Embedded Video Storage Series Quick Start Guide

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Welcome

Thank you for purchasing our EVS!

This quick start guide is designed to be a reference tool for the installation and operation of your system.

Before installation and operation please read the following safeguards and warnings carefully!

Please keep it for future reference!

Important Safeguards and Warnings

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
The product must be grounded to reduce the risk of electric shock.
We assume no liability or responsibility for all the fires or electric shock caused by improper handling or installation.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Keep upwards. Handle with care.
Do not apply power to the EVS before completing installation.
Do not place objects on the EVS.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

The EVS should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
This series product shall be transported, storage and used in the specified environments.

6. Lithium battery

Improper battery use may result in fire, explosion, or personal injury!
When replace the battery, please make sure you are using the same model!

7．Accessories

Be sure to use all the accessories recommended by manufacturer.
Before installation, please open the package and check all the components are included.
Contact your local retailer ASAP if something is broken in your package.

⚠ CAUTION

FOR YOUR SYSTEM SAFETY, PLEASE CHANGE THE DEFAULT PASSWORD AFTER YOU FIRST LOGIN!

1 Installation and Connections

Note: All the installation and operations here should conform to your local electric safety rules.

1.1 General Introduction

This series product is designed for the management, storage and applications of high definition video data. It adopts the LINUX OS and professional customized hardware platform. It consists of several HDDs management systems, front-end high definition device management system, high definition video analysis system, and large-capacity video storage system. It uses the high-stream flow data network transmission technology. It realizes the smart management, safe storage, fast transmission, HD decode of the huge-capacity and multiple-channel high definition video data.

It provides standard network file sharing service and realizes IPSAN/NAS total solutions. It is an ideal centralized storage solution of the various surveillance systems featuring large-capacity, high expansion, and high security.

1.2 Front Panel

The following introduction is based on the high-end 48-HDD dual-controller series. For detailed product information, please refer to our resource CD included in your package for electronic version of the *User's Manual*.
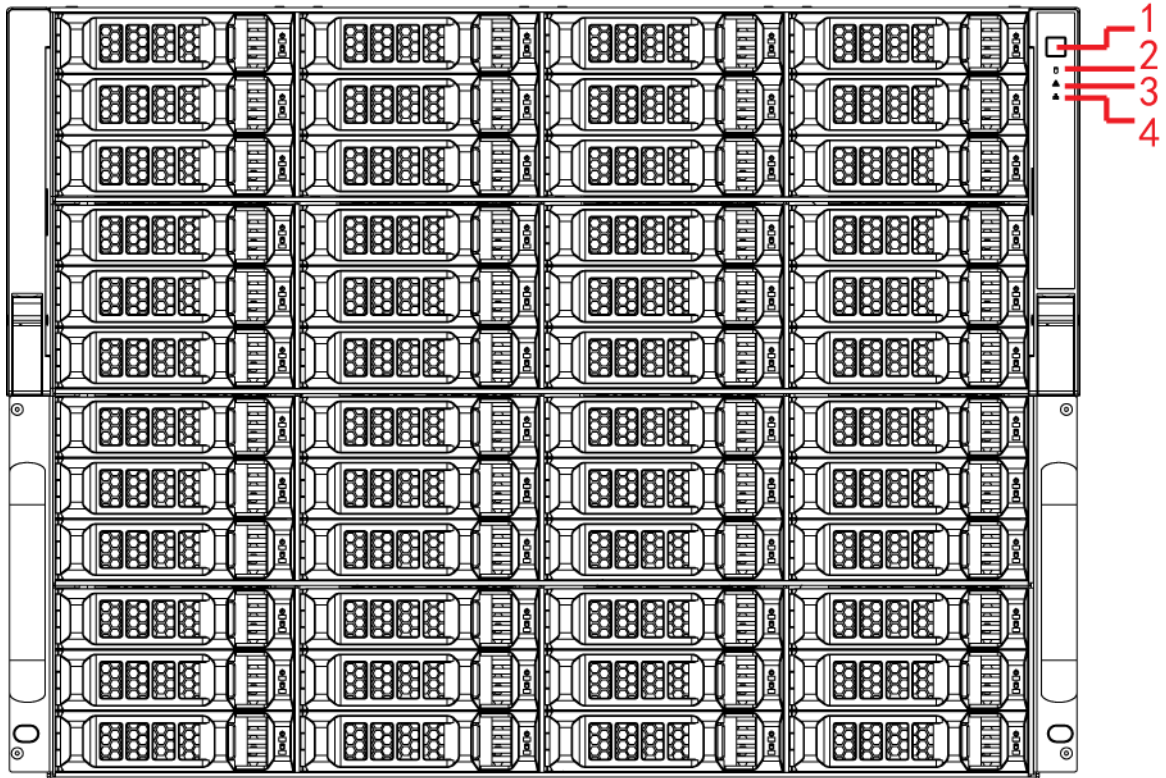The front panel is shown as below. See Figure 1-1.

Figure 1-1

Please refer to the following sheet for front panel button information.

SN	Name	Function
1	Power button	Press it once to turn on the device. Press it for a long time (such as 5 seconds) to turn off the device
2	HDD indicator light	The blue light becomes on once there is no HDD or HDD error or HDD space is not sufficient.
3	Alarm indicator light	The red light becomes on when there is power malfunction, temperature is abnormal, or fan is abnormal.
4	Network indicator light	The blue indicator light becomes on when there is offline alarm, IP conflict, or MAC conflict.

1.3 Rear Panel

The following introduction is based on the high-end 48-HDD dual-controller series. For detailed product information, please refer to our resource CD included in your package for electronic version of the *User's Manual*.

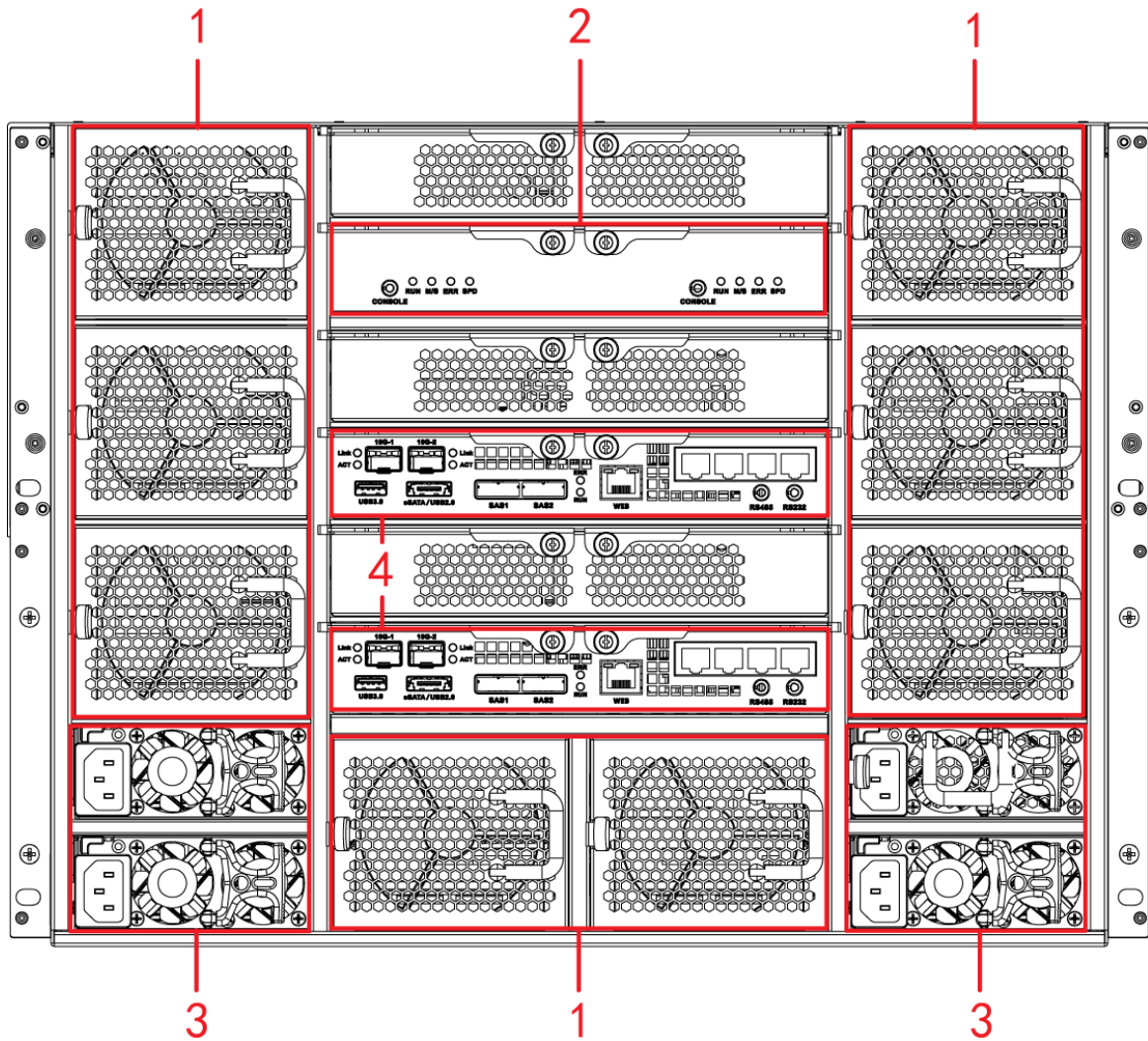The 5-Ethernet port high-end 48-HDD dual-controller rear panel is shown as in Figure 1-2.

Figure 1-2

Please refer to the following sheet for rear panel button information.

SN	Port Name	Function
1	Fan	It is for case ventilation.
2	SAS extension controller	Please refer to the following second sheet for detailed information about the ports and indicator lights.
3	Power port	Connect to the AC power supplying source.
4	Main control module	Please refer to the following first sheet for port and indicator light introduction.

Port/Indicator Light	Function
EX-1～EX-4/1～4	1000Mbps data network port. It is to send out data
USB3.0	USB3.0 port.

Port/Indicator Light	Function
eSATA/USB2.0	eSATA and USB2.0 port(reuse port).
SAS1, SAS2	Connect to the IN port of the disk array enclosure.
WEB port	1000Mbps management port. It can be used as the business data transmission port if necessary.
ERR	ERR light becomes on when there is any abnormal situation. ERR light becomes off when system is running properly.
RUN	The RUN light becomes flashing when the device has connected to the power supplying source and it is running now.
RS485	RS485 port
RS232	RS232 port
10G-1, 10G-2	10000Mbps Ethernet port
Link/ ACT	The indicator light of the 10000Mbps Ethernet port.

Port/Indicator Light	Function
CONSOLE	COM port. It is to debug the device and view the login command interface.
RUN	The light is flashing after system booted up and begins running.
M/S	Slave control indictor light. ● The light is on when system is malfunction. ● The light is off when system is running properly.
ERR	System error indictor light. ● The error light is on when system is abnormal. ● The error light is off when system is running properly.
SPD	SAS speed indicator light. ● When the running speed is 6G, the light is off. ● When the running speed is 3G, the light becomes on to alert you.

The 10000Mbps Ethernet port amount may vary due to different series.

2 WEB OPERATION

2.1 General Introduction

The device web provides channel monitor menu tree, search, alarm setup, system setup, PTZ control and monitor window.

Before log in, please make sure:

- PC and EVS connection is OK.
- EVS and PC network setup is right. Please refer to network setup (Setup ->Network). Please set the IP addresses of the same IP segment if there is no router. Please set the corresponding gateway and subnet mask if there is a router.

The default Ethernet port value is:

- The IP of the Ethernet port 1 to Ethernet port n: 192.168.1.108～192.168.n.108.
- The Ethernet port SN: Standard Ethernet port, extension Ethernet port, WEB management Ethernet port. Please refer to your actual Ethernet port situation to set IP address.
- Usually we recommend our users login WEB via WEB management port.
- Use order ping ***.***.***.***(* EVS IP address) to check connection is OK or not. Usually the return TTL value should be less than 255. These series product supports two network adapters .The default setup is 192.168.1.108(net1) and 192.168.1.101(net2). The default network mode is multiple-address.
- Open the IE and then input EVS IP address.
- Use order ping ***.***.***.***(EVS IP address) to check connection is OK or not.

2.2 Login

Open IE and input EVS address in the address column For example, if your EVS IP address is 10.10.3.16, then please input http:// 10.10.3.16 in IE address column. See Figure 2-1.
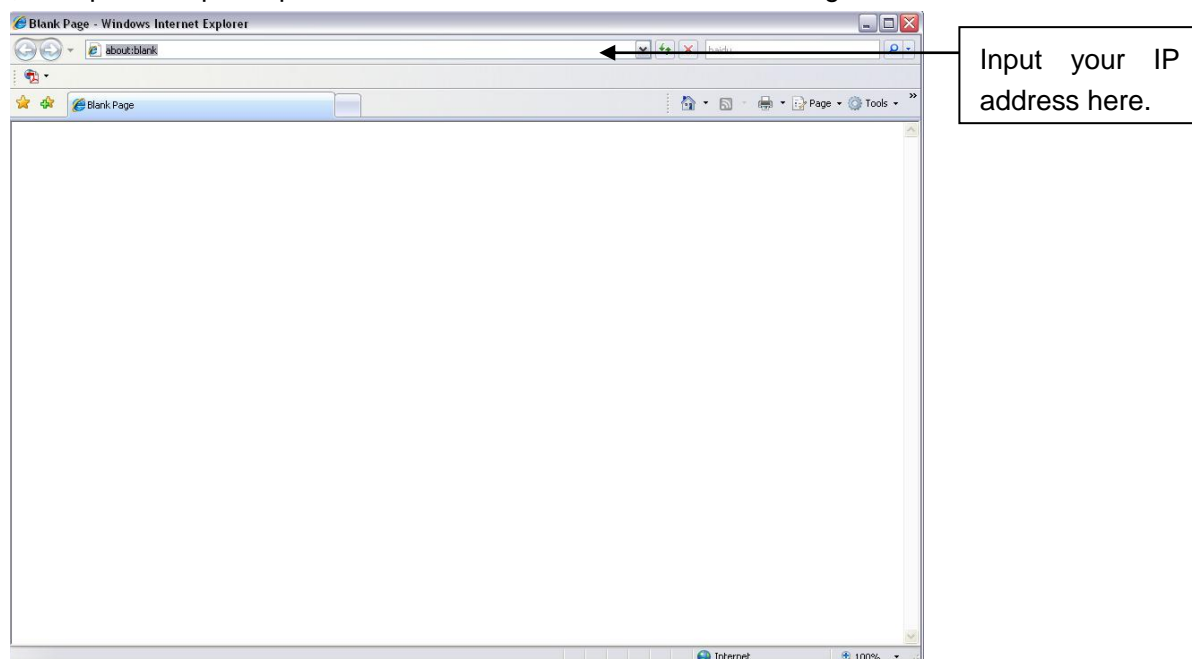
Figure 2-1

System pops up warning information to ask you whether install webrec.cab control or not. Please click yes button.

If you can't download the ActiveX file, please modify your settings as follows. See Figure 2-2.
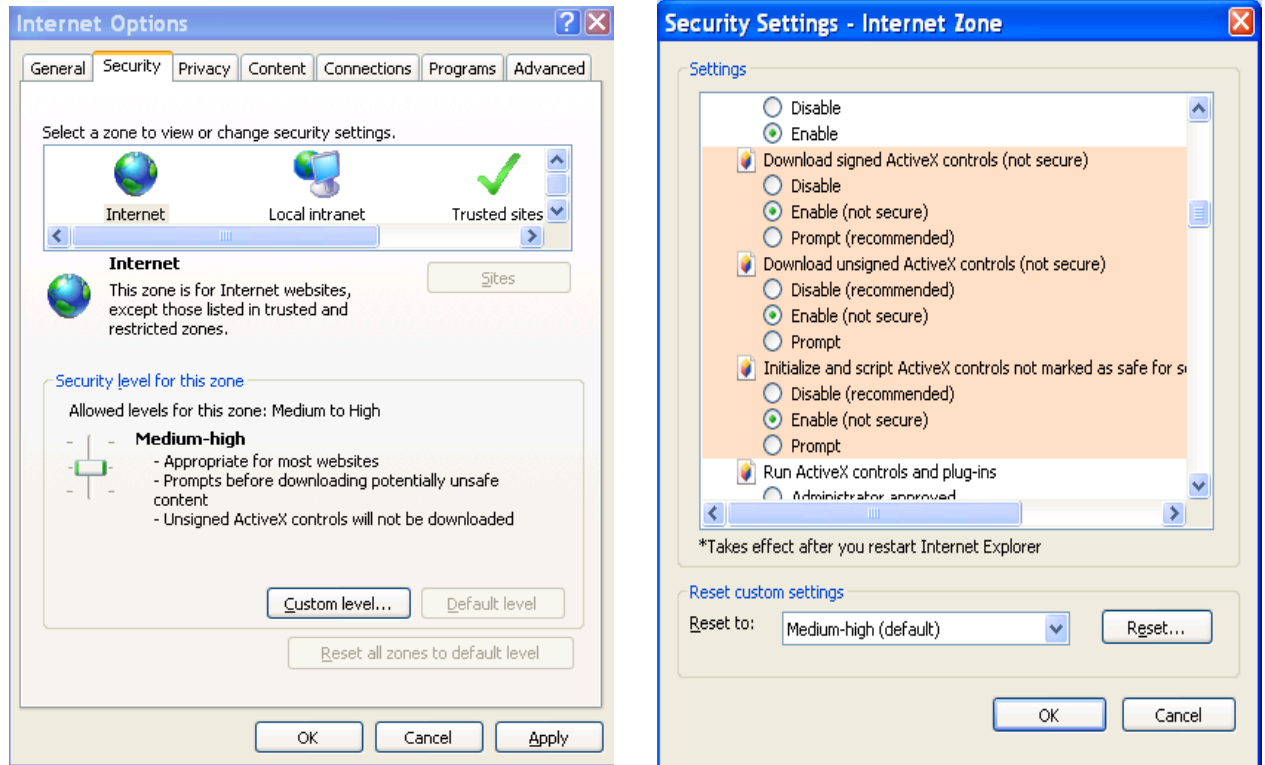

Figure 2-2

After installation, the interface is shown as below. See Figure 2-3.

Please input your user name and password.

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

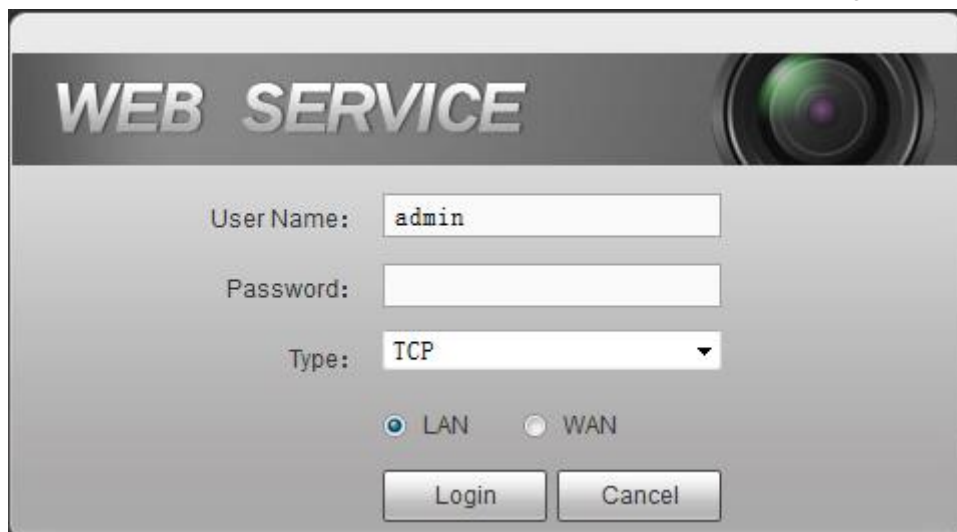**Note:** For security reasons, please modify your password after you first login.

Figure 2-3

After you logged in, you can see the main window. See Figure 2-4.
Please click the channel name on the left pane to begin real-time monitor.
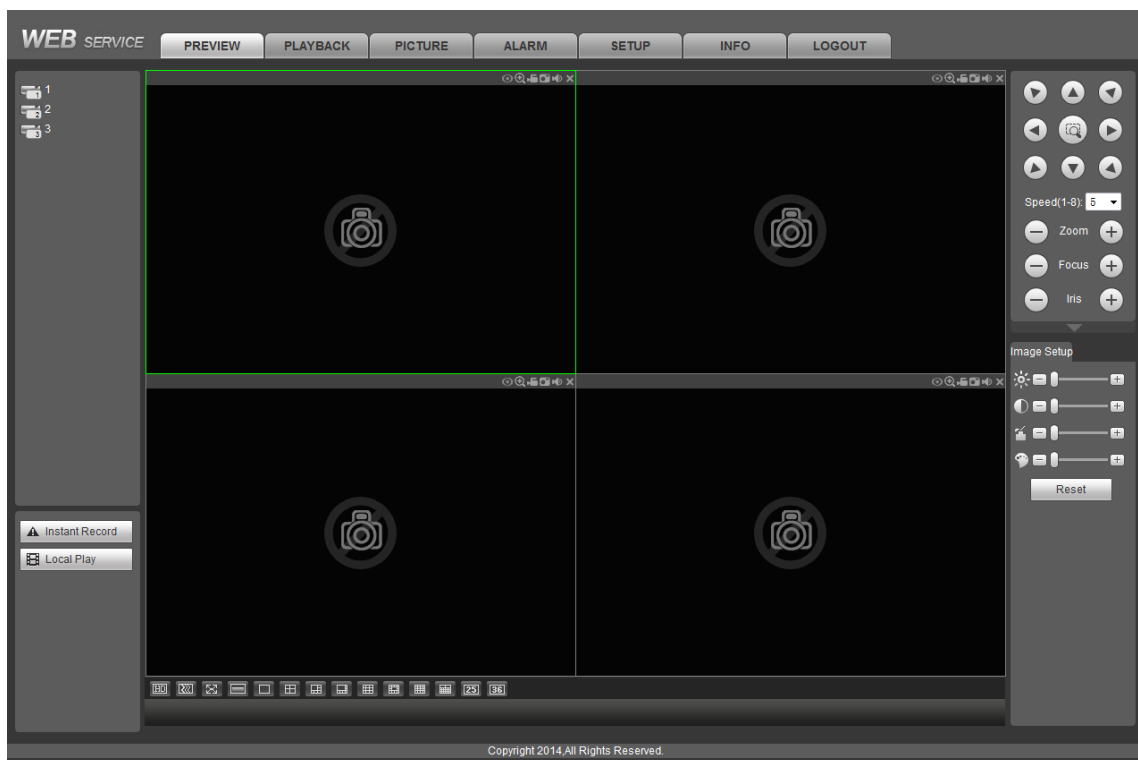

Figure 2-4

2.3 Network

2.3.1 TCP/IP

From Setup->Network->TCP/IP, the TCP/IP interface is shown as in Figure 2-5.
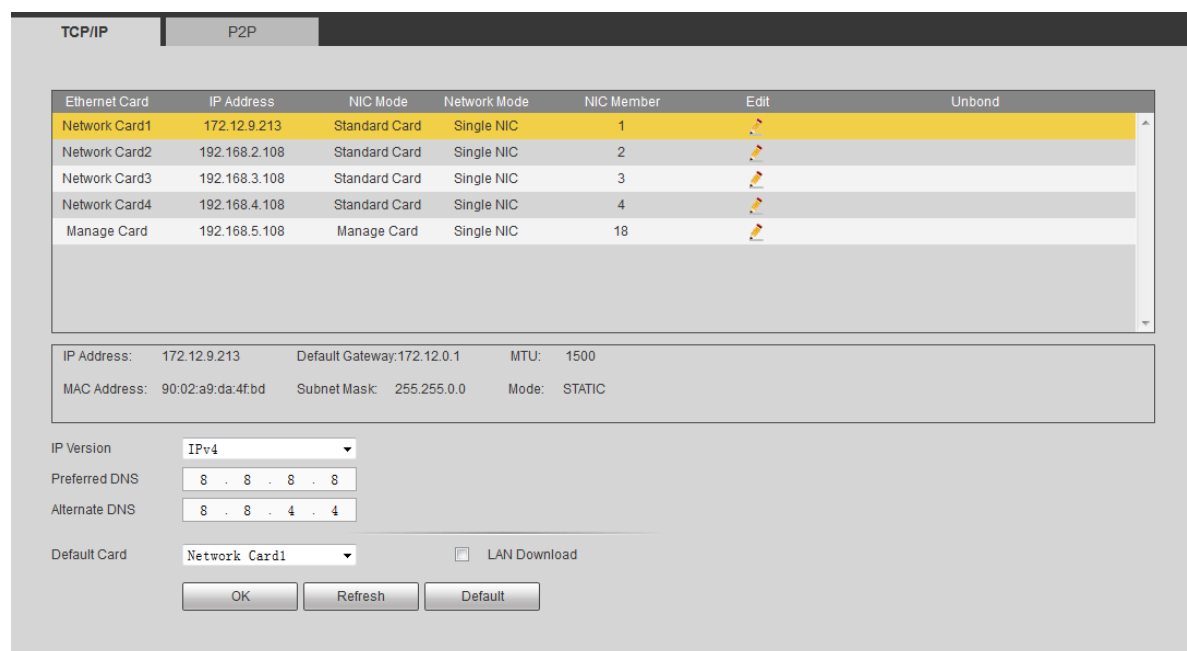
Figure 2-5

Please refer to the following sheet for detailed information.

Parameter	Function
IP Version	It is to select IP version. IPV4 or IPV6. You can access the IP address of these two versions.
Preferred DNS	Preferred DNS IP address.
Alternate DNS	Alternate DNS IP address.
LAN load	System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

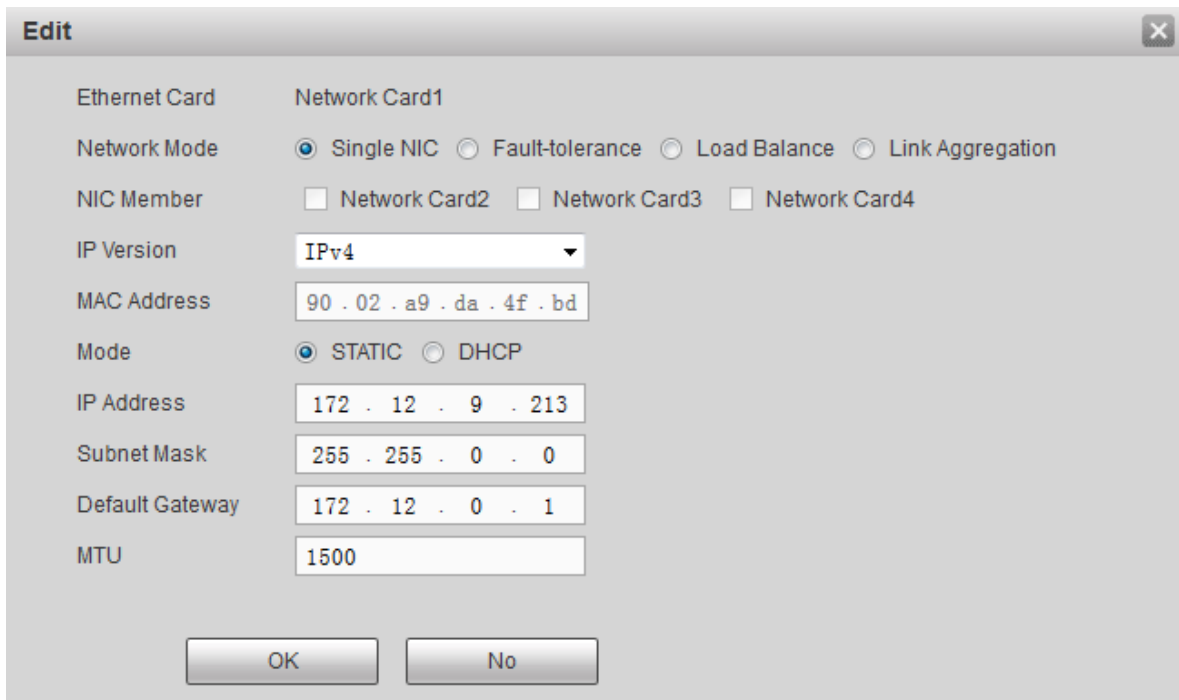Click ![edit icon] to edit the Ethernet card. See Figure 2-6.

Figure 2-6

Please refer to the following sheet for detailed information.

Parameter	Function
Network mode	It includes: Single NIC, fault tolerance, load balance, Link aggregation. ● Single NIC: The Ethernet card can be used alone. You can select one Ethernet card to provide the HTTP, RTSP service. You need to set one default Ethernet card (default setup is eth0) to answer the network service of the DHCP, email, FTP and etc. Once the card is offline, the whole network is offline. ● Fault-tolerance: In this mode, device uses bonding NIC to communicate with the external devices. You can focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master

	card).System can enable alternate card when the master card is malfunction. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
	● Load balance: In this mode, device uses bonding NIC to communicate with the external device. The all cards are working now and bearing the network load. Their network load are general the same. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
	● Link aggregation: System uses bonding NIC to realize communication function. All binding NIC are work together and bearing the network load. System allocates the corresponding ports to the specified switches according to the port load setup. Once one port link is malfunction, system stops sending out data from current port. System can calculate the new load and specify the new port(s) to send out data. System calculates again to specify the port(s) once the malfunction port becomes available.
NIC Member	For non-single NIC mode, you can bind current NIC with any other one. Please note this function is not for management NIC.
Mode	There are two modes: Static/DHCP. ● DHCP: It is to auto search IP. When enable DHCP function, you can not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, you can not modify IP/Subnet mask /Gateway.
Mac Address	It is to display host Mac address (read-only).
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 up/down (▲▼) or input the corresponding number button to modify the IP address and then set the corresponding subnet mask and the default gateway.
Subnet mask	Input subnet mask of current IP address. The value ranges from 1 to 255. **Note** Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
Default gateway	Input the default gateway of current IP address. It shall be in the same IP segment of the IP address.
MTU	It is to set MTU value of the network adapter. The value ranges

	from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. The following MTU value is for reference only. ● 1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switc or the network adapter. ● 1492: Recommend value for PPPoE.

2.4 Camera

2.4.1 Remote Device

From Setup->Camera->Remote device->Remote device, the interface is shown as in Figure 2-7.
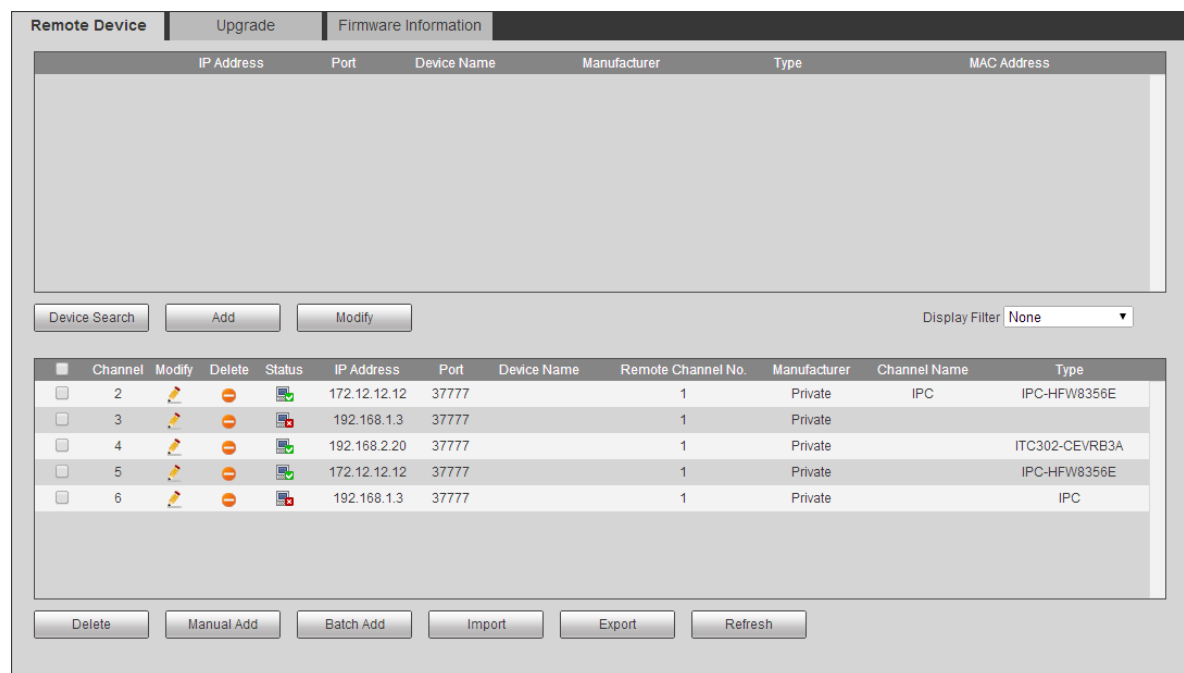

Figure 2-7

There are three ways for you to add device.

● Click Device search button, you can view searched device at the top pane of the interface.

Before the operation, please make sure the PC firewall is disabled and the device can auto search at the same IP segment.

Check the box and click Add button.

● Click Manual add button, system pops up the following interface. See Figure 2-8.Please input the corresponding parameters and click OK button.

Figure 2-8

● Click Batch add button, system pops up the following interface. See Figure 2-9.Please input the corresponding parameters and click OK button.

Figure 2-9

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	It is to set local device channel number. You can go to the corresponding channel to set the corresponding device. After you enable the function, you can view remote device type, IP address and etc.
IP address/port/remote channel number	Input remote device IP address, port and channel number manually.
User	Input the user name and password of the remote device.

name/password	

2.4.2 Remote upgrade

From Setup->Camera->Remote device->Remote upgrade, the interface is shown as in Figure 2-10.

Check the box to select the device you want to upgrade. Please note you can only upgrade the

online device (connection status is 🖥️✓).

Click Browse button and then select the upgrade file.

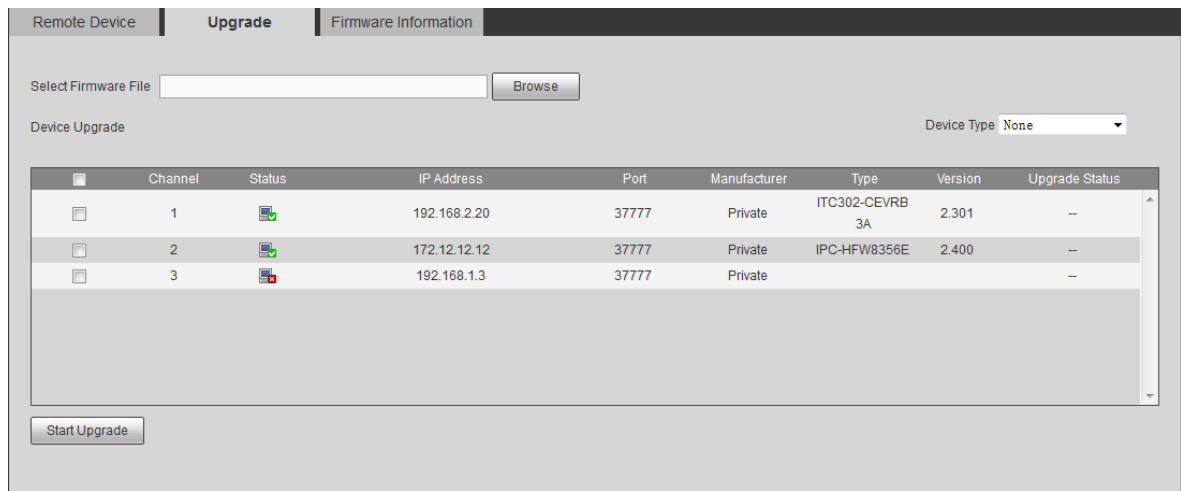Click start upgrade to begin upgrade.

Figure 2-10

2.5 Abnormality

From Setup->Event->Abnormality->HDD, you can see an interface shown as in Figure 2-11. It includes three statuses: HDD, network and NAS server. In this interface, system can process various kinds of abnormal events such as send out an alarm output, buzzer and etc.
Please note alarm output and alarm latch function is for high-end 24-HDD series product only.
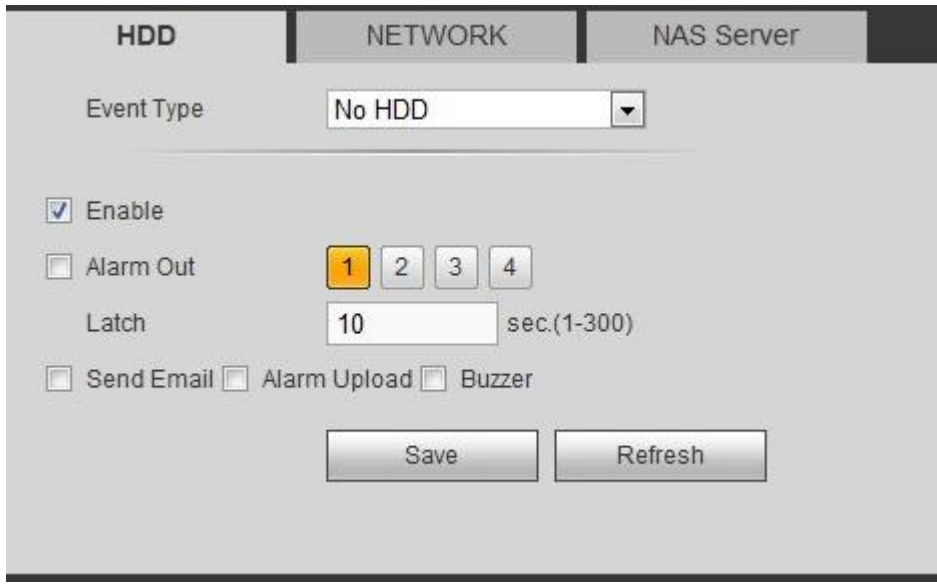
Figure 2-11

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	The abnormal events include: No disk, disk error, no space, HDD detect, disconnect IP conflict, MAC conflict, NAS service and storage pool error, fan alarm, temperature alarm, and redundancy power alarm.
	You can set one or more items here.
	Less than: You can set the minimum percentage value here (For not space only). The device can alarm when capacity is not sufficient.
	You need to check the box to enable this function.
Enable	Check the box here to enable selected function.
Alarm out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when an alarm occurs. **This function is for high-end 24-HDD only.**
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s. **This function is for high-end 24-HDD only.**
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre.
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.

2.6 RAID

In this interface, you can manage RAID HDD, view RAID name, type, free space, total space status and etc. Here you can also add/delete RAID HDD.

2.6.1 RAID Config

From Setup->Storage->RAID->RAID, the RAID configuration interface is shown as in Figure 2-12. In this interface, you can set RAID type and settings.

● Add: Select RAID type and then click Create RAID/Create Manually to crate RAID.
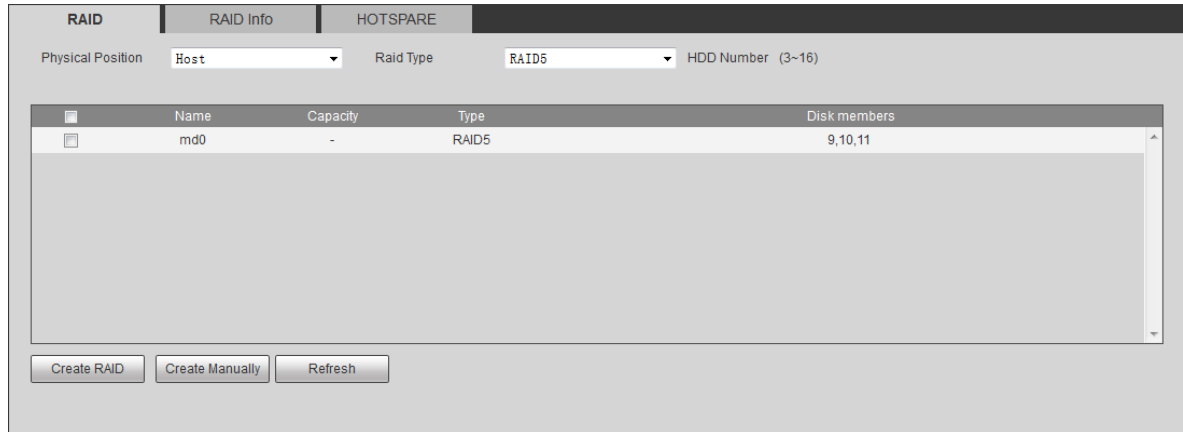
Click Save button, now you have added a RAID HDD.

Figure 2-12

2.6.2 Hotspare HDD

From Setup->Storage->RAID->Hotspare, in this interface you can add/delete hotspare HDD. See Figure 2-13.
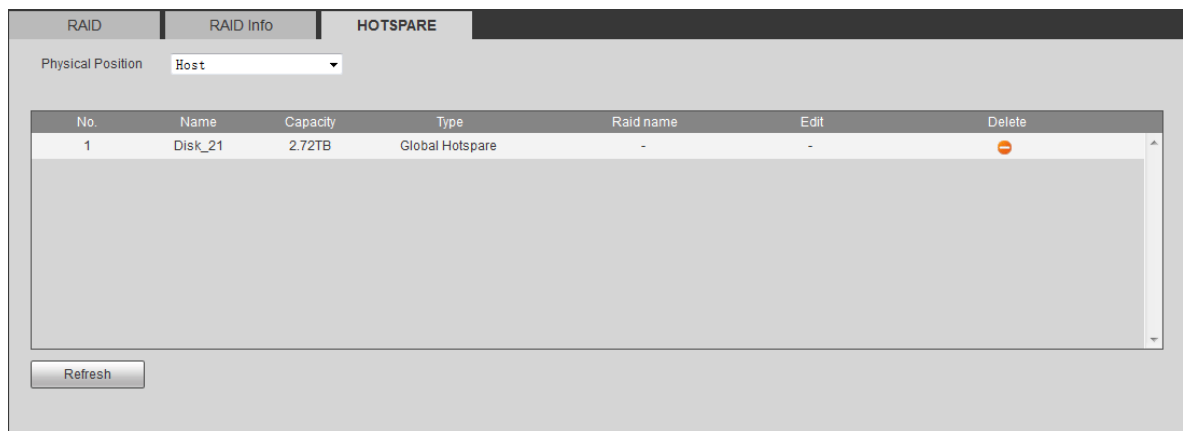

Figure 2-13

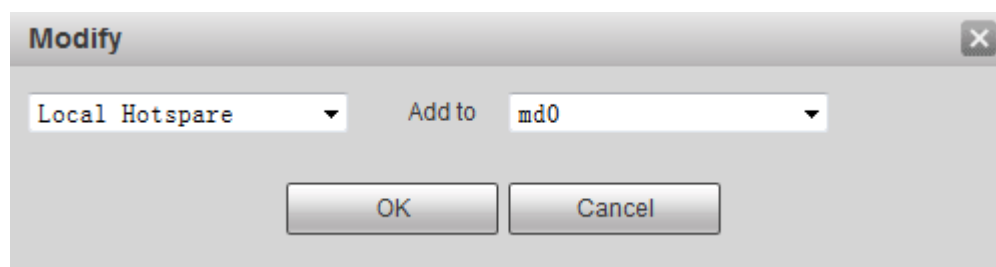Select an item and then click [icon], you can add the hotspare HDD. See Figure 2-14.

Figure 2-14

2.7 iSCSI

From Setup->Storage-> iSCSI, in this interface, you can set to allow the iSCIS server to connect to the network storage server and then save data on the specified network server. See Figure 2-15.

Figure 2-15

Check the box to enable iSCSI function and then input iSCSI server IP address and port. The default port number is 3260.

Click Set path button, system pops up the path setup dialogue box. Please select the connected path and then click OK button. See Figure 2-16.

Each path here stands for an iSCSI share disk. The path is already generated when it was created on the server.

Figure 2-16

Input user name and password to set iSCSI path access right.

There are two situations:

- When you set the iSCSI server, you have set corresponding user name or password for a path. In this situation, you need to input user name or password to login.
- When you set the iSCSI server, you have not set the corresponding access right. In this situation, you can check the anonymous button or input customized user name.

Click add button, now you have added an iSCSI server. Click OK button, the setup is finish. The interface is shown as in Figure 2-17.

Note:

- If you have not input a user name/password, or check the anonymous button, system pops up a dialogue box to prompt you that system is going to add anonymously. In this situation, once the iSCSI path has the access setup, you may not connect to the iSCSI server.
- Since the connection may take a while, please wait a moment and then click refresh button, once the status is shown as offline after you added.
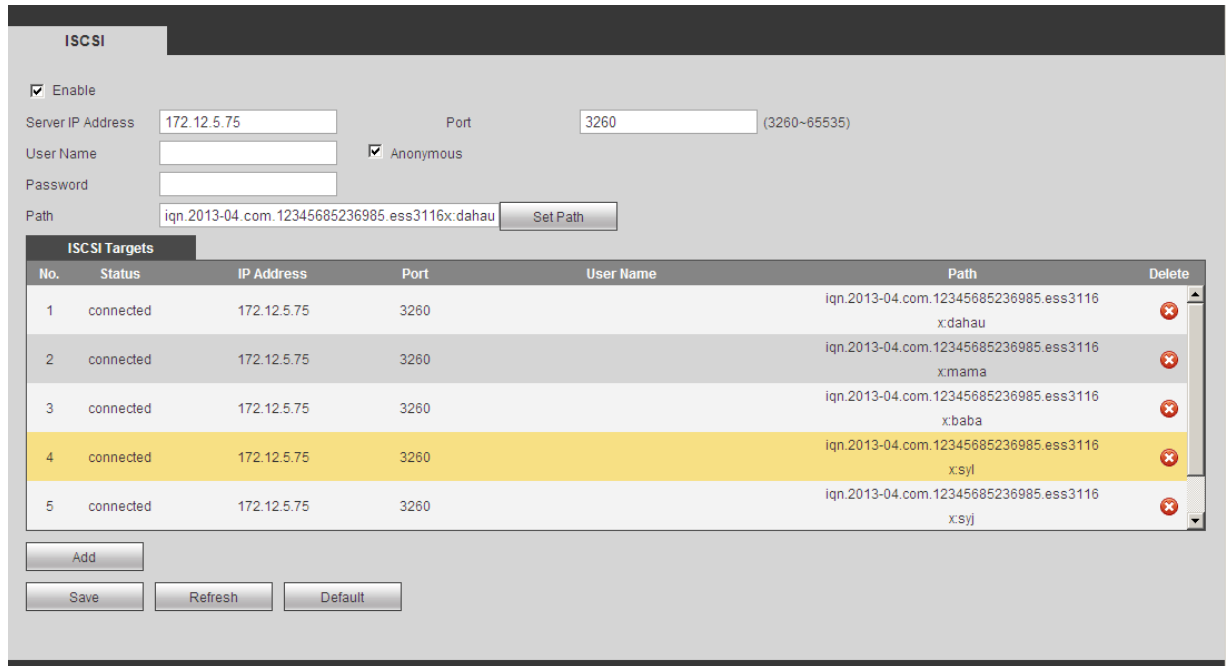

No.	Status	IP Address	Port	User Name	Path	Delete
1	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:dahau	⊗
2	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:mama	⊗
3	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:baba	⊗
4	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:syl	⊗
5	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:syj	⊗

Figure 2-17

2.8 Storage pool

The storage pool can consist of RAID (RAID0, RAID1, RAID3, RAID4, RAID5, RAID6, RAID10, RAID50, and RAID60.) or just a single HDD such as disk1, disk 2.

From Setup->Event ->Storage pool, the interface is shown as in Figure 2-18.
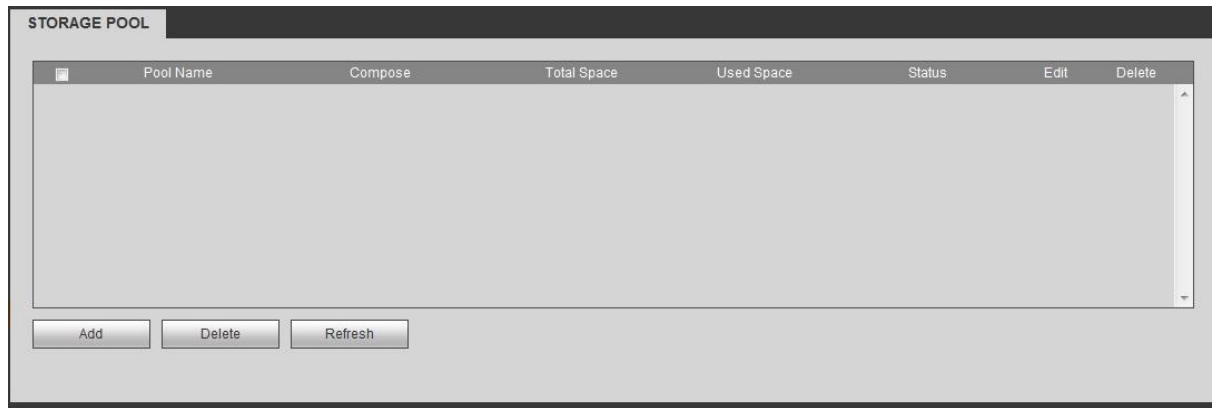
Figure 2-18

Click Add button, system pops up the following interface. See Figure 2-19.
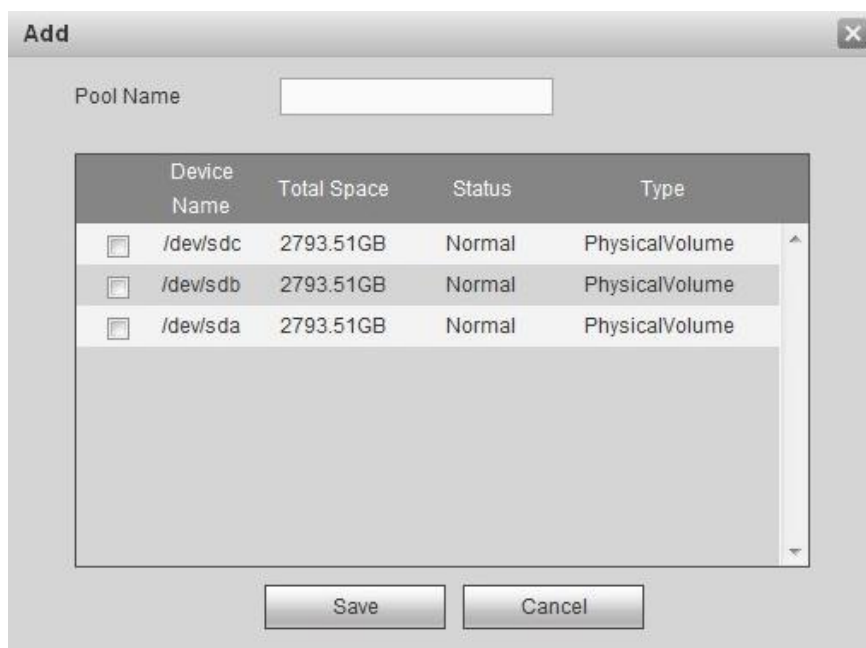

Figure 2-19

Input customized storage pool name and then select RAID group or single disk.
Click OK button.

2.9 Share

2.9.1 Share account

From Setup->Share->Share account, you can go to the following interface. See Figure 2-20.
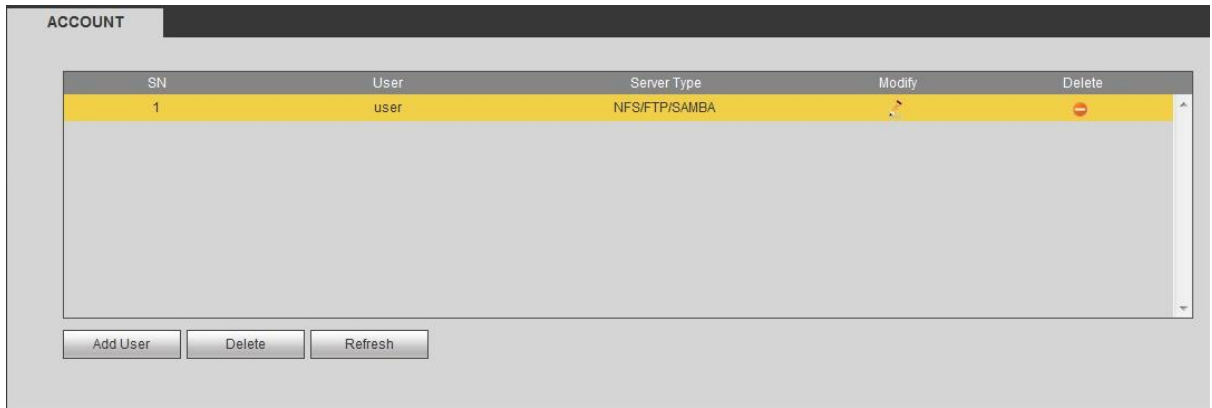
SN	User	Server Type	Modify	Delete
1	user	NFS/FTP/SAMBA		

Add User   Delete   Refresh

Figure 2-20

Click add user button, you can see the following interface. See Figure 2-21.

Add User

User	
Server Type	ISCSI
Password	
Confirm Password	
Memo	

Save   Cancel

Figure 2-21

Input user name, password, confirm password, select service type.
Click OK button.

2.9.2 Share folder

It is for you to add or delete share folder.
From Setup->Share->Share folder, you can see the following interface. See Figure 2-22.

SHARE DIR

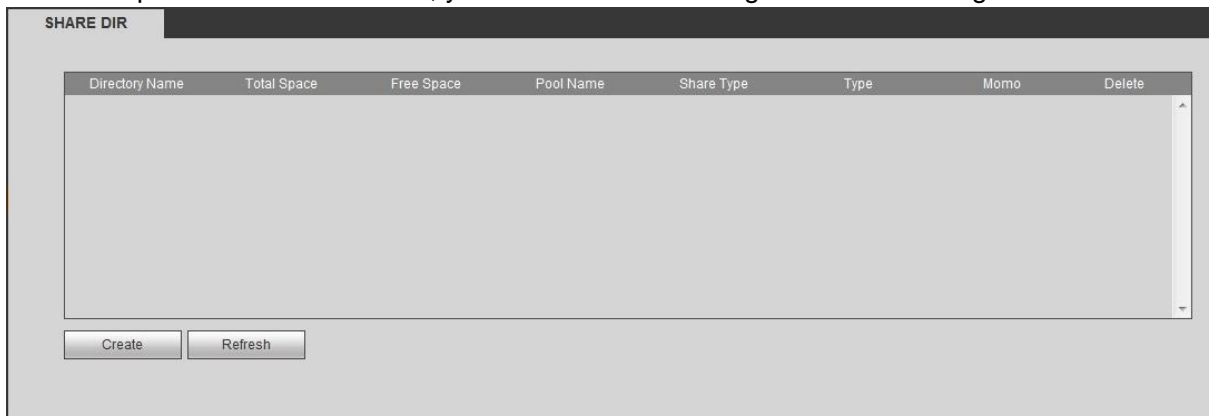| Directory Name	Total Space	Free Space	Pool Name	Share Type	Type	Momo	Delete

Create   Refresh

Figure 2-22

Click Create button, you can see the following interface. See Figure 2-23.

Figure 2-23

Please refer to the following sheet to set parameters.

Share type	Parameters
SAMBA share	Provide share service for Windows user.
NFS share	Provide share service for Linux user.
FTP share	It can provide share service for both Windows user and Linux user.

Parameters	Function
Share name	Input customized share folder name.
Storage pool name	Select a storage pool.
Share space（GB）	Set the size of the share folder.
Share description	It is to input some memo information(Optional)
Share type	● NFS Valid IP：It is to the client IP address and the subnet that can connect to the share folder. The IP address can be a fixed IP or the valid IP segment. ● FTP and SAMBA Valid user：Only the selected user can access the share folder. If you leave it in blank, then all users can access the folder.

Click OK button.
2.9.3 Server
It is to set FTP server parameters.
From Setup->Share->Server, you can see the following interface. See Figure 2-24.

Figure 2-24

Please refer to the following sheet for detailed information.

Parameters	Function
Transmission speed	The max transmission speed of the FTP share process.
IP connection amount	The FTP access user amount of each user (based on the IP)
Total connection amount	The FTP max access user amount of all users (based on the IP)

2.9.4 Share control

From Setup->Share->Share control, you can see the following interface. See Figure 2-25.
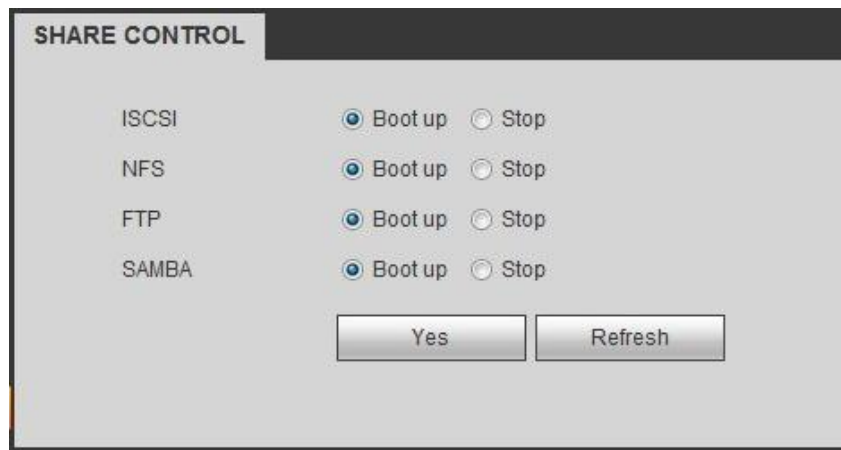

Figure 2-25

Check the box to enable/disable the corresponding service type.
Click OK button.

Note:
- **For detailed operation introduction, please refer to our resource CD included in your package for electronic version of the *User's Manual*.**
- **This quick start guide is for reference only. Slight difference may be found in the 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 or contact your local retailer for more information.**