HIKVISION

Network Traffic Speed Dome

User Manual

User Manual

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About this Manual

This Manual is applicable to Network Traffic Speed Dome.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

$C\epsilon$ This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Waring:

This is a class A product. In a domestic environment this product may cause radio inter-ference in which case the user may be required to take adequate measures.

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Safety Instruction

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into 'Warnings' and 'Cautions':

Warnings: Serious injury or death may be caused if any of these warnings are neglected.

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

Warnings:

● Adopt the power adapter which can meet the safety extra low voltage (SELV) standard. The power consumption cannot be less than the required value.

● Do not connect several devices to one power adapter as an adapter overload may cause over-heating and can be a fire hazard.

● When the product is installed on a wall or ceiling, the device should be firmly fixed.

● To reduce the risk of fire or electrical shock, do not expose the indoor used product to rain or moisture.

● This installation should be made by a qualified service person and should conform to all the local codes.

● Install blackouts equipment into the power supply circuit for convenient supply interruption.

● If the product does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the product yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

Cautions:

● If the camera fails to synchronize local time with that of the network, you need to set up camera time manually. Visit the camera (via web browser or client software) and enter system settings interface for time settings.

● Make sure the power supply voltage is correct before using the product.

● Do not drop the product or subject it to physical shock. Do not install the product on vibratory surface or places.

● Do not expose it to high electromagnetic radiating environment.

● Do not aim the lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the product.

● The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.

● For working temperature, please refer to the specification manual for details.

● To avoid heat accumulation, good ventilation is required for a proper operating environment.

● While shipping, the product should be packed in its original packing.

● Use the provided glove when open up the product cover. Do not touch the product cover with fingers directly, because the acidic sweat of the fingers may erode the surface coating of the product cover.

● Use a soft and dry cloth when clean inside and outside surfaces of the product cover. Do not use alkaline detergents.

● Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.

Table of Contents

Chapter 1 Overview

1.1 System Requirement

System requirement of web browser accessing is as follows:

Operating System: Microsoft Windows XP SP1 and above version/Vista/Win7/Server 2003/Server 2008 32bits

CPU: Intel Pentium IV 3.0 GHz or higher

RAM: 1G or higher

Display: 1024 × 768 resolution or higher

Web Browser: Internet Explorer 8 to 11, Google Chrome 31 to 44, and Mozilla Firefox 30 to 51

1.2 Functions

Notes:

The functions vary depending on different speed dome models.

● **PTZ Limits**

The speed dome can be programmed to move within the PTZ limits (left/right, up/down).

● **Scan Modes**

The speed dome provides 5 scan modes: auto scan, tilt scan, frame scan, random scan and panorama scan.

● **Presets**

A preset is a predefined image position. When the preset is called, the speed dome will automatically move to the defined position. The presets can be added, modified, deleted and called.

● **Label Display**

The on-screen label of the preset title, azimuth/elevation, zoom, time and speed dome name can be displayed on the monitor. The displays of time and speed dome name can be programmed.

● **Auto Flips**

In manual tracking mode, when a target object goes directly beneath the speed dome, the video will automatically flips 180 degrees in horizontal direction to maintain continuity of tracking. This function can also be realized by auto mirror image depending on different camera models.

● **Privacy Mask**

This function allows you to block or mask certain area of a scene, for preventing the personal privacy from recording or live viewing. A masked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.

● **3D Positioning**

In the client software, use the left key of mouse to click on the desired position in the video image and drag a rectangle area in the lower right direction, then the speed dome system will move the position to the center and allow the rectangle area to zoom in. Use the left key of mouse to drag a rectangle area in the upper left direction to move the position to the center and

allow the rectangle area to zoom out.

● **Proportional Pan/Tilt**

Proportional pan/tilt automatically reduces or increases the pan and tilt speeds according to the amount of zoom. At telephoto zoom settings, the pan and tilt speeds will be slower than at wide zoom settings. This keeps the image from moving too fast on the live view image when there is a large amount of zoom.

● **Auto Focus**

The auto focus enables the camera to focus automatically to maintain clear video images.

● **Day/Night Auto Switch**

The speed domes deliver color images during the day. And as light diminishes at night, the speed domes switch to night mode and deliver black and white images with high quality.

● **Slow Shutter**

In slow shutter mode, the shutter speed will automatically slow down in low illumination conditions to maintain clear video images by extending the exposure time. The feature can be enabled or disabled.

● **Backlight Compensation (BLC)**

If you focus on an object against strong backlight, the object will be too dark to be seen clearly. The BLC (Backlight Compensation) function can compensate light to the object in the front to make it clear, but this causes the over-exposure of the background where the light is strong.

● **Wide Dynamic Range (WDR)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

● **White Balance (WB)**

White balance can remove the unrealistic color casts. White balance is the white rendition function of the camera to adjust the color temperature according to the environment automatically.

● **Patrol**

A patrol is a memorized series of pre-defined preset function. The scanning speed between two presets and the dwell time at the preset are programmable.

● **Pattern**

A pattern is a memorized series of pan, tilt, zoom, and preset functions. By default the focus and iris are in auto status during the pattern is being memorized.

● **Power Off Memory**

The speed dome supports the power off memory capability with the predefined resume time. It allows the speed dome to resume its previous position after power is restored.

● **Scheduled Task**

A time task is a preconfigured action that can be performed automatically at a specific date and time. The programmable actions include: auto scan, random scan, patrol 1-8 ,pattern 1-4, preset 1-8,frame scan, panorama scan, tilt scan, day, night, reboot, PT adjust, Aux Output, etc.

● **Park Action**

This feature allows the speed dome to start a predefined action automatically after a period of inactivity.

● **User Management**

The speed dome allows you to edit users with different levels of permission, in the admin login status. Multiple users are allowed to access and control the same network speed dome via network simultaneously.

● **3D Digital Noise Reduction**

Comparing with the general 2D digital noise reduction, the 3D digital noise reduction function processes the noise between two frames besides processing the noise in one frame. The noise will be much less and the video will be clearer.

Chapter 2 Network Connection

Notes:
- You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, strengthen your own protection. If the product does not work properly, contact with your dealer or the nearest service center.
- To ensure the network security of the network camera, we recommend you to have the network camera assessed and maintained termly. You can contact us if you need such service.

Before you start:
- If you want to set the network speed dome via a LAN (Local Area Network), refer to *Section 2.1 Setting the Network Speed Dome over the LAN.*
- If you want to set the network speed dome via a WAN (Wide Area Network), please refer to *Section 2.2 Setting the Network Speed Dome over the WAN.*

2.1 Setting the Network Speed Dome over the LAN

Purpose:
To view and configure the speed dome via a LAN, you need to connect the network speed dome in the same subnet with your computer, and install the SADP or client software to search and change the IP address of the network speed dome.

Note:
For the detailed introduction of SADP, refer to Appendix.

2.1.1 Wiring over the LAN

The following figures show the two ways of cable connection of a network speed dome and a computer:

Purpose:
- To test the network speed dome, you can directly connect the network speed dome to the computer with a network cable as shown in Figure 2-1.
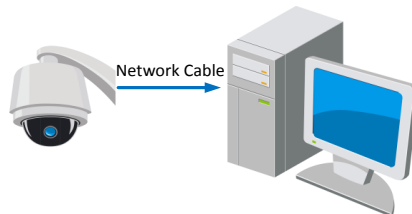- Refer to the Figure 2-2 to set the network speed dome over the LAN via a switch or a router.

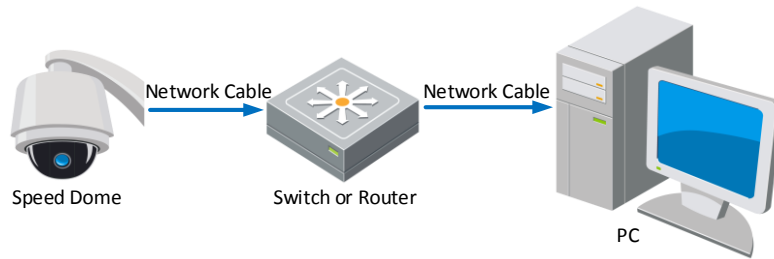

Figure 2-1 Connecting Directly

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Figure 2-2 Connecting via a Switch or a Router

2.1.2 Activating the Speed Dome

Purpose:

You are required to activate the speed dome first before you can use the speed dome.

Activation via web browser, activation via SADP, and activation via client software are supported. In the following sections, activation via web browser and SADP will be taken as examples. You may refer to the user manual of the speed dome for the details of activation via client software.

◆ Activation via Web Browser

Steps:

1. Power on the speed dome, and connect the speed dome to the network.
2. Input the IP address into the address bar of the web browser, and enter the activation interface.

   Note:

   The default IP address of the speed dome is 192.168.1.64.

Figure 2-3 Activation Interface(Web)

3. Create a password and input the password into the password field.

   ● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

4. Confirm the password.

5. Click **OK** to activate the speed dome and enter the live view interface.

◆ Activation via SADP Software

SADP software is used for detecting the online device, activating the device, and resetting the password.

Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the speed dome**.**

Steps:

1. Run the SADP software to search the online devices.

2. Check the device status from the device list, and select an inactive device.
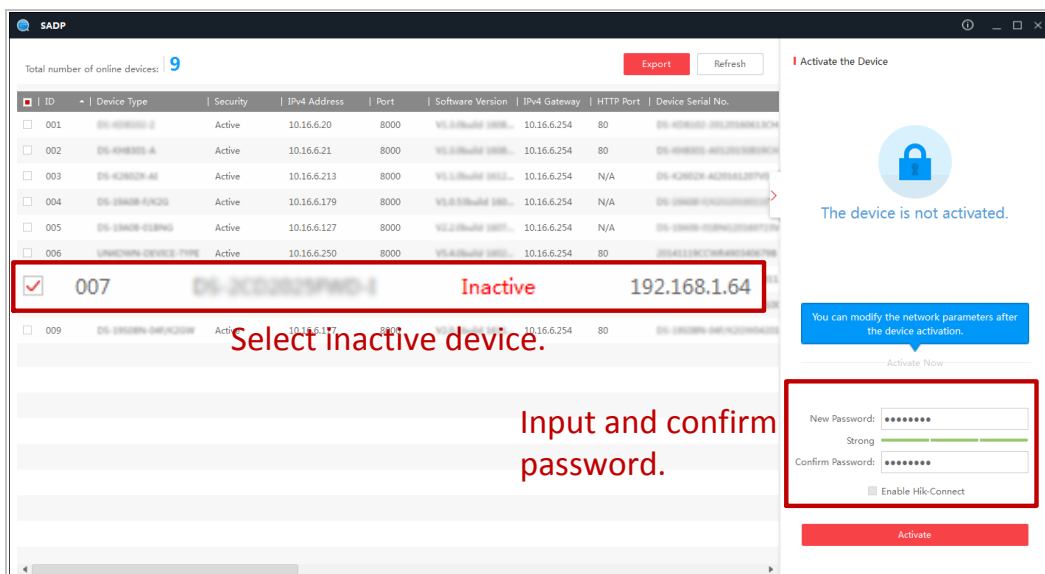
Figure 2-4 SADP Interface

Note:

The SADP software supports activating the camera in batch. Refer to the user manual of SADP software for details.

3. Create a password and input the password in the password field, and confirm the password.

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Note:

You can enable the Hik-Connect service for the device during activation. Hik-Connect function varies depending on different camera models.

4. Click **Activate** to start activation. You can check whether the activation is completed on the popup window. If activation failed, make sure that the password meets the requirement and then try again.

5. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking **Enable DHCP**.

Figure 2-5 Modify the IP Address

6. Input the password and click **Modify** to activate your IP address modification.
    The batch IP address modification is supported by the SADP. Refer to the user manual of SADP for details.

◆ Activation via Client Software

The client software is versatile video management software for multiple kinds of devices.

Get the client software from the supplied disk or the official website, and install the software according to the prompts. Follow the steps to activate the camera.

Steps:

1. Run the client software and the control panel of the software pops up, as shown in Figure 2-6.
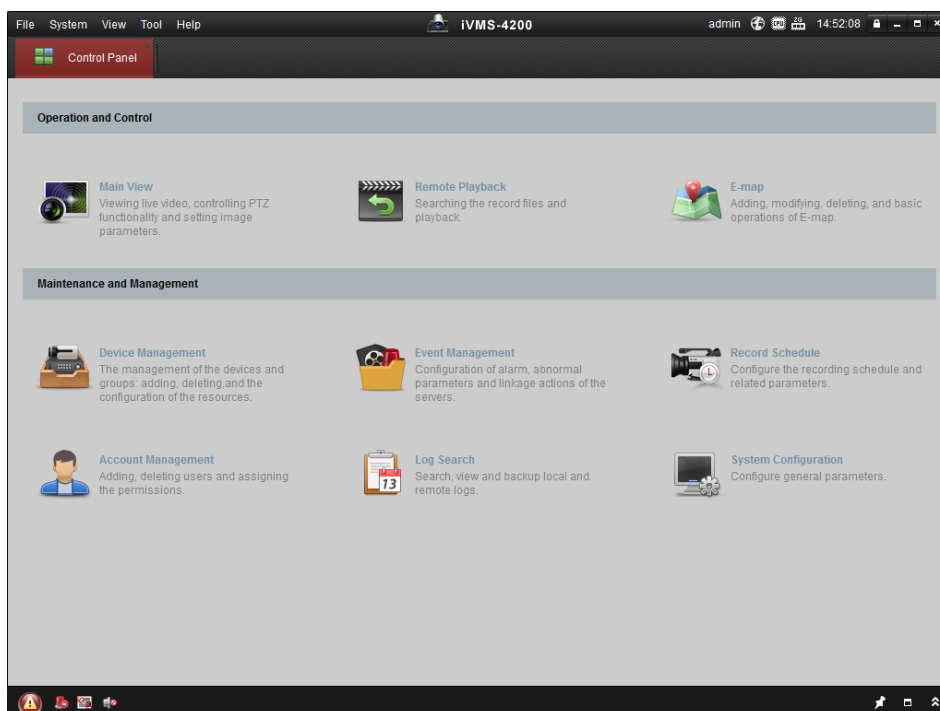
Figure 2-6 iVMS-4200 Control Panel

2.   Click **Device Management** to enter the Device Management interface, as shown in Figure 2-7.
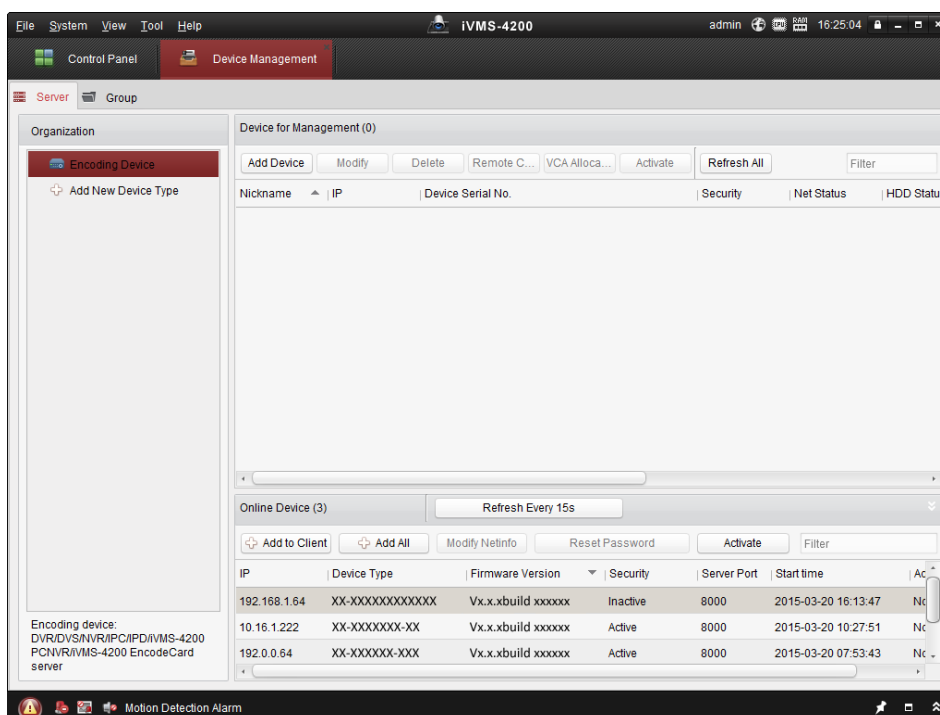

Figure 2-7 Device Management Interface

3.   Check the device status from the device list, and select an inactive device.
4.   Click **Activate** to pop up the Activation interface.
5.   Create a password and input the password in the password field, and confirm the password.

⚠

● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

● *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Figure 2-8 Activation Interface

6.   Click **OK** to start activation.

7.   Click **Modify Netinfo** to pop up the Network Parameter Modification interface, as shown in Figure 2-9.

Figure 2-9 Modifying the Network Parameters

8.   Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking **Enable DHCP**.

9.   Input the password to activate your IP address modification.

2.2 Setting the Network Speed Dome over the WAN

Purpose:

This section explains how to connect the network speed dome to the WAN with a static IP or a dynamic IP.

2.2.1 Static IP Address Connection

Before you start:

Apply a static IP address from an ISP (Internet Service Provider). With the static IP address, you can connect the network speed dome via a router or connect it to the WAN directly.

● **Connecting the network speed dome via a router**

Steps:

1.   Connect the network speed dome to the router.
2.   Assign a LAN IP address, the subnet mask and the gateway. Refer to section *2.1.2 Activating the Speed Dome* for detailed IP address configuration of the speed dome.
3.   Save the static IP address in the router.
4.   Set port mapping, E.g., 80, 8000 and 554 ports. The steps for port mapping vary depending on different routers. Call the router manufacturer for assistance with port mapping.
5.   Visit the network speed dome through a web browser or the client software over the internet.
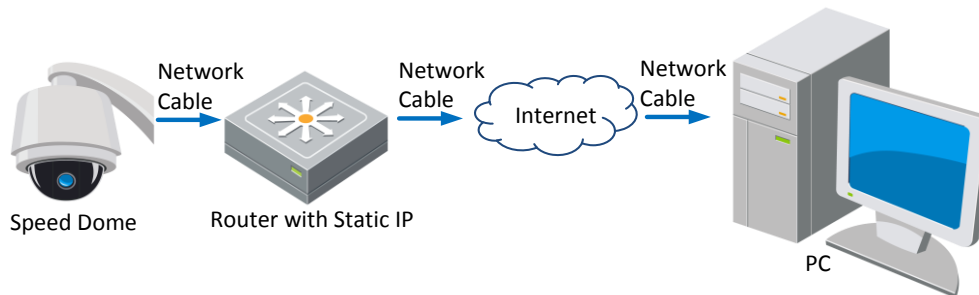
Figure 2-10 Accessing the Speed Dome through Router with Static IP

● **Connecting the network speed dome with static IP address directly**

You can also save the static IP address in the speed dome and directly connect it to the internet without using a router. Refer to section *2.1.2 Activating the Speed Dome* for detailed IP address configuration of the speed dome.
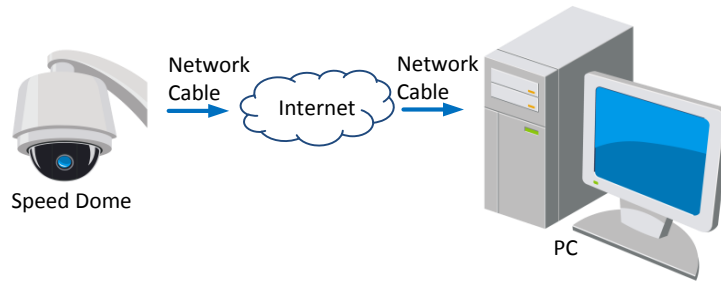
Figure 2-11 Accessing the Speed Dome with Static IP Address Directly

2.2.2 Dynamic IP Address Connection

Before you start:

Apply a dynamic IP address from an ISP. With the dynamic IP address, you can connect the network speed dome to a modem or a router.

● **Connecting the network speed dome via a router**

Steps:

1. Connect the network speed dome to the router.
2. In the speed dome, assign a LAN IP address, the subnet mask and the gateway. Refer to section *2.1.2 Activating the Speed Dome* for detailed LAN configuration.
3. In the router, set the PPPoE user name, password and confirm the password.

⚠️

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

4. Set port mapping. E.g. 80, 8000 and 554 ports. The steps for port mapping vary depending on different routers. Call the router manufacturer for assistance with port mapping.
5. Apply a domain name from a domain name provider.
6. Configure the DDNS settings in the setting interface of the router.
7. Visit the speed dome via the applied domain name.

● **Connecting the network speed dome via a modem**

Purpose:

This speed dome supports the PPPoE auto dial-up function. The speed dome gets a public IP address by ADSL dial-up after the speed dome is connected to a modem. You need to configure the PPPoE parameters of the network speed dome. Refer to section *7.1.1 Configuring PPPoE Settings* for detailed configuration.
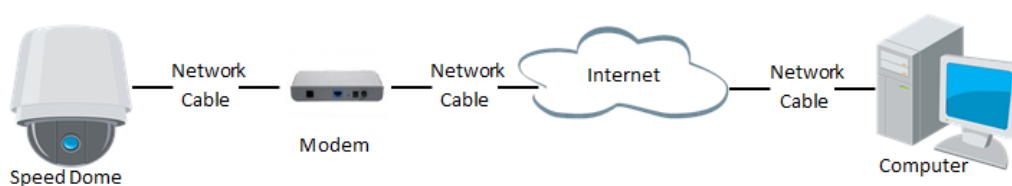
Figure 2-12 Accessing the Speed Dome with Dynamic IP Address

Note:

The obtained IP address is dynamically assigned via PPPoE, so the IP address always changes after rebooting the speed dome. To solve the inconvenience of the dynamic IP, you need to get a domain name from the DDNS provider (E.g. DynDns.com). Please follow below steps for normal domain name resolution and private domain name resolution to solve the problem.
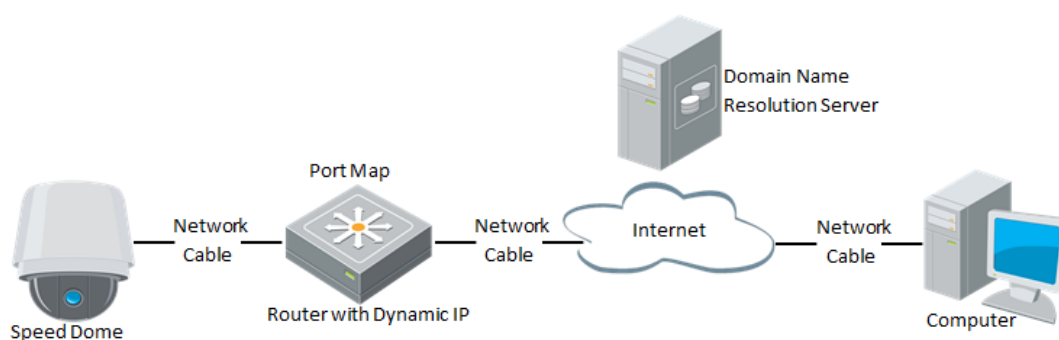
◆   Normal Domain Name Resolution

Figure 2-13 Normal Domain Name Resolution

Steps:

1.   Apply a domain name from a domain name provider.
2.   Configure the DDNS settings in the **DDNS Settings** interface of the network speed dome. Refer to ***Section 7.1.1 Configuring DDNS Settings*** for detailed configuration.
3.   Visit the speed dome via the applied domain name.

Chapter 3 Accessing to the Network Speed Dome

3.1 Accessing by Web Browsers

Steps:
1. Open the web browser.
2. In the address field, input the IP address of the network speed dome, e.g., 192.168.1.64, and enter the login interface.
3. Activate the speed dome for the first time using, refer to the section *2.1.2 Activating the Speed Dome*.
4. Select English as the interface language on the top-right of login interface.
5. Input the user name and password and click **Login**.

   The admin user should configure the device accounts and user/operator permissions properly. Delete the unnecessary accounts and user/operator permissions.

   Note:

   The device IP address gets locked if the admin user performs 7 failed password attempts (5 attempts for the user/operator).
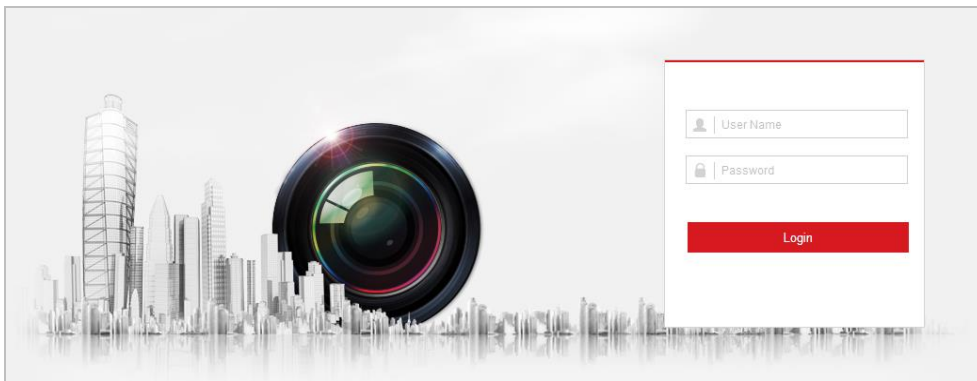
Figure 3-1 Login Interface

6. Install the plug-in before viewing the live video and operating the speed dome. Follow the installation prompts to install the plug-in.

   Note:

   You may have to close the web browser to install the plug-in. Reopen the web browser and log in again after installing the plug-in.
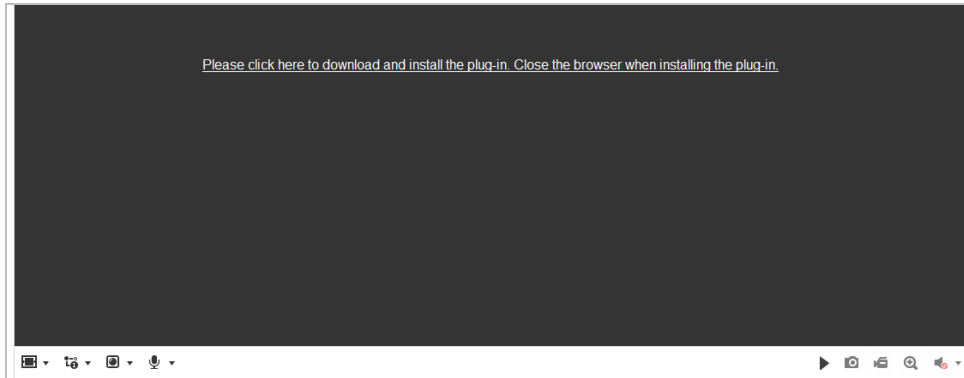
Figure 3-2 Download and Install Plug-in

3.2 Accessing by Client Software

The product CD contains the client software. You can view the live video and manage the speed dome with the client software.

Follow the installation prompts to install the client software and WinPcap. The configuration interface and live view interface of client software are shown below.
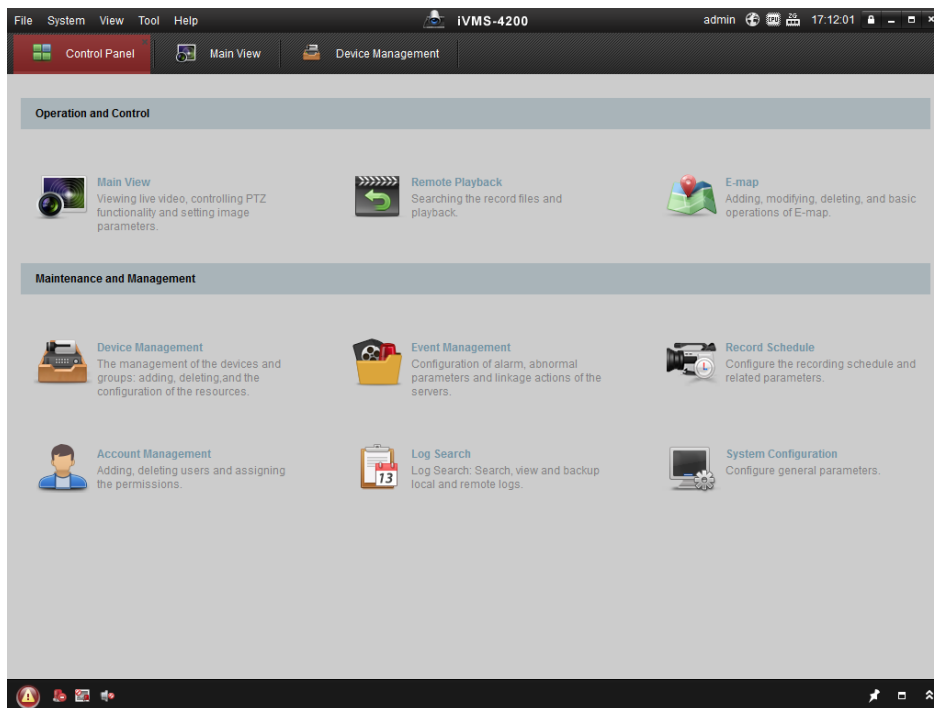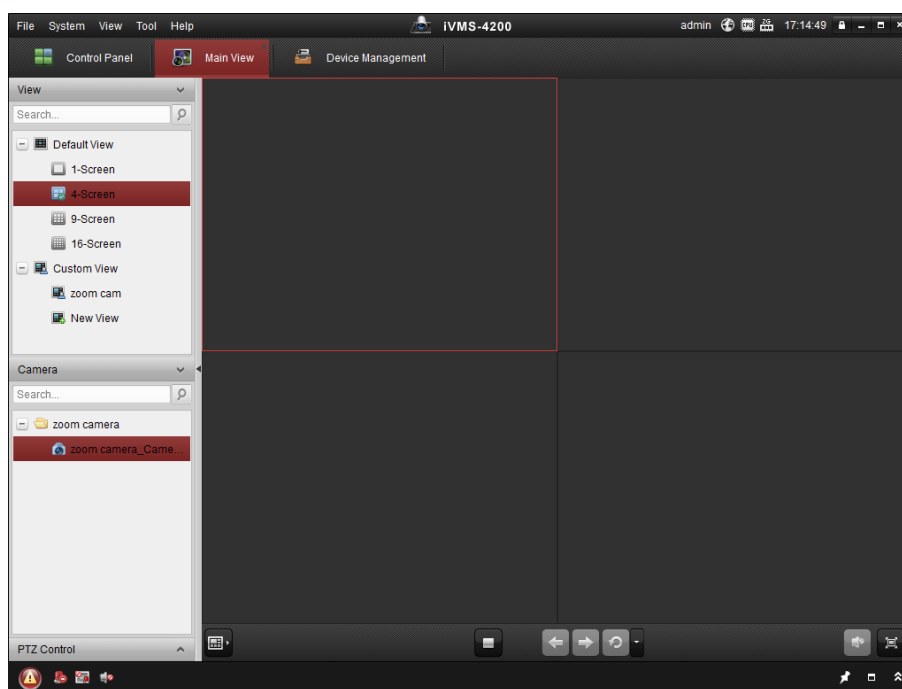

Figure 3-3 iVMS-4200 Control Panel

Figure 3-4 iVMS-4200 Live View Interface

Notes:

- If you use third party VMS software, contact technical support of our branch for camera firmware.
- For detailed information about client software of our company, refer to the user manual of the software. This manual mainly introduces accessing to the network speed dome by web browser.

Chapter 4 Basic Operations

In this and the following chapters, operation of the speed dome by the web browser will be taken as an example.

4.1   Configuring Local Parameters

Note:
The local configuration refers to the parameters of the live view and other operations using the web browser.

Steps:
1.   Enter the Local Configuration interface:

Configuration > Local

Figure 4-1 Local Configuration Interface

2.   Configure the following settings:
● **Live View Parameters:** Set the protocol type, play performance, rules, POS information, and image format.
   ♦ **Protocol Type:** TCP, UDP, MULTICAST and HTTP are selectable.
       TCP: Ensures complete delivery of streaming data and better video quality, yet the real-time transmission will be affected.
       UDP: Provides real-time audio and video streams.
       MULTICAST: It's recommended to select the protocol type to **MULTICAST** when using the Multicast function.
       HTTP: Allows the same quality as of TCP without setting specific ports for streaming under some network environments.

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◆ **Play Performance:** Set the play performance to Shortest Delay, Balanced, or Fluent.

◆ **Rules:** You can enable or disable the rules of dynamic analysis in live view interface.

◆ **Display POS Information:** Enable this function and display POS information locally.

◆ **Image Format:** The captured pictures can be saved as different format. JPEG and BMP are available.

● **Record File Settings:** Set the saving path of the video files.

◆ **Record File Size:** Select the packed size of manually recorded and downloaded video files. The size can be set to 256M, 512M or 1G.

◆ **Save record files to:** Set the saving path for the manually recorded video files.

◆ **Save downloaded files to:** Set the saving path for the downloaded video files in **Playback** interface.

● **Picture and Clip Settings:** Set the saving paths of the captured pictures and clipped video files.

◆ **Save snapshots in live view to:** Set the saving path of the manually captured pictures in **Live View** interface.

◆ **Save snapshots when playback to:** Set the saving path of the captured pictures in **Playback** interface.

◆ **Save clips to:** Set the saving path of the clipped video files in **Playback** interface.

Notes:

● You can click **Browse** to change the directory for saving video files, clips and pictures.

● You can click **Open** to directly open the video files, clips and pictures.

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

4.2 Live View Page

Purpose:

The live video page allows you to view live video, capture images, realize PTZ control, set/call presets and configure video parameters.

Log in the network speed dome to enter the live view page, or you can click **Live View** on the menu bar of the main page to enter the live view page.
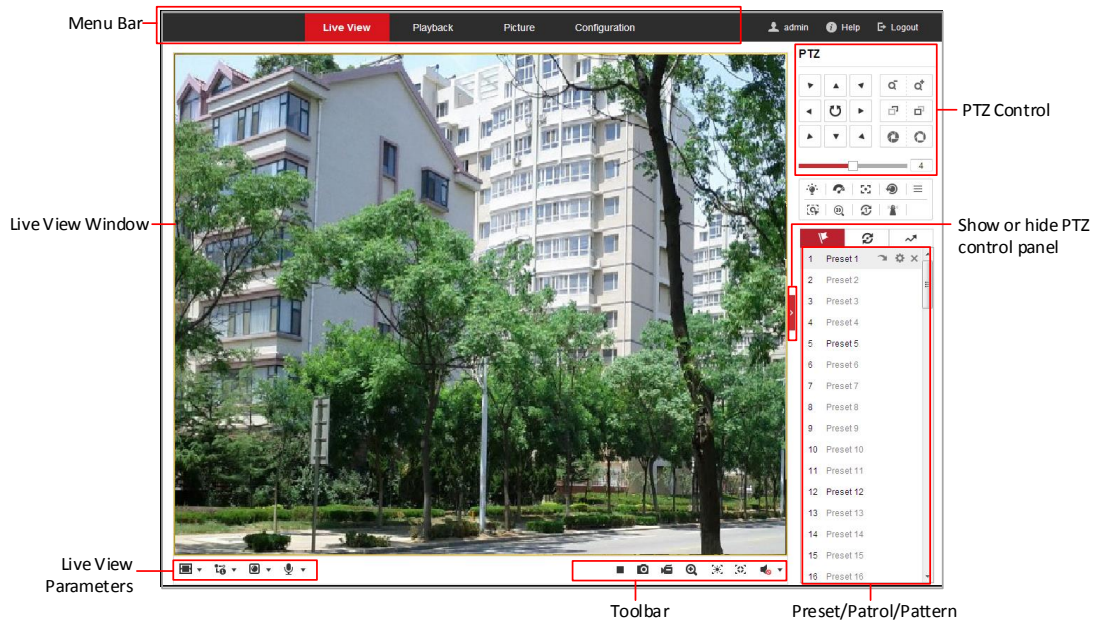
Descriptions of the live view page:

Figure 4-2 Live View Page

Menu Bar:

Click each tab to enter Live View, Playback, Picture, and Configuration page respectively.

Click ⓘ to display the help file of the speed dome.

Click ⤷ to logout the system.

Live View Window:

Display the live video.

Toolbar:

Operations on the live view page, e.g., live view, capture, record, audio on/off, regional exposure, regional focus, etc.

PTZ Control:

Panning, tilting, focusing and zooming actions of the speed dome. The lighter, wiper, one-touch focus and lens initialization control.

Preset/patrol/pattern:

Set and call the preset/patrol/pattern for the speed dome.

Note:

Pattern function varies depending on the models of speed dome.

Live View Parameters:

Configure the image size, stream type, plug-in type, and two-way audio of the live video.

4.3 Starting Live View

In the live view window as shown in Figure 4-3, click ▶ on the toolbar to start the live view of the speed dome.
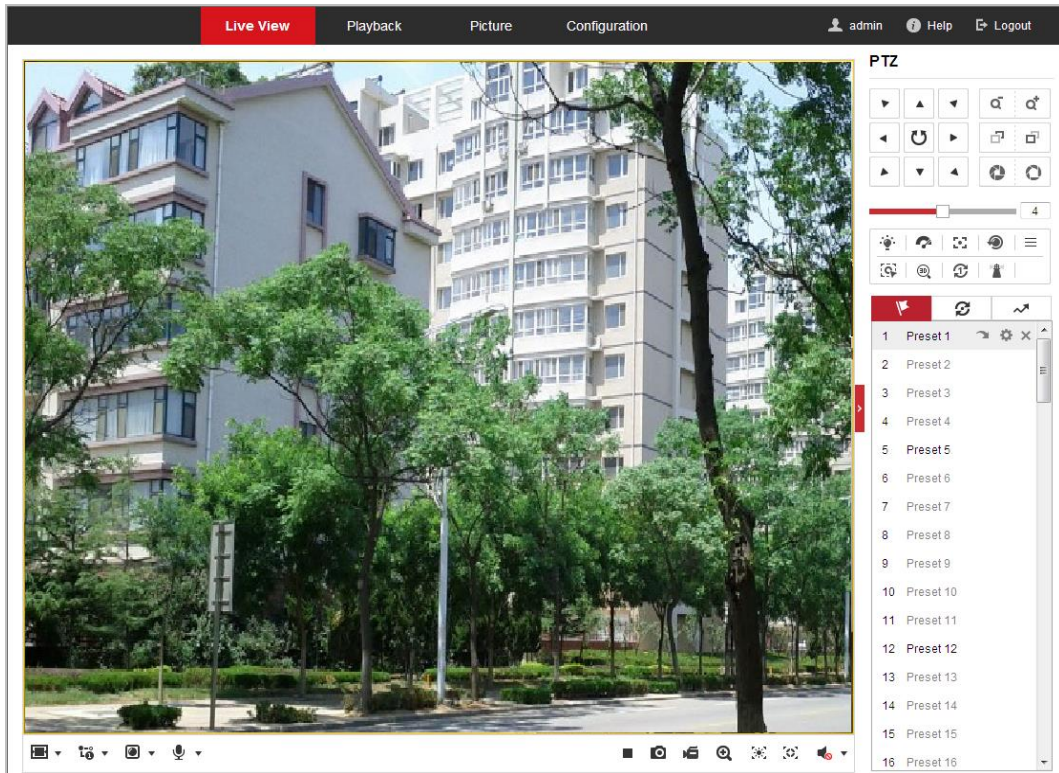
Figure 4-3 Start Live View

Table 4-1 Descriptions of the Toolbar

Icon	Description	Icon	Description
▶/■	Start/Stop Live view.	📷	Manually capture the pictures.
4:3/16:9/ 1×/⬛	Display in 4:3/16:9/original/ Self-adaptive window size.	🔴1/🔴2/🔴3	Live view with the main/sub/third stream.
◉/⊘	Play via webcomponents/ quick time.	🎤/🎤	Start/Stop Two-way Audio.
🎥/🎥	Manual start/stop recording.	🔇/ 🔊▬▬	Mute/Audio on and adjust volume
🔍/🔍	Start/stop digital zoom.	⌖/⌖	Enable/Disable Regional Exposure
⌖/⌖	Enable / Disable Regional Focus		

● Double-click on the live video to switch the current live view into full-screen or return to normal mode from the full-screen.

● Click ⬛ ▼ to select from 4:3 16:9 1× ⬛ and display live video in 4:3/16:9/ original/self-adaptive window size.

● Click 🔴1 ▼ to select from 🔴1 🔴2 🔴3 and display live video with the main/ sub/third stream. The main stream is with a relatively high resolution and needs much bandwidth. The default setting of stream type is 🔴1.

● Click ⬜ ▾ to select between ⬜ ⊘ and play the live video via player **Webcomponents** or **Quick Time**. The live video is played via webcomponents by default, and other types of players are supported for the browser, such as MJPEG, and VLC. You are required to download and install the player to play the live video.

● Click 🎤 ▾ and it displays 🎤. Click 🎤 to enable two-way audio and the icon turns into 🎤. Click the icon again to stop two-way audio.

● Click ▶ to start live view and the icon turns into ■ . Click the icon again to stop live view.

● Click 📷 to capture the picture.

● Click 🎥 to start recording and the icon turns into 🎥 . Click the icon again to stop recording.

● Click 🔍 to enable digital zoom function and the icon turns into 🔍. Then click and drag the mouse towards low right direction to draw a rectangle on the image as the desired zoom. After viewing it you can click any place of the picture to get back to normal picture.

● Click the ✳ on the toolbar to enter the regional exposure operation mode and the icon turns into ✳ . Then click and drag the mouse to draw a rectangle on the image as the desired exposure region.

● Click the ⊡ on the toolbar to enter the regional focus operation mode and the icon turns into ⊡. Then click and drag the mouse to draw a rectangle on the image as the desired focus region.

● Click 🔇 ▾ to display the 🔇 ▭━━━━ . Drag the slider to adjust the volumn.

Note:

Before using the two-way audio or recording with audio functions, set the **Stream Type** to **Video & Audio** referring to section *7.2.1 Configuring Video Settings*.

Please refer to the following sections for more information:

● Configuring remote recording in section *6.1.1 Configuring Recording Schedule*.

● Setting the image quality of the live video in section *7.3 Configuring Image Settings* and section *7.2.1 Configuring Video Settings*.

● Setting the OSD text on live video in section *7.3.2 Configuring OSD Settings*.

4.4 Operating PTZ Control

Purpose:

In the live view interface, you can use the PTZ control buttons to control panning, tilting and zooming.

4.4.1 PTZ Control Panel

On the live view page, click ❮ to show the PTZ control panel or click ❯ to hide it.

Click the direction buttons to control the pan/tilt movements.
Click the zoom/iris/focus buttons to realize lens control.
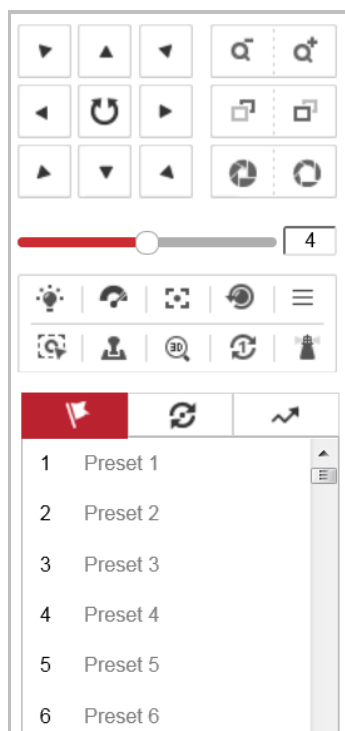
Figure 4-4 PTZ Control Panel

Table 4-2 Descriptions of PTZ Control Panel

Button	Name	Description
	PTZ Control Panel	Hold and press the direction button to pan/tilt the speed dome. Click ↻ and the speed dome keeps panning, the icon turns into ↻. Click the icon again to stop the speed dome.
Q⁻ Q⁺	Zoom out/in	Click Q⁺, the lens zooms in, click Q⁻, and the lens zooms out.
⊡ ⊡	Focus near/far	Click ⊡, the lens focus far and the items far away gets clear. Click ⊡, the lens focus near and the items nearby gets clear.

Button	Name	Description
	Iris close/open	When the image is too dark, click to open the iris. When the image is too bright, click to close the iris.
	Auxiliary Functions	The auxiliary functions include light, wiper, auxiliary focus, lens initialization, menu, manual capture for illegal parking, manual tracking capture, 3D positioning, one-touch patrol, and one-touch park.
4	Speed Adjustment	Adjust speed of pan/tilt movements.
	Preset	Refer to section *4.4.3 Setting/Calling a Preset* for detailed information of setting preset.
	Patrol	Refer to section *4.4.4 Setting/Calling a Patrol* for detailed information of setting patrol.
	Pattern	Refer to section *4.4.6 Setting/Calling a Pattern* for detailed information of setting pattern.

- **Buttons on the Preset/Patrol/Patterns interface:**

Table 4-3 Descriptions of Buttons

Buttons	Description
▶	Start the selected patrol/pattern.
■	Stop current patrol/pattern.
✿	Set the selected preset/patrol.
✕	Delete the selected preset/patrol/pattern.
⊙	Start recording a pattern.
●	Stop recording the pattern.

4.4.2 Auxiliary Functions

The Auxiliary functions panel is shown in the figure below:

Figure 4-5 Auxiliary Functions

- **Light**

  Click to enable/disable the light supplement of the speed dome. This function is reserved.

- **Wiper**

  Click to move the wiper once.

- **Auxiliary Focus**

  The auxiliary focus function is reserved.

- **Lens Initialization**

  The lens initialization function is reserved.

- **Manual Capture for Illegal Parking**

  Enable this function, and click to select the vehicle in live view, you can manully capture the illegal parking picture of this target vehicle.

- **Manual Tracking Capture**

  Enable this function, and click to select the vehicle in live view, you can track the target vehicle and capture pictures.

- **3D Positioning**

Steps:

1. Click on the toolbar of live view interface.

2. Operate the 3D positioning function:
   - Click a position of the live video. The corresponding position will be moved to the center of the live video.
   - Hold down the left mouse button and drag the mouse to the lower right on the live video. The corresponding position will be moved to the center of the live video and zoomed in.
   - Hold down the left mouse button and drag the mouse to the upper left on the live video. The corresponding position will be moved to the center of the live video and zoomed out.

- **One-touch Patrol**

  Click to call one-touch patrol. For detailed information of setting one-touch patrol, refer to section *4.4.5 One-touch Patrol*.

- **One-touch Park**

  Click to save the current view as the preset No. 32 and start park at the the current position.

4.4.3 Setting/Calling a Preset

Purpose:

A preset is a predefined image position. For the defined preset, you can click the calling button to quickly view the desired image position.

● **Setting a Preset:**

Steps:

1. In the PTZ control panel, select a preset number from the preset list.
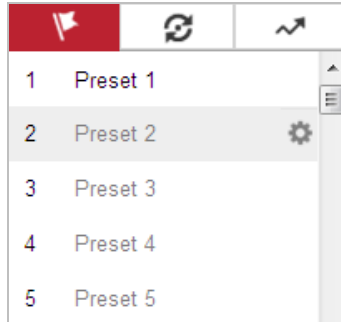
Figure 4-6 Setting a Preset

2. Use the PTZ control buttons to move the lens to the desired position.

• Pan the speed dome to the right or left.

• Tilt the speed dome up or down.

• Zoom in or out.

• Refocus the lens.

3. Click ⚙ to finish the setting of the current preset.

4. Edit a preset name by double clicking on the default name such as preset 1. (The pre-defined presets are named already and not configurable. Please refer to the user manual for detailed function description.)

5. You can click ✕ to delete the preset.

    Note:

    You can configure up to 256 presets.

● **Calling a Preset:**

In the PTZ control panel, select a defined preset from the list and click ➘ to call the preset.
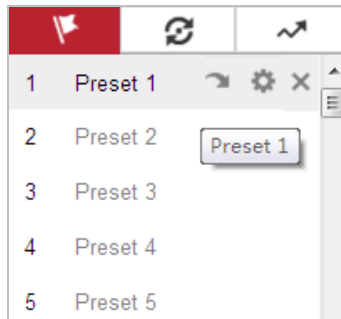
Figure 4-7 Calling a Preset

For convenient preset selection, refer to the following steps to navigate to the preset you want.

Steps:

1. Select any preset from the list.
2. Click the preset number you need on the keyboard.

Notes:

●   The following presets are predefined with special commands. You can only call them but not configure them. For instance, preset 99 is the "Start auto scan". If you call the preset 99, the speed dome starts auto scan function.

●   Pattern function varies depending on the models of speed dome.

Table 4-4 Special Presets

Preset	Function	Preset	Function
33	Auto flip	92	Set manual limits
34	Back to origin	93	Save manual limits
35	Call patrol 1	94	Remote reboot
36	Call patrol 2	95	Call OSD menu
37	Call patrol 3	96	Stop a scan
38	Call patrol 4	97	Start random scan
39	Day mode (IR cut filter in)	98	Start frame scan
40	Night mode (IR cut filter out)	99	Start auto scan
41	Call pattern 1	100	Start tilt scan
42	Call pattern 2	101	Start panorama scan
43	Call pattern 3	102	Call patrol 5
44	Call pattern 4	103	Call patrol 6
45	One-touch Patrol	104	Call patrol 7
46	Day/Night Auto Mode	105	Call patrol 8
90	Wiper		
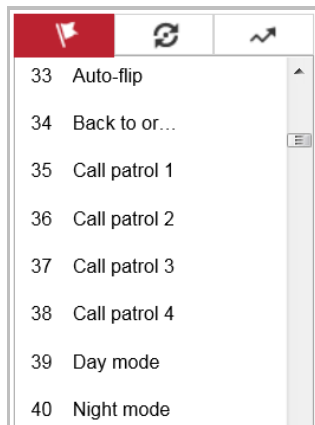
Figure 4-8 Special Preset

Note:

You may need to use the OSD (On Screen Display) menu when controlling the speed dome remotely. To display the OSD menu on the live view screen, you can call the preset number 95.

4.4.4 Setting/Calling a Patrol

Purpose:

A patrol is a memorized series of preset function. It can be configured and called on the patrol settings interface. There are up to 8 patrols for customizing. A patrol can be configured with 32 presets.

Before you start:

Please make sure that the presets you want to add into a patrol have been defined.

● **Setting a Patrol:**

Steps:

1. In the PTZ control panel, click [icon] to enter the patrol settings interface.

2. Select a patrol number from the list and click [icon].

3. Click [icon] to enter the adding interface of preset, as shown in Figure 4-9.

Figure 4-9 Adding Presets

4. Configure the preset number, patrol time and patrol speed.

Name	Description
Patrol Time	It is the duration staying on one patrol point. The speed dome moves to another patrol point after the patrol time.
Patrol Speed	It is the speed of moving from one preset to another.

5. Click **OK** to save a preset into the patrol.
6. Repeat the steps from 3 to 5 to add more presets.
7. Click **OK** to save all the patrol settings.

● **Calling a Patrol:**

In the PTZ control panel, select a defined patrol from the list and click [icon] to call the patrol, as shown in Figure 4-10.
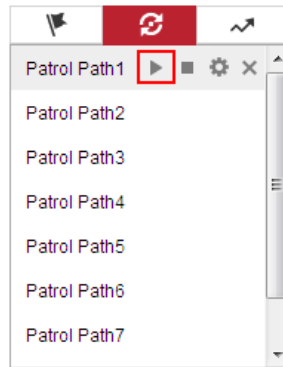
Figure 4-10 Calling a Preset

4.4.5 One-touch Patrol

Purpose:

One-touch patrol is an automatically created patrol. The system automatically add preset No.1 to No.32 to the patrol path 8. You can call the one-touch patrol and the speed dome moves as the patrol path 8 automatically.

Steps:

1. Set preset No.1 to No.32. Refer to section *4.4.3 Setting/Calling a Preset* for detailed information of setting preset.

2. Call preset No. 45, and the speed dome moves as patrol path 8.

3. Click   to enter the patrol settings interface and start/stop one-touch patrol, edit the patrol time and the speed.

4. You can click   of the PTZ control panel to start one-touch patrol.
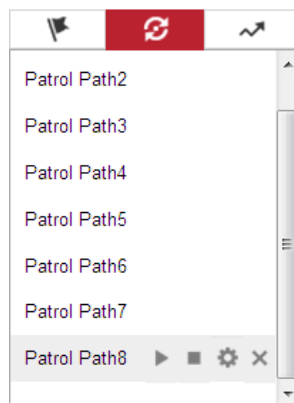
Figure 4-11 Patrol Path 8

4.4.6 Setting/Calling a Pattern

Purpose:

A pattern is a memorized series of pan, tilt, zoom, and preset functions. It can be called on the

pattern settings interface. There are up to 4 patterns for customizing.

Note：

Pattern function varies depending on speed dome models.

● **Setting a Pattern:**

Steps:

1. In the PTZ control panel, click $\nearrow$ to enter the pattern settings interface.

2. Select a pattern number from the list as shown in Figure 4-12.
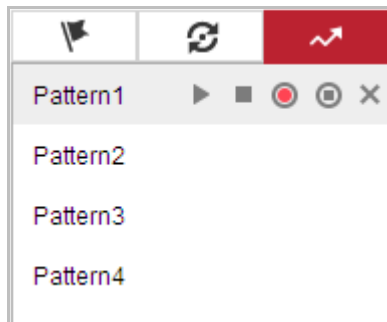
Figure 4-12 Patterns Settings Interface

3. Click $\odot$ to enable recording the panning, tilting and zooming actions.

4. Use the PTZ control buttons to move the lens to the desired position after the information of **PROGRAM PATTERN REMAINNING MEMORY(%)** is displayed on the screen.

   ● Pan the speed dome to the right or left.
   ● Tilt the speed dome up or down.
   ● Zoom in or out.
   ● Refocus the lens.

5. Click $\odot$ to save all the pattern settings.

● **Buttons on the Patterns interface:**

Buttons	Description
▶	Start the selected patrol/pattern.
■	Stop current patrol/pattern.
⚙	Set the selected preset/patrol.
✕	Delete the selected preset/patrol/pattern.
⊙	Start recording a pattern.
⦿	Stop recording the pattern.

Notes:

● These 4 patterns can be operated separately and with no priority level.
● When configuring and calling the pattern, proportional pan is valid; the limit stops and auto flip will be invalid; and the 3D positioning operation is not supported.

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4.5 Playback

Purpose:

This section explains how to view the video files stored in the network disks or memory cards.

4.5.1 Play Back Video Files

Steps:

1. Click **Playback** on the menu bar to enter playback interface.
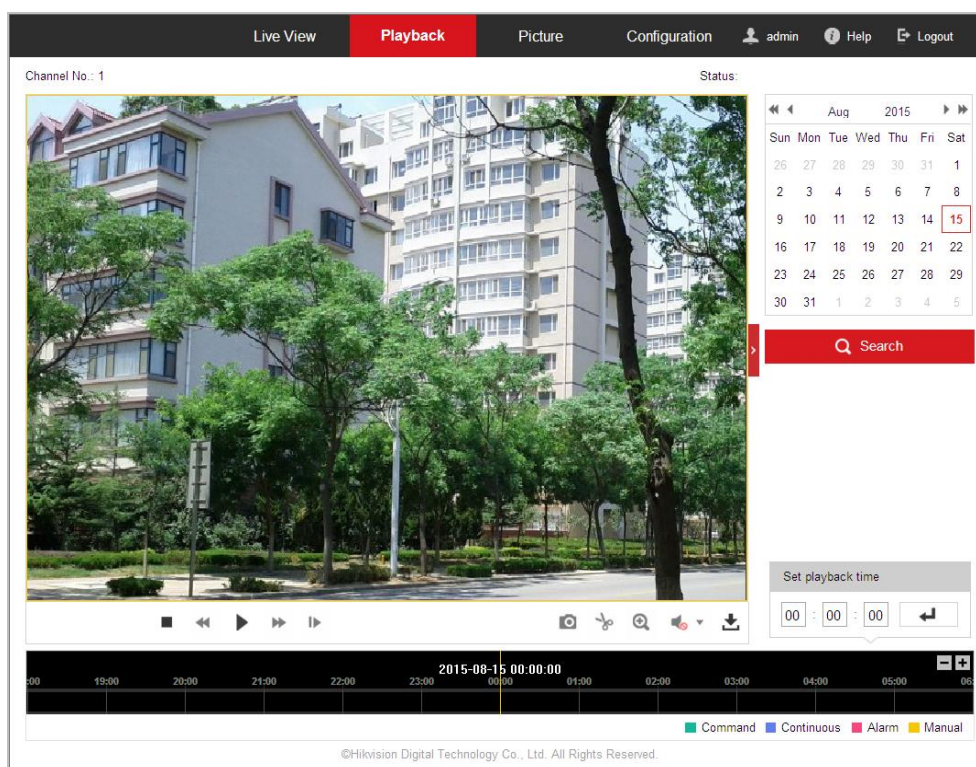
Figure 4-13 Playback Interface

2. Select the date and click **Search**.
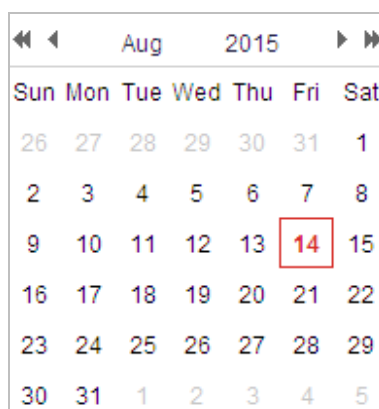
Figure 4-14 Search Video

3. Click ▶ to play the video files found on this date.

The toolbar on the bottom of Playback interface can be used to control playing process.

Figure 4-15 Playback Toolbar

Table 4-5 Description of the buttons

Button	Operation	Button	Operation
▶	Play	📷	Capture a picture
‖	Pause	✂ / ✂	Start/Stop clipping video files
■	Stop	🔊 ▬▭▬ / 🔇	Audio on and adjust volume/Mute
◀◀	Speed down	⭳	Download
▶▶	Speed up	I▶	Playback by frame
⊕ / ⊖	Enable/Disable digital zoom		

Note:

You can choose the file paths locally for downloaded playback video files and pictures in Local Configuration interface. Please refer to section **4.1 Configuring Local Parameters** for details.

Drag the progress bar with the mouse to locate the exact playback point. You can also input the time and click ↵ to locate the playback point in the **Set playback time** field. You can also click ⊟⊞ to zoom out/in the progress bar.
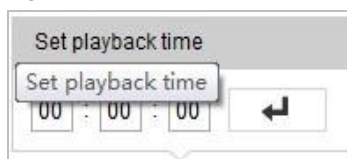
Figure 4-16 Set Playback Time
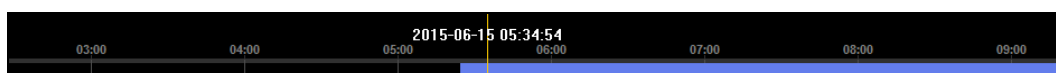
Figure 4-17 Progress Bar

The different colors of the video on the progress bar stand for the different video types as shown in Figure 4-18.
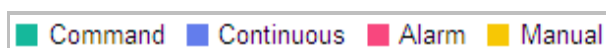
Figure 4-18 Video Types

4.5.2 Downloading Video Files

Steps:

1. Click ![download icon] on the playback interface. The pop-up menu is shown in Figure 4-19.

2. Set the start time and end time. Click **Search**. The corresponding video files are listed on the left.
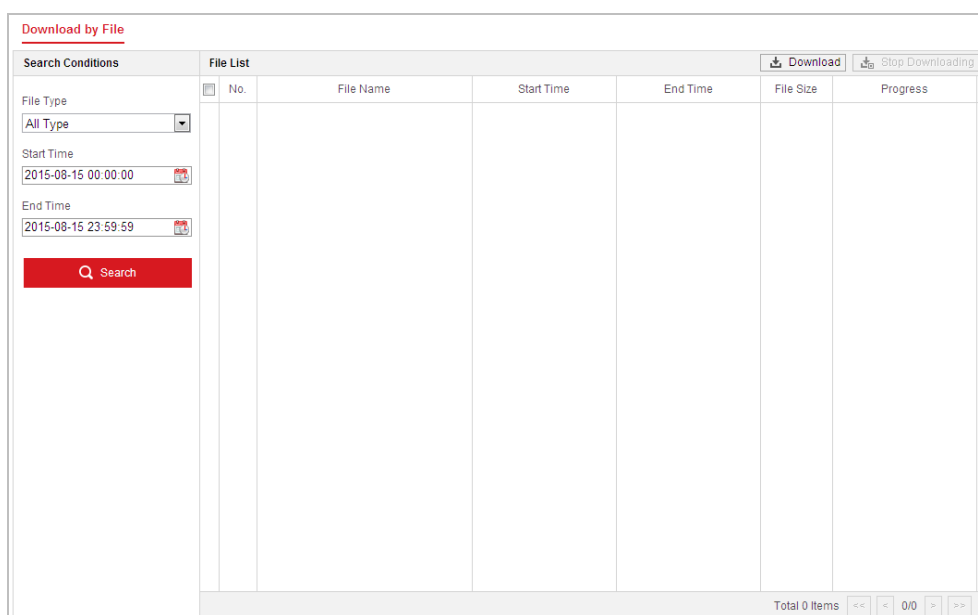
Figure 4-19 Video Downloading interface

3. Check the checkbox in front of the video files that you need to download.
4. Click **Download** to download the video files.

4.6 Pictures

Purpose:

This section explains how to view the captured picture files stored in the network disks or the memory cards and download the captured pictures.

Steps:

1. Click **Picture** on the menu bar to enter picture interface.
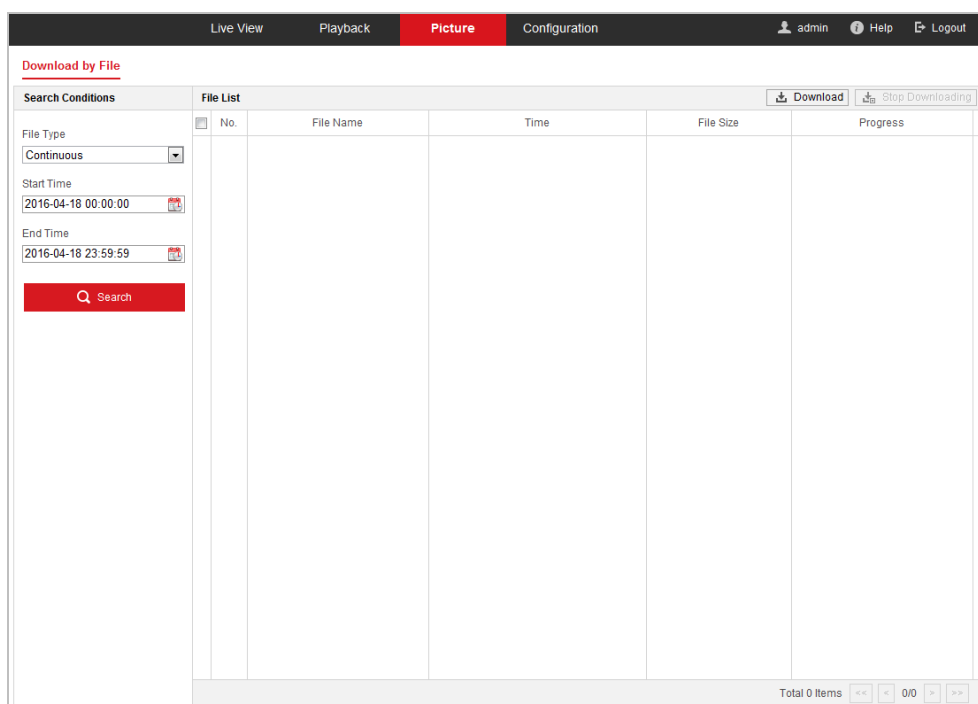
Figure 4-20 Picture Interface

2.   Select the file type of capturing the pictures from the list as timing, alarm, motion, etc.

3.   Set the start time and end time. Click **Search**. The corresponding picture files will be listed.

4.   Check the checkbox in front of the files that you need to download.

5.   Click **Download** to download the files.

Chapter 5 ITS Configuration

Configure traffic violation capture in this interface.

5.1 Configuring Traffic Violation Capture

Configure manual capture for illegal parking, and auto capture for traffic violation.

5.1.1 Configuring Manual Capture for Illegal Parking

Steps:

1. Enter the configuration interface:

    Configuration > ITS > Intelligent Parameter > Public Parameter

    ● **Camera:** Set the camera parameter, including Device No., Camera No., and Camera Info.

    ● **Remote Host IP:** Set the listening server parameters, including IP address, and port. And the remote host can receive the information of alarm, capture, video, etc.

    ● **Advenced Parameter:** Advanced parameters are reserved for further development.

2. Set the parameters of manual capture in **Configuration > ITS > Intelligent Parameter > Enforcement > Manual Capture for Illegel Parking**.

Figure 5-1 Manual Capture for Illegel Parking

● **Manual License Plate Recognition:** Check the checkbox to enable this function. You can manully recognize and capture the license plate, and license plate informatin of the illegal parking vehicle will be uploaded to FTP.

● **Capture No Plate Vehicle:** Check the checkbox, and the unrecognized license plate is allowed to be captured. Plate matching ratio is invalid.

● **Plate Matching Ratio:** Set the plate matching ratio, and a group of captured pictures will be matched. If the matching ratio is larger than the set value, the pictures will be saved.

● **Amount of Pictures:** Set the amount of the manully captured pictures. You can click **Description**, and set the picture type and the capture interval.

3. Manually capture the pictures in live view window. Click ⌖, and select the target vehicle.

Figure 5-2 Select the Target Vehicle

5.1.2 Configuring Auto Capture for Traffic Violation

You need to configure the scene, rule, etc. for auto capture.

Steps:

1. Set the scene parameters.

    1) Enter the Scene Parameters interface:

        Configuration > ITS > Scene Configuration > Scene Parameters

        Note:

        Select one scene first before configuring the parameters.

    2) Click **Unlock** to manually unlock PTZ. Adjust lens direction of the speed dome in PTZ control panel to configure the scene.

Figure 5-3 Configure the Scene

    3) Check **Enable** to enable the function. Set the scene name, and scene direction.

2. Set the rules.

Note:

You can click **Full Screen** to display the live view window in full screen.

1) Enter the Rule Settings interface:

   Configuration > ITS > Scene Configuration > Rule Settings

2) Select **Total Number of Lanes** from the drop-down list.

3) Set the proterty from the drop-down list for each lanel line.

4) In the live view window, adjust the length and position of the lane line to set the rule area.

3. Set illegal parking detection. And the violation of illegal parking can trigger capture.

   1) Click to select **Illegal Parking Detection**.

Figure 5-4 Illegal Parking Detection Settings

2) Check **Enable**.

3) Set the plate matching ratio, amount of pictures, sensitivity, etc.

   ● **Illegal Parking License Plate Recognition**: Check the checkbox, and when violation triggers the rule, the license plate will be captured. And if illgal parking triggers the rule, the captured picture will be uploaded to FTP.

   ● **Plate Matching Ratio:** Set the plate matching ratio, and a group of captured pictures will be matched. If the matching ratio is larger than the set value, the pictures will be saved.

   ● **Amount of Pictures:** Set the amount of the captured pictures.

   ● **Sensitivity:** The greater the value is, the more accurate the capture will be triggered.

   ● **Duration:** Duration is the time that the target triggers the rule.

4) Select the lane linkage.

5) You can click **Description**, and set the picture type and the capture interval.

6) Click **Save** to save the settings.

4. Set reverse driving detection. And the violation of reverse driving can trigger capture.

   1) Click to select **Reverse Driving Detection**.

Figure 5-5 Reverse Driving Detection

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2) Check **Enable**.

3) Set the amount of pictures, sensitivity, etc.

    Amount of Pictures: Set the amount of the captured pictures.

    Sensitivity: The greater the value is, the more accurate the capture will be triggered.

4) Select the lane linkage.

5) Click **Save** to save the settings.

5.2   Configuring Capture Parameter

5.2.1   Configuring Picture Parameters

Steps:

1. Enter Picture settings interface:

    Configuration > ITS > Intelligent Parameter > Enforcement > Picture

2. Configure the picture parameters.

    ● Compose**:** Select to set the figure synthesis method.

    ● **Picture Quality:** Set the resolution and the picture quality for images.

    ● **Enable OSD Overlay:** Check the checkbox to enable OSD overlay function, and the camera OSD information will be displayed on the captured picture.

    ● **Enable Enforcement Text Overlay:** Check the checkbox to enable enforcement text overlay function, and the enforcement text will be displayed on the captured picture, including overlay type, content, top margin, left margin, font size, font color, element separation distance, etc.

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

5.2.2   Configuring VCA Settings

Steps:

1. Enter VCA settings interface:

    Configuration > ITS > Intelligent Parameter > Enforcement > VCA

2. Configure the VCA settings.

    ● **Country/Region:** Select the country/region from the drop-down list.

    ● **Text Overlay on Alarm Picture:** Check the checkbox to select the information to display on the alarm picture.

    ● **Text Overlay on Video:** Check the checkbox to select the information to display on the video.

    ● **License Plate Thumbnail:** Check the checkbox, and only a picture with license plate will be saved when license plate is recognized.

    ● **Upload Traffic Violation Data:** Check the checkbox, and the captured distant-view image will be uploaded.

    ● **Upload Enforcement Data:** Check the checkbox, and the captured pictures will be uploaded.

- **Track and Collect Evidence:** For the target with a low speed, enable this function, and the captured pictures are clearer.
- **Close-up View for Evidence Collecting:** Check the checkbox, and a picture with license plate number will be captured.
- **Large License Plate Mode:** Check the checkbox, and the license plate with the higher resolution is easier to be captured.
- **Capture No Plate Vehicle:** Check the checkbox, and the captured picture with license plate or without license plate both will be uploaded. Or only the captured picture with license plate will be uploaded.
- **Scene Auto-switch:** Check the checkbox, and it will switch to the next patrol scene automatically if there is no enforcement in the current scene for a certain period of time
- **Auto-switch Interval:** Set the interval for scene auto-switch function.
- **Mounting Height:** Set the camera mounting height.
- **Illegal Filtering Threshold:** Set the illegal filtering threshold.
- **Close-up View/Image Ratio:** Set the close-up image ratio.
- **Object Width in Close-up View:** Set the target width in the close-up picture.
- **Ratio Coefficient of Getting Evidence:** The larger the parameter is, the larger the captured picture of license plate is.
- **Image Stabilization Sensitivity:** The lower the sensitivity is, the easier to detect the target and trigger the rule.
- **Enforcement Park Time:** After enforcement park time, the next enforcement can start.
- You can click **Default** and restore to the default.

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

5.2.3 Configuring FTP Host

Enforcement information can be uploaded to FTP. You need to configure the FTP server first.
Steps:
1. Enter FTP host settings interface:
   Configuration > ITS > Intelligent Parameter > Enforcement > FTP Host
2. Check **Enable FTP** to enable the function.
3. Input the IP address, port, user name, and password, and conform the password.
4. Set the illegal picture name, event picture name, and the saving path, etc. (optional)
5. Click **Save** to save the settings

5.2.4 Configuring ANR

Enter ANR settings interface:
Configuration > ITS > Intelligent Parameter > Enforcement > FTP Host
When the camera is offline, the data will be stored in the memory card in the camera. When network connection for the camera restores again, the data in the memory card will be uploaded to the remote storage device.

Chapter 6 Speed Dome Configuration

6.1 Storage Settings

Before you start:

To configure record settings, make sure that you have the network storage device within the network or the memory card inserted in your speed dome.

6.1.1 Configuring Recording Schedule

Purpose:

There are two kinds of recording for the speed domes: manual recording and scheduled recording. In this section, you can follow the instructions to configure the scheduled recording. By default, the record files of scheduled recording are stored in the memory card (if supported) or in the network disk.

Steps:

1. Enter the Record Schedule settings interface:

   Configuration > Storage > Schedule Settings > Record Schedule
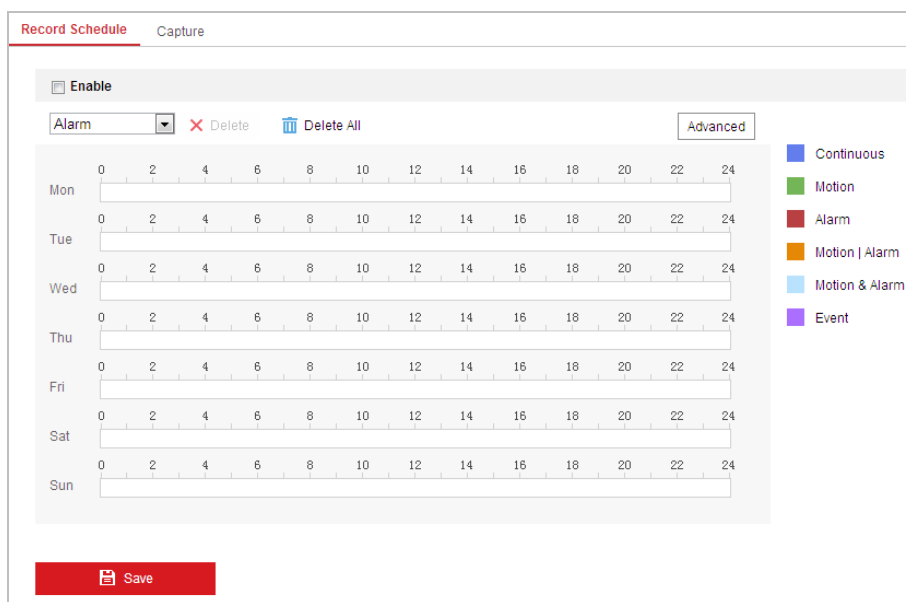
Figure 6-1 Recording Schedule Interface

2. Check **Enable** to enable scheduled recording.
3. To set the advanced settings of the speed dome, click **Advenced** to enter the advanced settings interface.
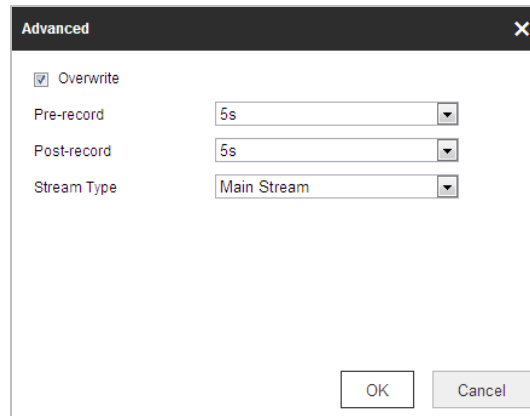
Figure 6-2 Record Parameters

● **Pre-record:** The time you set to start recording before the scheduled time or the event. For example, if an alarm triggers recording at 10:00, and the pre-record time is set as 5 seconds, the speed dome starts to record at 9:59:55.

The Pre-record time can be configured as No Pre-record, 5 s, 10 s, 15 s, 20 s, 25 s, 30 s or not limited.

Note:

The pre-record time changes according to the video bitrate.

● **Post-record:** The time you set to stop recording after the scheduled time or the event. For example, if an alarm triggered recording ends at 11:00, and the post-record time is set as 5 seconds, the speed dome records until 11:00:05.

The Post-record time can be configured as 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min.

● **Stream Type**: You can select the stream type for recording; Main Stream, Sub Stream and Third Stream are selectable. If you select the sub stream, you can record for a longer time with the same storage capacity.

Note:

The Pre-record and Post-record parameters vary depending on the models of speed dome.

4. Click **OK** to save the advanced setting.

5. Select a Record Type. The record type can be Continuous, Motion, Alarm, Motion | Alarm, Motion & Alarm, and Event.

● Normal: If you select Continuous, the video will be recorded automatically according to the time of the schedule.

● Record Triggered by Motion Detection: If you select Motion, the video will be recorded when the motion is detected. Besides configuring the recording schedule, you have to set the motion detection area and check **Trigger Channel** in the Linkage Method of Motion Detection settings interface. For detailed information, refer to section *Motion Detection*.

● Record Triggered by Alarm: If you select Alarm, the video will be recorded when the alarm is triggered via the external alarm input channels. Besides configuring the recording schedule, you have to set the Alarm Type and check **Trigger Channel** in the Linkage Method of Alarm Input settings interface. For detailed information, refer to section *Alarm Input*.

● Record Triggered by Motion & Alarm: If you select Motion & Alarm, the video will be

recorded when the motion and alarm are triggered at the same time. Besides configuring the recording schedule, you have to configure the settings on the Motion Detection and Alarm Input settings interfaces.

● Record Triggered by Motion | Alarm: If you select Motion | Alarm, the video will be recorded when the external alarm is triggered or the motion is detected. Besides configuring the recording schedule, you have to configure the settings on the Motion Detection and Alarm Input settings interfaces.

● Record Triggered by Event: If you select to record by event, the video will be recorded when any of the events is triggered.

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

6.1.2 Configuring Capture Schedule

Purpose:

You can configure the scheduled snapshot and event-triggered snapshot. The captured picture can be stored in the local storage or network storage.

Steps:

1. Enter the Snapshot settings interface:

   Configuration > Storage > Storage Settings > Capture
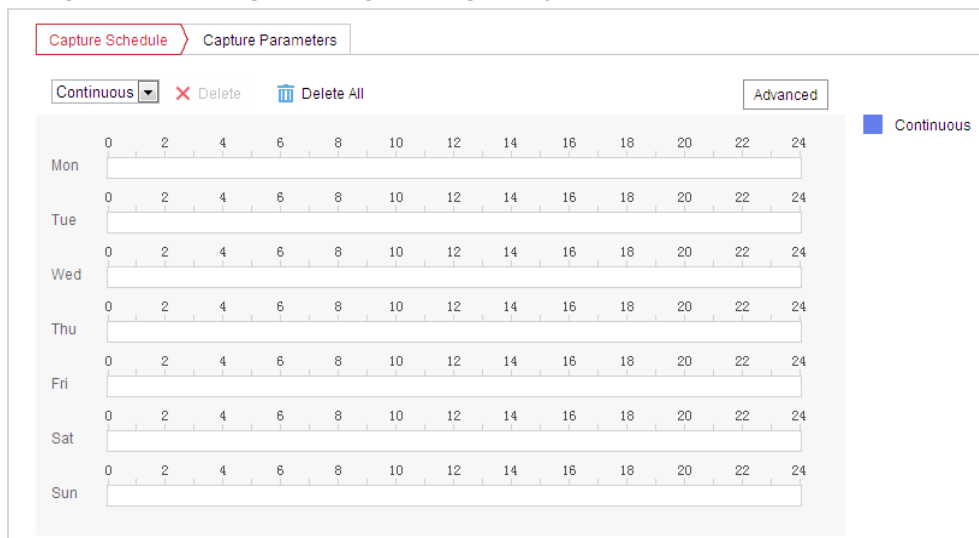
Figure 6-3 Snapshot Settings

2. Click **Capture Schedule** to enter the capture schedule interface.

3. Select the timeline of a certain day, and drag the left button of the mouse to set the capture schedule (the start time and end time of the recording task).

4. After you set the scheduled task, you can click   and copy the task to other days (optional).

5. After setting the capture schedule, you can click a capture segment to display the segment capture settings interface to edit the segment capture parameters. (optional)
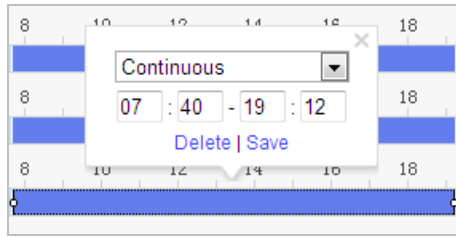
Figure 6-4 Segment Snapshot Settings

6. Click **Advanced** to enter the advanced setting interface. You can select the stream type of the capture.
7. Click **Capture Parameters** to enter the capture parameters interface.
8. Check **Enable Timing Snapshot** to enable continuous snapshot, and configure the schedule of timing snapshot. Check **Enable Event-triggered Snapshot** to enable event-triggered snapshot.
9. Select the format, resolution, and quality of the snapshot.
10. Set the time interval between two snapshots.
11. Click **Save** to save the settings.

Uploading to FTP

Note:

Make sure that the FTP server is online.

You can follow below configuration instructions to upload the snapshots to FTP.

● **Upload continuous snapshots to FTP**

Steps:
1. Configure the FTP settings and check **Upload Picture** in FTP Settings interface. Refer to section *7.1.2 Configuring FTP Settings* for more details to configure FTP parameters.
2. Check **Enable Timing Snapshot**.
3. Click **Edit** to set the snapshot schedule. Refer to section *6.2.1 Configuring Motion Detection*.

● **Upload event-triggered snapshots to FTP**

Steps:
1. Configure the FTP settings and check **Upload Picture** in FTP Settings interface. Refer to section *7.1.2 Configuring FTP Settings* for more details to configure FTP parameters.
2. Check **Upload to FTP** in Motion Detection settings or Alarm Input interface. Refer to section *6.2.1 Configuring Motion Detection*.
3. Check **Enable Event-triggered Snapshot**.

6.1.3 Configuring Net HDD

Before you start:

The network disk should be available within the network and properly configured to store the recorded files, log files, etc.

Steps:
● **Add the network disk**

1. Enter the NAS (Network-Attached Storage) settings interface:

    Configuration > Storage > Storage Management > Net HDD

HDD No.	Server Address	File Path	Type	Delete
1	10.10.36.61	/cxy_1	NAS	✕
Mounting Type SMB/CIFS ▾	User Name cxy1		Password ●●●●●●	Test
2	10.10.36.252	/dvr/yangjian_1	NAS	✕
3			NAS	✕

Figure 6-5 Select Net HDD Type

2. Enter the IP address and the file path of the network disk.

3. Select the mounting type. NFS and SMB/CIFS are selectable. You can set the user name and password to guarantee the security if SMB/CIFS is selected.

    Note:

    Refer to the *NAS User Manual* for creating the file path.

    ⚠️

    - *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

    - *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

4. Click **Save** to add the network disk.

    Note:

    After having saved successfully, you need to reboot the speed dome to activate the settings.

- **Initialize the added network disk.**

1. Enter the HDD settings interface (**Configuration > Storage > Storage Management > HDD Management**), in which you can view the capacity, free space, status, type and property of the disk.
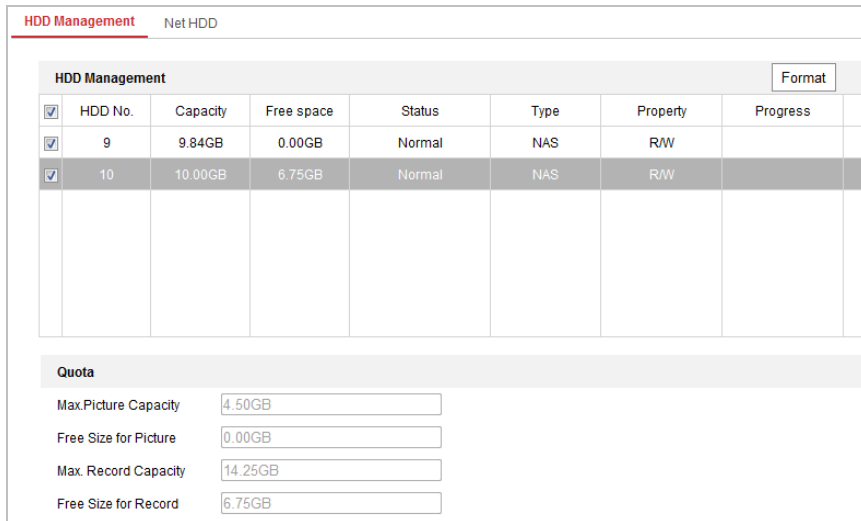
Figure 6-6 Storage Management Interface

2. If the status of the disk is **Uninitialized**, check the corresponding checkbox to select the disk and click **Format** to start initializing the disk.

3. When the initialization completed, the status of disk will become **Normal** as shown in Figure 6-7**.**

Figure 6-7 View Disk Status

●   **Define the Quota for Record and Pictures**

1. Input the quota percentage for picture and for record.

2. Click **Save** and refresh the browser page to activate the settings.
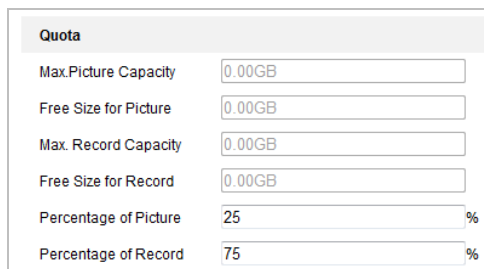
Figure 6-8 Quota Settings

Notes:

●   Up to 8 NAS disks can be connected to the speed dome.

●   To initialize and use the memory card after insert it to the speed dome, please refer to the steps of NAS disk initialization

6.2   Basic Event Configuration

Purpose:

This section explains how to configure the network speed dome to respond to alarm events,

including motion detection, video tampering, alarm input, alarm output, and exception. These events can trigger the alarm actions, such as Send Email, Notify Surveillance Center, etc.

For example, when motion detection is triggered, the network speed dome sends a notification to an e-mail address.

Notes:

● On the event configuration page, click ❯ to show the PTZ control panel or click ❮ to hide it.
● Click the direction buttons to control the pan/tilt movements.
● Click the zoom/iris/focus buttons to realize lens control.
● The functions vary depending on the models of speed dome.

6.2.1 Configuring Motion Detection

Purpose:

Motion detection is a feature which can trigger alarm actions and actions of recording videos when the motion occurred in the surveillance scene.

Steps:

1. Enter Motion Detection setting interface:
    Configuration > Event > Basic Event > Motion Detection
2. Check **Enable Motion Detection** to enable this function.
    You can check **Enable Motion Detection in PTZ Control** and when the speed dome is performing PTZ action, motion detection can also trigger alarm.
    You can check **Enable Dynamic Analysis for Motion** if you want the detected object get marked with rectangle in the live view.
3. Select the configuration mode as **Normal** or **Expert** and set the corresponding motion detection parameters.

    ● **Normal**
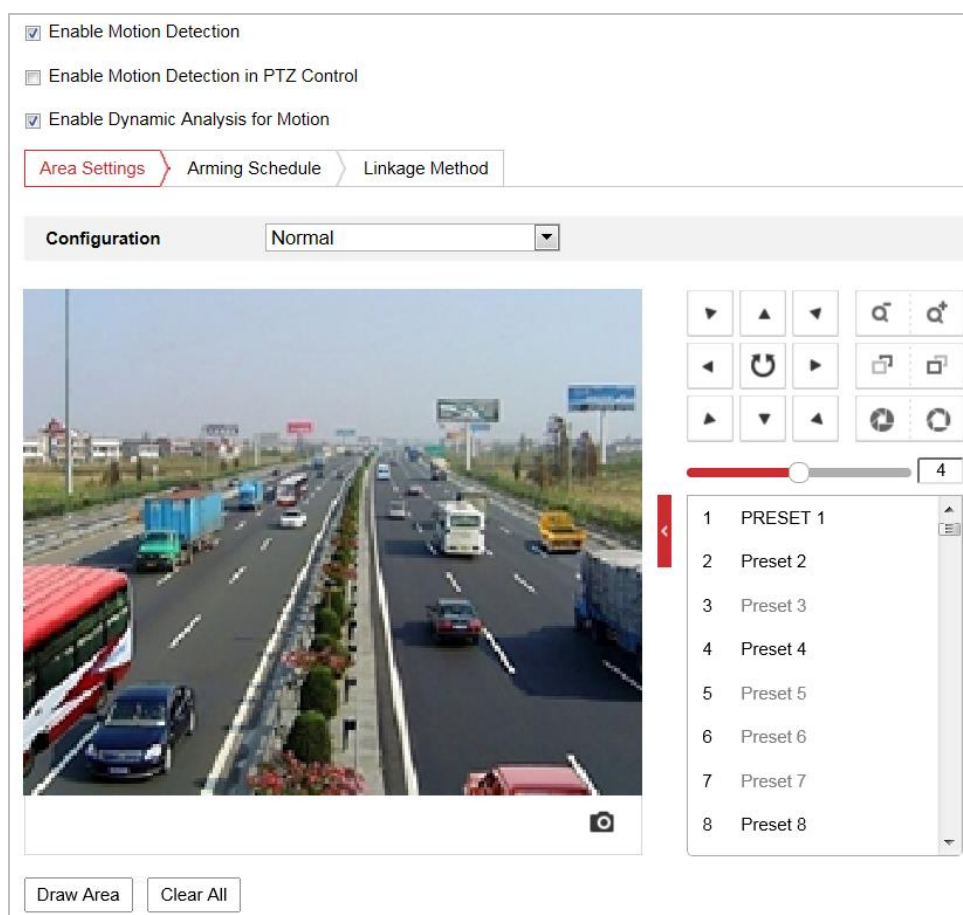
Figure 6-9 Motion Detection Settings-Normal

Steps:

(1) Click **Draw Area**, and drag the mouse on the live video image to draw a motion detection area.

(2) Click **Stop Drawing** to finish drawing.

   Notes:

   ● You can draw up to 8 motion detection areas on the same image.

   ● You can click **Clear All** to clear all of the areas.

(3) Move the slider [Sensitivity .... 0] to set the sensitivity of the detection.

● **Expert**
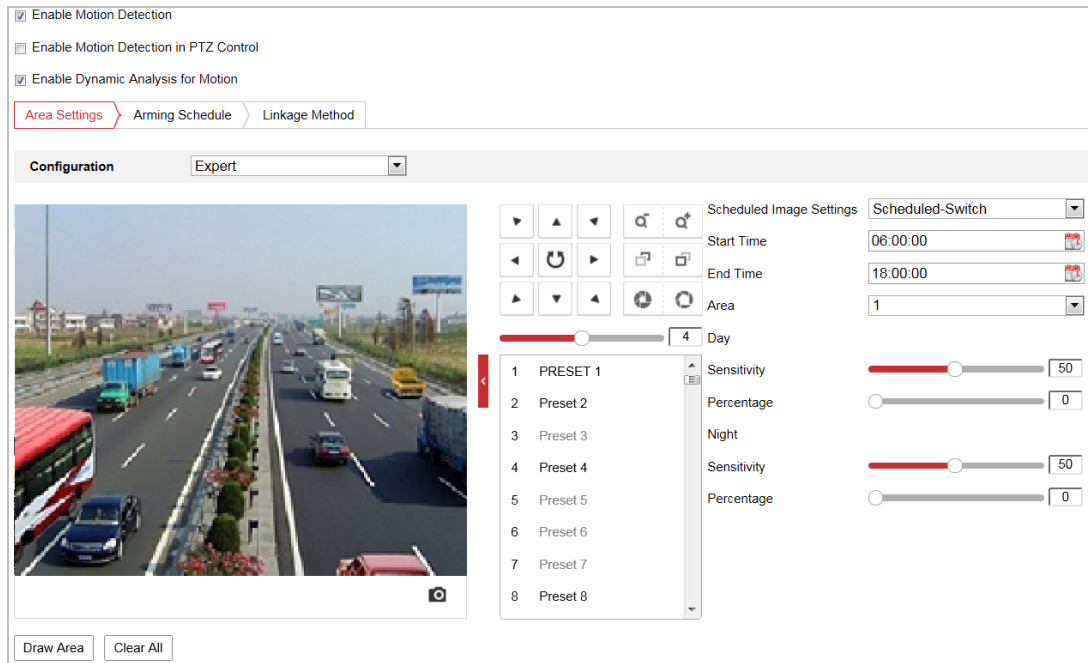
Figure 6-10 Motion Detection Settings-Expert

Steps:

(1) Set the **Schedule Image Settings**, there are **OFF**, **Auto-Switch**, and **Scheduled-Switch** selectable. If the schedule image switch mode is enabled, you can configure the detection rule for the day and night separately.
OFF: Disable the day and night switch.
Auto-Switch: Switch the day and night mode according to the illumination automatically.
Scheduled-Switch: Switch to the day mode at 6:00 a.m., and switch to the night mode at 18:00 p.m.

(2) Select **Area** from the drop-down list.

(3) Set the values of sensitivity and proportion of object on area.
Sensitivity: The greater the value is, the easier the alarm will be triggered.
Percentage: When the size proportion of the moving object exceeds the predefined value, the alarm will be triggered. The less the value is, the easier the alarm will be triggered.

4.   Set the **Arming Schedule** for Motion Detection.

 (1) Click **Arming Schedule** to enter the arming schedule setting interface.
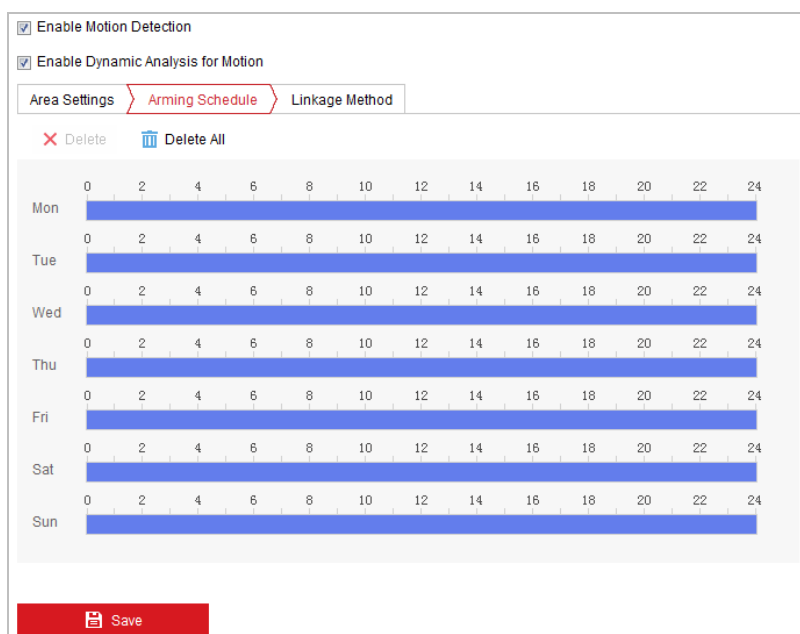
Figure 6-11 Arming Schedule

(2)   Select the timeline of a certain day, click and drag the mouse to set the arming
       schedule (the start time and end time of the arming task).

(3)   After you set the scheduled task, you can click   and copy the task to other days
       (optional).

Figure 6-12 Arming Time Schedule

(4)   After setting the arming schedule, you can click a segment to display the segment
       arming settings interface to edit the segment record parameters (optional).
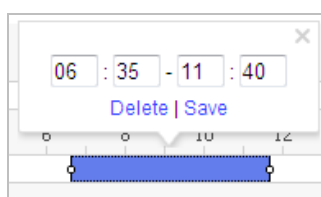
Figure 6-13 Segment Arming Settings

(5) Click **Save** to save the settings.

   Note:

   The time of each period cannot be overlapped. Up to 8 periods can be configured for
   each day.

5. Set the **Alarm Actions** for Motion Detection.

   Click **Linkage Method** to enter the linkage method interface.

   You can specify the linkage method when an event occurs. The following contents are about
   how to configure the different types of linkage method.

Figure 6-14 Linkage Method

Check the checkbox to select the linkage method. Send Email, Notify Surveillance
Center, Upload to FTP/Memory/NAS, Trigger Alarm Output, and Trigger Recording are
selectable.

- **Notify Surveillance Center**

   Send an exception or alarm signal to remote management software when an
   event occurs.

- **Send Email**

   Send an email with alarm information to a user or users when an event occurs.

   Note:

   To send the Email when an event occurs, you need to refer to section ***Configuring
   Email Settings*** to set the Email parameters.

- **Upload to FTP/Memory/NAS**

   Capture the image when an alarm is triggered and upload the picture to a FTP
   server.

   Note:

   You need a FTP server and set FTP parameters first. Refer to section ***Configuring***

FTP Settings for setting FTP parameters.

● **Trigger Alarm Output**

Trigger one or more external alarm outputs when an event occurs.

Note:

To trigger an alarm output when an event occurs, refer to section **6.2.4 Configuring Alarm Output** to set the alarm output parameters.

● **Trigger Recording**

Record a video when an event occurs.

Note:

You have to set the recording schedule to realize this function. Refer to section **6.1.1 Configuring Recording Schedule** for settings the recording schedule.

6.2.2 Configuring Video Tampering Alarm

Purpose:

You can configure the speed dome to trigger the alarm actions when the lens is covered.

Steps:

1. Enter the Video Tampering settings interface:

   Configuration > Event > Basic Event > Video Tampering
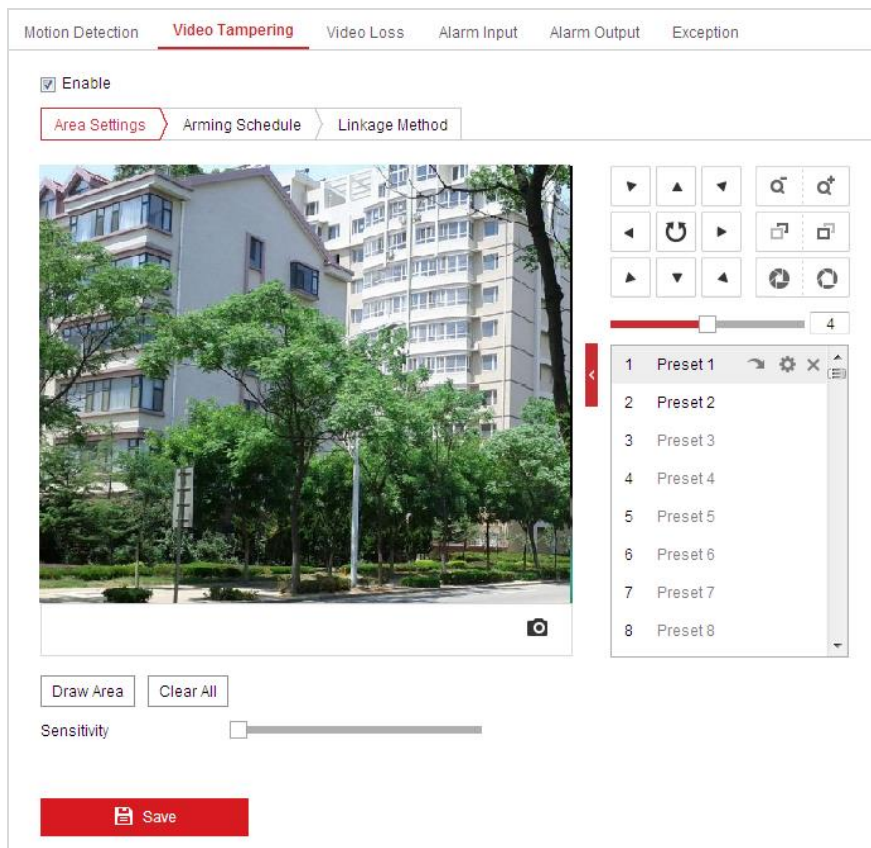
Figure 6-15 Tampering Alarm

2. Check **Enable** to enable the tampering detection.

3. Click **Arming Schedule** to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to section *6.2.1 Configuring Motion Detection*.

4. Click **Linkage Method** to select the linkage method taken for tampering, notify surveillance center, send email and trigger alarm output are selectable. Refer to section *6.2.1 Configuring Motion Detection*.

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

6.2.3 Configuring Alarm Input

Steps:

1. Enter the Alarm Input settings interface:

    Configuration > Event > Basic Event > Alarm Input

2. Choose the alarm input No. and the Alarm Type. The alarm type can be NO (Normally Open) and NC (Normally Closed).

3. Edit the name in $\boxed{\text{Alarm Name} \quad\quad\quad\text{(cannot copy)}}$ to set a name for the alarm input (optional).

Figure 6-16 Alarm Input Settings

4. Click **Arming Schedule** to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to section *6.2.1 Configuring Motion Detection*.

5. Click **Linkage Method** to select the linkage method taken for tampering, notify surveillance center, send email and trigger alarm output are selectable. Refer to section *6.2.1 Configuring Motion Detection*.

6. You can also choose the PTZ linking for the alarm input. Check the relative checkbox and select the No. to enable Preset Calling, Patrol Calling or Pattern Calling.

7. You can copy your settings to other alarm inputs.

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

Figure 6-17 Linkage Method

6.2.4 Configuring Alarm Output

Steps:

1. Enter the Alarm Output settings interface:

   Configuration> Event > Basic Event > Alarm Output

2. Select one alarm output channel from the **Alarm Output** drop-down list.

3. Set a name in [Alarm Name _____ (cannot copy)] for the alarm output (optional).

4. The **Delay** time can be set to **5sec**, **10sec**, **30sec**, **1min**, **2min**, **5min, 10min** or **Manual**. The delay time refers to the time duration that the alarm output remains in effect after alarm occurs.

5. Click **Arming Schedule** to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to section *6.2.1 Configuring Motion Detection*.

Figure 6-18 Alarm Output Settings

6. You can copy the settings to other alarm outputs.

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

6.2.5 Handling Exception

The exception type can be HDD full, HDD error, network disconnected, IP address conflicted and illegal login to the speed domes.

Steps:

1. Enter the Exception settings interface:

    Configuration > Event > Basic Event > Exception

2. Check the checkbox to set the actions taken for the Exception alarm. Refer to ***Section 6.2.1 Configuring Motion Detection***.

Figure 6-19 Exception Settings

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

6.3 Smart Event Configuration

Note:

The functions vary depending on the models of speed dome.

6.3.1 Detecting Audio Exception

Purpose:

When you enable this function and audio exception occurs, the alarm actions will be triggered.

Steps:

1.   Enter the video audio exception detection interface:

Configuration > Event > Smart Event > Audio Exception Detection
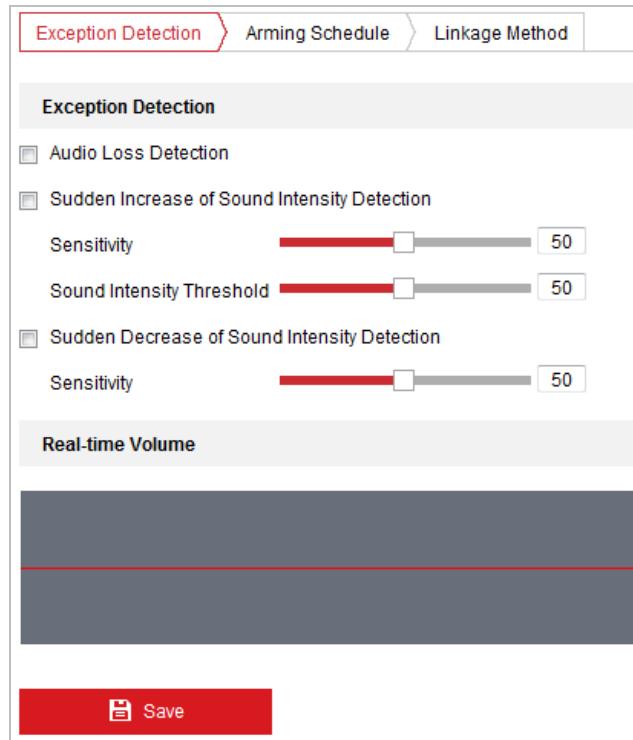
Figure 6-20 Audio Exception Detection

2. Check **Audio Loss Detection** to enable the audio input exception detection.
3. Check **Sudden Increase of Sound Intensity Detection** to enable the sudden rise detection.
   - **Sensitivity**: Range [1-100], the smaller the value the more severe the sound change will trigger the detection.
   - **Sound Intensity Threshold**: Range [1-100], it can filter the sound in the environment, the louder the environment sound, the higher the value should be. You can adjust it according to the actual environment.
4. Check **Sudden Decrease of Sound Intensity Detection** to enable the sudden drop detection.
   Sensitivity: Range [1-100], the smaller the value the more severe the sound change will trigger the detection.
5. Click **Arming Schedule** to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to section *6.2.1 Configuring Motion Detection*.
6. Click **Linkage Method** to select the linkage method taken for tampering, notify **surveillance** center, send email and trigger alarm output are selectable. Refer to section *6.2.1 Configuring Motion Detection*.
7. Click **Save** to save the settings.

6.4 PTZ Configuration

Notes:

- On the event configuration page, click ❯ to show the PTZ control panel or click ❮ to hide it.
- Click the direction buttons to control the pan/tilt movements.

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- Click the zoom/iris/focus buttons to realize lens control.
- The functions vary depending on the models of speed dome.

6.4.1 Configuring Basic PTZ Parameters

Purpose:

You can configure the basic PTZ parameters, including proportional pan, preset freezing, preset speed, etc.

1. Enter the Basic PTZ Parameter Configuration interface:

    Configuration > PTZ > Basic Settings

Figure 6-21 Basic PTZ Configuration Interface

2. Configure the following settings:
- **Basic Parameters**: Enable/disable proportional pan and preset freezing, set the preset speed, keyboard control speed, and auto scan speed.
    - ◆ **Proportional Pan**: If you enable this function, the pan/tilt speeds change according to the amount of zoom. When there is a large amount of zoom, the pan/tilt speed will be slower for keeping the image from moving too fast on the live view image.
    - ◆ **Preset Freezing**: This function enables the live view to switch directly from one scene defined by a preset to another, without showing the middle areas between these two, to ensure the surveillance efficiency. It can also reduce the use of bandwidth in a digital network system.

        Notes:

        Preset freezing function is invalid when you calling a pattern.
    - ◆ **Preset Speed**: You can set the speed of a defined preset from 1 to 8.

♦ **Manual Control Speed**: The speed dome provides 5 control speed modes: Compatible, Pedestrian, Non-motor Vehicle, Motor Vehicle and Auto. Select it from the drop-down list.

♦ **Keyboard Control Speed**: Define the speed of PTZ control by a keyboard as Low, Medium or High.

♦ **Auto Scan Speed**: The scan speed can be set from level 1 to 40.

♦ **Max. Tilt-angle**: Set the tilt-angle of the speed dome from the drop-down list.

♦ **Zooming Speed**: The speed of zooming is adjustable.

● **PTZ OSD:** Set the on-screen display duration of the PTZ status.

♦ **Zoom Status:** Set the OSD duration of zooming status as 2 seconds, 5 seconds, 10 seconds, Always Close or Always Open.

♦ **PT Status:** Set the azimuth angle display duration while panning and tilting as 2 seconds, 5 seconds, 10 seconds, Always Close or Always Open.

♦ **Preset Status:** Set the preset name display duration while calling the preset as 2 seconds, 5 seconds, 10 seconds, Always Close or Always Open.

● **Power-off Memory:** The speed dome can resume its previous PTZ status or actions after it restarted from a power-off. You can set the time point of which the speed dome resumes its PTZ status. You can set it to resume the status of 30 seconds, 60 seconds, 300 seconds or 600 seconds before power-off.

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

6.4.2 Configuring PTZ Limits

Purpose:

The speed dome can be programmed to move within the configurable PTZ limits (left/right, up/down).

Steps:

1. Enter the Limit configuration interface:

   Configuration > **PTZ** > **Limit**
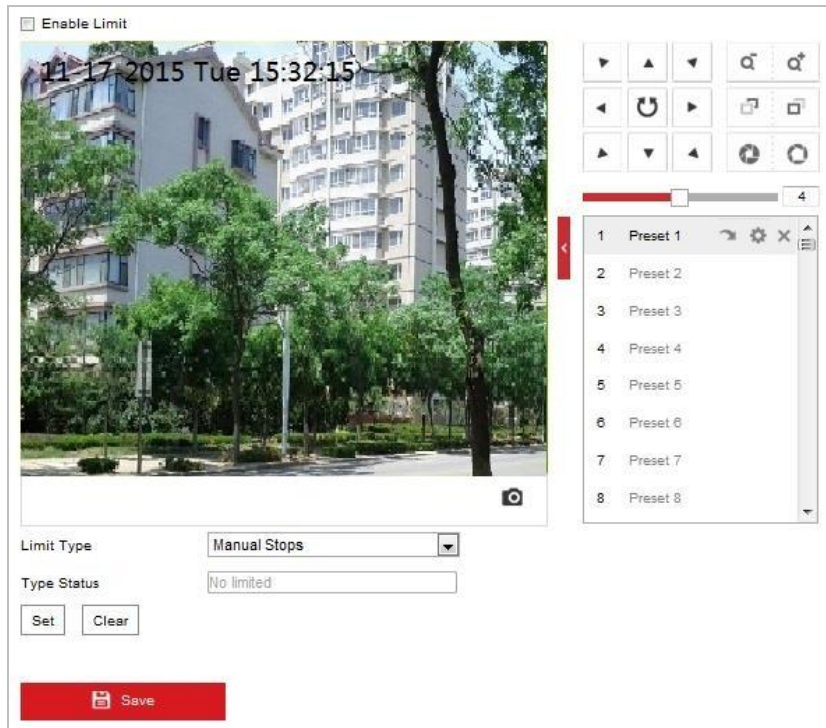
Figure 6-22 Configure the PTZ Limit

2.   Click t **Enable Limit** and choose the limit type as manual stops or scan stops.

● **Manual Stops:**

When manual limit stops are set, you can operate the PTZ control panel manually only in the limited surveillance area.

● **Scan Stops:**

When scan limit stops are set, the random scan, frame scan, auto scan, tilt scan, panorama scan is performed only in the limited surveillance area.

Note:

Manual Stops of **Limit Type** is prior to **Scan Stops.** When you set these two limit types at the same time, **Manual Stops** is valid and **Scan Stops** is invalid.

3.   Click the PTZ control buttons to find the left/right/up/down limit stops; you can also call the defined presets and set them as the limits of the speed dome.

4.   Click **Set** to save the limits or click **Clear** to clear the limits.

6.4.3   Configuring Initial Position

Purpose:

The initial position is the origin of PTZ coordinates. It can be the factory default initial position. You can also customize the initial position according to your own demand.

● **Customize an Initial Position:**

Steps:

1.   Enter the Initial Position Configuration interface:

Configuration > **PTZ** > **Initial Position**

Figure 6-23 PTZ Configuration

2. Click the PTZ control buttons to find a position as the initial position of the speed dome; you can also call a defined preset and set it as the initial position of the speed dome.

3. Click **Set** to save the position.

● **Call/delete an Initial Position:**

You can click [icon] to call the initial position. You can click [icon] to delete the initial position and restore the factory default initial position.

6.4.4 Configuring Park Actions

Purpose:

This feature allows the speed dome to start a predefined park action (scan, preset, pattern and etc.) automatically after a period of inactivity (park time).
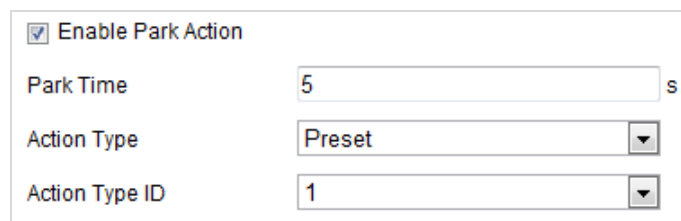
Note:

● **Scheduled Tasks** function is prior to **Park Action** function. When these two functions are set at the same time, only the **Scheduled Tasks** function takes effect.

● Pattern function varies depending on speed dome models.

Steps:

1. Enter the Park Action settings interface:

   Configuration > **PTZ** > **Park Action**
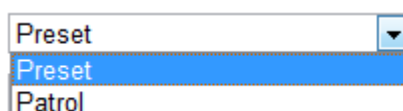
Figure 6-24 Set the Park Action

2. Check **Enable Park Action**.

3. Set the **Park Time** as the inactivity time of the speed dome before it starts the park actions.

4. Choose **Action Type** the from the drop-down list.

Figure 6-25 Action Types

5. Select the **Action Type ID** from the drop-down list.

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

6.4.5 Configuring Privacy Mask

Purpose:

Privacy mask enables you to cover certain areas on the live video to prevent certain spots in the surveillance area from being live viewed and recorded.

Steps:

1. Enter the Privacy Mask settings interface:

    Configuration > **PTZ** > **Privacy Mask**
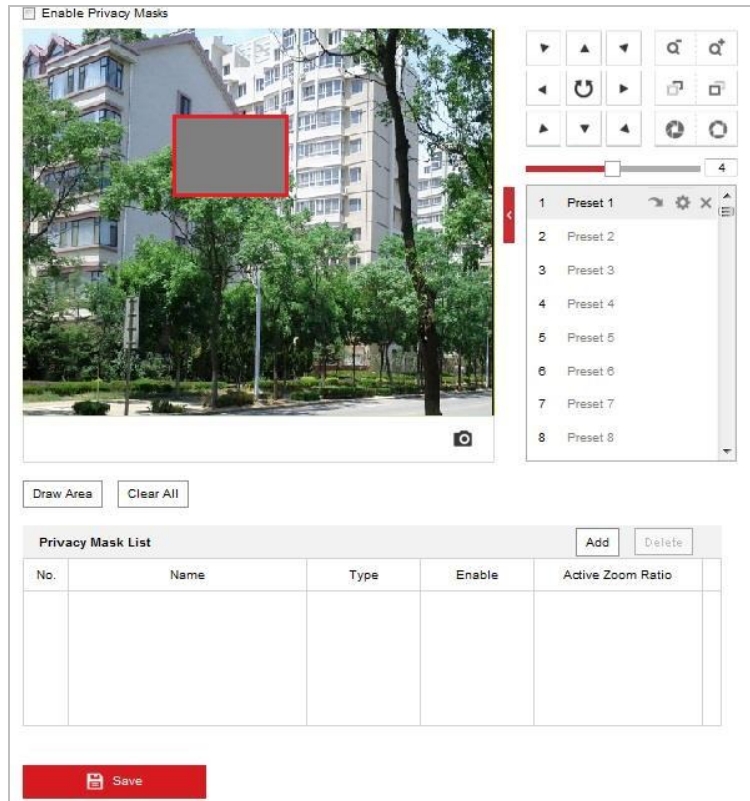
Figure 6-26 Draw the Privacy Mask

2. Click the PTZ control buttons to find the area you want to set the privacy mask.

3. Click **Draw Area**, and drag the mouse in the live video window to draw the area.

4. You can drag the corners of the red rectangle area to draw a polygon mask.

5. Click **Stop Drawing** to finish drawing or click **Clear All** to clear all of the areas you set without saving them.

6. Click **Add** to save the privacy mask, and it will be listed in the **Privacy Mask List** area; set the value of **Active Zoom Ratio** on your demand, and then the mask will only appear when the zoom ratio is greater than the predefined value.

Figure 6-27 Privacy Mask List

7. Check **Enable Privacy Mask** to enable this function.
    Note:
    You are allowed to draw up to 8 areas for the speed dome.

6.4.6 Configuring Scheduled Tasks

Purpose:

You can configure the network speed dome to perform a certain action automatically in a user-defined time period.

Steps:

1. Enter the Scheduled Task settings interface:

    Configuration> PTZ > Scheduled Tasks
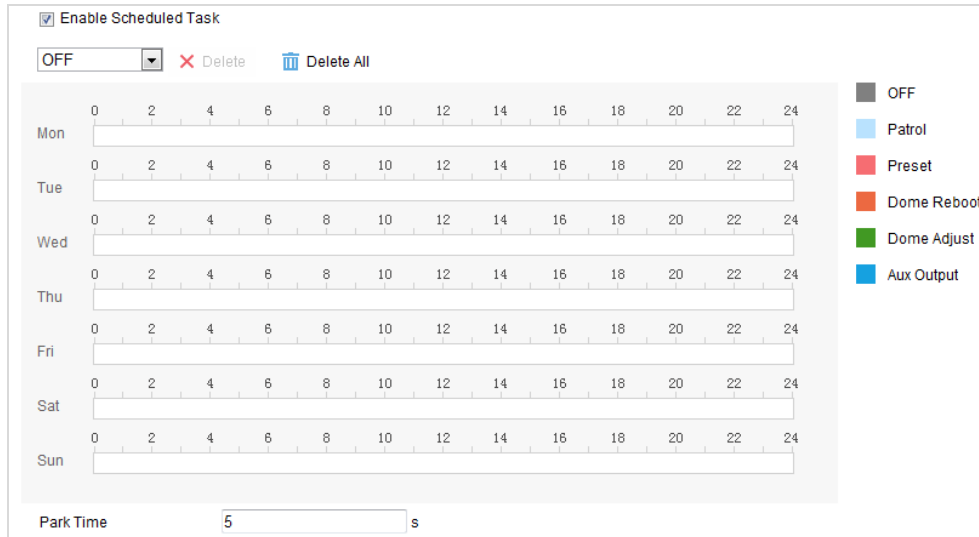
Figure 6-28 Configure Scheduled Tasks

2. Check **Enable Scheduled Task**.

3. Set the **Park Time**. You can set the park time (a period of inactivity) before the speed dome starts the scheduled tasks.

4. Select the task type from the drop-down list. You can choose scan, preset, pattern and etc.
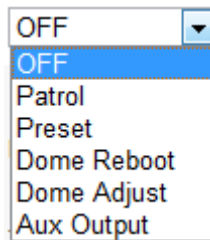
Figure 6-29 Task Types

5. Select the timeline of a certain day, click and drag the mouse to set the recording schedule (the start time and end time of the recording task).

6. After you set the scheduled task, you can click [icon] and copy the task to other days (optional).
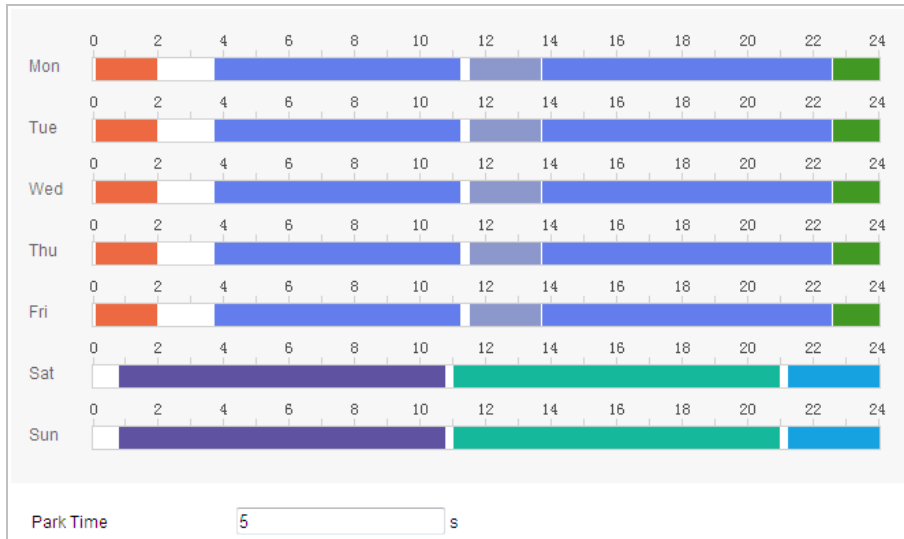
Figure 6-30 Edit the Schedule and Task Type

Note:
The time of each task cannot be overlapped. Up to 10 tasks can be configured for each day.

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

6.4.7 Clearing PTZ Configurations

Purpose:
You can clear PTZ configurations in this interface, including all presets, patrols, privacy masks, PTZ limits, scheduled tasks and park actions.
Note:
Pattern function varies depending on speed dome models.
Steps:
1. Enter the Clearing Configuration interface:
    Configuration > PTZ > Clear Config
2. Check the checkbox of the items you want to clear.
3. Click **Save** to clear the settings.

6.4.8 Prioritize PTZ

Steps:
1. Enter the Prioritize PTZ interface:
    Configuration > PTZ > Prioritize PTZ

Figure 6-31 Position Settings

2. Select Network or RS-485 from the drop-down list
3. Set the delay time.

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

6.4.9 Configuring Position Settings

Purpose:

You can set the position information in this interface.

Steps:

1.   Enter the Position Settings interface:

   Configuration > PTZ > Position Settings

Figure 6-32 Position Settings

2.   Manually find the north position for the speed dome in Live View interface, and click **Set at North** to set the north direction.

3.   After the speed dome changes its direction, you can click **Point to North** and the speed dome turns back to the north direction.

4.   You can manually set GPS information including longitude and latitude.

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

6.4.10 Configuring Rapid Focus

Purpose:

Enable rapid focus and configure calibration, the camera can focus rapidly.

Steps:

1.   Check **Enable** to enable rapid focus function.
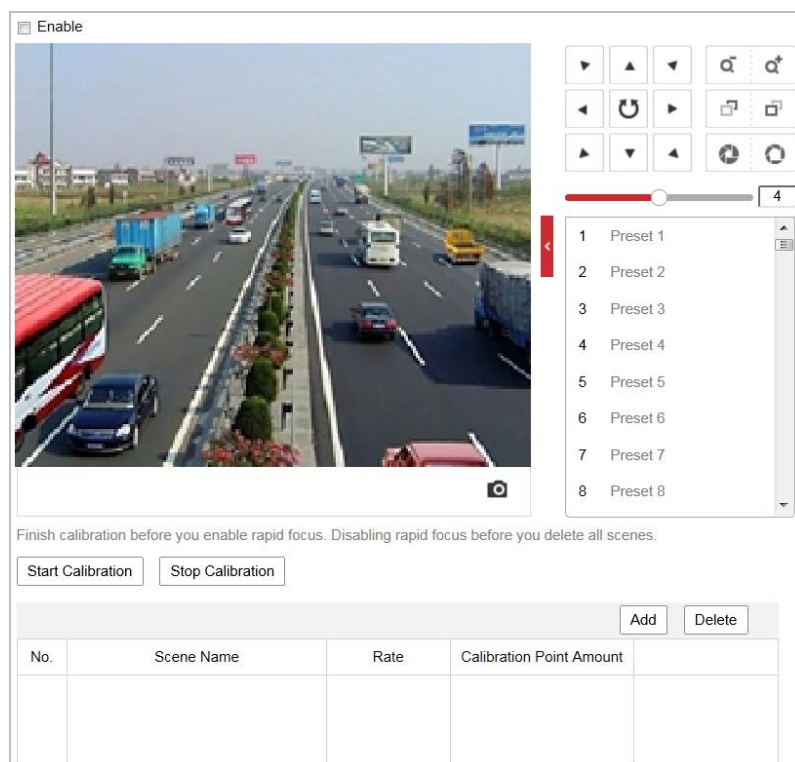
Figure 6-33 Configuring Rapid Focus

2. Adjust PTZ in PTZ control panel and adjust the live view image to the desired scene, and click **Add** to add the scene. Click to select the scene and a red line pops up in live view image.

3. Click the red line and drag it to the calibration position. And you can adjust the length of the red line.

4. Click **Start Calibration**, and the camera zooms automatically to perform calibration.

5. You can click **Stop Calibration** to stop calibration by force and calibration is invalid.

6. Repeat the steps above to add more scenes and perform calibration for the scenes (optional).

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

Chapter 7 System Configuration

7.1 Configuring Network Settings

Note:

Network settings vary depending on the models of speed dome.

7.1.1 Basic Settings

Configuring TCP/IP Settings

Purpose:

TCP/IP settings must be properly configured before you operate the speed dome over network. IPv4 and IPv6 are both supported.

Steps:

1. Enter TCP/IP settings interface:

    Configuration > Network > Basic Settings > TCP/IP

Figure 7-1 TCP/IP Settings

2. Configure the NIC settings, including the **IPv4(IPv6) Address**, **IPv4(IPv6) Subnet Mask** and **IPv4(IPv6) Default Gateway**.
    - If the DHCP server is available, you can check **DHCP** to automatically obtain an IP

address and other network settings from that server.
- The valid value range of Maximum Transmission Unit (MTU) is 500 ~ 1500. The default value is 1500.
- The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Before utilizing this function, you have to enable the Multicast function of your router and configure the gateway of the network speed dome.
- If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the **Preferred DNS Server** and **Alternate DNS server**.
- The router must support the route advertisement function if you select **Route Advertisement** as the IPv6 mode.

Figure 7-2 DNS Server Settings

3. Click **Save** to save the above settings.
   You can click **Test** to make sure that the IP address is valid.

Configuring DDNS Settings

Purpose:
If your speed dome is set to use PPPoE as its default network connection, you can use the Dynamic DNS (DDNS) for network access.
***Before you start*:**
Registration on the DDNS server is required before configuring the DDNS settings of the speed dome.

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Steps:
1. Enter the DDNS settings interface:
   Configuration > Network > Basic Settings > DDNS
2. Check **Enable DDNS** to enable this feature.
3. Select **DDNS Type**. Two DDNS types are selectable: DynDNS, and NO-IP.
   - **DynDNS:**
   Steps:
   (1) Enter **Server Address** of DynDNS (e.g. members.dyndns.org).

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(2) In the **Domain** text field, enter the domain name obtained from the DynDNS website.

(3) Enter the **Port** of DynDNS server.

(4) Enter the **User Name** and **Password** registered on the DynDNS website.

(5) Click **Save** to save the settings.

Figure 7-3 DynDNS Settings

- **NO-IP:**

Steps:

(1) Enter **Server Address** of NO-IP.

(2) In the **Domain** text field, enter the domain name obtained from the NO-IP website.

(3) Enter the **Port** of NO-IP server.

(4) Enter the **User Name** and **Password** registered on the NO-IP website.

(5) Click **Save** to save the settings.

Configuring PPPoE Settings

Purpose:

If you have no router but only a modem, you can use Point-to-Point Protocol over Ethernet (PPPoE) function.

Steps:

1. Enter the PPPoE settings interface:

    Configuration > Network > Basic Settings > PPPoE

Figure 7-4 PPPoE Settings

2. Check **Enable PPPoE** to enable this feature.

3. Enter **User Name**, **Password**, and confirm password for PPPoE access.

    Note:

    The User Name and Password should be assigned by your ISP.

⚠️

● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

● *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

4.   Click **Save** to save and exit the interface.

Configuring Port Settings

Purpose:
If there is a router and you want to access the speed dome through Wide Area Network (WAN), you need to forward the 3 ports for the speed dome.

Steps:
1.   Enter the Port settings interface:

Configuration > Network > Basic Settings > Port

HTTP Port	80
RTSP Port	554
HTTPS Port	443
Server Port	8000

Figure 7-5 Port Settings

2.   Set the HTTP port, RTSP port and port of the speed dome.

HTTP Port: The default port number is 80.

RTSP Port: The default port number is 554.

HTTPS Port: The default port number is 443.

Server Port: The default port number is 8000.

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

Configuring NAT (Network Address Translation) Settings

Purpose:
Universal Plug and Play (UPnP™) is a networking architecture that provides compatibility among networking equipment, software and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the house and corporate environments.

With the function enabled, you don't need to configure the port mapping for each port, and the camera is connected to the Wide Area Network via the router.

Steps:
1.   Enter the UPnP™ settings interface:

Configuration >Network > Basic Settings > NAT

2. Check the checkbox to enable the UPnP™ function.

    Note:

    You can edit the Friendly Name of the speed dome. This name can be detected by
    corresponding device, such as a router.

3. Set the port mapping mode:

    To port mapping with the default port numbers:

    Choose   Port Mapping Mode | Auto   ▼ |

    To port mapping with the customized port numbers:

    Choose   Port Mapping Mode | Manual   ▼ |

    And you can customize the value of the port number by yourself.

☑ Enable UPnP™				
Nickname	490340679	✅		
Port Mapping Mode	Auto ▼			
Port Type	External Port	External IP Address	Internal Port	Status
HTTP	80	0.0.0.0	80	Valid
RTSP	554	0.0.0.0	554	Valid
Server Port	8000	0.0.0.0	8000	Valid

Figure 7-6 Port Mapping Mode

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

7.1.2 Advanced Settings

Configuring SNMP Settings

Purpose:

You can use SNMP to get speed dome status and parameters related information.

Before you start:

Before setting the SNMP, please use the SNMP software and manage to receive the speed dome
information via SNMP port. By setting the Trap Address, the speed dome can send the alarm
event and exception messages to the surveillance center.

Note:

The SNMP version you select should be the same as that of the SNMP software.

Steps:

1. Enter the SNMP settings interface:

    Configuration > Network > Advanced Settings > SNMP

Figure 7-7 SNMP Settings

2. Check the corresponding version checkbox (**Enable SNMP v1**, **Enable SNMP v2c**, **Enable SNMP v3**) to enable the feature.

3. Configure the SNMP settings.

   Note:

   The configuration of the SNMP software should be the same as the settings you configure here.

4. Click **Save** to save and finish the settings.

Configuring FTP Settings

Purpose:

You can set a FTP server and configure the following parameters for uploading captured pictures.

Steps:

1. Enter the FTP settings interface:

   Configuration > Network > Advanced Settings > FTP

Figure 7-8 FTP Settings

2. Configure the FTP settings, including server address, port, user name, password, directory, and upload type.

   Note:

   The server address supports both the domain name and IP address formats.

   ● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

   ● *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

   ● **Setting the directory in FTP server for saving files**:

   In the **Directory Structure** field, you can select the root directory, parent directory and child directory.

   ◆ **Root directory**: The files will be saved in the root of FTP server.

   ◆ **Parent directory**: The files will be saved in a folder in FTP server. The name of folder can be defined as shown in following Figure 7-9.

Figure 7-9 Parent Directory

   ◆ **Child directory**: It is a sub-folder which can be created in the parent directory. The files will be saved in a sub-folder in FTP server. The name of folder can be defined as shown in Figure 7-10.

Figure 7-10 Child Directory

● **Upload type:** To enable uploading the captured picture to the FTP server.

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

You can click **Test** to confirm the configuration.

Note:

If you want to upload the captured pictures to FTP server, you also have to enable the continuous snapshot or event-triggered snapshot in **Snapshot** interface.

Configuring Email Settings

Purpose:

The system can be configured to send an Email notification to all designated receivers if an alarm event is detected, e.g., motion detection event, video loss, video-tampering, etc.

Before you start:

Please configure the DNS Server settings under **Configuration> Network > Basic Settings > TCP/IP** before using the Email function.

Steps:

1. Enter the Email settings interface:

Configuration> Network > Advanced Settings > Email

Figure 7-11 Email Settings

2. Configure the following settings:

Sender: The name of the email sender.

Sender's Address: The email address of the sender.

SMTP Server: The SMTP Server IP address or host name (e.g., smtp.263xmail.com).

SMTP Port: The SMTP port. The default TCP/IP port for SMTP is 25.

E-mail encryption: None, SSL, and TLS are selectable. When you select SSL or TLS and disable STARTTLS, e-mails will be sent after encrypted by SSL or TLS. The SMTP port should be set as 465 for this encryption method. When you select SSL or TLS and enable STARTTLS, emails will be sent after encrypted by STARTTLS, and the SMTP port should be set as 25.

Note:

STARTTLS protocol must be supported by the email server for e-mail encryption with STARTTLS. When it is not supported by the email server and the checkbox of Enable STARTTLS

is checked, the email will not be encrypted.

Attached Image: Check the checkbox of **Attached Image** if you want to send emails with attached alarm images.

Interval: The interval refers to the time between two actions of sending attached pictures.

Authentication (optional): If your email server requires authentication, check this checkbox to use authentication to log in to this server and enter the login user name and password.

⚠️

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Receiver: Select the receiver to which the email is sent. Up to 2 receivers can be configured.

Receiver: The name of the user to be notified.

Receiver's Address: The email address of user to be notified. (Optional: click **Test** to make sure that the email server can send email out.)

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

Configuring Platform Settings

Purpose:

Platform access provides you an option to manage the devices via platform.

Note:

This function varies depending on different speed dome models.

Steps:

1. Enter the Platform settings interface:

   Configuration> Network > Advanced Settings > Platform Access

Figure 7-12 Platform Access

2. Check **Enable** to enable the platform access function of the device.
3. Select the Platform Access Mode.

   If you select Platform Access Mode as Hik-Connect,

   1) Click and read "Terms of Service" and "Privacy Policy" in pop-up window.
   2) Create a verification code or change the verification code for the network speed dome.

Note:

● The verification code is required when you add the network speed dome to Hik-Connect app.

● For more information about the Hik-Connect app, refer to Hik-Connect Mobile Client User Manual.

4. You can use the default server address. Or you can check the **Custom** checkbox on the right and input a desired server address.

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

Note:

Hik-Connect is an application for mobile devices. With the App, you can view live image of the network speed dome, receive alarm notification and so on.

Configuring HTTPS Settings

Purpose:

HTTPS is consisted by SSL&HTTP. It is used for encryption transmission, identity authentication network protocol which enhances the security of WEB accessing.

⚠️

● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

● *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Steps:

1. Enter the HTTPS settings interface.

   Configuration > Network > Advanced Settings > HTTPS

2. Create the self-signed certificate or authorized certificate.

Figure 7-13 Create Certificate

OPTION 1: Create the self-signed certificate

1) Select Create Self-signed Certificate.

2) Click **Create** to create the following dialog box.

Figure 7-14 Create Self-signed Certificate

3) Enter the country, host name/IP, validity and other information.

4) Click **OK** to save the settings.

OPTION 2: Start the installation when signed certificate is available.

1) Select Signed certificate is available, Start the installation directly.

2) Click **Browse** to upload the available certificate.

3) Click **Install** button to install the certificate.

4) Click **OK** to save the settings.

OPTION 3: Create certificate request first and continue the installation.

1) Select Create certificate request first and continue the installation.

2) Click **Create** to create the certificate request, and fulfill the required information.

3) Download the certificate request and submit it to the trusted certificate authority for signature.

4) After receiving the signed valid certificate, import the certificate to the device.

5) Click **OK** to save the settings.

3. There will be the certificate information after you successfully create and install the certificate.

Figure 7-15 Installed Certificate Property

Notes:

● The default port number of HTTPS is 443. The port value ranges from 1 to 65535.

● When the port number is the default number 443, the format of the URL is ***https://IP address,*** eg., https://192.168.1.64.

● When the port number is not the default number 443, the format of the URL is ***https://IP***

address:port number, eg., https://192.168.1.64:81.

Configuring QoS Settings

Purpose:

QoS (Quality of Service) can help solve the network delay and network congestion by configuring the priority of data sending.

Steps:

1. Enter the QoS settings interface:

   Configuration >Advanced Configuration > Network > QoS

Video/Audio DSCP	0
Event/Alarm DSCP	0
Management DSCP	0

   Figure 7-16 QoS Settings

2. Configure the QoS settings, including video / audio DSCP, event / alarm DSCP and Management DSCP.

   The valid DSCP value ranges from 0 to 63. The DSCP value is bigger, the priority is higher.

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

Notes:

● Make sure that you enable the QoS function of your network device (such as a router).

● It will ask for a reboot for the settings to take effect.

Configuring 802.1X Settings

Purpose:

The speed dome supports IEEE 802.1X standard.

IEEE 802.1X is a port-based network access control. It enhances the security level of the LAN. When devices connect to this network with IEEE 802.1X standard, the authentication is needed. If the authentication fails, the devices don't connect to the network.

The protected LAN with 802.1X standard is shown as follows:
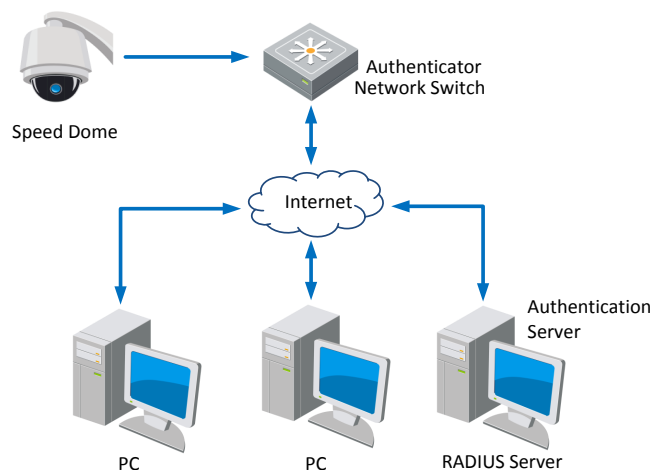
Figure 7-17 Protected LAN

- Before connecting the Network Camera to the protected LAN, please apply a digital certificate from a Certificate Authority.
- The network camera requests access to the protected LAN via the authenticator (a switch).
- The switch forwards the identity and password to the authentication server (RADIUS server).
- The switch forwards the certificate of authentication server to the network camera.
- If all the information is validated, the switch allows the network access to the protected network.

⚠️

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Steps:

1. Connect the network camera to your PC directly with a network cable.
2. Enter the 802.1X settings interface:

   Configuration > Network > Advanced Settings > 802.1X

Figure 7-18 802.1X Settings

3. Check **Enable IEEE 802.1X** to enable it.
4. Configure the 802.1X settings, including user name and password.

   Note:

   The EAP-MD5 version must be identical with that of the router or the switch.
5. Click **Save** to finish the settings.

   Note:

   The camera reboots when you save the settings.
6. After the configuration, connect the camera to the protected network.

Integration Protocol

Purpose:

If you need to access to the camera through the third party platform, you can enable Hikvision-CGI function. And if you need to access to the device through ONVIF protocol, you can configure ONVIF user in this interface. Refer to ONVIF standard for detailed configuration rules.

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Steps:

1. Enter the Integration Protocol configuration interface.

    Configuration > Network > Advanced Settings > Integration Protocol

Figure 7-19 Integration Protocol Settings

2. Enable CGI function.

    Check **Enable Hikvision-CGI** and then select the authentication from the drop-down list.

    Note:

    Digest is the recommended authentication method.

3. Enable ONVIF function.

    1) Check **Enable ONVIF**.

    2) Click **Add** to add a new ONVIF user. Set the user name and the password, and confirm the password. You can set the user as media user, operator, and administrator.

    3) You can select an added ONVIF user, and click **Modify** to modify the information.

    4) You can select an added ONVIF user, and click **Delete** to delete it.

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

    Notes:

    ● ONVIF user account is different from the camera user account. Set ONVIF user account independently.

    ● User settings of ONVIF are cleared when you restore the camera.

7.2 Configuring Video and Audio Settings

7.2.1 Configuring Video Settings

Steps:

1. Enter the Video settings interface:

   Configuration > Video/Audio > Video

Stream Type	Main Stream(Normal) ▼
Video Type	Video Stream ▼
Resolution	1920*1080P ▼
Bitrate Type	Variable ▼
Video Quality	Medium ▼
Frame Rate	25 ▼ fps
Max. Bitrate	4096 Kbps
Video Encoding	H.264 ▼
Profile	High Profile ▼
I Frame Interval	50
SVC	OFF ▼
Smoothing	⚫──────── 50 [Clear<->Smooth]

   💾 Save

   Figure 7-20 Configure Video Settings

2. Select the **Stream Type** of the speed dome to main stream (normal), sub-stream or third stream. The main stream is usually for recording and live viewing with good bandwidth, and the sub-stream can be used for live viewing when the bandwidth is limited. Refer to the section *4.1 Configuring Local Parameters* for switching the main stream and sub-stream for live viewing.

3. You can customize the following parameters for the selected stream.

   Note:

   The parameters vary depending on different camera models.

   Video Type:

   Select the stream type to video stream, or video & audio composite stream. The audio signal will be recorded only when the **Video Type** is **Video & Audio**.

   Resolution:

   Select the resolution of the video output.

   Bitrate Type:

   Select the bitrate type to constant or variable.

   Video Quality:

   When bitrate type is selected as **Variable**, 6 levels of video quality are selectable.

   Frame Rate:

   The frame rate is to describe the frequency at which the video stream is updated and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.

   Max. Bitrate:

   Set the Max. bitrate. The higher value corresponds to the higher video quality, but the higher bandwidth is required.

Video Encoding:

Select **Video Encoding** from the drop-down list for different stream type.

H.264+/H.265+:

Set it as ON or OFF.

H.264+: If you set the main stream as the stream type, and H.264 as the video encoding, you can see H.264+ available. H.264+ is an improved compression coding technology based on H.264. By enabling H.264+, users can estimate the HDD consumption by its maximum average bitrate. Compared to H.264, H.264+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

H.265+: If you set the main stream as the stream type, and H.265 as the video encoding, you can see H.265+ available. H.265+ is an improved compression coding technology based on H.265. By enabling H.265+, users can estimate the HDD consumption by its maximum average bitrate. Compared to H.265, H.265+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

Note:

You need to reboot the camera if you want to turn on or turn off the H.264+/H.265+. If you switch from H.264+ to H.265+ directly, and vice versa, a reboot is not required by the system.

Profile:

Basic Profile, Main Profile and High Profile are selectable.

I Frame Interval:

Set the I-Frame interval from 1 to 400.

SVC:

Scalable Video Coding is an extension of the H.264/AVC standard. Select OFF/ON to disable/enable the SVC function. Select Auto, and the device will automatically extract frames from the original video when the network bandwidth is insufficient.

Smoothing:

It refers to the smoothness of the stream. The higher value of the smoothing, the better fluency of the stream, though, the video quality may not be so satisfied. The lower value of the smoothing, the higher quality of the stream, though it may appear not fluent.
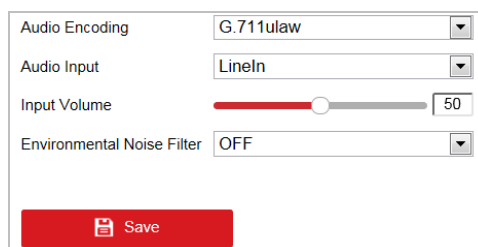
4. Click **Save** to save the settings.

7.2.2   Configuring Audio Settings

Steps:

1. Enter the Audio settings interface

   Configuration > Video/Audio > Audio

Audio Encoding	G.711ulaw
Audio Input	LineIn
Input Volume	50
Environmental Noise Filter	OFF

   | Save |

   Figure 7-21 Audio Settings

2. Configure the following settings.
   Audio Encoding: G.722.1, G.711ulaw, G.711alaw, MP2L2, G.726 and PCM are selectable.
   Audio Input: When an intercom is connected to the speed dome, you need to set this option to **LineIn**. When a microphone is connected to the speed dome, you need to set this option to **MicIn**.
   Audio Stream Bitrate: When the Audio Encoding is selected as MP2L2, you can configure the Audio Stream Bitrate from the drop-down list. The greater the value is, the better the audio quality will be.
   Sampling Rate: When the Audio Encoding is selected as MP2L2, you can configure the Sampling Rate from the drop-down list. The greater the value is, the better the audio quality will be.
   Input Volume: Slid the **bar** to turn up/down the volume. The value ranges from 0 to 100.
   Environmental Noise Filter: Select ON or OFF from the drop-down list to enable or disable the function. It's recommended to enable the function when the sampling rate is lower than 32 kHz.
3. Click **Save** to save the settings.

7.2.3 Configuring ROI Settings

Purpose:

ROI (Region of Interest) encoding is used to enhance the quality of images which are specified in advance. When **Fixed Region** is enabled, image quality of ROI area will be enhanced and image quality of other areas will be reduced.

Note:

ROI function varies depending on the models of speed dome.

Enter the ROI settings interface:

Configuration >Video/Audio > ROI

Figure 7-22 Region of Interest (1)

Figure 7-23 Region of Interest (2)

● **ROI for Fixed Region**

Steps:

1. Check **Enable** to enable the **Fixed Region** function.
2. Select a stream type. You can set the ROI function for main stream, sub-stream or third stream.
3. Click **Draw Area** and drag the mouse to draw a red frame in the live view image. You can click **Clear** to clear it.
   Note:
   The number of areas supported in ROI function varies depending on the models of speed dome.
4. Select the **Region No.** from the drop-down list.
5. Adjust the **ROI level** from 1 to 6. The higher the value, the better image quality in the red frame.
6. Enter a **Region Name**.
7. Click **Save** to save the settings.

7.3 Configuring Image Settings

Notes:

● On the event configuration page, click ❯ to show the PTZ control panel or click ❮ to hide it.
● Click the direction buttons to control the pan/tilt movements.
● Click the zoom/iris/focus buttons to realize lens control.
● The functions vary depending on the models of speed dome.

7.3.1 Configuring Display Settings

Purpose:
You can set the image quality of the speed dome, including brightness, contrast, saturation,

sharpness, etc.

Note:

● The parameters in **Display Settings** interface vary depending on the models of speed dome.

● You can double click the live view to enter full screen mode and double click it again to exit.

Steps:

1. Enter the Display settings interface:

 Configuration > Image> Display Settings

2. You can select the **Scene** from the drop-down list with different predefined image parameters.

3. Set the image parameters of the speed dome.
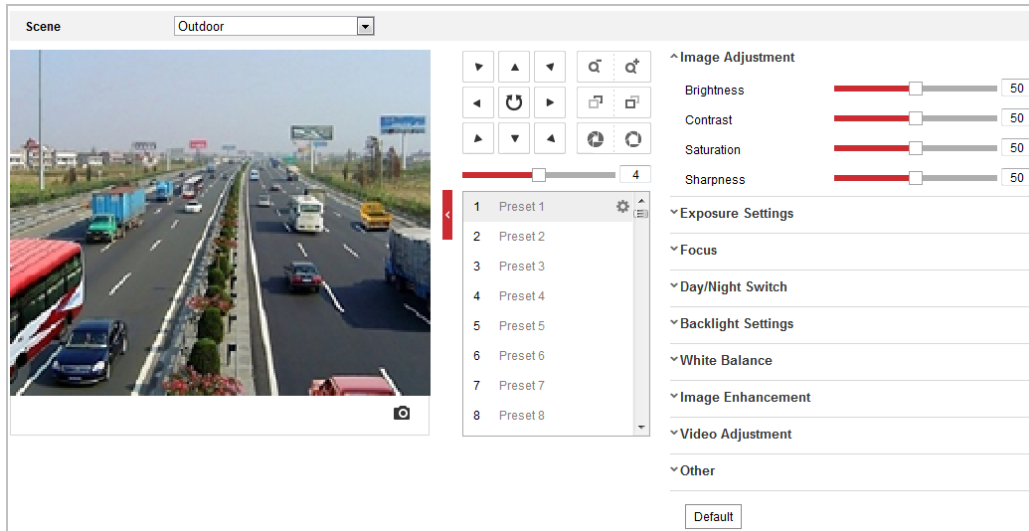
Figure 7-24 Display Settings

Image Adjustment

● **Brightness**

This feature is used to adjust brightness of the image. The value ranges from 0 to 100.

● **Contrast**

This feature enhances the difference in color and light between parts of an image. The value ranges from 0 to 100.

● **Saturation**

This feature is used to adjust color saturation of the image. The value ranges from 0 to 100.

● **Sharpness**

Sharpness function enhances the detail of the image by sharpening the edges in the image. The value ranges from 0 to 100.

Note:

The parameters vary depending on the models of speed dome.

Exposure Settings

● **Exposure Mode**

The **Exposure Mode** can be set to **Auto, Iris Priority, Shutter Priority,** and **Manual.**

 ◆ Auto:

The iris, shutter and gain values will be adjusted automatically according to the brightness of the environment.

◆ Iris Priority:

The value of iris needs to be adjusted manually. The shutter and gain values will be adjusted automatically according to the brightness of the environment.

Figure 7-25 Manual Iris

◆ Shutter Priority:

The value of shutter needs to be adjusted manually. The iris and gain values will be adjusted automatically according to the brightness of the environment.

Figure 7-26 Manual Shutter

◆ Manual:

In **Manual** mode, you can adjust the values of **Gain**, **Shutter**, **Iris** manually.

● **Limit Gain**

This feature is used to adjust gain of the image. The value ranges from 0 to 100.

● **Slow Shutter**

This function can be used in underexposure condition. It lengthens the shutter time to ensure full exposure.

● **Slow Shutter Level**

When slow shutter is set as ON, you can select the slow shutter level from the drop-down list. The slow shutter lever can be set to **Slow Shutter*2, *3, *4, *6, *8**.

Figure 7-27 Slow Shutter

Focus Settings

● **Focus Mode**

The **Focus Mode** can be set to **Auto**, **Manual**, **Semi-auto**.

◆ Auto**:**

The speed dome focuses automatically at any time according to objects in the scene.

◆ Semi-auto:

The speed dome focuses automatically only once after panning, tilting and zooming.

◆ Manual**:**

In **Manual** mode, you need to use on the control panel to focus manually.

● **Min. Focus Distance**

This function is used to limit the minimum focus distance. The value can be set to 10cm, 50cm, 1.0m, 1.5m, 3m, 6m, 10m and 20m.

Day/Night Switch

● **Day/Night Switch**

The **Day/Night Switch** mode can be set to **Auto, Day, Night** and **Scheduled-Switch**.

◆ **Auto**:

In **Auto** mode, the day mode and night mode can switch automatically according to the light condition of environment.
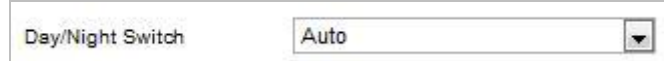
Figure 7-28 Auto Mode Sensitivity

◆ **Day**:

In **Day** mode, the speed dome displays color image. It is used for normal lighting conditions.

◆ **Night**:

In **Night** mode, the image is black and white. **Night** mode can increase the sensitivity in low light conditions.

◆ **Scheduled-Switch:**

In **Schedule** mode, you can set the time schedule for day mode as shown in Figure 7-29.

The rest time out of the schedule is for night mode.
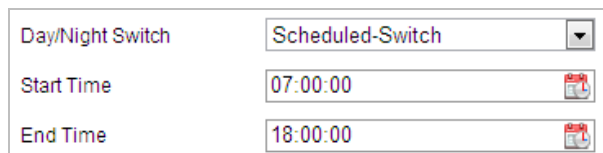
Figure 7-29 Day Night Schedule

Backlight Settings

● **BLC (Back Light Compensation)**

If there's a bright backlight, the subject in front of the backlight appears silhouetted or dark.

Enabling **BLC**(back light compensation) function can correct the exposure of the subject. But the backlight environment is washed out to white.

● **WDR (Wide Dynamic Range)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

You can enable or disable the WDR function as shown in Figure 7-30. The wide dynamic level ranges from 0 to 100.

WDR	ON
Wide Dynamic Level	11

Figure 7-30 WDR

● **HLC**

HLC (High Light Compensation) makes the camera identify and suppress the strong light sources that usually flare across a scene. This makes it possible to see the detail of the image that would normally be hidden.

White Balance

The **White Balance** mode can be set to **Auto**, **MWB**, **Outdoor**, **Indoor**, **Fluorescent Lamp**, **Sodium Lamp** and **Auto-Tracking**.

◆ **Auto**:

In **Auto** mode, the camera retains color balance automatically according to the current color temperature.

◆ **Manual White Balance:**

In **MWB** mode, you can adjust the color temperature manually to meet your own demand as shown in Figure 7-31.

White Balance	MWB
WB Gain Circuit R	0
WB Gain Circuit B	0
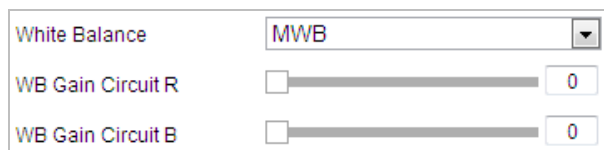
Figure 7-31 Manual White Balance

◆ **Outdoor**

You can select this mode when the speed dome is installed in outdoor environment.

◆ **Indoor**

You can select this mode when the speed dome is installed in indoor environment.

◆ **Fluorescent Lamp**

You can select this mode when there are fluorescent lamps installed near the speed dome.

◆ **Sodium Lamp**

You can select this mode when there are sodium lamps installed near the speed dome.

◆ **Auto-Tracking**

In **Auto-Tracking** mode, white balance is continuously being adjusted in real-time according to

the color temperature of the scene illumination.

Image Enhancement

● **3D Digital Noise Reduction**

You can set **Digital Noise Reduction** function to **Normal** and adjust the **Noise Reduction Level** as shown in Figure 7-32. The level ranges from 0 to 100.
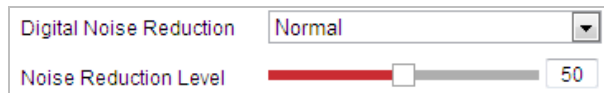
Figure 7-32 3D Digital Noise Reduction

If you are a professional technician, you can set it to **Expert** Mode then adjust **Space DNR Level** and **Time DNR Level**. The level ranges from 0 to 100.
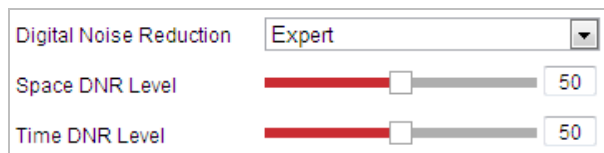
Figure 7-33 Expert Mode

● **Defog Mode**

You can set the **Defog Mode** to ON or OFF as you need.

Figure 7-34 Defog Mode

● **EIS (Electronic Image Stabilization)**

You can set the**EIS** to ON or OFF as you need.
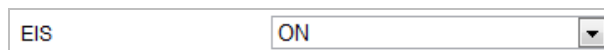
Figure 7-35 Electronic Image Stabilization

Video Adjustment

● **Mirror**

If you turn the **MIRROR** function on, the image will be flipped. It is like the image in the mirror. The flip direction can be set to OFF or CENTER.

● **Video Standard**

You can set the **Video Standard** to PAL (50 Hz) or NTSC (60 Hz) according to the video system in your country.

Other

● **Lens Initialization**

The lens operates the movements for initialization when you check **Lens Initialization.**

● **Zoom Limit**

You can set **Zoom Limit** value to limit the maximum value of zooming. The value can be selected from the list.

● **Local Output**

Set it as ON or OFF to enable/disable local output function.

7.3.2 Configuring OSD Settings

Purpose:

The speed dome supports following on screen displays:

Steps:

1. Enter the OSD settings interface:

   Configuration > Image > OSD Settings
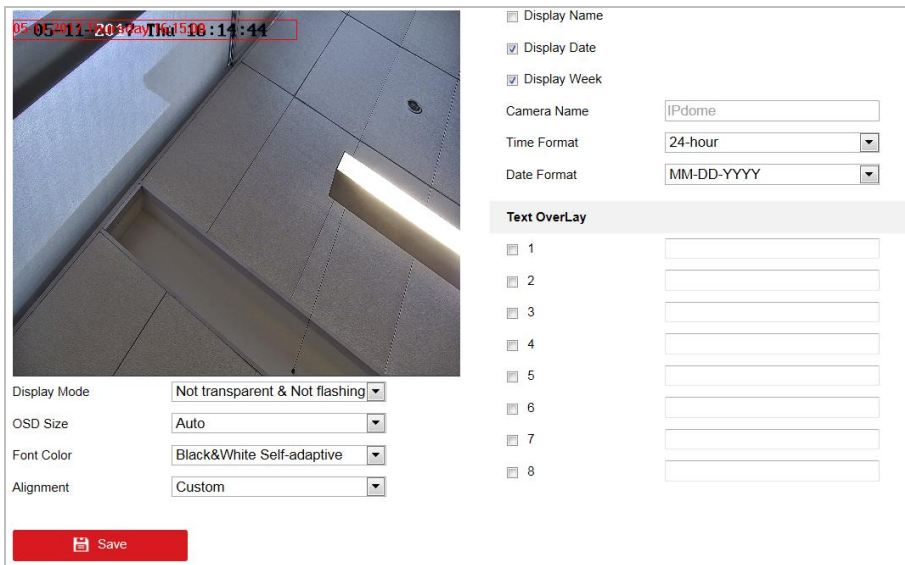
Figure 7-36 OSD Settings

2. Check the corresponding checkbox to select the display of speed dome name, date or week if required.
3. Edit the speed dome name in the text field of **Camera Name**.
4. Select from the drop-down list to set the time format, date format, display mode, OSD size, font color, and alignment.
5. You can use the mouse to click and drag the text frame IPdome in the live view window to adjust the OSD position.

Figure 7-37 Adjust OSD Location

6. Click **Save** to activate above settings.

7.3.3 Configuring Text Overlay Settings

Purpose:

You can customize the text overlay.

Steps:

1. Enter the Text Overlay settings interface:

    Configuration > Image > OSD Settings

2. Check the checkbox in front of textbox to enable the on-screen display.

3. Input the characters in the textbox.

4. Use the mouse to click and drag the red text frame Text in the live view window to adjust the text overlay position.

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

    Note:

    There are up to 8 text overlays configurable. When the video resolution is 1080p, only one text overlay is supported. When PTZ direction, preset OSDs are displayed, the text overlay is disabled.

7.3.4 Configuring Image Parameters Switch

Note:

This function varies depending on different camera models

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Purpose:

You can configure **Link to Preset** or **Scheduled-Switch** in this interface. **Link to Preset:** Set the time period and linked scene for the preset and check the corresponding checkbox to go to the linked scene in the configured time period. **Scheduled-Switch:** Set the time period and linked scene and it will go to the linked scene in the configured time period when you check the corresponding checkbox.

Steps:

1. Enter the Image Parameters Switch interface:

    Configuration > Image > Image Parameters Switch

2. Check the checkbox of **Link to Preset** or **Scheduled-Switch** to enable the function. (Only one function can be enabled in the same time.)

3. When you enable the function of **Link to Preset**, select one preset from the drop-down list, check the corresponding checkbox, set the time period and the linked scene for the selected preset. (Up to 4 periods can be configured for one preset.)

Figure 7-38 Link to Preset

Figure 7-39 Linked Scene

4. When you enable the function of **Scheduled-Switch**, check the corresponding checkbox, set the time period and the linked scene.

Figure 7-40 Schedule-Switch

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

7.4 Configuring System Settings

7.4.1 System Settings

Viewing Basic Information

Enter the Device Information interface:
Configuration > System > System Settings > Basic Information
In the **Basic Information** interface, you can edit the Device Name and Device No..
Other information of the network zoom camera, such as Model, Serial No., Firmware Version, Encoding Version, Web Version, Plugin Version, Number of Channels, Number of HDDs, Number of Alarm Input, Number of Alarm Output, and Firmware Version Property are displayed. The information cannot be changed in this menu. It is the reference for maintenance or modification in future.

Device Name	IP DOME
Device No.	88
Model	
Serial No.	
Firmware Version	
Encoding Version	
Web Version	
Plugin Version	
Number of Channels	
Number of HDDs	
Number of Alarm Input	
Number of Alarm Output	
Firmware Version Property	

Figure 7-41 Device Information

Time Settings

Purpose:

You can follow the instructions in this section to configure the time which can be displayed on the video. There are Time Zone, Time Synchronization, Daylight Saving Time (DST) functions for setting the time. Time Synchronization consists of auto mode by Network Time Protocol (NTP) server and manual mode.
Enter the Time Settings interface:
Configuration > System > System Settings > Time Settings

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Figure 7-42 Time Settings

● **Configuring Time Synchronization by NTP Server**

Steps:

(1) Check the radio button to enable the **NTP** function.

(2) Configure the following settings:

Server Address: IP address of NTP server.

NTP Port: Port of NTP server.

Interval: The time interval between the two synchronizing actions by NTP server. It can be set from 1 to 10080 minutes.

Figure 7-43 Time Sync by NTP Server

You can click **Test** to make sure that the NTP server is connected.

Note:

If the speed dome is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the speed dome is set in a customized network, NTP software can be used to establish a NTP server for time synchronization.

● **Configuring Time Synchronization Manually**

Steps:

(1) Check the **Manual Time Sync** radio button.

(2) Click [calendar icon] to set the system time from the pop-up calendar.

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

     Note:

     You can also check the **Sync with local time** checkbox to synchronize the time of the speed dome with the time of your computer.
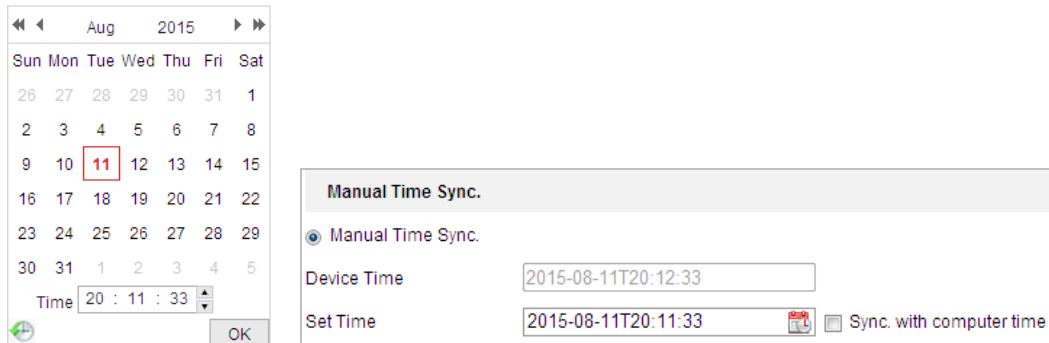
Figure 7-44 Time Sync Manually

● **Select the Time Zone**

Purpose:

When the speed dome is taken to another time zone, you can use the **Time Zone** function to adjust the time. The time will be adjusted according to the original time and the time difference between the two time zones.

From the **Time Zone** drop-down list as shown in Figure 7-45, select the Time Zone in which the speed dome locates.
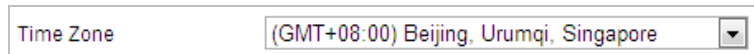
Figure 7-45 Time Zone Settings

Configuring DST (Daylight Saving Time)

Purpose:

If there is the habit of adjusting clocks forward in your country in certain time period of a year, you can turn this function on. The time will be adjusted automatically when the Daylight Saving Time (DST) comes.

Steps:

1. Enter the **DST** interface**:**

    Configuration > System > System Settings > DST

Figure 7-46 DST Settings

2. Check **Enable DST** to enable the DST function.
3. Set the date of the DST period.

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

Configuring RS-485

Purpose:
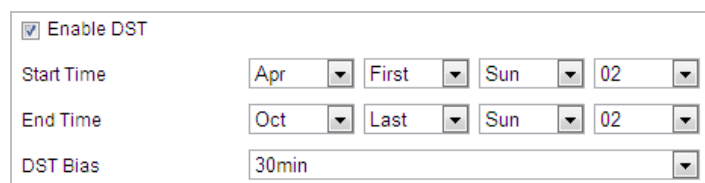
The RS-485 serial port is used to control the PTZ of the camera. The configuring of the PTZ parameters should be done before you control the PTZ unit.

Steps:

1. Enter RS-485 Port Setting interface:

    Configuration > System > System Settings > RS-485

Baud Rate	9600
Data Bit	8
Stop Bit	1
Parity	None
Flow Ctrl	None
PTZ Protocol	PELCO-D
PTZ Address	0

Save

Figure 7-47 RS-485 Settings

2. Set the RS-485 parameters and click **Save** to save the settings.

    Note:

    The Baud rate, PTZ Protocol and PTZ Address parameters of the speed dome should be exactly the same as those of the control device.

About

Click **View License**, you can check Open Source Software Licenses.

7.4.2 Maintenance

Upgrade & Maintenance

● **Rebooting the Speed dome**

Steps:

1. Enter the Maintenance interface:
2. **Configuration** > **System** > **Maintenance > Upgrade & Maintenance:**
3. Click **Reboot** to reboot the network speed dome.

● **Restoring Default Settings**

Steps:

1. Enter the Maintenance interface:

Configuration > **System** > **Maintenance** > **Upgrade & Maintenance:**

2. Click **Restore** or **Default** to restore the default settings.

Note:

Clicking **Default** restores all the parameters to default settings including the IP address and user information. Use this button with caution.
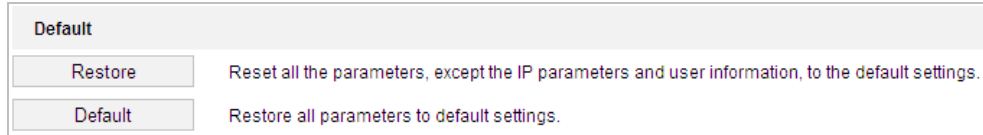
Default	
Restore	Reset all the parameters, except the IP parameters and user information, to the default settings.
Default	Restore all parameters to default settings.

Figure 7-48 Restore Default Settings

● **Importing/Exporting Configuration File**

Steps:

1. Enter the Maintenance interface:

   Configuration > **System** > **Maintenance** > **Upgrade & Maintenance:**

2. Click **Browse** to select the local configuration file and then click **Import** to start importing configuration file.

   Note:

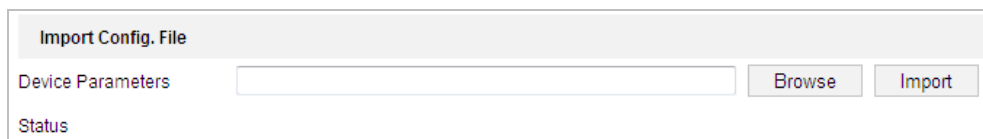   You need to reboot the speed dome after importing configuration file.

Import Config. File			
Device Parameters		Browse	Import
Status			

Figure 7-49 Import Configuration File

● **Upgrading the System**

Steps:

1. Enter the Maintenance interface:

   Configuration >**System** > **Maintenance** > **Upgrade & Maintenance**

2. Select Firmware or Firmware Directory.

   ● **Firmware**: when you select **Firmware**, you need to find the firmware in your computer to upgrade the device.

   ● **Firmware Directory**: You need to find the directory where the firmware locates. The device can find the firmware in the directory automatically.

3. Click **Browse** to select the local upgrade file and then click **Upgrade** to start remote upgrade.

   Note:

   The upgrading process will take 1 to 10 minutes. Please don't disconnect power of the speed dome during the process. The speed dome reboots automatically after upgrading.
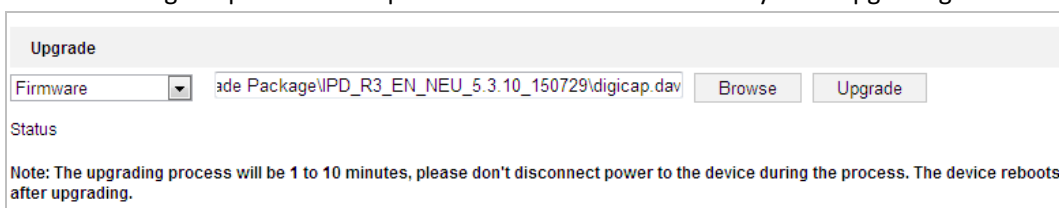
Upgrade				
Firmware	▼	ade Package\IPD_R3_EN_NEU_5.3.10_150729\digicap.dav	Browse	Upgrade
Status				
Note: The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots after upgrading.				

Figure 7-50 Remote Upgrade

Log Searching

Purpose:

The operation, alarm, exception and information of the speed dome can be stored in log files. You can also export the log files on your demand.

Before you start:

Please configure network storage for the speed dome or insert a memory card in the speed dome.

Steps:

1. Enter the Log interface:

    Configuration >System > Maintenance > Log
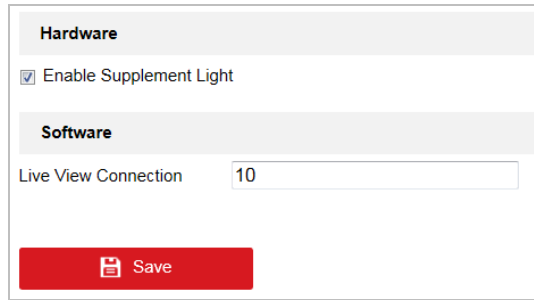

Figure 7-51 Log Searching Interface

2. Set the log search conditions to specify the search, including the Major Type, Minor Type, Start Time and End Time as shown in Figure 7-51.
3. Click **Search** to search log files. The matched log files will be displayed on the **Log** interface.
4. To export the log files, click **Save Log** to save the log files in your computer.

System Service

Steps:

1. Enter the interface of configuring the remote connection:

    Configuration > System > Maintenance > System Service

2. You can check **Enable Supplement Light** to enable the supplement light function.
3. Input a number in text field as the upper limit of the remote connection number. E.g. when you specify the remote connection number as 10, then the 11th remote connection cannot be established.

Figure 7-52 System Service

4. Click **Save** to activate the settings.

7.4.3 Security

Configuring Authentication Security

Purpose:

You can specifically secure the stream data of live view.

Steps:

1. Enter the Authentication interface:

   Configuration> **System**> **Security** > **Authentication**

2. Set the authentication mode for each authentication type.

   RTSP Authentication: Select the authentication mode from the drop-down list.

   WEB Authentication: Select the authentication mode from the drop-down list.

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

Configuring IP Address Filter

Purpose:

With this function on, the camera allows certain IP addresses whether to log in or not.

Steps:

1. Enter IP Address Filter interface:

   Configuration > **System** > **Security** > **IP Address Filter**

Figure 7-53 IP Address Filter

2. Check **Enable IP Address Filter**.

3. Select the type of IP Address Filter in the drop-down list, Forbidden and Allowed are selectable.

4. Set the IP Address Filter list.

    ● **Add an IP Address**

    Steps:

    (1) Click **Add** to add an IP.

    (2) Input the IP Adreess.

Figure 7-54 Add an IP

    (3) Click **OK** to finish adding.

    ● **Modify an IP Address**

    Steps:

    (1) Left-click an IP address from the filter list and click **Modify**.

    (2) Modify the IP address in the text filed.

Figure 7-55 Modify an IP

   (3) Click **OK**.

● **Delete an IP Address**

    Left-click an IP address from filter list and click **Delete**.

● **Delete all IP Addresses**

    Click **Clear** to delete all the IP addresses.

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

Configure Security Service Settings

Steps:

1.   Enter the Security Service interface:
    Configuration> **System** > **Security** > **Security Service**

2.   Check the checkbox to enable the Illegal Login Lock function.
    Illegal Login Lock: Enabling illegal login lock function is to automatically lock the device IP after the admin user performing 7 failed password attempts (5 attempts for the user/operator).

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

7.4.4 User Management

Enter the User Management interface**:**

Configuration > **System** > **User Management**

The **admin** user has access to create, modify or delete other accounts. Up to 32 user accounts can be created.

Figure 7-56 User Information

- **Add a User**

Steps:

1. Click **Add** to add a user.
2. Input the new **User Name**, select **Level** and input **Password**.

- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

    Note:

    The level indicates the permissions you give to the user. You can define the user as **Operator** or **User**.

3. In the **Basic Permission** field and **Camera Configuration** field, you can check or uncheck the permissions for the new user.
4. Click **OK** to finish the user addition.

Figure 7-57 Add a User

● **Modify a User**

Steps:

1. Left-click to select the user from the list and click **Modify**.

2. Modify the **User Name**, **Level** or **Password**.

3. In the **Basic Permission** field and **Camera Configuration** field, you can check or uncheck the permissions.

4. Click **OK** to finish the user modification.

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Figure 7-58 Modify a User

● **Delete a User**

Steps:

1. Left-click the user name you want to delete and click **Delete**.

2. Click **OK** on the pop-up dialogue box to delete the user.

Online Users

Enter the Online Users configuration interface**:**

Configuration > **System** > **User Management** > **Online Users**

User Management	Online Users			
User List				Refresh
No.	User Name	Level	IP Address	User Operation Time
1	admin	User	10.16.1.101	2015-11-12 20:53:38

Figure 7-59 Online Users

You can see the current users who are visiting the device through this interface.

User information, such as user name, level, IP address, and operation time, is displayed in the User List. Click **Refresh** to refresh the list.

Appendix

SADP Software Introduction

● Description of SADP

SADP (Search Active Devices Protocol) is a kind of user-friendly and installation-free online device search tool. It searches the active online devices within your subnet and displays the information of the devices. You can also modify the basic network information of the devices using this software.

● Search active devices online

◆ Search online devices automatically

After launch the SADP software, it automatically searches the online devices every 15 seconds from the subnet where your computer locates. It displays the total number and information of the searched devices in the Online Devices interface. Device information including the device type, IP address and port number, etc. will be displayed.
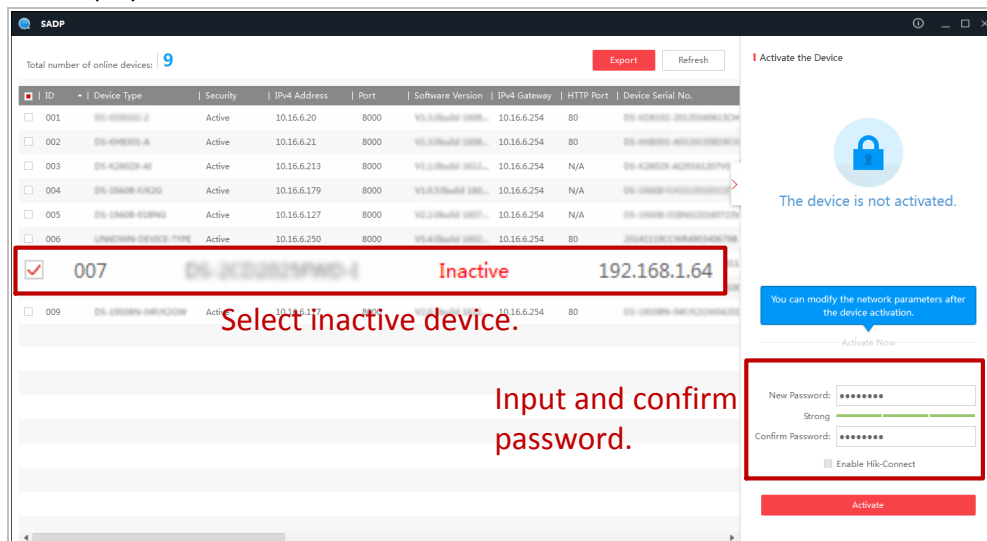

Figure A.1.1 Searching Online Devices

Note:

Device can be searched and displayed in the list in 15 seconds after it went online; it will be removed from the list in 45 seconds after it went offline.

◆ Search online devices manually

You can also click **Refresh** to refresh the online device list manually. The newly searched devices will be added to the list.

Note:

You can click ▲ or ▼ on each column heading to order the information; you can

click ▶ to expand the device table and hide the network parameter panel on the

right side, or click ◄ to show the network parameter panel.

● **Modify network parameters**

Steps:

1. Select the device to be modified in the device list and the network parameters of the device will be displayed in the **Modify Network Parameters** panel on the right side.
2. Edit the modifiable network parameters, e.g. IP address and port number.
3. Enter the password of the admin account of the device in the **Password** field and click **Modify** to save the changes.

⚠️

● *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
● *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

▮ Modify Network Parameters
☐ Enable DHCP
☑ Enable Hik-Connect
Device Serial No.: XX-XXXXXXXX-XXXXXXXXXXXXXXXX
IP Address: 192.168.1.64
Port: 8000
Subnet Mask: 255.255.255.0
Gateway: 192.168.1.1
IPv6 Address: ::
IPv6 Gateway: ::
IPv6 Prefix Length: 0
HTTP Port: 80
───── Security Verification ─────
Admin Password:
Modify
Forgot Password

Figure A.1.2 Modify Network Parameters

See Far, Go Further