NETWORK CAMERA

User Manual

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

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

Safety Instruction

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

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

Warnings:
Seirous injury or death maybe caused if any of these warning are neglected
Cautions:
Injury or equipment damage maybe caused if any of these cautions are neglected

.

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

 **Warnings：**

1. Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with DC 12V or AC 24V (depending on models) according to the IEC60950-1 and limited power source standard
2. If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself.(we shall not assure any responsibility for problems caused by unauthorized repair or maintenance.
3.To reduce the risk of fire or electrical shock, do not expose this products to rain or moisture.
4.This installation should be made by a qualified service person and should conform to all the local codes.
5.Please install blackouts equipment into the power supply circuit for convenient supply interruption.
6.Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling..

 **Cautions:**

1. Make sure the power supply voltage is correct before using the camera
2. Do not drop the camera or subject it to physical shock
3. Do not touch sensor modules with fingers .If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently .If the camera will not be used for an

extended period of time, put on the lens cap to protect the sensor from dirt .

4. Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera
5. The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
6. Do not place the camera in extremely hot, cold temperatures (the operating temperature should be between -10°C -60 °C),dusty or damp environment, and do not expose it to high electromagnetic radiation.
7. To avoid heat accumulation, good ventilation is required for a proper operating environment.
8. Keep out of water and any liquid.
9. While shipping, the camera should be packed in its original packing.
10. Regular parts replacement: Some components (such as electrolytic capacitors) need to be replaced regularly based on their average life-span. The life-span of components is varying from the working environment ,conditions and the working time, so regularly check is necessary. For more information please contact the local dealer where you purchased from.

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Chapter 1.Network topology

1.1 Network topology

The following figures show the two ways of cable connection of a network camera and a computer, e.g figure 1.1 and 1.2

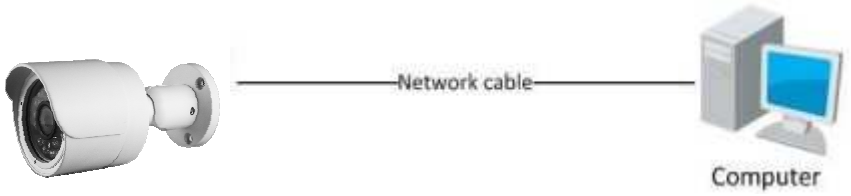


Figure 1.1 Network cable connecting directly

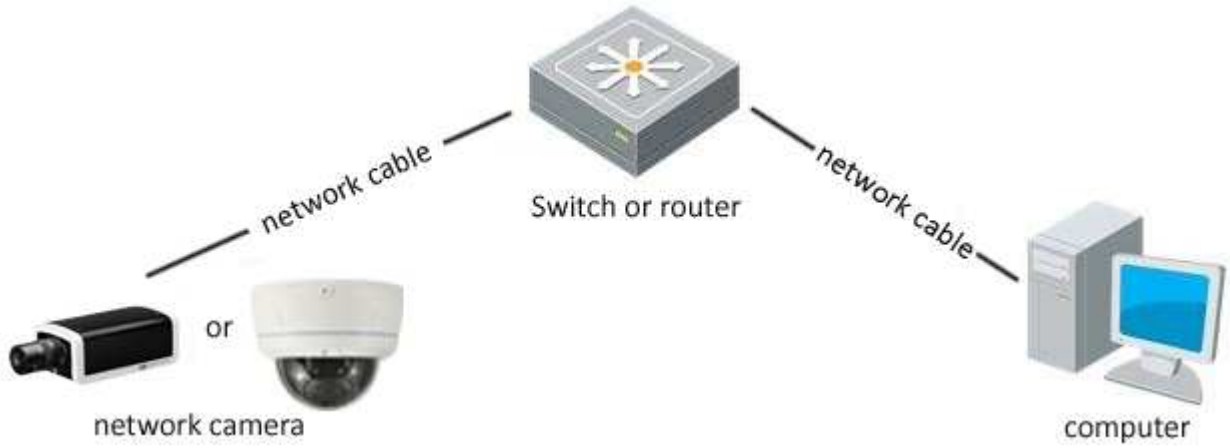


Figure 1. connecting via a switch or a router

1.2 TEKTool search

Before visit the network camera over internet, you need to obtain IP address by TEKTools software (equipment automatic search software)

Open the CD,double click the “TEKTools: ,it will list the running network camera device information in the LAN,inlcuding IP address ,port number ,Subnet mask and device serial number and version information etc ,shown in figure 1.3 :

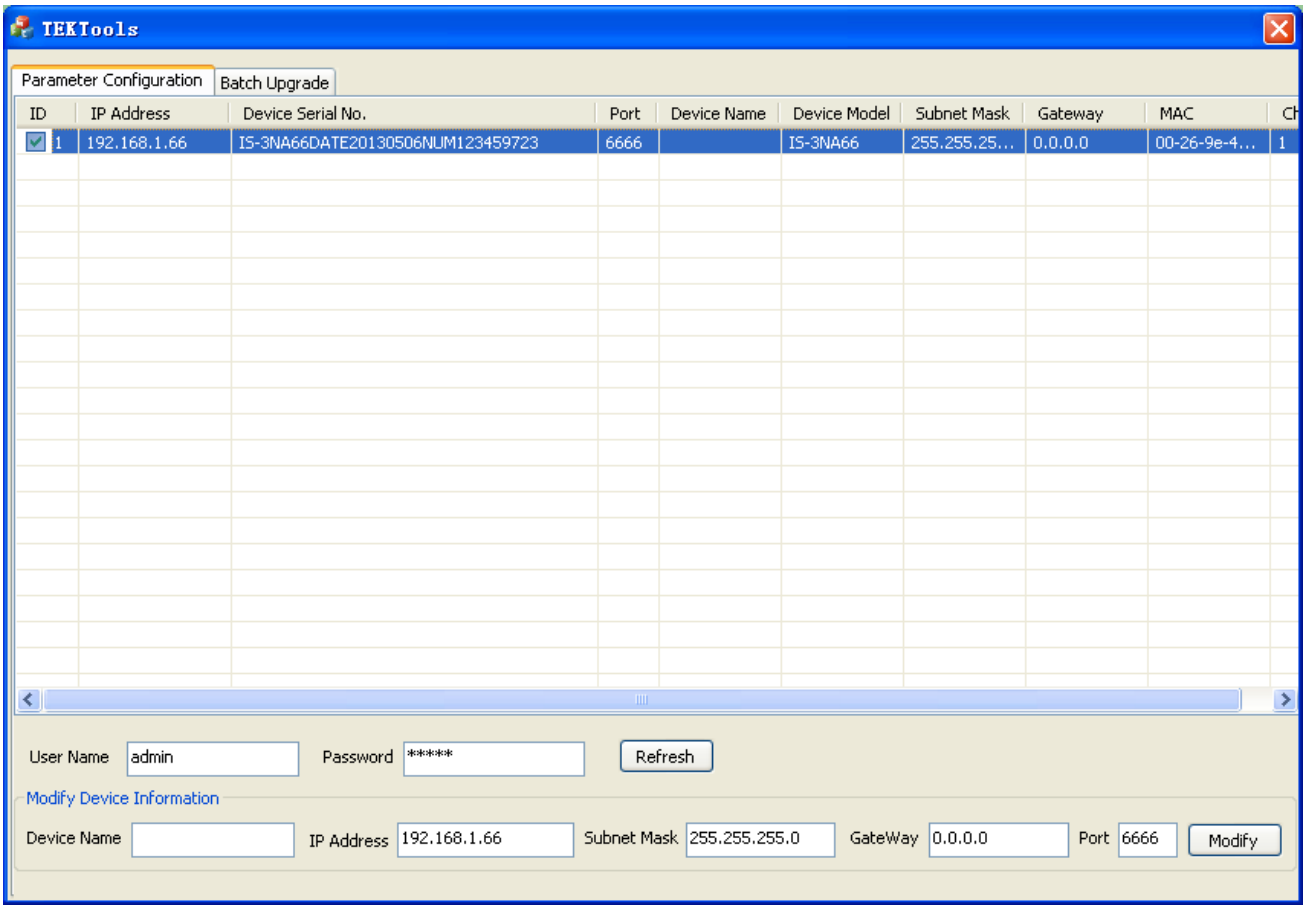


Figure 1.3 Search IP address

If you want to modify the device information in TEKTools ,select it and input new IP address ,subnet mask ,port number and user password (The default password is :admin) , click【modify】, then you can modify the IP address, shown in figure 1.4:

Figure 1.4 Modify IP address

Note：

Network camera default IP is “192.168.1.66”,port number “6666”，user name is “admin”，password is“admin”

Chapter2 Network Access and parameter Configuration

Two network accessing ways to preview image and configure related parameters :

1、Accessing by IE web browser to preview image and configure network parameters

2、Accessing by client software to preview image and configure network parameters

2.1 Accessing by IE web browser

Note:

when use IE browser to preview images, security lever need to be changed for easily installing plug-in. On the IE browser menu bar, navigate to 【Tool >Internet optional >Security>Custom Level】to customize to "SECURITY LEVER –LOW",and all Active X controls and plug-ins set to be "Enable" ,shown in figure 2.11.For the safety purpose, after Network camera image previewed, please set the security lever to as "DEFAULT LEVER"

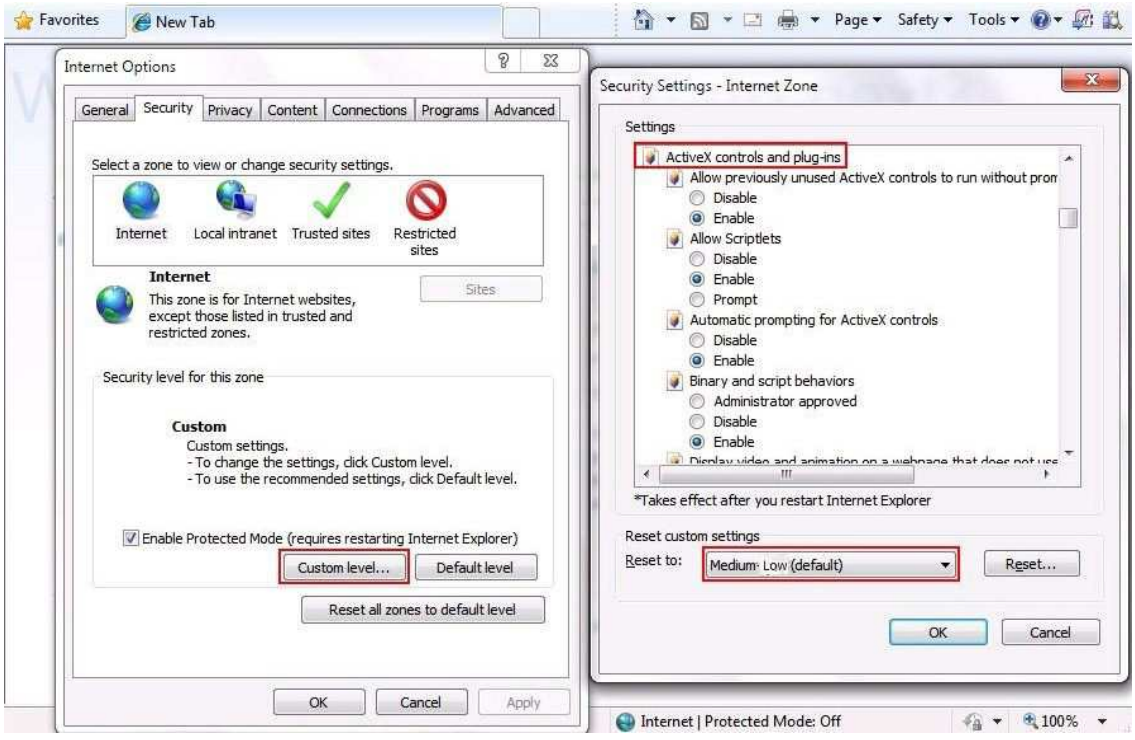


Figure 2.1.1 IE security lever setting

2.1.1 Live view

2.1.1.1 step1：Install plug-in

Open IE browser ,in address filed ,input IP address of the network camera ,press ENTER key to enter the login interface ,figure2.1.2

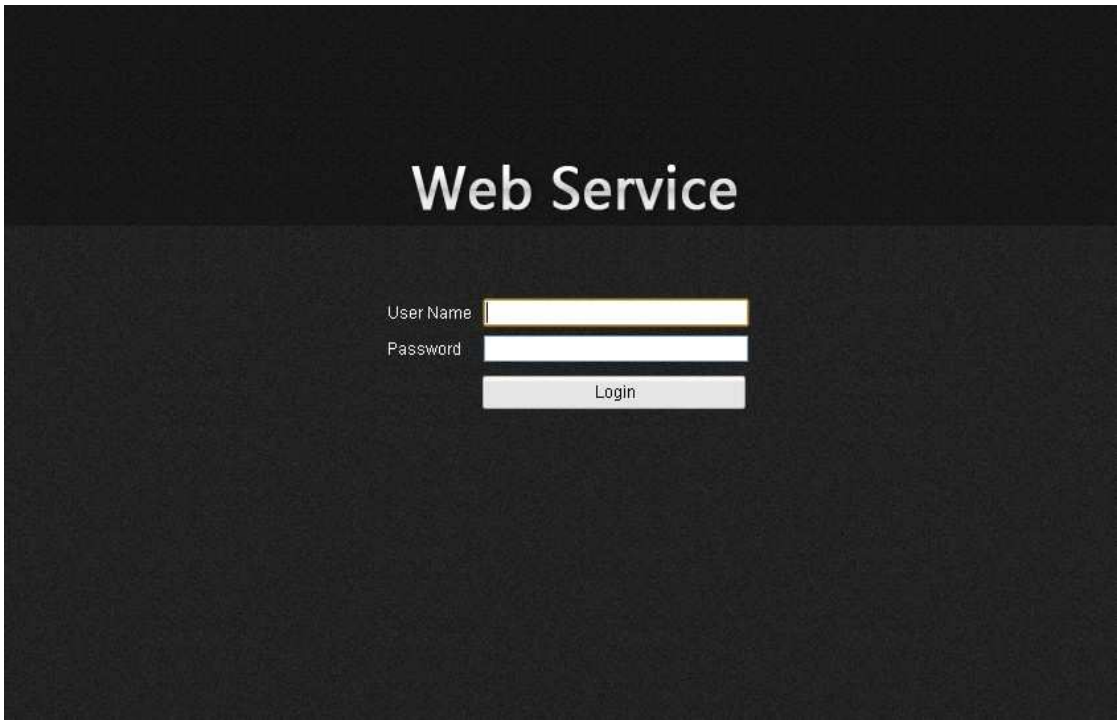


Figure 2.1.2 login interface

2.1.1.2 Step2：login and install plug-in

In the login interface, input User name (default: admin), password (default: admin) of the network camera , click 【Login】,it prompts to click to download plug-in. After installing plug-in, close the browser. Figure 2.1.3.

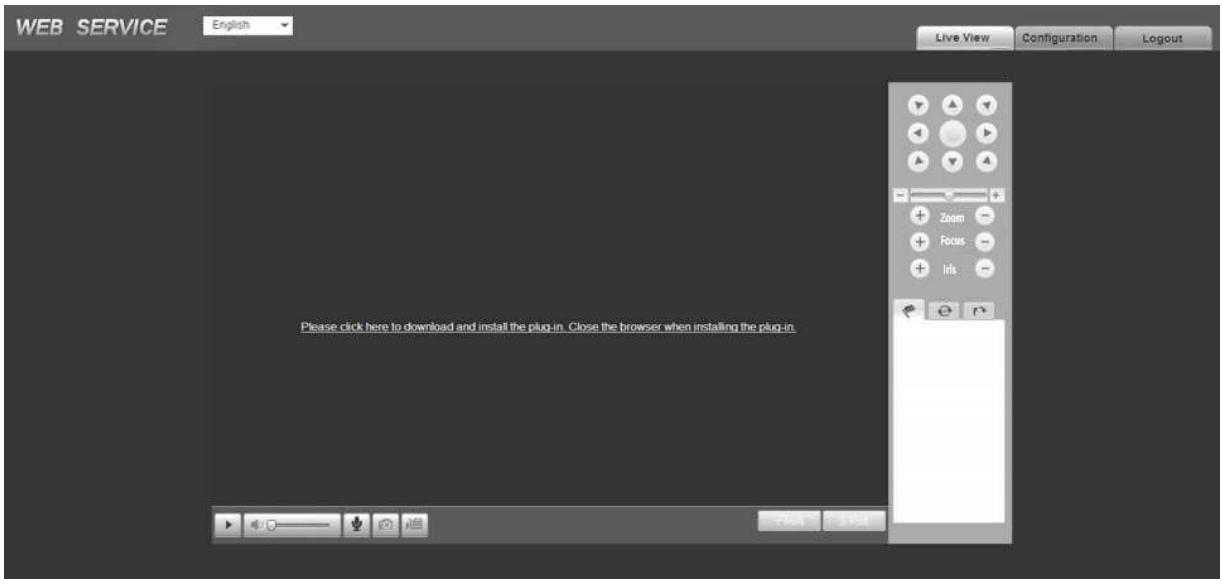


Figure 2.1.3 login interface

2.1.1.3 step3：Live view

Figure 2.1.5 live image

①--- Language Option and Setting ②--- system menu
③---Windows function options ④--- windows adjustment ⑤--- code stream setting

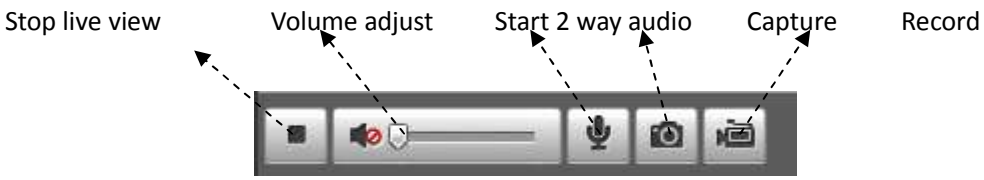
2.1.1.4 Language Setting

The user can choose two languages: Chinese and English

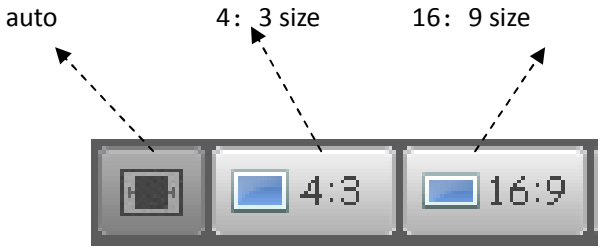
2.1.1.5 Windows menu

The user can set and configure network camera parameter in system menu

2.1.1.6 Windows function options



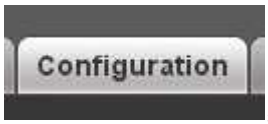
2.1.1.7 windows adjustment



2.1.1.8 code stream setting

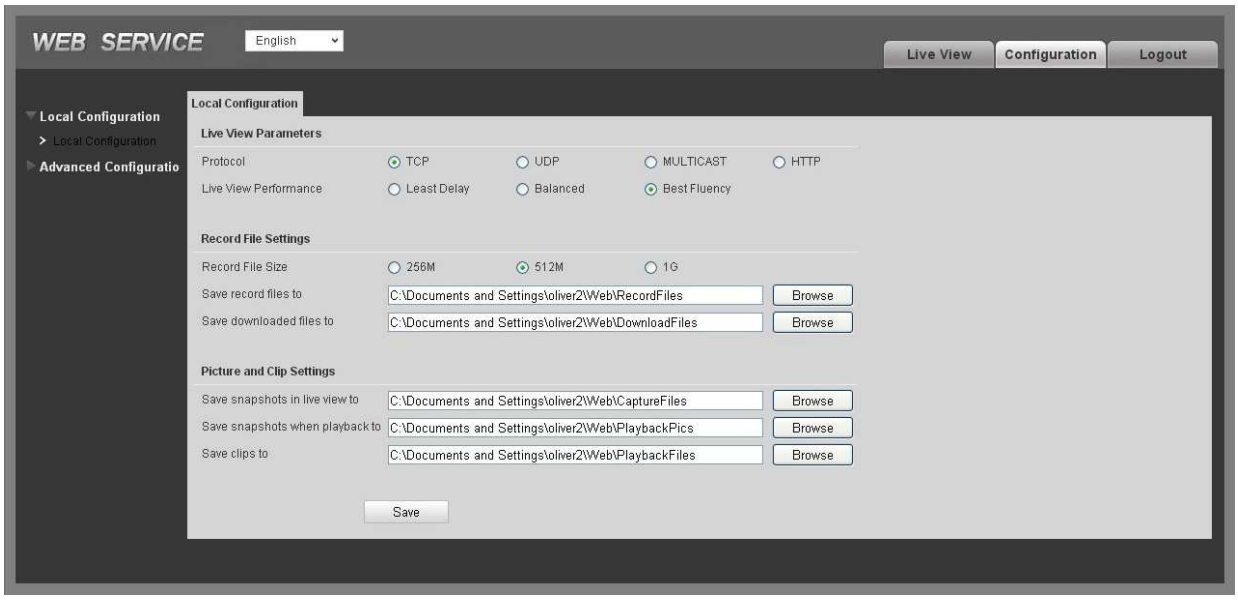
Parameter	Remarks
Main stream	The main stream is usually for A/V recording and live viewing with normal bandwidth, the resolution (within IP resolutions support scope) can be set at request
Sub stream	The sub-stream replace main stream to be used for live viewing when the bandwidth is limited

2.1.2 Configuration

Click 

, enter into the Configuration interface.

2.1.2.1 Local Configuration



2.1.6 Local Configuration Interface

Parameter	Description
Protocol	TCP、UDP、MULTICAST 、HTTP, 4 optional , Default Option TCP
Live View Performance	Least Delay、Balanced、Best Fluency, 3optional , Default Option Best Fluency
Record File Size	265M、512M、1G, 3optional, Default Option 512MB
Save record files to	Default save to C:\Documents and Settings\Administrator\Web\Record Files
Save download files to	Default save to C:\Documents and Settings\Administrator\Web\Download Files
Save snapshots in live view to	Default save to C:\Documents and Settings\Administrator\Web\Capture Files
Save snapshots when playback to	Default save to C:\Documents and Settings\Administrator\Web\Playback Pics
Save clips to	Default save to C:\Documents and Settings\Administrator\Web\Playback Files

2.1.2.2 Advanced Configuration

Advanced Configuration → **System** → Device Information:

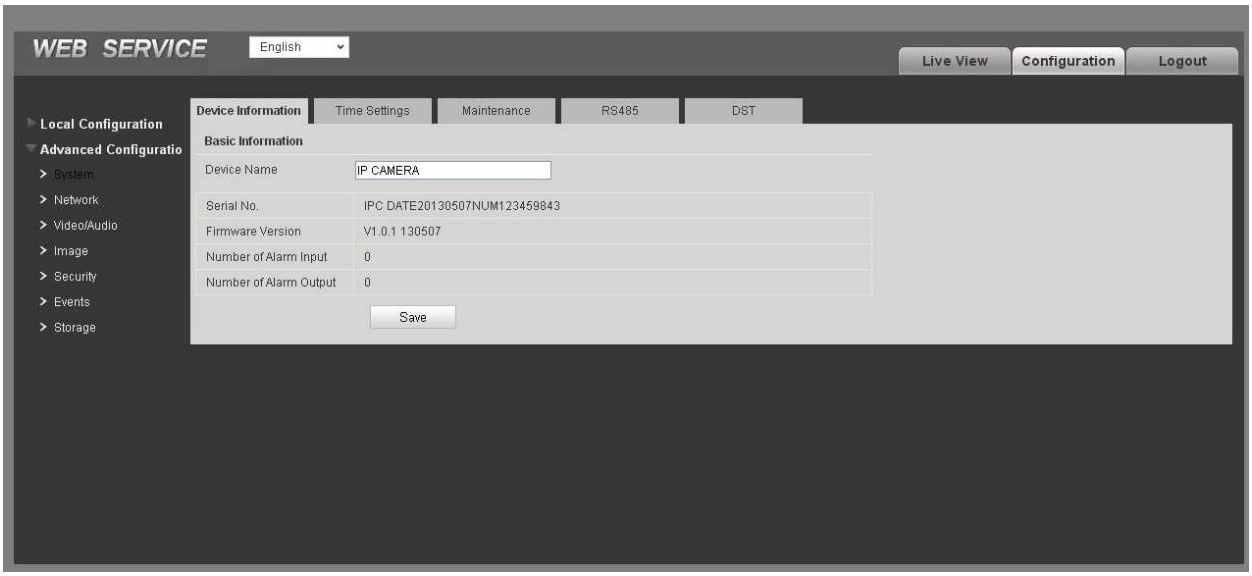


Figure 2.1.7 System Configuration Information

Configuration	Description
Device Name	Default (IP CAMERA) can be modified
Serial Number	IPC DATE20130506NUM123459747, fixed
Firmware Version	V1.0.1 130507
Number of Alarm Input	0
Number of Alarm Output	0

Advanced Configuration → System → Time Setting:

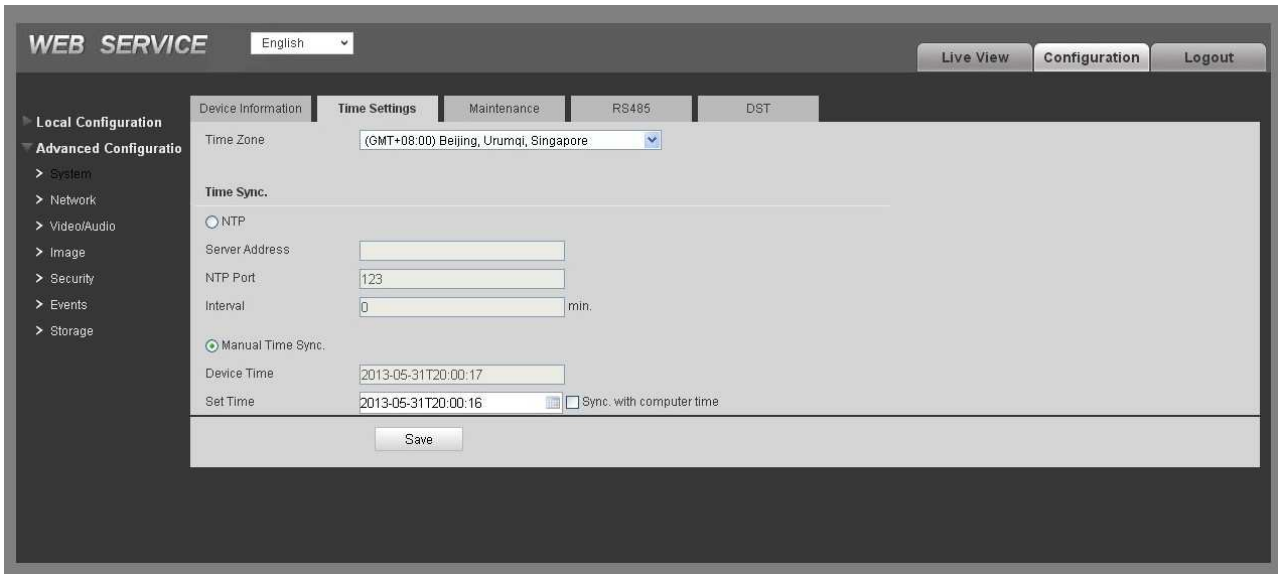


Figure 2.1.8 Time setting interface

Configuration	Description
Time Zone	Choose the Local Time Zone by User
NTP	NTP Options
Server Address	Default: time.windows.com
NTP Port	Default: 123
Interval	0-99999

Advanced configuration→system →system maintenance

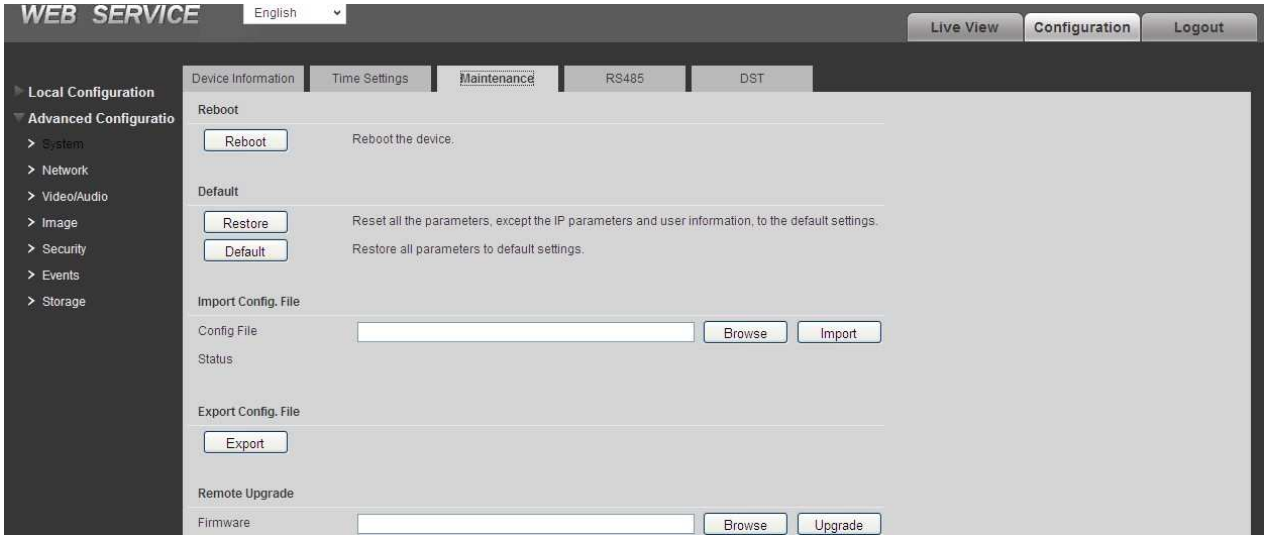


Figure 2.1.9 system configuration-maintenance interface

Configuration	Description
Reboot	Reboot the device
Restore	Reset all the parameters, except the IP parameters and user information, to the default settings
Default	Restore all parameters to default settings.
Import config.file	Import configure file
Export config.file	Export configure file to local storage
Remote Update	Can update the firmware to be latest version

Advanced configuration→system →TCP/IP

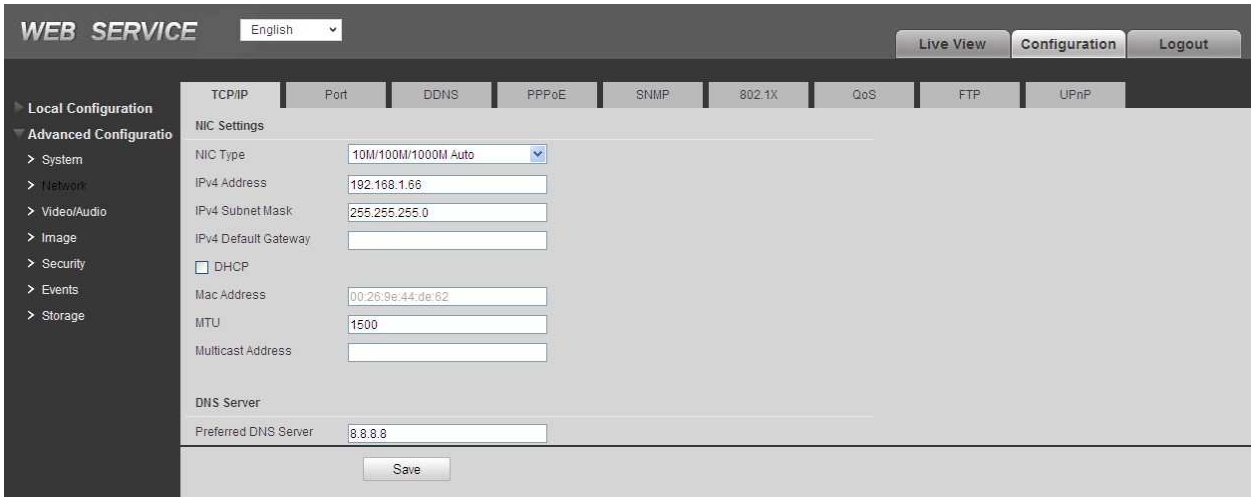


Figure 2.2.0 network setting TCP/IP interface

Parameter	Description
NIC type	Choose adaptable NIC ， default 10M/100M/1000M self-adaptable
IPv4 address	Network camera IP address ， default is ： 192.168.1.66
IPv4 subnet mask	Default :255.255.255.0
IPv4 default gateway	Set proper gateway upon vary network segment
Mac address	Network MAC address
MTU	Network maximum transmission unit ,default 1500
Multicast address	Default :empty
Preferred DNS server	DNS server address

Advanced configuration→system → port

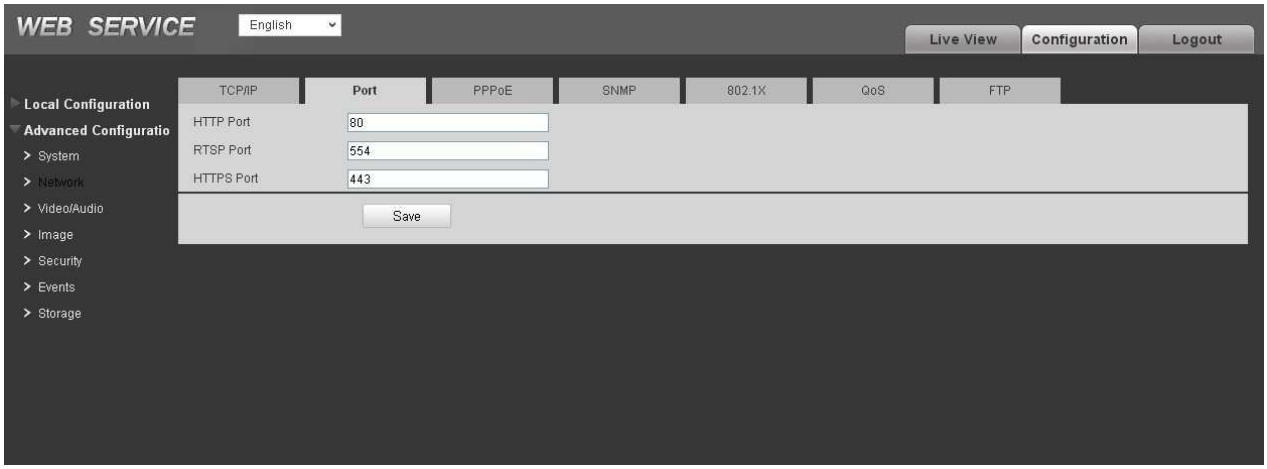


Figure 2.2.1 Network port setting interface

Parameter	Description
HTTP port	Default is 80，user can set port number at request
RTSP port	Default is 554 .Rtsp stream format： main stream：rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0 Sub-stream rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=1 ， ， below 4 options input according to equipment details : username: ,password ,network ip port: default is 554， no need to input if default .If authentication not necessory,,then designated username and password unnecessary .e.g :main steamrtsp://ip:port/cam/realmonitor?channel=1&subtype=0
HTTPS port	Default is 44

Advanced configuration→network →DDNS

Figure 2.2.2 network configuration DDNS

Parameter	Description
DDNS type	DDNS type
Server address	DDNS server IP address
Domain	User self-defined address
Port	DDNS server port
User name	Server login user name
Password	Server login password
Confirm	Server login password

Advanced configuration→network →PPPoE

Input the PPPoE user name and password you get from the IPS (internet serv ice 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.

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.

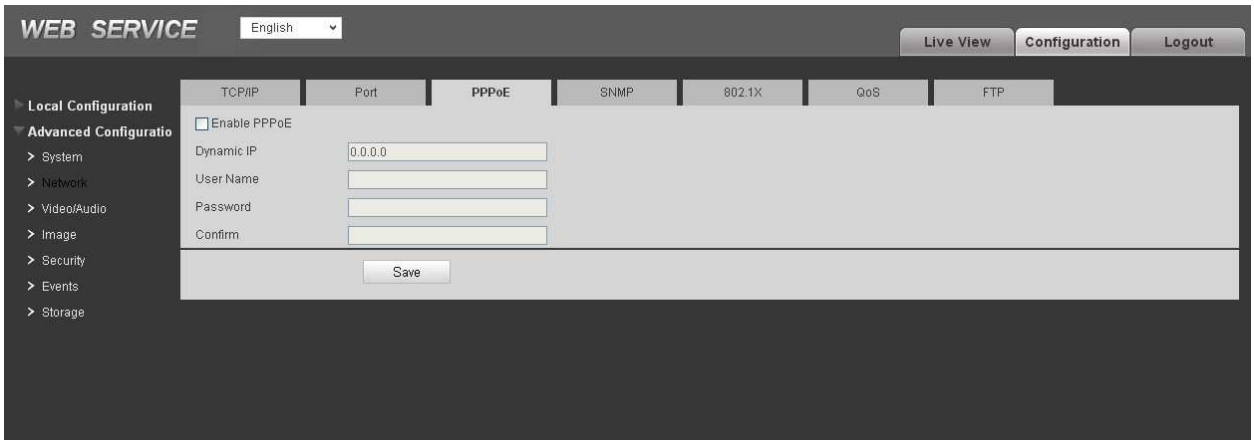


Figure 2.2.3 network configurations PPPoE

Advanced configuration→network →SNMP

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 servic e before you use this function. You need to reboot the device to activate the new setup.

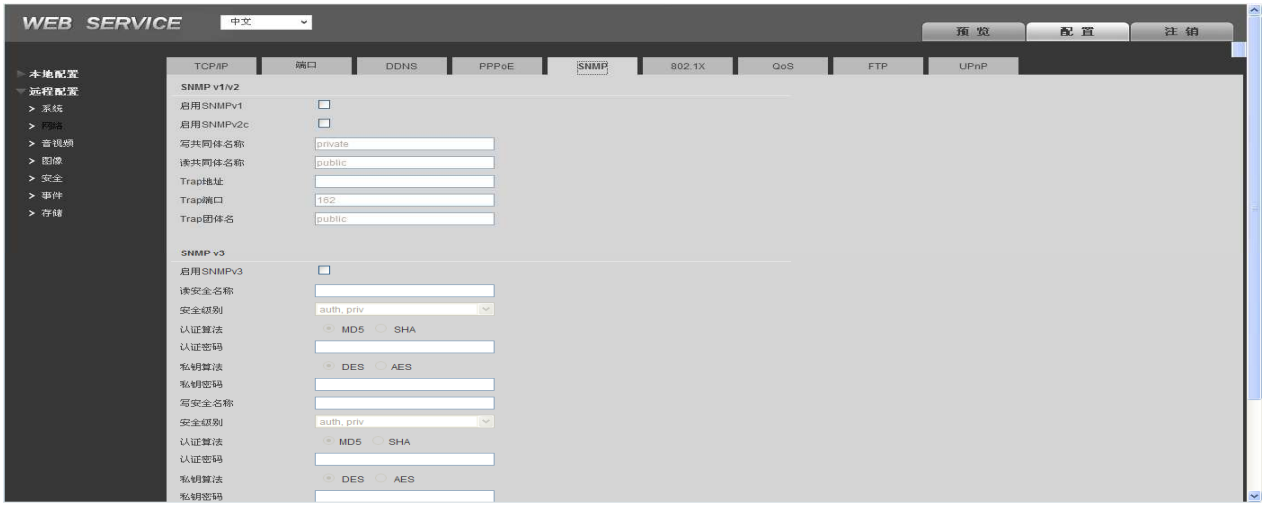


Figure 2.2.4 network configurations SNMP interface

Parameter	Function
SNMPv1	System only processes the information of V1.
SNMPv2c	System only processes the information of V2
Write Community	It is a string. It is a command between the manage process and the proxy process. It defi ned the authentication, access control and the management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read/writ e/access all the objects the SNMP supported in the specified name. The default setup is write.
Read Community	It is a string. It is a command between the manage process and the proxy process. It defi ned the authentication, access control and the management re lationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same .The read community will read all the objects the SNMP supported in the spec ified name. The default setup is public.
Trap Address	The destination address of the Trap information from the proxy program of the device
Trap Port	The destination port of the Trap information from the proxy program of the device. It is for the gateway device and the client-end PC in the LAN to exchange the information. It is a non-protocol connection port. It has no effect on the network applications. It is a UDP port not TCP port. The value ranges from 1 to 165535. The default value is 162
Trap community	Trap community used by SNMP agent to identify the SNMP management, if network configured by verification, SNMP will identify the IP of trap community and management station. If failed, SNMP agent will send a failure to identify TRAP information. It is a string. It is a command between the manage process and the proxy process. The default setup is public.

SNMPv3	System only processes the information of V3

Read user name	Set by users
Safety level	（authentication、Private key）、（authentication、No private key）、（No authentication、No private key）3 modes
Authentication algorithm	MD5、SHA Optional
authentication Password	Set by users
Private key algorithm	DES、AES Optional
Private key password	Set by users
Write user name	Set by users
Safety level	（authentication、Private key）、（authentication、No private key）、（No authentication、No private key）3 modes
Authentication algorithm	MD5、SHA optional
Authentication password	Set by users
Private key algorithm	DES、AES optional
Private key password	Set by users
SNMP port	The listening port of the pr oxy 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

Advanced configuration→network →802.1X

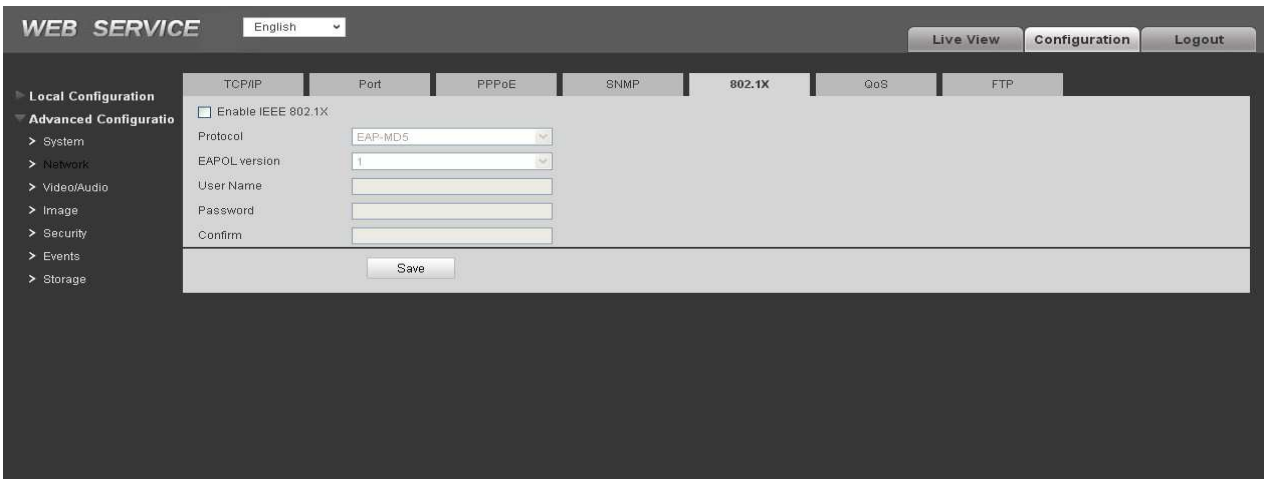


Figure 2.2.5 network configurations 802.1X interface

Parameter	Instruction
Protocol type	Default EAP-MD5
EAPOL version	Support version 1 and version 2
User name	User name allocated by 802.1X identified server
Password	password allocated by 802.1X identified server
confirm	password set by user allocated by 802.1X identified server

Advanced configuration→network →QOS

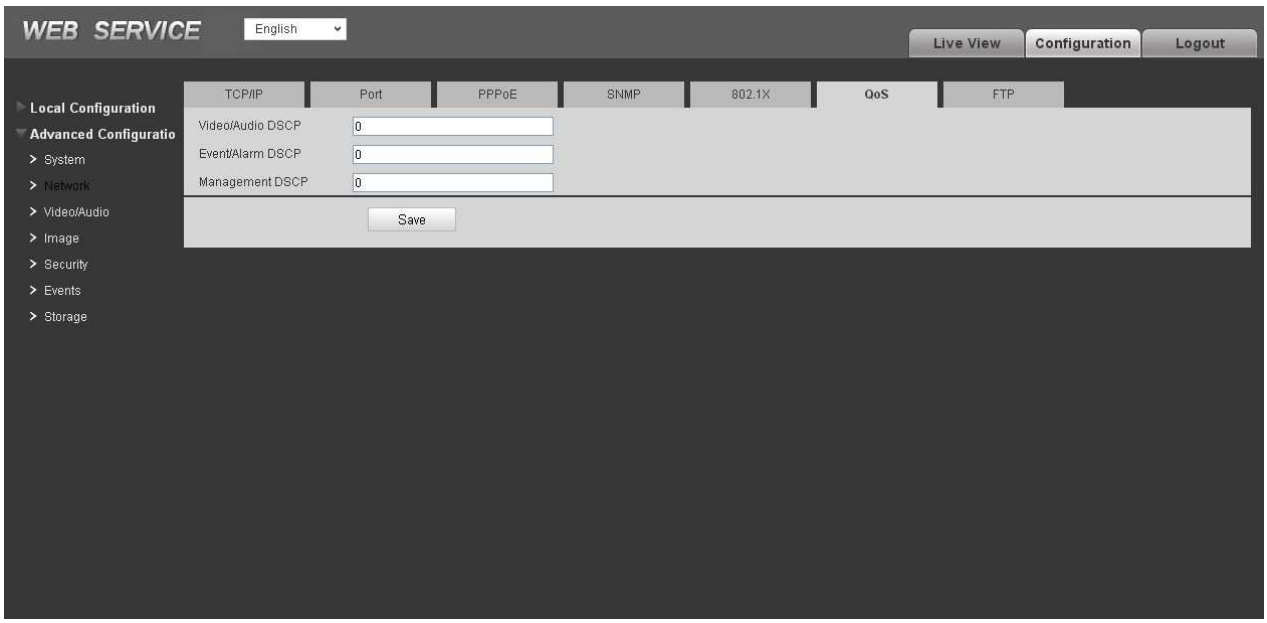


Figure 2.2.6 network configurations QoS

Parameter	Instructions
Video/Audio DSCP	Video/audio network transmission QoS level
Alarm DSCP	Alarm network transmission QoS level
Management DSCP	Management network transmission QoS level

Advanced configuration→Network→FTP

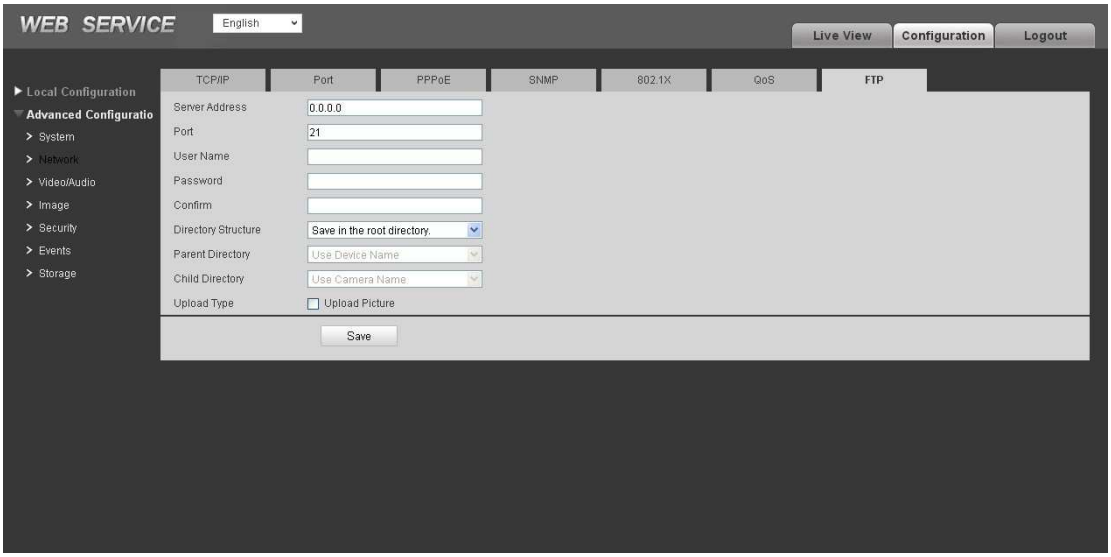


Figure 2.2.7 network configuration FTP

Parameter	Instruction
Serve address	FTP server address
Port	FTP server address
User name	FTP server registered user name
Password	FTPserver registered user password
Confirm	FTPserver registered user password
Directory structure	Rootdirectory、parent directory、child directory optional
Parent directory	Can create device IP,device number, device name
Child directory	Can create device IP,device number, device name
Upload type	Can upload picture

Advanced configuration→network→UPNP

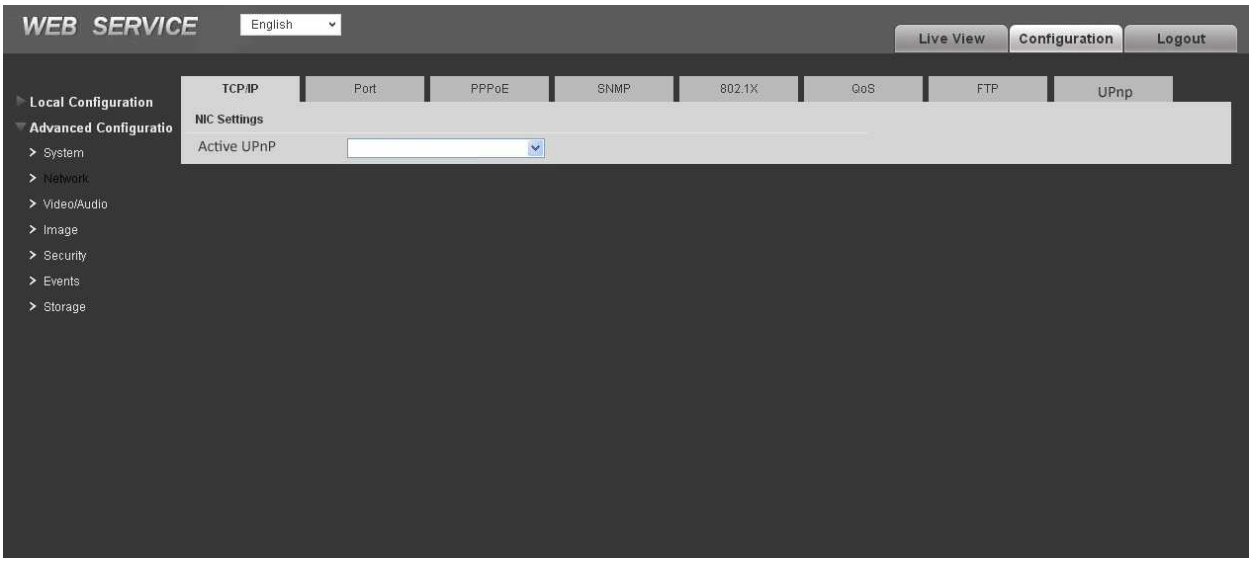


Figure 2.2.8 network configuration UPNP

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

1. In the Windows OS, From Start->Control Panel->Ad d 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.
2. Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the IP C can auto detect it via the “My Network Places”

Advanced configuration→Video/Audio→Video

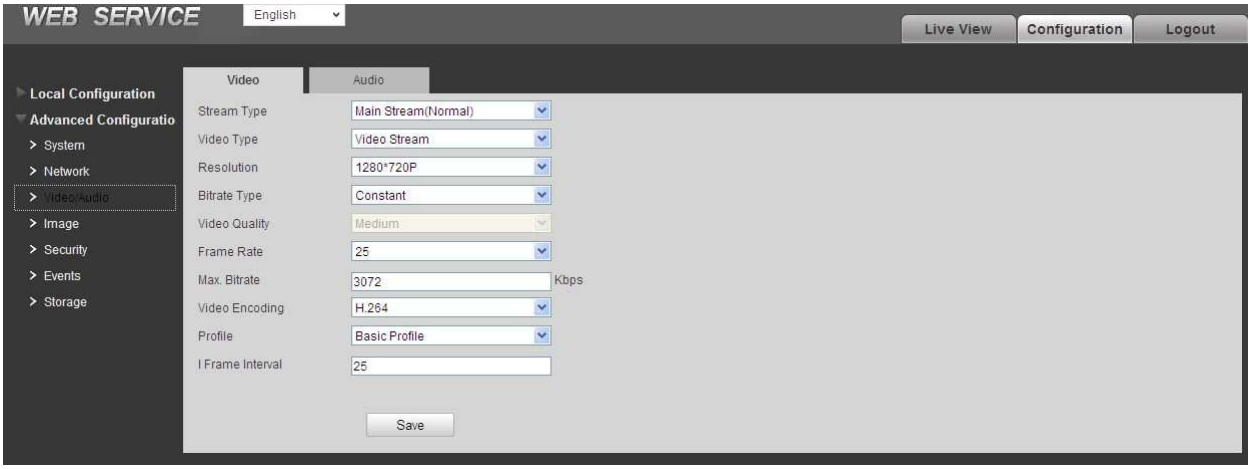


Figure 2.2.9 Network configuration video

Parameter	Instruction
Steam type	Main steam (normal) and Sub steam（network transmitting）
Vidoe type	Video steam
Resolution	640*480、1280*720、1280*960 optional
Bitrate type	Constant and variable optional
Video Quality	Lowest ,lower 、low、medium、high,highest 6 setting optional
Frame rate	1-25 frame optional
Max bitrate	Input upon actual
Video compression	H.264 MPEG4
Encoding complexity	low、medium、high 3 optionals
Frame Interval	Default 25

Advanced configuration→image →display setting

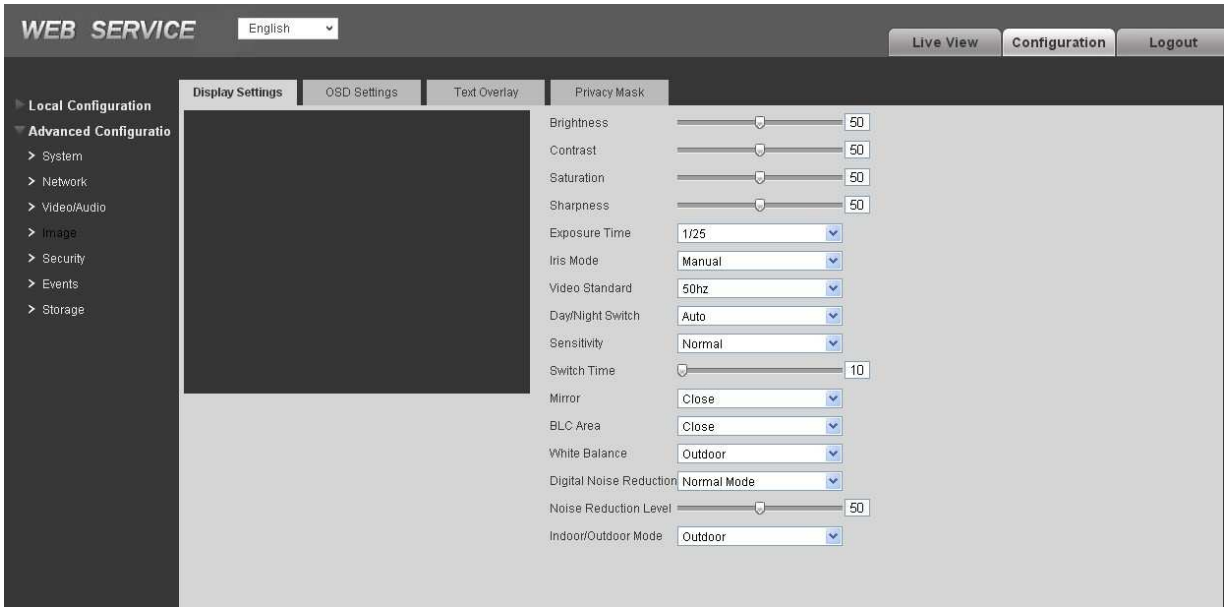


Figure 2.3.0 Image interface

Parameter	Instruction
Brightness	Number (0 – 100)
Contrast	Number (0 – 100)
Saturation	Number (0 – 100)
Sharpness	Number (0 – 100)
Exposure Time	1/25,default,1/50.,1/100,1/250,1/500,1/750,1/1000,1/2000,1/4000,1/10000,1/100000 optional
Iris Mode	Manual
Video Standard	50HZ/60HZ optional
Day/Night Switch	Auto、night、day optional
Switch Time	10-120 optional
Mirror	Left/right、up/down、center、close optional
BLC Area	close、up、down、left、right、center optional
White Balance	indoor、outdoor、auto optional
Digital Noise Reduction	close、normal mode
Noise Reduction Level	Number 0-100
Indoor/Outdoor Mode	indoor、outdoor

Advanced→Image→OSD setting：

1、“display date”、“display name ”and “display week” enable upon actual request means enable，means not

2、“Time format、date format” display format is variable upon actual request

3、“Display mode” is selectable as: “transparent & flashing”, ”transparent & not flashing”, “not transparent & flashing”,” not transparent & not flashing”

4、“Channel name”and“date、week Icon is movable randomly within area of live window.

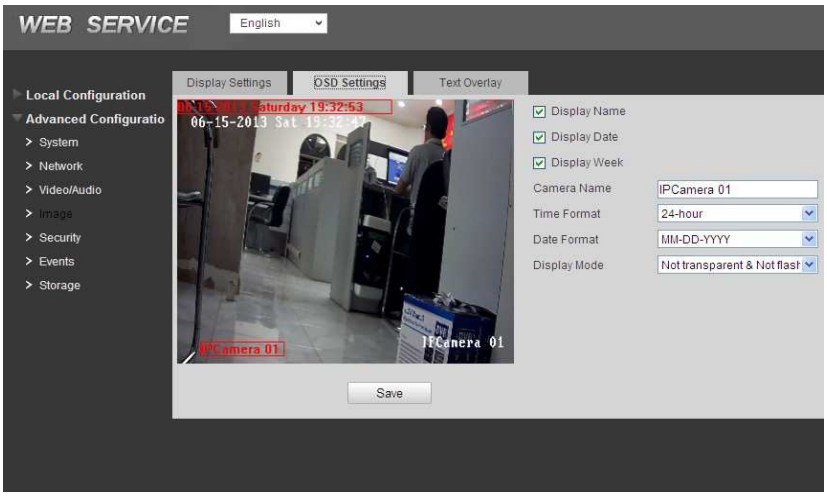


Figure 2.3.1 OSD setting

Advanced→Image→Text overlay：

Input character in textbox of“1、2、3、4”, Means “display text” means “not display text” It is allowed 4 texts overlays simultaneously, and red texts lay is adjustable randomly within area of live window

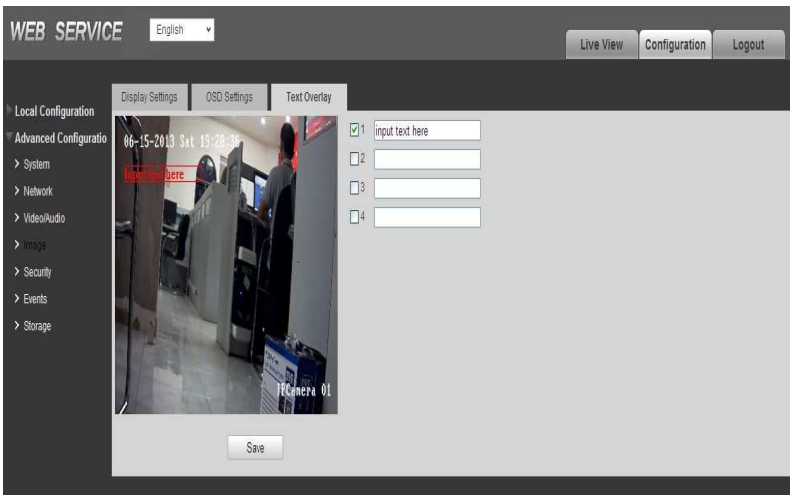


Figure 2.3.2 text overlay

Advanced→image→privacy mask：

Check the checkbox of Enable Privacy Mask ,click draw area” to drag the moue to draw mask area, you are allowed to draw up to 4 areas on the image, then click” save” to enable,, click Clear All can clear all areas you set.

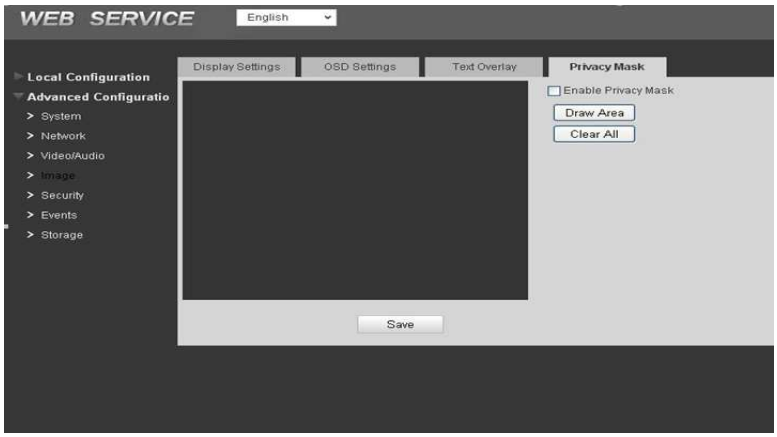


Figure 2.3.3 Privacy mask

Advanced configuration→security →User ：

Instruction：

1.The length of the User name consisted of characters can be up to 16 bytes, character space in the middle is allowed but invalid in the fore and aft of character string. Legal characters: letters, numbers, underscores, other characters not allowed

2 .Add users, delete users, change user passwords and other operations are allowed on the User management interface .when initializing there is one user: admin. Default user name and password are the same: admin

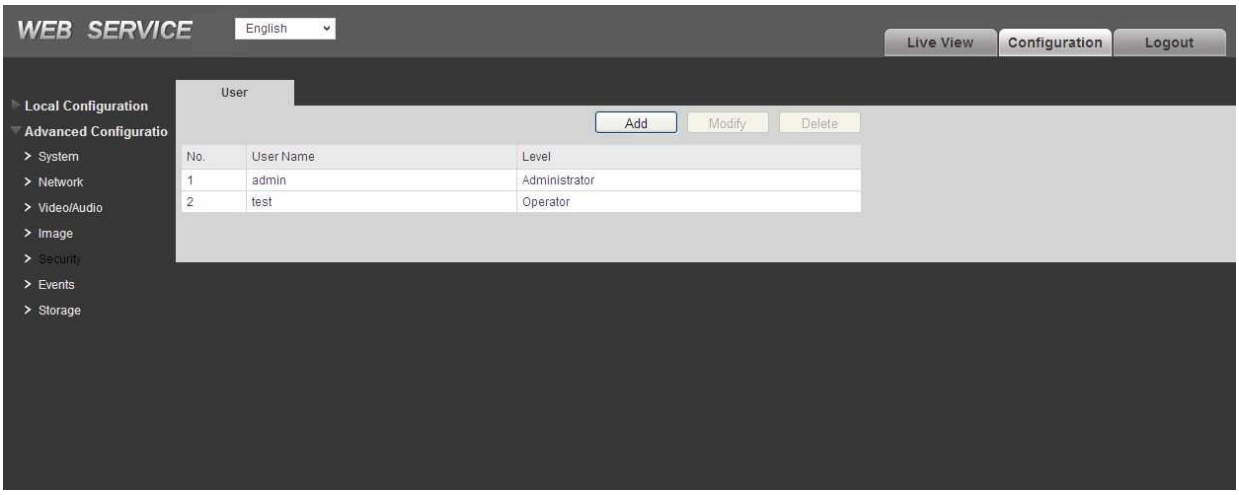
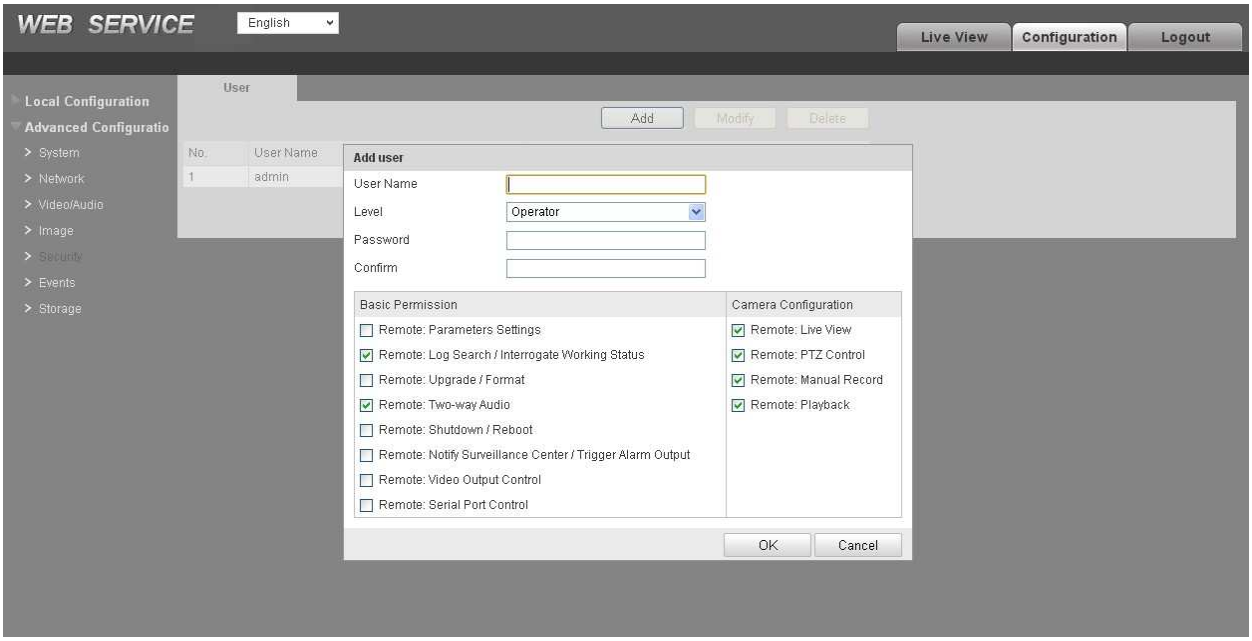


Figure 2.3.4 user interface



3、Add user ： add users and permission setting

Advanced configuration →**Event→Motion detection：**

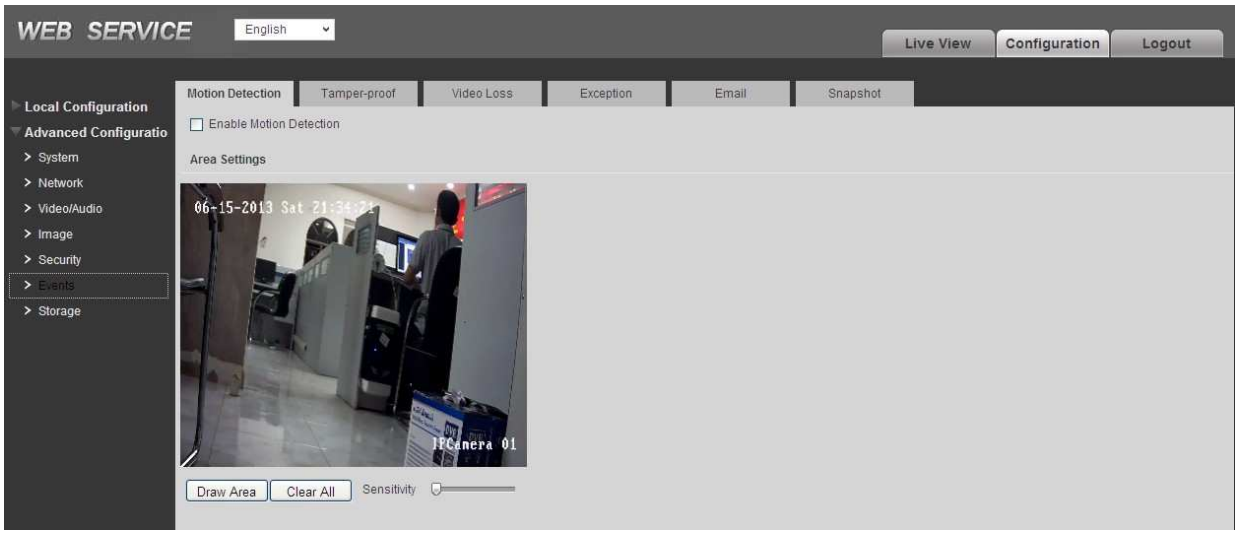


Figure 2.3.5 Motion detection

Figure 2.3.6 Motion detection arming schedule

Figure 2.3.7 Motion detection area settings

Specifications	Instructions
Enable	You need to check the box to enable motion detection function
Drawing area	Click ”Draw area” , there are PAL：22*18 ／ NTSC：22*15 areas, The red zone is the motion detective zone (The middle part.)
Clear All	Clear all areas of motion detection
Sensitivity	From left to right ,sensitivity enhance from low to high
Arming schedule	Edit arming and disarming time. Click the Edit button to set time segment in schedule menu
Audible warning	Enable to alarm by sound
Send email	Enabled means when motion detection is triggered, it will alert user by sending a snapshot or log to the designated email
Upload to FTP	Enabled means that when motion detection is triggered, it will upload file to PTF server by snapshot or log
Record linkage	When alarm occurs in desired channel, system will motion detect and record by enabling the channel automatically, while selecting motion detection recording in the "Storage Management - recording schedule" settings.
Trigger alarm output	Enable alarm linkage output port, the corresponding alarm output device can be linked when an alarm occurs

Advanced configuration →Event→ Tamper proof ：

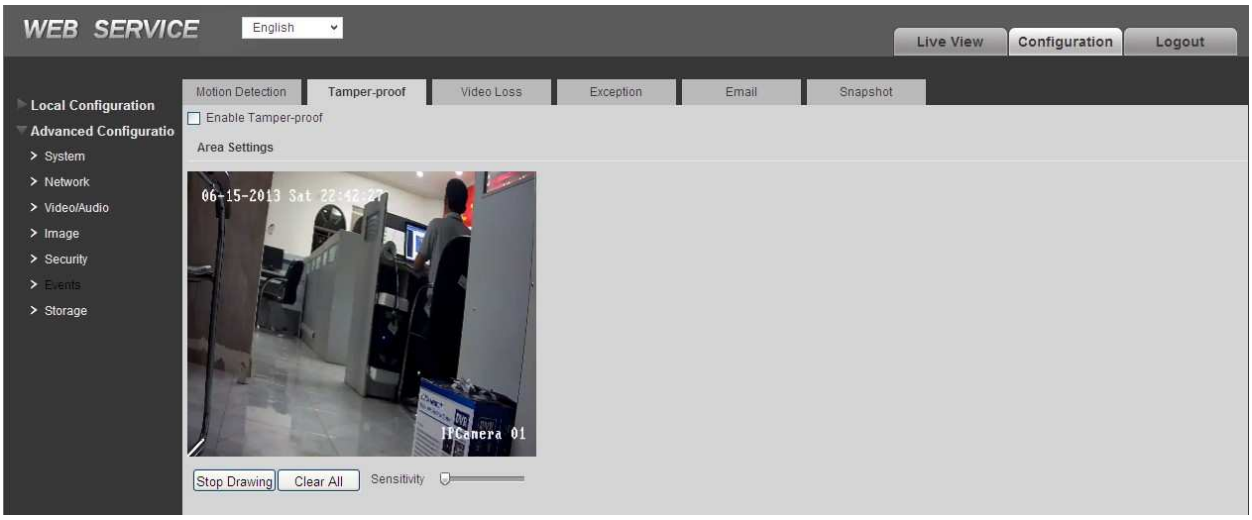


Figure 2.3.8 Tamper proof

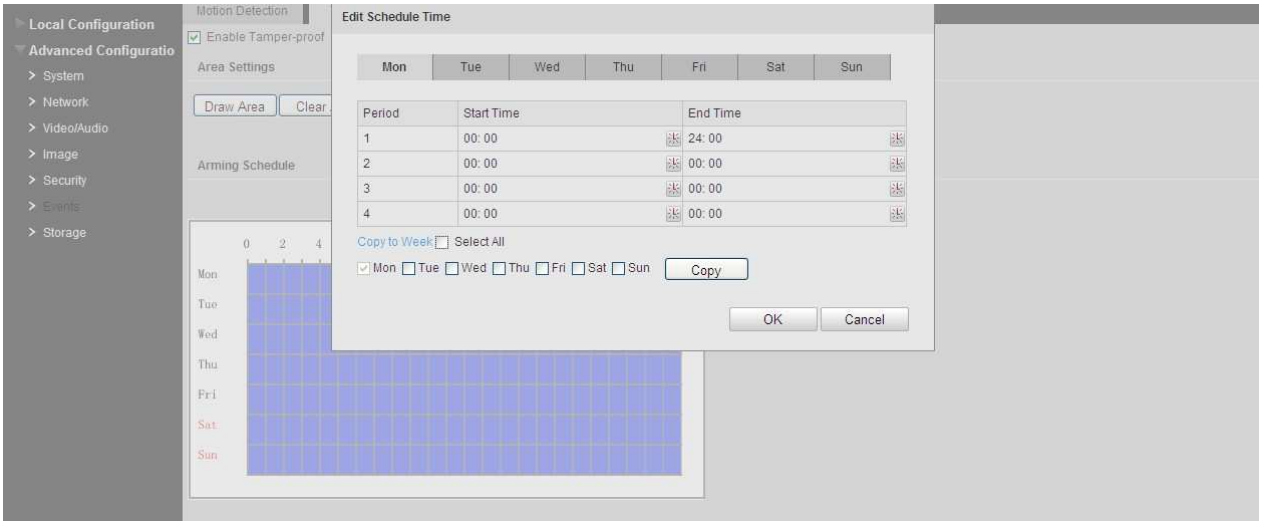


Figure f2.3.9 Tamper proof arming schedule

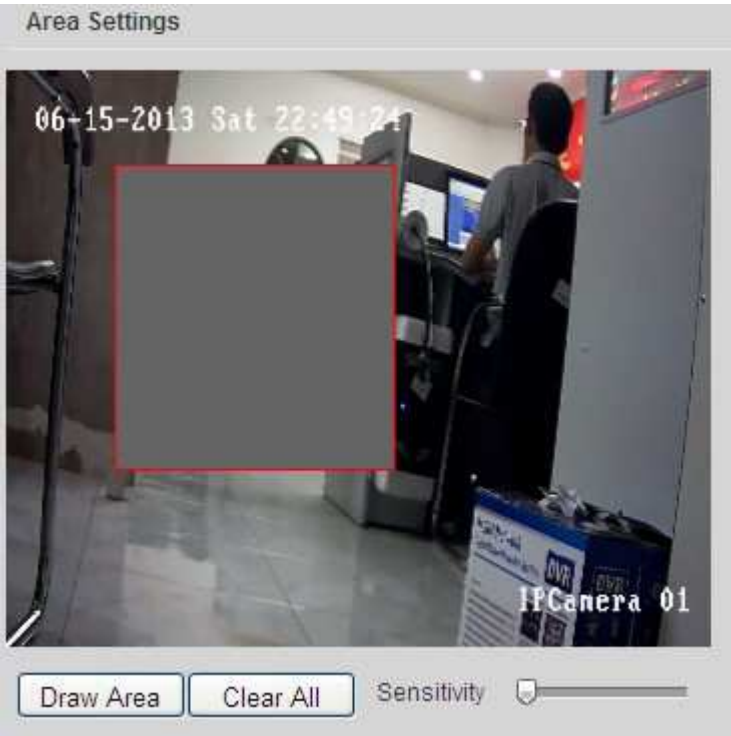


Figure 2.4.0 Tamper proof area settings

Specifications	Instructions
Enable	You need to check the box to enable tamper proof function
Drawing area	Click ”Draw area” , set desired video blocking area
Clear All	Clear all areas of video blocking area
Sensitivity	From left to right ,sensitivity enhance from low to high
Arming schedule	Edit arming and disarming time. Click the Edit button to set time segment in schedule menu
Audible warning	Enable to alarm by sound
Send email	Enabled means when video blocking area is triggered, it will alert user by sending a snapshot or log to the designated email
Upload to FTP	Enabled means that when video blocking area is triggered, it will upload file to PTF server by snapshot or log
Trigger alarm output	Enable alarm linkage output port, the corresponding alarm output device can be linked when an alarm occurs

Advanced configuration→Event→Video loss：

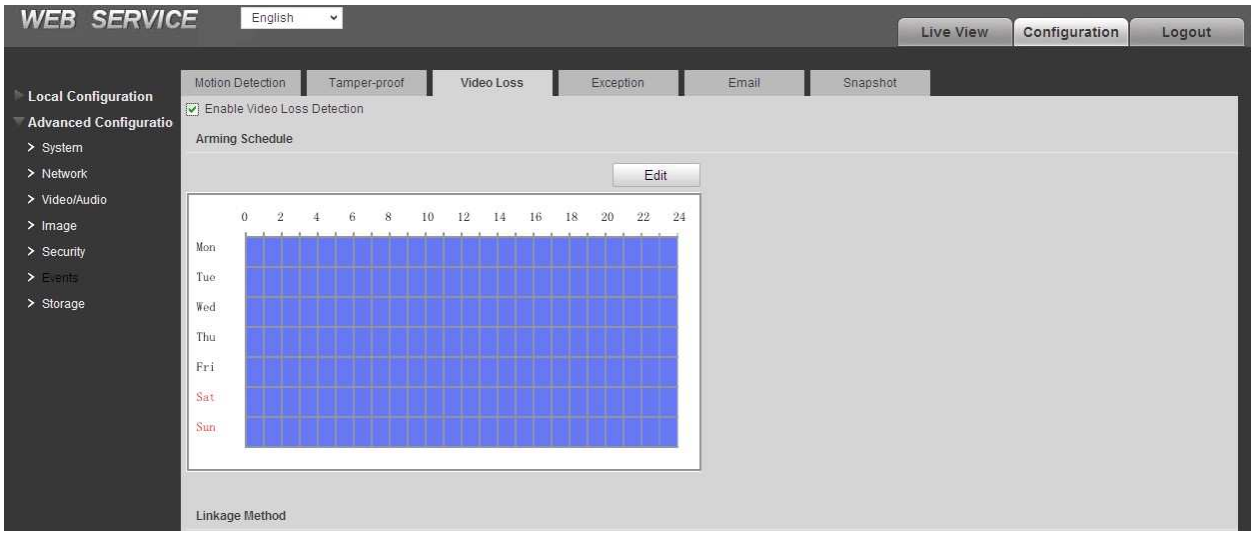


Figure 2.4.1 Video loss

Specifications	Instructions
Enable	You need to check the box to enable video loss function
Arming schedule	Edit arming and disarming time. Click the Edit button to set time segment in schedule menu
Audible warning	Enable to alarm by sound
Send email	Enabled means when video loss is triggered, it will alert user by sending a snapshot or log to the designated email
Upload to FTP	Enabled means that when video loss is triggered, it will upload file to PTF server by snapshot or log
Trigger alarm output	Enable alarm linkage output port, the corresponding alarm output device can be linked when an alarm occurs

Advanced configuration→Event→Exception(abnormity)：

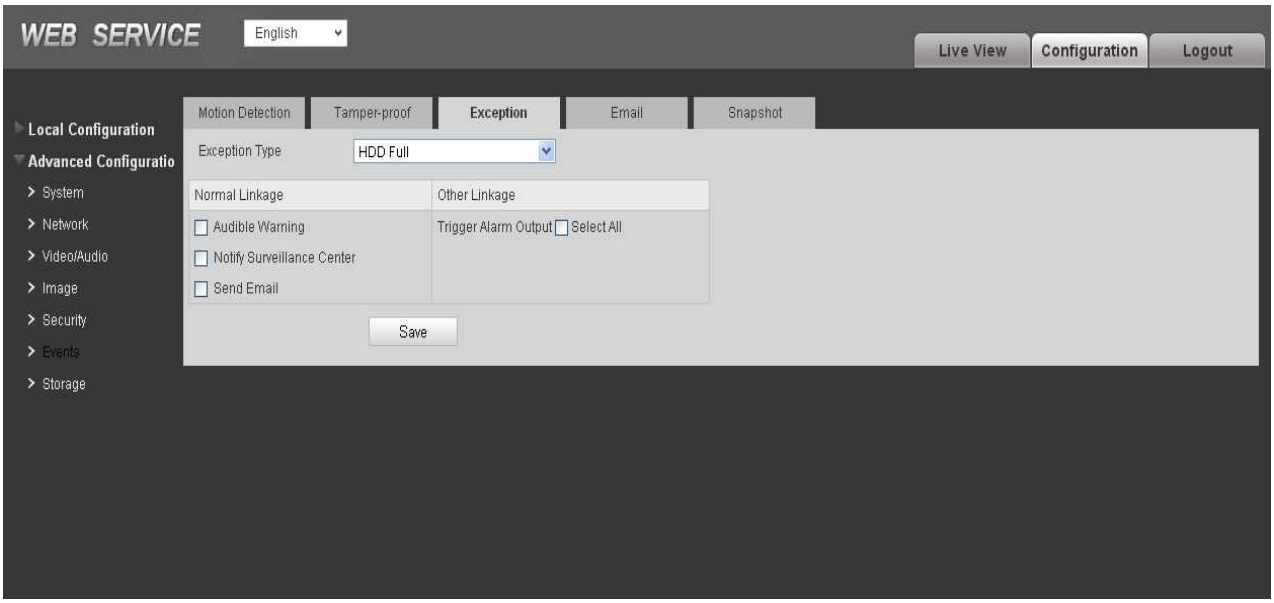


Figure 2.4.2 Abnormity

Specifications	Instructions
Exception types	Exception types includes disk full, disk error, network disconnected, IP address conflict and illegal login. Lack of capacity: lower limit – means SD card capacity thresholds. Check to enable this function
Audible Warning	Enable to alarm by sound
Notify Surveillance Center	Enabled means that when abnormity is triggered, it will upload file to PTF server by snapshot or log
Send email	Enabled means when abnormity is triggered, it will alert user by sending a snapshot or log to the designated email
Trigger alarm output	Enable alarm linkage output port, the corresponding alarm output device can be linked when an alarm occurs

Advanced configuration →Event→Email：

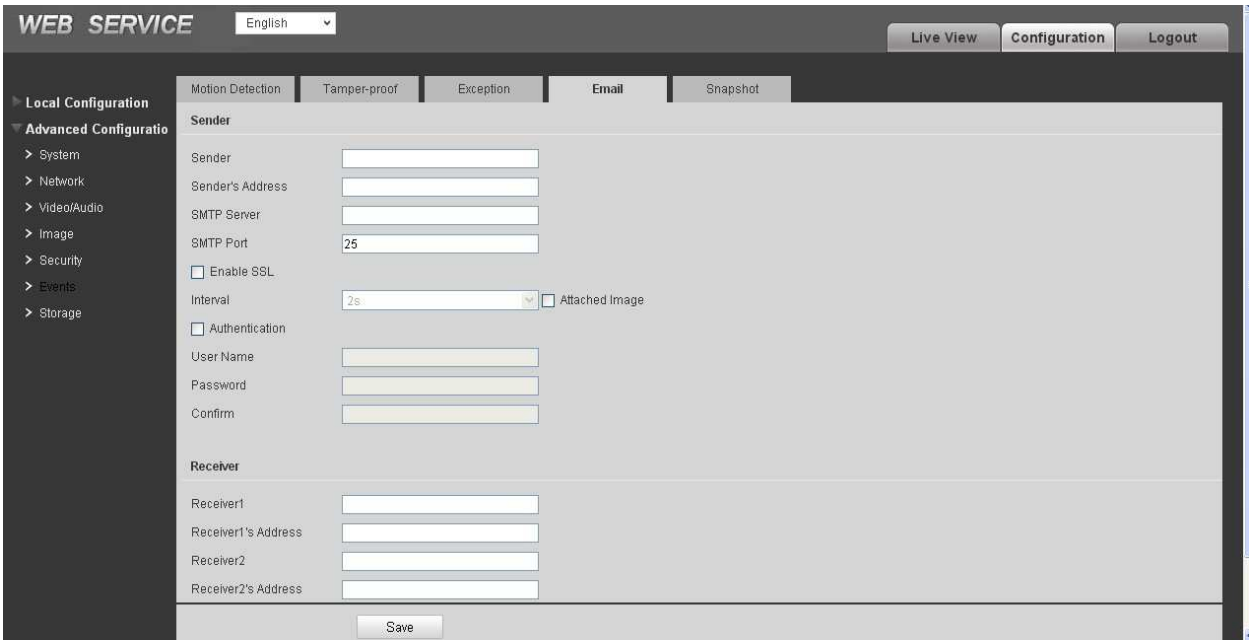


Figure 2.4.3 Email

Parameter	Instruction
Sender	User can define sender name
Sender address	User can define sender address
SMTP server	SMTP is the abbreviation of Simple Mail Transfer Protocol. SMTP is necessary when you send email, and user input server address upon actual request
SMTP port	Port can be set upon actual request
Enable SSL	Check to enable SSL
Interval	Ser screenshot time interval
Authentication	Check to enable server authentication
User name	
Password	
Confirm	
Receiver1	Name that receive email.
Receiver1’s address	Address that receive email.
Receiver2	Name that receive email.
Receiver2’s address	Address that receive email.

Advanced configuration→Event→Snapshot：

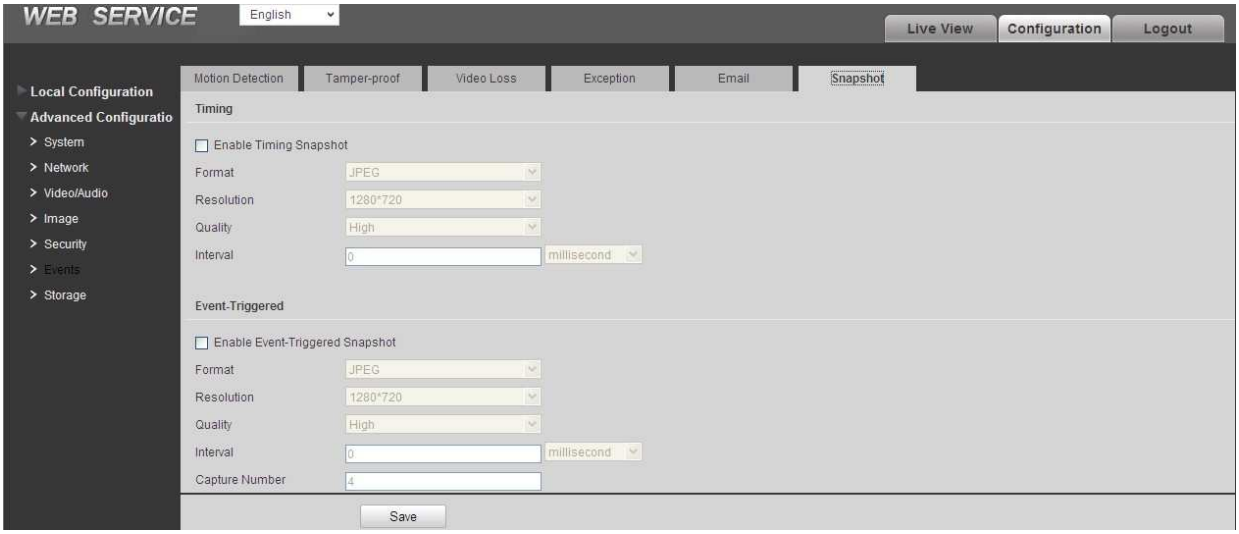


Figure 2.4.4 snapshot

Parameter	Instruction
Enable	Check to enable timing snapshot function
Format	Set snapshot format：default is JPEG
Resolution	Set snapshot resolution：default is 1280*720
Quality	Set snapshot quality, low、medium、high optional
Interval	Set snapshot time interval, user defined at request，millisecond 、second、minute、hour、day optional
Enable event-triggered snapshot	Check to enable event –triggered snapshot function
Format	Set snapshot format：default is JPEG
Resolution	Set snapshot resolution：default is 1280*720
Quality	Set snapshot quality, low、medium、high optional
Interval	Set snapshot time interval, user defined at request，millisecond 、second、minute、hour、day optional
Capture number	User set by request，default is 4

Advanced configuration→Storage→Record schedule：

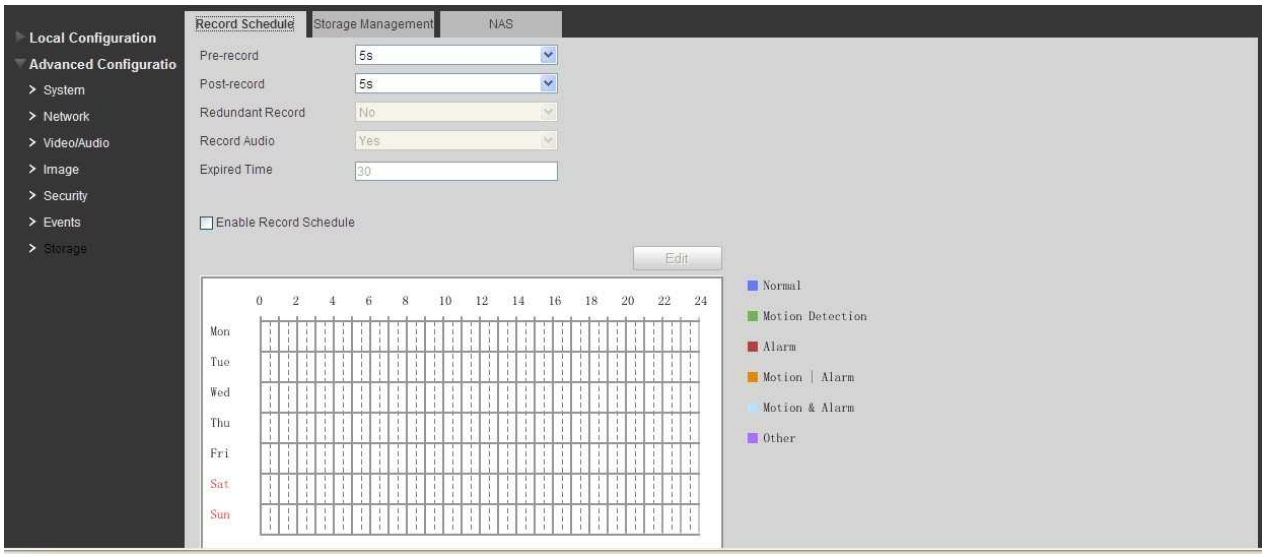


Figure 2.4.5 Record schedule

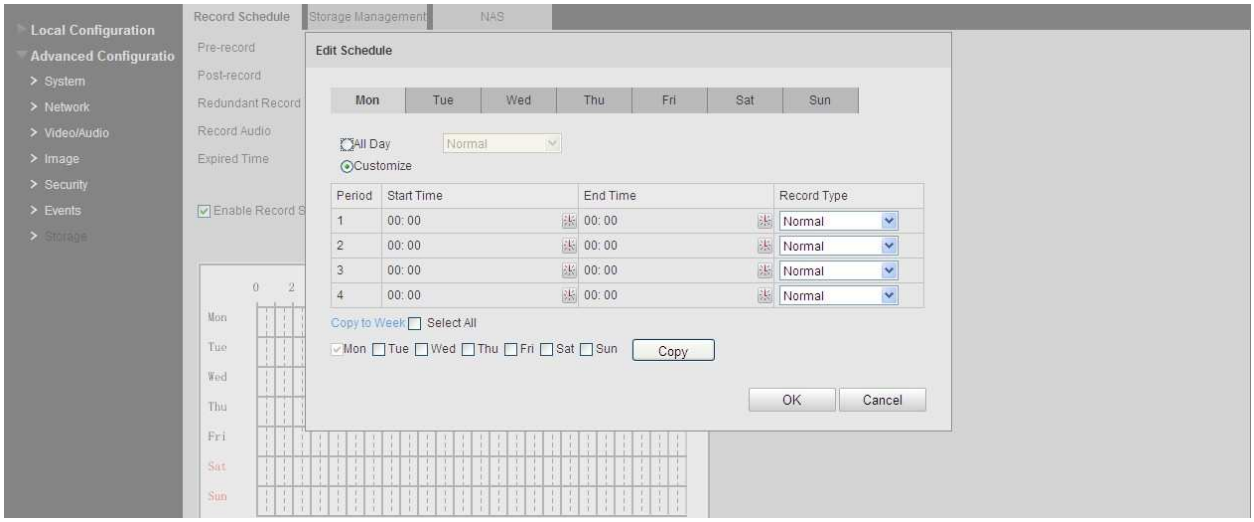
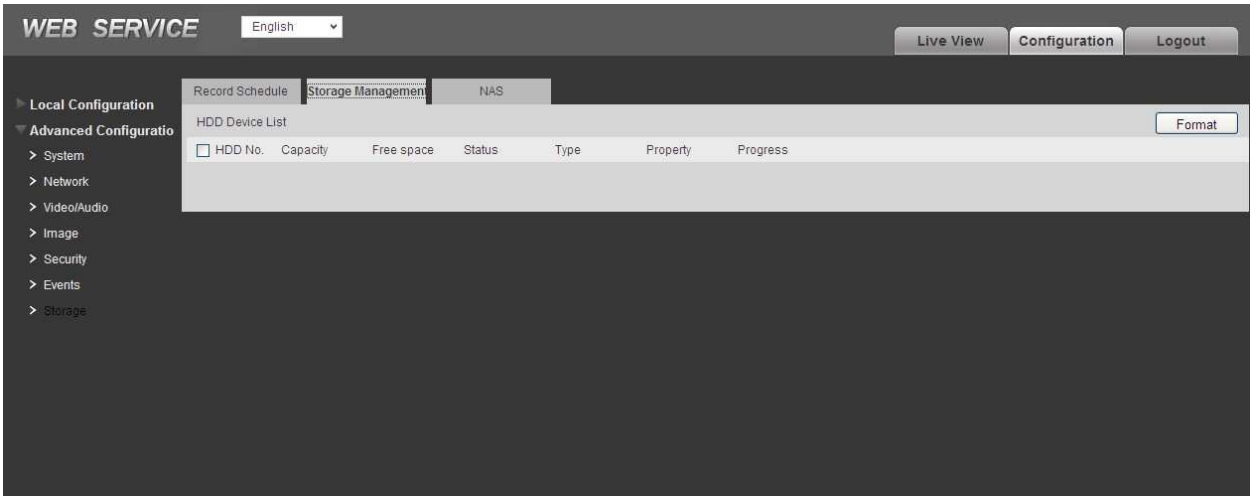


Figure 2.4.6 Record schedule-edit schedule

Parameter	Instruction
Pre-record	User can choose ： 5s、10s、15s、20s、25s、30s、not limited
Post-record	User can choose ： 5s、10s、30s、1m、2m、5m、10m
Redundant record	Defaul is “NO”
Record audio	Default is “YES”
Expired time	Default is“30”
Enable record schedule	Check to enable record schedule，click ”edit” button to set time segment in menu

Advanced configuration→Storage →Storage Management



Local storage： The list display local SD card or HDD device information, HDD can be formatted

Advanced configuration→Storage →NAS

Network Attached storage：support NAS type，user choose by request.