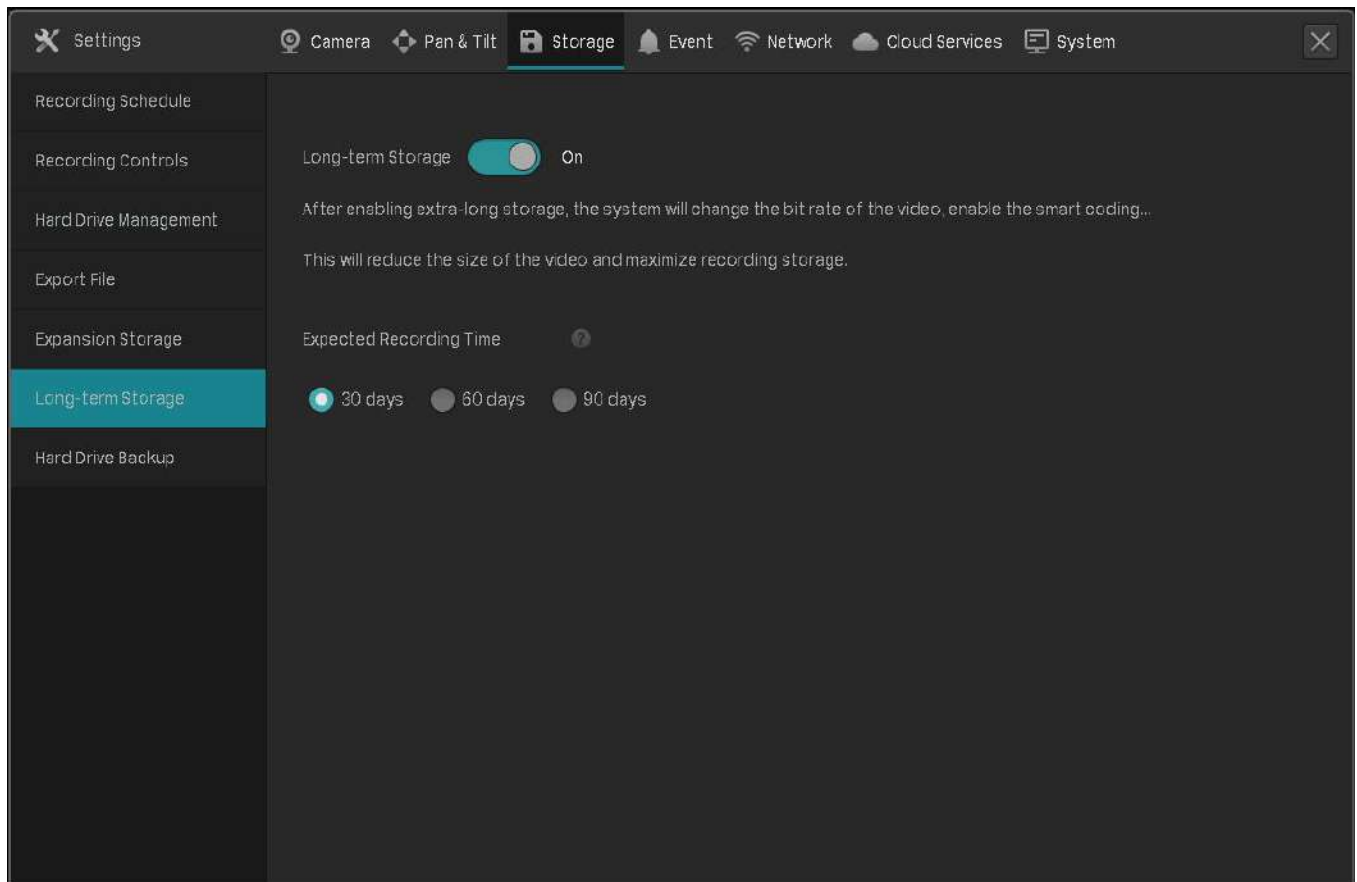
♥ 4.7 Long-term Storage (Only for some models)

ⓘ Note:

If you have enabled Plug and Play, the long-term storage function cannot be enabled.

Long-term storage can reduce the size of recording files and extend the recording time by automatically changing the settings for recording and storage. To achieve this function, the VIGI NVR will adopt the following methods, including changing the smart coding type and bit rate type of camera, enabling

expansion storage, after evaluating the hard drive capacity and the number of channels. After long-term storage is enabled, select the recording time you expect.



♥ 4.8 Backup Recordings

Backup allows you to copy all the recordings stored in your NVR to the external hard drive. You can view these recording files when installing the hard drive on another NVR.

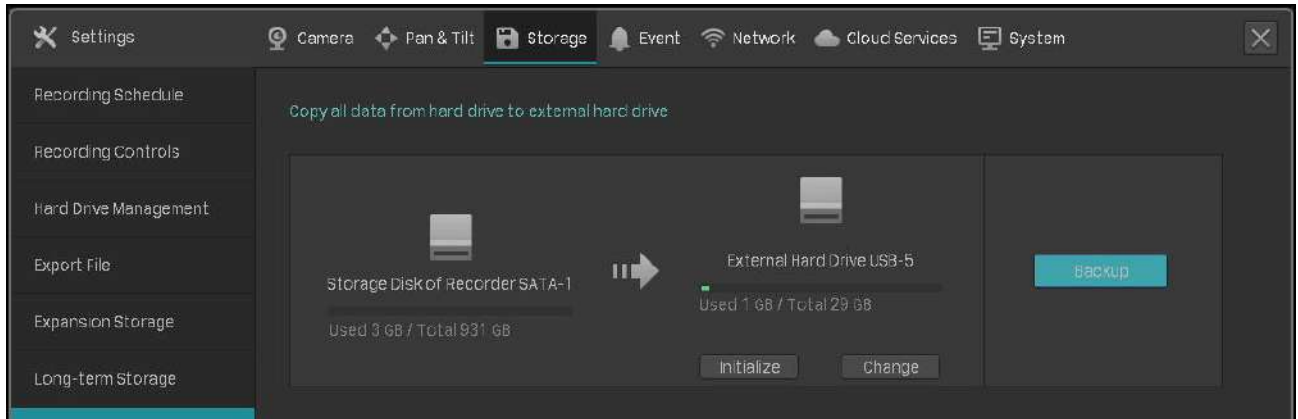
⚠ Caution:

The data stored in your external hard drive will be lost if you choose to back up the recordings. It is recommended to back up the data in your external hard drive before you start the backup process.

To back up the recordings, follow the steps below:

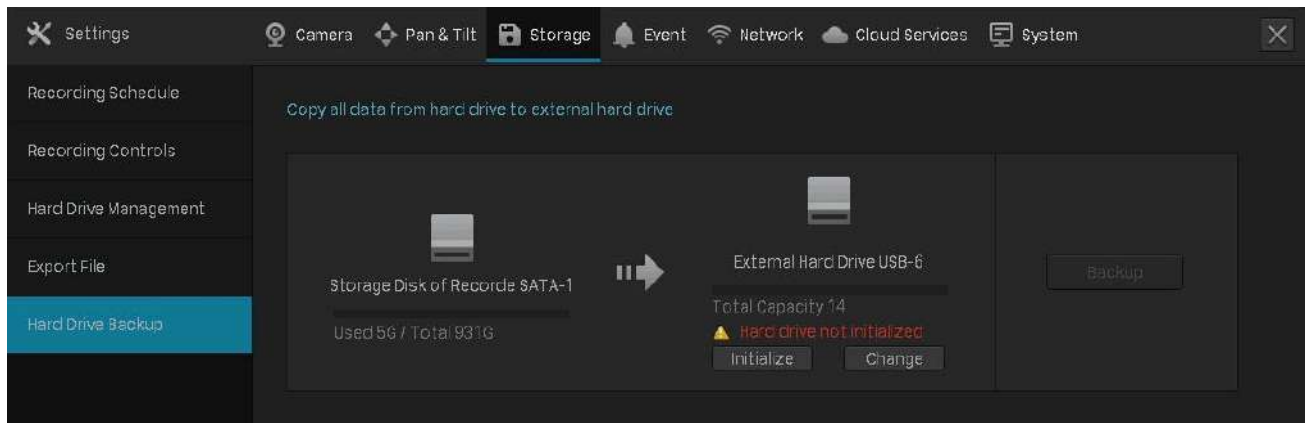
1. Right click on the Live View screen and click **Settings** in the pop-up main menu.
2. Go to **Storage > Hard Drive Backup**.

3. Click **Backup** to start the backup process.



Note:

- You should prepare an external hard disk whose total space is larger than the used space of installed hard drive in NVR.
- If the free space of your external hard disk is not big enough for backing up recordings stored in NVR, click **Initialize** to format your hard drive first. The original data will be erased after initialization.



5

Playback

This function allows you to play the history recordings and edit them, such as adding tags and exporting clips. You can easily search the recordings based on the channel, date, tag, and event. This chapter contains the following sections:

- [Instant Playback](#)
- [Play Normal Recordings](#)
- [Play Recordings with Tags](#)
- [Playback Recordings of Events](#)
- [Playback Operations](#)

NVR supports the following four playback modes:

- **Instant Playback**

Play the video of a single channel recorded in the last five minutes.

- **Normal Playback**

Play the recordings of one day, including the continuous and motion detection recordings.


- **Tag Playback**

Play the recordings with tags added.

- **Event Playback**

Play the recordings with events detected.

♥ 5.1 Instant Playback

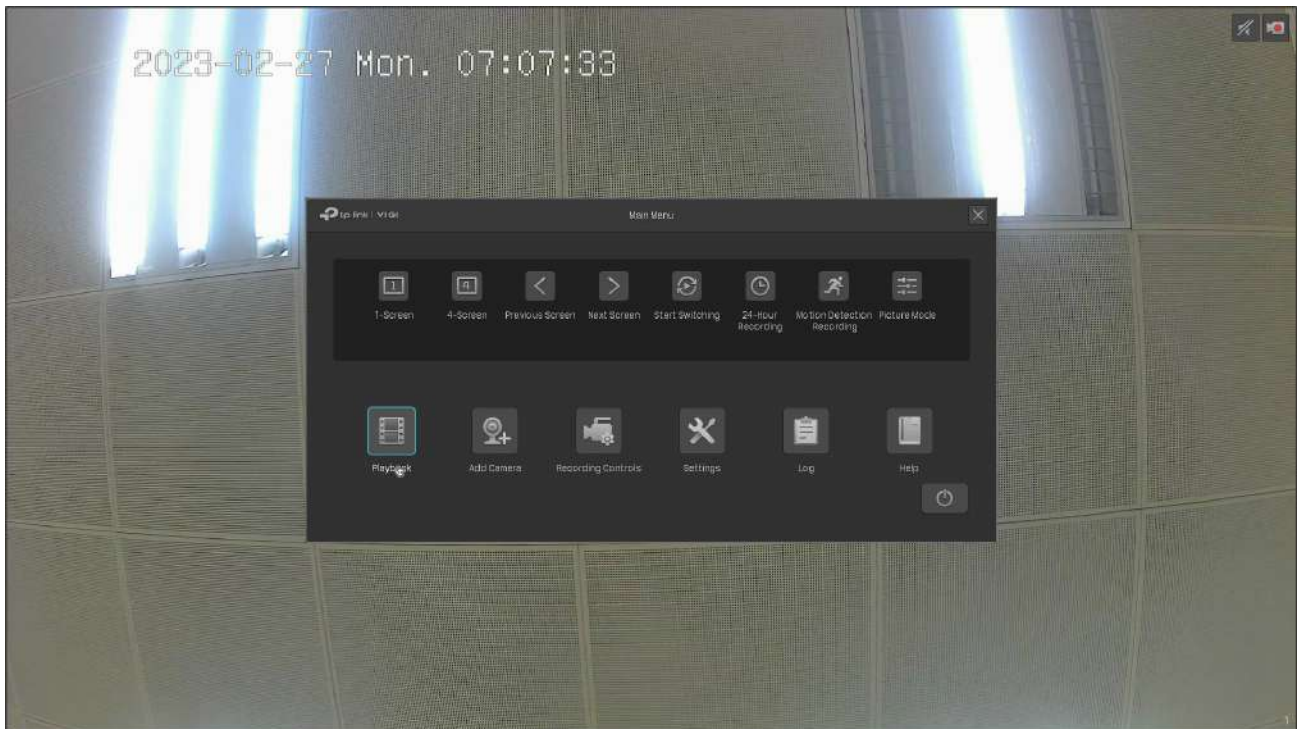
You can replay the video recorded in the last five minutes via Instant Playback. Click a channel on Live View to reveal the toolbar. Click  and then **5 min Playback** to start instant playback.



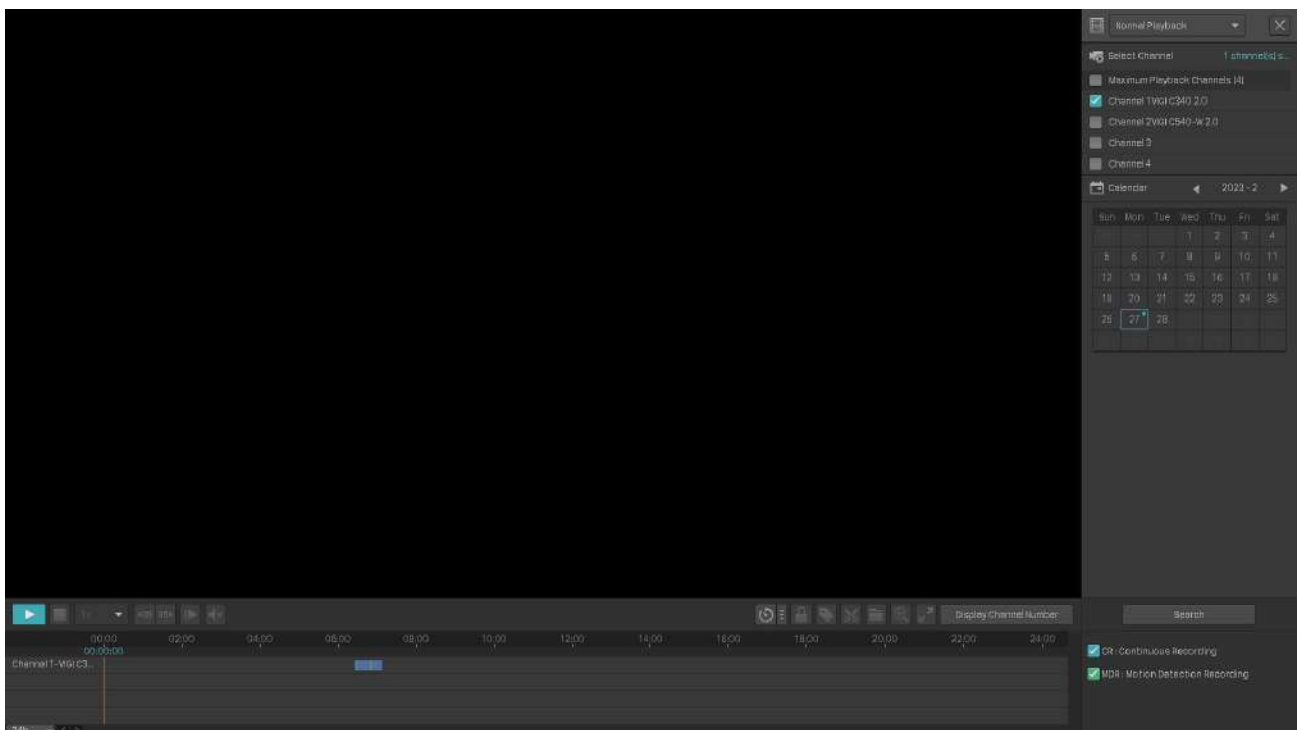
♥ 5.2 Play Normal Recordings



Normal Recordings are video files from the continuous and motion detection recordings. Follow the steps below to play normal recordings.

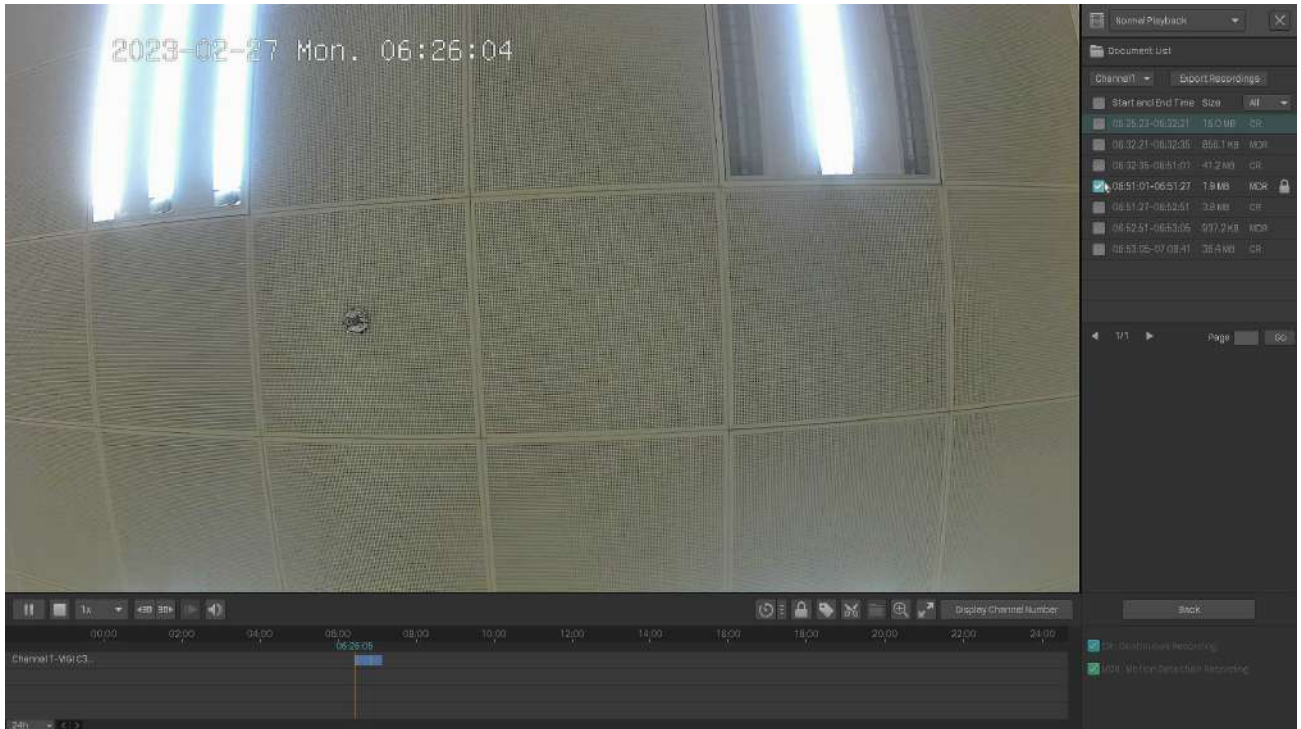
1. Right click on the Live View screen and click **Playback** in the pop-up Main Menu to open the Playback module.



2. On the right panel, select **Normal Playback**, click the checkboxes to select channels, and select a date in the calendar. You can also click the checkboxes below to filter the recordings. Click **Search**.



- The recording files are listed both on the right panel and the time bar below. Double click a recording in the list or click  to play the recordings. You can also click the  to lock the recording. Once locked, the recording cannot not be overridden when Loop Recording is enabled.



For more playback operations, refer to [5.5 Playback Operations](#).

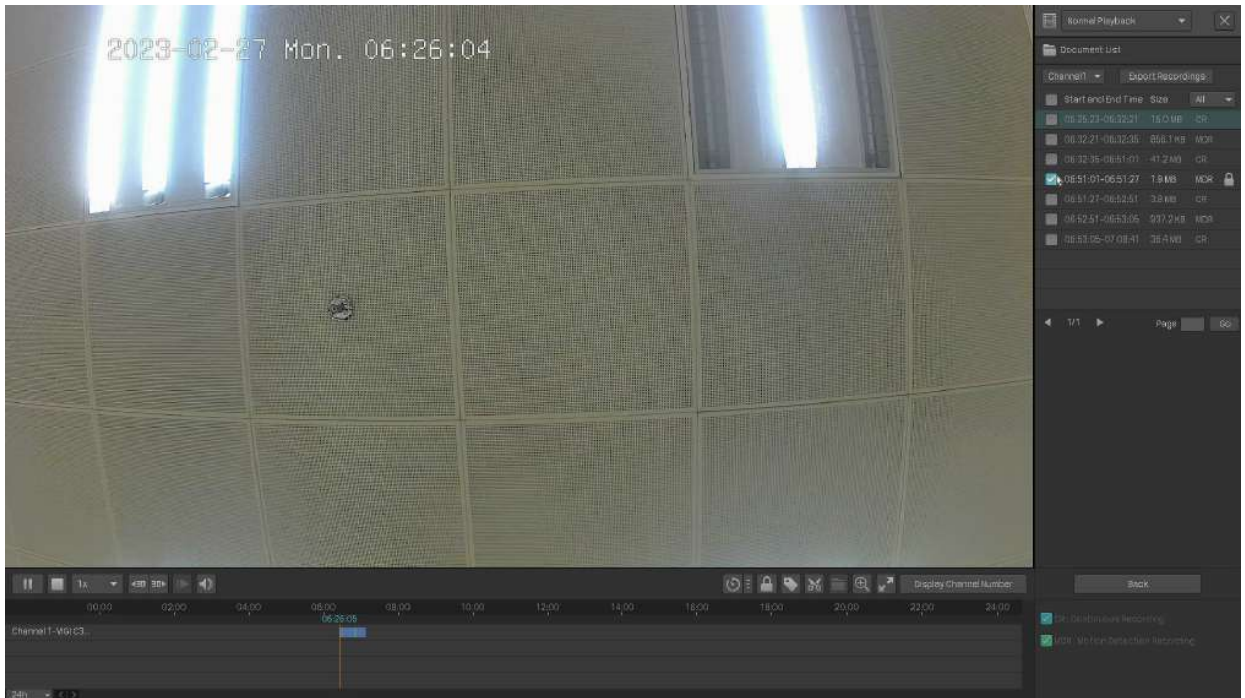
Note: When playing multiple channels, some channels may be unavailable due to limited resources. To watch the channels, click **Back** to deselect a few channels on the right panel and try again.


♥ 5.3 Play Recordings with Tags

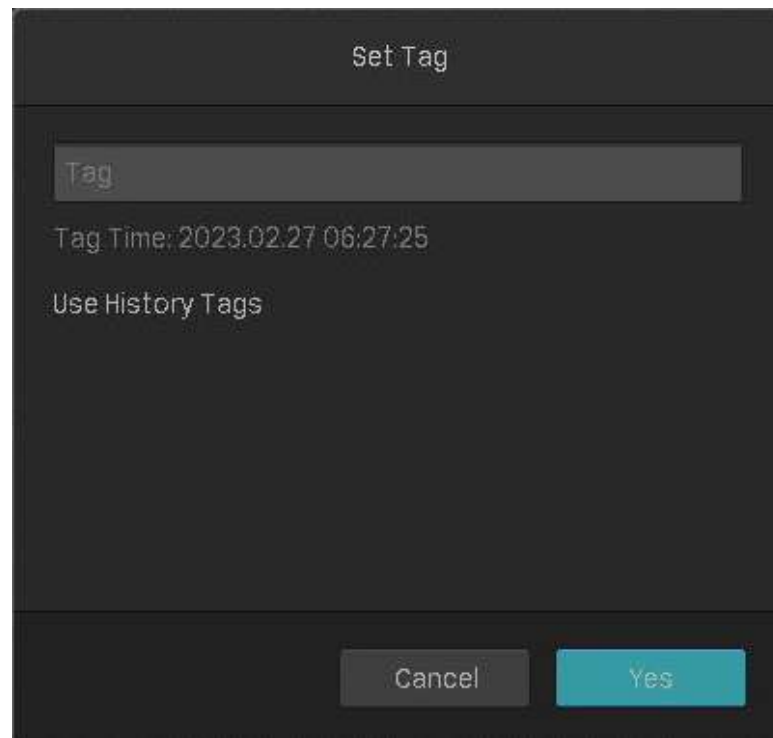
Tags can be used to mark and search recordings. Follow the steps below to add tags and play recordings with tags.

■ Step 1: Add Tags to Recording Files

- 1) Right click on the Live View screen and click **Playback** in the pop-up Main Menu to open the Playback module. In the Normal Playback mode, specify the channel and date on the right panel. Click **Search**.

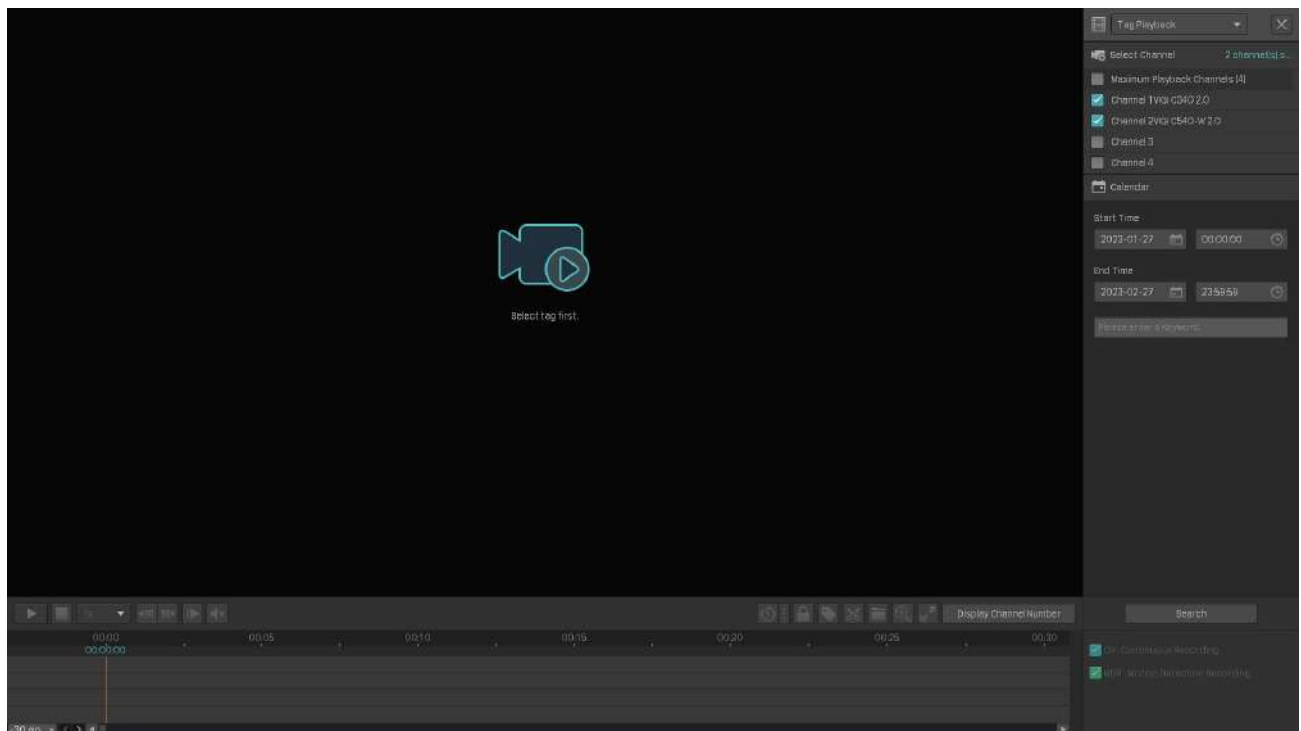


- 2) Select a time point in the recording listed in the time bar and click  in the toolbar. The following window pops up. Enter the tag manually or select one from history tags. Click **Yes**.



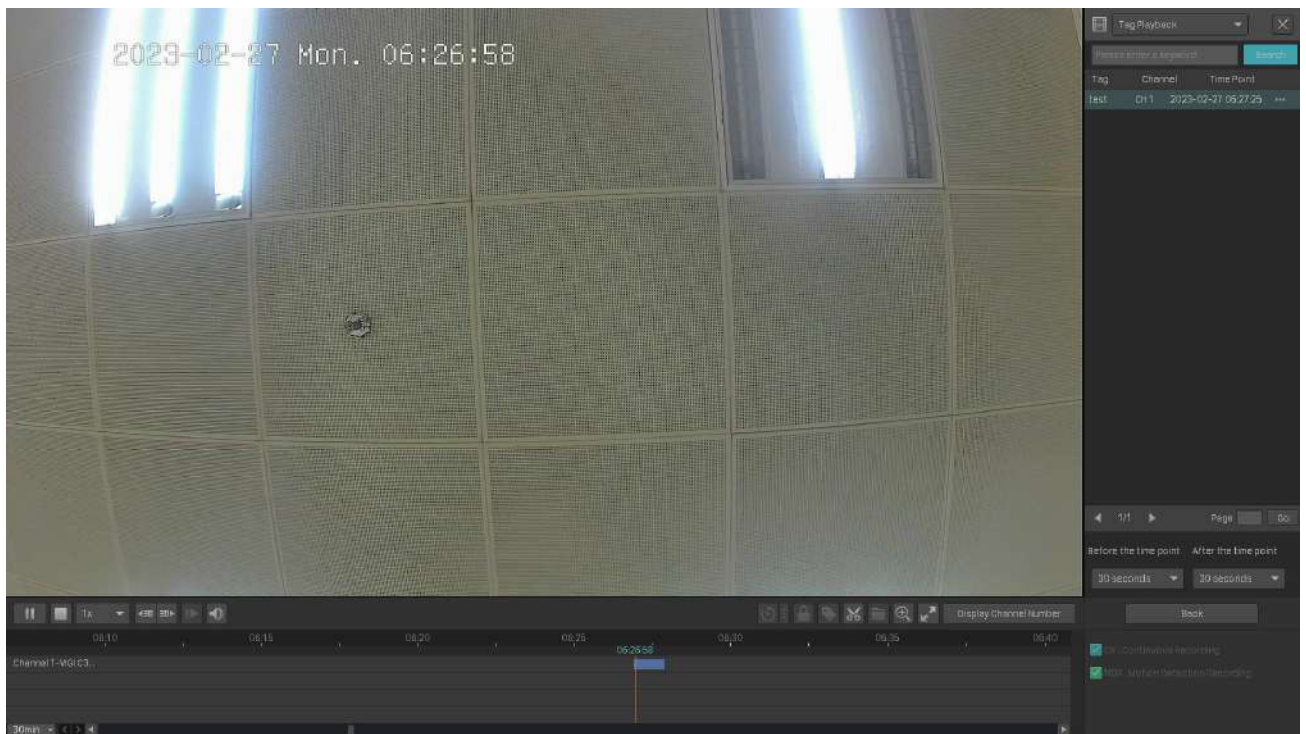
■ Step 2: Search Tags

In the same module, select **Tag Playback** from the drop-down list on the right panel, click the checkboxes to select channels, and select a time range in the calendar. Click **Search**.



■ Step 3: Play the Recording File with a tag

The recording files with tags are listed on the right panel. Specify the time range before and after the tagged time point, then double click a recording in the list to play it.



You can also click **⋮** in the list and click **Edit** or **Delete** to edit the tag or delete it. For more playback operations, refer to [5.5 Playback Operations](#).

♥ 5.4 Playback Recordings of Events

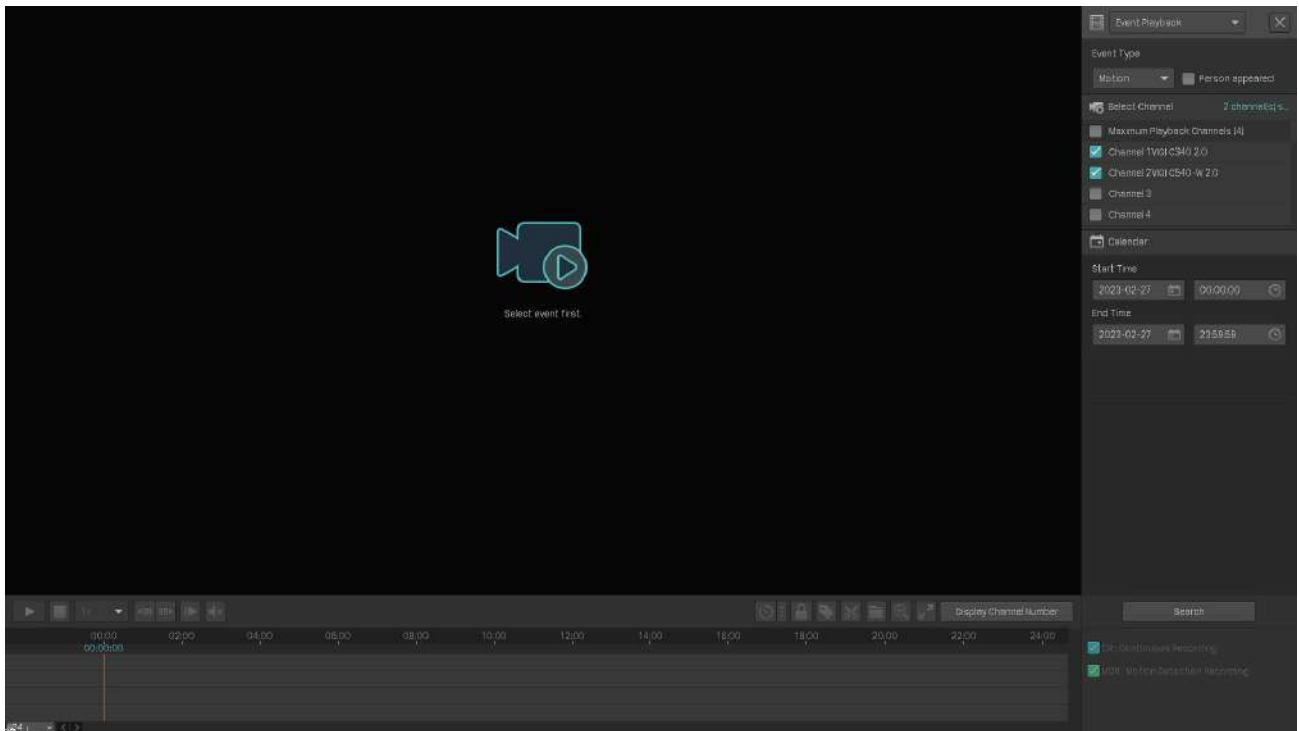
With Events configured, the NVR and cameras can detect and react to events. In Event Playback, you can search, play, and edit the videos recorded when certain events are detected, including motion, line crossing and area intrusion.

Note: If you have never configured Events on the NVR, there are no recordings of events. To configure Events, refer to [Events and Alerts](#).

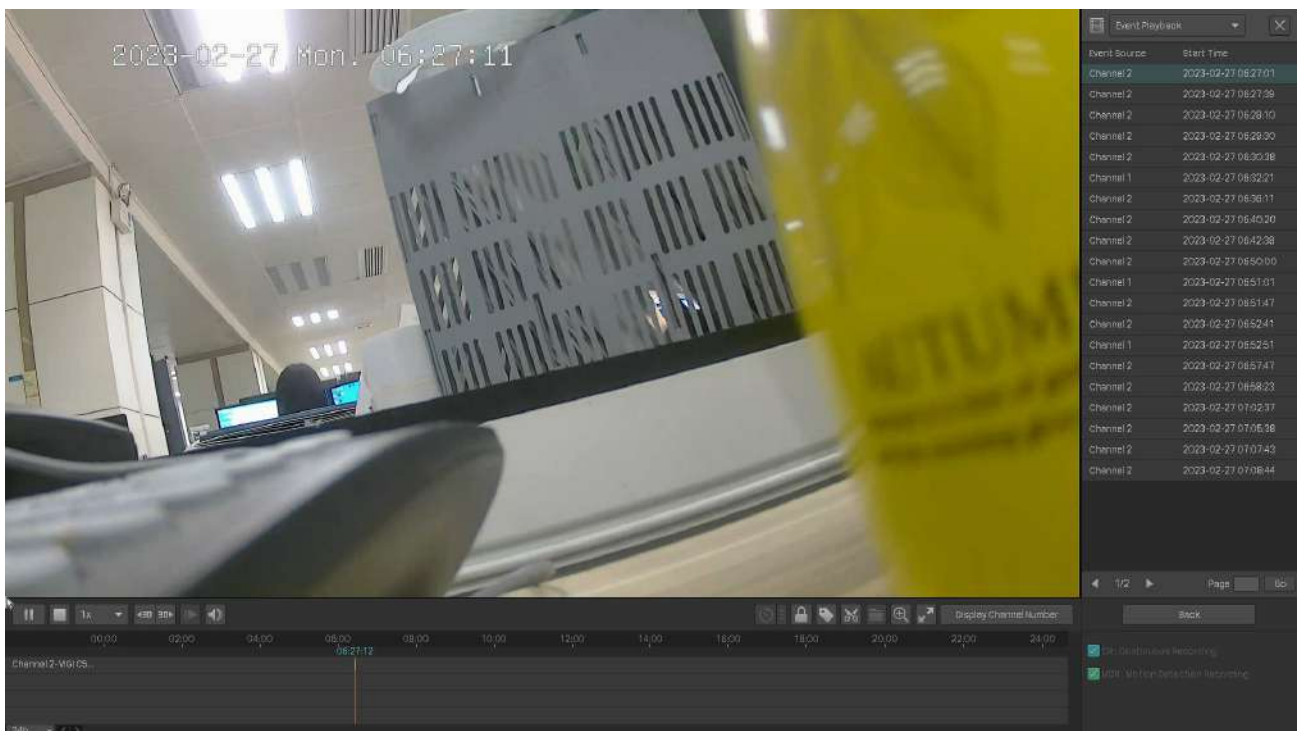
Follow the steps below to search and play the recordings of certain events.

1. Right click on the Live View screen and click **Playback** in the pop-up Main Menu to open the Playback module.

- On the right panel, select **Event Playback** and select an event type from the drop-down list. Click the checkboxes to select channels, and select a time range in the calendar. You can also enable **Person Appeared** to search the recordings that people appeared in. Click **Search**.



- The recording files of events are listed on the right panel. Double click a recording in the list to play it.



For more playback operations, refer to [5.5 Playback Operations](#).

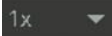







♥ 5.5 Playback Operations

In the Playback module, you can use the icons and buttons in the toolbar and on the right panel to adjust the display, edit and back up the recordings.

Note: The operations are not available in Instant Playback.


5.5.1 Basic Playback Operations

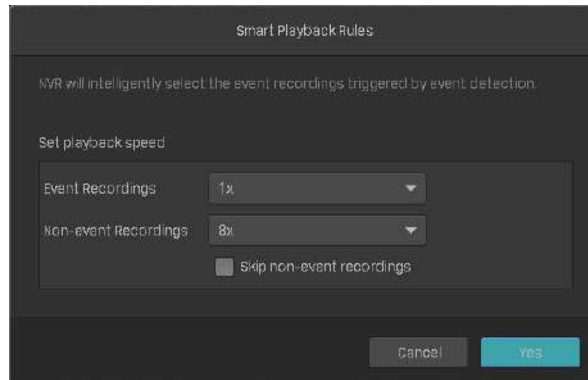
The following icons are supported when playing recordings:

	Select from the drop-down list to change the playing speed.
	Jump forward/backward by 30 seconds.
	(Available when the recording is paused) Play the recordings by frames.
	Click and slide to adjust the volume.
	(Available in Normal Playback and Event Playback) Lock/unlock the recordings. Once locked, the recording cannot not be overridden when Loop Recording is enabled.
	(Available in Normal Playback and Event Playback) Add a tag to the recording.
	Zoom in or out via Digital Zoom.
	Play the recordings in full screen.
<div data-bbox="137 1397 408 1433" style="background-color: #333; color: white; padding: 2px;">Display Channel Number</div> <div data-bbox="137 1447 408 1482" style="background-color: #333; color: white; padding: 2px;">Hide Channel Number</div>	Display/hide the channel number in Playback.

5.5.2 Set Smart Playback Rules

In **Normal Playback**, you can configure Smart Playback rules to adjust the playing speed automatically. When Smart Playback configured, the NVR can intelligently classify the recordings into two types, Event Recordings and Non-event Recordings, and adjusts the speed based on the recording types.

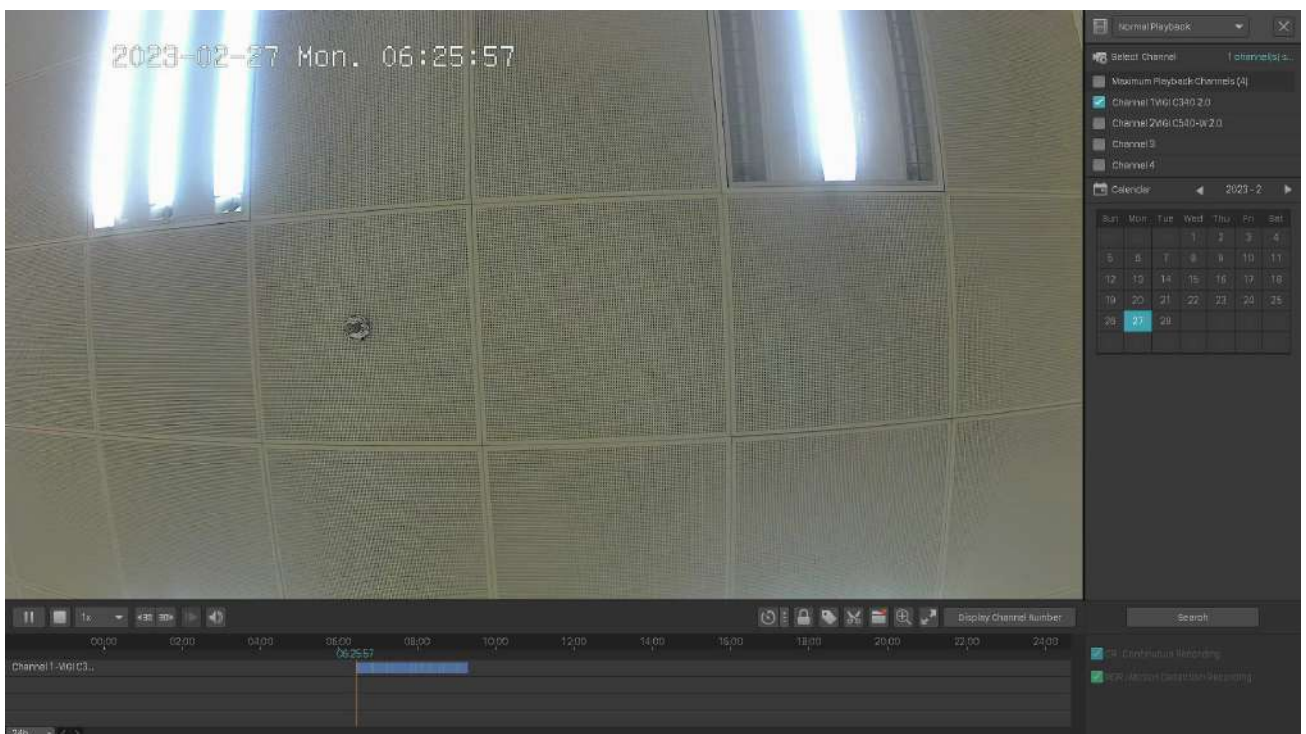
Click the  icon and set the playing speed. You can skip Non-event Recordings by clicking the checkbox. Click **Yes**.





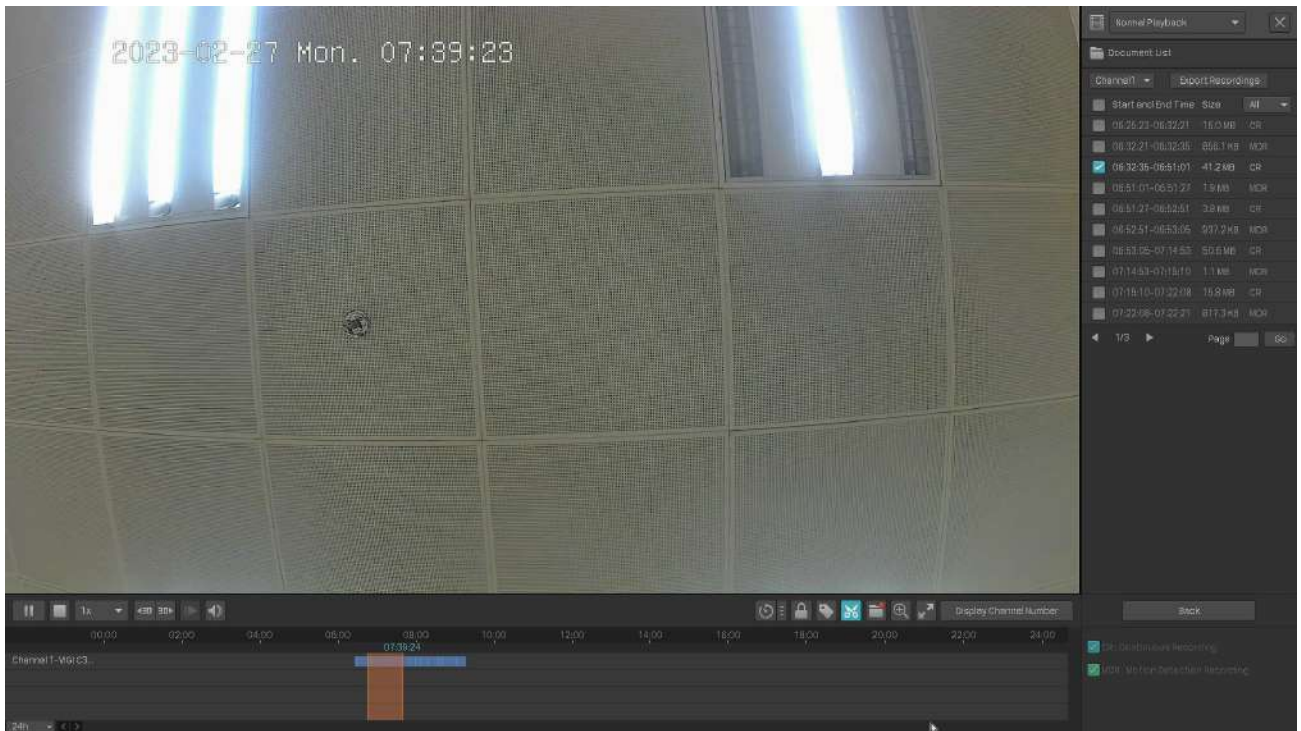
5.5.3 Edit Recordings


Follow the steps below to clip video files.

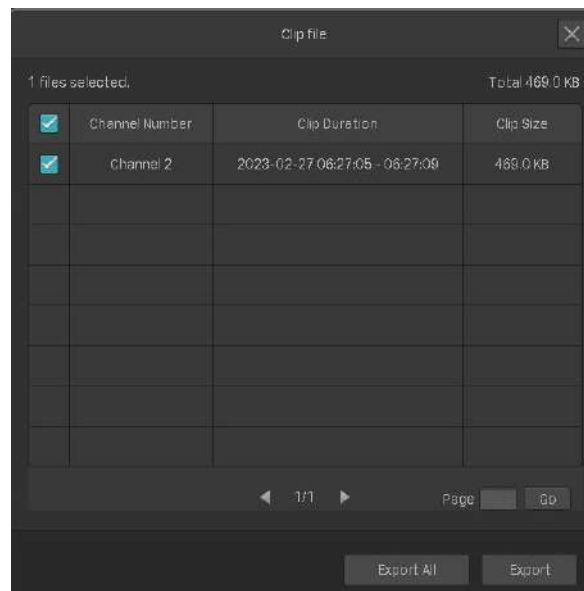
1. In Playback, specify the playback mode, channels, and time range, then click **Search** to search recordings.



- Click the recordings in the time bar to select a start time. Click  at the toolbar to set the beginning of the clip. Click the recordings again and drag the mouse to adjust the length of the clip. Click  to set the end of the clip.



After editing, you can click  to view all clips. To export the clip to an external storage, select the clips and click **Export**.



Note:

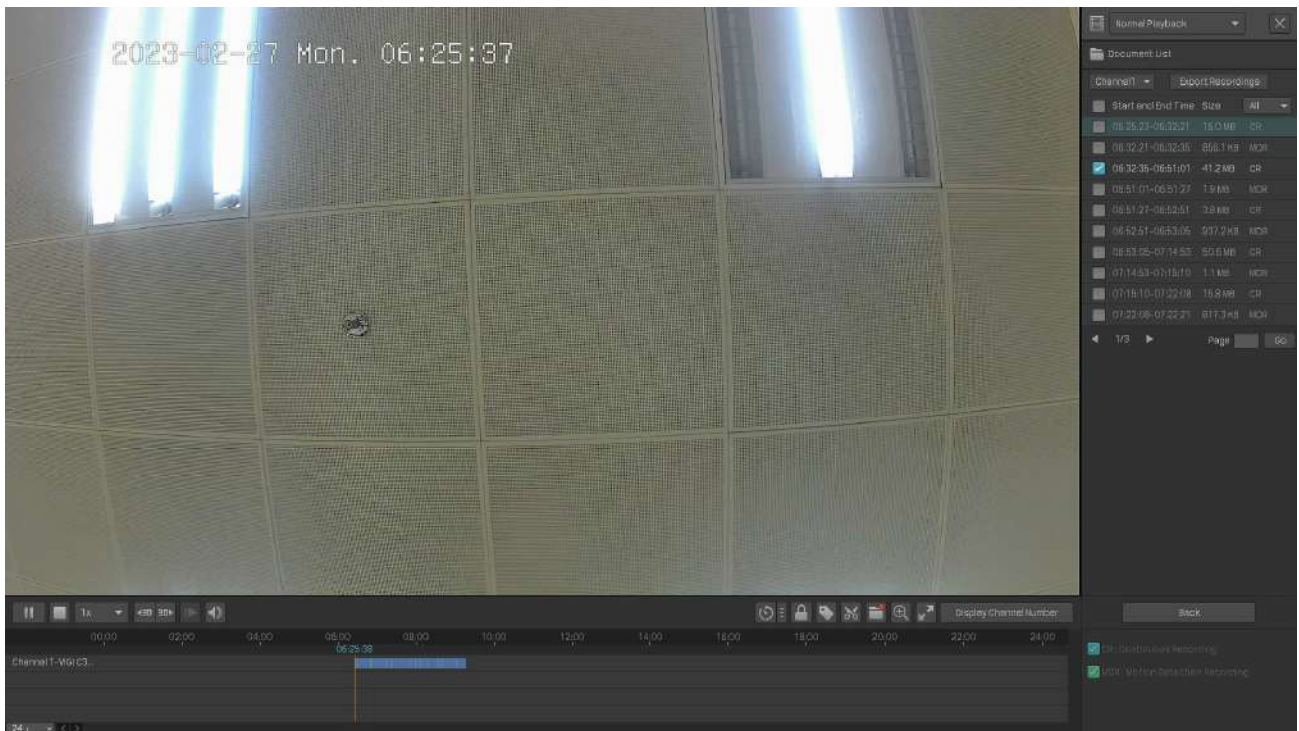
- To export the clips, an external storage is required.
- For the clips that are not exported, they will not be saved as new recordings when you leave the Playback module.

5.5.4 Export Recordings

In Playback, you can easily search the desired recordings based on channel, time, recording types, tags, and events, and back up them in batches. Follow the steps below to search and back up recordings.

Note: To back up the recordings, an external storage is required.

1. In Playback, specify the playback mode, channels, and time range, then click **Search** to search recordings. The recording files are listed on the right panel. Click the checkbox to select the recordings to be exported and click **Export Recordings**.



2. Specify the path to export the recordings. Click **Start Backup** and wait until backup is completed.

6

Events and Alerts

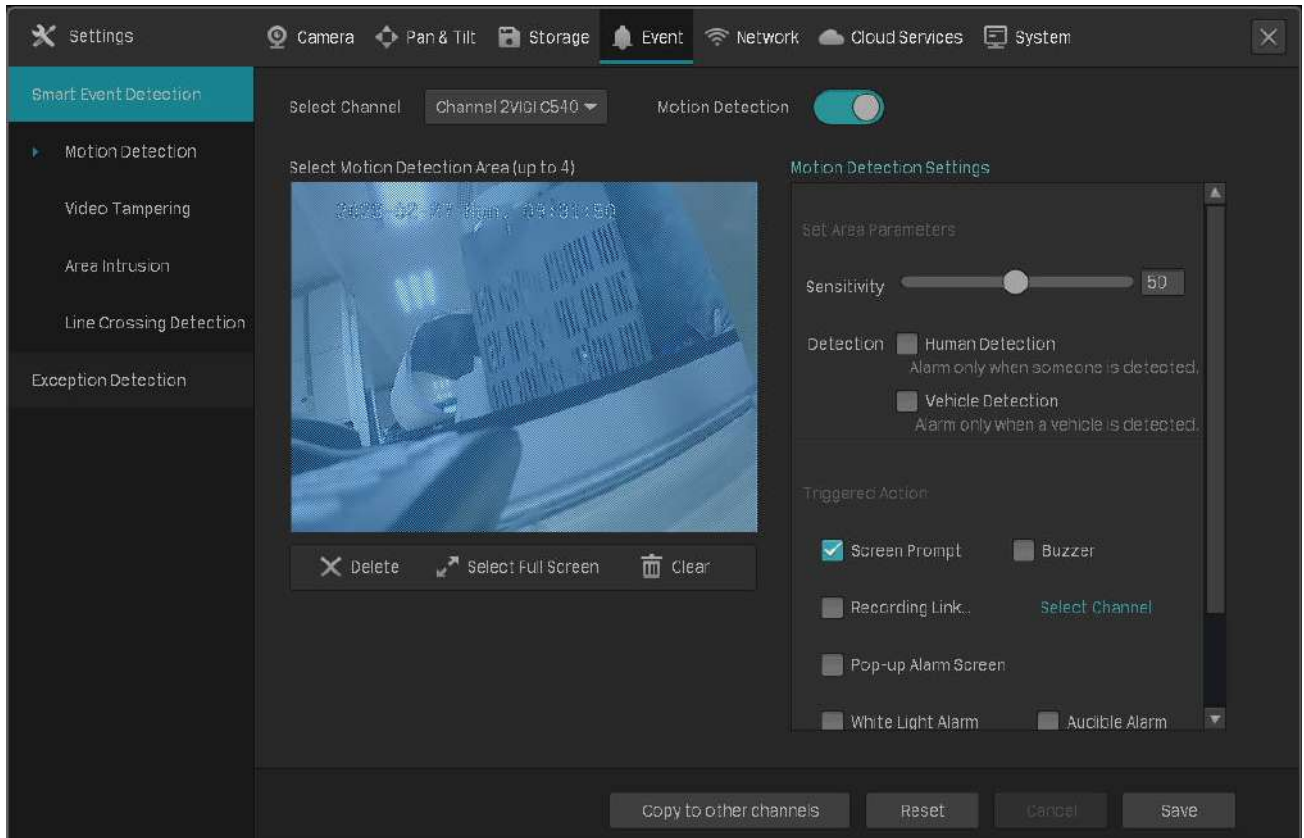
This chapter guides you on how to configure the event settings and alarm actions when your cameras detect different types of events. VIGI NVR monitors the user-defined areas and you'll be automatically alerted to any suspicious activity in your home and office. This chapter includes the following sections:

- [Motion Detection](#)
- [Video Tampering](#)
- [Area Intrusion](#)
- [Line Crossing Detection](#)
- [Video Signal Loss](#)
- [Offline and IP Conflict](#)
- [Disk Exception](#)
- [Login Exception](#)
- [Hardware Exception \(Only for PoE models\)](#)

♥ 6.1 Motion Detection

Motion detection allows cameras to detect the moving objects in the monitored area and triggers alarm actions. You can customize the motion detection settings, select the triggered actions and set the alarm schedule for cameras. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Smart Event Detection > Motion Detection**.



2. Select the channel you want to detect and enable **Motion Detection**.
3. Draw rectangles for motion detection on the preview screen. The whole region is selected by default. Then configure the motion detection settings.

Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
--------------------	--

Detection	Select the detection type. It can be configured only for the cameras which support human detection and vehicle detection.
------------------	---

4. Select the triggered actions according to your needs.

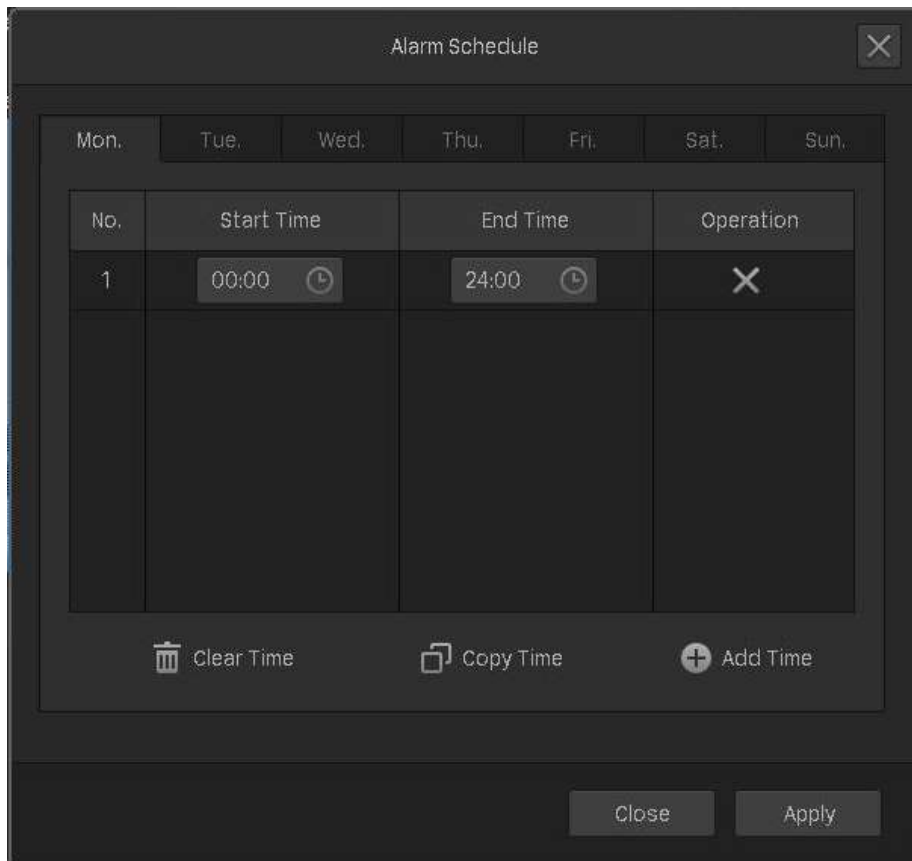
Screen Prompt	A warning sign  on Live View screen.
----------------------	---

Buzzer	The buzzer on the NVR will beep when the motion is detected.
---------------	--

Recording Linkage	The channels you select for recording linkage will start recording when the current channel detects the motion.
--------------------------	---

Pop-up Alarm Screen	The channel in Live View will be in full screen when the motion is detected.
White Light Alarm	(Only supports camera models with light alarm) The camera will trigger light alarm when the motion is detected.
Audible Alarm	(Only supports camera models with audible alarm) The buzzer on the camera will alarm when the motion is detected.

- Set the alarm schedule. Click **Apply**.

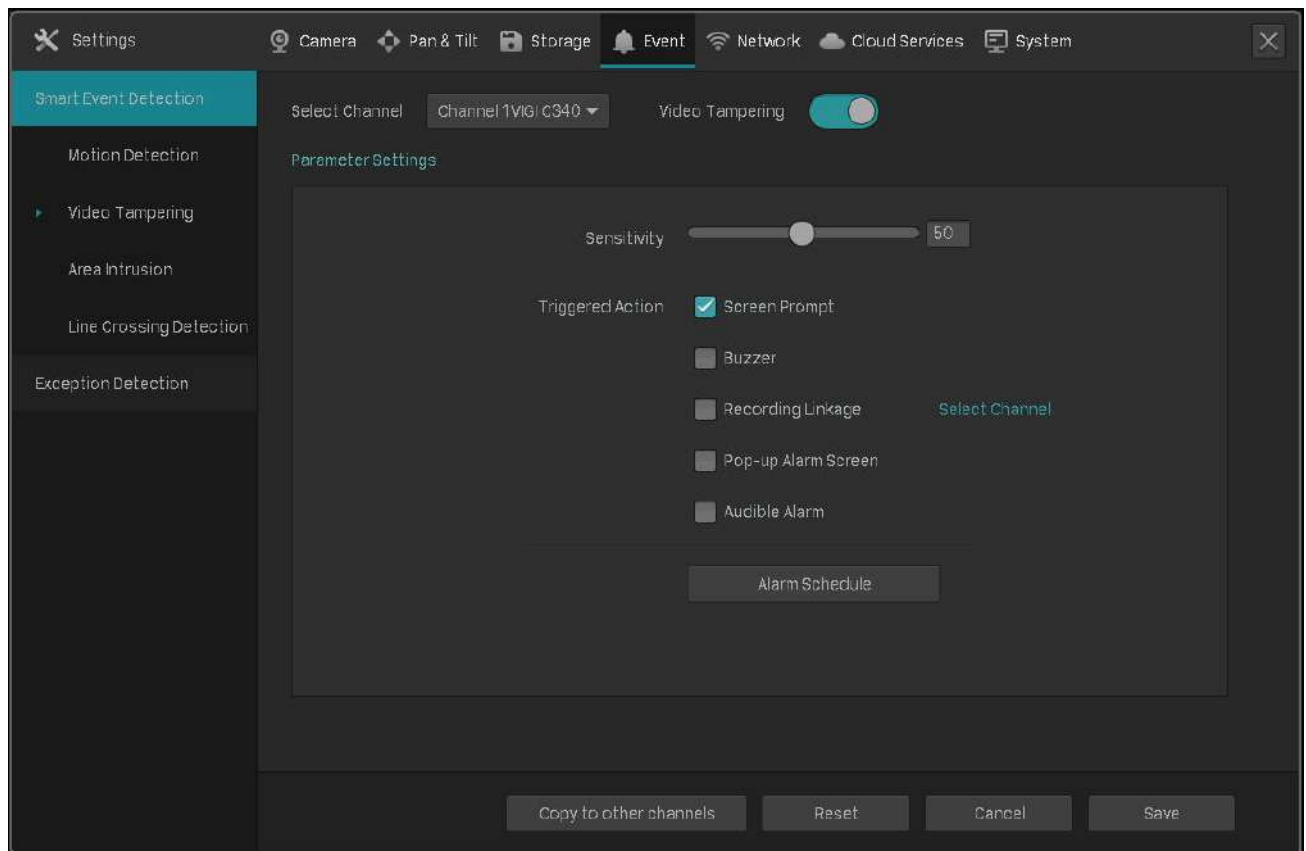


- Click **Save** to save the settings.
- (Optional) Click **Copy to other channels**, select the channels and click **Yes** if you want to apply the settings to other channels. Then click **Save in Motion Detection** to save the settings.


♥ 6.2 Video Tampering

Video tampering triggers alarm actions when an area of camera's lens is purposely blocked, obstructed or vandalized. You can customize the video tampering settings, select the triggered actions and set the alarm schedule for cameras. Follow the steps below to finish the configuration.

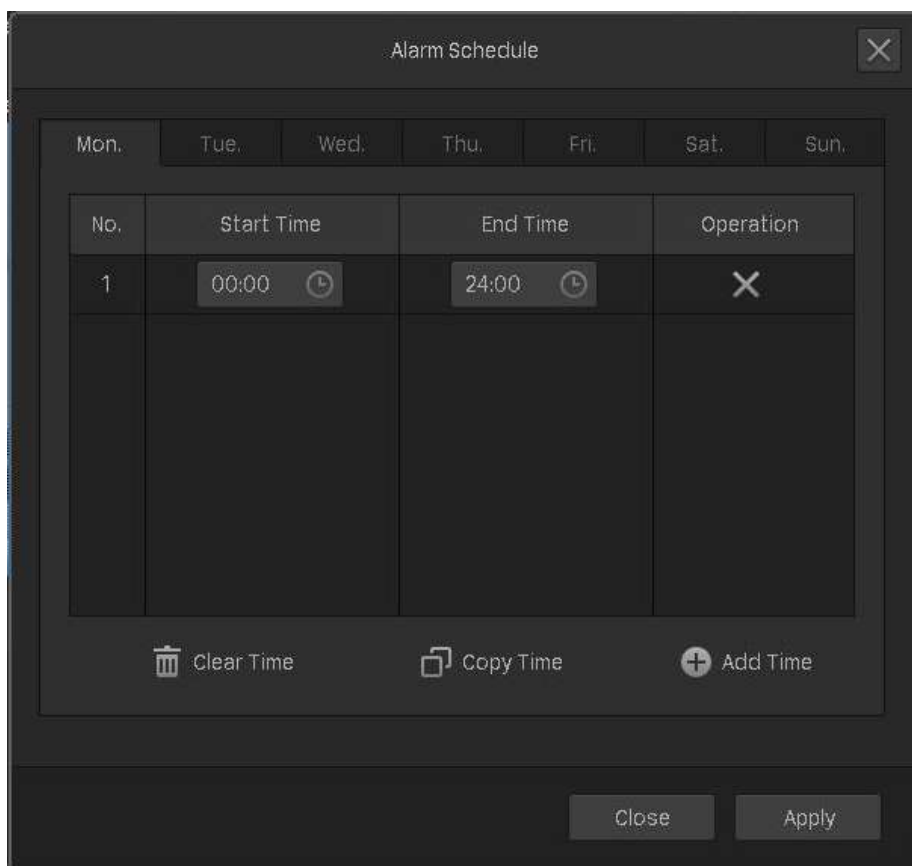
1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Smart Event Detection > Video Tampering**.



2. Select the channel you want to detect and enable **Video Tampering**.
3. Set the sensitivity of video tampering. A higher value can trigger the alarm actions more easily.
4. Select the triggered actions according to your needs.

Screen Prompt	A warning sign  in the lower right corner of the monitor screen. Click it to check the event type and time.
Buzzer	The buzzer on the NVR will beep when the video tampering is detected.
Recording Linkage	The channels you select for recording linkage will start recording when the current channel detects the video tampering.
Pop-up Alarm Screen	The channel in Live View will be in full screen when the video tampering is detected.
Audible Alarm	(Only supports camera models with audible alarm) The buzzer on the camera will alarm when the video tampering is detected.

5. Set the alarm schedule. Click **Apply**.

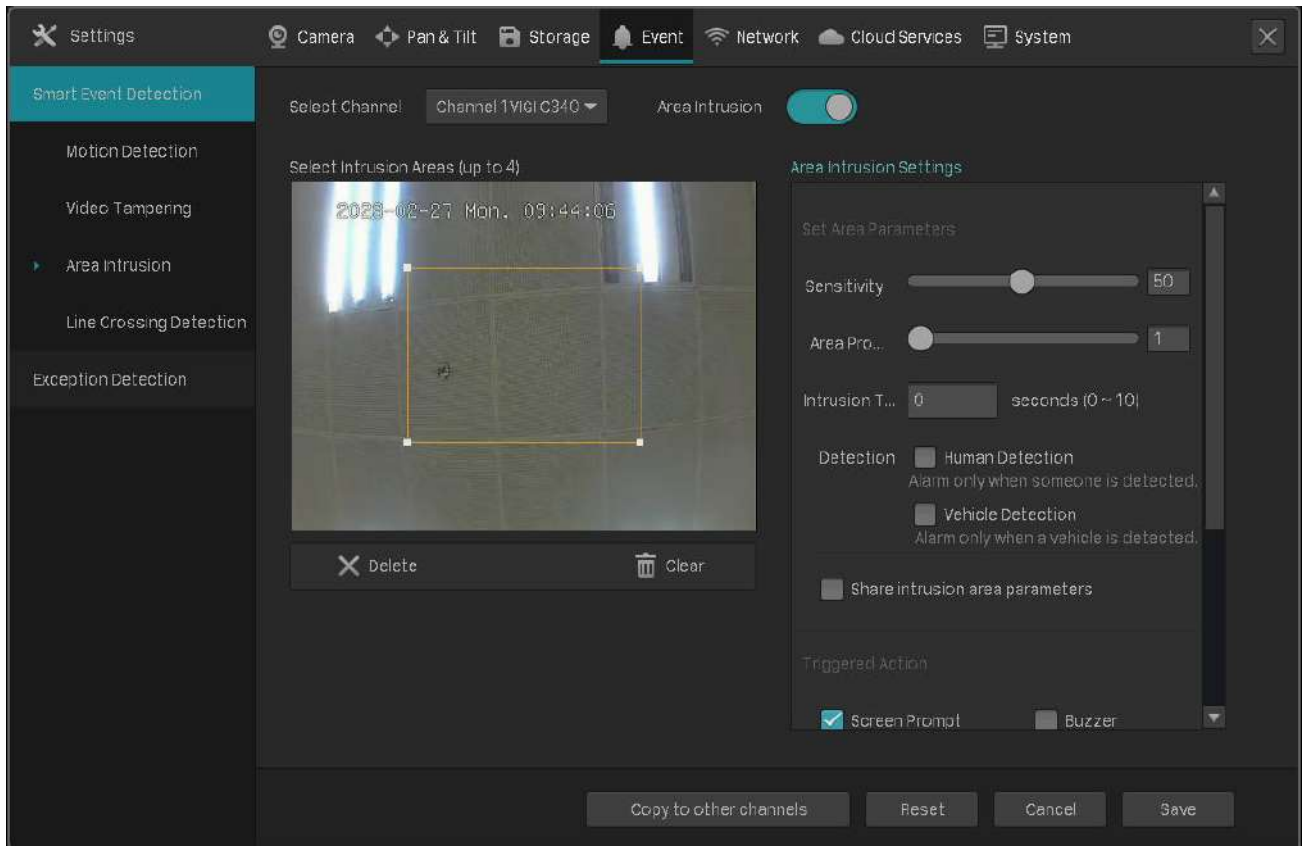


6. Click **Save** to save the settings.
7. (Optional) Click **Copy to other channels**, select the channels and click **Yes** if you want to apply the settings to other channels. Then click **Save in Video Tampering** to save the settings.

♥ 6.3 Area Intrusion

Area intrusion triggers alarm actions when the NVR detects an intrusion in the specified areas. You can customize the area intrusion settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Smart Event Detection > Area Intrusion**.




2. Select the channel you want to detect and enable **Area Intrusion**.
3. Draw intrusion areas on the preview screen. Select the area and configure the settings.

Note: The maximum number of customized areas is 4. If you want to apply the settings to different areas, select **Share intrusion area parameters**.

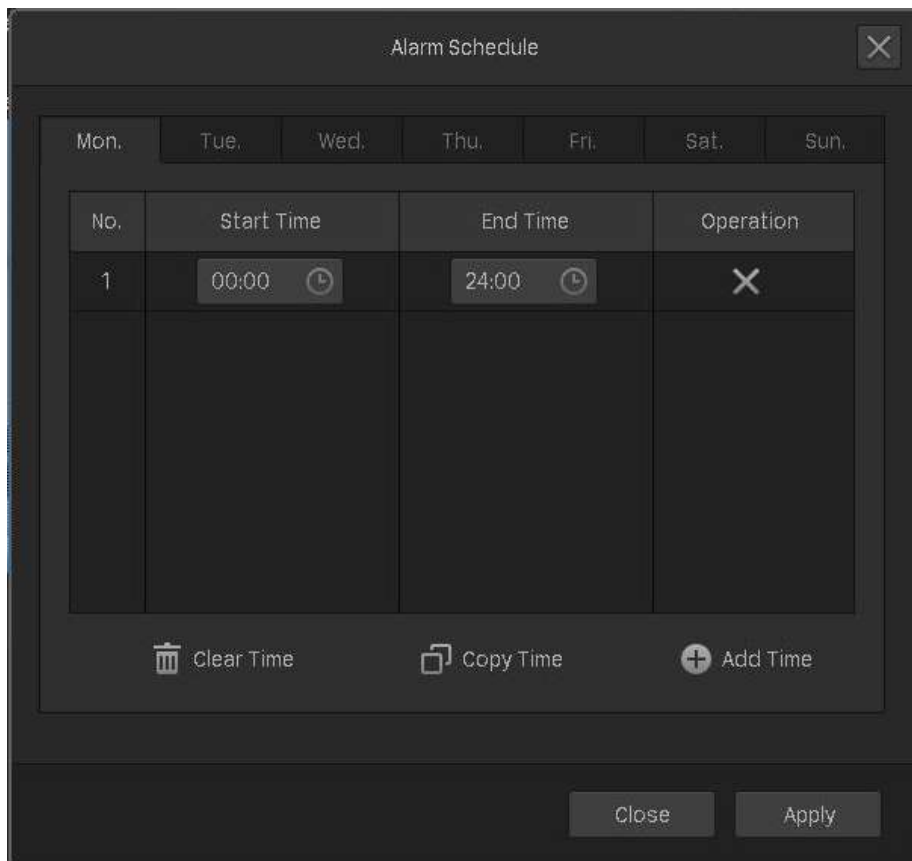
Sensitivity	Adjust the value of sensitivity. A higher value can trigger alarm actions more easily.
Area Ratio	Set the ratio of the size of intrusive object to the intrusion area you have drawn.
Intrusion Time	Set the time for detecting the intrusion of objects. The interval should be no more than 10 seconds.
Detection	Select the detection type. It can be configured only for the cameras which support human detection and vehicle detection.

4. Select the triggered actions according to your needs.

Screen Prompt	A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.
----------------------	---

Buzzer	The buzzer on the NVR will beep when the area intrusion is detected.
Recording Linkage	The channels you select for recording linkage will start recording when the current channel detects an intrusion in the area.
Pop-up Alarm Screen	The channel in Live View will be in full screen when an intrusion in the area is detected.
White Light Alarm	(Only supports camera models with light alarm) The camera will trigger light alarm when an intrusion in the area is detected.
Audible Alarm	(Only supports camera models with audible alarm) The buzzer on the camera will alarm when an intrusion in the area is detected.

- Set the alarm schedule. Click **Apply**.

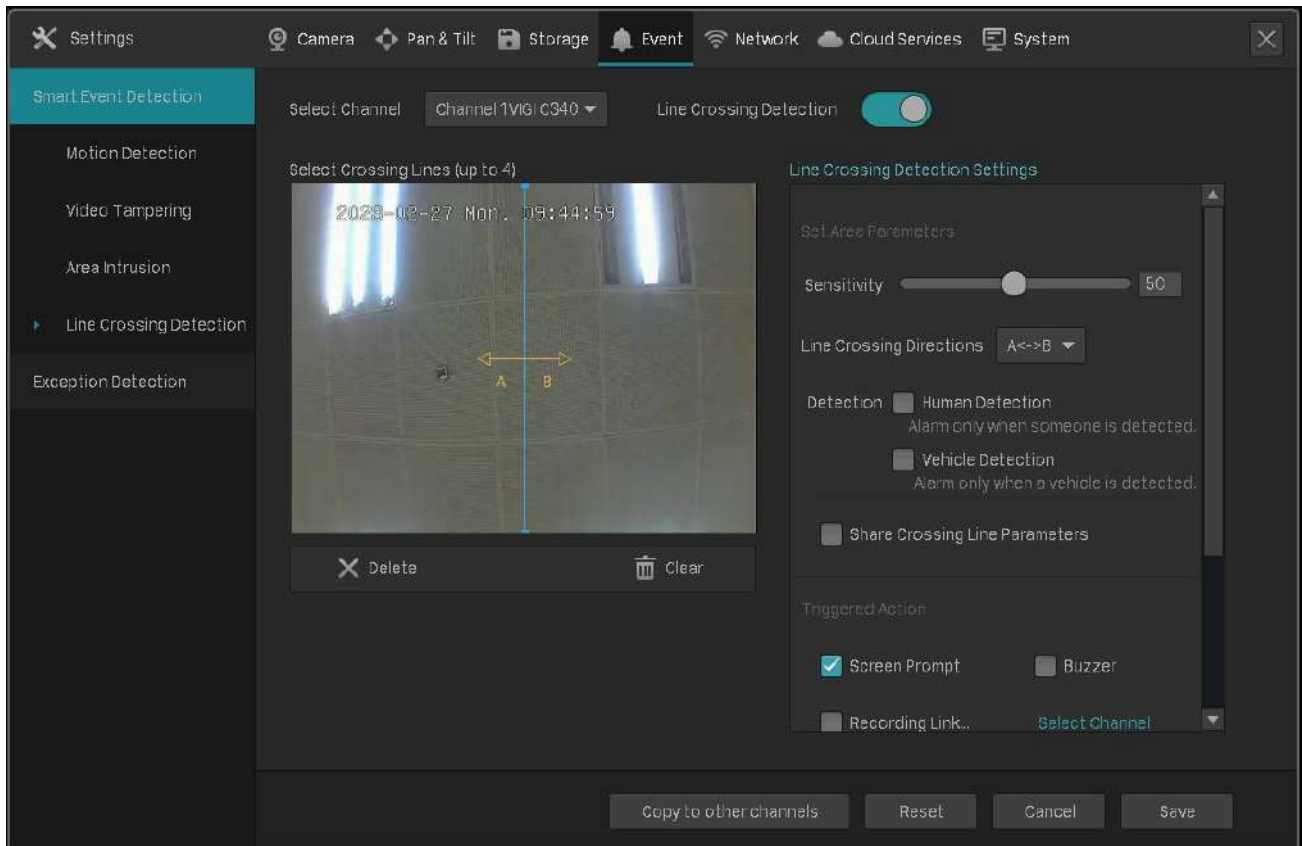


- Click **Save** to save the settings.
- (Optional) Click **Copy to other channels**, select the channels and click **Yes** if you want to apply the settings to other channels. Then click **Save in Area Intrusion** to save the settings.

♥ 6.4 Line Crossing Detection

Line crossing detection triggers alarm actions when cameras detect that moving objects cross a customized virtual line. You can customize the line crossing detection settings, select the triggered actions and set the alarm schedule. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Smart Event Detection > Line Crossing Detection**.




2. Select the channel you want to detect and enable **Line Crossing Detection**.
3. Draw lines on the preview screen. Select the line and configure settings of line crossing detection.

Note: The maximum number of customized lines is 4. If you want to apply the settings for different areas, select **Share intrusion area parameters**.

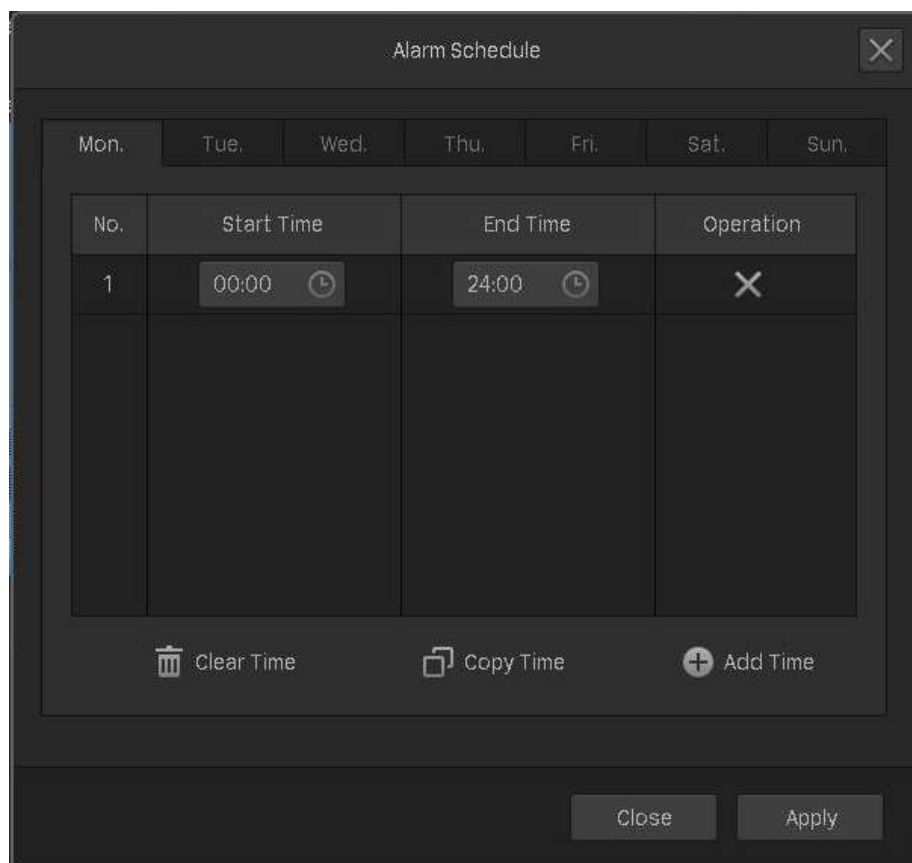
Sensitivity	Set the sensitivity of line crossing detection. A higher value can trigger alarm actions more easily.
Line Crossing Direction	<p>A->B: Only the object crossing the configured line from the A side to the B side can be detected.</p> <p>B->A: Only the object crossing the configured line from the B side to the A side can be detected.</p> <p>A<->B: The object goes across the configured line with both directions can be detected.</p>
Detection	Select the detection type. It can be configured only for the cameras which support human detection and vehicle detection.

4. Select the triggered actions according to your needs.

Screen Prompt	A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.
----------------------	---

Buzzer	The buzzer on the NVR will beep when line crossing detection is triggered.
Recording Linkage	The channels you select for recording linkage will start recording when the current channel detects the object crossing the customized line.
Pop-up Alarm Screen	The channel in Live View will be in full screen when line crossing detection is triggered.
White Light Alarm	(Only supports camera models with light alarm) A camera with light alarm flashes when line crossing detection is triggered.
Audible Alarm	(Only supports camera models with audible alarm) The buzzer on the camera will alarm when line crossing detection is triggered.

- Set the alarm schedule. Click **Apply**.

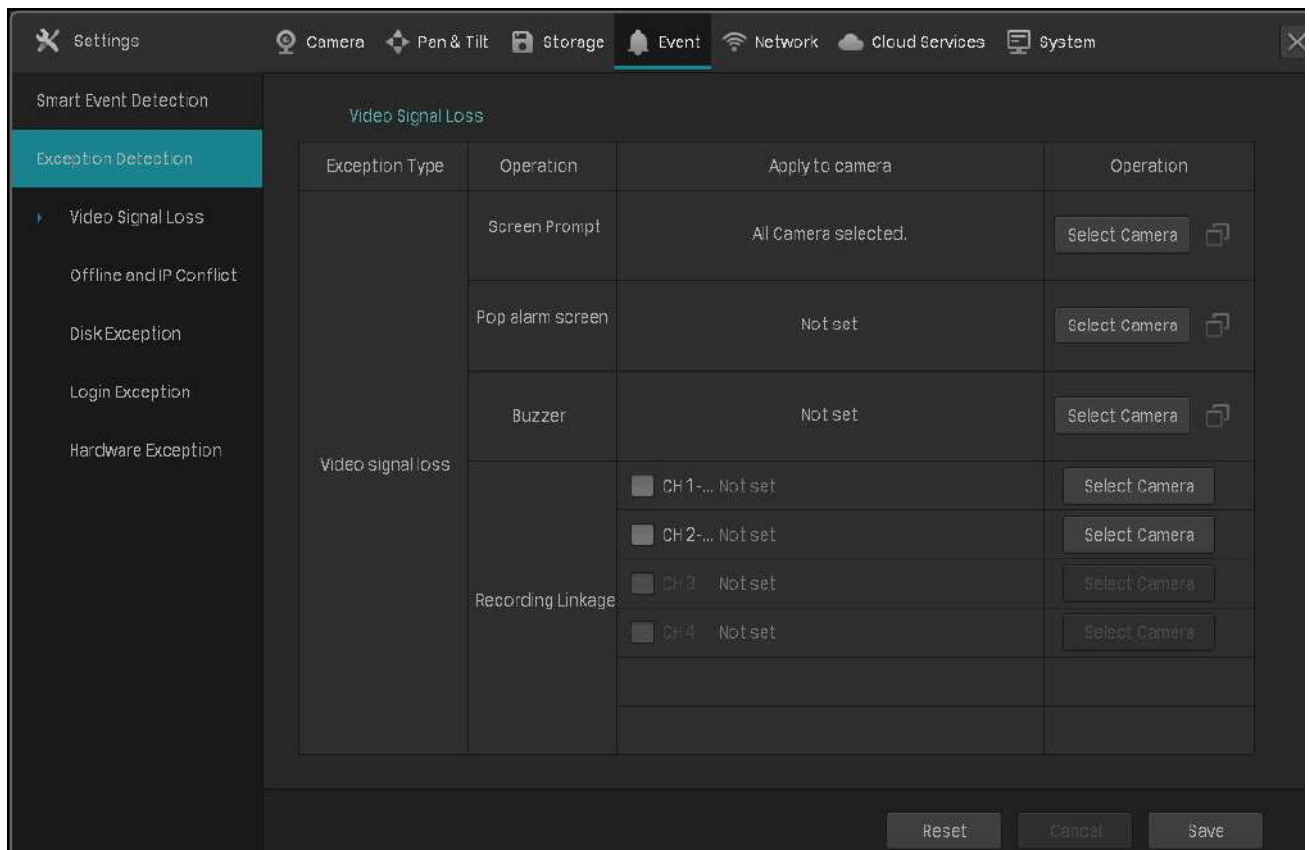


- Click **Save** to save the settings.
- (Optional) Click **Copy to other channels**, select the channels and click **Yes** if you want to apply the settings to other channels. Then click **Save** in **Line Crossing Detection** to save the settings.


♥ 6.5 Video Signal Loss

Alarm actions will be triggered when the NVR cannot get video signal from the camera and display signal on the Live View screen. You can customize the triggered actions for different cameras. Follow the steps below to finish the configuration.

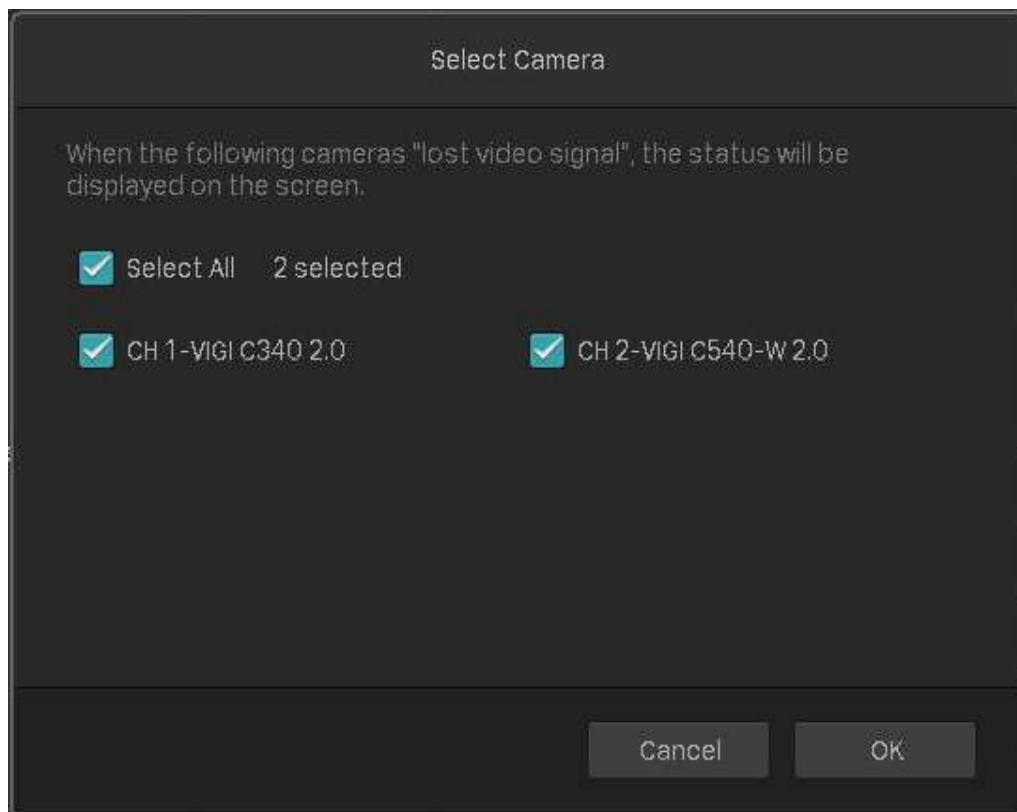
1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Exception Detection > Video Signal Loss**.



The alarm actions are as follows:

Screen Prompt	A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.
Pop Alarm Screen	The channel in Live View will be in full screen when the NVR detects the signal loss.
Buzzer	The buzzer on the NVR will beep when the NVR detects the signal loss.
Recording Linkage	The channels you select for recording linkage will start recording when the current channel detects the signal loss.

2. Click **Select Camera** to apply the selected alarm actions to certain cameras. Click **OK**.

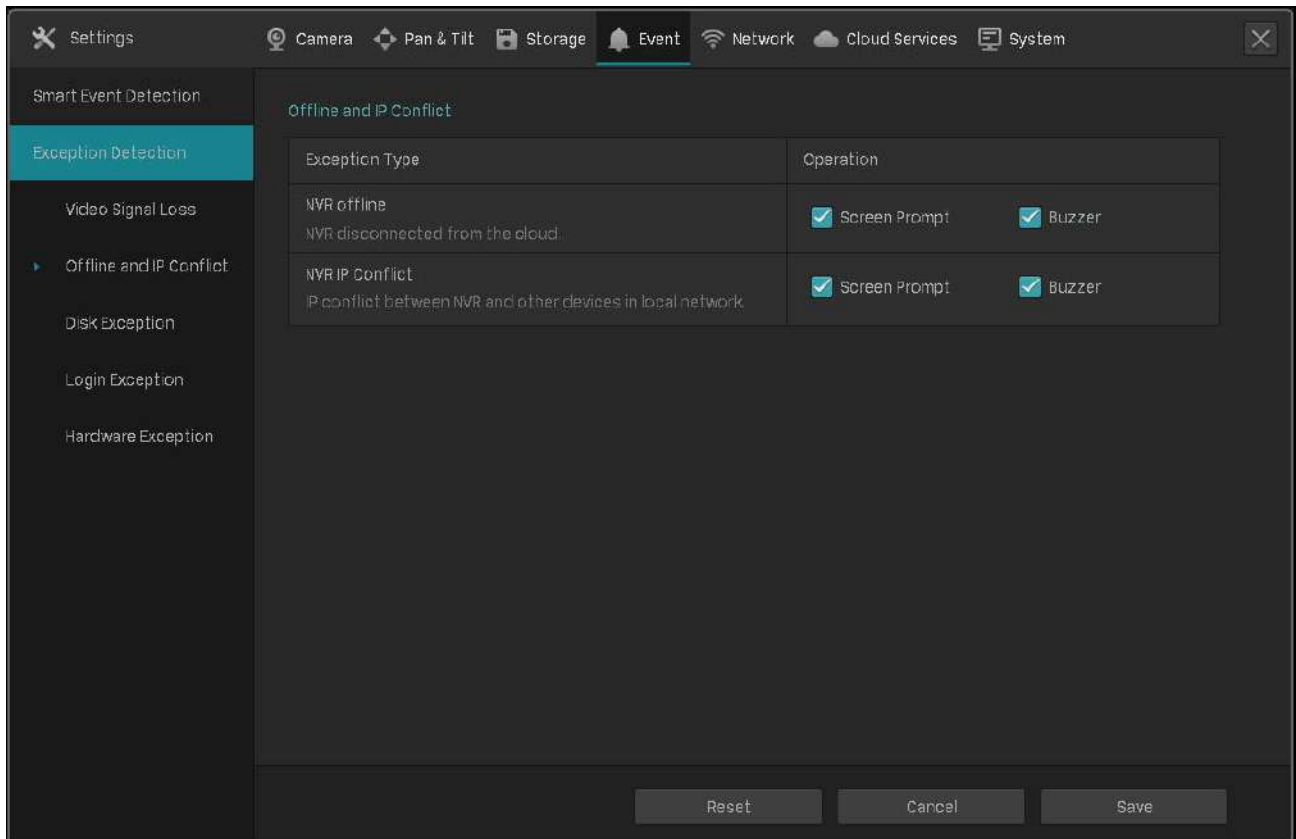


3. Click **Save** to save the settings.

♥ 6.6 Offline and IP Conflict


Alarm actions will be triggered when the NVR is offline or it detects IP conflict between the NVR and other devices in the local network. You can select triggered actions for these two exception types. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Exception Detection > Offline and IP Conflict**.



2. Select the alarm actions according to your needs:

Screen Prompt

A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.

Buzzer

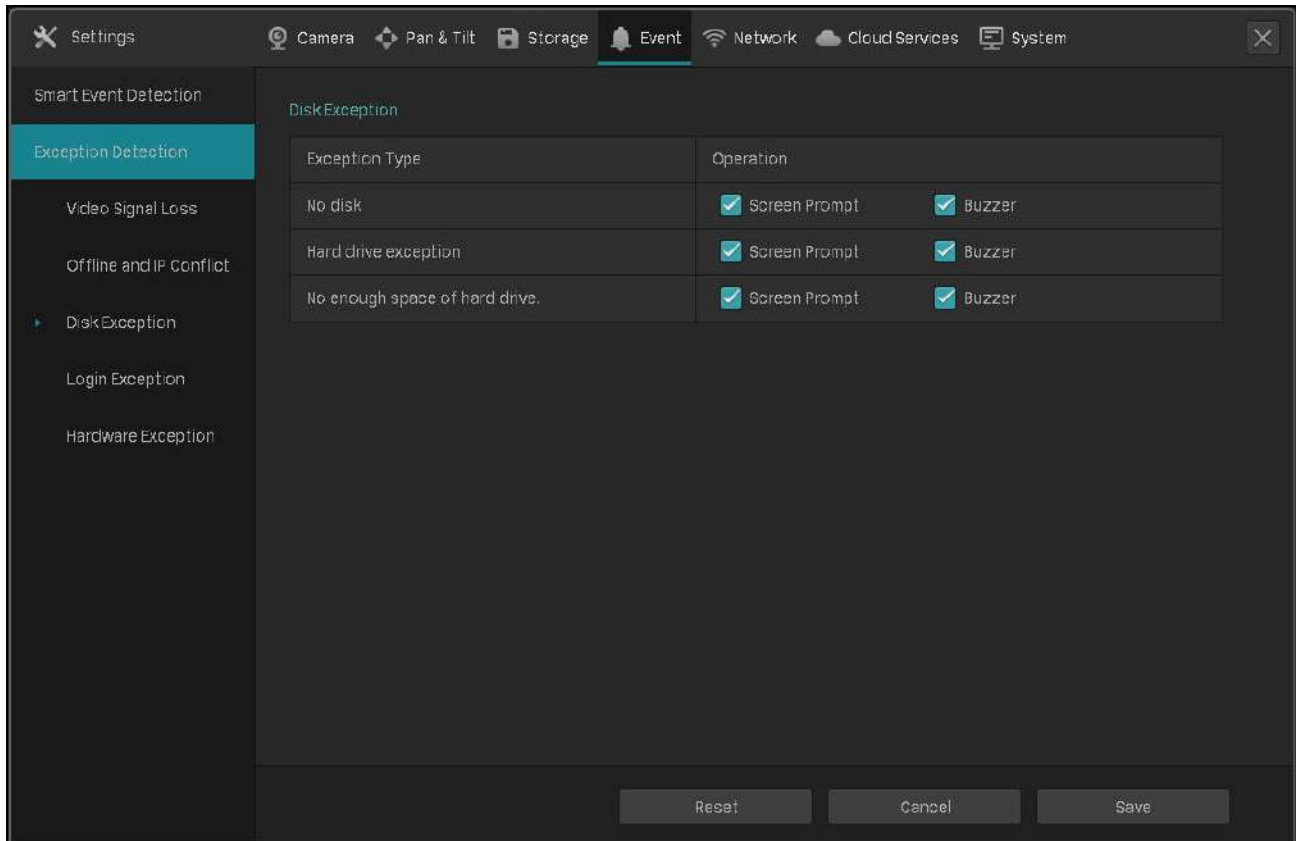
The buzzer on the NVR will beep when NVR is offline or IP conflict is detected.

3. Click **Save** to save the settings.

♥ 6.7 Disk Exception


Alarm actions will be triggered when the NVR detects disk problems. You can select triggered actions for three exception types. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Exception Detection > Disk Exception**.



2. Select the alarm actions according to your needs:

Screen Prompt

A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.

Buzzer

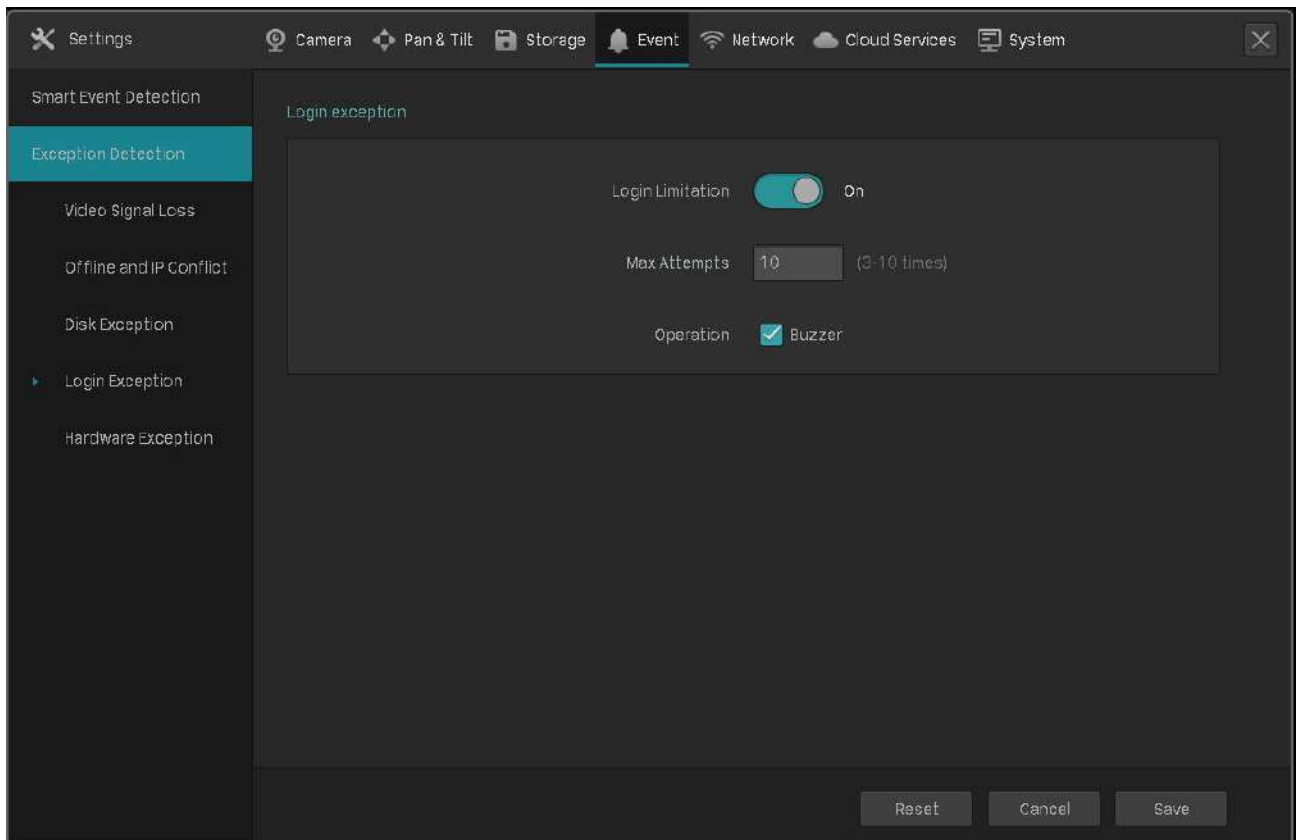
The buzzer on the NVR will beep when disk problems are detected.

3. Click **Save** to save the settings.

♥ 6.8 Login Exception

Login limitation sets the maximum login attempts to protect the security of your NVR. The NVR will be locked for 30 minutes if you enter the wrong password more than the specified attempts. You can set the buzzer to alarm after the maximum login attempts is exceeded. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Exception Detection > Login Exception**.



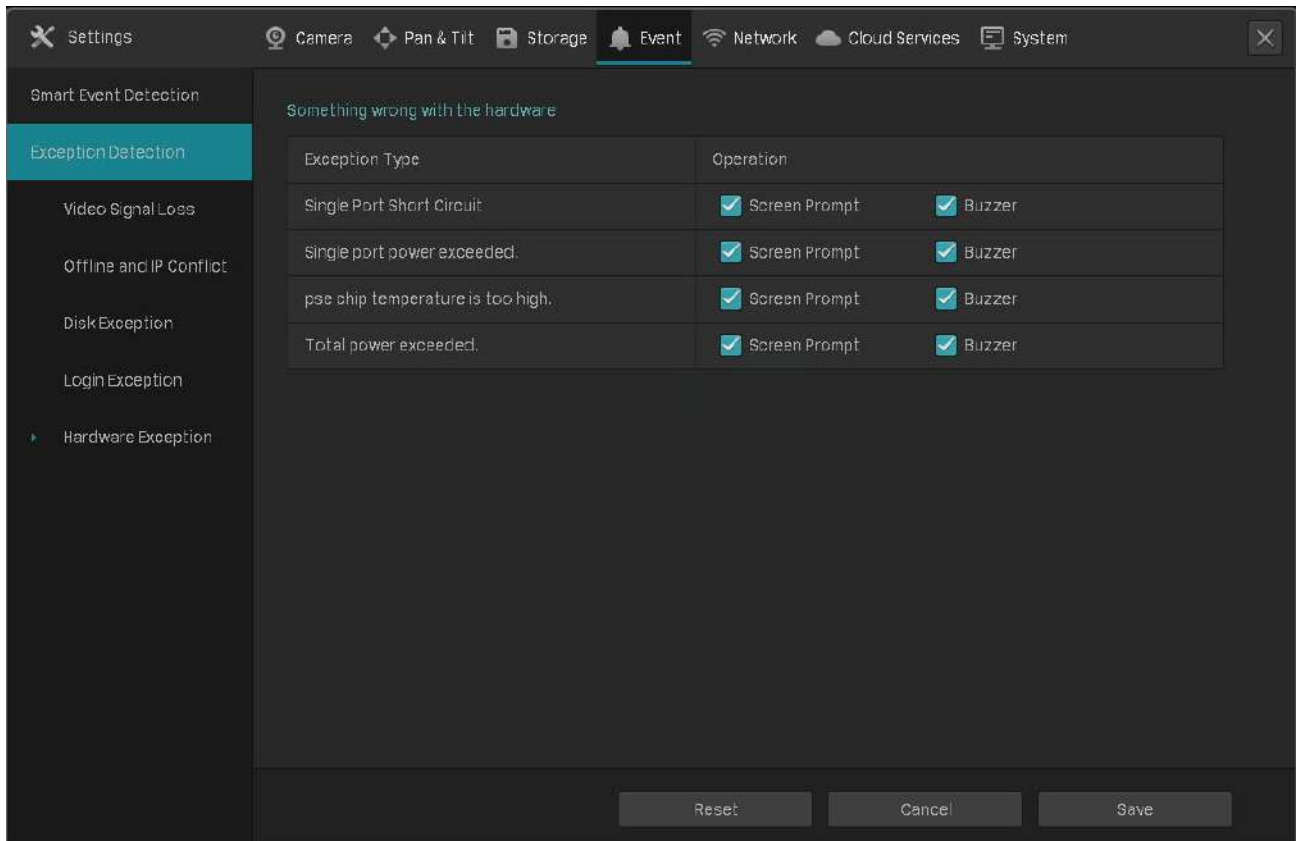
2. Enable **Login Limitation** to limit the login attempts:
3. Set the maximum login attempts. The number should be between 3 and 10
4. (Optional) Enable **Buzzer** if you want the buzzer to alarm after the maximum login attempts are exceeded.
5. Click **Save** to save the settings.

Note: To unlock the NVR and try to log in again, power the NVR off then power it on.

♥ 6.9 Hardware Exception (Only for PoE models)


Alarm actions will be triggered when the NVR detects hardware problems. You can select triggered actions for four exception types. Follow the steps below to finish the configuration.

1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **Event > Exception Detection > Hardware Exception**.



2. Select the alarm actions according to your needs:

Screen Prompt

A warning sign  in the lower right corner of the monitor screen. Enable it to check the event type and time.

Buzzer

The buzzer on the NVR will beep when disk problems are detected.

3. Click **Save** to save the settings.

7

Network Management

With proper network configurations, you can connect your NVR to the internet, build up mapping between internal and external ports, and manage it remotely via Cloud Services. This chapter contains the following sections:

- [Configure Network Connection](#)
- [Configure Ports](#)
- [Configure UPnP](#)
- [Enable Remote Management via Cloud Services](#)

♥ 7.1 Configure Network Connection

7.1.1 Configure Basic Settings.

In Connection, you can view the connection status and configure the NVR to obtain a dynamic or static IP address.

Follow the steps below to configure the basic settings.

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **Network > Connection**.
2. Select a mode and follow the instructions below.
 - To assign a static IP address to NVR, select **Manually** as the mode and configure the following parameters.

The screenshot shows the 'Settings' application with the 'Network' menu selected. The 'Connection' sub-menu is active, displaying the 'Internet Connection' status as 'Connected with no internet access.' The 'Basic Settings' section is expanded, showing the following configuration:

- Mode: Manually
- IP Address: 192.168.0.240
- Mask: 255.255.255.0
- Gateway: 192.168.0.1
- Preferred DNS: 8.8.8.8
- Alternate DNS: 114.114.114.114

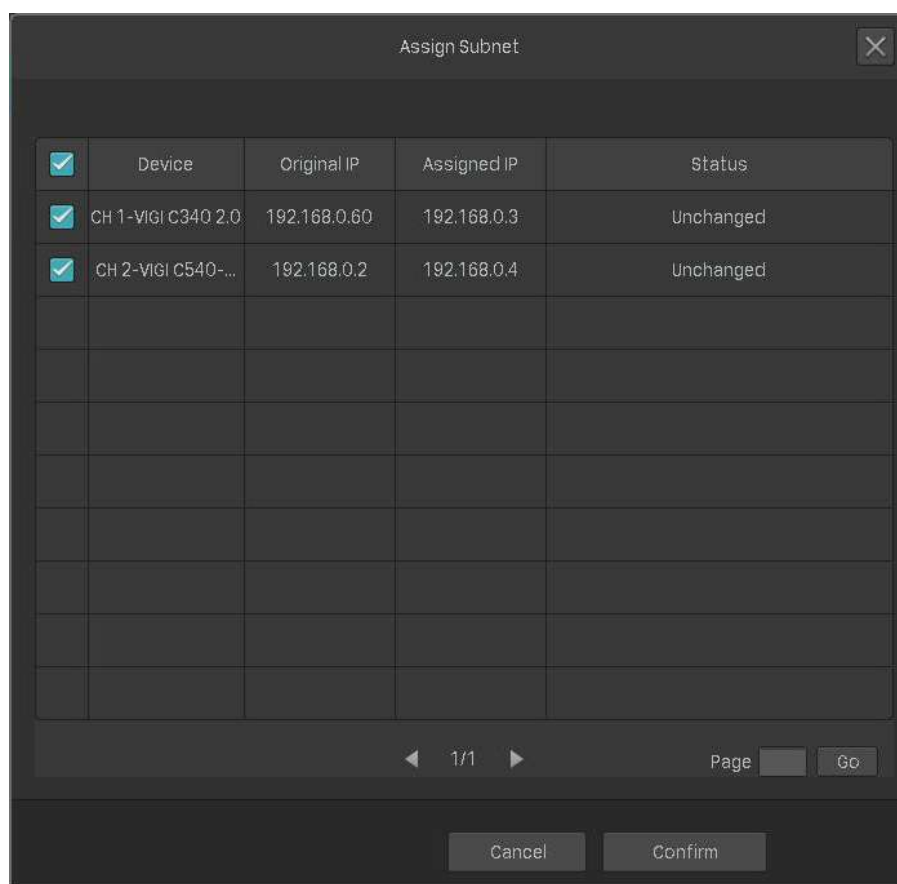
The 'Advanced Settings' section shows the MTU set to 1480. Buttons for 'Reset', 'Cancel', and 'Save' are visible at the bottom.

IP Address	Specify an IP address for the NVR. The IP address should be in the same segment as the gateway; otherwise, the NVR cannot connect to the internet.
Subnet Mask	Enter the subnet mask.
Gateway	Enter the IP address of the gateway device to which the data packets will be sent. This IP address should be in the same segment as the NVR's IP address.
Preferred/Alternate DNS	Enter the IP address of the DNS server.

- To configure the NVR to obtain a dynamic IP address, select **Auto** as the mode.

Note:

- A DHCP server (usually a router) is needed for the NVR to obtain a dynamic IP address.
 - If the topology or subnet is changed, you should assign a new IP address to the NVR to keep the network connection. In Manually mode, configure the basic settings manually, while in Auto mode, click **Save**. Then follow step 3 below to change the IP addresses of cameras.
3. (Optional) If the network segment of NVR is changed, click **One-Click Networking**, and then select the channels to change the IP addresses of cameras in batches. Click **Confirm**.



Note: The cameras should be in the same segment with the NVR, so that the NVR can discover and manage them.

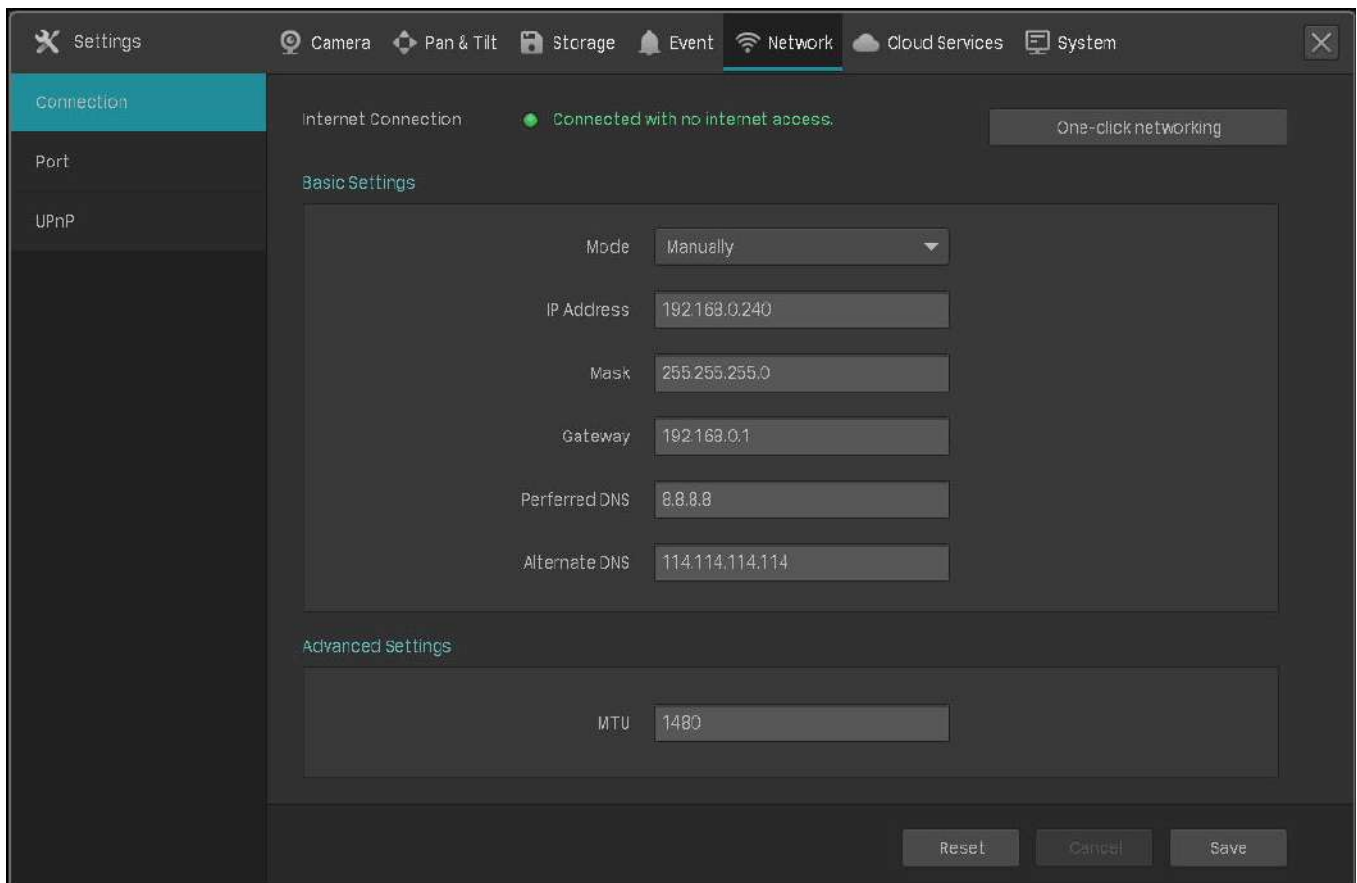
4. Click **Save**.

If you want to reset to factory settings, click **Reset**.

7. 1. 2 Configure Advanced Settings

In Advanced Settings, you can specify MTU (Maximum Transmission Unit) to decide the largest size of data unit that can be transmitted in the network. A larger unit can improve the efficiency with more data in each packets, but it may increase the network delay because it needs more time to transmit. Therefore, if you have no special needs, it is recommended to keep the default value.

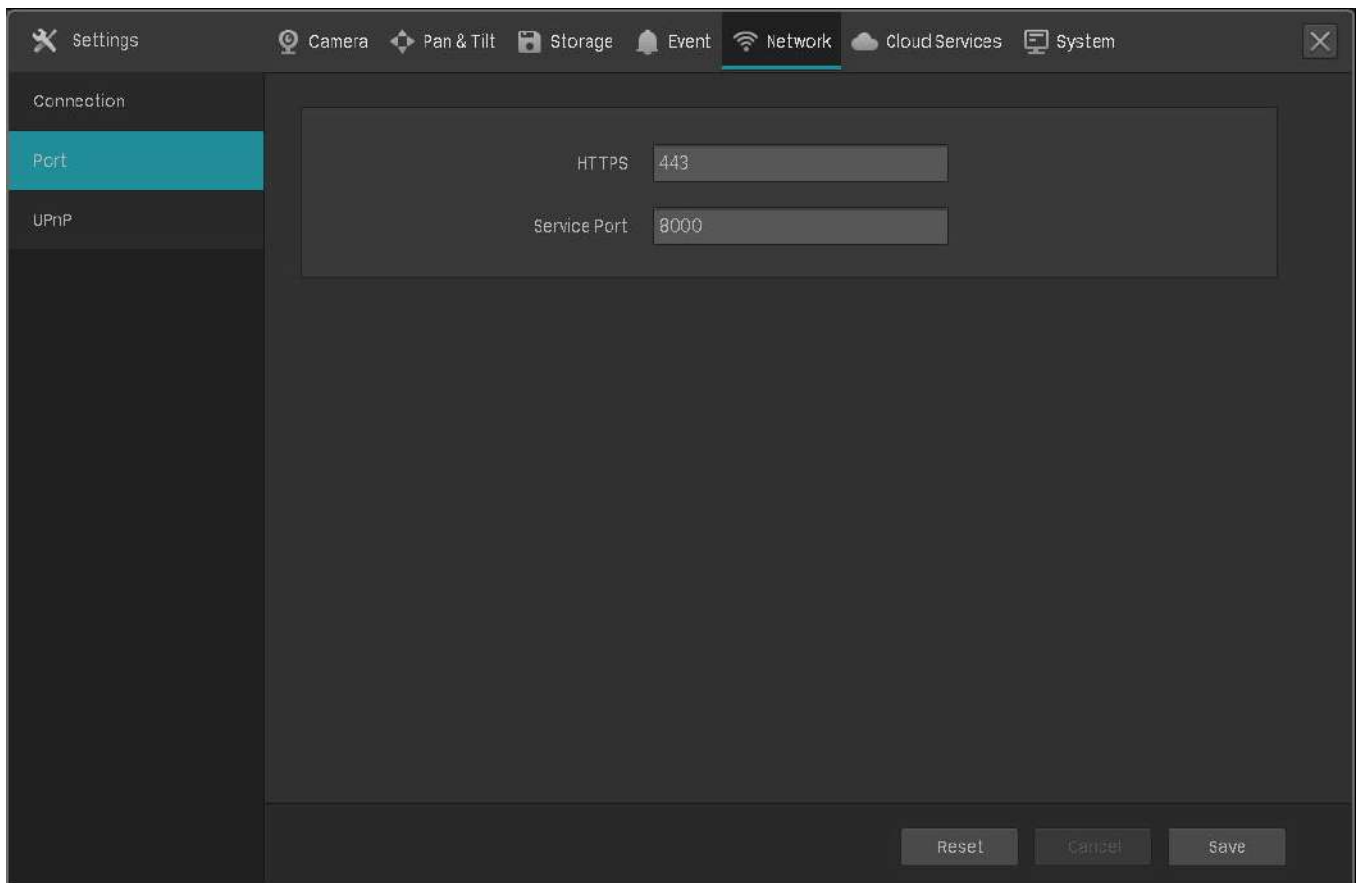
To configure MTU, right click on the Live View screen and click **Settings** in the Main Menu. Go to **Network > Connection**. Specify MTU and click **Save**.



♥ 7.2 Configure Ports

In Port, you can configure the HTTPS port and service port of NVR that can be used to access the NVR through the network. When managing and monitoring the devices via VIGI Security Manager or the VIGI app, the ports configured here are used for communications of corresponding protocols.

To configure ports, right click on the Live View screen and click **Settings** in the Main Menu. Go to **Network > Port**. Specify HTTPS port and service port. Click **Save**.



HTTPS Port	Specify a port for HTTPS protocol.
Service Port	Specify a port for protocols of video services.


♥ 7.3 Configure UPnP

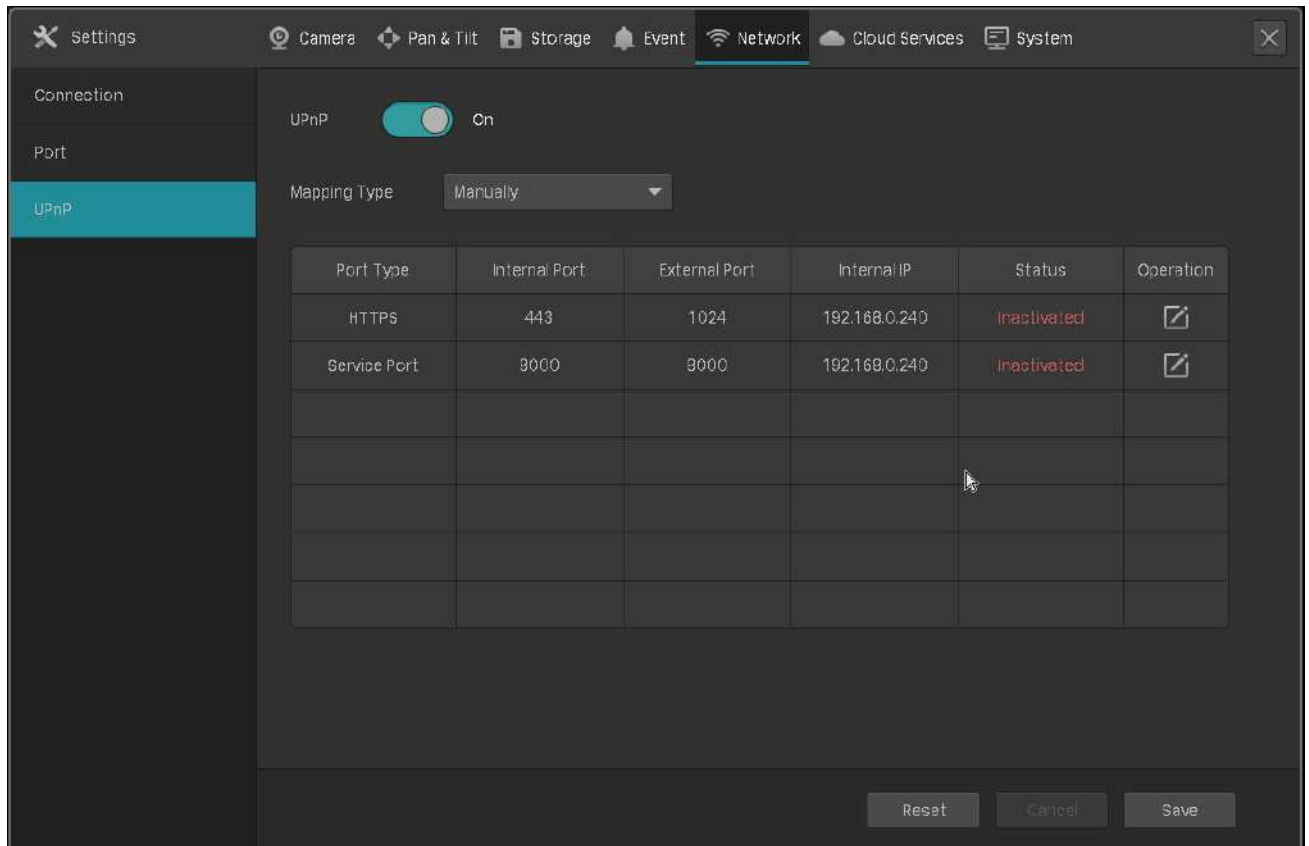
UPnP is used to establish the mapping between the internal port and external port.

Note: The NVR and cameras should be connected to the internet, and UPnP should be enabled on the gateway.

Follow the steps below to configure UPnP.

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **Network > UPnP**.

2. Enable UPnP and specify a mapping type. If you select **Auto** as the mapping type, the mappings are established automatically. If you select **Manually** as the mapping type, click  to specify the external port.



Port Type	Displays the protocol type.
Internal Port	Displays the port of the NVR to be converted.
External Port	Displays the external port opened by the gateway.
Internal IP	Displays the IP address of the NVR that needs to be converted.
Status	Displays the status of mapping.

3. Click **Save**.

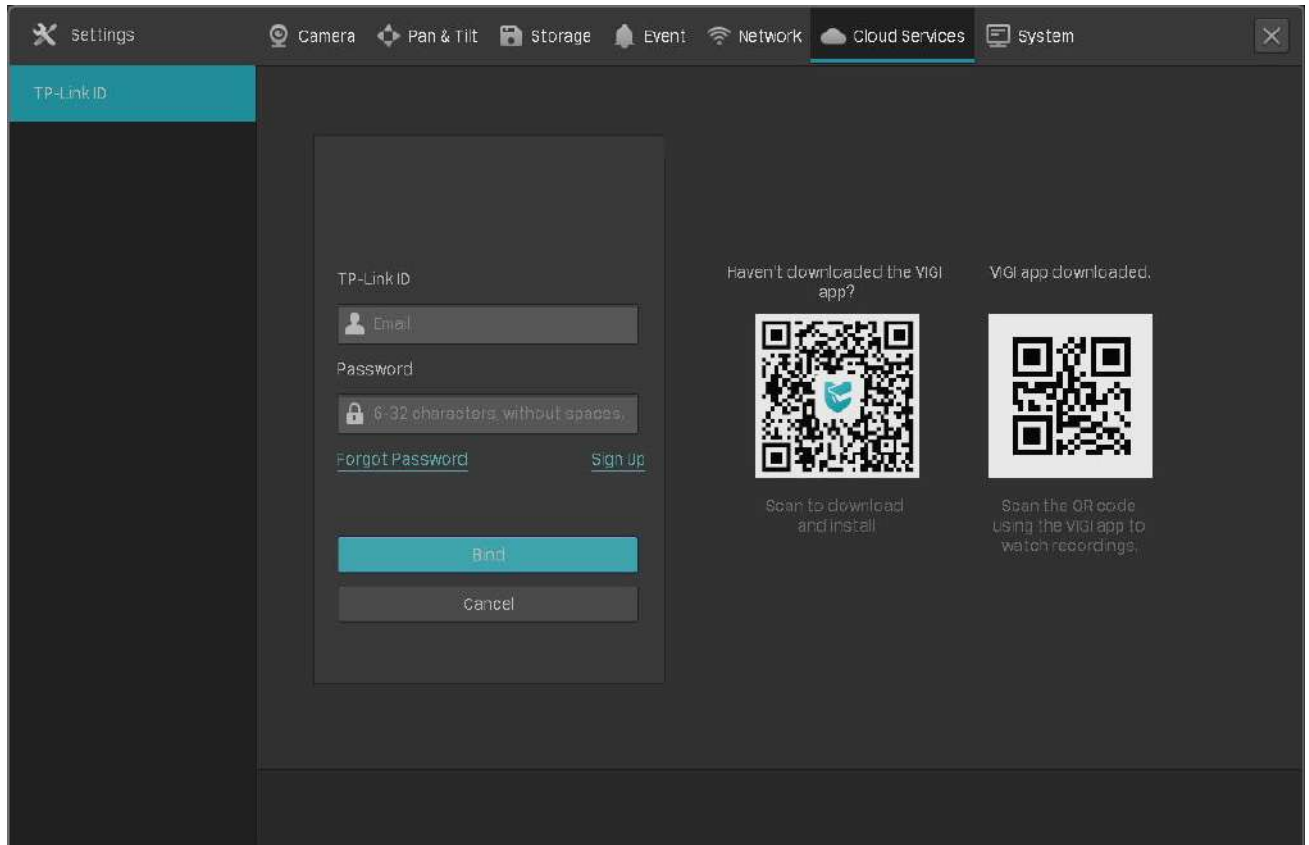
If you want to reset to factory settings, click **Reset**.

♥ 7.4 Enable Remote Management via Cloud Services

The NVR supports remote management with the support of TP-Link Cloud Services. With a TP-Link ID bound, you can remotely monitor your areas on multiple platforms, including computers and mobile phones.

Follow the steps below to bind your TP-Link ID to the NVR and download the VIGI Security Manager or VIGI app.

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **Cloud Services > TP-Link ID**.
2. Click **Bind**. Enter your TP-Link ID and password and click **Bind**. If you do not have a TP-Link ID, click **Sign Up** to register.



3. After binding your TP-Link ID, download VIGI Security Manager on the computer from [Download Center](#), or download the VIGI app on your mobile phone by scanning the QR code below. Log in with your TP-Link ID. Then you can monitor the live view and manage the NVR remotely on your computer or mobile phone.



If you want to unbind the TP-link ID, click **Unbind** on the same page. Enter the password of the NVR in the pop-up window and click **Unbind**.

8

NVR Management

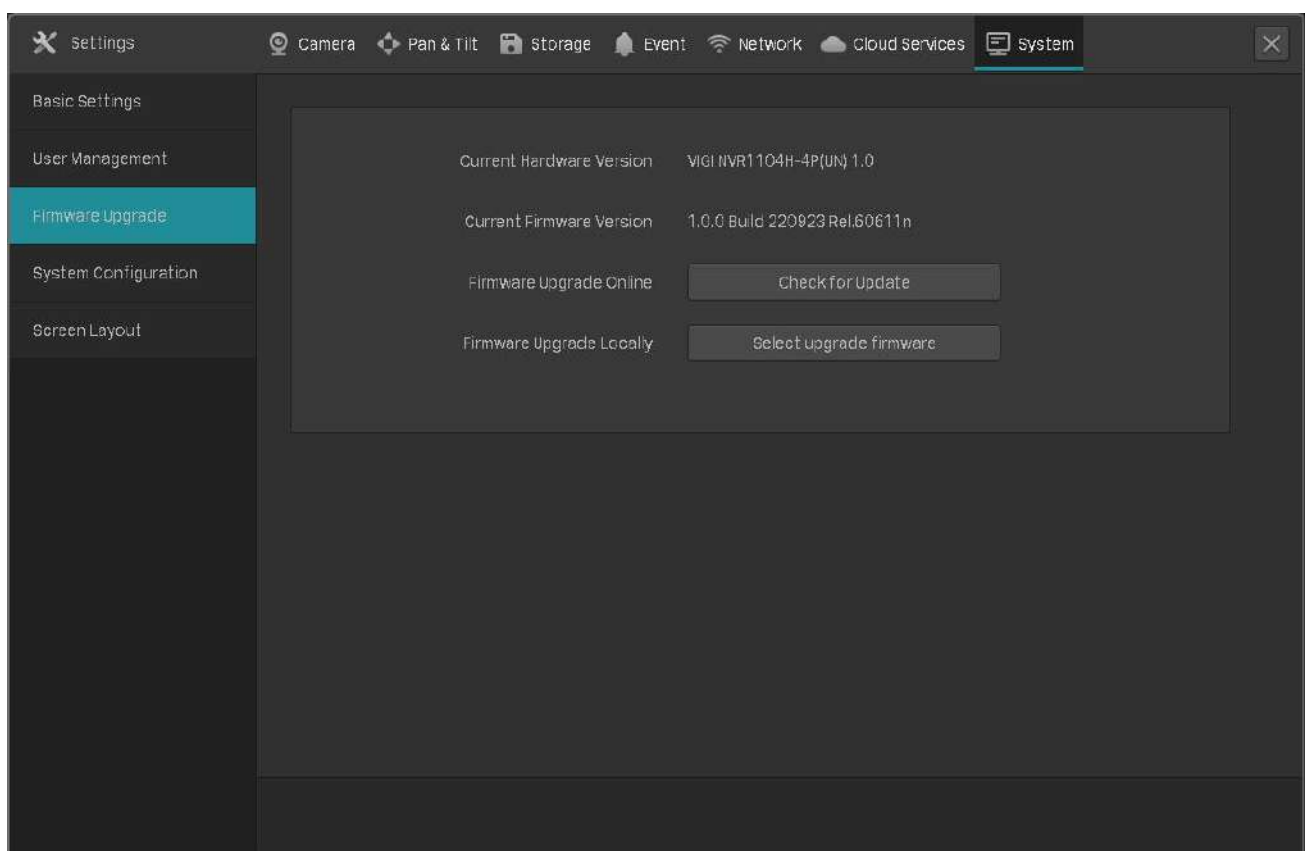
This chapter contains the following sections to introduce how to manage NVR:

- [Upgrade the NVR Firmware](#)
- [Restart/Log Out/Shut Down the NVR](#)
- [Reset the NVR](#)
- [Configure Reboot Schedule for NVR](#)
- [Diagnose the NVR](#)

♥ 8.1 Upgrade the NVR Firmware

The NVR supports Online Upgrade and Local Upgrade. Follow the steps below to upgrade the firmware.


1. Get ready to upgrade the firmware.
 - (For Online Upgrade) Connect the NVR to the internet first.
 - (For Local Upgrade) Download the NVR firmware from [TP-Link Download Center](#), place the firmware in an external storage device and plug the external storage device into the NVR.
2. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **System > Firmware Upgrade**.
3. Click the buttons to upgrade the NVR online or locally.



- (For Online Upgrade) Click **Check for Upgrade** and the NVR will detect new firmware online and upgrade automatically.
- (For Local Upgrade) Click **Select Upgrade Firmware** to select the firmware from the external storage device and click **Upgrade**.

Note: When upgrading, please do not turn off the power of NVR.

♥ 8.2 Restart/Log Out/Shut Down the NVR

To restart/log out/shut down the NVR, right click on the Live View screen and click . Then, click the corresponding buttons.



Click to reboot the NVR. Please wait when rebooting the NVR. It may take several seconds.



Click to log out the account. After logging out, you need to enter the password to configure and manage the device.

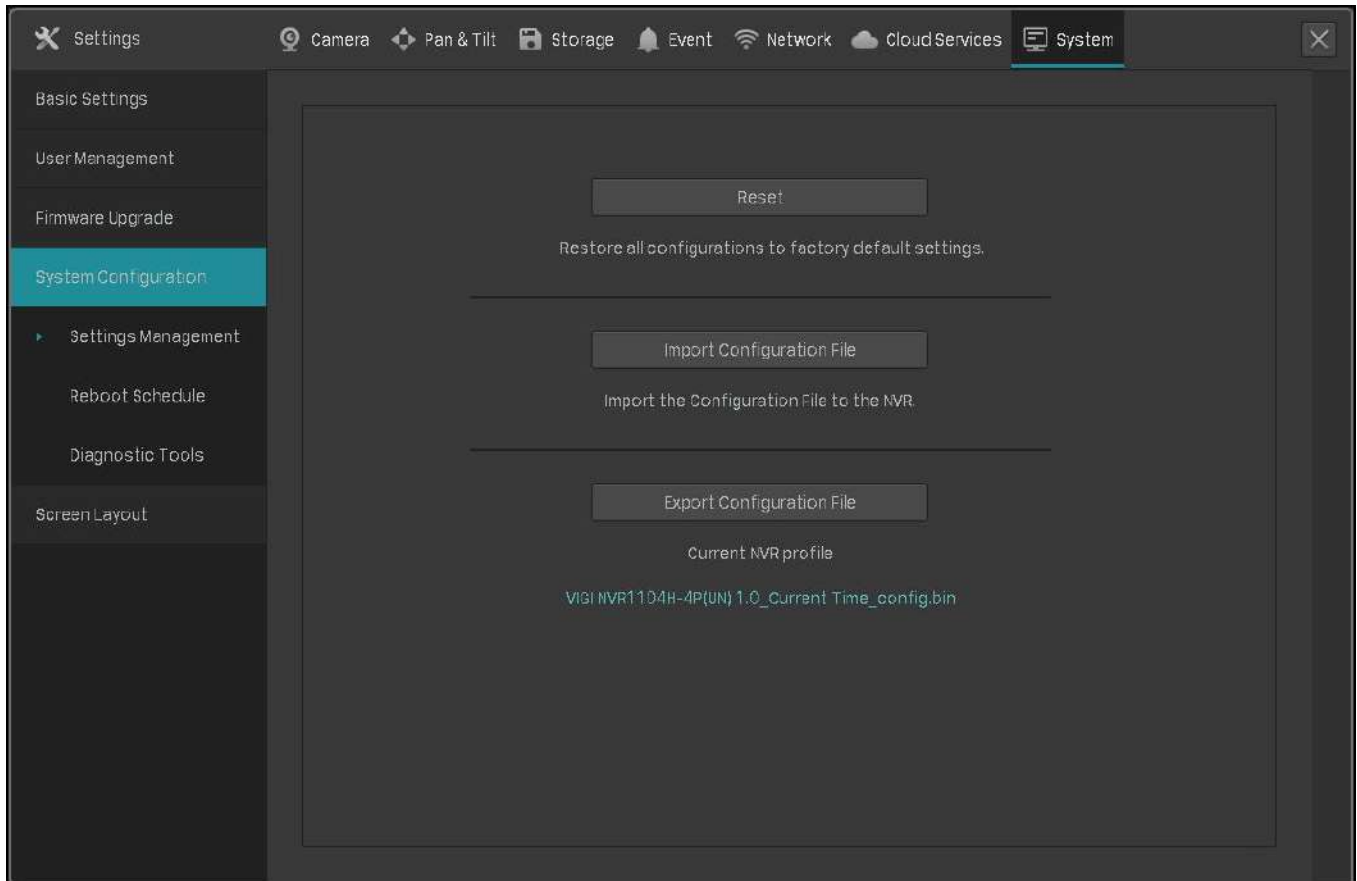


Click to shut down the NVR. To protect your hard disk and data, shut down the NVR before unplugging the disk or turning off the power of NVR.

♥ 8.3 Reset the NVR

To reset the NVR to the factory settings, right click on the Live View screen and click **Settings** in the Main Menu. Go to **System > System Configuration > Settings Management**. Then, click **Reset**.

Note: Please wait without any operations until the NVR is reset successfully. It may take a few minutes.



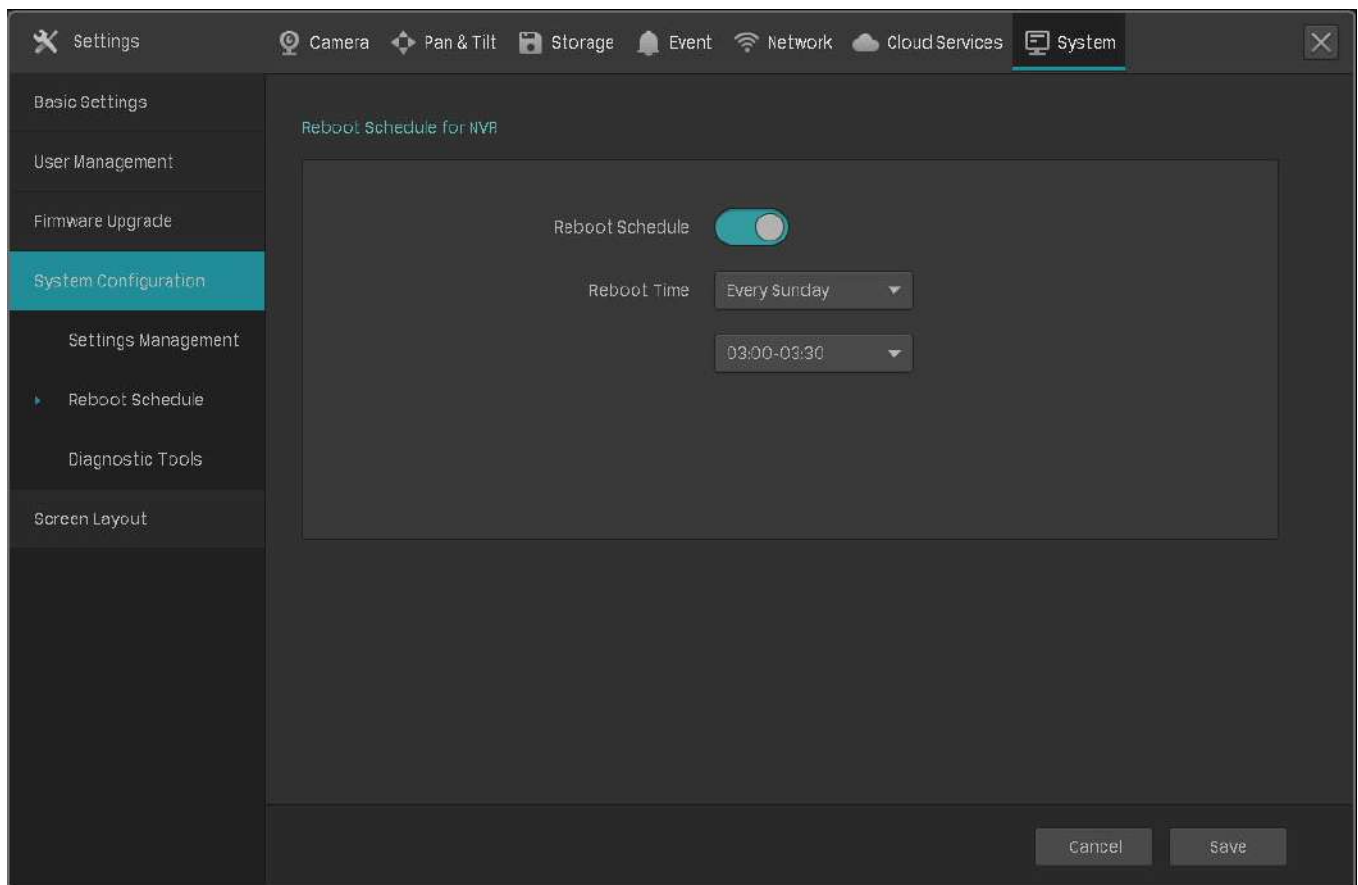
♥ 8.4 Configure Reboot Schedule for NVR

When Reboot Schedule is enabled, the NVR reboots automatically and regularly at the specified time.

Follow the steps below to configure Reboot Schedule for NVR.

1. Right click on the Live View screen and click **Settings** in the pop-up Main Menu. Go to **System > System Configuration > Reboot Schedule**.

2. Enable **Reboot Schedule**, and specify the reboot time. Click **Save**.



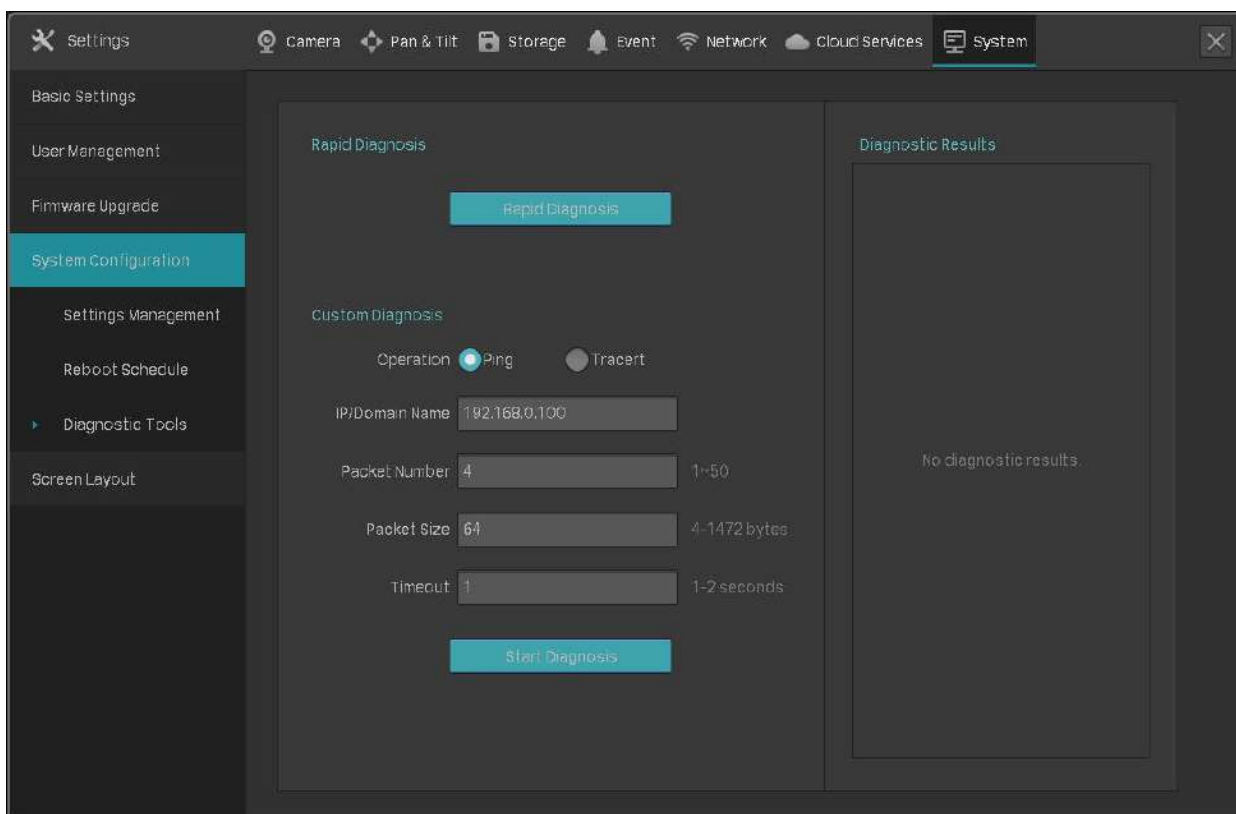
♥ 8.5 Diagnose the NVR

The NVR supports two diagnostic tools, Rapid Diagnosis and Custom Diagnosis. You can diagnose the NVR to test the network connection and delay.

Follow the steps below to diagnose the NVR.

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **System > System Configuration > Diagnostic Tools**.
2. Use a diagnostic tools and view the results.

- To quickly diagnose the network connection, click **Rapid Diagnosis**.



Gateway/Extranet/Cloud Service Connection

Displays the connection status between the NVR and gateway/extranet/TP-Link Cloud.

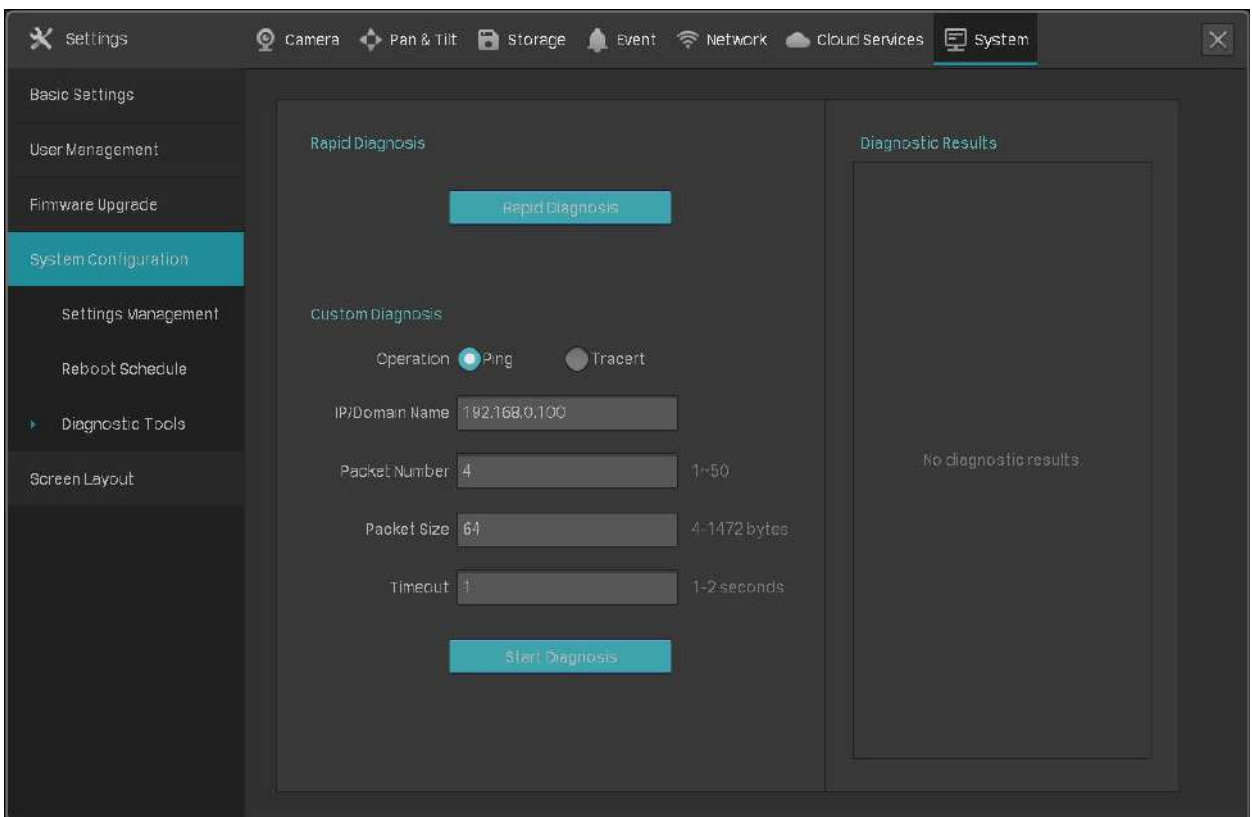
Delay

Displays the delay in milliseconds of each channel. **Not Connected** means that the NVR cannot communicate with the camera.

Packet Loss Rate

Display the ratio of lost packets.

- For Custom Diagnosis, select an operation and specify the parameters. Click **Start Diagnosis**.



Operation	Select an operation. Ping: The NVR sends several packets to the specified IP address or domain to test the connection between them. Tracert: The NVR tries to trace the route to the specified IP address or domain within limited hops and record the route.
IP/Domain Name	Specify an IP address or a domain name to diagnose the connection.
Packet Number	(For Ping diagnose) Specify how many packets the NVR sends to the specified IP/domain name.
Packet Size	(For Ping diagnose) Specify the size of packets.
Timeout	(For Ping diagnose) Specify the maximum time that the NVR waits for response of a ping packet. If no response is received after the time, the ping packet will be regarded as lost.
Hop Count	(For Tracert diagnose) Specify the maximum hops when tracing the route.
Diagnostic Results	If you select Ping as the operation, the results show the statistics of ping packets. If you select Tracert as the operation, the results show the route that the NVR traces to the specified IP address or domain name.

9

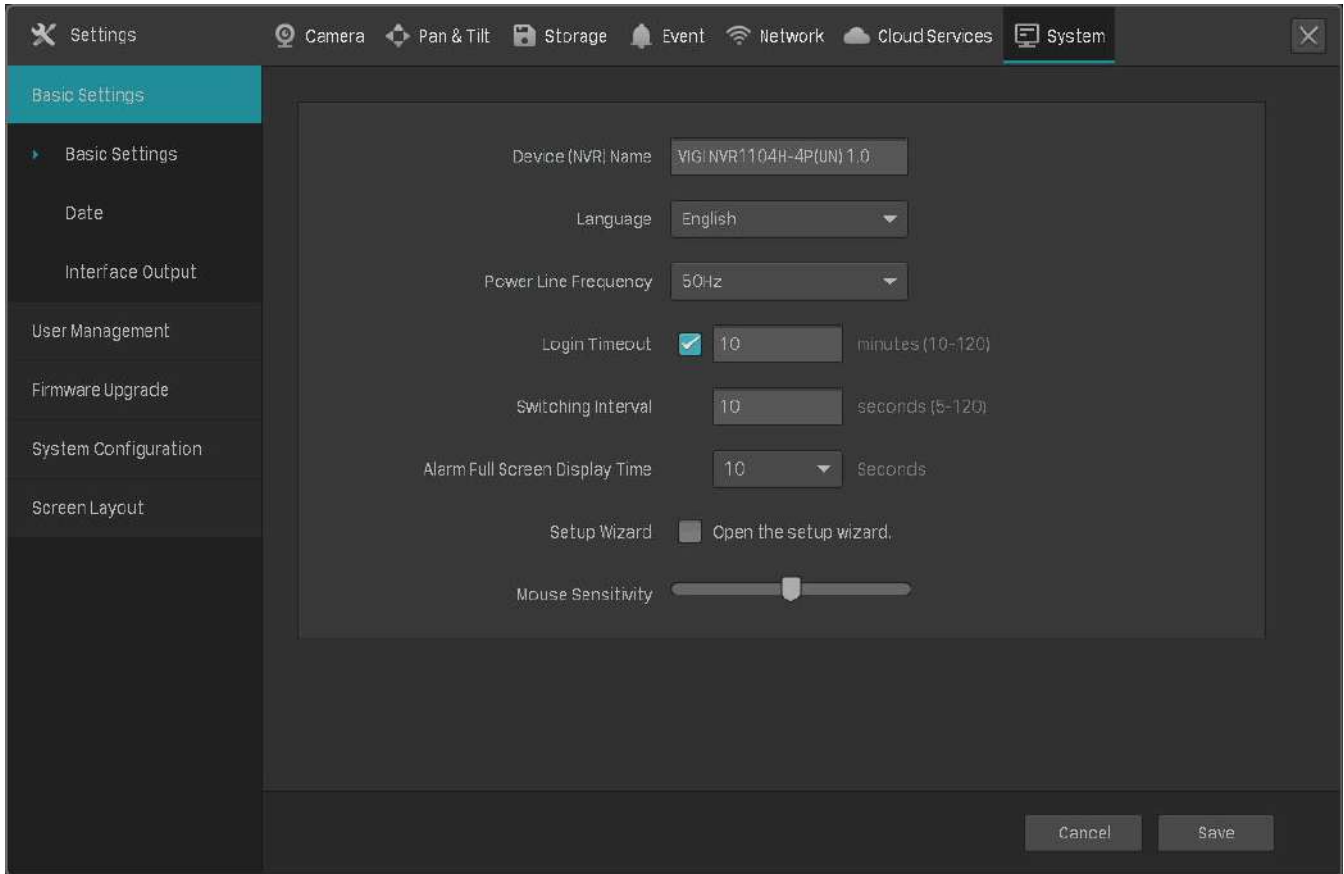
System Management


This chapter guides you to configure the basic and advanced settings of your NVR, export and import settings, and view system logs and messages on NVR. VIGI NVR allows users to create and modify administrator accounts based on their needs. This chapter includes the following sections:

- [Configure Basic Settings](#)
- [Modify System Time](#)
- [Configure Interface Output](#)
- [Manage User Accounts](#)
- [Import and Export Settings](#)
- [View System Logs](#)
- [View System Messages](#)

♥ 9.1 Configure Basic Settings

To configure the settings for your NVR, right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **System > Basic Settings > Basic Settings**.



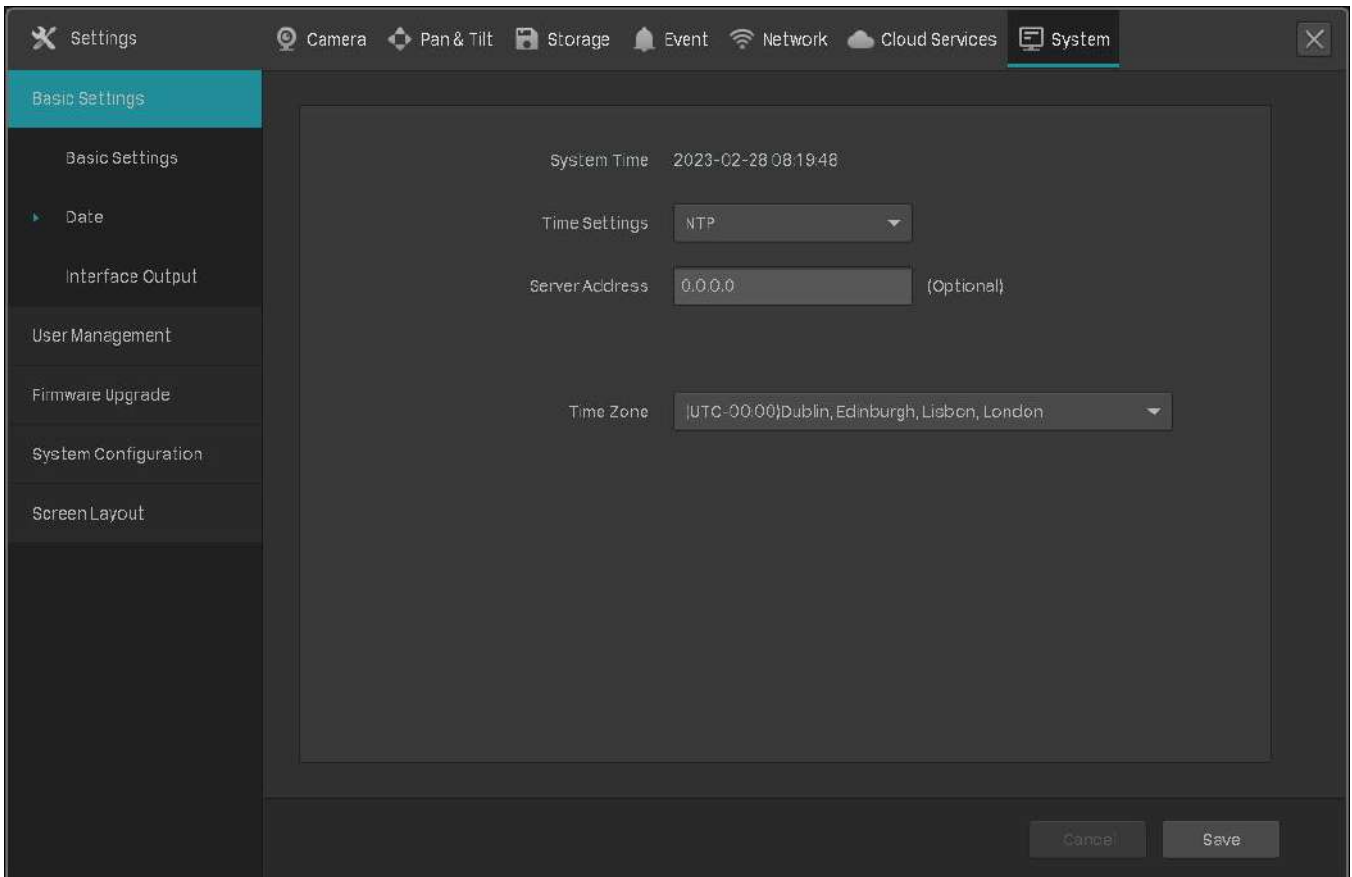
Device (NVR) Name	Displays the name of the NVR.
Language	Set the system language.
Login Timeout	Set the time to control how long the login can be inactive on the NVR. By default, users already logging into the NVR are automatically logged out after 10 minutes.
Switch Interval	Set the interval for displaying the live view screen when switching is enabled. Click  in the Main Menu to start switching. The range is from 5s to 120s.
Alarm Full Screen Display Time	Set the dwell time of channels in full screen when events are detected.
Setup Wizard	Click the check box to run setup wizard when the NVR reboots.
Mouse Sensitivity	Determines the speed of a mouse pointer and how fast it moves on the screen.

♥ 9.2 Modify System Time

VIGI NVR provides two methods to modify the system time. You can also select the time zone according to your region. To configure these settings, right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **System > Basic Settings > Date**.

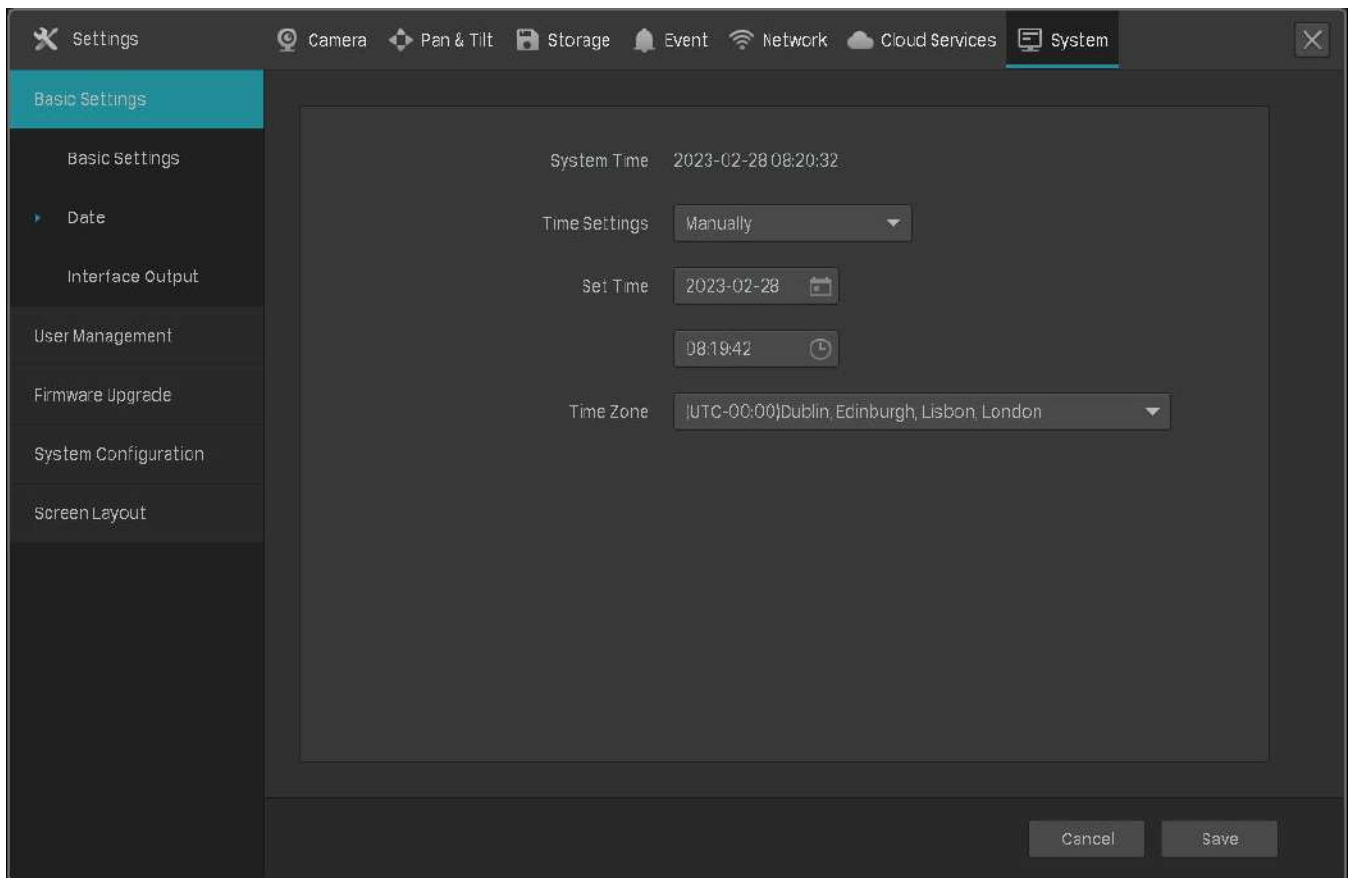
■ NTP

NTP (Network Time Protocol) can automatically get the system time from the Internet. It is recommended to keep the default server address.



■ Manually

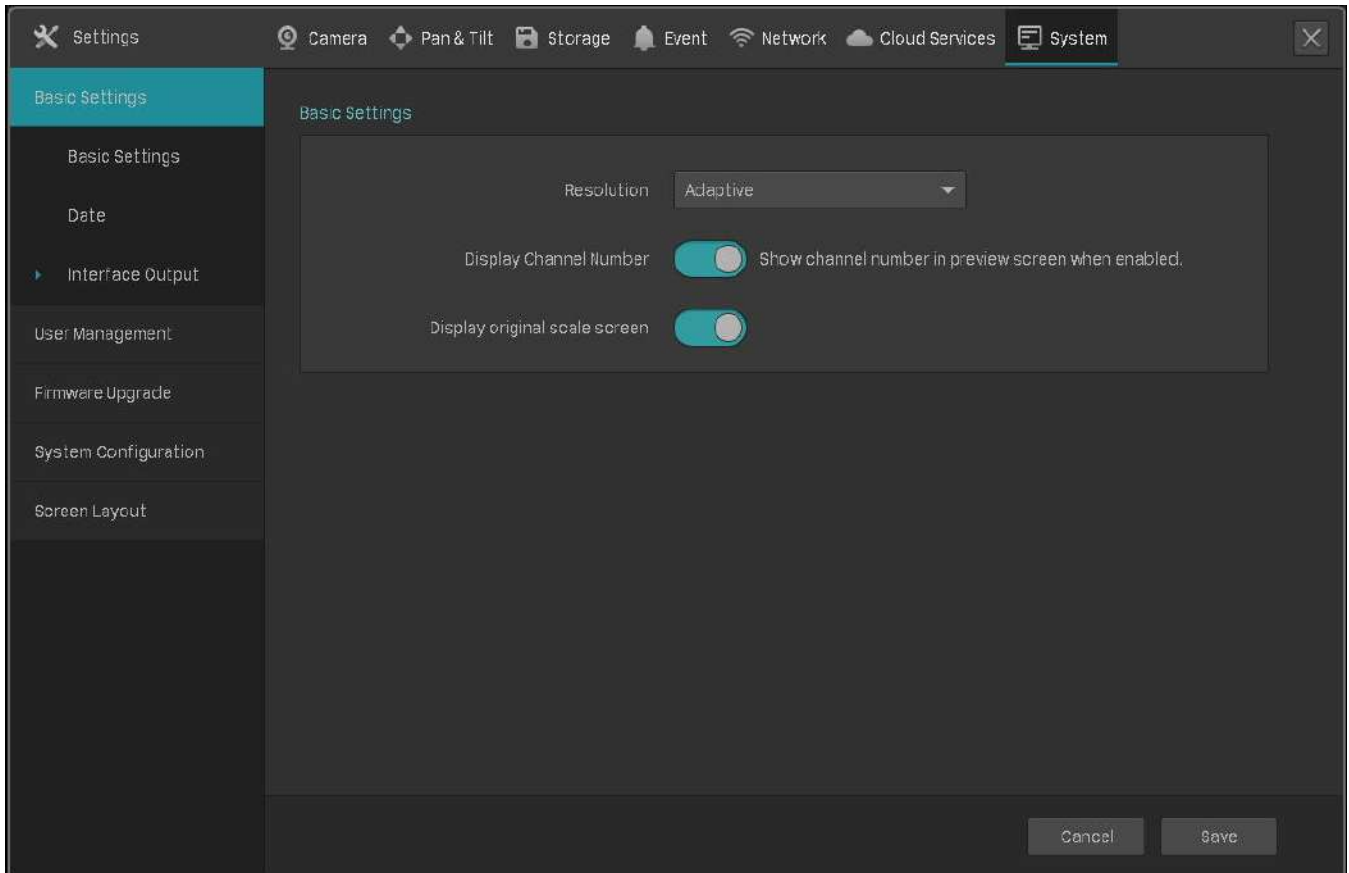
You can set the system time manually.



♥ 9.3 Configure Interface Output

In Interface Output, you can select the display resolution for your monitor and choose to display the channel number on the Live View screen and the images in the original scale. To configure these

settings, right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **System > Basic Settings > Interface Output**.




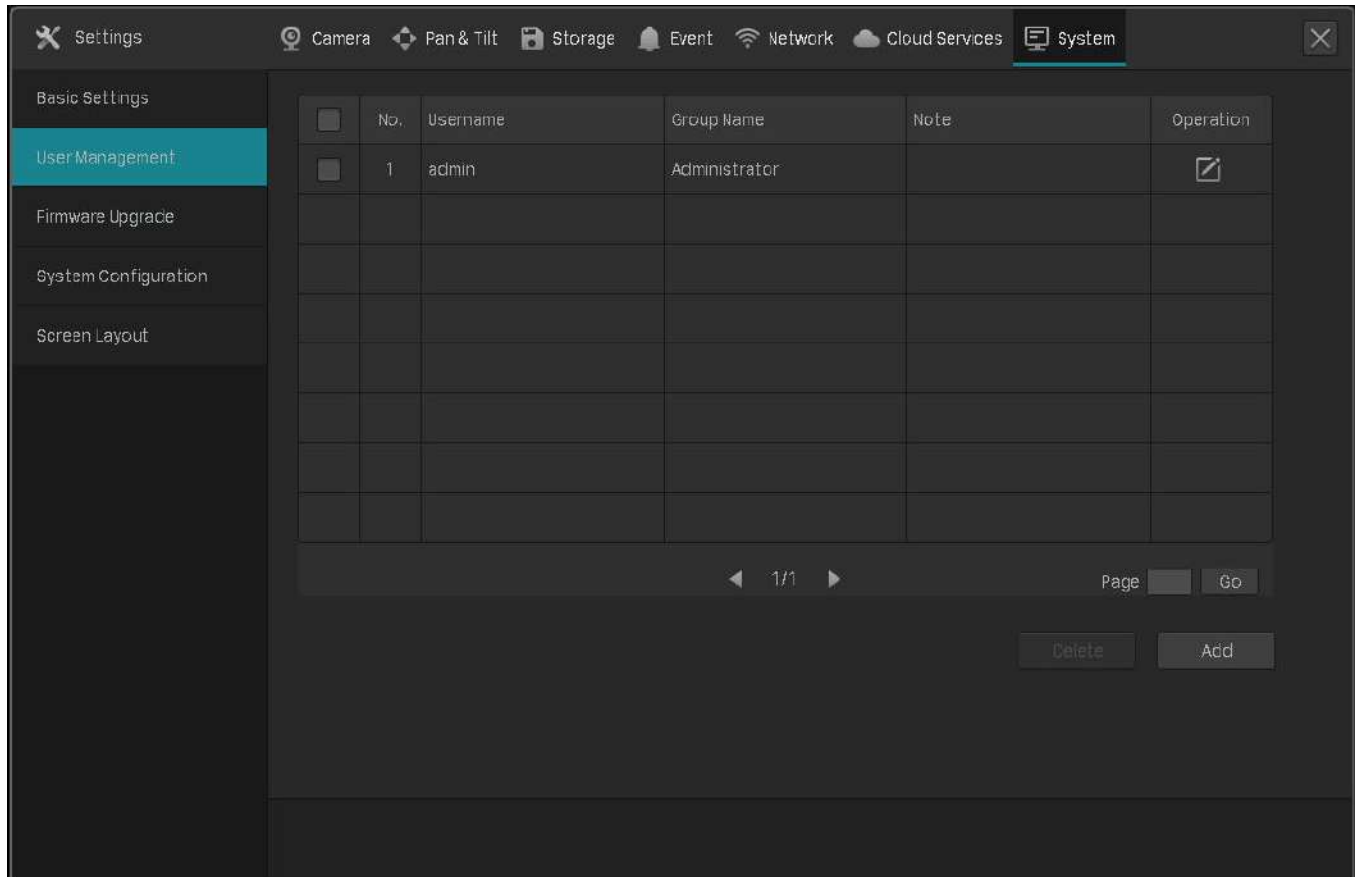
Resolution	Select the screen resolution according to your needs. With Adaptive selected, the NVR automatically selects the highest resolution supported by the screen.
Display Channel Number	Display the channel number on the Live View Screen.
Display Original Scale Screen	Display the images on the Live View screen in the original scale.

♥ 9.4 Manage User Accounts

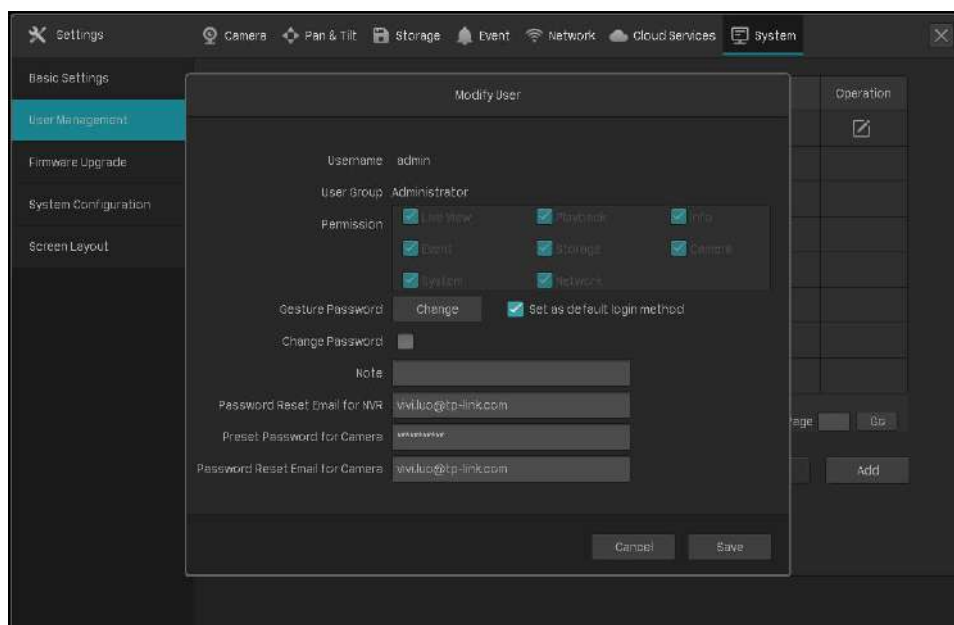
You can modify the default user account (admin) and create user accounts based on your needs. The administrator has the permission to add and delete other user accounts. The Administrator user name is admin and the password is set when you set up your NVR for the first time. To configure these settings, right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **System > User Management**.

■ Modify Administrator Account

For the administrator account, you have all the permissions to manage the NVR. Administrator user name is admin and the password is set when you set up your NVR for the first time. Click  to modify the settings.



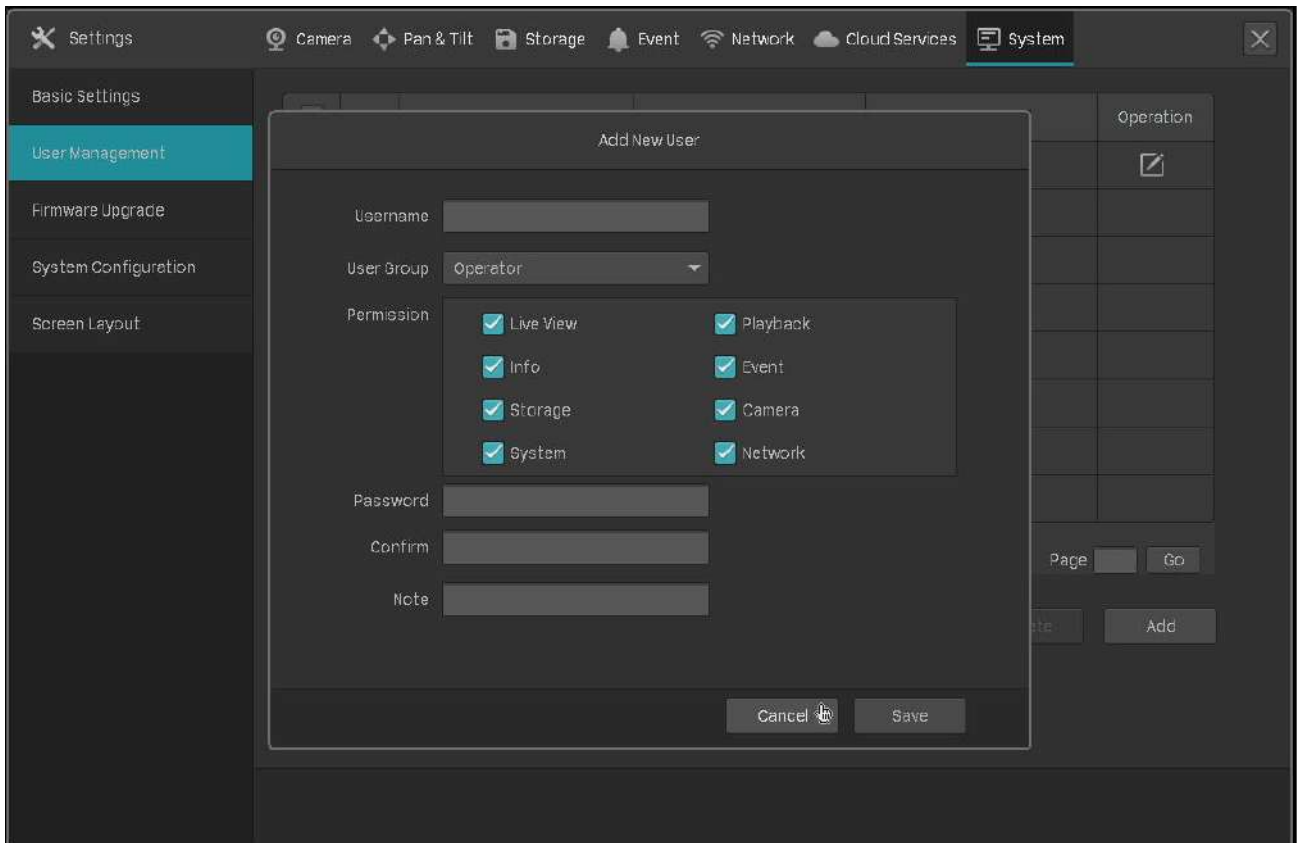
You can change the gesture password, the login password of NVR, the preset password for cameras and the email address for resetting NVR and cameras.



■ Add an Account

You can create user accounts with different permissions to manage the NVR. Follow the steps below to add a new user account.

1. Click **Add**. Enter the username and set the user level to **Operator** or **User**. The operator shares the same permissions as the administrator account. The user only watches the live view and playback, add cameras in Live View screen and check the logs of your NVR.



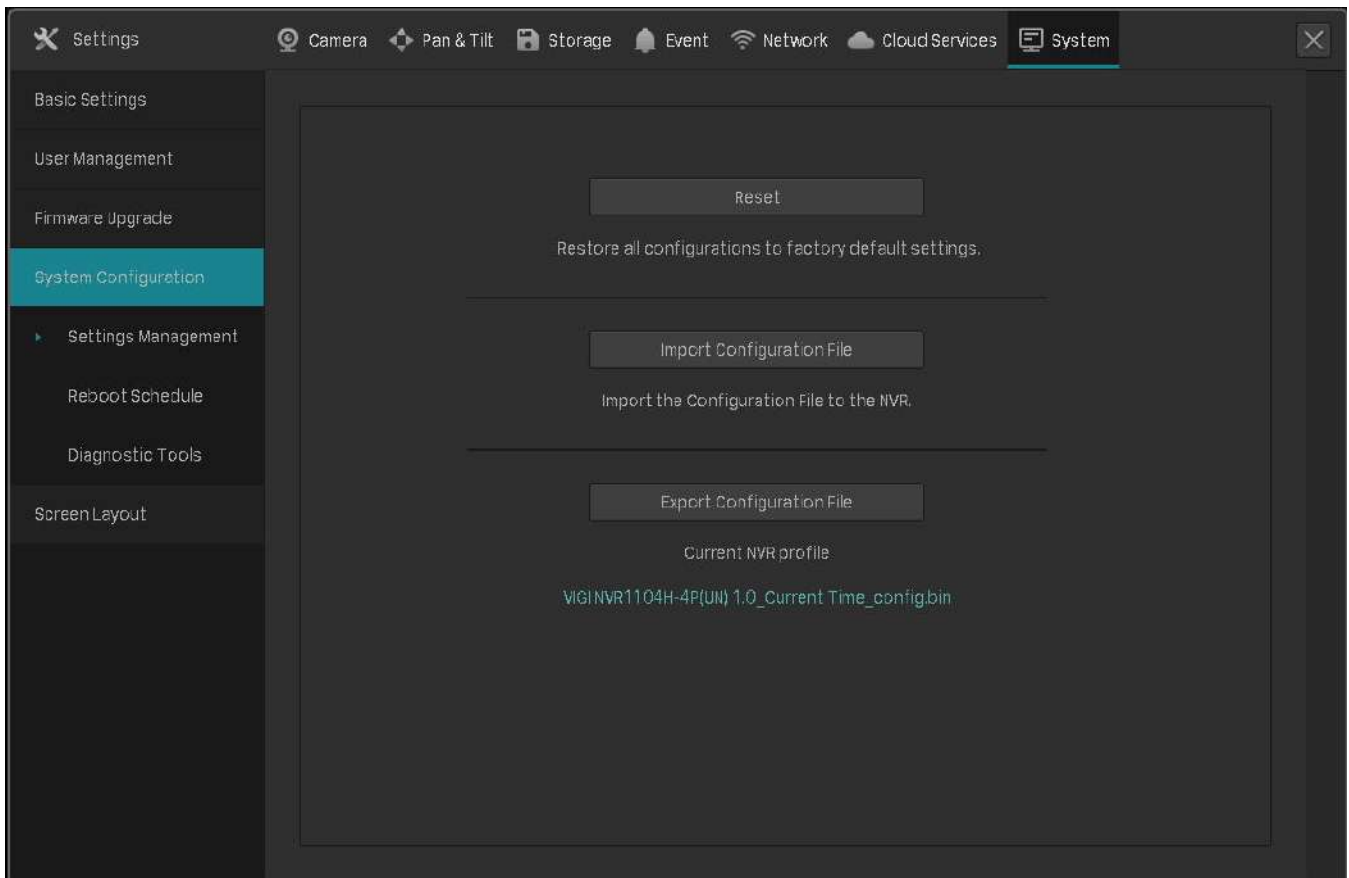
2. Set the password for logging in the account.
3. Click **Save**.

♥ 9.5 Import and Export Settings

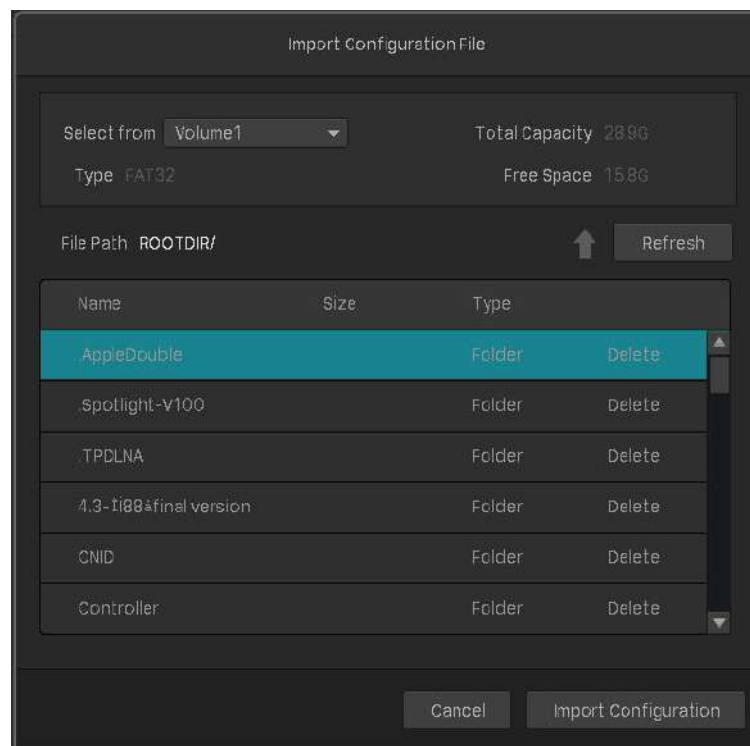
Follow the steps below to import and export the configuration file of your NVR.

Note: Before your operation, prepare an external storage device and plug it into the USB slot on the front panel of your NVR.

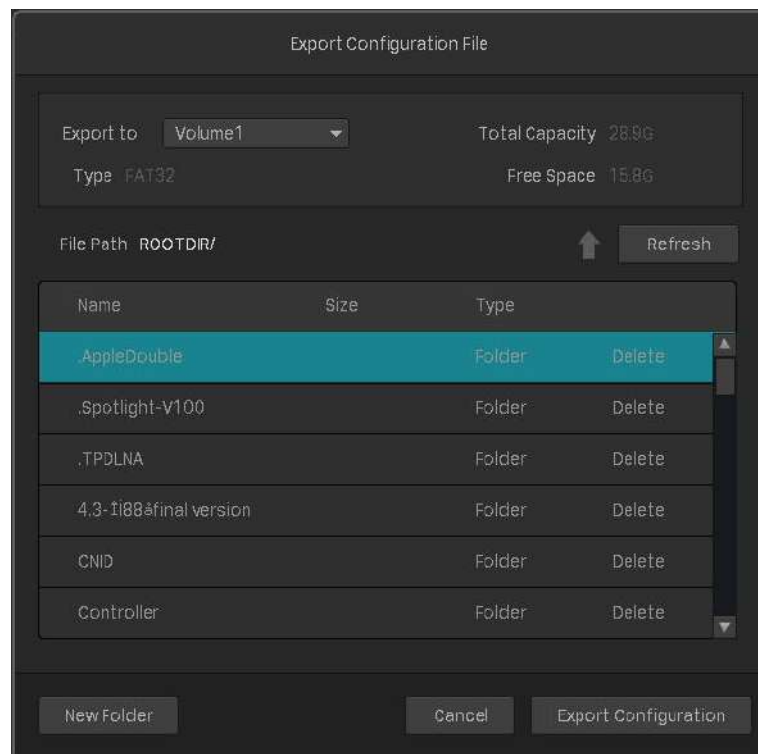
1. Right click on the Live View screen and click **Settings** in the pop-up main menu, then go to **System > System Configuration > Settings Management**.



2. Click **Import Configuration File** or **Export Configuration File**.
3. For configuration file import, select the file and click **Import Configuration**.



4. For configuration file export, select the file and click **Export Configuration**.



♥ 9.6 View System Logs

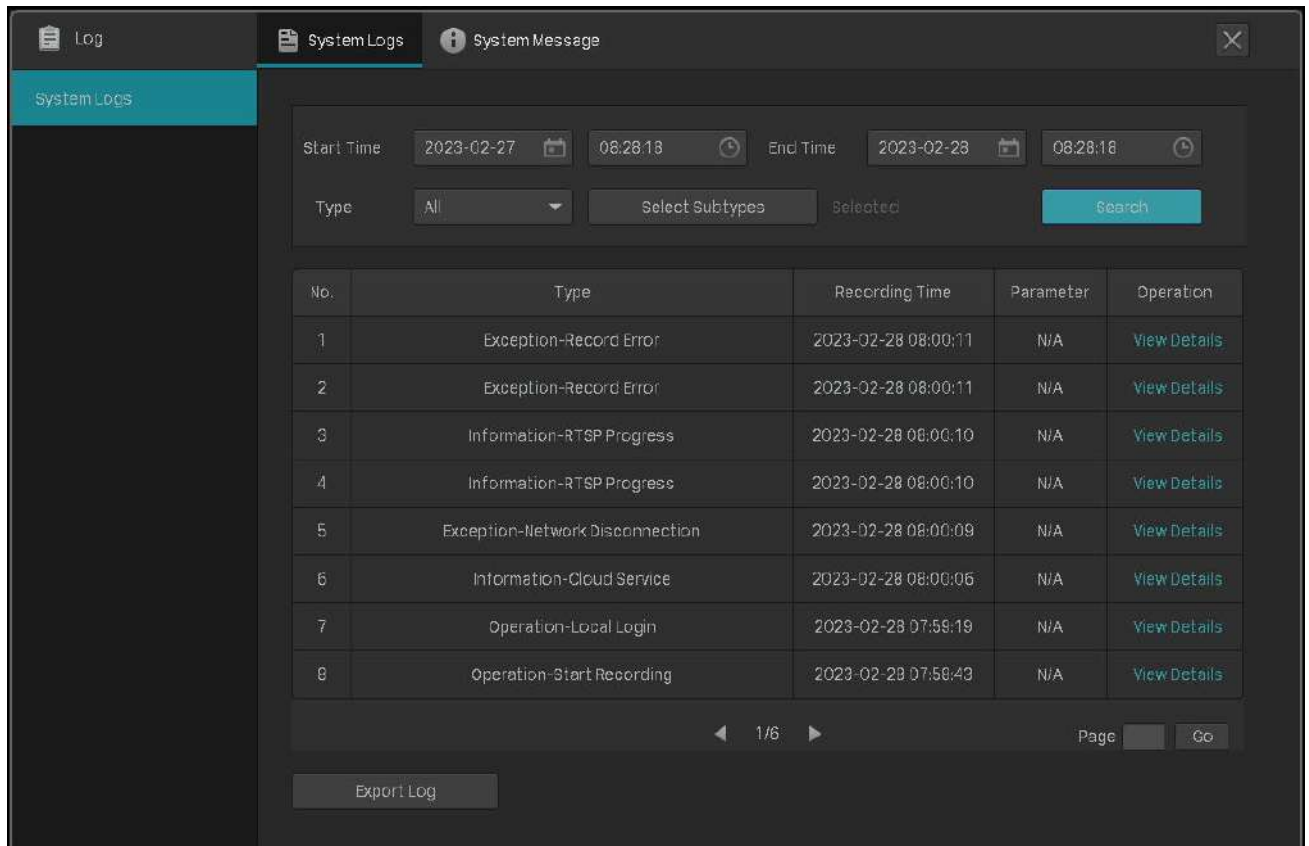
The NVR uses logs to record, classify, and manage the messages of the system and devices. You can search, view, and export the logs.

Note: To export logs, an USB external storage device is required.

Follow the steps below to search and export the logs.

1. Right click on the Live View screen and click **Log** in the pop-up Main Menu. Go to **System Logs > System Logs**.

- Specify the time range and log types and click **Search**. The filtered logs appear in the table. To view detailed information, click **View Details**.



The screenshot shows the 'System Logs' window with the following details:

- Start Time:** 2023-02-27 08:28:18
- End Time:** 2023-02-28 08:28:18
- Type:** All
- Search Button:** Search

No.	Type	Recording Time	Parameter	Operation
1	Exception-Record Error	2023-02-28 08:00:11	N/A	View Details
2	Exception-Record Error	2023-02-28 08:00:11	N/A	View Details
3	Information-RTSP Progress	2023-02-28 08:00:10	N/A	View Details
4	Information-RTSP Progress	2023-02-28 08:00:10	N/A	View Details
5	Exception-Network Disconnection	2023-02-28 08:00:09	N/A	View Details
6	Information-Cloud Service	2023-02-28 08:00:06	N/A	View Details
7	Operation-Local Login	2023-02-28 07:59:19	N/A	View Details
8	Operation-Start Recording	2023-02-28 07:58:43	N/A	View Details

Page 1/6

[Export Log](#)

Start/End Time

Specify a time range to filter the logs based on the recording time.

Type

Select a main type from the drop-down list to filter the logs. You can also click **Select Subtypes** to specify subtypes.

All: All types of logs.

Alarm: Alarms triggered by events, such as tampering, line crossing, and area intrusion.

Exception: Abnormal events that may influence NVR's functions, such as video signal lost and errors of hard drive.

Operation: Operations that take place on the NVR, such as login and upgrade.

Information: Informational messages, such as local drive information and RTSP progress.

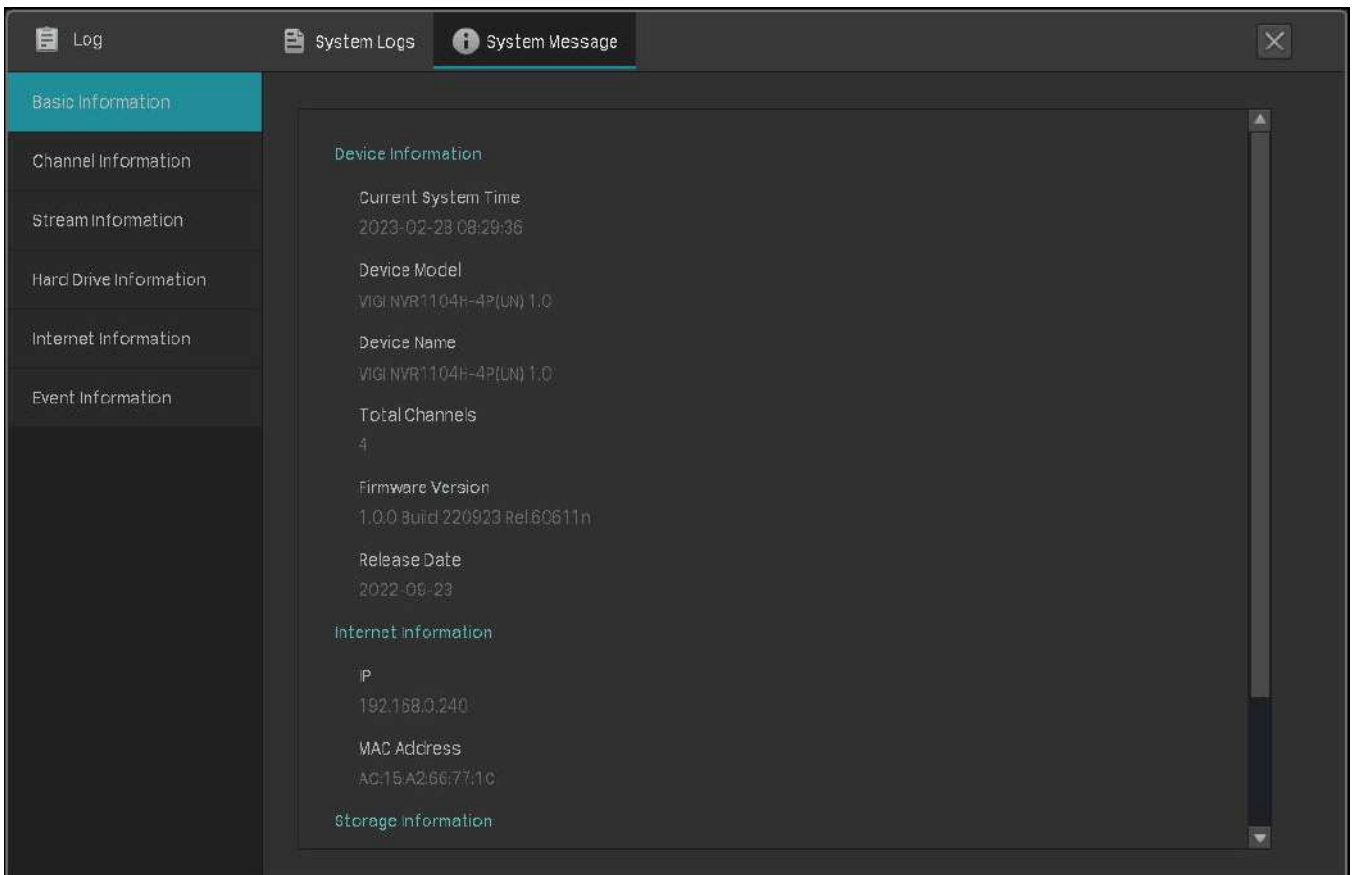
- Click **Export Log** and select a file path in the pop-up window. Click **Export Log**.

♥ 9.7 View System Messages

You can view the information about the devices, storage, internet and event in System Messages. Right click on the screen and click **Log** in the pop-up main menu, then go to **System Message**.

■ Basic Information

You can view the basic information about the NVR, internet and storage.



■ Channel Information

You can view the channel number, channel name, network connection status, the IP address of camera and the status of motion detection.

The screenshot shows a software interface with a sidebar on the left containing menu items: Log, System Logs, System Message (selected), Basic Information, Channel information (selected), Stream Information, Hard Drive Information, Internet information, and Event information. The main area displays a table with the following data:

No.	Channel Name	Connection Status	Channel IP	Motion Detection
1	VIGI C340 2.0	Connected	192.168.0.60	Enabled
2	VIGI C540-W2.0	Connected	192.168.0.2	Enabled

■ Stream Information

You can view the recording parameters of a certain camera.

The screenshot shows the same software interface as above, but with 'Stream Information' selected in the sidebar. The main area displays a table with the following data:

No.	Recording Status	Stream Type	Video frame rate	Resolution	Bit Rate
1	Enable	Main Stream	25fps	2560 x 1440(2K)	2048kbps
2	Enable	Main Stream	25fps	2560 x 1440(2K)	1536kbps

CH No. Displays the channel number.

Recording Status The channel starts or stops recording.

Stream Type	<p>Main Stream: Refer to the high definition quality for your live view and the larger size of recording files.</p> <p>Substream: Refer to the standard definition quality for your live view and the smaller size of recording files.</p>
Video Frame Rate	Specify the frame rate of the videos. The video is smoother when the rate increases.
Resolution	Specify the resolution of video stream. The screen displays images clearer when the resolution increases.
Bite Rate	Specify the number of bits that are conveyed or processed per unit of time.

■ Hard Drive Information

The screenshot shows a software interface with a sidebar on the left containing menu items: Log, System Logs, System Message, Basic Information, Channel Information, Stream Information, Hard Drive Information (highlighted), Internet Information, and Event Information. The main area displays a table with the following data:

Disk No.	Disk Capacity	Free Space	Status	Type
1	931 GB	928 GB	Normal	Read and Write

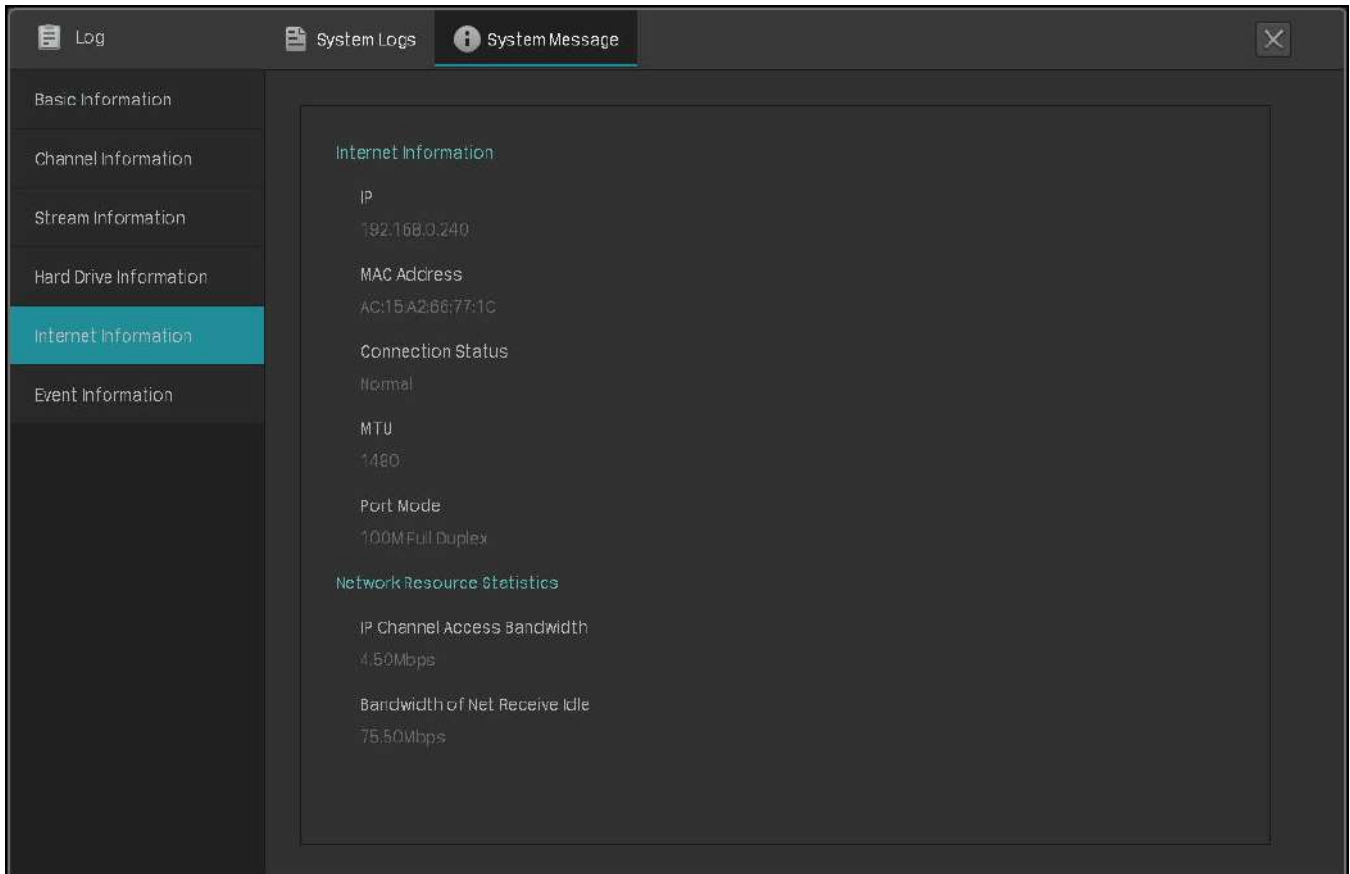
At the bottom of the table, there is a pagination control showing '1/1' and a 'Page Go' button.

Disk No.	Displays the number of hard drive.
Disk Capacity	Displays the total space of hard drive.
Free Space	Displays the remaining storage capacity of hard drive.
Status	Displays the status of hard drive.

Type	Read and write: The data on the hard drive can be read and written.
	Read-only: The data on the hard drive can be only be read.

■ Internet Information

You can view the internet information of your NVR and the current network resources statistics.



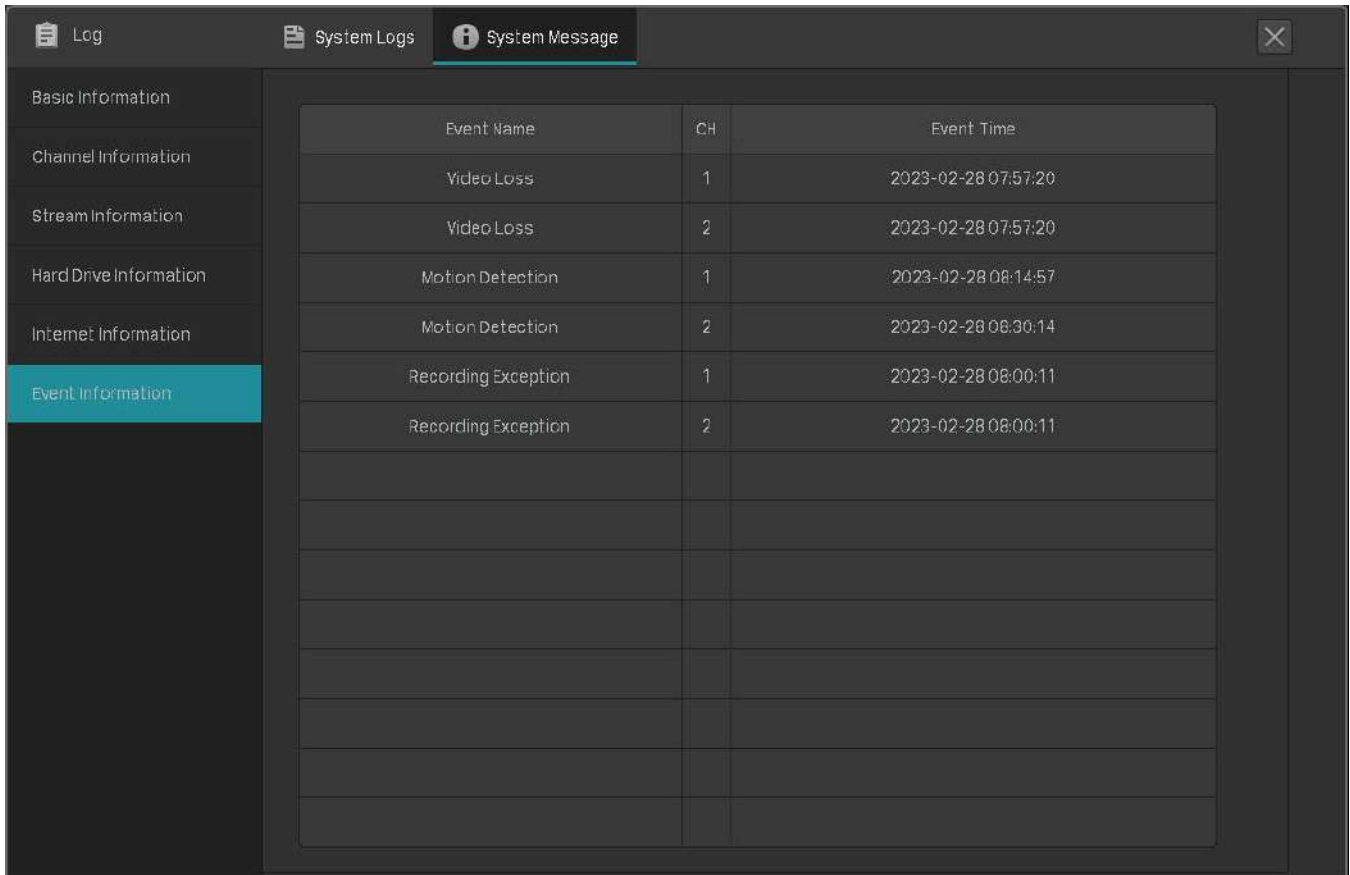
IP	Displays the IP address of your NVR.
MAC Address	Displays the MAC Address of your NVR.
Connection Status	Displays the network connection status of your NVR.
MTU	Refers to maximum transmission unit measuring the largest data packet that a network-connected device will accept.
Port Mode	Displays the modes of transmission and the data speed of ports. For example, 100M Full Duplex means the Ethernet port of the NVR can send and receive one million bits per second in both directions.
IP Channel Access Bandwidth	Displays the bandwidth used by IP cameras.

**Bandwidth of Net
Receive Idle**

Displays the remaining received bandwidth.

■ Event Information

You can view the event type, occurred time, and the channel which detects events.



The screenshot shows a software interface with a dark theme. At the top, there are three tabs: 'Log', 'System Logs', and 'System Message'. The 'System Message' tab is selected and highlighted. On the left side, there is a vertical menu with several categories: 'Basic Information', 'Channel Information', 'Stream Information', 'Hard Drive Information', 'Internet Information', and 'Event Information'. The 'Event Information' category is highlighted in a teal color. The main area of the interface displays a table with the following data:

Event Name	CH	Event Time
Video Loss	1	2023-02-28 07:57:20
Video Loss	2	2023-02-28 07:57:20
Motion Detection	1	2023-02-28 08:14:57
Motion Detection	2	2023-02-28 08:30:14
Recording Exception	1	2023-02-28 08:00:11
Recording Exception	2	2023-02-28 08:00:11

FAQ

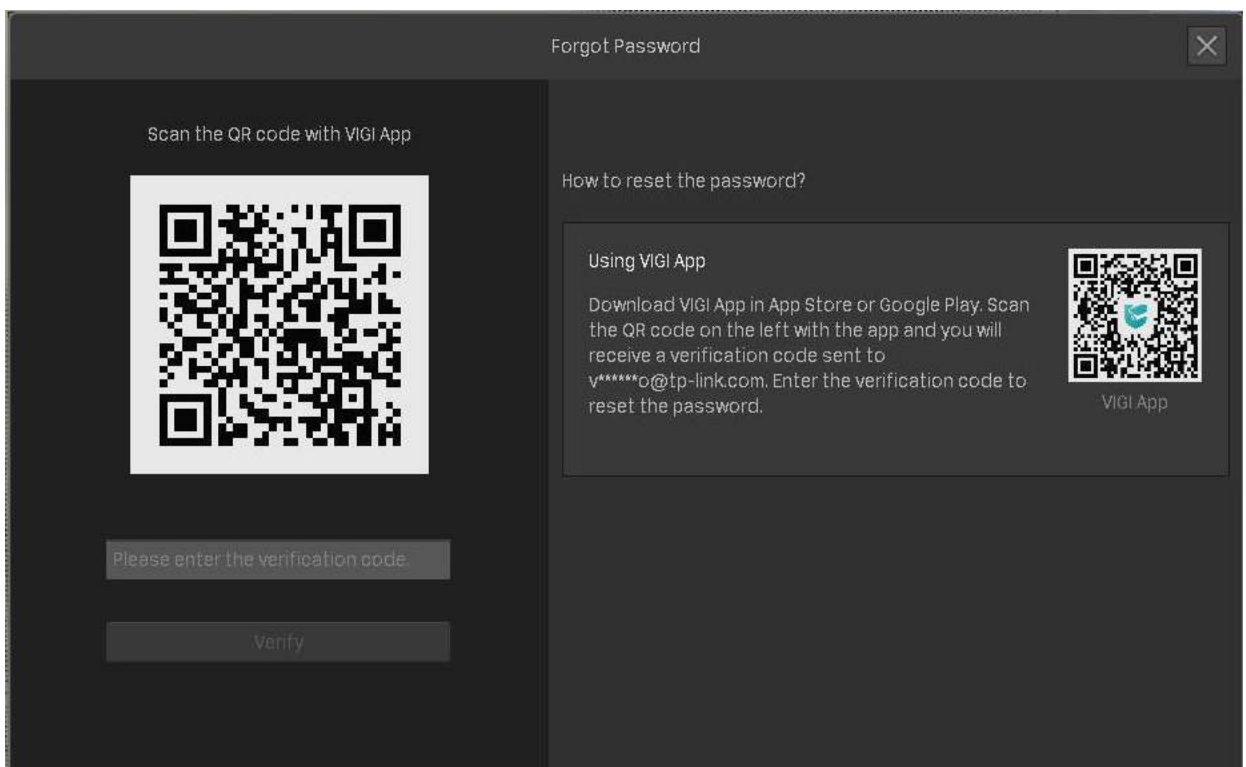
Q1: What can I do if I forgot the password of NVR?

Follow the steps below to reset the password of NVR:

1. Click **Forgot Password** on the login window.
2. Send a verification code to Password Reset Email.

Note: Password Reset Email is the one you entered in Quick Setup for the password reset. It is only used to receive the verification code when you need to reset the password.

- If your NVR is connected to the internet, click **Get Verification Code** and you will receive a verification code sent to your Password Reset Email.
- If your NVR is not connected to the internet, use your mobile phone to scan the QR code on the right to download the VIGI app and log in with your TP-Link ID. Tap **+** on the top right of the app and scan the QR code on the left of the VIGI NVR. Then you will receive a verification code sent to your Password Reset Email.



3. Enter the verification code you received into the blank and click **Verify**. Then you can set a new password for your NVR.

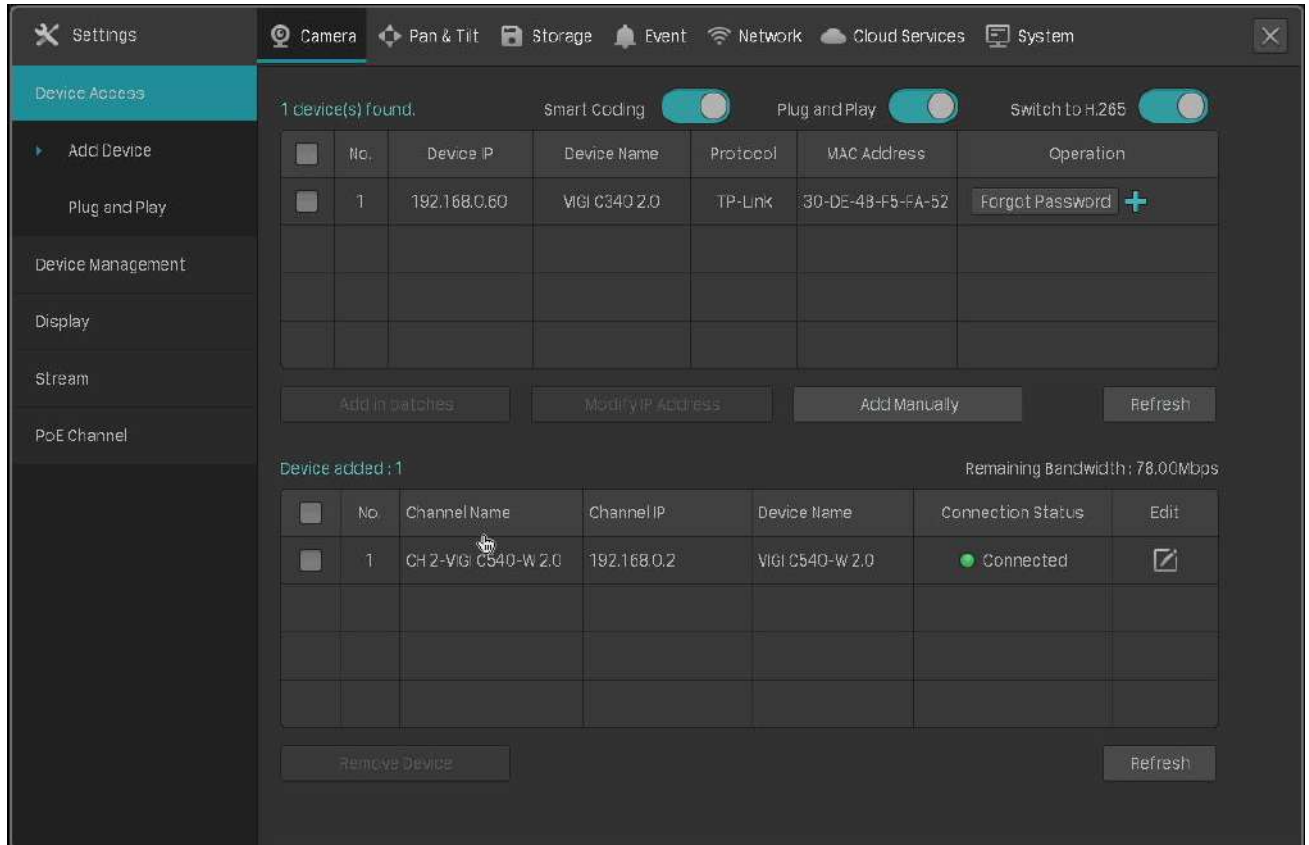
Note: If you do not receive the verification code, you can:

- Check your junk or spam folder of your email.
- Check your email filter setting in your email account. Add `noreply@tp-link.com` in the White list (by clicking Create a new filter) in your email setting. Then go back to the NVR to send the verification code again,

Q2: What can I do if I forgot the password of VIGI camera?

Follow the steps below to reset the password of VIGI camera:

1. Right click on the Live View screen and click **Settings** in the Main Menu. Go to **Camera > Add Device**. Click **Forgot Password**.

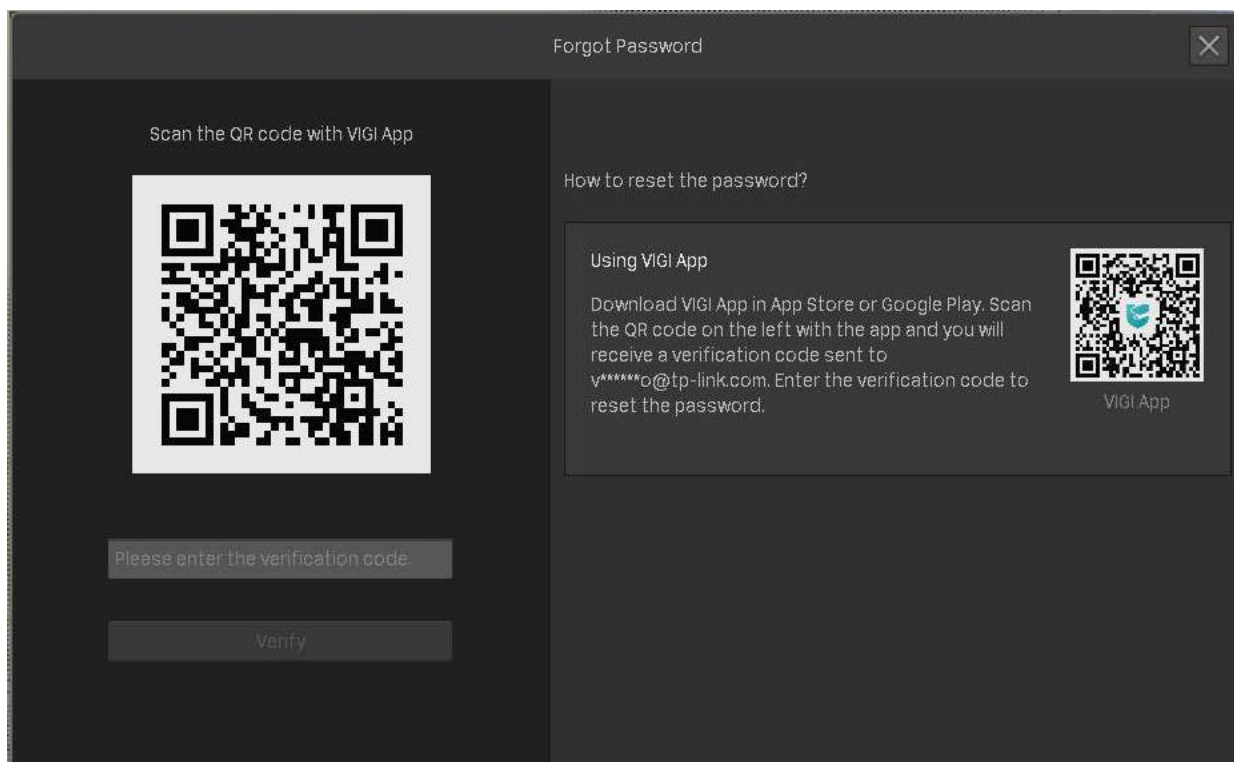


2. Send a verification code from Password Reset Email.

Note: Password Reset Email is the one you entered in Quick Setup for the password reset. It is only used to receive the verification code when you need to reset the password.

- If your NVR and camera is connected to the internet, click **Get Verification Code** and you will receive a verification code sent to your Password Reset Email.
- If your NVR and camera is not connected to the internet, use your mobile phone to scan the QR code on the right to download the VIGI app and log in with your TP-Link ID. Tap **+** on the

top right of the app and scan the QR code on the left of the VIGI NVR. Then you will receive a verification code sent to your Password Reset Email.



3. Enter the verification code you received into the blank and click **Verify**. Then you can set a new password for your camera.

Note: If you do not receive the verification code, you can:

- Check your junk or spam folder.
- Check your email filter setting in your email account. Add noreply@tp-link.com in the White list (by clicking Create a new filter) in your email setting.

If you have other questions, please visit [FAQ 2850](#) for more information.