



# **Dahua HD Explosionproof Camera Web3.0 Operation Manual**

**Version 1.0.0  
Dahua System Engineering CO., LTD**



## Table of Contents

1	Network Config.....	1
1.1	Network Connection .....	1
1.2	Log in .....	1
2	Live.....	6
2.1	Encode Setup .....	6
2.2	System Menu.....	7
2.3	Video Window Function Option .....	7
2.4	Video Window Setup .....	8
2.4.1	Image Adjustment.....	8
2.4.2	Original Size .....	9
2.4.3	Full Screen .....	9
2.4.4	Width and Height Ratio .....	9
2.4.5	Fluency Adjustment.....	10
2.4.6	Fluency Adjustment.....	10
2.4.7	Rule Info .....	10
2.4.8	PTZ .....	10
2.5	PTZ Control.....	10
2.5.1	Virtual Joystick.....	11
2.5.2	PTZ Function .....	12
3	Playback.....	14
3.1	Playback.....	14
3.1.1	Function of Play.....	15
3.1.2	Playback File .....	15
3.1.3	Playback Cut (Clip) .....	18
3.1.4	Record Type .....	18
3.1.5	Progress Bar Time Format.....	18
3.1.6	Assistant Function .....	19
3.2	Picture Playback .....	19
3.2.1	Play .....	20
3.2.2	Playback File .....	20
3.2.3	Snapshot Type .....	21
4	Setup.....	23
4.1	Camera.....	23
4.1.1	Conditions.....	23
4.1.2	Video .....	32



4.1.3	Audio .....	38
4.2	IVS Setup .....	39
4.2.1	Global Setup .....	40
4.2.2	Scene Setup.....	40
4.2.3	Rule Setup.....	43
4.2.4	Parameter .....	49
4.3	Network.....	50
4.3.1	TCP/IP .....	50
4.3.2	Connection.....	52
4.3.3	PPPoE .....	55
4.3.4	DDNS .....	56
4.3.5	IP filter.....	59
4.3.6	SMTP (e-mail).....	59
4.3.7	UPnP.....	61
4.3.8	SNMP .....	62
4.3.9	Bonjour .....	64
4.3.10	Multicast .....	65
4.3.11	802.1x .....	66
4.3.12	QoS .....	67
4.4	PTZ.....	68
4.4.1	Protocol.....	68
4.4.2	Function .....	69
4.5	Peripheral.....	80
4.5.1	IR Light.....	80
4.6	Event.....	81
4.6.1	Video detect.....	81
4.6.2	Abnormality.....	85
4.7	Storage Management.....	87
4.7.1	Schedule.....	87
4.7.2	Destination.....	91
4.7.3	Record control .....	93
4.8	System.....	94
4.8.1	General.....	94
4.8.2	Account.....	96
4.8.3	Default .....	100
4.8.4	Import/Export .....	101
4.8.5	Auto Maintenance.....	101



4.8.6	Upgrade .....	102
4.9	Information .....	102
4.9.1	Version.....	102
4.9.2	Log.....	103
4.9.3	Online User.....	104
5	Alarm.....	105
6	Log out.....	107

**Important**

**The following functions are for reference only. Some series products may not support all the functions listed below.**

# 1 Network Config

## 1.1 Network Connection

Speed dome and PC connection mainly has two ways. See Figure 1-1 and Figure 1-2.

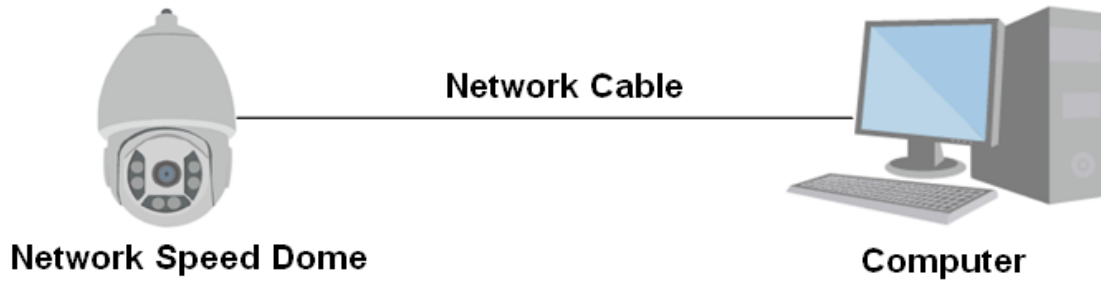


Figure 1-1

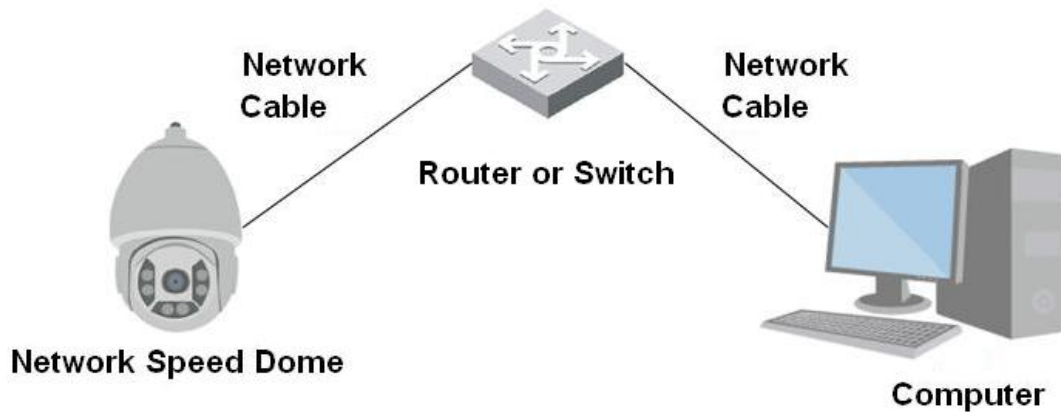


Figure 1-2

Before you access speed dome via the Internet, you need to have its IP address. You can use quick config tool to search IP of the speed dome. Please refer to <<Quick Configuration Tool manual>>.

## 1.2 Log in

Open IE and input speed dome address in the address bar.

For example, if your speed dome IP is 192.168.1.108, then please input `http:// 192.168.1.108` in IE address bar. See Figure 1-3.

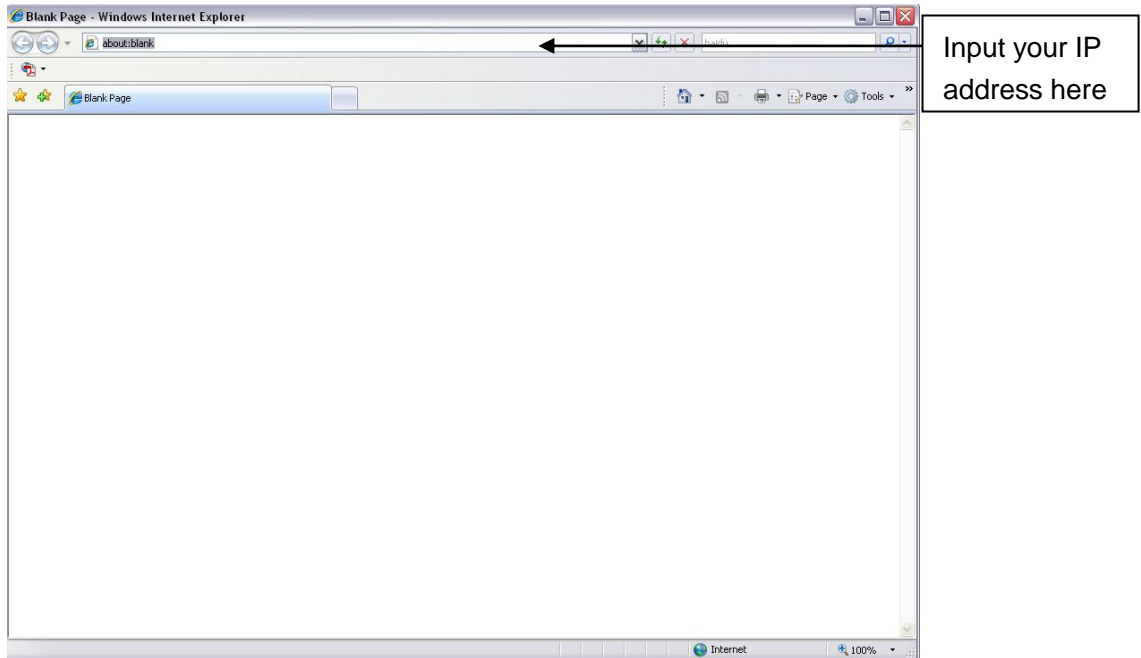


Figure 1-3

The login interface is shown as below. See Figure 1-4.

Please input your user name and password.

Default factory username is **admin** and password is **admin**.

**Note: For security reasons, please modify your password after you first login.**

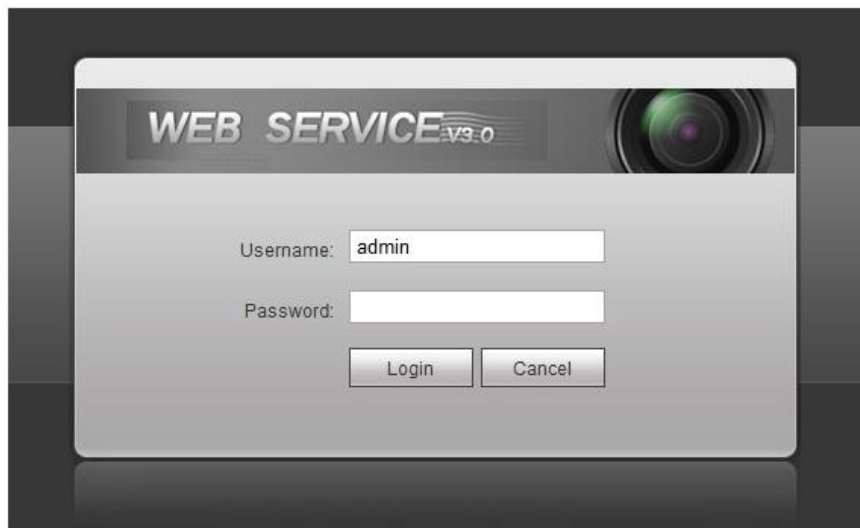


Figure 1-4



If it is your first time to login in, you may see the interface shown as in Figure 1-5.

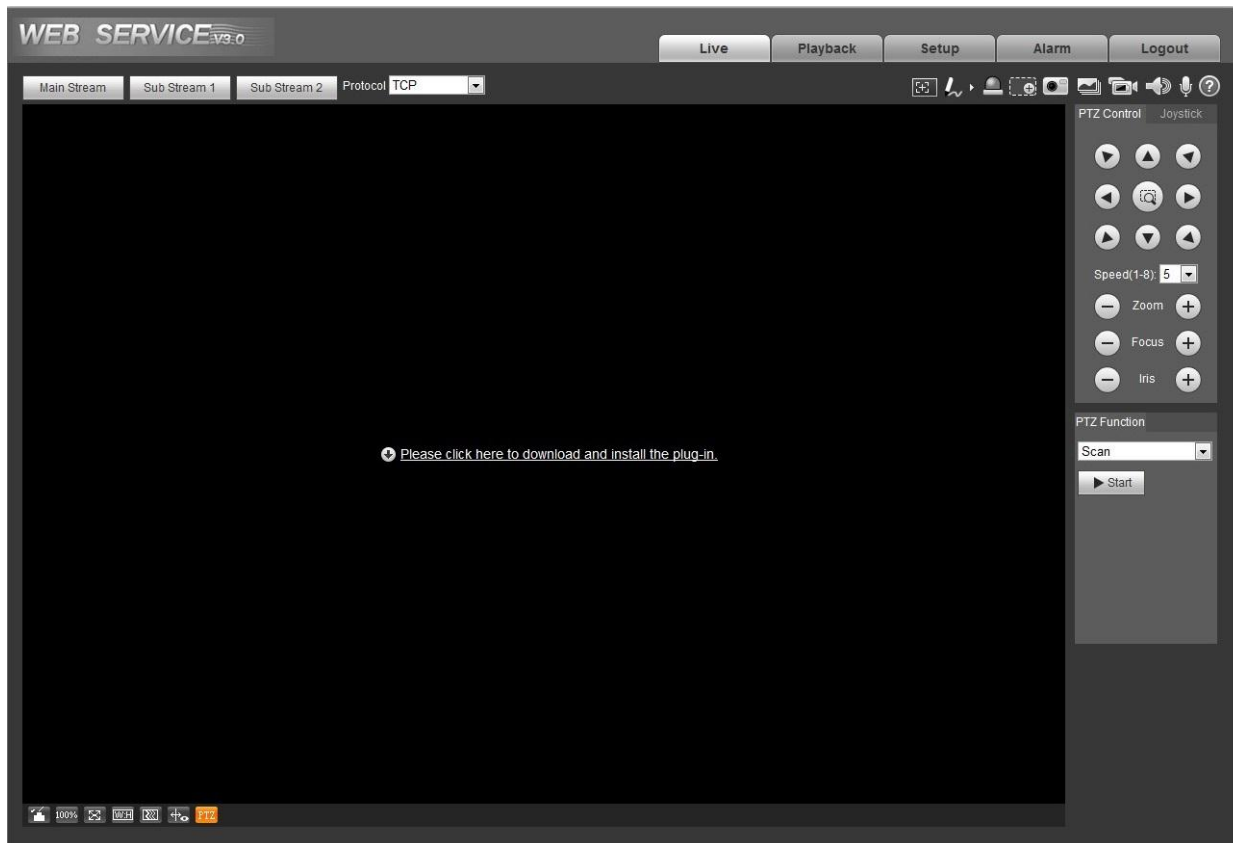


Figure 1-5

Click “Please click here to download and install the plug-in”. The system pops up warning information to ask you whether run or save this plug-in. Please download to your local computer and then click webplugin.exe, you can see an interface shown as in Figure 1-6.

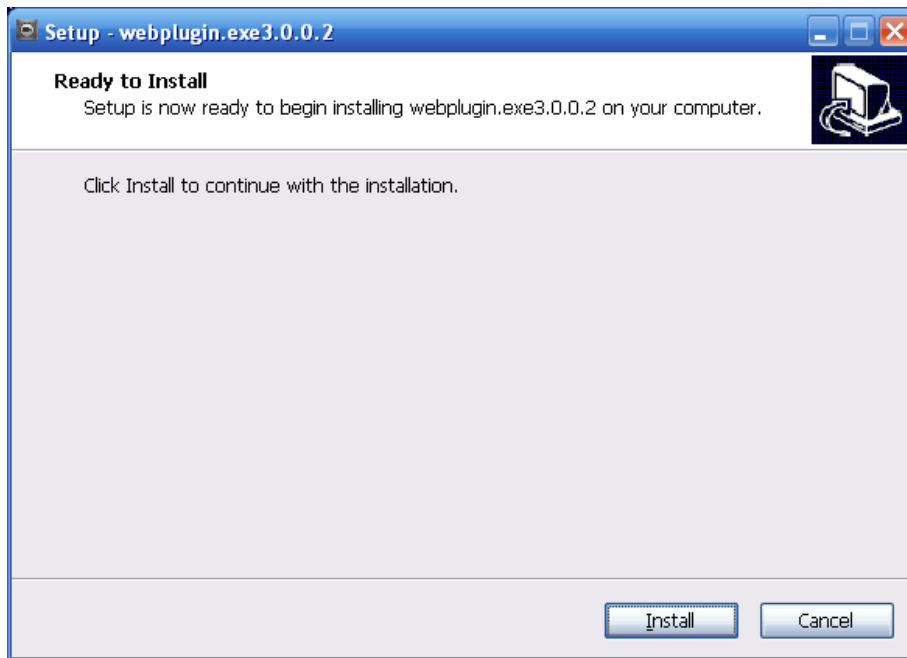


Figure 1-6

Click install, you will see Figure 1-7.

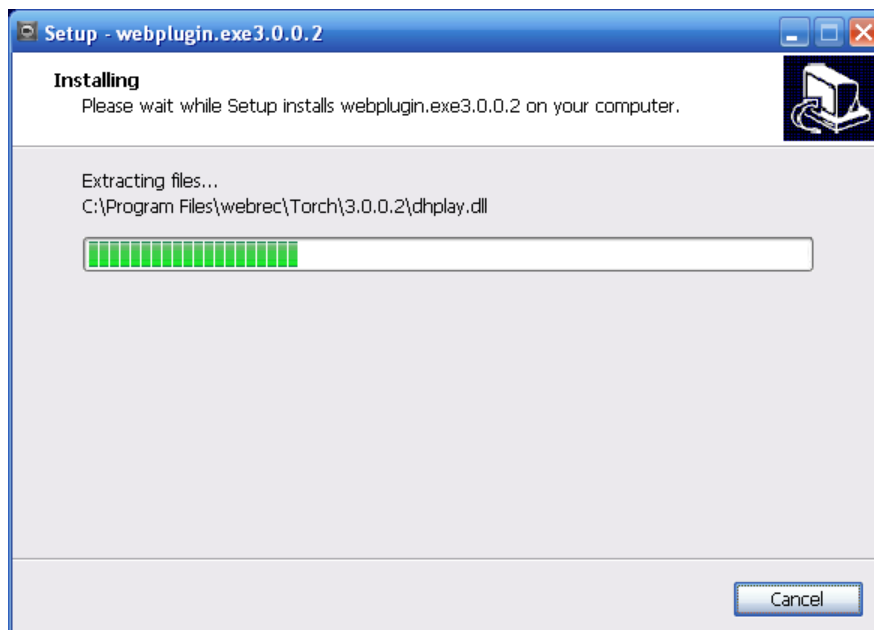


Figure 1-7





When plug-in installation is complete, the installation page closes automatically. The web-end will refresh automatically, and then you can view video captured by the camera. See Figure 1-8.

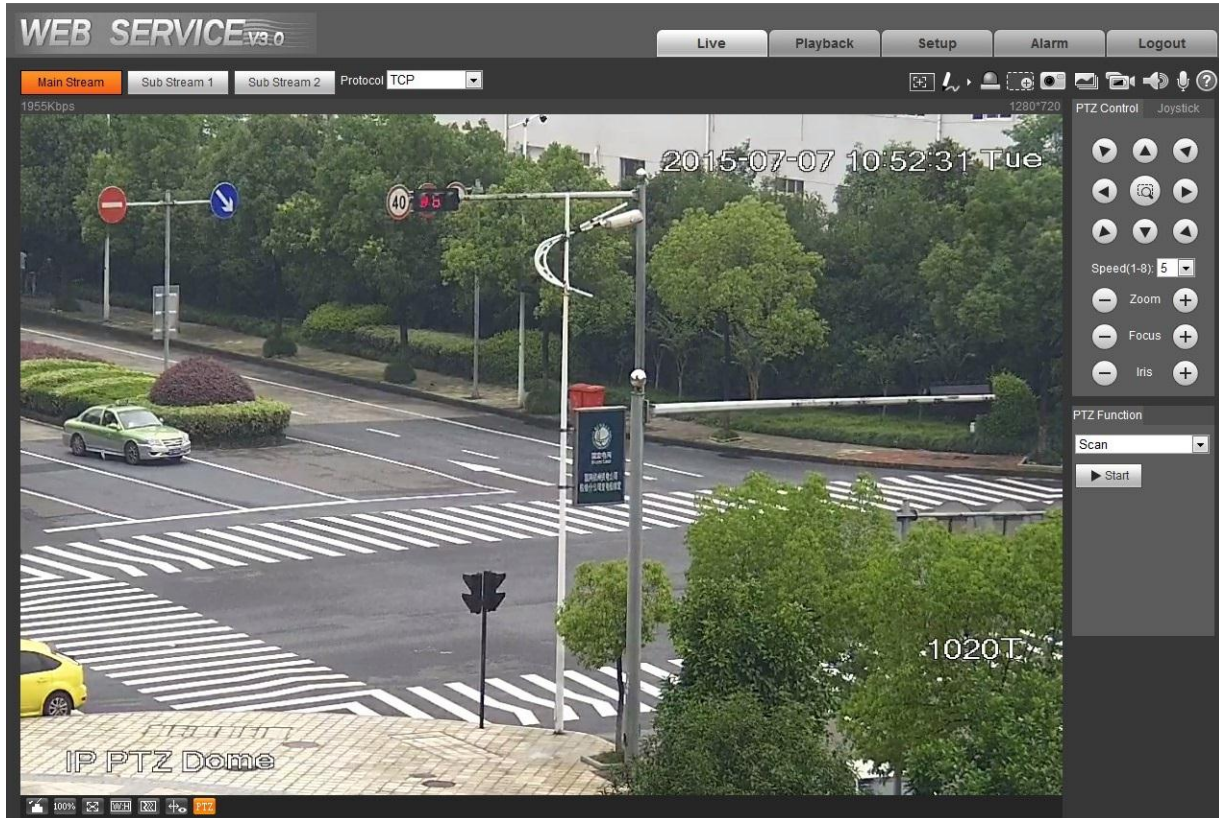


Figure 1-8

## 2 Live

After you logged in, you can see the live monitor window. See Figure 2-1.



Figure 2-1

There are four sections:

- Section 1: Encode setup bar
- Section 2: System menu
- Section 3: Window function option bar
- Section 4: Window adjust bar

### 2.1 Encode Setup

The encode setup interface is shown as in Figure 2-2.

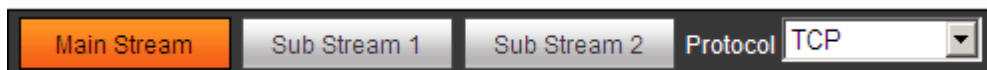


Figure 2-2

Please refer to the following sheet for detailed information.

Parameter	Function
Main stream	Streaming media protocol connection, under main stream config, monitor video or not. Generally for storage and monitor.
Sub (Extra) stream 1	Streaming media protocol connection, under sub stream 1 config, monitor video or not. When network bandwidth is insufficient, it substitutes main stream for monitoring.
Sub (Extra) stream 2	Streaming media protocol connection, under sub stream 2 config, monitor video or not. When network bandwidth is insufficient, it substitutes main stream for monitoring.
Protocol	You can select stream media protocol from the dropdown list. There are three options: TCP/UDP/Multicast

## 2.2 System Menu

System menu is shown as in Figure 2-3.

Please refer to chapter 2 Live, chapter 3 Playback, chapter 4 Setup, chapter 5 Alarm, chapter 6 Log out for detailed information.



Figure 2-3

## 2.3 Video Window Function Option

The interface is shown as below. See Figure 2-4.

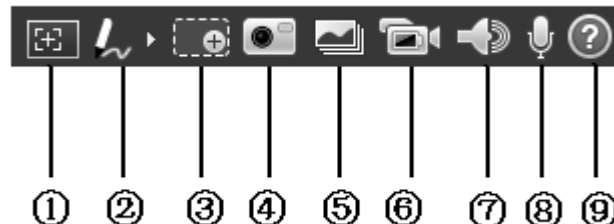


Figure 2-4

Please refer to the following sheet for detailed information.

SN	Parameter	Function
1	Regional focus	Click it and use mouse to select any area in the video image, and it can make the device auto focus in the selected area.
2	Remark	Click it and then select pen color, you can write down the mark information on the preview interface.
3	Zoom	<ul style="list-style-type: none"> <li>When the video is in the original status, click it you can select any zone to zoom in. In the non-original status, you can drag the zoom-in zone in specified range. Right click mouse to restore previous status.</li> <li>Click it; you can use the middle button of the mouse to zoom in/out the video size.</li> </ul>
4	Snapshot	Click the button to snapshot, save picture to path in Chapter 4.1.2.4.
5	Triple snap	Click it, system can snap at 1f/s. All images are saved to path in Chapter 4.1.2.4.
6	Record	Click it, system can record. All images are saved to path in Chapter 4.1.2.4.
7	Audio output	Turn on or off audio when you are monitoring.
8	Talk	Click it to start or end bidirectional talk.
9	Help	Click it to open help file.

## 2.4 Video Window Setup

The interface is shown as in Figure 2-5.

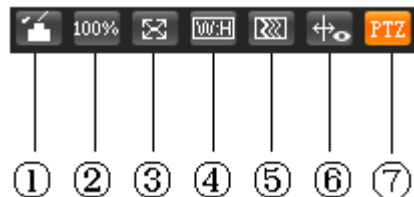






Figure 2-5

### 2.4.1 Image Adjustment

Click this button to display/hide image control interface. Click it to open picture setup interface. This interface is on the top right pane. See Figure 2-6

Parameter		Function	
Video setup		It is to adjust monitor video brightness.	<b>Note:</b> <ul style="list-style-type: none"> <li>● All the operations here apply to WEB end only.</li> <li>● Please go to Setup-&gt;Camera-&gt;Conditions to adjust corresponding items.</li> </ul>
		It is to adjust monitor video contrastness.	
		It is to adjust monitor video hue.	
		It is to adjust monitor video saturation.	
	Reset	Restore brightness, contrastness saturation and hue to system default setup.	

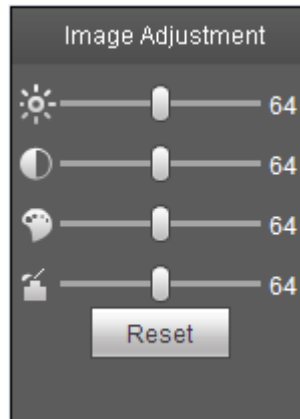


Figure 2-6

### 2.4.2 Original Size

Click this button to go to original size. It is to display the actual size of the video stream. It depends on the resolution of the bit stream.

### 2.4.3 Full Screen

Click it to go to full-screen mode. Double click the mouse or click the Esc button to exit the full screen.

### 2.4.4 Width and Height Ratio

Click it to restore original ratio or suitable window.



### 2.4.5 Fluency Adjustment

There are three levels of fluency for you to select (real-time, normal, fluent). The default is normal.

### 2.4.6 Fluency Adjustment

Click it to open PTZ setup interface. Please refer to chapter 2.5 for detailed setup information.

### 2.4.7 Rule Info

Click it to enable preview page to display intelligent rule, the default is enabled.




### 2.4.8 PTZ

Click it to enable PTZ config item, refer to “2.5 PTZ Config” for more details.

## 2.5 PTZ Control

Before PTZ operation, please make sure you have properly set PTZ protocol. (Please refer to Chapter 4.4.1).

Here you can view direction keys, speed, zoom, focus, iris, preset, tour, pan, scan, pattern, aux close, and PTZ setup button. See Figure 2-7.

Parameter	Note
 Quick Position	Use mouse to draw a box in monitoring video, PTZ will rotate and focus to quickly positioning.
PTZ direction	PTZ supports eight directions: left/right/up/down/upper left/upper right/bottom left/bottom right.
Speed	It controls rotation speed. The longer the step length, the higher the speed. Step length control PTZ, zoom, focus and iris.
Zoom/focus/iris	Click  to increase value and click  to decrease value. Note: Some cameras don't support iris, please refer to the actual devices for details.

The PTZ setup/Menu interface is shown as in Figure 2-7.



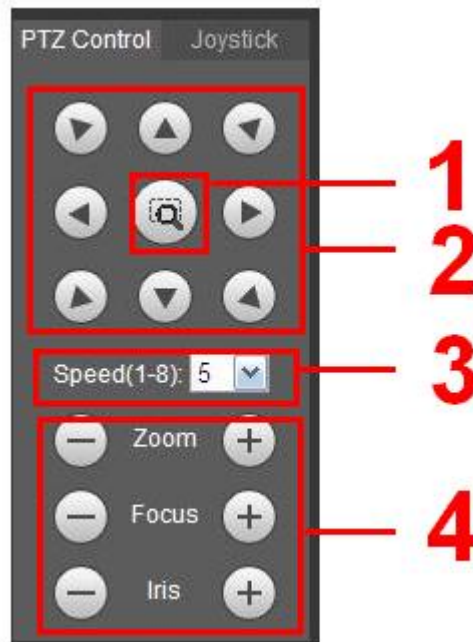


Figure 2-7

### 2.5.1 Virtual Joystick

The virtual joystick interface is shown as below. See Figure 2-8.

This function allows you to control the button in then center to simulate the joystick operation. You can use it to control device movement.



Figure 2-8

### 2.5.2 PTZ Function

Click PTZ set button, the interface is shown as in Figure 2-9. Here you can select scan, preset, tour pattern, assistant function and etc.

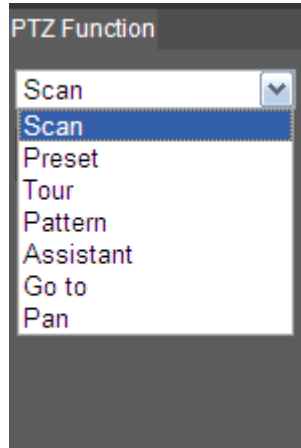


Figure 2-9

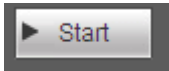
Please refer to the following sheet for PTZ setup information.

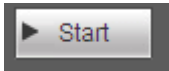
Parameter	Function
Scan	<ul style="list-style-type: none"> <li>Select Scan from the dropdown list, click Start button, you can begin scan operation. Default SN is 1.</li> </ul>
Preset	<ul style="list-style-type: none"> <li>Input the preset value and then click View button, the camera turns to the corresponding position of the preset.</li> </ul>
Tour	<ul style="list-style-type: none"> <li>Select Tour from the dropdown list and then click Start button, you can begin tour.</li> </ul>
Pattern	<ul style="list-style-type: none"> <li>You can select Pattern from the dropdown list and then click Start button to begin PTZ movement.</li> </ul>
Assistant	<ul style="list-style-type: none"> <li>Reserved assistant function.</li> </ul>
Goto	<ul style="list-style-type: none"> <li>It is the accurate positioning function. Please input corresponding horizontal angle, tilt angle, and speed dome zoom speed and then click Goto button to go to a specified position.</li> <li>One unit of the horizontal angle or tile angle stands for 0.1 degree.</li> </ul>
Pan	Select Pan from the dropdown list and then click Start button, you can turn the PTZ realize 360 degrees movement. Click Stop button to stop current operation.





For detailed setup information, please go to Setup->PTZ->Function.



Click  button to begin a PTZ operation. Now you can see it becomes Stop button. Click it again to stop current PTZ operation.

### 3 Playback

Web client playback supports video playback and picture playback.

Note:

Before playback, user shall set storage management as in Chapter 4.7.

#### 3.1 Playback

The playback interface is shown as in Figure 3-1.

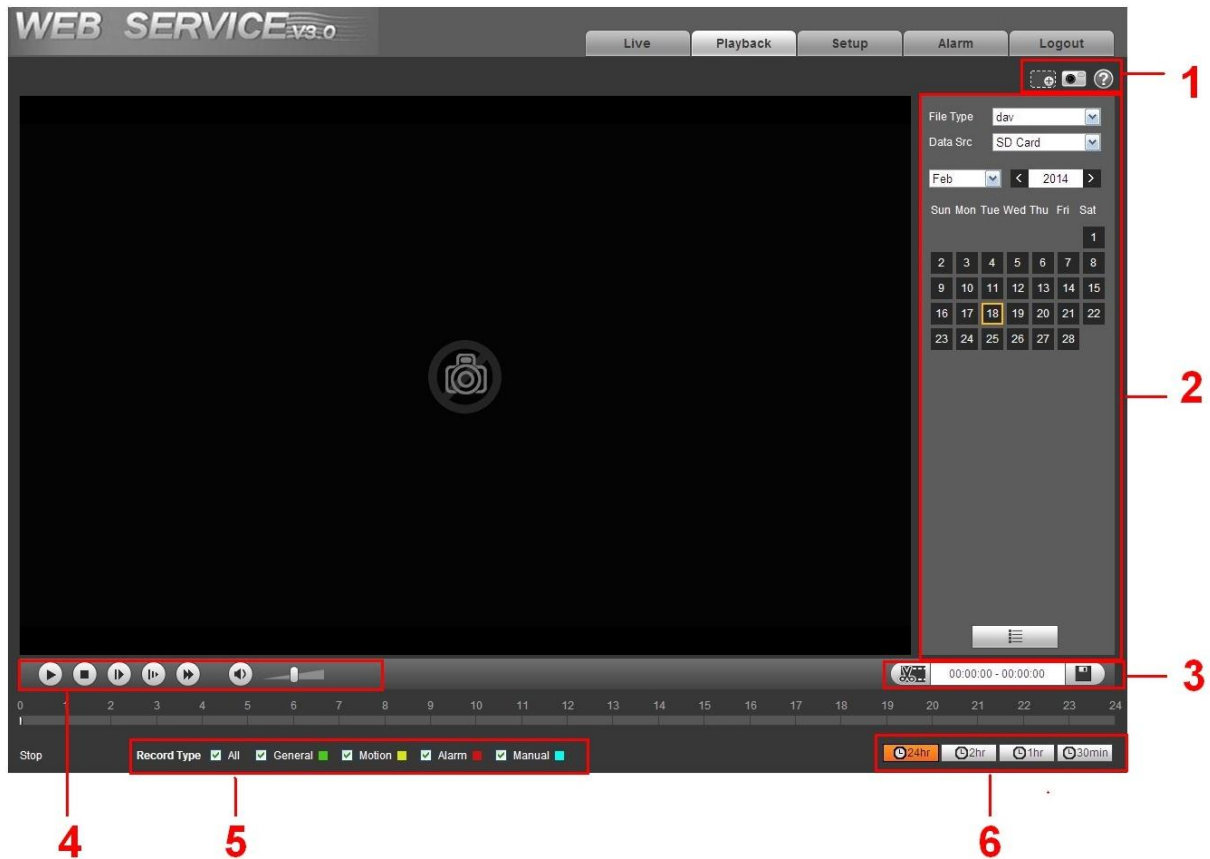


Figure 3-1

There are six sections:

- Section 1: Assistant function
- Section 2: Playback file
- Section 3: Clip
- Section 4: Playback bar
- Section 5: Record type

- Section 6: Progress bar time format

### 3.1.1 Function of Play

The function of play is shown as in Figure 3-2.

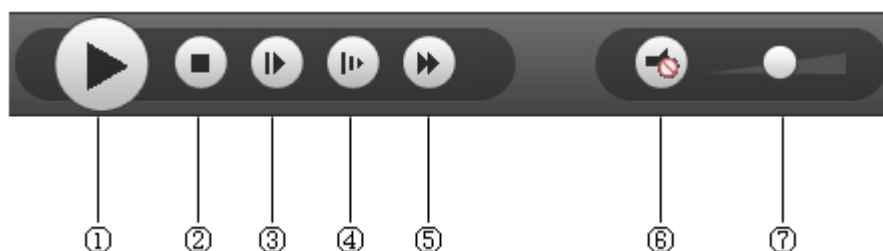


Figure 3-2

Parameter	Function
① Play	When you see this button, it means pause or not played record. Click this button, switch to normal play status.
② Stop	Click this button to stop playing.
③ Frame by frame play	Click this button to go to next frame. <b>Note:</b> You shall pause record when you use this function.
④ Slow	Click this button to play slowly.
⑤ Quick	Click this button to play quickly.
⑥ Mute	When this button displays, it means audio is silent. Click this button to switch back to normal.
⑦ Volume	Left click mouse to adjust volume.

### 3.1.2 Playback File

In calendar, blue date represents data currently has video record or snapshot. See Figure 3-3.

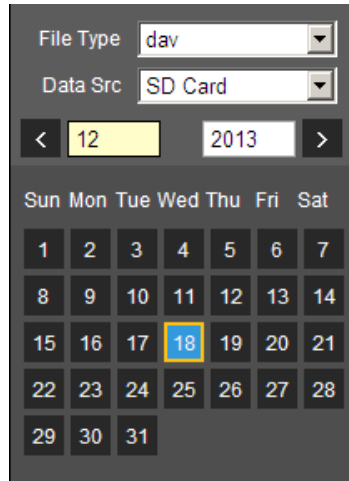


Figure 3-3

Parameter	Function
File Type	<ul style="list-style-type: none"> <li>• Select “dav”, as video playback.</li> <li>• Select “jpg” as picture playback.</li> </ul>
Data Source	Default is SD card.

Step 1.


Click data in blue, time axis displays record file progress bar in color. While, green represents normal record, yellow represents motion detect record, red represents alarm record, and blue represents manual record.

Step 2.

Step 3. Click certain time on progress bar, playback starts from this time. See Figure 3-4.



Figure 3-4

Step 4. Click file list , select date file will be displayed in list.

Step 5. Double click file in list, playback this file and display file size, start time and end time. See Figure 3-5.

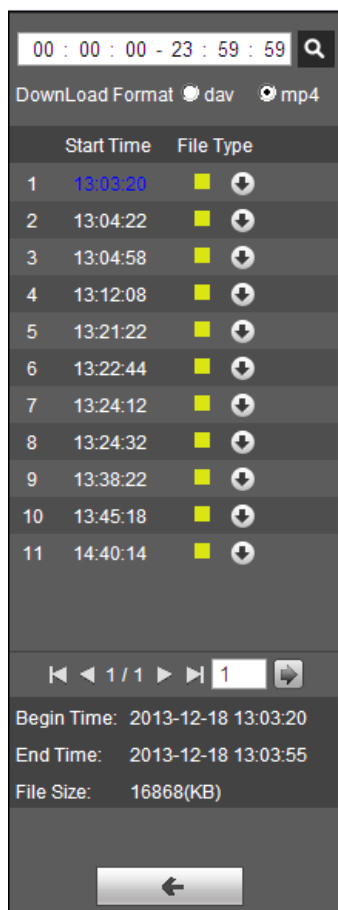





Figure 3-5

Parameter	Function
 Search	It means records within searched start time and end time on the date.
Record Download Format	There are two formats: dav, mp4.
 Download	<ul style="list-style-type: none"> <li>Record type is “dav”, click download button to download file to local.</li> <li>Record type is “mp4”, click download button and download file to path in Ch 5.1.2.5.</li> </ul> <p>Note: System does not support download and playback of MP4 file.</p>

Parameter	Function
 Back	Click back button to go to calendar interface.

### 3.1.3 Playback Cut (Clip)



Note:

Playback cut function will automatically pause playing record as playback cut and playback cannot be at the same time.

Step 1.

Click start time to cut on time axis. This time must be within progress bar range.



Step 2.

Move mouse to cut icon . You will be asked to select start time. Click cut icon  as finish cutting.

Step 3.

Click playback cut end time on time axis. This time must be within progress bar range.

Step 4.

Move mouse to cut icon , you will be asked to select end time. Click cut icon  as finish cutting.

Step 5.

Click Save button to save file cut to path in chapter 4.1.2.4. See Figure 3-6.

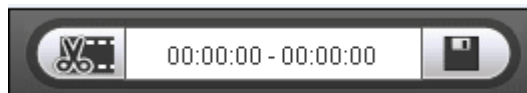


Figure 3-6

### 3.1.4 Record Type

Check record file type, only selected file will be displayed in progress bar and file list. See Figure 3-7.



Figure 3-7

### 3.1.5 Progress Bar Time Format

The interface is shown as in Figure 3-8.

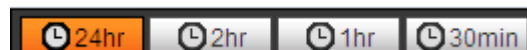






Figure 3-8

Please refer to the following sheet for detailed information.

Parameter	Function
 24 hours	Click it, means video in past 24 hours.
 2 hours	Click it, means video in past 2 hours.
 1 hour	Click it, means video in past 1 hour.
 30 min	Click it, means video in past 30 min.



### 3.1.6 Assistant Function

Video playback assistant function is shown in Figure 3-9.



Figure 3-9

Please refer to the following sheet for detailed information.

Parameter	Function
 Digital Zoom	<ul style="list-style-type: none"> <li>Click it, you can zoom in any area when then playback video is in original status. In non-original status, you can zoom in specified zone, Right click mouse to restore its original size.</li> <li>Click this button; you can scroll to zoom in/out video.</li> </ul>
 Snapshot	Click this button; you can snapshot video under playback status. Snapshot will be saved to path in chapter 4.1.2.4.

## 3.2 Picture Playback

Web client picture playback interface has the following three functions. See Figure 3-10.

Parameter	Function
1	Play function bar
2	Playback file bar
3	Snapshot type bar

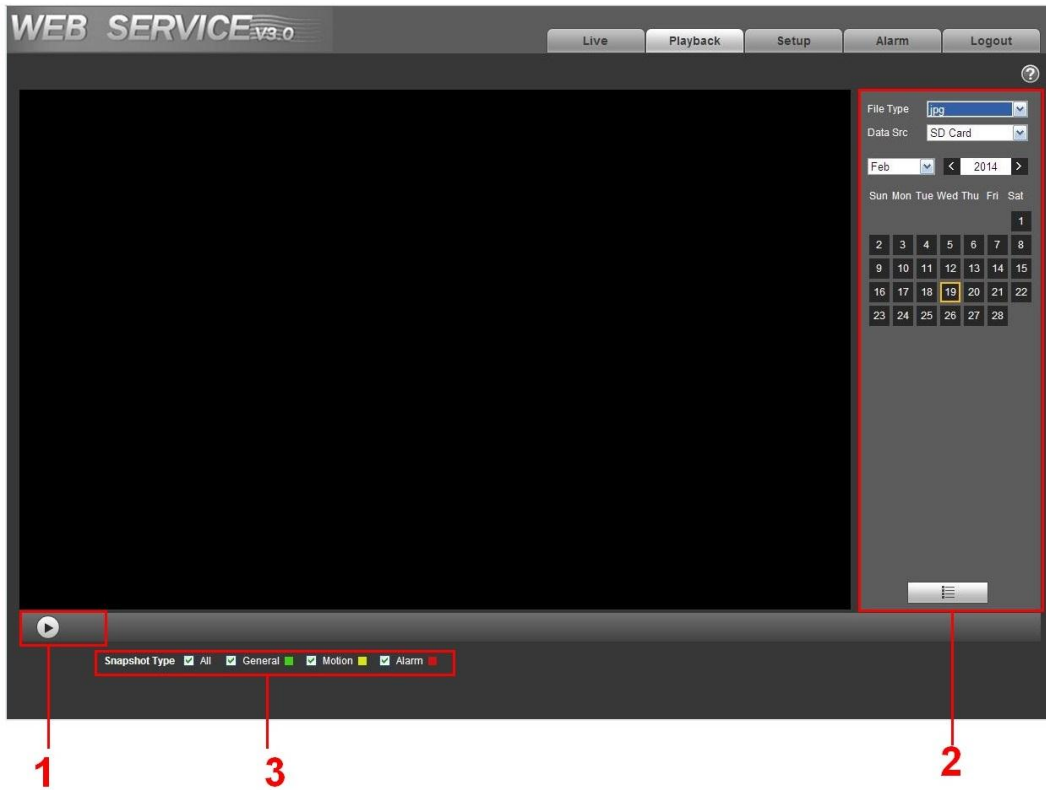



Figure 3-10


### 3.2.1 Play

The play button is shown as below. See Figure 3-11.




Figure 3-11

Default icon is , and it means pause or not played picture.

- Click play button to switch to normal play status. Icon becomes .
- Click it to pause.

### 3.2.2 Playback File



Step 1: Click file list , select snapshot file of the date.

Step 2: Double click file in list to play this snapshot.

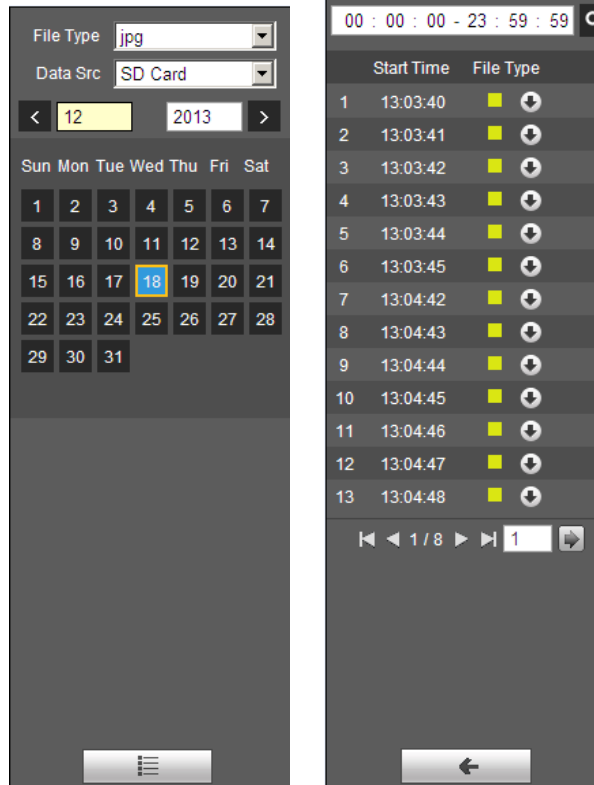





Figure 3-12 Figure 3-13

Please refer to the following sheet for detailed information.

Parameter	Function
 Search	It means all snapshot files within the start time and end time of selected date.
 Download	Click download button to download snapshot file to local.
 Back	Click back button to return to calendar interface and re-select time.

### 3.2.3 Snapshot Type

Check snapshot file type, file list only displays file of selected type. See Figure 3-14.

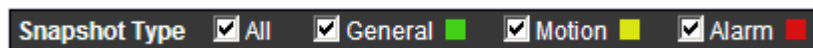


Figure 3-14

## 4 Setup

Web client setup support camera, network, PTZ, event, storage, system and system info view.

### 4.1 Camera

#### 4.1.1 Conditions

Here you can view device property information. Slight differences may be found due to different speed dome series. The setups become valid immediately after you set. See Figure 4-1.

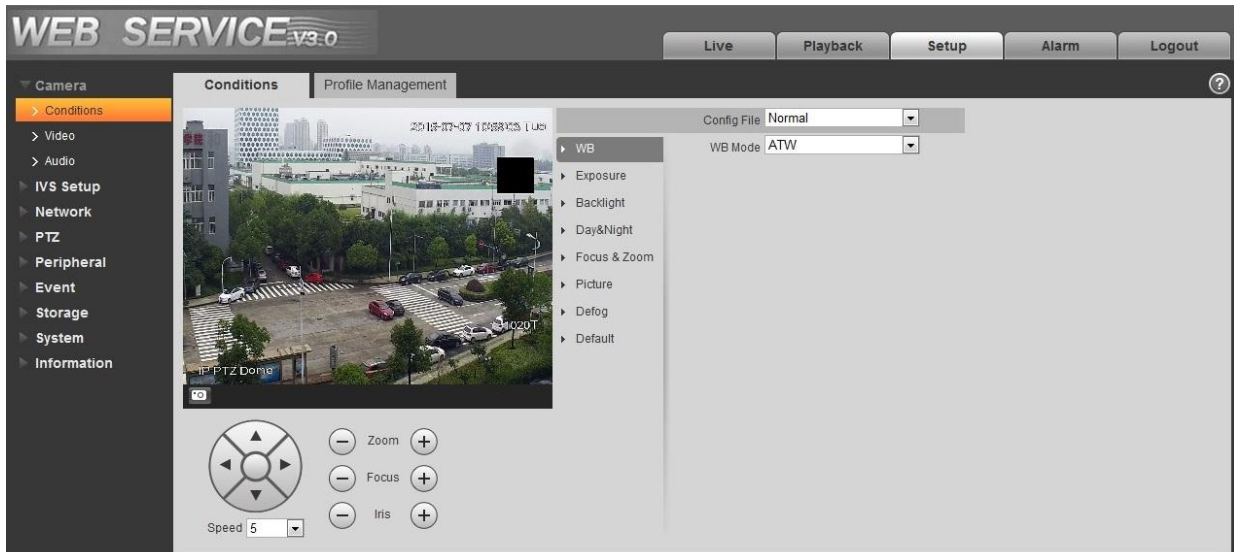


Figure 4-1

Please refer to the following sheet for detailed information.

Parameter	Function
Config File	Here you can set camera setup mode. It includes: normal/day/night.
White Balance	It is to set camera white balance. It includes: auto/manual/ATW/outdoor/indoor/outdoor auto/sodium light auto/sodium light.
Exposure	It is to set camera exposure mode. It includes: auto/manual/aperture has the priority/shutter has the priority.
Backlight	It is to set the camera backlight mode, including WDR, HLC, and BLC.

Day/Night	It is to set camera day/night switch mode. The type includes: electronic/ICR It includes four modes: auto/B&W/Color/Photosensor.
Focus & Zoom	It is to set camera focus and zoom mode, focus mode includes: auto/manual/semi auto, for zoom, it is to set digital zoom/zoom rate.
Picture	It is to set camera video. It includes: style/hue/brightness/saturation/ chroma control/gamma/sharpness/sharpness restrain level/picture flip.
Defog	It is to enable the camera defog function.
Default	It is to restore factory default setup.

### Important

Please make sure your purchased camera supports all the functions listed here.

#### 4.1.1.1 White Balance

White balance interface is shown as below. See Figure 4-2.

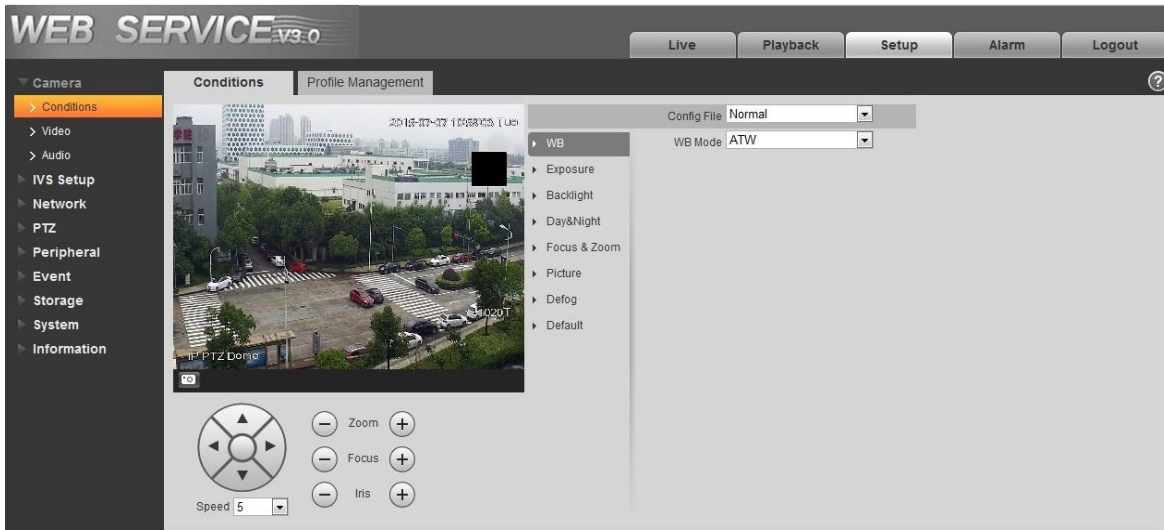


Figure 4-2

Please refer to the following sheet for detailed information.

Parameter	Function
WB mode	<ul style="list-style-type: none"> <li>● It is to set camera white balance. It includes: auto/manual/ATW/outdoor/indoor/outdoor auto/sodium light auto/sodium light.</li> <li>● For manual mode, you can input red gain and blue gain value.</li> </ul>

#### 4.1.1.2 Exposure

Exposure interface is shown as below. See Figure 4-3.

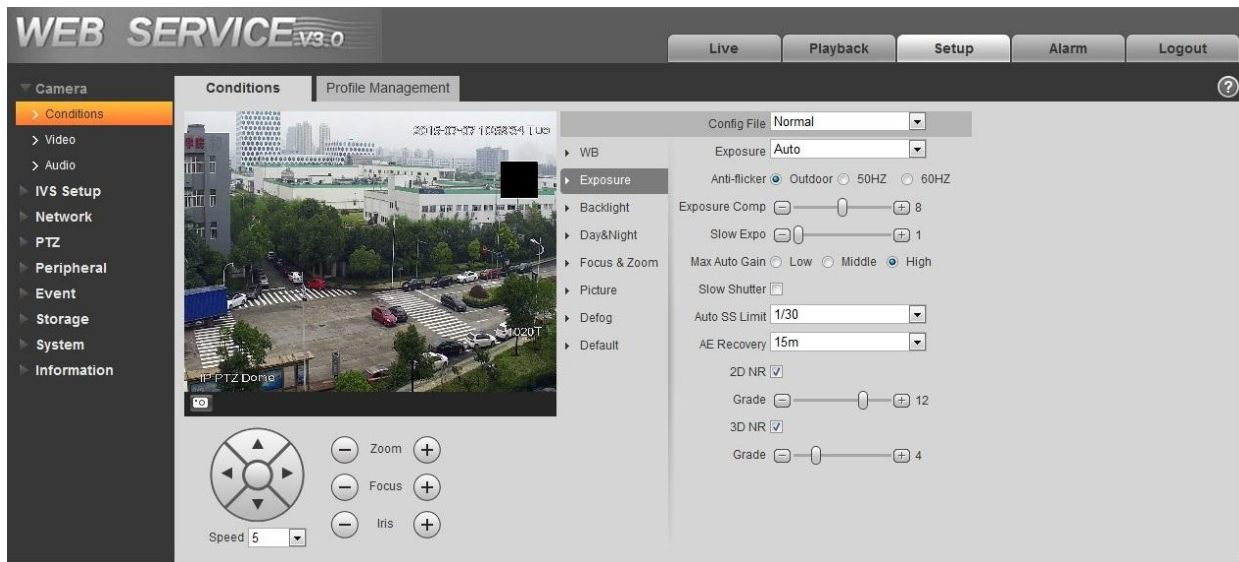


Figure 4-3

Please refer to the following sheet for detailed information.

Parameter	Function
Exposure mode	<ul style="list-style-type: none"> <li>● It is to set camera exposure mode. It includes: auto/manual/aperture has the priority/shutter has the priority. The default setup is auto.</li> <li>● For the auto exposure mode, the gain, shutter and iris are in auto mode.</li> <li>● For manual exposure mode, the gain, shutter and aperture is in manual mode.</li> <li>● When the aperture has the higher priority, the aperture is in the manual mode and the gain and shutter is in auto mode.</li> <li>● When the shutter has the priority, the shutter is in manual mode, gain and aperture is in auto mode.</li> </ul>

Anti-flicker	<ul style="list-style-type: none"> <li>● 50Hz: When AC is 50Hz, auto adjust exposure according to the scene brightness, and make sure there is no cross stripe in the image.</li> <li>● 60Hz: When AC is 60Hz, auto adjust exposure according to the scene brightness, and make sure there is no cross stripe in the image.</li> <li>● Outdoor: It can be switched to exposure mode under this mode, which is to realize the result in the corresponding exposure mode.</li> </ul>
Exposure compensation	It can adjust video whole brightness via setting exposure object brightness so that it can suit for different environments.
Gain level	It is to set video brightness under the low illumination environments.
Shutter	It is to set camera exposure time.
Iris	It is to set camera iris.
Slow exposure	If the light may change greatly, you can use slow exposure to get image so that the camera can get stable video.
Max Auto gain	It is to set camera max gain.
Slow shutter	In lower illumination environment, you can lower the cameras auto exposure time to capture the image and enhance the definition. For the moving object , the trail may appear. Please note it is valid in auto mode.
Auto Slow Shutter Min value	It is to set camera min shutter value.
AE resume	Manually adjust Iris + or Iris -, system can auto resume previous exposure mode.
2D noise restrain	The parameter is used to restrain noise, the higher the level is, the smaller the noise becomes. Comparing with the previous one, the picture may become a little bit blurry.
3D noise restrain	It is to control noise. The higher the level is; the smaller the noise becomes. Comparing with the previous one, there may appear some smear phenomenon.

#### 4.1.1.3 Backlight

The noise reduction interface is shown as in Figure 4-4.

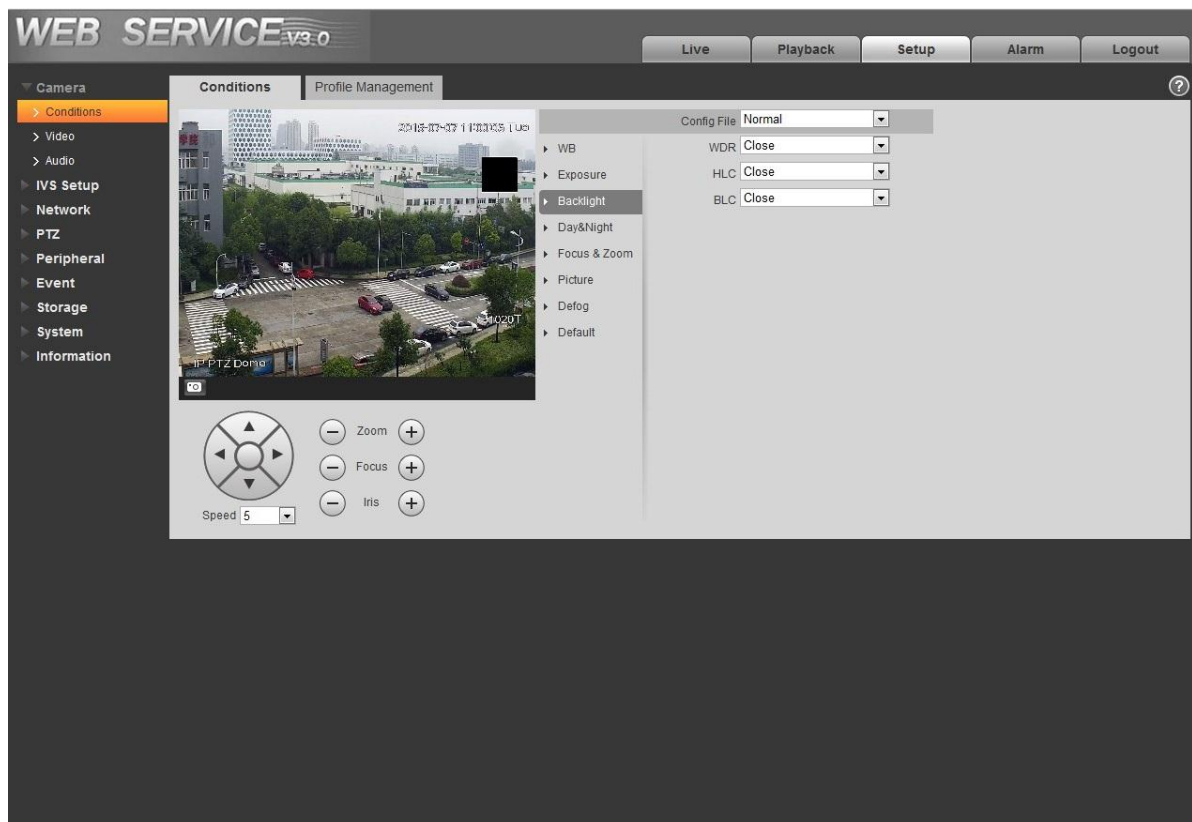


Figure 4-4

Please refer to the following sheet for detailed information.

Parameter	Function
WDR	In the environment with severe comparison between darkness and brightness, it will auto adjust the image contrast to make both the bright and dark areas clear to see. It can be set from 0~100.
HLC	It can auto adjust image brightness when there is intense light source in the image, and improve the image influence caused by overexposure.
BLC	In the environment with severe comparison between darkness and brightness, such as backlighting environment, it can auto adjust image brightness to make the image clear to see.

#### 4.1.1.4 Day/Night

##### **Important**

**Please make sure your purchased product camera supports this function.**

The day/night mode is shown as in Figure 4-5.

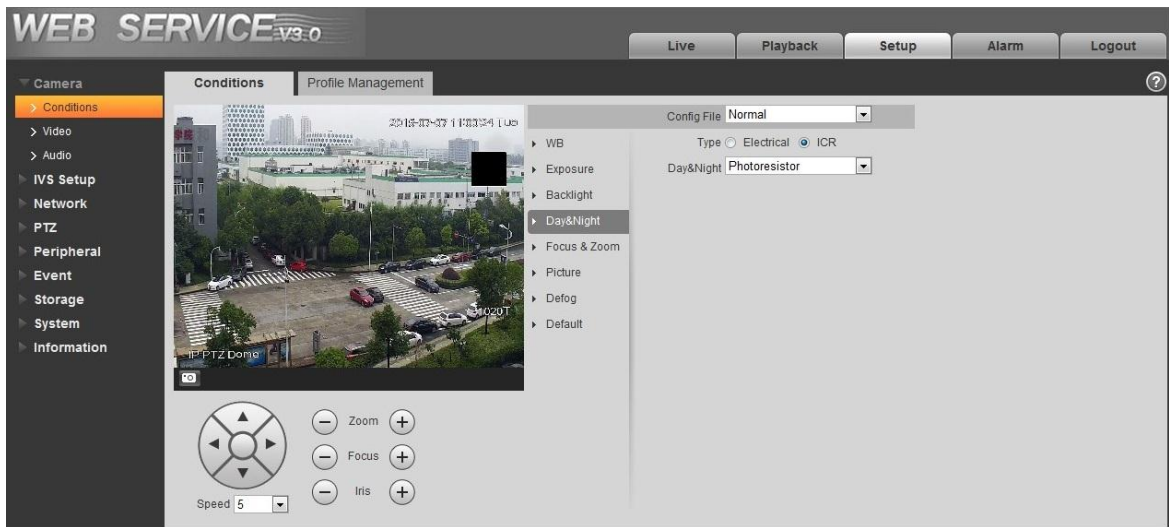


Figure 4-5

Please refer to the following sheet for detailed information.

Parameter	Function
Day/night	It is to set camera day/night mode. The type includes: electronic/mechanical. The mode includes: B&W/color/auto/photosensor.
Type	It is to set the camera day/night type, including electrical and ICR.
Sensitivity	It is to camera day/night switch sensitivity.

#### 4.1.1.5 Focus & Zoom

The focus interface is shown as in Figure 4-6.



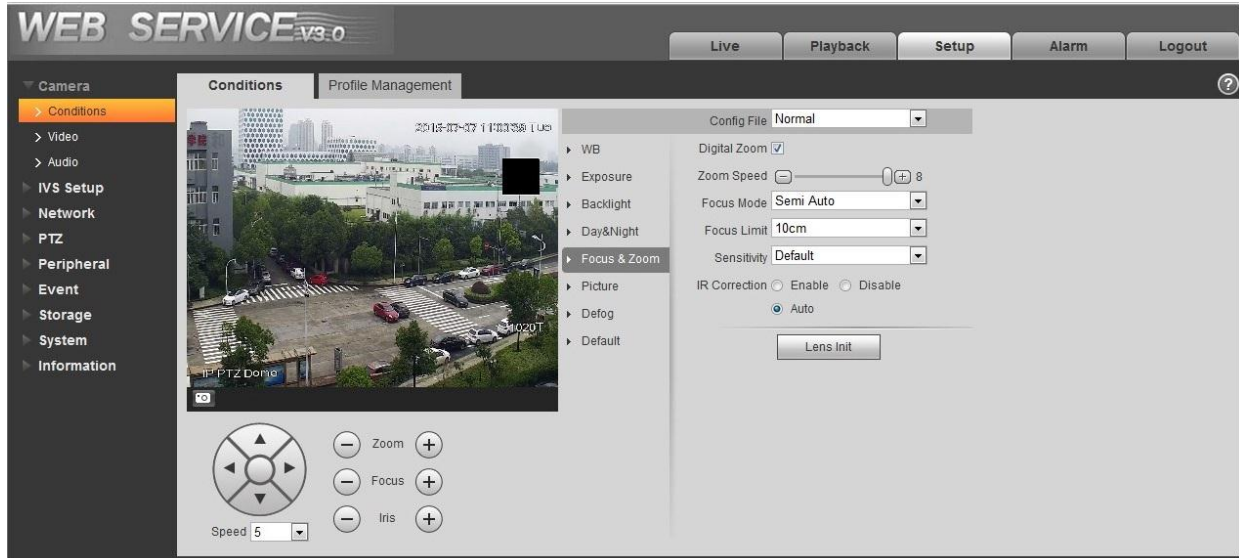


Figure 4-6

Please refer to the following sheet for detailed information.

Parameter	Function
Digital zoom	Check it to enable digital zoom function.
Zoom speed	It is to set the camera zoom speed, the bigger the value is, the faster the zoom speed becomes.
Focus mode	It is to set camera focus mode. It includes: auto/manual/semi auto.
Focus limit	It is to camera focus distance in case the focus distance is too small and the focus goes to the enclosure. At the same time, you can change focus distance to adjust focus speed.
Sensitivity	It is to set camera focus sensitivity. The higher the value is, the easier it is to activate focus. The lower the value is, the difficult it is to activate focus.
IR Correction	It is to set IR light focus correction function to enhance focus effect and remove the IR light effect on the focus.
Lens Init	Click it to initialize the lens.

#### 4.1.1.6 Picture

Picture interface is shown as in Figure 4-7.

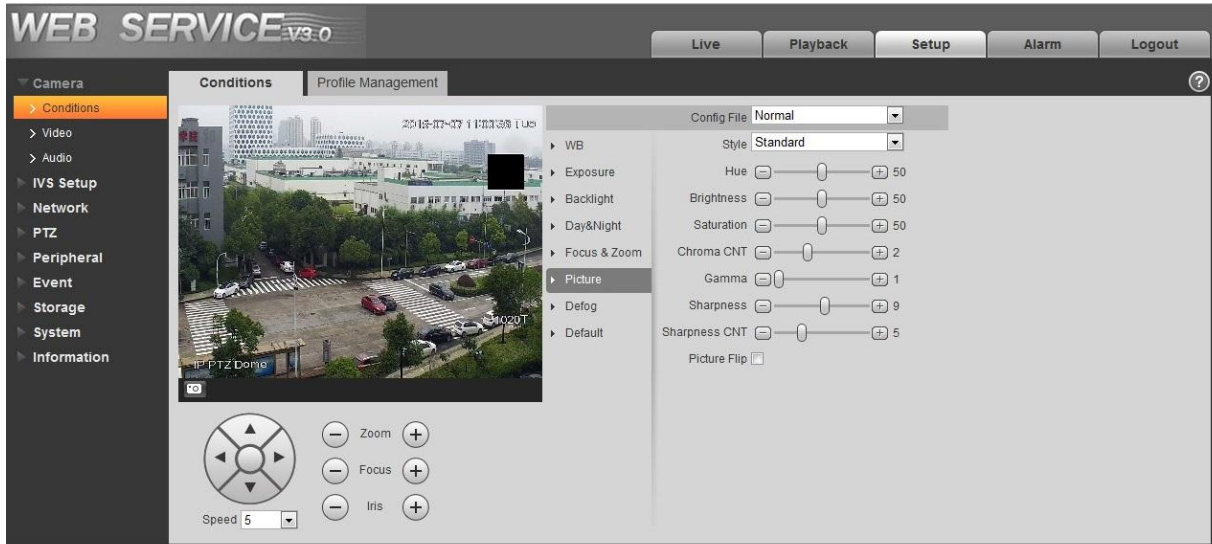


Figure 4-7

Please refer to the following sheet for detailed information.

Parameter	Function
Style	It is to set video style.
Hue	It is to set picture hue.
Brightness	It is to set video brightness. The higher is value is, the bright the video is.
Saturation	It is to set color purity. The higher the purity is, the more color the video is. The lower the purity is, the dark the video is.
Chroma control	It is to set video color control level. The higher the value is, the higher the control level is .
Gamma	It is to set image gamma value.
Sharpness CNT	It is to adjust the camera sharpness control level, the bigger the value is, the stronger the sharpness control becomes.
Picture Flip	It is to set video display mode. It is to turn camera.

#### 4.1.1.7 Default

Default interface is shown as in Figure 4-8.

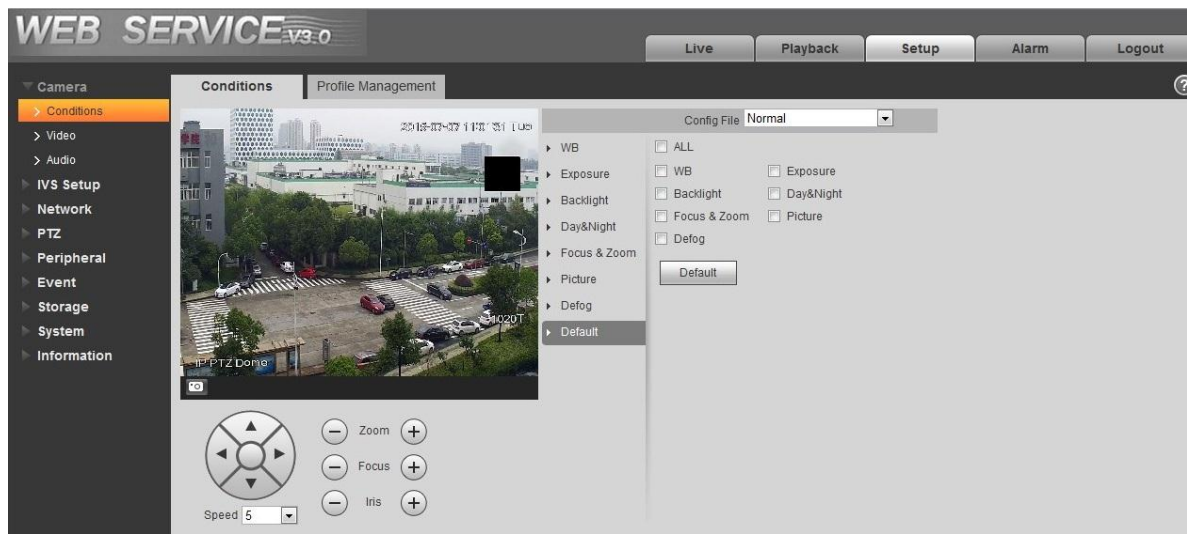


Figure 4-8

Please refer to the following sheet for detailed information.

Parameter	Function
Default	It is to restore camera parameter to factory default setup.

#### 4.1.1.8 Profile Management

Profile management interface is shown as in Figure 4-9.

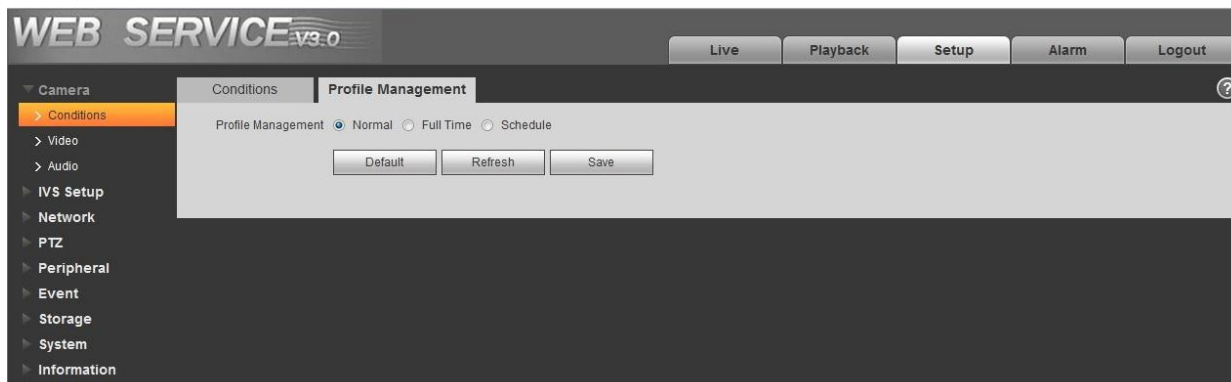


Figure 4-9

Please refer to the following sheet for detailed information.

Parameter	Function
Profile Management	There are three modes: normal/full-time/schedule. The default setup is normal.
Normal	It is to adopt the general parameter on the profile file.
Full-time	It is to adopt day or night general parameter on the profile file all the time.
Schedule	It is to adopt the day or night parameter on the profile file by time you set here.

## 4.1.2 Video

### 4.1.2.1 Video bit stream

The video bit stream interface is shown as below. See Figure 4-10.

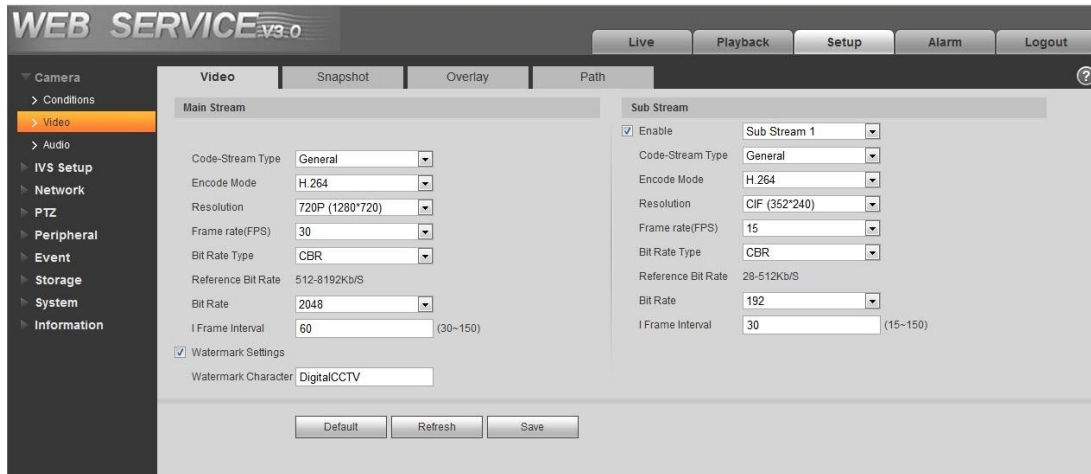


Figure 4-10

Please refer to the following sheet for detailed information.

Parameter	Function
Sub Stream Enable	Please check the box here to enable extra stream function. This function is enabled by default.
Code-Stream Type	ACF means using different fps to record. There are two options: VBR and CBR. Please note, you can set video quality in VBR mode.

Parameter	Function
Encode mode	<p>There are four options: H.264, H.264B, H.264H and MJPEG encode.</p> <ul style="list-style-type: none"> <li>● H.264: Main Profile encode mode.</li> <li>● H.264B: Baseline Profile encode mode.</li> <li>● H.264H: High Profile encode mode.</li> <li>● MJPEG: In this encode mode, the video needs to enlarge bit stream to guarantee the video definition. You can use the max bit stream value in the recommend bit to get the better video output effect.</li> </ul>
Resolution	<p>There are multiple resolutions. You can select from the dropdown list.</p> <p>For each resolution, the recommended bit stream value is different.</p>
Frame Rate	<p>PAL: 1~25f/s, NTSC: 1~30f/s..</p> <p>The frame rate may vary due to different resolutions.</p>
Bit Rate Type	<p>There are two options: VBR and CBR.</p> <p>Please note, you can set video quality in VBR mode. Under MJPEG mode, only CBR is available.</p>
Reference Bit Rate	<p>Recommended bit rate value according to the resolution and frame rate you have set.</p>
Bit Rate	<ul style="list-style-type: none"> <li>● In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value.</li> <li>● The value is null in VBR mode.</li> <li>● Please refer to recommend bit rate for the detailed information.</li> </ul>
I Frame interval	<p>Here you can set the P frame amount between two I frames. The value ranges from 1 to 150. Default value is 50.</p> <p>Recommended value is frame rate *2.</p>
Watermark Settings	<p>By calibrating watermark, to see if video is modified. Select Watermark function. Default watermark is Digital CCTV.</p> <p>Watermark character can only be number, letter, _, - within 128 characters.</p>

#### 4.1.2.2 Snapshot

The snapshot interface is shown as in Figure 4-11.

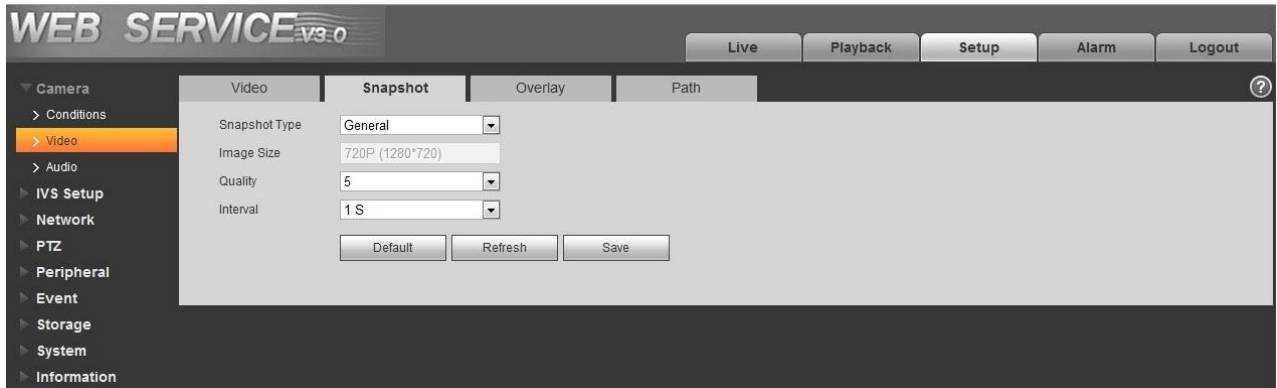


Figure 4-11

Please refer to the following sheet for detailed information.

Parameter	Function
Snapshot type	There are two modes: general (schedule) and Event (activation).
Image size	It is the same with the resolution of snapshot (main stream or sub stream).
Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s.

#### 4.1.2.3 Video Overlay

The video overlay interface is shown as in Figure 4-12 to Figure 4-16.

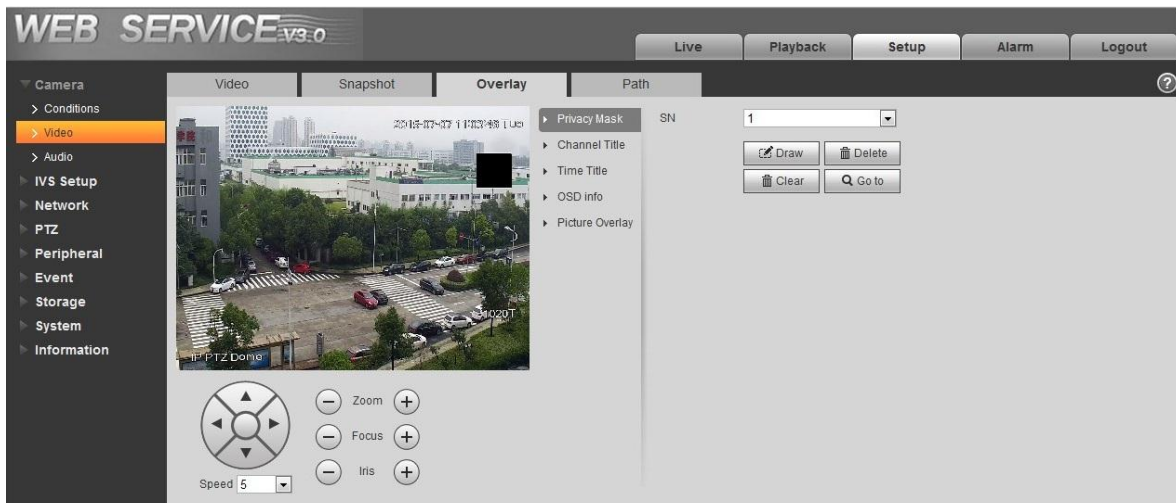


Figure 4-12

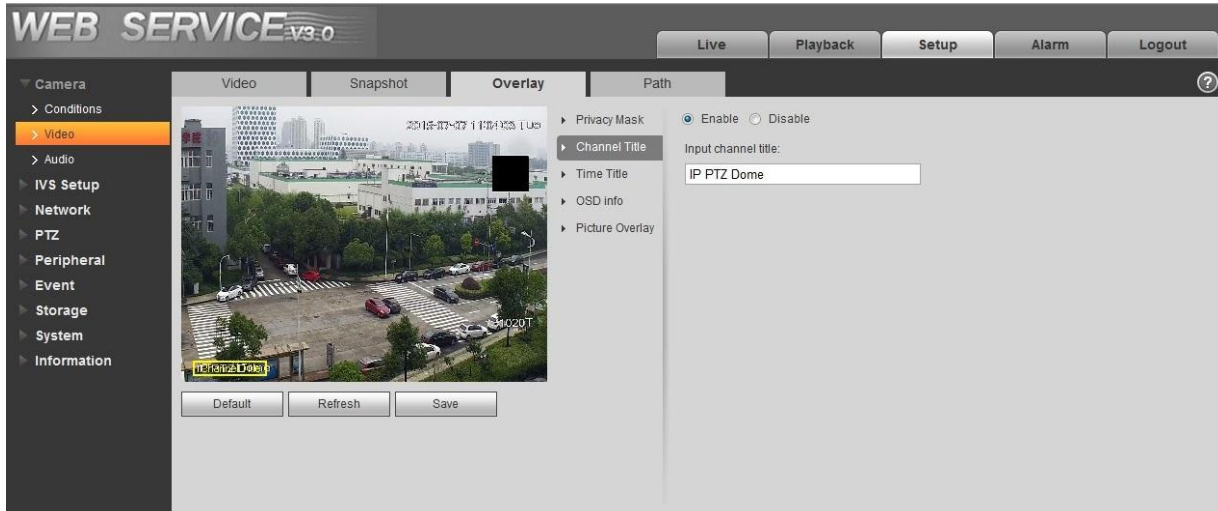


Figure 4-13

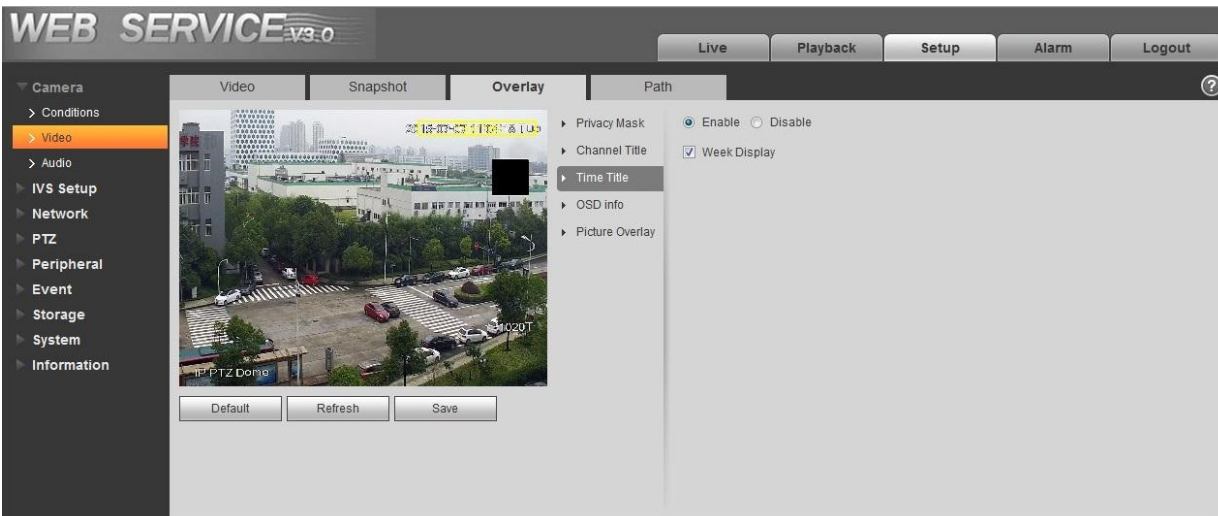


Figure 4-14



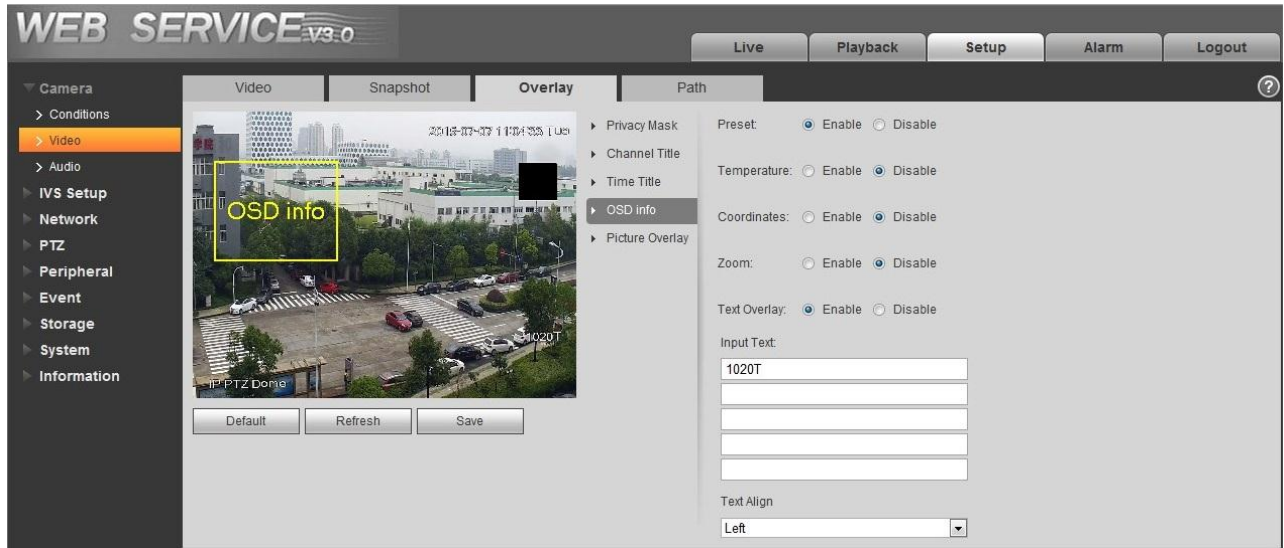


Figure 4-15

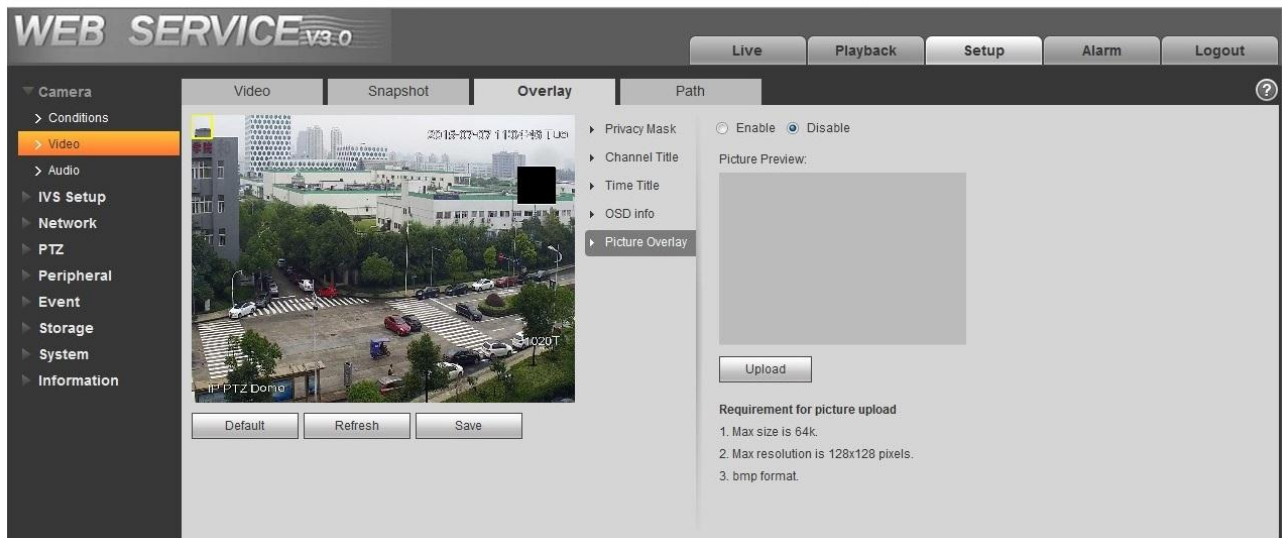


Figure 4-16

Please refer to the following sheet for detailed information.



Parameter	Function
Privacy mask	<ul style="list-style-type: none"> <li>● Select “privacy mask SN”, click ‘Draw”, drag the mouse in the video monitoring window to draw the corresponding privacy mask area of the “privacy mask SN”.</li> <li>● Select “privacy mask SN”, click “Delete” to delete the corresponding privacy mask area of the “privacy mask SN”.</li> <li>● Click “Clear” to clear all the privacy mask areas.</li> <li>● Select “Privacy Mask SN”, click “Go to” to check the corresponding privacy mask area of the “Privacy Mask SN”.</li> </ul>
Channel Title	<ul style="list-style-type: none"> <li>● You can enable this function so that system overlays channel information in video window. See Figure 4-.</li> <li>● You can use the mouse to drag the channel tile position.</li> </ul>
Time Title	<ul style="list-style-type: none"> <li>● You can enable this function so that system overlays time information in video window. See Figure 4-.</li> <li>● You can use the mouse to drag the time tile position.</li> </ul>
OSD	<ul style="list-style-type: none"> <li>● Check the corresponding “Enable” button, and it will display preset, temperature, PTZ coordinates, zoom and text overlay in the video monitoring window; check corresponding “Disable” button and it won’t display.</li> <li>● You can adjust preset, temperature, PTZ coordinates, zoom and text overlay via dragging “OSD Info” box. Alignment include align left and align right.</li> </ul>
Picture Overlay	<ul style="list-style-type: none"> <li>● You can enable this function to display overlay picture. Click disable to turn it off. See Figure 4-.</li> <li>● Click Upload Picture to overlay local picture into monitoring window. You can drag the yellow box to move it.</li> </ul> <p>Note: You cannot enable OSD info and picture overlay at the same time.</p>
Refresh	<ul style="list-style-type: none"> <li>● Set channel title, time title, OSD info, overlay and save the change. You can click Refresh to see effect.</li> </ul>

#### 4.1.2.4 Path

The storage path interface is shown as in Figure 4-17.

Here you can set snap image saved path and the record storage path.

- The default monitor image path is C:\Documents and Settings\Administrator\WebDownload\LivePicture.
- The default monitor record path is C:\Documents and Settings\Administrator\WebDownload\LiveRecord.
- The default playback snapshot path is C:\Documents and Settings\Administrator\WebDownload\PlayBackPicture.



- The default playback download path is C:\Documents and Settings\Administrator\WebDownload\PlayBackRecord.
- The default playback cut path is: C:\Documents and Settings\Administrator\WebDownload\PlayBackRecordCut.

**Note:**

Administrator is locally logged in PC account.

Please click the Save button to save current setup.

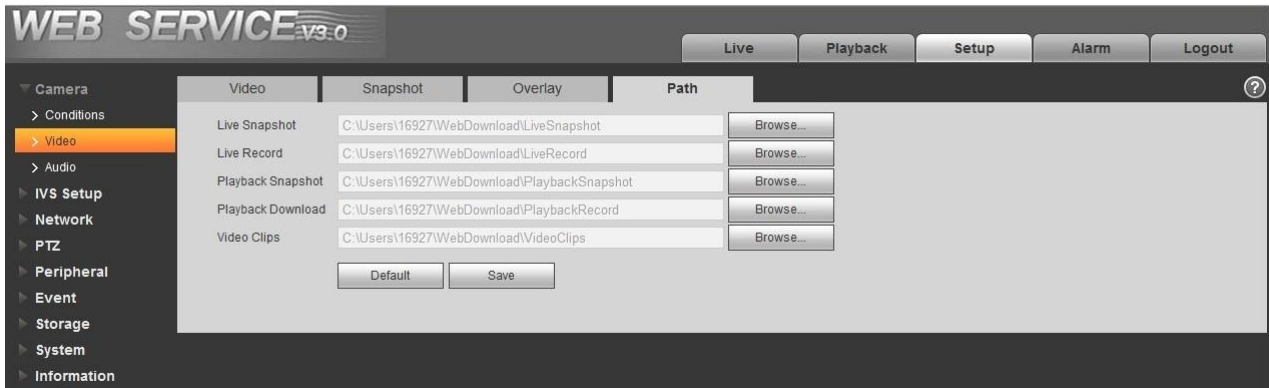


Figure 4-17

### 4.1.3 Audio

Please note some series products do not support audio function.

The audio interface is shown as below. See Figure 4-18.

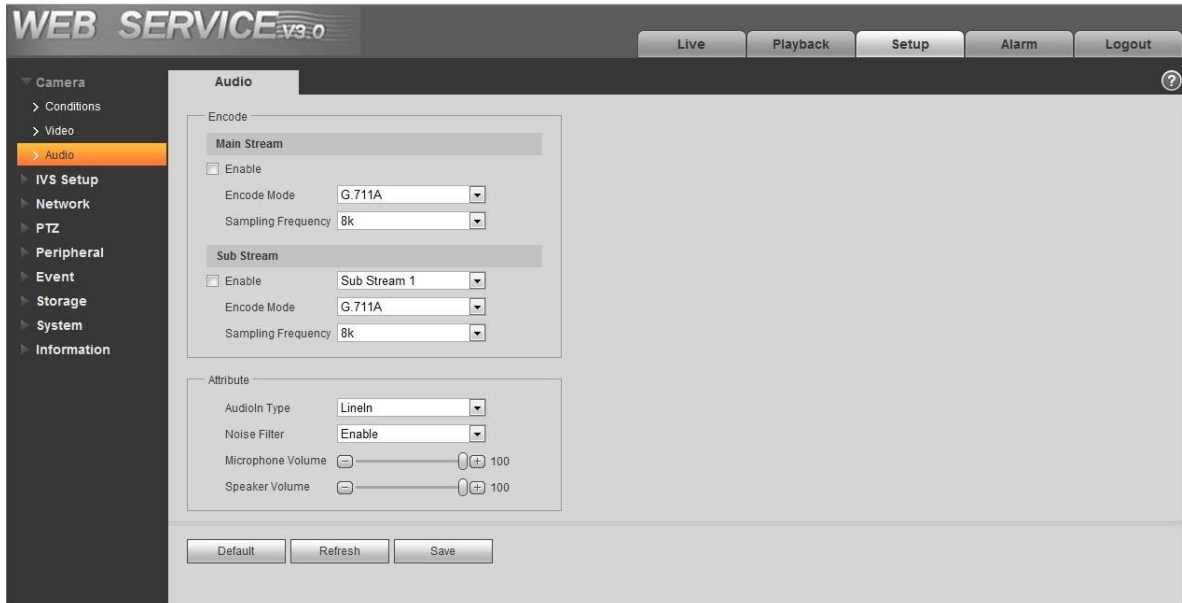


Figure 4-18

Please refer to the following sheet for detailed information.

Parameter	Function
Audio enable	Check Enable: the stream is A/V composite stream, otherwise it contains video only. Audio is available only when video is enabled.
Encode mode	The encode mode includes G.711A and G.711Mu. The default is G.711A.
Sampling frequency	It includes 8k and 16k.
Audio in type	Currently it can only select LineIn.
Noise filter	It is to set if it enables noise filter function.
Microphone volume	It is to set the microphone volume.
Speaker volume	It is to set the speaker volume.

## 4.2 IVS Setup

## 4.2.1 Global Setup

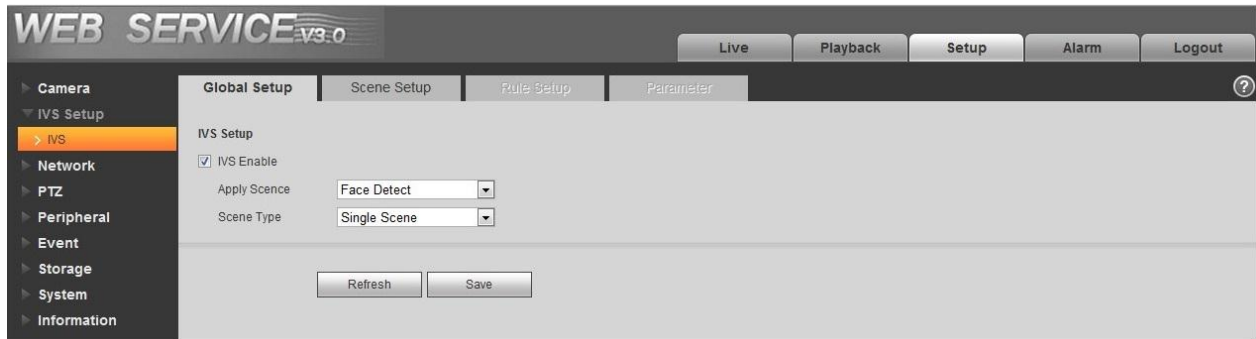


Figure 4-19

Parameter	Note
IVS Enable	Check to enable IVS function.
Apply Scene	Able to select normal scene and face detect scene, it is "Normal Scene: by default.
Scene Type	Full scene, single scene, multi scene: <ul style="list-style-type: none"> <li>• Full scene: It can realize IVS analysis of the current monitoring image after preview.</li> <li>• Single scene: It can realize IVS analysis of the single scene.</li> <li>• Multi scene: It can realize the IVS analysis of multi scene, and switch tour between scenes.</li> </ul>

## 4.2.2 Scene Setup

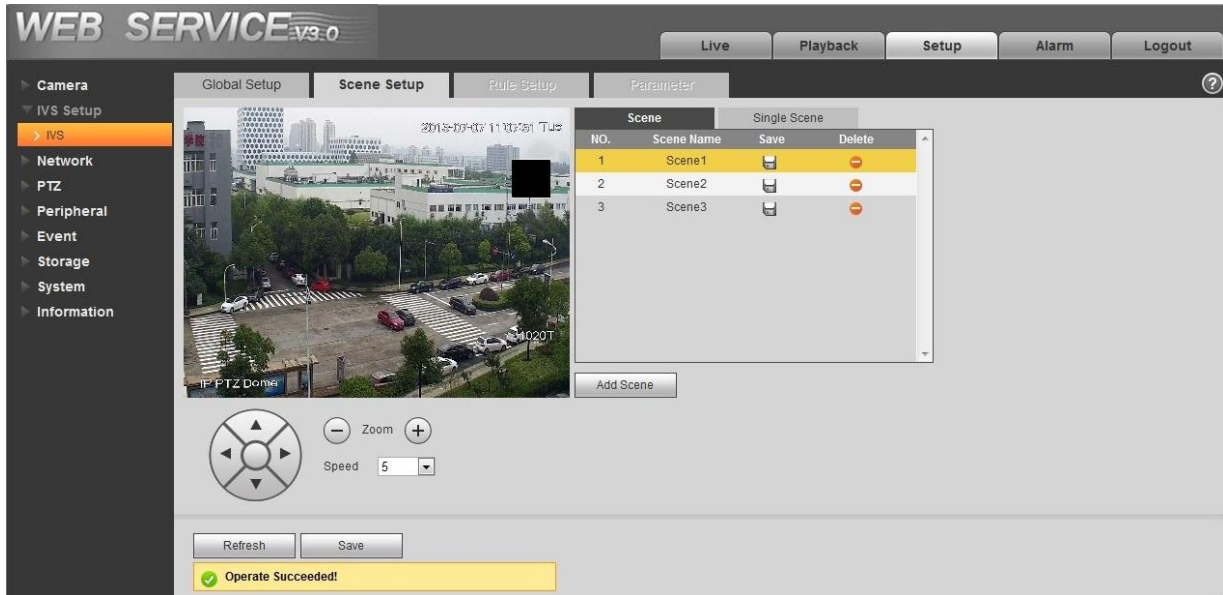





Figure 4-20

Parameter	Note
Add Scene	Click  to add scene.
Zoom	Click  to zoom in and click  to zoom out.
Speed	It is to set PTZ movement speed. The value ranges from 1 to 8.

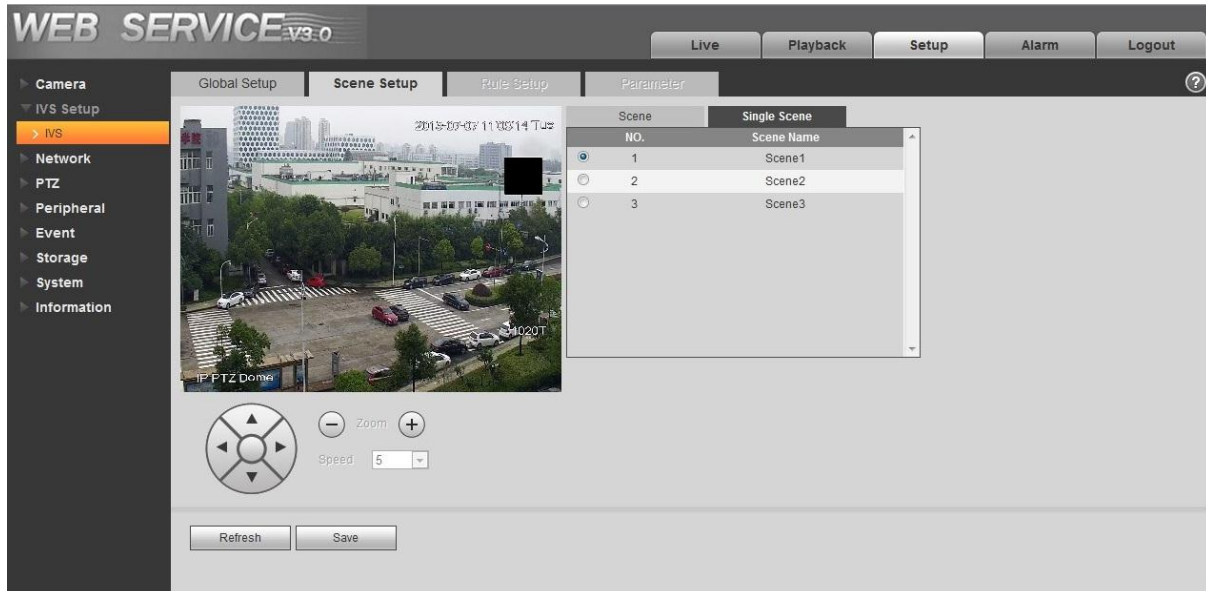


Figure 4-21

Single scene: enter “single scene” interface, click the box and select the scene which needs to be monitored.

Note:

The function needs to select the “Single Scene” in “IVS Setup > Global Setup > Scene Type”.

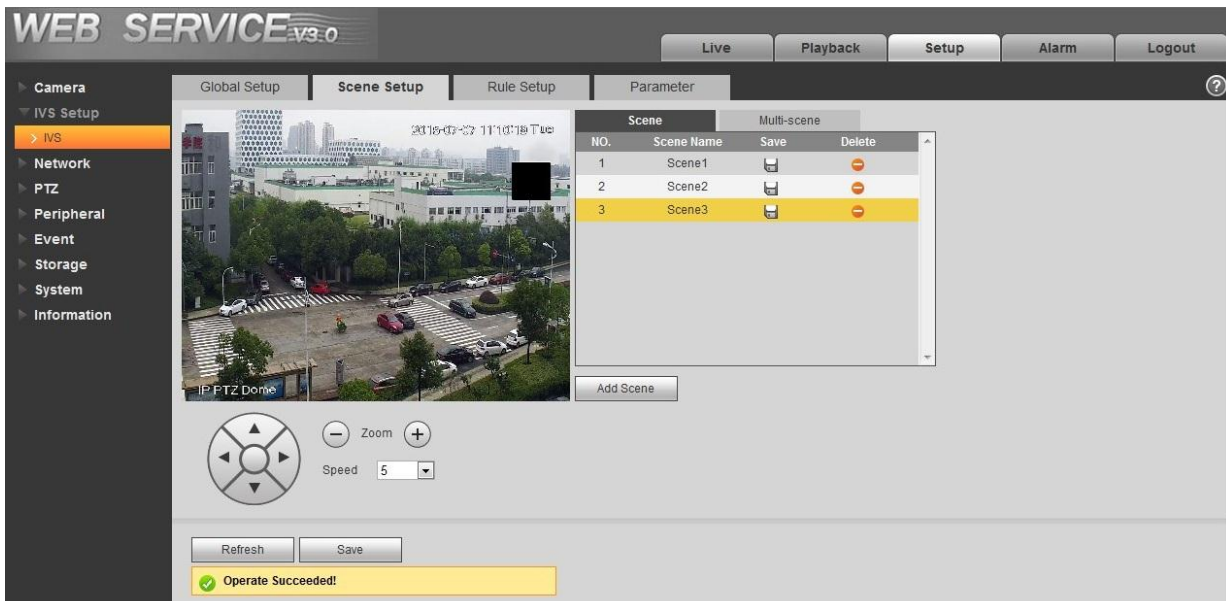


Figure 4-22

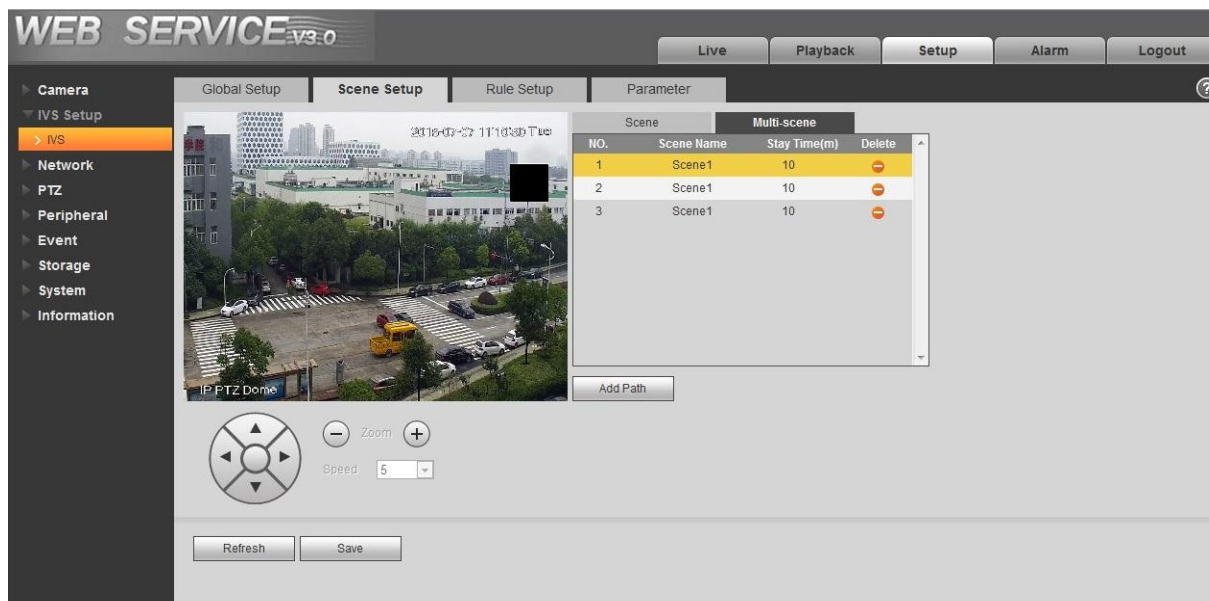
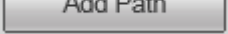


Figure 4-23

Multiple-scene: Enter “Multiple Scene” interface, click  to add tour scene, move the mouse to the “Scene Name” list; you can select several scenes as a tour. Move the mouse to the “Stay Time”, you can set stay time period.

Note:

The function needs to select “Multiple Scene” in the “IVS Setup > Global Setup > Scene Type”.

### 4.2.3 Rule Setup

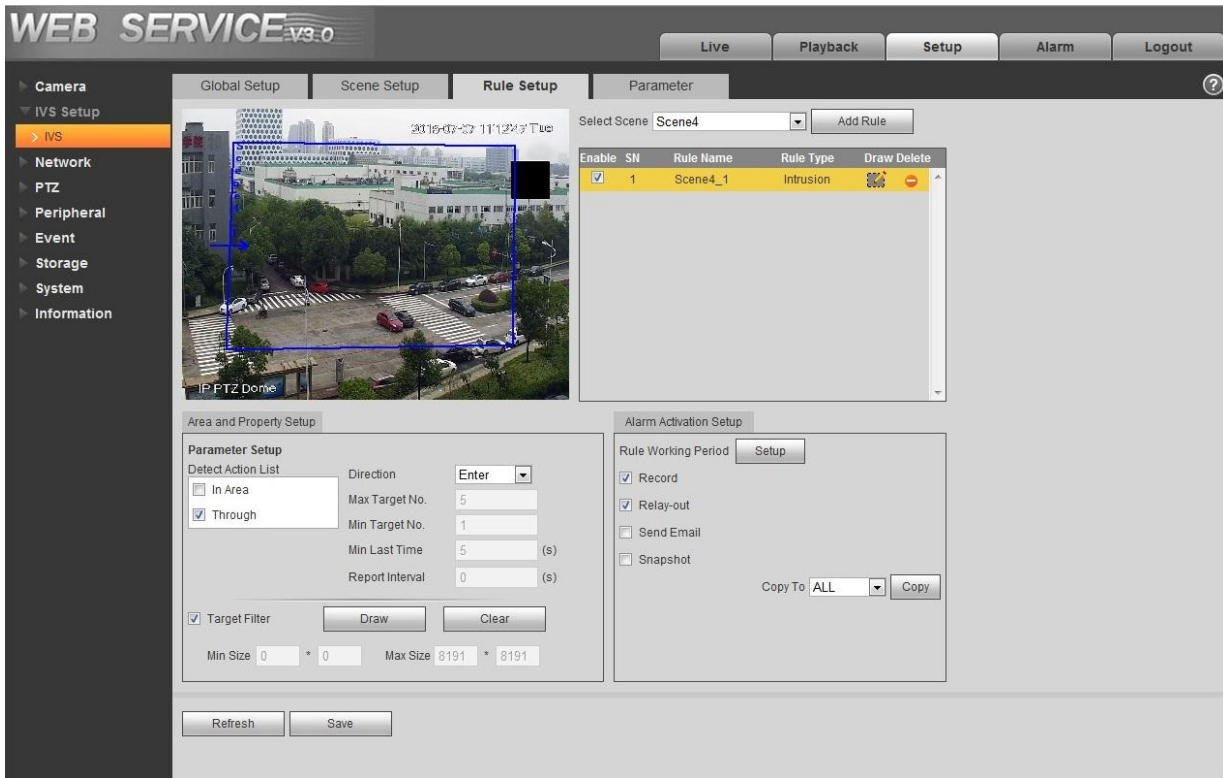
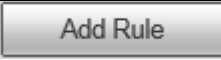




Figure 4-24

Parameter	Note
Select Scene	You can select the scene from the dropdown list so that you can add the corresponding rule.
Add Rule	Click  to add a rule to the selected scene.
Rule Enable	Check the box here to enable the rule.
Rule Name	Move your mouse to the rule name column to set a name.
Rule Type	Move your mouse to the Rule type column to set the rule type. The option includes: Tripwire/Intrusion/Object abandoned/Missing object detection and etc.
Draw Rule	Click button  to draw current rule.
Delete Rule	Click button  to delete current rule.

#### 4.2.3.1 Tripwire



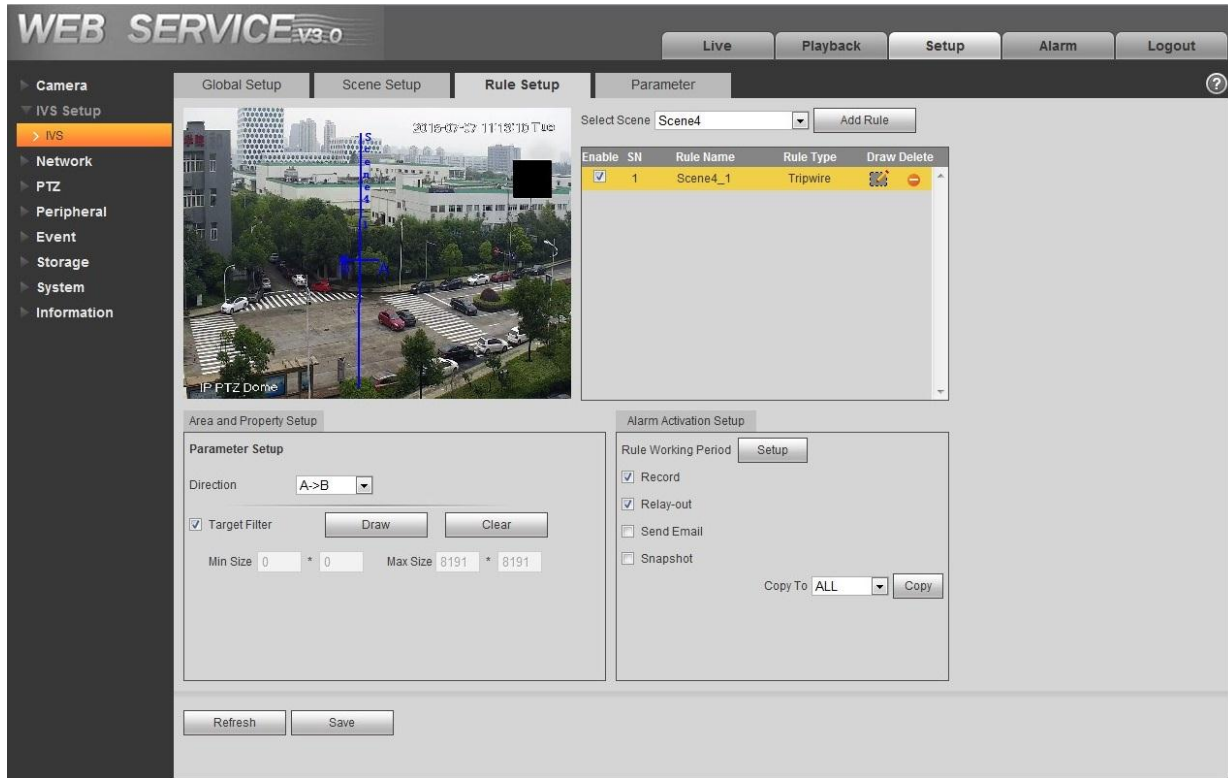




Figure 4-25

Parameter	Note
Direction	It is to select tripwire direction. The option includes: A->B、B->A、A<->B.
Target filter	Check the box here to enable this function and then click button  , you can set the target filter model in this scene for this rule. Click the button  , you can remove selected target filter model.

#### 4.2.3.2 Intrusion

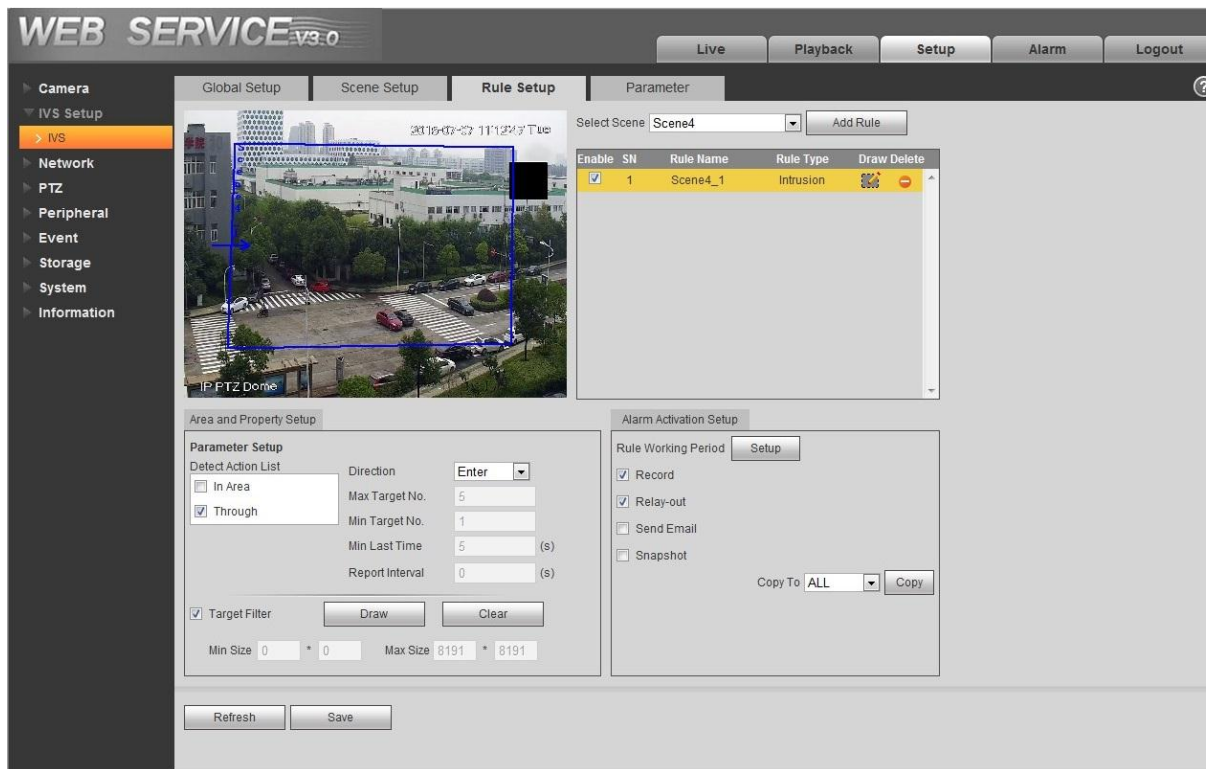




Figure 4-26

Parameter	Function
Detect action list	<ul style="list-style-type: none"> <li>In area: When the tracking object is in the detect zone and the stay time is more than the time threshold you set here, system can activate an alarm.</li> <li>Through area: System can generate an alarm when the tracking object is crossing the limit you set here.</li> </ul>
Direction	It is for the Through area option in the Detect action list item. It is to set the cross direction. The option includes: in/out/both (in&out)
Max target No.	It is for the In area option in the Detect action list item. It is to set the alarm activation amount in the zone. System will not generate an alarm when the object amount in the zone is more than the threshold you set here.
Min target No.	It is for the In area option in the Detect action list item. It is to set the alarm activation amount in the zone. System will not generate an alarm when the object amount in the zone is less than the threshold you set here.
Min last time	It is for the In area option in the Detect action list item. Here is to set the min time between the target in the zone and an alarm activation occurrence.

Parameter	Function
Report interval	It is for the In area option in the Detect action list item. It is to set alarm period. System just alarms once if the value is 0 here.
Target filter	Check the box here to enable this function and then click button  , you can set the target filter model in this scene. Click the button  , you can remove selected target filter model.

#### 4.2.3.3 Abandoned Object Detection

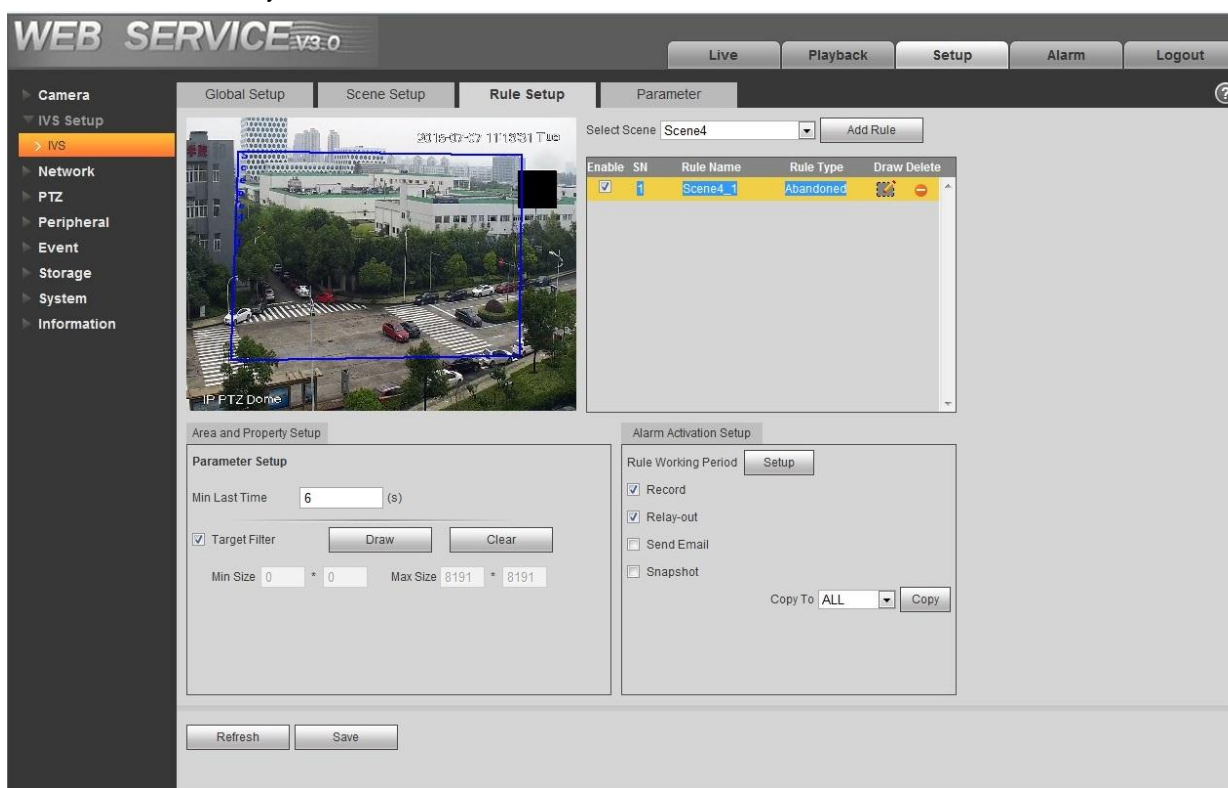




Figure 4-27

Parameter	Function
Min last time	It is to set the min time between the abandoned object occurrence and alarm activation.
Target filter	Check the box here to enable this function and then click button  , you can set the target filter model in this scene. Click the button  , you can remove selected target filter model.

#### 4.2.3.4 Missing Object Detection

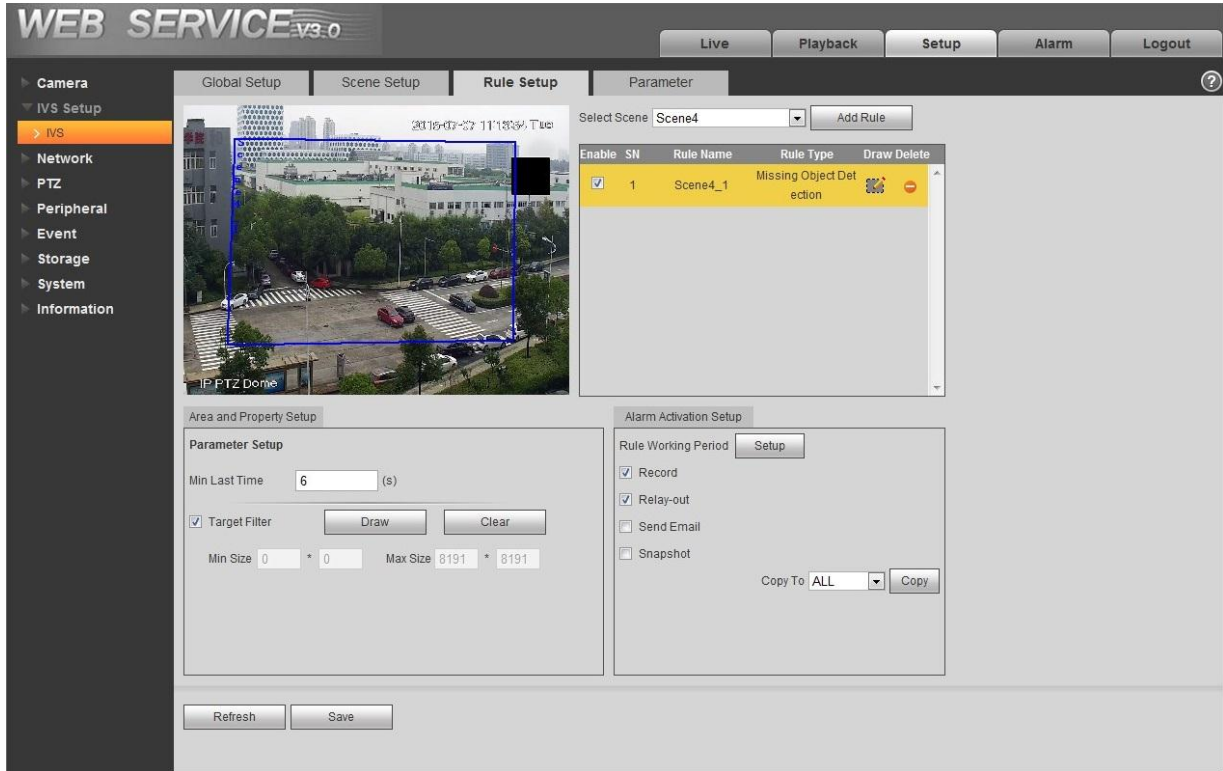




Figure 4-28

Parameter	Function
Min last time	It is to set the min time between the missing object occurrence and alarm activation.
Target filter	Check the box here to enable this function and then click button  , you can set the target filter model in this scene. Click the button  , you can remove selected target filter model.

#### 4.2.3.5 Alarm Activation Setup

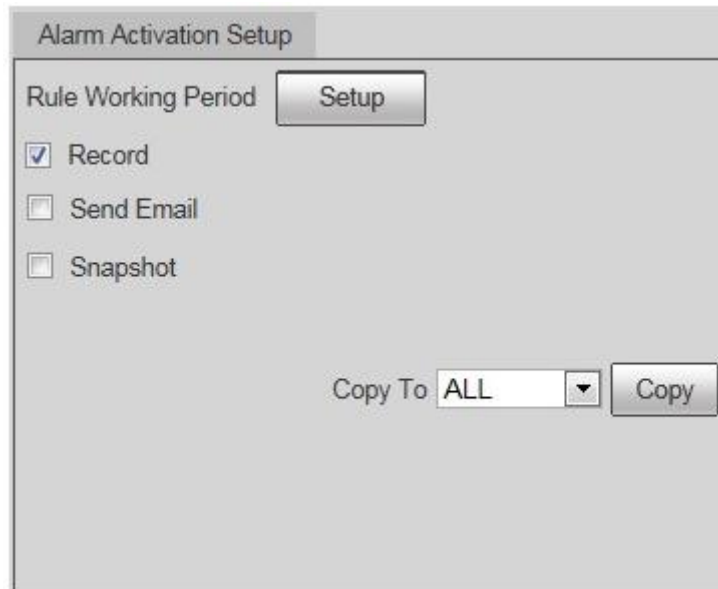



Figure 4-29

Parameter	Function
Rule Working period	Here you can set rule arm and disarm period. Please click the Setup button to set.
Record	Check the box here so that the device can record when alarm activation occurred.
Send e-mail	Check the box here so that the device can send out an email to inform user when alarm activation occurred. Note: Please note current function is null when the device is offline, or IP conflict occurred.
Snapshot	Check the box here so that the device can snapshot when alarm activation occurred.
Copy	Select a rule name from the dropdown list and then click  button; you can copy the alarm activation setup of current rule to the selected rule.

#### 4.2.4 Parameter

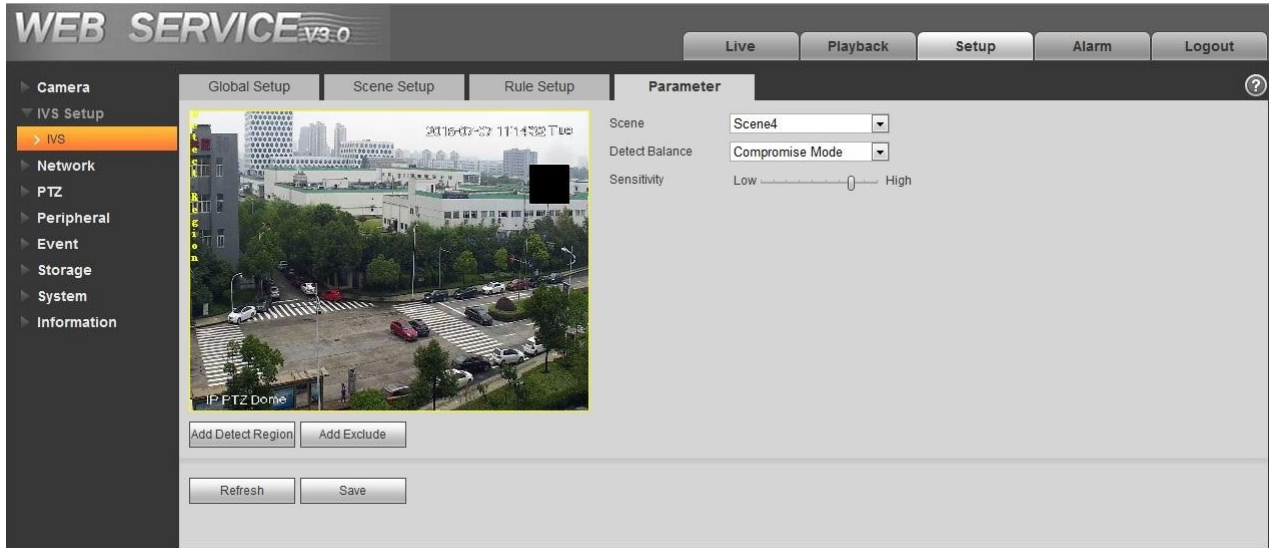
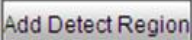



Figure 4-30

Parameter	Function
Scene	Please select a scene from the dropdown list you want to set.
Detect balance	There are three modes: compromise mode, omission detect less and error detect less.
Sensitivity	The level ranges from 1 to 10. The default setup is 5. The higher the sensitivity is, the easier for the device to detect the low contrast object and small object. At the same time, the error detect may become more.
Add detect region	Click button  , you can draw a detection zone.
Add excluded region	Click button  , you can draw the privacy mask (shield) zone.

## 4.3 Network

### 4.3.1 TCP/IP

The TCP/IP interface is shown as in Figure 4-31. It supports IPv4 and IPv6. IPv4 supports static IP and DHCP. IPv6 supports static IP only. When you manually modify IP address, WEB will automatically jump to the new IP address.

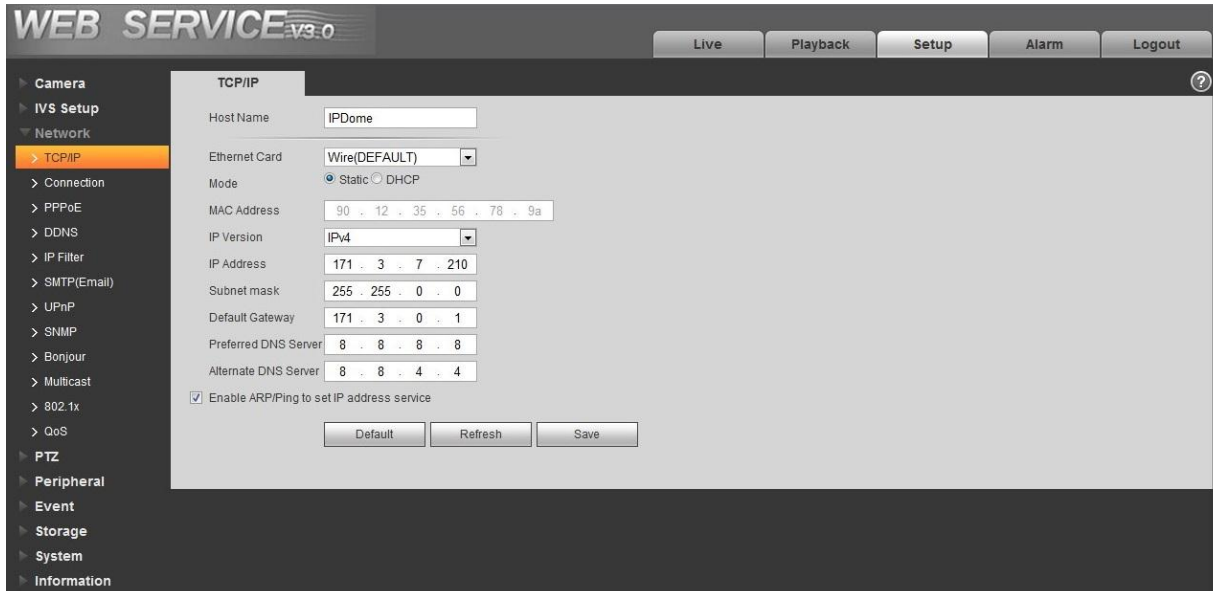


Figure 4-31

Please refer to the following sheet for detailed information.

Parameter	Function
Host Name	It is to set current host device name. It max supports 15 characters.
Ethernet Card	Please select the Ethernet port. Default is wired. Please note you can modify the default Ethernet card if there is more than one card. . Please note the device needs to reboot to activate the new setup once you modify the default setup.
Mode	There are two modes: static mode and the DHCP mode. Select DHCP mode, it auto searches IP, and you cannot set IP/subnet mask/gateway. Select static mode, you must manually set IP/subnet mask/gateway.
Mac Address	It is to display hose Mac address.
IP Version	It is to select IP version. IPV4 or IPV6. You can access the IP address of these two versions.
IP Address	Please use the keyboard to input the corresponding number to modify the IP address and then set the corresponding subnet mask and the default gateway.



Preferred DNS	DNS IP address.
Alternate DNS	Alternate DNS IP address.
Enable ARP/Ping set device IP address service.	<p>You can use ARP/Ping command to modify or set the device IP address if you know the device MAC address.</p> <p>Before the operation, please make sure the speed dome and the PC in the same LAN. This function is on by default.</p> <p>You can refer to the steps listed below.</p> <p><b>Step 1:</b> Get an IP address. Set the speed dome and the PC in the same LAN.</p> <p><b>Step 2:</b> Get the physical address from the label of the speed dome .</p> <p><b>Step 3:</b> Go to the Run interface and then input the following commands.</p> <pre>arp -s &lt;IP Address&gt; &lt;MAC&gt; ping -l 480 -t &lt;IP Address&gt;</pre> <p>Such as: arp -s 192.168.0.125 11-40-8c-18-10-11 ping -l 480 -t 192.168.0.125</p> <p><b>Step 4:</b> Reboot the device.</p> <p><b>Step 5:</b> You can see the setup is OK if you can see there are output information such as “Reply from 192.168.0.125 ...” from the command output lines. Now you can close the command line.</p> <p><b>Step 6:</b> Open the browse and then input http://&lt;IP address&gt;. Click the Enter button, you can access now.</p>

## 4.3.2 Connection

### 4.3.2.1 Connection

The connection interface is shown as in Figure 4-32.



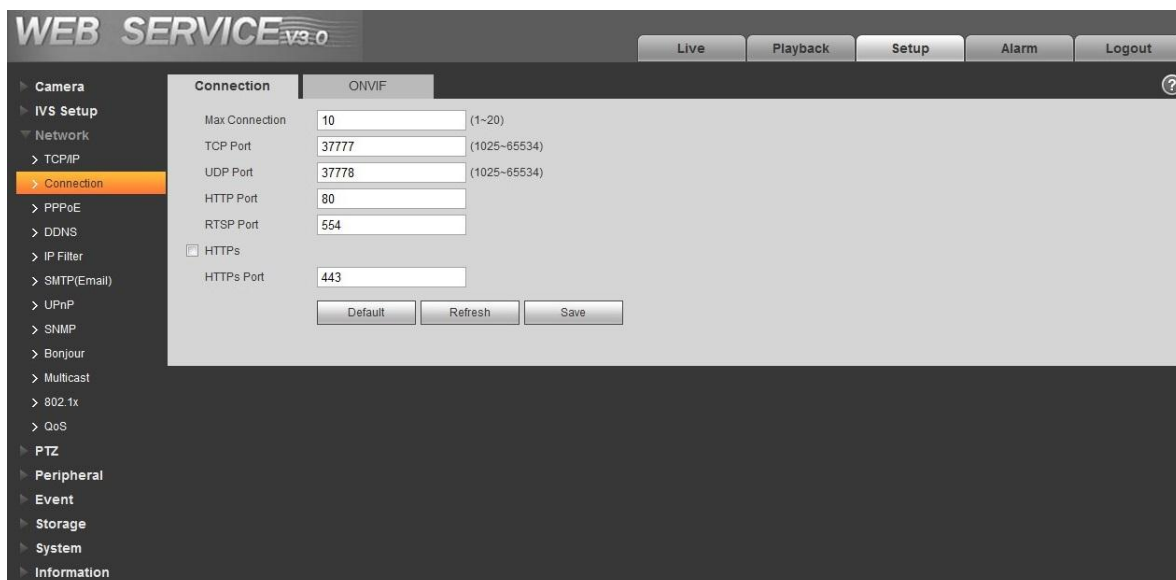


Figure 4-32

Please refer to the following sheet for detailed information.

Parameter	Function
Max connection	It is the max Web connection for the same device. The value ranges from 1 to 20. Default connection amount is 10.
TCP port	Port range is 1025~65534. The default value is 37777. You can input the actual port number if necessary.
UDP port	Port range is 1025~65534. The default value is 37778. You can input the actual port number if necessary.
HTTP port	Port range is 1025~65524. The default value is 80. You can input the actual port number if necessary.

RTSP port	<ul style="list-style-type: none"> <li>● The default value is 554. Please leave blank if use default. User uses QuickTime or VLC can play the following formats. BlackBerry can play too.</li> <li>● Real-time monitoring URL format, please require real-time RTSP media server, require channel no., bit stream type in URL. You may need username and password.</li> <li>● User uses BlackBerry need to set encode mode to H.264B, resolution to CIF and turn off audio.</li> </ul> <p>URL format is:  rtsp://username:password@ip:port/cam/realmonitor?channel=1&amp;subtype=0  username/password/IP and port.</p> <p>The IP is device IP and the port default value is 554. You can leave it in blank if it is the default value.</p> <p>Follow standard RTP protocol and when encode mode is MJPEG, the max resolution only supports 2040*2040.</p>
HTTPs Enable	Check HTTPs enable, login as <a href="https://ip">https://ip</a> :port. Protect data. Default port is <a href="https://ip">https://ip</a> . It is disabled by default.
HTTPs Port	HTTPs communication port, range is 1025~65534, default is 443.

**Note:**

- 0~1024, 37780~37880, 1900, 3800, 5000, 5050, 9999, 37776, 39999, 42323 are all special ports. User cannot modify them.
- Avoid using default port value of other ports.

4.3.2.2 ONVIF

ONVIF (Open Network Video Interface Forum) describes network video model, port, data type and data switch modes. ONVIF standard targets to create a network video frame protocol that communicates network video products from different manufacturers. See Figure 4-33.

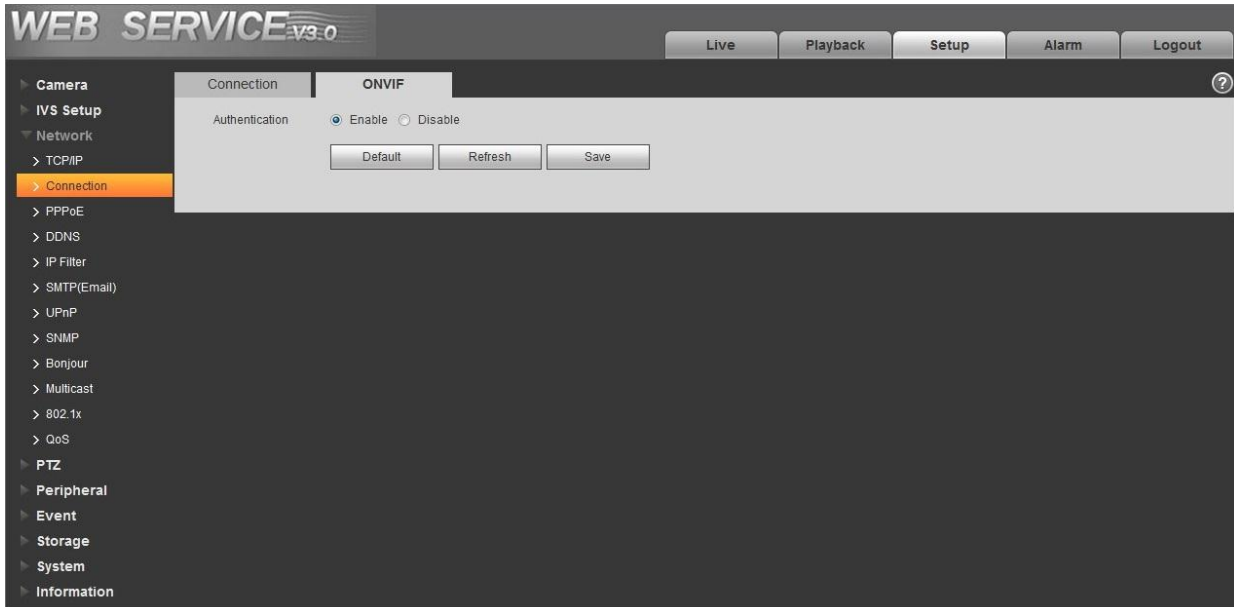


Figure 4-33

Please refer to the following sheet for detailed information.

Parameter	Function
Authentication	The login authentication is off by default.

### 4.3.3 PPPoE

The PPPoE interface is shown as in Figure 4-34.

Input the PPPoE user name and password you get from the IPS (internet service provider) and enable PPPoE function. Please save current setup and then reboot the device to get the setup activated.

Device connects to the internet via PPPoE after reboot. You can get the IP address in the WAN from the IP address column. When PPPoE is on, please disable UPnP to avoid influence on dial-up.

**When you Check PPPoE enable, please disable UPnP.**

**Please note, you need to go to the IP address item to via the device current device information.**

**You can access the client-end via this address.**

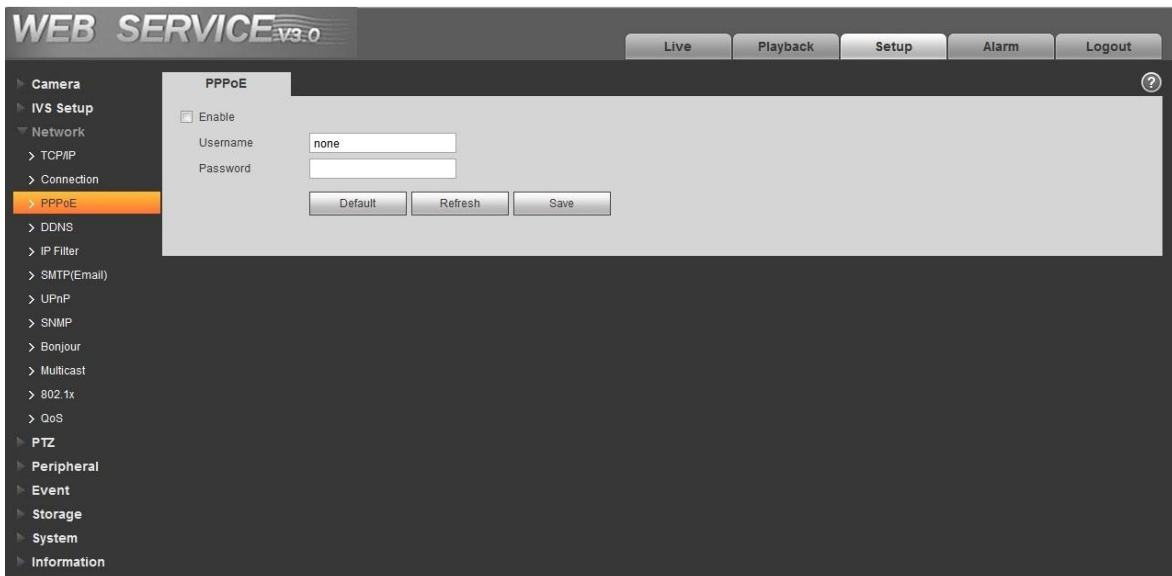


Figure 4-34

#### 4.3.4 DDNS

The DDNS interface is shown as in Figure 4-35.

The DDNS is to set to connect the various servers so that you can access the system via the server. Please go to the corresponding service website to apply a domain name and then access the system via the domain. It works even your IP address has changed. When the device connects to WLAN, you should disable UPnP.

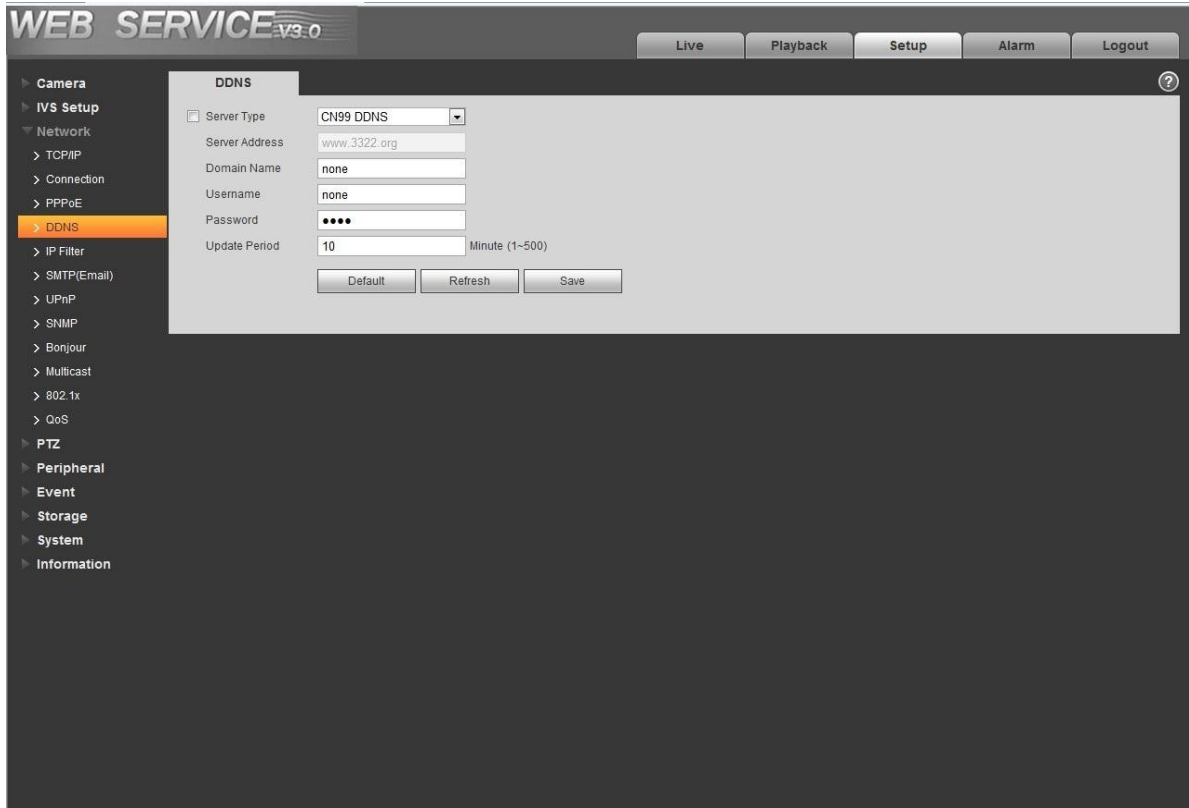


Figure 4-35

Please refer to the following sheet for detailed information.

Parameter	Function
Server Type	You can select DDNS protocol from the dropdown list: CN99 DDNS, NO-IP DDNS, DynDNS DDNS, and Dahua DDNS. The default is Dahua DDNS.
Server Address	DDNS server IP address. <ul style="list-style-type: none"> <li>• CN99DDNS Server address: www.3322.org</li> <li>• NO-IPDDNS Server address: dynupdate.no-ip.com</li> <li>• DynDNSDDNS Server address: members.dyndns.org</li> <li>• Dahua DDNS Server address: www.dahuaddns.com</li> </ul>

Parameter	Function
Domain Name	Your self-defined domain name.
Username	The user name you input to log in the server.
Password	The password you input to log in the server.
Update period	Device sends out alive signal to the server regularly. Default is 10min.

The Dahua DDNS interface is shown as in Figure 4-36.

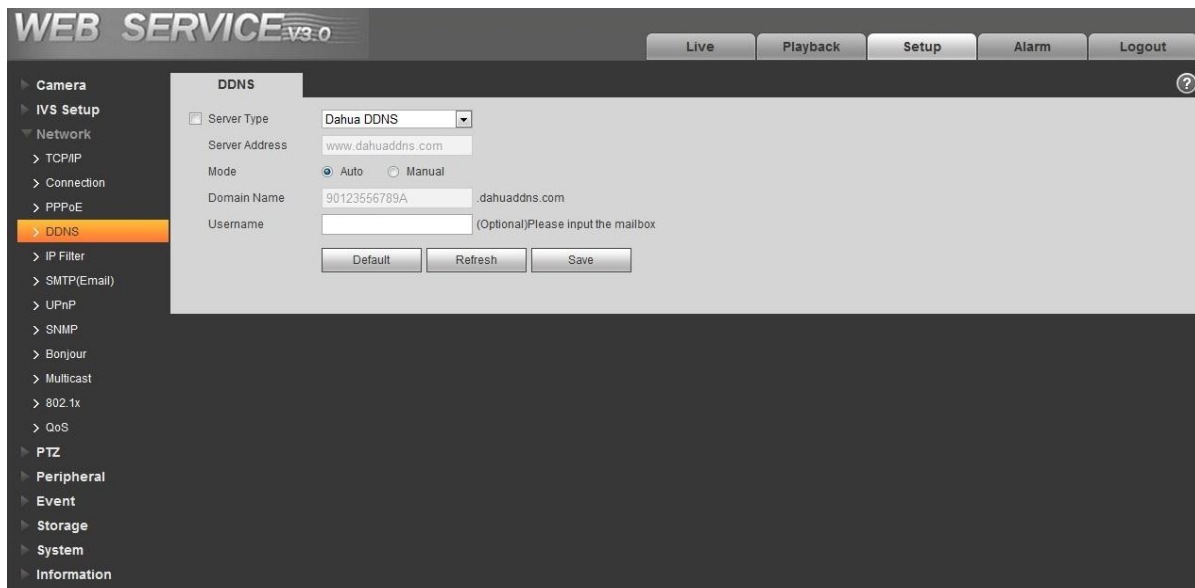


Figure 4-36

Please refer to the following sheet for detailed information.

Parameter	Function
Server Type	Select Dahua DDNS protocol.
Server Address	Under Dahua DDNS the default server address is www.dahuaddns.com
Mode	The default is auto, and you can select manual.
Domain Name	Auto and self-defined domain names are both MAC address.dahuaddns.com. You can self-define prefix.
Test	It is to test domain name. It is available only under manual mode.

Parameter	Function
Username	The user name you input to log in the server. Optional.

### 4.3.5 IP filter

The IP filter interface is shown as in Figure 4-37.

You can enable IP filter function so that some specified IP/MAC user can access the speed dome . You can add IP address or IP address section.

If you do not check the box here, it means there is on access limit.

Here you can add IP address and MAC address. You must add these address before enabling the trusted sites.

Please note: You must set MAC address in the same network segment.

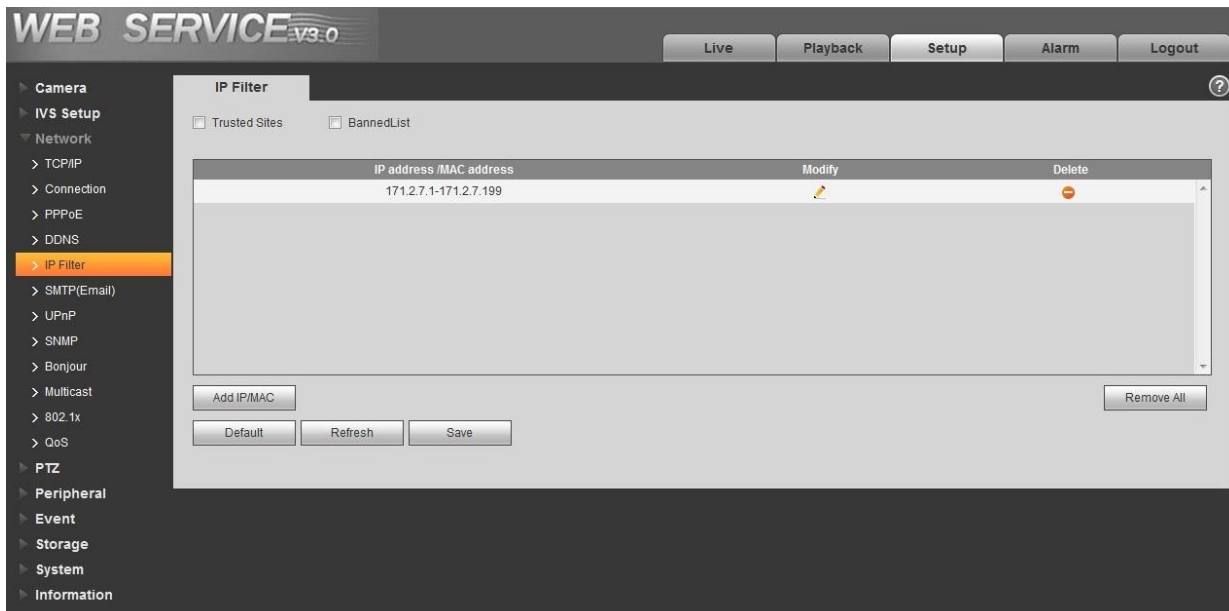


Figure 4-37

### 4.3.6 SMTP (e-mail)

The SMTP interface is shown as in Figure 4-38.

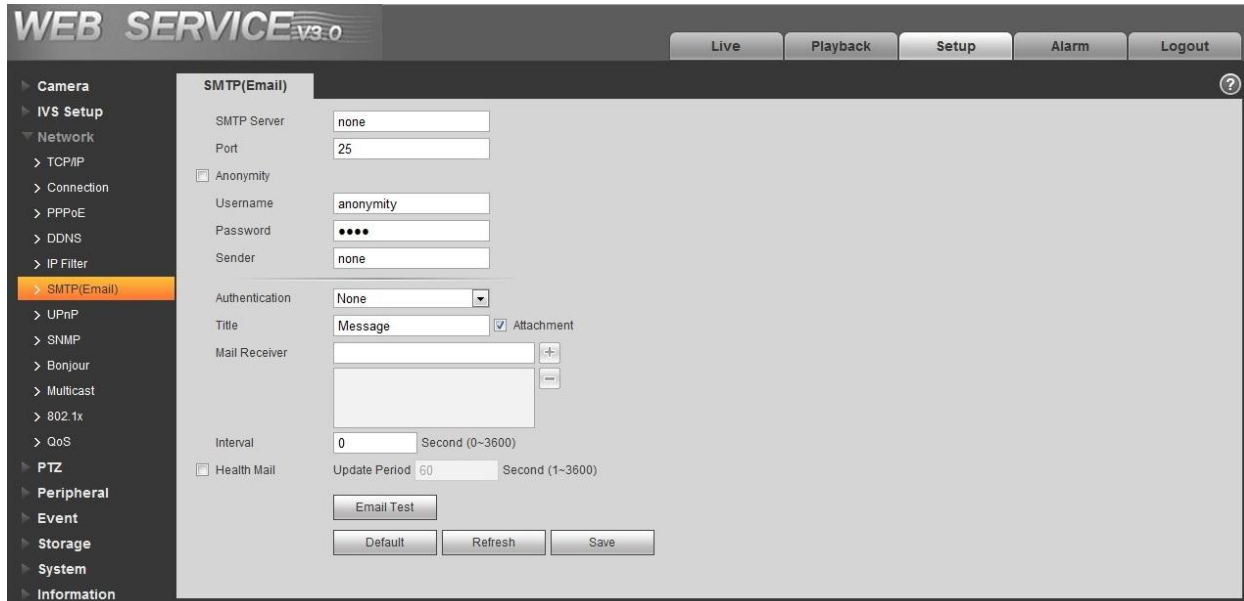


Figure 4-38

Please refer to the following sheet for detailed information.

Parameter	Function
SMTP Server	Input server address and then enable this function.
Port	Default value is 25. You can modify it if necessary.
Anonymity	For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name, password and the sender information.
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	You can select SSL, TLS or none.
Title (Subject)	Input email subject here.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Mail receiver	Input receiver email address here. Max three addresses.





Parameter	Function
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormality event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormality events, which may result in heavy load for the email server.
Health mail enable	Please check the box here to enable this function.
Email test	The system will automatically sent out a email once to test the connection is OK or not .Before the email test, please save the email setup information.

### 4.3.7 UPnP

It allows you to establish the mapping relationship between the LAN and the public network.

Here you can also add, modify or remove UPnP item. For UPnP on different routers, you must disable UPnP function. See Figure 4-39.

In the Windows OS, From Start->Control Panel->Add or remove programs. Click the “Add/Remove Windows Components” and then select the “Network Services” from the Windows Components Wizard. Click the Details button and then check the “Internet Gateway Device Discovery and Control client” and “UPnP User Interface”. Please click OK to begin installation.

Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the speed dome can auto detect it via the “My Network Places”.

Under manual mode, you can add, delete or modify mapping. Under auto mode, select idle port for auto port mapping without user modification.

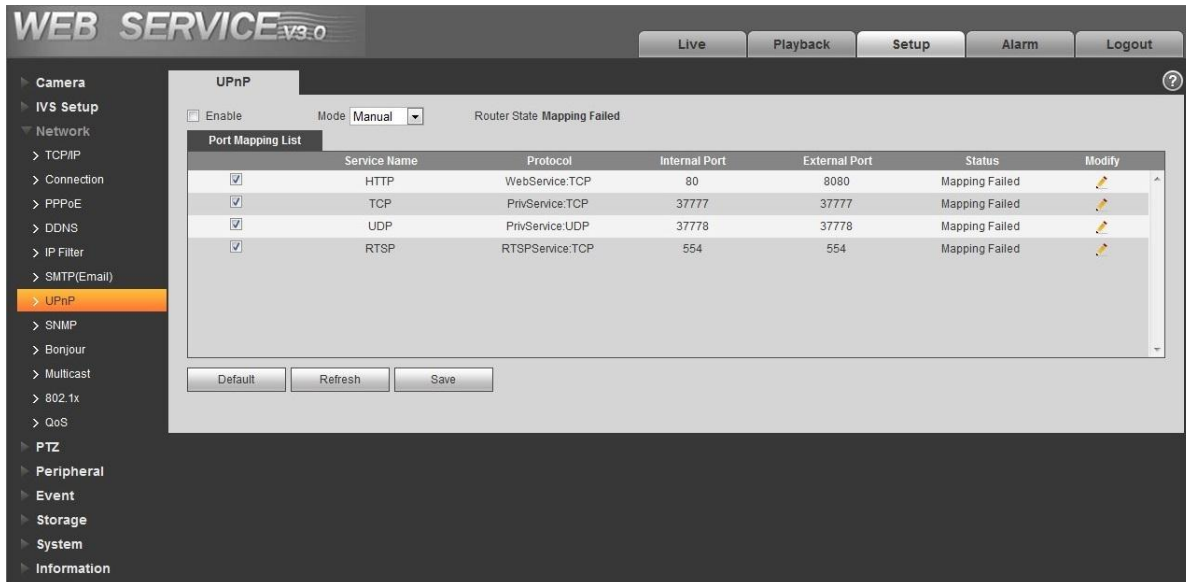


Figure 4-39

### 4.3.8 SNMP

The SNMP interface is shown as in Figure 4-40.

The SNMP allows the communication between the network management work station software and the proxy of the managed device. Please install the software such as MG MibBrowser 8.0c software or establish the SNMP service before you use this function. You need to reboot the device to activate the new setup.

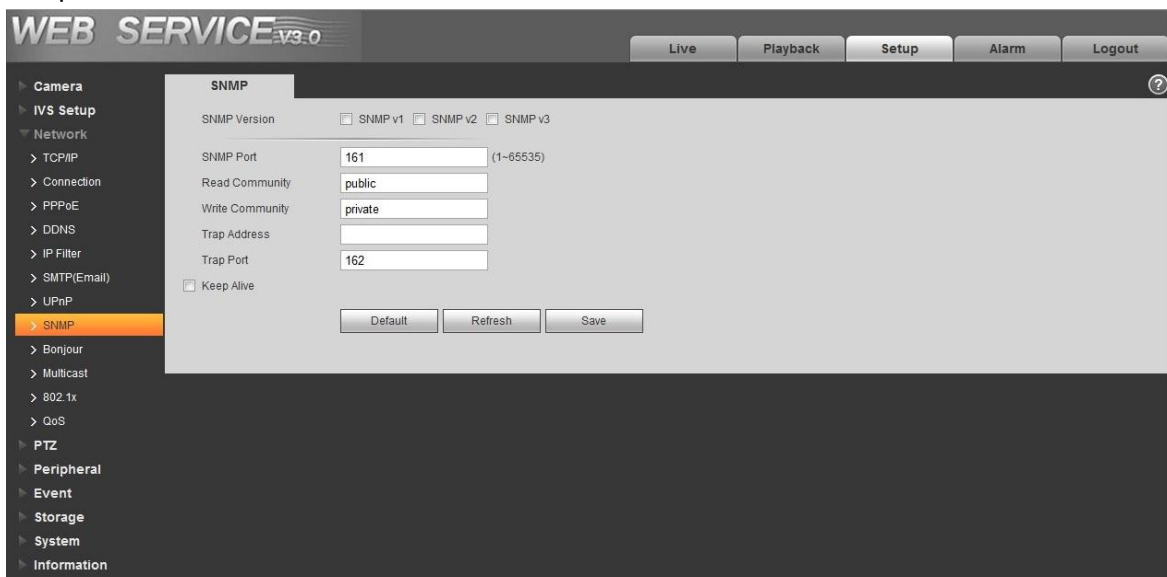




Figure 4-40

Please refer to the following sheet for detailed information.

Parameter	Function
SNMP Version	<ul style="list-style-type: none"> <li>● Check SNMP v1, device only process v1 info.</li> <li>● Check SNMP v2, device only process v2 info.</li> <li>● Check SNMP v3, can set username, password and encryption method. Server calibrate corresponding username, password and encryption method too access device and v1/v2 are unavailable.</li> </ul>
SNMP port	The listening port of the proxy program of the device. It is a UDP port not a TCP port. The value ranges from 1 to 65535. The default value is 161
Community	It is a string, as command between management and proxy, , defining a proxy, and a manager's authentication.
Read community	Read-only access to all SNMP targets, default is public. Note: Only number, letter, _, and – supported.
Write community	Read/write access to all SNMP targets, default is private. Note: Only number, letter, _, and – supported.
Trap address	The destination address of the Trap information from the proxy program of the device.
Trap	SNMP trap is a proxy message sent to admin as important event notice or status change.
Trap Address	Address where to send Trap message.
Trap Port	Port which send Trap message, default is 162, range 1~65535.

Check SNMP v3 version and SNMP port, read community, write community, Trap address, Trap port are same with SNMP v1 and SNMP v2 versions. Only when SNMP version is SNMP v3, user needs to configure parameter in chart. See Figure 4-41.

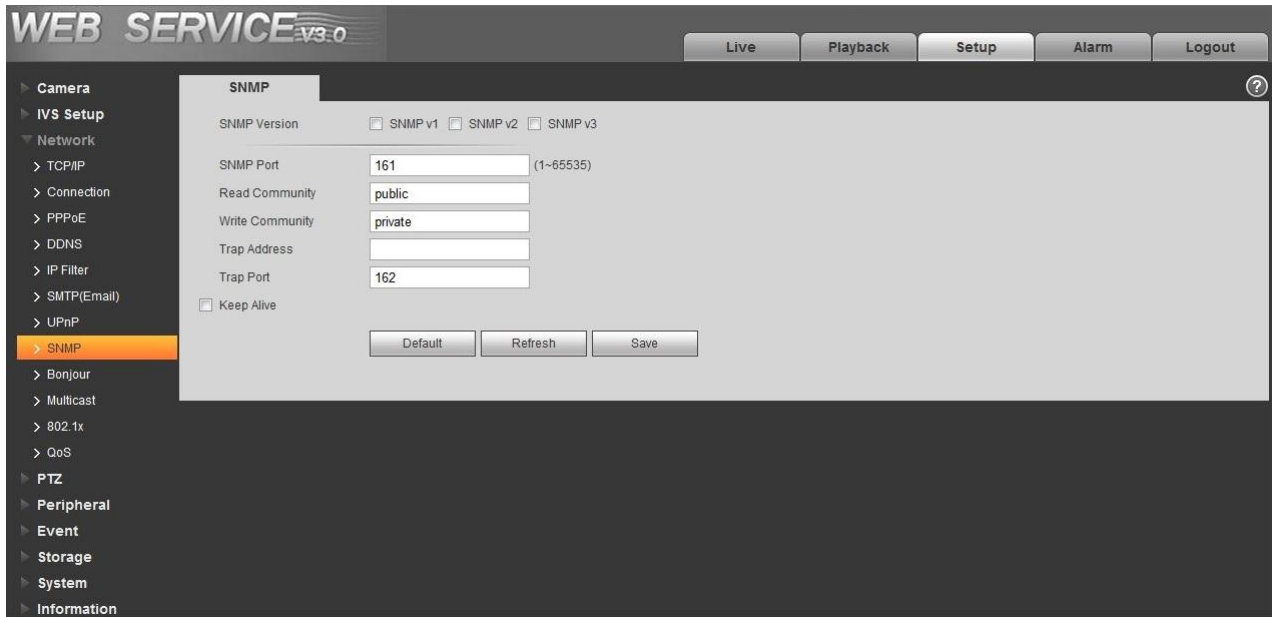


Figure 4-41

Please refer to the following sheet for detailed information.

Parameter	Function
SNMP Version	SNMP v3
Read-only Username	Default is public. Note: Name only can be number, letter and underline.
Read/Write Username	Default is private. Note: Name only can be number, letter and underline.
Authentication	You may select MD5 or SHA, default is MD5.
Authentication Password	Password not less than 8 characters.
Encryption	Default is CBC-DES.
Encryption Password	Password not less than 8 characters.

### 4.3.9 Bonjour

The Bonjour interface is shown as below. See Figure 4-42.



Bonjour is based on the multicast DNS service from the Apple. The Bonjour device can automatically broadcast its service information and listen to the service information from other device. You can use the browse of the Bonjour service in the same LAN to search the speed dome device and then access if you do not know the speed dome information such as IP address. You can view the server name when the speed dome is detected by the Bonjour. Please note the safari browse support this function. Click the “Display All Bookmarks: and open the Bonjour, system can auto detect the speed dome of the Bonjour function in the LAN.

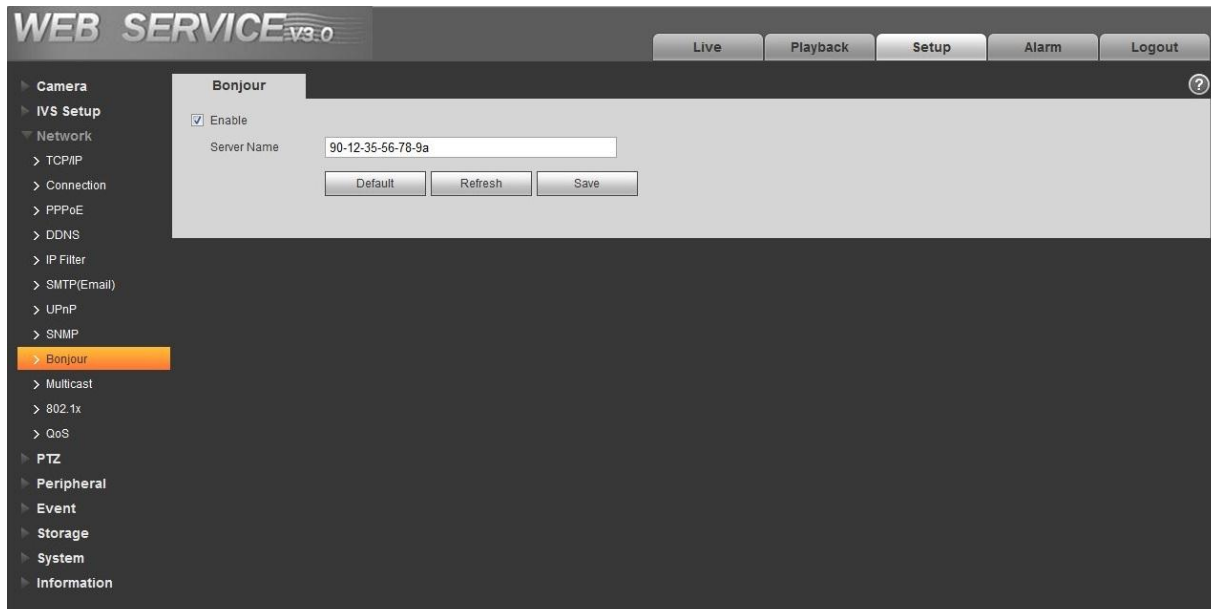


Figure 4-42

### 4.3.10 Multicast

The multicast interface is shown as in Figure 4-43.

Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.

Note:

- Open preview, streaming media protocol, select multicast, and monitor via multicast format.
- Here you can set multicast address and port. You also need to go to Live interface to set the protocol as Multicast.

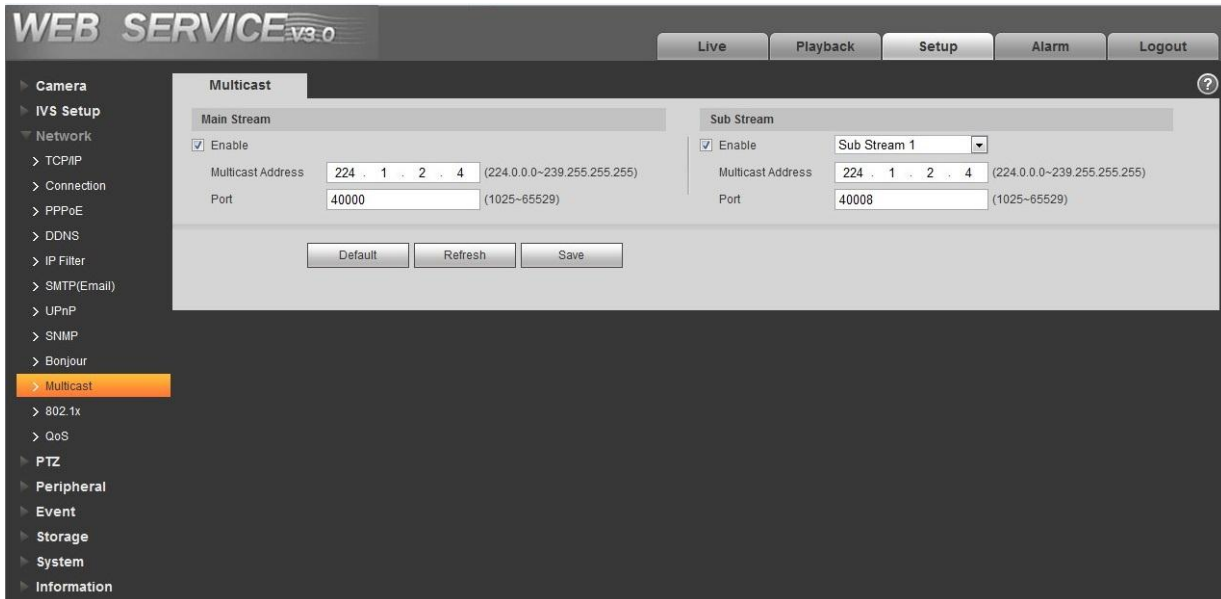


Figure 4-43

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	Select to enable multicast function. Main stream and sub stream cannot be used at the same time.
Multicast address	Main/sub stream multicast default address is 224.1.2.4 and its range is 224.0.0.0~239.255.255.255.
Port	Multicast port. Main stream is 40000, sub stream is 40002 and the range is 1025~65534.

#### 4.3.11 802.1x

802.1x (port based network access control protocol) supports manual selection of authentication method to control if device connected to LAN can join the LAN. It well supports authentication, charging, safety and management requirement of network. See Figure 4-44.

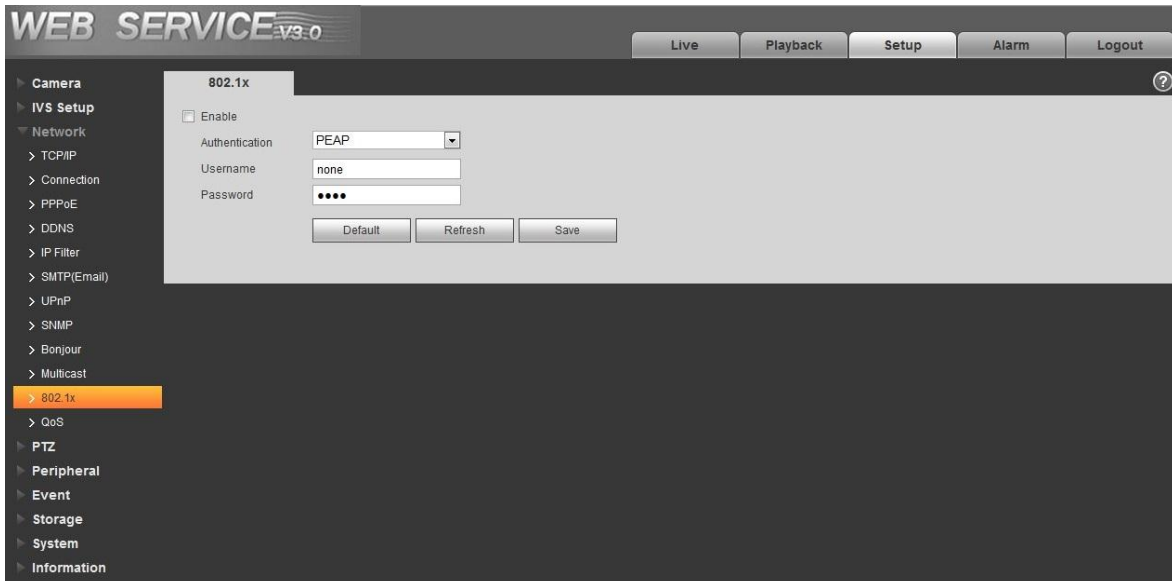


Figure 4-44

Please refer to the following sheet for detailed information.

Parameter	Function
Authentication	PEAP (protected EAP protocol).
Username	It needs the username to login, which is authenticated by the server.
Password	Please input password here.

### 4.3.12 QoS

The QoS interface is shown as below. See Figure 4-45.

QoS (Quality of Service) is network security mechanism. It is a technology to fix the network delay and jam problem and etc. For the network service, the quality of service includes the transmission bandwidth, delay, the packet loss and etc. We can guarantee the transmission bandwidth, lower the delay, reduce the loss of the data packet and anti-dither to enhance the quality.

We can set the DSCP (Differentiated Services Code Point) of the IP to distinguish the data packet so that the router or the hub can provide different services for various data packets. It can select the different queues according to the priority (64 different priority levels) of the packets and select the bandwidth of the each queue. Level 0 is the lowest, and level 63 is the highest. It can also discard at the different ratio when the broad bandwidth is jam.

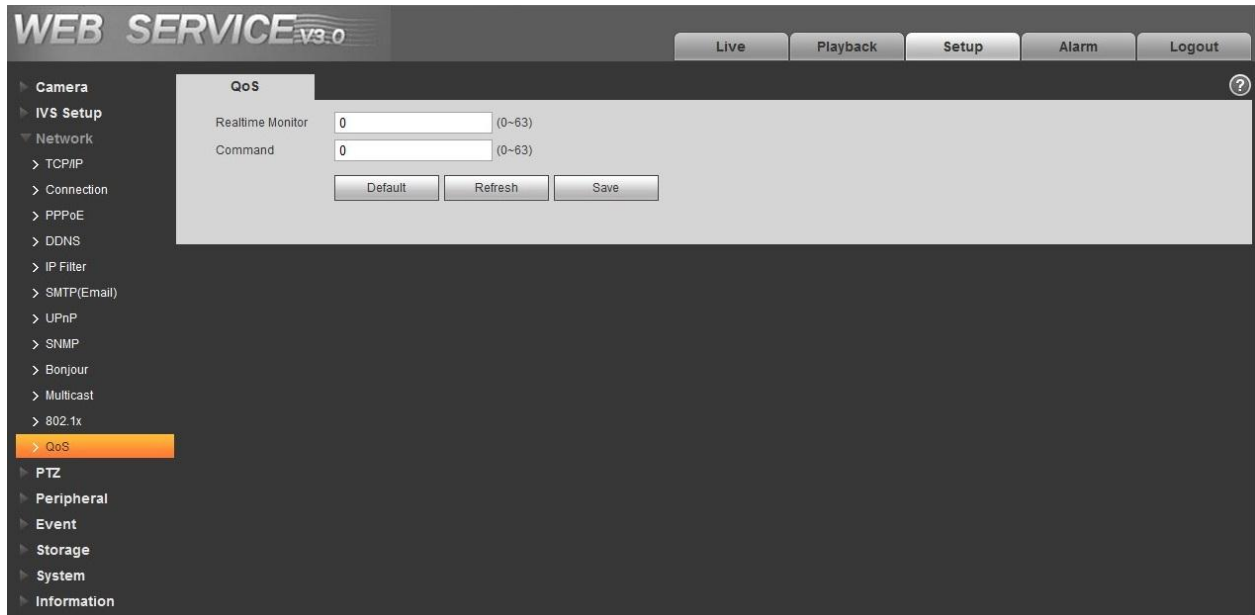


Figure 4-45

Please refer to the following sheet for detailed information.

Parameter	Function
Real-time monitor	The value ranges from 0 to 63. The router or the switcher can provide different service for various data packets.
Command	The value ranges from 0 to 63. The router or the switcher can provide different service for various data packets.

## 4.4 PTZ

### 4.4.1 Protocol

#### 4.4.1.1 Network PTZ Setup

Network PTZ setup interface is shown as in Figure 4-46.



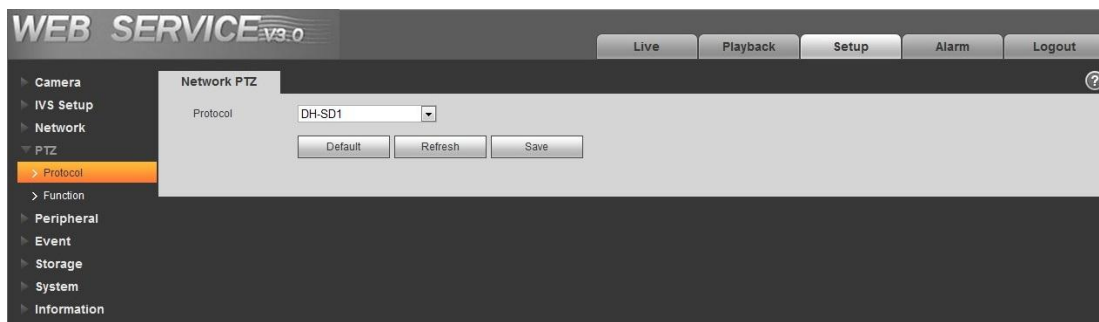


Figure 4-46

Please refer to the following sheet for detailed information.

Parameter	Function
Protocol	You can select from the dropdown list such as DH-SD1/DH-SD3.

#### 4.4.2 Function

In this part, you can operate the PTZ of the camera and control PTZ movement.

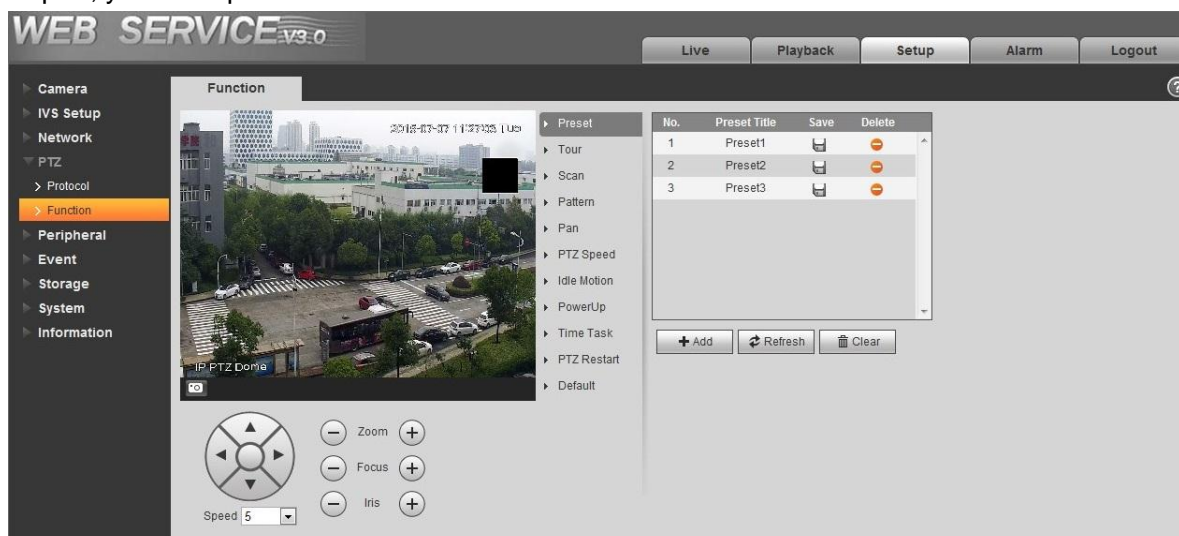


Figure 4-47

Parameter	Function
Preset	Set camera preset.
Tour	Set camera tour. Max 8 tours.

Scan	Set camera scan.
Pattern	Set camera pattern.
Pan	Set camera rotation speed.
PTZ speed	Set PTZ movement speed.
Idle motion	Set camera idle operation.
Power up	Set camera operation when system boots up.
Time task	Set camera time task.
PTZ restart	Restart camera PTZ.
Default	Restore camera PTZ default setup.

#### 4.4.2.1 Preset

Preset interface is shown as in Figure 4-48.

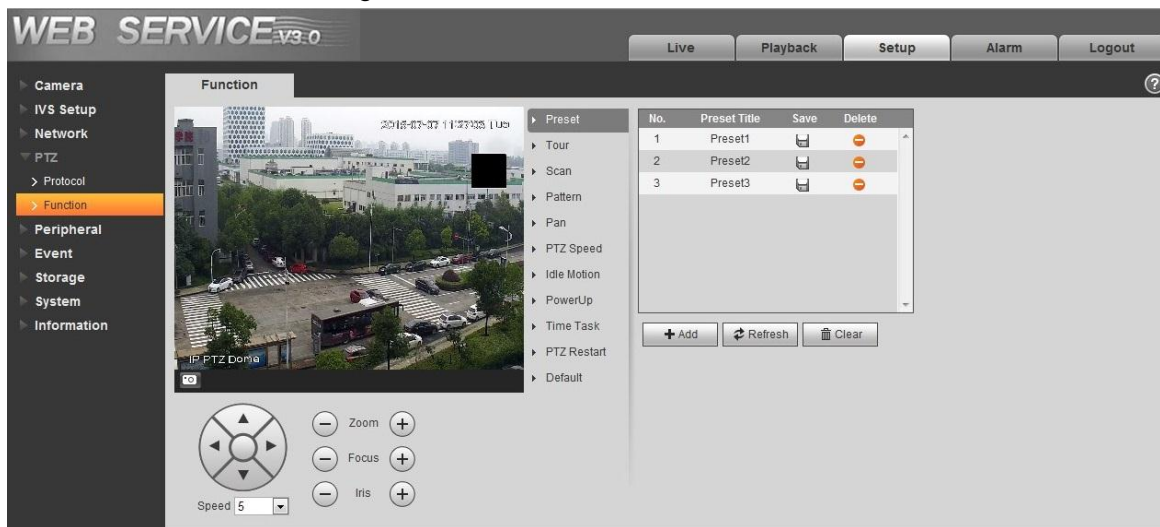


Figure 4-48

Please refer to the following sheet for detailed information.

Parameter	Function
Preset No.	Set preset No. It becomes valid after you set.
Preset title	Set preset name. You can input self-defined preset name here.
Delete	Delete corresponding preset.
Save	Save current preset setup.
Add	Click it to add a new preset.
Clear	Clear all presets setup.

#### 4.4.2.2 Tour

Tour interface is shown as below. See Figure 4-49.

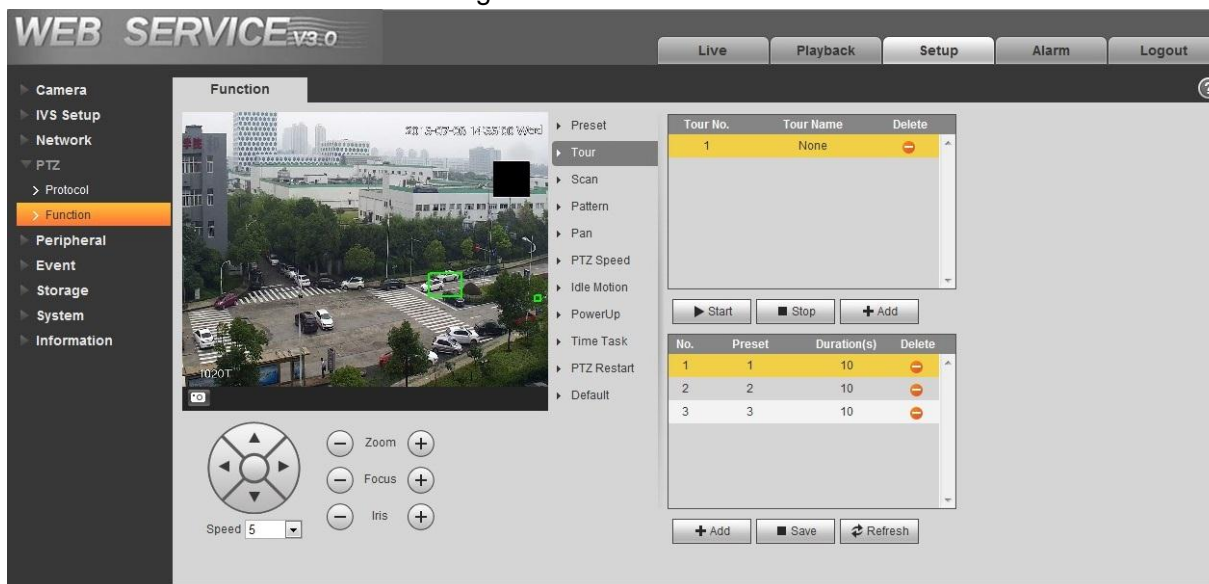


Figure 4-49

Please refer to the following sheet for detailed information.

Parameter	Function
Tour No.	System auto allocates.

Tour title	Set tour name. You can input self-defined tour name here.
Start	Begin tour. <b>Please note this function is null if you have not set a tour.</b>
Stop	Stop tour <b>Please note this function is null if you have not set a tour.</b>
Add	Click it to add a new tour.
Preset	Click Add button, you can add a new tour. The default preset value is 1. Double click tour No, you can see a dropdown list for you to select. <b>Please set presets before you use tour function.</b>
Duration (Interval)	It is to set the staying time of the tour.
Save	Click it to save current setup.
Refresh	Refresh current interface.

#### 4.4.2.3 Scan

Scan interface is shown as below. See Figure 4-50.

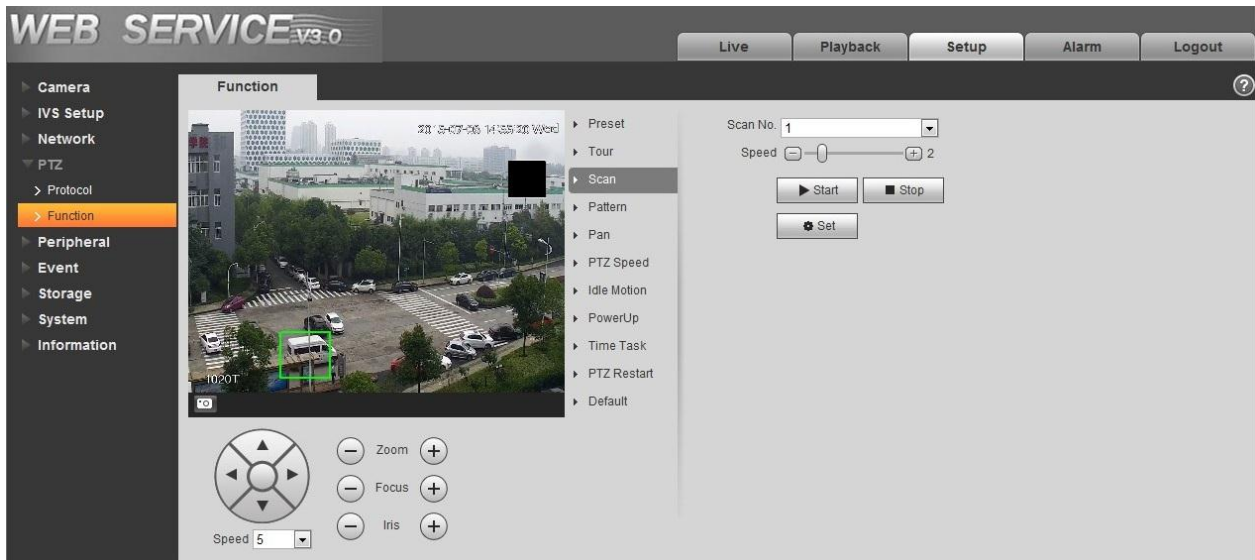


Figure 4-50

Please refer to the following sheet for detailed information.

Parameter	Function
Scan No.	System auto allocates.
Speed	Set scan speed here. <b>You cannot set speed when camera is running scan.</b>
Start	Begin scan. <b>Please note this function is null if you have not set a scan.</b>
Stop	Stop scan <b>Please note this function is null if you have not set a scan.</b>
Set	Click set button, you can set left limit and right limit.
Left limit	Set camera left limit.
Right limit	Set camera right limit.

#### 4.4.2.4 Pattern

Pattern interface is shown as below. See Figure 4-51.

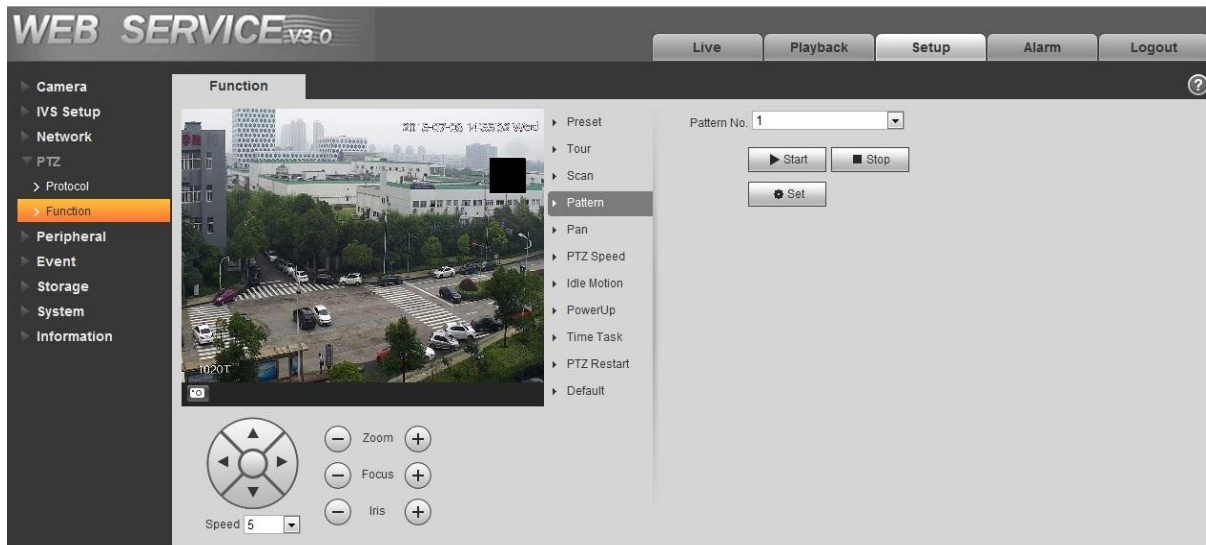


Figure 4-51

Please refer to the following sheet for detailed information.

Parameter	Function
Pattern No.	System auto allocates.
Start	Begin pattern. <b>Please note this function is null if you have not set a pattern.</b>
Stop	Stop pattern <b>Please note this function is null if you have not set a pattern.</b>
Set	Click it you can see start/stop record buttons.
Start record	Click it to begin recording pattern setup.
Stop record	Click it to stop recording pattern setup.

#### 4.4.2.5 Pan

Pan interface is shown as below. See Figure 4-52.

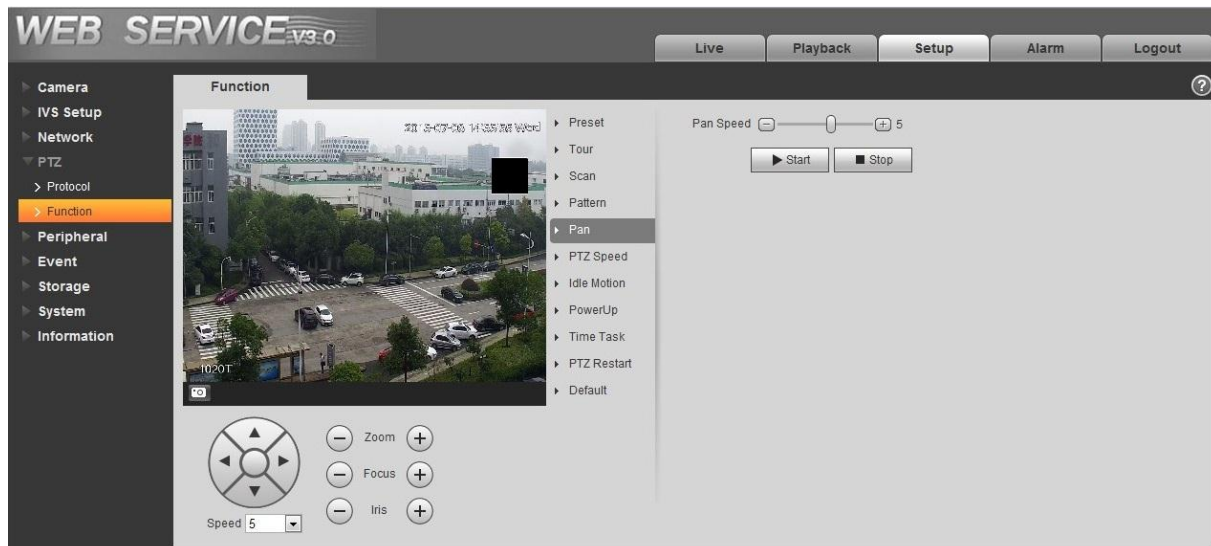


Figure 4-52

Please refer to the following sheet for detailed information.

Parameter	Function
Rotation speed	It is to set camera rotation speed.

Start	Check it to start rotation movement.
Stop	Check it to stop rotation movement.

#### 4.4.2.6 PTZ speed

PTZ speed interface is shown as below. See Figure 4-53.

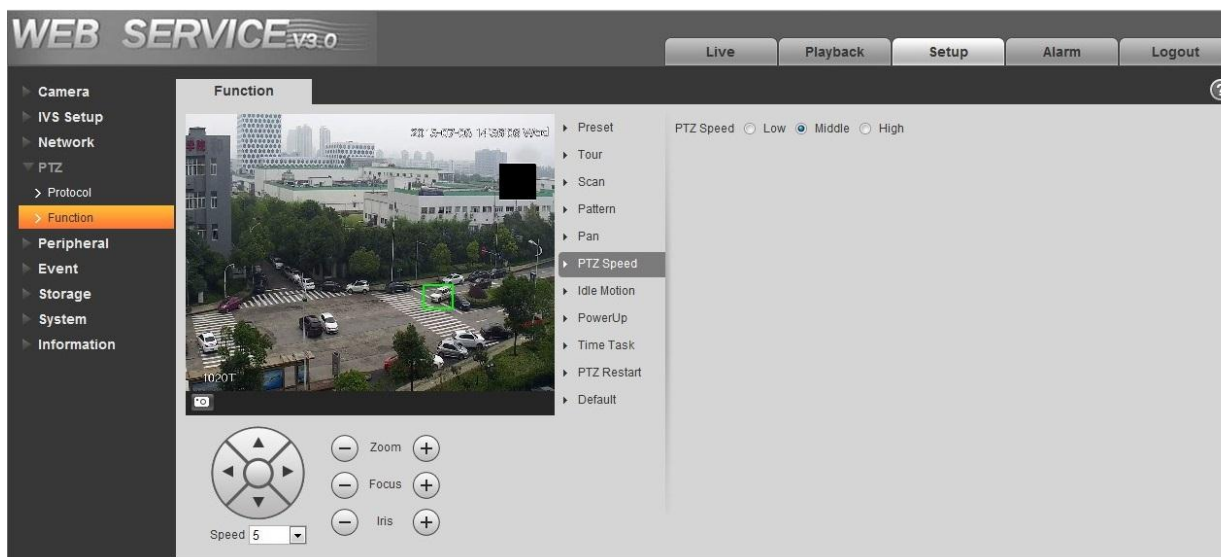


Figure 4-53

Please refer to the following sheet for detailed information.

Parameter	Function
PTZ speed	Here you can set camera PTZ speed.

#### 4.4.2.7 Idle Motion

Idle motion interface is shown as below. See Figure 4-54.



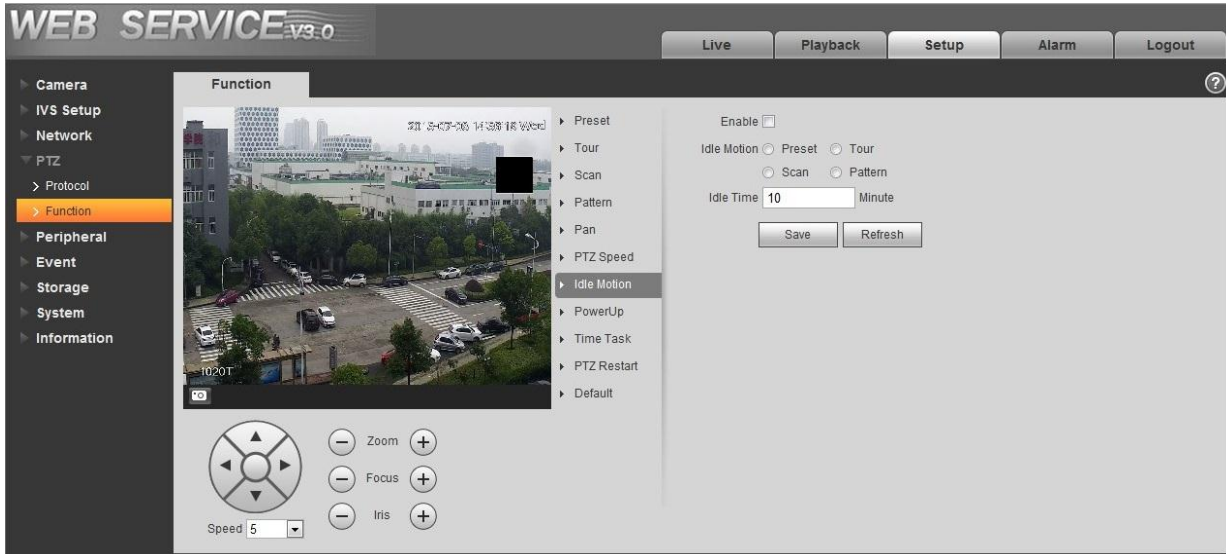


Figure 4-54

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	Check the box here to enable idle motion function.
Idle Motion	Here you can set preset, scan, pattern, tour. <b>Please note you need to set the corresponding operation first if you want to use this function.</b>
Idle time	Set idle time.

#### 4.4.2.8 Power up

Power up interface is shown as below. See Figure 4-55.



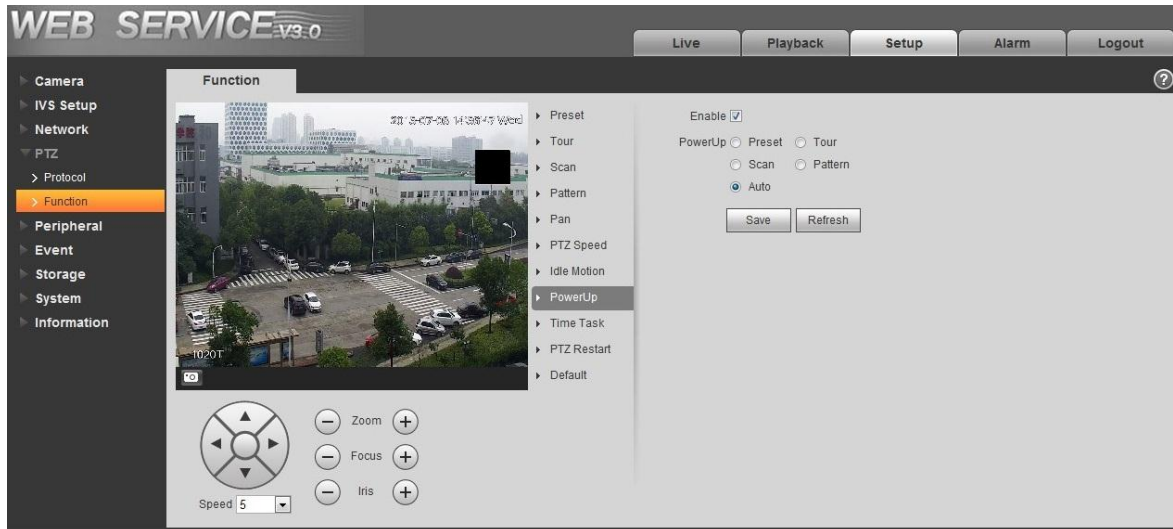


Figure 4-55

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	Check the box here to enable power up function.
Power up	Here you can set preset, scan, pattern, tour and auto. <b>Please note you need to set the corresponding function first if you want to use it.</b>

#### 4.4.2.9 Time Task

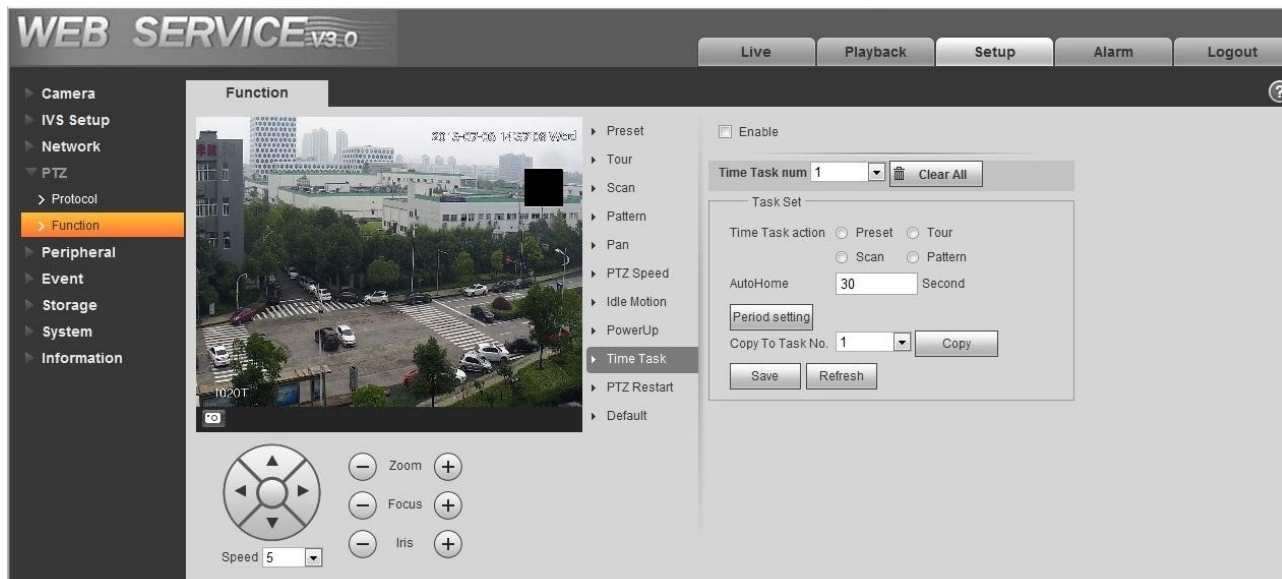


Figure 4-56

Parameter	Note
Enable	It is to enable time task function.
Time task action	It is to set the time task action, such as preset, tour, scan and pattern.
Snapshot delay	It is to set the time of snapshot after calling preset.
Auto Home	It is to set the time of auto recovering time task when manually calling PTZ and interrupt time task.
Period setting	It is to set the exact period of implementing time task, click "Setting" to set.
Copy to task No	Click "Copy" to copy the set task info to the designated task number.

#### 4.4.2.10 PTZ Restart

PTZ restart interface is shown as below. See Figure 4-57.

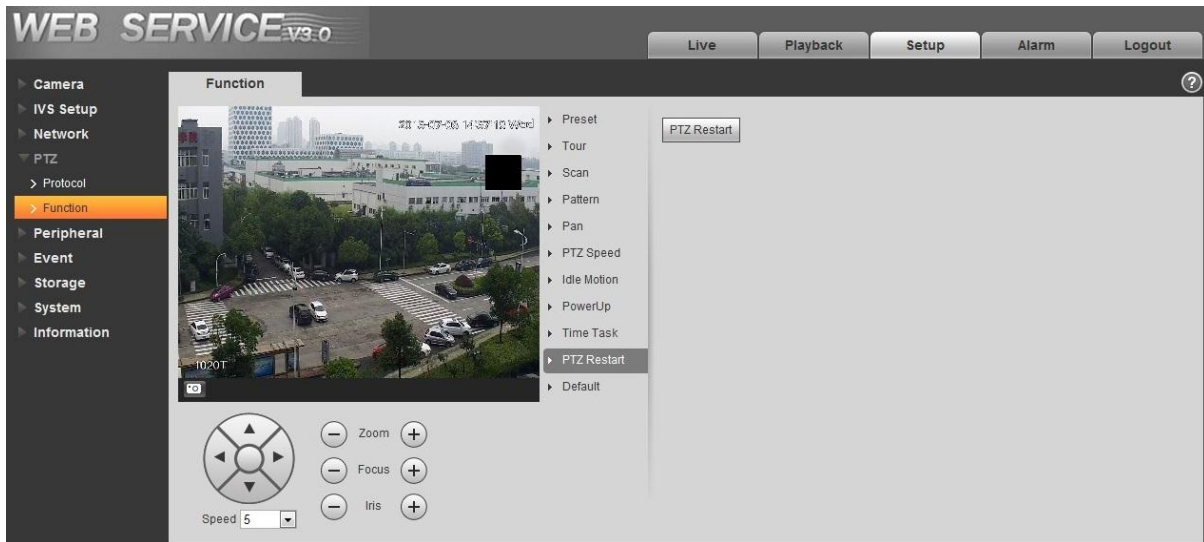


Figure 4-57

Please refer to the following sheet for detailed information.

Parameter	Function
PTZ restart	It is to reboot PTZ.

#### 4.4.2.11 Default

Default interface is shown as below. See Figure 4-58.

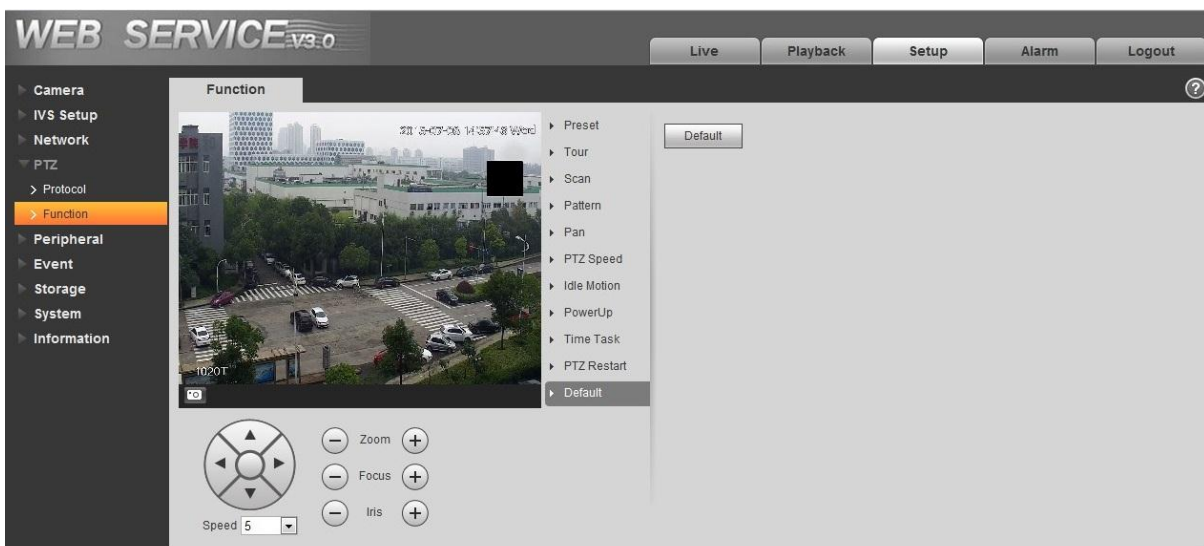


Figure 4-58

Please refer to the following sheet for detailed information.

Parameter	Function
Default	Restore PTZ factory default setup.

## 4.5 Peripheral

### 4.5.1 IR Light

Important

**Please make sure your purchased camera supports all the functions listed here.**

The IR light has two interface: zoom has the priority(Figure 4-59)/manual has the priority(Figure 4-60).

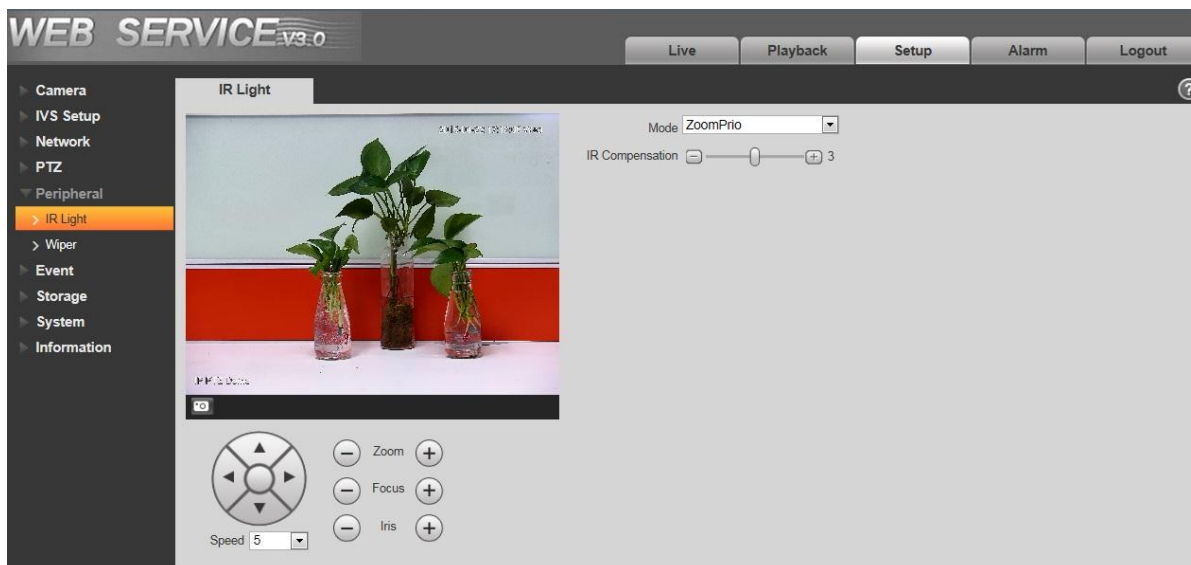


Figure 4-59

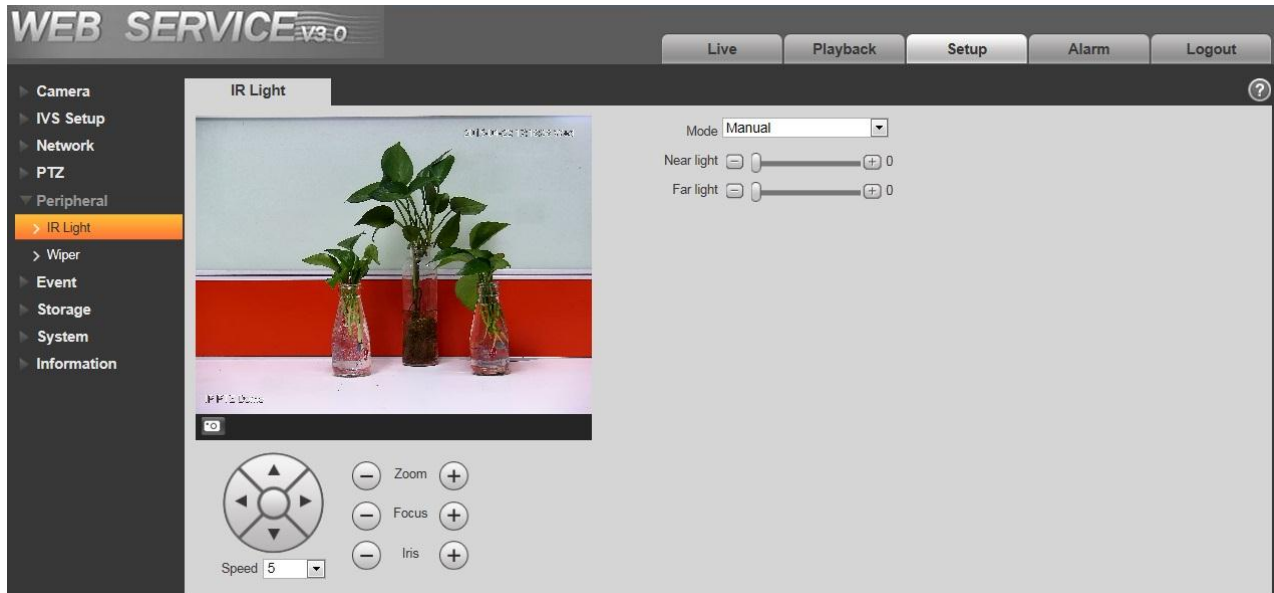


Figure 4-60

Please refer to the following sheet for detailed information.

Parameter	Function
Zoom has the priority	Enable IR light when the zoom has the priority. The IR light near light value/far light value can automatically adjust according to the zoom speed.
Manual has the priority	You can set IR light near/far value under manual mode.

## 4.6 Event

### 4.6.1 Video detect

#### 4.6.1.1 Motion Detect

The motion detect interface is shown as in Figure 4-61 through Figure 4-62.

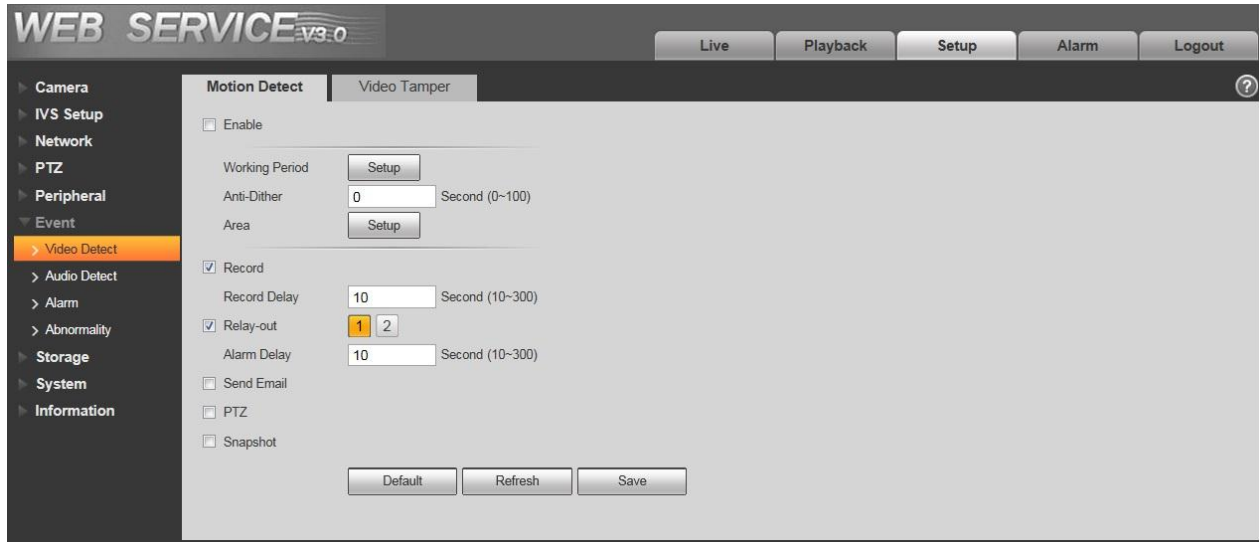


Figure 4-61

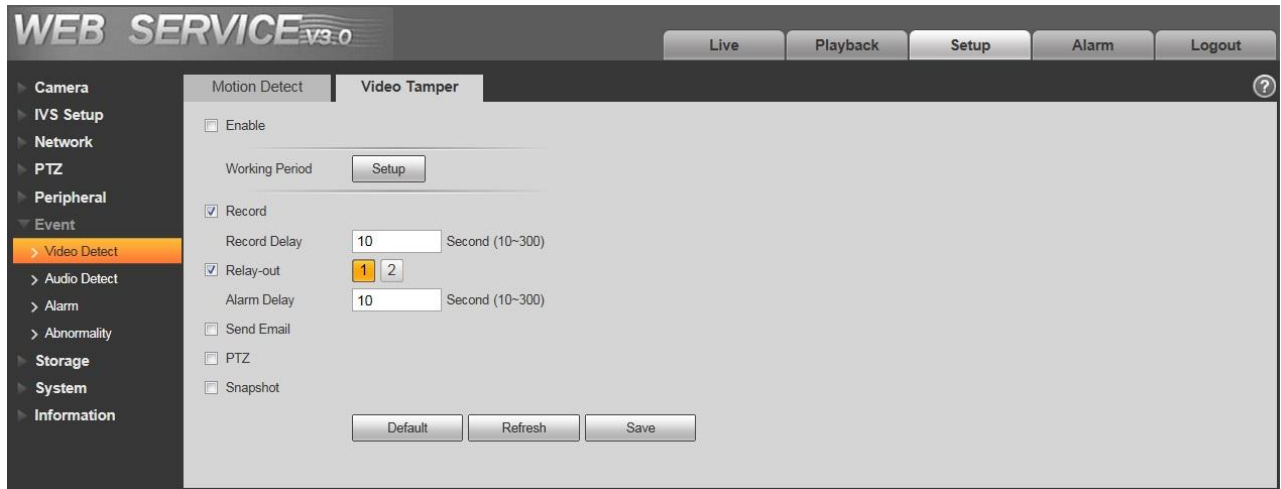


Figure 4-62

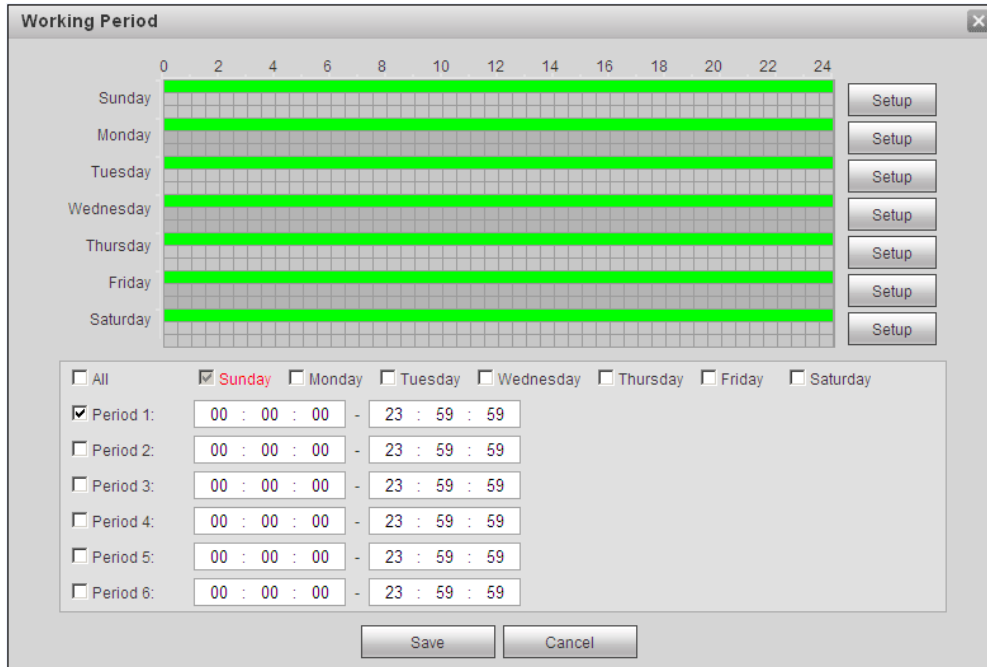


Figure 4-63

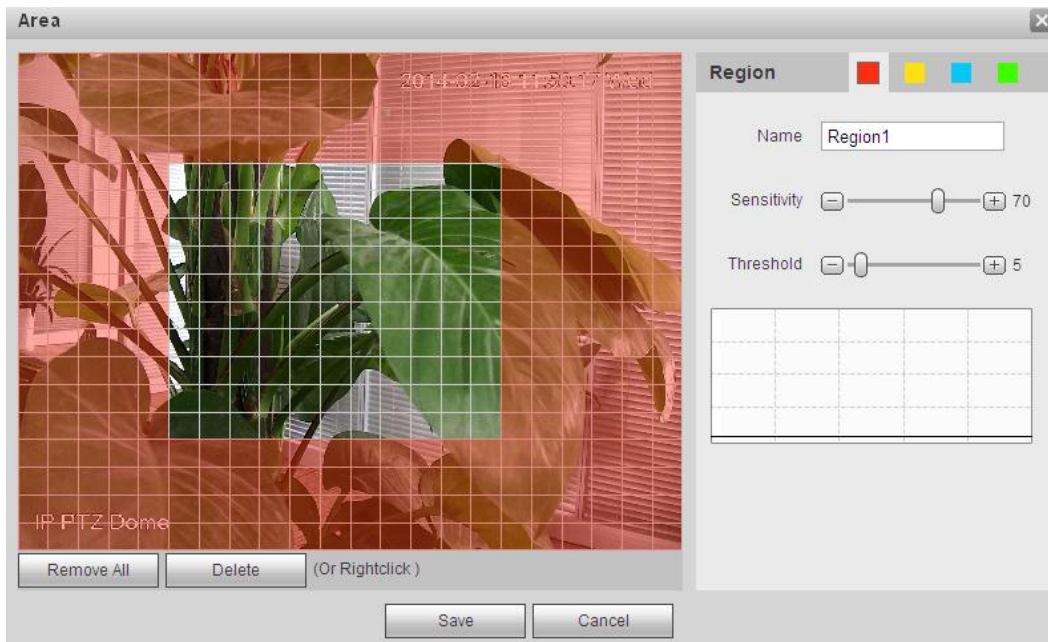


Figure 4-64





Please refer to the following sheet for detailed information.

Parameter	Function
Enable	You need to check the box to enable motion detection function.
Working Period	Here you can set arm/disarm period. Click set button to open period setup menu. See Figure 4-. There are six periods every day for setup and you must check box in front of each period to enable it. Note: Period setup can be done by dragging mouse while not release left mouse.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 0s to 100s.
Area	Here you can set motion detection region and its sensitivity and area. (The higher the sensitivity is, the easier to trigger motion detect; the smaller the area, the easier to trigger motion detect.) The default covers all regions. You must click save before enabling your setup. See Figure 4-.
Record	Check it and so when alarm occurs, system will auto record. You shall set record period in Storage>Schedule and select auto record in record control interface.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Send Email	If you enabled this function, System can send out email to alert you when alarm occurs and ends. User can set email address in Network>SMTP.
PTZ	<ul style="list-style-type: none"> <li>● Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm.</li> <li>● The event type includes: preset, tour and pattern.</li> </ul>
Snapshot	You need to check the box here so that system can backup motion detection snapshot file. You shall set snapshot period in Storage>Schedule.

The zone setup interface is shown as Figure 4-64. Different colors represent different areas. Each area can set different detection zones. Detection zone can be irregular and discontinuous. If device monitoring zone is large, user can sub-divide the area into several zones for better motion detect.

Please refer to the following sheet for detailed information.

Parameter	Function
Name	Default area name includes Region0, Region1, Region2, Region3 and custom.
Sensitivity	It is sensitivity of brightness as motion detection is more possible to be trigger with high sensitivity. You can set up to four areas. The range is 0~100. The recommended value is 30~70.



Area threshold	It is to check target object area related to detection area. The lower the area threshold, the easier to trigger motion detection. You can set up to four areas. The range is 0~100. The recommended value is 0~10.
Waveform	Red means motion detect is triggered. Green means motion detect is not triggered.
Delete all	Clear all areas.
Delete	Delete selected area.

### 4.6.2 Abnormality

Abnormality includes No SD Card (Figure 4-65), network (Figure 4-66), and Unauthorized Access (Figure 4-67).

**Note:** Only device with SD card function has these three statuses: No SD card, capacity warning, SD card error.

Device without SD card function does not have the above three statuses.



Figure 4-65

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	There are three kinds of events for SD card abnormality alarm: No SD card, Capacity Warning, SD card error.
Enable	Check to alarm when SD card is abnormal.

Parameter	Function
Send email	After you enabled this function, the system can send out email to alarm the specified user. This function is invalid when network is offline or IP conflict occurs.
SD Card Capacity Limit	User can set SD card capacity that is left free. When SD card space left is smaller than this limit, alarm occurs.

When device is offline or IP conflicts, you can go to Figure 4-66 to set.



Figure 4-66

When login password keep been wrong for a few times, unauthorized access alarm occurs. This operation is similar to SD card error. Allow login error times as when it exceeds this limit, user account will be locked. See Figure 4-67.



Figure 4-67

## 4.7 Storage Management

### 4.7.1 Schedule

Before schedule setup, user must set record mode is auto or manual.

**Note:**

If record mode in record control is off, then device will not snapshot according to schedule.

#### 4.7.1.1 Record Schedule

Record schedule steps:

Step 1. Click Record Schedule, see Figure 4-68.

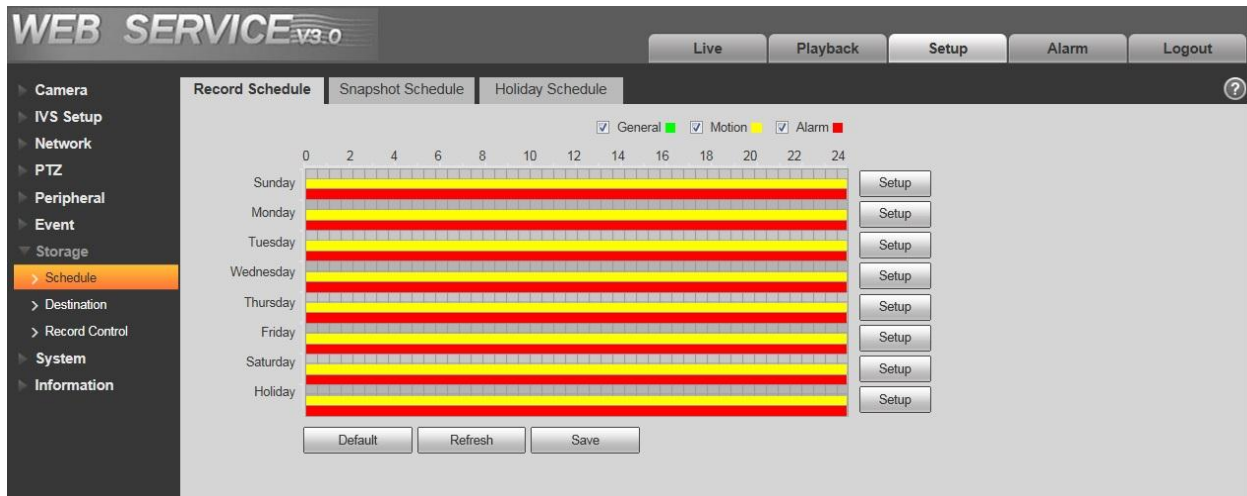


Figure 4-68

Step 2. From Monday to Sunday select record time, click setup on the right. See Figure 4-69.

- Set period according to actual need. There are six periods available each day.
- By checking or cancel, you can add or delete three types of record schedule: General, Motion, and Alarm.

**Note:**

Period setup can be done by dragging in record schedule interface while not releasing left mouse.

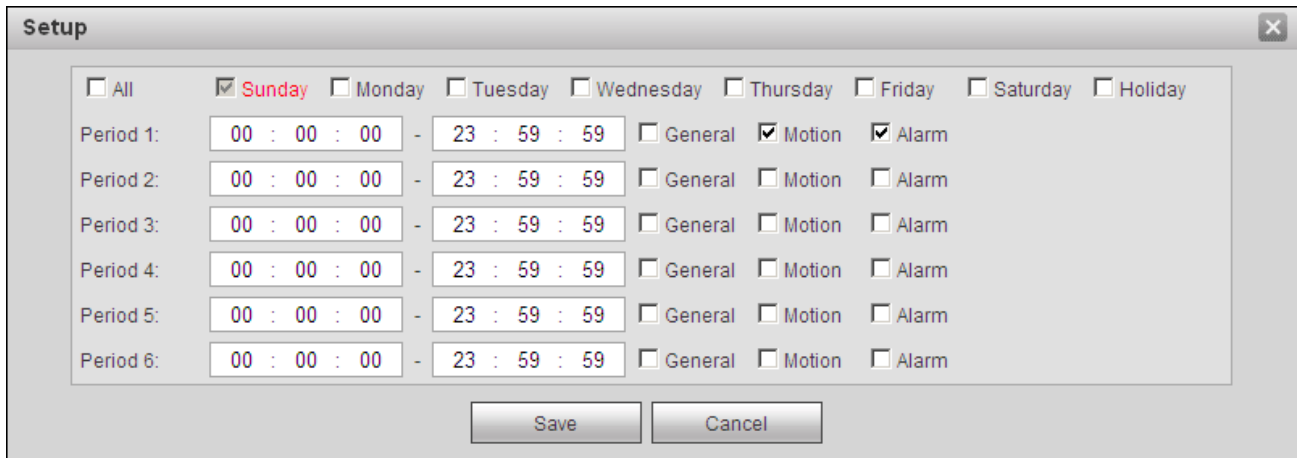


Figure 4-69

Step 3. Click OK, return to record schedule interface. See Figure 4-70.

- Green color stands for the general record/snapshot.
- Yellow color stands for the motion detect record/snapshot.
- Red color stands for the alarm record/snapshot.

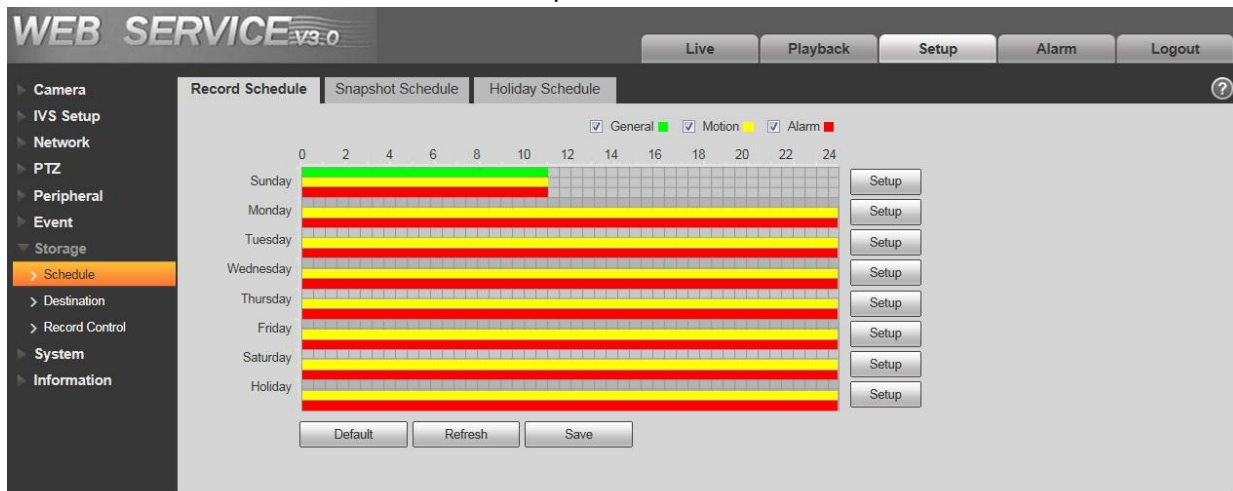


Figure 4-70

Step 4. In record schedule interface, click OK. System prompts it is successfully saved.

#### 4.7.1.2 Snapshot Schedule

Snapshot setup as:

Step 1. Click Snapshot Schedule tab, see Figure 4-71.

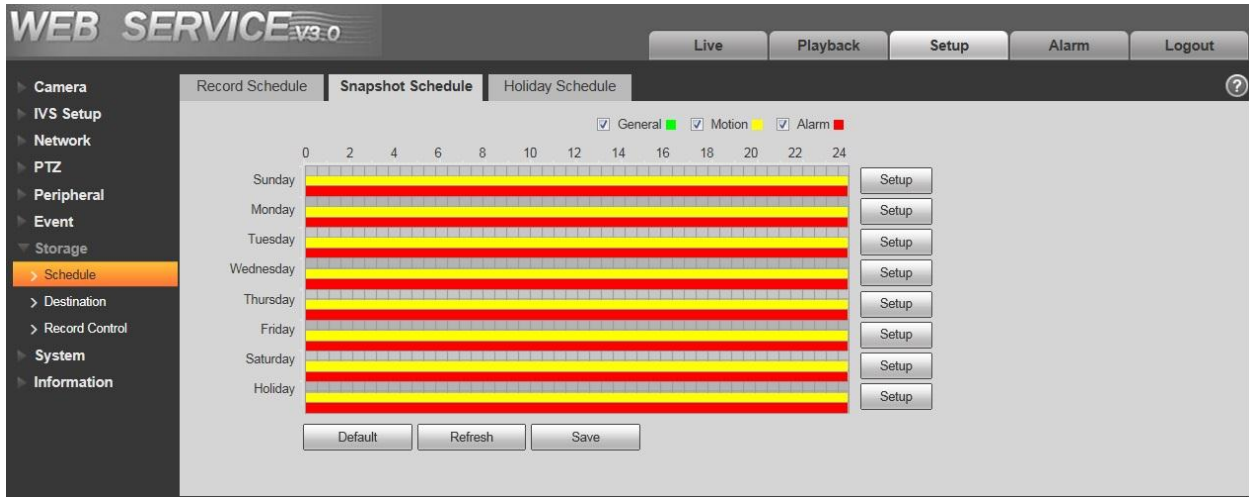


Figure 4-71

Step 2. From Monday to Sunday select snapshot time, click setup on the right. See Figure 4-72.

- Set snapshot period according to actual need. There are six periods available each day.
- By checking or cancel, user can add or delete three types of snapshot schedule: General, Motion and Alarm.

Note: Period setup can be done by dragging in snapshot schedule interface while not releasing left mouse.

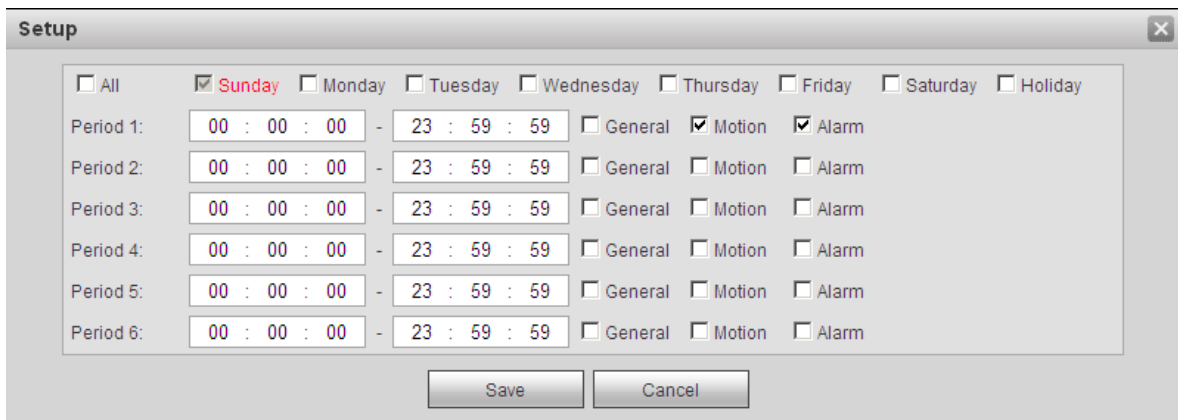


Figure 4-72

Step 3. Click OK, return to snapshot schedule interface. See Figure 4-73.

- Green color stands for the general record/snapshot.
- Yellow color stands for the motion detect record/snapshot.

- Red color stands for the alarm record/snapshot.

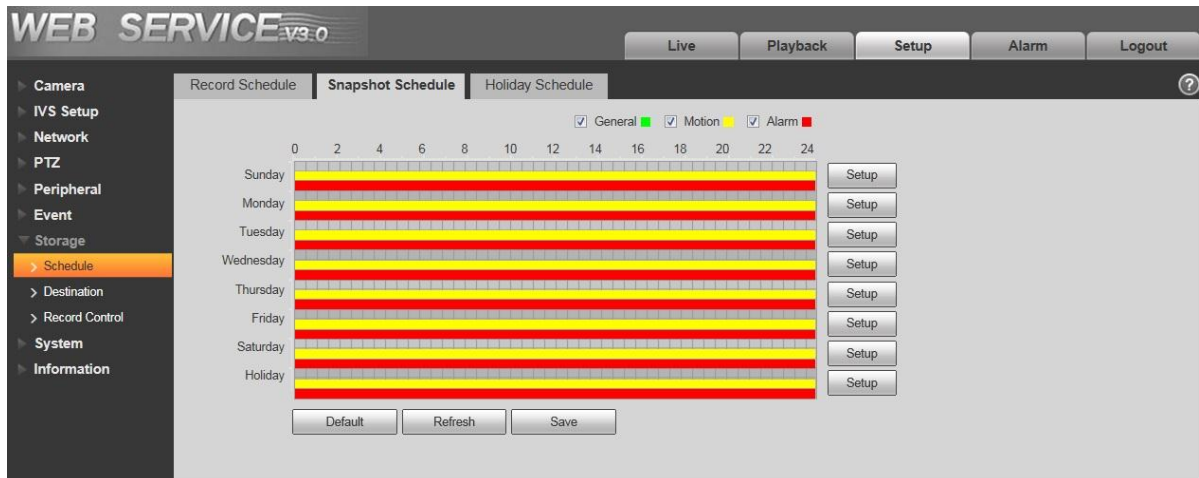


Figure 4-73

Step 5. In snapshot interface, click OK. System prompts it is successfully saved.

#### 4.7.1.3 Holiday Schedule

Holiday schedule can set specific date as holiday.

Step 1. Click Holiday Schedule tab. See Figure 4-74.

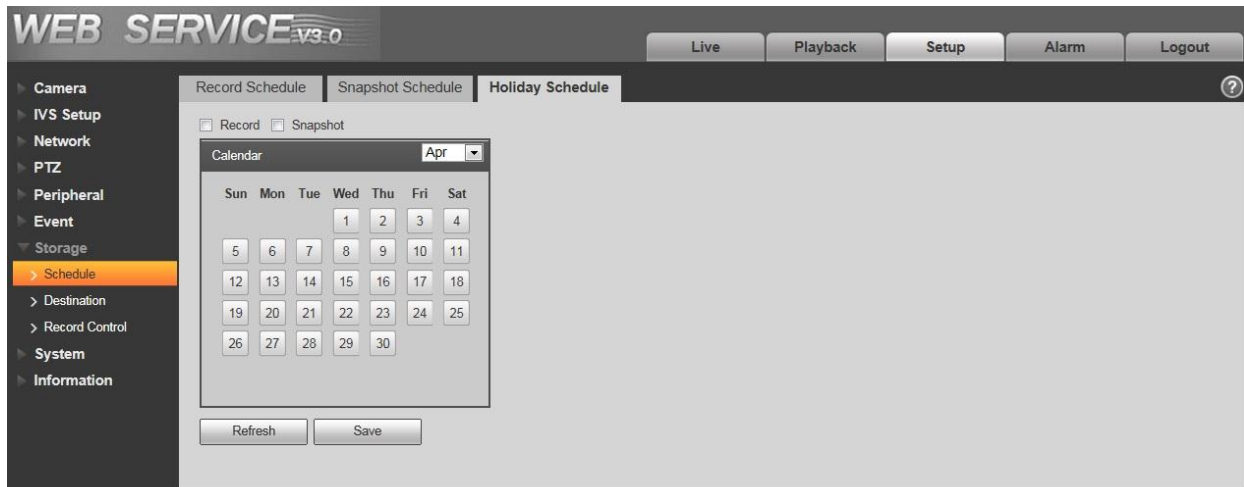


Figure 4-74

Step 2. Select date to set as holiday. The selected date will be highlighted in yellow.

Step 3. Check Record/Snapshot, click Save. System prompts it is successfully saved.



Step 4. Check Record Schedule/Snapshot Schedule interface, click setup next to Holiday, refer to setup of Monday to Sunday.

Step 5. Complete setup of holiday, then it records/snapshots according to date in holiday schedule.

## 4.7.2 Destination

### 4.7.2.1 Path

The destination interface is shown as in Figure 4-75.

Path can config record and snapshot storage path. There are three options: Local, FTP and NAS. You can only select one mode. System can save according to the event types. It is corresponding to the three modes (general/motion/alarm) in the Schedule interface. Please check the box to enable the save functions.

Note: Only device supports SD card has local.

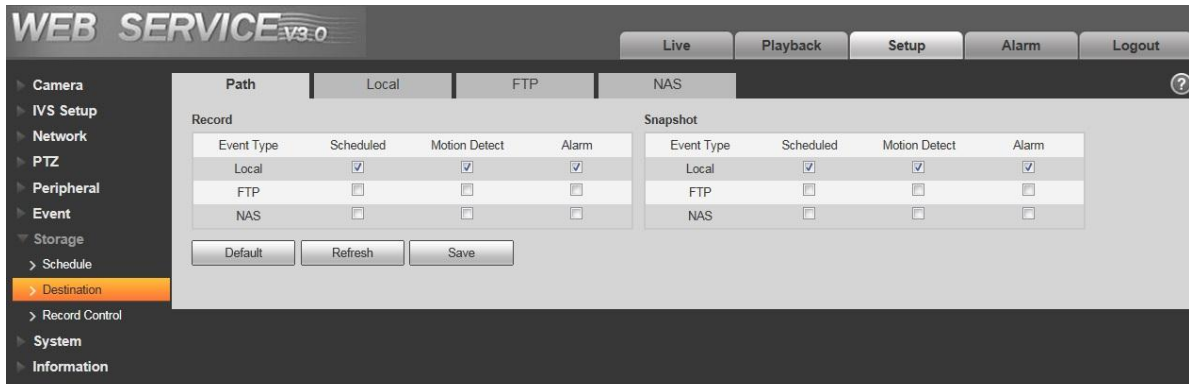


Figure 4-75

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	It includes: scheduled, motion detect and alarm.
Local	It saved in the SD card.
FTP	It saved in the FTP server.
NAS	It saved in NAS disk.

### 4.7.2.2 Local

The local interface is shown as in Figure 4-76.



Here you can view local Micro SD card or NAS disk information. You can also operate the read-only, write-only, hot swap and format operation.



Figure 4-76

#### 4.7.2.3 FTP

The FTP interface is shown as in Figure 4-77.

You need to check the box to enable the FTP function. When network disconnect occurred or there is malfunction. Emergency storage can save the record/snapshot picture to the local SD card.

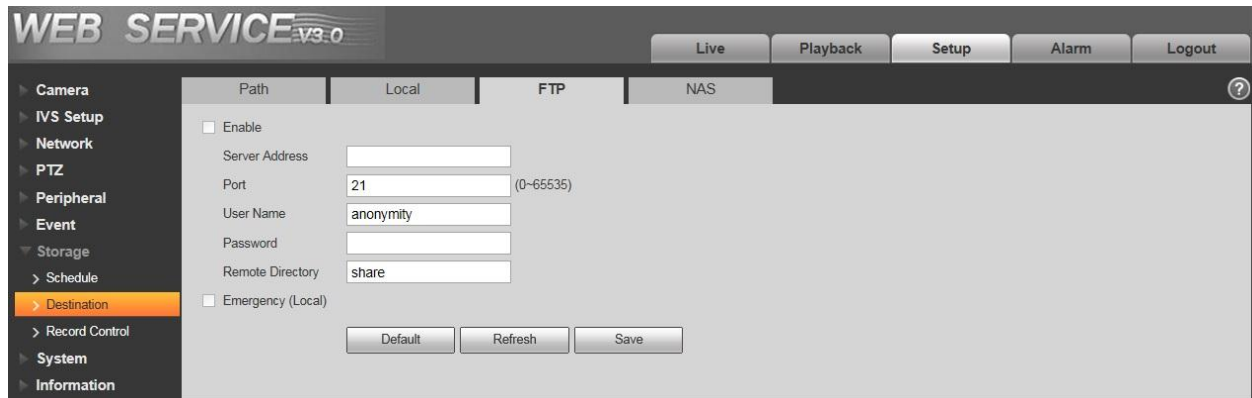


Figure 4-77

#### 4.7.2.4 NAS

You need to check the box to enable the NAS function. Select NAS storage as to same file to NAS disk. See Figure 4-78.





Figure 4-78

### 4.7.3 Record control

The record control interface is shown as in Figure 4-79.

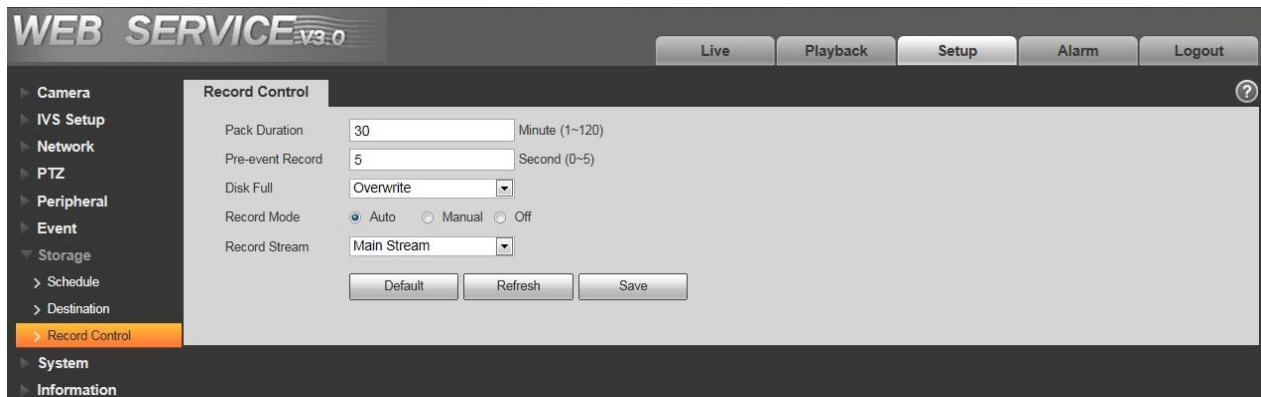


Figure 4-79

Please refer to the following sheet for detailed information.

Parameter	Function
Pack Duration	Here you can select file size within 1min~120min. Default setup is 8 minutes.

Pre-record	<p>Please input pre-record value here.</p> <p>For example, system can record the four seconds video in the buffer. The record begins from the fifth second.</p> <p>Note:</p> <p>Configure pre-record time, when alarm or motion detection occurs, if there is no record, system will record the preceding n seconds record.</p>
Disk Full	<p>There are two options: stop recording or overwrite the previous files when HDD is full.</p> <ul style="list-style-type: none"> <li>● Stop: Current working HDD is overwriting or current HDD is full, it will stop record.</li> <li>● Overwrite: Current working HDD is full; it will overwrite the previous file.</li> </ul>
Record mode	<p>There are three modes: Auto/manual/close.</p>
Record stream	<p>There are two options: main stream and sub stream.</p>

## 4.8 System

### 4.8.1 General

The General interface is shown as in Figure 4-80.

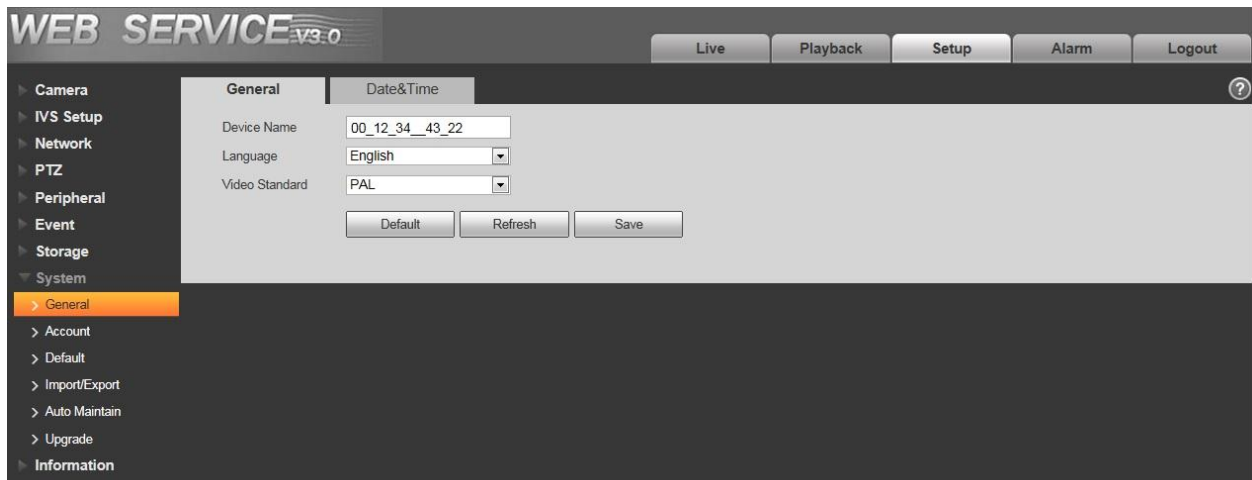


Figure 4-80

Please refer to the following sheet for detailed information.

Parameter	Function
Device Name	It is to set device name.
Video Standard	This is to display video standard such as PAL.
Language	You can select the language from the dropdown list.

The date and time interface is shown as in Figure 4-81.

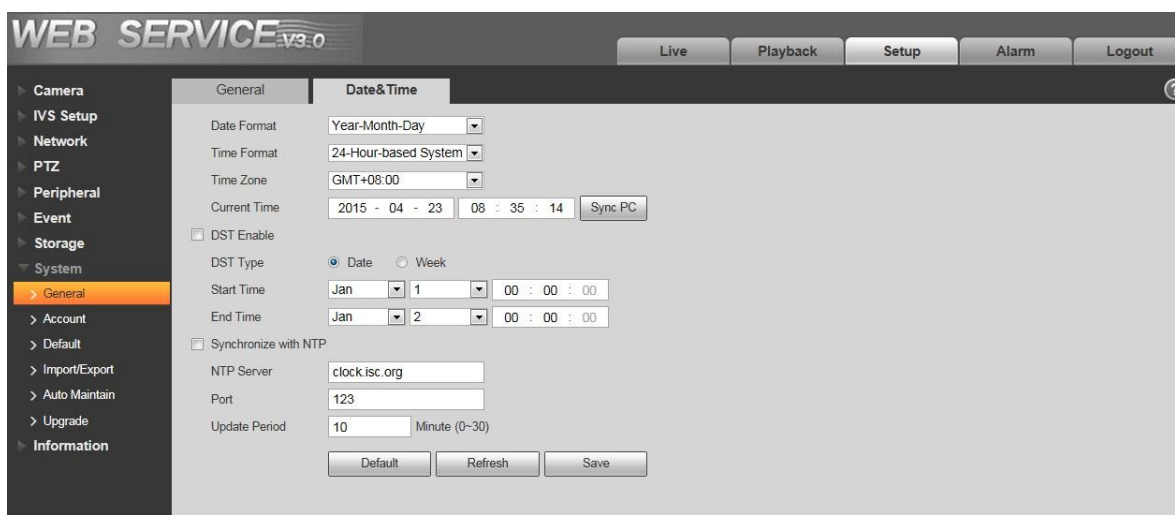


Figure 4-81

Please refer to the following sheet for detailed information.

Parameter	Function
Date format	Here you can select date format from the dropdown list.
Time Format	There are two options: 24-H and 12-H.
Time zone	The time zone of the device.
System time	It is to set system time. It becomes valid after you set.
Sync PC	You can click this button to save the system time as your PC current time.

DST	Here you can set day night save time begin time and end time. You can set according to the date format or according to the week format.
NTP	You can check the box to enable NTP function.
NTP server	You can set the time server address.
Port	It is to set the time server port.
Update period	It is to set the sync periods between the device and the time server.

#### 4.8.2 Account

- For the character in the following user name or the user group name, system max supports 15-digits. The valid string includes: character, number, and underline.
- Password can be 0~32 characters in number and letter only. User can modify other user's password.
- The user amount is 18 and the group amount is 8 when the device is shipped out of the factory. The factory default setup includes two levels: user and admin. You can set the corresponding group and then set the rights for the respective user in the specified groups.
- User management adopts group/user modes. The user name and the group name shall be unique. One user shall be included in only one group.
- Currently logged in user cannot change his/her own right.
- 

##### 4.8.2.1 Username

In this interface you can enable anonymity login, add/remove user and modify user name. See Figure 4-82.

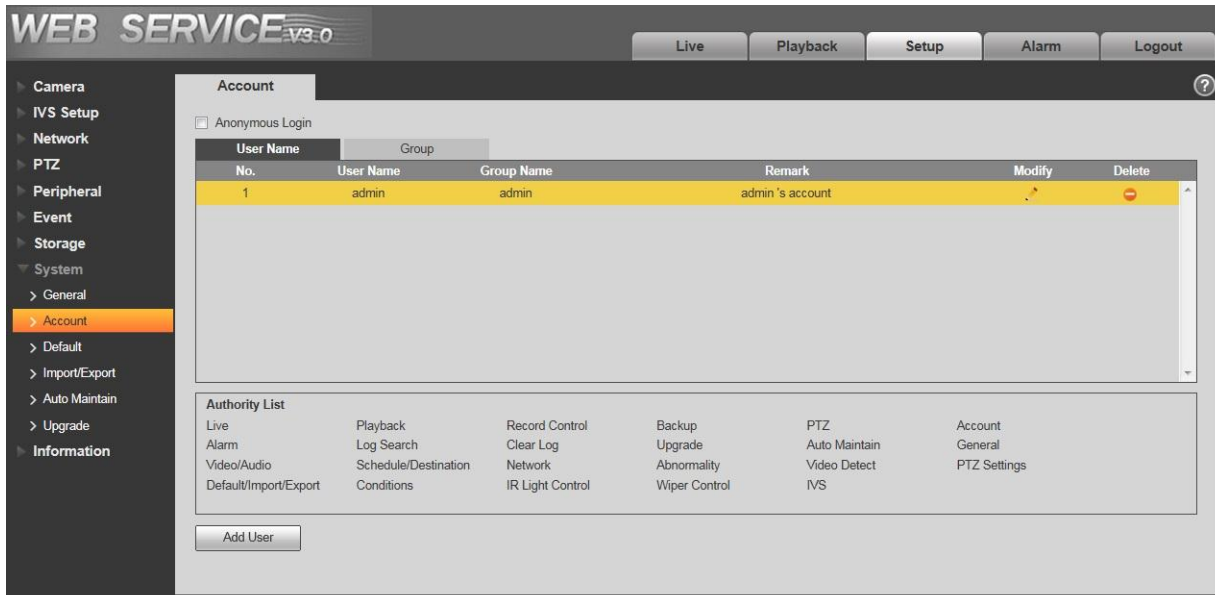


Figure 4-82

**Enable anonymity login:** Enable anonymity login, and input IP. No username or password is required, you can log in by anonymity (with limited rights). You can click logout to end your session.

**Add user:** It is to add a name to group and set the user rights. See Figure 4-83.

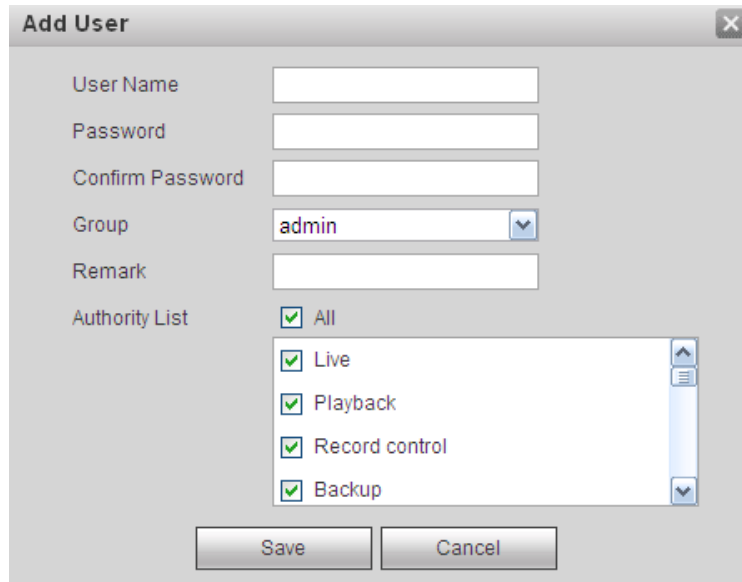
There are four default users: admin/888888/666666 and hidden user “default”. Except user 6666, other users have administrator right. The user 666666 can only have the monitor rights.

Hidden user “default” is for system interior use only and cannot be deleted. When there is no login user, hidden user “default” automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.

Here you can input the user name and password and then select one group for current user.

Please note the user rights shall not exceed the group right setup.

For convenient setup, please make sure the general user has the lower rights setup than the admin.



The 'Add User' dialog box contains the following fields and options:

- User Name: [Empty text box]
- Password: [Empty text box]
- Confirm Password: [Empty text box]
- Group: [admin (dropdown menu)]
- Remark: [Empty text box]
- Authority List:
  - All
  - Live
  - Playback
  - Record control
  - Backup

Buttons: Save, Cancel

Figure 4-83

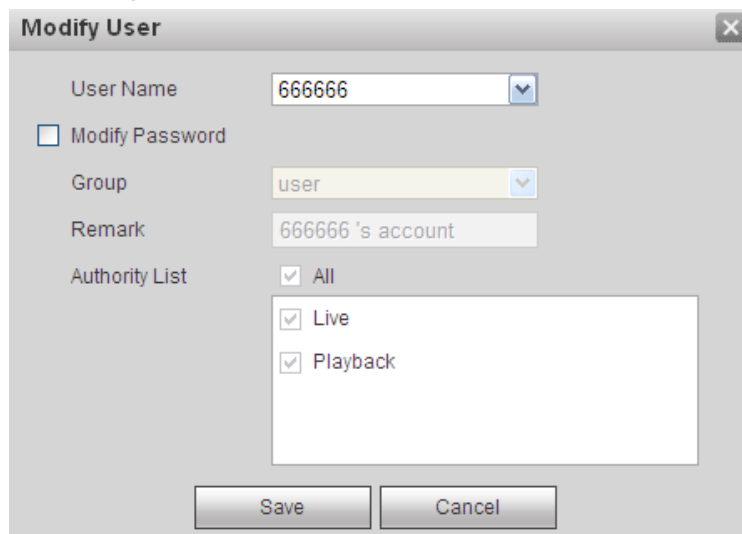
### Modify user

It is to modify the user property, belonging group, password and rights. See Figure 4-84.

### Modify password

It is to modify the user password. You need to input the old password and then input the new password twice to confirm the new setup. Please click the OK button to save.

Please note, the password ranges from 0-digit to 32-digit. It shall include the number and letter only. For the user who has the account rights, he can modify the password of other users.



The 'Modify User' dialog box contains the following fields and options:

- User Name: [666666 (dropdown menu)]
- Modify Password
- Group: [user (dropdown menu)]
- Remark: [666666 's account]
- Authority List:
  - All
  - Live
  - Playback

Buttons: Save, Cancel

Figure 4-84

#### 4.8.2.2 Group

The group management interface can add/remove group, modify group password and etc. The interface is shown as in Figure 4-85.

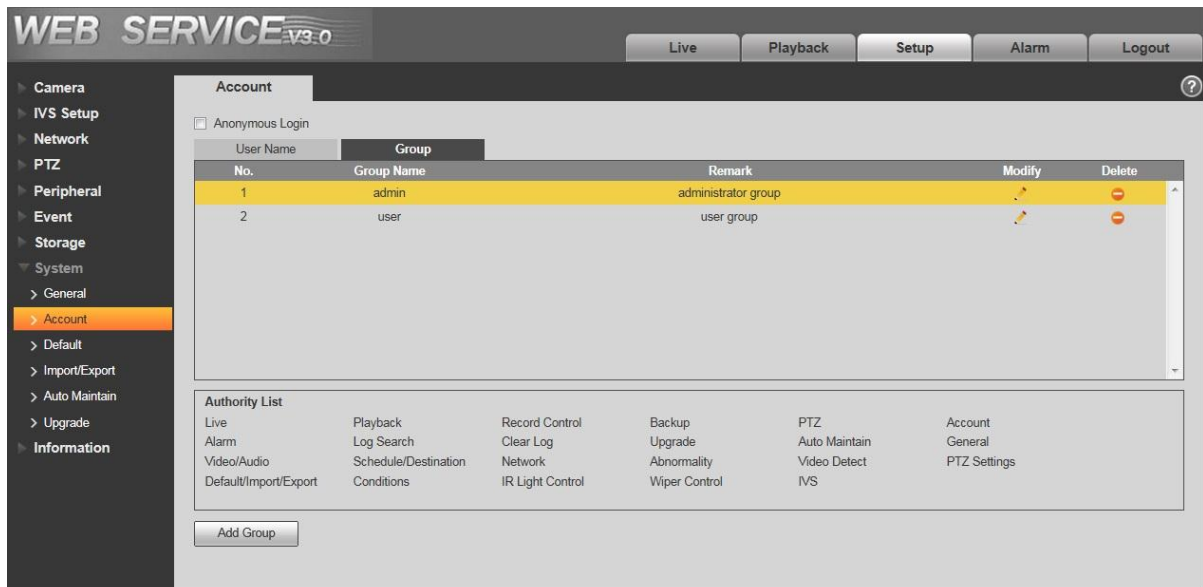


Figure 4-85

**Add group:** It is to add group and set its corresponding rights. See Figure 4-86. Please input the group name and then check the box to select the corresponding rights. It includes: preview, playback, record control, PTZ control and etc.

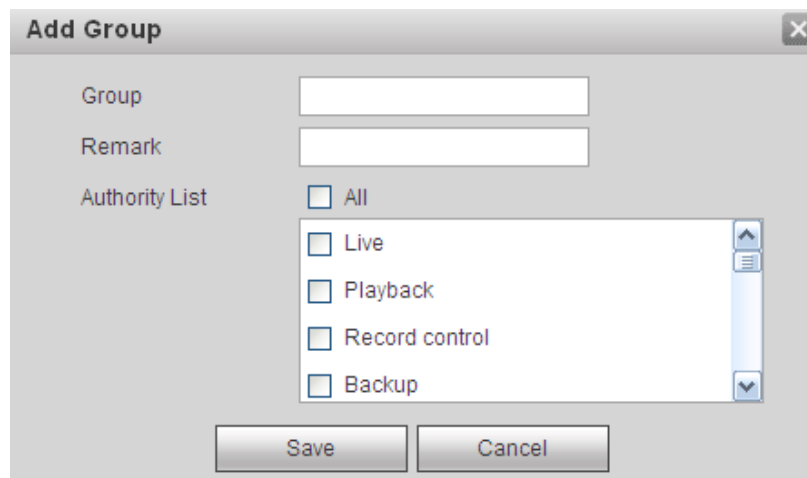


Figure 4-86

### Modify group

Click the modify group button, you can see an interface is shown as in Figure 4-87. Here you can modify group information such as remarks and rights.

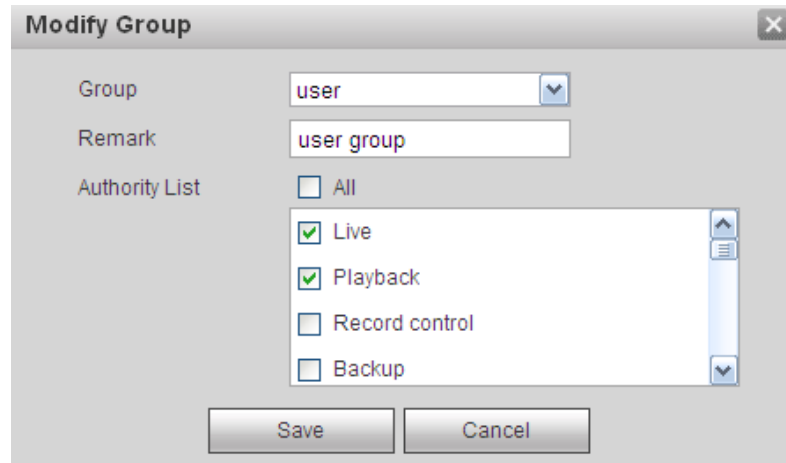


Figure 4-87

### 4.8.3 Default

The default setup interface is shown as in Figure 4-88.

Please note system cannot restore some information such as network IP address.



Figure 4-88



#### 4.8.4 Import/Export

The interface is shown as in Figure 4-89.

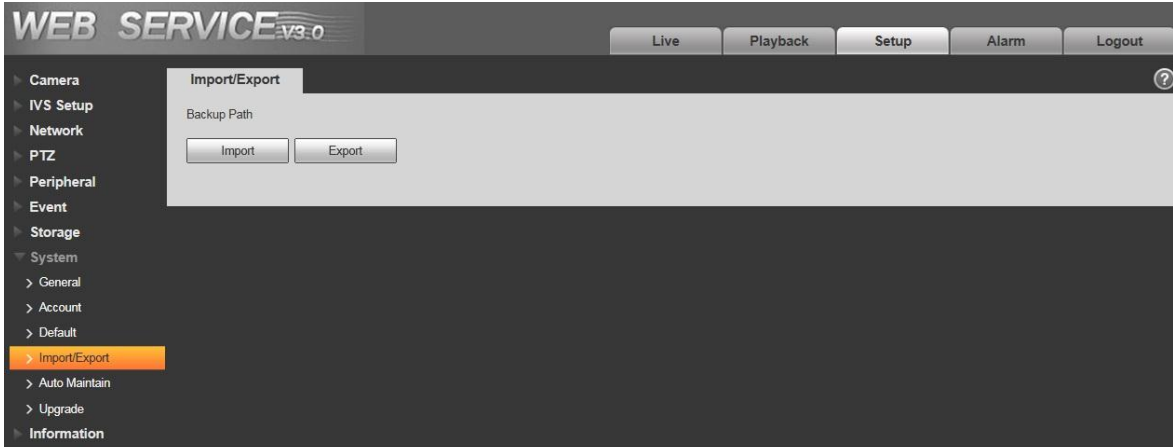


Figure 4-89

Please refer to the following sheet for detailed information.

Parameter	Function
Import	It is to import the local setup files to the system.
Export	It is to export the corresponding system setup to your local PC.

#### 4.8.5 Auto Maintenance

The auto maintenance interface is shown as in Figure 4-90.

Here you can select auto reboot and auto delete old files interval from the dropdown list.

If you want to use the auto delete old files function, you need to set the file period.

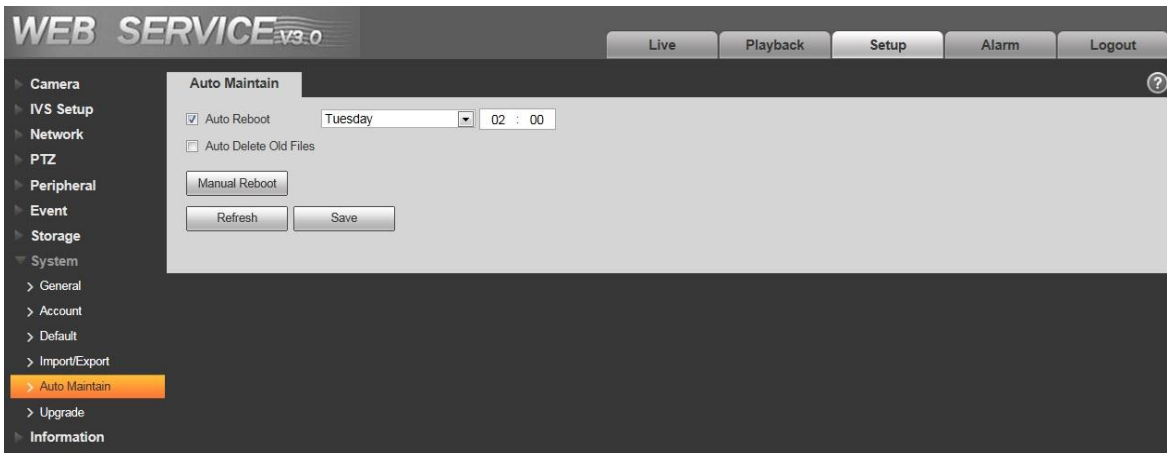


Figure 4-90

Parameter	Function
Auto Reboot	Check it and set auto reboot time.
Auto Delete Old Files	Check it and set period within 1~31 days.

### 4.8.6 Upgrade

The upgrade interface is shown as in Figure 4-91.

Please select the upgrade file (file extension is “.bin”) and then click the update button to begin firmware update.

#### **Important**

**Improper upgrade program may result in device malfunction!**

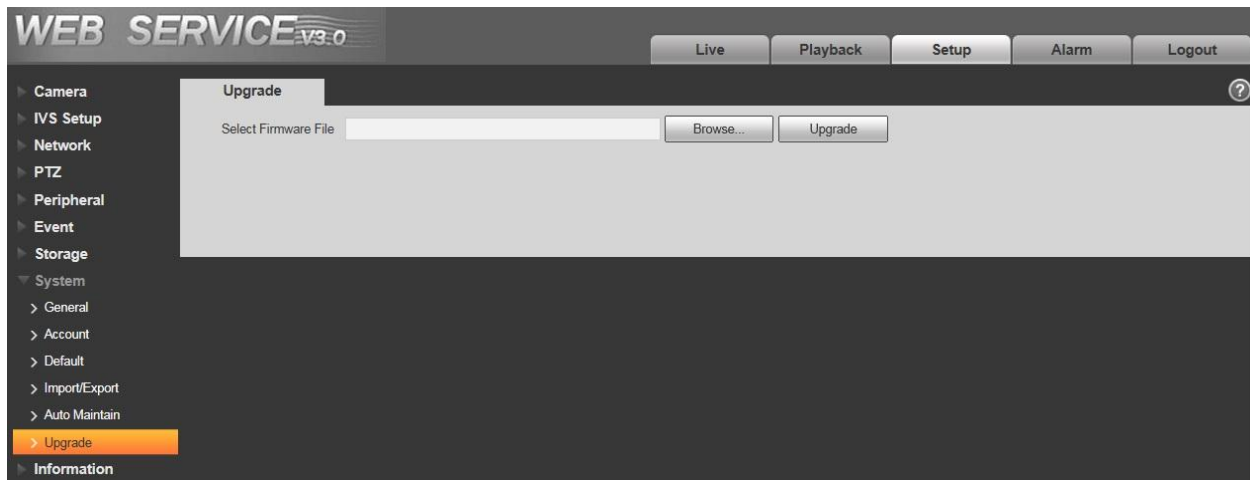


Figure 4-91

## 4.9 Information

### 4.9.1 Version

The version interface is shown as in Figure 4-92.

Here you can view system hardware features, software version, release date and etc. Please note the following information is for reference only.



Figure 4-92

## 4.9.2 Log

Here you can view system log. See Figure 4-93.

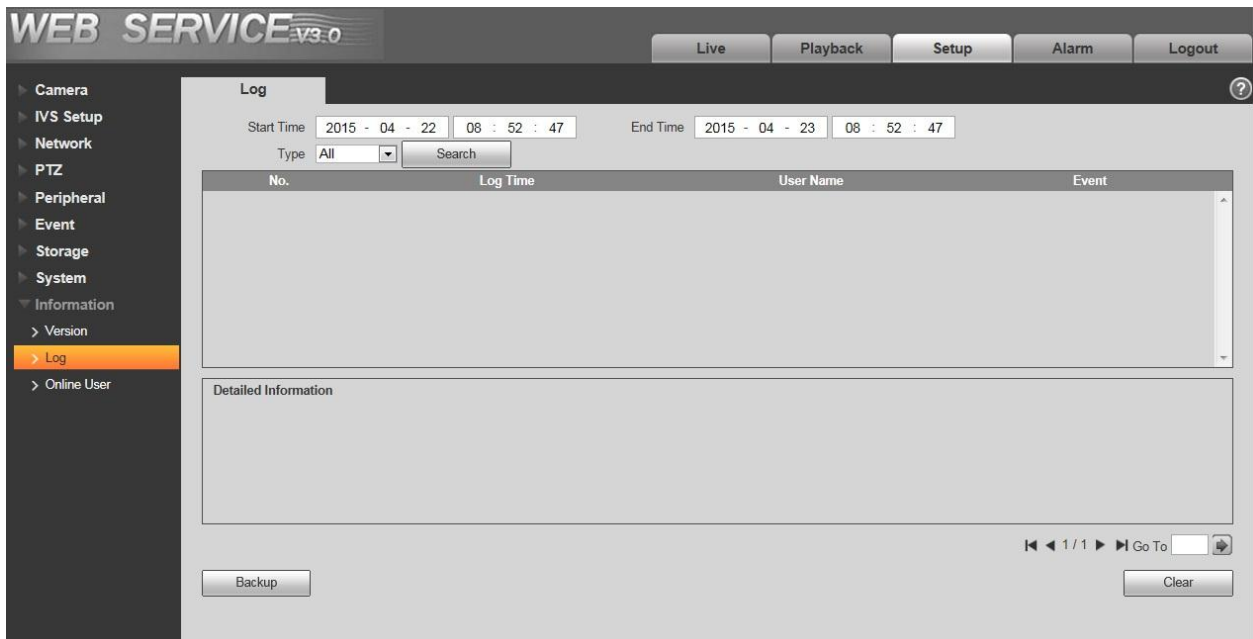


Figure 4-93

Please refer to the following sheet for log parameter information.

Parameter	Function
Start time	Set the start time of the requested log. (The earliest time is 2000/1/1)

Parameter	Function
End time	Set the end time of the requested log. (The latest time is 2037/12/31)
Type	Log type.
Search	You can select log type from the drop down list and then click search button to view the list. You can click the stop button to terminate current search operation.
Log information	You can select one item to view the detailed information.
Clear	You can click this button to delete all displayed log files. Please note system does not support clear by type.
Backup	You can click this button to backup log files to current PC.

### 4.9.3 Online User

The online user interface is shown as in Figure 4-94.

Here you can view current online user, group name, IP address and login time.



Figure 4-94

## 5 Alarm

**Please note some series product does not support this function.**


Click alarm function, you can see an interface is shown as in Figure 5-1.

Here you can set device alarm type and alarm sound setup.



Figure 5-1

Please refer to the following sheet for detailed information.

Type	Parameter	Function
Alarm type	Motion detection	System alarms when motion detection alarm occurs,
	Disk full	System alarms when disk is full.
	Disk error	System generates an alarm when HDD is malfunction.
	Video tampering	System alarms when camera is viciously masking.
	External alarm	Alarm input device sends out alarm.
	Illegal access	System alarms when there is unauthorized access.
Operation	Prompt	When alarm is triggered, there will be s  in main menu of alarm interface and system automatically records alarm info. The icon disappears when user click alarm menu bar. Note: If alarm interface is displayed, when alarm is triggered, there will be no image prompt, but alarm record will be in list on the right.
Alarm audio	Audio	When alarm occurs, system auto generates alarm audio. The audio supports customized setup.



Type	Parameter	Function
	Path	Here you can specify alarm sound file.



## 6 Log out

Click log out button, system goes back to log in interface. See Figure 6-1.



Figure 6-1

### Note:

- This manual is for reference only. Slight difference may be found in user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.



Zhejiang Dahua System Engineering Co., Ltd

Address: No.1187 Bin'an Road, Binjiang District, Hangzhou, China.

Postcode: 310053

Business: 0571—28179192

Customer Service: 400—672—8166

Website: [www.dahuasystem.cn](http://www.dahuasystem.cn)