Video Management Server Web Manager User Manual

Manual Version: V1.03

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 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. So please see the actual display on your device.
- 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	1
2 Login····	1
3 Basic Configuration	1
Organization Management ······	2
General Organization ·····	2
Custom Organization	2
User Management ·····	4
Role····	4
User ·····	6
Device Management ·····	7
Device	7
Channel ······	12
External Alarm·····	13
Link Resource·····	14
Server Management ·····	15
Central Server	15
Distributed Server ·····	15
Allocate Resource ·····	16
4 Service Configuration	16
Recording Schedule·····	
Time Template·····	
Recording Schedule ·····	
Alarm Configuration	
Alarm Configuration ·····	
Time Template·····	
Contacts·····	
Custom Alarm Level·····	20
Alarm Subscription	21
Recording Backup·····	21
5 System Configuration ·····	23
Basic Configuration ·····	23
Device	23
Date & Time·····	23
DST	24
Time Sync	24
Holiday·····	24
Disk Configuration····	25
Array Configuration ·····	25
Disk Management ······	27
Capacity Allocation ······	27

	Disk Group ·····	28
	Advanced Configuration	28
Net	twork Configuration ·····	······29
	TCP/IP	······29
	P2P	30
	DDNS	30
	Port	31
	Port Mapping·····	31
	Email ·····	32
Sec	curity Configuration ·····	32
	802.1x·····	32
	ARP Protection ·····	33
	HTTPS	33
	Telnet·····	34
	Secure Password ·····	34
Ma	nintenance ······	
	Maintenance ·····	
	Device Diagnosis Info ·····	35
	Delete Logs ·····	
	Packet Capture ·····	36
	Network Detect ·····	
	Bandwidth Usage·····	37
	Stream Transmission Policy·····	37
Ma	aster/Slave Switch ·····	38
	Master to Slave	38
	Slave to Master	38
	Change Master Server ·····	38
	Configure Hot Standby ·····	38
Video	Service ·····	40
	e Video·····	
	Start Live Video·····	40
	Stop Live Video ·····	40
	Live Video Operations ······	
Pla	yback ······	
	Glossary	
	Search Recording·····	42
	Playback Control·····	42
	Recording Download ·····	43
Loc	cal Settings ······	45
Static	stics ······	16
	rver Statistics·····	
201	Server Status	
	S.M.A.R.T. Test ······	
	Network	
		. ,

	User ·····	47
	Bandwidth ·····	48
Dev	rice Statistics ·····	48
	Device	48
	Channel	48
	Recording	48
Log		49
	Alarm Logs	49
	Operation Logs ·····	49

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 an 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.
- <u>User Management</u>: Configure roles and assign permissions.
- Device Management: Manage devices, channels, external alarms and link resources.

• <u>Server Management</u>: 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 IPC under the same NVR may only belong to the same organization.
- Custom organization: Provides a much 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

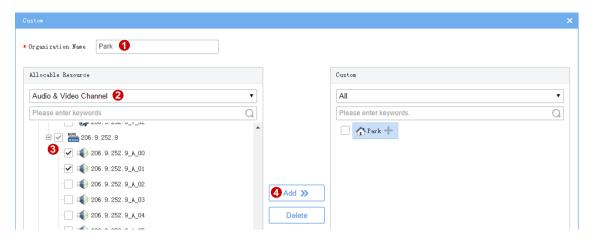
Basic > Organization > Custom

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:

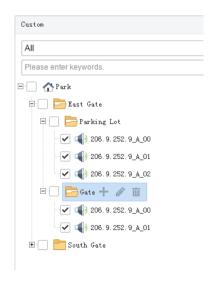
- 1. Enter a name. The organization name appears on the right.
- 2. (Optional) Select resource type (Audio & Video Channel). Enter keywords to filter if necessary.



- **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 right to the root organization 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).

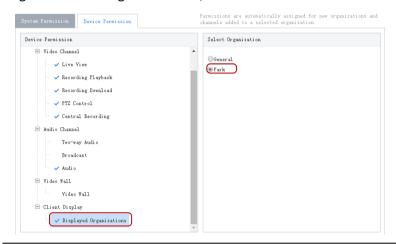


6. Click OK.



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.





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

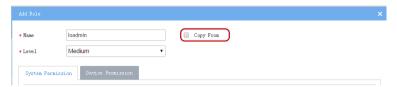
Roles are used to limit user's permissions, including:

- **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.
- Select a level.

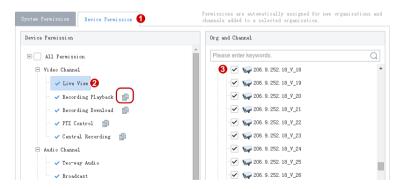
3. (Optional) Select **Copy From**. The existing roles in the system are listed. Select a role and then edit permissions for the new role based on the selected role. Permissions of the selected role will not change.



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 permission on the left and then select channels on the right.





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 <u>Custom Organization</u>.
- **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 like to expand and enter more details.
- **5.** Click **OK** to save the settings.

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 logged in will be forced out of the system.

Device Management

Manage devices, channels, external alarms; link resources.

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 decoder.
- Network keypad
- Cloud devices

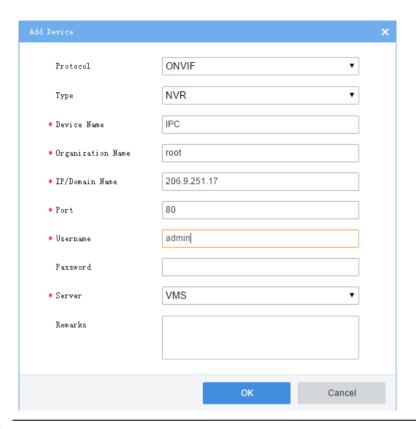
Device

Basic > Device > Device

Encoding Device

Encoding devices include encoder, IPC, and NVR.

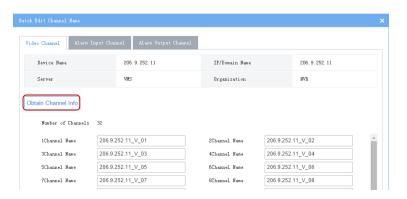
- 1. Click the **Encoder** tab. Click an organization on the tree on the left to list encoding devices under the organization on the right.
- 2. Choose a way to add encoding devices:
- Auto Search: Search encoding devices on the same LAN with the VMS. Use an IP address range, device status and device type to narrow search results. Click to add a device; or select multiple devices and click Batch Add.
- **Add**: Select a protocol, enter device information, and then click **OK**. Information required may vary depending on the protocol you select. The following takes ONVIF as an example.





Tip!

- The default port is 80.
- Select a server if a slave server is configured.
- 3. Click Refresh to refresh device status.
- **4.** If added successfully, the device appears in the list. Use the buttons in the **Operation** column:
- Edit device info, including protocol, device type, device name, organization name, IP/domain, port, username, password, and server.
- Delete a device from the VMS.
- Open the device's Web page.





The changed channel name will only be saved on the VMS and will not be synced to the devices.

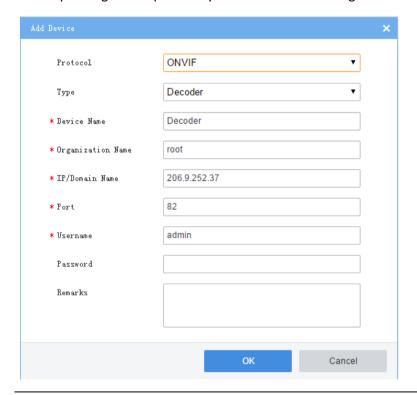
Decoding Device

Decoding devices include the VMS' built-in decoder, decoding card (sold separately), and external decoder.

- 1. Click the **Decoder** tab. Click an organization on the tree on the left to list decoding devices under the organization on the right.
- 2. Choose a way to add decoding devices:
- Auto-Search: Search decoding devices on the same LAN with the VMS. Use an IP address range, device status and device type to narrow search results. Click to add a device; or select multiple devices and click Batch Add.



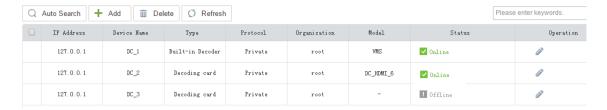
• Add: Select a protocol, enter device information, and then click **OK**. Information required may vary depending on the protocol you select. The following takes ONVIF as an example.





NOTE!

If a decoding card is installed, DC_2 or DC_3 is Online (DC_2 for SLOT0, and DC_3 for SLOT1). Change the device name as needed by clicking .



Network Keypad

Use a connected network keypad to control PTZ camera, screen/window, or play live video on a video wall. You need to complete registration by entering the VMS' IP address and port number on the keypad first. See the keypad user guide for details.

Cloud Device

The VMS supports operations to add, delete, edit and share cloud devices. You need to log in to your cloud account first.

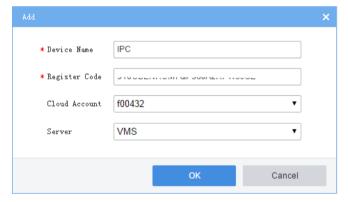
• Log in to cloud account: Click **Login**, and then enter your cloud account information. When logged in, your cloud account appears on the tree on the left, and cloud devices under this account are listed on the right.



NOTE!

You may click the **Register** button in the dialog box and sign up for a cloud account on the cloud website.

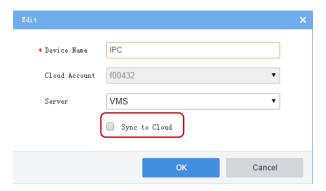
 Add cloud device. Click Add to add the device to an online cloud account. A VMS cannot be added to cloud in this way.



The added device appears in the cloud device list. If connected, the device status is displayed as 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. In master/slave configuration, you may change the master or slave server.



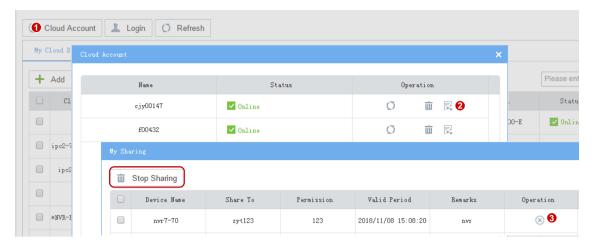
- Delete cloud device. Click in the **Operation** column, or select multiple items and click the **Delete** button.
- Share online cloud device: Click in the **Operation** column to share an online device with other cloud accounts. You may set a period for the sharing and permissions. Note that permissions are configured on the devices, not on the VMS.



• Click Cloud Account to view and manage cloud accounts on the VMS.



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



• To cancel sharing from other cloud account, click Devices Shared to Me and then click Stop Sharing.





NOTE!

If an NVR has been added on the VMS via private or Onvif 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.

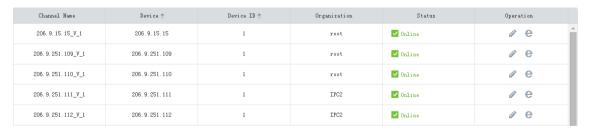
Channel

Basic > Device > Channel

Channels include encoding channel, decoding channel, alarm channel.

• Click the **Encoding Channel** tab. 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.



Click the **Decoding Channel** tab. 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	0
DC_1_VGA	DC_1	3	root	SXGA60	36	✓ Online	



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

• Click the **Alarm Channel** tab. Click an organization on the tree on the left to list alarm channels under the organization on the right. Use the check boxes to filter the display. Click to edit channel name, alarm type or default status, or select multiple channels and click **Batch Edit**.

Channel Name	Device ≑	Device ID 🗢	Organization	Channel Type	Status	Operation	Туре
206.9.15.15_0_relay_ou	206. 9. 15. 15	1	root	Alarm Output Channel	✓ Online	Ø.	N. O.
206. 9. 15. 15_I_0	206. 9. 15. 15	1	root	Alarm Input Channel	✓ Online	Ø.	N.O.
206. 9. 15. 15_I_1	206. 9. 15. 15	2	root	Alarm Input Channel	✓ Online	Ø.	М. О.
206.9.251.112_0_relay_	206. 9. 251. 112	1	IPC2	Alarm Output Channel	✓ Online	Ø.	N.O.



Tip!

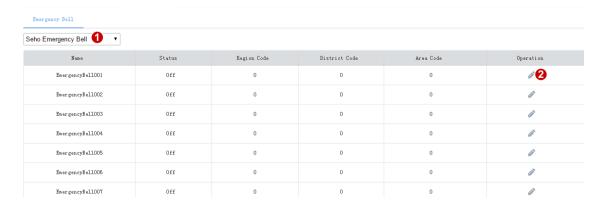
- N.O. means normally open, and N.C. means normally closed.
- For an alarm output channel, **Delay** means the duration of the changed status before the default status is restored.

External Alarm

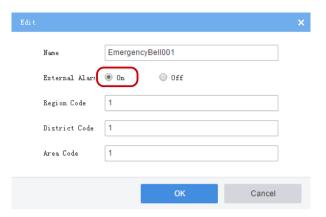
Basic > Device > External Alarm

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.



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.



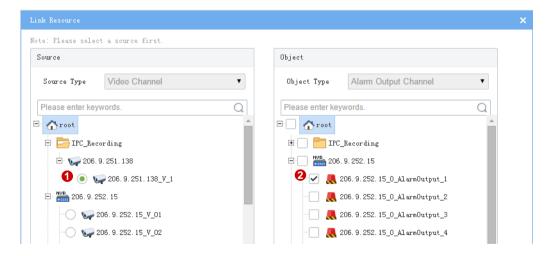
- Configure alarm-triggered actions including recording, email and buzzer at Service > Alarm. See <u>Alarm</u>.
 Configuration.
- **5.** Configure alarm-triggered actions including live view, preset (for PTZ cameras), alarm output, and alarm to video wall on the software client. See Alarm Configuration 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**.



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).



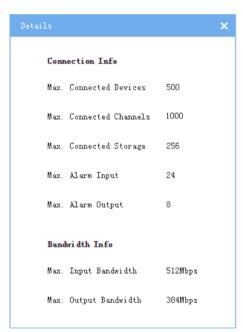
Server Management

View information and status of central server (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 central server. Click to view connection and bandwidth info.



Distributed Server

Basic > Server > Distributed Server

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



- Click to view connection and bandwidth info.
- Click or 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!

In the device list of the slave server, a delete button appears when the mouse pointer moves close to a device (e.g., 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:

- <u>Recording Schedule</u>: 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.
- <u>Alarm Subscription</u>: Configure alarm subscriptions so alarm subscribers only receive certain alarm messages; irrelevant alarm messages are filtered.

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.

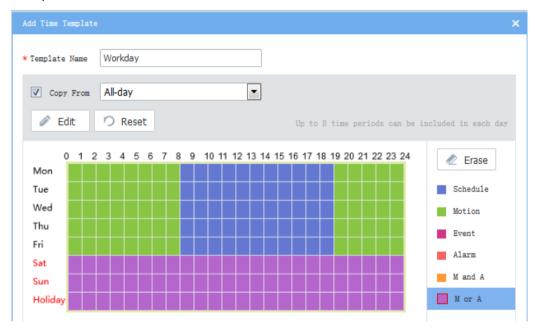
Click **Add** to create a time template:

- **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.

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

Example:



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.



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



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

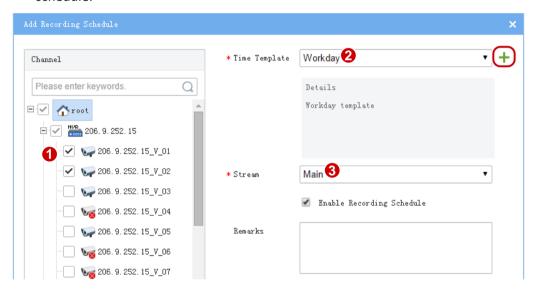
Recording Schedule

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:

- 1. Select camera(s).
- 2. Select a time template; or click to create one. See <u>Time Template</u>.
- **3.** Select a stream type.
- **4.** By default **Enable Recording Schedule** is selected. Clearing the check box will disable the recording schedule.



5. 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, if network
 connection is interrupted during its recording schedule, video will be saved to the camera's onboard SD
 card before network connection is recovered; and the video saved on the SD card will be transferred
 automatically to the VMS when network connection is recovered.

Alarm Configuration

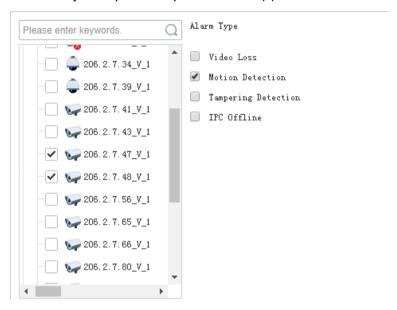
Configure alarms so that certain alarms at specified sources will trigger actions such as recording, buzzer and emails.

Alarm Configuration

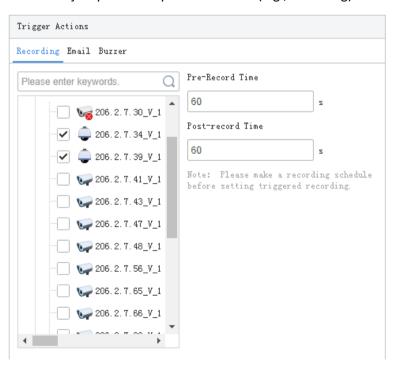
Service > Alarm Configuration > Alarm Configuration

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).



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).





- 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 <u>Recording Schedule</u>). To trigger email, you also need to complete email settings (see <u>Email</u>). 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!

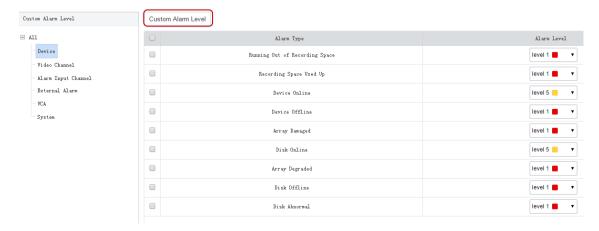
An email server must be configured before testing the email. For details, see **Email**.

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.



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**.

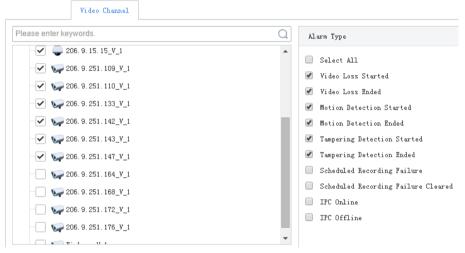
Alarm Subscription

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.



4. Click Save.



NOTE!

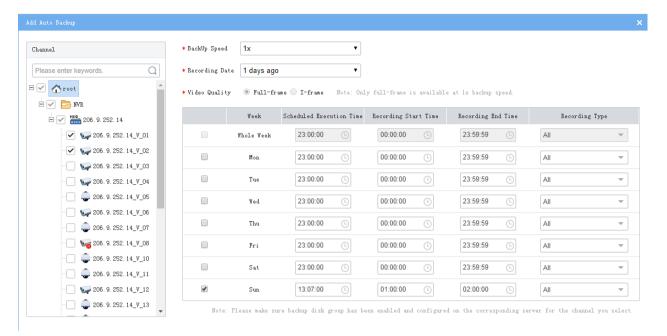
- Alarm subscription is enabled by default. If disabled, the client cannot receive any alarm messages, even if alarm subscription is configured.
- By default, a non-subscriber receives all alarm messages. To block all alarm messages for the user, add the
 user as an alarm subscriber without configuring 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

Service > Recording Backup > Auto Backup

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

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



- 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.
- Video Quality: Choose Full-frame to make a full backup; or choose I-frame to only back up I-frames. Full-frame backup requires more storage.
- 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 papers in the list.



- 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.

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.



5 System Configuration

System configuration includes:

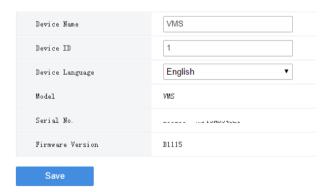
- <u>Basic Configuration</u>: Basic device info, time and time synchronization, holiday configuration.
- <u>Disk Configuration</u>: Array configuration, disk management, capacity configuration and advanced configuration.
- Network Configuration: Basic network settings, cloud, DDNS, port, port mapping, and email.
- <u>Security Configuration</u>: Includes 802.1x, ARP protection, HTTPS and Telnet.
- <u>Maintenance</u>: 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.



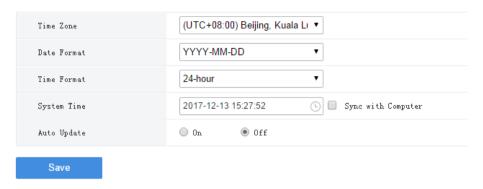
Date & Time

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.



DST

System > Basic > DST

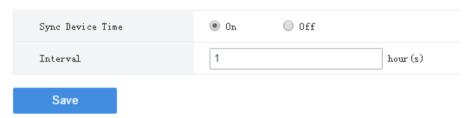
Set DST properly if your country or area uses the Daylight Saving Time (DST).



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.

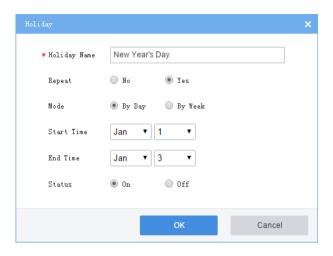


Holiday

System > Basic > Holiday

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

The holiday name must be unique in the system.



Disk Configuration

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

- Array configuration: enable/disable RAID, create RAID manually or by clicking **One-click Create**.
- Disk management: view disk info such as status and capacity usage, modify disk property (read-only or read/write), and format disks.
- Capacity allocation: allocate VMS' disk space to cameras for recording storage.
- Advanced configuration: set the VMS to overwrite or stop recording when the assigned space on the VMS is used up.

Array Configuration

System > Disk > Disk Array

Enable/disable RAID, check RAID information, configure hot spare disk, and rebuild array. When RAID is enabled, the **Physical Disk** and **Array** tabs appear. Create an array by clicking the **One-click Create** or **Manual Create** button. The table below compares these two methods.

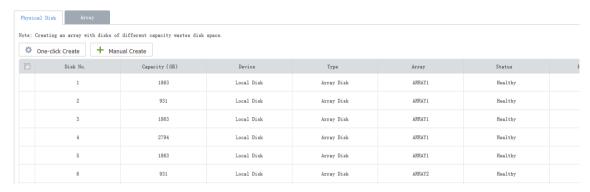
One-click Create	Manual Create		
Creates RAID1 and RAID5.	Creates RAID0, RAID1, RAID5, RAID6, RAID10, RAID50 and RAID60.		
Array(s) are named automatically in ARRAY <i>n</i> format, e.g., ARRAY1.	Arrays are named by user (must be unique).		
Array(s) are created automatically in accordance with hard disks:	 User sets array type manually. For RAID50 and RAID60, user must set 		
• 2 HDDs: RAID1	sub-array disks and select disks properly. The total number of selected disks must be an		
 3 HDDs: RAID5 (no hot spare) 			
 4-8 HDDs: RAID5 (1 hot spare) 	integer multiple of sub-array disks, and the		
• 9-16 HDDs: 2 RAID5 (1 hot spare)	multiple is greater than 1.		

Note: Disks will be formatted automatically to create an array.

The supported RAID types and the 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

Click the **Physical Disk** tab to view information about array disks when an array is created.



NOTE!

- In the **Hot Spare** column, clicking turns a hot spare disk back into a normal disk, and clicking sets a hot spare disk.
- If a hot spare disk is available and its capacity is no less than the smallest disk in the array, the system will start rebuilding the array in 10 minutes after a disk in an array fails; otherwise, you need to select a replacement disk and rebuild the array manually. The capacity of the replacement disk must not be less than the smallest disk in the array.

Click the Array tab to view information about the created array.





NOTE!

Clicking in the **Delete** column deletes an array. Deleting an array will also delete all data on it.

Disk Management

System > Disk > Disk

View disk info (slot number, device, disk status, and space usage), and manage disks (modify property or format). Batch operation is supported.

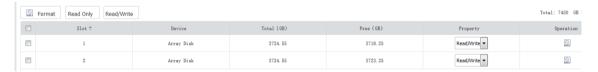




NOTE!

- The **Device** column indicates it is a local disk or belongs to a disk expansion unit (DEU).
- Clicking in the Operation column formats a disk.

When RAID is enabled, the **Disk** tab displays info about disks in the array and allows operations such as modifying disk property or format.



After you disable RAID, the disk status is displayed as **Not Formatted**. You need to format the disk before the disk can be used for storage.

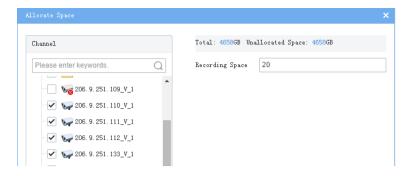


Capacity Allocation

System > Disk > Capacity

Allocate normal capacity or backup capacity:

- Normal capacity: Allocate space for central storage.
- Backup capacity: Allocate space for backup storage.
- 1. Click the **Normal Capacity** or **Backup Capacity** tab, and then click **Allocate**. Select camera(s) and enter space to assign; for example, 20GB for each of the selected camera.



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



NOTE!

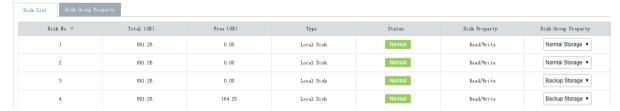
- You may allocate space to some cameras only. Cameras with no space allocated share the free space.
- The allocated space is from the VMS, even when you are allocating space to cameras under an NVR.

Disk Group

System > Disk > Disk Group

From the Disk Group Property drop-down list, select:

- Normal Storage: Used for central storage. After the configuration is complete, click Allocate under
 Disk > Capacity > Normal Capacity to allocate storage space.
- Backup Storage: Used to back up recordings from an NVR. After the configuration is complete, click
 Allocate under Disk > Capacity > Backup Capacity to allocate storage space.



Click the **Disk Group Property** tab to view capacity of normal storage and backup storage.

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.





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

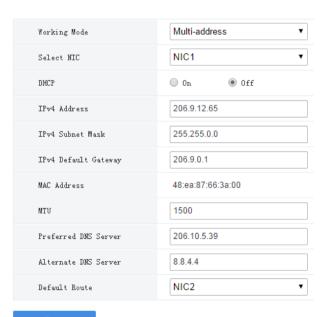
The IP address can be static or obtained through DHCP. Three working modes are available:

- **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.



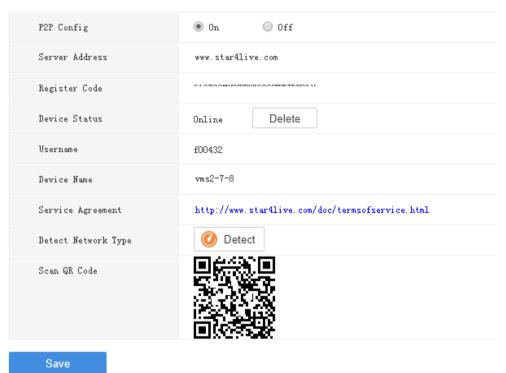
Save

- 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.

P₂P

System > Network > P2P

P2P is intended for remote surveillance and is disabled by default. You may enable P2P and use the register code to register the VMS at the cloud 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*.



- 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) can associate 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 www.star4live.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., www.star4live.com/vms2).

Port

System > Network > Port

Configure HTTP, HTTPS, RTSP and alarm ports.



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.

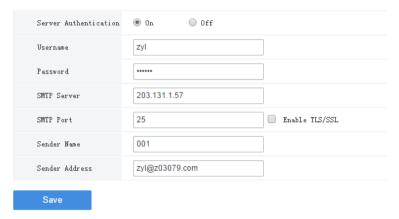


- By default port mapping is disabled.
- Enable UPnP in the router first. UPnP requires the router's support.

Email

System > Network > Email

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





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.

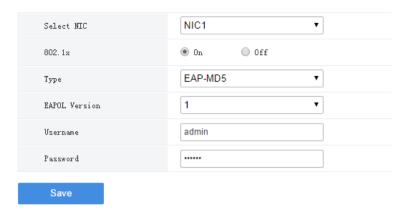
Security Configuration

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 **Bind 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).





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.





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.



- 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

Telnet is disabled by default. It is still disabled if you enable it and then restart the VMS.

Default username/password: root/123456. You may log in by Telnet and change the password. Restarting the VMS does not restore the default Telnet password.



Secure Password

System > Security > Secure Password

Friendly Password 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 Enhanced Password is enabled, using a weak password to access the software client 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 add a user with weak password or change the password to a weak one.

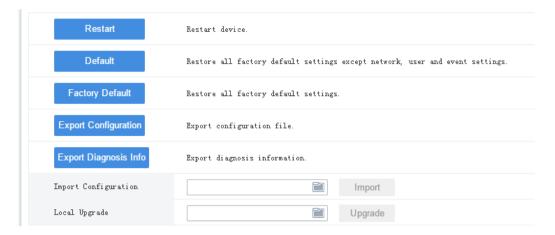


Maintenance

Maintenance

System > Maintenance > Maintenance

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



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.



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.



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.



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.





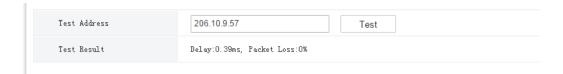
NOTE!

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.

Network Detect

System > Maintenance > Net Detect

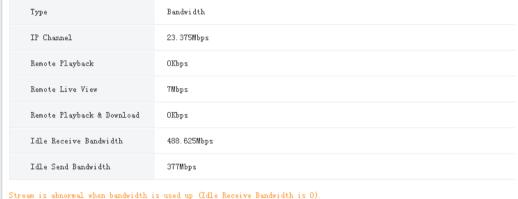
Test a domain name or an IP address by filling in the field and clicking **Test**. The test result indicates whether there is a connection and the connection status (delay and packet loss rate) if connected.



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.



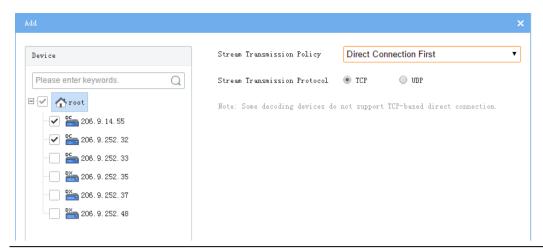
Stream is abnormal when bandwidth is used up (Idle Receive Bandwidth is 0).

- IP Channel: Bandwidth usage when 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.





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

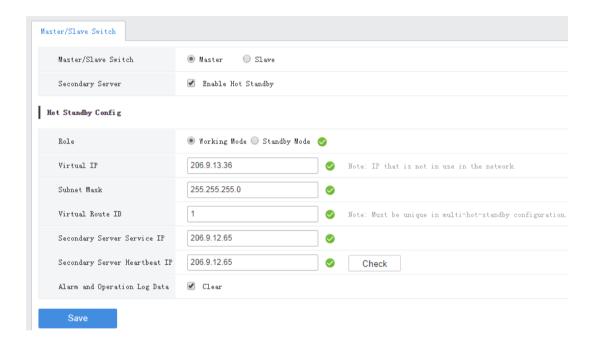
Enter the new master server's IP address and then click Save.

Configure Hot Standby

Set a working mode for the central server.



- 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.



- 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. If more cameras are selected than windows displayed, the layout will change automatically.



TIP!

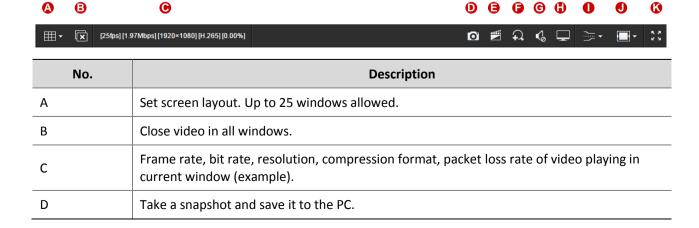
- When live video starts, the camera icon changes, (e.g., from $\widehat{\ }$ to $\widehat{\ }$).
- Clicking a playing window will highlight the corresponding camera on the list (e.g.,
- Live video stops automatically when you switch to other pages of the Web Manager.

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.



No.	Description
	The storage path is configurable (see <u>Local Settings</u>).
E	Local recording. Click to stop. The storage path is configurable (see <u>Local Settings</u>).
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.
Н	Adjust video settings, including brightness, saturation, contrast and sharpness.
I	Select stream type: main stream, sub stream, third stream (may vary with camera).
J	Set display ratio: stretch or scale.
К	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.
F12 F 2	Adjust focus and zoom.
and the second	Note:
e e	You may also click anywhere on the image and then use the scroll wheel to zoom in or out.
Speed: - +	Adjust rotation speed. Nine speed levels are available.
Preset +	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

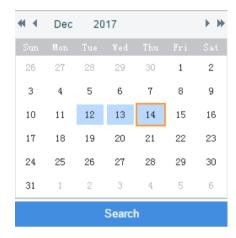
- Center recording: Recordings that are stored on the VMS.
- Device recording: Recordings that are stored on an NVR.

- 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).



- **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).

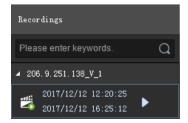


TIP!

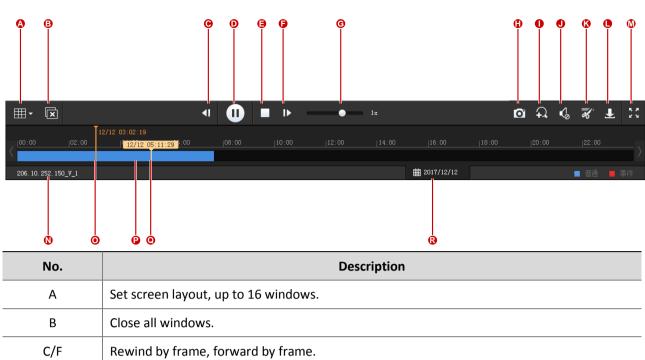
The timeline and the file list shows search results for the currently selected window. Click another window to view corresponding search results.

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.



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

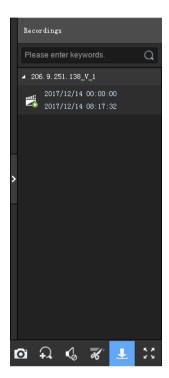


No.	Description	
Α	Set screen layout, up to 16 windows.	
В	Close all windows.	
C/F	Rewind by frame, forward by frame.	
D	Pause/resume,	
E	Stop	
G	Adjust playback speed. Multiple options. + means play forward, - means play backward.	
н	Take a snapshot and save it to the PC. The storage path is configurable (see <u>Local Settings</u>).	
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.	
0	Progress of playing (with date and time on the top).	
Р	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.	

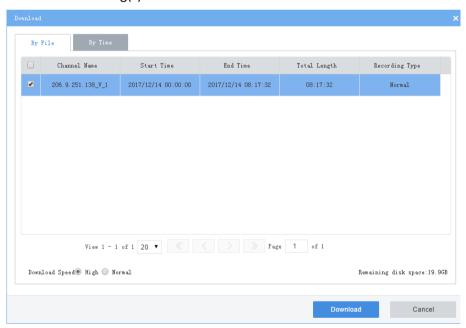
Recording Download

Download recordings from the VMS to your computer.

1. Click on the toolbar.



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

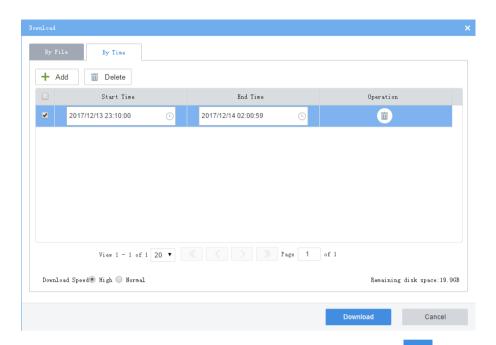


3. To download recordings of specified period, click the **By Time** tab, and then set the start and end times. Click **Add** to add download tasks. Select the tasks and then click **Download**.



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.



4. To view download progress or mange download tasks, click in the page's upper right corner.

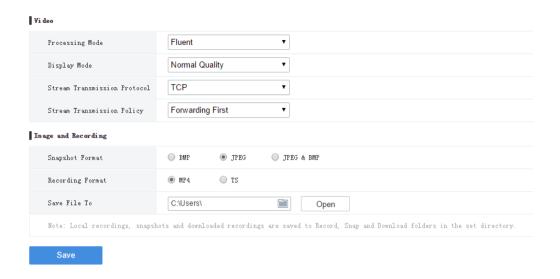


Local Settings

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.



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).



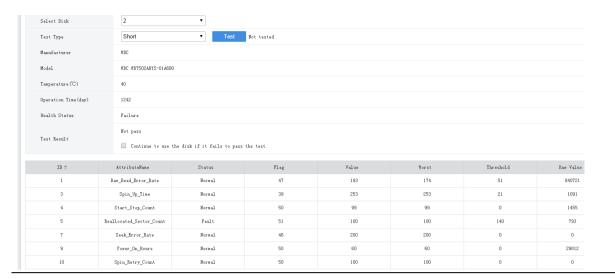
S.M.A.R.T. Test

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.



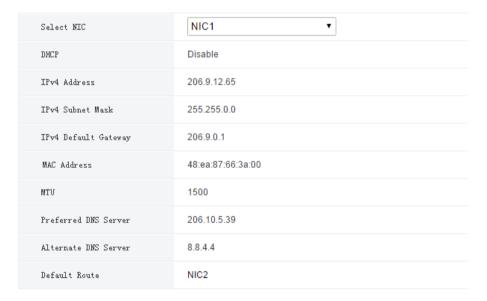


It is recommended to replace the disk if **Health Status** is not **Healthy**.

Network

Statistics > Server > Network

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



User

Statistics > Server > User

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



Bandwidth

Statistics > Server > Bandwidth

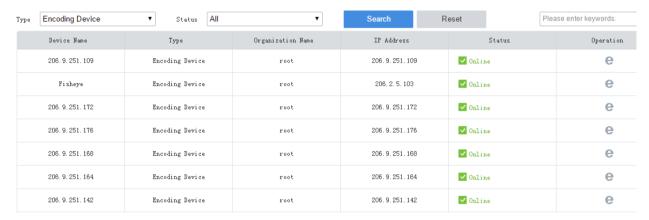
View real-time bandwidth usage of the master/slave VMS. See Bandwidth Usage.



Device Statistics

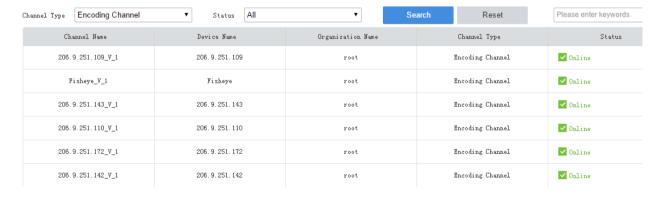
Device

Statistics > Device > Device



Channel

Statistics > Device > Channel



Recording

Statistics > Device > Recording



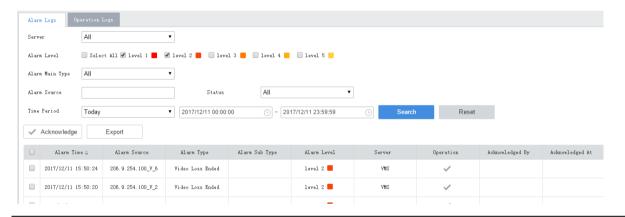
Log

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.





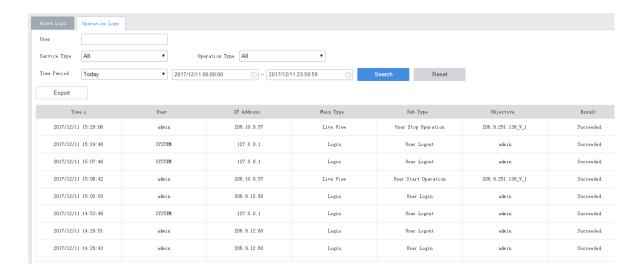
NOTE!

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.





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).