Video Management Server
Web Manager
User Manual

Manual Version: V1.04

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

Notice

CAUTION!

The default password is intended for your first login. For security, please change the password after your first login. You are recommended to set a strong password of no less than eight characters comprising at least three elements of the following four: digits, upper case letters, lower case letters and special characters. Please keep the password safe and change it regularly.

For security reasons, access from Internet with a weak password will be denied until it is changed to a strong one.

- The contents of this document are subject to change without prior notice. Updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.
- Best effort has been made to verify the integrity and correctness of the contents in this document, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual.
- The illustrations in this manual are for reference only and may vary depending on the version or model.
- This manual is a guide for multiple product models and so it is not intended for any specific product.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.
- Use of this document and the subsequent results shall be entirely on the user's own responsibility.

Symbols

Symbol	Description
⚠ **WARNING!**	Contains important safety instructions and indicates situations that could cause bodily injury.
ⓘ **CAUTION!**	Means reader be careful and improper operations may cause damage or malfunction to product.
📝 **NOTE!**	Means useful or supplemental information about the use of product.

Contents

1 Introduction

The Video Management Server (referred to as VMS hereinafter) is a new generation video management device designed to meet security surveillance needs from small and medium-sized businesses.

The VMS offers three access methods.

Method	Description
Web Manager	Use a Web browser to access the VMS to manage, configure devices and services and perform maintenance operations. Simple video service is available on the Web Manager.
Client Software	Access the VMS through the client software installed on your computer to perform service operations.
Mobile App	Access the VMS through a mobile app for live view, playback and device management.

This manual describes how to use the Web Manager.

2 Login

Use a Web browser to log in to the VMS:

1. Open your Web browser and then enter the VMS' IP address in the address bar, e.g., 192.168.1.60.
2. Enter the username and password to log in. The default username/password: admin/123456.
3. Change the password after login.

CAUTION!

- Set a strong password. A strong password consists of at least eight characters including digits, upper case and lower case letters, and special characters. For security concerns, access from Internet using a weak password will be denied until a strong password is set on the LAN.
- If you forgot your password, click **Forgot Password** on top of the **Login** button and then obtain a temporary password to log in. The temporary password is usable only to admin on a Local Area Network (LAN), and it is valid on the current day only. Please reset the password when logged in.

3 Basic Configuration

Basic configuration includes:

- Organization Management: Configure general and custom organizations to manage devices.
- User Management: Configure roles and assign permissions.
- Device Management: Manage devices, channels, external alarms and link resources.

- Server Management: View the basic info and status of central servers (primary and secondary servers) distributed servers (slave servers), allocate resources.

Organization Management

Create organizations and allocate resources (such as devices and channels) to different organizations for efficient management. Organizations are presented in a tree structure called organization tree. The root organization (root) is created by default, under which users may create other organizations.

Organization management includes:

- General organization: One device (such as an IPC or NVR) belongs to only one general organization; and all IPCs under the same NVR may only belong to the same organization.
- Custom organization: Provides a much more flexible way to manage devices. See Custom Organization.

General Organization

Basic > **Organization** > **General**

Click **Add** to create a general organization.

1. Enter a name and select a parent organization (by default is **root**).
2. Click **OK**.
3. The new organization appears on the organization tree on the left and the list on the right. It also appears in the organization name drop-down list that you can select when adding or editing a device.
4. In the organization list, click ✎ or 🗑 to edit or delete an organization.

NOTE!

- The root organization cannot be deleted.
- An organization cannot be deleted if it contains any organizations or resources (device or channel).

Custom Organization

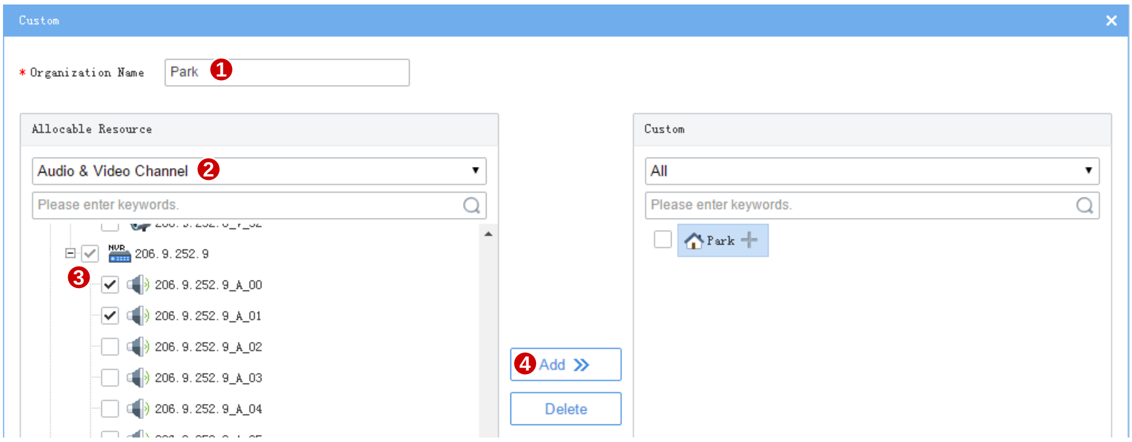
Basic > **Organization** > **Custom**

Custom organization provides a flexible way to manage devices by allowing you to:

- Assign cameras under an NVR to different organizations.
- Assign cameras under different NVRs to one organization.
- Assign a camera to different organizations at the same time.
- Assign a custom organization to a role, so that users with this role can access certain resources on the software client.
- Assign resources of different types (e.g., audio & video channel) to different organizations.

Click **Add** to create a custom organization:

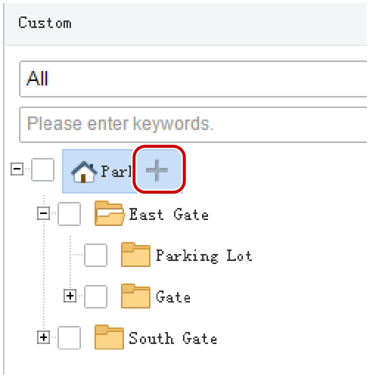
1. Enter a name. The organization name appears on the right.
2. (Optional) Select resource type (Audio & Video Channel). Enter keywords to filter if necessary.



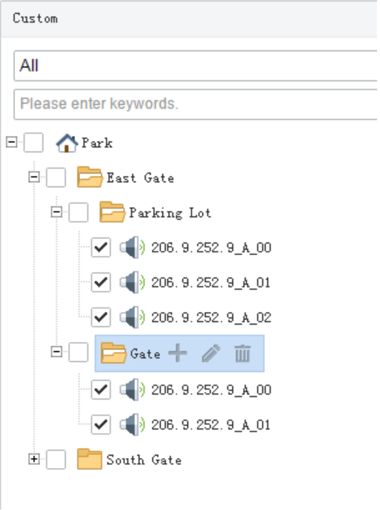
* Organization Name: Park

Allocable Resource: Audio & Video Channel

3. To allocate resources to the root organization (e.g., park), select resources on the left, click the organization name on the right, and then click **Add**.
4. To add a new organization, click the add sign (+) and then enter a name in the field. The tree updates automatically. Add all the needed organizations in this way. Organizations can be edited or deleted.



5. Click an organization on the right, select resources on the left, and then click **Add**. The selected resources are allocated to the organization. A resource can be allocated to multiple organizations (see figure below).

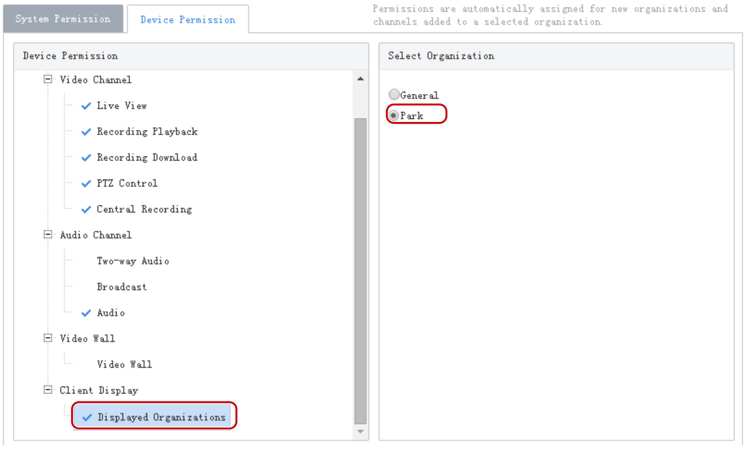


6. Click **OK**.

NOTE!

Operations to add, edit and delete organizations take effect immediately. Changes will be saved even if you click **Cancel**.

The new organization (e.g., Park) appears on the **Device Permission** tab (**Basic** > **User** > **Role**). If the organization is assigned to a role, users with this role can access resources in this organization.



Permissions are automatically assigned for new organizations and channels added to a selected organization.

Device Permission

- Video Channel
  - ✓ Live View
  - ✓ Recording Playback
  - ✓ Recording Download
  - ✓ PTZ Control
  - ✓ Central Recording
- Audio Channel
  - Two-way Audio
  - Broadcast
  - ✓ Audio
- Video Wall
  - Video Wall
- Client Display
  - ✓ Displayed Organizations

Select Organization

○ General
● Park

NOTE!

- System permissions include operation permissions and management permissions. The actual operation permissions depend on the selected operation permissions and the organization selected for **Displayed Organization**.
- For users with multiple roles, custom organizations assigned to these roles are displayed in resource lists of Live View, Playback, Sequence, View, Audio, Video Wall, and People Counting modules on the software client simultaneously.

User Management

Configure roles, assign permissions, and control user permissions by assigning roles. A role can be assigned to multiple users, and a user may have up to 16 roles.

Role

Basic > **User** > **Role**

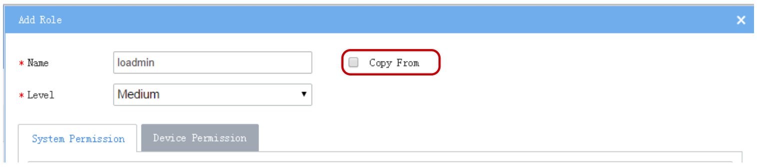
Roles are used to limit user's permissions, including:

- **System Permission**: including operation permission (on software client) and management permissions (on Web Manager).
- **Device Permission**: Permission to access functions when using a device. You need to select permissions and specify allowed organizations or channels.
- **Level**: Used to differentiate priority when two users with the same system and device permissions are operating PTZ function at the same time.

Click **Add** to add a new role:

1. Enter the role name.
2. Select a level.

3. (Optional) Select **Copy From**. The existing roles in the system are listed. Select a role and then edit permissions for the new role based on the selected role. Permissions of the selected role will not change.

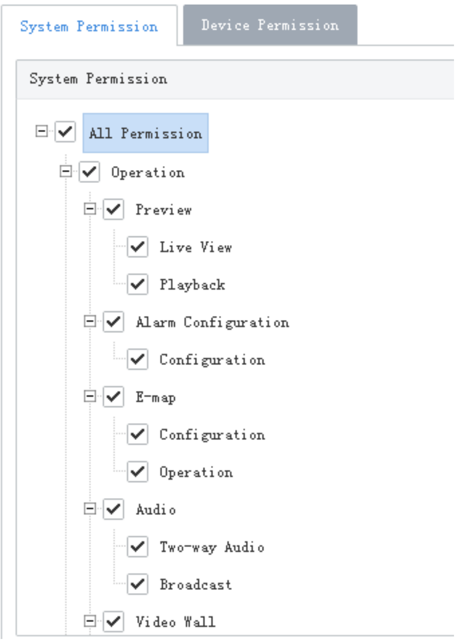


Add Role

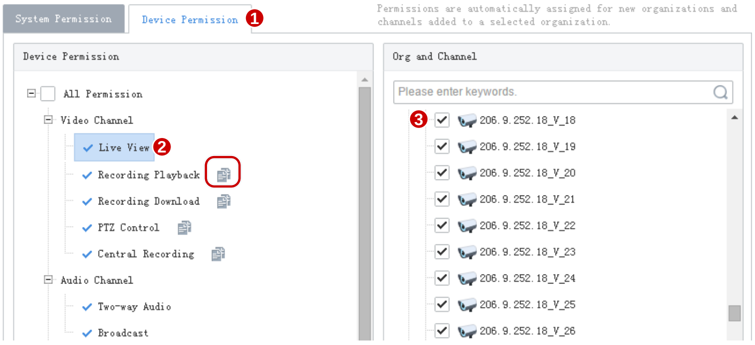
* Name loadmin

* Level Medium

4. On the **System Permission** tab, select permission to assign. For example, to assign live video and playback permissions, select **Preview** under **Operation**. **Live View** and **Playback** are selected automatically. To assign all permissions, select **All Permission**.



5. Click **Device Permission** to assign device permissions: first click a permission on the left and then select channel(s) on the right.



Permissions are automatically assigned for new organizations and channels added to a selected organization.

TIP!

- After selecting a permission on the left (e.g., Live View), you also need to select camera(s) in the **Org and Channel** area on the right. By selecting a camera it means that the role will have **Live View** permission to this camera.
- Selecting **All Permission** will select all permissions and all channels. Selecting **root** will select all the listed channels.
- Clicking copies permissions of the selected node (e.g., **Live View**) to the target node (e.g., **Recording Playback**). For example, to select the same channels for **Recording Playback** as **Live View**, click **Live View** first and then click right to **Recording Playback**. Channels selected for **Live View** will be automatically selected for **Recording Playback**.
- The ✓ symbol that appears to the left of a permission (e.g., **Live View**) means channels have been selected for the permission.
- Click **Display Organizations** under the **Client Display** node to display all the organizations in the system on the right, including general and custom organizations. Select an organization as needed. For more information, see Custom Organization.

6. (Optional) Enter a description of the role.
7. Click **OK**.
8. The new role appears in the role list.

NOTE!

- Click ✎ to edit a role; click 🗑 to delete a role. Changes made to a role automatically apply to users who have this role. The affected users need to log in again after permissions are changed.
- After a role is deleted, the permission(s) that the role includes are revoked from user(s) who have this role.

User

Basic > **User** > **User**

Control a user's permissions in the VMS by specifying roles. Lock a user's account so the user cannot log in.

NOTE!

The admin user cannot be edited or deleted.

Click **Add** to add a user.

1. Enter the username. A username must be unique in the system and cannot be changed once set.
2. Select role(s) to assign. The user will have all the permissions included in the role(s) assigned.
3. Enter the password, which the user will use to access the VMS.
4. (Optional) Click to expand and enter more details.
5. Click **OK**.

The user list lists all the users in the system, including username, role(s), and current status (online/offline). Click the buttons in the list to manage users:

- Click ✎ to edit roles.

- Click 🔑 to change password. The new password is effective at the next login. Only admin can change other users' passwords.
- Click 🔒 to lock a user. A locked user cannot log in before being unlocked.
- Click 🗑 to delete a user. A user who is already logged in will be forced out of the system when deleted.

Device Management

Manage devices, channels, external alarms; link resources.

Before you start service operations on the software client, you need to add devices on the Web client first. The VMS supports the following device types:

- Encoding device: IPC (IP camera or camera for short), NVR (Network Video Recorder), and encoder.
- Decoding devices: Built-in decoder, decoding card, and external decoding devices.
- Access gateway
- Smart Device
- Network keypad (or network keyboard).
- Cloud devices: Devices under cloud account(s).
- Alarm control: Alarm panel, alarm control panel (name may vary depending on the manufacturer).
- Access control: Door access control (or controller).

Device

Basic > **Device** > **Device**

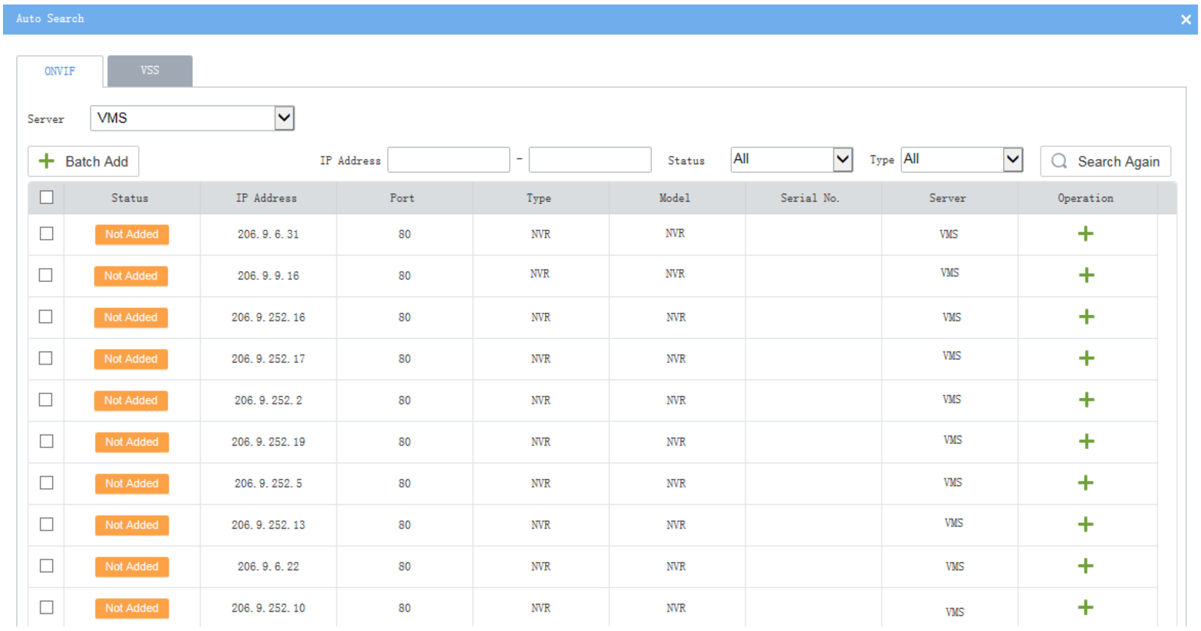
Encoding Device

Encoding devices include encoder, IPC, and NVR.

1. Click the **Encoding Device** tab.
2. Click **Auto Search**. Encoding devices on the same network with the VMS are discovered.

   To add an encoding device with known IP/domain, click **Add**.
3. On the device list, click + for the device to add. Check the settings and then click **OK**.

   To add devices with same configurations (server, protocol, organization, username/password), select the checkbox for these devices and click then **Batch Add**.



Server VMS

Batch Add IP Address - Status All Type All Search Again

□	Status	IP Address	Port	Type	Model	Serial No.	Server	Operation
□	Not Added	206. 9. 6. 31	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 9. 16	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 16	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 17	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 2	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 19	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 5	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 13	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 6. 22	80	NVR	NVR		VMS	+
□	Not Added	206. 9. 252. 10	80	NVR	NVR		VMS	+

4. You may search again with set conditions:

- **Server**: Search devices under the specified server. Selectable in master/slave configuration.
- **IP**: Search devices within the specified IP range.
- Filter devices by status (added or not) and type (IPC, NVR).
- Click the **VSS** tab to search for VSS devices only. You need to complete VSS configuration first.

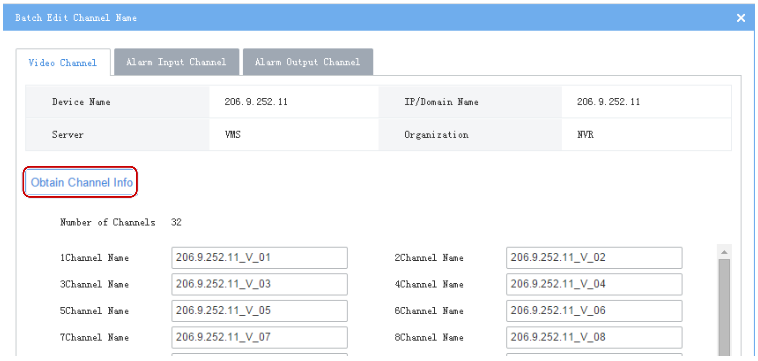
5. Check device status after they are added.

Tip!

If the device status is **Offline - Incorrect username/password**, click and enter the correct password. The device cannot get online unless the entered password is correct.

6. Do the following as needed:

- To sync channel info (channel name) to the VMS (for example, after channel names are changed on the NVR), select the device(s) and then click the **Sync Channel Info** button. You can view the updated channel info at **Basic** > **Device** > **Channel**.
- : Edit device info, including protocol, device type, device name, organization, IP/domain, port, username, password, and server.
- : Delete a device from the VMS.
- : Open the device's Web page.
- : Update channel names displayed on the VMS (click **Obtain Channel Info**), or edit channel names on the VMS (not on device); view alarm input/output channel information.



Batch Edit Channel Name

Device Name	206.9.252.11	IP/Domain Name	206.9.252.11
Server	VMS	Organization	NVR

Number of Channels 32

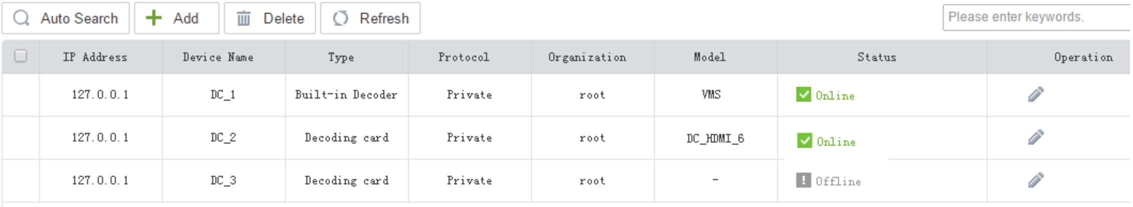
1Channel Name	206.9.252.11_V_01	2Channel Name	206.9.252.11_V_02
3Channel Name	206.9.252.11_V_03	4Channel Name	206.9.252.11_V_04
5Channel Name	206.9.252.11_V_05	6Channel Name	206.9.252.11_V_06
7Channel Name	206.9.252.11_V_07	8Channel Name	206.9.252.11_V_08

Decoding Device

Add decoding devices to convert media streams received on the network into video playable on a video wall. Decoding devices include the VMS' built-in decoder, decoding card (sold separately), and external decoding device.

NOTE!

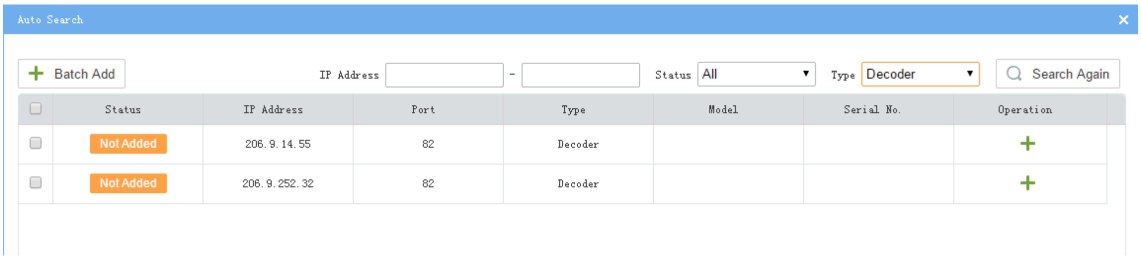
If a decoding card is installed, DC_2 or DC_3 is Online (DC_2 for SLOT0, and DC_3 for SLOT1). You may rename the device for easier recognition by clicking ✎.



□	IP Address	Device Name	Type	Protocol	Organization	Model	Status	Operation
	127.0.0.1	DC_1	Built-in Decoder	Private	root	VMS	☑ Online	✎
	127.0.0.1	DC_2	Decoding card	Private	root	DC_HDMI_6	☑ Online	✎
	127.0.0.1	DC_3	Decoding card	Private	root	-	! Offline	✎

1. Click the **Decoder** tab.
2. Click **Auto Search**. Decoding devices on the same network with the VMS are discovered.

   To add a device with known IP/domain, click **Add**.



Auto Search

IP Address [ ] - [ ]   Status All   Type Decoder

□	Status	IP Address	Port	Type	Model	Serial No.	Operation
□	Not Added	206.9.14.55	82	Decoder			+
□	Not Added	206.9.252.32	82	Decoder			+

3. On the device list, click + for the device to add. Check the settings and then click **OK**.

   To add devices with same configurations (protocol, organization, username/password), select the checkbox for the devices and then click **Batch Add**.
4. You may search again with set conditions:

- **IP**: Search devices within the specified IP range.
- Filter devices by status (added or not) and type (decoder, DX).

5. Check device status after they are added.

Tip!

If the device status is **Offline - Incorrect username/password**, click ✎ and enter the correct password. The device cannot get online unless the entered password is correct.

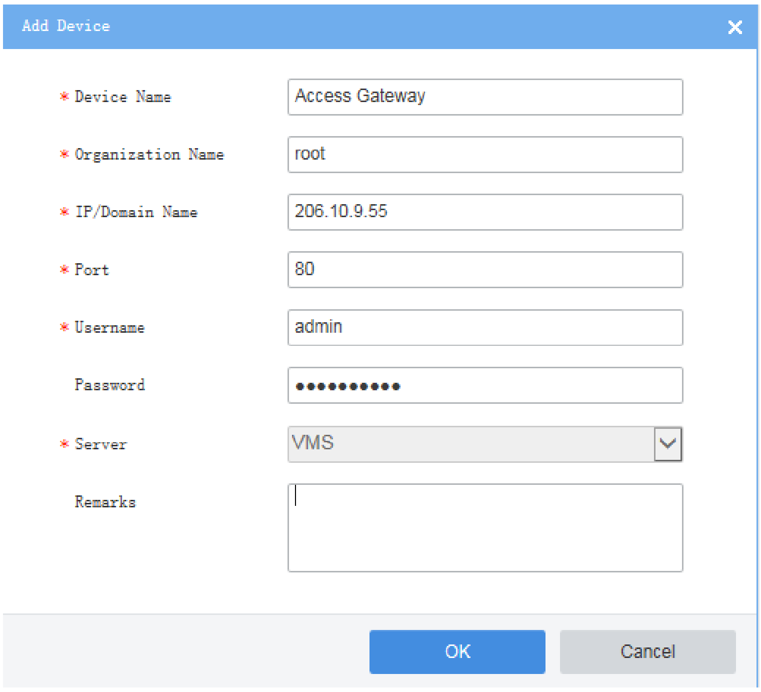
6. Do the following as needed:

- ✎ : Edit device info, including protocol, device name, organization, IP/domain, port, username/password.
- 🗑: Delete a device from the VMS.
- e: Open the device's Web page.

Access Gateway

Click the **Access Gateway** tab to add an access gateway (EZAgent), so the VMS can receive alarms from alarm control panels and door access controls, and users can arm/disarm zones, bypass/unbypass partitions, and open/close doors on the software client.

1. Click **Add**.



Add Device

* Device Name	Access Gateway
* Organization Name	root
* IP/Domain Name	206.10.9.55
* Port	80
* Username	admin
Password	••••••••••
* Server	VMS
Remarks	

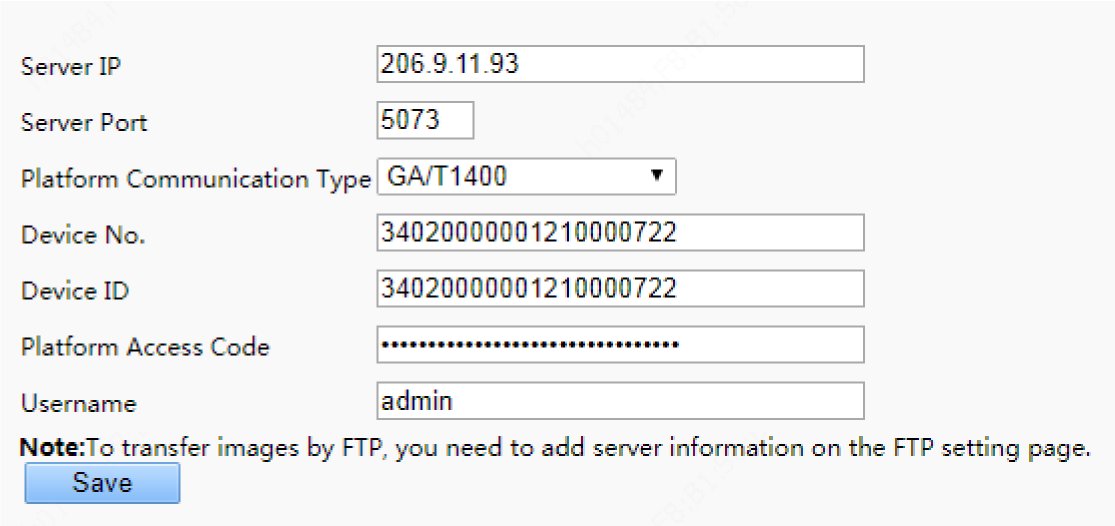
2. Complete settings in the dialog box. Some are described below:

- Device name: Set as needed for easy recognition.
- IP/Domain Name: IP address/domain name of the PC where the EZAgent server is installed.
- Port: 80
- Username: admin
- Password: Password of the EZAgent server.

3. Click **OK**. The access gateway appears online on the device list. You may click ✎ to edit settings.

Smart Device

Click the **Smart Device** tab to add smart devices (mainly LPR cameras and face recognition cameras). Before you add cameras on the VMS, you need to complete GA/T1400 configuration on the cameras at **System** > **Server** > **Intelligent Server** (the menu may vary with camera version).



Server IP	206.9.11.93
Server Port	5073
Platform Communication Type	GA/T1400 ▼
Device No.	34020000001210000722
Device ID	34020000001210000722
Platform Access Code	••••••••••••••••••••••••••••••••
Username	admin

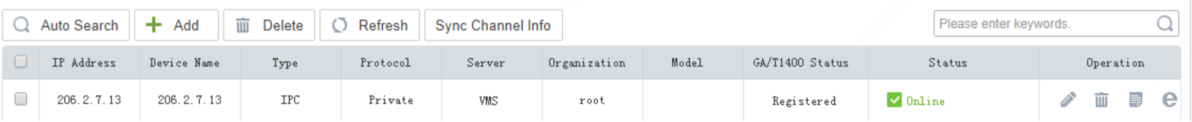
Note: To transfer images by FTP, you need to add server information on the FTP setting page.

- Server IP: IP address of the VMS.
- Server Port: 5073
- Platform Communication Type: GA/T1400
- Device No.: Set correctly; otherwise, registration will fail.
- Platform Access Code/Username: Used by the camera to connect to the VMS.

After you complete the settings, add cameras on the VMS by **Auto Search** or **Add** (see Encoding Device for detailed steps).

- Auto Search: Cameras on the same network with the VMS are discovered.
- Add: Add a camera with known IP/domain.

When cameras are added and registered successfully, the **Registered** status is displayed. See GA/T1400 for more information.



□	IP Address	Device Name	Type	Protocol	Server	Organization	Model	GA/T1400 Status	Status	Operation
□	206.2.7.13	206.2.7.13	IPC	Private	VMS	root		Registered	☑ Online	

Network Keyboard

Click the **Network Keypad** tab to add a network keyboard and use it to control PTZ cameras, set screen/window, or play video on a video wall. You need to enter the VMS' IP address and port number on the keyboard first. See the keyboard user guide for details.

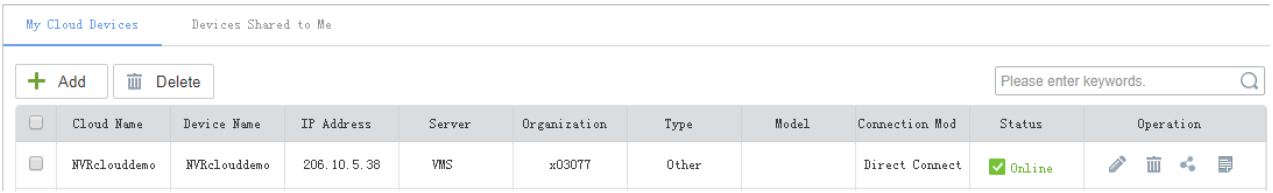
Cloud Device

NOTE!

If an NVR has been added on the VMS via private, Onvif or VSS protocol, it is not recommended to add the NVR to the VMS again as a cloud device. This application may cause undesired service exceptions for certain NVR models.

Click the **Cloud Device** tab, and log in to a cloud account to add, delete, edit and share cloud devices.

- Log in to cloud account: Click **Login** and then enter your cloud account info (or click **Register** to sign up). When logged in, your cloud account appears on the tree on the left, and cloud devices under this account are listed on the right. You may log in to multiple cloud accounts and manage devices under them.
- Add cloud device(s). Click **Add** to add the device to an online cloud account (cannot add VMS). The added device appears in the cloud device list. If connected, the device status is displayed as **Online**.

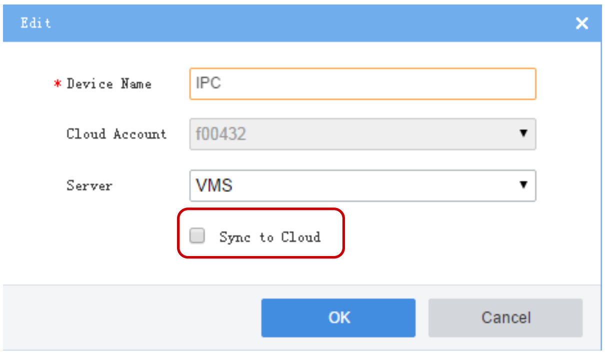


My Cloud Devices | Devices Shared to Me

+ Add | 🗑 Delete | Please enter keywords.

□	Cloud Name	Device Name	IP Address	Server	Organization	Type	Model	Connection Mod	Status	Operation
□	NVRclouddemo	NVRclouddemo	206.10.5.38	VMS	x03077	Other		Direct Connect	✓ Online	✎ 🗑 ⋖ 📄

- Edit cloud device. Click ✎ in the **Operation** column. If **Sync to Cloud** is selected, the changed name will be synced to cloud; otherwise, only the name saved on the VMS is changed. You can change the server in master/slave configuration.



Edit ✕

* Device Name: IPC

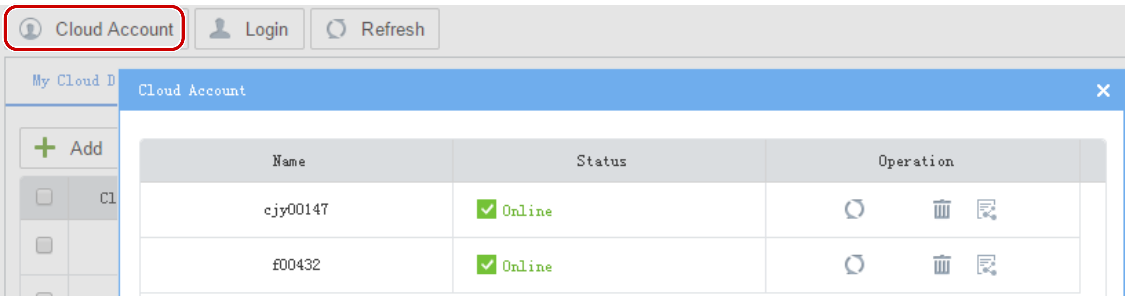
Cloud Account: f00432 ▾

Server: VMS ▾

□ Sync to Cloud

OK | Cancel

- Delete cloud device from a cloud account. Click 🗑 in the **Operation** column, or select multiple items and click the **Delete** button.
- Share online cloud device: Click ⋖ in the **Operation** column to share an online device with other cloud accounts. You may set a sharing period and select a user to specify the permissions of the cloud account. The user and its permissions are configured on the shared device.
- Click **Cloud Account** to view and manage cloud accounts on the VMS.

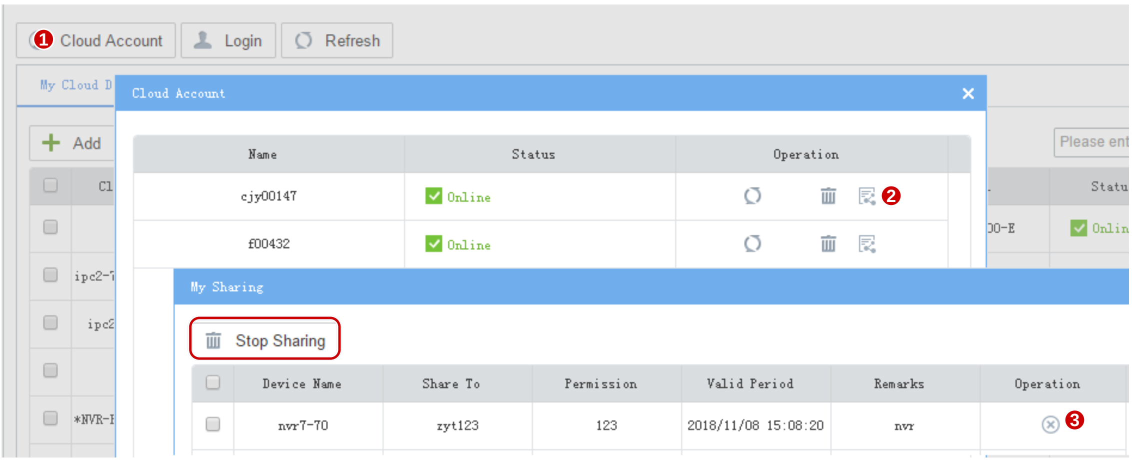


Cloud Account | Login | Refresh

Cloud Account ✕

Name	Status	Operation
cjy00147	✓ Online	○ 🗑 📄
f00432	✓ Online	○ 🗑 📄

- View sharing from a cloud account and cancel sharing. Sharing can be cancelled by clicking the **Stop Sharing** button.



Cloud Account

Name	Status	Operation
cjy00147	☑ Online	
f00432	☑ Online	

My Sharing

Stop Sharing

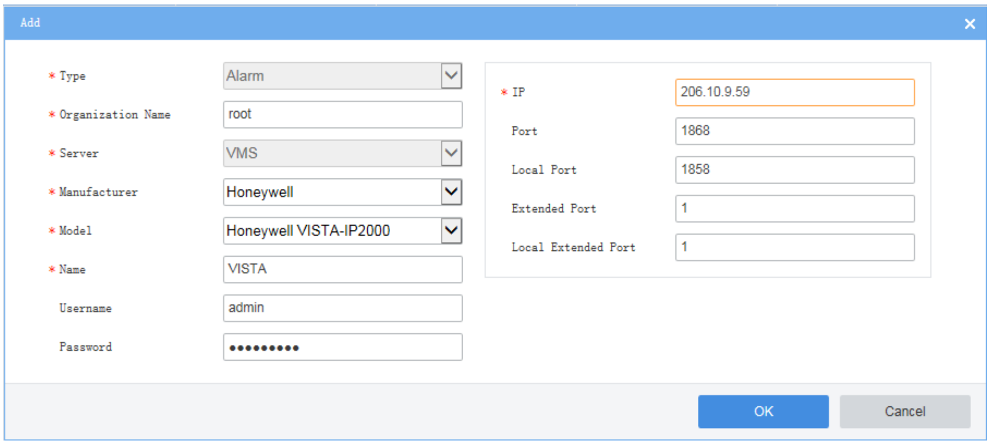
□	Device Name	Share To	Permission	Valid Period	Remarks	Operation
□	nvr7-70	zyt123	123	2018/11/08 15:08:20	nvr	⊗

- To cancel sharing from other cloud accounts, click the **Devices Shared to Me** tab, select items and then click the **Stop Sharing** button.

Alarm Control

Click the **Alarm Control** tab to add alarm control panels, so you can arm/disarm zones and bypass/unbypass partitions on the software client.

1. Click **Add**.



* Type	Alarm
* Organization Name	root
* Server	VMS
* Manufacturer	Honeywell
* Model	Honeywell VISTA-IP2000
* Name	VISTA
Username	admin
Password	•••••••••
* IP	206.10.9.59
Port	1868
Local Port	1858
Extended Port	1
Local Extended Port	1

2. Complete settings in the dialog box. Some are described below:

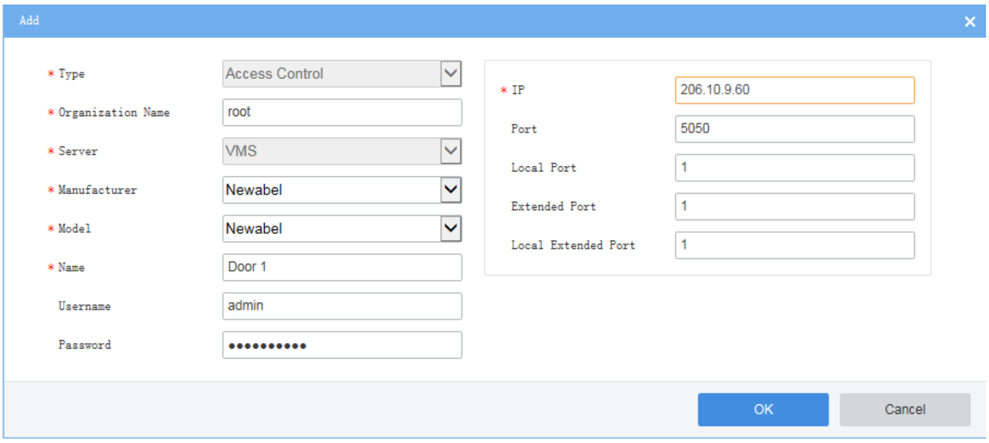
- Manufacturer and model: Choose correctly according to your alarm control device.
- Name: Set as needed for easy recognition.
- Username/password: Required if you want to arm/disarm or bypass/unbypass on the software client.
- IP: IP address of the alarm control panel.
- Port: Keep the default.

3. Click **OK**. The alarm control appears online on the device list. You may click ✎ to edit settings.

Access Control

Click the **Access Control** tab to add door access control devices (or door access controller) so you can open or close doors on the software client.

1. Click **Add**.



Add ×

* Type	Access Control
* Organization Name	root
* Server	VMS
* Manufacturer	Newabel
* Model	Newabel
* Name	Door 1
Username	admin
Password	••••••••••

* IP	206.10.9.60
Port	5050
Local Port	1
Extended Port	1
Local Extended Port	1

- Manufacturer and model: Choose according to your access control device.
- Name: Set as needed for easy recognition.
- Name/password: Required if you want to open/close doors on the software client.
- IP: IP address of the access control device.
- Port: Keep the default.

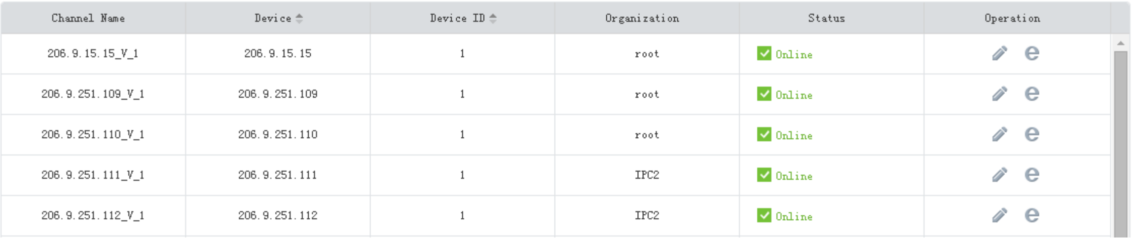
2. Click **OK**.

Channel

Basic > **Device** > **Channel**

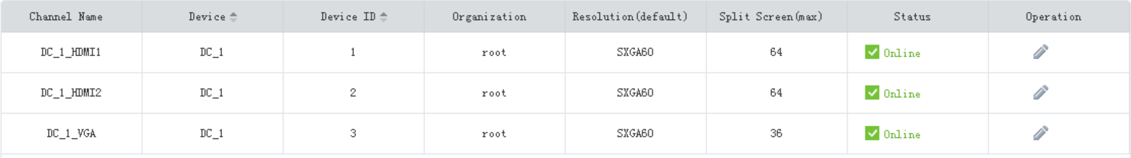
Channels include encoding channel, decoding channel, alarm input/output channel.

- Click the **Encoding Channel** tab to view encoding channels of the encoding devices you have added. Click an organization on the tree on the left to list encoding channels under the organization on the right. You may click some table headers (e.g., Channel Name) to sort the list. Click ✎ to edit channel name. If a device is online, you may click ⓔ to open the Web page of the device to which the channel belongs; for example, to open the Web page of the NVR device.



Channel Name	Device	Device ID	Organization	Status	Operation
206.9.15.15_V_1	206.9.15.15	1	root	☑ Online	✎ ⓔ
206.9.251.109_V_1	206.9.251.109	1	root	☑ Online	✎ ⓔ
206.9.251.110_V_1	206.9.251.110	1	root	☑ Online	✎ ⓔ
206.9.251.111_V_1	206.9.251.111	1	IPC2	☑ Online	✎ ⓔ
206.9.251.112_V_1	206.9.251.112	1	IPC2	☑ Online	✎ ⓔ

- Click the **Decoding Channel** tab to view decoding channels of the decoding devices you have added. Click an organization on the tree on the left to list decoding channels under the organization on the right. You may click some table headers (e.g., Channel Name) to sort the list. Click ✎ to edit channel name. If a device is online, you may click ⓔ to open the Web page of the device to which the channel belongs.



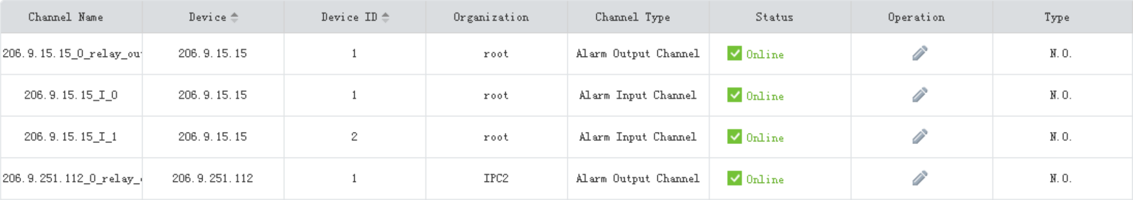
Channel Name	Device	Device ID	Organization	Resolution(default)	Split Screen(max)	Status	Operation
DC_1_HDMI1	DC_1	1	root	SXGA60	64	☑ Online	✎
DC_1_HDMI2	DC_1	2	root	SXGA60	64	☑ Online	✎
DC_1_VGA	DC_1	3	root	SXGA60	36	☑ Online	✎

NOTE!

VGA, HDMI1 and HDMI2 are decoding channels of the VMS' internal decoder DC_1.

- Click the **Alarm Channel** tab to view alarm input and output channels of the devices you have added. Click an organization on the tree on the left to list alarm channels under the organization on the right.

  Select the **Alarm Input Channel** or **Alarm Output Channel** check box to filter the list. Click ✎ to edit channel name, alarm type or default status, or select multiple channels and click **Batch Config**.

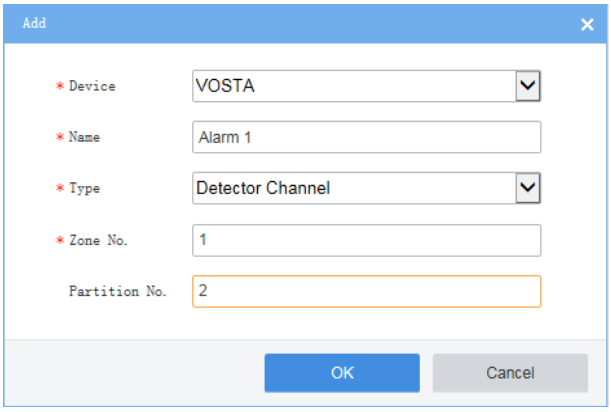


Channel Name	Device	Device ID	Organization	Channel Type	Status	Operation	Type
206.9.15.15_0_relay_ou	206.9.15.15	1	root	Alarm Output Channel	☑ Online	✎	N.O.
206.9.15.15_I_0	206.9.15.15	1	root	Alarm Input Channel	☑ Online	✎	N.O.
206.9.15.15_I_1	206.9.15.15	2	root	Alarm Input Channel	☑ Online	✎	N.O.
206.9.251.112_0_relay_	206.9.251.112	1	IPC2	Alarm Output Channel	☑ Online	✎	N.O.

Tip!

- N.O. means normally open, and N.C. means normally closed.
- For an alarm output channel, **Delay** means the duration of the changed status before the default status is restored.

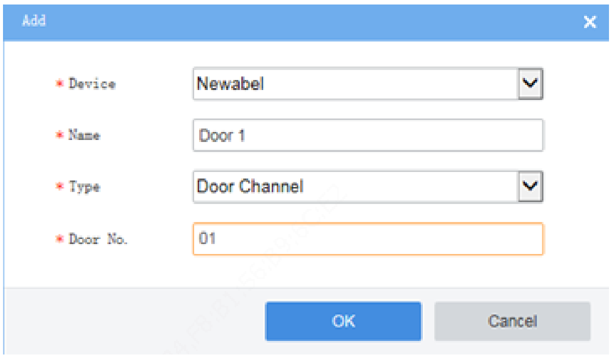
- Click the **Detector Channel** tab to add zones or partitions to an alarm control device.



Add

* Device	VOSTA
* Name	Alarm 1
* Type	Detector Channel
* Zone No.	1
Partition No.	2

- Click the **Door Channel** tab to add doors to a door access control device.



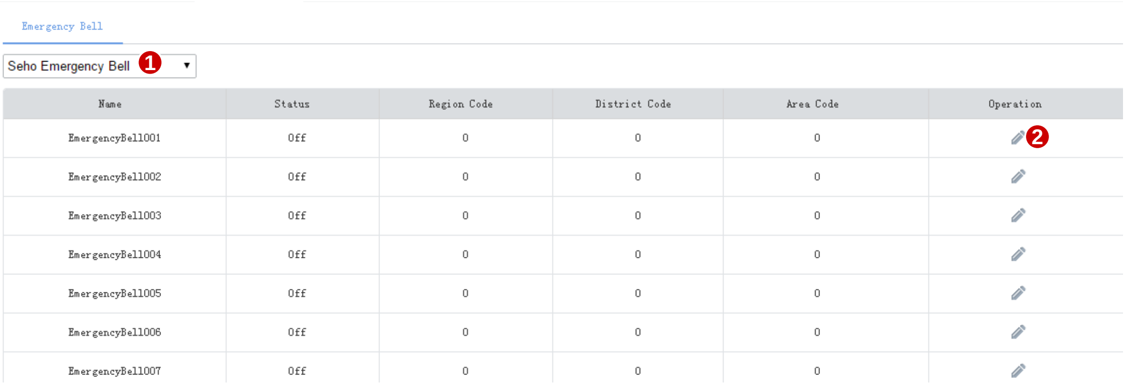
* Device	Newabel
* Name	Door 1
* Type	Door Channel
* Door No.	01

External Alarm

Basic > **Device** > **External Alarm**

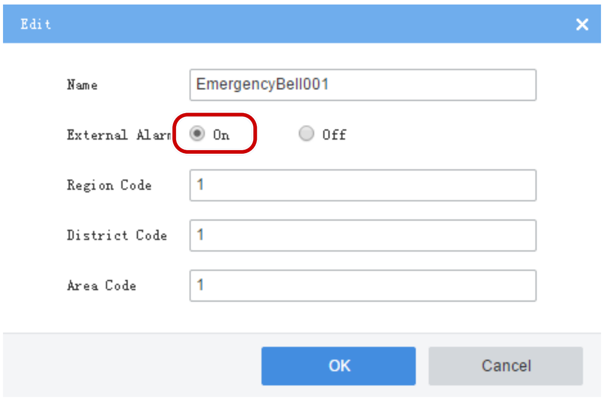
Connect emergency bells to the VMS so that actions will be triggered on the VMS when an emergency bell alarm occurs. Actions include live view, preset (PTZ cameras), alarm output, alarm to video wall, recording, buzzer or email.

1. First link the emergency bell to the VMS by setting IP and port number of the VMS on the emergency bell. Currently only two emergency bell types are supported (Seho and Hitec). For Seho, the port number is 25000, and for Hitec, the port number is 9010.
2. Select an emergency bell and then configure.



Name	Status	Region Code	District Code	Area Code	Operation
EmergencyBell001	Off	0	0	0	✎
EmergencyBell002	Off	0	0	0	✎
EmergencyBell003	Off	0	0	0	✎
EmergencyBell004	Off	0	0	0	✎
EmergencyBell005	Off	0	0	0	✎
EmergencyBell006	Off	0	0	0	✎
EmergencyBell007	Off	0	0	0	✎

3. Enable external alarm so emergency alarms will trigger actions. Set the three codes properly. The VMS uses the combination to identify an emergency bell.



Name	EmergencyBell001
External Alarm	● On ○ Off
Region Code	1
District Code	1
Area Code	1

4. Configure alarm-triggered actions including recording, email and buzzer at **Service** > **Alarm**. See Alarm Configuration.

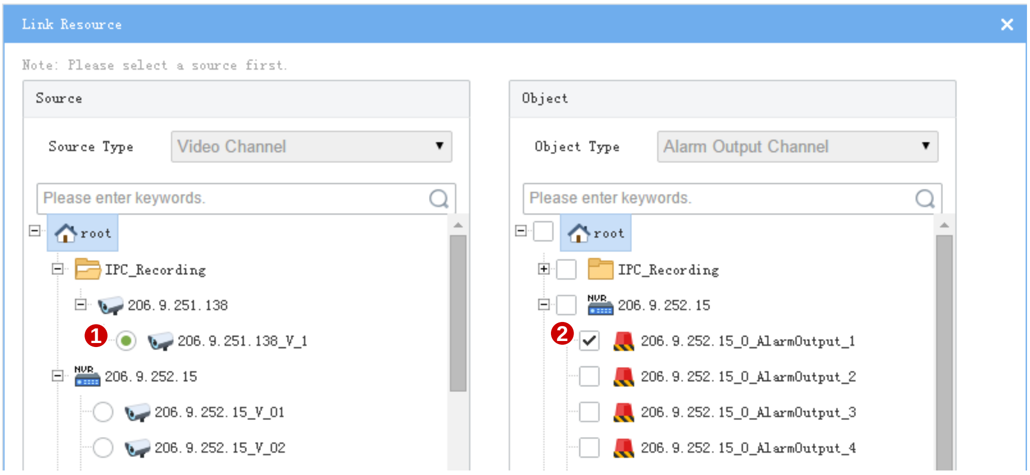
5. Configure alarm-triggered actions including live view, preset (for PTZ cameras), alarm output, and alarm to video wall on the software client. See Alarm Configuration of the *Software Client User Manual*.

Link Resource

Basic > **Device** > **Link Resource**

By linking a source (video channel) to an object (alarm output channel), you can trigger alarm output manually on the software client.

1. Click **Allocate**. A dialog box appears.
2. Select the source on the left, and then select object(s) on the right. One source can link multiple objects. Click **Save**.



Link Resource

Note: Please select a source first.

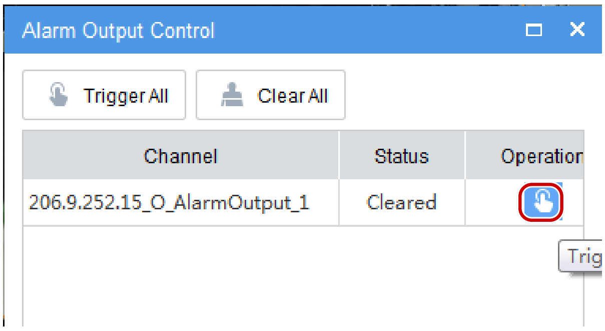
Source

Source Type: Video Channel

Object

Object Type: Alarm Output Channel

3. When playing live video from the camera on the software client, click on the window toolbar to trigger the connected alarm device (e.g., alarm lamp) in the dialog box (see below).



Alarm Output Control

Channel	Status	Operatior
206.9.252.15_O_AlarmOutput_1	Cleared	

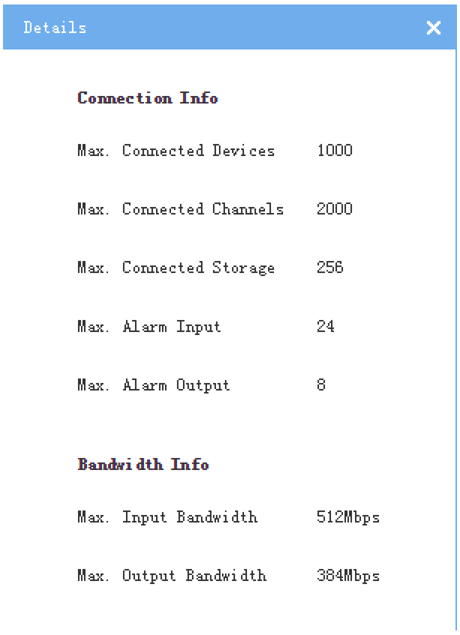
Server Management

View information and status of the central servers (primary and secondary server) and distributed server (slave server); allocate device resources to master and slave servers.

Central Server

Basic > **Server** > **Central Server**

View info and status of the central server(s). Click 🗎 to view connection and bandwidth info.



Details ✕

Connection Info

Max. Connected Devices	1000
Max. Connected Channels	2000
Max. Connected Storage	256
Max. Alarm Input	24
Max. Alarm Output	8

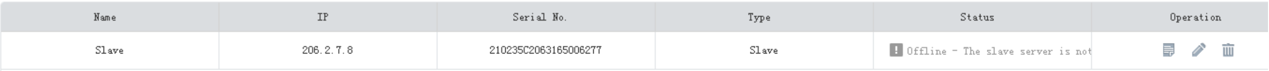
Bandwidth Info

Max. Input Bandwidth	512Mbps
Max. Output Bandwidth	384Mbps

Distributed Server

Basic > **Server** > **Distributed Server**

View info and status of the slave server; delete a slave server from a master server.



Name	IP	Serial No.	Type	Status	Operation
Slave	206.2.7.8	210235C2063165006277	Slave	! Offline - The slave server is not	🗎 ✎ 🗑

- Click 🗎 to view connection and bandwidth info.
- Click ✎ to rename a slave server.
- Click 🗑 to delete a slave server.

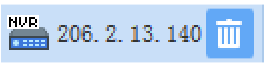
Allocate Resource

Basic > **Server** > **Allocate Resource**

Allocate devices (including cloud devices) to master or slave servers for load balance.

- Drag device(s) to the intended master or slave VMS.
- Click **Auto Assign** to assign all devices automatically.
- Click **Restore** to restore the original status displayed when the page was loaded.

Tip!

On the device list of the slave server, a delete button appears when the mouse pointer moves close to a device (e.g.,  NVR 206. 2. 13. 140). Clicking the button removes the device from the slave server and assigns it to the master server.

4 Service Configuration

Service configuration includes:

- Recording Schedule: Configure recording schedules so the VMS records video in accordance with the set time and policy.
- Alarm Configuration: Configure alarms to trigger specified actions; custom alarm levels.
- Alarm Subscription: Configure alarm subscriptions so alarm subscribers only receive certain alarm messages; irrelevant alarm messages are filtered.
- Recording Backup: Automatically back up recordings on an NVR to the VMS, or manually save recordings on the VMS to a USB drive.

Recording Schedule

Use recording schedules to customize recording operations for different cameras during specified time periods.

Time Template

Service > **Recording Schedule** > **Time Template**

Each recording schedule uses a time template which specifies time and recording policy. All-day is the default time template in the system, by which video is recorded 24/7. You may change its name, but cannot delete this template.

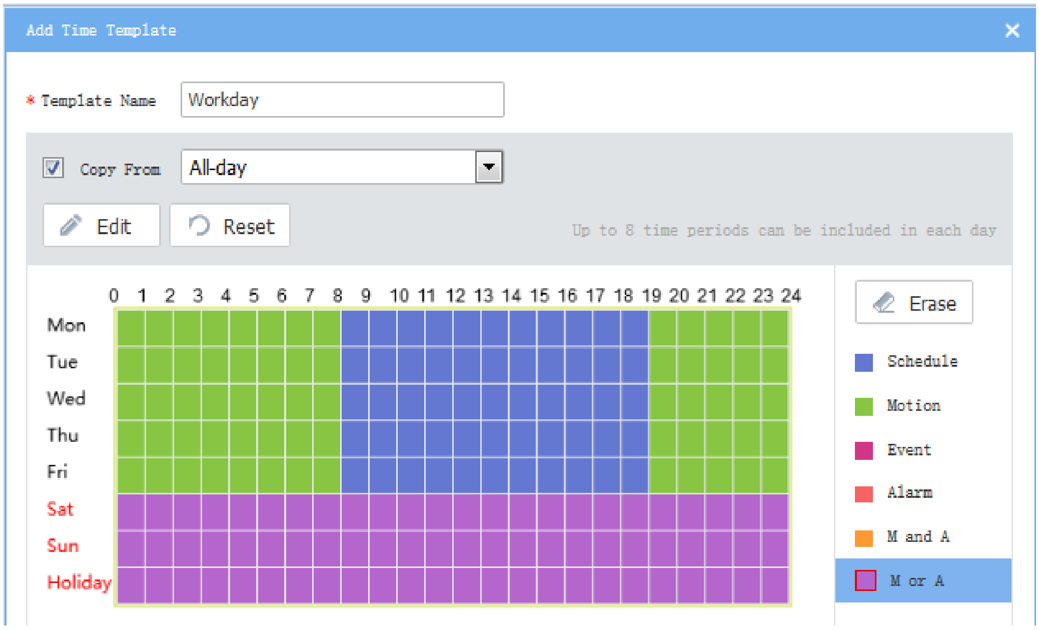
Click **Add** to create a time template:

1. Enter the template name, e.g., Workday. The template name must be unique in the system. A name that is easy to identify is recommended.
2. (Optional) Select **Copy From** and select a template from the drop-down list. Edit based on this template.
3. Click a type (e.g., Motion) under the **Erase** button and then drag the mouse to draw on the template. Use the **Erase** or **Reset** button to clear some or all settings. The types are described as follows.

Type	Description
Schedule	Constant recording according to the schedule.
Motion	Trigger recording by motion.
Event	Trigger recording by an event (such as video loss).
Alarm	Trigger recording by an alarm.

Type	Description
M and A	Trigger recording by motion AND an alarm.
M or A	Trigger recording by motion OR an alarm.

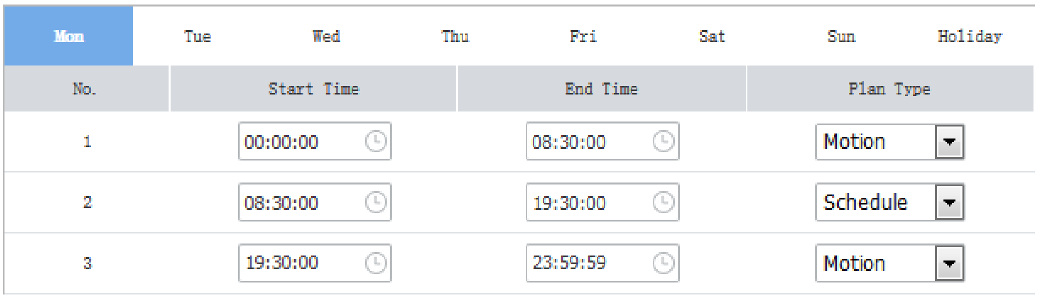
Example:



* Template Name: Workday

☑ Copy From: All-day

4. Click **Edit** to set precisely, for example, to set schedule to 8:30-19:30 (currently 8:00-19:00) for Monday. The time periods must not overlap. Use the copy function to copy the same settings to other days.



No.	Start Time	End Time	Plan Type
1	00:00:00	08:30:00	Motion
2	08:30:00	19:30:00	Schedule
3	19:30:00	23:59:59	Motion

5. Click **OK**. The new time template is available when you add or edit a recording schedule.

NOTE!

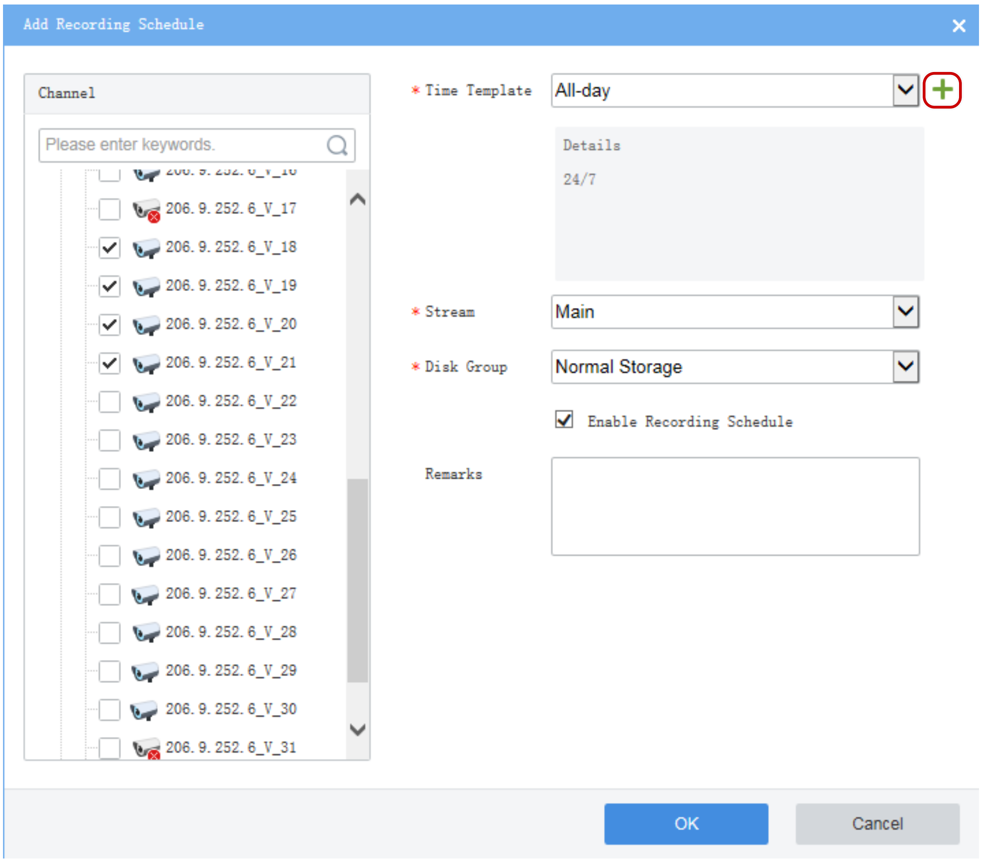
A holiday in a time template is effective only when the holiday is configured and enabled (**System** > **Basic** > **Holiday**). See Holiday.

Recording Schedule

Service > **Recording Schedule** > **Recording Schedule**

Assign a time template to cameras so that the VMS records video for the cameras according to the time template.

Click **Add** to add a recording schedule:



- ☐ 206.9.252.6_V_16
- ☐ 206.9.252.6_V_17
- ☑ 206.9.252.6_V_18
- ☑ 206.9.252.6_V_19
- ☑ 206.9.252.6_V_20
- ☑ 206.9.252.6_V_21
- ☐ 206.9.252.6_V_22
- ☐ 206.9.252.6_V_23
- ☐ 206.9.252.6_V_24
- ☐ 206.9.252.6_V_25
- ☐ 206.9.252.6_V_26
- ☐ 206.9.252.6_V_27
- ☐ 206.9.252.6_V_28
- ☐ 206.9.252.6_V_29
- ☐ 206.9.252.6_V_30
- ☐ 206.9.252.6_V_31

* Time Template: All-day +

Details
24/7

* Stream: Main

* Disk Group: Normal Storage

☑ Enable Recording Schedule

Remarks:

1. Select camera(s).

2. Select a time template; or click + to create one. See Time Template.

3. Select a stream type.

4. Select a disk group: normal storage or IPSAN.

5. By default **Enable Recording Schedule** is selected. Clearing the check box will disable the recording schedule.

6. Click **OK.**

NOTE!

- Before setting recording as a trigger action, make sure a correct recording schedule has been configured and enabled for the linked camera; otherwise, recording cannot be triggered as expected. For more details, see Alarm Configuration.
- The VMS supports Automatic Network Replenishment (ANR). For an ANR-enabled camera (including NVR-connected camera), if network connection is interrupted during its recording schedule, video will be saved to the camera's onboard SD card or NVR during the interruption and will be transferred automatically to the VMS when network connection is recovered.

Alarm Configuration

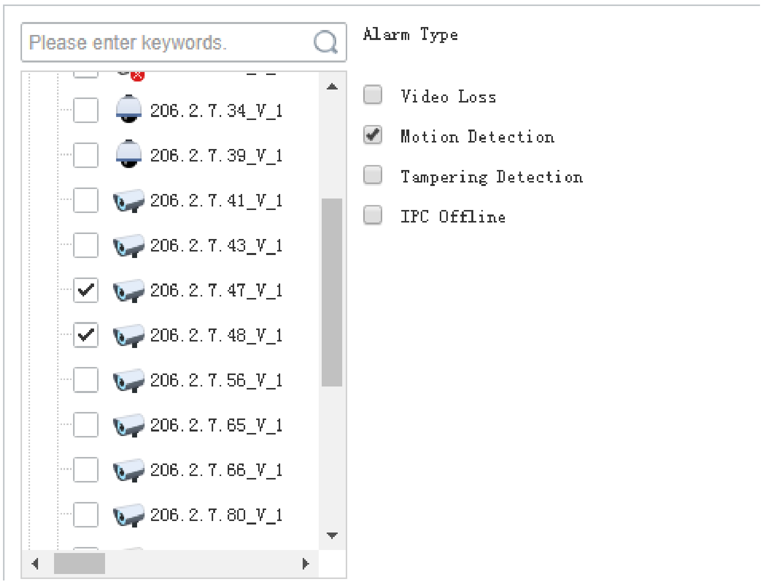
Configure alarms so that certain alarms at specified sources will trigger actions such as recording, buzzer and emails.

Alarm Configuration

Service > **Alarm Configuration** > **Alarm Configuration**

Click **Add** to add alarm configuration:

1. Enter a name (must be unique). A name that is easy to identify is recommended.
2. Select a time template (or click + to create one).
3. Set the alarm source, including type, specific source, and alarm type. When an alarm of the specified type (e.g., motion detection) occurs at the alarm source (i.e. cameras selected below), it will trigger the object to perform specified action(s).

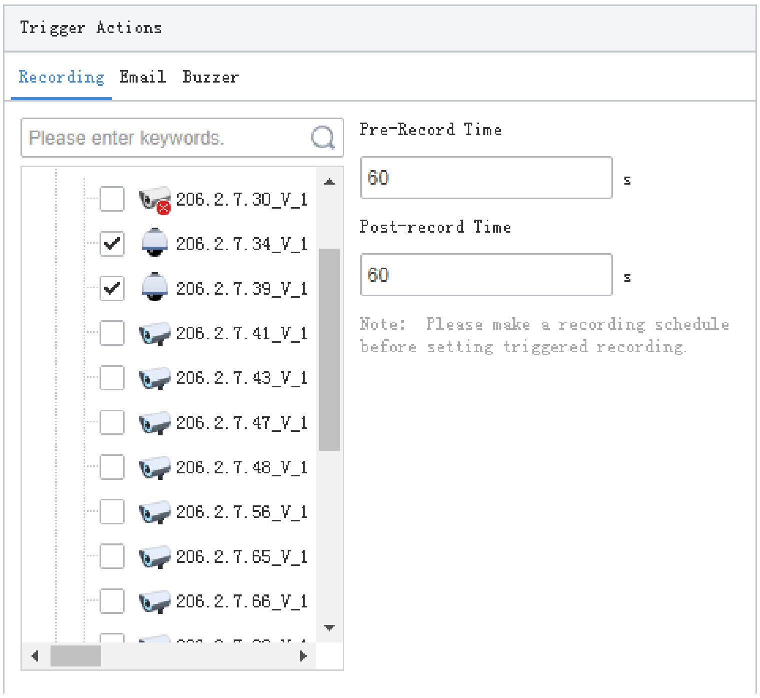


☐ 206.2.7.34_V_1
☐ 206.2.7.39_V_1
☐ 206.2.7.41_V_1
☐ 206.2.7.43_V_1
☑ 206.2.7.47_V_1
☑ 206.2.7.48_V_1
☐ 206.2.7.56_V_1
☐ 206.2.7.65_V_1
☐ 206.2.7.66_V_1
☐ 206.2.7.80_V_1

Alarm Type

☐ Video Loss
☑ Motion Detection
☐ Tampering Detection
☐ IPC Offline

4. Set object(s) and action(s) to trigger. When an alarm of the specified type occurs at the alarm source, the object performs specified actions (e.g., recording).



☐ 206.2.7.30_V_1
☑ 206.2.7.34_V_1
☑ 206.2.7.39_V_1
☐ 206.2.7.41_V_1
☐ 206.2.7.43_V_1
☐ 206.2.7.47_V_1
☐ 206.2.7.48_V_1
☐ 206.2.7.56_V_1
☐ 206.2.7.65_V_1
☐ 206.2.7.66_V_1

Pre-Record Time: 60 s

Post-record Time: 60 s

Note: Please make a recording schedule before setting triggered recording.

NOTE!

- You can set **Pre-Record Time** and **Post-Record Time** for alarm-triggered recording.
- **Pre-Record Time**: When configured, the set time will be included in the start time of an alarm recording. For example, **Pre-Record Time** is set to 10 seconds, and an alarm occurs at 12:00:00, then the start time of the alarm recording is 10 seconds before 12:00, which is 11:59:50.
- For alarms that clear automatically, such as motion detection and video loss, the post-record time means how long recording continues after the alarm is cleared; for alarms that cannot clear automatically, such as IP conflict and failed login attempt, the post-record time means how long recording lasts after the alarm occurs.
- To trigger recording, a recording schedule must be set for the object camera (see Recording Schedule). To trigger email, you also need to complete email settings (see Email). To trigger buzzer, you need to select buzzer.

5. Enter a description in the **Remarks** field.
6. Click **OK**.

Time Template

Service > **Alarm Configuration** > **Time Template**

Configure time templates for alarm configuration. For details, see Time Template for reference.

Contacts

Service > **Alarm Configuration** > **Contacts**

Add a valid email address in **Contacts** as recipient before setting email as a triggered action.

Click **Test email** to test.

NOTE!

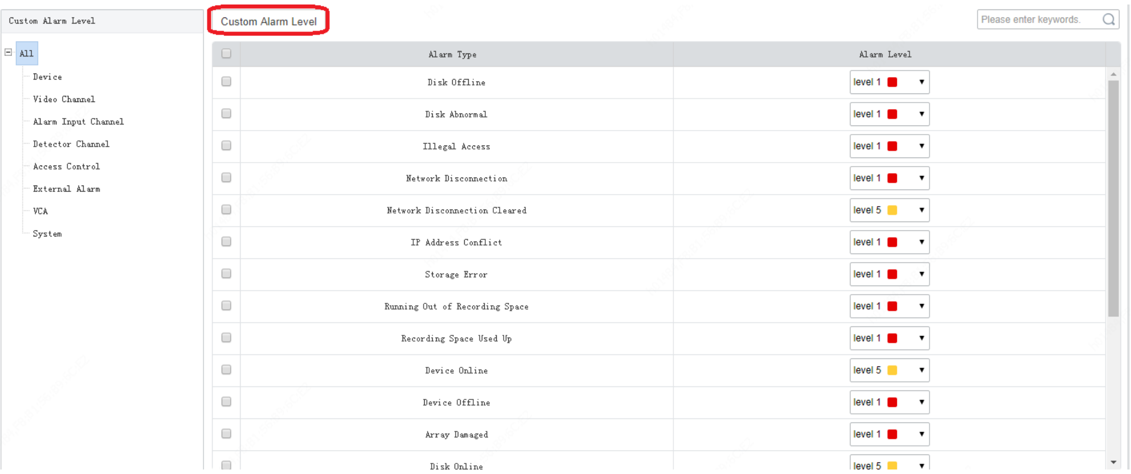
An email server must be configured before testing the email. For details, see Email.

Custom Alarm Level

Service > **Alarm Configuration** > **Custom Alarm Level**

Assign alarm levels based on alarm type to distinguish alarm severity. There are five alarm levels (Level 1 to Level 5). Level 1 represents the severest and uses red.

Select an alarm level from the drop-down list for the alarm type. The setting is saved directly.



□	Alarm Type	Alarm Level
□	Disk Offline	level 1 🟥 ▾
□	Disk Abnormal	level 1 🟥 ▾
□	Illegal Access	level 1 🟥 ▾
□	Network Disconnection	level 1 🟥 ▾
□	Network Disconnection Cleared	level 5 🟨 ▾
□	IP Address Conflict	level 1 🟥 ▾
□	Storage Error	level 1 🟥 ▾
□	Running Out of Recording Space	level 1 🟥 ▾
□	Recording Space Used Up	level 1 🟥 ▾
□	Device Online	level 5 🟨 ▾
□	Device Offline	level 1 🟥 ▾
□	Array Damaged	level 1 🟥 ▾
□	Disk Online	level 5 🟨 ▾

Or assign the same alarm level to multiple alarm types: select alarm types and then click **Custom Alarm Level**. In the dialog box displayed, select the desired alarm level and then click **OK**.

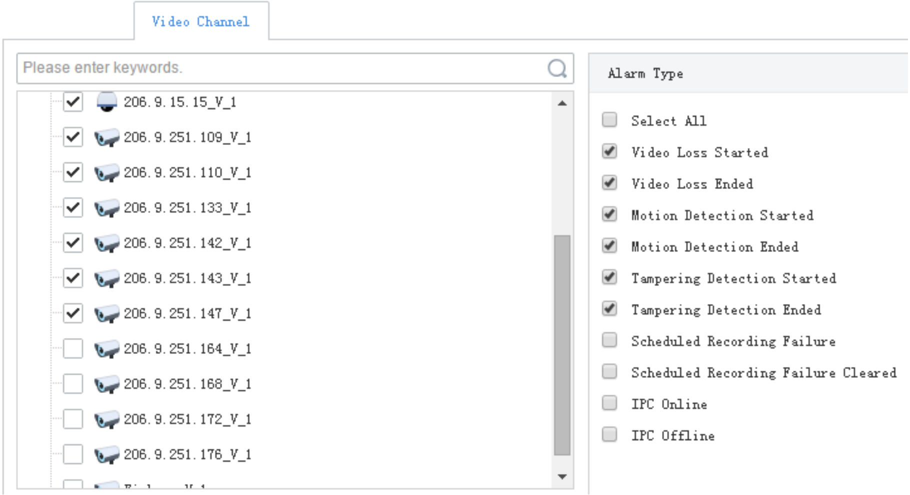
Alarm Subscription

Service > **Alarm Subscription** > **Alarm Subscription**

Add alarm subscribers to receive certain types of alarm messages from specified alarm sources; irrelevant alarm messages will be filtered.

Click **Add** to add alarm subscription:

1. Enter a subscription name (must be unique). A name that is easy to identify is recommended.
2. Select the user and then click ». The user is added as an alarm subscriber. Click **Next**.
3. Select alarm source(s) and type(s). Different alarm source types have different alarm types. Configure all alarm sources and alarm types as needed. The following takes video channel as an example.



Video Channel

Please enter keywords.

☑ 206.9.15.15_V_1
☑ 206.9.251.109_V_1
☑ 206.9.251.110_V_1
☑ 206.9.251.133_V_1
☑ 206.9.251.142_V_1
☑ 206.9.251.143_V_1
☑ 206.9.251.147_V_1
□ 206.9.251.164_V_1
□ 206.9.251.168_V_1
□ 206.9.251.172_V_1
□ 206.9.251.176_V_1

Alarm Type

□ Select All
☑ Video Loss Started
☑ Video Loss Ended
☑ Motion Detection Started
☑ Motion Detection Ended
☑ Tampering Detection Started
☑ Tampering Detection Ended
□ Scheduled Recording Failure
□ Scheduled Recording Failure Cleared
□ IPC Online
□ IPC Offline

4. Click **Save**.

NOTE!

- Alarm subscription is enabled by default. If disabled, the client cannot receive any alarm messages, even if alarm subscription is configured.
- By default, a non-subscriber receives all alarm messages. To block all alarm messages for the user, add the user as an alarm subscriber without configuring any alarm source. Click **Save** directly at the **Select Alarm Sound and Type** step.
- All alarms, including the subscribed and filtered, can be found on **History** tab on the **Alarm Records** page at the Software Client.

Recording Backup

Auto Backup

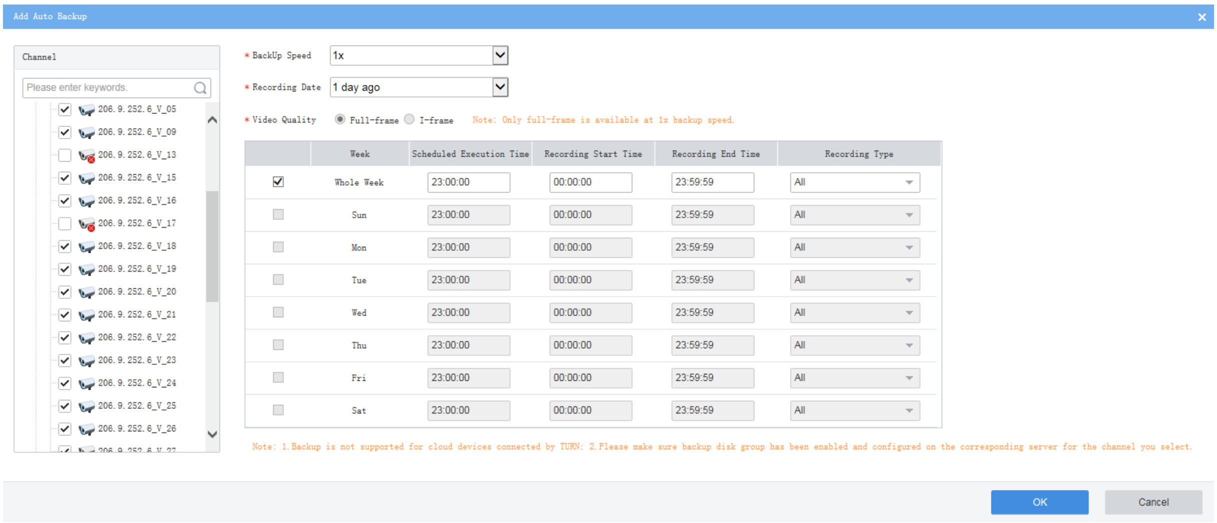
Service > **Recording Backup** > **Auto Backup**

Create a task to automatically replicate recordings stored on an NVR to the VMS according to a schedule.

You need to configure storage for backup use first (see Capacity Allocation and Disk Group).

Note: Auto backup is not available for cloud devices connected by TURN (see connection mode under **Basic** > **Device** > **Cloud Device)**.

1. Click **Add**. Select channel(s) and set task parameters. Some parameters are described as follows.



Add Auto Backup

Channel

Please enter keywords.

- ☑ 206.9.252.6_V_05
- ☑ 206.9.252.6_V_09
- □ 206.9.252.6_V_13
- ☑ 206.9.252.6_V_15
- ☑ 206.9.252.6_V_16
- □ 206.9.252.6_V_17
- ☑ 206.9.252.6_V_18
- ☑ 206.9.252.6_V_19
- ☑ 206.9.252.6_V_20
- ☑ 206.9.252.6_V_21
- ☑ 206.9.252.6_V_22
- ☑ 206.9.252.6_V_23
- ☑ 206.9.252.6_V_24
- ☑ 206.9.252.6_V_25
- ☑ 206.9.252.6_V_26

* BackUp Speed: 1x

* Recording Date: 1 day ago

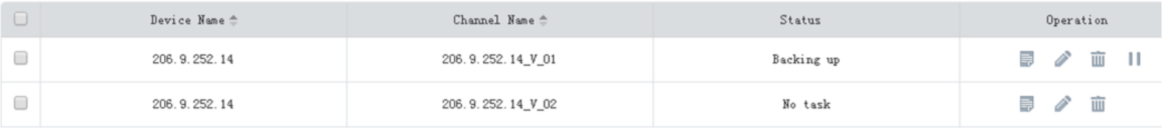
* Video Quality: ● Full-frame ○ I-frame Note: Only full-frame is available at 1x backup speed.

	Week	Scheduled Execution Time	Recording Start Time	Recording End Time	Recording Type
☑	Whole Week	23:00:00	00:00:00	23:59:59	All
□	Sun	23:00:00	00:00:00	23:59:59	All
□	Mon	23:00:00	00:00:00	23:59:59	All
□	Tue	23:00:00	00:00:00	23:59:59	All
□	Wed	23:00:00	00:00:00	23:59:59	All
□	Thu	23:00:00	00:00:00	23:59:59	All
□	Fri	23:00:00	00:00:00	23:59:59	All
□	Sat	23:00:00	00:00:00	23:59:59	All

Note: 1.Backup is not supported for cloud devices connected by TURN; 2.Please make sure backup disk group has been enabled and configured on the corresponding server for the channel you select.

- Recording Date: Specifies the date of recordings to back up (cannot back up recordings of the current day). For example, if you choose 1 day ago, then the task that executes on Monday backs up recordings of Sunday.
- Scheduled Execution Time: Tasks execute one by one in each schedule. A task is waiting if it cannot execute at the scheduled time.
- Recording Start Time and Recording End Time: Specifies the recording to back up.
- Recording Type: User can choose certain types of recordings to back up, for example, manual recording, motion.

2. The backup task appears in the list.



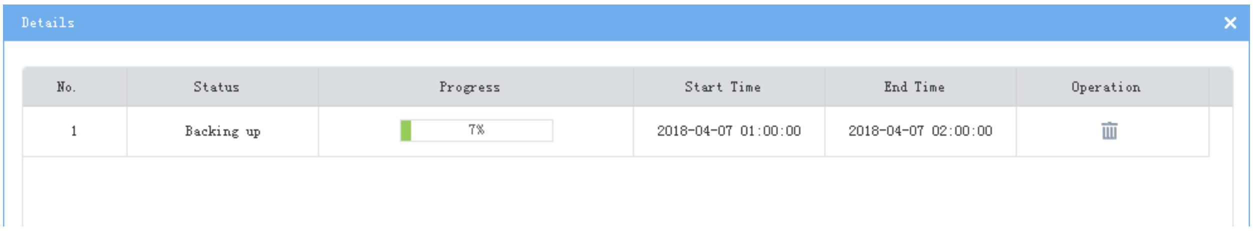
□	Device Name	Channel Name	Status	Operation
□	206.9.252.14	206.9.252.14_V_01	Backing up	📄 ✎ 🗑 ⏸
□	206.9.252.14	206.9.252.14_V_02	No task	📄 ✎ 🗑

- The **Status** column shows task status; for example, No task means no task is being executed.
- Click ⏸ to pause an on-going schedule.
- Click ✎ to edit a schedule.
- Click 🗑 to delete a schedule.

NOTE!

Editing a schedule (e.g., recording end time) after a backup task has started does not change the current task; the changed settings become effective when next time a task is created.

- Click 📄 to view task details of a schedule. Clicking 🗑 deletes a task.



Details ✕

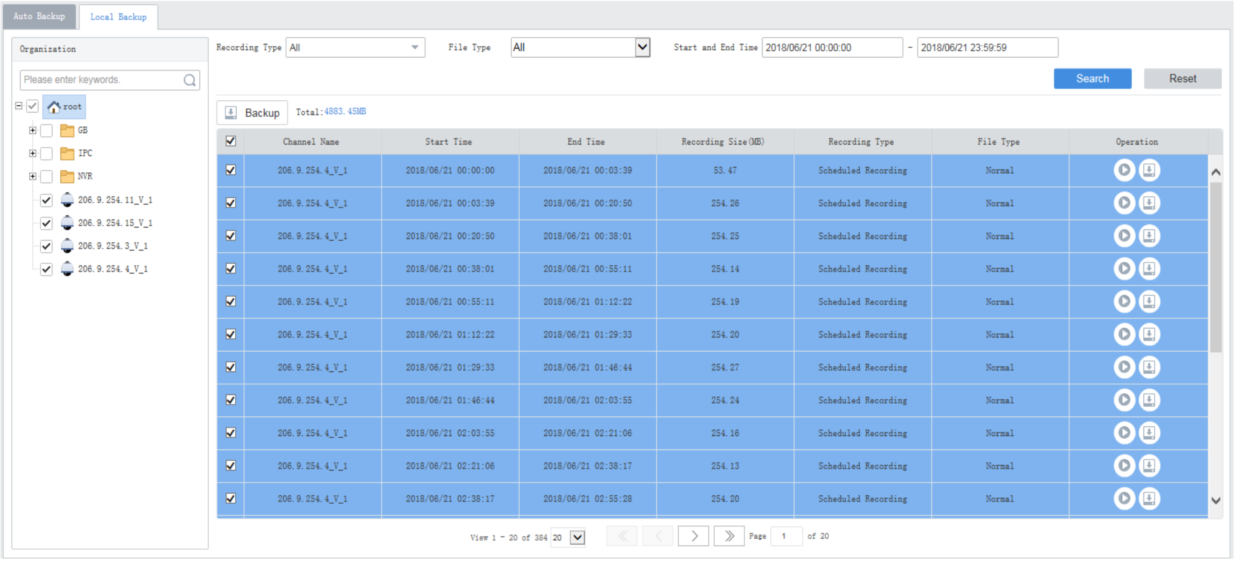
No.	Status	Progress	Start Time	End Time	Operation
1	Backing up	7%	2018-04-07 01:00:00	2018-04-07 02:00:00	🗑

If backup is interrupted for some reason (for example, NVR is disconnected), you may use **Batch Resume** to restart the interrupted backup after the cause of interruption is eliminated.

Local Backup

Service > **Recording Backup** > **Local Backup**

Back up recordings manually on a USB drive plugged in to the VMS. You may format the USB drive in advance or format it on the Web.



Auto Backup | Local Backup

Organization

Please enter keywords.

- ☑ root
  - ☐ GB
  - ☐ IPC
  - ☐ NVR
  - ☑ 206.9.254.11_V_1
  - ☑ 206.9.254.15_V_1
  - ☑ 206.9.254.3_V_1
  - ☑ 206.9.254.4_V_1

Recording Type: All File Type: All Start and End Time: 2018/06/21 00:00:00 - 2018/06/21 23:59:59

Search Reset

Backup Total:4883.45MB

☑	Channel Name	Start Time	End Time	Recording Size(MB)	Recording Type	File Type	Operation
☑	206.9.254.4_V_1	2018/06/21 00:00:00	2018/06/21 00:03:39	53.47	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 00:03:39	2018/06/21 00:20:50	254.26	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 00:20:50	2018/06/21 00:38:01	254.25	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 00:38:01	2018/06/21 00:55:11	254.14	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 00:55:11	2018/06/21 01:12:22	254.19	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 01:12:22	2018/06/21 01:29:33	254.20	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 01:29:33	2018/06/21 01:46:44	254.27	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 01:46:44	2018/06/21 02:03:55	254.24	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 02:03:55	2018/06/21 02:21:06	254.16	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 02:21:06	2018/06/21 02:38:17	254.13	Scheduled Recording	Normal	▶ ⬇
☑	206.9.254.4_V_1	2018/06/21 02:38:17	2018/06/21 02:55:28	254.20	Scheduled Recording	Normal	▶ ⬇

View 1 - 20 of 384 20 Page 1 of 20

1. Select channels on the left, and then set search conditions on the right, including recording type, file type, time period, and then click **Search**.
2. (Optional) Click buttons in the **Operation** column to play or back up a recording file.
3. Select files to back up. The space required for the backup is displayed next to the **Backup** button. Click the button.
4. On the page displayed, set the backup task and path; you may also:

- Create new folders in the USB drive.
- Edit or delete exiting files or folders in the USB drive.
- Format the USB drive into NTFS or FAT32 format.
- View the total space and remaining space of the USB drive.

5. Click **OK**.

6. Click the **Backup Management** button (⬇) in the top right corner to view backup tasks or delete a backup task in progress.

5 System Configuration

System configuration includes:

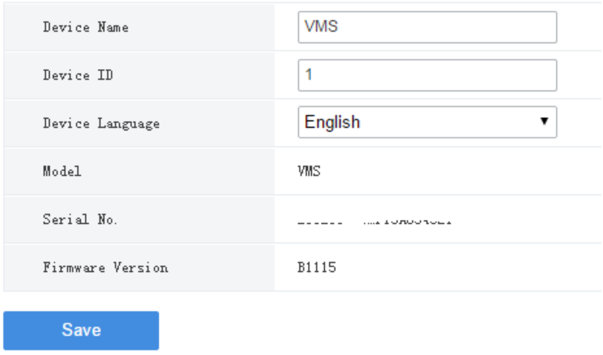
- Basic Configuration: Basic device info, time and time synchronization, DST, and holiday configuration.
- Disk Configuration: Array configuration, disk management, network disk, capacity configuration, disk group, and advanced configuration.
- Network Configuration: Basic network settings, cloud, DDNS, port, port mapping, email, VSS, and GA/T1400.
- Security Configuration: Includes 802.1x, ARP protection, HTTPS, Telnet, secure password, and IP address filtering.
- Maintenance: Restart or restore VMS, collect device diagnosis info, log cleanup, capture packets, detect network, network bandwidth usage, and stream transmission policy.
- Master/Slave Switch: Configure hot standby, switch master/slave VMS.

Basic Configuration

Device

System > **Basic** > **Basic Setup**

Configure basic information of the VMS, including device name, ID and language; view device model, serial number and firmware version.



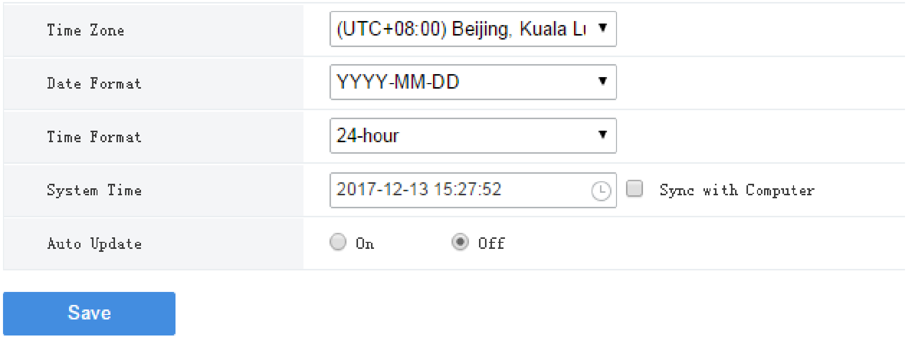
Device Name	VMS
Device ID	1
Device Language	English ▾
Model	VMS
Serial No.	[illegible]
Firmware Version	B1115

Date & Time

System > **Basic** > **Time**

Configure time for the VMS, including time zone, date and time format, and system time.

- Sync with Computer: If selected, the system time of the VMS syncs with that of the client computer.
- Auto Update: If enabled, an NTP server must be configured. The system time of the VMS syncs with the NTP server.

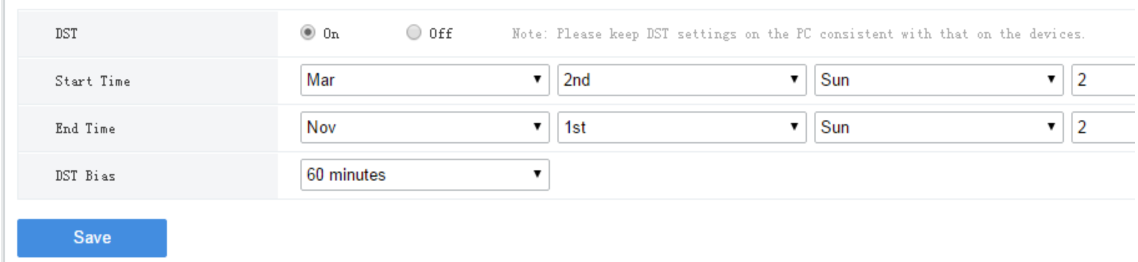


Time Zone	(UTC+08:00) Beijing, Kuala Lu ▾
Date Format	YYYY-MM-DD ▾
Time Format	24-hour ▾
System Time	2017-12-13 15:27:52 □ Sync with Computer
Auto Update	○ On ● Off

DST

System > **Basic** > **DST**

Set DST properly if your country or area uses the Daylight Saving Time (DST).

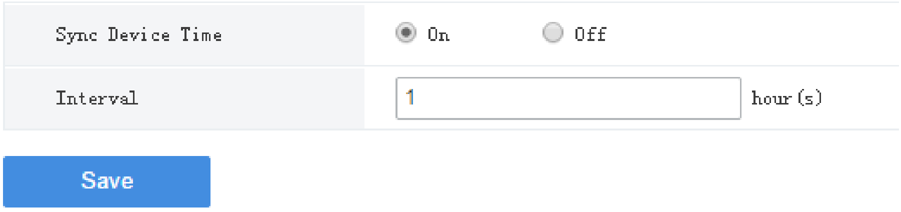


DST	● On ○ Off Note: Please keep DST settings on the PC consistent with that on the devices.			
Start Time	Mar ▾	2nd ▾	Sun ▾	2
End Time	Nov ▾	1st ▾	Sun ▾	2
DST Bias	60 minutes ▾			

Time Sync

System > **Basic** > **Time Sync**

This function is disabled by default. To enable this function, select **On**, set an appropriate interval, and then click **Save**. The VMS syncs time to all devices under it immediately, including IPC, NVR, encoder and decoder (not including devices connected via an NVR), and then syncs time to devices at the set interval.



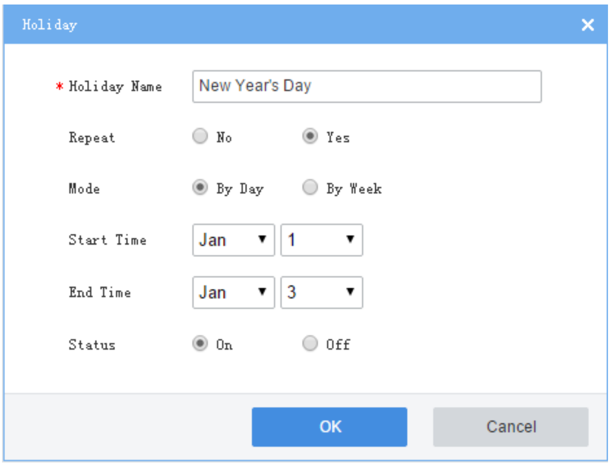
Sync Device Time	● On ○ Off
Interval	1 hour(s)

Holiday

System > **Basic** > **Holiday**

Holiday is used by time templates (see Time Template) for recording and alarm configuration. Specify holidays to make time templates more flexible and accurate.

The holiday name must be unique in the system.



Holiday

* Holiday Name: New Year's Day

Repeat: ○ No ● Yes

Mode: ● By Day ○ By Week

Start Time: Jan 1

End Time: Jan 3

Status: ● On ○ Off

Disk Configuration

Manage hard disks (or HDD or disks) on the VMS, a disk enclosure, or IPSAN, including:

- Array Configuration: turn on/off RAID mode, create RAID by **One-click Create** or **Manual Create**.
- Disk Management: view disk info such as slot, status and space usage, modify disk property (read-only or read/write), and format disks.
- Network Disk: Add IPSAN, format disk, modify disk property.
- Capacity Allocation: allocate VMS or IPSAN disk space for recording storage.
- Disk Group: configure disk group property.
- Advanced Configuration: overwrite or stop recording when the assigned space on the VMS is used up.

Array Configuration

System > **Disk** > **Disk Array**

Turn on/off RAID mode, create RAID, view RAID info, configure hot spare disk, and rebuild array.

Create an array

1. Turn on RAID mode, and then click **One-click Create** or **Manual Create**.

Table 5-1 Creating RAID by One-click Create or Manual Create

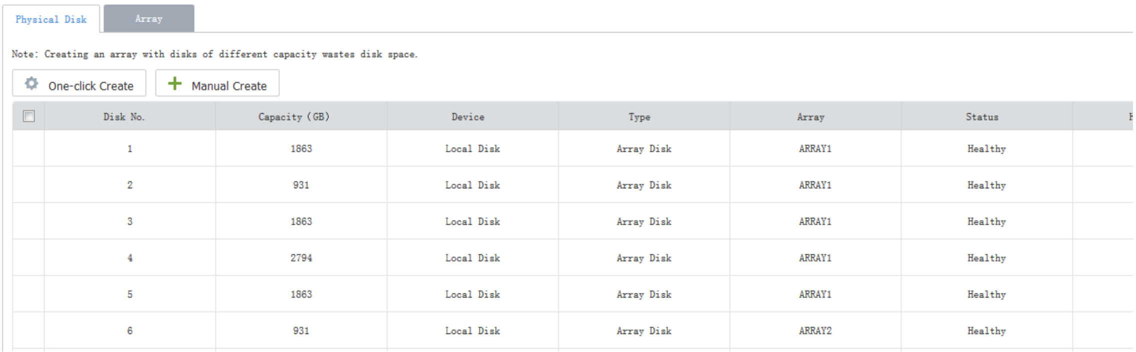
One-click Create	Manual Create
Create RAID1 and RAID5.	Create RAID0, RAID1, RAID5, RAID6, RAID10, RAID50 and RAID60.
Automatically name array(s) in ARRAY*n* format, e.g., ARRAY1.	Arrays are named by user (must be unique).
Automatically create array(s) based on the number of hard disks available: • 2 HDDs: RAID1 • 3 HDDs: RAID5 (no hot spare) • 4-8 HDDs: RAID5 (1 hot spare) • 9-16 HDDs: 2 RAID5 (1 hot spare)	• User sets array type manually. • For RAID50 and RAID60, user must set sub-array disks and select disks properly. The total number of selected disks must be an integer multiple of sub-array disks, and the multiple is greater than 1.
Note: • Creating an array will format disks automatically.	

One-click Create	Manual Create
• The disk with the largest capacity is chosen as the hot spare disk; if multiple such disks exist, the last disk will be chosen as the hot spare disk. • When creating two RAID5, if the total disk number is an even number (*N*), then each RAID5 has (*N*-1)/2 disks; if *N* is an odd number, then the number of disks in the two RAID5 are *N*/2 and *N*/2-1. • The disks used to create an array must belong to one device: VMS or disk expansion unit (DEU for short; if configured), which means, you cannot create an array using disks from VMS and DEU; and you cannot create an array using disks from DEU A and DEU B.	

Table 5-2 Supported RAID Types and Corresponding Disks

RAID Type	HDD (pcs)
RAID0	2-8
RAID1	2
RAID5	3-8
RAID6	4-8
RAID10	4-16
RAID50	6-16
RAID60	8-16

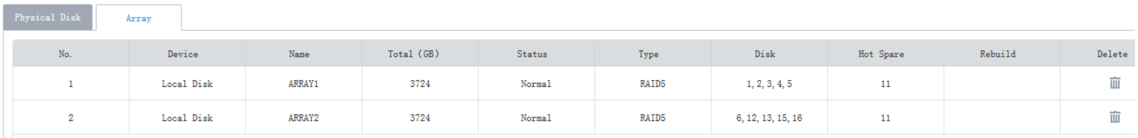
2. When any array is created, click the **Physical Disk** tab to view array disk info. To turn a hot spare disk into a normal disk, click 🗑, To set a hot spare disk, click ⚙.



Note: Creating an array with disks of different capacity wastes disk space.

☐	Disk No.	Capacity (GB)	Device	Type	Array	Status	H
	1	1863	Local Disk	Array Disk	ARRAY1	Healthy	
	2	931	Local Disk	Array Disk	ARRAY1	Healthy	
	3	1863	Local Disk	Array Disk	ARRAY1	Healthy	
	4	2794	Local Disk	Array Disk	ARRAY1	Healthy	
	5	1863	Local Disk	Array Disk	ARRAY1	Healthy	
	6	931	Local Disk	Array Disk	ARRAY2	Healthy	

3. Click the **Array** tab to view the created arrays.



No.	Device	Name	Total (GB)	Status	Type	Disk	Hot Spare	Rebuild	Delete
1	Local Disk	ARRAY1	3724	Normal	RAID5	1, 2, 3, 4, 5	11		🗑
2	Local Disk	ARRAY2	3724	Normal	RAID5	6, 12, 13, 15, 16	11		🗑

Delete an array

On the **Array** tab, click 🗑 in the **Delete** column to delete an array. All data on the array will also be deleted.

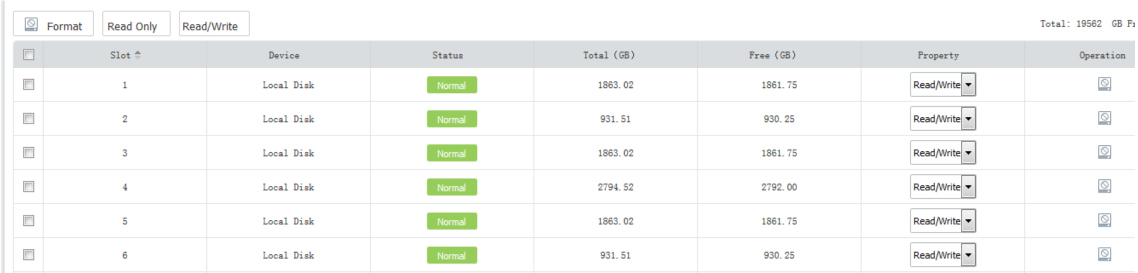
Rebuild an array

If a hot spare disk is available and its capacity is greater than or equal to the smallest disk in the array, the system will start rebuilding the array in 10 minutes after a disk in an array fails. If no such disk is detected by the system, you need to select a replacement disk and rebuild the array manually. The capacity of the replacement disk must be greater than or equal to the smallest disk in the array.

Disk Management

System > **Disk** > **Disk**

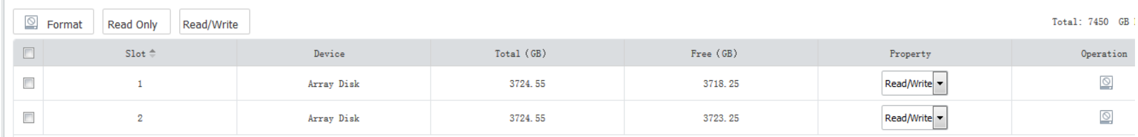
- View disk info (slot number, device, disk status, and space usage), format disks (click), modify disk property. The **Device** column indicates if it is a local disk of the VMS or belongs to a disk expansion unit.



Total: 19562 GB F

□	Slot	Device	Status	Total (GB)	Free (GB)	Property	Operation
□	1	Local Disk	Normal	1863. 02	1861. 75	Read/Write	
□	2	Local Disk	Normal	931. 51	930. 25	Read/Write	
□	3	Local Disk	Normal	1863. 02	1861. 75	Read/Write	
□	4	Local Disk	Normal	2794. 52	2792. 00	Read/Write	
□	5	Local Disk	Normal	1863. 02	1861. 75	Read/Write	
□	6	Local Disk	Normal	931. 51	930. 25	Read/Write	

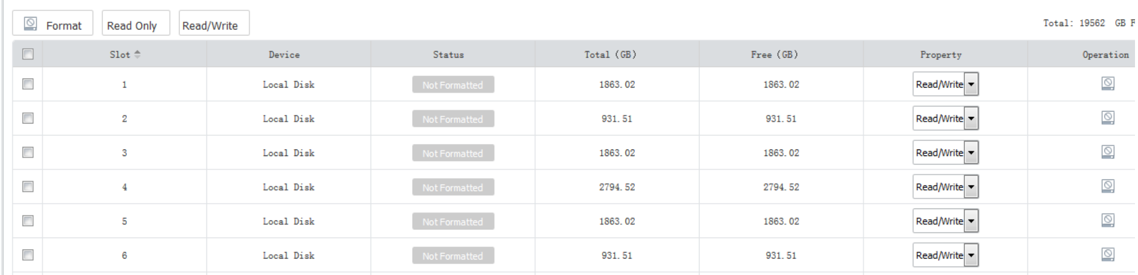
- When RAID mode is turned on with array(s) created, you can view array disk information, format disks, modify disk property. This page is empty when there is no array.



Total: 7450 GB

□	Slot	Device	Total (GB)	Free (GB)	Property	Operation
□	1	Array Disk	3724. 55	3718. 25	Read/Write	
□	2	Array Disk	3724. 55	3723. 25	Read/Write	

- When RAID mode is turned off with undeleted array(s), the disk status is displayed as **Not Formatted**. You must format the disk before you can use it for storage.



Total: 19562 GB F

□	Slot	Device	Status	Total (GB)	Free (GB)	Property	Operation
□	1	Local Disk	Not Formatted	1863. 02	1863. 02	Read/Write	
□	2	Local Disk	Not Formatted	931. 51	931. 51	Read/Write	
□	3	Local Disk	Not Formatted	1863. 02	1863. 02	Read/Write	
□	4	Local Disk	Not Formatted	2794. 52	2794. 52	Read/Write	
□	5	Local Disk	Not Formatted	1863. 02	1863. 02	Read/Write	
□	6	Local Disk	Not Formatted	931. 51	931. 51	Read/Write	

Network Disk

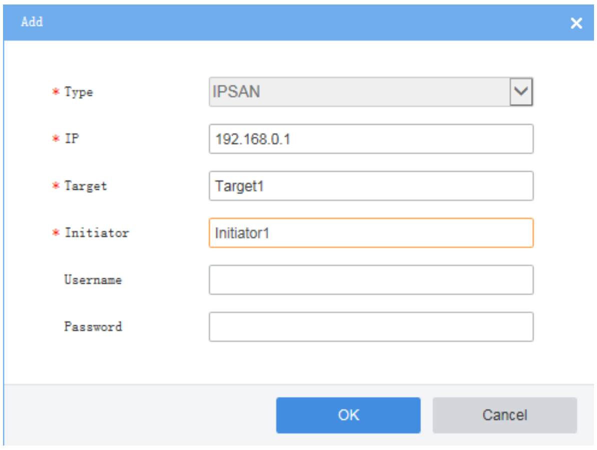
System > **Disk** > **Network Disk**

Configure IPSAN. After the configuration is complete, you can assign IPSAN storage at **Disk** > **Capacity**.

NOTE!

- You must complete configuration (such as service IP address) and create Targets and Initiators on the IPSAN console first.
- IPSAN smaller than 2G is unusable even if it is added successfully.

1. Click **Add** and complete settings in the dialog box.



* Type: IPSAN

* IP: 192.168.0.1

* Target: Target1

* Initiator: Initiator1

Username:

Password:

- IP: IP address of the management or service interface of the IPSAN, which must match that configured on the IPSAN console.
- Initiator: Initiator that you have created on the IPSAN console.
- Target: Target that you have created on the IPSAN console.
- Username/password: For authentication; not required if authentication is disabled on the IPSAN console.

2. Click **OK**.

3. Format disks or modify disk property as needed.

Capacity Allocation

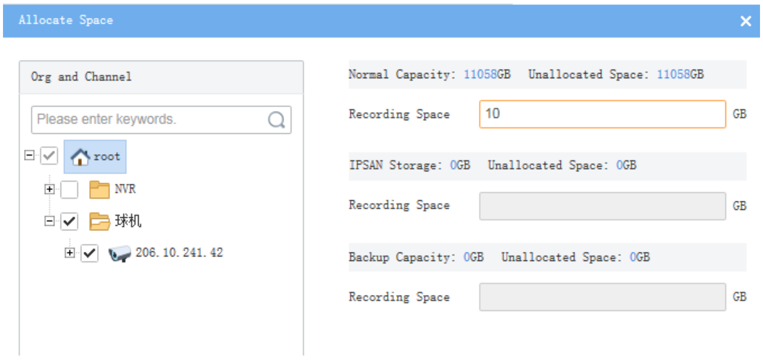
System > **Disk** > **Capacity**

Allocate recording storage space for cameras. The total storage space assignable depends on configurations in Disk Group and Network Disk.

NOTE!

- Cameras with no space allocated share the free space.
- If the **Allocate** button is grayed out, check whether it is because you have turned on RAID mode but hasn't created any array.

1. Click **Allocate**, select cameras and then enter the space to assign.



Normal Capacity: 11058GB Unallocated Space: 11058GB

Recording Space: 10 GB

IPSAN Storage: 0GB Unallocated Space: 0GB

Recording Space: GB

Backup Capacity: 0GB Unallocated Space: 0GB

Recording Space: GB

- Normal capacity: Allocate space for normal storage.
- IPSAN storage: Allocate IPSAN storage.
- Backup capacity: Allocate space for backup storage.

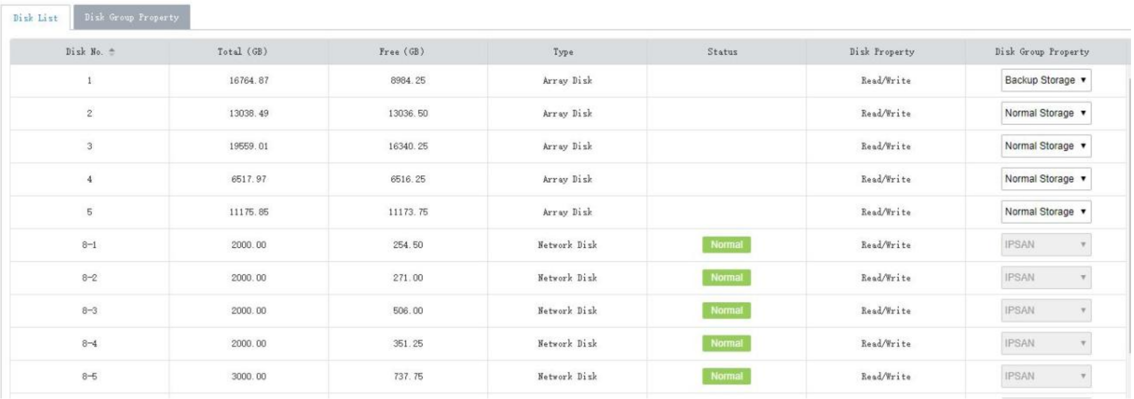
2. Results appear in the list. Click 🗑 or ✎ in the column to delete or edit.

Disk Group

System > **Disk** > **Disk Group**

1. On the **Disk List** tab, select or view property in the **Disk Group Property** drop-down list:

- Normal Storage: used to store recordings for specified cameras.
- Backup Storage: used to automatically back up recordings on specified NVRs.
- IPSAN: added network disks.



Disk List | Disk Group Property

Disk No.	Total (GB)	Free (GB)	Type	Status	Disk Property	Disk Group Property
1	16764.87	8984.25	Array Disk		Read/Write	Backup Storage ▾
2	13038.49	13036.50	Array Disk		Read/Write	Normal Storage ▾
3	19559.01	16340.25	Array Disk		Read/Write	Normal Storage ▾
4	6517.97	6516.25	Array Disk		Read/Write	Normal Storage ▾
5	11175.85	11173.75	Array Disk		Read/Write	Normal Storage ▾
8-1	2000.00	254.50	Network Disk	Normal	Read/Write	IPSAN ▾
8-2	2000.00	271.00	Network Disk	Normal	Read/Write	IPSAN ▾
8-3	2000.00	506.00	Network Disk	Normal	Read/Write	IPSAN ▾
8-4	2000.00	351.25	Network Disk	Normal	Read/Write	IPSAN ▾
8-5	3000.00	737.75	Network Disk	Normal	Read/Write	IPSAN ▾

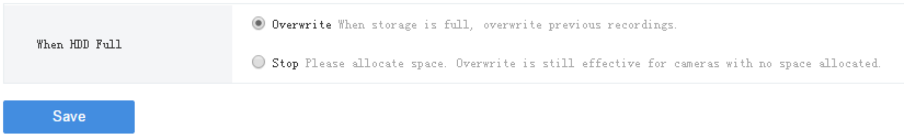
2. After configuration is complete, click the **Disk Group Property** tab to view capacity of normal storage, backup storage, and IPSAN.
3. Allocate storage at **Disk** > **Capacity**.

Advanced Configuration

System > **Disk** > **Advanced**

Set the policy that the VMS adopts when recording space is used up on the VMS:

- Overwrite: Earliest recordings will be overwritten by new recordings when space is used up.
- Stop: Recording stops when space is used up.



When HDD Full

● Overwrite When storage is full, overwrite previous recordings.

○ Stop Please allocate space. Overwrite is still effective for cameras with no space allocated.

NOTE!

The **Stop** mode is effective only when space is allocated. That is to say, for a camera that no space is allocated, its recording will still be overwritten even if you have set **When HDD Full** to **Stop**. So allocate space appropriately to avoid undesired video loss.

Network Configuration

TCP/IP

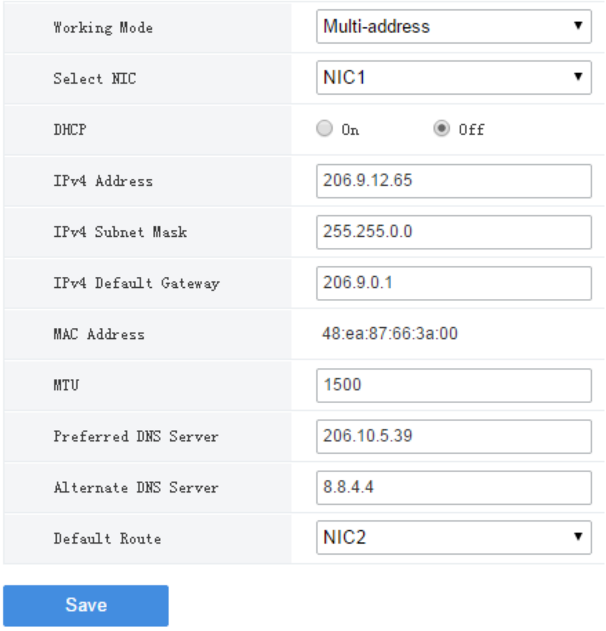
System > **Network** > **TCP/IP**

The IP address can be static or obtained through DHCP. Three working modes are available:

- **Multi-address**: (Default mode) The static IP address information of each NIC card of the device can be set respectively.
- **Load Balance**: Available for two or more NIC cards. Network traffic will be diverged to the logical card with lighter load.
- **Net Fault-tolerance**: Available for two or more NIC cards. One logical card works at a time. The other stands by for redundancy and comes into operation when the working one fails.

NOTE!

- Network configuration is independent among different working modes.
- Under **Load Balance** and **Net Fault Tolerance** modes, NIC cards will be bound into logical cards whose IP address can be customized.
- The IPv4 addresses of the NICs must belong to different network segments.



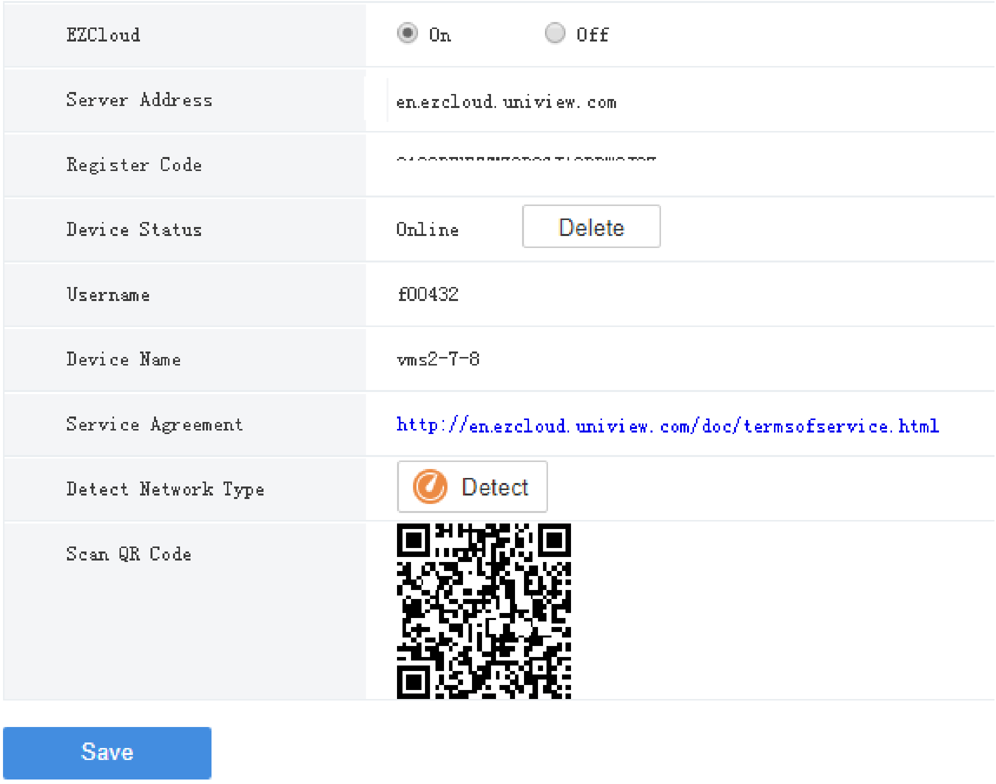
Working Mode	Multi-address ▾
Select NIC	NIC1 ▾
DHCP	○ On ● Off
IPv4 Address	206.9.12.65
IPv4 Subnet Mask	255.255.0.0
IPv4 Default Gateway	206.9.0.1
MAC Address	48:ea:87:66:3a:00
MTU	1500
Preferred DNS Server	206.10.5.39
Alternate DNS Server	8.8.4.4
Default Route	NIC2 ▾

- DHCP: With a DHCP server configured, enabling DHCP will automatically obtain an IP address for the VMS.
- IPv4 Address: VMS' IP address. Use this address to access the VMS from a Web or software client.
- DNS Server: Domain Name Server, which resolves a domain name into an IP address.
- Default Route: The default route may be different from the NIC set in the **Select NIC** drop-down list.

EZCloud

System > **Network** > **EZCloud**

EZCloud is intended for remote surveillance and is disabled by default. You may enable EZCloud and use the register code to register the VMS at the EZCloud website. If the **Device Status** is **Online**, you can use the cloud account to access the VMS (see the Login chapter in the *Software Client User Manual*).



EZCloud	● On ○ Off
Server Address	en.ezcloud.uniview.com
Register Code	[illegible]
Device Status	Online Delete
Username	f00432
Device Name	vms2-7-8
Service Agreement	http://en.ezcloud.uniview.com/doc/termsofservice.html
Detect Network Type	Detect
Scan QR Code	

Save

- Register Code: Each VMS has a unique register code which is used to add the VMS to cloud.
- Device Status: If the status is **Online**, you may use the cloud account to access the VMS; Clicking **Delete** will delete the device from cloud.
- Username: Account name used to register the VMS at the cloud website.
- Device Name: Cloud name of the device.
- Detect Network Type: Click **Detect** to detect the NAT type, IP address type and firewall of the network.
- Scan QR Code: Scan the QR code with the mobile client to add the VMS to cloud.

DDNS

System > **Network** > **DDNS**

DDNS (Dynamic Domain Name Service) associates a changing IP address to a fixed domain name and allows users to access the device by visiting the fixed domain name instead of the changing IP address. Three DDNS services are available:

DynDNS

You need to complete registration at DynDNS official website first. After completing the registration, complete settings on this page. When device status is Online, you can access the VMS using the domain name.

No-IP

You need to complete registration at the No-IP official website first. After completing the registration, complete settings on this page. When device status is Online, you can access the VMS using the domain name.

EZDDNS

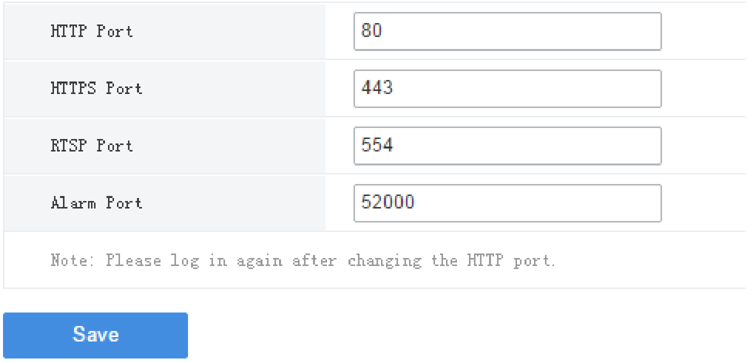
- The default server address is en.ezcloud.uniview.com.
- The default port is 80.

- Domain name: Enter a domain name (e.g., VMS2) and then click **Check** to verify. If the domain name is usable, click **Save**. If the device status is Online, you can access the device using the automatically generated device address (e.g., en.ezcloud.uniview.com/vms2).

Port

System > **Network** > **Port**

Configure HTTP, HTTPS, RTSP and alarm ports.



HTTP Port	80
HTTPS Port	443
RTSP Port	554
Alarm Port	52000

Note: Please log in again after changing the HTTP port.

Port Mapping

System > **Network** > **Port**

Use port mapping (UPnP or Manual) to configure mapping relations between internal and external ports.

The VMS supports two port mapping modes:

- UPnP
    - Auto: The VMS automatically negotiates external ports with the router. If an external port is already in use, the VMS will negotiate with the router again with another port number.
    - Manual: Specify external ports manually. If the specified port is already in use, the VMS will not try again with another port, and port mapping will fail.
- Manual: Usually this mode is used when the router does not support UPnP. Complete settings on the router first and then fill in the settings on this page.

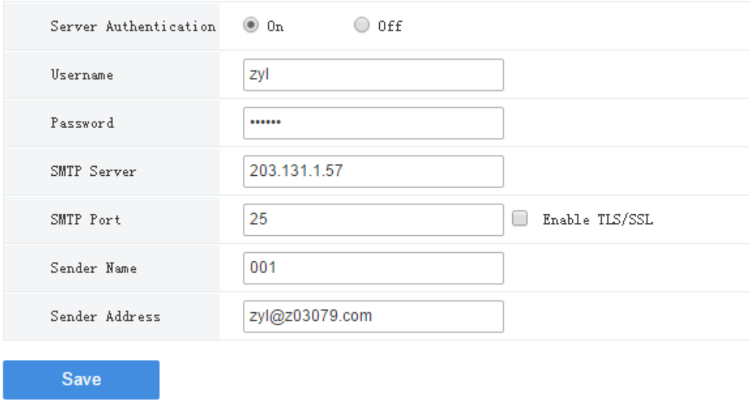
NOTE!

- By default port mapping is disabled.
- Enable UPnP in the router first. UPnP requires the router's support.

Email

System > **Network** > **Email**

Email configuration must be completed before all email-related functions (such as alarm-triggered email) can work properly.



Server Authentication	● On ○ Off
Username	zyl
Password	••••••
SMTP Server	203.131.1.57
SMTP Port	25 □ Enable TLS/SSL
Sender Name	001
Sender Address	zyl@z03079.com

NOTE!

- Enter the correct username and password after enabling (SMTP) server authentication.
- To encrypt data transmission between the VMS and the SMTP server, select TLS/SSL.
- You may need to change the SMTP port accordingly after enabling TLS/SSL.

VSS

VSS configuration includes VSS server configuration and VSS local configuration. When configuration is complete, the VMS can connect IPC/NVR devices and connect to higher management platform (referred to as the platform for short in this section) via SIP.

In VSS server configuration, SIP server refers to the platform. In VSS local configuration, SIP server refers to the VMS.

VSS Server

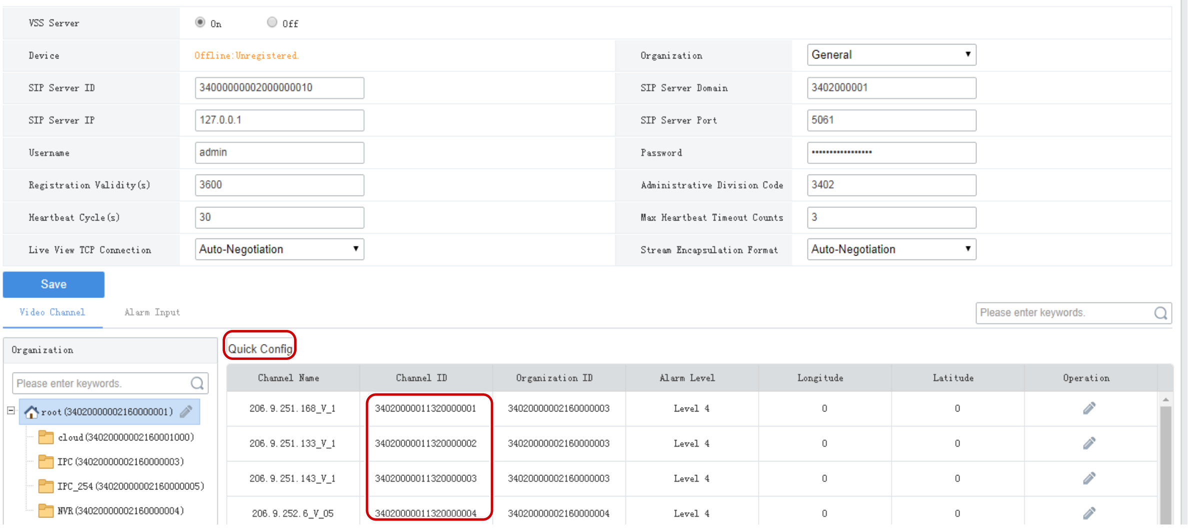
System > **Network** > **VSS Server**

- SIP Server ID: ID of the platform server (obtained from the server).
- SIP Server IP: IP address of the platform server (obtained from the server).
- SIP Server Domain: Domain ID of the platform server.
- SIP Server Port: Port assigned on the platform server.
- Heartbeat Cycle: Keepalive cycle between the VMS and the platform.
- Max Heartbeat Timeout Counts: Max number of times that communication times out between the VMS and the platform. Communication stops automatically when it reaches the max count.

Click **Quick Config** to assign IDs to video channels, alarm input channels and cloud devices automatically. In the dialog box displayed, enter the basic code, and then click **OK**. Channel IDs generate automatically in ascending order based on the basic code you entered.

ID format: 8-character center code + 2-character industry code + 3-character type code + 7-digit Serial Number (SN).

In the dialog box, the basic ID consists of three parts, for example, 24020001+132+0000001. The first part (e.g., 24020001) is the default value which you may edit; the second (e.g., 132) is generated automatically based on the channel type and cannot be edited; the third (e.g., 0000001) is a serial number which you may set as needed.



VSS Server	● On ○ Off		
Device	Offline:Unregistered.	Organization	General ▾
SIP Server ID	34000000002000000010	SIP Server Domain	3402000001
SIP Server IP	127.0.0.1	SIP Server Port	5061
Username	admin	Password	••••••••••••••••
Registration Validity(s)	3600	Administrative Division Code	3402
Heartbeat Cycle(s)	30	Max Heartbeat Timeout Counts	3
Live View TCP Connection	Auto-Negotiation ▾	Stream Encapsulation Format	Auto-Negotiation ▾

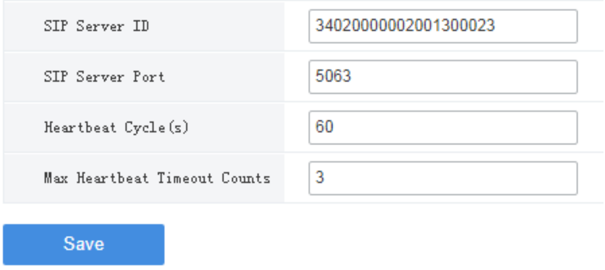
Save
Video Channel
Alarm Input
Please enter keywords.
Organization
Please enter keywords.
root (34020000002160000001)
cloud (34020000002160001000)
IPC (34020000002160000003)
IPC_254 (34020000002160000005)
NVR (34020000002160000004)
Quick Config

Channel Name	Channel ID	Organization ID	Alarm Level	Longitude	Latitude	Operation
206.9.251.168_V_1	34020000011320000001	34020000002160000003	Level 4	0	0	✎
206.9.251.133_V_1	34020000011320000002	34020000002160000003	Level 4	0	0	✎
206.9.251.143_V_1	34020000011320000003	34020000002160000003	Level 4	0	0	✎
206.9.252.6_V_05	34020000011320000004	34020000002160000004	Level 4	0	0	✎

VSS Local

System > **Network** > **VSS Local**

- SIP Server ID: VSS ID of the VMS.
- SIP Server Port: VSS port assigned on the VMS.
- Heartbeat Cycle: Keepalive cycle between the VMS and the IPC/NVR devices.
- Max Heartbeat Timeout Counts: Max number of times that communication times out between the VMS and IPC/NVR devices. Communication stops automatically when it reaches the max count.



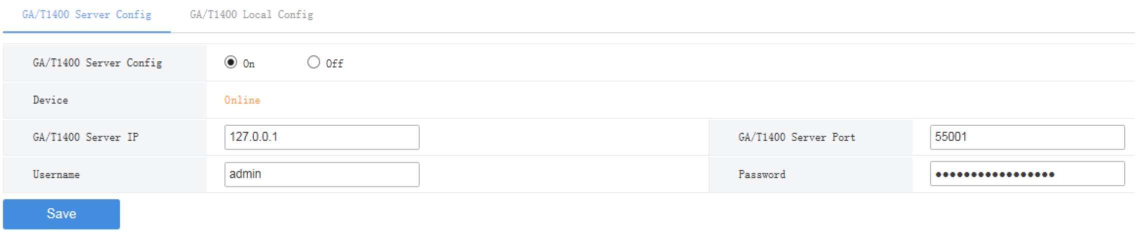
SIP Server ID	34020000002001300023
SIP Server Port	5063
Heartbeat Cycle(s)	60
Max Heartbeat Timeout Counts	3

GA/T1400

System > **Network** > **GA/T1400 Config**

GA/T1400 configuration includes server configuration and local configuration.

GA/T1400 Server Configuration

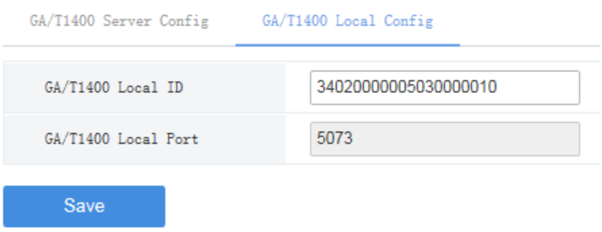


GA/T1400 Server Config	● On ○ Off		
Device	Online		
GA/T1400 Server IP	127.0.0.1	GA/T1400 Server Port	55001
Username	admin	Password	•••••••••••••••••

- Device: Online is displayed when the VMS is successfully connected to the GA/T1400 server.
- GA/T1400 Server IP: IP address of the GA/T1400 server.

- GA/T1400 Server Port: Port number of the GA/T1400 server.
- Username/password: The username and password used to connect to the GA/T1400 server.

GA/T1400 Local Configuration



GA/T1400 Local ID	34020000005030000010
GA/T1400 Local Port	5073

- GA/T1400 Local ID: Device ID of the VMS that you use when adding the VMS to the GA/T1400 server.
- GA/T1400 Local Port: 5073. This port must be set on the license plate recognition camera or face recognition camera.

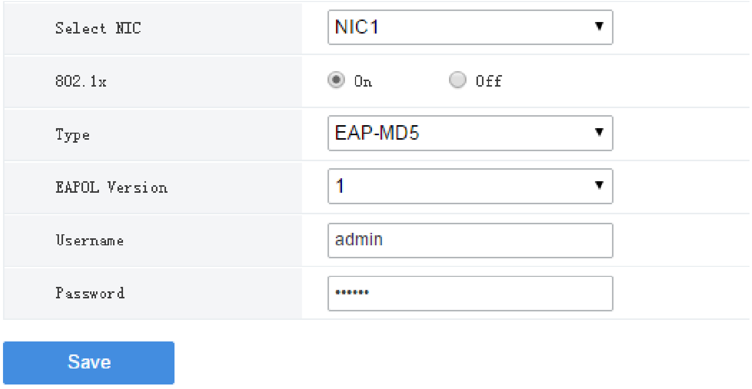
Security Configuration

802.1x

System > **Security** > **802.1x**

Enable **802.1x** to control access to the device with username and password set in the network switch.

- You may select an NIC to enable 802.1x; authentication is independent among NICs. **Binding 1** and **Binding 2** are displayed if the working mode of the selected NIC is **Load Balance** or **Net Fault-tolerance**.
- Type: Protocol type, currently only EAP-MD5.
- EAPOL Version: 1 for 802.1x-2001, and 2 for 802.1x-2004.
- Username and password: Used for authentication. Authentication succeeds when the entered username and password match that on the authenticator (such as Ethernet switch).



Select NIC	NIC1 ▾
802.1x	● On ○ Off
Type	EAP-MD5 ▾
EAPOL Version	1 ▾
Username	admin
Password	••••••

NOTE!

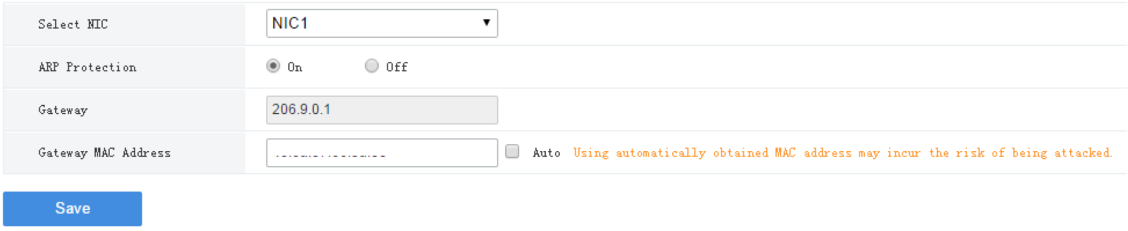
802.1x must also be properly configured on the authenticator (such as Ethernet switch).

ARP Protection

System > **Security** > **ARP Protection**

Enable **ARP Protection** to protect the device from potential ARP attacks by verifying the gateway's MAC address in access requests.

Select **Auto** to obtain an MAC address automatically, or fill in an MAC address manually.



Select NIC	NIC1 ▾
ARP Protection	● On ○ Off
Gateway	206.9.0.1
Gateway MAC Address	[illegible] □ Auto Using automatically obtained MAC address may incur the risk of being attacked.

NOTE!

Please make sure the function is enabled and the MAC address is set (either manually or automatically) before ARP attacks are inflicted. Any changes made during the attacks may fail the protection.

HTTPS

System > **Security** > **HTTPS**

Enable HTTPS (HTTP Secure) function by creating a private certificate or uploading a signed certificate. In HTTPS, the communication protocol is encrypted by Transport Layer Security (TLS) or Secure Sockets Layer (SSL).

- Private: Uses a private certificate which is not signed by a trusted authority.
- Request: Uses a certificate issued by a trusted authority.

After a certificate is created and HTTPS is enabled, you may use https://device IP to access the device.

NOTE!

- If a private certificate has been created, you have to delete it before you can create another certificate.
- If a request has been created, you have to delete it before you can create another request.
- A certificate cannot be deleted when HTTPS is enabled. Disable HTTPS and then click **Save**.

Telnet

System > **Security** > **Telnet**

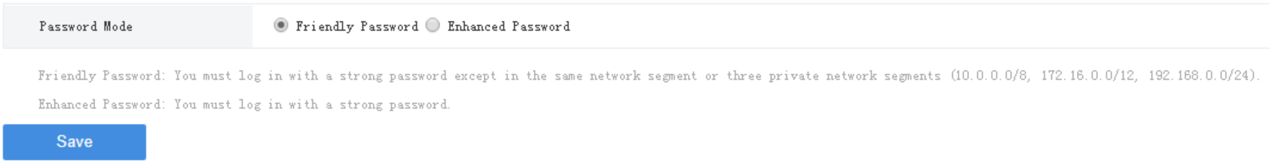
Access the device through Telnet for maintenance.

Secure Password

System > **Security** > **Secure Password**

The **Friendly Password** mode is enabled by default. In this mode, access with a weak password is allowed from the same network segment or on three private network segments.

When the **Enhanced Password** mode is enabled, access the software client with a weak password is forbidden; the user will be forced to change the weak password to a strong one on the Web client; and it is not allowed to set a weak password when adding a user or change a user's password to a weak one.



Password Mode ● Friendly Password ○ Enhanced Password

Friendly Password: You must log in with a strong password except in the same network segment or three private network segments (10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/24).

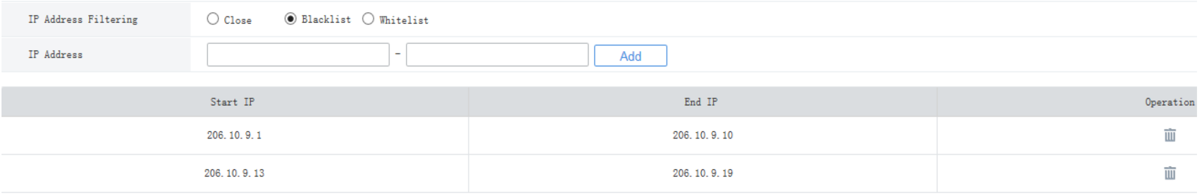
Enhanced Password: You must log in with a strong password.

Save

IP Address Filtering

System > **Security** > **IP Address Filtering**

Use blacklist/whitelist to forbid or allow login from certain IP addresses only.



IP Address Filtering ○ Close ● Blacklist ○ Whitelist

IP Address [ ] - [ ] Add

Start IP	End IP	Operation
206.10.9.1	206.10.9.10	🗑
206.10.9.13	206.10.9.19	🗑

- Blacklist: When enabled, login from the specified IP addresses is forbidden.
- Whitelist: When enabled, login only from the specified IP addresses are allowed.

NOTE!

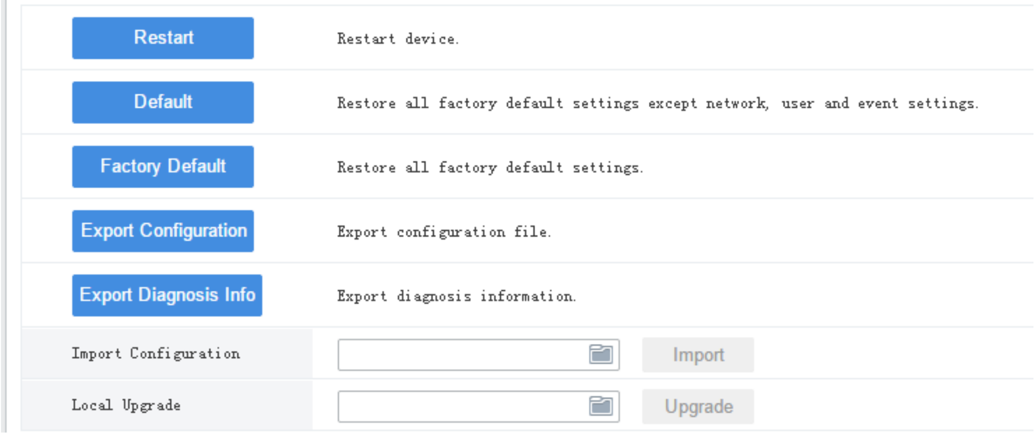
- Blacklist/whitelist based login control is not effective to logins via cloud account or DDNS (because the VMS cannot identify the client's IP address).
- You can click a field in the list to edit an IP address.

Maintenance

Maintenance

System > **Maintenance** > **Maintenance**

Restart the VMS, restore default configurations, import or export configurations, export diagnosis info, and perform a local upgrade.



Restart	Restart device.
Default	Restore all factory default settings except network, user and event settings.
Factory Default	Restore all factory default settings.
Export Configuration	Export configuration file.
Export Diagnosis Info	Export diagnosis information.
Import Configuration	[ ] Import
Local Upgrade	[ ] Upgrade

- Default: Restore all factory default settings except network, user and event settings.
- Factory Default: Restore all factory default settings.
- Export Configuration: Export current configurations to a backup file, and use this file to restore configurations when necessary.

- Export Diagnosis Info: Export diagnosis info of the VMS.
- Import Configuration: Restore configurations by importing a backup configuration file. The VMS will restart.
- Local Upgrade: Upgrade the VMS version using version files saved on the computer. The VMS will restart.

NOTE!

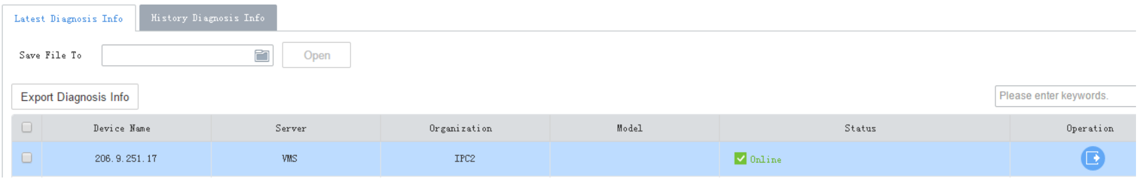
The following operations require admin permissions: Export Configuration, Import Configuration, Export Diagnosis Info and Local Upgrade.

Device Diagnosis Info

System > **Maintenance** > **Device Diagnosis Info**

Click ⇥ to export diagnosis information of devices (NVR and camera) directly connected to the VMS, including latest and history diagnosis info.

Latest diagnosis info can be exported only when the device is online.



Latest Diagnosis Info | History Diagnosis Info

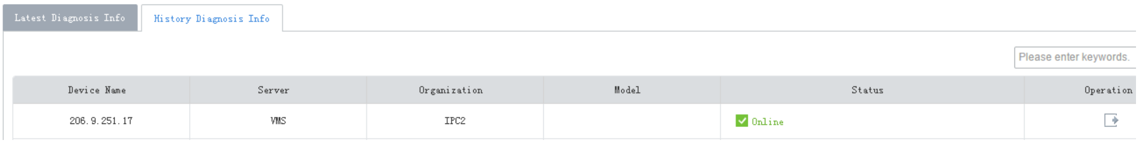
Save File To: Open

Export Diagnosis Info

Please enter keywords.

□	Device Name	Server	Organization	Model	Status	Operation
□	206.9.251.17	VMS	IPC2		☑ Online	⇥

To export history diagnosis info, the NVR must be online (the camera doesn't have to). History diagnosis info refers to diagnosis info of up to the last 15 days.



Latest Diagnosis Info | History Diagnosis Info

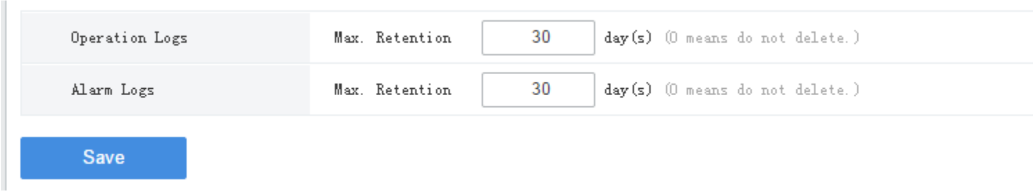
Please enter keywords.

Device Name	Server	Organization	Model	Status	Operation
206.9.251.17	VMS	IPC2		☑ Online	⇥

Delete Logs

System > **Maintenance** > **Delete Logs**

Set the VMS to delete operation and alarm logs automatically. Logs that have been saved for a certain period will be deleted automatically. The default maximum retention time is 30 days. Entering 0 means logs will not be deleted automatically.



Operation Logs	Max. Retention	30	day(s) (0 means do not delete.)
Alarm Logs	Max. Retention	30	day(s) (0 means do not delete.)

Save

Packet Capture

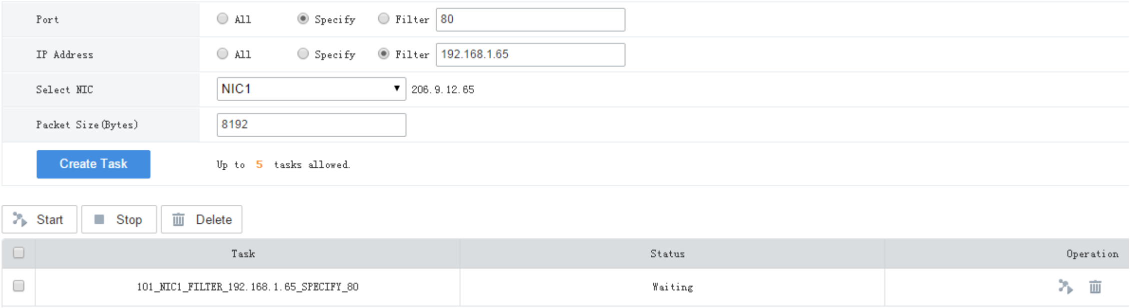
System > **Maintenance** > **Packet Capture**

Capture packets for troubleshooting or analysis.

Set conditions (port number, IP address, NIC and packet size) to capture or filter packets of specified port and/or IP address.

After conditions are set, click **Create Task**. Up to 5 tasks are allowed. The created tasks are listed. You may click 🗑 to delete a task.

Click ▶ to start the task, click ■ to stop, and then click ⇥ to export captured packets to your computer. You need to export manually every time a task is completed.



Port	○ All ● Specify ○ Filter 80
IP Address	○ All ○ Specify ● Filter 192.168.1.65
Select NIC	NIC1 ▾ 206.9.12.65
Packet Size(Bytes)	8192
Create Task	Up to 5 tasks allowed.

Start Stop Delete

□	Task	Status	Operation
□	101_NIC1_FILTER_192.168.1.65_SPECIFY_80	Waiting	▶ 🗑

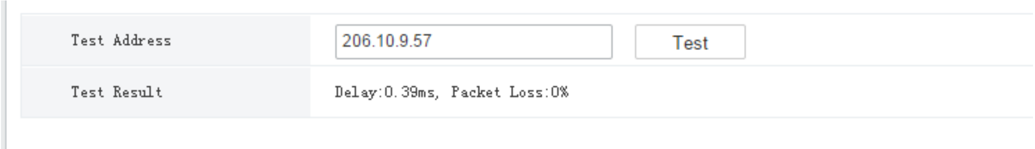
NOTE!

A file is generated for each packet capture task with a max size limit (around 19.1M). When the file size reaches the limit, the packet capture task stops automatically (note: the status does not change and it is still displayed as Ongoing when the task stops in this way).

Network Detect

System > **Maintenance** > **Net Detect**

Test a domain name or an IP address by filling in the field and clicking **Test**. The test result indicates whether there is a connection and the connection status (delay and packet loss rate) if connected.

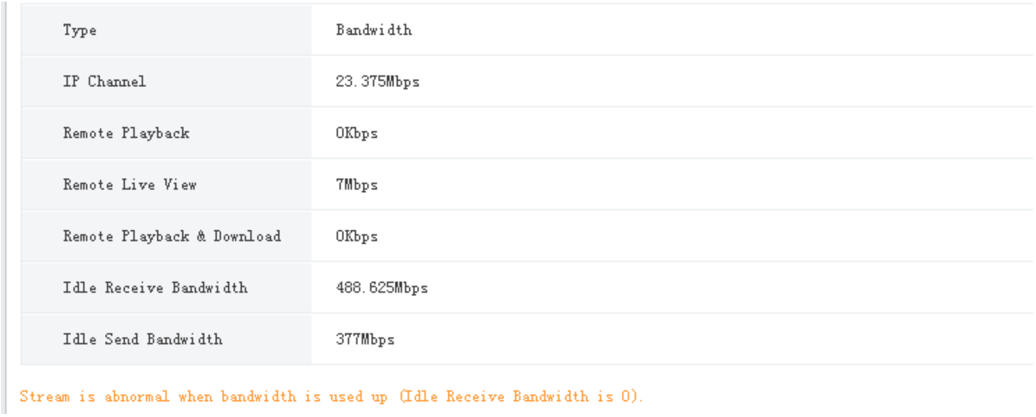


Test Address	206.10.9.57 Test
Test Result	Delay:0.39ms, Packet Loss:0%

Bandwidth Usage

System > **Maintenance** > **Bandwidth Usage**

View network bandwidth usage statistics, including bandwidth used by connected IP cameras, used for remote playback, remote live view, remote playback and download, and idle receive and send bandwidth.



Type	Bandwidth
IP Channel	23.375Mbps
Remote Playback	0Kbps
Remote Live View	7Mbps
Remote Playback & Download	0Kbps
Idle Receive Bandwidth	488.625Mbps
Idle Send Bandwidth	377Mbps

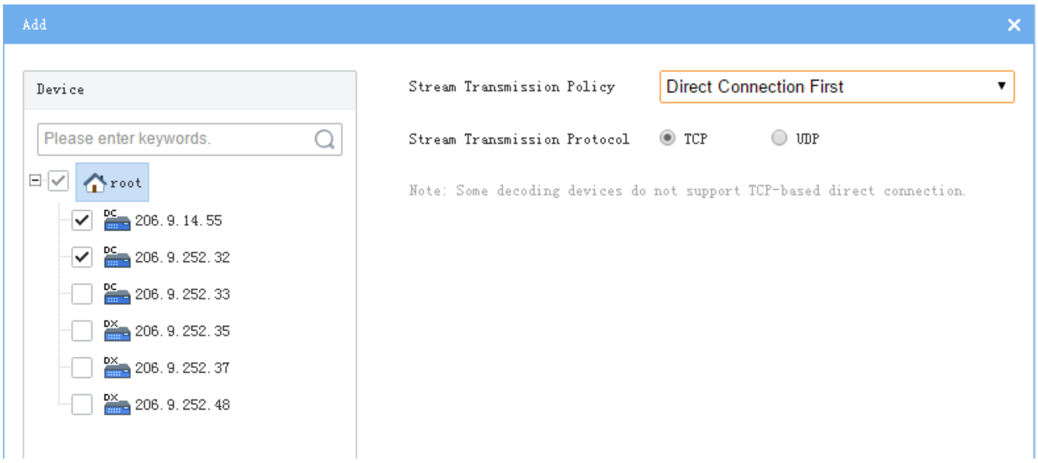
Stream is abnormal when bandwidth is used up (Idle Receive Bandwidth is 0).

- IP Channel: Bandwidth usage when the VMS receives live video streams from devices (e.g., camera or NVR).
- Remote Playback: Bandwidth usage when the VMS receives recorded video streams from devices (NVR) (such as when a client computer plays recordings saved on the NVR).
- Remote Live View: Bandwidth usage when the VMS sends live video streams (such as when a client computer or video wall plays live video).
- Remote Playback & Download: Bandwidth usage when the VMS sends recorded video streams (such as when a client computer or video wall plays recorded video or during recording download).

Stream Transmission Policy

System > **Maintenance** > **Stream Transmission Policy**

Set the stream transmission policy and protocol, so that when conditions (including sufficient output bandwidth of the encoding device) are met, streams are directly transmitted with the chosen protocol to the decoding device without being forwarded via the VMS, which improves reliability and timeliness of data transmission.



Add

Device

Please enter keywords.

☑ root
- ☑ 206.9.14.55
- ☑ 206.9.252.32
- □ 206.9.252.33
- □ 206.9.252.35
- □ 206.9.252.37
- □ 206.9.252.48

Stream Transmission Policy: Direct Connection First

Stream Transmission Protocol: ● TCP ○ UDP

Note: Some decoding devices do not support TCP-based direct connection.

NOTE!

Some decoders do not support TCP-based direct connection. The settings are not effective even though you have set so on the page.

Master/Slave Switch

System > **Master/Slave Switch**

Configure hot standby to improve system reliability; configure master/slave to expand storage and transfer performance. Switch master/slave VMS or change the master VMS for a slave VMS.

Master to Slave

NOTE!

- Add a slave server on its Web manager (switch to slave mode and then enter the master's IP address).
- If the software versions of the master/slave VMS do not match, you need to upgrade the version first.
- A master/slave switch will clear data, restart the VMS, and reset the password to the default.
- The maximum number of slave VMS is specified. After the max number is reached, no more slave VMS can be added.
- The slave VMS is inaccessible from the software client.

1. Set **Master/Slave Switch** to **Slave**, and then enter the master server's IP address.
2. Click **Save**. If it succeeds, the **Slave Server Status** is displayed as **Online**.

Slave to Master

Set **Master/Slave Switch** to **Master** and then click **Save**.

Change Master Server

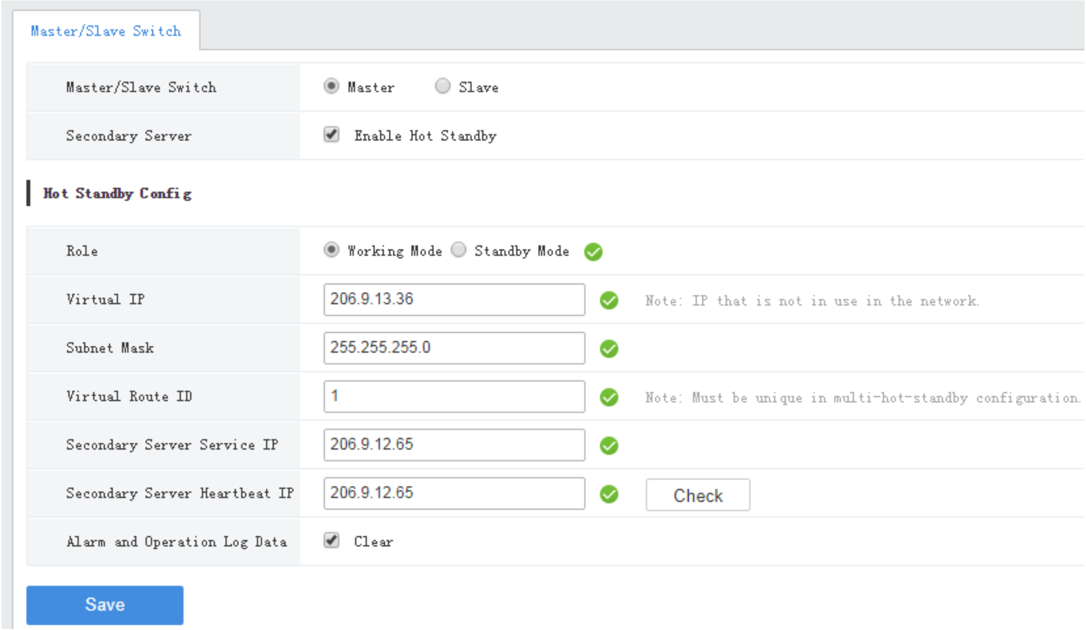
Enter the new master server's IP address and then click **Save**.

Configure Hot Standby

Set a working mode for the central server.

NOTE!

- It is only necessary to configure hot standby on one server (primary or secondary).
- Clear the **Enable Hot Standby** check box will disable hot standby.
- When hot standby is enabled, certain configurations and operations are masked or unavailable on the secondary server's Web manager; and the secondary server is inaccessible from the software client.
- The secondary server takes over when the primary server is down. When the primary server is recovered, video recorded during the takeover will be migrated automatically to the primary server. For security, it is strongly recommended to recover the server immediately.
- If master/slave and hot standby are both configured, make sure the Master IP Address is set to the Virtual IP on the Web manager of the slave server(s).
- You need to disable hot standby before switching to slave mode.



Master/Slave Switch

Master/Slave Switch	● Master ○ Slave
Secondary Server	☑ Enable Hot Standby

Hot Standby Config

Role	● Working Mode ○ Standby Mode ✓
Virtual IP	206.9.13.36 ✓ Note: IP that is not in use in the network.
Subnet Mask	255.255.255.0 ✓
Virtual Route ID	1 ✓ Note: Must be unique in multi-hot-standby configuration.
Secondary Server Service IP	206.9.12.65 ✓
Secondary Server Heartbeat IP	206.9.12.65 ✓ Check
Alarm and Operation Log Data	☑ Clear

1. Click **Master**, select **Enable Hot Standby**. Take working mode as an example.

- Secondary Server: Enable/disable hot standby.
- Role: Specify a working mode for the server.
- Virtual IP: Must be an IP that is not in use on the network. When configured successfully, the virtual IP can be used to access the Web and software client.
- Virtual route ID: (must be unique) Used to differentiate different hot standby configurations on the same network.
- Secondary Server Service IP: IPv4 address of the secondary server (see TCP/IP)
- Secondary Server Heartbeat IP: Same as the service IP, which is used for heartbeat detection between the primary and secondary servers. If no heartbeat is detected within a certain period, the secondary server automatically switches to primary server.
- Check: Check validity of the settings. You can save the settings only when they are checked valid.
- Alarm and Operation Log Data: Select **Clear** will improve the speed of synchronization between the primary and secondary servers.

2. Click **Save**.

6 Video Service

View live video and play recordings on the Web manager. You may need to download and install the latest plug-in.

Live Video

Video Service > **Live View**

Start Live Video

- Double-click an online camera or drag it to a window to start live video.
- Drag an organization or an NVR to a window to start video. The layout changes automatically if more cameras are selected than windows displayed.

TIP!

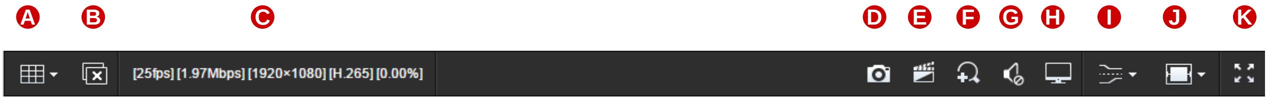
- When live video starts, the camera icon changes, (e.g., from to).
- Clicking a playing window will highlight the corresponding camera on the list (e.g., 206.9.252.15_V_01).
- Live video stops automatically when you switch to other pages of the Web Manager.

Stop Live Video

- Click ☒ in the window's upper right corner.
- To stop all videos, click ☒ on the toolbar.
- Live video stops automatically when you switch to other pages of the Web Manager.

Live Video Operations

Use the toolbar at the bottom. Some buttons on the toolbar are only effective to the currently selected window, and the buttons may vary with camera.

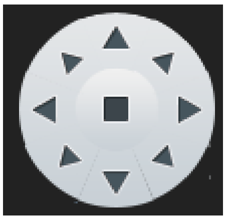
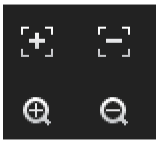
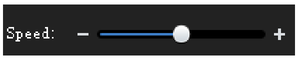
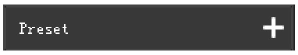


[25fps] [1.97Mbps] [1920×1080] [H.265] [0.00%]

No.	Description
A	Set screen layout. Up to 25 windows allowed.
B	Close video in all windows.
C	Frame rate, bit rate, resolution, compression format, packet loss rate of video playing in current window (example).
D	Take a snapshot and save it to the PC. The storage path is configurable (see Local Settings).
E	Local recording. Click to stop. The storage path is configurable (see Local Settings).
F	Digital zoom. When enabled, drag the mouse to draw an area on the image to zoom in on, and then use the wheel scroll to zoom in or out. Click to disable.
G	Adjust the output sound volume on PC or mute.
H	Adjust video settings, including brightness, saturation, contrast and sharpness.
I	Select stream type: main stream, sub stream, third stream (may vary with camera).

No.	Description
J	Set display ratio: stretch or scale.
K	Play in full screen. Press **Esc** to exit.

For a PTZ camera, you may click the ‹ on the right border of the window to display the PTZ control panel and control the PTZ.

Button	Description
	Control rotation directions or stop rotation. **Note:** You may also use the mouse to change the surveillance direction in the live view window: move the mouse pointer toward the side of the window you want to view; when the pointer changes shape (like ▶), click the mouse button to move, or press and hold the mouse button to keep moving. The camera will rotate in that direction. Release the button to stop.
	Adjust focus and zoom. **Note:** You may also click anywhere on the image and then use the scroll wheel to zoom in or out.
	Adjust rotation speed. Nine speed levels are available.
	Rotate the camera to the intended position and then click + to add as a preset. To go to a preset, click ↷. To delete a preset, click 🗑.

Playback

Video Service > **Playback**

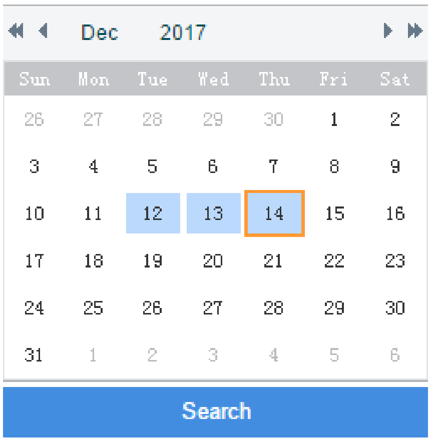
Glossary

- Center recording: Recordings that are stored on the VMS.
- Device recording: Recordings that are stored on an NVR.
- Video channel: A video channel corresponds to a camera.
- Normal recording: Video recorded according to a recording schedule.
- Event recording: Recording triggered by an event (e.g., an alarm).

Search Recording

1. Click **Center** or **Device**.
2. Select camera(s) (up to 16). Enter keywords to filter if necessary.

The calendar shows recording status of the current month. Blue means normal recording, red means event recording, and white means no recording (see figure below).



Dec 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Search

3. Select a date with recordings.

4. Click **Search**.

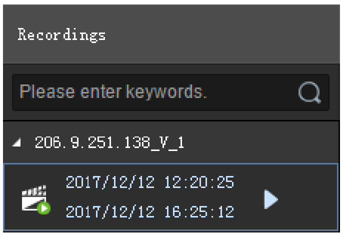
Search results are shown on the timeline (as known as progress bar) and the **Recordings** list on the right. Different recording types are shown with different colors on the timeline: blue for normal (scheduled), and red for event (alarm).

TIP!

The timeline and the file list shows search results for the currently selected window. Click another window to view corresponding search results.

Playback Control

Double-click a recording in the **Recordings** list on the right, or click the **Play** button (▶), which appears when the pointer rests on a file.



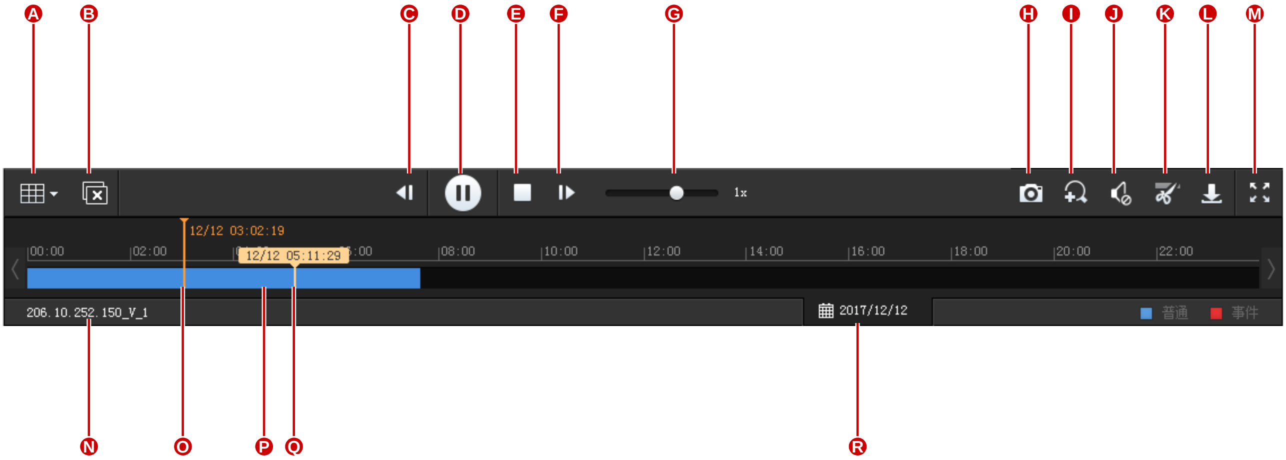
Recordings

Please enter keywords.

206.9.251.138_V_1

2017/12/12 12:20:25
2017/12/12 16:25:12

During playback, use the toolbar at the bottom of the window. Some buttons on the toolbar are effective to the currently selected window.

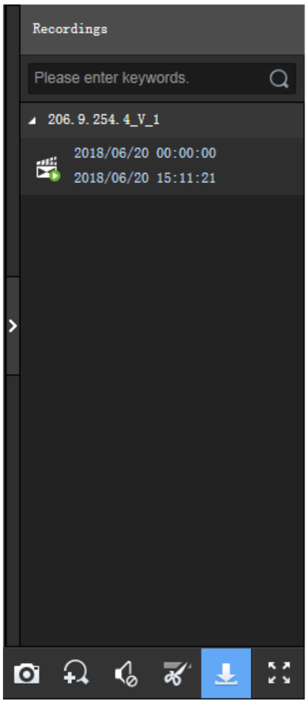


No.	Description
A	Set screen layout, up to 16 windows.
B	Close all windows.
C/F	Rewind by frame, forward by frame.
D	Pause/resume,
E	Stop
G	Adjust playback speed. Multiple options. + means play forward, - means play backward.
H	Take a snapshot and save it to the PC. The storage path is configurable (see Local Settings).
I	Digital zoom. When enabled, drag the mouse to draw an area on the image to zoom in on, and then use the scroll wheel to zoom in or out. Click to disable.
J	Adjust the output sound volume on PC or mute.
K	Clip video to download: click , click on the timeline to locate the end, and then click .
L	Download recording. Click in the upper right corner to view and manage recording download tasks. See Recording Download for details.
M	Play in full screen. Press Esc to exit.
N	Camera name.
O	Progress of playing (with date and time on the top).
P	Indicating recording: blue for normal recording, red for event recording.
Q	Corresponding time where the mouse pointer rests.
R	Calendar button. Click to search recordings for other dates.

Recording Download

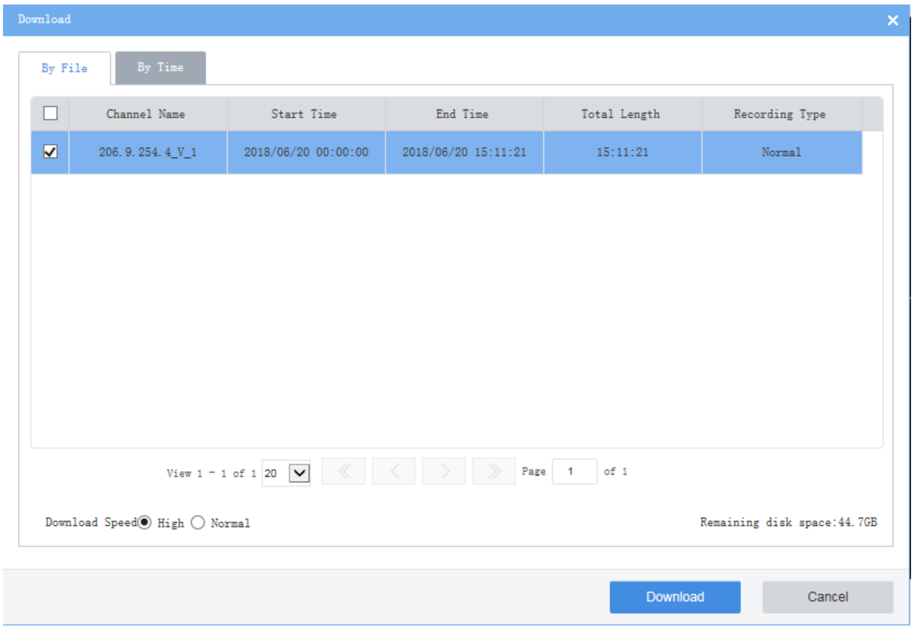
Download recordings from the VMS to your computer.

1. Click on the toolbar.



206. 9. 254. 4_V_1
2018/06/20 00:00:00
2018/06/20 15:11:21

2. Select recording(s) to download and then click **Download**.



□	Channel Name	Start Time	End Time	Total Length	Recording Type
☑	206. 9. 254. 4_V_1	2018/06/20 00:00:00	2018/06/20 15:11:21	15:11:21	Normal

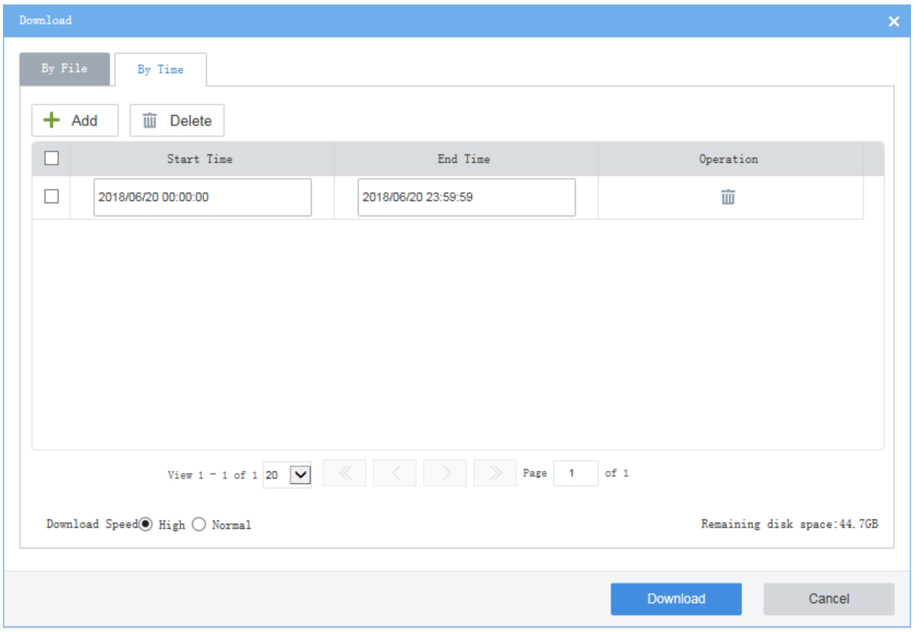
Download Speed ● High ○ Normal

Remaining disk space:44. 7GB

3. To download recordings of specified period, click the **By Time** tab, and then set the start and end times. Click **Add** to add download tasks. Select the tasks and then click **Download**.

TIP!

- The downloaded recordings are named in **channel name_start time_end time** format in the specified directory, for example, 206.9.9.19_V_1_S20180115000001_E20180115000721.mp4.
- If a channel name contains a special character such as asterisk (*) or question mark (?), the special character will be displayed as underline (_) in the filename. If the channel name is ended with two or more spaces or dots (.), the last space or dot (.) will also be displayed as underline in the filename.



Download

By File | By Time

+ Add | Delete

□	Start Time	End Time	Operation
□	2018/06/20 00:00:00	2018/06/20 23:59:59	🗑

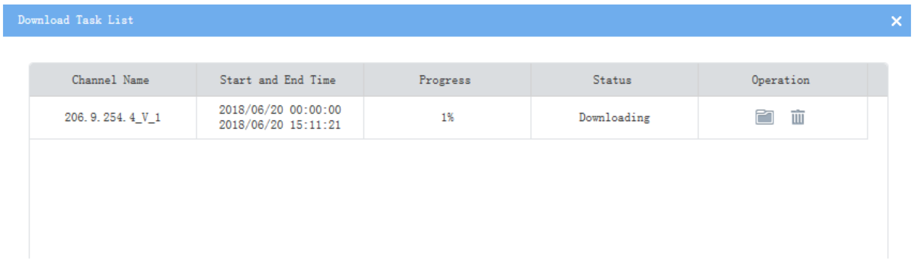
View 1 - 1 of 1 20 Page 1 of 1

Download Speed ● High ○ Normal

Remaining disk space:44.7GB

Download Cancel

4. To view download progress, open the recording folder or manage download tasks, click 📄 in the page's upper right corner.



Download Task List

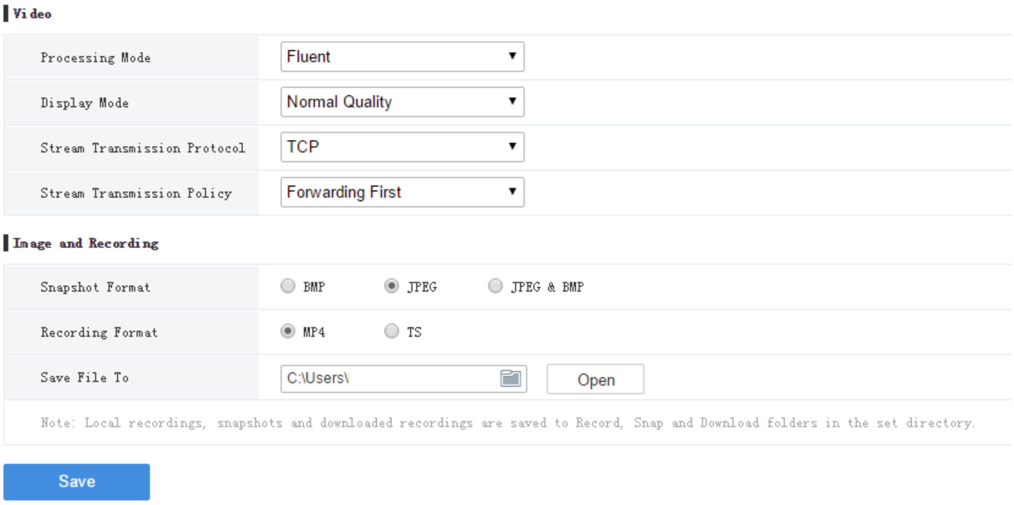
Channel Name	Start and End Time	Progress	Status	Operation
206.9.254.4_V_1	2018/06/20 00:00:00 2018/06/20 15:11:21	1%	Downloading	📁 🗑

Local Settings

Video Service > **Local Settings**

Set local settings include video processing mode, display mode, snapshot/recording formats and storage locations.

To improve reliability and timeliness of data transmission, set the media transmission policy and choose the preferred transmission protocol, so that if conditions (including sufficient output bandwidth of the encoding device) are met, streams are directly transmitted with the preferred protocol to the client computer without being forwarded via the VMS.



Video

Processing Mode	Fluent
Display Mode	Normal Quality
Stream Transmission Protocol	TCP
Stream Transmission Policy	Forwarding First

Image and Recording

Snapshot Format	○ BMP ● JPEG ○ JPEG & BMP
Recording Format	● MP4 ○ TS
Save File To	C:\Users\

Note: Local recordings, snapshots and downloaded recordings are saved to Record, Snap and Download folders in the set directory.

7 Statistics

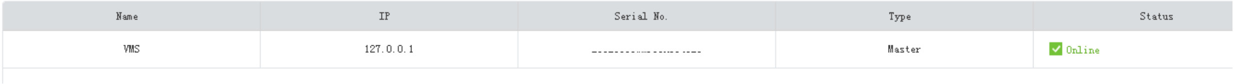
View statistics of the VMS system, connected devices, and logs.

Server Statistics

Server Status

Statistics > **Server** > **Server Status**

View information about master and/or slave VMS, including device name, IP address, serial number, type (master or slave), and status (online or offline).



Name	IP	Serial No.	Type	Status
VMS	127.0.0.1	[illegible]	Master	✓ Online

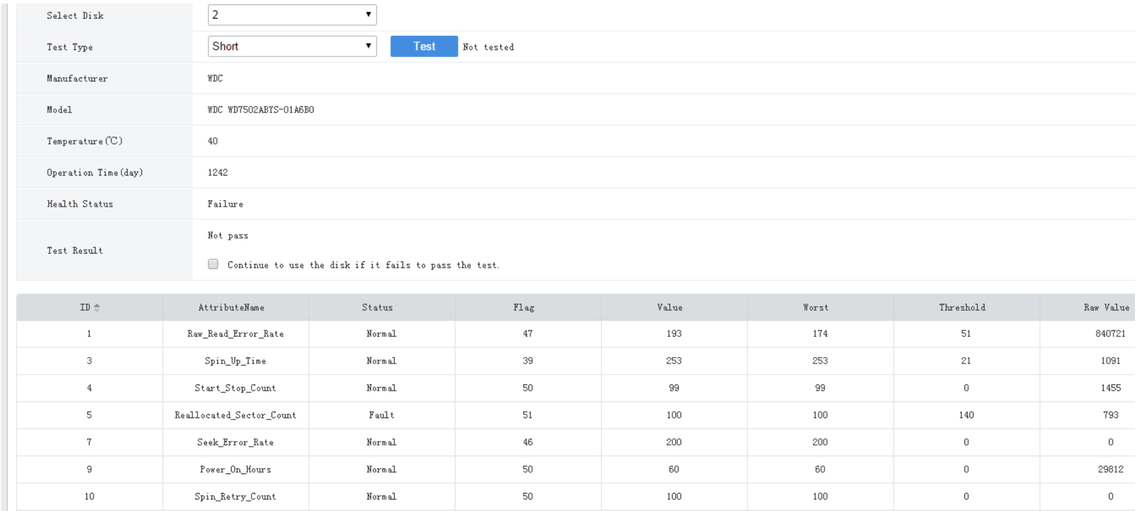
S.M.A.R.T. Test

Statistics > **Server > S.M.A.R.T. Test**

Test the current health status of disks and view reference statistics after the test is finished.

The system provides three test types:

- Short: A short test checks less items than an extended test and it takes less time.
- Extended: An extended test checks more thoroughly than a short test and it takes longer time.
- Conveyance: A conveyance test mainly checks for data transmission problems.



Select Disk	2
Test Type	Short — Test — Not tested
Manufacturer	WDC
Model	WDC WD7502ABYS-01A6B0
Temperature(℃)	40
Operation Time(day)	1242
Health Status	Failure
Test Result	Not pass □ Continue to use the disk if it fails to pass the test.

ID	AttributeName	Status	Flag	Value	Worst	Threshold	Raw Value
1	Raw_Read_Error_Rate	Normal	47	193	174	51	840721
3	Spin_Up_Time	Normal	39	253	253	21	1091
4	Start_Stop_Count	Normal	50	99	99	0	1455
5	Reallocated_Sector_Count	Fault	51	100	100	140	793
7	Seek_Error_Rate	Normal	46	200	200	0	0
9	Power_On_Hours	Normal	50	60	60	0	29812
10	Spin_Retry_Count	Normal	50	100	100	0	0

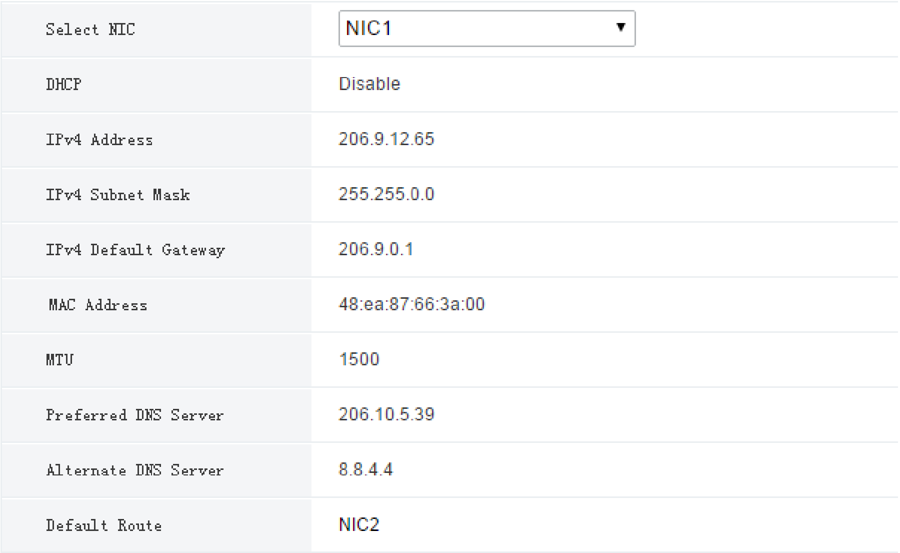
NOTE!

It is recommended to replace the disk if **Health Status** is not **Healthy**.

Network

Statistics > **Server** > **Network**

Select an NIC to view its configurations. For details, see TCP/IP.

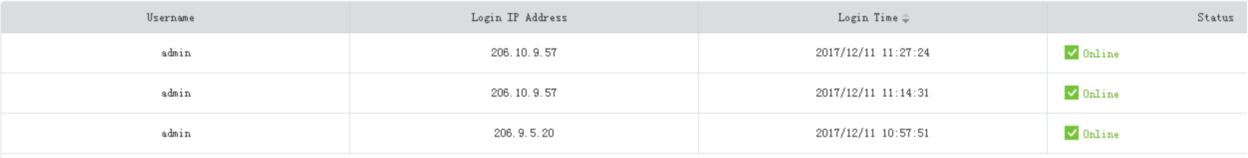


Select NIC	NIC1
DHCP	Disable
IPv4 Address	206.9.12.65
IPv4 Subnet Mask	255.255.0.0
IPv4 Default Gateway	206.9.0.1
MAC Address	48:ea:87:66:3a:00
MTU	1500
Preferred DNS Server	206.10.5.39
Alternate DNS Server	8.8.4.4
Default Route	NIC2

User

Statistics > **Server** > **User**

View information about existing users, including username, login IP address, login time, and current status.

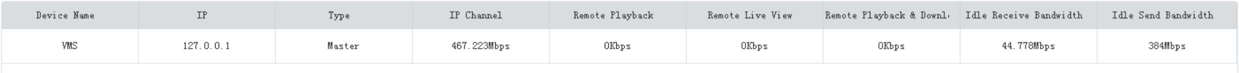


Username	Login IP Address	Login Time	Status
admin	206.10.9.57	2017/12/11 11:27:24	✓ Online
admin	206.10.9.57	2017/12/11 11:14:31	✓ Online
admin	206.9.5.20	2017/12/11 10:57:51	✓ Online

Bandwidth

Statistics > Server > Bandwidth

View real-time bandwidth usage of the master/slave VMS. See Bandwidth Usage.

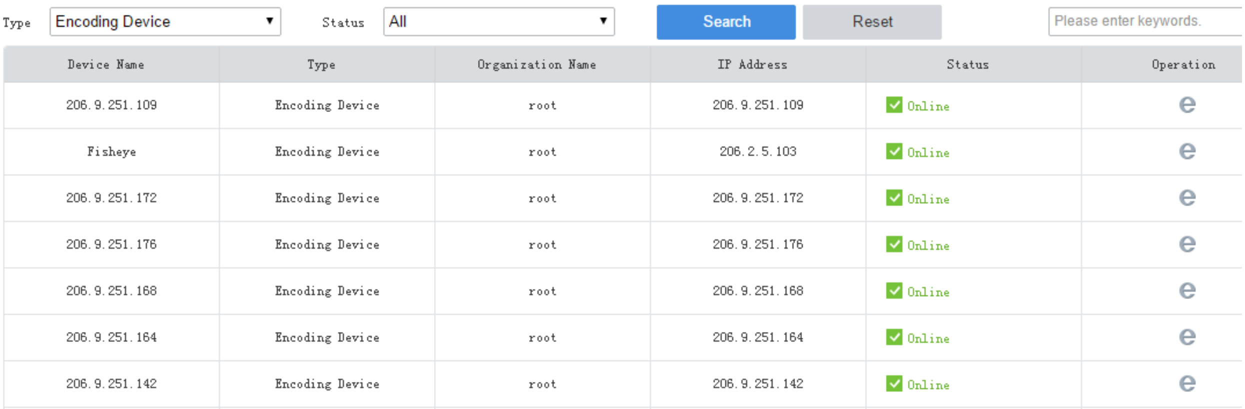


Device Name	IP	Type	IP Channel	Remote Playback	Remote Live View	Remote Playback & Downl	Idle Receive Bandwidth	Idle Send Bandwidth
VMS	127.0.0.1	Master	467.223Mbps	0Kbps	0Kbps	0Kbps	44.778Mbps	384Mbps

Device Statistics

Device

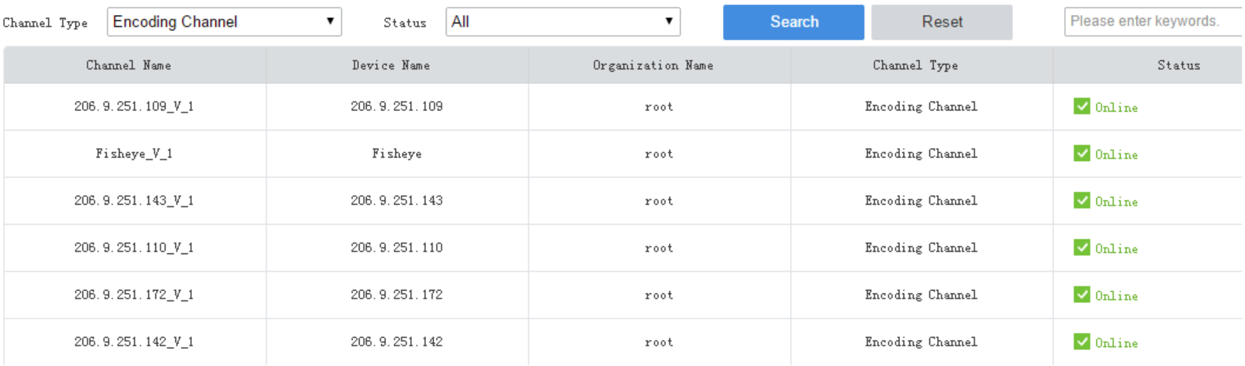
Statistics > Device > Device



Device Name	Type	Organization Name	IP Address	Status	Operation
206.9.251.109	Encoding Device	root	206.9.251.109	✓ Online	e
Fisheye	Encoding Device	root	206.2.5.103	✓ Online	e
206.9.251.172	Encoding Device	root	206.9.251.172	✓ Online	e
206.9.251.176	Encoding Device	root	206.9.251.176	✓ Online	e
206.9.251.168	Encoding Device	root	206.9.251.168	✓ Online	e
206.9.251.164	Encoding Device	root	206.9.251.164	✓ Online	e
206.9.251.142	Encoding Device	root	206.9.251.142	✓ Online	e

Channel

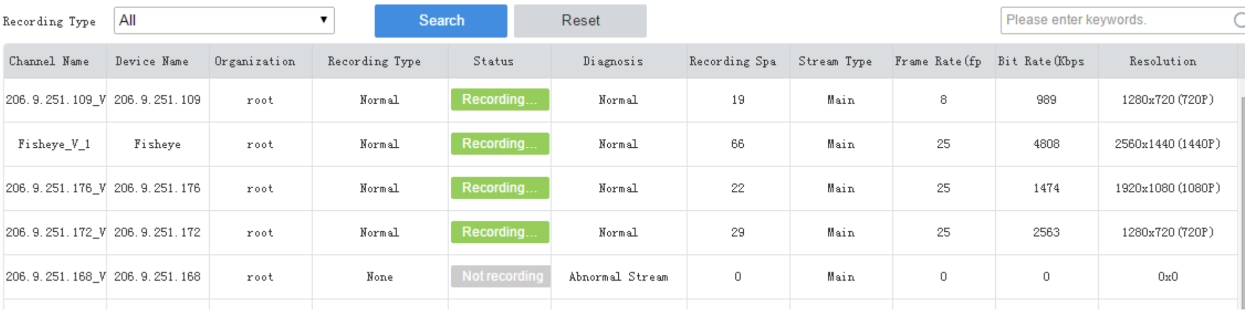
Statistics > Device > Channel



Channel Name	Device Name	Organization Name	Channel Type	Status
206.9.251.109_V_1	206.9.251.109	root	Encoding Channel	✓ Online
Fisheye_V_1	Fisheye	root	Encoding Channel	✓ Online
206.9.251.143_V_1	206.9.251.143	root	Encoding Channel	✓ Online
206.9.251.110_V_1	206.9.251.110	root	Encoding Channel	✓ Online
206.9.251.172_V_1	206.9.251.172	root	Encoding Channel	✓ Online
206.9.251.142_V_1	206.9.251.142	root	Encoding Channel	✓ Online

Recording

Statistics > Device > Recording



Recording Type: All

Channel Name	Device Name	Organization	Recording Type	Status	Diagnosis	Recording Spa	Stream Type	Frame Rate(fp	Bit Rate(Kbps	Resolution
206.9.251.109_V	206.9.251.109	root	Normal	Recording...	Normal	19	Main	8	989	1280x720(720P)
Fisheye_V_1	Fisheye	root	Normal	Recording...	Normal	66	Main	25	4808	2560x1440(1440P)
206.9.251.176_V	206.9.251.176	root	Normal	Recording...	Normal	22	Main	25	1474	1920x1080(1080P)
206.9.251.172_V	206.9.251.172	root	Normal	Recording...	Normal	29	Main	25	2563	1280x720(720P)
206.9.251.168_V	206.9.251.168	root	None	Not recording	Abnormal Stream	0	Main	0	0	0x0

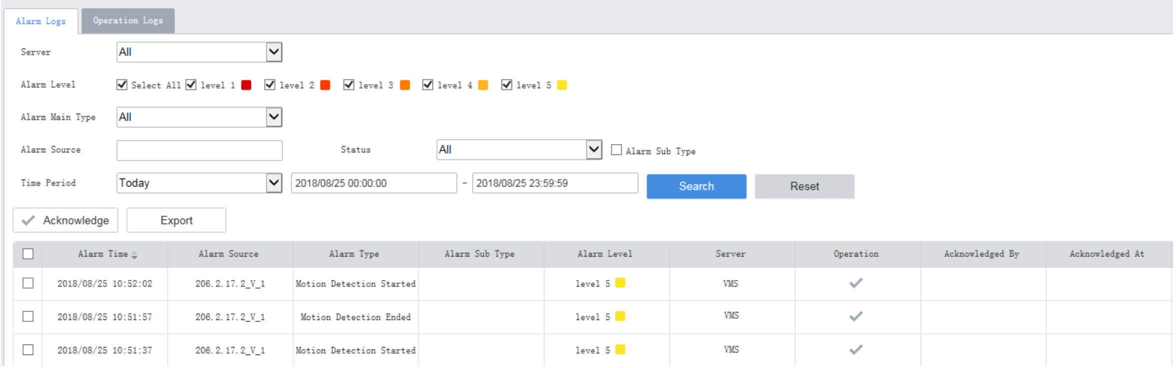
Log

Search and export alarm and operation logs of the VMS.

Alarm Logs

Statistics > **Log** > **Alarm Logs**

Search alarm logs by a combination of conditions including server, alarm type, alarm source, alarm status and time period. Click **Acknowledge** to confirm selected alarm(s) and add remarks as needed.



Server: All

Alarm Level: ☑ Select All ☑ level 1 🟥 ☑ level 2 🟥 ☑ level 3 🟧 ☑ level 4 🟧 ☑ level 5 🟨

Alarm Main Type: All

Alarm Source:

Status: All ☐ Alarm Sub Type

Time Period: Today 2018/08/25 00:00:00 - 2018/08/25 23:59:59

☐	Alarm Time	Alarm Source	Alarm Type	Alarm Sub Type	Alarm Level	Server	Operation	Acknowledged By	Acknowledged At
☐	2018/08/25 10:52:02	206.2.17.2_V_1	Motion Detection Started		level 5 🟨	VMS	✓		
☐	2018/08/25 10:51:57	206.2.17.2_V_1	Motion Detection Ended		level 5 🟨	VMS	✓		
☐	2018/08/25 10:51:37	206.2.17.2_V_1	Motion Detection Started		level 5 🟨	VMS	✓		

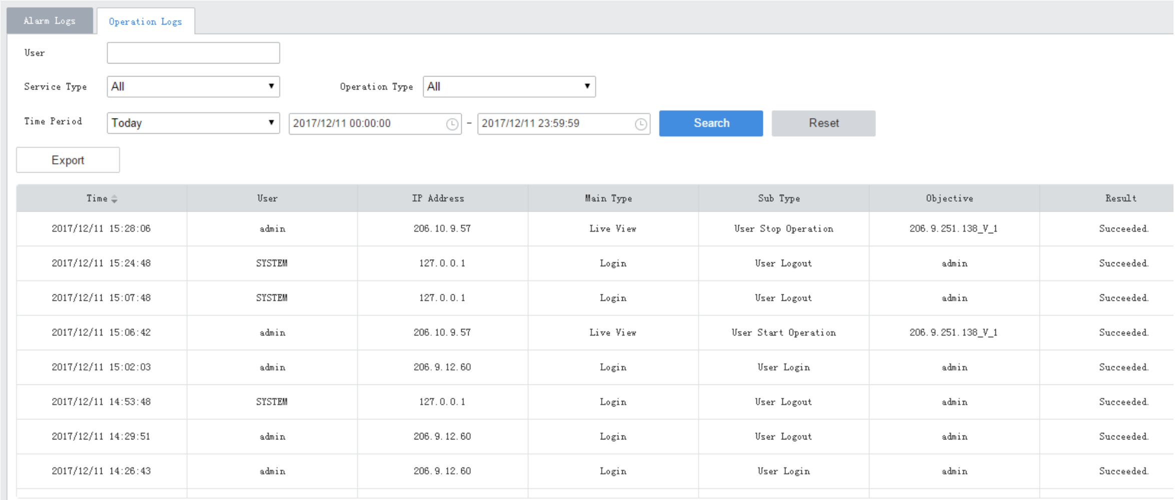
NOTE!

Acknowledged alarms cannot be revoked.

Operation Logs

Statistics > **Log** > **Operation Logs**

Search operation logs by a combination of conditions including user, service type, operation type, and time period.



User

Service Type: All

Operation Type: All

Time Period: Today 2017/12/11 00:00:00 - 2017/12/11 23:59:59

Time	User	IP Address	Main Type	Sub Type	Objective	Result
2017/12/11 15:28:06	admin	206.10.9.57	Live View	User Stop Operation	206.9.251.138_V_1	Succeeded.
2017/12/11 15:24:48	SYSTEM	127.0.0.1	Login	User Logout	admin	Succeeded.
2017/12/11 15:07:48	SYSTEM	127.0.0.1	Login	User Logout	admin	Succeeded.
2017/12/11 15:06:42	admin	206.10.9.57	Live View	User Start Operation	206.9.251.138_V_1	Succeeded.
2017/12/11 15:02:03	admin	206.9.12.60	Login	User Login	admin	Succeeded.
2017/12/11 14:53:48	SYSTEM	127.0.0.1	Login	User Logout	admin	Succeeded.
2017/12/11 14:29:51	admin	206.9.12.60	Login	User Logout	admin	Succeeded.
2017/12/11 14:26:43	admin	206.9.12.60	Login	User Login	admin	Succeeded.

NOTE!

For operation logs of playing live or recorded video on video wall, the objective is in this format: video wall name/screen number/window number. If video wall name/screen number/window number is followed by "-", the information following "-" indicates encoding channel/stream type by default (if not modified by user). For example, -203.130.1.35-1/0, where 203.130.1.35-1 indicates the 1st encoding channel of the encoding device with the IP address 203.130.1.35; 0: main stream (1: sub stream, 2: third stream).