

# SMR2000/5000 Installation SOP



Surveon Technical Support Team  
Revision 1.0

# Revision History

Version	Description
1.0	Initial document

# Requirements for installing Surveon Megapixel Solutions

Requirement	Check
Network Knowledge	X
IP / Network Configuration Skill	X
PC Server Configuration Skill	X
Follow the SOP	O

# Outline

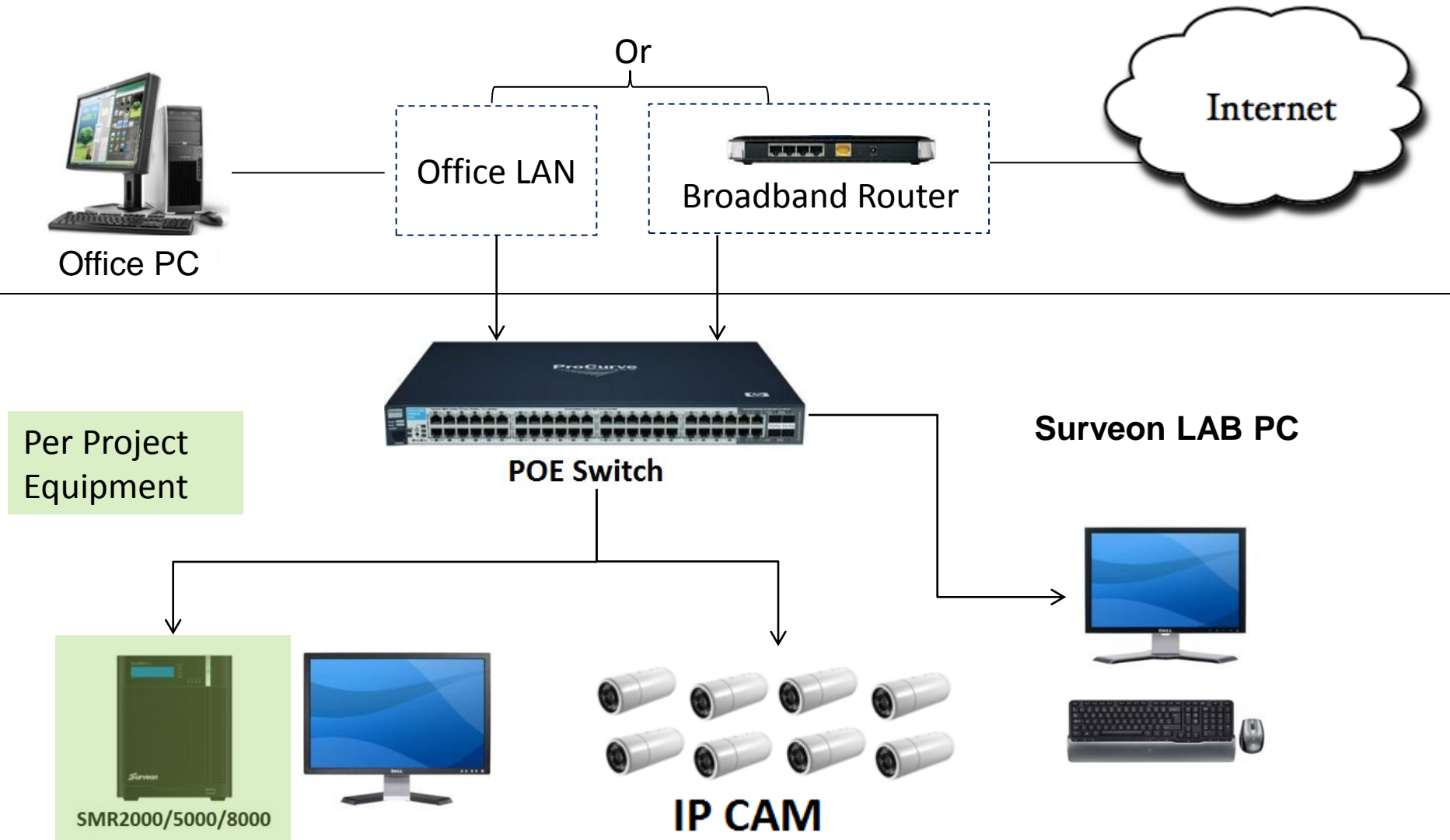
Steps	Topic	Notes
1	Get Your Fixture / Tool Ready	
2	Pick a Project Topology	
3	Pre-Configure the NVR at office	
4	Simulate the E2E equipment at office	
5	Field Side Installation	
6	FAQ and Troubleshooting	

# Step 1: Get Your Set Up Environment Ready

# Check List for a “Surveon LAB”

Item	Requirement	Notes	Check
1	Network port with Internet Access	Home or office network	
2	16+ Port POE Switch 15.4 W per port	802.3AF POE	
3	PC with IP Utility, Team viewer	Download	
4	LCD Monitor (VGA / DVI)	For NVR	
5	Ethernet UTP Cables	For LAB	
6	Portable Monitor with Composite Input	ON site use	

# Surveon LAB topology



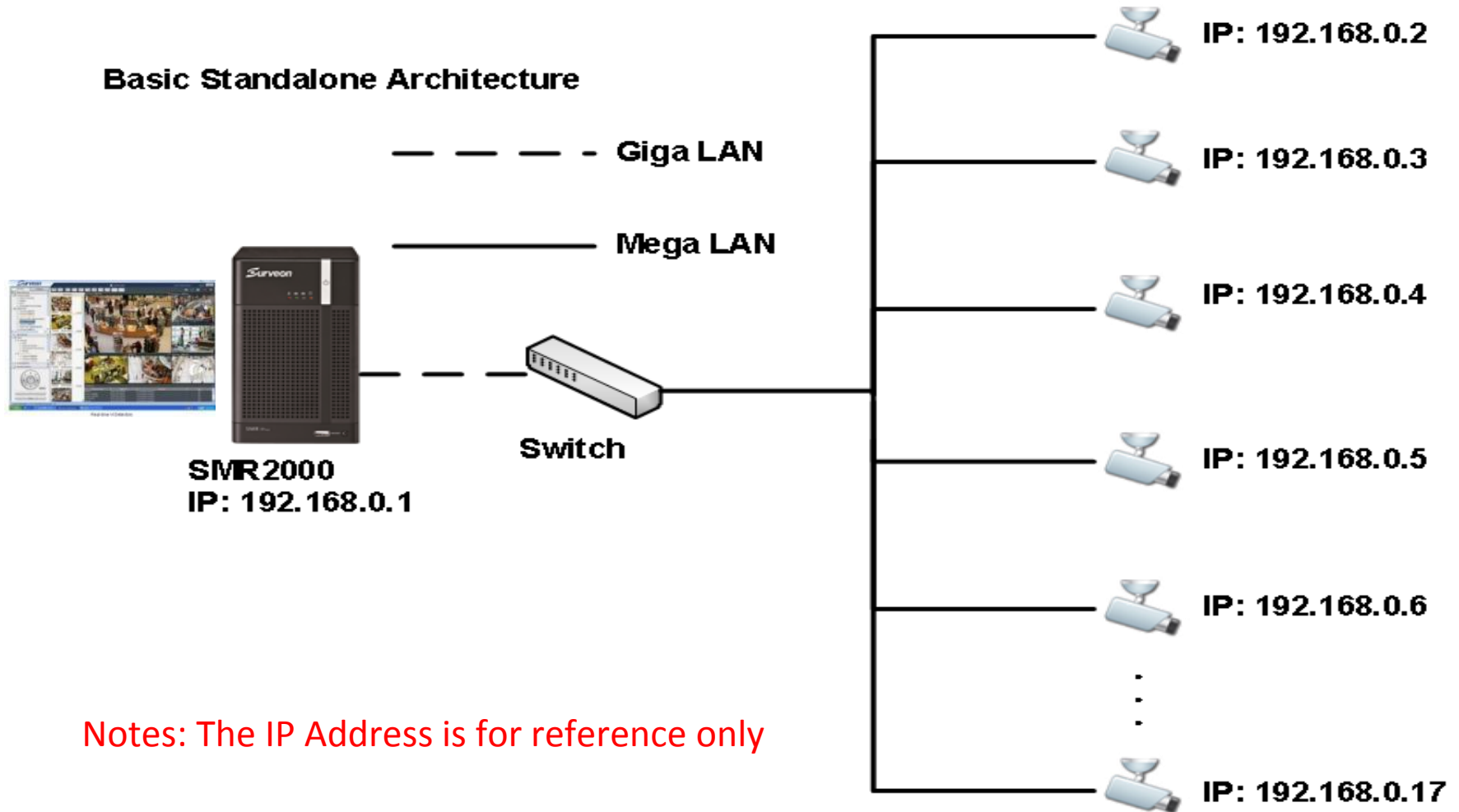
## Step 2: Pick a Topology for your Project



# Check List for a Surveon LAB

Item	Topology	Local Monitor	Remote Monitor	Monitor from Internet/Home
A1	Basic Standalone	Y	X	X
A2	Standalone with Expansion Switches	Y	X	X
A3	Standalone + Remote Client	Y	Y	X

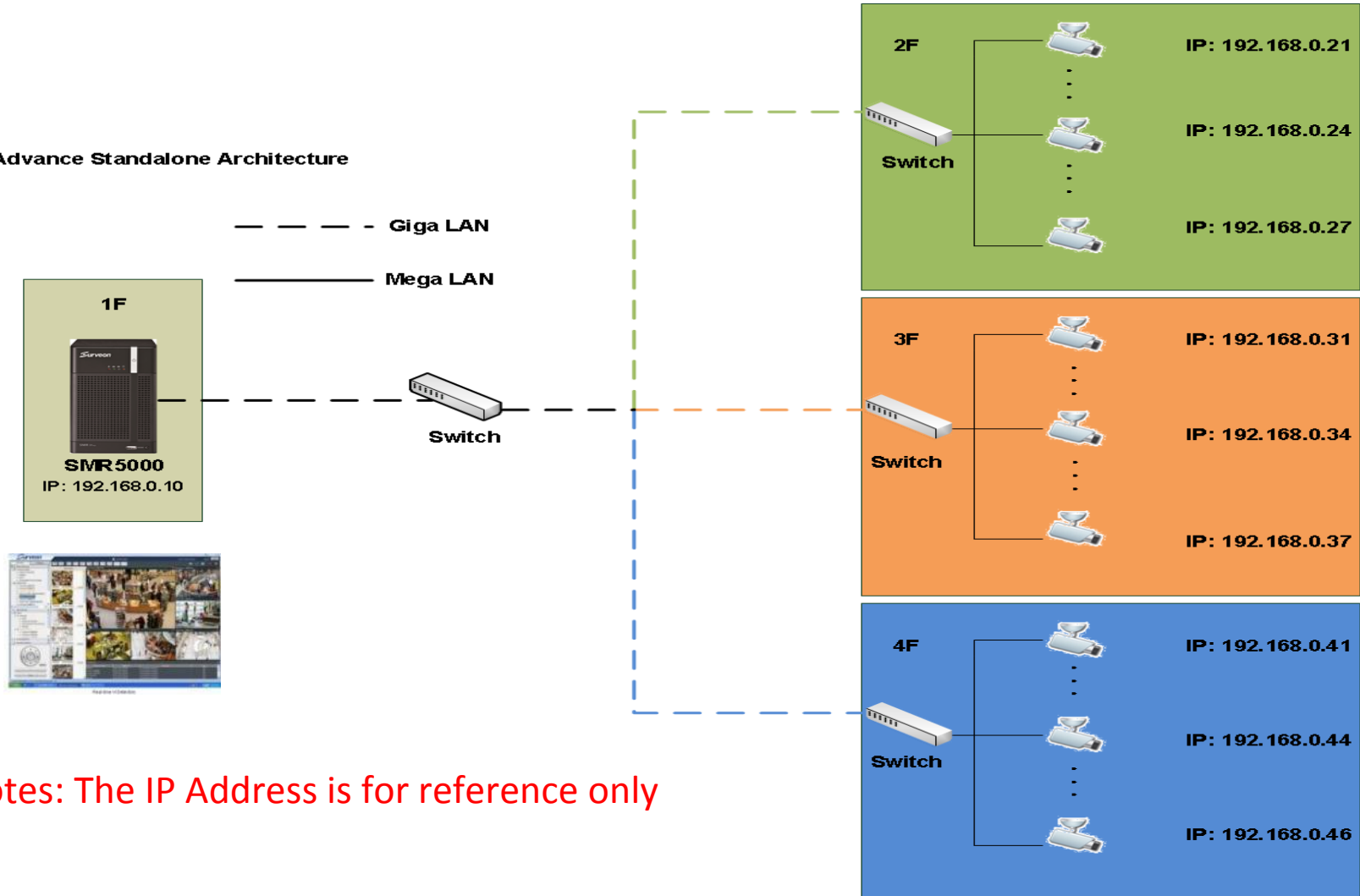
# A1 : Basic Standalone Architecture



Notes: The IP Address is for reference only

# A2 : Multiple Locations/Channels

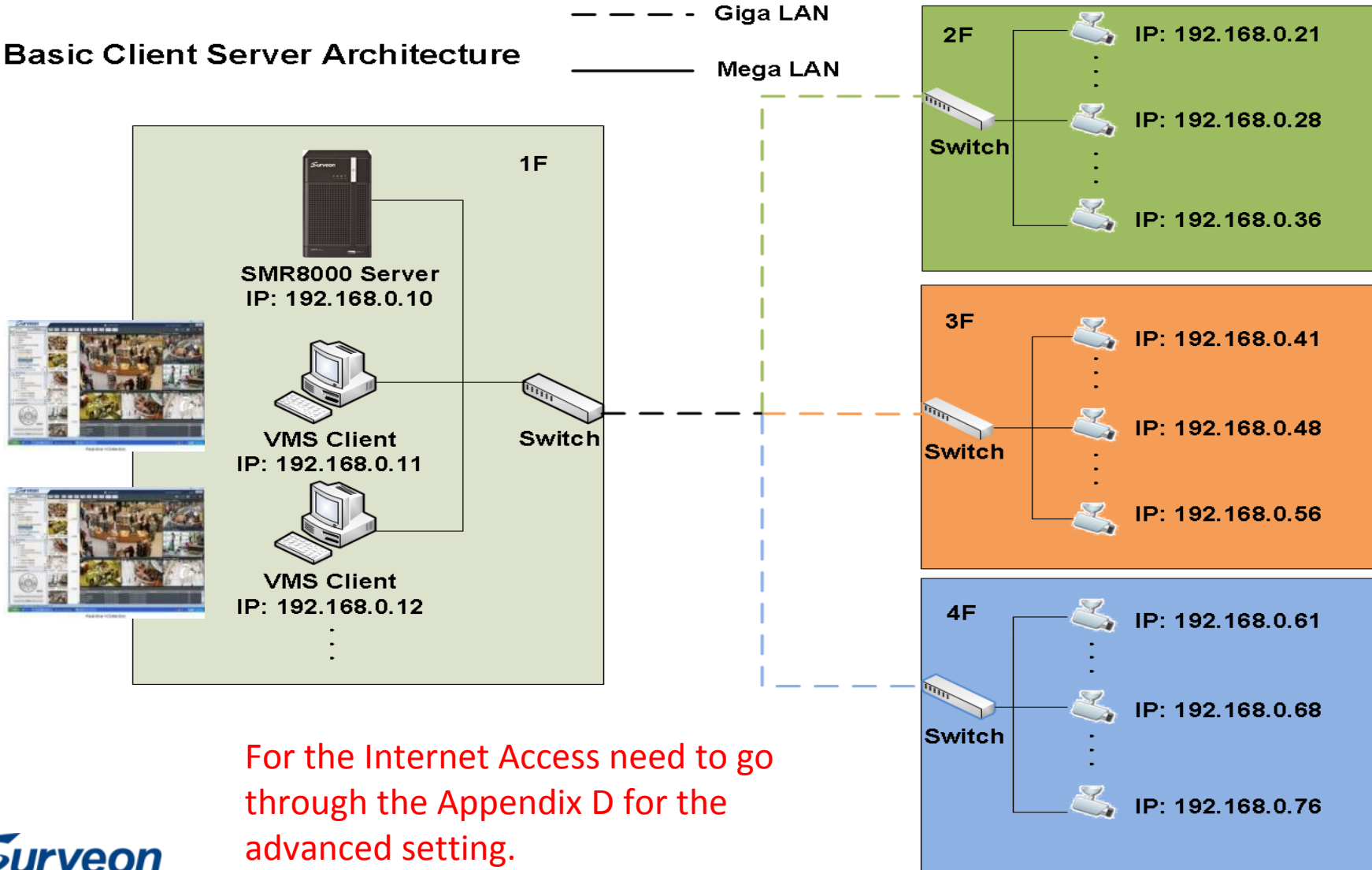
## Advance Standalone Architecture



Notes: The IP Address is for reference only

# A3 : Standalone with Remote Monitoring

## Basic Client Server Architecture



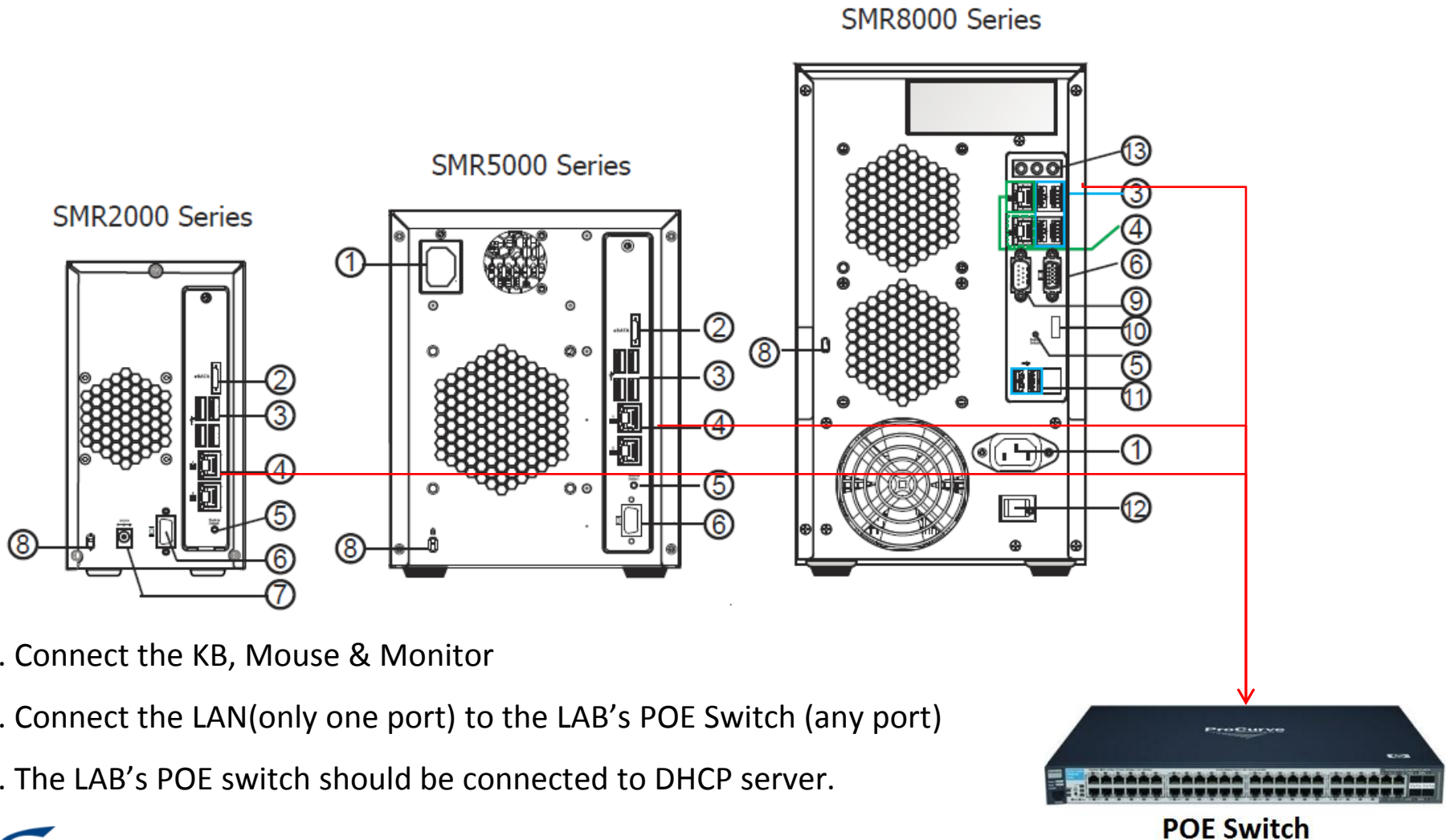
## Step 3: Pre Configure NVR at office

# Steps 3 for Pre Configure the NVR

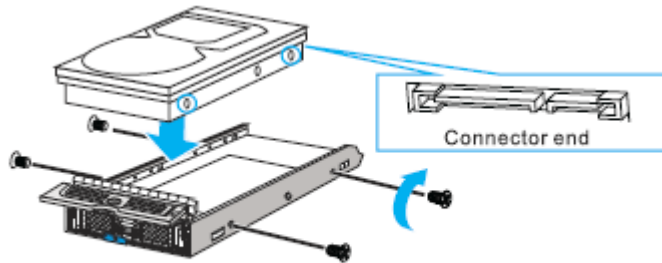
Steps	Actions	Target
3-1	Connecting NVR to the LAB and Preinstall HDD	Get NVR ready for setup
3-2	Built the Storage	RAID Creation
3-3	Initialize the System	Install system to RAID Resolution Time Account Scan camera

# Step 3-1-1 : Connect the NVR to the LAB

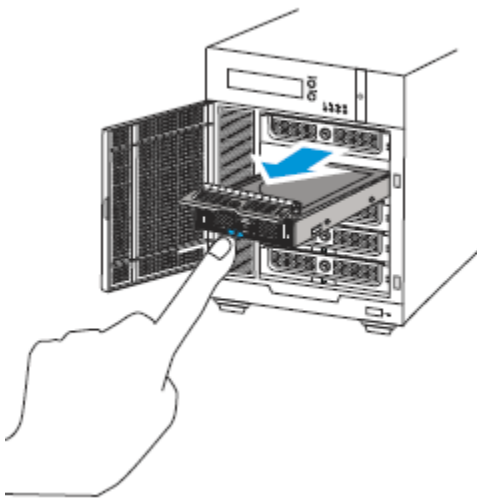
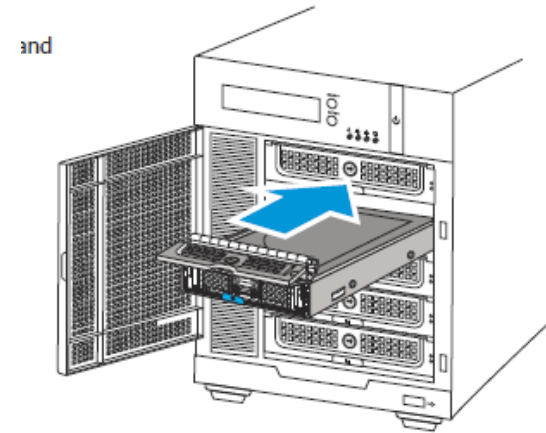
## Rear View



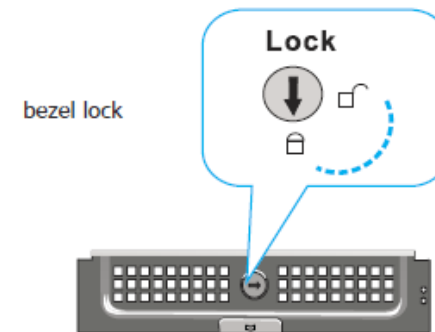
# Step 3-1-2 : Install the Hard Drives



1. Put the qualify HDD on the HDD Tray



2 Insert the HDD to the SMR/NVR



**Notes: Make sure you use Surveon Qualify HDD**  
<http://www.surveon.com/support/hardware.asp>



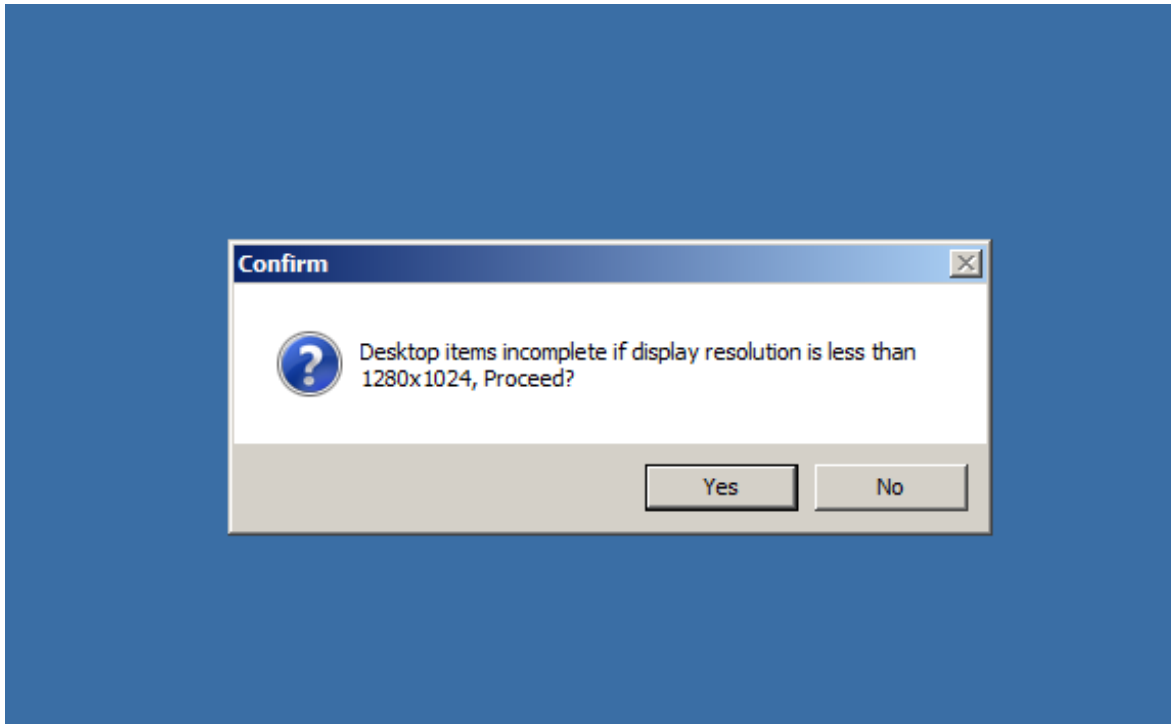
# Step 3-1-3 : Boot up the NVR

1. Make sure you connect the KB, Mouse, Monitor
2. Click the power button
3. You will see the log in page live below



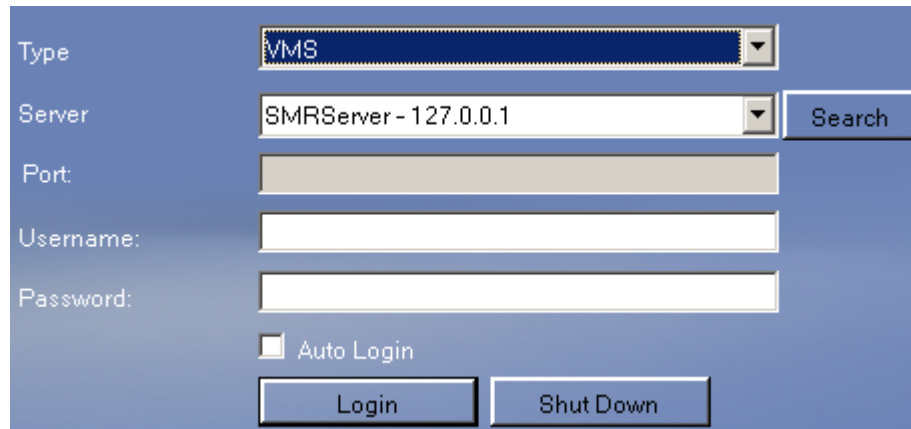
## Step 3-1-3 : Boot up the NVR

If boot up the SMR and see this pop-up dialog, please press **NO** button to skip this step.



## Step 3-1-4 : Login to the NVR/SMR

- Follow Below to log in to the SMR/NVR
- Username: admin
- Password: admin
- Type: VMS (keep default)
- Server: SMRServer -127.0.0.1 (keep default)



Type: VMS

Server: SMRServer - 127.0.0.1 Search

Port:

Username:

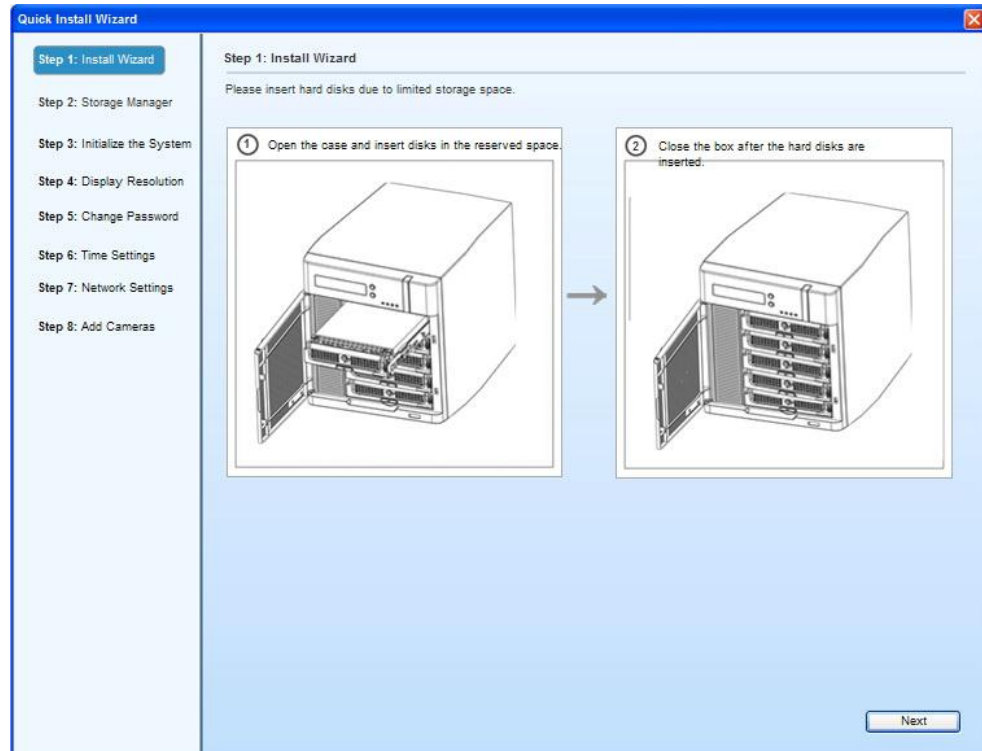
Password:

Auto Login

Login Shut Down

# Step 3-1-5 : Initialization Page

- For the 1<sup>st</sup> boot the system, You will see the initialize screen once you log in.
- Press the **next** to move to Step 2

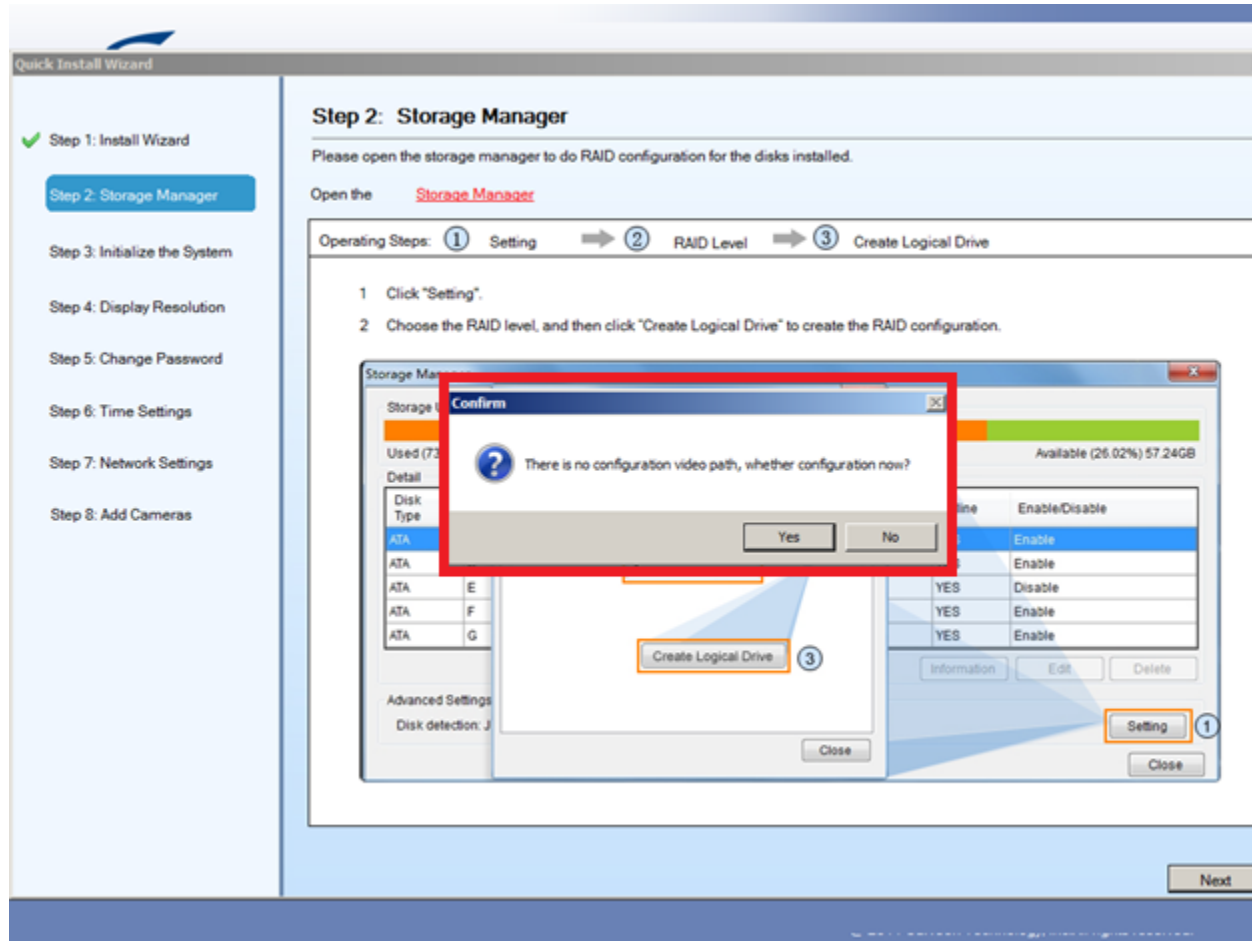


# Next Step: 3-2 Built the Storage

Steps	Actions	Target
3-1	Connecting NVR to the LAB	Get NVR ready for setup
<b>3-2</b>	<b>Built the Storage</b>	<b>RAID Creation</b>
3-3	Initialize the System	Install system to RAID Resolution Time Account Scan camera

# Step 3-2-1 : Open the storage manager

If appear the panel like below ,please click **No** button



# Step 3-2-1 : Open the storage manager

1. Click the Storage Manager to start the RAID creation
2. You will see the storage management panel like below

**Quick Install Wizard**

Step 1: Install Wizard  
**Step 2: Storage Manager**  
 Step 3: Initialize the System  
 Step 4: Display Resolution  
 Step 5: Change Password  
 Step 6: Time Settings  
 Step 7: Network Settings

Step 2: Storage Manager  
 Please open the storage manager to do RAID configuration for the disks installed.

Open the **storage manager** 1

Operating Steps: ① Setting ⇒ ② RAID Level ⇒ ③ Create Logical Drive

1 Click "Setting".  
 2. Choose the RAID level, and then click "Create Logical Drive" to create the RAID configuration.

**Storage Manager**

Storage Usage  
 Used (100%) 3.01GB

Detail

Disk Type	Logical Drive	RAID Level	Drive Size(MB)	Available Size(MB)	Data Type	Online	Enable/Disable	Status
USB	C	--	3584	0	OS.APP	YES	Enable	Normal
USB	D	--	100	0	NO	YES	Enable	Normal

Advanced Settings  
 Disk detection: Join NVR Server disk allocation

Setting 2

**Advanced Settings**

General | All Storage

RAID  
 Free Space: 102112MB  
 RAID Level: 1 (Selected), 5  
 Logical Drive: 1, 2  
 Create Logical Drive: 3

Available (26.02%) 17.24GB

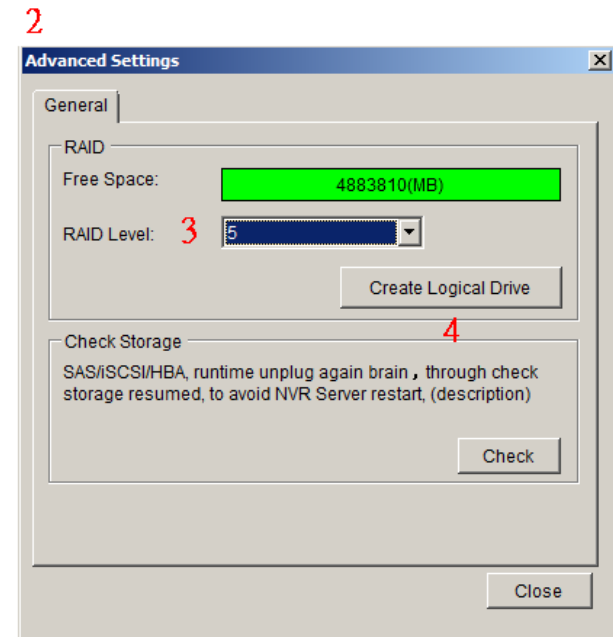
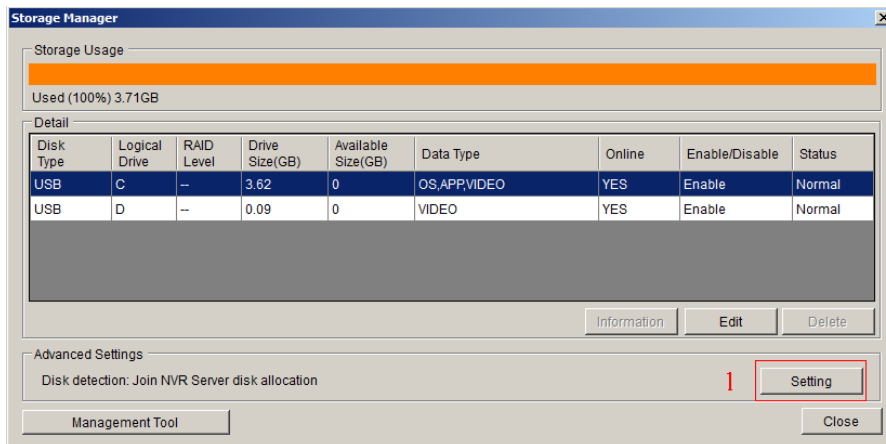
Online	Enable/Disable
YES	Enable
YES	Enable
YES	Disable
YES	Enable
YES	Enable

Setting 1

Next

# Step 3-2-2 : Create the RAID/Storage

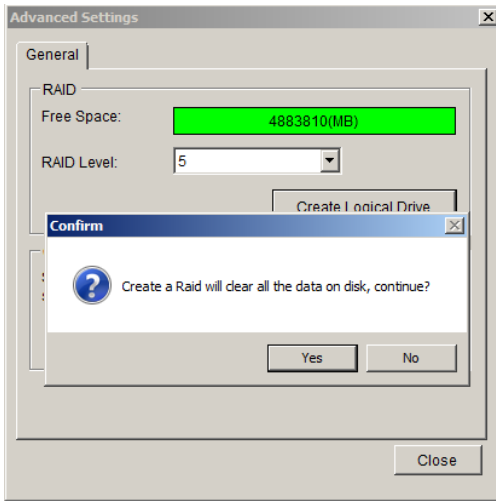
1. Click “Setting” button to create RAID Storage
2. You will see a the panel “advanced settings” like below
3. Select the RAID Level by your project requirement ([RAID suggestion](#))
4. Click “Create logic Drive”



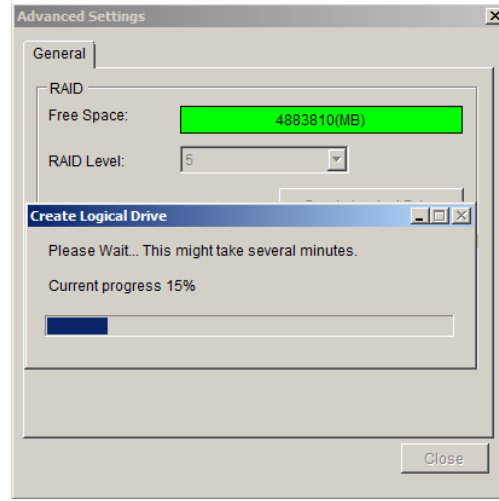


# Step 3-2-3 : RAID Storage Creating

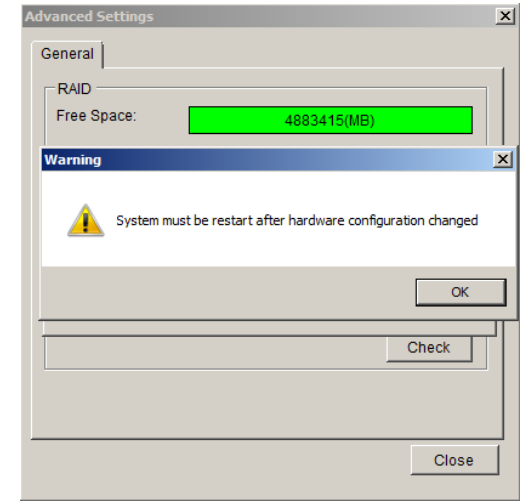
You will then see the RAID Storage is under Creating as below



- Press “Yes” button to start the RAID creation process.



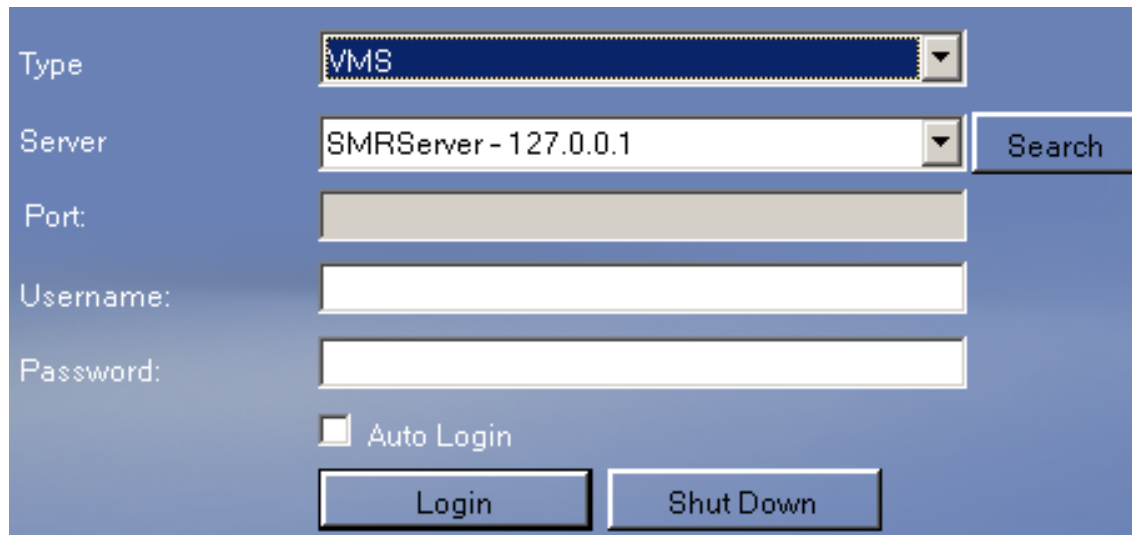
- You will see the Storage Creation in progress



- Press OK to finish this step. and system will automatic to restart

## Step 3-2-4 : Reboot & Log in

- When reboot, the system will ask you to login again.



The screenshot shows a login form with the following fields and controls:

- Type: VMS (dropdown menu)
- Server: SMRServer - 127.0.0.1 (dropdown menu) with a Search button to its right.
- Port: (empty text input field)
- Username: (empty text input field)
- Password: (empty text input field)
- Auto Login:  checkbox
- Login: button
- Shut Down: button

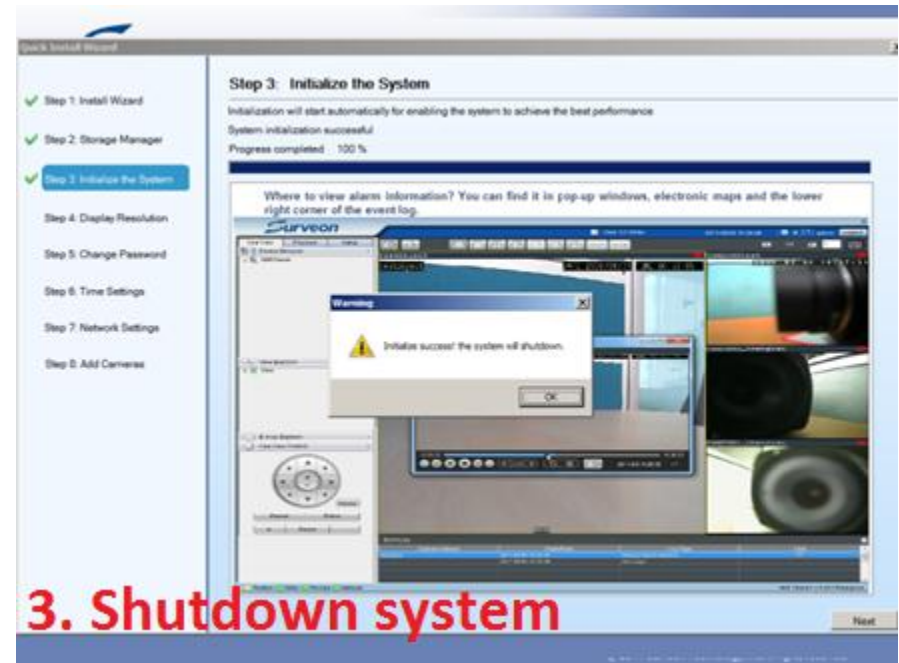
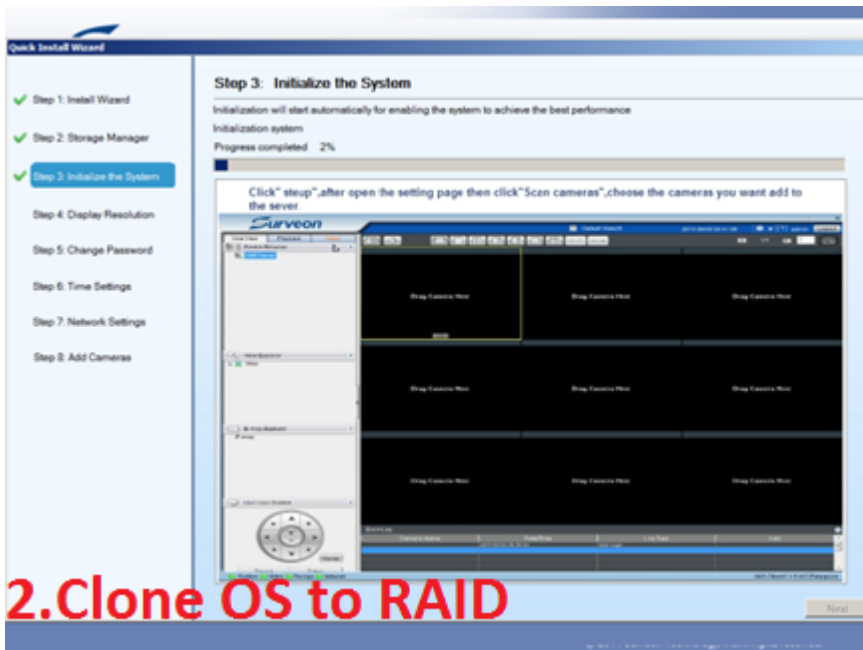
- Follow the same configuration as admin/admin to log in. Then we finished the RAID creation step.

# Steps 3-2 Built the Storage

Steps	Actions	Target
3-1	Connecting NVR to the LAB	Get NVR ready for setup
3-2	Built the Storage	RAID Creation
3-3	Initialize the System	Install system to RAID Resolution Time Account Scan camera

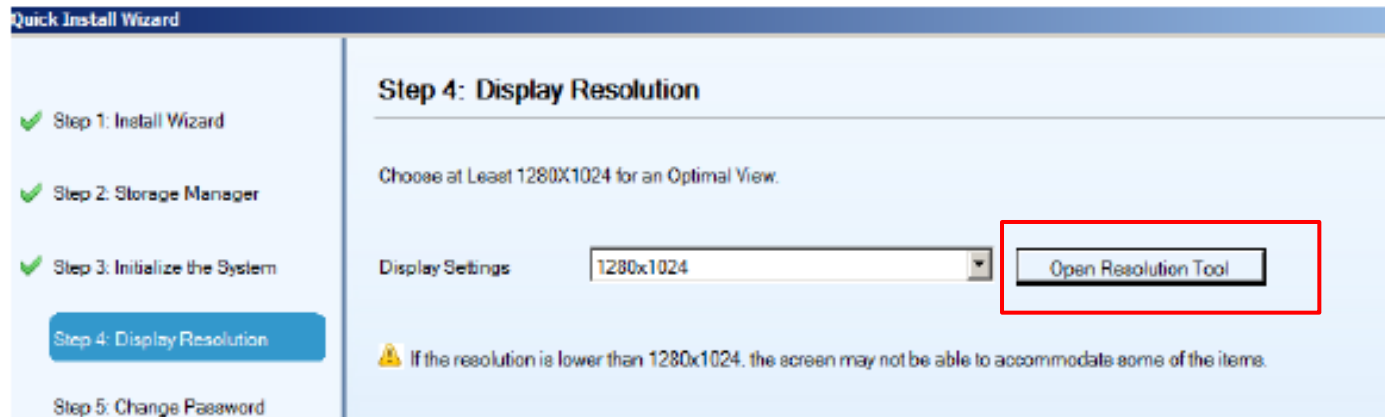
# Step 3-3-1 : Cloning the O.S to RAID DISK

1. Once login, wizard will pop up and go to step 3 automatically with an auto run video.
2. This step is to clone the DOM O.S to the RAID Storage for a higher protection.
3. When finished you need to press the “OK” to shutdown the system.
4. From now on the system will boot on the HDD’s RAID boot.



## Step 3-3-2 : Change the Resolution

1. You need to press power button to boot up the system first.
2. After start up, the wizard will start from step 4 “Display Resolution”.
3. If you want to change the resolution or have multiple monitors to setup, please click **Open Resolution Tool** button. Otherwise, please click **Next** button.



## Step 3-3-2 : Change the Resolution

- If you choose “Open Resolution Tool”, you will see the tool pop up.
- If you have only one monitor, please select “Single Display”.



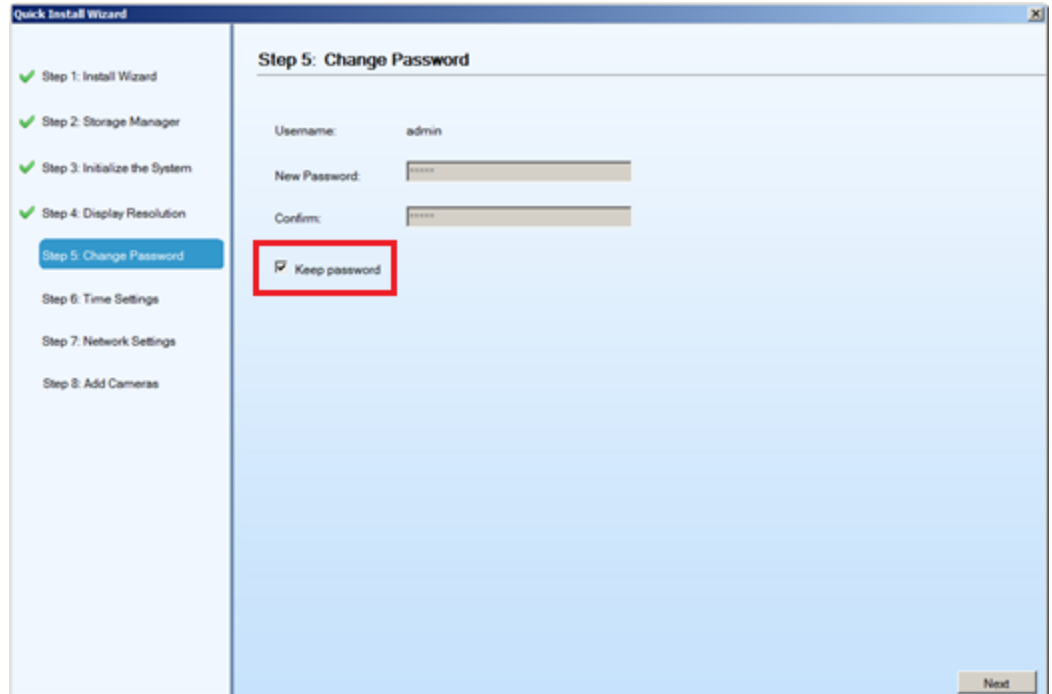
# Step 3-3-2 : Change the Resolution

- 1. Select **Display Settings**.
- 2. Choose the desired resolution.
- 3. Click **Apply** to apply setting and click **OK** to continue.



# Step 3-3-3 : Change the password

1. In the step 5, you can setup the administrator password.
2. If you don't want to change, just check on "Keep password".
3. When finish, Click **Next** button.



The screenshot shows the 'Quick Install Wizard' window at 'Step 5: Change Password'. On the left, a progress bar lists steps 1 through 8, with 'Step 5: Change Password' highlighted in blue. The main area contains the following fields and options:

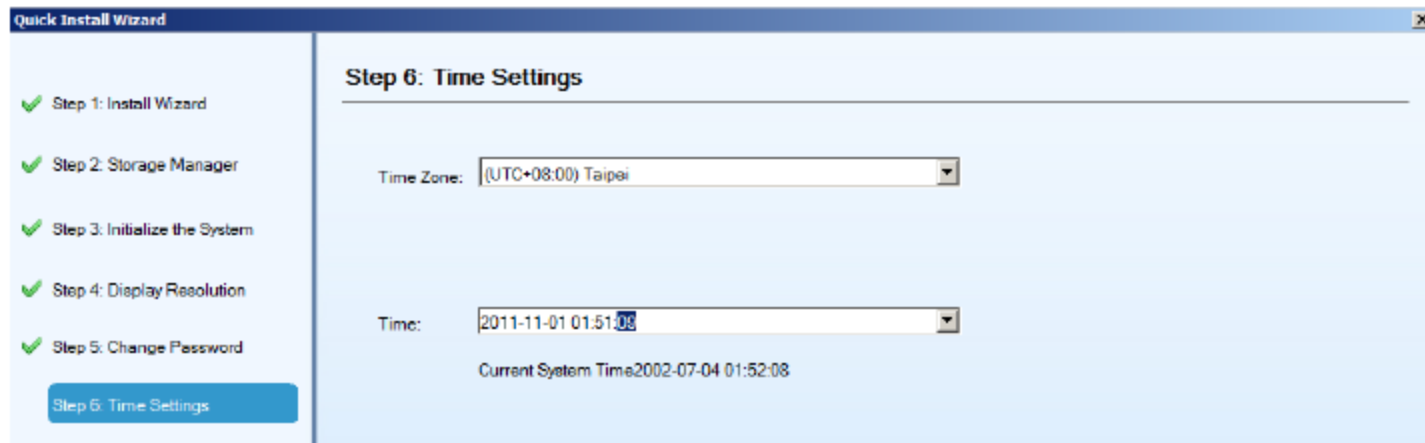
- Username: admin
- New Password: [password field]
- Confirm: [password field]
- Keep password (highlighted with a red box)

A 'Next' button is located in the bottom right corner.



## Step 3-3-4 : Select the Time Zone

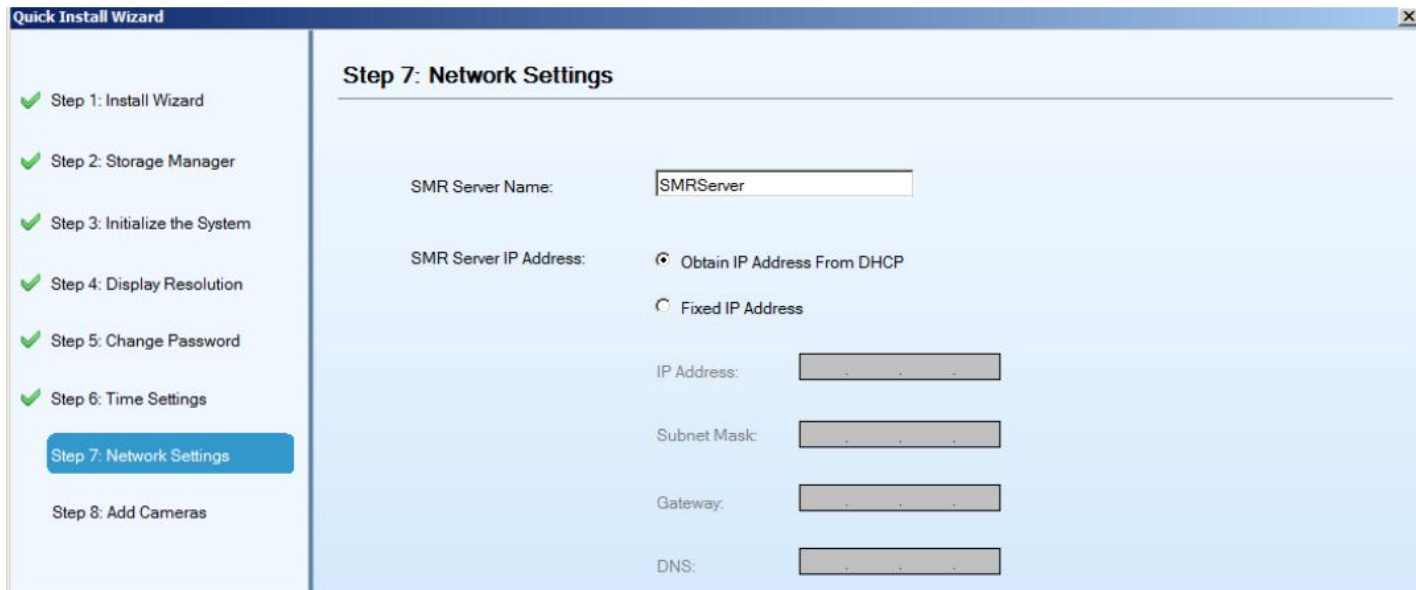
1. In this step, you need to change the **time zone exactly** match to your region.
2. When finish Click **Next** button.



Note: Select Time zone is important for future event search. You can also set up all those parameters, from the Setup page if you skip from the wizard.

# Step 3-3-5 : IP topology

1. In this step, please keep the selection “Obtain IP Address From DHCP”.
2. Click **Next** button.



Quick Install Wizard

Step 7: Network Settings

SMR Server Name:

SMR Server IP Address:  Obtain IP Address From DHCP  
 Fixed IP Address

IP Address:

Subnet Mask:

Gateway:

DNS:

Progress bar on the left:

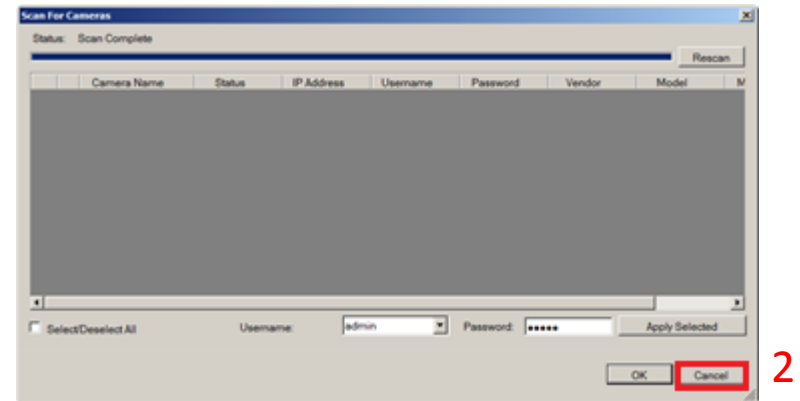
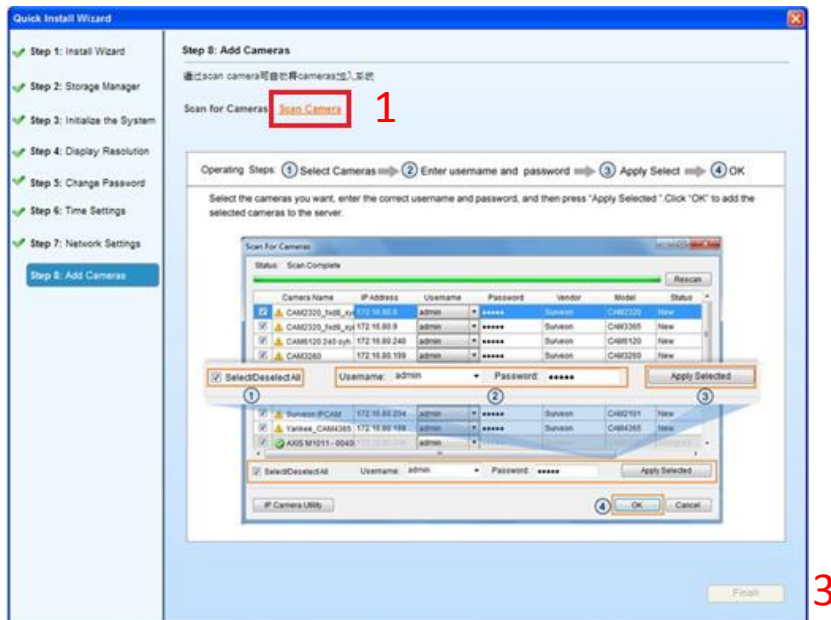
- Step 1: Install Wizard
- Step 2: Storage Manager
- Step 3: Initialize the System
- Step 4: Display Resolution
- Step 5: Change Password
- Step 6: Time Settings
- Step 7: Network Settings**
- Step 8: Add Cameras

Note: If you click the “Fixed IP Address” , the system will restart.

# Step 3-3-6 : Skip the camera scan

After restart, wizard will go to step 8: “Add Cameras”.

1. Click “Scan Camera”
2. Click “Cancel” button to skip scan cameras in popup dialog.
3. Click “Finish” to finish the installation.



Note: We will do the scan cameras later when doing the E2E integration.

## Step 3 Complete

Now we have success to set up the RAID, basic setting and the IP address, now let's connect the POE switch and all the cameras.

## Step 4: Pre Simulate the E2E connection at your LAB/office

It's recommend to simulate the E2E connection at your LAB before you move to the field site

# Steps 4 Simulate the E2E Device at Office

Steps	Actions	Target
4-1	Check Equipment List	Confirm the Project Scope
4-2	Connecting all Devices	Simulate E2E device for the project
4-3	Configure the NVR & Cameras	Basic set up for the project
4-4	Result Check	Finished the simulation

# Steps 4-1 Equipment Check List

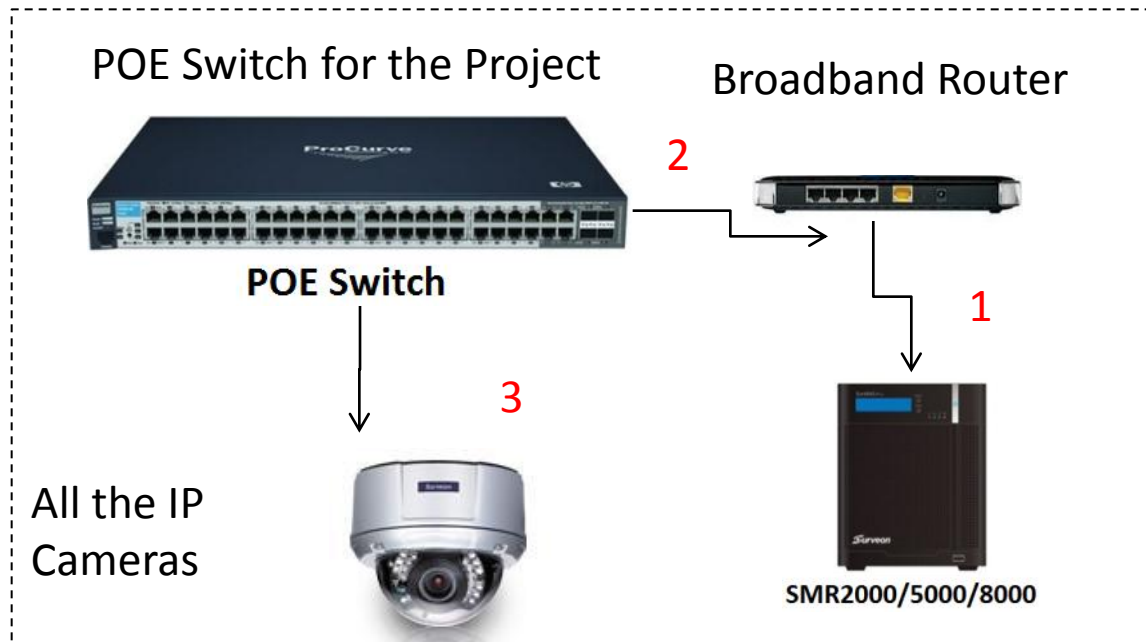
Steps	Items	Notes
4A	NVR/SMR for the Project	For your project
4B	IP Cameras List	You can use <b>Project Camera List</b> file to manage
4C	Ethernet Broadband Router for the project	Suggest Models: <a href="#">See Appendix B</a>
4D	POE Switch (15W per port)	Suggest Models: <a href="#">See Appendix B</a>



Project Camera  
List

# Steps 4-2 Connecting all Device

1. Connect the NVR to the Ethernet Router LAN1(Gigabit port)
2. Connect the POE Switch to Ethernet Router LAN2 , LAN3, LAN4 and so on.
3. Connect all IP camera to the POE switch used for this project.
4. Power up Broadband Router → NVR → POE Switch

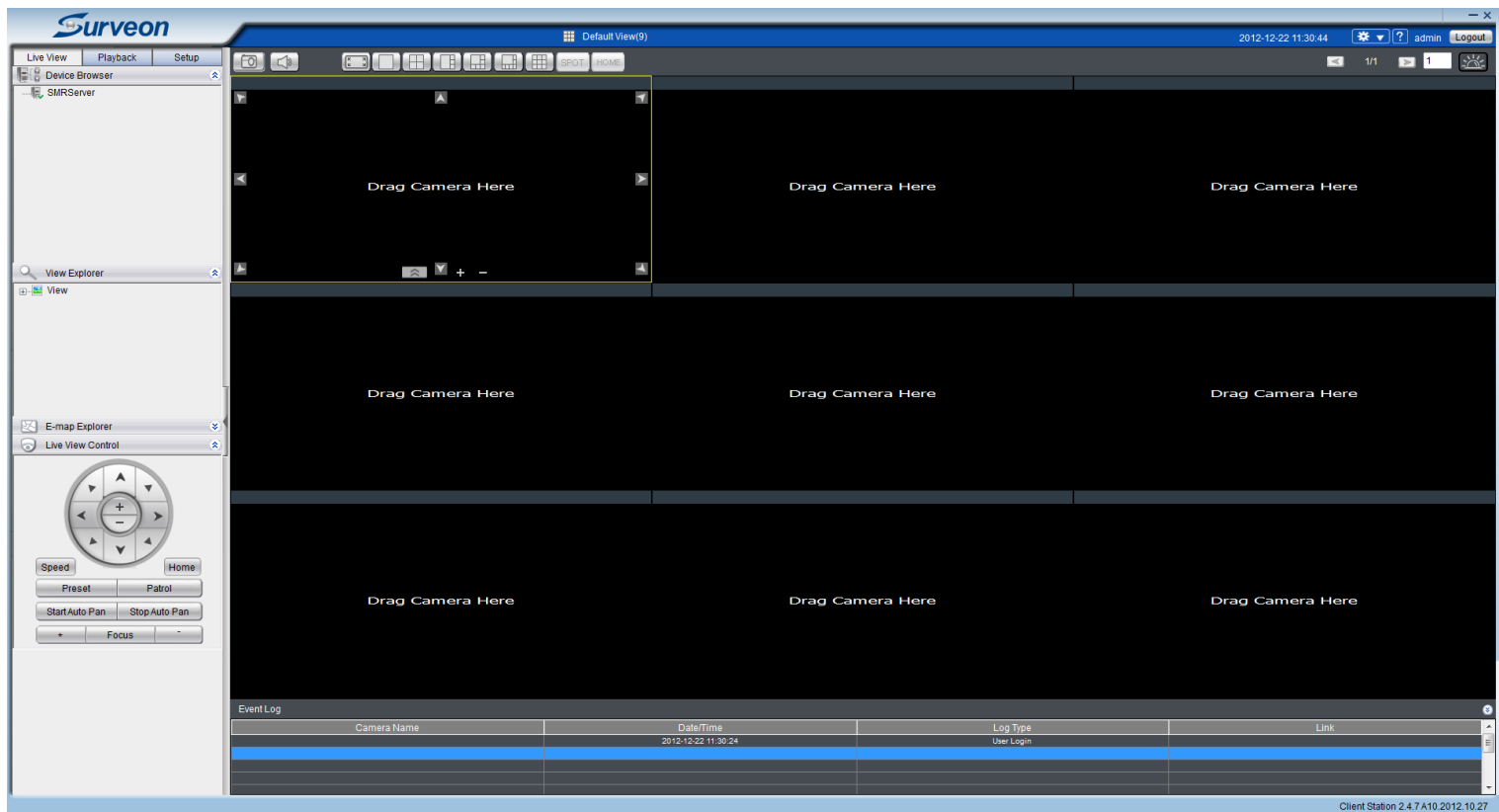


Make sure to make an independent network for all the devices and to separated from your Surveon LAB.

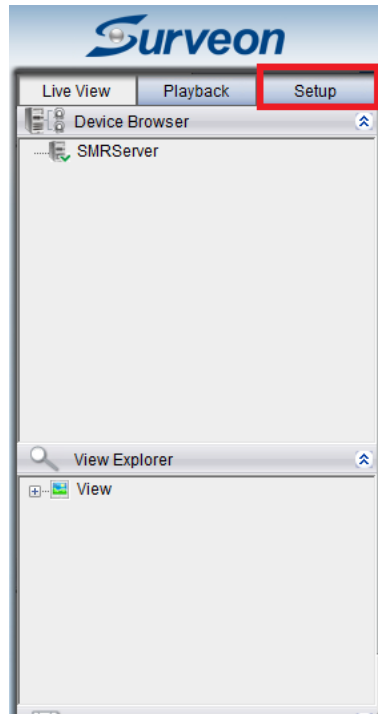


# Steps 4-3-1 Boot UP the SMR/NVR

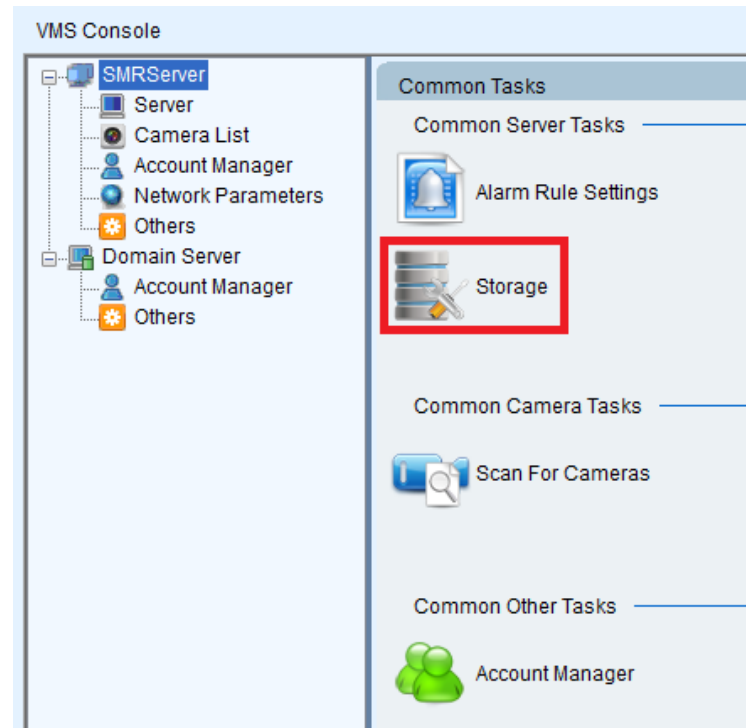
1. Boot up the system you will see the login page.
2. Login with your account/password. You will see below windows



# Steps 4-3-2 Check the Storage Setting

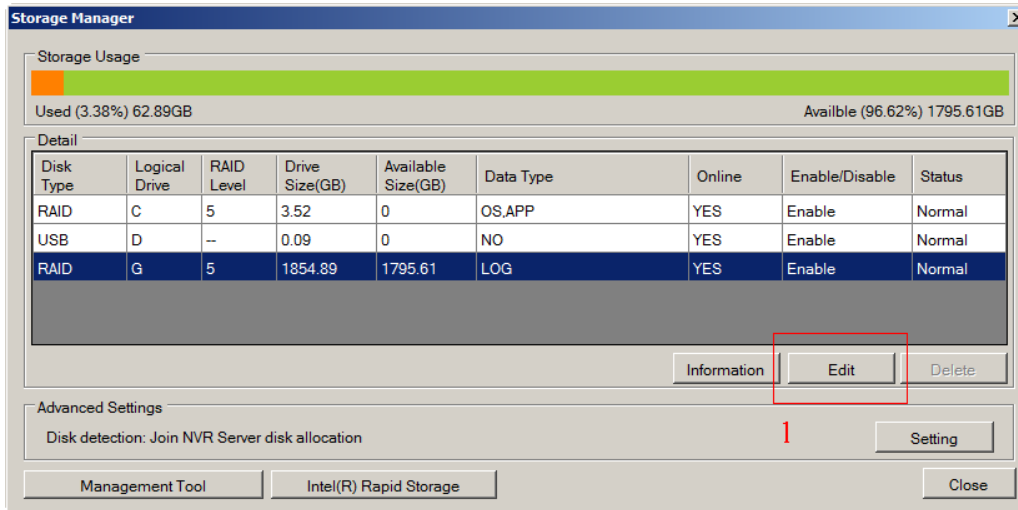


- Click the “Setup” to get the page at right

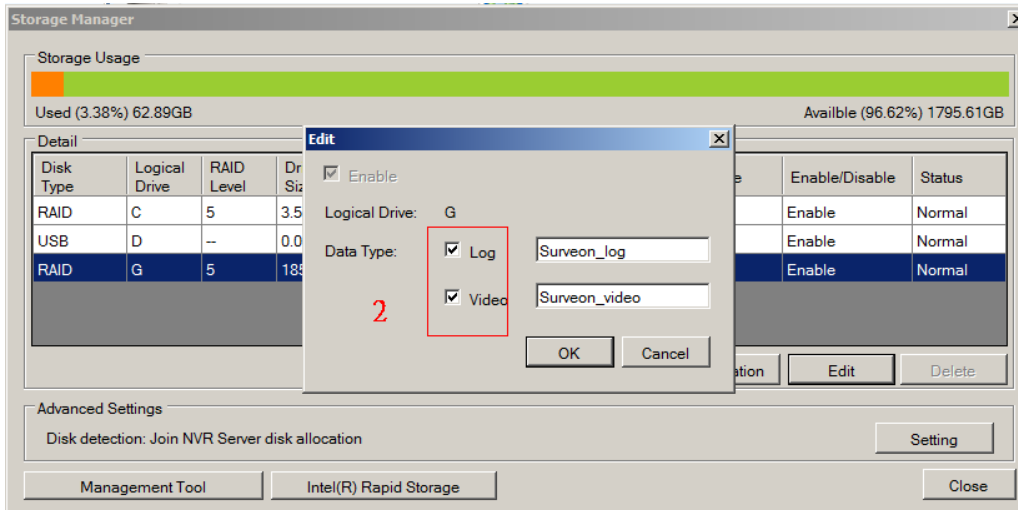


- Click the “Storage”

# Steps 4-3-2 Check the Storage Setting

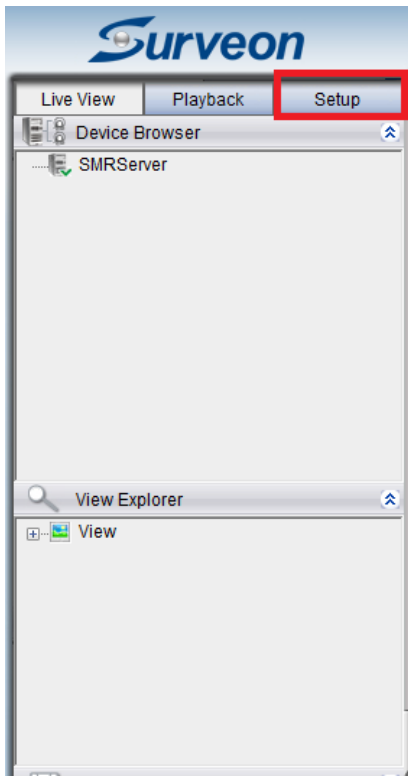


1. Select RAID volume and click **Edit** button.

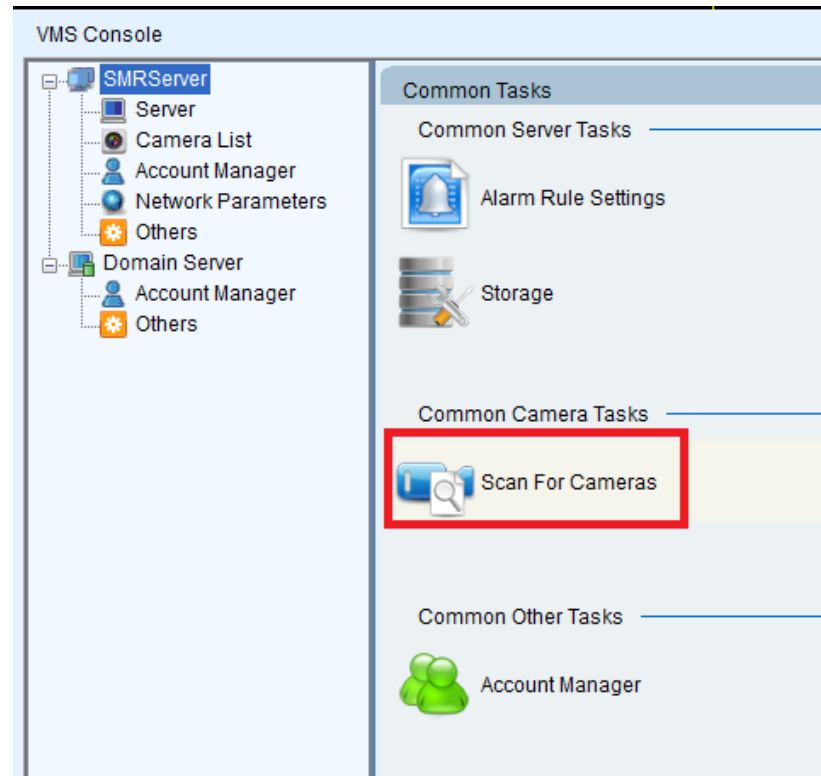


2. Check **Log** and **Video** checkbox to enable recording function.

# Steps 4-3-3 Open the Scan the Cameras

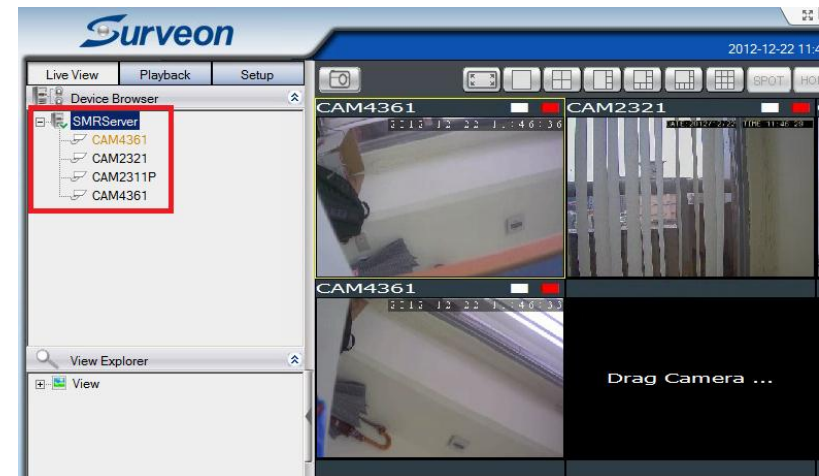
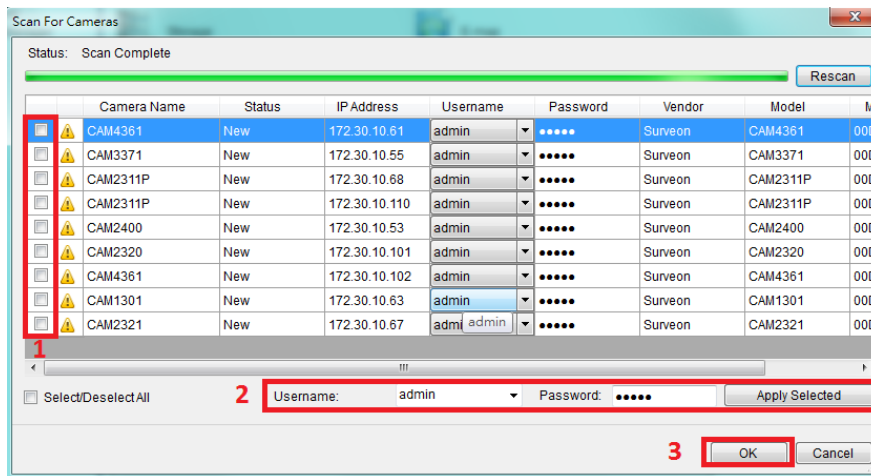


1. Click the set up to get the page at right



2. Click Scan for the Camera

# Steps 4-3-4 Auto Add the Cameras

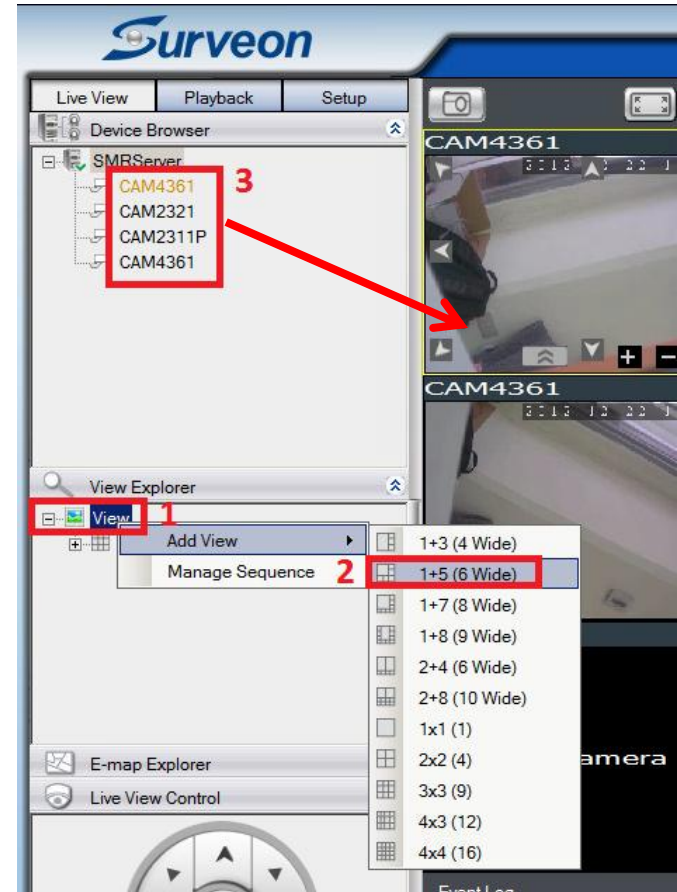


1. All cameras are connected to the POE switch will show on the panel
  2. Mark all the cameras, click "OK", SMR will auto add the Surveon Cameras
  3. If success, you will see all the camera list on the left panel
- \* For 3<sup>rd</sup> party cameras, pick the right account/password, apply selected and ok.

# Steps 4-3-5 Add more Live View

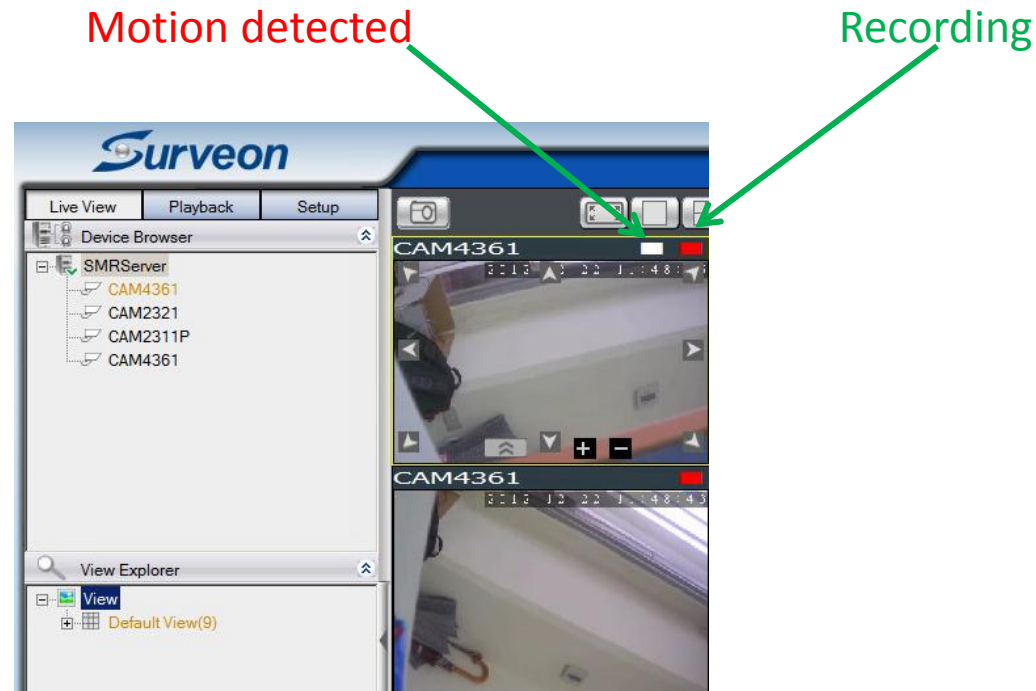
The System will default assign a 9 division view for the Cameras. You can add more view for your applications.

1. Click the root of the View, Right Click Mouse
2. Pick a new view from the panel
3. Drag the camera from left to the new View



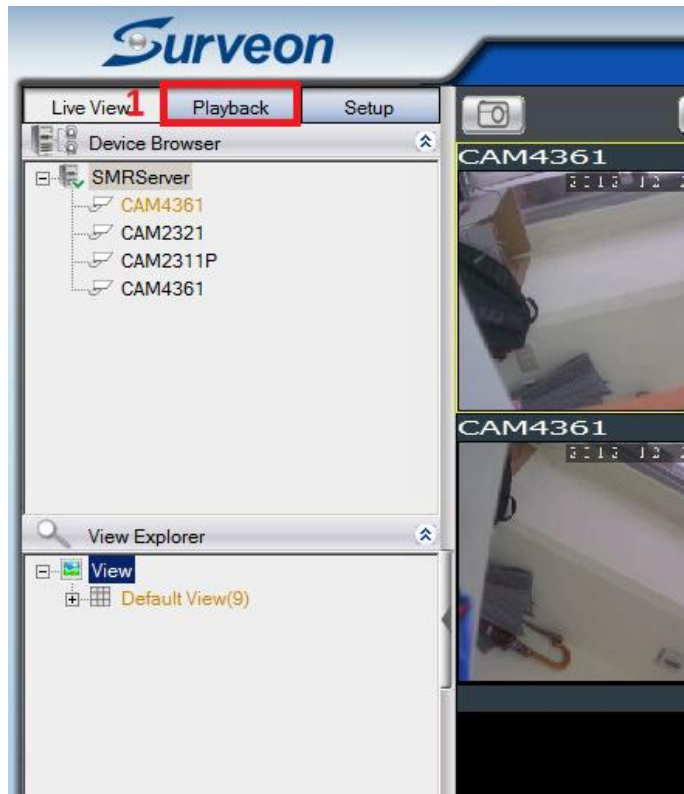
# Steps 4-3-6 Check liveview recording

Motion recording is the default policy of the NVR. If specific camera detect the motion, you will see **White** square show up and the SMR will start to recording which can be recognized by **Red** square.

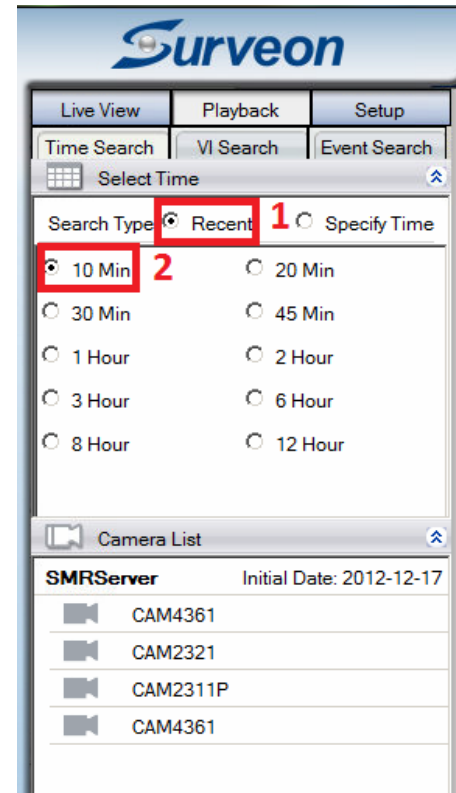


\* The default motion recording time is 90 minutes, you can go to pre/post alarm recording to reduce to 10 minutes.

# Steps 4-3-7 Playback check



1. Click **Playback** tab to check playback function

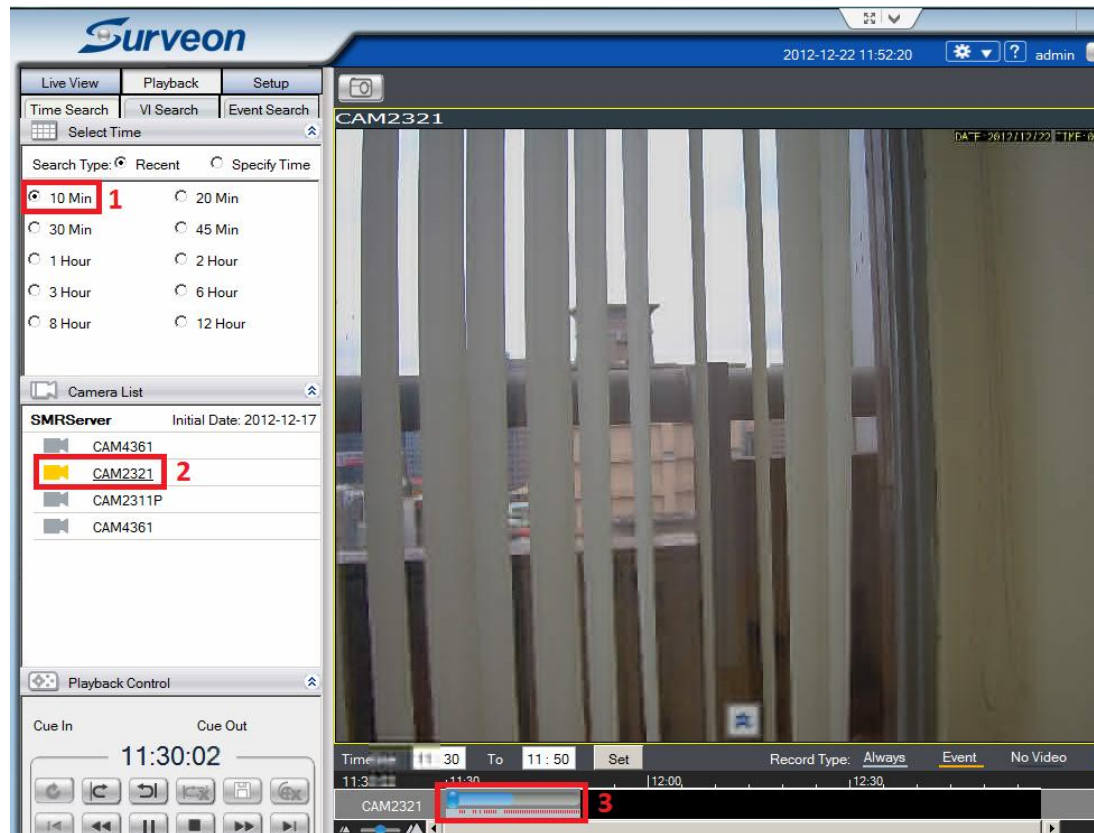


2. Click **Recent** to check the select recently video.



# Steps 4-3-7 Playback check

1. Click “10 Min”
2. Click the camera and it will auto show up in right playback window
3. You can change the time and move forward or backward



# Steps 4-3-8 Burning test the E2E solutions

1. Make the system for few hours burning test, like a overnight burning.
2. The NVR will also take few hours to background initialize the RAID.

# Steps 4-4 Finish the Simulation

1. Shutdown the SMR / NVR
2. Turn off all the POE switch
3. Turn off the broadband router

# Steps 4 Complete

- You have now simulated the E2E solutions. For
  - All camera live view and record in the NVR
  - Liveview recording checking
  - Simple Playback to check
  - Burning test
- Next: Move all the equipment to the field site

Step 5: Move the equipment to field site

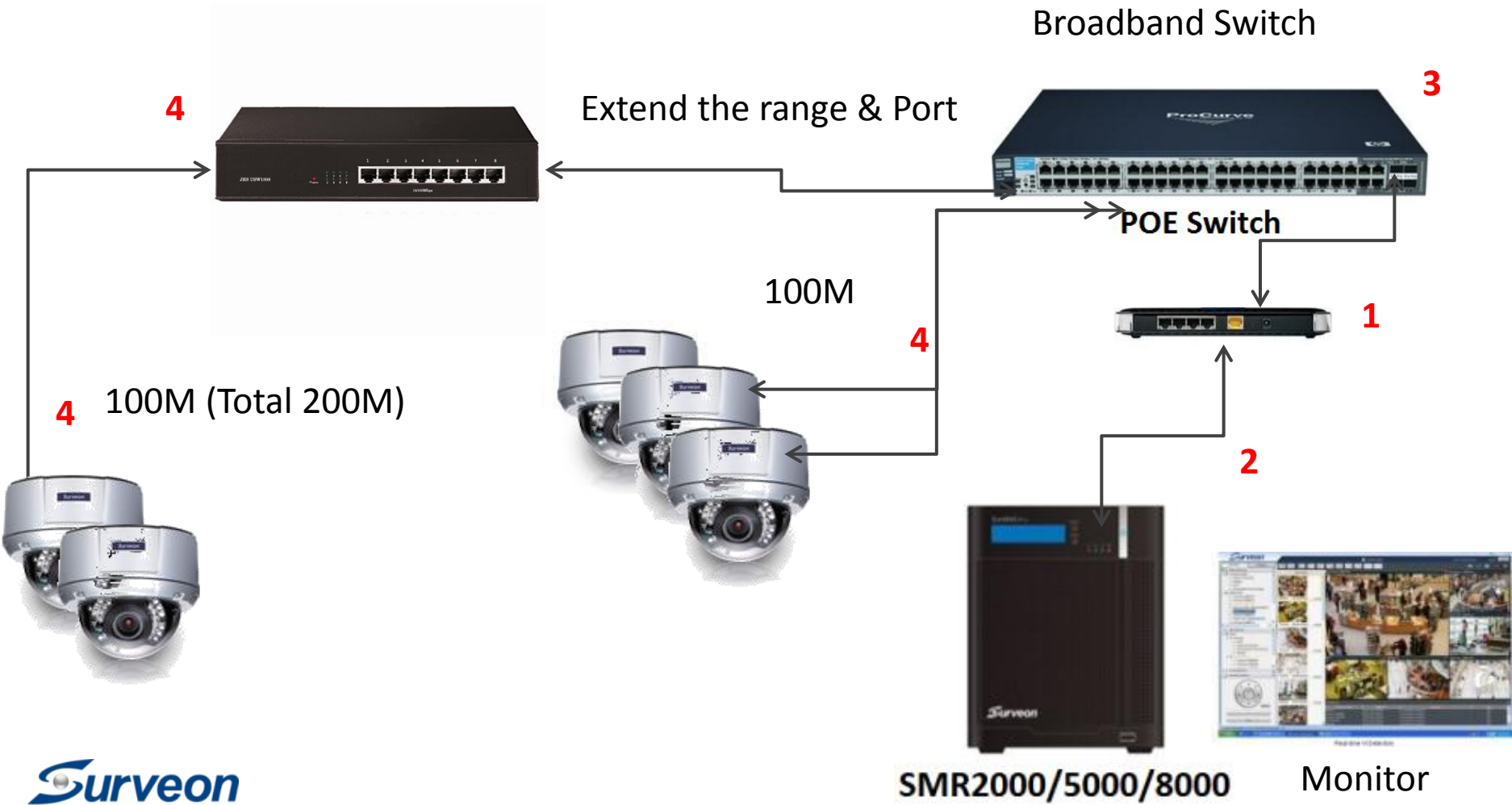
# Steps 5 On site installation

Steps	Actions	Target
5-1	Move the device to the field site	
5-2	Connecting all the devices	
5-3	Install / Mount the Camera	Adjust view, focus
5-4	Setup NVR and IP CAM	Check camera and NVR are running as expectation

# Steps 5-1 Move the equipment to field

Steps	Equipment	Notes
5A	NVR or SMR	Finish the RAID and basic set up
5B	Cameras	All cameras with LAB testing.
5C	POE Switch	The one finish the LAB testing.
5D	Broadband Router	If you can share the field site LAN then you can skip this Ethernet router
5E	Portable AV Monitor with BNC connector	Use for camera view/focus adjustment

# Steps 5-2 Connecting all the device





# Steps 5-3-1 Boot up the NVR

1. Power up the NVR and log in, if cameras have connected to the switch. You will see those cameras in the liveview page.
2. You can do auto search or manual adding anytime during the installing time.

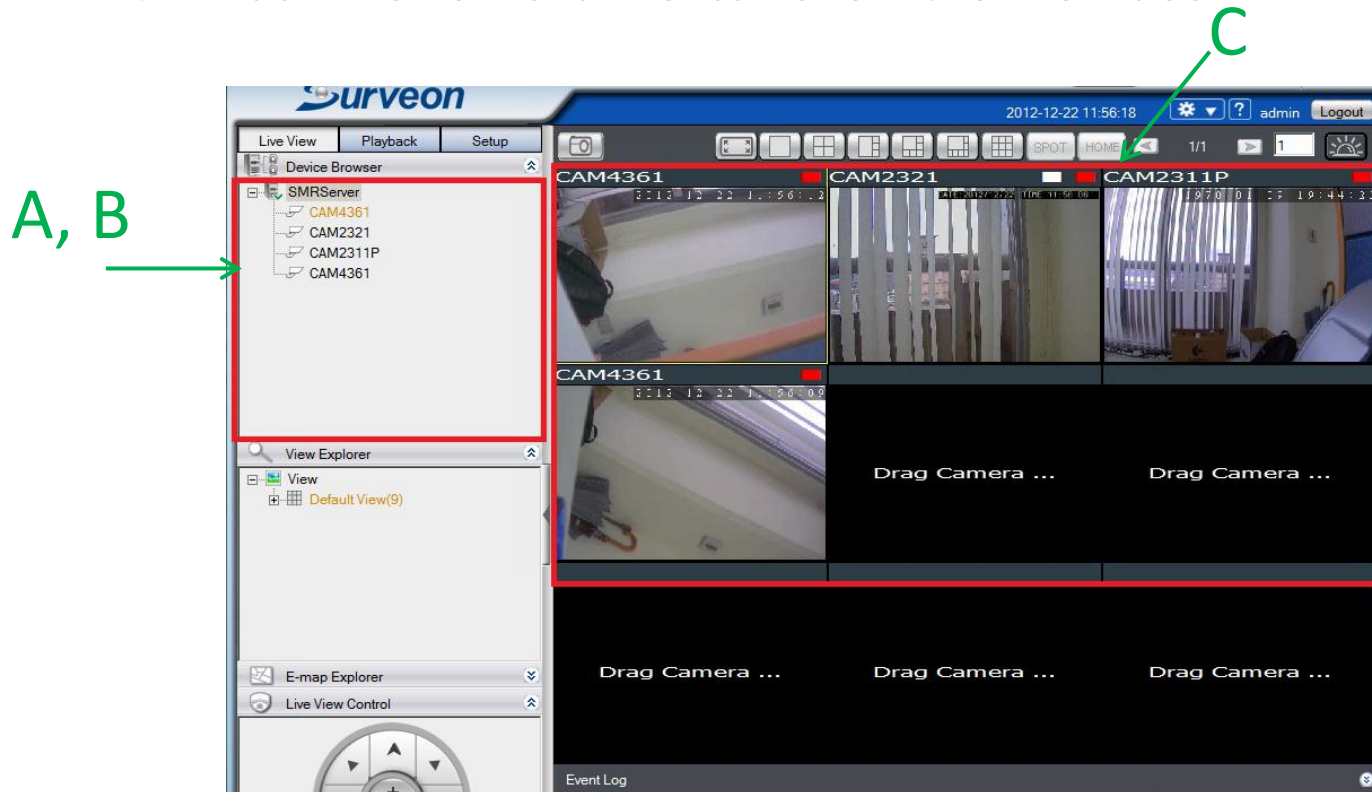
# Steps 5-3-2 Mount & Install the Cameras

1. Connect the camera with Ethernet cable to the mounting place
2. For fix lens & auto focus cameras to adjust the view angle first.
3. For the Vari-focal lens, using the BNC connector to ease the focus\*
4. Mount the camera to the wall, ceiling or mounting bracket
5. Follow 1 – 4 to finished all the camera installation

\* If you want to see the video on NVR, then push the auto scan once plug the POE cable to the camera

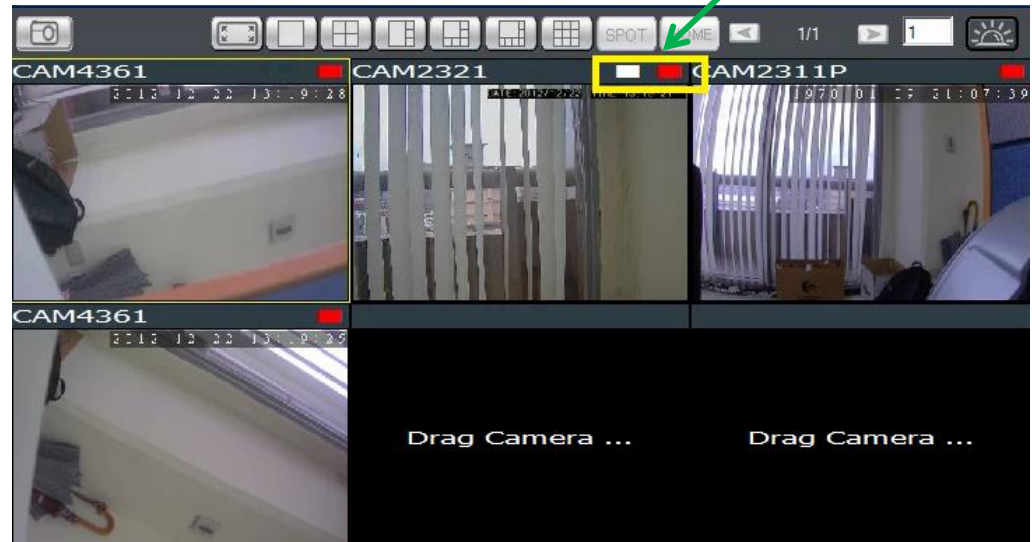
# Steps 5-4-1 Check Liveview

- A. The camera list include all cameras.
- B. The camera name has been setup.
- C. Each liveview channel can show the live video.



# Steps 5-4-1 Check Liveview

- A. Liveview can show recording and motion detection result.
- B. Check event log doesn't show abnormal message.
  - ✓ Video lost
  - ✓ RAID failure

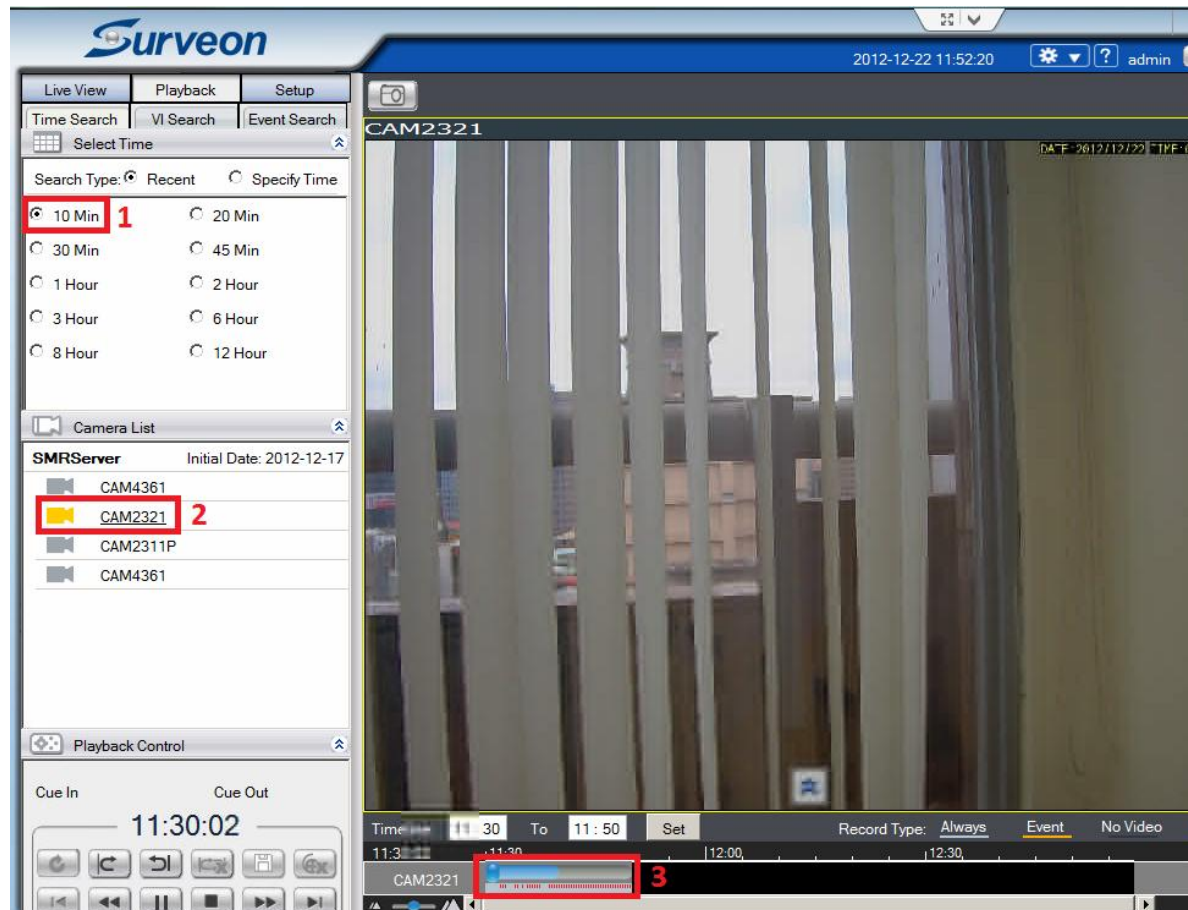


B

Event Log			
Camera Name	Date/Time	Log Type	Link
	2012-12-22 13:19:27	User Login	

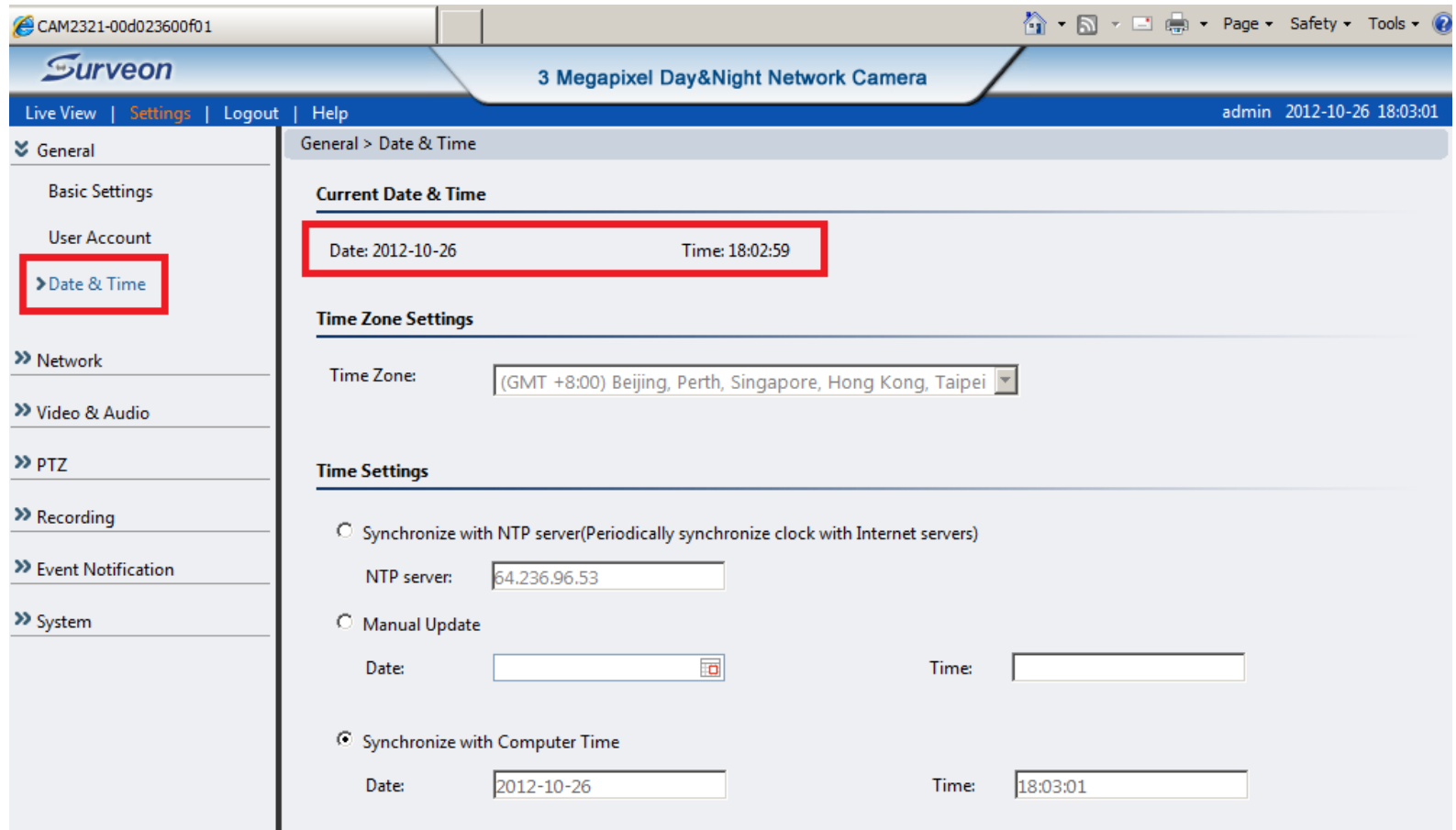
# Steps 5-4-2 Check Playback

- Check **Time Search** can find the recently and specific time video.



# Steps 5-4-3 Check Camera

- Check camera time is correct.



The screenshot displays the Surveon web interface for a 3 Megapixel Day&Night Network Camera. The browser address bar shows the URL CAM2321-00d023600f01. The interface includes a navigation menu on the left with options like General, Basic Settings, User Account, Date & Time, Network, Video & Audio, PTZ, Recording, Event Notification, and System. The 'Date & Time' option is highlighted with a red box. The main content area shows the 'General > Date & Time' settings. The 'Current Date & Time' section displays 'Date: 2012-10-26' and 'Time: 18:02:59', which are also highlighted with a red box. Below this, the 'Time Zone Settings' section shows 'Time Zone: (GMT +8:00) Beijing, Perth, Singapore, Hong Kong, Taipei'. The 'Time Settings' section has three radio button options: 'Synchronize with NTP server', 'Manual Update', and 'Synchronize with Computer Time'. The 'Synchronize with Computer Time' option is selected. The 'Date' field is set to '2012-10-26' and the 'Time' field is set to '18:03:01'.

# Steps 5-4-3 Check Camera

- Check camera streaming setting is as expected.

The screenshot displays the Surveon web interface for video streaming configuration. The top navigation bar includes 'Live View', 'Settings', 'Logout', and 'Help', with the user 'admin' and timestamp '2012-10-26 18:09:19'. The left sidebar shows a menu with 'Video & Audio' expanded, and 'Video Streams' highlighted in a red box. The main content area is titled 'Video & Audio > Video Streams' and contains two sections: 'Video Stream 1 Settings' and 'Video Stream 2 Settings'. Both sections are enclosed in red boxes. In the 'Video Stream 1 Settings' section, the following values are shown: Video Format: H.264, Video Resolution: 1536P(2048x1536), Video Frames per Second: 15 (selected), Key Frame Interval: 1 sec, Video Quality Settings: Constant Bit Rate (selected) at 6 Mbps. In the 'Video Stream 2 Settings' section, the values are: Video Format: H.264, Video Resolution: QVGA (320 x 240), Video Frames per Second: 30 (selected), Key Frame Interval: 1 sec, Video Quality Settings: Constant Bit Rate (selected) at 512 kbps.

Live View | Settings | Logout | Help admin 2012-10-26 18:09:19

Video & Audio > Video Streams

**Video Stream 1 Settings**

Video Format: H.264

Video Resolution: 1536P(2048x1536)

Video Frames per Second:  15 (1~30)

Key Frame Interval: 1 sec

Video Quality Settings

Constant Bit Rate:  6 Mbps (32-1024)kbps

Fixed Quality: Excellent

**Video Stream 2 Settings**

Video Format: H.264

Video Resolution: QVGA (320 x 240)

Video Frames per Second:  30 (1~30)

Key Frame Interval: 1 sec

Video Quality Settings

Constant Bit Rate:  512 kbps (32-1024)kbps

Fixed Quality: Medium

# Steps 5-4-3 Check Camera

- Check image appearance is as your expectation.

The screenshot displays the 'Video & Audio - Image Appearance' configuration window. The left sidebar shows a navigation menu with 'Image Appearance' selected. The main area is divided into several sections:

- Image Appearance Settings:** Contains a live video feed showing a desk with a monitor and keyboard. The feed includes a timestamp: 'DATE: 2012/08/26 TIME: 8:12:30'.
- Image Adjustment:** Features four sliders for 'Image Attributes':
  - Brightness: 30
  - Saturation: 70
  - Contrast: 50
  - Sharpness: 50
- Advanced settings:** Includes dropdown menus for 'Lens Type' (DC-IRIS), 'Environment' (Outdoor), and 'Frequency' (60Hz), along with a text input for 'EV Compensation' (50).
- Exposure Mode:** A red box highlights the 'Exposure Mode' (Auto), 'Exposure Priority' (Frame Rate First), 'Max Shutter Speed' (1/30), and 'Min Shutter Speed' (1/100000) settings.
- Day/Night Mode:** A red box highlights the 'Day/Night Mode' (Auto), 'Night Threshold' (10), and 'Day Threshold' (20) settings.

At the bottom of the window are 'OK' and 'Default' buttons.



# Steps 5-4-4 Check VMS setup setting

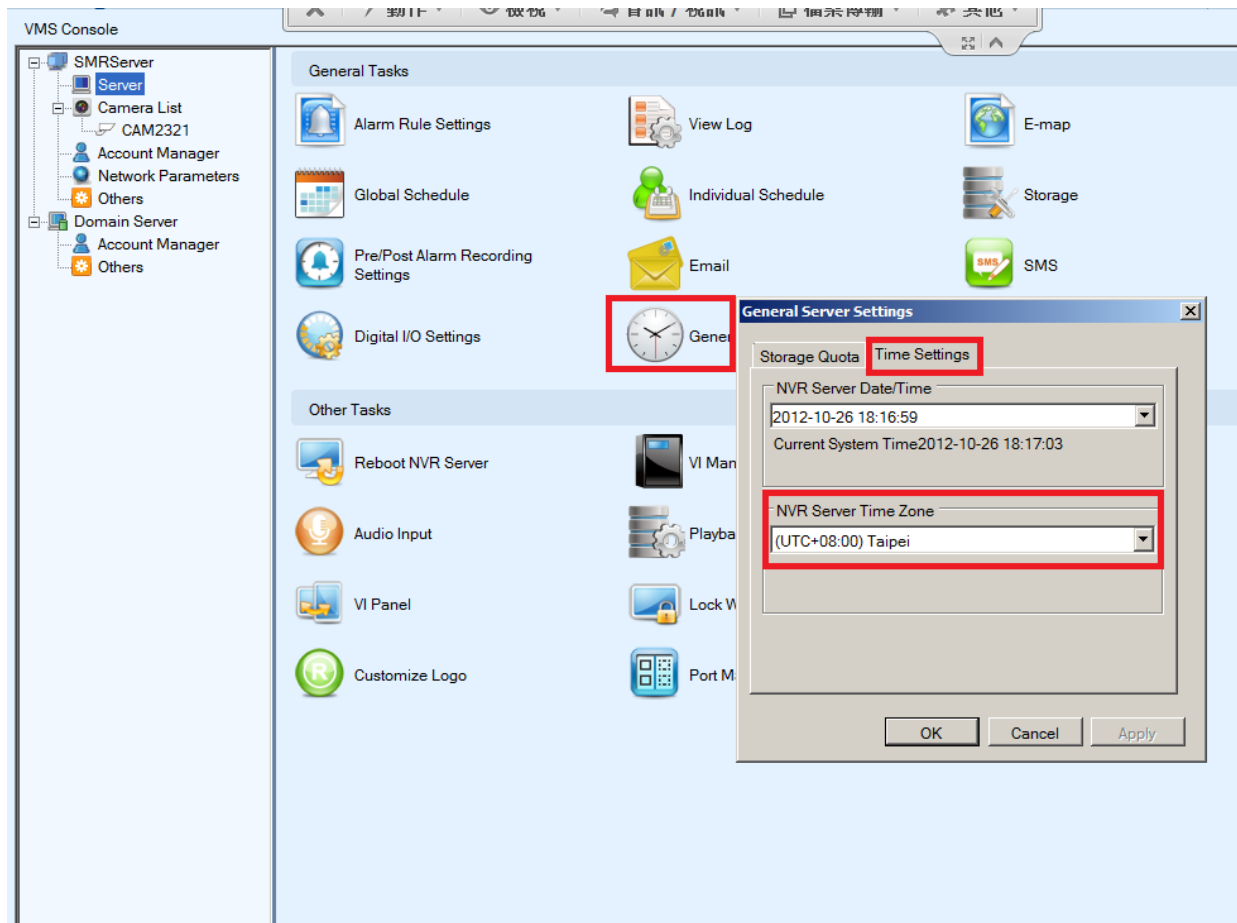
- Check storage status is normal.

The screenshot shows the 'Storage Manager' window. At the top, there is a 'Storage Usage' section with a progress bar. The bar is divided into orange (used) and green (available) segments. Below the bar, it states 'Used (69.03%) 639.88GB' and 'Available (30.97%) 287.12GB'. Below this is a 'Detail' section containing a table of disk information. The table has columns for Disk Type, Logical Drive, RAID Level, Drive Size(GB), Available Size(GB), Data Type, Online, Enable/Disable, and Status. Three rows are visible: RAID C (3.52 GB, 0 GB available, OS,APP, YES, Enable, Normal), USB D (0.09 GB, 0 GB available, NO, YES, Enable, Normal), and RAID F (923.38 GB, 287.12 GB available, LOG,VIDEO, YES, Enable, Normal). The first three rows are highlighted with a red border. Below the table are buttons for 'Information', 'Edit', and 'Delete'. At the bottom, there is an 'Advanced Settings' section with 'Disk detection: Join NVR Server disk allocation' and a 'Setting' button. At the very bottom are buttons for 'Management Tool', 'Intel(R) Rapid Storage', and 'Close'.

Disk Type	Logical Drive	RAID Level	Drive Size(GB)	Available Size(GB)	Data Type	Online	Enable/Disable	Status
RAID	C	1	3.52	0	OS,APP	YES	Enable	Normal
USB	D	--	0.09	0	NO	YES	Enable	Normal
RAID	F	5	923.38	287.12	LOG,VIDEO	YES	Enable	Normal

# Steps 5-4-4 Check VMS setup setting

- Check time zone is correct.



# Steps 5-4-4 Check VMS setup setting

- Check Pre/Post alarm recording time is set as you expected.

The screenshot displays the VMS software interface. On the left, a tree view shows the system structure: SMRServer, Server, Camera List (CAM2321), Account Manager, Network Parameters, Others, Domain Server, and Account Manager. The main area is divided into 'General Tasks' and 'Other Tasks'. The 'Pre/Post Alarm Recording Settings' icon in the 'General Tasks' section is highlighted with a red box. A dialog box titled 'Pre/Post Alarm Recording Settings' is open, showing the 'Pre-Alarm Recording Time' and 'Post-Alarm Recording Time' both set to 45 minutes. The '45' values in the input fields are also highlighted with a red box. The dialog box includes an 'OK' button and a 'Cancel' button.

General Tasks

- Alarm Rule Settings
- View Log
- E-map
- Global Schedule
- Individual Schedule
- Storage
- Pre/Post Alarm Recording Settings
- Email
- SMS
- Digital I/O Settings
- General Server Settings
- Joystick

Other Tasks

- Reboot NVR
- Schedule Reboot
- Audio Input
- Auto Login
- VI Panel
- Lock Windows
- Customize Logo
- Port Mapping
- Import/Export

Pre/Post Alarm Recording Settings

Pre/Post Alarm Recording Range (5 - 45 mins.)

Pre-Alarm Recording Time: 45 Minute(s)

Post-Alarm Recording Time: 45 Minute(s)

OK Cancel

# Steps 5 Final Check

Check	Points	Status
5A	Liveview Check	Pass
5B	Playback Check	Pass
5C	Camera Check	Pass
5D	VMS setup	Pass

# FAQ

Item	Issues	Solutions
1.	Can I use two LAN port	No, SMR only support one LAN port
2.	Can I SMR8000 support dual monitor	Yes, SMR8000 support D-Sub and HDMI
3.	SMR show can't find DHCP server	Please ensure the broadband router support DHCP function.
4.	I didn't see the installation wizard	Press F4 after login.
5.	What is default IP camera IP?	192.168.88.10
6.	Do I need to setup motion recording?	No. It has been setup in default.
7.	Can I use iPhone/IE to login SMR?	Yes, please check appendix D.
8.	Other FAQ?	Check <a href="http://www.surveon.com/support/faq.asp">"http://www.surveon.com/support/faq.asp"</a>

# Troubleshooting

## 1. SMR can't find out the IP camera

- Check camera backend network LED and power LED is shown green.
- Check hardware power on/off can fix this issue or not.
- Ensure POE switch comply with IEEE 802.af.
- Scan IP camera by IP Utility.
- Check Ethernet cable are connected firmly.
- Check reset to factory default for this camera can fix this issue or not.  
(<http://www.surveon.com/support/faq.asp>)

## 2. SMR can't initialize RAID

1. Check hard disk are brand new.
2. Check hard disk is on Surveon support list. (<http://www.surveon.com/support/hardware.asp>)

# Troubleshooting

1. How to make 3x3 liveview have better quality?
  - Use IE to login IP camera with admin/admin
  - Go to Setting -> Video and Audio -> Video Streams
  - Adjust the video resolution to VGA on **Video Stream 2 Settings**
  
2. How to setup camera day/night switch?
  - Use IE to login IP camera with admin/admin
  - Go to Setting -> Video and Audio -> Image Appearance
  - Select Day/Night mode
    - Auto
    - Day
    - Night
    - Schedule

# Questions & Answer



# Appendix

# Appendix A – RAID Suggestion

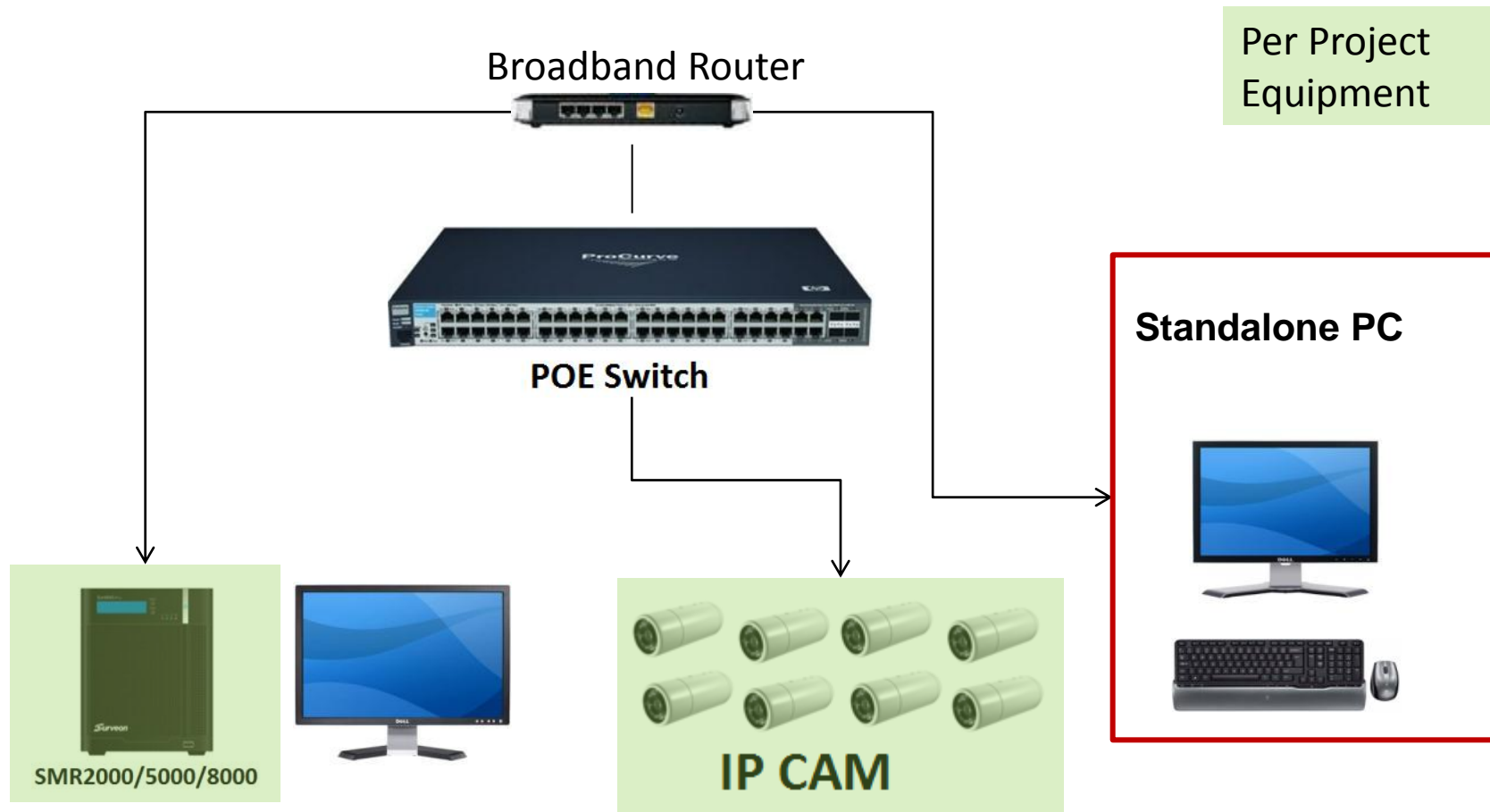
Model	No Protection	High Protection
SMR2000	Non RAID	RAID1
SMR5000	Non RAID	RAID5
SMR8000	Don't Recommend	RAID5

# Appendix B – Recommend Router and Switch

Broadband Gigabit Router	POE Switch
DIR-636L	DGS-1008P
DIR-645	DGS-1210-28P
DIR-652	DGS-1224TP
DIR-655	DGS-1500-28P
DIR-825	
DIR-826L	
DIR-835	
DIR-865L	

# Appendix C – Remote Client Environment

- Add a standalone PC to broadband router gigabit port
- The standalone PC will receive IP from broadband router



# Appendix C – Remote Client Environment

- The standalone PC should
  - Install VMS remote client.
  - Setup the same time zone with SMR.
  - Turn-off the firewall setting.
  - Install Windows XP or above 32-bits OS.
- The SMR should
  - Create new account for remote login.

# Appendix C – Remote Client Login

- Right click the VMS icon with administrator privilege



# Appendix C – Remote Client Login

- Select **Directly Access** method.
- Click **Search** button to find the SMR or input the IP address.
- Input Username and Password to login.

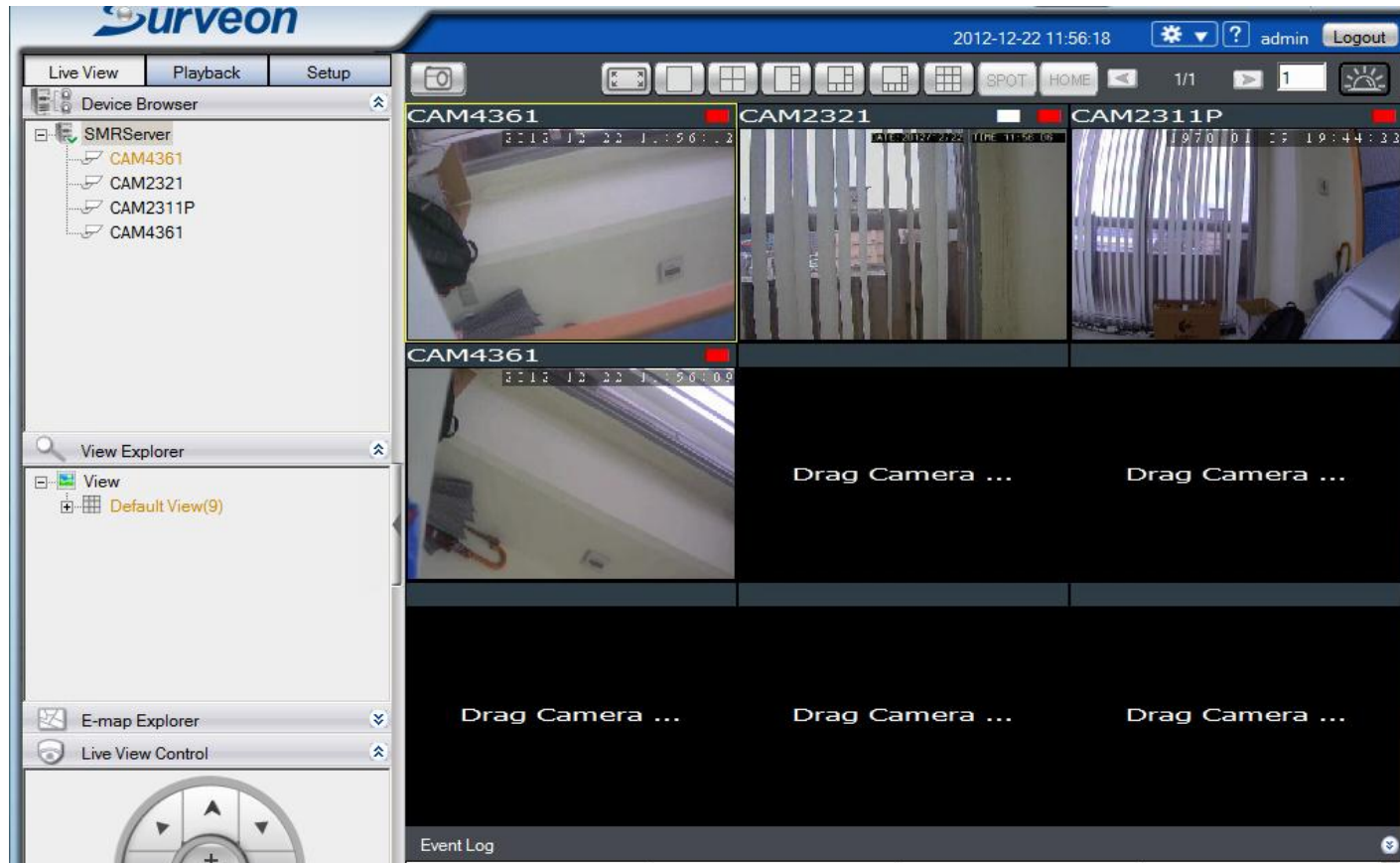


## Note:

1. The SMR local client and remote client can't be login by the same user simultaneously.
2. If the SMR local client is login right now, please use another user account to login.

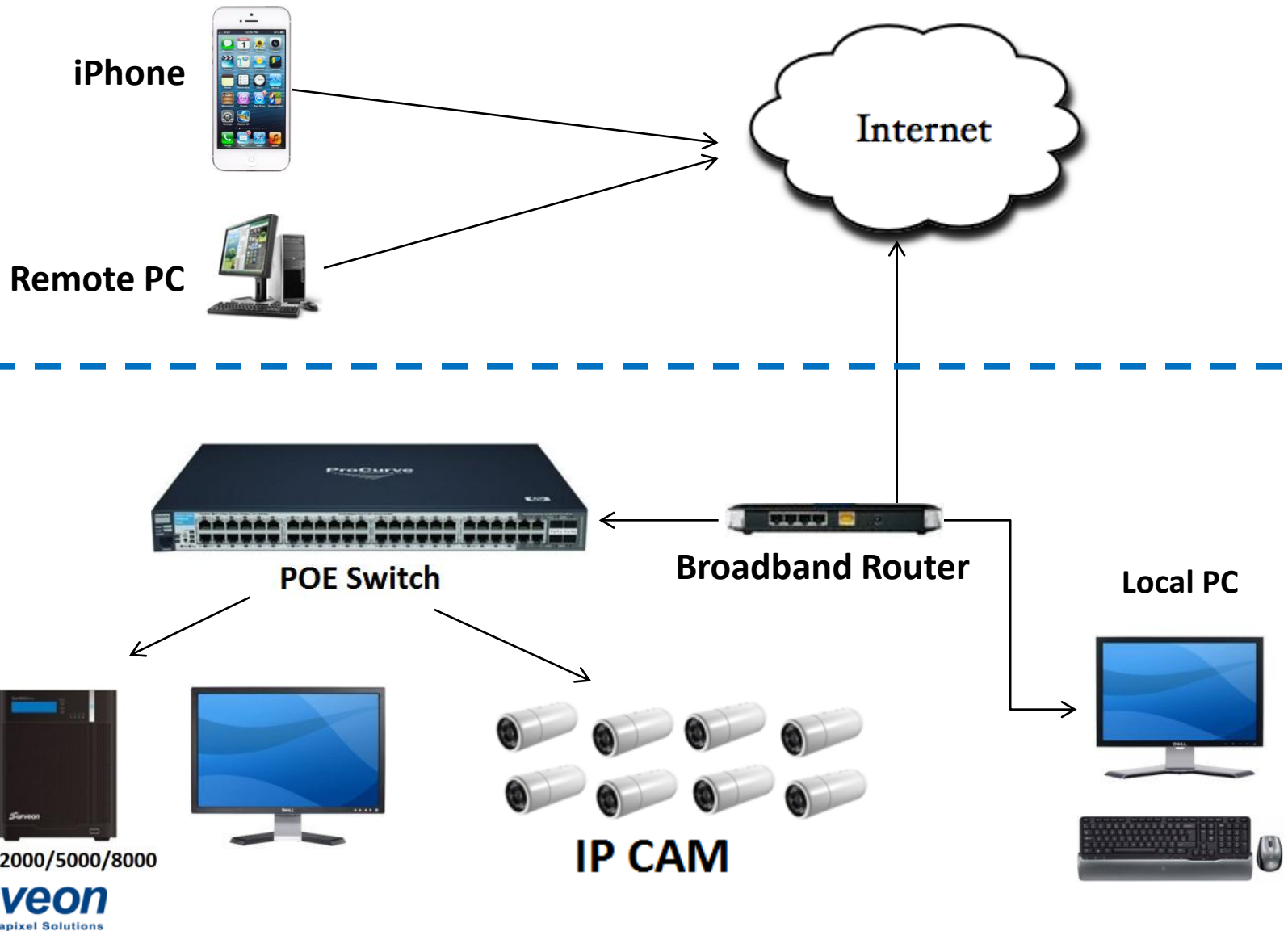
# Appendix C – Remote Client Login

- After login, you will see the same screen in the SMR.



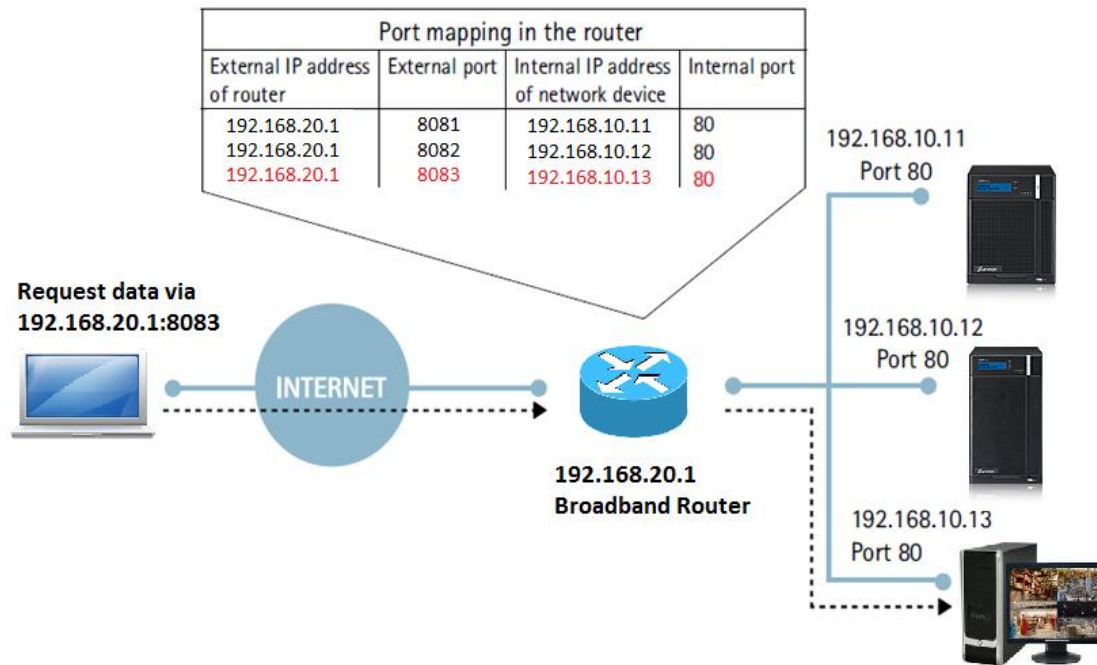


# Appendix D – Remote access over Internet



# Appendix D-1 – Concept of port forwarding

The method to allow user to setup the port mapping on the router and server to enable Internet device (Remote Internet Client of iPhone client) can access local LAN SMR



# Appendix D-2 – Setup Broadband Router

In order to enable port forwarding, user need to setup broadband router.

(Example: D-Link DIR-652 )

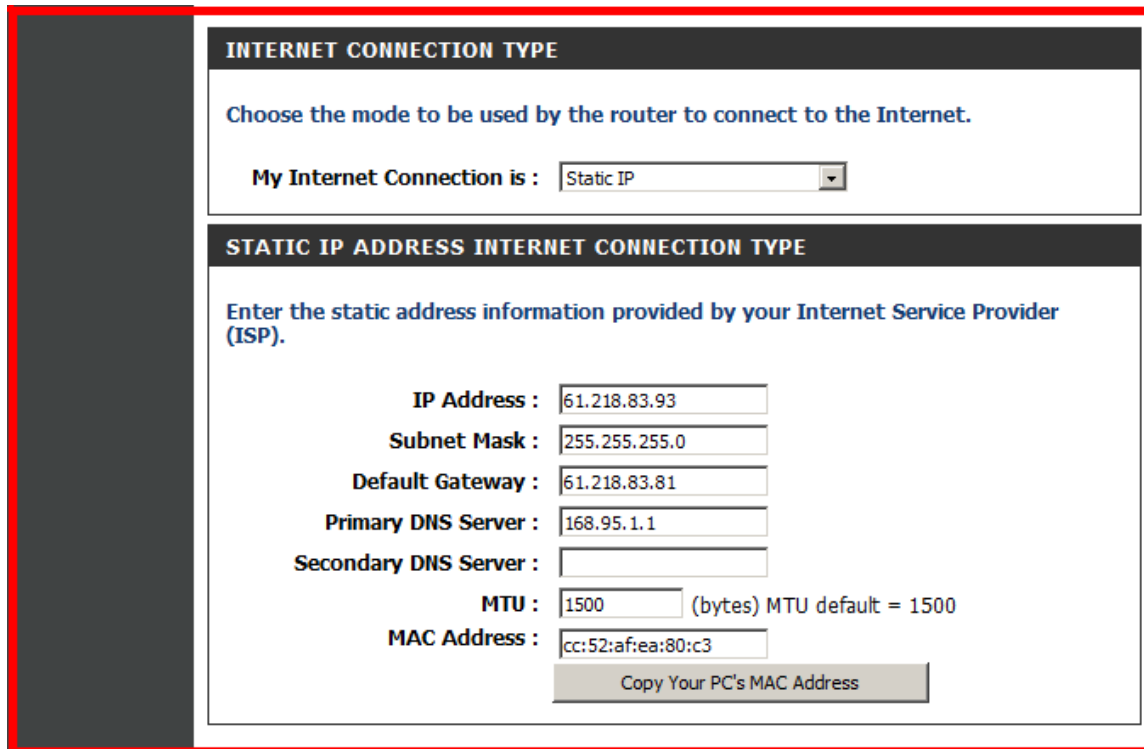
1.Use IE to connect to the Router.

2.Go to Setup > Internet > Manual Internet Connection Setup.

The screenshot displays the D-Link DIR-652 web interface. At the top, the browser address bar shows "D-LINK CORPORATION, INC | WIRELESS ROUTER | H...". The page header includes "Product Page: DIR-652", "Hardware Version: A1", and "Firmware Version: 1.00". The D-Link logo is prominently displayed. A navigation menu at the top contains "DIR-652", "SETUP", "ADVANCED", "TOOLS", "STATUS", and "SUPPORT". The "SETUP" menu is expanded, showing "INTERNET", "WIRELESS SETTINGS", and "NETWORK SETTINGS". The "INTERNET" menu is further expanded, highlighting "INTERNET CONNECTION". The main content area is titled "INTERNET CONNECTION" and contains the following text: "There are two ways to set up your Internet connection you can use the Web-based Internet Connection Setup Wizard, or you can manually configure the connection." Below this, the "INTERNET CONNECTION SETUP WIZARD" section includes a button labeled "Internet Connection Setup Wizard" and a note: "Note : Before launching these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package." The "MANUAL INTERNET CONNECTION OPTIONS" section includes a button labeled "Manual Internet Connection Setup", which is highlighted with a red box. A "Helpful Hints..." sidebar on the right provides additional guidance for new and advanced users. The footer of the page reads "WIRELESS" and "Copyright © 2004-2009 D-Link Corporation, Inc."

# Appendix D-2 – Setup Broadband Router

3. Please set up a fixed public IP. (You need to get this fix IP from your telecom vendor)



The screenshot shows a web-based configuration interface for a broadband router. It is divided into two main sections. The first section, titled "INTERNET CONNECTION TYPE", instructs the user to choose a mode for connecting to the Internet. A dropdown menu labeled "My Internet Connection is:" is set to "Static IP". The second section, titled "STATIC IP ADDRESS INTERNET CONNECTION TYPE", prompts the user to enter static address information from their ISP. It contains several input fields: "IP Address" (61.218.83.93), "Subnet Mask" (255.255.255.0), "Default Gateway" (61.218.83.81), "Primary DNS Server" (168.95.1.1), and "Secondary DNS Server" (empty). Below these is an "MTU" field set to 1500 bytes, with a note that the default is 1500. The "MAC Address" field contains "cc:52:af:ea:80:c3", and a button labeled "Copy Your PC's MAC Address" is positioned below it.

INTERNET CONNECTION TYPE	
Choose the mode to be used by the router to connect to the Internet.	
My Internet Connection is :	Static IP

STATIC IP ADDRESS INTERNET CONNECTION TYPE	
Enter the static address information provided by your Internet Service Provider (ISP).	
IP Address :	61.218.83.93
Subnet Mask :	255.255.255.0
Default Gateway :	61.218.83.81
Primary DNS Server :	168.95.1.1
Secondary DNS Server :	
MTU :	1500 (bytes) MTU default = 1500
MAC Address :	cc:52:af:ea:80:c3
<input type="button" value="Copy Your PC's MAC Address"/>	

# Appendix D-2 – Setup Broadband Router

4. After setting up a fixed IP, please save the settings.

The screenshot shows the D-Link DIR-652 web interface. At the top, it displays "Product Page: DIR-652" and "Hardware Version: A1". Below this is the D-Link logo. A navigation bar contains "DIR-652 //", "SETUP", "ADVANCED", "TOOLS", and "STATUS". The left sidebar lists "INTERNET", "WIRELESS SETTINGS", and "NETWORK SETTINGS". The main content area is titled "WAN" and contains instructions: "Use this section to configure your Internet Connection type. There are several connection types to choose from Static IP, DHCP, PPPoE, PPTP, L2TP. If you are unsure of your connection method, please contact your Internet Service Provider." A note states: "Note : If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers." At the bottom, there are two buttons: "Save Settings" (highlighted with a red box) and "Don't Save Settings".

# Appendix D-2 – Setup Broadband Router

## 5. Go to Advanced > Port Forwarding.

The screenshot shows the configuration interface for a D-Link DIR-652 wireless router. The browser address bar shows the URL `http://192.168.0.1/adv_portforward.asp`. The navigation menu at the top includes **SETUP**, **ADVANCED** (highlighted with a red box), **TOOLS**, **STATUS**, and **SUPPORT**. On the left sidebar, the **PORT FORWARDING** option is also highlighted with a red box. The main content area is titled **PORT FORWARDING** and contains a description: "This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689)." Below the description are two buttons: **Save Settings** and **Don't Save Settings**.

Below this is the **24 --- PORT FORWARDING RULES** section, which contains a table of rules. Each rule has a checkbox, a Name field, an IP Address field (set to 192.168.0.100), an Application Name dropdown, and a Ports to Open section with TCP and UDP ports and a Schedule dropdown. The rules listed are:

Rule	Name	IP Address	Application Name	TCP Port	UDP Port	Schedule
<input checked="" type="checkbox"/>	Domain Message Por	192.168.0.100	Application Name	0	9050	Always
<input checked="" type="checkbox"/>	Domain Data Port	192.168.0.100	Application Name	9060	0	Always
<input checked="" type="checkbox"/>	Login Port	192.168.0.100	Application Name	2809	0	Always
<input checked="" type="checkbox"/>	Stream Port	192.168.0.100	Application Name	9090	0	Always
<input checked="" type="checkbox"/>	Log Download Messa	192.168.0.100	Application Name	15507	0	Always
<input checked="" type="checkbox"/>	Log Download Date F	192.168.0.100	Application Name	9080	0	Always

On the right side of the page, there is a **Helpful Hints ...** section with text explaining how to use the Application Name and Computer Name dropdown menus, and a section for selecting a schedule. At the bottom of the hints, it lists port formats: Range (50-1:00), Individual (80, 68, 888), Mixed (1020-5000, 689), and a **More...** link.

# Appendix D-2 – Setup Broadband Router

6. Setup the mapping relationship between private LAN IP and Port. User should build up following record on router.

Port	Protocol	Port Number
Domain Message Port	UDP	9050
Domain Data Port	TCP	9060
Login Port	TCP	2809
Stream Port	TCP	9090
Log Download Message Port	TCP	15507
Log Download Data Port	TCP	9080
Web Server Port	TCP	81
Web Stream Server Port	TCP	8080

**24 — PORT FORWARDING RULES**

Name	Application Name	Computer Name	Ports to Open	Schedule	Inbound Filter
<input checked="" type="checkbox"/> Domain Message Port	<<	<<	TCP 0	Always	Allow All
<input checked="" type="checkbox"/> Domain Data Port	<<	<<	TCP 9060	Always	Allow All
<input checked="" type="checkbox"/> Login Port	<<	<<	TCP 2809	Always	Allow All
<input checked="" type="checkbox"/> Stream Port	<<	<<	TCP 9090	Always	Allow All
<input checked="" type="checkbox"/> Log Download Message Port	<<	<<	TCP 15507	Always	Allow All
<input checked="" type="checkbox"/> Log Download Data Port	<<	<<	TCP 9080	Always	Allow All
<input checked="" type="checkbox"/> Web server Port	<<	<<	TCP 81	Always	Allow All
<input checked="" type="checkbox"/> Web Stream Server Port	<<	<<	TCP 8080	Always	Allow All

predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.

Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools – Schedules** screen and create a new schedule.

You can enter ports in various formats:

- Range (50-1:00)
- Individual (80, 68, 888)
- Mixed (1020-5000, 689)

More...

# Appendix D-2 – Setup Broadband Router

7. Go to Advanced > ADVANCED NETWORK > Check **Enable WAN Ping Respond** radio button to enable

Product Page: DIR-652 Hardware Version: A1 Firmware Version: 1.00

**D-Link**

DIR-652 // SETUP **ADVANCED** TOOLS STATUS SUPPORT

**ADVANCED NETWORK**

If you are not familiar with these Advanced Network settings, please read the help section before attempting to modify these settings.

Save Settings Don't Save Settings

**UPNP**

Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices.

Enable UPnP :

**PPPOE PASS THROUGH**

Enable PPPoE Pass Through :

**WAN PING**

If you enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address.

Enable WAN Ping Respond :

WAN Ping Inbound Filter :

Details :

**WAN PORT SPEED**

WAN Port Speed :

**MULTICAST STREAMS**

Enable Multicast Streams :

**Helpful Hints ...**

UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications.

For added security, it is recommended that you disable the WAN Ping Respond option. Ping is often used by malicious Internet users to locate active networks or PCs.

The WAN speed is usually detected automatically. If you are having problems connecting to the WAN, try selecting the speed manually.

If you are having trouble receiving multicast streams from the Internet, make sure the Multicast Streams option is enabled.

More...



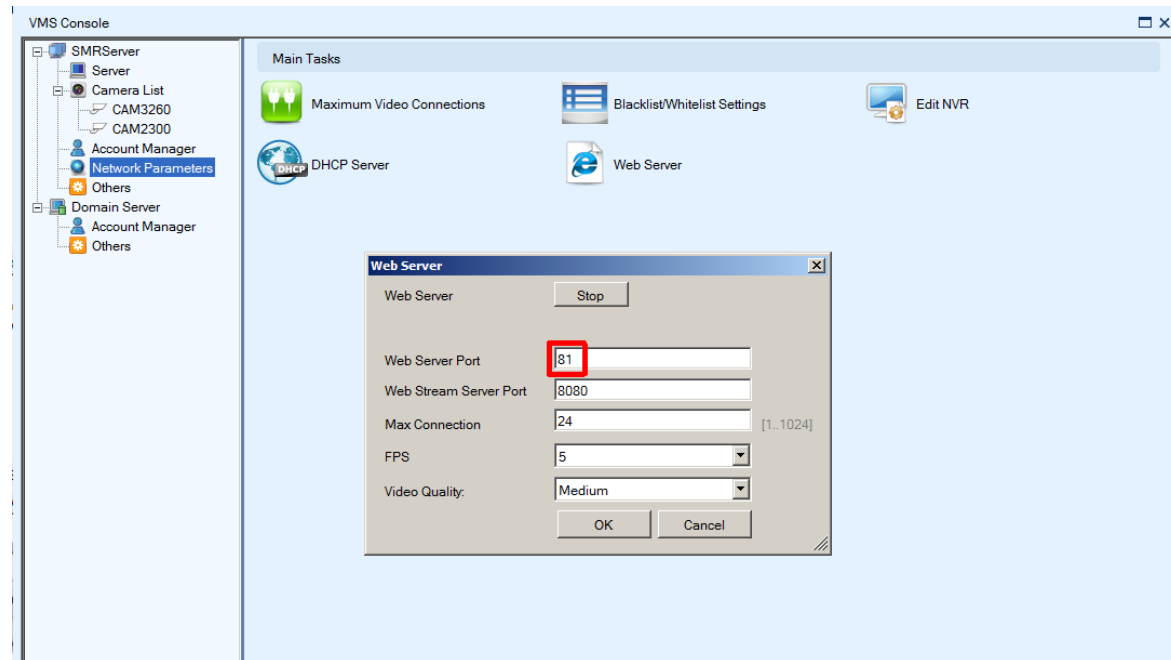
# Appendix D-3 – iPhone or Web client

First, setup local SMR.

1. Log in the SMR/PC-VMS server.

2. Go to Setup > Network Parameter > Web Server

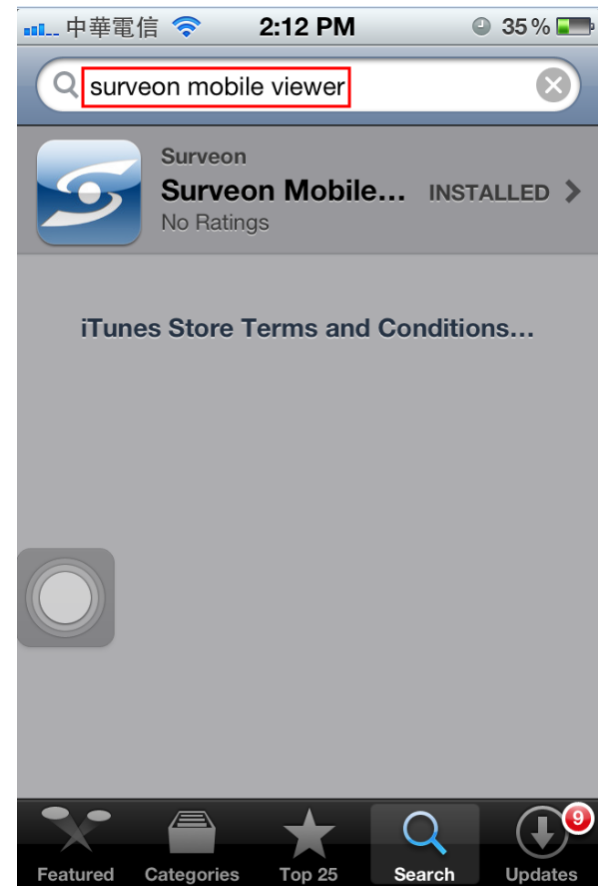
3. Setup **Web Server Port (81)** and **Web Stream Server Port(8080)**



# Appendix D-3 – iPhone or Web client

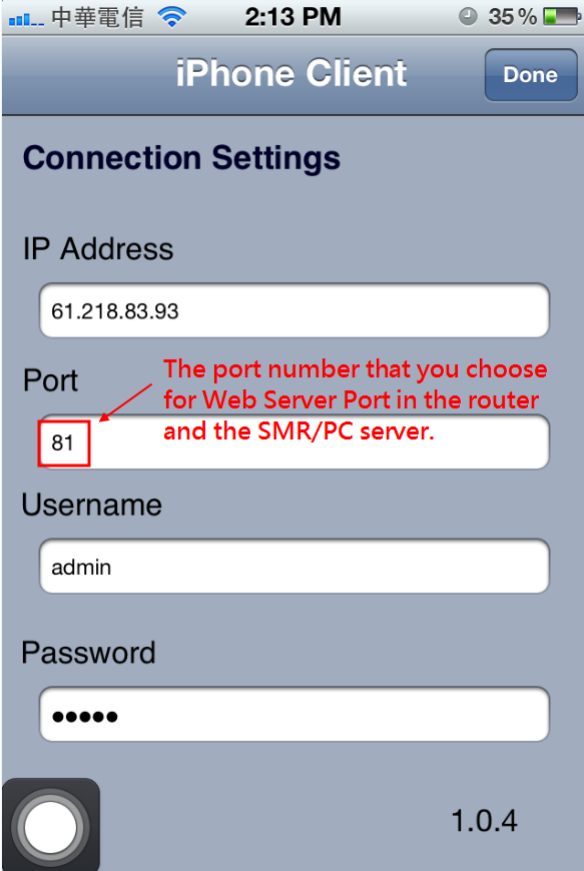
For iPhone access, please follow below steps.

- 1.Login App store
- 2.Search **surveon mobile viewer**



# Appendix D-3 – iPhone or Web client

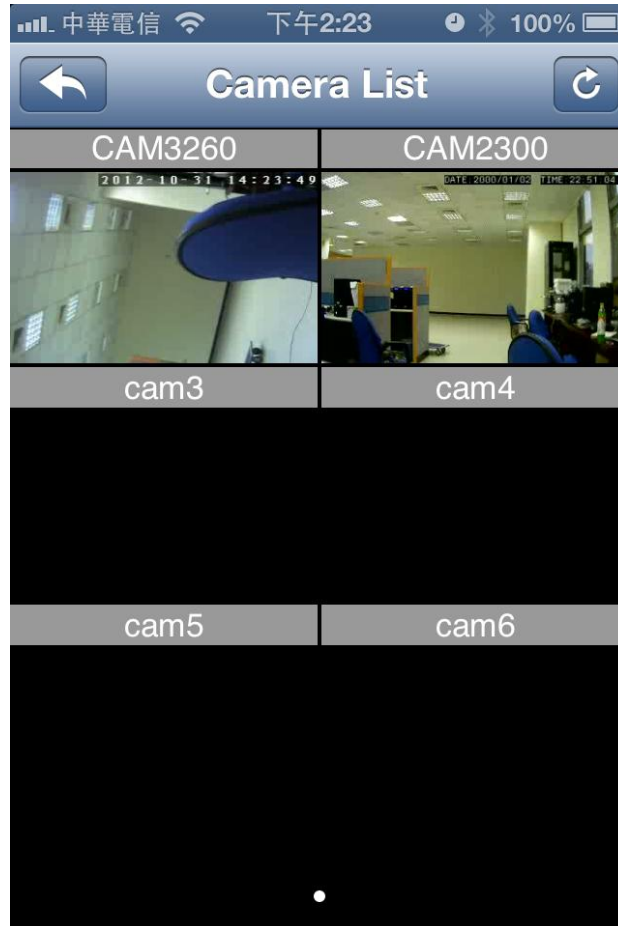
3. Execute the **Surveon Mobile Viewer**.
4. Input the **Router IP** on IP Address field.
5. Input **web server port (81)** to Port field.
6. Input username and password to login.



The screenshot shows the 'iPhone Client' app interface. At the top, the status bar displays '中華電信', signal strength, Wi-Fi, '2:13 PM', and '35%' battery. The app title 'iPhone Client' and a 'Done' button are at the top right. The main section is titled 'Connection Settings' and contains four input fields: 'IP Address' with '61.218.83.93', 'Port' with '81', 'Username' with 'admin', and 'Password' with masked characters. A red box highlights the '81' in the Port field, with a red arrow pointing to it and a red text annotation: 'The port number that you choose for Web Server Port in the router and the SMR/PC server.' The bottom of the screen shows a camera icon and the version number '1.0.4'.

# Appendix D-3 – iPhone or Web client

7. After login, you will see the SMR cameras.

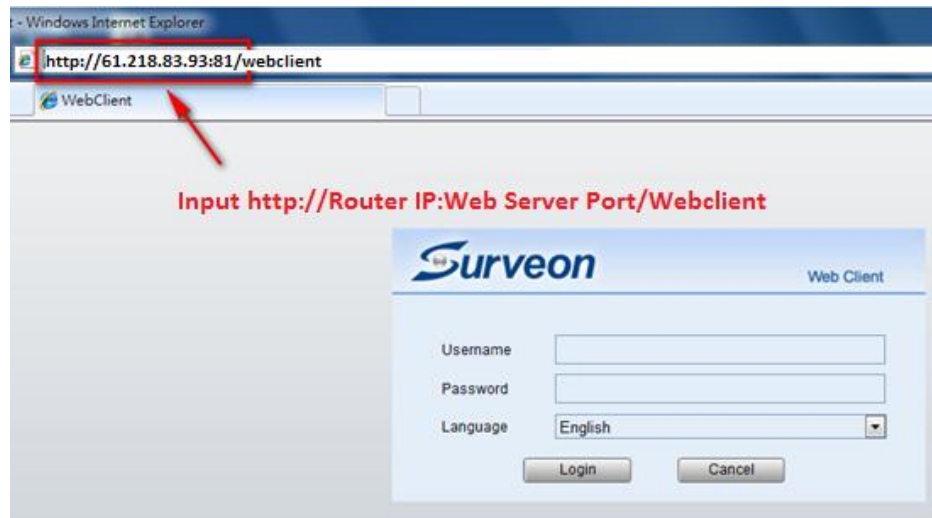


# Appendix D-3 – iPhone or Web client

For web access, please follow below steps.

1. Use IE 8 browser and input following address

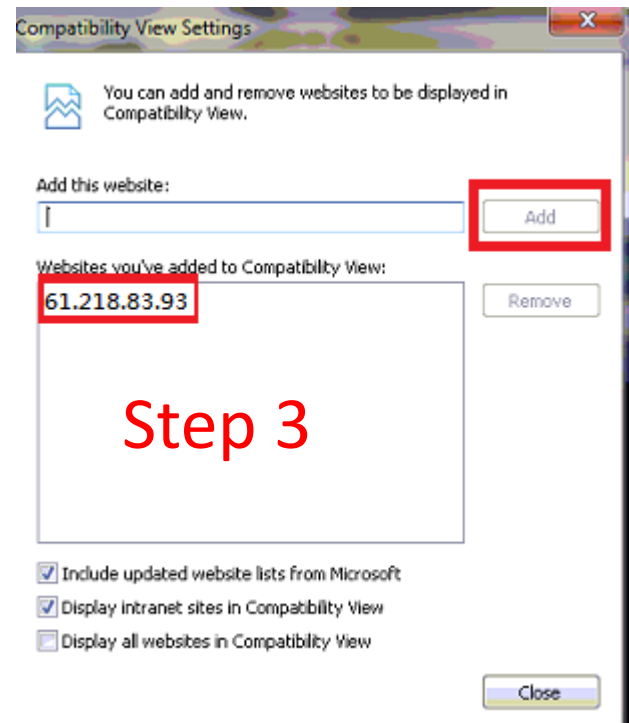
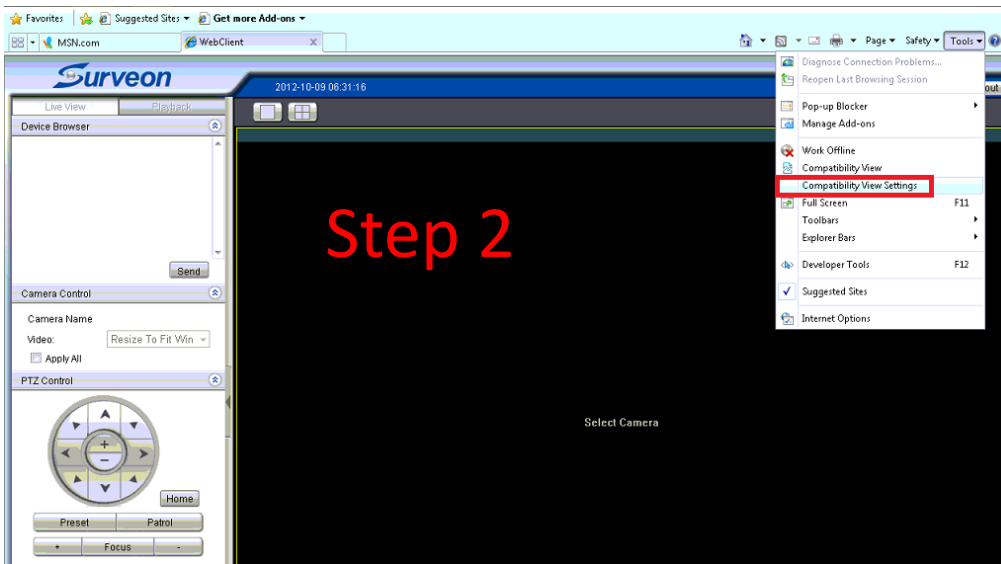
- `http://Router IP:Web Server Port/WebClient`
- Example
  - Router IP: 61.218.83.93
  - Web Server Port:81



# Appendix D-3 – iPhone or Web client

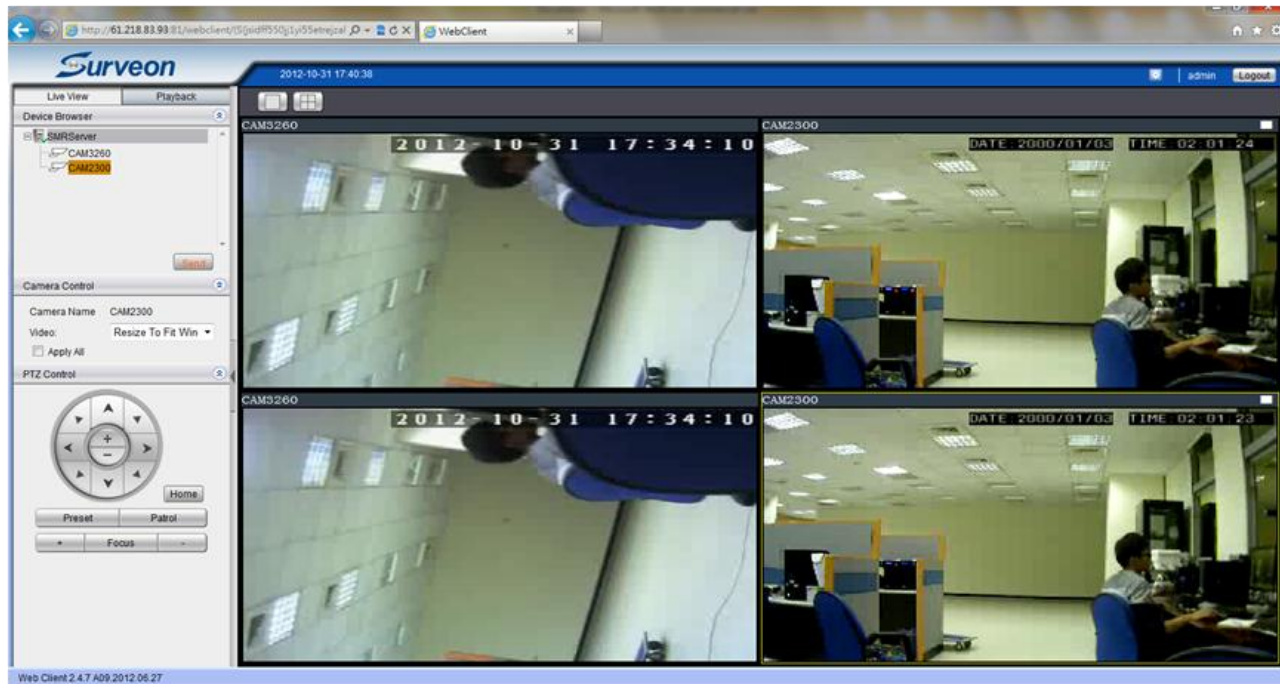
If you use IE 9, please follow below steps to enable compatibility setting.  
Otherwise, you can skip this page.

2. Go to Tools->Compatibility View Setting
3. Add the router IP address



# Appendix D-3 – iPhone or Web client

After login, you will see the camera list on the SMR and see the liveview on the web.

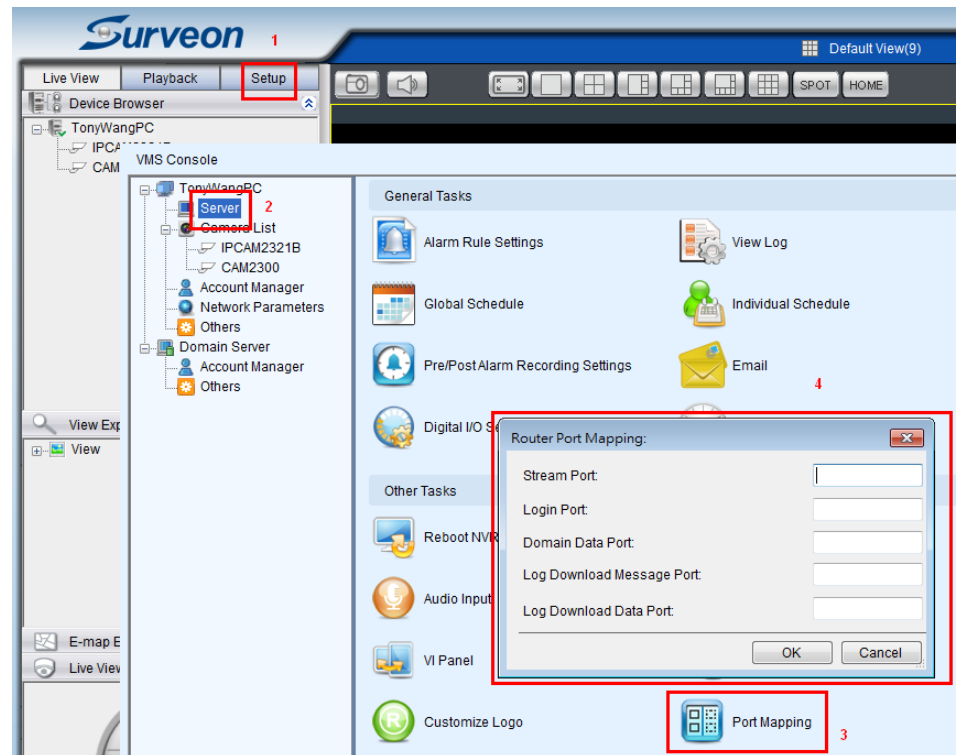


# Appendix D-4 – Internet VMS Client Setup

First, user need to setup local SMR.

1.Log in the SMR/PC-VMS server.

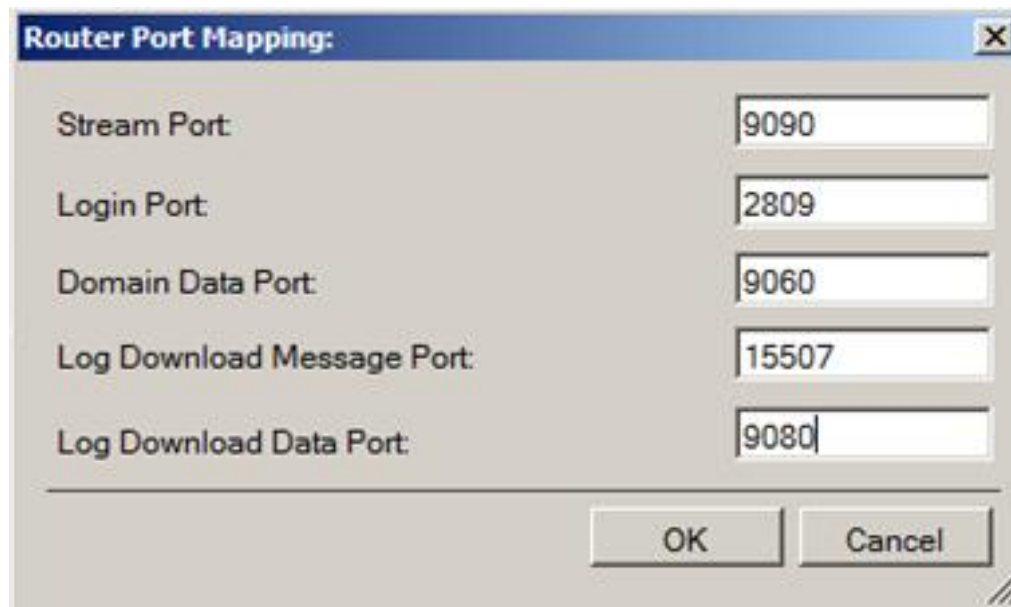
2.Go to Setup > Server > Port Mapping.





# Appendix D-4 – Internet VMS Client Setup

3. Input following port information on **Router Port Mapping** dialog and press **OK** button.



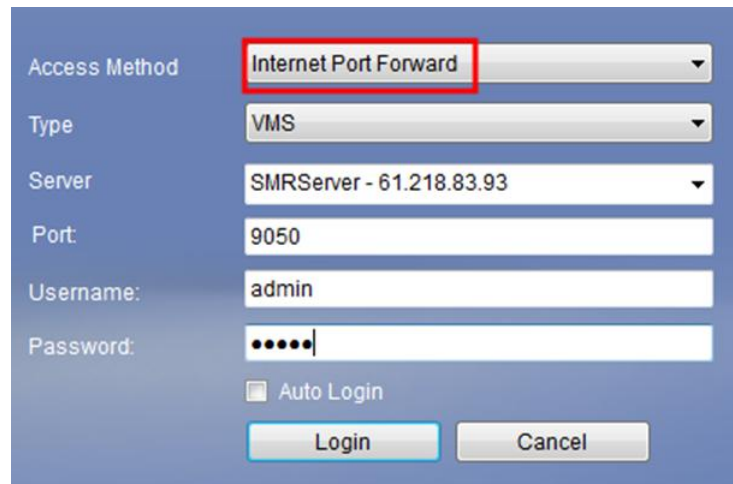
The image shows a 'Router Port Mapping' dialog box with a blue title bar and a close button (X) in the top right corner. The dialog contains five input fields for port numbers, each with a label to its left. At the bottom of the dialog are two buttons: 'OK' and 'Cancel'. The input fields contain the following values: Stream Port: 9090, Login Port: 2809, Domain Data Port: 9060, Log Download Message Port: 15507, and Log Download Data Port: 9080.

Port Name	Port Number
Stream Port	9090
Login Port	2809
Domain Data Port	9060
Log Download Message Port	15507
Log Download Data Port	9080

# Appendix D-4 – Internet VMS Client Setup

Finally, you need to setup the Internet VMS client.

1. Select **Internet Port Forward** method.
2. Input the **router IP** in the Server field.
3. Input the **9050** to the port.
4. Input login account and password.



Access Method: Internet Port Forward

Type: VMS

Server: SMRServer - 61.218.83.93

Port: 9050

Username: admin

Password: ●●●●

Auto Login

Login Cancel

# Appendix D-4 – Internet VMS Client Setup

- After login, you will see the same screen in the SMR.

