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FAQ

Q1. If you have installed the latest version of Qmon.exe but still see the download page, it means your browser environment requires you to make this following change.

Applied Models:

- All VS NVR Series

Answer:

Go to "Control Panel" > "Security" > "Local Intranet", click on "Sites" and uncheck "Include all local (intranet) sites not listed in other zones". When finished, restart your browser.

Q2. Can I still use Qstart normally with a compatible switch when setting every IP camera to use static IPs?

Applies to:

- Applies to: QVR 5.0.3 or later.

Answer:

For some switch brands (like ZyXEL) Qstart can only work while all devices are set to DHCP.

Although Switch Control can be used in Eten and EtherWAN switches for static IP cases, auto-detection and auto-configuration will not work.

Q3. Why I can't use the "Monitor" and "Playback" functions with my Chrome browser?

Applies to:

- QVR 5.0.3 or earlier.

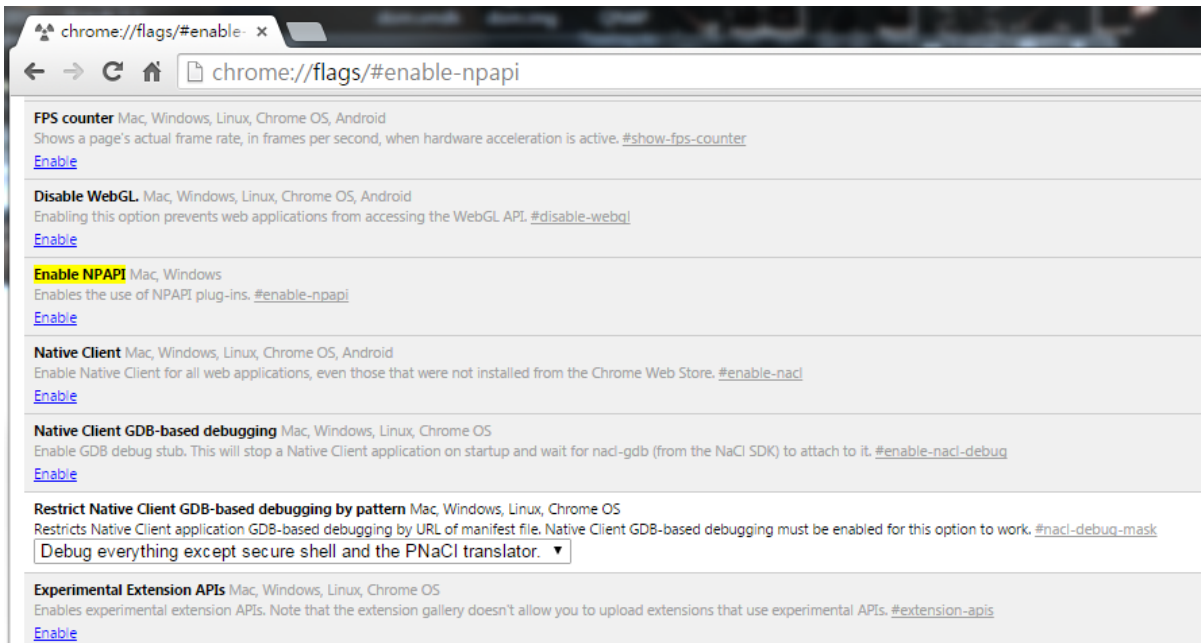
Answer:

Google Chrome no longer supports NPAPI functionality following version 42.xx. This means users must enable the NPAPI function to use the "Monitor" and "Playback" functions.

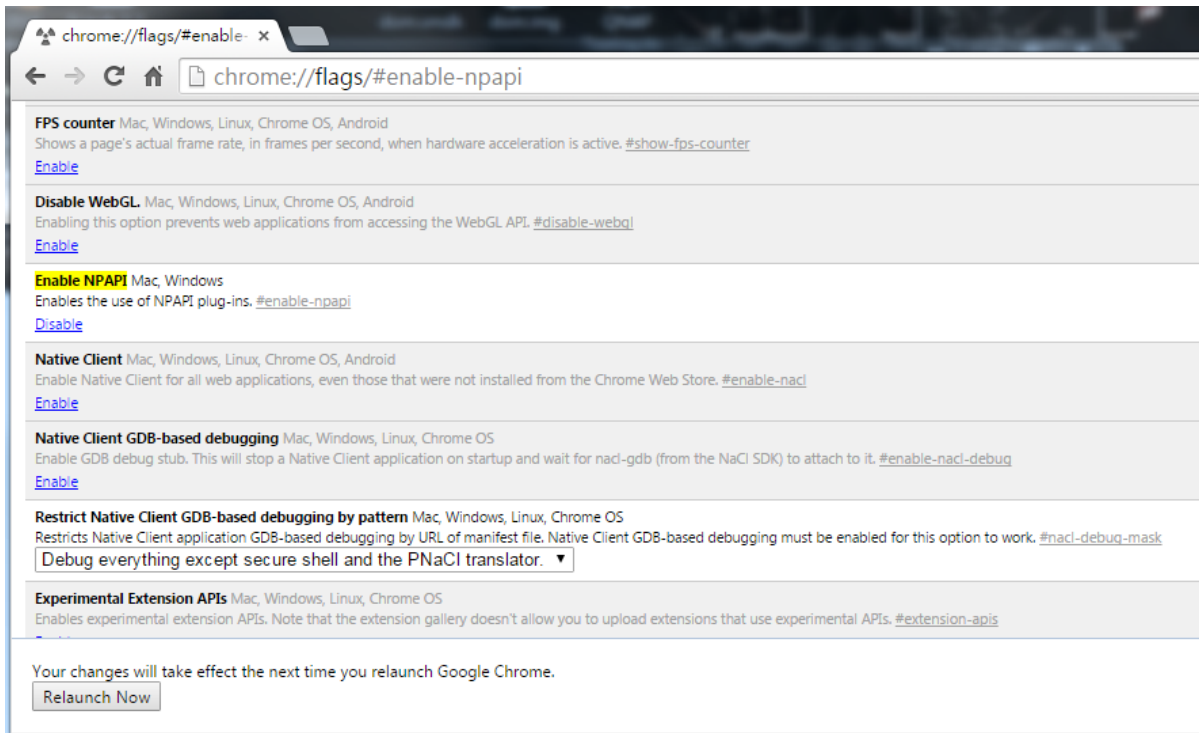
How to enable NPAPI:

1. To enable the necessary setting in your Google Chrome browser, type “chrome://flags/#enable-npapi” (without quotation marks) in the address bar.
2. Click the “enable” button.
3. Restart the browser.

Before Enabling:



After Enabling:



This issue is resolved in QVR version 5.1.0 and later.

Q4. QNAP surveillance products supports smart recording feature. Which camera models are supported?

Applied Models:

- VS-12140U-RP Pro
- VS-12140U-RP Pro+
- VS-12148U-RP Pro
- VS-12148U-RP Pro+
- VS-12156U-RP Pro
- VS-12156U-RP Pro+
- VS-12164U-RP Pro
- VS-12164U-RP Pro+
- VS-2004 Pro
- VS-2004L
- VS-2008 Pro
- VS-2008L
- VS-2012 Pro
- VS-2104 Pro+
- VS-2104L
- VS-2108 Pro+
- VS-2108L
- VS-2112 Pro+
- VS-4008 Pro
- VS-4008U-RP Pro

- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-4108 Pro+
- VS-4108U-RP Pro+
- VS-4112 Pro+
- VS-4112U-RP Pro+
- VS-4116 Pro+
- VS-4116U-RP Pro+
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-6112 Pro+
- VS-6116 Pro+
- VS-6120 Pro+
- VS-8124 Pro+
- VS-8124U-RP Pro
- VS-8124U-RP Pro+
- VS-8132 Pro+
- VS-8132U-RP Pro
- VS-8132U-RP Pro+
- VS-8140 Pro+
- VS-8140U-RP Pro
- VS-8140U-RP Pro+
- VS-8148 Pro+
- VS-8148U-RP Pro
- VS-8148U-RP Pro+

Answer:

As of the publication of this document, the cameras that have been tested for Smart Recording are:

ACTi	B97, E34, E54, E84
AXIS	M1011, M1054, M1103, M1104, M1113, M1114, M3006, M3011, M3014, M3026, M3113, M3114, M3204, M5013, M5014, M5014-V, M7010, M7014, P1204, P1214, P1214-E, P1353, P1354, P1355, P1357, P3301, P3304, P3344, P3346, P3353, P3354, P3363, P3364, P3364-LV/-LVE, P3367, P3384, P5414, P5512, P5522, P5532, P5534, P5544, P7210, P7214, P7224, P8513, P8514, Q1602, Q1604, Q1755, Q1765, Q1910, Q1921, Q1922, Q6032, Q6034, Q6035, Q6042, Q6044, Q6045, Q7401, Q7411

<p>Sony</p>	<p>SNC-CX600, SNC-CX600W, SNC-EB600, SNC-EB600B, SNC-EB630, SNC-EB630B, SNC-EM600, SNC-EM601, SNC-EM602R, SNC-EM630, SNC-EM631, SNC-EM632R, SNC-VB600, SNC-VB600B, SNC-VB630, SNC-VB635, SNC-VM600, SNC-VM601, SNC-VM601B, SNC-VM630, SNC-VM631, SNC-VM632R, SNC-WR600, SNC-WR602, SNC-WR630, SNC-XM632</p>
<p>VIVOTEK</p>	<p>CC8130, FD8131, FD8131V, FD8134, FD8136, FD8137H, FD8137HV, FD8151V, FD8163, FD8164, FD8164V, FD8166, FD8355EHV, FD8363, FD8371EV, FE8173, FE8174, IP8131W, IP8132, IP8133, IP8152-F4, IP8335, IP8355EH, IP8364-C, IP8371-E, PZ81X1, SD81X1, SD8314E, SD8316E, SD8324E, SD8326E, SD8363E</p>

To see the latest list of compatible cameras, please visit our compatibility list.

Q5. Why I can't have the updated NVR/camera settings in CMS server after I adjust NVR info?

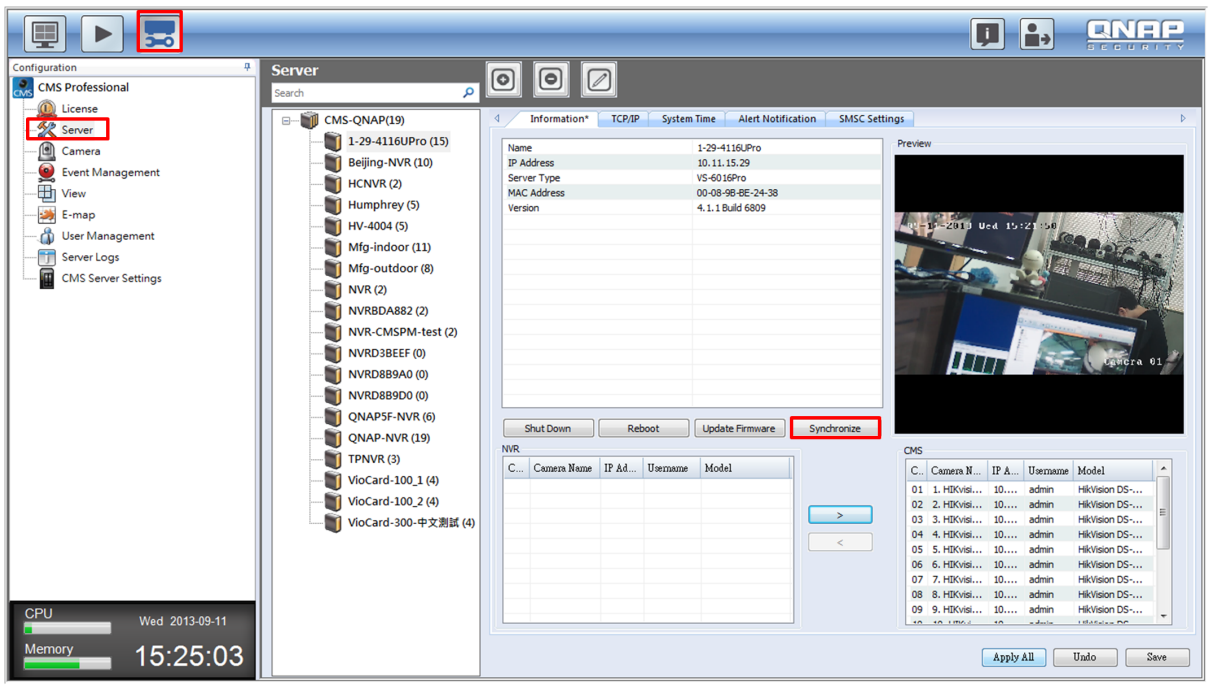
Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

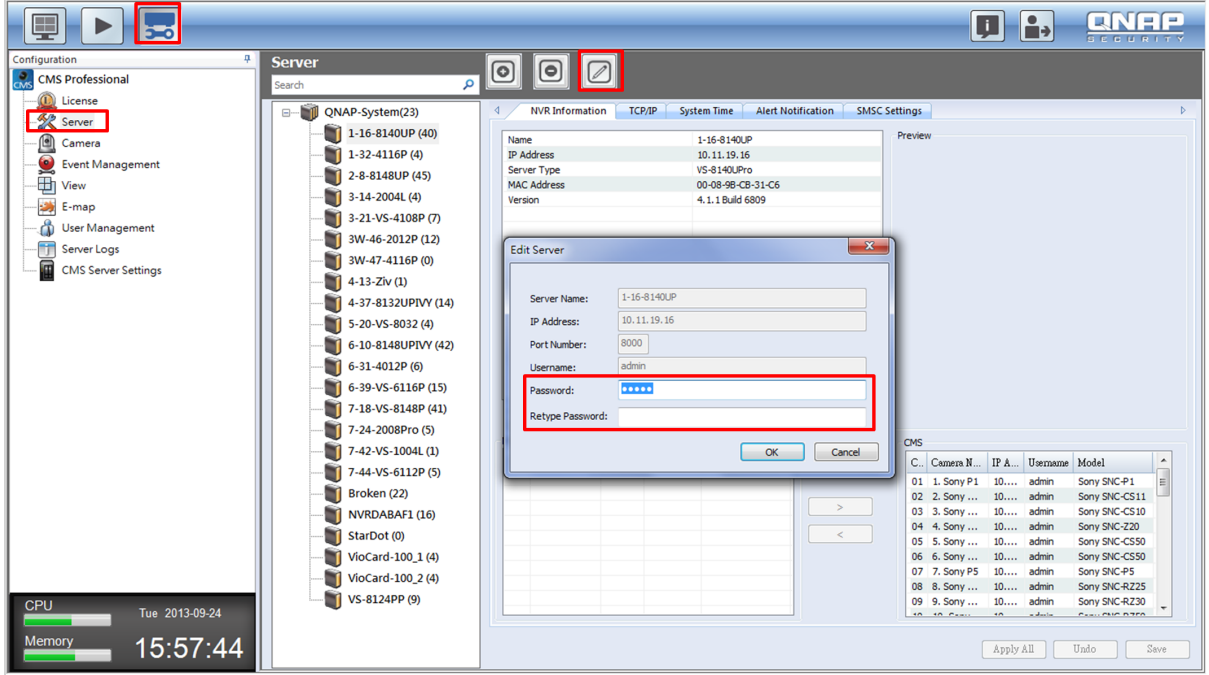
Please synchronize the information between NVR & CMS:

1. Go to "Configuration --> Server --> Synchronize,"



OR

2. Check if the NVR password is changed. If the NVR password is changed, edit the NVR login password via "Configuration --> Server --> Edit Server"



Q6. When I do the "Quick Configuration," why the hard disk initiating progress is stucking?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

Please check the hard disk condition:

1. It's suggested to use the brand new hard disk.
2. If the hard disk isn't brand new, please format the hard disk before inserting into CMS server.
3. If the hard disk isn't formatted, please insert it into the CMS server after the CMS server is completely turned on, instead of inserting the hard disk into the CMS server in the first beginning.

Q7. If by all means, the CMS server can't be connected via web browser, what should I do?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

You can use "Qnap Finder --> Configuration" to log in, and adjust the CMS server's IP address, or password, etc.

Q8. Why I can connect to the CMS server via CMS client, while fail to connect to the CMS server using a web browser?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

Please check if you have the web browser settings connected with the proxy server, which may not be able to detect the CMS server.

Q9. Why the multi-monitor doesn't function?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

Please finish configuring the multi-monitor settings before opening up the CMS client software.

Q10. Why when I finish the Quick Configuration, the UI just stop running?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

Please update your CMS client software to 1.0.1.0902 or above.

Q11. When I connect a high megapixel camera from CMS live view, why I don't seem to have high megapixel quality?

Applied Models:

- VSM-2000
- VSM-4000U-RP

Answer:

1. CMS receives and displays the streams sent from NVR. Right-click on each camera channel at CMS live view page, and choose "Quality Priority" to get the highest resolution stream. (refer the snapshot)

2. If the "quality priority" stream can't fulfill the CMS display quality requirement, go to select higher resolution recording stream at the NVR side (refer the snapshot).

3. Then back to the CMS live view page, right-click on each camera channel, choose "Recording Stream," and the CMS live view will show a higher display quality (refer to the snapshot).

Q12. VioStor NVRs have been certified with ImmerVision Enables. What are VioStor NVR-compatible panomorph cameras?

Applied Models:

- VS-12140U-RP Pro
- VS-12148U-RP Pro
- VS-12156U-RP Pro
- VS-12164U-RP Pro
- VS-2004 Pro
- VS-2004L
- VS-2008 Pro
- VS-2008L
- VS-2012 Pro
- VS-2104 Pro+
- VS-2108 Pro+
- VS-2112 Pro+
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP Pro
- VS-4108 Pro+
- VS-4112 Pro+
- VS-4116 Pro+
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-6112 Pro+
- VS-6116 Pro+
- VS-6120 Pro+
- VS-8124 Pro+
- VS-8124U-RP Pro
- VS-8132 Pro+
- VS-8132U-RP Pro
- VS-8140 Pro+
- VS-8140U-RP Pro
- VS-8148 Pro+
- VS-8148U-RP Pro

Answer:

Axis 223M, P1347, Q1602, Q1604

Basler BIP2-2500c-dn

LG LW332/335

Panasonic i-Pro NP1000/ 1004, WV-SP508E (resolution: 2048*1536), SP304, NP244

Samsung SNB-7000/SND-7080/SNV-7080R

StarDot SDH130VN

Vivotek IP8151

Q13. When I go to NVR playback page to play the recording files, I found some frames are skipped. How can I playback all the frames?

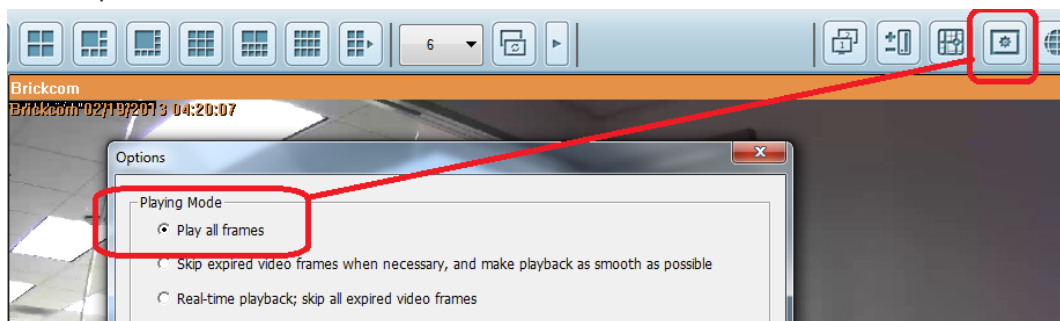
Applied Models:

- VS-12140U-RP Pro
- VS-12148U-RP Pro
- VS-12156U-RP Pro
- VS-12164U-RP Pro
- VS-2004 Pro
- VS-2004L
- VS-2008 Pro
- VS-2008L
- VS-2012 Pro
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP Pro
- VS-4108 Pro+
- VS-4112 Pro+
- VS-4116 Pro+
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-6112 Pro+
- VS-6116 Pro+
- VS-6120 Pro+
- VS-8024
- VS-8024U-RP

- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VS-8124 Pro+
- VS-8124U-RP Pro
- VS-8132 Pro+
- VS-8132U-RP Pro
- VS-8140 Pro+
- VS-8140U-RP Pro
- VS-8148 Pro+
- VS-8148U-RP Pro

Answer:

1. Please go to playback page.
2. Click "Options."



3. Change to "Play all frames."
Note: Default option is to "Skip expired video frames when necessary, and make playback as smooth as possible."
- 4.

Q14. Set up the QNAP VioStor NVR to record and monitor fisheye network cameras

Applied Models:

- VS-12140U-RP Pro+
- VS-12148U-RP Pro+
- VS-12156U-RP Pro+
- VS-12164U-RP Pro+
- VS-12140U-RP Pro
- VS-12148U-RP Pro
- VS-12156U-RP Pro
- VS-12164U-RP Pro
- VS-2004 Pro
- VS-2008 Pro
- VS-2012 Pro
- VS-4008 Pro

- VS-4008U-RP Pro
- VS-4108U-RP Pro+
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4112U-RP Pro+
- VS-4016 Pro
- VS-4016U-RP Pro
- VS-4116U-RP Pro+
- VS-4108 Pro+
- VS-4112 Pro+
- VS-4116 Pro+
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-6112 Pro+
- VS-6116 Pro+
- VS-6120 Pro+
- VS-8124 Pro+
- VS-8124U-RP Pro
- VS-8124U-RP Pro+
- VS-8132 Pro+
- VS-8132U-RP Pro
- VS-8132U-RP Pro+
- VS-8140 Pro+
- VS-8140U-RP Pro
- VS-8140U-RP Pro+
- VS-8148 Pro+
- VS-8148U-RP Pro
- VS-8148U-RP Pro+

Applied firmware:

- QVR 5.0.3 or above

Answer:

QNAP's VioStor network video recorder (NVR) series is among the first Linux-embedded standalone device provider to support fisheye cameras. Users can also view a complete scene unfold without obstruction while simultaneously displaying multiple independent dewarped views using fisheye cameras.

This article will guide you to configure the VioStor NVR to record videos from fisheye cameras and to dewarp fisheye images for live monitoring.

Applicable camera models:

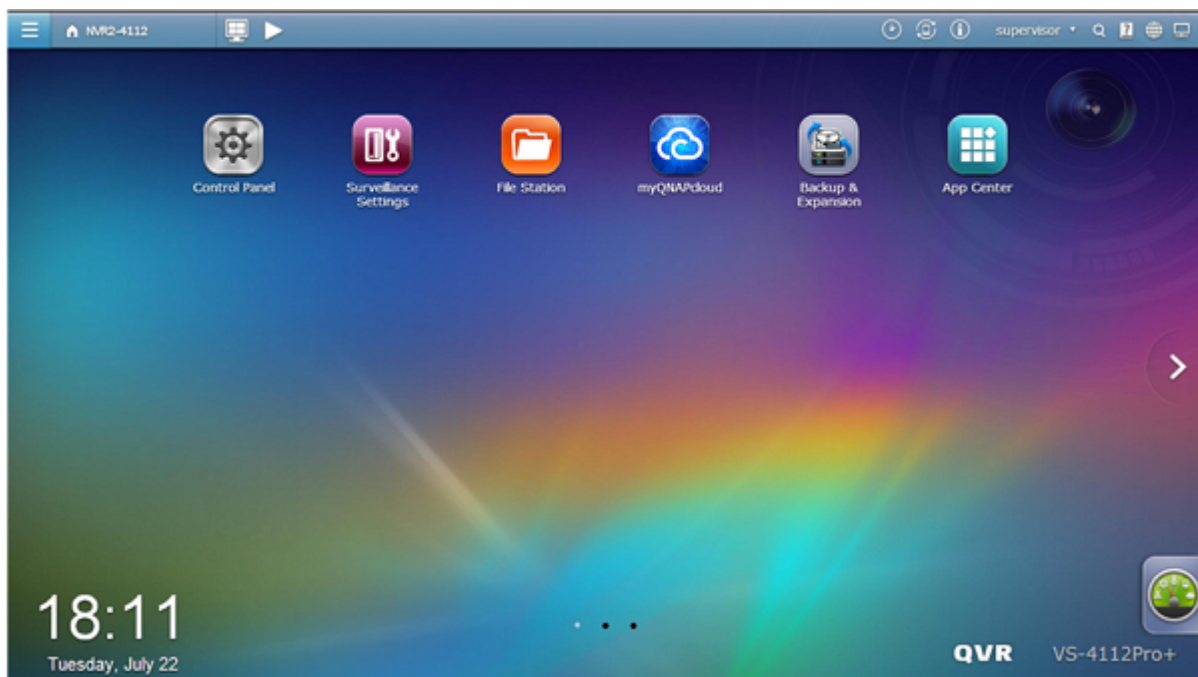
- AXIS M3007 (Please select AXIS M3007-dewarp model in our camera model list)
- Dynacolor NA083
- Oncam Grandeye EVO-05NMD
- VIVOTEK FE 8172/8172/8174 (camera firmware version should be v0100h or above)

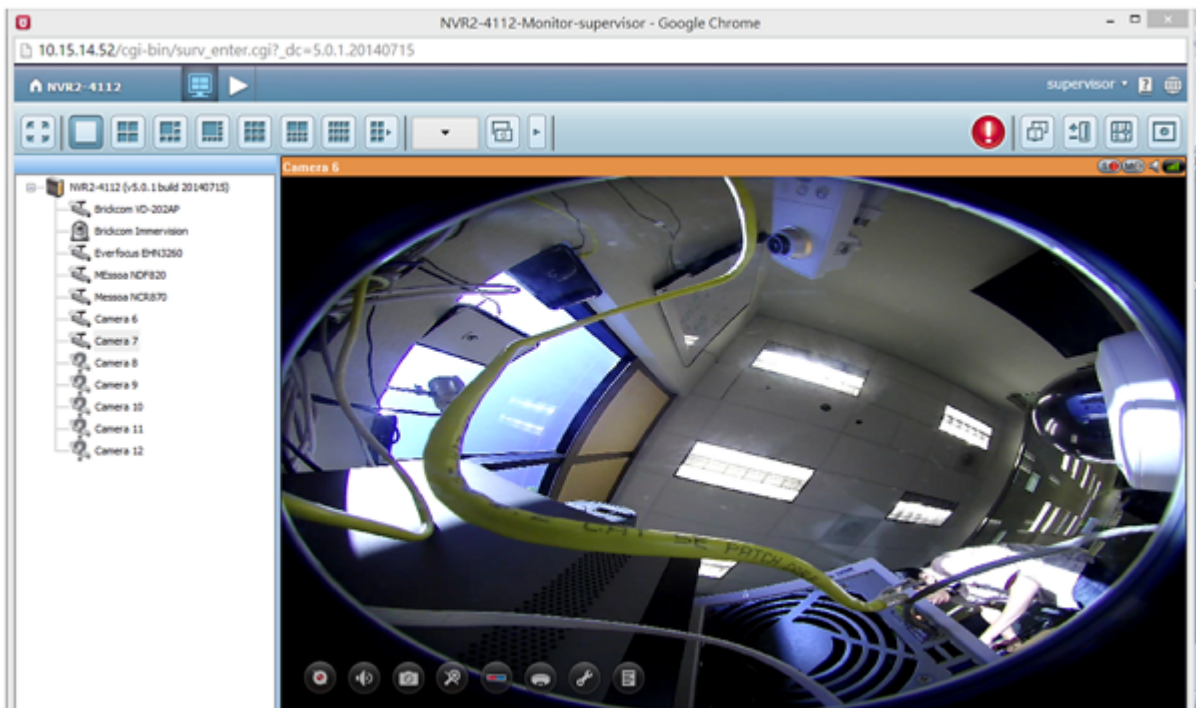
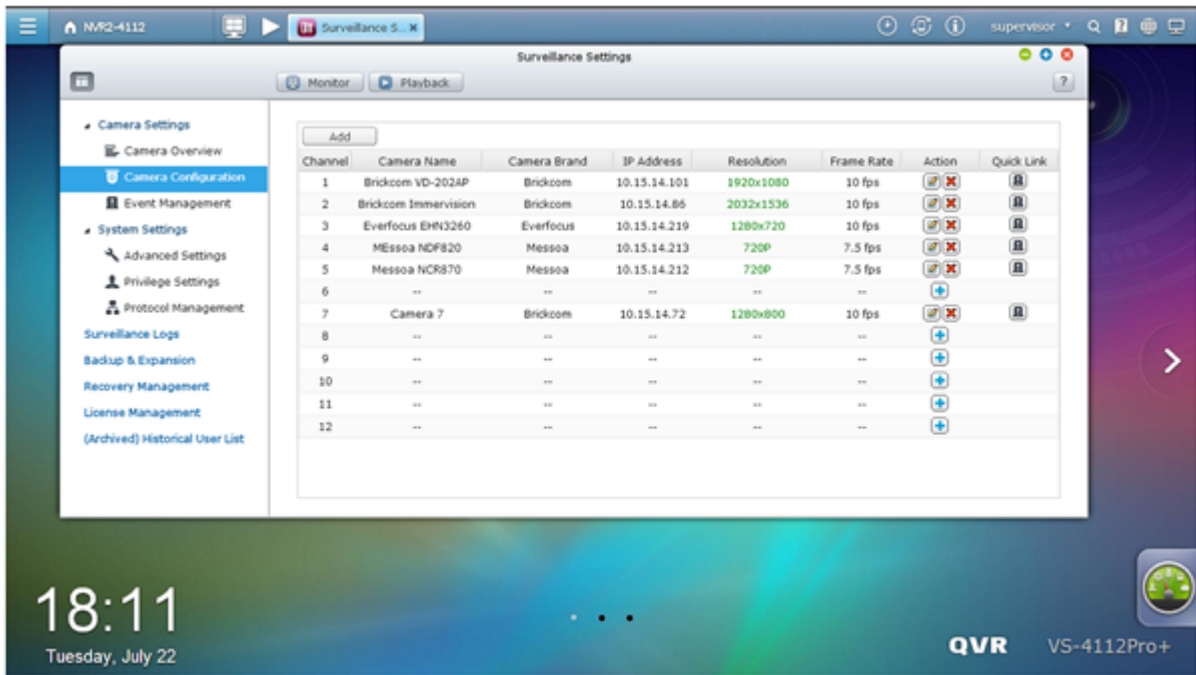
Prerequisites:




- The firmware version of the VioStor NVR must be QVR 5.0 or above. You can download the latest firmware from [here](#).
- The fisheye camera must be mounted in a proper position.

A. Set up the VioStor NVR

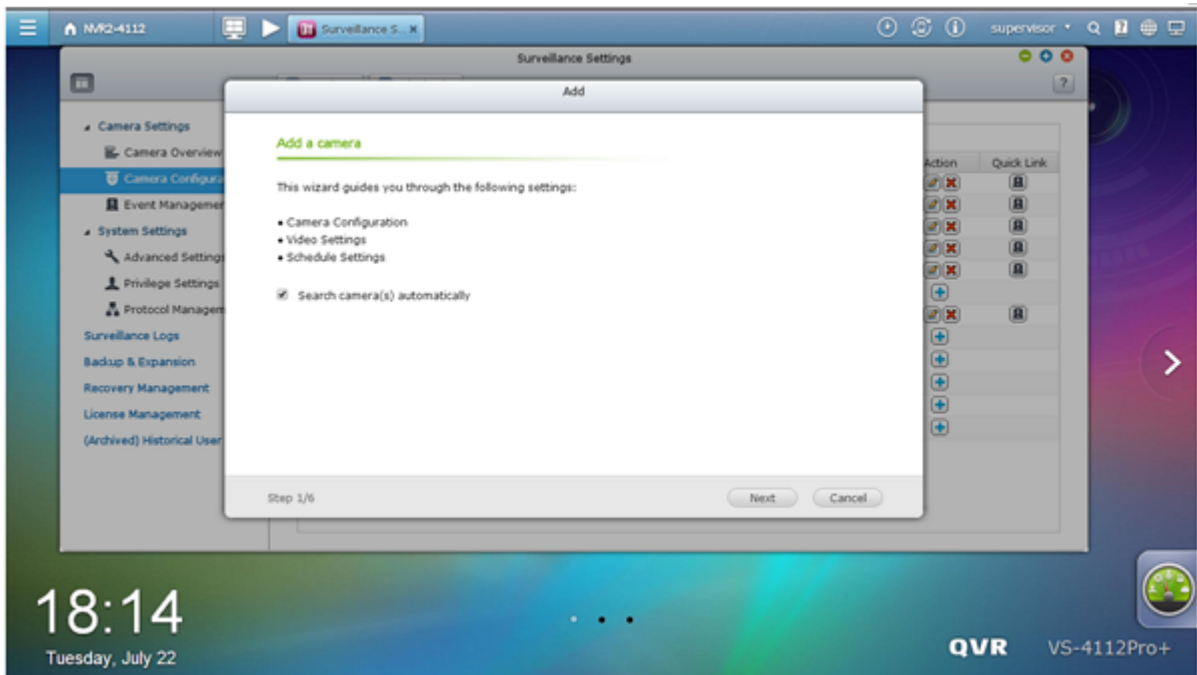
Follow the below steps to configure the VioStor NVR.



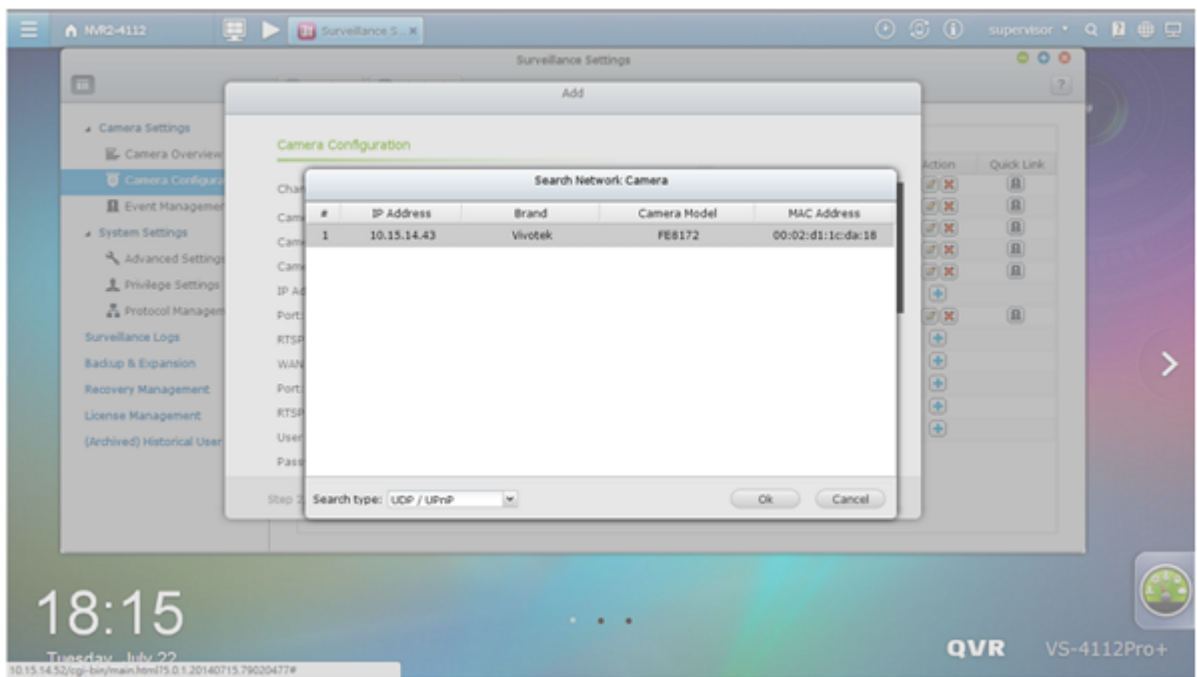


1. Run the "QNAP Finder" on a Windows PC to find the NVR. Double click the NVR name to connect to the login page via web browser.
2. Login to the NVR as "admin".
3. To enter the surveillance settings page, click .
4. Go to "Camera Settings" > "Camera Configuration". Click  or select a channel for the camera and click  to add a camera.

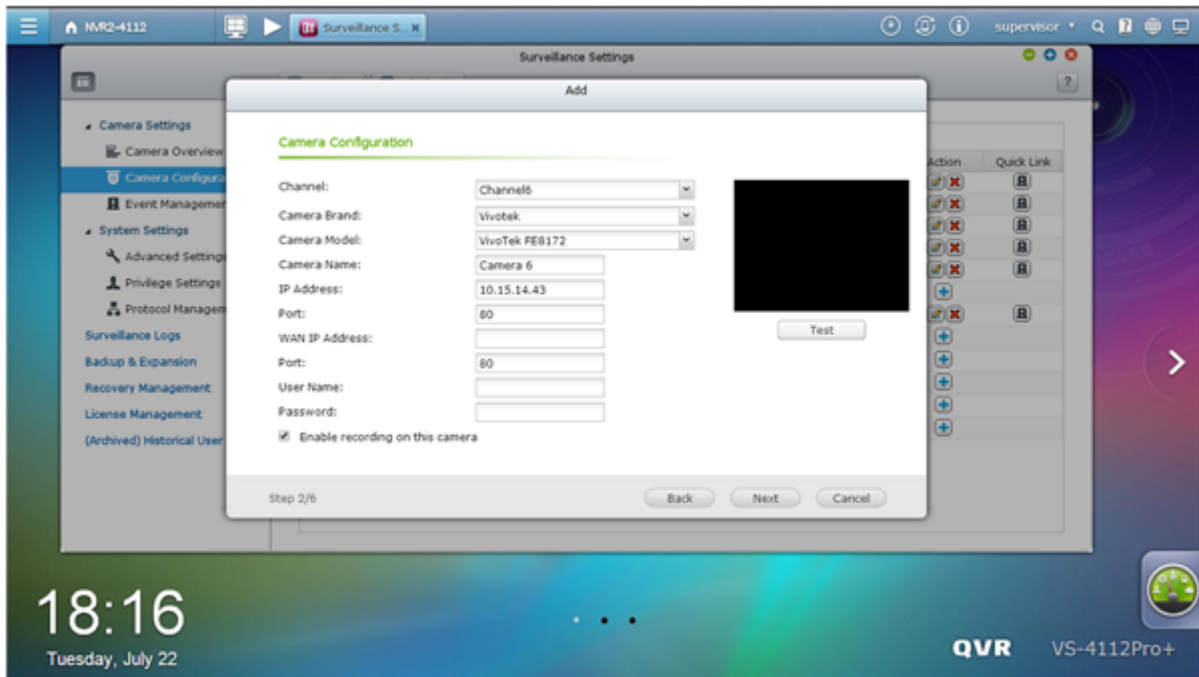
5. Click "Next" to use auto search to find the fisheye camera.



When it is found, choose the camera and click "OK".

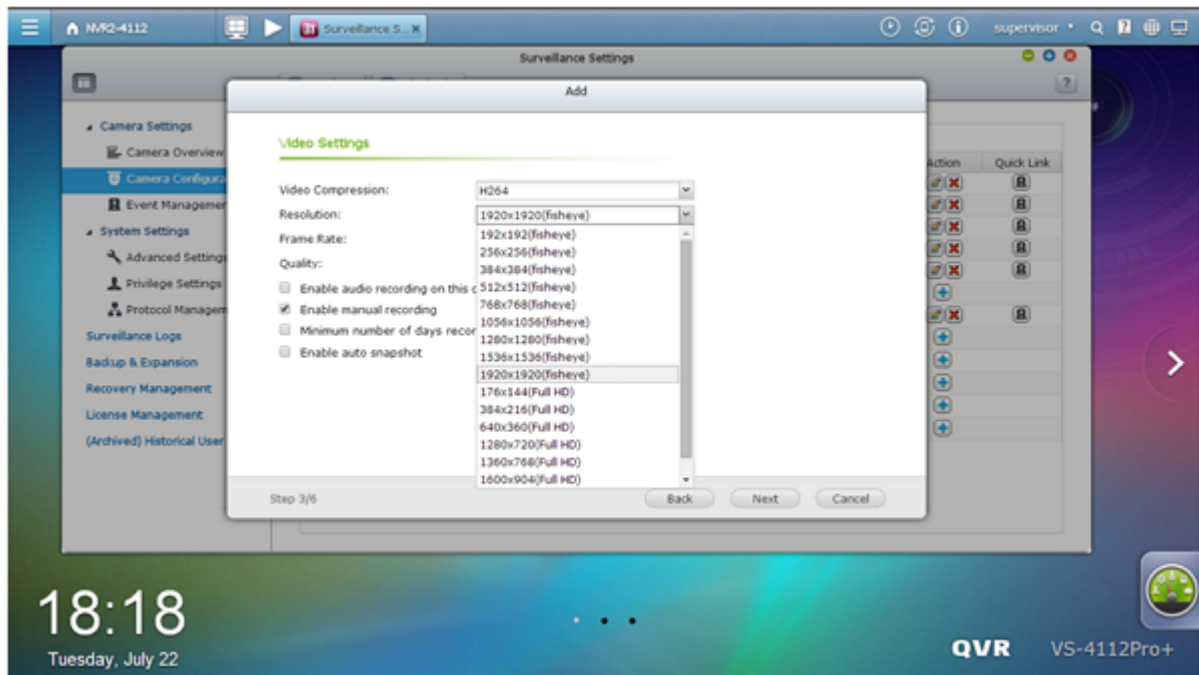


Enter the camera's IP address, username and password.



Or manually add the camera brand and model.

6. Specify the video and schedule settings.



Please note: To use the dewarping function, please select a resolution that includes (fisheye).

7. Click "Apply".
8. Now return to the live view window of the VioStor NVR. You can now view the live image of the fisheye camera.


Fisheye view without dewarping.

B. Configure the live view settings



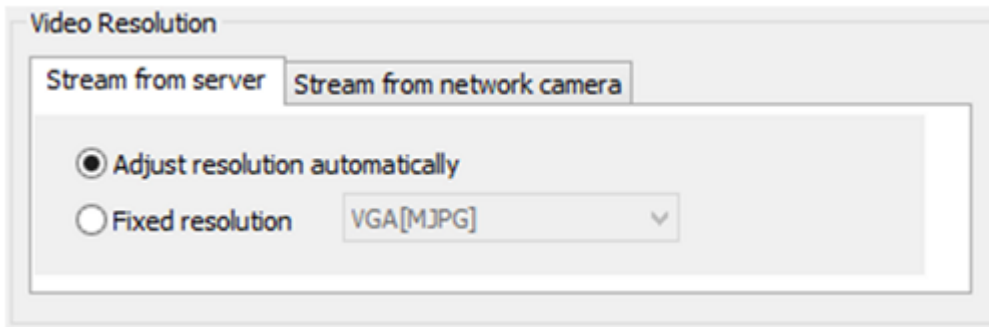
1. Move the mouse cursor over a camera channel and the supported function buttons (Interactive Control Buttons) of the camera will show up for quick access.

2. Click "Camera information" in the Interactive Control Buttons and select "Properties" from the list.

Icon	Description
	<p>Camera information:</p> <ol style="list-style-type: none"> 1. Properties: Configure other monitoring options. 2. Locate in E-map: Highlight camera icon on E-map. 3. Visit the camera homepage.


3.

Select "Fixed resolution" under "Video Resolution".

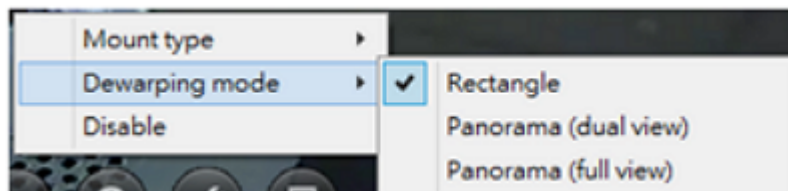
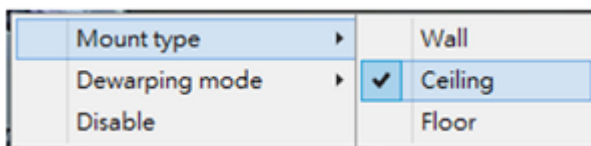


Choose the video stream you want to see in the live view.

C. Dewarp fisheye images of the fisheye camera in live view

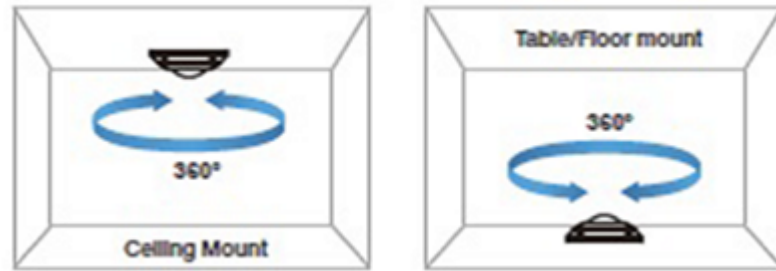
Icon	Description
	<p>Dewarp fisheye images:</p> <p>For specific fisheye cameras and camera models with panomorph lenses, you can toggle the dewarping function. After enabling this function, you can then select the mount type and dewarping mode.</p>

1. To dewarp the fisheye images of the fisheye camera, click "Dewarp fisheye images" in the Interactive Control Buttons to enable fisheye dewarping function.
2. Click "Dewarp fisheye images" in the Interactive Control Buttons to select the "Mount type" (Wall, Ceiling, or Floor) according to your setup environment and specify the "Dewarping mode".




- Example 1. Select "Ceiling" for the mount type.

- **Note:** For *Ceiling* and *Floor* Mount type, FullView will display 360 degrees of viewing angle.



- Example 2. Select “*Rectangle*” for the dewarping mode.

D. Dewarp fisheye images of the fisheye camera in playback

1. Click  to enter the playback page.
2. To dewarp the fisheye images of the fisheye camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable fisheye dewarping function.
3. Click “Dewarp fisheye images” in the Interactive Control Buttons and select the “Mount type” (Wall, Ceiling, or Floor) according to your setup environment and specify the “Dewarping mode”.

Q15. When I use 'convert to AVI file' on playback and the snapshot function in Windows Vista or above, I cannot save the files in the specified folder. Why?

Applied Models:

- VS-2004L
- VS-2008L
- VS-2004 Pro
- VS-2008 Pro
- VS-2012 Pro
- VS-4008 Pro
- VS-4012 Pro
- VS-4016 Pro
- VS-4108 Pro+
- VS-4112 Pro+
- VS-4116 Pro+
- VS-4008U-RP Pro
- VS-4012U-RP Pro
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-6112 Pro+
- VS-6116 Pro+
- VS-6120 Pro+

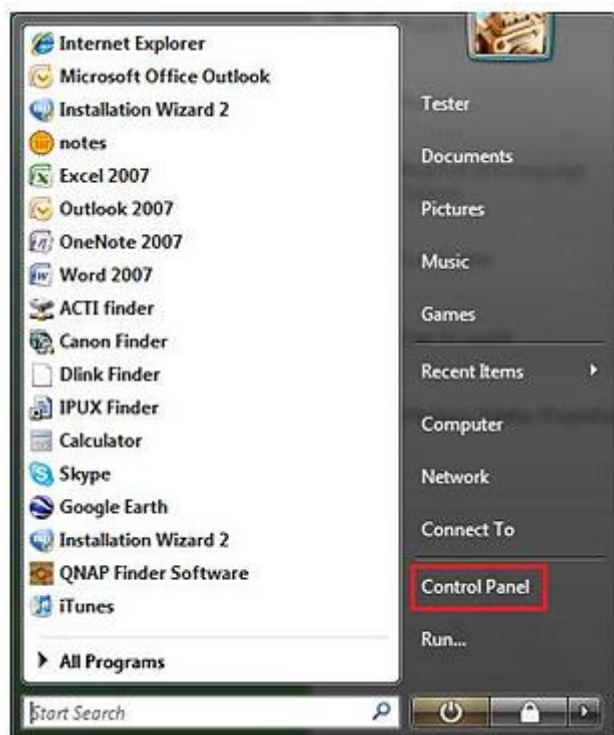
- VS-8024
- VS-8032
- VS-8040
- VS-8024U-RP
- VS-8032U-RP
- VS-8040U-RP
- VS-8124 Pro+
- VS-8132 Pro+
- VS-8140 Pro+
- VS-8148 Pro+
- VS-8124U-RP Pro
- VS-8132U-RP Pro
- VS-8140U-RP Pro
- VS-8148U-RP Pro
- VS-12140U-RP Pro
- VS-12148U-RP Pro
- VS-12156U-RP Pro
- VS-12164U-RP Pro

Answer:

User Account Control (UAC) on Windows Vista/7/8

The UAC prohibits ActiveX controls from accessing the hard drives and the files required by ActiveX are saved in the temporary folder. To resolve this problem, please follow the steps below to turn User Account Control off:

1. Go to 'Control Panel'.



2. Click 'User Accounts'.



3. Click 'Turn User Account Control on or off'.



4. Uncheck the UAC option. Click 'OK'.



Trusted Sites on Internet Explorer

If you don't want to Turn User Account Control off, please add the IP address of NVR to trusted sites on Internet Explorer.

1. Open Internet Explorer by clicking the Start button . In the search box, type Internet Explorer, and then, in the list of results, click Internet Explorer.
2. Click the Tools button, and then click Internet options.
3. Click the Security tab.



4. Now click on Trusted sites and then click on the sites button.
5. Enter the Website URL and click on Add.



6. When you are finished, click on Close.

You can now use the 'convert to AVI file' and snapshot functions.

Q16. When I choose stream from camera on monitoring UI, which cameras whose multi-stream feature are supported?

Applied Models:

- VS-2004 Pro
- VS-2004L
- VS-2008
- VS-2008 Pro
- VS-2008L
- VS-2012
- VS-2012 Pro
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP Pro
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VS-8124 Pro+
- VS-8132 Pro+
- VS-8140 Pro+
- VS-8148 Pro+

Answer:

QNAP NVR supports streaming from network camera for the following camera models whose multi-stream feature are supported. You can configure multiple resolution settings for those cameras.

1. Arecont Vision
The supported resolution settings are full size and half size. It will show full size image on monitoring page only when digital zoom is enabled.
2. Axis (all excluding 212)
 - Q7401, Q7404, Q6032: One resolution option only
 - 223M: 320x240, 640x480, 1280x960, 1600x1200
 - M7001, P5532: CIF, 4CIF
 - 207M, 211M, 216M, AMTK_AM9060, AMTK_9730: 320x240, 640x480, 1280x1024
 - Q1755, P1346: 320x240, 640x480, 1920x1080
 - P3304, M1104, P1344, M1114, M3204: 320x240, 640x480, 1280x800
 - Others (default): 320x240, 640x480
3. Canon
 - VB-M40: The same as recording settings
 - Others (default): 320x240, 640x480
4. IQinVision (all excluding IQ732N)
320x240, 640x480, maximum resolution supported by the cameras
5. Panasonic BB/BL
 - BB-HCM515: 320x240, 640x480, 1280x1024
 - Others: 320x240, 640x480
6. If the recording format is MPEG4 and 1280x1024, the resolution on monitoring page is always 320x240.
7. Panasonic i-Pro
 - NP1000, NP502, SP304: 320x240, 640x480, 1280x1024
 - Others: 320x240, 640x480
8. Sanyo HD series cameras
The resolution settings available vary depending on the resolutions supported by the cameras
9. TOA
320x240, 720x480
10. VIVOTEK
The resolution settings available vary depending on the resolutions supported by the cameras

Q17. For streaming from camera feature of QNAP NVR, which camera brands and models are supported?

Applied Models:

- VS-2004 Pro
- VS-2004L
- VS-2008 Pro
- VS-2008L
- VS-2012 Pro
- VS-4008 Pro
- VS-4008U-RP Pro

- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP Pro
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VS-8124 Pro+
- VS-8132 Pro+
- VS-8140 Pro+
- VS-8148 Pro+

Answer:

1. QNAP NVR supports streaming from camera for the following camera brands
ACTi, Arecont Vision, Canon, Edimax, iPUX, Linksys, MOBOTIX, Panasonic BB/BL/i-Pro series, TOA, TRENDnet, Vivotek, Y-CAM
2. QNAP NVR supports streaming from camera for the following camera models
 - Axis: All excluding 212
 - Cisco: Only CIVS-IPC-2500(W), WVC-210, PVC-2300/ WVC-2300
 - D-Link: DCS-900(A), DCS-900(B1/B2), DCS-920, DCS-2121, DCS-3410
 - ELMO: All excluding PTC-401C-IP, SN2230-IPW, SN2230-IP2, TD4114-IP2
 - Etrovision: Only General, EV3130, EV6531, EV6552, EV6551A, EV6250A, EV6356A, EV3151, EV6150A, EV3151A, EV6151A, EV6153A, EV6156A
 - IQinVision: All excluding IQ732N
 - LevelOne: FCS-0010/ WCS-0010, FCS-0020/ WCS-0020, FCS-1091/ WCS-1091
 - Messo: All excluding NCB855, NDR890, NIC930
 - Sanyo: HD series
 - SONY: All excluding CH and DH series
 - Toshiba: CI-8110-D, CI8210-D, IK-WB12, IK-WB21

Q18. How to use ONVIF-compliant cameras on VioStor NVR?

Applied Models:

- VS-2004 Pro
- VS-2004L
- VS-2008
- VS-2008 Pro
- VS-2008L
- VS-2012
- VS-2012 Pro

- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-5012
- VS-5020
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VS-8124 Pro+
- VS-8132 Pro+
- VS-8140 Pro+
- VS-8148 Pro+

Answer:

For the ONVIF-compliant cameras what are not in QNAP's compatibility list, please kindly use ONVIF to enable monitoring, recording and playback of this camera at this moment. Please make sure your NVR firmware is v3.5.0 build 4321 or later.

1. Camera Settings -> Camera Configuration
2. Add camera as "ONVIF"
3. If you use Axis cameras (take Axis P1344 for example), please enable web service.

Q19. How to enable real-time digital watermarking on NVR? What's the limitation?

Applied Models:

- VS-2004 Pro
- VS-2004L
- VS-2008
- VS-2008 Pro
- VS-2008L
- VS-2012
- VS-2012 Pro
- VS-4008 Pro
- VS-4008U-RP Pro

- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-5012
- VS-5020
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VS-8124 Pro+
- VS-8132 Pro+
- VS-8140 Pro+
- VS-8148 Pro+

Answer:

To enable real-time digital watermarking, please follow these steps.

1. Camera Settings -> Recording Settings
2. Enable "Enable real-time digital watermarking"

If real-time digital watermarking has been enabled, performance of VioStor NVR will be seriously affected, depending on your configuration.

For real-time digital watermarking, QNAP NVR currently supports following brands: Axis, Panasonic and Sony.

Q20. Why the motion detection of VIVOTEK cameras on VioStor NVR fail?

Applied Models:

- NVR-104V
- VS-101V
- VS-201V
- VS-2004 Pro
- VS-2004L
- VS-2008
- VS-2008 Pro

- VS-2008L
- VS-2012
- VS-2012 Pro
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-5012
- VS-5020
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

To use motion detection function of VIVOTEK cameras on VioStor NVR, please follow the steps below.

1. Connect to the web page of Vivotek's camera.
2. Add a window for motion detection first.
Please note that first added motion detection window cannot be deleted.
3. Enable motion detection function in alarm settings page.

Q21. How to Update Your VioStor (or NVR) System?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2004 Pro
- VS-2004L
- VS-2008
- VS-2008 Pro
- VS-2008L
- VS-2012

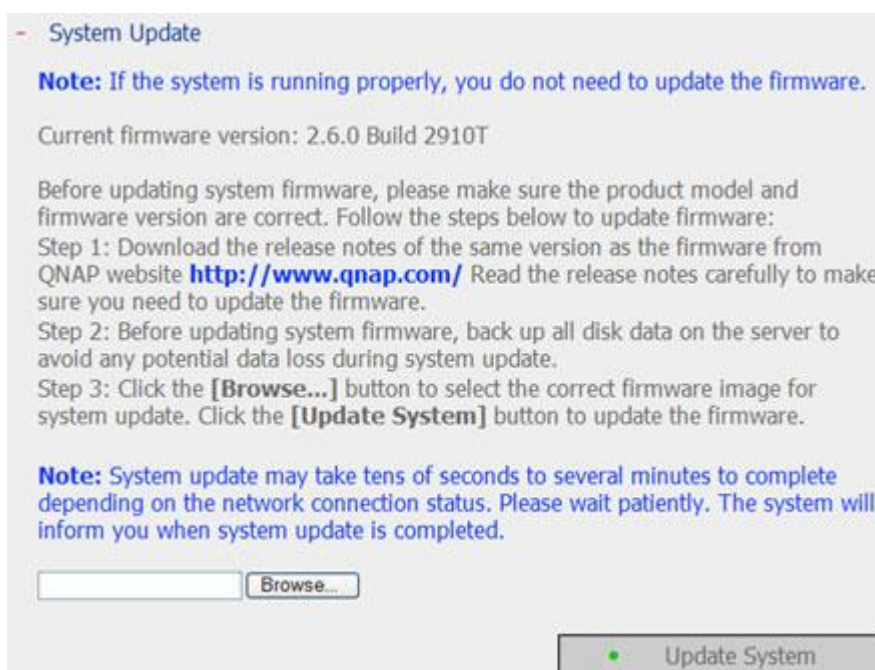
- VS-2012 Pro
- VS-201P
- VS-201V
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-5012
- VS-5020
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Before updating system firmware, please make sure the product model and firmware version are correct. Follow the steps below to update firmware:

Update by QNAP VioStor (or NVR)

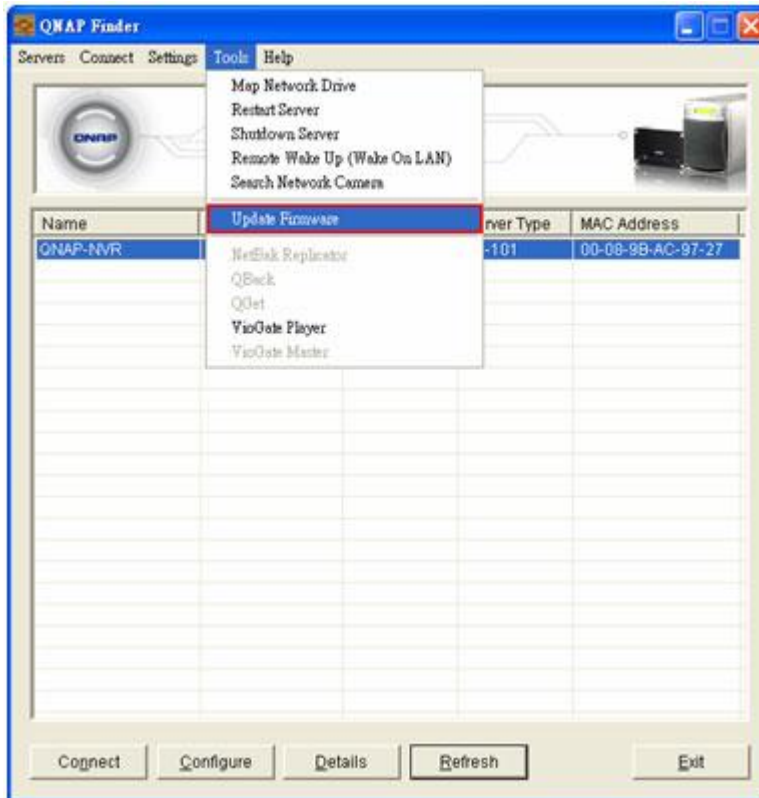
1. Download the release notes of the same version as the firmware from QNAP Security website <http://www.qnapsecurity.com/>. Read the release notes carefully to make sure you need to upgrade the firmware.
2. Before upgrading system firmware, back up all disk data on the server to avoid any potential data loss during system update.
3. Login your VioStor (NVR) system configuration page.
4. Click "**System Tools**" -> "**System Update**".
5. Click the **[Browse...]** button to select the correct firmware image for system update. Click **[Update System]** to update the firmware.



Update by QNAP Finder

1. Download the release notes of the same version as the firmware from QNAP Security website <http://www.qnapsecurity.com/>. Read the release notes carefully to make sure you need to upgrade the firmware.
2. Before upgrading system firmware, back up all disk data on the server to avoid any potential data loss during system update.

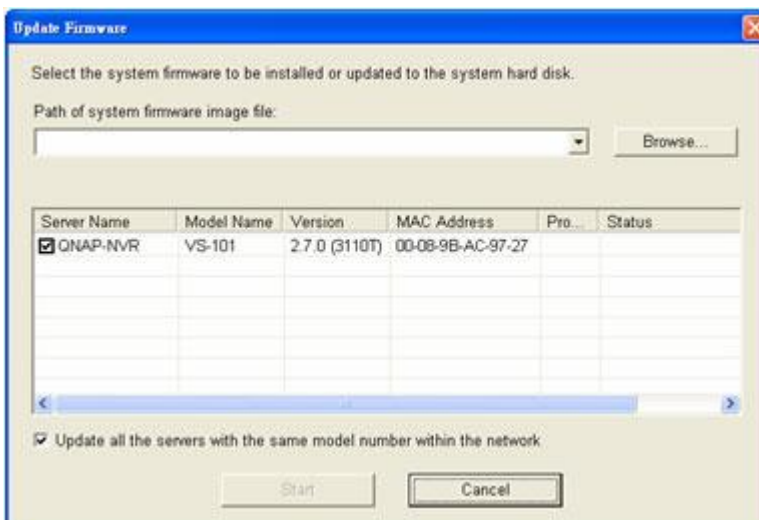
3. Click "Tools" > "Update Firmware".



4. Enter the administrator name and password.



5. You can upgrade the firmware of one to multiple servers simultaneously.



System update may take several minutes to complete depending on the network connection status. Please wait patiently. The system will inform you when system update is completed.

When performing system update, please make sure the power supply is at steady state. Failed to do so may cause the system unable to start up.

Note: If the system is running properly, you do not need to update the firmware.

QNAP is not responsible for any forms of data loss caused by improper or illegal system update.

Q22. How to use Remote Replication in VioStor NVR?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2004 Pro
- VS-2008
- VS-2008 Pro
- VS-2012
- VS-2012 Pro
- VS-201P
- VS-201V
- VS-4008 Pro
- VS-4008U-RP Pro
- VS-4012 Pro
- VS-4012U-RP Pro
- VS-4016 Pro
- VS-4016U-RP
- VS-4016U-RP Pro
- VS-4016U-SP
- VS-5012
- VS-5020
- VS-6012 Pro
- VS-6016 Pro
- VS-6020 Pro
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Remote Replication

You can use the remote replication feature to copy the recording data of the local VioStor to a remote QNAP network attached storage (NAS) in the local network. The remote QNAP NAS is hereafter referred to as "the remote storage device".

Note:

1. Remote Replication is limited to the local network.
2. Before using this function, please make sure the Microsoft networking service of the remote storage device is enabled, and the corresponding path and user access right have been correctly configured.

Login VioStor and enter "System Tools" > "Remote Replication".

The screenshot shows the "Remote Replication" configuration page. It is divided into several sections:

- Enable Remote Replication:** A checked checkbox. Below it are two options: "Back up alarm recordings only (instead of all recordings)" (unchecked) and "Back up the recordings of the latest 5 day(s) only" (checked).
- Remote Destination:** Fields for "Remote Host IP Address" (10.8.12.4), "Destination Path (Network Share/Directory)" (Public /), "User Name" (admin), and "Password" (masked with dots). A "Remote Host Testing" button shows "Test (Status: --)".
- Replication Schedule:** A checked checkbox. Options include "Daily" (00 Hour, 00 Minute), "Weekly" (Wednesday), and "Monthly" (01 Day).
- Additional Options:** Three unchecked checkboxes: "Replication Now", "Overwrite the oldest recordings when the available storage on the remote host is less than 4GB", and "Perform mirroring replication by deleting extra files on the remote destination".
- Note:** A blue text note at the bottom states: "Note: When remote replication is in process, the recording performance will be decreased".

Configure the backup data, remote backup server settings, and backup schedule of the remote storage device in sequential order.

Enable remote replication (support multiple choices)

Enable Remote Replication

Back up alarm recordings only (instead of all recordings)

Back up the recordings of the latest day(s) only

In the above example, the system only copies the alarm recording data of the latest 3 days to the remote storage device.

- Check the box "Enable remote replication" to activate this feature. The system executes automatic backup of recording data to the remote storage device according to the settings.
- When you select "Back up alarm recordings only (instead of all recordings)", the system will only copy alarm recording data to the remote storage device. If this option is unchecked, the system will backup all recording data to the remote storage device.
- When you select "Back up the recordings of the latest...day(s) only" and enter the number of days, the system will back up the latest recording data to the remote storage device automatically according to your settings. If this option is unchecked, the system will copy all recording data to the remote storage device.

Configure your remote storage server

Remote Destination

Remote Host IP Address

Destination Path (Network Share/Directory) /

User Name

Password

Remote Host Testing (Status: --)

Note: It is recommended to execute the "Remote host testing" function to verify the connection to the remote storage device is successful.

Configure the remote replication schedule

Replication Schedule

Daily Hour : Minute

Weekly

Monthly Day

For example, to enable the system to copy recording data automatically to remote storage device at 01:15 every Monday, please do the following:

Check the box "Replication Schedule", select "Weekly", enter 01 Hour: 15 minute, and select "Monday".

Backup Options



Select "Replication Now", the system backs up recording data to remote storage device immediately.



- Select "Overwrite the oldest recordings when the available storage on the remote host is less than 4GB"; the system overwrites the oldest recording data when the free space on the server is less than 4GB.
- Select "Perform mirroring replication by deleting extra files on the remote replication", the system syncs the recording data between VioStor and the remote storage device and delete any extra files on the remote destination.
- When the above options are all checked, the system executes remote replication immediately. It first judges if there are extra files on the remote location that are different from the local source. If yes, the extra files will be removed. After that, the system executes recording data backup and verifies if the free space of the internal hard disk drive is less than 4GB. If the free storage capacity is larger than 4GB, remote replication will be executed immediately. If the free storage space is less than 4GB, the system deletes the recording data of the oldest day and executes remote replication.
- The system displays the latest 10 remote replication records for you to analyze the status and troubleshooting.

Start Time	Finish Time	Replicated Data Size	Status
2007-11-08 18:00:07	2007-11-09 06:29:39	54.36 GByte(s)	Succeeded
2007-11-07 18:00:06	2007-11-08 10:18:26	74.17 GByte(s)	Succeeded
2007-11-06 18:00:02	2007-11-06 19:56:31	12.24 GByte(s)	Succeeded
2007-11-05 18:00:06	2007-11-05 20:05:06	12.53 GByte(s)	Succeeded
2007-11-04 18:00:03	2007-11-04 19:59:28	11.33 GByte(s)	Succeeded
2007-11-03 18:00:08	2007-11-03 20:01:54	11.75 GByte(s)	Succeeded
2007-11-02 18:14:09	2007-11-02 19:11:16	4.98 GByte(s)	Failed (Remote access error)
2007-11-01 18:00:04	2007-11-02 02:32:27	43.68 GByte(s)	Succeeded
2007-10-31 18:00:05	2007-11-01 03:34:13	33.01 GByte(s)	Failed (An internal error occurred)

In the above example:

1. When the status is shown as "Failed (Remote access error)": You can check the remote storage device is running or the network settings are correct.

2. When the status is shown as "Failed (An internal error occurred)": You can check the hard drive status of VioStor or check the Event Logs.

Note:

The time required by VioStor to replicate data to remote storage device varies to the network environment. If the remote replication time is too long, some recording files may be overwritten by the system. To avoid this, it is recommended to refer to the status messages to analyze the time needed for remote replication and adjust the replication schedule accordingly.

Q23. Why I cannot received Alert Notification via Email?

Applied Models:

- VS-2008
- VS-2012
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024

- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Please follow the steps for trouble shooting,

Step1. Send a test Email, and see if you can receive it or not

1. If error message pop out, please double check SMTP Server address, user name and password.
2. Check if the Server need use SSL/TLS connect, if so please click it.
3. Check the DNS Server at Network Settings. A wrong DNS server may cause failed to send the email.
4. If you have firewall server, please check if it block the application.

Step2. If there is no error message during the test mail, but you still not get the mail.

1. Check your spam mail folder to see if it is there.
2. Check your SMTP server to see the mail it be blocked.

Step3. Try other SMTP server and Email recipient.

Q24. In playback mode, why we sometimes could view the playback of one channel but not with another channel at specific time?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP

- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

The possible reasons could be:

1. If one of channel was not recording, you could not able to view that channel when playback.
2. The limited network bandwidth when the playbacks are viewed from Internet, especially the device is also in handling stream recording and file-sending for playback view.
3. The performance of client PC when decoding.

Q25. When I use AVTECH cameras and choose wrong model on camera configuration page, the test result is still ok. Why?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

It's the camera's limitation. Because AVTECH camera doesn't support model check function, NVR cannot detect camera model of AVTECH cameras.

Q26. When I use Sanyo cameras and choose wrong model on camera configuration page, the test result is still ok. Why?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

It's the camera's limitation. Because Sanyo VCC-400N camera doesn't support model check function, NVR cannot detect camera model of Sanyo VCC-400N.

Q27. When I use Messoa cameras and choose wrong model on camera configuration page, the test result is still ok. Why?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP

- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

It's the camera's limitation. Because Messo camera doesn't support model check function, NVR cannot detect camera model of Messo cameras.

Q28. When I use Internet Explorer 8 on Windows PC, I find the UI issue on monitoring and playback page. How can I solve it?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Please try to restore the Internet Explorer 8 to default.

Q29. After I enable H.264 recording of an AXIS M7001 camera on two NVR servers, when I click test button on camera configuration page, NVR will return "MJPEG Test OK but MPEG-4 Failed when trying RTSP protocol. Why?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

When multiple NVRs send connection requests, AXIS M7001 cameras will sometimes return MSB_RET_HTTP_REQUEST_FAILED.

Please try to reboot AXIS M7001 to solve the issue. Otherwise, please make sure that AXIS M7001 camera is only connected by one NVR.

Q30. When I use Etrovision cameras, why I cannot connect the cameras from WAN?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Please go to camera's page to modify the Security Level as Medium or Low.

Q31. When I use Mobotix cameras, the image size doesn't match the resolution setting on NVR. Why?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Situation: When setting resolution setting of Mobotix cameras as 2048 x 1536, 1280 x 960, 1024 x 768 and 800 x 600, the image size will become 768 x 576. When setting resolution setting of Mobotix cameras as 704 x 756, the image size will become 704 x 528. When setting resolution setting of Mobotix cameras as 352 x 288, the image size will become 352 x 264.

Solution: Please go to camera' page to set QuickControl value as "Full Image". The issue will be solved.

Q32. I cannot login the VioStor by Internet Explorer after installing Kaspersky anti-virus software. What should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P

- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Please follow the steps below to adjust the Kaspersky settings.

1. Open the application settings window of Kaspersky.
2. Click "Threats and exclusions" and click "Settings" under "Exclusions".
3. On the "Trusted applications" tab, click "Add".
4. Find and select "iexplore".

Normally you can find it under C:/Program Files/Internet Explorer

5. Check the option "Do not scan network traffic" and click "OK".
6. Click "specify any" following "remote IP addresses". Then input the NVR IP address.

Q33. When I use Mobotix cameras, I can't use motion detection recording. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P

- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VSMobile

Answer:

To use motion detection recording of MOBOTIX cameras on VioStor NVR, please set the video compression of MOBOTIX cameras as M-JPEG.

Q34. How can I play the recording files of QNAP NVR on Mac OS?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

You can go to playback page or use VioStor Player to convert multiple recording files to AVI file.

After converted, you can play the recording file of QNAP NVR on Mac OS.

Please check the video from 3:24 to 3:47.

And you can play the converted video on Mac OS.

Q35. What is the difference between stream from the network camera and server?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

- Stream from the network camera
The monitoring screens are streamed from the network cameras. When your network surveillance system (VioStor NVR), IP cameras, and PC are installed behind the router, virtual server, or firewall, you will have to configure port forwarding (port mapping) for some of the IP cameras. Please refer to

[T10.\[Guide\] Scenario 1: Local Area Network](#)

[T9.\[Guide\] Scenario 2: Access the NVR from remote PC](#)

[T8.\[Guide\] Scenario 3: Install IP camera with Public IP and access NVR from remote PC](#)

[T7.\[Guide\] Scenario 4: Configure NVR, IP cameras and the PC in different routers and access NVR from remote PC](#)

- Stream from the server
The monitoring screens are streamed from the video server. There is no need to configure port mapping. However, the VioStor NVR performance may be affected. You may have to adjust the recording settings according to the real performance.

Q36. When I connect the NVR to ACTi speed dome, CAM-6500 and CAM-6600 series, by choosing get video from server and get video from camera, both the NVR can't control the Pan, Tilt and Zoom functions. What should I do to active the PTZ function in NVR?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Currently, if you want to use PTZ function of the ACTi CAM-6500 and CAM-6600 series cameras, please check that the protocol of the camera is DynaColor, Baud Rate: 9600. Please refer to the camera's manual for detailed information.

Q37. When I enter preset point name in far east languages, it will show scrambled characters. What should I do?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P

- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

If you enter preset point name in far east language, please select UTF-8 on character encoding.

Q38. What is the recording size limitation of VioStor NVR?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

The file size limitation is 1G. If the file size is larger than 1G, the file will be cutted.

Q39. For some cameras, such as Axis, D-link, GANZ, LevelOne, or Vivotek, I have to configure the RTP ports on the router and the NVR so that the NVR can save the recording data from the IP cameras. What is the corresponding RTP port of VioStor series?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

1. 4-channel NVR
 1. Camera 1: video-6100~6103; audio: 6132~6135
 2. Camera 2: video-6104~6107; audio: 6136~6139
 3. Camera 3: video-6108~6111; audio: 6140~6143
 4. Camera 4: video-6112~6115; audio: 6144~6147
2. 8-channel NVR
 1. Camera 1: video-6100~6103; audio: 6132~6135
 2. Camera 2: video-6104~6107; audio: 6136~6139
 3. Camera 3: video-6108~6111; audio: 6140~6143
 4. Camera 4: video-6112~6115; audio: 6144~6147
 5. Camera 5: video-6116~6119; audio: 6148~6151
 6. Camera 6: video-6120~6123; audio: 6152~6155
 7. Camera 7: video-6124~6127; audio: 6156~6159
 8. Camera 8: video-6128~6131; audio: 6160~6163
3. 12-channel NVR
 1. Camera 1: video-6100~6103; audio: 6148~6151
 2. Camera 2: video-6104~6107; audio: 6152~6155
 3. Camera 3: video-6108~6111; audio: 6156~6159
 4. Camera 4: video-6112~6115; audio: 6160~6163
 5. Camera 5: video-6116~6119; audio: 6164~6167
 6. Camera 6: video-6120~6123; audio: 6168~6171
 7. Camera 7: video-6124~6127; audio: 6172~6175
 8. Camera 8: video-6128~6131; audio: 6176~6179
 9. Camera 9: video-6132~6135; audio: 6180~6183

10. Camera10: video-6136~6139; audio: 6184~6187
11. Camera11: video-6140~6143; audio: 6188~6191
12. Camera12: video-6144~6147; audio: 6192~6195
4. 16-channel NVR
 1. Camera 1: video-6100~6103; audio: 6164~6167
 2. Camera 2: video-6104~6107; audio: 6168~6171
 3. Camera 3: video-6108~6111; audio: 6172~6175
 4. Camera 4: video-6112~6115; audio: 6176~6179
 5. Camera 5: video-6116~6119; audio: 6180~6183
 6. Camera 6: video-6120~6123; audio: 6184~6187
 7. Camera 7: video-6124~6127; audio: 6188~6191
 8. Camera 8: video-6128~6131; audio: 6192~6195
 9. Camera 9: video-6132~6135; audio: 6196~6199
 10. Camera10: video-6136~6139; audio: 6200~6203
 11. Camera11: video-6140~6143; audio: 6204~6207
 12. Camera12: video-6144~6147; audio: 6208~6211
 13. Camera13: video-6148~6151; audio: 6212~6215
 14. Camera14: video-6152~6155; audio: 6216~6219
 15. Camera15: video-6156~6159; audio: 6220~6223
 16. Camera16: video-6160~6163; audio: 6224~6227
5. 20-channel NVR
 1. Camera 1: video-6100~6103; audio: 6180~6183
 2. Camera 2: video-6104~6107; audio: 6184~6187
 3. Camera 3: video-6108~6111; audio: 6188~6191
 4. Camera 4: video-6112~6115; audio: 6192~6195
 5. Camera 5: video-6116~6119; audio: 6196~6199
 6. Camera 6: video-6120~6123; audio: 6200~6203
 7. Camera 7: video-6124~6127; audio: 6204~6207
 8. Camera 8: video-6128~6131; audio: 6208~6211
 9. Camera 9: video-6132~6135; audio: 6212~6215
 10. Camera10: video-6136~6139; audio: 6216~6219
 11. Camera11: video-6140~6143; audio: 6220~6223
 12. Camera12: video-6144~6147; audio: 6224~6227
 13. Camera13: video-6148~6151; audio: 6228~6231
 14. Camera14: video-6152~6155; audio: 6232~6235
 15. Camera15: video-6156~6159; audio: 6236~6239
 16. Camera16: video-6160~6163; audio: 6240~6243
 17. Camera17: video-6164~6167; audio: 6244~6247
 18. Camera18: video-6168~6171; audio: 6248~6251
 19. Camera19: video-6172~6175; audio: 6252~6255
 20. Camera20: video-6176~6179; audio: 6256~6259
6. 24-channel NVR
 1. Camera 1: video-6100~6103; audio: 6196~6199
 2. Camera 2: video-6104~6107; audio: 6200~6203
 3. Camera 3: video-6108~6111; audio: 6204~6207
 4. Camera 4: video-6112~6115; audio: 6208~6211
 5. Camera 5: video-6116~6119; audio: 6212~6215
 6. Camera 6: video-6120~6123; audio: 6216~6219
 7. Camera 7: video-6124~6127; audio: 6220~6223
 8. Camera 8: video-6128~6131; audio: 6224~6227
 9. Camera 9: video-6132~6135; audio: 6228~6231
 10. Camera10: video-6136~6139; audio: 6232~6235
 11. Camera11: video-6140~6143; audio: 6236~6239
 12. Camera12: video-6144~6147; audio: 6240~6243
 13. Camera13: video-6148~6151; audio: 6244~6247
 14. Camera14: video-6152~6155; audio: 6248~6251
 15. Camera15: video-6156~6159; audio: 6252~6255
 16. Camera16: video-6160~6163; audio: 6256~6259

17. Camera17: video-6164~6167; audio: 6260~6263
18. Camera18: video-6168~6171; audio: 6264~6267
19. Camera19: video-6172~6175; audio: 6268~6271
20. Camera20: video-6176~6179; audio: 6272~6275
21. Camera21: video-6180~6183; audio: 6276~6279
22. Camera22: video-6184~6187; audio: 6280~6283
23. Camera23: video-6188~6191; audio: 6284~6287
24. Camera24: video-6192~6195; audio: 6288~6291

7. 32-channel NVR

1. Camera 1: video-6100~6103; audio: 6228~6231
2. Camera 2: video-6104~6107; audio: 6232~6235
3. Camera 3: video-6108~6111; audio: 6236~6239
4. Camera 4: video-6112~6115; audio: 6240~6243
5. Camera 5: video-6116~6119; audio: 6244~6247
6. Camera 6: video-6120~6123; audio: 6248~6251
7. Camera 7: video-6124~6127; audio: 6252~6255
8. Camera 8: video-6128~6131; audio: 6256~6259
9. Camera 9: video-6132~6135; audio: 6260~6263
10. Camera10: video-6136~6139; audio: 6264~6267
11. Camera11: video-6140~6143; audio: 6268~6271
12. Camera12: video-6144~6147; audio: 6272~6275
13. Camera13: video-6148~6151; audio: 6276~6279
14. Camera14: video-6152~6155; audio: 6280~6283
15. Camera15: video-6156~6159; audio: 6284~6287
16. Camera16: video-6160~6163; audio: 6288~6291
17. Camera17: video-6164~6167; audio: 6292~6295
18. Camera18: video-6168~6171; audio: 6296~6299
19. Camera19: video-6172~6175; audio: 6300~6303
20. Camera20: video-6176~6179; audio: 6304~6307
21. Camera21: video-6180~6183; audio: 6308~6311
22. Camera22: video-6184~6187; audio: 6312~6315
23. Camera23: video-6188~6191; audio: 6316~6319
24. Camera24: video-6192~6195; audio: 6320~6323
25. Camera25: video-6196~6199; audio: 6324~6327
26. Camera26: video-6200~6203; audio: 6328~6331
27. Camera27: video-6204~6207; audio: 6332~6335
28. Camera28: video-6208~6211; audio: 6336~6339
29. Camera29: video-6212~6215; audio: 6340~6343
30. Camera30: video-6216~6219; audio: 6344~6347
31. Camera31: video-6220~6223; audio: 6348~6351
32. Camera32: video-6224~6227; audio: 6352~6355

8. 40-channel NVR

1. Camera 1: video-6100~6103; audio: 6260~6263
2. Camera 2: video-6104~6107; audio: 6264~6267
3. Camera 3: video-6108~6111; audio: 6268~6271
4. Camera 4: video-6112~6115; audio: 6272~6275
5. Camera 5: video-6116~6119; audio: 6276~6279
6. Camera 6: video-6120~6123; audio: 6280~6283
7. Camera 7: video-6124~6127; audio: 6284~6287
8. Camera 8: video-6128~6131; audio: 6288~6291
9. Camera 9: video-6132~6135; audio: 6292~6295
10. Camera10: video-6136~6139; audio: 6296~6299
11. Camera11: video-6140~6143; audio: 6300~6303
12. Camera12: video-6144~6147; audio: 6304~6307
13. Camera13: video-6148~6151; audio: 6308~6311
14. Camera14: video-6152~6155; audio: 6312~6315
15. Camera15: video-6156~6159; audio: 6316~6319
16. Camera16: video-6160~6163; audio: 6320~6323

17. Camera17: video-6164~6167; audio: 6324~6327
18. Camera18: video-6168~6171; audio: 6328~6331
19. Camera19: video-6172~6175; audio: 6332~6335
20. Camera20: video-6176~6179; audio: 6336~6339
21. Camera21: video-6180~6183; audio: 6340~6343
22. Camera22: video-6184~6187; audio: 6344~6347
23. Camera23: video-6188~6191; audio: 6348~6351
24. Camera24: video-6192~6195; audio: 6352~6355
25. Camera25: video-6196~6199; audio: 6356~6359
26. Camera26: video-6200~6203; audio: 6360~6363
27. Camera27: video-6204~6207; audio: 6364~6367
28. Camera28: video-6208~6211; audio: 6368~6371
29. Camera29: video-6212~6215; audio: 6372~6375
30. Camera30: video-6216~6219; audio: 6376~6379
31. Camera31: video-6220~6223; audio: 6380~6383
32. Camera32: video-6224~6227; audio: 6384~6387
33. Camera33: video-6228~6231; audio: 6388~6391
34. Camera34: video-6232~6235; audio: 6392~6395
35. Camera35: video-6236~6239; audio: 6396~6399
36. Camera36: video-6240~6243; audio: 6400~6403
37. Camera37: video-6244~6247; audio: 6404~6407
38. Camera38: video-6248~6251; audio: 6408~6411
39. Camera39: video-6252~6255; audio: 6412~6415
40. Camera40: video-6256~6259; audio: 6416~6419

Q40. My VioStor, IP cameras, and the PC are all in the same LAN, and some IP cameras are installed in remote location with Public IP. I want to allow users to connect the NVR from remote PC over the Internet. how to install the NVR in different network environment for remote monitoring?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032

- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

1. The VioStor, IP cameras, and the PC are all in the same LAN.
2. Some IP cameras are installed in remote location with Public IP.
3. Allow users to connect the NVR from remote PC over the Internet.

Please follow the steps below to install the NVR.

1. Plan the IP address and port of the NVR, the camera, and the PC.

LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	VioStor	192.168.1.100: 80	219.87.144.205:8000
	Camera 1	192.168.1.101: 80	219.87.144.205:8001
	Camera 2	192.168.1.102: 80	219.87.144.205:8002
	Camera 3	192.168.1.103: 80	219.87.144.205:8003
	Camera 4	192.168.1.103: 80	219.87.144.205:8004

	PC	192.168.1.200	
B	Camera 5	205.234.170.16 5	
	Camera 6	205.234.170.16 6	
C	Remote PC	10.8.10.123	

- 2.
3. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.
4. Configure the router/ virtual server/ firewall
In this application, you have to configure the port mapping or virtual server of the router and forward the ports to the corresponding LAN IP so that the NVR can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Note:

1. Some IP cameras delivers MPEG4 image via the RTSP or RTP ports. If the IP camera is installed outside the router, you have to configure the RTSP and RTP ports on the router and the NVR so that the NVR can save the recording data from the IP cameras, e.g. Vivotek, Axis, D-link, GANZ, or LevelOne cameras that support MPEG4 streaming.
2. In this sample, you must configure the RTP port setting on the router of LAN A and the RTSP port setting on the router of LAN B.
3. RTP (Real-time Transport Protocol): The protocol for delivering video or audio data.
4. RTSP (Real-Time Streaming Protocol): The protocol for controlling video or audio streaming media.

5. Configure the port mapping or virtual server on the router:
HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80

219.87.144.205:80 01	192.168.1.101: 80
219.87.144.205:80 02	192.168.1.102: 80
219.87.144.205:80 03	192.168.1.103: 80
219.87.144.205:80 04	192.168.1.104: 80

6. RTP port: (Configure the port for NVR to receive remote video data from the IP camera)

From	Forward to
219.87.144.205:61 00	192.168.1.100:61 00
219.87.144.205:61 01	192.168.1.100:61 01
219.87.144.205:61 02	192.168.1.100:61 02
219.87.144.205:61 03	192.168.1.100:61 03
:	:

:	:
:	:
219.87.144.205:61 99	192.168.1.100:61 99

7. **Note:** To know the default RTP (Real-time Transport Protocol) port range of the VioStor NVR, please refer to FAQ.
8. Install and configure the VioStor NVR
Enter the IP address of the camera in the “IP address” field of the “Camera Settings” page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in “WAN IP” and “Port” fields respectively on the “Camera Settings” page of the VioStor.
Note: The LAN IP and the WAN IP of the IP camera must be entered.

Note:

1. The “IP address” is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
 2. The “WAN IP Address” is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
 - The port 21 must be forwarded on the router in the following two situations:
 1. When you use the alarm function of the remote IP camera (the alarm between the NVR and the camera is delivered by FTP).
2. When you need to login the VioStor by FTP (port 21).

From	Forward to
219.87.144.205:2 1	192.168.1.100: 21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

Q41. If I enable MxPEG recording of MOBOTIX cameras on VioStor NVR, when I playback the recording files, the picture displayed is containing some large gray blocks hiding a large part of the picture. How to solve it?

Applied Models:

- VS-2008
- VS-2012
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

If gray blocks shown on image in recorded files, please select "Image Quality" as "Fast" in camera home page to reduce the phenomenon.

Q42. When I enable MxPEG recording of Mobotix cameras on VioStor NVR, I can't use VSMobile to see the live view of cameras. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032

- VS-8032U-RP
- VS-8040
- VS-8040U-RP
- VSMobile

Answer:

MxPEG video compression of Mobotix cameras are not supported by VSMobile.

1. Connect to NVR server.
2. Go to Camera Settings -> Recording Settings
3. Change the video compression of Mobotix cameras to M-JPEG.

Q43. How to convert VioGate-100 video file of IVG ext. to format that can be play by Windows Media Player?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

1. You could save the file to AVI format after playback.
2. Download it from Download Center.
<http://www.mmnt.net/db/0/0/ftp.qnap.com/SURVEILLANCE/VioGate-100>
 The file name is IVG2AVI.exe
 Use IVG2AVI.exe to convert IVG to AVI format.
3. You could play the files by Windows Media Player.

Q44. To use multi-ser monitoring feature, I click "Server List" icon, why do you not see the "Auto Detect" button?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032

- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Please go to playback page to install the ActiveX or visit http://www.qnapsecurity.com/n/en/product_x_down/ to download and install VioStor Player utility. Then you can use auto detect function on monitoring page.

Q45. For VioStor NVR, after formatting USB driver, why the lost and found folders appear?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

If you choose EXT3 to format USB driver, the lost and found folders will be created.

It is normal and won't affect Viostor's function.

Q46. After updating my NVR system, I can not use my local language, what can I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Delete X86VCHS.dll, X86VCHT.dll, ..., X86VSVF.dll files on the system32 folder.
2. Delete X86VMon on the C:WINDOWSDownloaded Program Files.
3. Login the NVR without opening other IE window to re-install activeX.

Q47. How to remove the ActiveX of VioStor manually?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040

- VS-8040U-RP

Answer:

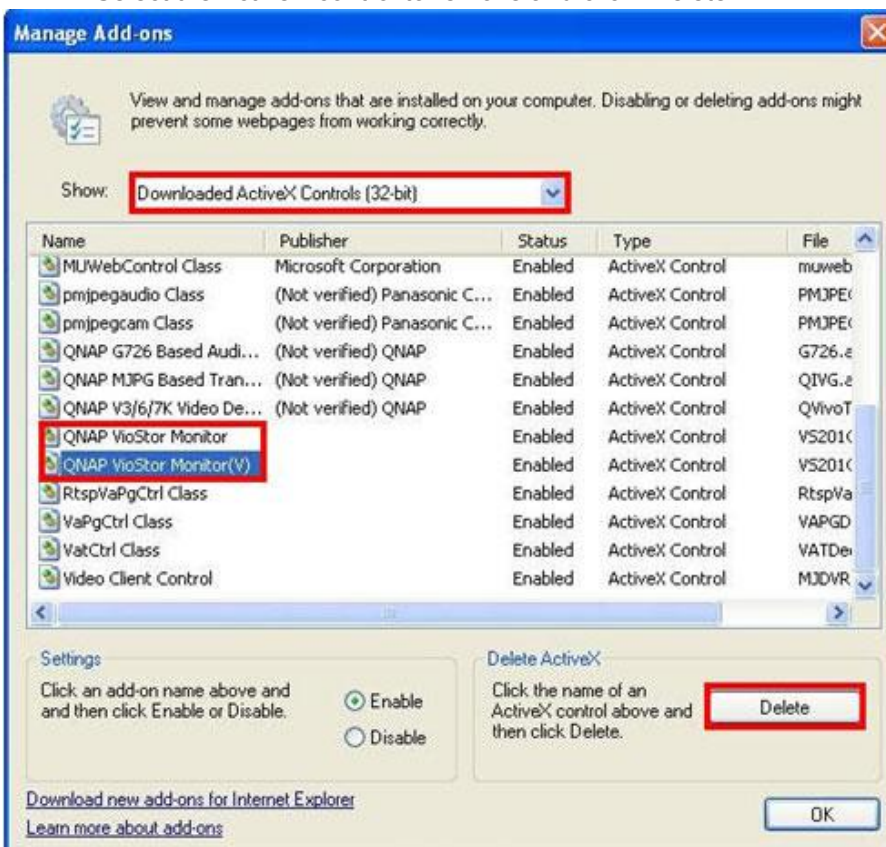
Please follow the steps below to remove the ActiveX.

1. Windows Vista users:

Open an IE browser. Go to "Tools" > "Manage Add-ons" → "Enable or disable Add-ons".



2. Select "Downloaded ActiveX Controls" from the drop-down menu. Select the ActiveX control to remove and click "Delete".

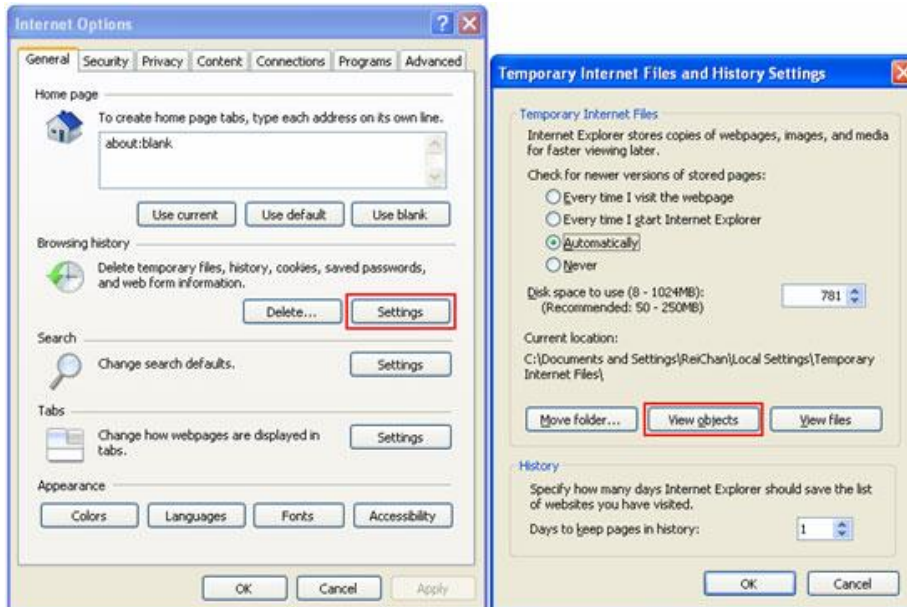


Windows XP users:

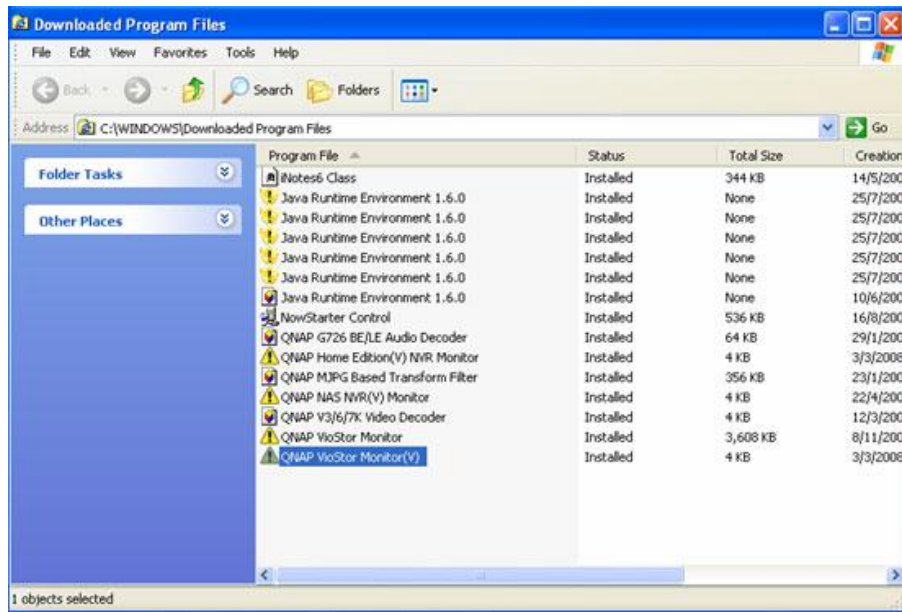
1. Open an IE browser. Go to "Tools"→ "Internet Options".



In the "General" tab, click "Settings" under "Browsing history". Then click "View objects".



Select the ActiveX control to remove.



Q48. In the monitoring page of VioStor, if I unable to view live video on one of the cameras, what should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. If the IP address, name and password entered in the camera configuration page are correct, You could use the Test function to verify the connection.
2. When the PC and the network camera are in the same subnet, while VioStor is in another one, you cannot view the monitoring screen from the PC. You can solve the problems by the following methods
 - Method 1: Enter the IP address of the network camera as the WAN IP in VioStor.
 - Method 2: Configure the router to allow internal access to the public IP address and the mapped ports of the network cameras.

You could refer to the NVR Installation Guide.

[T10.\[Guide\] Scenario 1: Local Area Network](#)

[T9.\[Guide\] Scenario 2: Access the NVR from remote PC](#)

[T8.\[Guide\] Scenario 3: Install IP camera with Public IP and access NVR from remote PC](#)

[T7.\[Guide\] Scenario 4: Configure NVR, IP cameras and the PC in different routers and access NVR from remote PC](#)

Q49. After I enter a correct user name and password to access the VioStor NVR, if the monitoring screen did not display, what should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P

- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-5012
- VS-5020
- VS-8040
- VS-8040U-RP

Answer:

1. Check if you have installed ActiveX when logging in the monitoring page. Set the security level to “Medium” or lower in Internet Options of IE browser.
2. Make sure VioStor is turned on and the network is correctly connected.
3. The IP address of VioStor does not conflict with other devices in the same subnet.
4. Check the IP address settings of VioStor and your computer. Make sure they are in the same subnet.
5. Make sure the IP address of the network camera does not conflict with other devices in the same subnet.
6. Make sure the IP address, name and password entered in the camera configuration page are correct. You can use the Test function to verify the connection.
7. When the PC and the network camera are in the same subnet, while VioStor is in another one, you cannot view the monitoring screen from the PC. You can solve the problems by the following methods:
 - Method 1: Enable “loopback” in the router or allow internal access from the mapped ports of the network cameras.
 - Method 2: Enter the IP address of the network camera as the WAN IP in VioStor.

For more information about NVR Installation Guide, please refer to [T10.\[Guide\] Scenario 1: Local Area Network](#), [T9.\[Guide\] Scenario 2: Access the NVR from remote PC](#), [T8.\[Guide\] Scenario 3: Install IP camera with Public IP and access NVR from remote PC](#), [T7.\[Guide\] Scenario 4: Configure NVR, IP cameras and the PC in different routers and access NVR from remote PC](#)

Note: Some anti-virus softwares take ActiveX as dangerous program. Please close the anti-virus temporarily.

Q50. Do QNAP NVR support Apple Safari or other browser than Internet Explorer?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V
- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Currently QNAP NVR supports Internet Explorer by using ActiveX plug in to view the IP streaming. Other browser such as Apple Safari, Opera, Firefox and other Java-script type browsers are not supported yet.

Q51. When I connect the NVR to ACTi video server, ACD-2X00 series and SED-21X0 series, by choosing get video from server and get video from camera, both the NVR can't control the Pan, Tilt and Zoom functions. What should I do to active the PTZ function in NVR?

Applied Models:

- NVR-104P
- NVR-104V
- VS-101P
- VS-101V
- VS-2008
- VS-2012
- VS-201P
- VS-201V

- VS-4016U-RP
- VS-5012
- VS-5020
- VS-8024
- VS-8024U-RP
- VS-8032
- VS-8032U-RP
- VS-8040
- VS-8040U-RP

Answer:

Currently, if you want to use PTZ function of the ACD-2X00 series and SED-21X0 series video servers, please modify the protocol of analog cameras to Pelco-D, and Baud Rate setting of analog cameras should be the same with the video server. Please refer to the video server's manual for detailed information.

Q52. How to configure the frame rate AXIS P3301 and Q7401 cameras?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

NVR does not support AXIS P3301 and Q7401 camera settings. Please login the camera settings page to configure the settings.

Q53. After setting the Network Settings as Standalone, the LAN2 port does not take effect. Why?

Applied Models:

- VioStor-2008
- VioStor-2012
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Restart the system after setting to standalone mode when do LAN setting.

Q54. Why can not use "auto search server" on monitor and playback?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

It is technical limitation.

Please close QNAP Finder when you want to use "auto search server" on monitor and playback.

Q55. Why there are mis-encoded characters in the cvs log file?

Applied Models:

- VioStor-2008
- VioStor-2012
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

The logs are encoded as Unicode (UTF-8) in the cvs file. To read the logs properly, please open the file with any text editor or program which supports Unicode encoding.

Q56. How to update the VioStor-101/ VioStor-201 series to use the new web multi-channel playback interface?

Applied Models:

- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-201A
- VioStor-201P
- VioStor-201V

Answer:

Notice: If the system is running properly, you do not need to update the firmware. QNAP is not responsible for any forms of data loss caused by improper or illegal system update.

Before updating the system firmware, please do the following:

1. Back up all the disk data on the server to avoid any potential data loss during the system update.
2. Download the release notes of the same version as the firmware from QNAP Security website
http://www.qnapsecurity.com/n/en/product_x_down/. Read the release notes carefully to make sure you need to upgrade the firmware.
3. Make sure the product model and the firmware version are correct.

To use the new web multi-channel playback interface, you need to update the VioStor firmware to **version 2.7.0** first. Follow the steps below to update the firmware:

1. If you have installed the hard drive(s) in the VioStor, you are suggested to update the system with the firmware that includes playback.
 1. Update the system with the firmware that does not include playback. You can download the firmware that does not include playback from QNAP Security website
http://www.qnapsecurity.com/n/en/product_x_down/.

2. Update playback

By Firmware

Update the system with the firmware that includes playback.

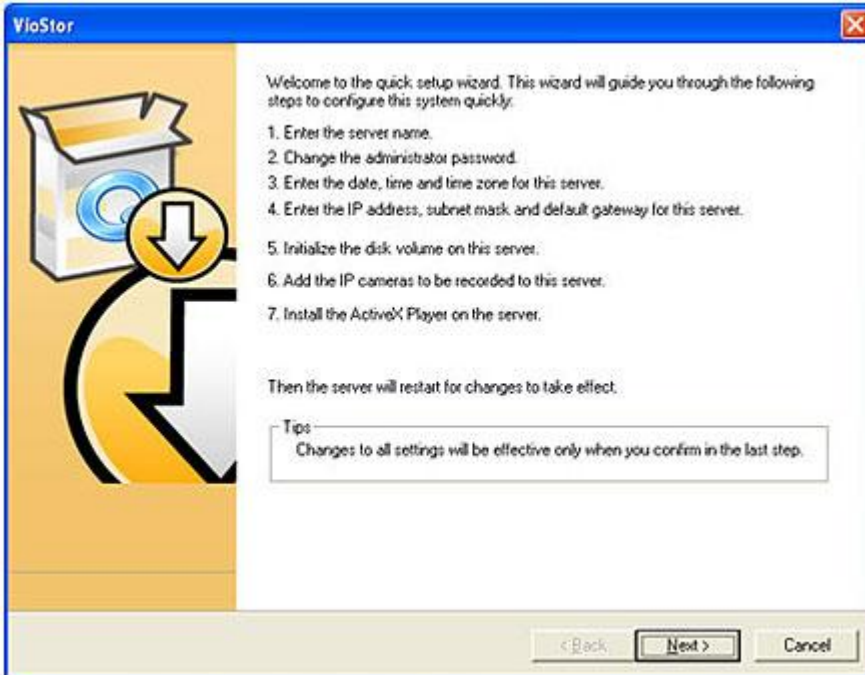
After updating the firmware, you can use the new web multi-channel playback interface. You can download the firmware that includes playback from QNAP Security website http://www.qnapsecurity.com/n/en/product_x_down/.



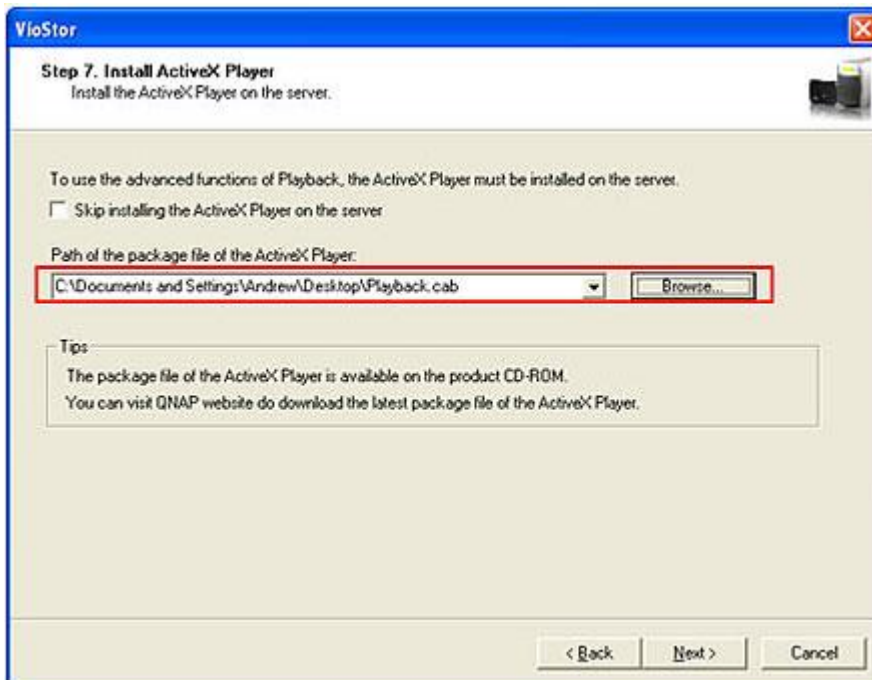
By QNAP Finder

1. Run the Finder.
2. Click "Settings" > "Run Quick Configuration Wizard".
3. Enter the administrator name and password.
Default administrator name: administrator
Password: admin

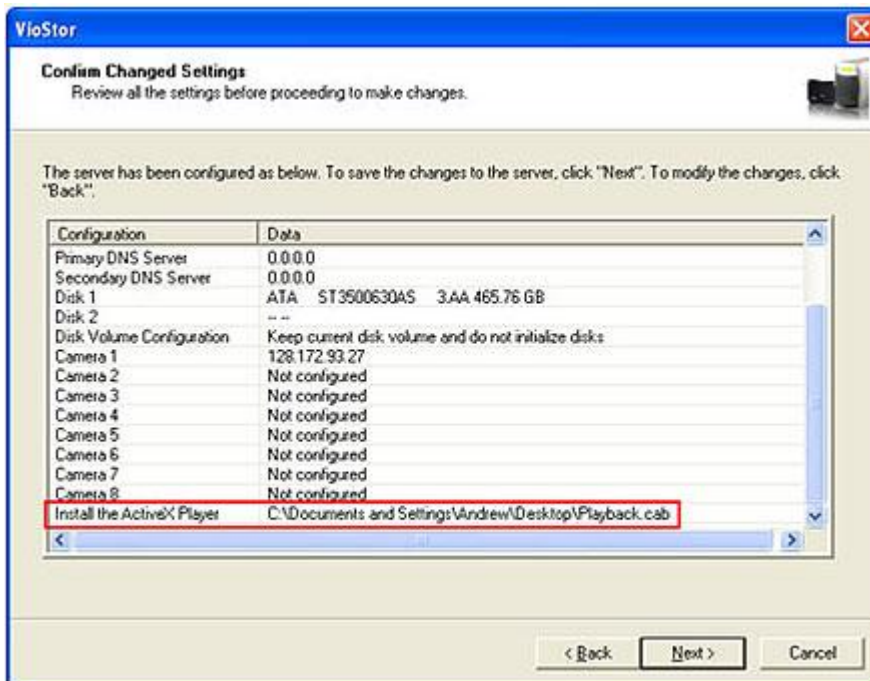
4. The Quick Configuration Wizard will be shown. Click "Next" to continue.



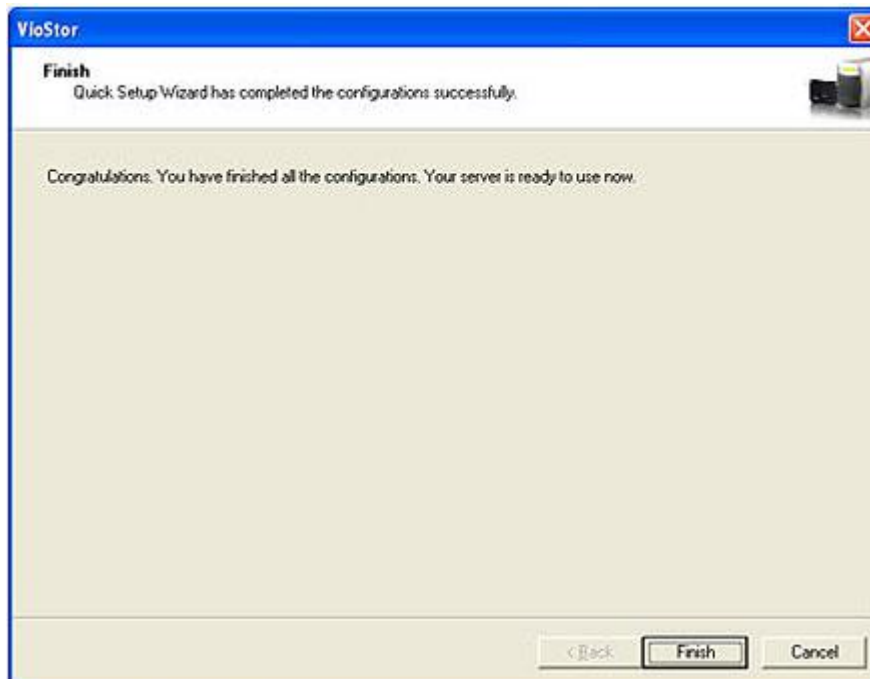
5. In Step 7, click "Browse..." to select the correct package file of the ActiveX Player for update. You can download the correct package file of the ActiveX Player from QNAP Security website http://www.qnapsecurity.com/n/en/product_x_down/.



6. Confirm the changes.



7. After applying the changes, the server will restart. Click "Finish" to exit the wizard.



8. To use new multi-channel playback interface, you must install the ActiveX control. Follow the instructions to install it.



9. After that, you can use new web multi-channel playback interface.



2. If you have not installed any hard drives in the VioStor, you must update the system with the firmware that does not include playback. After updating, follow the steps below to use the new web multi-channel playback interface.

1. Install the hard disk(s) in the VioStor.
2. Update Playback

By QNAP Finder

1. Run the Finder.
2. Click "Settings" > "Run Quick Configuration Wizard".
3. Enter the administrator name and password.
Default administrator name: administrator
Password: admin

Q57. There is a large number of "Re-launch process [upnpd]" logs in the Event Logs. Why?

Applied Models:

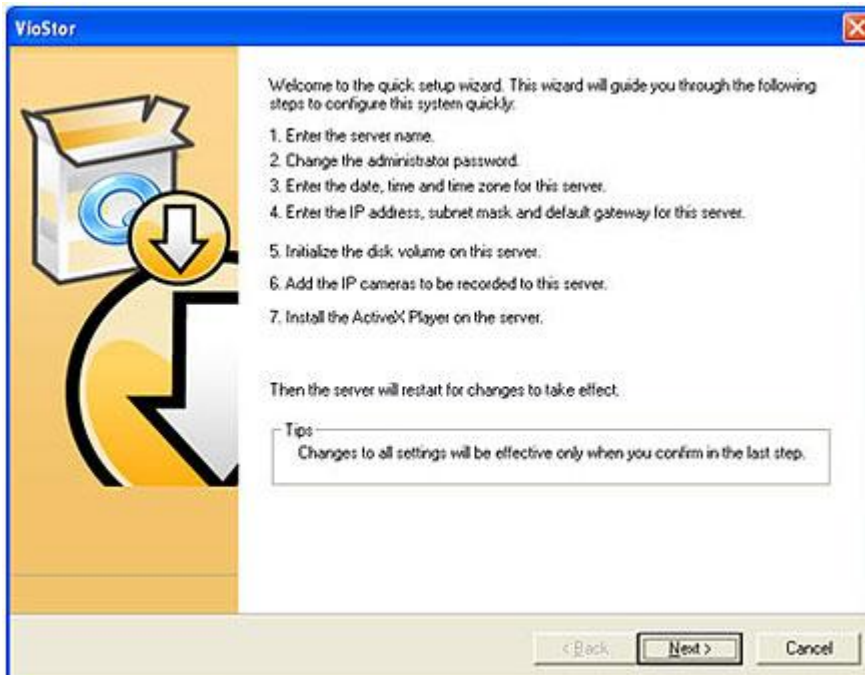
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P

- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

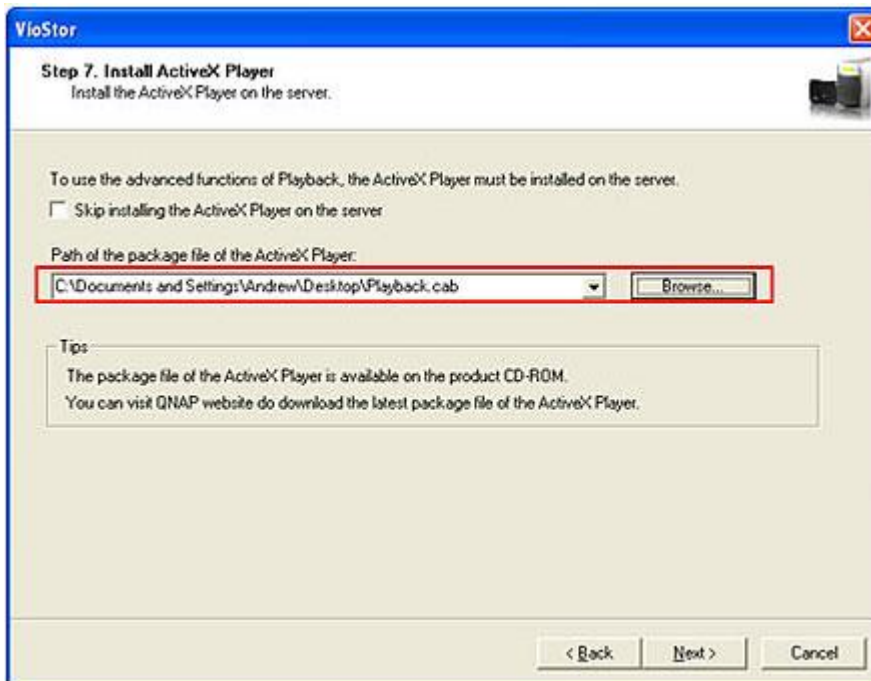
The gateway setting is incorrect and the UPNPd process cannot be started correctly.

4. The Quick Configuration Wizard will be shown. Click "Next" to continue.

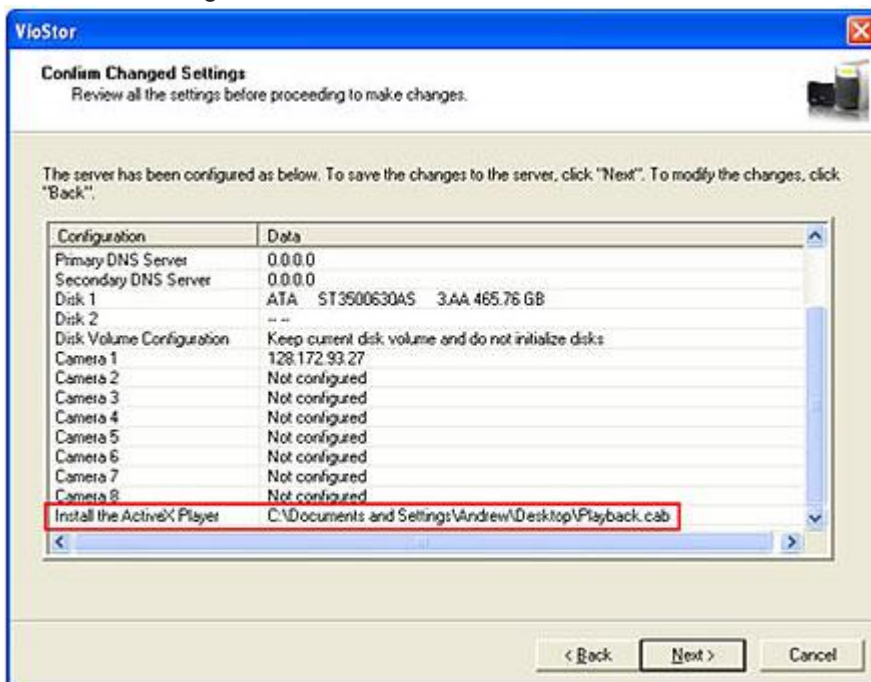


5. In Step 7, click "Browse..." to select the correct package file of the ActiveX Player for update. You can download the correct package file of the ActiveX Player from QNAP Security website

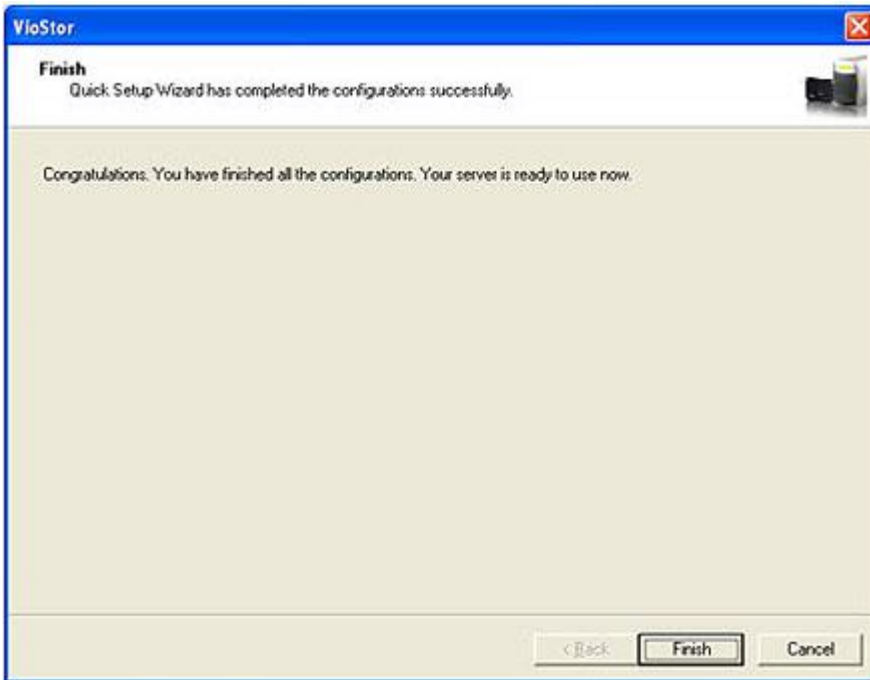
http://www.qnapsecurity.com/n/en/product_x_down/.



6. Confirm the changes.



- After applying the changes, the server will restart. Click "Finish" to exit the wizard.



- To use new multi-channel playback interface, you must install the ActiveX control. Follow the instructions to install it.



- After that, you can use new web multi-channel playback interface.



- By VioStor
 - Connect to the VioStor.
 - Click the playback button on the monitoring page.

3. Click "Install" to install the ActiveX control from the Internet.



- Note: Make sure that the VioStor is connected to the Internet.
4. After that, you can use new web multi-channel playback interface.



Q58. How to use FTP within Microsoft® Internet Explorer 7®?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Open Internet Explorer 7.
2. In the address bar, enter the following address
"ftp://username:password@viostor_ip_address/" to connect.
3. IE 7 will display a list of files and folders from the FTP domain.

Q59. The monitoring image of the Toshiba IK-WB 21 network camera is upside down. What should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A

- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

The Toshiba IK-WB 21 network camera is designed to be mounted on the ceiling. Please make sure it is installed in a correct location.

Q60. A colon “:” appears in the NVR name and the firmware version on the monitoring page but I didn’t set the server name as that. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This is caused by AVAST anti-virus software and will not affect the server’s operation.

Q61. I cannot find the NVR by QNAP Finder. The network connection is normal. What should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This may be caused by NOD ESET SMART SECURITY antivirus software. The firewall of the software blocks the port used by Finder. To resolve this error, please follow the steps below:

1. Click "Setup" > "Advanced Personal firewall setup".
2. Select "Interactive mode" for Filtering mode and click "OK".
3. After finishing the settings, you can start to use QNAP Finder correctly.

Q62. I tried to login NVR by Finder. After entering the user name and password, an error message was shown and the login failed. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A

- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This is caused by the IE plugin installed by Skype. Please uninstall Skype and reinstall it according to the steps below.

1. Click "Options" at the bottom left.
2. Disable "Install Skype Plugin for Internet Explorer".
3. Finish the Skype installation and try to use the Finder again.

Q63. My VioStor, IP cameras, and the PC are all in the same LAN (Local Area Network). How to install the NVR in different network environment for remote monitoring?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

The VioStor, IP cameras, and the PC are all in the same LAN (Local Area Network).

Please follow the steps below to install the NVR.

1. Plan the IP address and port of the NVR and the camera.

Device	IP Address
VioStor	192.168.1.10 0
Camera 1	192.168.1.10 1
Camera 2	192.168.1.10 2
Camera 3	192.168.1.10 3
Camera 4	192.168.1.10 4
PC	192.168.1.20 0

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.
3. Install and configure the NVR.
When the NVR (VioStor) and the IP cameras are in the same LAN, you can use the default port settings.

Note:

1. The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
2. The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT

router, enter the public IP address (or URL) and configure the port forwarding correctly.

Q64. After adding two VIVOTEK IP-7142 cameras, it will crash on the live view page. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104V
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please upgrade to 3.0.0 or above, the issue will be solved.

http://www.qnapsecurity.com/n/en/product_x_down/

Q65. Why can't I upgrade the VioStor NVR?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-201A
- VioStor-201P
- VioStor-201V

Answer:

If you use NVR-104, VioStor-101 or VioStor-201 and want to upgrade to 2.8.0 or above, please install the hard disk in advance.

Q66. In playback page, when I click "web file manager" icon, why the window shows "no access to this file or folder..."?

Applied Models:

- VioStor-2008
- VioStor-2012
- VioStor-5012
- VioStor-5020

Answer:

eSATA port of VioStor-2008/ 2012/ 5012/ 5020 is reserved.

Please do not use eSATA on VioStor-2008/ 2012/ 5012/ 5020.

Q67. My VioStor, IP cameras, and the PC are all in the same LAN, and I want to allow users to connect the NVR from remote PC over the Internet. How to install the NVR in different network environment for remote monitoring?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V

- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. The VioStor, IP cameras, and the PC are all in the same LAN.
2. Allow users to connect the NVR from remote PC over the Internet.

Please follow the steps below to install the NVR.

1. Plan the IP address and port of the NVR and the camera.

LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	LAN IP of the router	192.168.1.1	
	VioStor	192.168.1.100: 80	219.87.144.205:8000
	Camera 1	192.168.1.101: 80	219.87.144.205:8001
	Camera 2	192.168.1.102: 80	219.87.144.205:8002
	Camera 3	192.168.1.103: 80	219.87.144.205:8003
	Camera 4	192.168.1.103: 80	219.87.144.205:8004

	PC	192.168.1.200	
B	Remote PC	10.8.10.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

3. Configure the router/ virtual server/ firewall
 To allow remote PC to access the VioStor and the IP cameras, you must configure the port mapping or virtual server of the router. The sample settings are as below:
 HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80
219.87.144.205:8002	192.168.1.102:80
219.87.144.205:8003	192.168.1.103:80
219.87.144.205:8004	192.168.1.104:80

- 4.
5. Install and configure the NVR (VioStor)
 Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and

“Port” fields on the “Camera Settings” page of the VioStor.

Note: The LAN IP and the WAN IP of the IP camera must be entered.

Note:

1. The “IP address” is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
2. The “WAN IP Address” is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.

- To access the VioStor remotely by FTP (port 21), configure the following settings:

From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

Q68. My VioStor, IP cameras, and the PC are in LAN A, and some IP cameras are installed in LAN B behind a different router in a remote location. I want to allow the users to connect the NVR from remote PC over the Internet. How to install the NVR in different network environment for remote monitoring?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A

- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. The VioStor, IP cameras, and the PC are in LAN A.
2. Some IP cameras are installed in LAN B behind a different router in a remote location.
3. Allow the users to connect the NVR from remote PC over the Internet.

1. Plan the IP address and port of the NVR, the camera, and the PC.

LAN	Device	IP Address/ Port	Mapped Port (HTTP) on the Router
A	Public IP of the router	219.87.144.205	
	VioStor	192.168.1.1	
	Camera 1	192.168.1.100: 80	219.87.144.205:8000
	Camera 2	192.168.1.101: 80	219.87.144.205:8001
	Camera 3	192.168.1.102: 80	219.87.144.205:8002

	Camera 4	192.168.1.103: 80	219.87.144.205:8003
	PC	192.168.1.103: 80	219.87.144.205:8004
	Public IP of the router	192.168.1.200	
B	Router's Public IP	205.234.170.16 0	
	Router's LAN IP	172.17.1.1	
	Camera 5	172.17.1.11	205.234.170.160:8005
	Camera 6	172.17.1.12	205.234.170.160:8006
C	Remote PC	10.8.10.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.
3. Configure the router/ virtual server/ firewall
In this application, you have to configure the port mapping or virtual server of the routers in LAN A and LAN B; and forward the ports to the corresponding LAN IP by the NAT router so that the NVR can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Note:

1. Some IP cameras delivers MPEG4 image via RTSP or RTP ports. If the IP camera is installed outside the router, you have to configure the RTSP and RTP ports on the router and the NVR so that the NVR can save the recording data from the IP cameras, e.g. Vivotek, Axis, D-link, GANZ, or LevelOne cameras that support MPEG4 streaming.
2. In this sample, you must configure the RTP port setting on the router of LAN A and the RTSP port setting on the router of LAN B.

3. RTP (Real-time Transport Protocol): The protocol for delivering video or audio data.
4. RTSP (Real-Time Streaming Protocol): The protocol for controlling video or audio streaming media.
4. Configure the port mapping or virtual server on the router:

1. (a-1) Configure the port mapping on the router in LAN A HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80
219.87.144.205:8002	192.168.1.102:80
219.87.144.205:8003	192.168.1.103:80
219.87.144.205:8004	192.168.1.104:80

2. RTP port: (Configure the port for NVR to receive remote video data from the IP camera)

From	Forward to
219.87.144.205:6100	192.168.1.100:6100

219.87.144.205:6101	192.168.1.100:6101
219.87.144.205:6102	192.168.1.100:6102
219.87.144.205:6103	192.168.1.100:6103
:	:
:	:
:	:
219.87.144.205:6199	192.168.1.100:6199

3. **Note:** The default RTP port range of the NVR (VioStor) is 6100~6199.

4. Configure the port mapping on the router in LAN B
HTTP port:

From	Forward to
205.234.170.160:8005	172.17.1.11:80
205.234.170.160:8006	172.17.1.12:80

5. RTSP port: Configure the protocol for controlling video or audio streaming media.

From	Forward to
205.234.170.160:5001	172.17.1.11:554
205.234.170.160:5002	172.17.1.12:554

6. **Note:**

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router. Please refer to the user guide of the IP camera for its RTSP port settings.

5. Install and configure the NVR (VioStor)

Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields on the "Camera Settings" page of the VioStor.

1. Enter the settings of the IP cameras in LAN A.
 Camera 1 "IP Address": 192.168.1.101 port 80
 "WAN IP Address": 219.87.144.205 port 8001
 Camera 2 "IP Address": 192.168.1.102 port 80
 "WAN IP Address": 219.87.144.205 port 8002
 Camera 3 "IP Address": 192.168.1.103 port 80
 "WAN IP Address": 219.87.144.205 port 8003
 Camera 4 "IP Address": 192.168.1.104 port 80
 "WAN IP Address": 219.87.144.205 port 8004

Note:

1. The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
 2. The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
2. Enter the settings of the IP cameras in LAN B.
 Camera 5 "IP Address": 205.234.170.160 port 8005/5001
 Camera 6 "IP Address": 205.234.170.160 port 8006/5002
Note: The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.

- The port 21 must be forwarded on the router in the following two situations:
 1. When you use the alarm function of the remote IP camera (the alarm between the NVR and the camera is delivered by FTP).

2. When you need to login the VioStor by FTP (port 21).

From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

Q69. Why the recording is paused for a while and restarted after I applied changes to VioStor?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

After applying changes to VioStor, the camera will restart for the changes to take effect. Therefore, recording will stop for a while.

Q70. Why there are only English logs in Event Logs?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Only English logs are supported currently.

Q71. Does VioStor support hot swapping?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Yes. However, if the hard disks are working properly and recording is in process, do not hot swap the disks to avoid damage to the disks or recording files. Hot swapping can only be performed when a single disk crashes and there is no need to stop the recording.

Q72. Is domain name supported in WAN IP and LAN IP fields?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

The domain name is supported in the WAN IP field only.

Q73. How to use the front video backup button of the VioStor?

Applied Models:

- NVR-101

- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Login the VioStor. Go to “System Tools”-> “Hardware Settings” and enable “front video backup button”.
2. Initialize the external disk: You can go to “Device Configuration” -> “USB Disk” to initialize the external disk. The VioStor supports hard disks in FAT format.
3. The external disk must be larger than 10GB. VioStor supports external disks that are larger than 10GB currently.
4. Make sure the external hard disk is correctly connected to the “front” USB port of VioStor; this function will not work if the disk is connected to the rear USB port.
5. When the external disk is connected to the front USB port, wait until the USB LED glows in blue and then press the copy button. The data will be copied to the external disk immediately. The USB LED will blink in blue during the copying process. When the USB LED is off, copying is completed; you can safely remove the disk.
6. If the storage capacity of the external disk is insufficient, the log will be recorded in “Logs & Statistics” page.
7. As the backup file size can be very large, please wait patiently until the USB LED is off (backup completed), and then remove the external disk.

Note: If you use VioStor-2008, 2012, 5012, 5020, 8040, 8040U-RP, please press and hold one touch auto backup button for 3 sec.

Q74. How to check your firmware Version?

Applied Models:

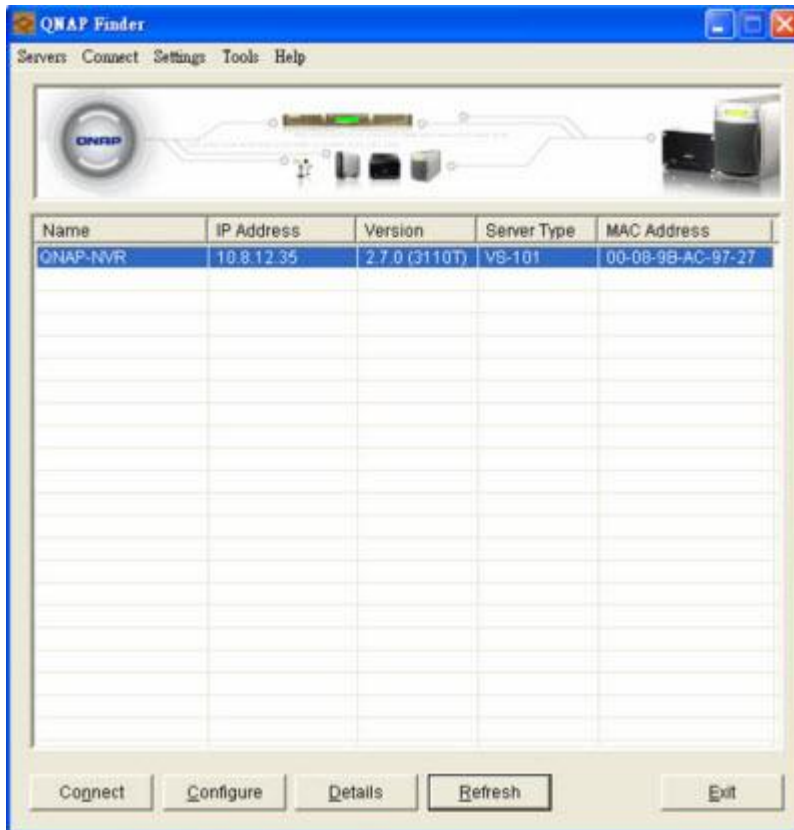
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P

- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

You can check your firmware version from the following pages:

1. Open **QNAP Finder**, and the version information will be shown.



2. When you have successfully logged in VioStor, the version information will be appeared at the left-bottom corner of **Monitoring Page**.



3. You could check your firmware version by "**System Settings**"->"**Server Name**" or "**System Settings**"->"**View System Settings**".

4. Another firmware version will be display in **system update** page. The page will show the current version information.

Q75. Why the screen turns black when playing back the video?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Check if the media playing program supports avi format. If not, the screen will become black.

Q76. When I cannot access VioStor via the default IP or the IP shown in Quick Setup Wizard, what should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please follow the steps below.

1. Check if the VioStor is turned on.
2. Check the network connection of the computer and the VioStor.
3. Check the IP address settings of the VioStor and the connected computer. Make sure they are in the same subnet.
4. Refresh Quick Setup Wizard and check the IP address of the VioStor.
5. Enter <http://169.254.100.100> in the IE browser to connect to the VioStor.

Q77. I've installed the camera but the distant object is unclear. How to solve this problem?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012

Answer:

After setting up the camera, you can use rotate the lens of the camera (circled by the LED) to adjust the focus. Rotate the lens clockwise to focus on the close objects; rotate the lens anti-clockwise to focus on the distant objects.



Adjust the focal length (inside the LED)



Rotate clockwise to focus on close object



Rotate anti-clockwise to focus on distant object

Q78. Why the actual monitoring quality is worse than the configuration?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A

- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. The image quality may be restricted and interfered by the network bandwidth.
2. The network connection is not purely independent; it is often shared by other network devices which will occupy the bandwidth.
3. Network cameras do not support high performance quality.
4. When there are multiple accesses to the monitoring page, the image quality will be reduced. (It is recommended to have three simultaneous connections to the monitoring page at maximum.)
5. The same camera may be shared by multiple NVR for recording at the same time.
6. For the best recording performance, please do not open too many IE browsers to access the monitoring page.

Q79. Why the user with the administrator authority can't delete the files on the NVR via FTP?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- **VioStor-8040U-RP**

Answer:

Currently, the NVR only allows the administrator to delete or change the files on the NVR via FTP.

Q80. When I monitored the image on the NVR for a while, my PC did not respond until I closed the IE browser. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please make sure your PC meets the following requirements.

VioStor-101/ NVR-104/ NVR-101

- CPU: Pentium 4 (2GHz)
- Memory: 512MB or above
- Operation system: Windows XP or Vista (32-bit)
- Browser: IE6 or later

VioStor-2008/ 201

- CPU:
 - * Motion-JPEG format (up to 8 channels): Pentium 4 CPU 2.2 GHz or above
 - * MPEG-4/ H.264 format (up to 8 channels): Dual core CPU 2.2 GHz or above
- Memory: 1GB or above
- Operation system: Windows XP or Vista (32-bit)
- Browser: IE6 or later

VioStor-5012/ 2012

- CPU:
 - * Motion-JPEG format (up to 12 channels): Pentium 4 CPU 2.4 GHz or above
 - * MPEG-4/ H.264 format (up to 12 channels): Dual core CPU 2.4 GHz or above
- Memory: 1GB or above
- Operation system: Windows XP or Vista (32-bit)
- Browser: IE6 or later

VioStor-5020

- CPU:
 - * Motion-JPEG format (up to 20 channels): Pentium 4 CPU 2.8 GHz or above
 - * MPEG-4/ H.264 format (up to 20 channels): Dual core CPU 2.8 GHz or above
- Memory: 1GB or above
- Operation system: Windows XP or Vista (32-bit)
- Browser: IE6 or later

VioStor-8040U-RP/ 8040

- CPU:
 - * Motion-JPEG format (up to 40 channels): Dual core CPU 2.4 GHz or above
 - * MPEG-4/ H.264 format (up to 40 channels): Quad core CPU 2.4 GHz or above
- Memory: 1GB or above
- Operation system: Windows XP or Vista (32-bit)
- Browser: IE6 or later

Q81. I've installed Sony cameras behind the router, and the NVR couldn't detect any motion detection from the cameras. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008

- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Sony cameras deliver alarm by FTP port, but they do not support FTP port mapping. Therefore, your NVR cannot detect any alarm from the cameras if they are installed behind the router.

Q82. I've installed Sony cameras behind the router, and the NVR couldn't detect any motion detection from the cameras. Why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Sony cameras deliver alarm by FTP port, but they do not support FTP port mapping. Therefore, your NVR cannot detect any alarm from the cameras if they are installed behind the router.

Q83. How to configure the resolution, frame rate, and quality of Linksys WVC54GCA?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

NVR does not support Linksys camera setting. Please login the camera settings page to configure the settings.

Q84. I use NVR to connect to eight Sony cameras with MPEG4 compression. However, the frame rate of recordings does not follow my settings and there is audio delay, why?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please keep the default value of Sony camera with MPEG4 compression.

Q85. I use sequential mode to monitor Panasonic BLC111 & BLC131 cameras, why the cameras are disconnected at short intervals?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- VioStor-101A
- VioStor-101P
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This is a limitation of Panasonic BLC111 & BLC131 cameras. If you connect the cameras persistently, they will be disconnected easily. You may set the sequential display time longer to improve this situation.

Q86. What should I do if there is loss of picture when monitoring or playing back video of Dlink DCS 2120?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P

- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please login the camera page and go to [setting]->[audio & video]->[key frame]. Configure the key frame as 10, and this should solve the problem.

Q87. I've set the video file length of Vivotek cameras on VioStor NVR as 1 minute and the frame rate as 1 fps. Why the recording files are all 2 minutes long?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104V
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This is a camera limitation. Vivotek camera uses MPEG4 technology (group of picture) and the smallest unit of the video recording file is 120 frames. Therefore, if the frame rate setting is 1 fps, the video recording files are 2 minutes.

Q88. When I select a camera in camera configuration page and change Panasonic network camera to Canon camera, why there are logs "Set video quality on Camera 1 failed"?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- VioStor-101A
- VioStor-101P
- VioStor-2008

- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

To change the camera to a different brand, please remove the old camera and then add the new camera.

Q89. I can manually specify the FTP server address of the camera in alarm settings page; however, the function does not work after entering a domain name. How to solve the problem?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. For Panasonic cameras, you can configure DNS in Setup → Static IP Address Configuration → DNS configuration.
2. For Canon cameras, you can configure DNS in Miscellaneous → DNS configuration.
3. For Axis cameras, you can configure DNS in Setup → advanced TCP/IP settings → DNS configuration.

4. For Vivotek cameras, you can configure DNS in Configurations → Network → DNS configuration.

Q90. Can the files of multiple VioGate-100/120 and VioCard-100 be saved to the same NAS simultaneously?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Yes, but note the disk number restriction. VioGate-100/120 and VioCard-100 are built in with continuously recording function. Old files will be overwritten when disk space is not enough. When QNAP NAS-2108R is in use, as only two disks are supported, only two VioGate servers or VioCard can be used. Note that the disks have to be configured as two single disk volumes.

Q91. Can a snapshot be saved in different locations at the same time on VioCard and VioGate series?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

No. You can copy the file to another location.

Q92. Are the files recorded by VioGate-100/120 or VioCard-100 saved by file size or time?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The recording files of VioGate are saved by time (one minute one file) by each channel.

Q93. What format should the files recorded by VioGate be converted to for playing by Windows Media Player?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The files can be saved as ivg or avi format.

Q94. How to calculate the storage needed for recording by VioGate?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The storage needed varies to the recording image. It is recommended to test directly. Suppose 640x480 is selected with 3fps, each channel needs 6.2G storage space every day for recording. A total of 24.8G will be needed for 4-channel recording. If using QNAP NAS-4300 that supports 2T storage (250G HDD x 8), about 8 VioGate servers of 32-channel recording can be supported for 10-day recording.

When using 320x240, you can count the amount by one fourth of 640x480.

Q95. Why IE browser cannot display the screen when logging in VioGate-100/120 or VioCard-100?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The screen resolution required by VioGate-100/ 120 and VioCard-100 is 1024x768. Please adjust your screen settings.

Q96. Why the screen is black when I login VioGate?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Please check the following:

1. IE version is 5.0 or above.
2. Check the security settings of IE in Tools/ Internet Options select it as Medium or lower.
3. Virus scan program is turned off.
4. If you are using Windows 2000 or XP, make sure your user account has authority to install software.
5. Clear the cookies in your IE.

Q97. How is the performance of different fps settings differing from the others?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V

- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Generally human beings can identify 15~20 fps image playing. When fps is over 20, difference can hardly be told. When fps is 15~30, the playing will be seen as continuous playing. When fps is 1~10, image playing will be seen as interrupted.

Q98. If I adjust the fps of each channel as max, can the channels achieve 30 fps?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

No. The maximum fps VioGate-100/120, and VioCard-100 support is 50fps for 4-channel monitoring. When setting each channel's fps as max, the maximum fps (50fps) will be shared by the four channels and each channel will achieve 10~15 fps.

Q99. How long is the transfer distance of network cable in general?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

About 100M.

Q100. May I change the video signal standard of VioGate-100/120 and VioCard-100 when they are in use?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Yes, but you have to restart the system to apply the changes.

Q101. Why all alarm recordings would be removed by overwriting process?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Current overwriting policy is shown as below.

If disk free space reaches the lower bound, the system would do the following steps.

1. Delete alarm recordings older than the preserved days (if you did not set yet, the value is 0) until space becomes enough.
2. If not enough, delete normal recordings until space become enough.

So, if you did not set reserved days of alarm recordings, all alarm recordings would be almost deleted after overwriting.

Q102. Do VioGate-100/120 and VioCard-100 support NTSC and PAL signals?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Yes. VioGate-100/120 and VioCard-100 will detect and apply the correct signal standard every time they are turned on.

Q103. What resolution does VioGate support?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

VioGate supports 160x120, 320x240, 640x240 and 640x480.

Q104. Is any control device needed to remote control camera?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

No. QNAP VioGate series are purely network products which can be managed and controlled by connecting to the network via PC. If you need to establish different monitoring centers, all you need are extra computers and connect them to the network of VioGate.

Q105. Why PTZ camera cannot work for VioCard/
VioGate?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Please make sure the PTZ model is supported by VioCard/
VioGate. Check if the baud rate settings of the camera are the same. If the camera cannot be used or you need to support specific camera, please contact QNAP technical support.

Q106. Why I cannot use my DynaColor camera with
VioGate?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

When using the protocol of DynaColor, the models supported are D7720 and D7721. If these models are not used, you can select the protocol of Pelco to test. The pins S1 & S2 of DynaColor camera must be set as D protocol to be controlled by VioGate. However, as Pelco D does not support auto mode, DynaColor camera can only be used with manual or preset mode.

Q107. How to calculate the file size of recording by VioGate-100/120 and VioCard-100?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The file size depends on the variables of the cameras like resolution, compression rate and fps.

Resolution: The higher the resolution, the smaller the file size. The file size of resolution 640x480 is two times larger than that of 640x240, and four times larger than that of 320x240.

Compression rate: The higher the compression rate, the smaller and the less clear the file size is, vice versa.

FPS: FPS refers to frame shown on screen per second. The larger the number of fps, the smoother the image displayed but the larger the file size. Then using 320x240 and medium is selected as compression rate by VioGate, each frame size will be 5~10KB.

Q108. Why the size of recorded files is different?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The files recorded by VioGate-100/120 and VioCard-100 are saved in JPEG format. The file size depends on the complexity of image recorded. The simpler the image, the smaller the file size is, vice versa.

Q109. Why I can't configure VioGate when entering IP address in storage settings on Windows 98?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

On Windows 98 OS, enter the PC name but not the IP address.

Q110. What is the bandwidth occupied by VioCard-100?

Applied Models:

- VioCard-100
- VioCard-300

- VioGate-140
- VioGate-340(340A)

Answer:

When using 320x240 resolution, a frame recorded by VioCard-100 will occupy 10 Kbytes.

Q111. How many frames per second do VioGate-100/120 or VioCard-100 record?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

The maximum frames per second VioGate-100/120 or VioCard-100 can record are 50 fps if using 320x240 for monitoring. That 50fps have to be shared by 4-channel monitoring. Each channel can achieve 30fps (real time recording). That is, if a channel is adjusted for 30 fps real time monitoring, the other three channels will share 20fps as the example below.

- Channel 1= 30 fps
- Channel 2 = 10 fps
- Channel 3 = 5 fps
- Channel 4 = 5 fps

Q112. How many fps does Max refer to on the monitoring screen?

Applied Models:

- VioCard-100
- VioCard-300

- VioGate-140
- VioGate-340(340A)

Answer:

Max refers to 30 fps for real time monitoring. However, when playing images on PC via the Internet, the image displayed will be affected by network transfer speed and may not be the same as 30 fps as displayed on screen.

Q113. How to determine if two network devices are in the same LAN?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Example 1.

Assume that there is a PC A with IP: 192.168.1.10 and subnet mask: 255.255.255.0. PC A wants to connect PC B with IP: 192.123.2.3. Multiply IP of PC A by the 4 digits of subnet mask A (convert 255 as 1). Then multiply the

4 digits of PC B's IP by the 4 digits of PC A's subnet mask (convert 255 as 1). If the sum is the same, they are in the same LAN. If not, they aren't.

IP (PC A): 192.168.1.10 <--192.168.1.10

Subnet mask (PC A): 255.255.255.0 <--1.1.1.0

Result: **192.168.1.0**

IP (PC B): 192.123.2.3 <--192.123.2.3

Subnet mask (PC A): 255.255.255.0 <--1.1.1.0

Result: **192.123.2.0**

As 192.168.1.0 192.124.2.0, PC A and PC B are not in the same LAN.

Example 2.

PC A with IP: 192.168.1.10 and subnet mask: 255.255.255.0; PC B with IP 192.168.1.39.

IP (PC A): 192.168.1.10 <-- 192.168.1.10

SM (PC A): 255.255.255.0 <-- 1.1.1.0

Result: **192.168.1.0**

IP (PC B): 192.168.1.39 <-- 192.168.1.39

SM (PC A): 255.255.255.0 <-- 1.1.1.0

Result: **192.168.1.0**

As 192.168.1.0=192.168.1.0, PC A and PC B are in the same LAN.

Q114. How long is the transfer distance of coaxial cable in general?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Generally it should be 250M, but may vary to the quality.

Q115. Why VioCard 30/300 log in screen show

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Please check the jumper of flash.

If the jumper is losed, please insert the jumper to 3,4 site(master).

Q116. Why the hardware key cannot be found when running VioGate Master after updating it to V1.3.3623?

Applied Models:

- VioGate Master

Answer:

Please run "SPNCombolnst1.0.5" by Keypro Driver in VioGate Master folder.

Q117. What are the default network settings of VioGate-100/120 or VioCard-100?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

When DHCP server is available, VioGate-100/120 and VioCard-100 will acquire IP address automatically. If no DHCP server is available, the default settings are: IP (192.168.0.1); Subnet mask (255.255.255.0).

Q118. Why I cannot connect VioGate-100/120 or VioCard-100 while I can find them via QNAP Finder?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

Please check if the PC you are using and VioGate are in the same LAN area.

Q119. How to view and change the network settings of PC?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)
- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Windows 2000, XP & Vista: Right click My Network Places and select Properties. Right click the network connection in use and select

Properties. Choose Internet Protocol (TCP/IP) and select Properties. If you are using fixed IP, you can view and change the network settings here. If your PC acquires IP automatically.

2. Run ipconfig in the command prompt to check the network settings of your PC.

Q120. I have a Vivotek camera and set the advanced configuration of motion detection in camera's web UI manually, such as sensitivity and percentage setting. Why the advanced configuration of motion detection does not work?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104V
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please do the following:

1. Disable the motion detection on NVR's setting page. Apply the settings and enable the function again.
2. Restart the VioStor.

Q121. How to expand the storage capacity of VioStor-101 and NVR-104 by the eSATA port?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V

Answer:

You may refer to the steps below:

1. Back up the data on the VioStor to an external storage device.
2. Connect an eSATA disk to the eSATA port of the VioStor-101 and NVR-104.
3. Login the administration page and go to "Device Configuration".
4. Create a RAID 0 disk volume or linear disk volume with the internal hard drive of the VioStor and the eSATA disk.

Warning: To create a RAID 0 disk volume or linear disk volume, the drives must be formatted and all the data will be cleared. Make sure you have backed up the recording data before formatting the drives.

Q122. What is FTP passive mode?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioCard-100
- VioCard-300
- VioGate Master
- VioGate-140
- VioGate-340(340A)

- Vioserver-10
- Vioserver-5
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

FTP supports two modes, Standard (or PORT or Active) and Passive (or PASV).

Compared with the Standard mode, the FTP clients of the Passive mode also start by establishing a connection to TCP port 21 on the FTP server to create the control channel. When the client sends a PASV command over the command channel, the FTP server opens an ephemeral port (between 1024 and 5000) and informs the FTP client to connect to that port before requesting data transfer. As in Standard mode, the FTP client must send a new PASV command prior to each new transfer, and the FTP server will await a connection at a new port for each transfer.

Q123. I've installed the VioStor behind the router or firewall and set up port mapping (virtual server) on the router. However, I still couldn't access the VioStor. What should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A

- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please follow the steps below:

1. Open the Internet Explorer browser.
2. On the "Tools" menu, click "Internet Options".
3. Click the "Advanced" tab.
4. Under "Browsing", uncheck the option "Enable folder view for FTP sites".
5. Check the box "Use Passive FTP (for firewall and DSL modem compatibility)".
6. Click "OK".

After changing the above settings, try to access your VioStor again. If failed, please contact our technical support.

Q124. Why can't I login the administration page of the VioStor?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040

- VioStor-8040U-RP

Answer:

Please check if you have the administrator access right to the server. Only administrators are allowed to login the VioStor.

Q125. About ICS-1013, when I monitor the plants outdoor, the green leaves appear to be light purple. Why?

Applied Models:

- ICS-1013
- NVR-101
- NVR-1012

Answer:

The camera is equipped with infrared night view function that the filter on the camera absorbs infrared in the light and may cause color shift. This is a common feature of general CMOS cameras with infrared function which is designed for clear monitoring at night.

Q126. Why can't I use the SMB, FTP and Web File Manager in VioStor?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012

- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Please go to Network Settings-File Services page and check if these three functions are enabled.
2. When VioStor is installed behind a router and the access to VioStor is outside the router, you will not be able to use SMB and FTP services.

Q127. Why VioStor takes too long to restart?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

When the server has been restarting for more than 5 minutes, please turn off the power and turn on the server again. If the problem persists, please contact the technical support.

Q128. Why can't the monitoring page be fully displayed in Internet Explorer?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

If you are using the zooming function of Internet Explorer 7, the page may not be displayed properly. Please click F5 to refresh the page.

Q129. Why can't I find my VioStor in QNAP Finder?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please do the following:

1. Check if the VioStor is turned on.
2. Make sure the PC and the NVR(VioStor) are in the same subnet.
3. Check the network connection of the computer and the VioStor.
4. Refresh QNAP Finder and check the IP address of the VioStor. Make sure you have turned off all firewall on your computer.

Q130. Why can't the changes to the system configurations take effect?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

After changing the settings in administration page, click the Apply button to apply the changes.

Q131. Why can't the E-map be displayed correctly?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012

- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

Please check the file format. VioStor supports E-map in JPEG only.

Q132. Why the estimated storage space for recording displayed in Recording Settings page is different from the actual value?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This estimated value is for reference only. The actual disk space may vary according to the image contents, network environment and the performance of the cameras.

Q133. Why the screen is displayed abnormally with strange horizontal lines when the resolution of Panasonic BB-HCM381 camera is set as 640x480?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A

- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

This is due to the interlaced scanning design of the camera. Please login the camera's configuration page and go to Setup->Camera->Vertical Resolution. Then configure the setting as 240.

Q134. Why the live video of VioStor is not clear or smooth sometimes?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. The image quality may be restricted and interfered by the actual network traffic.
2. When there are multiple accesses to the camera or the VioStor server, the image quality will be reduced. And it is recommended to have three simultaneous connections to the monitoring page at maximum. For better

recording performance, please do not open too many IE browsers to view the live video.

3. The same camera may be shared by multiple VioStors for recording at the same time. Please use dedicated cameras.

Q135.If the alarm recording of VioStor does not function, what should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Please login the administration page and go to Camera Settings-Alarm Settings. Make sure alarm recording is enabled for the camera.
2. When using Panasonic BB-HCM311 cameras, the camera firmware must be upgraded to v1.3 for alarm recording to work properly.
3. If VioStor is installed behind the router, VioStor would not receive the images to start alarm recording until you set up port mapping (virtual server) on the router and manually specify the alarm FTP server address of the camera in alarm settings page.
4. When alarm recording is enabled, make sure you have configured the number of days that alarm recordings will be retained in Camera Settings-Advanced Settings. Otherwise, the recordings may be overwritten.

Q136.If the recording function of VioStor is not working properly, what should I do?

Applied Models:

- NVR-101
- NVR-1012
- NVR-104P
- NVR-104V
- VioStor-101A
- VioStor-101P
- VioStor-101V
- VioStor-2008
- VioStor-2012
- VioStor-201A
- VioStor-201P
- VioStor-201V
- VioStor-5012
- VioStor-5020
- VioStor-8040
- VioStor-8040U-RP

Answer:

1. Make sure the hard disk tray is correctly locked in VioStor.
2. When only one hard disk is installed, make sure the disk is installed in the tray of HDD1 (two-bay model). The HDD1 should be installed on top of the HDD2.
3. Check if the recording function is enabled in “Camera Configuration” page (the function is enabled by default). Make sure the IP address, name and password are correct.
4. If the above items are verified to work properly while the status LED flashes green, the hard disk(s) may be damaged or cannot be detected. Please turn off the server and install a new hard disk.

Note: If you have updated the configurations of VioStor, recording will be stopped temporarily and restart again shortly.

Q137.How to evaluate the bandwidth usage of VioGate to avoid network congestion?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140

- VioGate-340(340A)

Answer:

Content: It is evaluated that the actual bandwidth required by VioGate is as below:

Gigabit network: 15~16 Mbyte/s

100M network: 5~8 Mbyte/s

If the resolution is 640x480 with 3fps, each VioGate with 4-channel recording will occupy 360K/s.

360x16 VioGate=4.7M/s

As 4.7M/s < 5M/s (100M is the actual network bandwidth). Therefore, a 100M network cable can allow 16 VioGate servers for transfer. It is recommended to use 8 VioGate.

Q138.Can I have different bitrate for viewing and different for recording?

Applied Models:

- VioCard-100
- VioCard-300
- VioGate-140
- VioGate-340(340A)

Answer:

You could do it by channel.

Q139. Will VioGate Master 32 support 16 Viocard-300 where only one video channel is used?

Applied Models:

- VioGate Master

Answer:

No.

Because VioGate Master 32 support 8 VioCard-300 at most. If you want to use 16 Viocard-30, you would better to buy VioGate Master 64.

Tutorial

T1. [Tutorial] How to use Qstart?

Introduction

Qstart brings two leading-edge innovative features: system initialization and network switch control. It simplifies system initialization through automatically assigning default settings with just a single click. By integrating supported switches, Qstart provides comprehensive network topology and a device list for users to fully manage the network health and device status. Qstart integrates the major functions of PoE switches so users can easily setup camera IPs, manage PoE status and monitor traffic flow from the VioStor software (QVR). The intuitive GUI also allows for precise failure detection and efficient troubleshooting. Qstart provides users with a refreshing experience when installing and remotely maintaining NVRs.

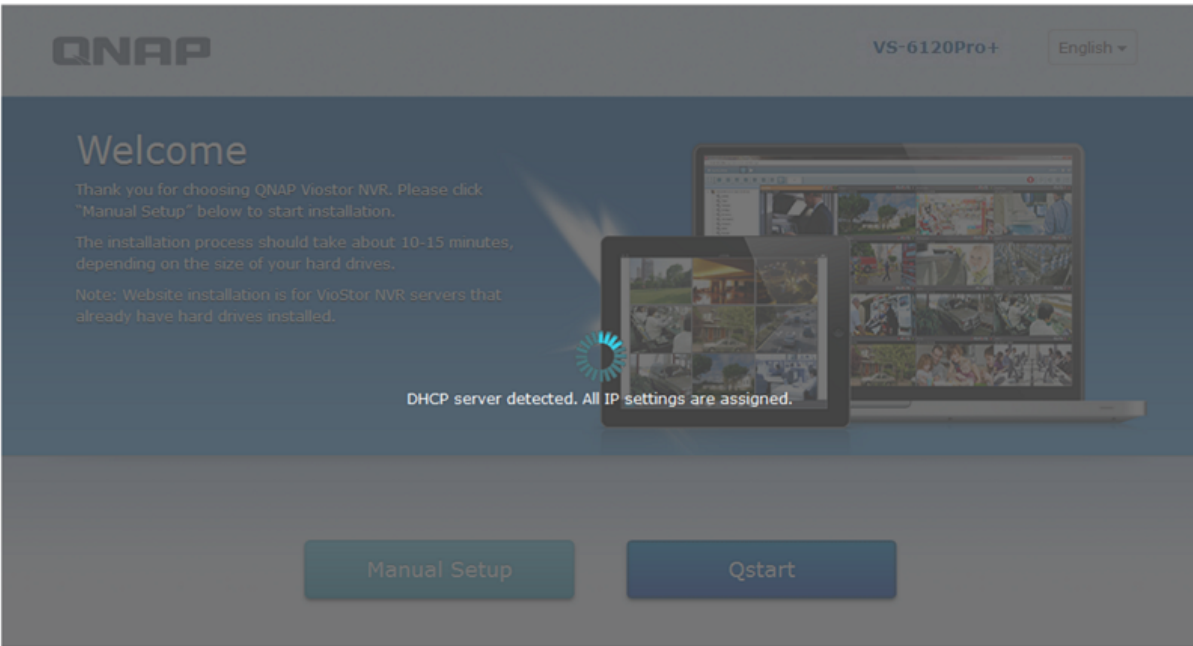
[Check the compatibility list](#)

Initialization

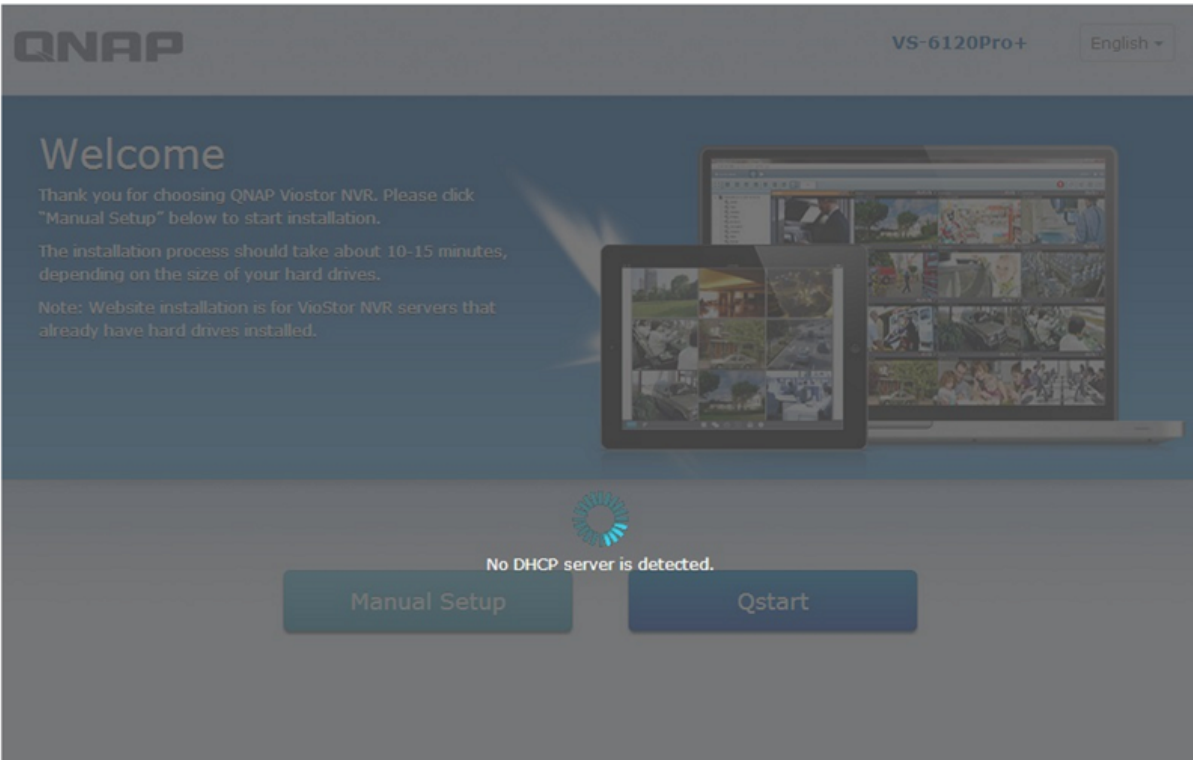
1. Connect to the QVR webpage and select Qstart. Please ensure you use a supported switch and a VioStor model.



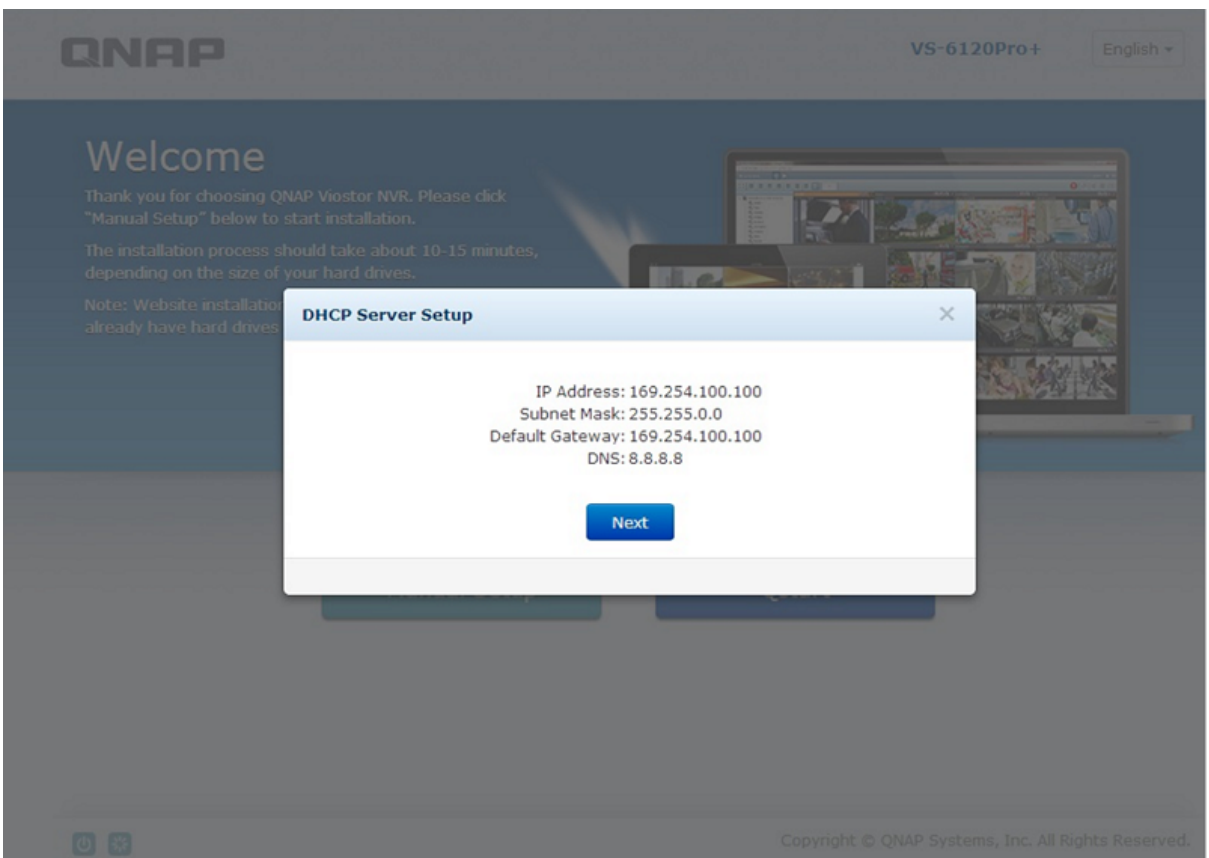
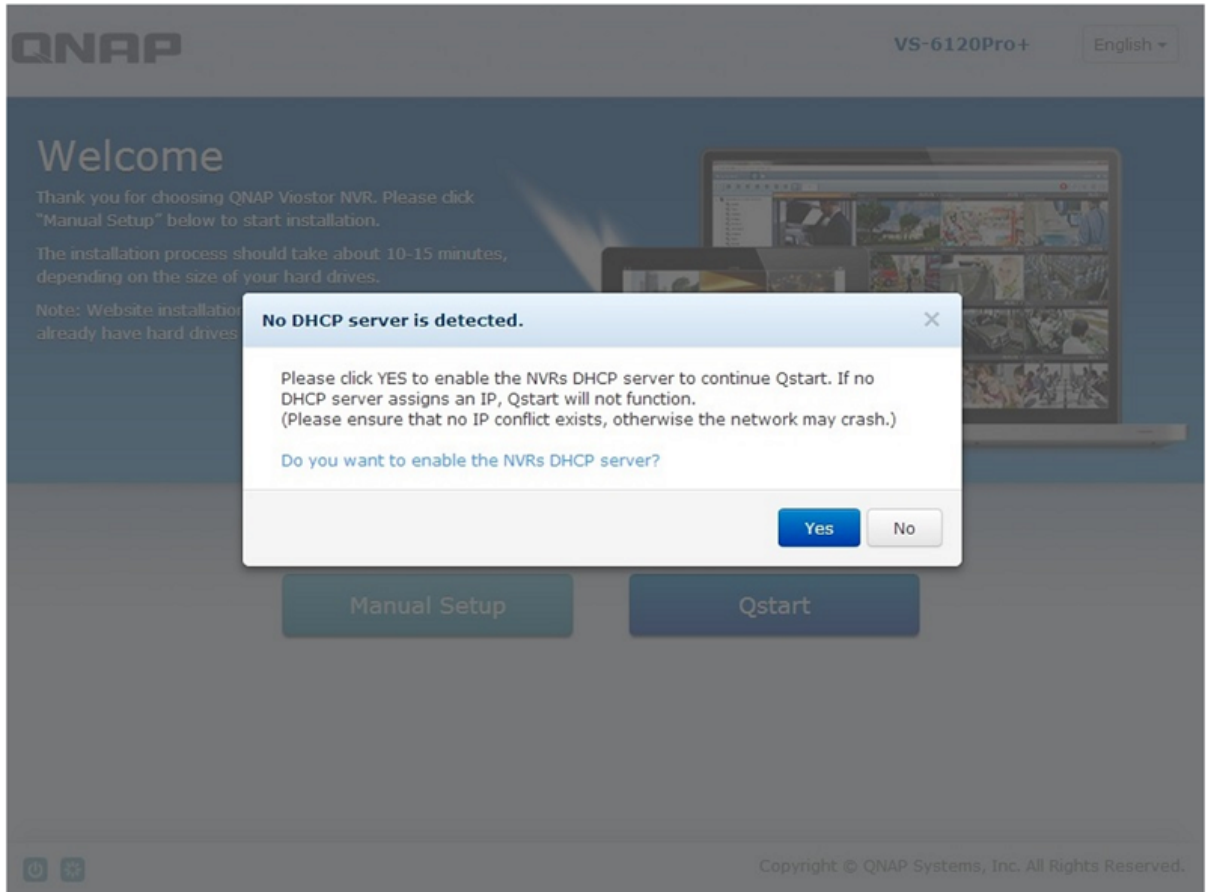
2. VioStor will detect if there is a DHCP server on the same LAN.
 - i. If a DHCP server is detected, it will proceed to the Quick Setup page.



ii. If a DHCP server is not detected, users will be asked to enable the NVR's DHCP server.



- A. Users can enable the DHCP server by clicking Yes.



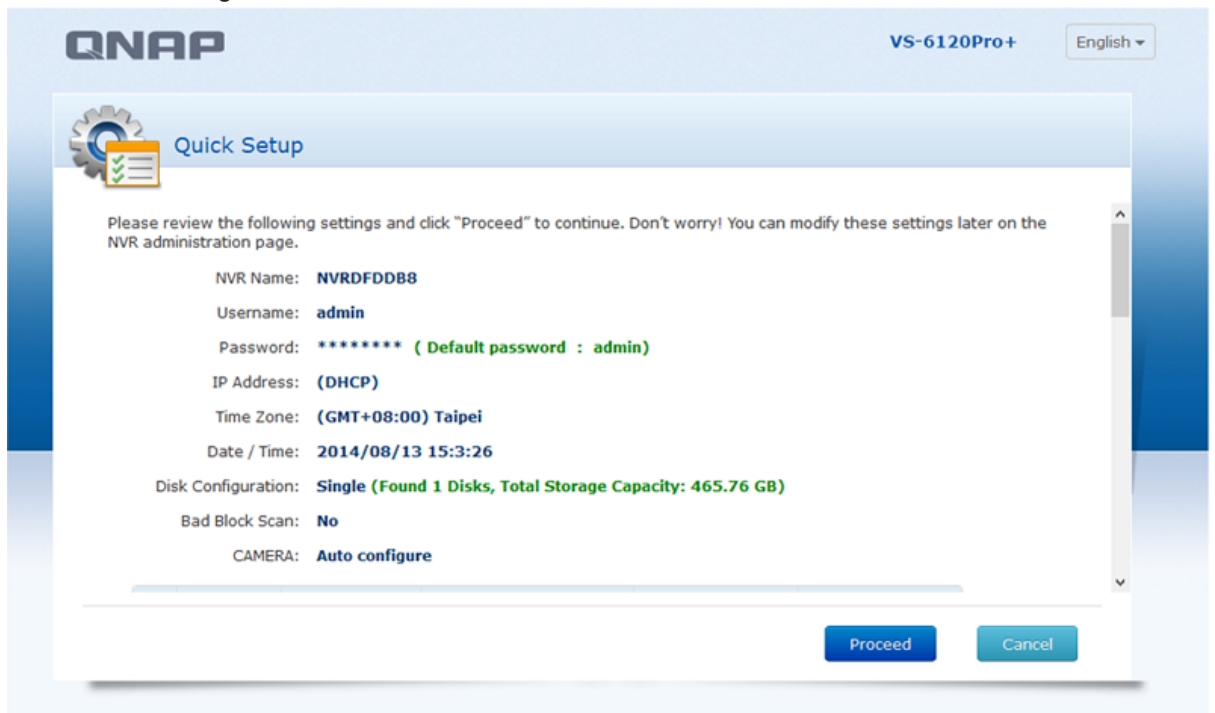
- B. Clicking No will return to the initial page.



3. The Quick Setup page includes basic information for both the NVR and devices connected to the switch (including the time zone, name, IP, Disk configuration, and more.) Confirm that these are correct and proceed to complete the initialization.

Please note:

- i. Users cannot modify network settings (DHCP/Static) in Qstart mode.
- ii. The channel number is based on the port number of the switch.
(For example, if a VS-2112 Pro+ connects to a 24-port switch, the table will show channel 1 to channel 24 regardless of the NVR's supported channels.)
- iii. Default settings:
 - Selects all supported cameras that are connected to the switch.
 - Auto configure





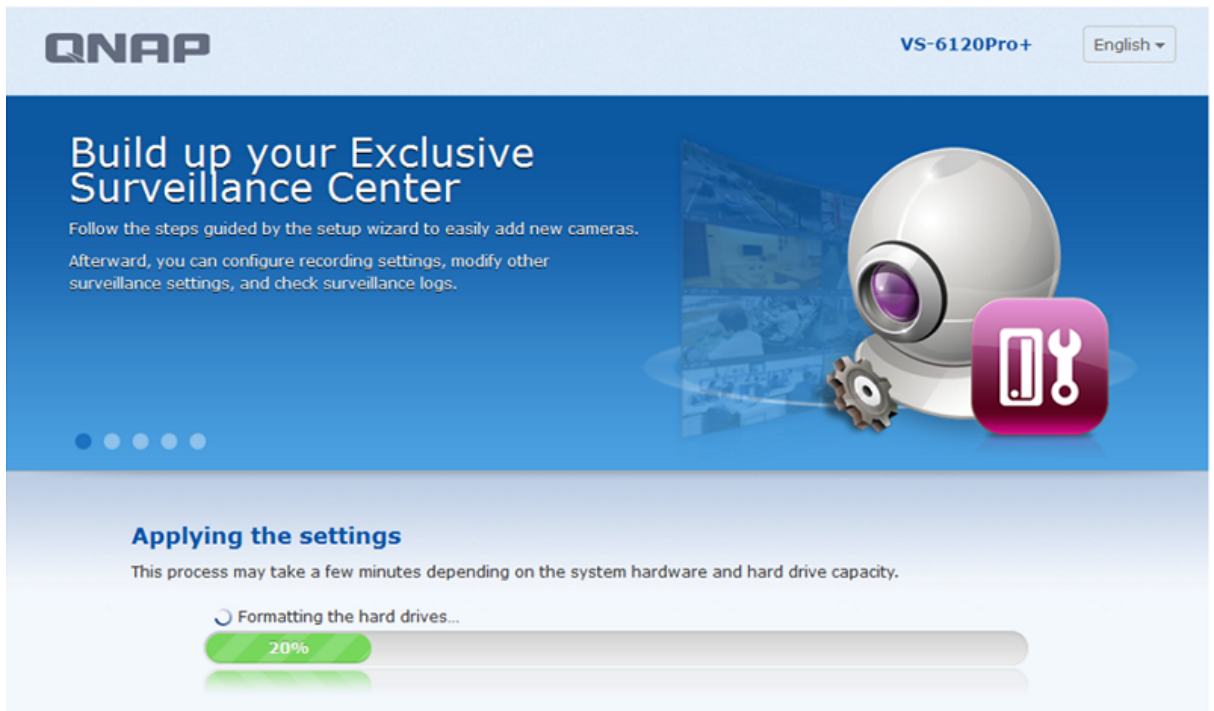
Quick Setup

	Channel	Brand	Model	IP Address	MAC Address
<input checked="" type="checkbox"/>	1	Panasonic iPro	Panasonic iPro SF334	169.254.101.191	08:00:23:90:b5:86
<input checked="" type="checkbox"/>	2	Vivotek	VivoTek FD7160	169.254.101.200	00:02:d1:0a:44:c3
<input checked="" type="checkbox"/>	3	Sony	Sony SNC-DS10	169.254.101.183	00:1d:ba:4f:5e:8d
<input checked="" type="checkbox"/>	4	Vivotek	VivoTek IP8362	169.254.101.196	00:02:d1:11:28:43
<input checked="" type="checkbox"/>	5	Sony	Sony SNC-VB600B	169.254.241.77	3c:07:71:1e:36:98
<input checked="" type="checkbox"/>	6	Sony	Sony SNC-VB630	169.254.85.251	54:53:ed:f9:19:1e
<input checked="" type="checkbox"/>	7	Vivotek	VivoTek FD8136	169.254.101.198	00:02:d1:18:2d:8d
<input checked="" type="checkbox"/>	8	Sony	Sony SNC-EM630	169.254.206.87	d8:d4:3c:13:97:19
<input checked="" type="checkbox"/>	9	Panasonic iPro	Panasonic iPro SF135	169.254.101.184	08:00:23:96:33:5d
<input checked="" type="checkbox"/>	10	Sony	Sony SNC-EB600B	169.254.49.192	d8:d4:3c:38:63:6e
<input checked="" type="checkbox"/>	11	ACTi	ACTi D61	169.254.101.197	00:0f:7c:0a:95:57
<input checked="" type="checkbox"/>	12	Sony	Sony SNC-CS20	169.254.101.185	00:1d:ba:3f:e3:ed
<input checked="" type="checkbox"/>	13	Panasonic iPro	Panasonic iPro SW152	169.254.101.186	08:00:23:95:a4:8e
<input checked="" type="checkbox"/>	14	Vivotek	VivoTek PD8136	169.254.101.199	00:02:d1:1c:07:0a
<input checked="" type="checkbox"/>	15	ACTi	ACTi D11	169.254.101.192	00:0f:7c:09:21:20
<input checked="" type="checkbox"/>	16	ACTi	ACTi E31	169.254.101.190	00:0f:7c:09:78:19
<input checked="" type="checkbox"/>	17	Panasonic iPro	Panasonic iPro SP102	169.254.101.194	08:00:23:95:a6:a7
<input checked="" type="checkbox"/>	18	ACTi	ACTi E41	169.254.101.193	00:0f:7c:09:ae:bf
<input checked="" type="checkbox"/>	19	Axis	Axis P1357	169.254.101.188	ac:cc:8e:03:05:d9
<input checked="" type="checkbox"/>	20	Axis	Axis P1355	169.254.101.187	00:40:8c:f4:cd:d8
	21				

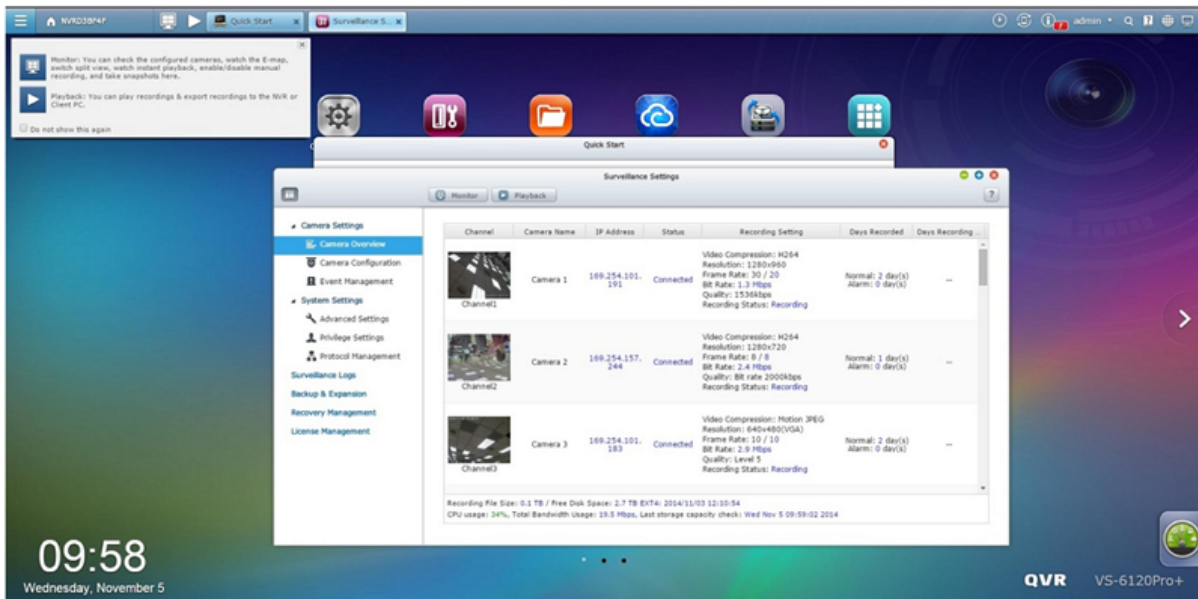
Proceed

Cancel

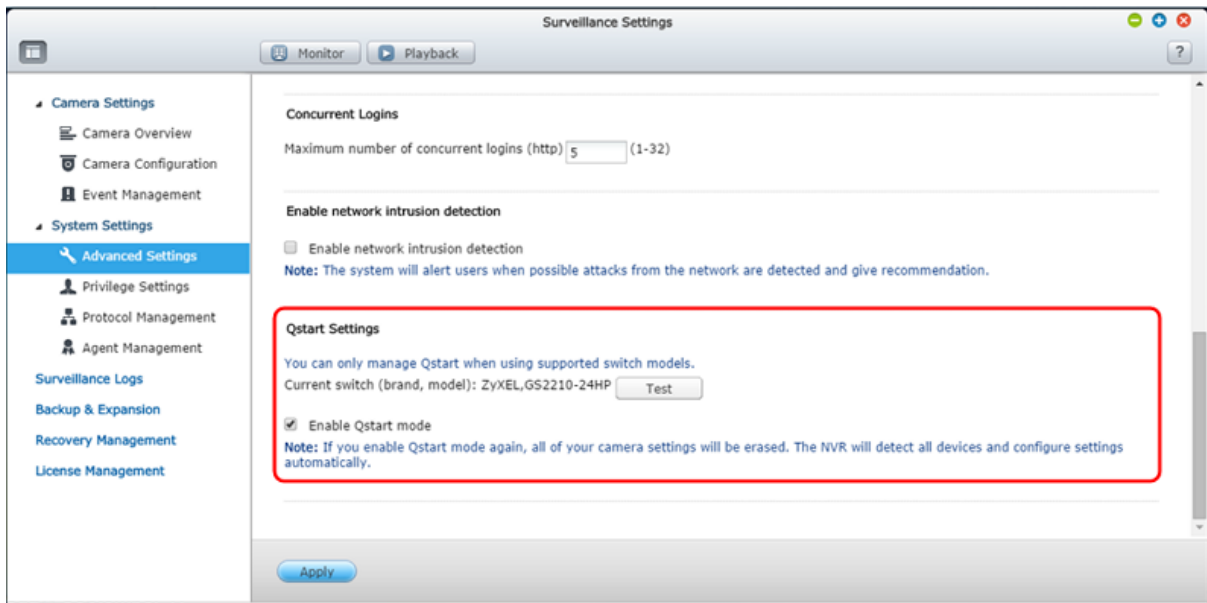




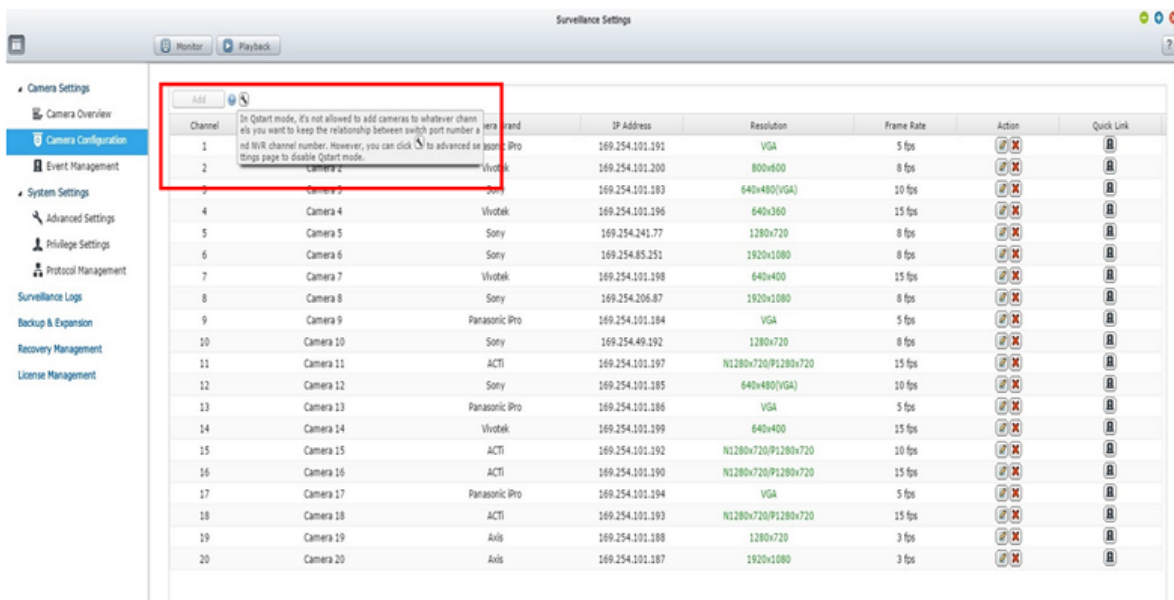
4. Enter the QVR desktop. The camera overview page and QVR introduction page will appear simultaneously. (Camera overview is in front, and QVR introduction behind it.)



Qstart mode: Surveillance Settings -> Advance Settings-> Qstart Settings:



1. Use supported switches to enable Qstart mode. The brand and model name will be shown and users can test the connection.
2. Switch between Qstart mode and traditional mode:
 - i. Qstart mode is enabled by default if users select Qstart during initialization. Otherwise it will be disabled.
 - ii. If you enable Qstart mode again, all of your camera settings will be erased.
3. Intuitive channel mapping:
The video shown on channel 1 represents the recording view of port 1 to the switch.
4. Camera configuration limitations:
In Qstart mode, you cannot add cameras to specific channels. To get around this limitation, you will need to disable Qstart in Advanced Settings.



5. Port setting behaviors:
 - i. Add a supported camera to the port:
 - If it is a new camera, the NVR will automatically add it using default settings.
 - If it is a camera that has been used before, the NVR will use its previous settings.
 - ii. Removing the camera from the port will clear the camera settings.
 - iii. Any port changes will be saved in the system log page.

Switch Control (embedded)

1. Topology: Show the switch's complete connection relationship



i. The diagram will display supported switches, cameras, VioStor NVR, and other devices (including PCs, laptops, unsupported switches, and other unknown devices.)



Switch

Camera

QNAP NVR

Other Device







- ii. Users can choose different ways to display the topology (top/right/left/bottom).
- iii. Clicking the device's IP address will open that IP address in your browser.
- iv. Clicking on a camera will open the camera's settings page.

2. Switch Control Chart:

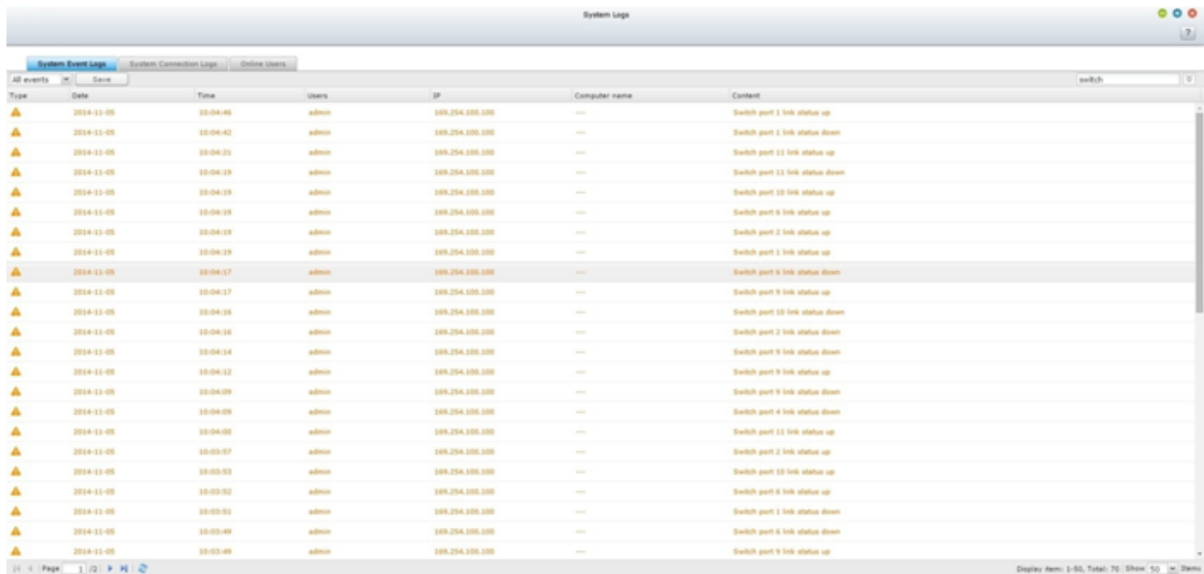
Port	IP Address	MAC Address	Transferred	Received	Link Status / Max Link Rate	Consumed Power	Network Switch	PoE Switch	Reset Transferred/Received
1	192.254.101.131	08:00:23:90:85:06	50.64 MB	537.87 MB	on / 10Mbps	2.50 w	on	on	🔄
2	192.254.101.130	00:02:4f:0a:44:c3	42.48 MB	89.02 MB	on / 10Mbps	5.90 w	on	on	🔄
3	192.254.101.133	00:16:8e:af:5e:8d	45.29 MB	381.31 MB	on / 10Mbps	6.30 w	on	on	🔄
4	192.254.101.136	00:02:4f:11:28:43	43.16 MB	172.46 MB	on / 10Mbps	4.70 w	on	on	🔄
5	192.254.101.137	3c:07:71:0e:36:98	42.52 MB	252.34 MB	on / 10Mbps	4.00 w	on	on	🔄
6	192.254.101.132	54:53:e6:f9:19:1e	40.34 MB	14.46 MB	on / 10Mbps	4.10 w	on	on	🔄
7	192.254.101.138	00:02:4f:19:2d:8d	44.52 MB	651.67 MB	on / 10Mbps	2.00 w	on	on	🔄
8	192.254.101.137	68:04:3c:13:97:19	41.72 MB	307.62 MB	on / 10Mbps	3.90 w	on	on	🔄
9	192.254.101.134	08:00:23:96:33:5d	40.32 MB	173.76 MB	on / 10Mbps	2.10 w	on	on	🔄
10	192.254.101.132	68:04:3c:38:63:6e	41.75 MB	306.19 MB	on / 10Mbps	2.90 w	on	on	🔄
11	192.254.101.137	00:0f:7c:0e:95:57	40.63 MB	76.87 MB	on / 10Mbps	2.30 w	on	on	🔄
12	192.254.101.135	00:16:8e:3f:e3:ed	104.94 MB	366.30 MB	on / 10Mbps	6.30 w	on	on	🔄
13	192.254.101.138	08:00:23:95:a4:8e	1.79 GB	353.75 MB	on / 10Mbps	2.70 w	on	on	🔄
14	192.254.101.139	00:02:4f:1c:07:0a	1.70 GB	158.04 MB	on / 10Mbps	1.80 w	on	on	🔄
15	192.254.101.132	00:0f:7c:09:21:20	1.71 GB	169.76 MB	on / 10Mbps	2.50 w	on	on	🔄

- i. Complete switch information table:
Firmware version, IP address, MAC, total power, and remaining power.
- ii. Complete port information:
Device IP, MAC, TX/RX, power consumption, PoE ability, Network ability.

iii. Corresponding switch status types:
 (Network, P: PoE, L: Link, Only N is on, then L can be detected as on/off.)

NLP_off	P_on_NL_off	N_on_LP_off	NP_on_L_off	NL_on_P_off	NLP_on
					

3. **Event Notification:** show detailed logs relevant to the switch



Type	Date	Time	Users	IP	Computer name	Content
▲	2014-11-05	10:04:40	admin	192.254.150.100	---	Switch port 1 link status up
▲	2014-11-05	10:04:42	admin	192.254.150.100	---	Switch port 1 link status down
▲	2014-11-05	10:04:21	admin	192.254.150.100	---	Switch port 11 link status up
▲	2014-11-05	10:04:19	admin	192.254.150.100	---	Switch port 11 link status down
▲	2014-11-05	10:04:19	admin	192.254.150.100	---	Switch port 10 link status up
▲	2014-11-05	10:04:19	admin	192.254.150.100	---	Switch port 6 link status up
▲	2014-11-05	10:04:19	admin	192.254.150.100	---	Switch port 2 link status up
▲	2014-11-05	10:04:19	admin	192.254.150.100	---	Switch port 1 link status up
▲	2014-11-05	10:04:17	admin	192.254.150.100	---	Switch port 6 link status down
▲	2014-11-05	10:04:17	admin	192.254.150.100	---	Switch port 9 link status up
▲	2014-11-05	10:04:16	admin	192.254.150.100	---	Switch port 10 link status down
▲	2014-11-05	10:04:16	admin	192.254.150.100	---	Switch port 10 link status down
▲	2014-11-05	10:04:16	admin	192.254.150.100	---	Switch port 2 link status down
▲	2014-11-05	10:04:14	admin	192.254.150.100	---	Switch port 9 link status down
▲	2014-11-05	10:04:12	admin	192.254.150.100	---	Switch port 9 link status up
▲	2014-11-05	10:04:09	admin	192.254.150.100	---	Switch port 9 link status down
▲	2014-11-05	10:04:09	admin	192.254.150.100	---	Switch port 4 link status down
▲	2014-11-05	10:04:00	admin	192.254.150.100	---	Switch port 11 link status up
▲	2014-11-05	10:03:57	admin	192.254.150.100	---	Switch port 2 link status up
▲	2014-11-05	10:03:53	admin	192.254.150.100	---	Switch port 10 link status up
▲	2014-11-05	10:03:52	admin	192.254.150.100	---	Switch port 6 link status down
▲	2014-11-05	10:03:51	admin	192.254.150.100	---	Switch port 1 link status down
▲	2014-11-05	10:03:49	admin	192.254.150.100	---	Switch port 6 link status down
▲	2014-11-05	10:03:49	admin	192.254.150.100	---	Switch port 9 link status up

Switch Compatibility List

Supported NVR		
Brand	Model	FW Version
QNAP	VS-2104 Pro+/2108 Pro+/2112 Pro+	QVR5.0.3
	VS-4108 Pro+/4112Pro+/4116 Pro+	QVR5.0.3
	VS-6112 Pro+/6116Pro+/6120 Pro+	QVR5.0.3
Switch Compatibility		
Brand	Model	FW Version
eten	PSG-6010VM	101140715
	PSG-6018VM	101140715
	PSG-7026VM	101140715
EtherWAN	EX76402	1.94.2-beta5
	EX24402	1.94.2-beta5
ZyXEL	GS2210-24HP	V4.10 (AANE.3)

Supported Camera Brands: AXIS, ACTi , SONY, Panasonic, VIVOTEK
IP Camera Compatibility List

Brand	Model	Camera Firmware
ACTi	B21	A1D-500-V6.03.07-AC
ACTi	B25	A1D-500-V6.03.07-AC
ACTi	B27	A1D-500-V6.03.08-AC
ACTi	B41	A1D-500-V6.03.09-AC
ACTi	B45	A1D-500-V6.03.10-AC
ACTi	B47	A1D-500-V6.03.11-AC
ACTi	B51	A1D-500-V6.03.12-AC
ACTi	B53	A1D-500-V6.03.13-AC
ACTi	B54	A1D-500-V6.03.14-AC
ACTi	B55	A1D-500-V6.03.15-AC
ACTi	B56	A1D-500-V6.03.16-AC
ACTi	B61	A1D-500-V6.03.17-AC
ACTi	B65	A1D-500-V6.03.18-AC
ACTi	B67	A1D-500-V6.03.19-AC
ACTi	B81	A1D-500-V6.03.20-AC
ACTi	B85	A1D-500-V6.03.21-AC
ACTi	B87	A1D-500-V6.03.22-AC
ACTi	B92	A1D-500-V6.05.23-AC
ACTi	B93	A1D-500-V6.03.07-AC
ACTi	B94	A1D-500-V6.05.23-AC
ACTi	B95	A1D-500-V6.05.23-AC
ACTi	B96	A1D-500-V6.05.23-AC
ACTi	B97	A1D-500-V6.05.23-AC
ACTi	D11	A1D-500-V6.01.03-AC
ACTi	D12	A1D-500-V6.01.06-AC
ACTi	D21	A1D-500-V6.01.06-AC
ACTi	D22	A1D-500-V6.01.06-AC

ACTi	D31	A1D-500-V6.01.06-AC
ACTi	D32	A1D-500-V6.01.06-AC
ACTi	D41	A1D-500-V6.01.06-AC
ACTi	D42	A1D-500-V6.01.06-AC
ACTi	D51	A1D-500-V6.01.06-AC
ACTi	D52	A1D-500-V6.01.06-AC
ACTi	D54	A1D-500-V6.01.06-AC
ACTi	D55	A1D-500-V6.01.06-AC
ACTi	D61	A1D-500-V6.01.06-AC
ACTi	D62	A1D-500-V6.03.07-AC
ACTi	D64	A1D-500-V6.01.06-AC
ACTi	D65	A1D-500-V6.01.06-AC
ACTi	D71	A1D-500-V6.01.06-AC
ACTi	D72	A1D-500-V6.01.06-AC
ACTi	D81	A1D-500-V6.01.06-AC
ACTi	D82	A1D-500-V6.01.06-AC
ACTi	D91	A1D-500-V6.01.06-AC
ACTi	D92	A1D-500-V6.01.06-AC
ACTi	E11	A1D-500-V6.01.06-AC
ACTi	E12	supported by design
ACTi	E13	A1D-500-V6.01.06-AC
ACTi	E21	A1D-500-V6.01.06-AC
ACTi	E22	A1D-500-V6.01.06-AC
ACTi	E23	A1D-500-V6.03.07-AC
ACTi	E24	A1D-500-V6.01.06-AC
ACTi	E25	A1D-500-V6.01.06-AC
ACTi	E270	A1D-500-V6.05.16-AC
ACTi	E271	A1D-500-V6.05.16-AC
ACTi	E31	A1D-500-V6.01.06-AC
ACTi	E32	A1D-500-V6.01.06-AC
ACTi	E33	A1D-500-V6.01.06-AC

ACTi	E34	A1D-500-V6.01.06-AC
ACTi	E37	A1D-500-V6.05.16-AC
ACTi	E41	A1D-500-V6.01.06-AC
ACTi	E42	A1D-500-V6.01.06-AC
ACTi	E43	A1D-500-V6.01.06-AC
ACTi	E44	A1D-500-V6.03.07-AC
ACTi	E45	A1D-500-V6.01.06-AC
ACTi	E46	A1D-500-V6.01.06-AC
ACTi	E47	A1D-500-V6.01.06-AC
ACTi	E51	A1D-500-V6.01.06-AC
ACTi	E52	A1D-500-V6.01.06-AC
ACTi	E53	A1D-500-V6.01.06-AC
ACTi	E54	A1D-500-V6.01.06-AC
ACTi	E57	A1D-500-V6.01.06-AC
ACTi	E58	A1D-500-V6.03.07-AC
ACTi	E59	A1D-500-V6.05.16-AC
ACTi	E61	A1D-500-V6.01.06-AC
ACTi	E610	A1D-500-V6.05.16-AC
ACTi	E62	A1D-500-V6.01.06-AC
ACTi	E63	A1D-500-V6.01.06-AC
ACTi	E64	A1D-500-V6.01.06-AC
ACTi	E65	A1D-500-V6.01.06-AC
ACTi	E66	A1D-500-V6.01.06-AC
ACTi	E67	A1D-500-V6.03.07-AC
ACTi	E68	A1D-500-V6.01.06-AC
ACTi	E69	A1D-500-V6.03.07-AC
ACTi	E71	A1D-500-V6.01.06-AC
ACTi	E72	A1D-500-V6.01.06-AC
ACTi	E73	A1D-500-V6.01.06-AC
ACTi	E74	A1D-500-V6.01.06-AC
ACTi	E75	A1D-500-V6.01.06-AC

ACTi	E76	A1D-500-V6.03.07-AC
ACTi	E77	A1D-500-V6.03.07-AC
ACTi	E81	A1D-500-V6.01.06-AC
ACTi	E82	A1D-500-V6.01.06-AC
ACTi	E83	A1D-500-V6.01.06-AC
ACTi	E84	A1D-500-V6.03.07-AC
ACTi	E85	A1D-500-V6.01.06-AC
ACTi	E86	A1D-500-V6.01.06-AC
ACTi	E88	A1D-500-V6.01.06-AC
ACTi	E89	A1D-500-V6.05.16-AC
ACTi	E91	A1D-500-V6.01.06-AC
ACTi	E919	A1D-500-V6.07.23-AC
ACTi	E92	A1D-500-V6.01.06-AC
ACTi	E923M	A1D-500-V6.07.10-AC
ACTi	E93	A1D-500-V6.01.06-AC
ACTi	E94	A1D-500-V6.01.06-AC
ACTi	E95	A1D-500-V6.03.07-AC
ACTi	E96	A1D-500-V6.05.16-AC
ACTi	E97	A1D-500-V6.05.16-AC
ACTi	I71	A1D-500-V6.07.10-AC
ACTi	I91	A1D-500-V6.05.22-AC
ACTi	I92	A1D-500-V6.05.22-AC
ACTi	I93	A1D-500-V6.05.22-AC
ACTi	I94	A1D-500-V6.05.22-AC
ACTi	I95	A1D-500-V6.05.22-AC
ACTi	I96	A1D-500-V6.05.22-AC
ACTi	KCM-5511	A1D-311-V5.08.06-AC
ACTi	KCM-5611	A1D-311-V5.10.02-AC
ACTi	KCM-7911	A1D-311-V5.06.01-AC
ACTi	KCM-8111	A1D-311-V5.09.04-AC
ACTi	KCM-8211	A1D-311-V5.09.04-AC

ACTi	TCM-6630	A1D-310-V4.12.02-AC
AXIS	M1013	5.40.5.4
AXIS	M1014	5.40.5.1
AXIS	M1033-(W)	5.40.5.1
AXIS	M1034-(W)	5.40.5.1
AXIS	M1143-L	supported by design
AXIS	M1144-L	5.40.10.4
AXIS	M3004	supported by design
AXIS	M3005	5.40.5.3
AXIS	M3006	5.40.13.1
AXIS	M3007	5.55.1.2
AXIS	M3007	5.55.1.2
AXIS	M3024	5.40.5.4
AXIS	M3025	5.40.5.5
AXIS	M3026	supported by design
Axis	M3027	5.55.1.2
AXIS	M5014-V	supported by design
AXIS	P1204	5.40.12
AXIS	P1214	5.40.12
AXIS	P1214-E	5.40.12
AXIS	P1353	supported by design
AXIS	P1354	5.4.0.18
AXIS	P1355	5.4.0.19
AXIS	P1357	5.4.0.19
AXIS	P3353	Supported by design
AXIS	P3354	5.40.10.2
AXIS	P3363(-V/-VE)	supported by design
AXIS	P3364(-V/-VE)	v1.03.02
AXIS	P3384-V/-VE	5.40.11
AXIS	P5414	supported by design
AXIS	P5415-E	ver. 5.55.1.2

AXIS	P5544	5.41.2.1
AXIS	P8513	5.21
AXIS	P8514	5.21
AXIS	Q1614(-E)	ver. 5.55.1.1
AXIS	Q1765(-E)	5.55.1
AXIS	Q1922(-E)	5.25.3
AXIS	Q1931(-E)	ver. 5.55.4
AXIS	Q6042	Supported by design
AXIS	Q6044	Supported by design
AXIS	Q6045	Supported by design
Panasonic	BB-ST162	1:1.43 2:1.03
Panasonic	BB-ST165	supported by design
Panasonic	BB-SW172	supported by design
Panasonic	BB-SW174	supported by design
Panasonic	BL-VP101	supported by design
Panasonic	BL-VP104	supported by design
Panasonic	BL-VT164	supported by design
Panasonic	DG/WV-SC384	supported by design
Panasonic	DG/WV-SC386	supported by design
Panasonic	DG/WV-SC588	1.9
Panasonic	WV-SF138	1.52
Panasonic	DG/WV-SF332	supported by design
Panasonic	DG/WV-SF342	supported by design
Panasonic	DG/WV-SF346	1.04
Panasonic	DG/WV-SF438	supported by design
Panasonic	DG/WV-SF538	supported by design
Panasonic	DG/WV-SF539	supported by design
Panasonic	DG/WV-SF548	supported by design
Panasonic	DG/WV-SF549	supported by design
Panasonic	DG/WV-SP105	V.2.01
Panasonic	DG/WV-SP302	supported by design

Panasonic	DG/WV-SP508	1 Application : 1.07, 2 Image data : 2.11
Panasonic	DG/WV-SP509	1:1.06 2:2.08
Panasonic	DG/WV-ST162	supported by design
Panasonic	DG/WV-ST165	supported by design
Panasonic	DG/WV-SW155	supported by design
Panasonic	DG/WV-SW158	1.04
Panasonic	DG/WV-SW172	supported by design
Panasonic	DG/WV-SW174	supported by design
Panasonic	DG/WV-SW314	supported by design
Panasonic	DG/WV-SW316	1:1.46 2:2.03
Panasonic	DG/WV-SW352	supported by design
Panasonic		1.04
Panasonic	DG/WV-SW558	supported by design
Panasonic	DG/WV-SW559	supported by design
SONY	SNC-CX600	1.9.0
SONY	SNC-CX600W	1.9.0
SONY	SNC-DH210	1.82.01
SONY	SNC-EB600	1.9.0
SONY	SNC-EB600B	1.9.0
SONY	SNC-EB630	
SONY	SNC-EB630B	
SONY	SNC-EB632R	2.1.2
SONY	SNC-EM600	1.6.0
SONY	SNC-EM601	1.6.0
SONY	SNC-EM602R	1.6.0
SONY	SNC-EM630	1.6.0
SONY	SNC-EM631	
SONY	SNC-EM632R	
SONY	SNC-EP550	1.70.00
SONY	SNC-ER550	1.70.00
SONY	SNC-HM662	1.1.1

SONY	SNC-VB600	1.3.0
SONY	SNC-VB600B	1.3.0
SONY	SNC-VB630	1.3.0
SONY	SNC-VM600	1.3.0
SONY	SNC-VM600B	1.3.0
SONY	SNC-VM601	1.3.0
SONY	SNC-VM601B	1.3.0
SONY	SNC-VM630	1.3.0
SONY	SNC-VM631	1.3.0
SONY	SNC-VM632R	1.8.0
SONY	SNC-WR600	
SONY	SNC-WR602	
SONY	SNC-WR630	1.10.0
SONY	SNC-XM632	1.12.0
SONY	SNC-ZB550	1.72.01
SONY	SNC-ZM550	1.72.01
SONY	SNC-ZP550	1.76.00
SONY	SNC-ZR550	
VIVOTEK	BD5115	supported by design
VIVOTEK	CC8130	v0100c
VIVOTEK	FD8131	v0100a
VIVOTEK	FD8131V	0300d
VIVOTEK	FD8134(V)	0301c
VIVOTEK	FD8135H	0101a
VIVOTEK	FD8136	0100e
VIVOTEK	FD8137H(V)	0101a
VIVOTEK	FD8151V	0103a
VIVOTEK	FD8163(V)	0101b
VIVOTEK	FD8164(V)	0100d
VIVOTEK	FD8166	0100g
VIVOTEK	FD8171	0101e

VIVOTEK	FD8355EHV	0100e
VIVOTEK	FD8365EHV	0101i
VIVOTEK	FD8363	0101b
VIVOTEK	FD8371EV	0100i
VIVOTEK	FD8372	0100f
VIVOTEK	FE8172	0100d
VIVOTEK	FE8173	0100c
VIVOTEK	FE8174	0100a
VIVOTEK	IP8130	0100b
VIVOTEK	IP8131W	0100e
VIVOTEK	IP8152-F(4)	0100e
VIVOTEK	IP8172	0100d
VIVOTEK	IP8332C	0200c
VIVOTEK	IP8336W	0102B
VIVOTEK	IP8337H-C	0101a
VIVOTEK	IP8355EH	0100b
VIVOTEK	IP8361	0100c
VIVOTEK	IP8364C	0100d
VIVOTEK	IP8371-E	0100g
VIVOTEK	IP8372	0100e
VIVOTEK	MD8531H	0101h
VIVOTEK	FE8181	0100h
VIVOTEK	IP8173H	0100i
VIVOTEK	PD8136	0100e
VIVOTEK	PT7135/	0400a
VIVOTEK	SD8314E	0200c
VIVOTEK	SD8316E	0200c
VIVOTEK	SD8324E	0200c
VIVOTEK	SD8326E	0200c
VIVOTEK	SD8363E	0200d

T2.[Tutorial] Flexibly monitor multiple focused areas on a camera by using ROI (Region of Interest) Mode


Prerequisites:

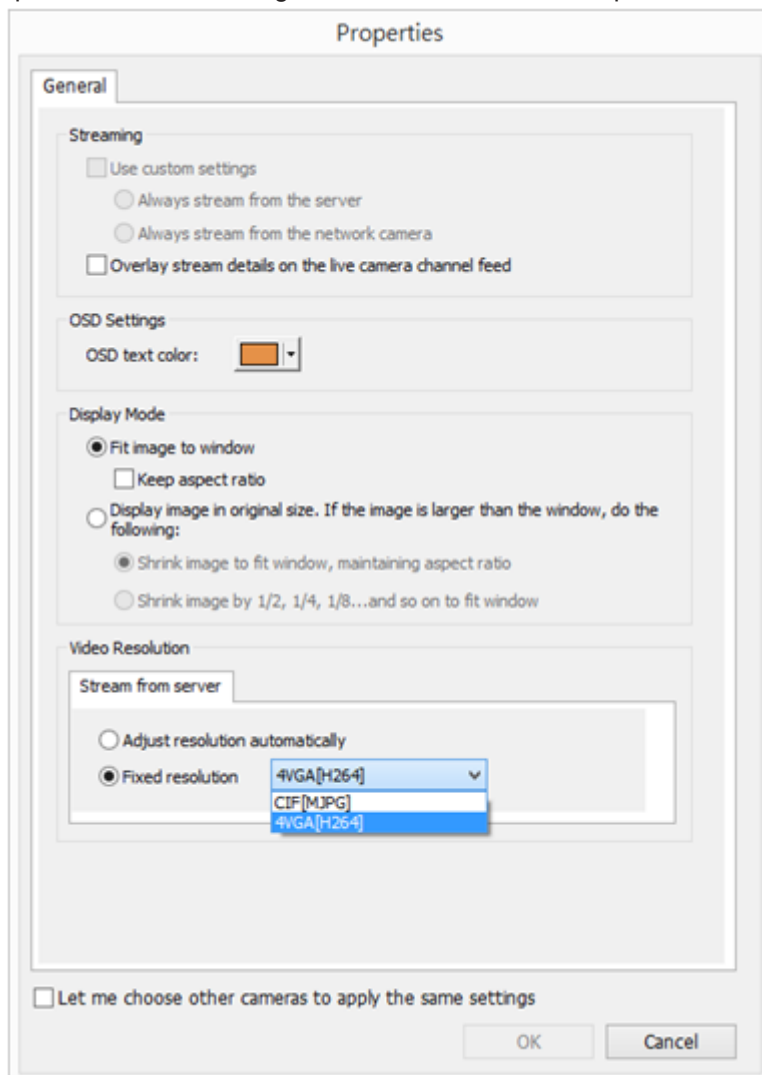
- VioStor NVR running QVR 5.1.0 or a higher version
- Operating System: Microsoft Windows 7/ 8
- Web Browser: Google Chrome 43.0.2357.130 m (Windows PC), Microsoft Internet Explorer 10/11 (Windows PC, desktop mode, 32-bit), Mozilla Firefox 39.0 (Windows PC)

Note:

The feature is not supported on local display and QVR Client for Mac.

High-megapixel cameras and fisheye cameras have a larger coverage area. If you only want to monitor one focused region on a camera, you can use the digital zoom. When you want to monitor multiple regions of interest on a single camera, ROI mode is a unique and excellent solution for you to see multiple focused regions and the larger view at once. No additional camera licenses are required. Before you configure the ROI, we strongly recommend using a video stream with at least megapixel




resolution. In the monitoring page, you can click the interactive control button  on the camera and select Properties. On the popup window, please choose Fixed resolution under Video Resolution option and select the highest resolution from the dropdown list.

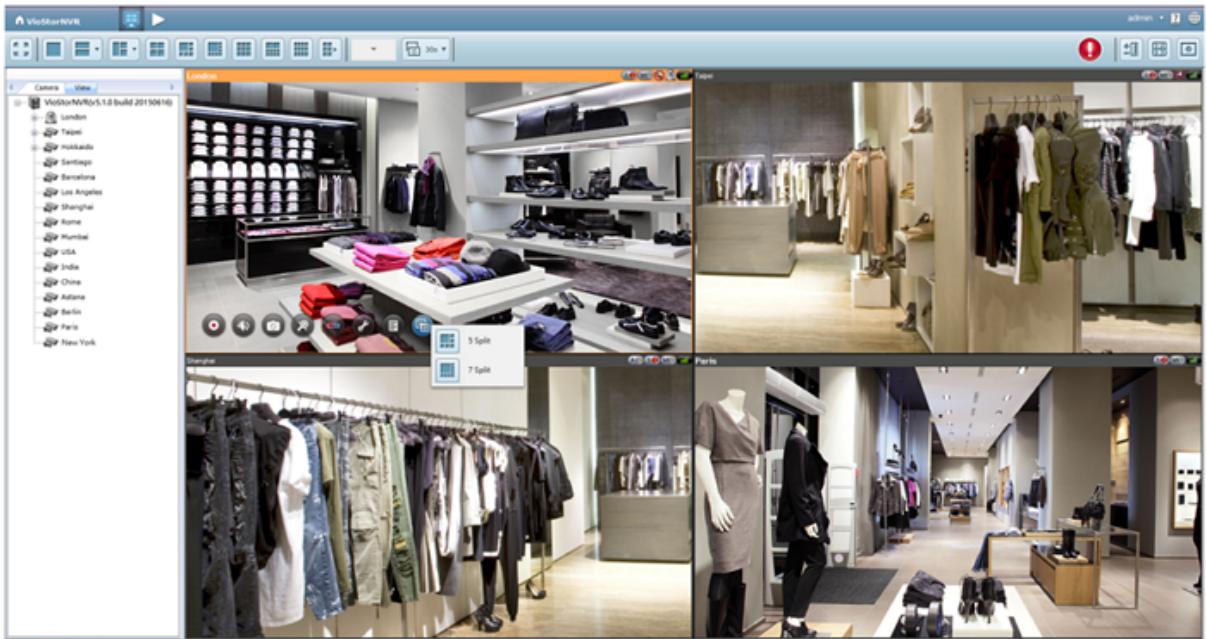


The screenshot shows the 'Properties' dialog box with the following settings:

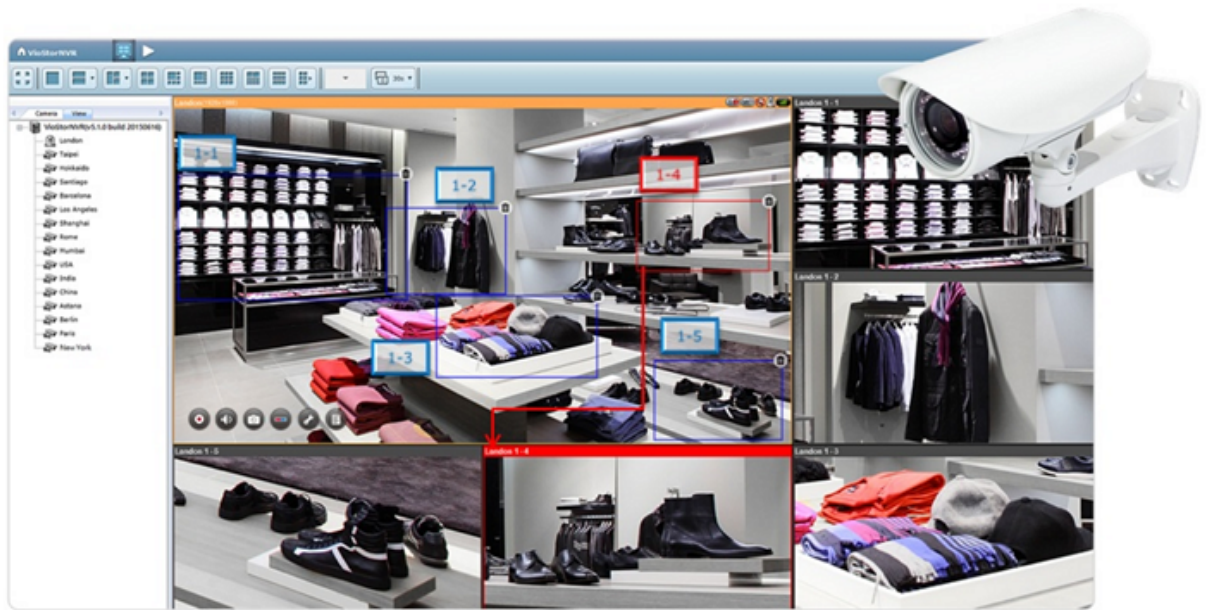
- General** tab selected.
- Streaming**:
 - Use custom settings
 - Always stream from the server
 - Always stream from the network camera
 - Overlay stream details on the live camera channel feed
- OSD Settings**:
 - OSD text color:
- Display Mode**:
 - Fit image to window
 - Keep aspect ratio
 - Display image in original size. If the image is larger than the window, do the following:
 - Shrink image to fit window, maintaining aspect ratio
 - Shrink image by 1/2, 1/4, 1/8...and so on to fit window
- Video Resolution**:
 - Stream from server
 - Adjust resolution automatically
 - Fixed resolution
 - 4VGA[H264] (selected)
 - CIF[MJPEG]
 - 4VGA[H264]
- Let me choose other cameras to apply the same settings
- Buttons: OK, Cancel

Please follow the below steps to configure the ROI.


- ROI monitoring mode provides 2 monitoring layouts. In the monitoring page, click the interactive control button  on the camera. Select  (5 Split) or  (7 Split), then the system will automatically go into the ROI mode.



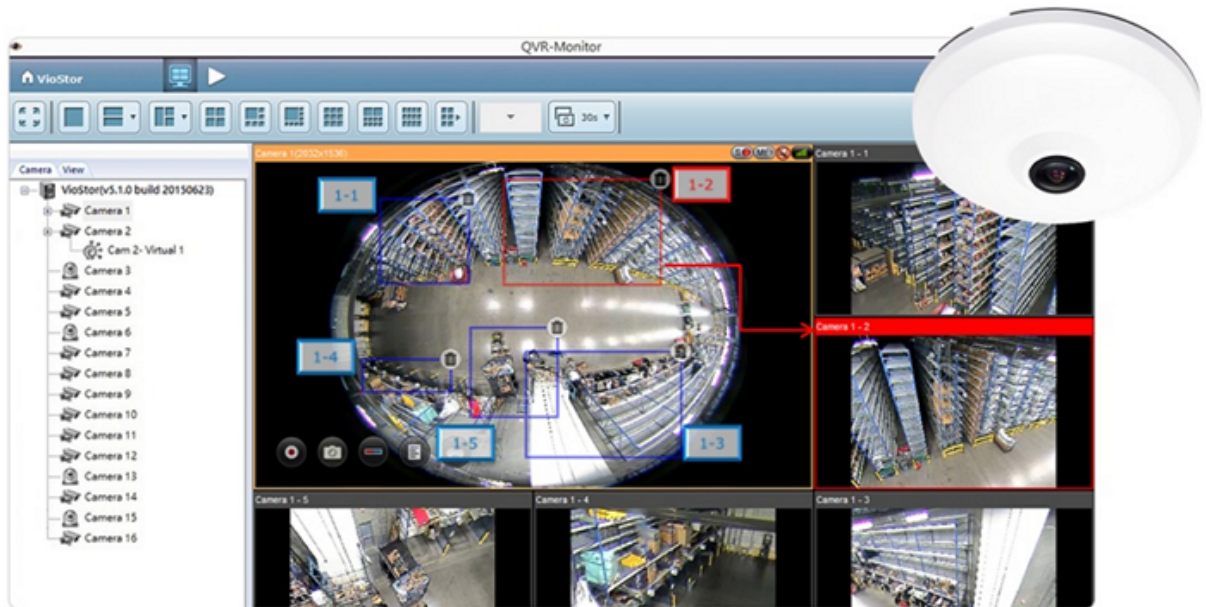
- You can drag an area to define the region of interest on the camera's field of view. The system will automatically show the regions on the side grid. You can also use the mouse to define regions, drag it to change its location, or to adjust its size.



Note:

- You can remove specific regions by clicking .
- If the camera is a fisheye camera, draw regions of interest on the main channel and they will be reflected in the inset windows. You can see the original image and multiple dewarped images in

one view.



T3.[Tutorial] Use full fisheye camera functions by Qdewarp for various monitoring applications and post-alarm diagnosis

Key Benefits:

Fisheye cameras are widely used to monitor larger areas. QNAP's Qdewarp is a generic fisheye dewarp technology that works without affecting original recordings. With Qdewarp, if the fisheye camera is on our capability list, you can choose from full dewarping modes in the remote monitoring and playback page and are not limited to vendor-specific dewarping modes.

Prerequisites:

- VioStor NVR running QVR 5.1.0 or a higher version
- Operating System: Microsoft Windows 7/ 8
- Web Browser: Google Chrome 43.0.2357.132 m (Windows PC), Microsoft Internet Explorer 10/11 (Windows PC, desktop mode, 32-bit), Mozilla Firefox 39.0 (Windows PC)

Note: The feature is not supported on local display and QVR Client for Mac.


Applicable camera models:

Camera Brand	Camera Models
3S	N9018
ACTi	B55, B56, E16, E919, E923, E923M, E927, E96, E98, I51, I71, KCM3911, KCM7911
Axis	M3007, M3027
DAHUA	IPC-EB5400, IPC-EBW81200, IPC-EBW8600
D-Link	DCS-6010L
DynaColor	NA083, Z4SA-D
Eneo	PXD-5360F01IR
Etrovision	N53U-FL, N50U-FL, N51U-FL, N53F-F, EFN3320C
Hikvision	DS-2CD6332FWD, DS-2CD6362F
Hunt	HLC-1NCF/360
Panasonic i-Pro	SW458, SF438, SFV481
Lilin	FD2452E
Mobotix	c25, i25, Q25MSECD12, T25MSECD12PW, Q22M-BASIC, Q22M-Sec, Q24M-Sec
Pixord	PD636E, PB670E, ND736E
Samsung	SNF-7010VP
SONY	SNC-HM662
Tamron	300QV-P-CM
VIVOTEK	FE8180, FE8181, FE8391-V, SF8174, VC8201-M13

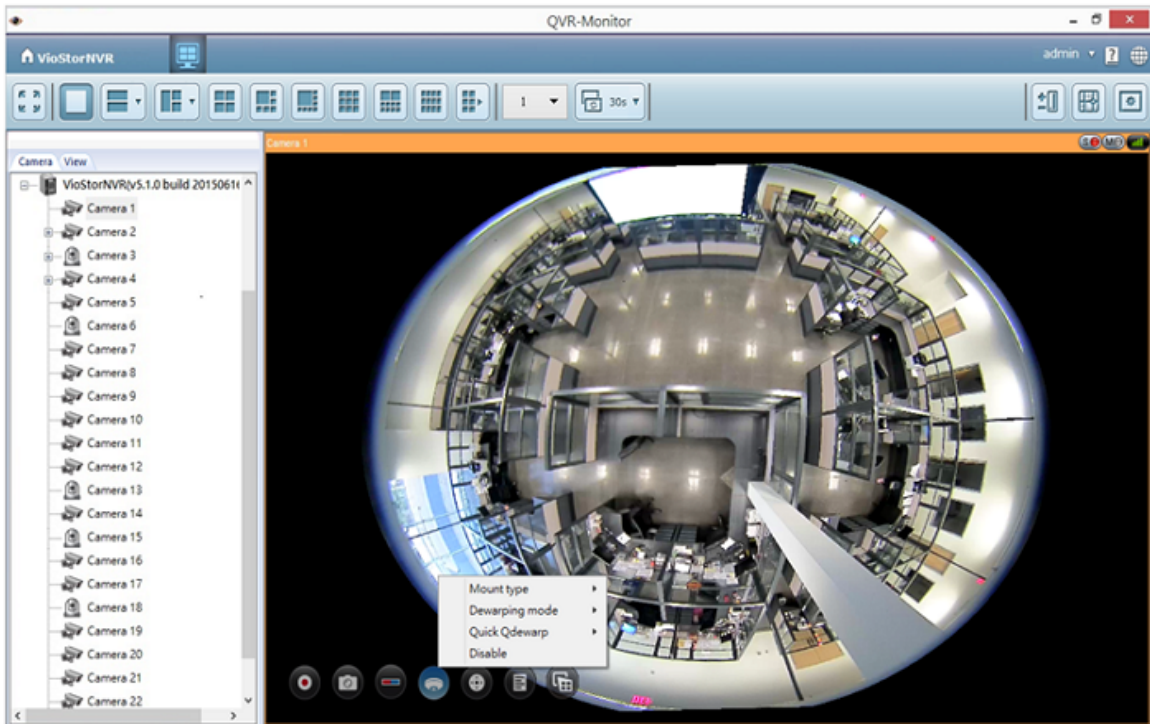
How it works?

1. Add the applicable camera model into the VioStor NVR.
2. Go to the live view page or playback page of the VioStor NVR. You can now see the 360° surround view of the fisheye camera.

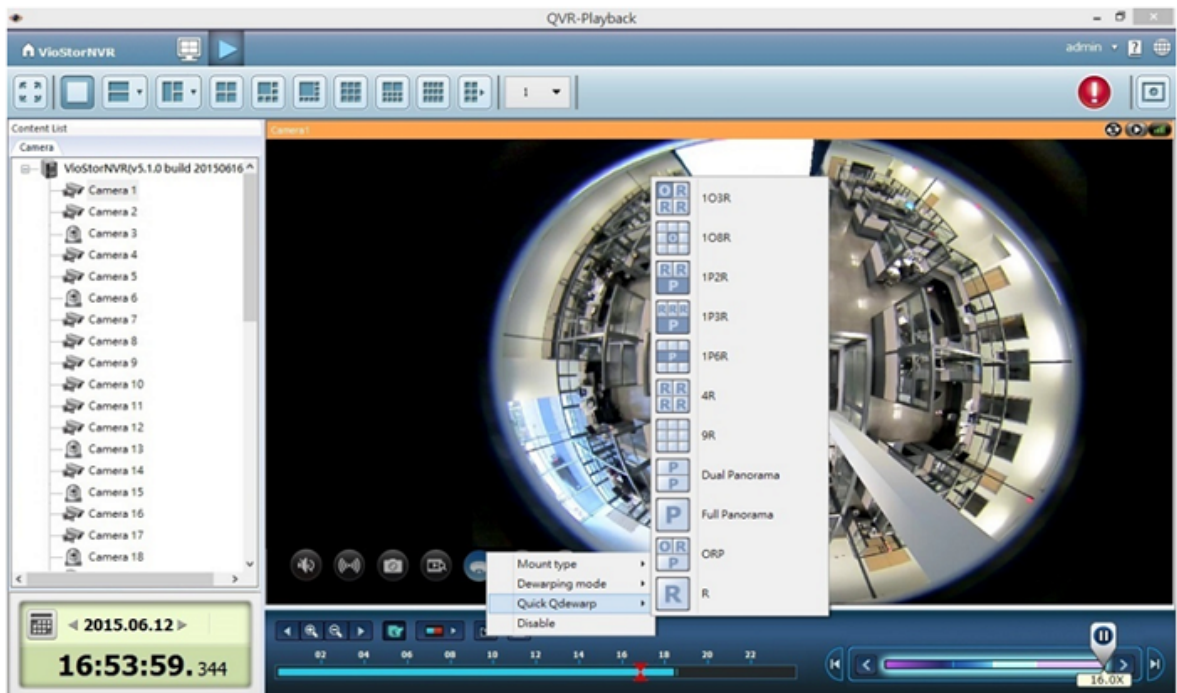
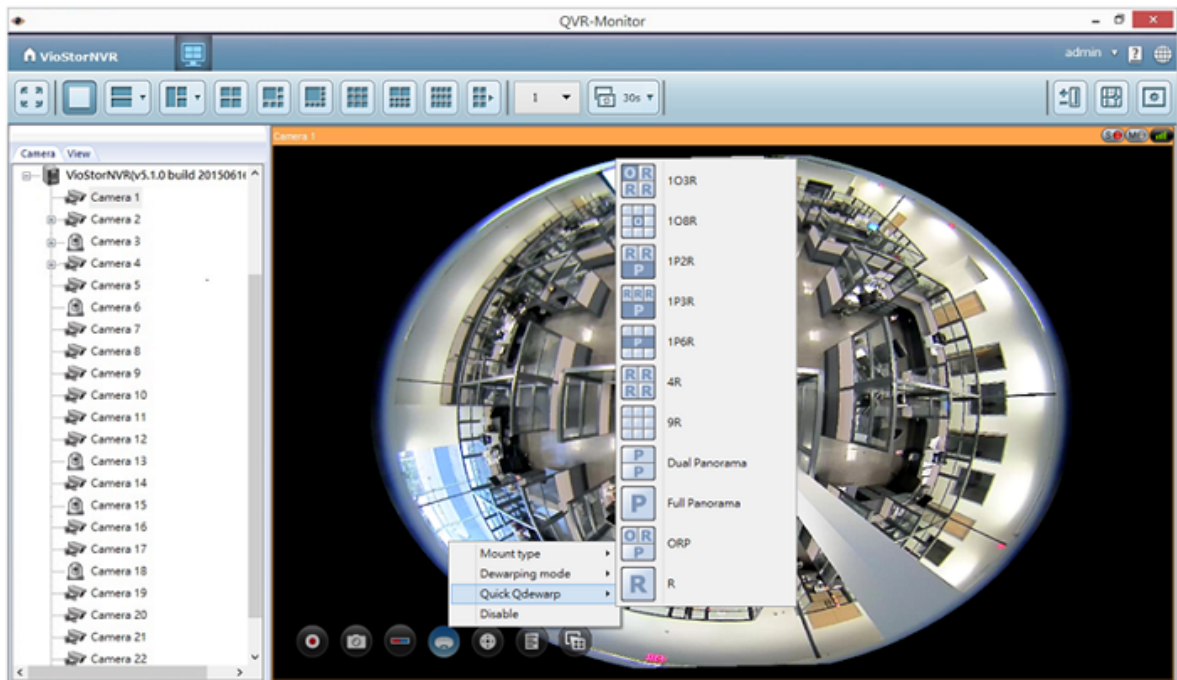
- Click the Interactive Control Buttons  on specific channels to enable fisheye dewarping.

Icon	Description
	Dewarp fisheye images: For specific fisheye cameras and camera models with panomorph lenses, you can toggle dewarping. After enabling this function, you can then select the mount type and dewarping mode.




-











- Click 'Mount type' to select the fisheye camera's installation location (ceiling, wall, or floor).
- Click 'Quick Qdewarp' to select the dewarping modes you want. There are 11 ways to monitor the focused region.



Qdewarp mode

Icon	Function	Description
	1O3R	Provides the original screen, and 3 regional screens
	1O8R	Provides the original screen in the central grid, and 8 regional screens around the center
	1P2R	Provides 2 regional screens at the top of the screen, and one panorama screen at the bottom

	1P3R	Provides 3 regional screens at the top of the screen, and one panorama screen at the bottom
	1P6R	Provides 3 regional screens at the top and bottom of the screen, with one panorama screen in the center
	4R	Provides 4 regional screens
	9R	Provides 9 regional screens
	Dual Panorama	Provides 2 panorama screens
	Full Panorama	Provides one panorama screen
	ORP	Provides one original screen one regional screen, and one panorama screen
	R	Provides one regional screen

2015/08/28

T4.[Tutorial] Customize your own layouts and views

View Management on QVR

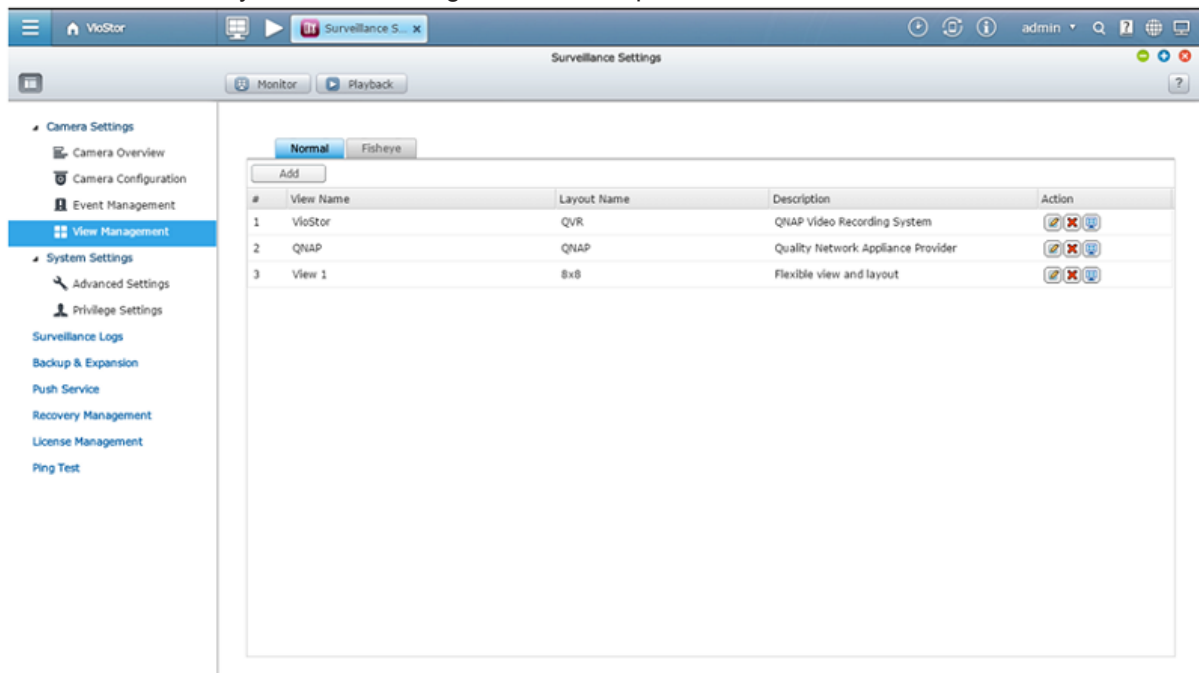
Prerequisites:

- VioStor NVR running QVR 5.1.0 or a higher version
- Operating System: Microsoft Windows 7/ 8
- Web Browser: Google Chrome 43.0.2357.130 m (Windows PC), Microsoft Internet Explorer 10/11 (Windows PC, desktop mode, 32-bit), Mozilla Firefox 39.0 (Windows PC)






Note:

The feature is not supported on local display and QVR Client for Mac.

Fisheye cameras provide 360° surround views with a 1:1 aspect ratio. Different megapixel cameras can support different resolutions and aspect ratios, such as Full HD (16:9), QXGA (4:3), and corridor format (9:16). You may want to define view layouts to suit your needs. View Management allows you to customize view layouts, and to assign cameras to specific windows.



View Management provides two modes: normal mode and fisheye mode.

Button	Description
	Add: Add view
	Edit: Edit view
	Remove: Remove view
	View thumbnail: When you hover over  , it will show thumbnails for your customized view.

Normal Mode

There are many pre-defined views in the monitoring page. If you want to create a customized view to be shown in the left view tree list in the monitoring page, click 'Add' in [Surveillance Settings] -> [Camera Settings] -> [View Management].

Add View

1. If you want to choose customized layout, please refer to here to create your own layout.

2. To add a camera to a view, drag a physical/virtual camera from the left list to the right channel screen.
3. To remove a camera from a view, you can double click on a camera snapshot or drag it to the left camera tree list. You can also click 'Restore' to remove all of the cameras.

Add

View Name:

Description:


Layout List: ⓘ


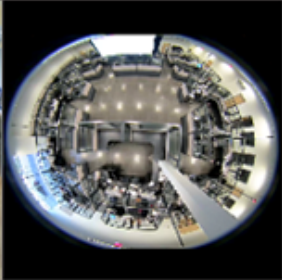
Camera:



Camera

- ▶ Camera 1
- ▶ Camera 2
 - ▶ Cam 2 - Virtual 1
 - ▶ Cam 2 - Virtual 2
 - ▶ Cam 2 - Virtual 3
- ▶ Camera 3

Preview



Streaming Priority:

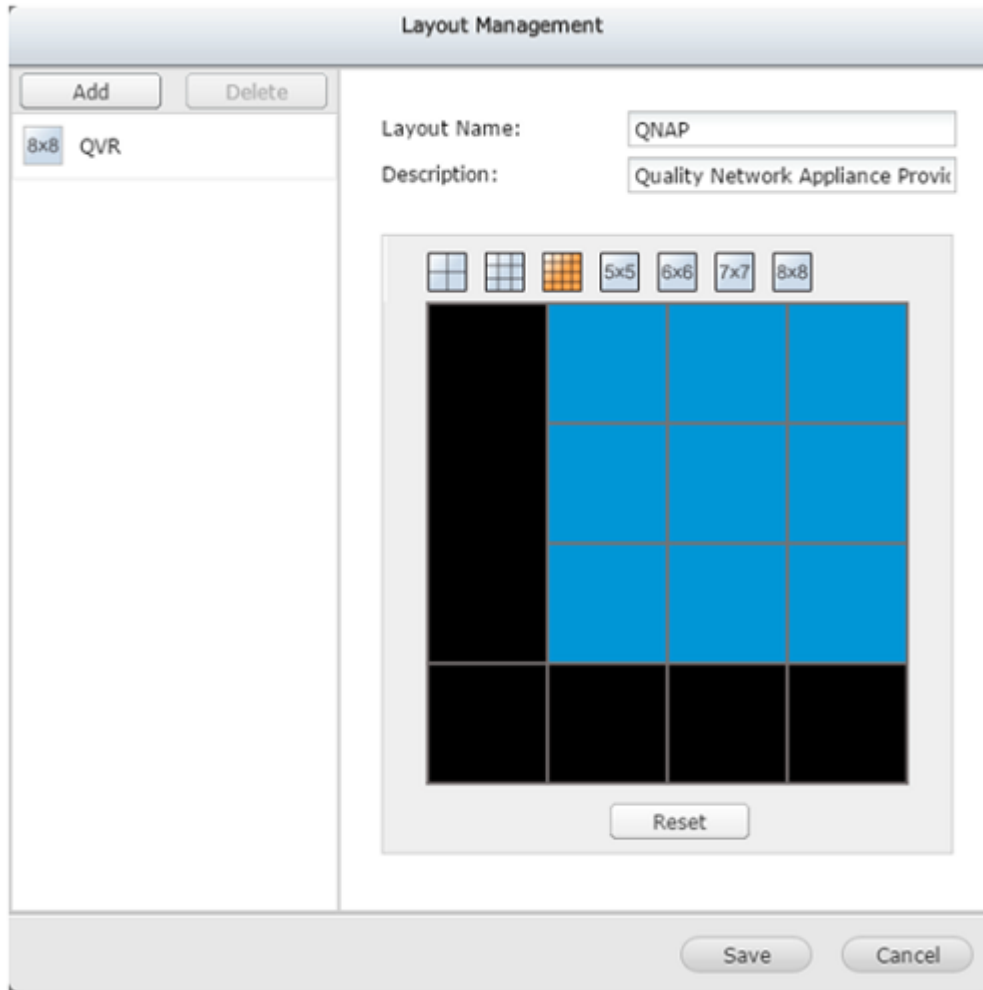
1. Choose the layout to configure.
2. Drag the camera to the layout.
3. To remove a camera or e-Map from the layout, double-click on it or drag it to the left side.

Customized layout

We support some pre-defined layouts. If you want to add a customized layout as a new layout or edit your defined layout, click 'Layout Management' in 'Add View' or 'Edit View' window first. You can then click 'Add' to add the layout or choose the layout to edit the layout in the right zone.

1. Choose a type of pre-defined layout.
2. To customize the layout, click a square and draw a larger rectangle to combine the squares. And you can double click the combined region to restore it. Or you can click 'Restore' to

restore the original layout.



3. To finish, click 'Save' and it will show on left tree list.
4. Click 'Cancel'. You can then find your defined layout in the dropdown list of layout list.

Fisheye Mode

For fisheye cameras, click 'Add' to add the below display mode under 'Fisheye' tab. You can then use the customized view in the left view tree list in the monitoring page.

Display Mode	Description
9R Mode	Provides 9 regional screens
4R Mode	Provides 4 regional screens
1O8R Mode	Provides an original screen in the center, and 8 regional screens around it
1P6R Mode	Provides an original screen in the center, and 6 regional screens around it
Dual Panorama	Provides 2 panorama screens
1P3R Mode	Provides 3 regional screens in the upper side, and one panorama screen below
1P2R Mode	Provides 2 regional screens in the upper side, and one panorama screen below
OPR Mode	Provides one original screen one regional screen, and one panorama screen
1O3R Mode	Provides an original screen, and 3 regional screens

R Mode	Provides one regional screen
Full Panorama	Provides one panorama screen

Add View

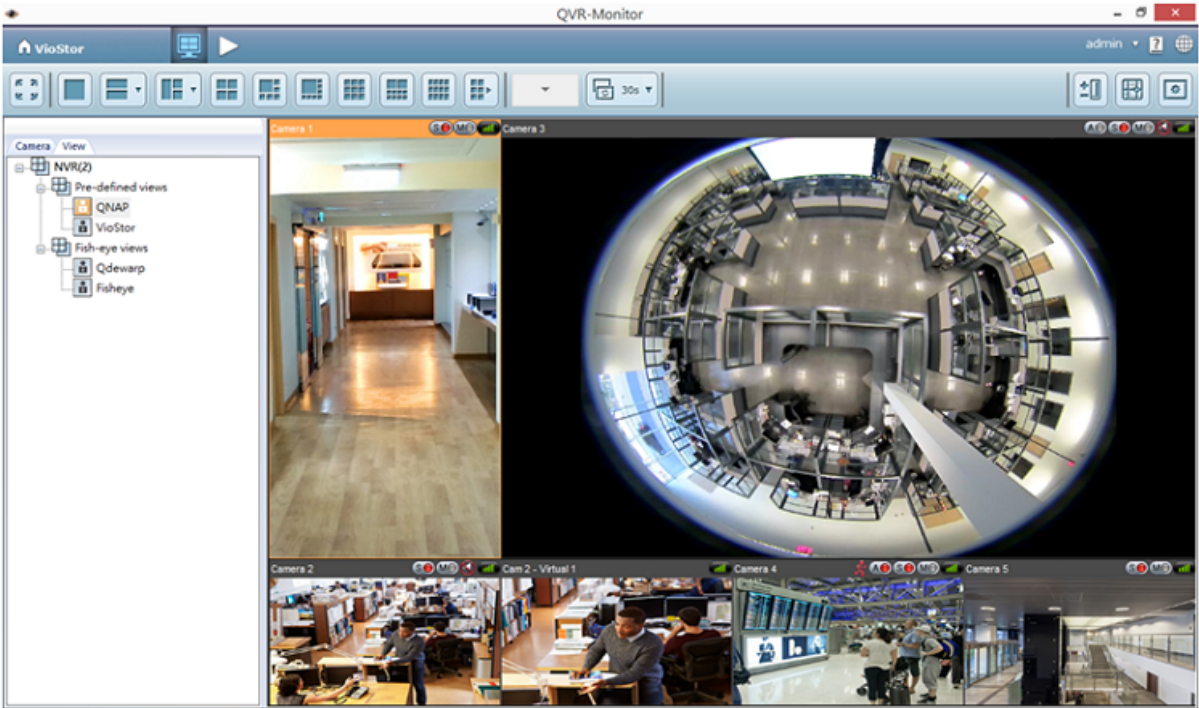
1. Select a fisheye camera.
2. Choose a display mode.
3. To alter the size/ drag position in preview, use the mouse wheel to zoom in/out. Then you can see the view.

The screenshot shows a software control panel titled "Add". It contains the following elements:

- Control Panel:** A header bar with "Control Panel" and "Add" buttons.
- Form Fields:**
 - View Name:
 - Description:
 - Display mode: (dropdown menu)
 - Camera: (dropdown menu)
- Preview:** A large circular fisheye camera view with several red rectangular bounding boxes overlaid on it. Below it is a "Z Value" slider ranging from - to + 5.
- Thumbnail Grid:** A 3x3 grid of small camera view thumbnails on the right side.
- Buttons:** A "Restore" button above the thumbnail grid and "Apply" and "Cancel" buttons at the bottom right.
- Text:** A paragraph of instructional text: "You can configure multiple monitoring windows for fisheye here. 1. Choose the display mode and then camera model. 2. To edit viewing angles, drag in the preview window to adjust the monitor location and use the mouse wheel to zoom in/out."

View management's application

You can choose the view mode in the left tree's view tab on the monitor.



2015/07/23

T5.[Tutorial] Use virtual cameras to maximize the usage of megapixel cameras

Prerequisites:

- VioStor NVR running QVR 5.1.0 or a higher version
- Operating System: Microsoft Windows 7/ 8
- Web Browser: Google Chrome 43.0.2357.130 m (Windows PC), Microsoft Internet Explorer 10/11 (Windows PC, desktop mode, 32-bit), Mozilla Firefox 39.0 (Windows PC)

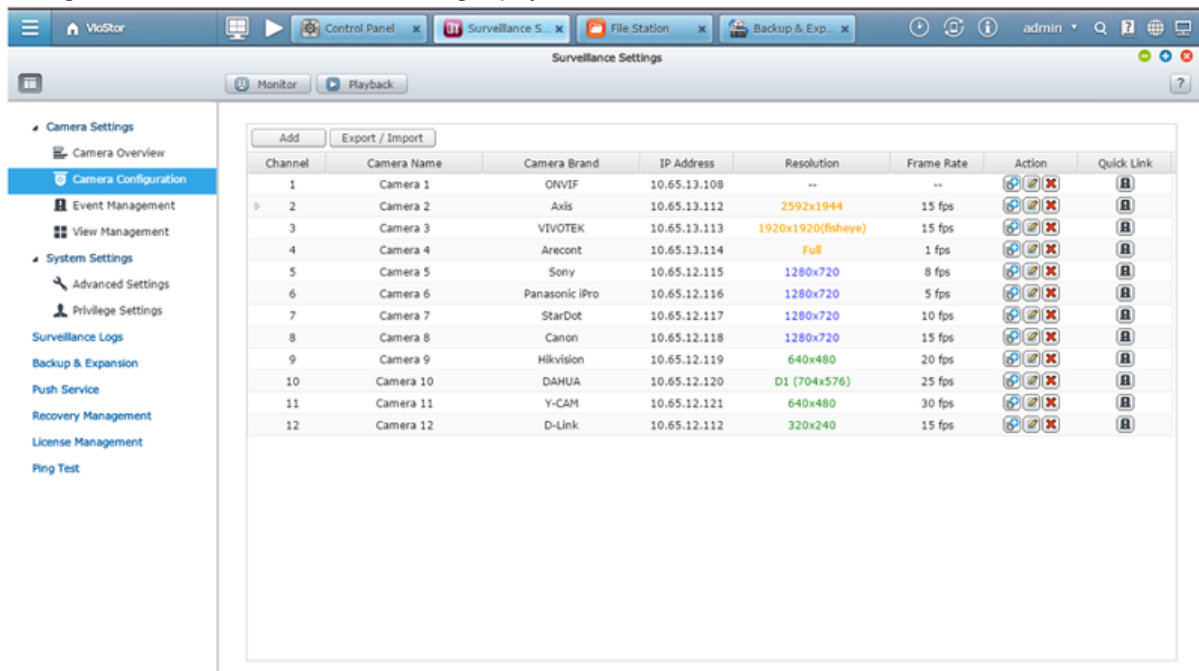
Note:

The feature is not supported on local display and QVR Client for Mac.

As high-megapixel cameras become more mainstream, it not only means clearer and higher-quality videos, but also a larger coverage area for cameras. You can select an area of a camera's field of view as a virtual camera, and also view physical and virtual cameras from the view management page for easier monitoring.

To add a virtual camera, go to QVR desktop > "Surveillance Settings" > "Camera Settings" > "Camera

Configuration". Click  after adding a physical camera.





The screenshot shows the VioStor Surveillance Settings interface. The left sidebar contains a navigation menu with categories like Camera Settings, System Settings, and Surveillance Logs. The main area displays a table of camera configurations.

Channel	Camera Name	Camera Brand	IP Address	Resolution	Frame Rate	Action	Quick Link
1	Camera 1	ONVIF	10.65.13.108	--	--		
2	Camera 2	Axis	10.65.13.112	2592x1944	15 fps		
3	Camera 3	VIVOTEK	10.65.13.113	1920x1920(fisheye)	15 fps		
4	Camera 4	Arecont	10.65.13.114	Full	1 fps		
5	Camera 5	Sony	10.65.12.115	1280x720	8 fps		
6	Camera 6	Panasonic iPro	10.65.12.116	1280x720	5 fps		
7	Camera 7	StarDot	10.65.12.117	1280x720	10 fps		
8	Camera 8	Canon	10.65.12.118	1280x720	15 fps		
9	Camera 9	Hikvision	10.65.12.119	640x480	20 fps		
10	Camera 10	DAHUA	10.65.12.120	D1 (704x576)	25 fps		
11	Camera 11	Y-CAM	10.65.12.121	640x480	30 fps		
12	Camera 12	D-Link	10.65.12.112	320x240	15 fps		

Virtual camera settings




You can define the virtual camera's area and its size by dragging the area on the "Edit Virtual Camera Area" window, or by entering values for its area and size.

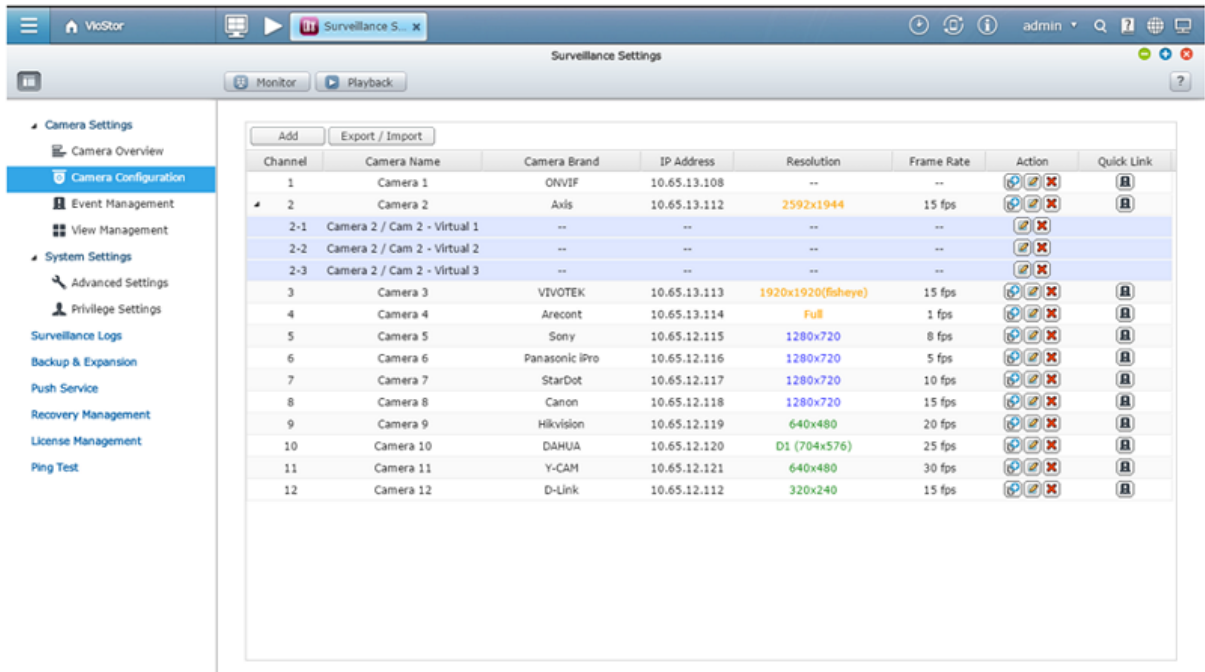
Add

Channel:	Channel2	Edit Virtual Camera Area 
Camera Name:	Camera 2	
Virtual Camera Name:	<input type="text" value="Cam 2- Virtual 1"/>	Preview Virtual Camera 
Virtual Camera Index:	<input type="text" value="1"/>	
Position (compared to upper-left corner)		
Horizontal Offset(%):	<input type="text" value="25"/>	
Vertical Offset(%):	<input type="text" value="25"/>	
Area Size of Virtual Camera		
Height(%):	<input type="text" value="50"/>	
Width(%):	<input type="text" value="50"/>	

Please note:

You can add up to 4 virtual cameras for a physical camera without needing an additional channel license.

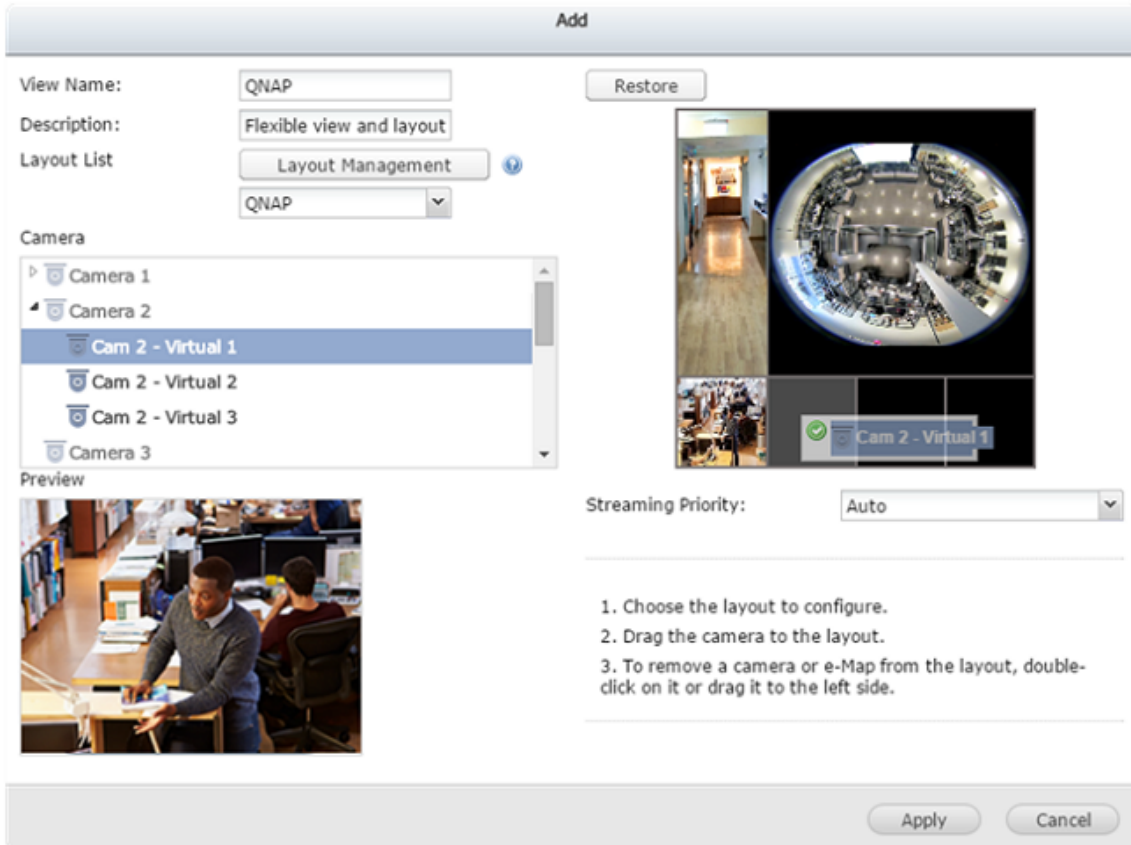
After adding a virtual camera, you can click  to see its information. You can also click  to edit the virtual camera settings or  to delete it.



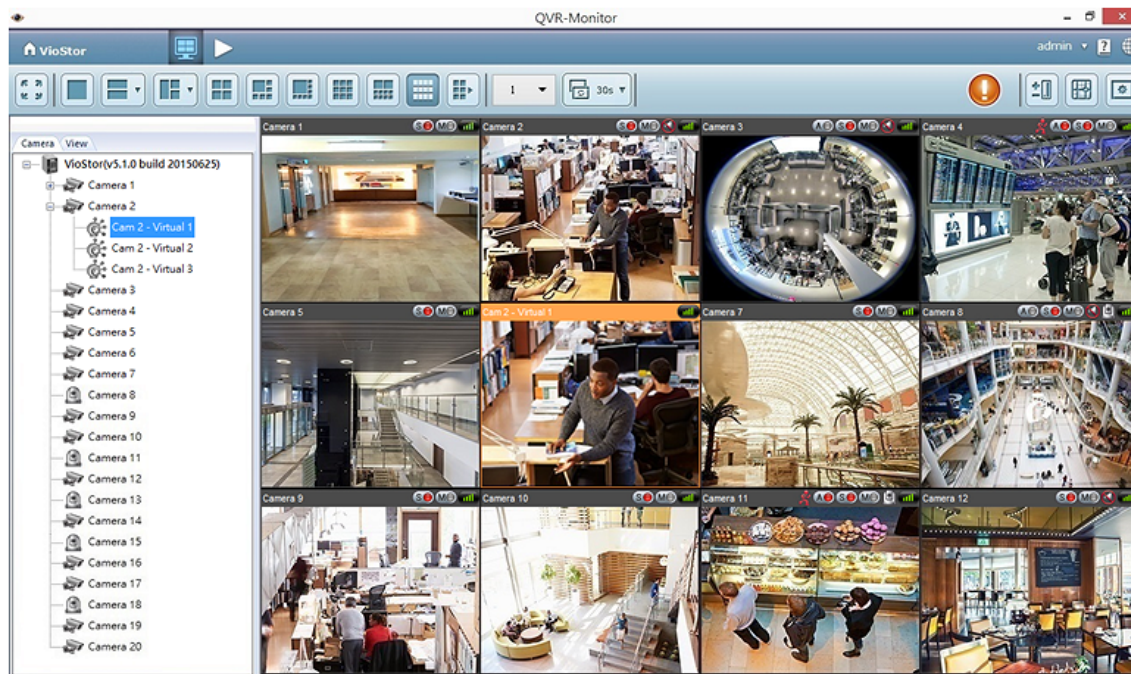
Channel	Camera Name	Camera Brand	IP Address	Resolution	Frame Rate	Action	Quick Link
1	Camera 1	ONVIF	10.65.13.108	--	--		
2	Camera 2	Axis	10.65.13.112	2592x1944	15 fps		
2-1	Camera 2 / Cam 2 - Virtual 1	--	--	--	--		
2-2	Camera 2 / Cam 2 - Virtual 2	--	--	--	--		
2-3	Camera 2 / Cam 2 - Virtual 3	--	--	--	--		
3	Camera 3	VIVOTEK	10.65.13.113	1920x1920(fisheye)	15 fps		
4	Camera 4	Arecont	10.65.13.114	Full	1 fps		
5	Camera 5	Sony	10.65.12.115	1280x720	8 fps		
6	Camera 6	Panasonic iPro	10.65.12.116	1280x720	5 fps		
7	Camera 7	StarDot	10.65.12.117	1280x720	10 fps		
8	Camera 8	Canon	10.65.12.118	1280x720	15 fps		
9	Camera 9	Hikvision	10.65.12.119	640x480	20 fps		
10	Camera 10	DAHUA	10.65.12.120	D1 (704x576)	25 fps		
11	Camera 11	Y-CAM	10.65.12.121	640x480	30 fps		
12	Camera 12	D-Link	10.65.12.112	320x240	15 fps		

Virtual camera's application

1. In the view management page, you can add a virtual camera to a grid.



2. In the monitor page, you can drag virtual cameras into any window to monitor it.



2015/07/22

T6.[Video] QNAP Professional Video Management System - QVR 5.0



Applied to QVR 5.0.x

QVR 5.0 redefines Video Management Software (VMS) with its next-generation interface. Bringing the intuitive GUI, easy-to-use, and versatile QVR software that allows real-time monitoring, recording, playback, alarm notifications, and other management tools to safeguard assets and property when used with supported IP cameras.

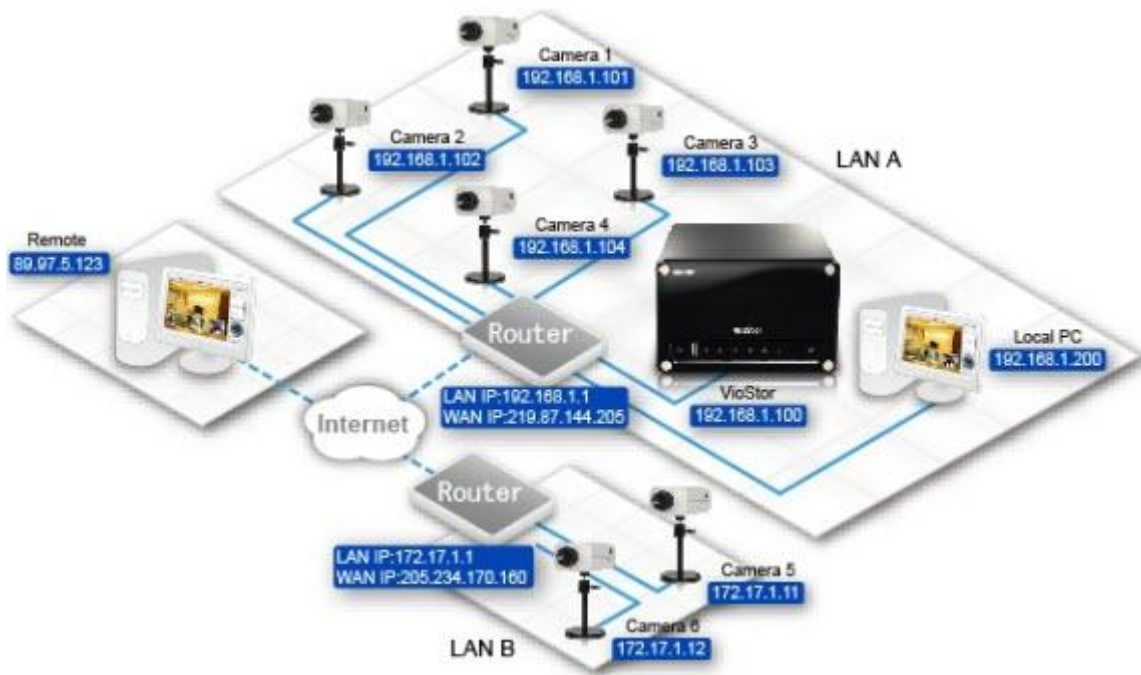
For more information, please refer to <http://www.qnapsecurity.com/feature/qvr/en/?qvr=main&hf=new>.

2015/07/06

T7.[Guide] Scenario 4: Configure NVR, IP cameras and the PC in different routers and access NVR from remote PC

Scenario 4

1. The VioStor, IP cameras, and the PC are in LAN A.
2. Some IP cameras are installed in LAN B behind a different router in a remote location.
3. Allow the users to connect the NVR from remote PC over the Internet.



Please follow the steps below to install the NVR.

Streaming from the network cameras:

1. Plan the IP address and port of the NVR, the camera, and the PC.

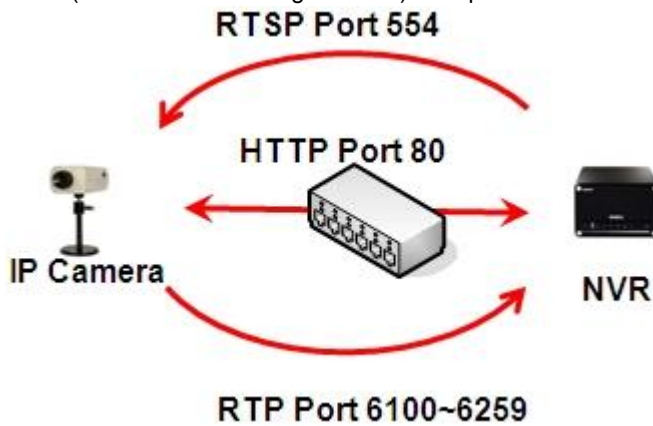
LAN	Device	IP Address/ Port	Mapped Port (HTTP) on the Router
A	Public IP of the router	219.87.144.205	
	VioStor	192.168.1.100:80	219.87.144.205:8000
	Camera 1	192.168.1.101:80	219.87.144.205:8001
	Camera 2	192.168.1.102:80	219.87.144.205:8002
	Camera 3	192.168.1.103:80	219.87.144.205:8003
	Camera 4	192.168.1.104:80	219.87.144.205:8004
	PC	192.168.1.200	
B	Router's Public IP	205.234.170.160	

	Router's LAN IP	172.17.1.1	
	Camera 5	172.17.1.11	205.234.170.160:8005
	Camera 6	172.17.1.12	205.234.170.160:8006
C	Remote PC	89.97.5.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.
3. Configure the router/ virtual server/ firewall
 In this application, you have to configure the port mapping or virtual server of the routers in LAN A and LAN B; and forward the ports to the corresponding LAN IP by the NAT router so that the NVR can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Note:

- a. Some IP cameras deliver MPEG4 image via RTSP or RTP ports. If the IP camera is installed outside the router, you have to configure the RTSP and RTP ports on the router and the NVR so that the NVR can save the recording data from the IP cameras, e.g. Axis, D-link, GANZ, LevelOne or Vivotek cameras that support MPEG4 streaming.
- b. In this sample, you must configure the RTP port setting on the router of LAN A and the RTSP port setting on the router of LAN B. Please refer to FAQ.
- c. RTP (Real-time Transport Protocol): The protocol for delivering video or audio data.
- d. RTSP (Real-Time Streaming Protocol): The protocol for controlling video or audio streaming media.



Configure the port mapping or virtual server on the router:

- a. (a-1) Configure the port mapping on the router in LAN A
 HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80
219.87.144.205:8002	192.168.1.102:80
219.87.144.205:8003	192.168.1.103:80
219.87.144.205:8004	192.168.1.104:80

RTP port: (Configure the port for NVR to receive remote video data from the IP camera)

From	Forward to
219.87.144.205:6100	192.168.1.100:6100
219.87.144.205:6101	192.168.1.100:6101

219.87.144.205:6102	192.168.1.100:6102
219.87.144.205:6103	192.168.1.100:6103
⋮	⋮
219.87.144.205:6259	192.168.1.100:6259

Note:

The default RTP port range of the NVR (VioStor) is 6100~6259. Please refer to FAQ.

b. (a-2) Sample of the router's port mapping in LAN A:

The screenshot shows the router's status page. The 'LAN Settings' section on the left lists various configurations. The 'Status' section in the center displays 'WAN IP' as 209.87.144.35, which is highlighted with a red box and labeled 'The public IP of your router (LAN A)'. Other status information includes Firmware Version 3.01.05, Boot Version 0.01, Hardware 01, and Serial No. 8670037314.

The screenshot shows the 'Firewall > Virtual Servers' configuration page. It contains a table of port forwarding rules. A red box highlights the first 11 rows of the table, which correspond to the port mappings in the table above. A red text overlay 'Port Forwarding (LAN A)' is placed over the table.

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	Set	Clean
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>	Set	Clean
2	192.168.1.100	TCP&UDP	6100	6100	<input checked="" type="checkbox"/>	Set	Clean
3	192.168.1.100	TCP&UDP	6101	6101	<input checked="" type="checkbox"/>	Set	Clean
4	192.168.1.100	TCP&UDP	6102	6102	<input checked="" type="checkbox"/>	Set	Clean
5	192.168.1.100	TCP&UDP	6103	6103	<input checked="" type="checkbox"/>	Set	Clean
6	192.168.1.100	TCP&UDP	6104	6104	<input checked="" type="checkbox"/>	Set	Clean
7	192.168.1.100	TCP&UDP	6105	6105	<input checked="" type="checkbox"/>	Set	Clean
8	192.168.1.100	TCP&UDP	6106	6106	<input checked="" type="checkbox"/>	Set	Clean
9	192.168.1.100	TCP&UDP	6107	6107	<input checked="" type="checkbox"/>	Set	Clean
10	192.168.1.100	TCP&UDP	6108	6108	<input checked="" type="checkbox"/>	Set	Clean
11	192.168.1.100	TCP&UDP	6109	6109	<input checked="" type="checkbox"/>	Set	Clean

c. (b-1) Configure the port mapping on the router in LAN B HTTP port:

From	Forward to
205.234.170.160:8005	172.17.1.11:80
205.234.170.160:8006	172.17.1.12:80

RTSP port: Configure the protocol for controlling video or audio streaming media.

Note:

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.

Please refer to the user guide of the IP camera for its RTSP port settings.

- d. (b-2) Sample of the router's port mapping in LAN B:

The public IP of your router (LAN B)

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	
1	172.17.1.11	TCP&UDP	80	8005	<input checked="" type="checkbox"/>	Set Clean
2	172.17.1.12	TCP&UDP	80	8006	<input checked="" type="checkbox"/>	Set Clean
3	172.17.1.11	TCP&UDP	554	5001	<input checked="" type="checkbox"/>	Set Clean
4	172.17.1.12	TCP&UDP	554	5002	<input checked="" type="checkbox"/>	Set Clean
5	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
6	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
7	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
8	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
9	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
10	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
11	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean

Port Forwarding (LAN B)

- 4. Install and configure the VS-NVR

Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields on the "Camera Settings" page of the VioStor.

- a. Enter the settings of the IP cameras in LAN A.
 - Camera 1 "IP Address": 192.168.1.101 port 80
 - "WAN IP Address": 219.87.144.205 port 8001
 - Camera 2 "IP Address": 192.168.1.102 port 80
 - "WAN IP Address": 219.87.144.205 port 8002
 - Camera 3 "IP Address": 192.168.1.103 port 80
 - "WAN IP Address": 219.87.144.205 port 8003
 - Camera 4 "IP Address": 192.168.1.104 port 80
 - "WAN IP Address": 219.87.144.205 port 8004

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Vivotek	192.168.1.102	219.87.144.205
3	Camera 3	D-Link	192.168.1.103	219.87.144.205
4	Camera 4	LevelOne	192.168.1.104	219.87.144.205
5	Camera 5	Axis	205.234.170.160	172.17.1.11
6	Camera 6	GANZ	205.234.170.160	172.17.1.12
7	Camera 7			
8	Camera 8			

Camera Number: 1: Camera 1

Camera Brand: Axis

Camera Model: Axis P3301

Camera Name: Camera 1

IP Address: 192.168.1.101

Port: 80

WAN IP Address: 219.87.144.205

(for monitoring from public network *)

Port: 8001

User Name: root

Password: *****

Enable recording on this camera

Apply Remove Search

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

- The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
- The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.

- b. Enter the settings of the IP cameras in LAN B.
 Camera 5 "IP Address": 205.234.170.160 port 8005/5001
 Camera 6 "IP Address": 205.234.170.160 port 8006/5002

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Uivotek	192.168.1.102	219.87.144.205
3	Camera 3	D-Link	192.168.1.103	219.87.144.205
4	Camera 4	LevelOne	192.168.1.104	219.87.144.205
5	Camera 5	Axis	205.234.170.160	172.17.1.11
6	Camera 6	GANZ	205.234.170.160	172.17.1.12
7	Camera 7			
8	Camera 8			

Camera Number: 5: Camera 5

Camera Brand: Axis

Camera Model: Axis 225

Camera Name: Camera 5

IP Address: 205.234.170.160

Port: 8005/5001

WAN IP Address: 172.17.1.11

(for monitoring from public network *)

Port: 80

User Name: root

Password: *****

Enable recording on this camera

Apply Remove Search

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.

- The port 21 must be forwarded on the router in the following two situations:
 - When you use the alarm function of the remote IP camera (the alarm between the NVR and the camera is delivered by FTP).
 - When you need to login the VioStor by FTP (port 21).

From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: http:// 219.87.144.205:8000/
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): http:// 219.87.144.205/
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

Configure the port mapping or virtual server on the router:

- (a-1) Configure the port mapping on the router in LAN A
 HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80

- (a-2) Sample of the router's port mapping in LAN A:

Home Web Logout Internet Status: 0:00:00:00:00:00

Status

Version Info

Firmware Version	9.01.06
Boot Version	0.01
Hardware	95
Serial No.	8E700179214

LAN Settings

LAN/WLAN MAC	00-17-3F-5B-2E-C7
IP Address	192.168.2.1
Subnet mask	255.255.255.0
DHCP Server	Enabled

Internet Settings

WAN MAC address	90-17-3F-5B-2E-C8
Connection Type	Dynamic
Subnet mask	255.255.255.0
WAN IP	209.87.144.235
Default gateway	77.56.95.1
DNS Address	62.30.112.39

Features

NAT	Enabled
Firewall	Enabled
SSB	SubID4g
Security	Enabled

The public IP of your router (LAN A)

Firewall > Virtual Servers

This function will allow you to route external (Internet) calls for services such as a web server (port 80), FTP server (Port 21), or other applications through your Router to your internal network. More Info.

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable		
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>	Set	Clean
2	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
3	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
4	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
5	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
6	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
7	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
8	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
9	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
10	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
11	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean

- c. (b-1) Configure the port mapping on the router in LAN B
HTTP port :

From	Forward to
205.234.170.160:8005	172.17.1.11:80
205.234.170.160:8006	172.17.1.12:80

- d. RTSP port: Configure the protocol for controlling video or audio streaming media.

From	Forward to
205.234.170.160:5001	172.17.1.11:554
205.234.170.160:5002	172.17.1.12:554

Note:

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.

Please refer to the user guide of the IP camera for its RTSP port settings.

- e. (b-1) Configure the port mapping on the router in LAN B
HTTP port :

From	Forward to
205.234.170.160:8005	172.17.1.11:80
205.234.170.160:8006	172.17.1.12:80

f. RTSP port: Configure the protocol for controlling video or audio streaming media.

From	Forward to
205.234.170.160:5001	172.17.1.11:554
205.234.170.160:5002	172.17.1.12:554

Note:

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.

Please refer to the user guide of the IP camera for its RTSP port settings.

g. (b-2) Sample of the router's port mapping in LAN B:

The screenshot shows the router's status page. On the left is a navigation menu with categories like LAN Setup, Internet WAN, Wireless, Firewall, and Utilities. The main content area is titled 'Status' and contains several information panels:

- Version Info:** Firmware Version: 5.01.06, Boot Version: 0.01, Hardware: 01, Serial No.: 88700178224.
- LAN Settings:** LAN/WLAN MAC: 00-17-3F-5B-2E-C8, IP address: 192.168.2.1, Subnet mask: 255.255.255.0, DHCP Server: Enabled.
- Internet Settings:** WAN MAC address: 98-17-3F-5B-2E-C8, Connection Type: Dynamic, Subnet mask: 255.255.255.0, **WAN IP: 205.234.170.160** (highlighted with a red box), Default gateway: 77.96.88.1, DNS Address: 62.30.112.39.
- Features:** NAT: Enabled, Firewall: Enabled, SPI: Enabled, Security: Enabled.

 A red text annotation at the bottom of the screenshot reads: "The public IP of your router (LAN B)".

The screenshot shows the 'Firewall > Virtual Servers' configuration page. It includes a descriptive text: "This function will allow you to route external (Internet) calls for services such as a web server (port 80), FTP server (Port 21), or other applications through your Router to your internal network. More info". Below this is a table for configuring port forwarding:

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	
1	172.17.1.11	TCP&UDP	80	8005	<input checked="" type="checkbox"/>	Set Clean
2	172.17.1.12	TCP&UDP	80	8006	<input checked="" type="checkbox"/>	Set Clean
3	172.17.1.11	TCP&UDP	554	5001	<input checked="" type="checkbox"/>	Set Clean
4	172.17.1.12	TCP&UDP	554	5002	<input checked="" type="checkbox"/>	Set Clean
5	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
6	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
7	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
8	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
9	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
10	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
11	172.17.1.	TCP&UDP			<input type="checkbox"/>	Set Clean

 A red text annotation at the bottom of the screenshot reads: "Port Forwarding (LAN B)".

h. Install and configure the NVR (VioStor)

i. Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor.

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	
2	Camera 2	Univotek	192.168.1.102	
3	Camera 3	D-Link	192.168.1.103	
4	Camera 4	LevelOne	192.168.1.104	
5	Camera 5	Axis	205.234.170.160	172.17.1.11
6	Camera 6	GANZ	205.234.170.160	172.17.1.12
7	Camera 7			
8	Camera 8			

Camera Number: 1: Camera 1

Camera Brand: Axis

Camera Model: Axis P3301

Camera Name: Camera 1

IP Address: 192.168.1.101

Port: 80

WAN IP Address:

(for monitoring from public network *)

Port: 80

User Name: root

Password: ●●●●●

Enable recording on this camera

Apply Remove Search

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

- The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
- The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.

i. Enter the settings of the IP cameras in LAN B.

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	
2	Camera 2	Vivotek	192.168.1.102	
3	Camera 3	D-Link	192.168.1.103	
4	Camera 4	Leve10ne	192.168.1.104	
5	Camera 5	Axis	205.234.170.160	172.17.1.11
6	Camera 6	GANZ	205.234.170.160	172.17.1.12
7	Camera 7			
8	Camera 8			

Camera Number:

Camera Brand:

Camera Model:

Camera Name:

IP Address:

Port:

WAN IP Address:

(for monitoring from public network *)

Port:

User Name:

Password:

Enable recording on this camera

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.

The port 21 must be forwarded on the router in the following two situations:

- When you use the alarm function of the remote IP camera (the alarm between the NVR and the camera is delivered by FTP).
- When you need to login the VioStor by FTP (port 21).

From	Forward to
219.87.144.205:21	192.168.1.100:21

After changing the settings, enter the address in the browser to access the VioStor over the Internet:
[http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)

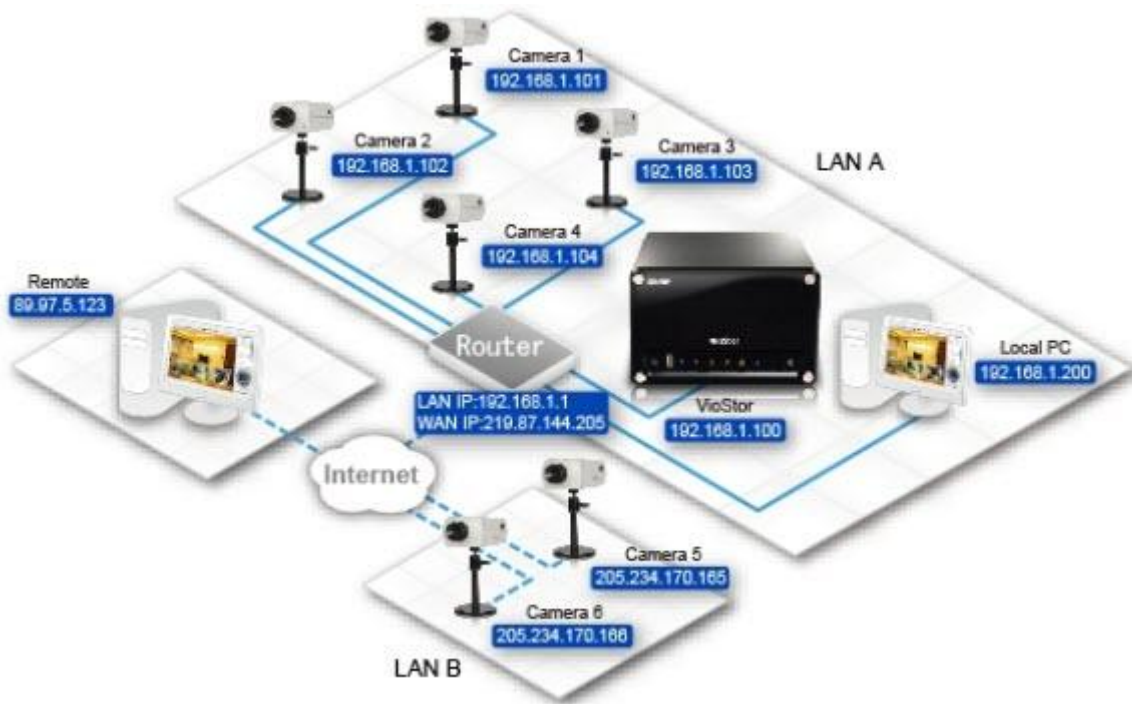
If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80) : [http:// 219.87.144.205/](http://219.87.144.205/)

To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

T8.[Guide] Scenario 3: Install IP camera with Public IP and access NVR from remote PC

Scenario 3:

1. The VioStor, IP cameras, and the PC are all in the same LAN.
2. Some IP cameras are installed in remote location with Public IP.
3. Allow users to connect the NVR from remote PC over the Internet.



Please follow the steps below to install the NVR.

Streaming from the network cameras:

1. Plan the IP address and port of the NVR, the camera, and the PC.

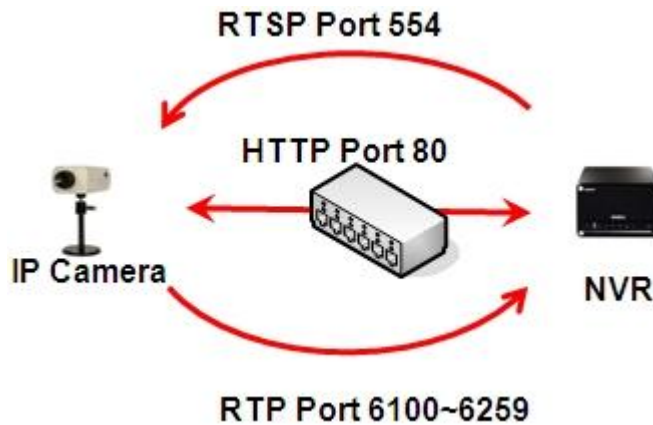
LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	VioStor	192.168.1.100:80	219.87.144.205:8000
	Camera 1	192.168.1.101:80	219.87.144.205:8001
	Camera 2	192.168.1.102:80	219.87.144.205:8002
	Camera 3	192.168.1.103:80	219.87.144.205:8003
	Camera 4	192.168.1.104:80	219.87.144.205:8004
	PC	192.168.1.200	
B	Camera 5	205.234.170.161	

	Camera 6	205.234.170.162	
C	Remote PC	89.97.5.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.
3. Configure the router/ virtual server/ firewall
In this application, you have to configure the port mapping or virtual server of the router and forward the ports to the corresponding LAN IP so that the NVR can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Note:

- a. Some IP cameras delivers MPEG4 image via the RTSP or RTP ports. If the IP camera is installed outside the router, you have to configure the RTSP and RTP ports on the router and the NVR so that the NVR can save the recording data from the IP cameras, e.g. Vivotek, Axis, D-link, GANZ, or LevelOne cameras that support MPEG4 streaming.
- b. In this sample, you must configure the RTP port setting on the router of LAN A. Please refer to FAQ.
- c. RTP (Real-time Transport Protocol): The protocol for delivering video or audio data.
- d. RTSP (Real-Time Streaming Protocol): The protocol for controlling video or audio streaming media.



Configure the port mapping or virtual server on the router:

HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80
219.87.144.205:8002	192.168.1.102:80
219.87.144.205:8003	192.168.1.103:80
219.87.144.205:8004	192.168.1.104:80

RTP port: (Configure the port for NVR to receive remote video data from the IP camera)

From	Forward to
219.87.144.205:6100	192.168.1.100:6100
219.87.144.205:6101	192.168.1.100:6101
219.87.144.205:6102	192.168.1.100:6102
219.87.144.205:6103	192.168.1.100:6103
⋮	⋮
⋮	⋮
⋮	⋮

219.87.144.205:6259

192.168.1.100:6259

Note:

The default RTP (Real-time Transport Protocol) port range of the NVR(VioStor) is 6100~6259. Please refer to FAQ.

The router's port forwarding:



4. Install and configure the NVR (VioStor)
Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor.
Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields respectively on the "Camera Settings" page of the VioStor.

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Uivotek	192.168.1.102	219.87.144.205
3	Camera 3	D-Link	192.168.1.103	219.87.144.205
4	Camera 4	LevelOne	192.168.1.104	219.87.144.205
5	Camera 5	Axis	205.234.170.165	
6	Camera 6	GANZ	205.234.170.166	
7	Camera 7			
8	Camera 8			

Camera Number:

Camera Brand:

Camera Model:

Camera Name:

IP Address:

Port

WAN IP Address:

(for monitoring from public network *)

Port

User Name:

Password:

Enable recording on this camera

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note: The LAN IP and the WAN IP of the IP camera must be entered.

Streaming from the server:

1. Plan the IP address and port of the NVR, the camera, and the PC.

LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	VioStor	192.168.1.100:80	219.87.144.205:8000
	Camera 1	192.168.1.101	
	Camera 2	192.168.1.102	
	Camera 3	192.168.1.103	
	Camera 4	192.168.1.104	
	PC	192.168.1.200	
B	Camera 5	205.234.170.161	
	Camera 6	205.234.170.162	
C	Remote PC	89.97.5.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

3. Configure the router/ virtual server/ firewall

In this application, you have to configure the port mapping or virtual server of the router and forward the ports to the corresponding LAN IP so that the NVR can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Configure the port mapping or virtual server on the router:
HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80

4. The router's port forwarding:

The screenshot shows the router's status page. On the left is a navigation menu with categories like LAN Setup, Internet WAN, Wireless, Firewall, and Utilities. The main content area is titled 'Status' and contains several information panels:

- Version Info:** Firmware Version: 5.01.05
- LAN Settings:** LAN/WLAN MAC: 90-27-3F-5B-2E-C7
- Internet Settings:** WAN MAC address: 90-27-3F-5B-2E-C8, Connection Type: Dynamic, WAN IP: 219.87.144.205 (highlighted with a red box), Subnet mask: 255.255.255.0, DNS Address: 82.30.332.39
- Features:** NAT: Enabled, Firewall: Enabled, SIM: Not Config, Security: Enabled

Below the screenshot, the text "The public IP of your router" is written in red.

The screenshot shows the 'Firewall > Virtual Servers' configuration page. It includes a descriptive text: "This function will allow you to route external (Internet) calls for services such as a web server (port 80), FTP server (Port 21), or other applications through your Router to your internal network. More Info".

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>	Set Clean
2	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
3	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
4	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
5	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
6	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
7	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
8	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
9	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
10	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean
11	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set Clean

5. Install and configure the VioStor NVR
Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor.

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	
2	Camera 2	Vivotek	192.168.1.102	
3	Camera 3	D-Link	192.168.1.103	
4	Camera 4	LevelOne	192.168.1.104	
5	Camera 5	Axis	205.234.170.165	
6	Camera 6	GANZ	205.234.170.166	
7	Camera 7			
8	Camera 8			

Camera Number:

Camera Brand:

Camera Model:

Camera Name:

IP Address:

Port

WAN IP Address:

(for monitoring from public network *)

Port

User Name:

Password:

Enable recording on this camera

Note: All the camera configuration will not take effect until you click the "Apply" button.
* If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

- a. The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
- b. The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
- The port 21 must be forwarded on the router in the following two situations:
 - i. When you use the alarm function of the remote IP camera (the alarm between the NVR and the camera is delivered by FTP).
 - ii. When you need to login the VioStor by FTP (port 21).

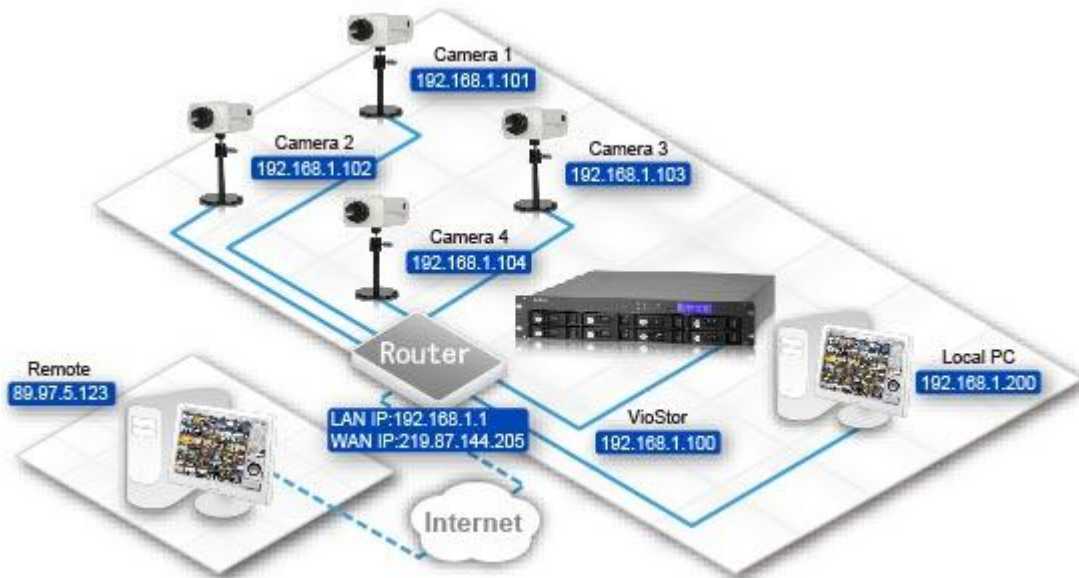
From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

T9.[Guide] Scenario 2: Access the NVR from remote PC

Scenario 2

1. The VioStor, IP cameras, and the PC are all in the same LAN.
2. Allow users to connect the NVR from remote PC over the Internet.



Please follow the steps below to install the NVR.

Streaming from the network cameras:

1. Plan the IP address and port of the NVR and the camera.

LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	LAN IP of the router	192.168.1.1	
	VioStor	192.168.1.100:80	219.87.144.205:8000
	Camera 1	192.168.1.101:80	219.87.144.205:8001
	Camera 2	192.168.1.102:80	219.87.144.205:8002
	Camera 3	192.168.1.103:80	219.87.144.205:8003
	Camera 4	192.168.1.104:80	219.87.144.205:8004
	PC	192.168.1.200	
B	Remote PC	87.97.5.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

- Configure the router/ virtual server/ firewall
To allow remote PC to access the VioStor and the IP cameras, you must configure the port mapping or virtual server of the router. The sample settings are as below:
HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80
219.87.144.205:8002	192.168.1.102:80
219.87.144.205:8003	192.168.1.103:80
219.87.144.205:8004	192.168.1.104:80

- An example of router port forwarding

The image shows two screenshots from a router's web management interface. The top screenshot is the 'Status' page, which displays various system and network information. A red box highlights the 'WAN IP' field, which contains the value '219.87.144.205'. Below this box, a red text label reads 'The public IP of your router'. The bottom screenshot is the 'Firewall > Virtual Servers' page. It features a table for configuring port forwarding rules. A red box highlights the first five rows of the table, which correspond to the settings shown in the table above. A red text label 'Port Forwarding' is placed over the table.

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>
2	192.168.1.101	TCP&UDP	80	8001	<input checked="" type="checkbox"/>
3	192.168.1.102	TCP&UDP	80	8002	<input checked="" type="checkbox"/>
4	192.168.1.103	TCP&UDP	80	8003	<input checked="" type="checkbox"/>
5	192.168.1.104	TCP&UDP	80	8004	<input checked="" type="checkbox"/>
6	192.168.1.	TCP&UDP			<input type="checkbox"/>
7	192.168.1.	TCP&UDP			<input type="checkbox"/>
8	192.168.1.	TCP&UDP			<input type="checkbox"/>
9	192.168.1.	TCP&UDP			<input type="checkbox"/>
10	192.168.1.	TCP&UDP			<input type="checkbox"/>
11	192.168.1.	TCP&UDP			<input type="checkbox"/>

- Install and configure the NVR (VioStor)
Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields on the "Camera Settings" page of the VioStor.

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Axis	192.168.1.102	219.87.144.205
3	Camera 3	Axis	192.168.1.103	219.87.144.205
4	Camera 4	Axis	192.168.1.104	219.87.144.205
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Number:

Camera Model:

Camera Name:

IP Address:

Port

WAN IP Address:

(for monitoring from public network *)

Port

User Name:

Password:

Enable recording on this camera



Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Vivotek	192.168.1.102	219.87.144.205
3	Camera 3	D-Link	192.168.1.103	219.87.144.205
4	Camera 4	LevelOne	192.168.1.104	219.87.144.205
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Number:
 Camera Brand:
 Camera Model:
 Camera Name:
 IP Address:
 Port
 WAN IP Address:
 (for monitoring from public network *)
 Port
 User Name:
 Password:
 Enable recording on this camera

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note: The LAN IP and the WAN IP of the IP camera must be entered.

Streaming from the server:

1. Plan the IP address and port of the NVR and the camera.

LAN	Device	IP Address/ Port	Mapped Port on the Router
A	Public IP of the router	219.87.144.205	
	LAN IP of the router	192.168.1.1	
	VioStor	192.168.1.100:80	219.87.144.205:8000
	Camera 1	192.168.1.101	
	Camera 2	192.168.1.102	
	Camera 3	192.168.1.103	
	Camera 4	192.168.1.104	
	PC	192.168.1.200	
B	Remote PC	87.97.5.123	

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

- Configure the router/ virtual server/ firewall
To allow remote PC to access the VioStor and the IP cameras, you must configure the port mapping or virtual server of the router. The sample settings are as below:
HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80

- An example of router port forwarding

The screenshot shows the 'Status' page of a router. The 'LAN Settings' section is visible, showing the WAN MAC address as 92-17-3F-5B-2E-C9 and the WAN IP as 219.87.144.205. A red box highlights the WAN IP, with a red text label 'The public IP of your router' pointing to it. Other settings include LAN/WLAN MAC, IP address (192.168.2.1), Subnet mask (255.255.255.0), and DHCP Server (Enabled).

The screenshot shows the 'Firewall > Virtual Servers' configuration page. A table lists virtual server rules. The first rule is highlighted in red, showing a LAN IP of 192.168.1.100, Protocol Type of TCP&UDP, LAN Port of 80, and Public Port of 8000. The 'Enable' checkbox is checked. The table has 11 rows in total, all with LAN IP 192.168.1.1 and Protocol Type TCP&UDP.

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	Set	Clean
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>	Set	Clean
2	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
3	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
4	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
5	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
6	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
7	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
8	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
9	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
10	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean
11	192.168.1.	TCP&UDP			<input type="checkbox"/>	Set	Clean

- Install and configure the NVR (VioStor)
Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor.

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	
2	Camera 2	Vivotek	192.168.1.102	
3	Camera 3	D-Link	192.168.1.103	
4	Camera 4	LevelOne	192.168.1.104	
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Number:

Camera Brand:

Camera Model:

Camera Name:

IP Address:

Port:

WAN IP Address:

(for monitoring from public network *)

Port:

User Name:

Password:

Enable recording on this camera

Note: All the camera configuration will not take effect until you click the "Apply" button.
* If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note:

- The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
- The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
- To access the VioStor remotely by FTP (port 21), configure the following settings:

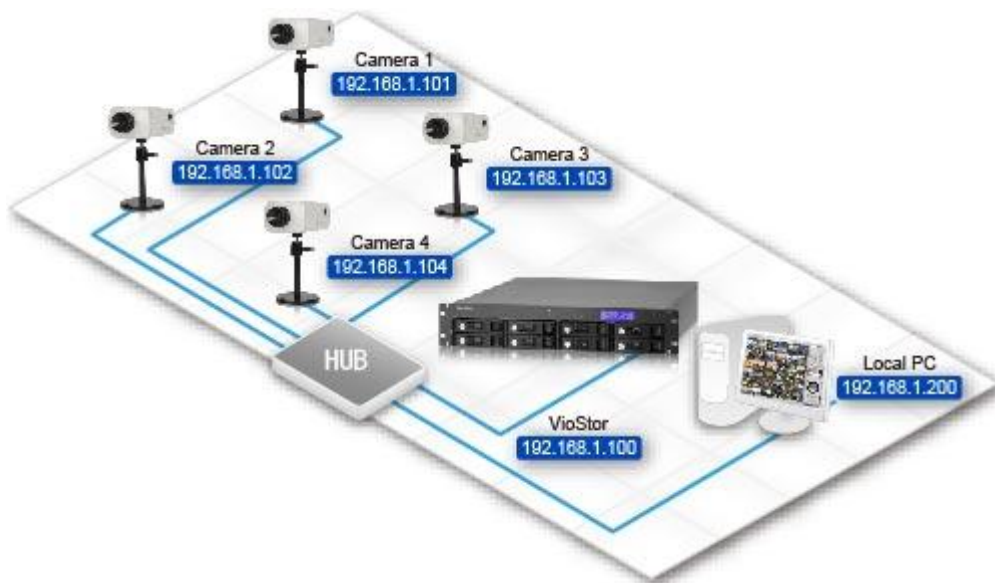
From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use DDNS if this network environment, enter the DDNS settings on the router, but not on the VioStor.

T10.[Guide] Scenario 1: Local Area Network

Scenario 1

- The VioStor, IP cameras, and the PC are all in the same LAN (Local Area Network).



Please follow the steps below to install the NVR.

Both streaming from the network cameras and server:

1. Plan the IP address and port of the NVR and the camera.

Device	IP Address
VioStor	192.168.1.100
Camera 1	192.168.1.101
Camera 2	192.168.1.102
Camera 3	192.168.1.103
Camera 4	192.168.1.104
PC	192.168.1.200

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

The screenshot shows a 'Camera Configuration' window. At the top is a table with columns: Camera Name, Brand, IP Address, and WAN IP Address. The table lists 8 cameras. Below the table are configuration fields for 'Camera 1': Camera Number (1: Camera 1), Camera Brand (Axis), Camera Model (Axis P3301), Camera Name (Camera 1), IP Address (192.168.1.101), Port (80), WAN IP Address (empty), User Name (root), Password (masked), and a checked box for 'Enable recording on this camera'. There are 'Apply', 'Remove', and 'Search' buttons at the bottom. A 'Test' button is next to a video preview window. A note at the bottom states: 'Note: All the camera configuration will not take effect until you click the "Apply" button. * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.'

3. Install and configure the NVR.

When the NVR (VioStor) and the IP cameras are in the same LAN, you can use the default port settings.

Note:

- The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
- The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.

2015/07/22

T11.[Tutorial] How to use Vmobile 3 to monitor and play recordings on a VioStor NVR?

VMobile is a mobile app for video surveillance provided by QNAP that allows you to use your mobile device to remotely monitor IP cameras, play recorded videos, and manage your video surveillance system anytime, anywhere. VMobile supports monitoring several servers/channels from thousands of network cameras across different brands by simply connecting to any available VioStor NVR or Turbo NAS (with Surveillance Station enabled) on the network.

- **Installing VMobile 3:**

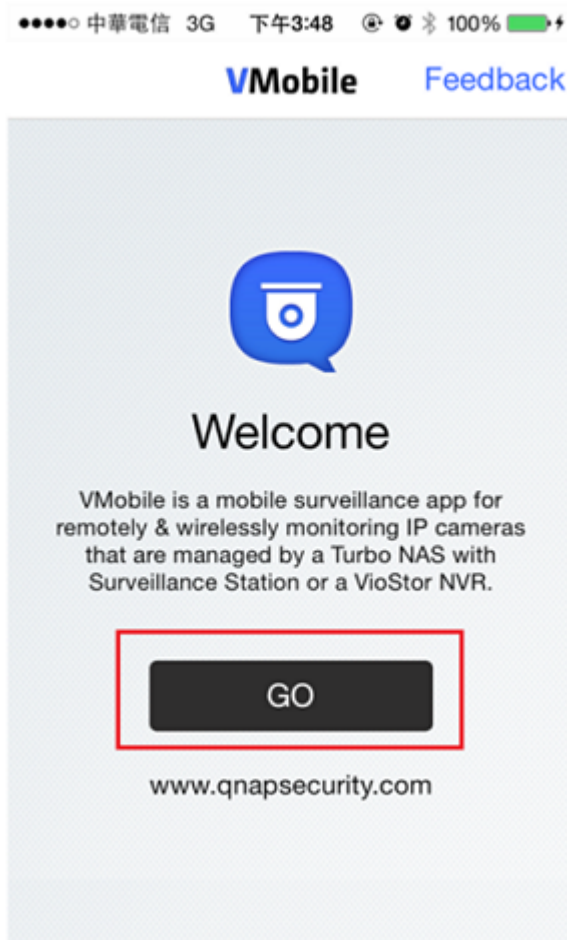
1. Please note that this app requires a VioStor NVR with QVR 5.0.1 or Turbo NAS with Surveillance Station 5.0.1 (or above).
2. Make sure your mobile device can access the VioStor NVR or Turbo NAS via a network connection.
3. If using an iOS device, you must be using iOS 7 (or above).
4. Install VMobile from the App Store (iOS) or Google Play (Android) depending on your mobile device. Please note: the Android version will be available from the end of October 2014.

This tutorial will use the iOS version of VMobile 3 as an example.

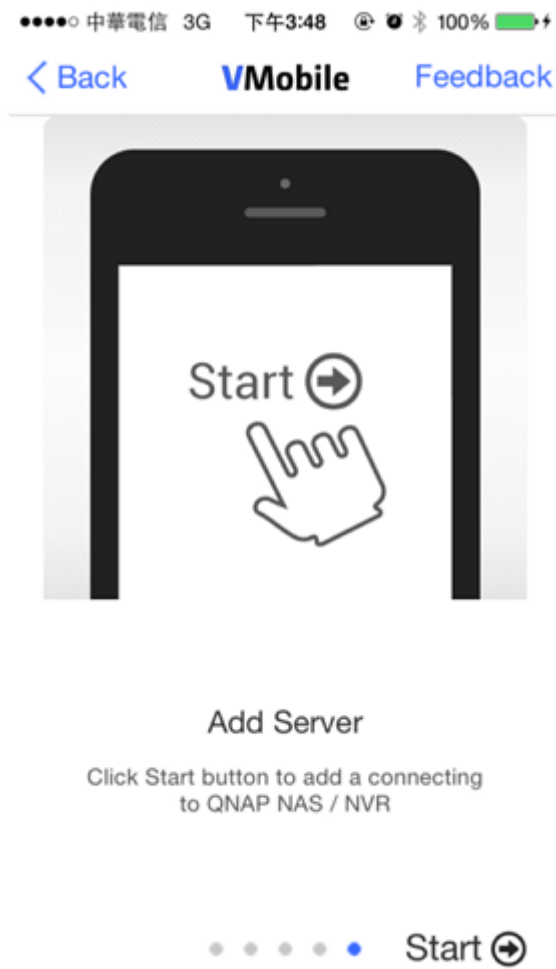
Starting using VMobile 3

- **Adding a new server for monitoring**

When you start VMobile for the first time, it will lead you through the tutorial.



After reading the tutorial, select “Start” to configure VMobile.



If you cannot find a Turbo NAS or VioStor NVR, please check their status or your network connection. You can also select “Add Server Manually ” to add your Turbo NAS or VioStor NVR.

< Back

Add Server



Note: You should turn on the wifi and connect the network.



Cannot find any NAS or VioStor NVR on your local network. Please check your network environment or the status of your NAS/VioStor.



Add Server Manually

Please enter your server information.

IP Address:
10.65.9.13

Port:
80

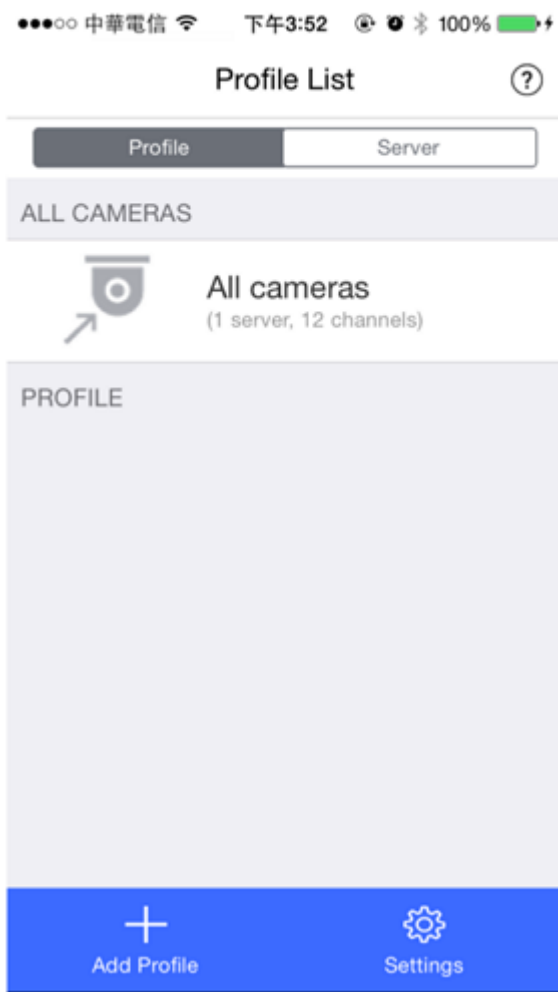
Login Name:
admin

Password:
•••••

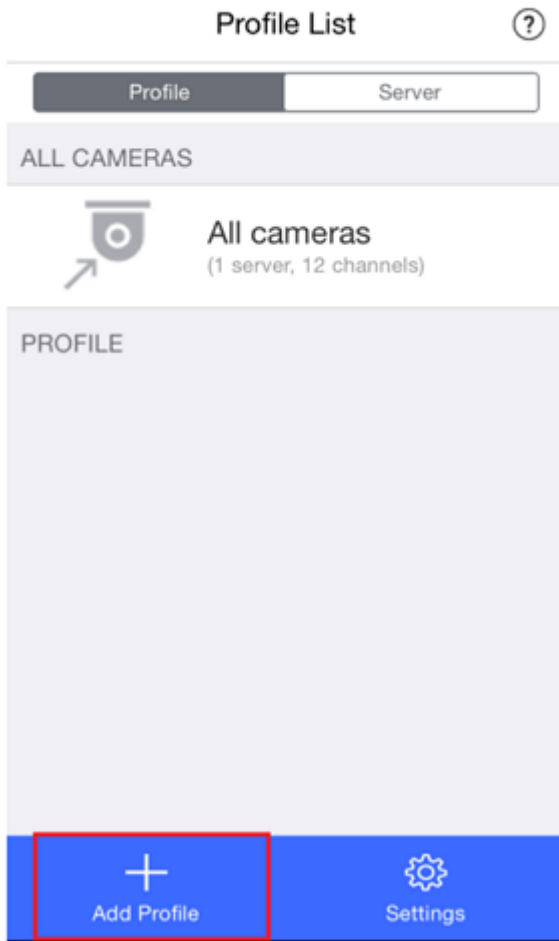
SSL



After adding a new server, all of your server's cameras will be added to "All cameras".



If you want to monitor several channels on different servers, you can create your own profile for monitoring by selecting “Add Profile”.



Enter a Profile Name before choosing what servers and channels you want to monitor, before selecting "Done".

Profile Name:

Profile_1

1. Axi... 2. Jax-1... 3. AVc

4. AVc 5. AVc 6. AVc

7. AVc 8. AVc 9. AVc Jax-163

10. AVc Jax-163 11. AVc Jax-163 12. AVc Jax-163

You can then adjust the order by dragging & dropping channels.




Then select the profile to start monitoring.



Profile List ?



Profile Server

ALL CAMERAS

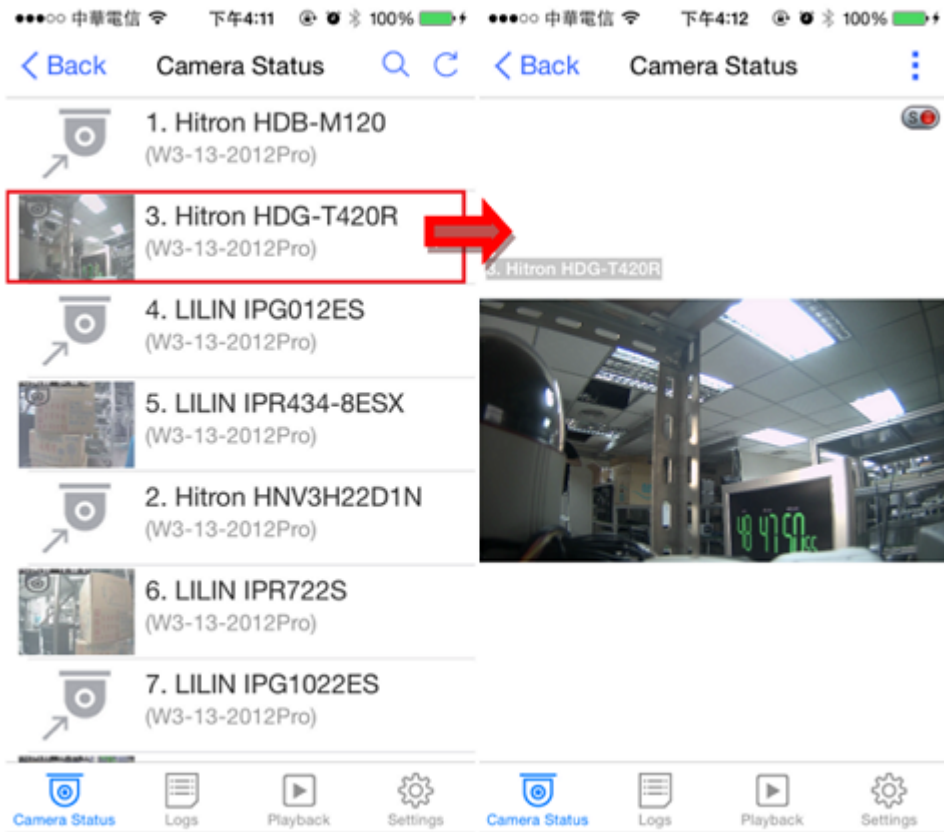
 **All cameras**
(3 servers, 88 channels)

PROFILE

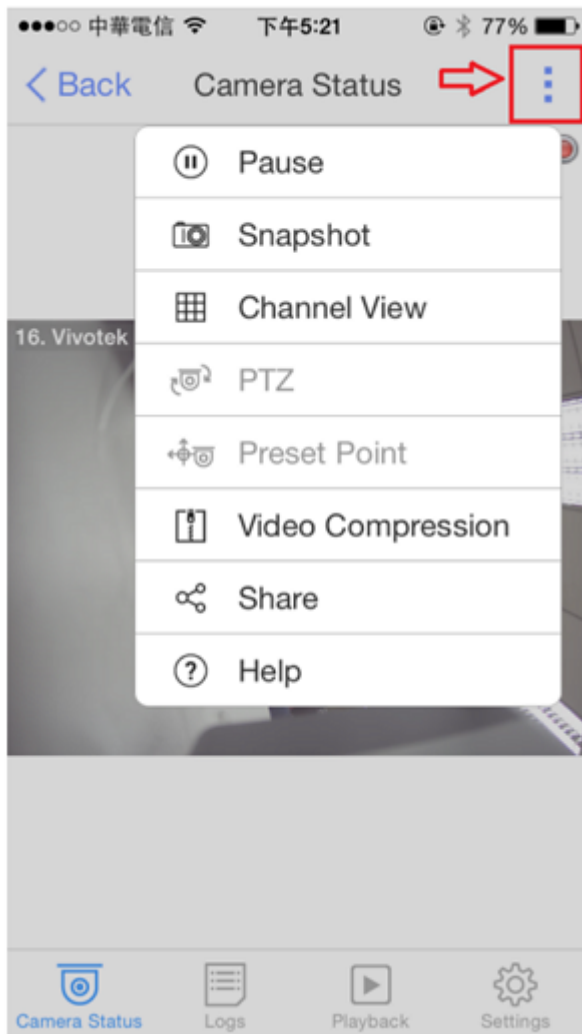
 **Profile_1**
(2 servers, 28 channels) 







 Add Profile  Settings



Select the channel you want to monitor.




You can find more advanced options by selecting the upper-right button.

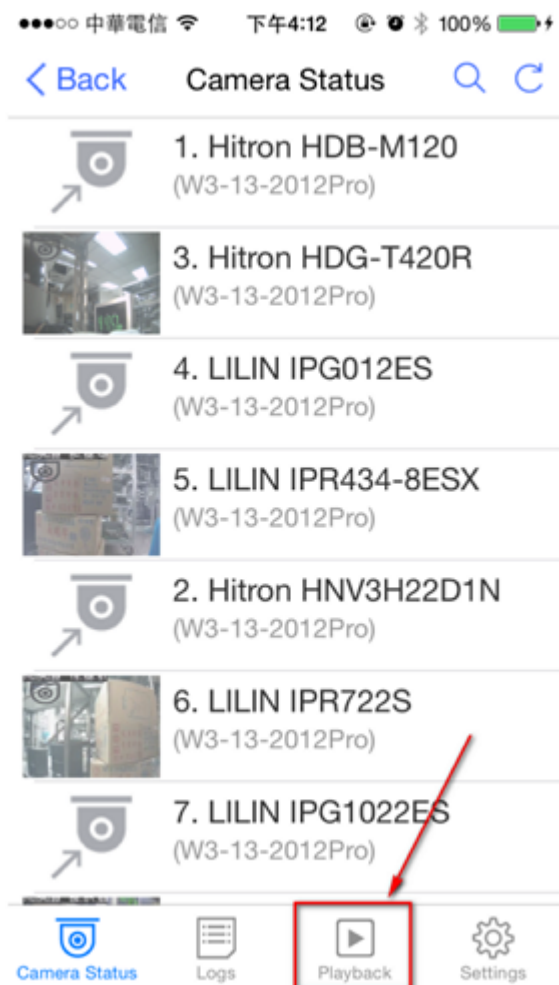


Button/Function	Description
 Pause /  Pause / resume	Pause and resume the video stream.
 Snapshot	Take a snapshot of the current channel (only available in single-channel view.)
 Channel View	Change the channel view or enable "Sequential mode". 1, 2, 3, 4, 6, 8 and 9 channels view are available.
 PTZ	Enable the PTZ function (only available for PTZ cameras.)
 Preset Point	Select the camera preset point (only available in supported and configured cameras.)

 <p>Video Compression</p>	Change the compression of the video stream
 <p>Share</p>	Share a snapshot

- **Playback on VMobile 3**


Select “” to use the Playback function.

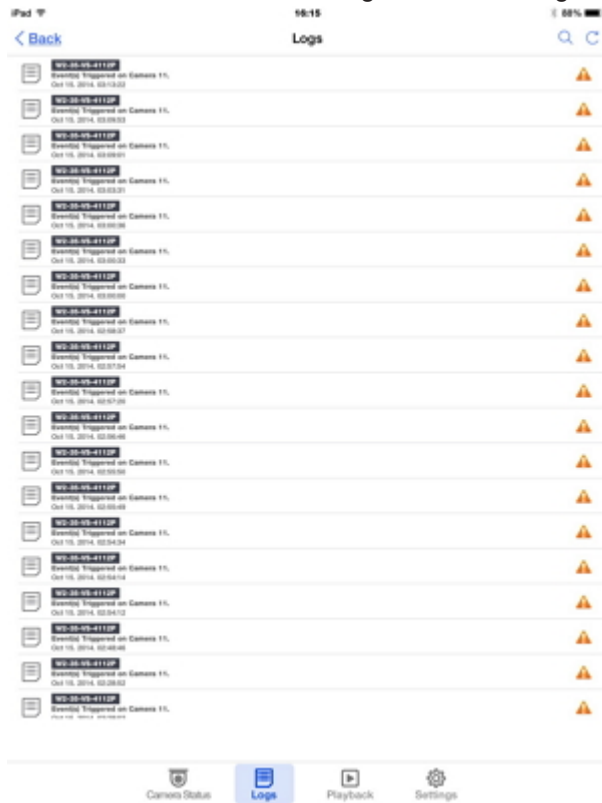


Select the server, camera, date/time, and then select “Play”.



- Check the surveillance log on VMobile

You can also check detailed logs on “ Logs”.



2015/07/22

T12.[Tutorial] How to Use User-defined Multi-streaming for Multiple Applications?

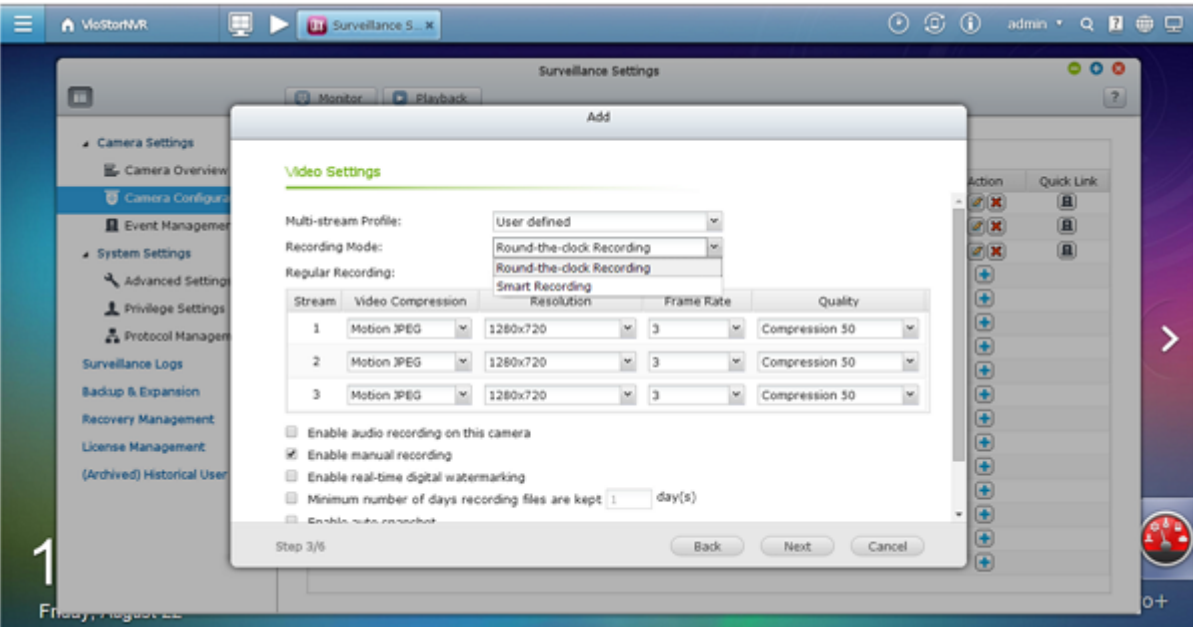
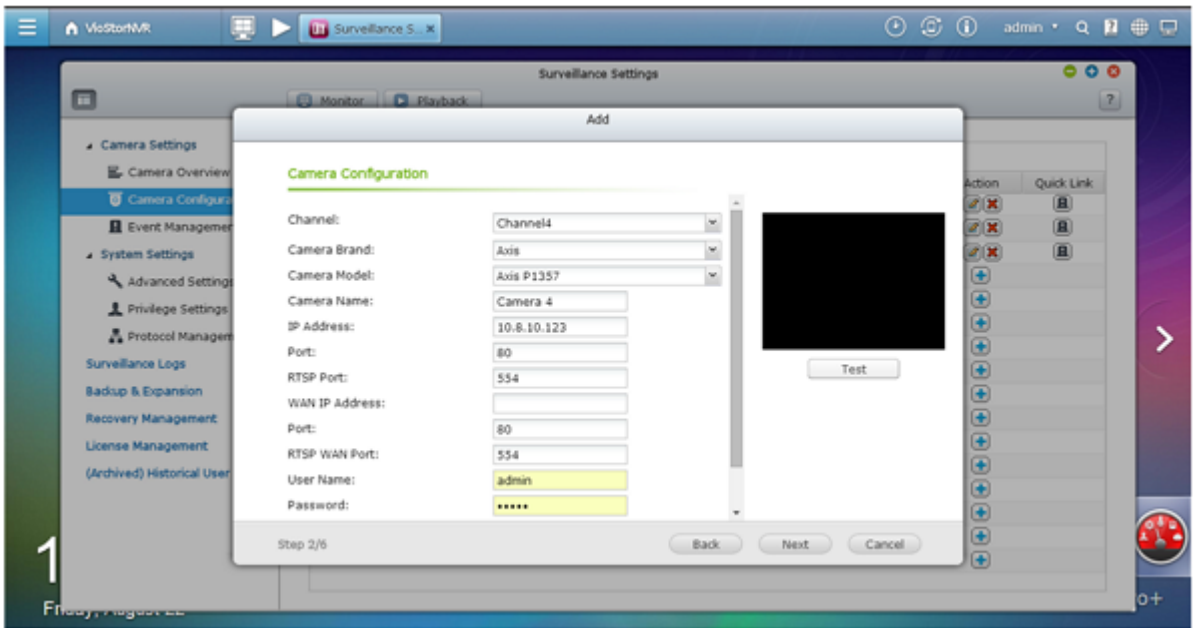
In the past, digital surveillance systems users were forced to make a tradeoff between the video quality of a camera stream and required bandwidth. The same camera stream was used for both live view and recording, and more bandwidth was required if a high-quality camera stream was selected. Fortunately, with the introduction of multi-stream technology, users now can choose the main stream for recording files and the sub stream for live viewing.

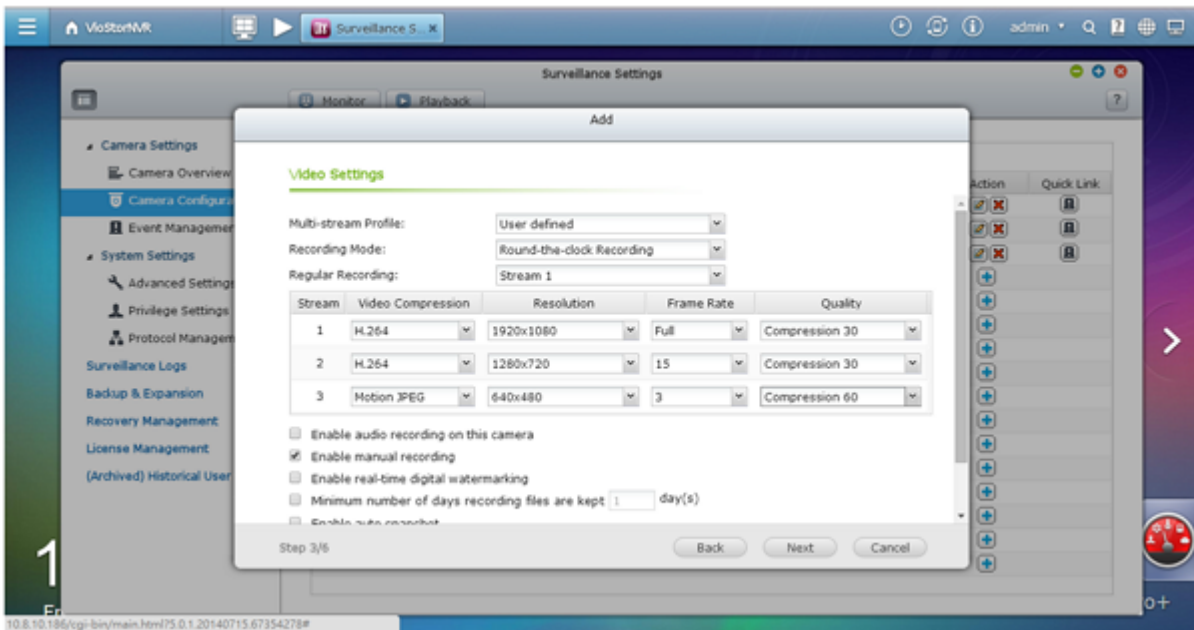
Multi-stream technology is already supported by VioStor NVR, but properties such as resolution, frame rate, video quality and codec could not be changed by users. With new enhancements made to VioStor NVR, users can now choose streaming properties based on their needs.




Applicable models:

ACTI	B97, E34, E54, E84
AXIS	M1011, M1054, M1103, M1104, M1113, M1114, M3006, M3011, M3014, M3026, M3113, M3114, M3204, M5013, M5014, M5014-V, M7010, M7014, P1204, P1214, P1214-E, P1353, P1354, P1355, P1357, P3301, P3304, P3344, P3346, P3353, P3354, P3363, P3364, P3364-LV/-LVE, P3367, P3384, P5414, P5512, P5522, P5532, P5534, P5544, P7210, P7214, P7224, P8513, P8514, Q1602, Q1604, Q1755, Q1765, Q1910, Q1921, Q1922, Q6032, Q6034, Q6035, Q6042, Q6044, Q6045, Q7401, Q7411
Sony	SNC-CX600, SNC-CX600W, SNC-EB600, SNC-EB600B, SNC-EB630, SNC-EB630B, SNC-EM600, SNC-EM601, SNC-EM602R, SNC-EM630, SNC-EM631, SNC-EM632R, SNC-VB600, SNC-VB600B, SNC-VB630, SNC-VB635, SNC-VM600, SNC-VM601, SNC-VM601B, SNC-VM630, SNC-VM631, SNC-VM632R, SNC-WR600, SNC-WR602, SNC-WR630, SNC-XM632
VIVOTEK	CC8130, FD8131, FD8131V, FD8134, FD8136, FD8137H, FD8137HV, FD8151V, FD8163, FD8164, FD8164V, FD8166, FD8355EHV, FD8363, FD8371EV, FE8173, FE8174, IP8131W, IP8132, IP8133, IP8152-F4, IP8335, IP8355EH, IP8364-C, IP8371-E, PZ81X1, SD81X1, SD8314E, SD8316E, SD8324E, SD8326E, SD8363E

Please follow these steps to enable user-defined multi-stream settings:

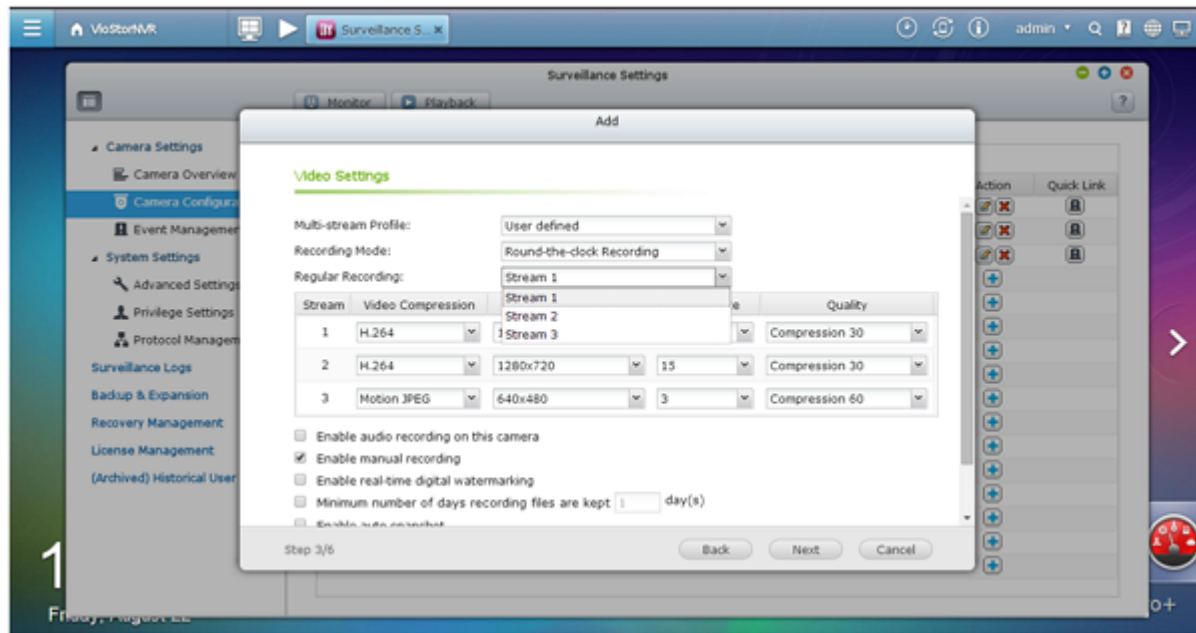




1. Go to the QVR desktop  as an administrator and click “Surveillance Settings” .
2. Go to “Camera Settings” -> “Camera Configuration”.
3. Click  to add a camera.
4. Select the camera you wish to apply these settings to. Please refer to the latest list of compatible cameras.
5. The default Multi-stream Profile setting is “System-Configured”. You need to change this to “User defined” using the dropdown list.
6. Modify the settings of each stream according to your needs.

There are now two recording mode supported:

1. Round-the-clock Recording
Similar with standard recording, this uses the same stream for regular and alarm recording. However, you can define a specific video stream to record.
 - Please select the video stream from the “Regular Recording” dropdown list.



2. Smart Recording

Supports different streams for regular and alarm recording.

- A. Select one camera stream from the “Regular Recording” dropdown list.
- B. Select a different camera stream from the “Alarm Recording” dropdown list. (Scheduled Recording and Alarm Recording must be enabled before using “Alarm Recording”.)

3. For more information, please refer to Smart Recording tutorial.

Note:

Required NVR CPU loading for system-configured multi-stream is higher than it for user defined multi-stream.

2015/07/22

T13.[Tutorial] Set up the QNAP VioStor NVR to record and monitor the network cameras with Panomorph lenses

Panomorph lenses can be adapted to compatible cameras to have 360 degree coverage with enhanced resolutions and adjusted pixel density in predefined zones of interest. With the lenses and the integrated client software, users can watch a complete scene unfold without obstruction while simultaneously displaying multiple independent dewarped views using fisheye cameras.

This will guide you to configure the VioStor NVR to record videos from the camera with panomorph lenses and to dewarp 360-degree panoramic images for live monitoring and playback.

Prerequisites:

- VioStor NVR running QVR 5.1.0 or a higher version
- Operating System: Microsoft Windows 7/ 8
- Web Browser: Google Chrome 43.0.2357.130 m (Windows PC), Microsoft Internet Explorer 10/11 (Windows PC, desktop mode, 32-bit), Mozilla Firefox 39.0 (Windows PC)

Note: The feature is not supported on local display and QVR Client for Mac.

Applicable cameras:

Arecont Vision	AV5245DN-01-A
AXIS	M3007
Brickcom	CB-500Ap-360P, MD-300AP-360P, MD-300NP-360P, MD-500AP-360P
LINKSYS	LCAM0336OD
SONY	SNC-HM662

Compatible camera models with panamorph lenses, including


AXIS	223M, P1347, Q1602, Q1604
Basler	BIP2-2500c-dn
LG	LW332/335
Panasonic i-Pro	WV-NP1000/ 1004, WV-NP244, WV-SP304, WV-SP508E (resolution: 2048*1536)
Samsung	SNB-7000, SND-7080, SNV-7080R
StarDot	SDH130VN

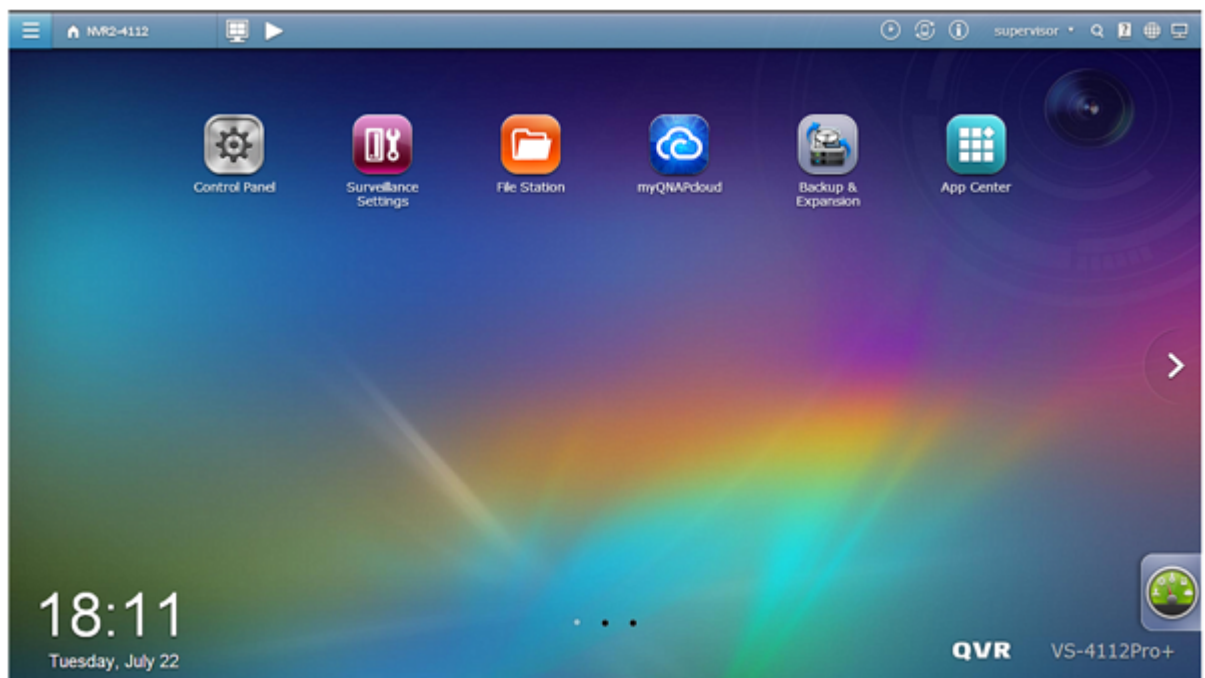
VIVOTEK	IP8151
---------	--------



A. Set up the VioStor NVR

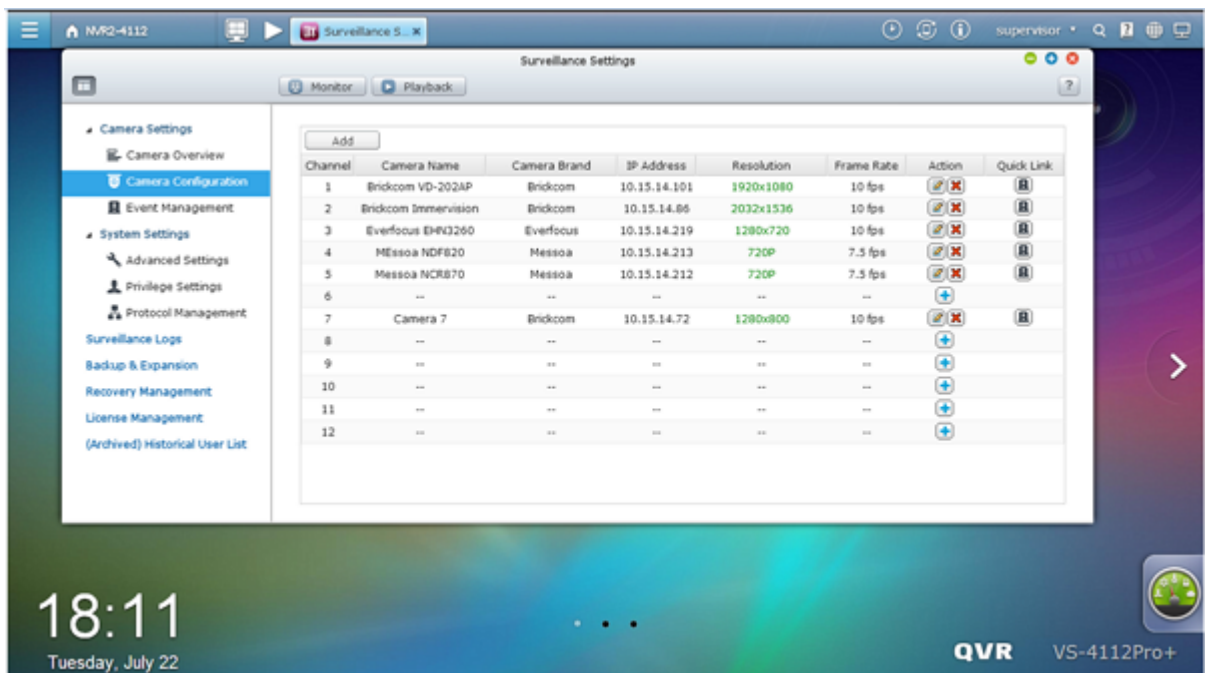
Follow the steps below to configure the VioStor NVR.

1. Run the "QNAP Qfinder" on a Windows PC to find the NVR. Double click the NVR name to connect to the login page by a web browser.

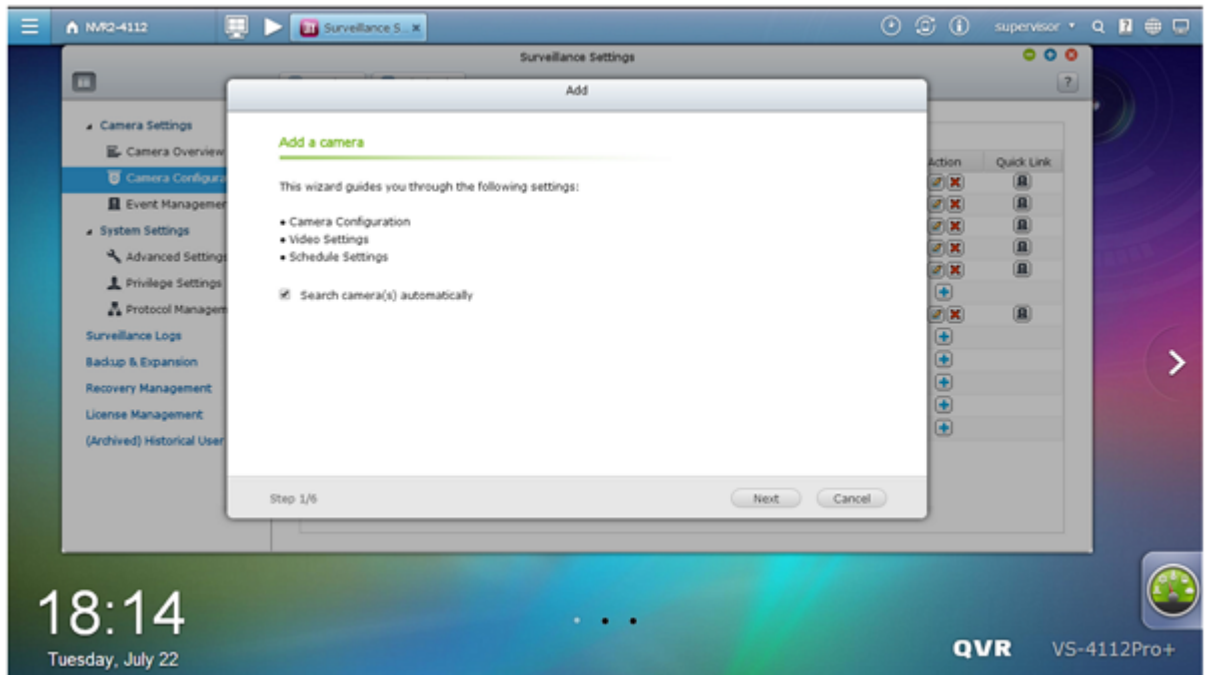
2. Go to the QVR desktop  as an administrator and click  to enter the surveillance settings page.



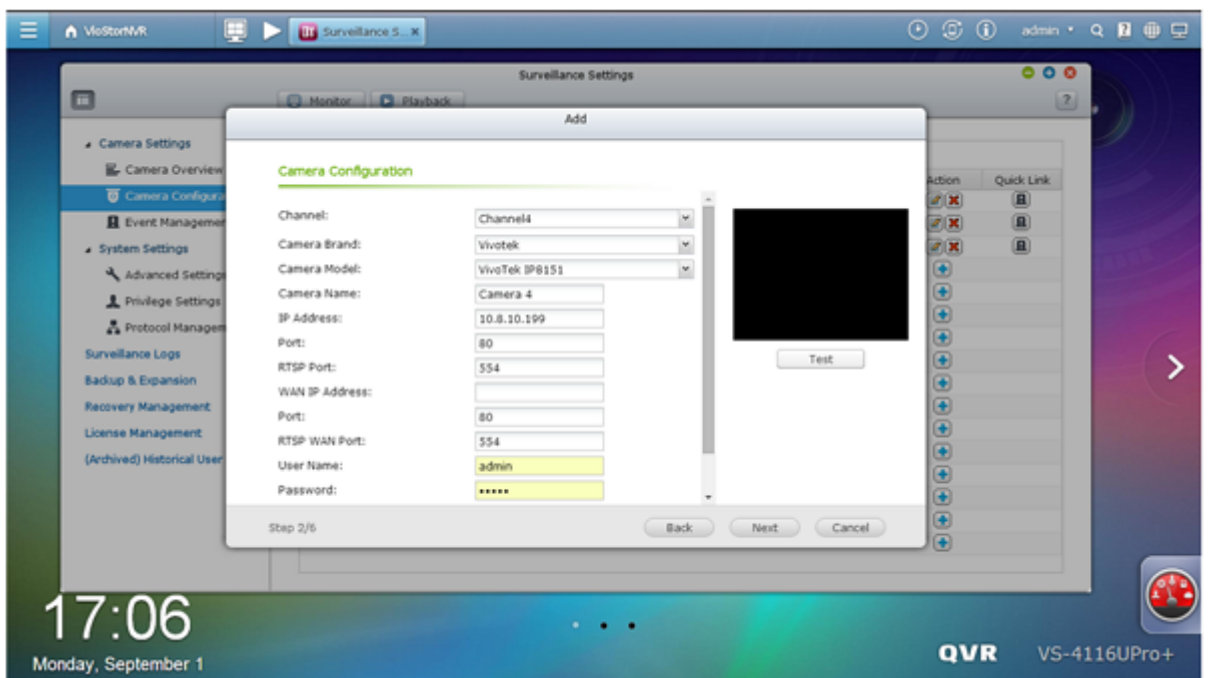
3. Go to "Camera Settings" > "Camera Configuration". Click  or select a channel for the camera and click  to add a camera.



- Click "Next" to auto search for the camera.



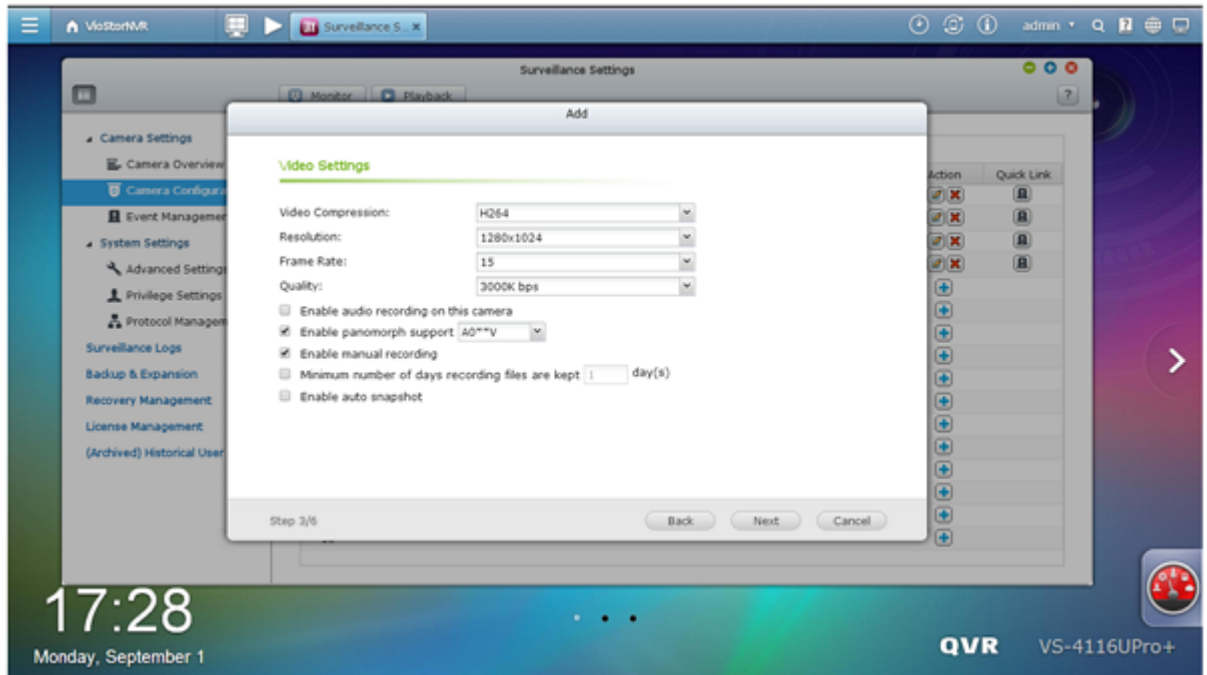
- When it is found, select the camera and click "OK".
Enter the IP address, username and password of the camera.
Or manually add the camera.





Click "Next" for video settings.

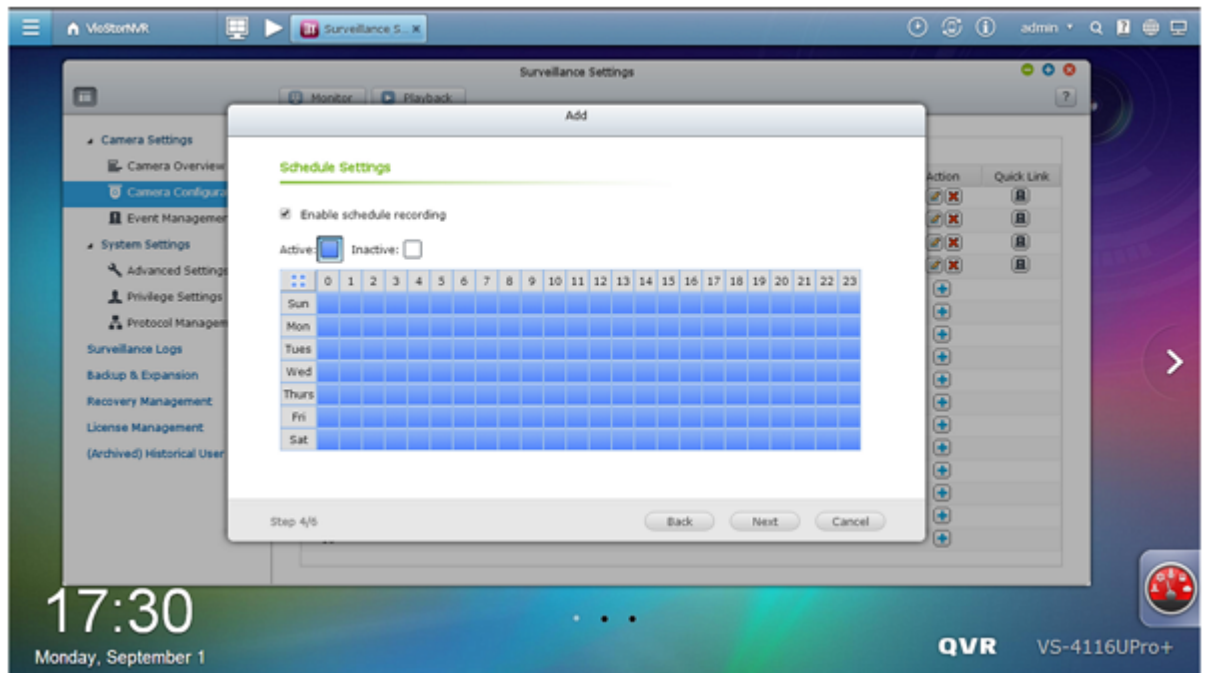
6. Configure the video settings.

For compatible camera models with panamorph lenses, please enable panomorph support.



Click "Next" for schedule settings.

7. Click  and drag on the schedule table to enable scheduled recording for that period of time. Click  and drag on the schedule table to disable schedule recording for that period of time.




Click "Next" to confirm the settings.

- Now return to the VioStor NVR's live view. You can now view the live image of the camera.
Panoramic view without dewarping

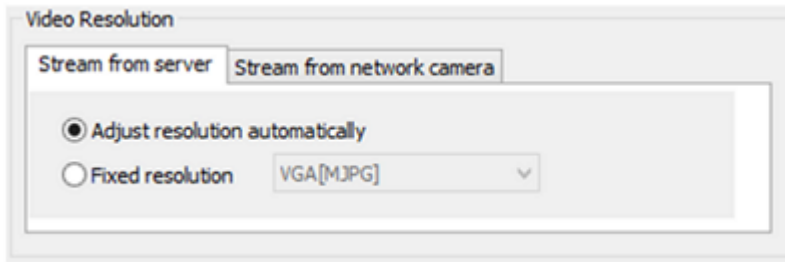


B. Configure live view settings

- Move the mouse cursor over a camera channel, the supported function buttons (Interactive Control Buttons) of the camera will show up for quick access.
- Click "Camera information" in the Interactive Control Buttons and select "Properties" from the list.

Icon	Description
	Camera information: <ol style="list-style-type: none"> Properties: Configure other monitoring options. Locate in E-map: Highlight the camera icon on the E-map. Connect to camera homepage.


3. Select "Fixed resolution" under "Video Resolution".



Because the limitations of the ImmerVision SDK, the dewarping function is only available when the resolution of the video stream is higher than 640x480 on the monitoring page. Please choose a video stream where the resolution is higher than 640x480.

C. Dewarp 360-degree panoramic images of the camera in live view

1. To dewarp the panoramic images of the camera, click "Dewarp fisheye images" in the Interactive Control Buttons to enable the fisheye dewarping function.

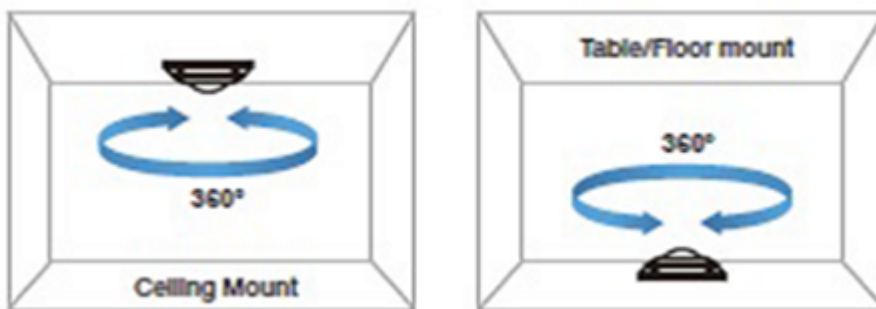
Icon	Description
	<p>Camera information:</p> <p>For specific fisheye cameras and specific camera models with panomorph lens, you can enable/disable the dewarping function. After enabling the function, you can then select the mount type and dewarping mode.</p>

2. Click “Dewarp fisheye images” in the Interactive Control Buttons and set the "Mount type" to Wall, Ceiling, or Ground according to your setup. Then specify the "Dewarping mode".

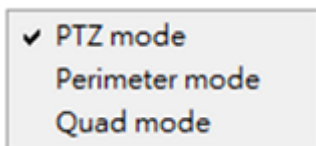
- Example 1. Select "Ceiling" for the mount type.

Mount type	▶	Wall
Dewarping mode	▶	<input checked="" type="checkbox"/> Ceiling
Disable		Ground


Note: For **Ceiling** and **Ground** Mount type, FullView will display 360 degrees of viewing angle.



- Example 2. Select “PTZ mode” for the dewarping mode.



D. Dewarp 360-degree panoramic images of the camera in playback

1. Click  to enter the playback page.
2. To dewarp fisheye images of the camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable the fisheye dewarping function.
3. Click “Dewarp fisheye images” in the Interactive Control Buttons and set the "Mount type" to Wall, Ceiling, or Ground according to your setup. Then specify the "Dewarping mode".

T14.[Tutorial] How to use Smart stream on VIVOTEK cameras to intelligently allocate more bandwidth to streaming moving objects or Regions of Interest?

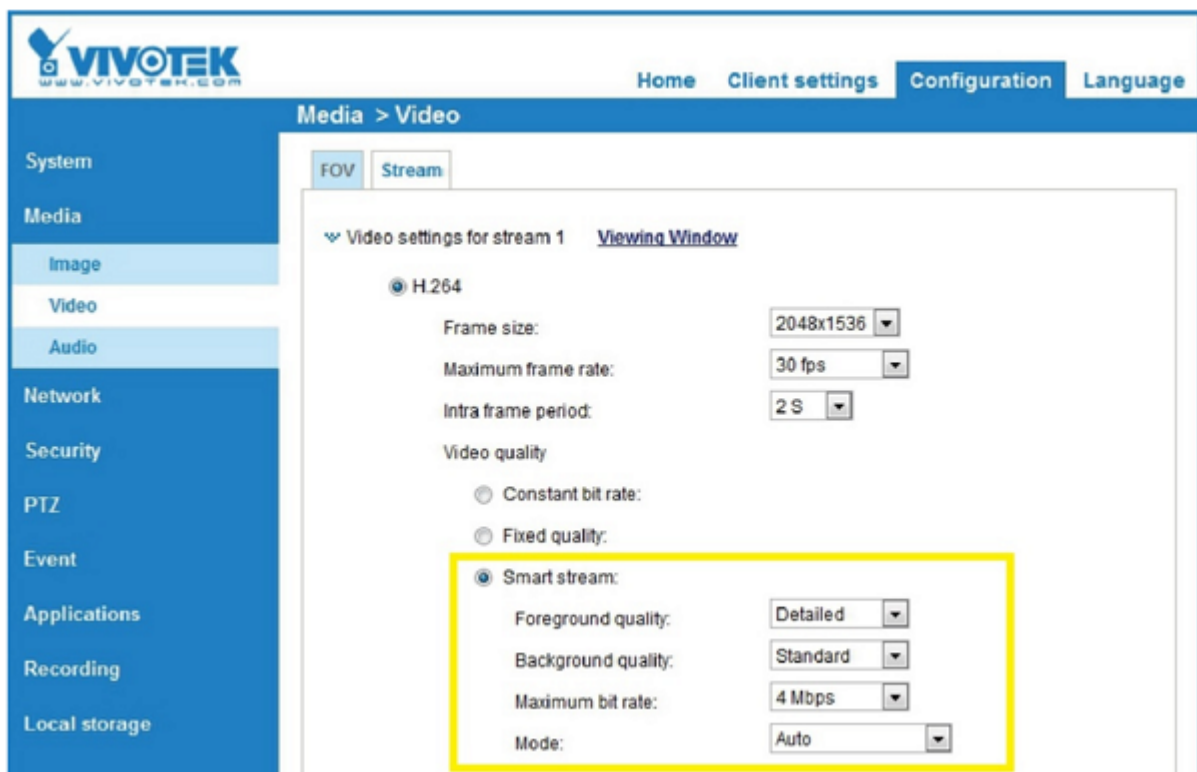
What is Smart stream?

Smart stream intelligently allocates more bandwidth to streaming moving objects or Regions of Interest in surveillance scenarios, resulting in optimized resource usage.

Applicable Camera Models:

VIVOTEK FD8371, IP8371, FD8171

How to enable smart stream function?



1. On the Camera

Visit the camera's page. Find the settings of Smart stream in Configuration ->Video->Stream->Any stream->H.264, and set up the video quality for your foreground, background, and start enjoying the benefit of a Smart stream.

2. **On the NVR**

You do not need to make any changes. Just add the camera in your NVR and configure recording settings.

For more information, please refer to

http://www.vivotek.com/pressroom/feature_article/20140128_smart_stream_en.html.

2015/07/22

T15.[Tutorial] If a camera loses its connection with the NVR, does QNAP NVR support Edge Recording to provide redundancy by backing up footage from a camera-based SD card?

QNAP NVR supports Edge Recording to reinforce your surveillance system by recording both to the NVR and to an SD card located on the camera. If there is a network disruption, the camera will continue to record to its SD card and the NVR will automatically recover missing footage once the connection is reestablished.

Insert picture:



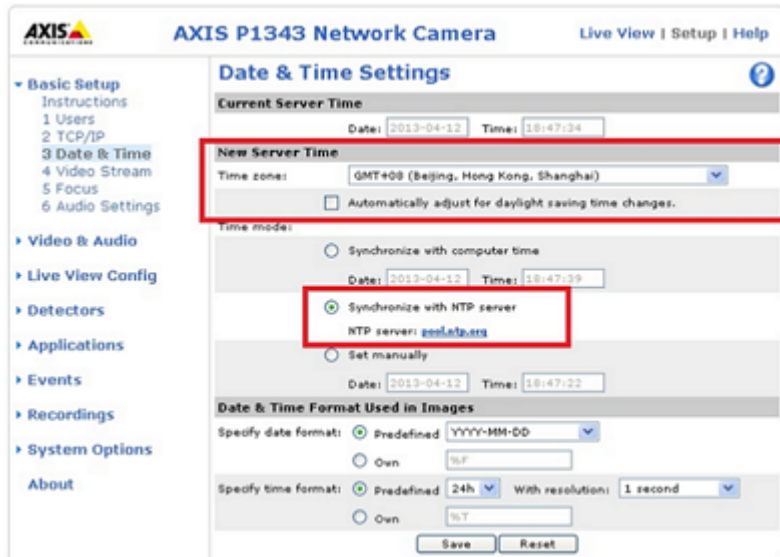
http://www.qnap.com/static/landing/2014/EN-edge-Recording/images/image_02.gif

Applicable models: AXIS M3005, M3025, M5013, P1343 (-E), P1344 (-E), P3343 (-V/-VE), P3346 (-V/-VE), P3367-V/-VE, P5414, P5534 (-E), Q6034 (-E), Q1602, Q6042, Q6044, Q6045

How to configure Edge Recording?

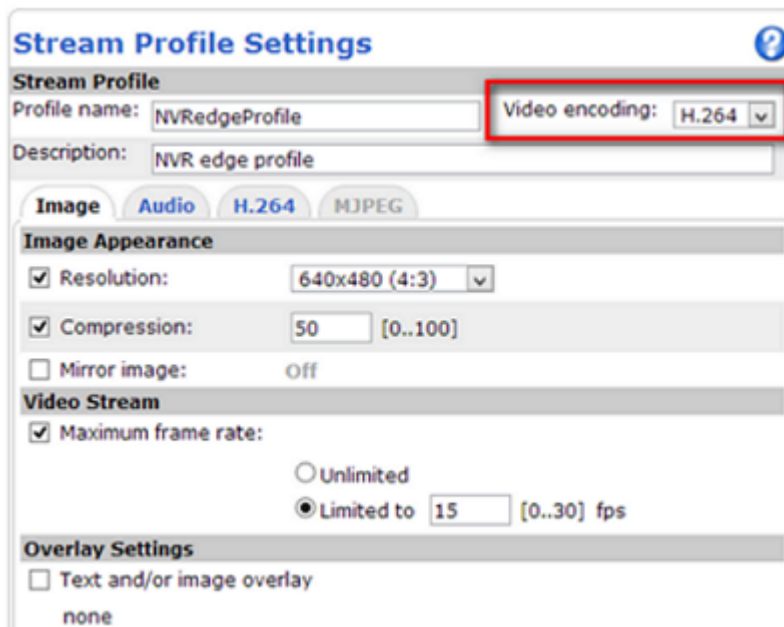
1. Go to the camera page.

Before adding this camera to the NVR, please ensure that the camera's date & time is synchronized with that of the NVR.

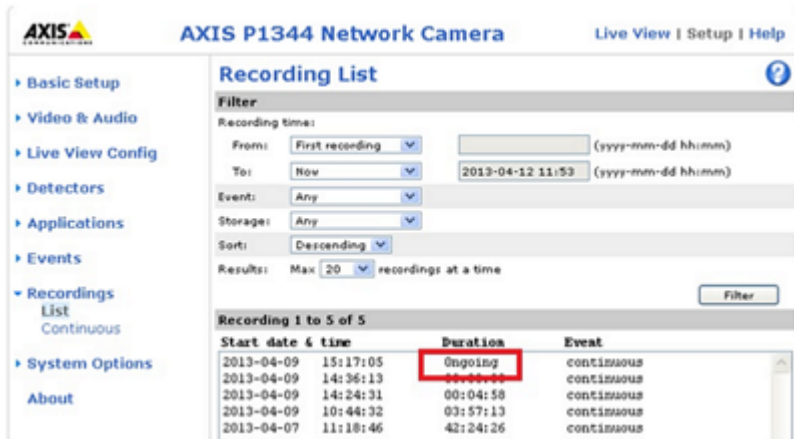


The NVR will automatically apply the settings in the edge profile to the AXIS camera.

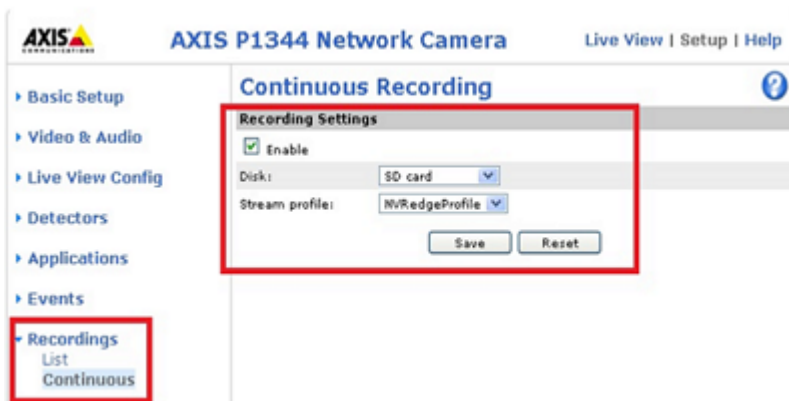
Videos recovered from Edge Recording use the H.264 codec. This option cannot be changed.



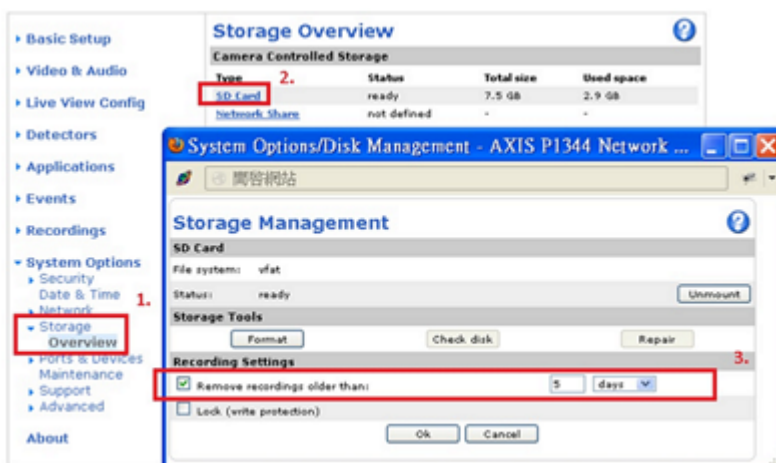
After enabling Edge Recording, check if the camera is recording videos. If not, enable "Continuous Recording" and ensure the SD card is not full or damaged.



After enabling Edge Recording, ensure that "Recording Settings" have been enabled on the camera page and select "NVRedgeProfile" as the stream profile.

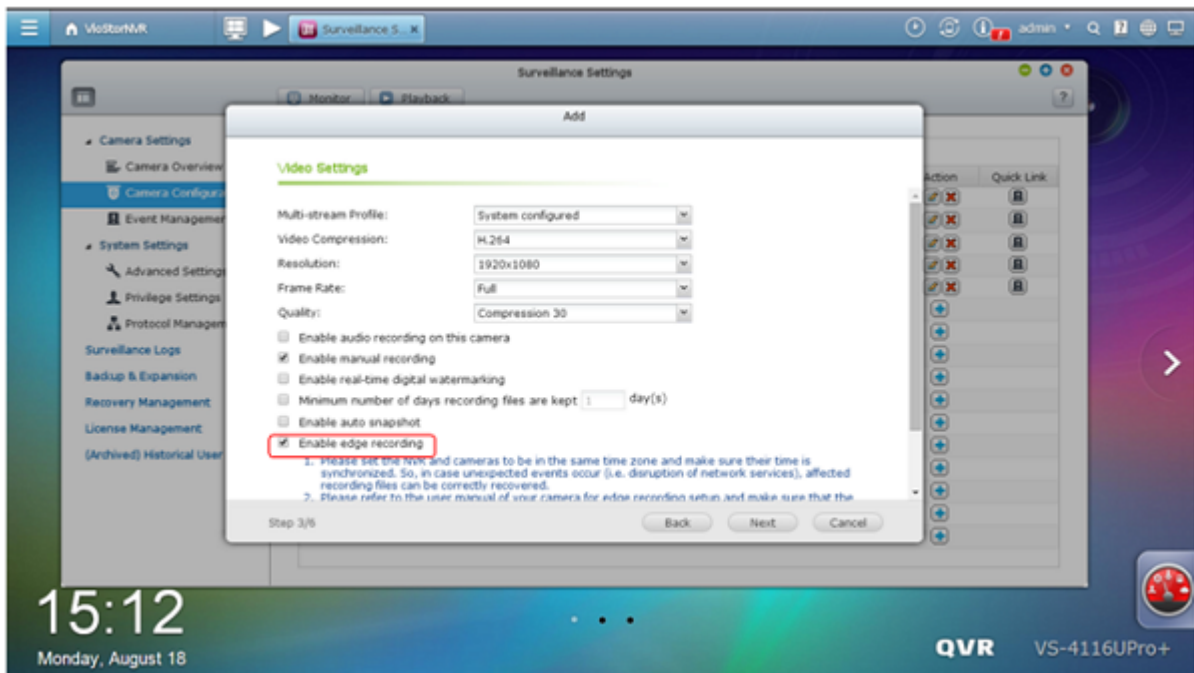


Configure the "Remove recordings older than" settings to optimize the capacity usage of the SD card.



2. Go to the NVR page.

Go to “Surveillance Settings” > “Camera Configuration” to enable Edge Recording under “Video Settings”.



Go to “Surveillance Settings” > “Recovery Management” to configure the recovery schedule, and check the recovery status and the status of Edge Recording attempts.

Applicable cameras: AXIS P1343, P1344, P3343, P5534, M5013, Q1602

Limitations and Restrictions:

1. Audio recording is not supported by Edge Recording.
2. The camera's date & time must be synchronized with the NVR time for Edge Recording to work.
3. Please refer to your cameras' user manuals to configure settings on the camera page.
4. Edge Recording settings cannot be modified when using local display.
5. Ensure that the SD card is formatted to VFAT and is fully functional with enough free space for recording videos.
6. Videos recovered from Edge Recording use the H.264 codec. This setting cannot be changed.
7. Edge Recording will only check and recover recording files within the scheduled period.
8. Please refer to our list of compatible cameras:
http://www.qnapsecurity.com/n/en/product_z_g_qvr/cat_intro.php

[Tutorial] How to Configure Storage Expansion for Long-term Recording?

Key Benefits:

After installing the Storage Expansion App (QPKG) on the QNAP NAS and enabling the storage expansion to the QNAP NAS on the NVR, the QNAP NAS will frequently ask the NVR if it has new recording files. If the NVR has new recording files and the backup buffer meets your defined threshold, the QNAP NAS will then download the recordings from the NVR. Under our testing, this method largely improves file backup throughput, with some processes offloaded to the QNAP NAS CPU.

Key features:

VioStor NVR + QNAP NAS + REXP for long-term recording

1. Addressing user needs: Users can expand their storage capacity based on their needs.
2. Reduces expenses: This is a cost-effective choice to expand storage.
3. Highly scalable for storage expansion in the future.

Storage Expansion - Introduction

http://eu1.qnap.com/Surveillance/presentation/Storage_Expansion-Introduction.pdf

Storage Expansion - Selection guide

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QNAP RAID Expansion Enclosures

http://files.qnap.com/news/pressresource/product/Use_QNAP_RAID_Expansion_Enclosure_to_Expand_Storage_Capacity_en.pdf

Storage Expansion Architecture



How it works?

Suppose the NVR only has enough space for storing 5 days of recording files, and the QNAP NAS only has enough space for storing 7 days of backup files.

The backup buffer on the NVR is set to 48 hours.

Edit

NAS IP Address: 10.65.13.89

Port: 8080

User Name: admin

Password: *****

Backup buffer: 48

Apply Cancel

The recording files are set to be backed up to the QNAP NAS.

External Backup

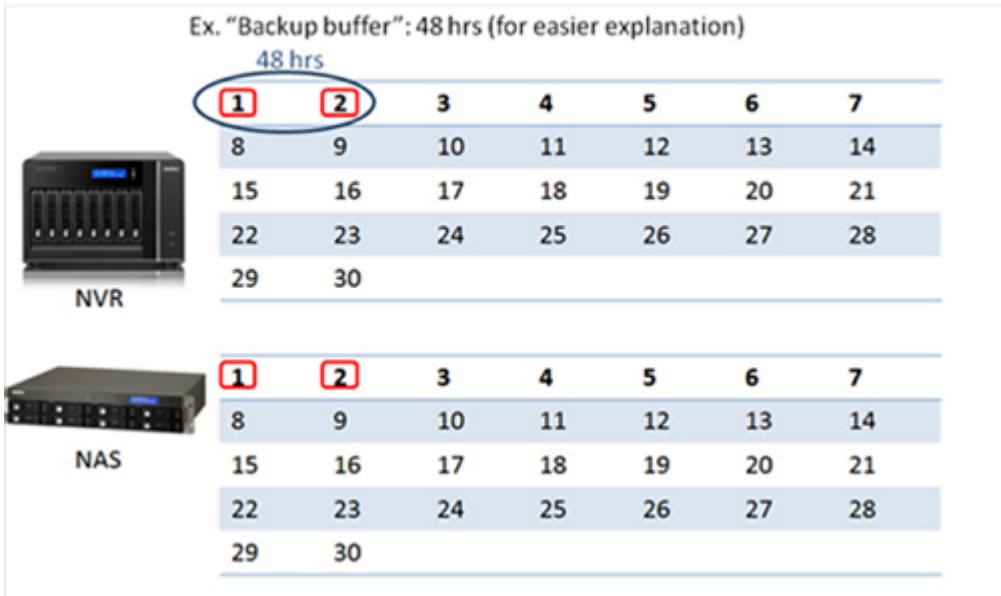
Remote Replication

Storage Expansion

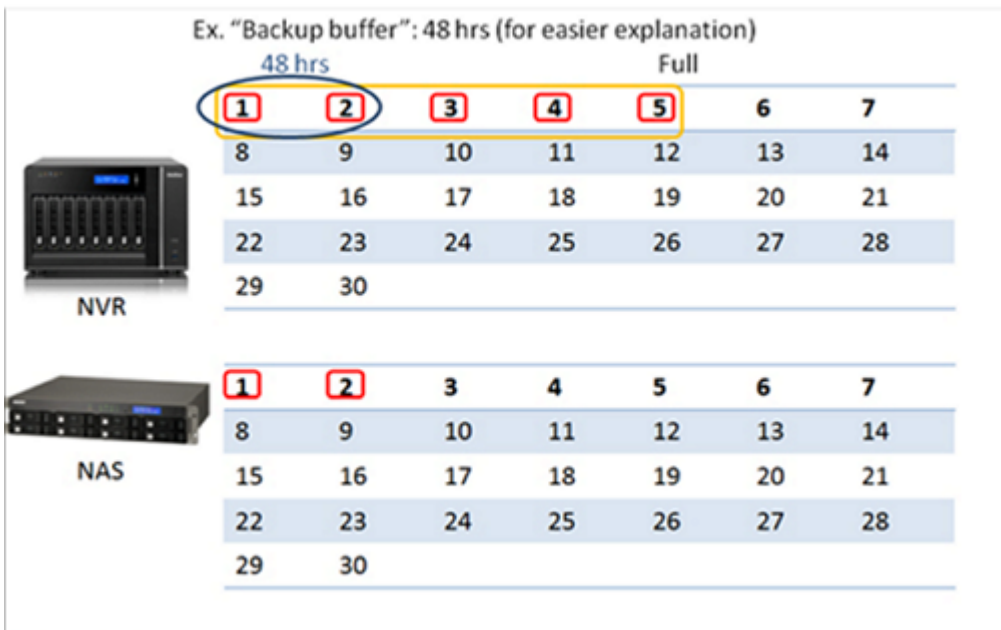
Overview Storage Expansion Assignment

Channel	Camera Name	NAS IP Address	Destination	Action
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2	Camera 2	10.65.13.89	2	[icon]
3	Camera 3	10.65.13.89	2	[icon]
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5	Camera 5	10.65.13.89	2	[icon]
6	Camera 6	10.65.13.89	2	[icon]
7	Camera 7	10.65.13.89	2	[icon]
8	Camera 8	10.65.13.89	2	[icon]
9	Camera 9	10.65.13.89	2	[icon]
10	Camera 10	10.65.13.89	2	[icon]
11	Camera 11	10.65.13.89	2	[icon]
12	Camera 12	10.65.13.89	2	[icon]
13	Camera 13	10.65.13.89	2	[icon]
14	Camera 14	10.65.13.89	2	[icon]
15	Camera 15	10.65.13.89	2	[icon]
16	Camera 16	10.65.13.89	2	[icon]
17	Camera 17	10.65.13.89	2	[icon]
18	Camera 18	10.65.13.89	2	[icon]

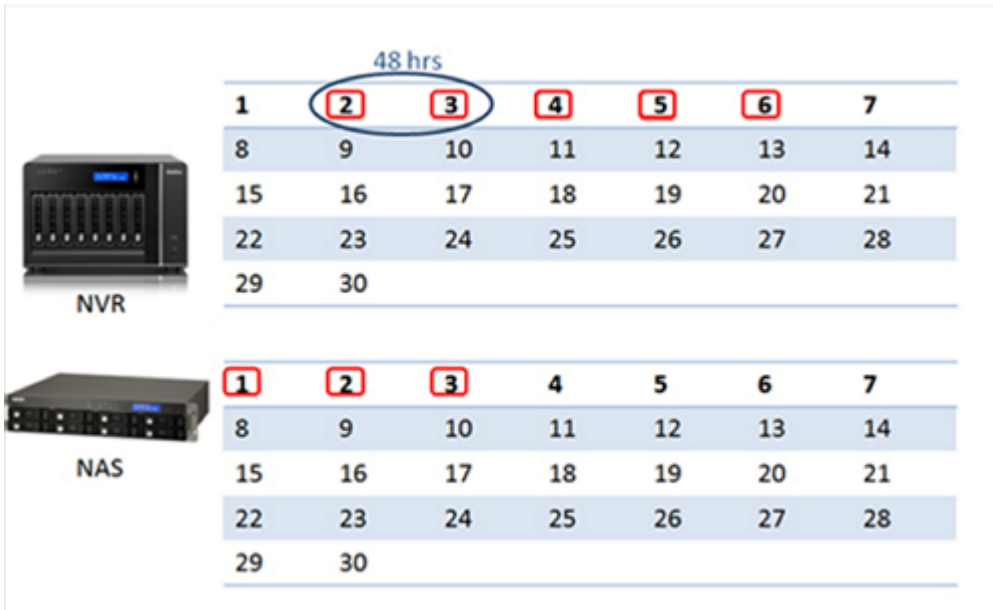
After the settings are applied, the QNAP NAS will check and download the earliest 48 hours of recording files from the NVR. So, the first two days of recording files will be downloaded and stored on the QNAP NAS.



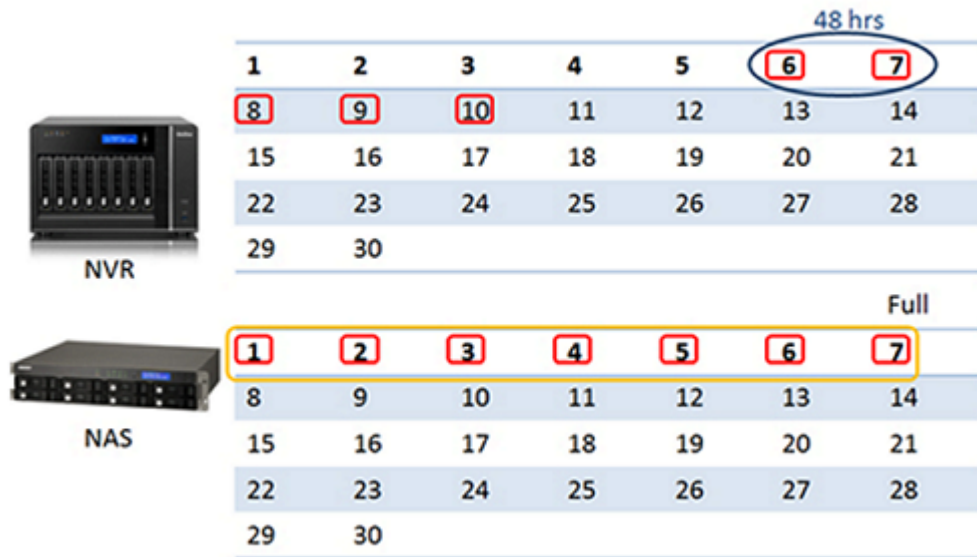
As time passes, the NVR storage space will be full by the 5th day. As the earliest 48 hours of recording files are the same as before, no more recording files are downloaded and stored on the QNAP NAS..



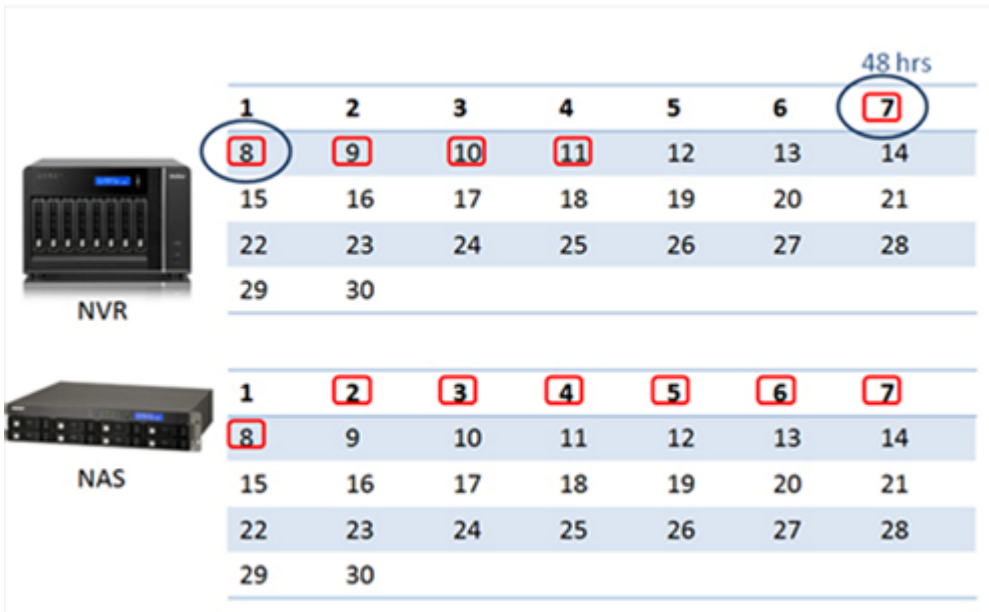
On the 6th day, to store new recording files, the NVR will delete the first day's recording files. Now the earliest 48 hours are the second and third days. So, the recording files of the third day will be downloaded to the QNAP NAS.



Based on these settings, the QNAP NAS will keep downloading recording files until it is full, and a total of 10 days of recording files will be kept (the earliest 5 days on the QNAP NAS and latest 5 days on the NVR.)



To store new recording files, the NVR will delete the recording files of the sixth day, and the eighth day's recording files (the new, earliest 48 hours) will be downloaded to the QNAP NAS. As the QNAP NAS is full, it will delete the first day's recording files.



The total hours of recording files = total hours of recording files on the NVR + total hours of recording files on the NAS – Backup buffer.

Please note:

In order to ensure that the Storage Expansion can be executed whilst recording, please calculate the bandwidth requirements for specific VioStor NVR models.

The following is estimated bandwidth requirements for specific NVR models:

VS-8100 Pro+, 8100U-RP Pro(+), 12100U-RP Pro(+) series: 360 Mbps.

VS-2200 Pro+, 2100 Pro+, 4100 Pro+, 6100 Pro+, 4100U-RP Pro+ series: 160 Mbps.

VS-2000 Pro, VS-4000 Pro, VS-6000 Pro, 4000U-RP Pro series: 90 Mbps.

Limitations and Restrictions:

1. Storage Expansion is currently supported by the VioStor Pro(+) series (running QVR v5.1.0 or higher version) and QNAP NAS TVS-ECx80, x71U, x71, x70, x63 series and TS-x79U, ECx80, ECx80U, x53U, x53 Pro, x51 series (running QTS v4.1.4 or higher version), and they must be set on the same LAN.

For VS-12100U-RP Pro(+), 8100U-RP Pro(+), 8100 Pro+ series, it is recommended to configure up to 3 NAS servers for storage expansion.

For VS-2200 Pro+, 4100U-RP Pro+, 6100 Pro+, 4100 Pro+, VS-2100 Pro+ series, it is recommended to configure up to 2 NAS servers for storage expansion.

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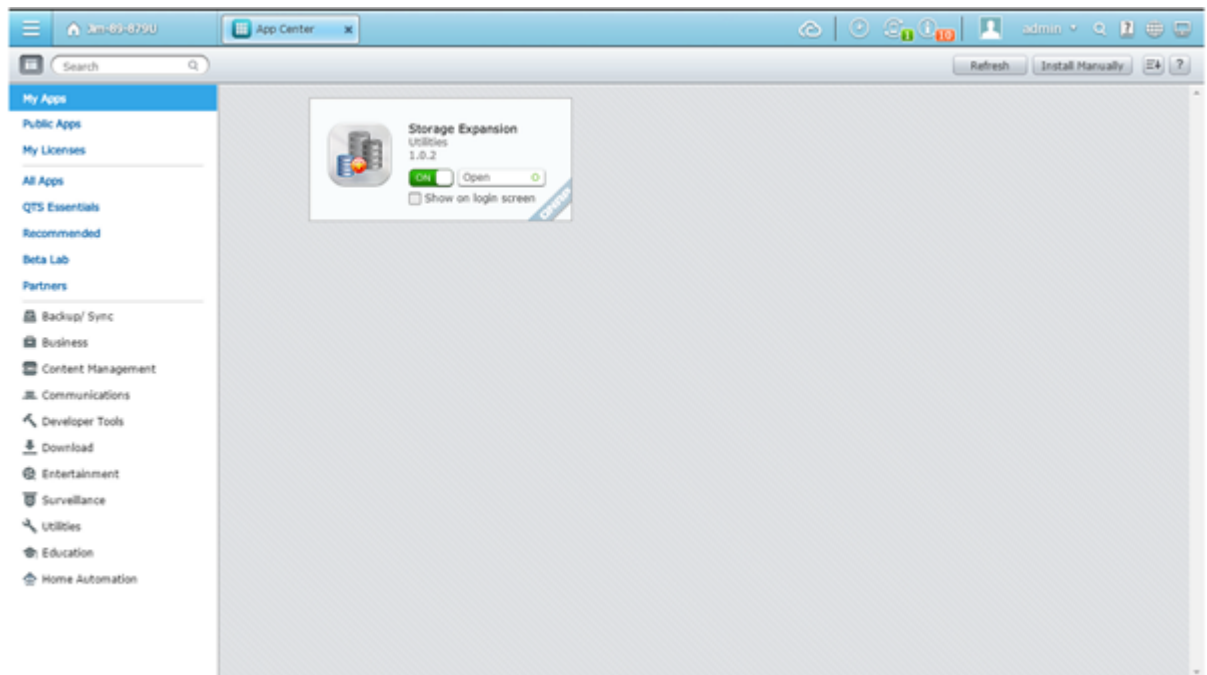
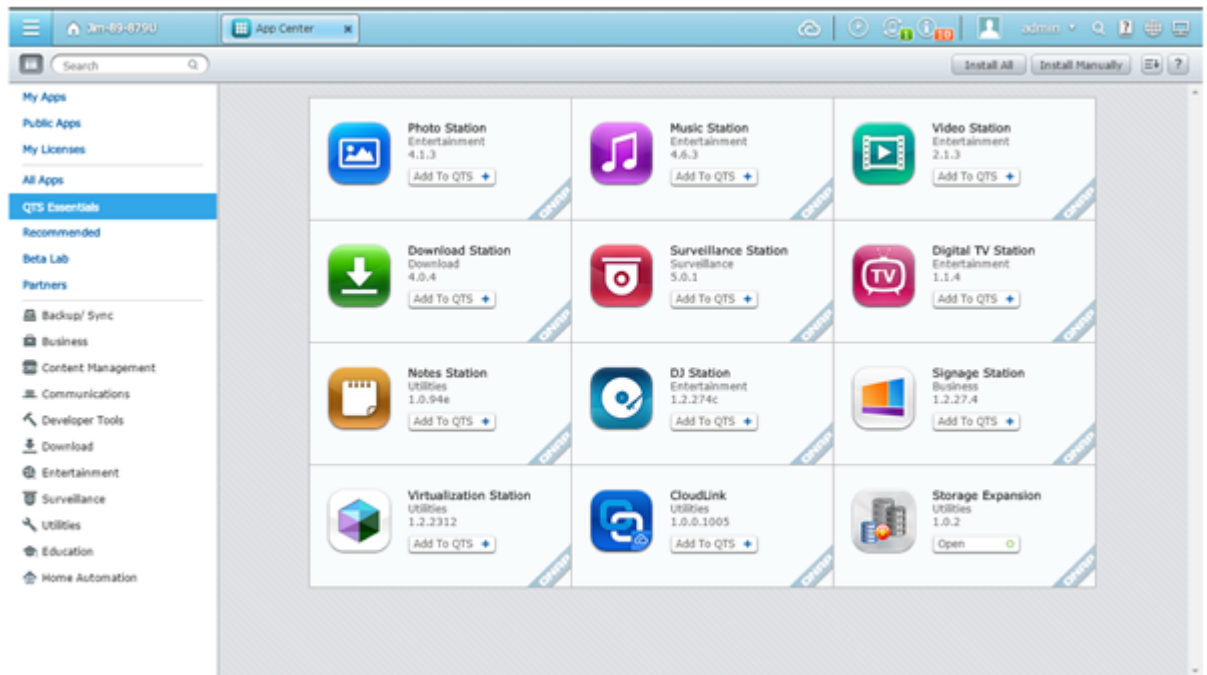
2. A gigabit switch is required for this application.
3. All QNAP NVR and NAS units are required to use fixed IP addresses and be under same subnet mask & gateway.
4. Storage expansion related settings cannot be modified using local display.
5. The file transfer process between the QNAP NVR and NAS will be completed even if it is suddenly interrupted (for example, the destination folder is deleted.) For example, the cache count is set to six hours. The destination is changed to none in the middle of processing. When this happens, the NVR will still move recording files to the QNAP NAS until the entire process is finished.

How to configure storage expansion?

Step 1: Install the StorageExpansion App (QPKG) on the QNAP NAS

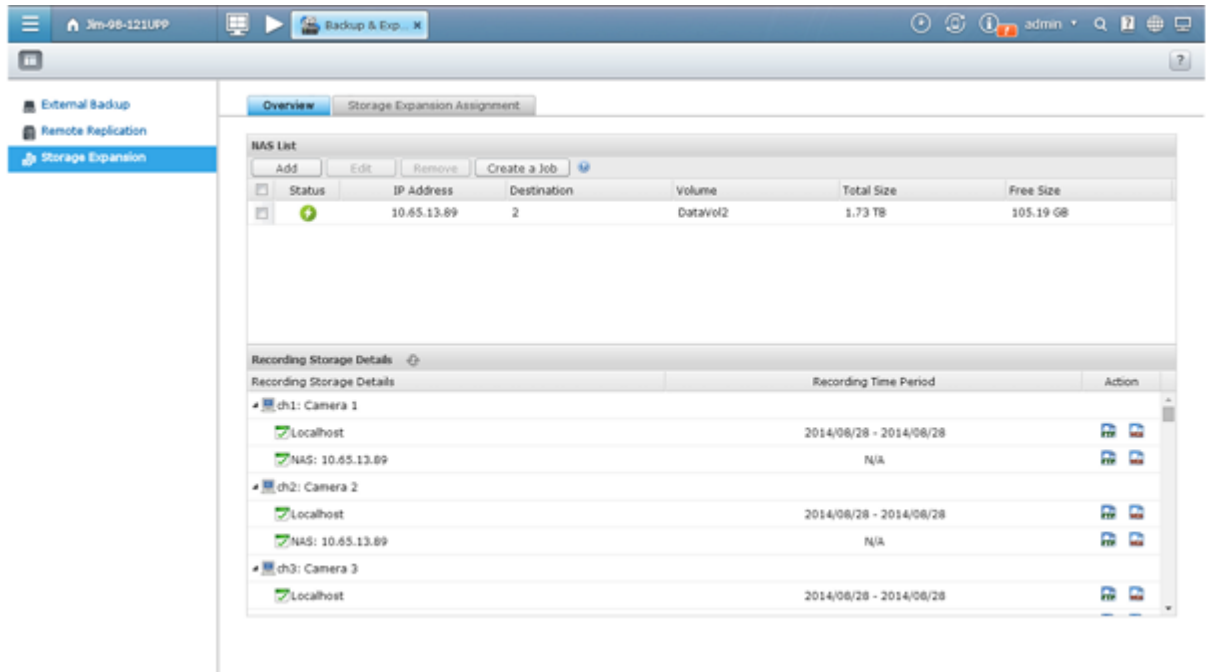
Please note: Download the app from the QTS App Center. Before installing the app, please ensure the app is correct, carefully read the instructions, and back up the important data on the QNAP NAS.

- Download and install the StorageExpansion package.
- To install the app, click “Add to QTS”.



Step 2: Configure Storage Expansion on the NVR

1. Go to "Backup & Expansion" → "Storage Expansion" to configure relevant settings.
2. Click "Add" in "NAS List" table under "Overview".



3. Please enter the QNAP NAS/destination settings.
 - A. Enter NAS IP, port, and user credentials.
 - B. Enter the destination name (the name cannot be used same as any folder under root.).
 - C. Select the volume.
 - D. Enter a value for the backup buffer.

Add NAS

NAS IP Address:

Port:

User Name:

Password:

Destination:

Volume:

Backup buffer:

If you want to configure storage expansion to a REXP Expansion Enclosure, please select the right volume on REXP to enable storage expansion to REXP.

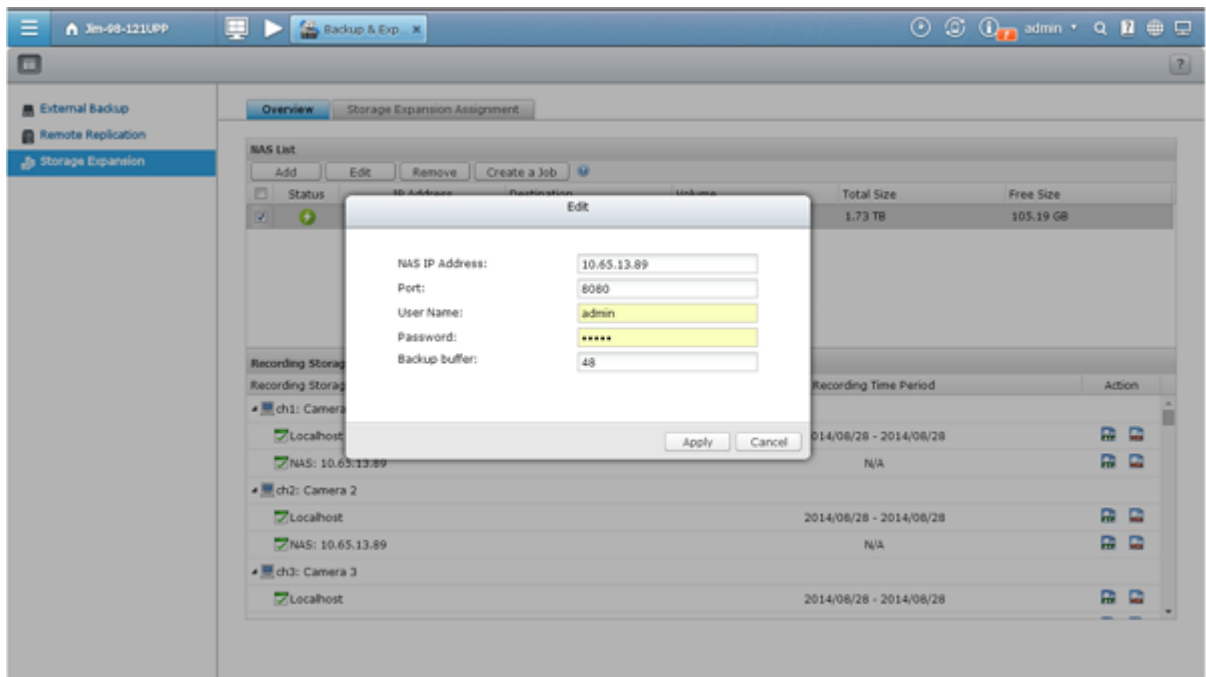
Please note:

Destination: The folder created on the QNAP NAS to save recording files.

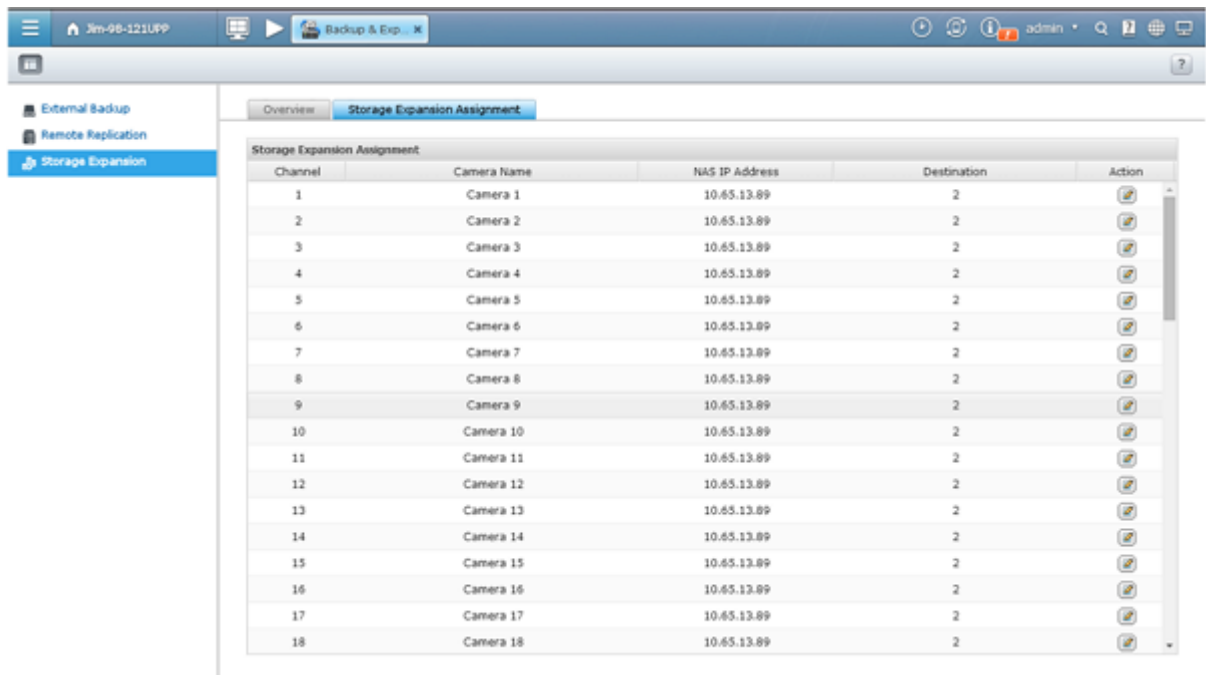
Volume: The volume assigned for storage expansion.

Backup buffer: As an example, if you configure the backup buffer as 6, the latest six hours of recordings will be copied to the QNAP NAS. The maximum value is 48.

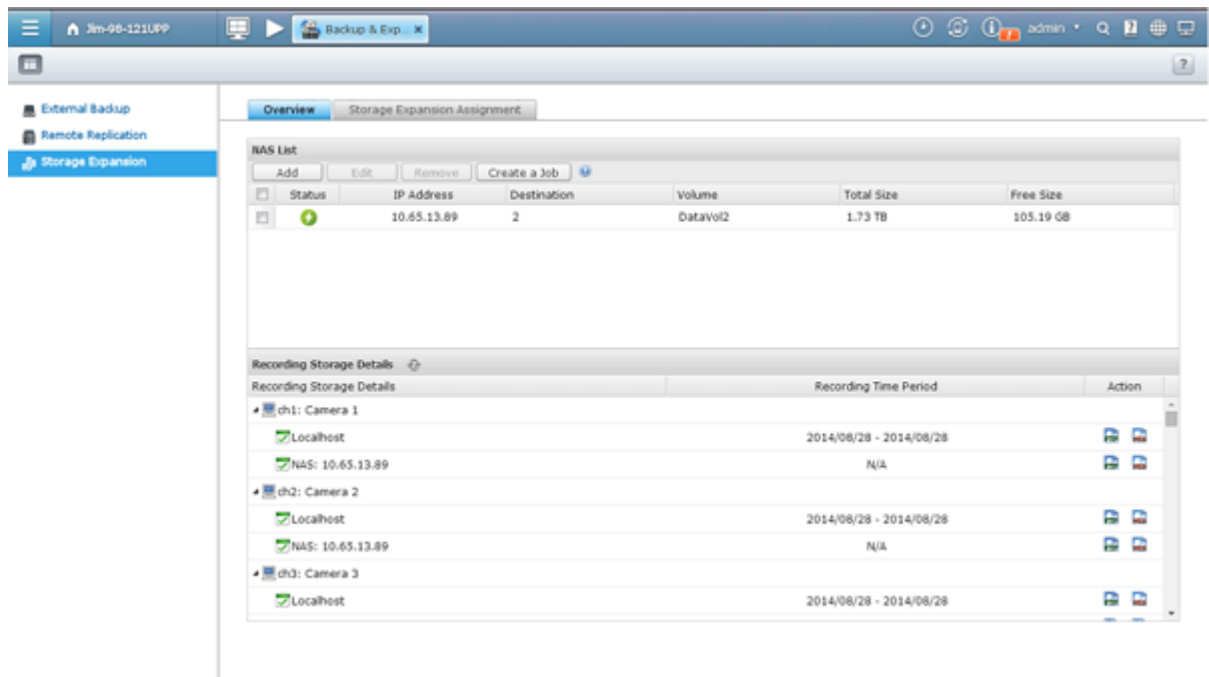
4. You can enable a QNAP NAS and modify its settings on this page.



5. Click "Storage Expansion Assignment" to choose a QNAP NAS as the storage unit for each channel.



6. Review all of the configured settings and recording storage details under “Overview”.

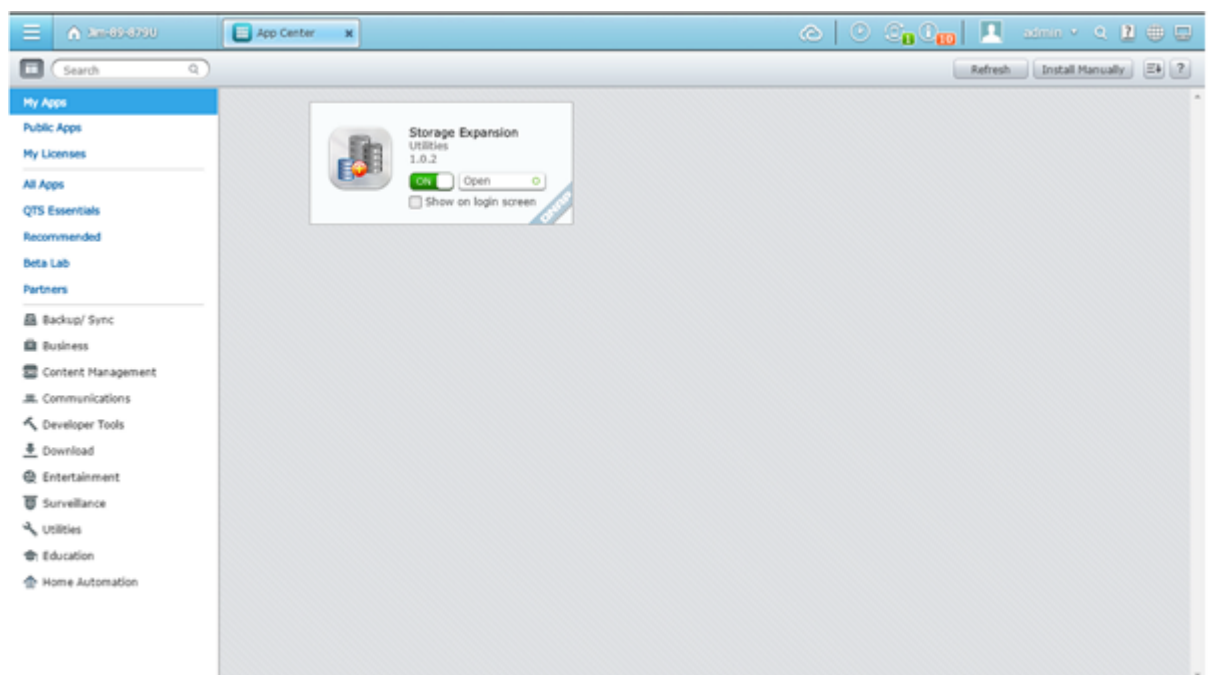


This page will automatically refresh every fifteen minutes.

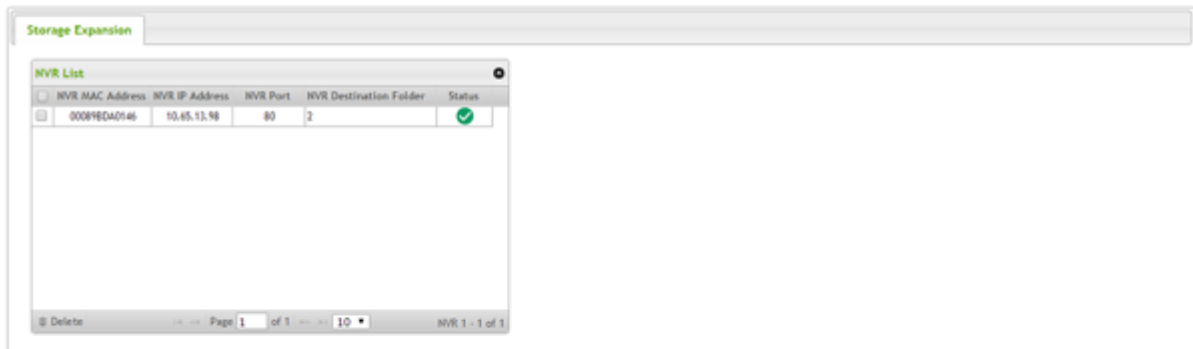
QNAP NAS models are an ideal solution for expanding the storage capacity of the NVR to save more recording files. Integration of both QNAP devices can help users to save recording files more flexibly and efficiently.

Step 3: Check available NVRs on the list and their status on the QNAP NAS


1. Click “Open” on StorageExpansion.



2. You can check available NVRs and their status.






The screenshot shows a web interface titled "Storage Expansion" with a sub-section "NVR List". It contains a table with the following data:


NVR MAC Address	NVR IP Address	NVR Port	NVR Destination Folder	Status
00091E0A0146	10.65.13.98	80	2	

Below the table, there is a "Delete" button, a pagination control showing "Page 1 of 1", and a count "NVR 1 - 1 of 1".



The screenshot shows a log table with the following entries:

Status	Description
	Connection to NVR succeeded.
	Failure of storage expansion due to incorrect storage expansion assignments (please check your setting on the storage expansion page.)
	Failure of storage expansion because Subnet Mask setting of NAS and NVR should be the same.
	Failure of storage expansion as the NVR (MAC address) is changed.
	Failure of storage expansion because no NVR is found.

Please note: The NVR status will become  after the storage expansion assignment is completed.

2015/07/22

[Tutorial] How to Configure Storage Expansion for Long-term Recording?

Key Benefits:

After installing the Storage Expansion App (QPKG) on the QNAP NAS and enabling the storage expansion to the QNAP NAS on the NVR, the QNAP NAS will frequently ask the NVR if it has new recording files. If the NVR has new recording files and the backup buffer meets your defined threshold, the QNAP NAS will then download the recordings from the NVR. Under our testing, this method largely improves file backup throughput, with some processes offloaded to the QNAP NAS CPU.

Key features:

VioStor NVR + QNAP NAS + REXP for long-term recording

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QNAP RAID Expansion Enclosures

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Storage Expansion Architecture



How it works?

Suppose the NVR only has enough space for storing 5 days of recording files, and the QNAP NAS only has enough space for storing 7 days of backup files.

The backup buffer on the NVR is set to 48 hours.

Edit

NAS IP Address: 10.65.13.89

Port: 8080

User Name: admin

Password: *****

Backup buffer: 48

Apply Cancel

The recording files are set to be backed up to the QNAP NAS.

External Backup

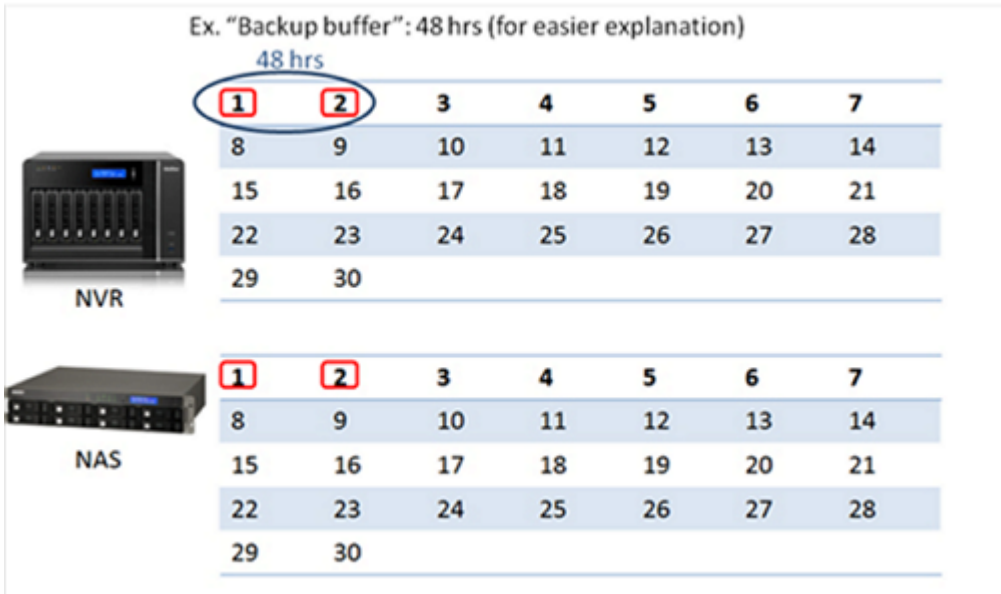
Remote Replication

Storage Expansion

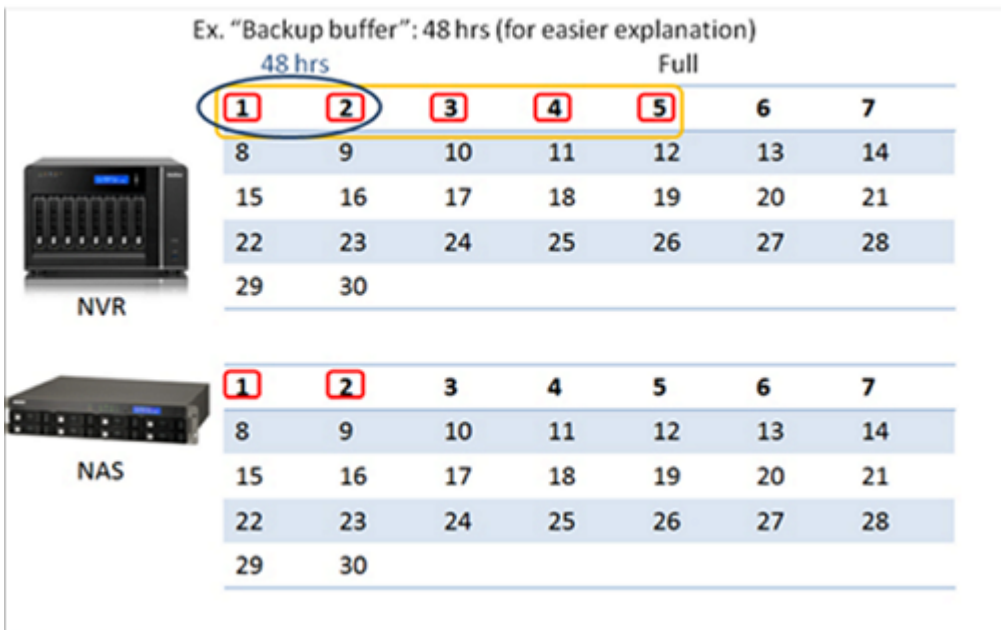
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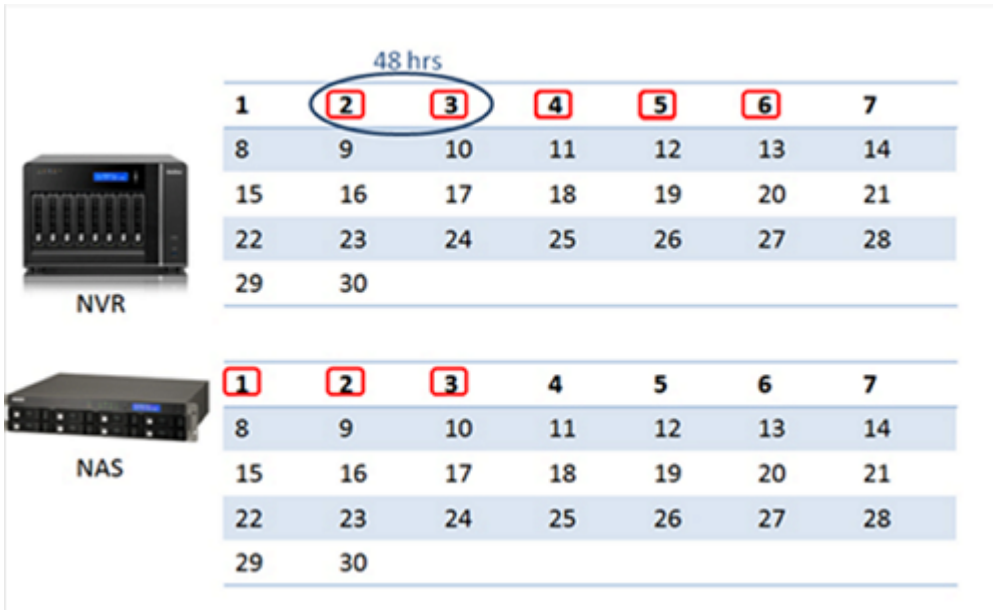
After the settings are applied, the QNAP NAS will check and download the earliest 48 hours of recording files from the NVR. So, the first two days of recording files will be downloaded and stored on the QNAP NAS.



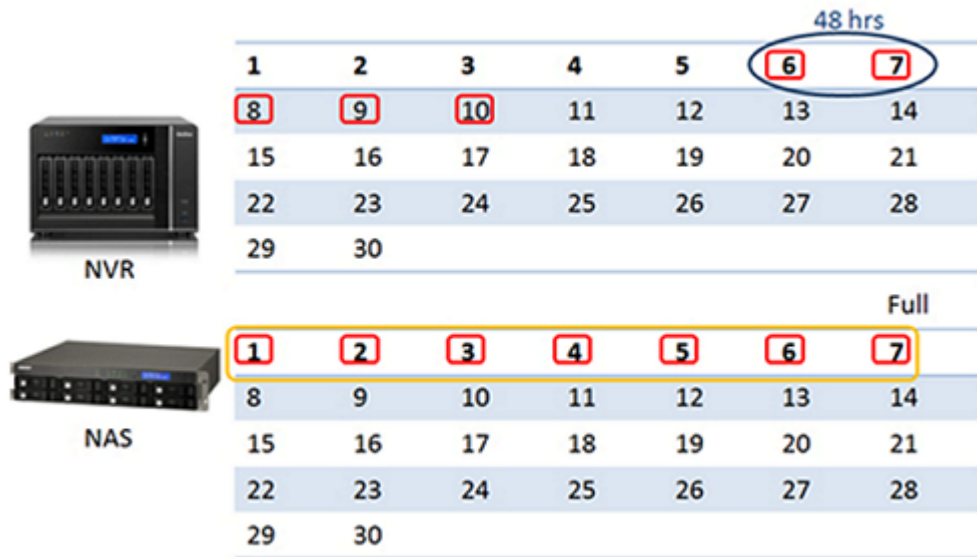
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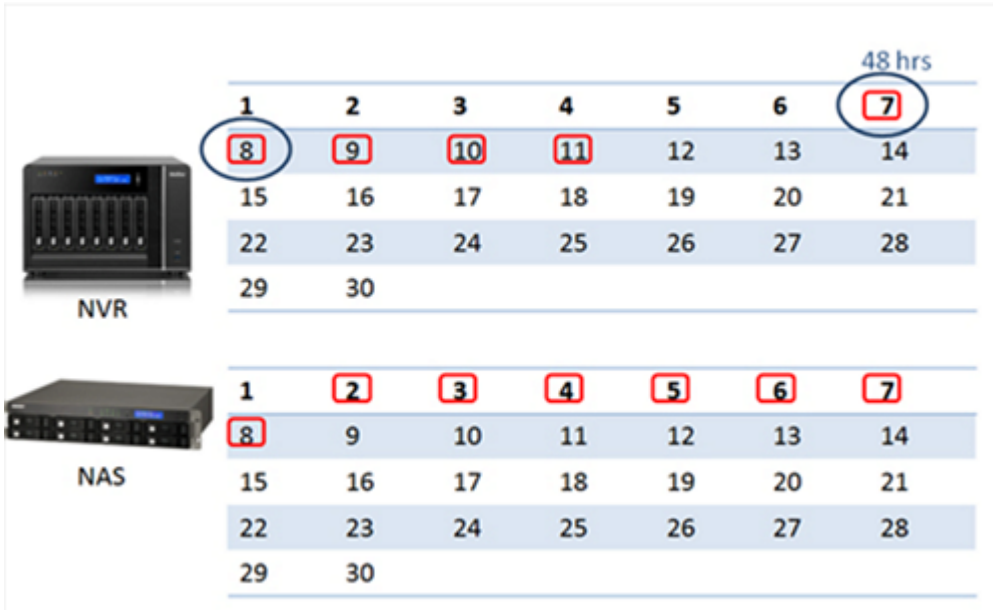
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Based on these settings, the QNAP NAS will keep downloading recording files until it is full, and a total of 10 days of recording files will be kept (the earliest 5 days on the QNAP NAS and latest 5 days on the NVR.)



To store new recording files, the NVR will delete the recording files of the sixth day, and the eighth day's recording files (the new, earliest 48 hours) will be downloaded to the QNAP NAS. As the QNAP NAS is full, it will delete the first day's recording files.



The total hours of recording files = total hours of recording files on the NVR + total hours of recording files on the NAS – Backup buffer.

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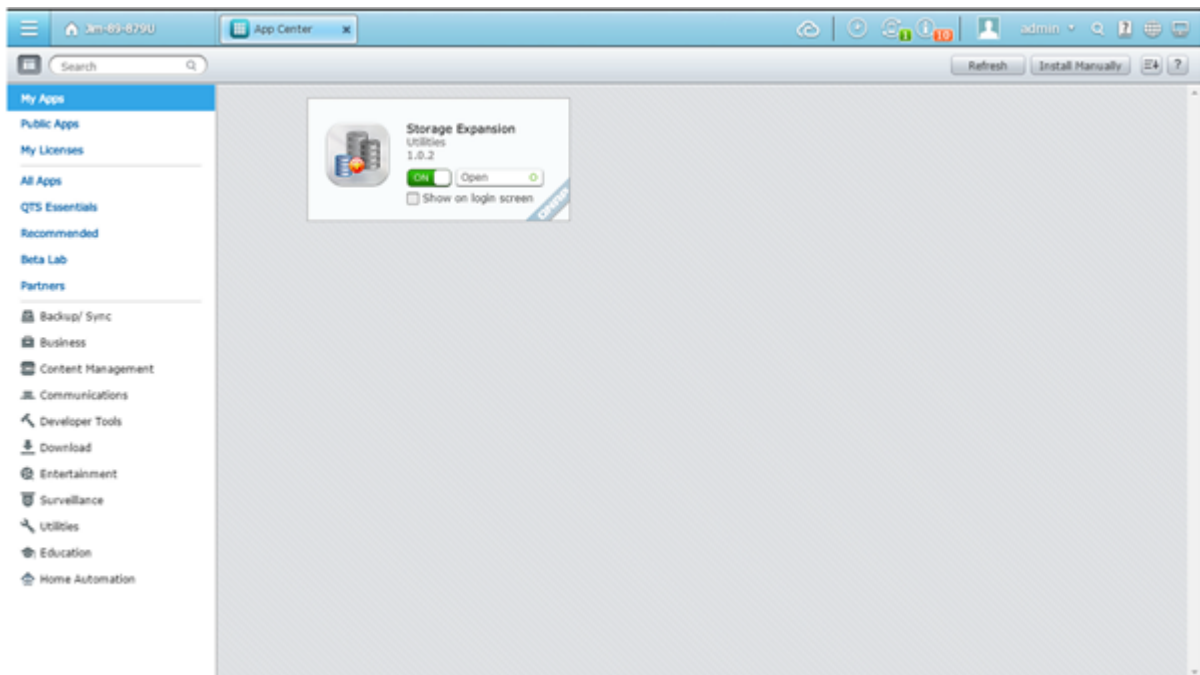
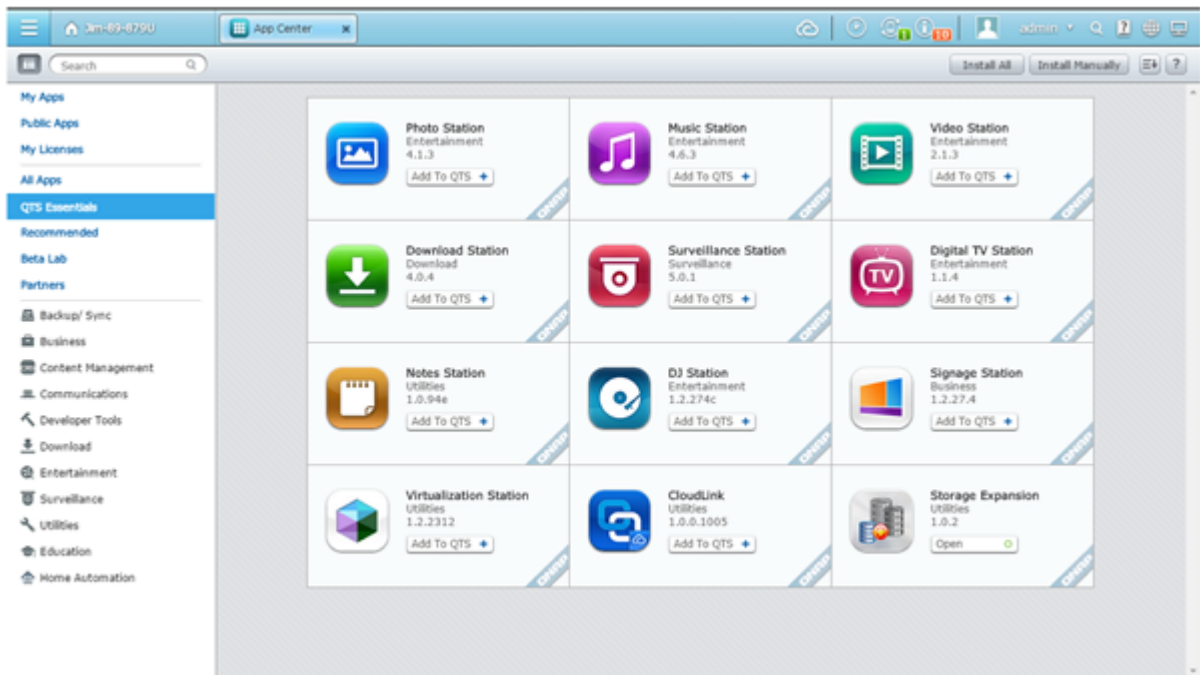
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5. The file transfer process between the QNAP NVR and NAS will be completed even if it is suddenly interrupted (for example, the destination folder is deleted.) For example, the cache count is set to six hours. The destination is changed to none in the middle of processing. When this happens, the NVR will still move recording files to the QNAP NAS until the entire process is finished.

How to configure storage expansion?

Step 1: Install the StorageExpansion App (QPKG) on the QNAP NAS

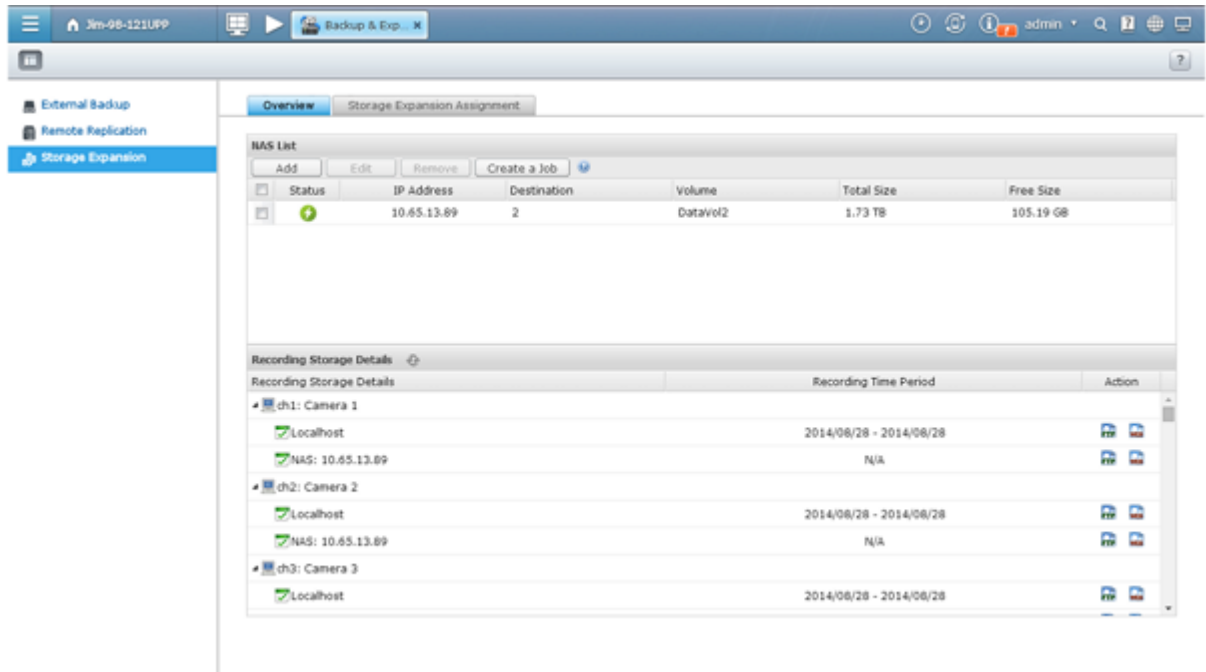
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- Download and install the StorageExpansion package.
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Step 2: Configure Storage Expansion on the NVR

1. Go to "Backup & Expansion" → "Storage Expansion" to configure relevant settings.
2. Click "Add" in "NAS List" table under "Overview".



3. Please enter the QNAP NAS/destination settings.
 - A. Enter NAS IP, port, and user credentials.
 - B. Enter the destination name (the name cannot be used same as any folder under root.).
 - C. Select the volume.
 - D. Enter a value for the backup buffer.

Add NAS

NAS IP Address:

Port:

User Name:

Password:

Destination:

Volume:

Backup buffer:

If you want to configure storage expansion to a REXP Expansion Enclosure, please select the right volume on REXP to enable storage expansion to REXP.

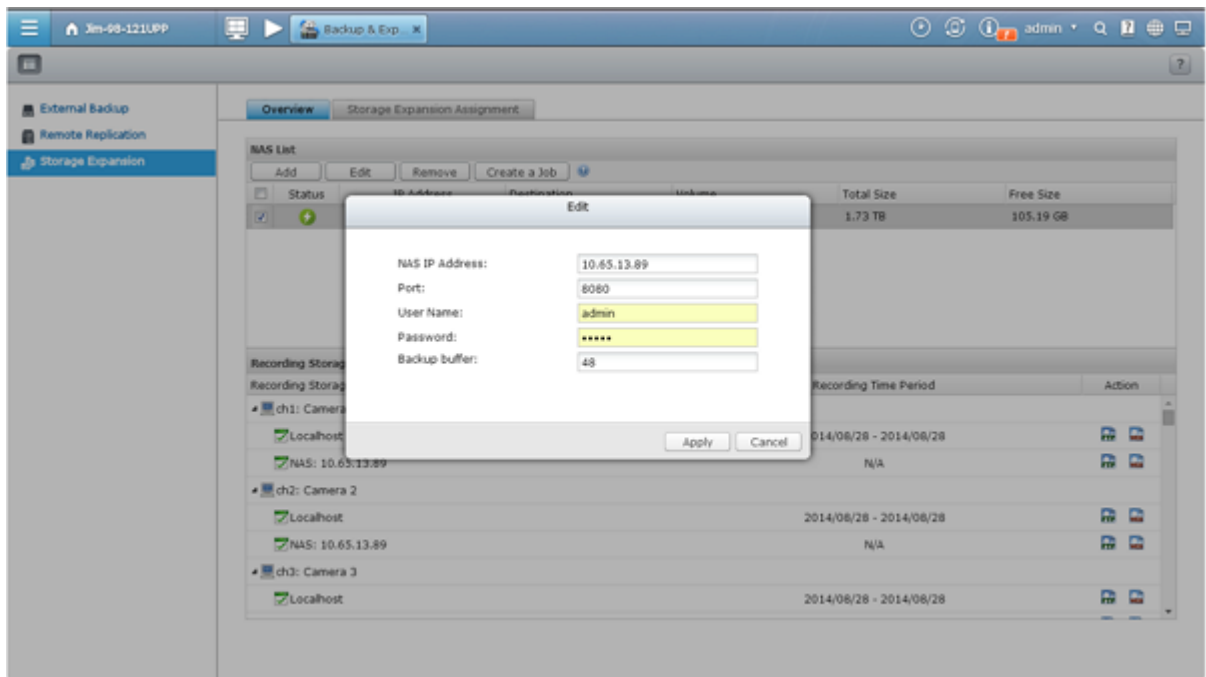
Please note:

Destination: The folder created on the QNAP NAS to save recording files.

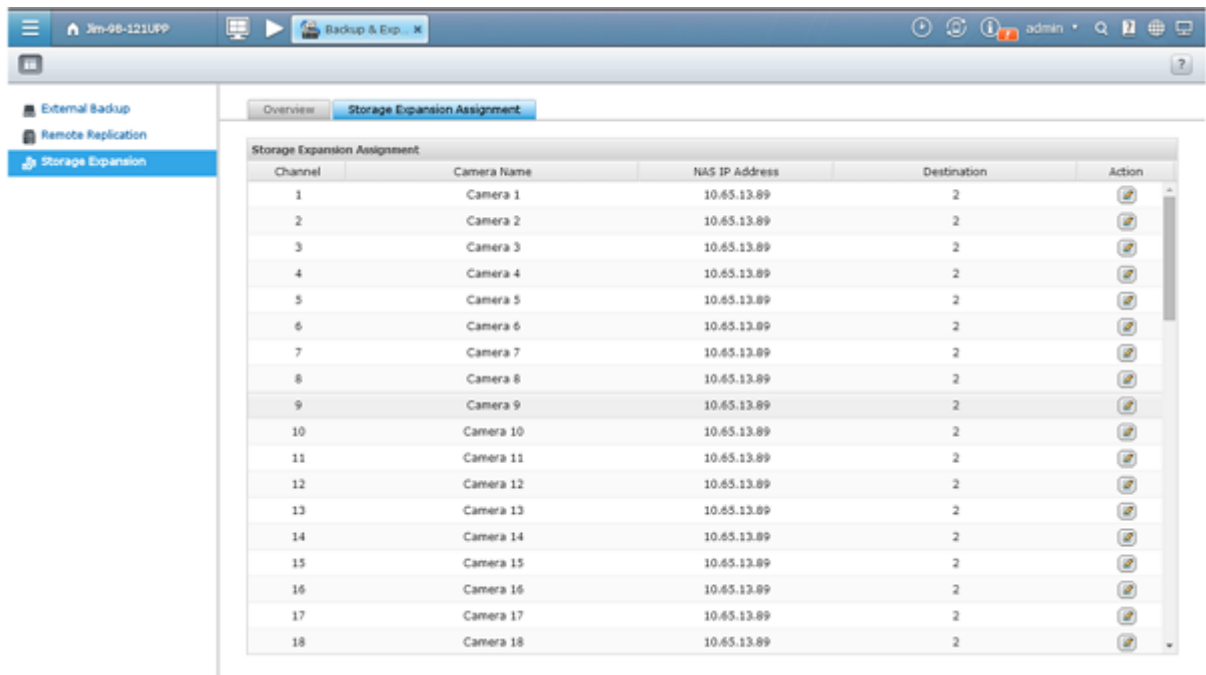
Volume: The volume assigned for storage expansion.

Backup buffer: As an example, if you configure the backup buffer as 6, the latest six hours of recordings will be copied to the QNAP NAS. The maximum value is 48.

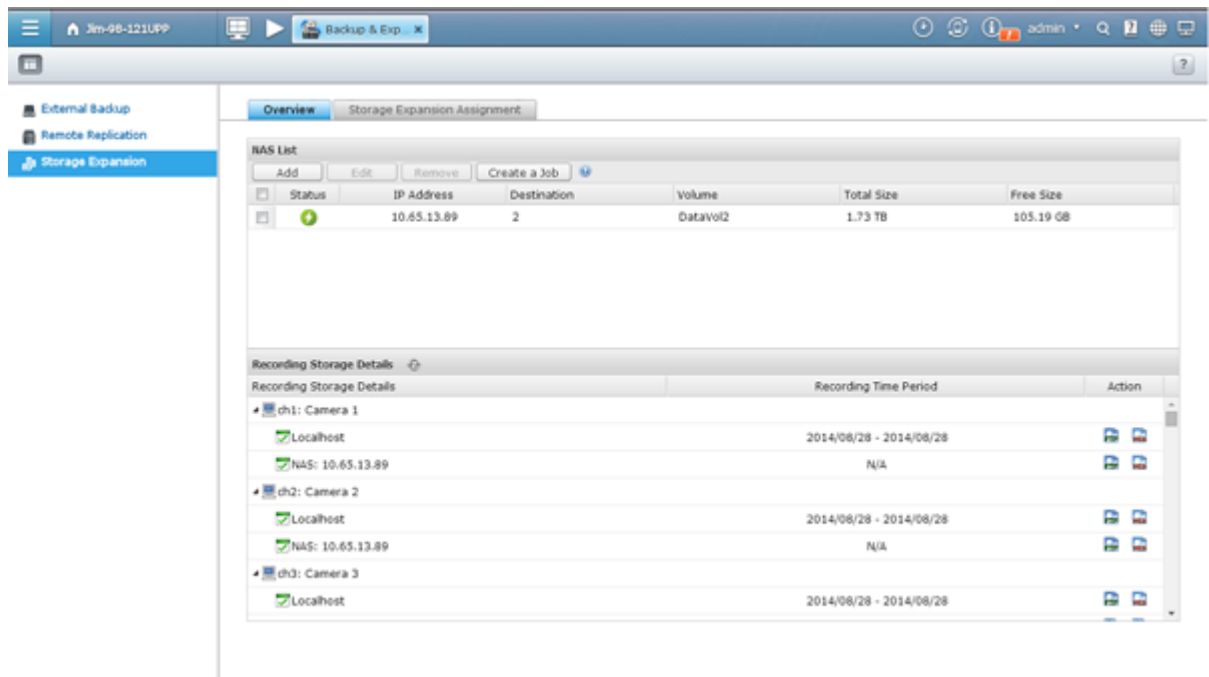
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5. Click "Storage Expansion Assignment" to choose a QNAP NAS as the storage unit for each channel.



6. Review all of the configured settings and recording storage details under “Overview”.

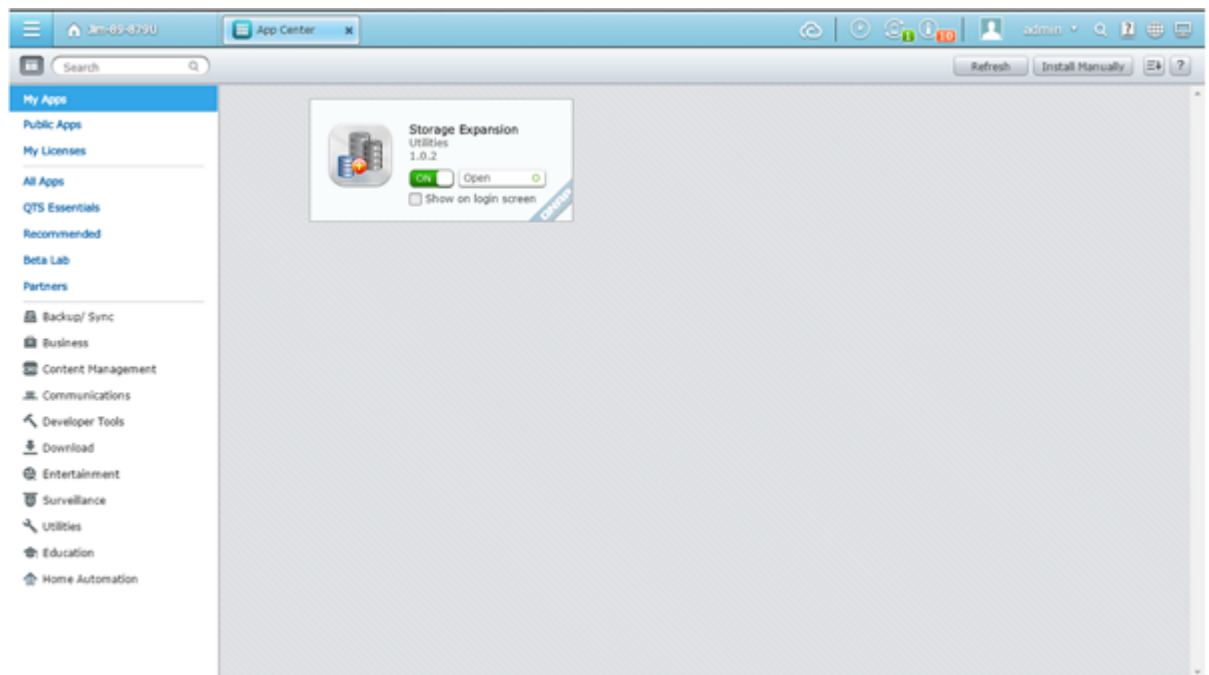


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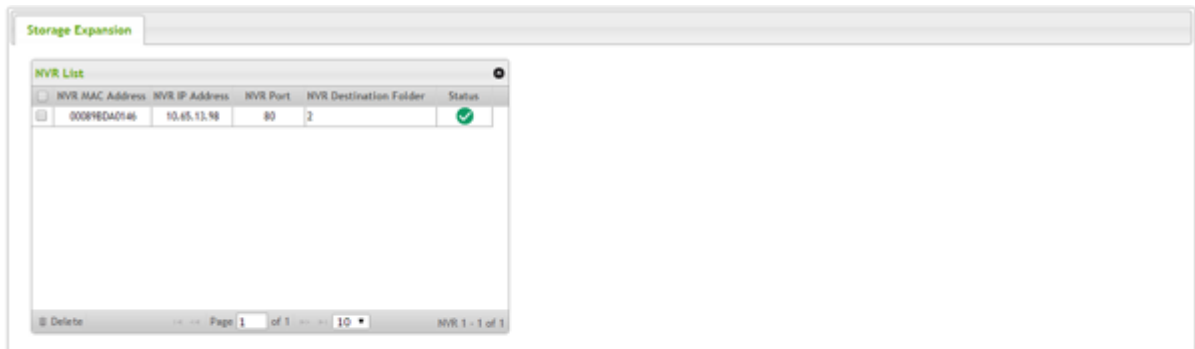
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Step 3: Check available NVRs on the list and their status on the QNAP NAS


1. Click “Open” on StorageExpansion.



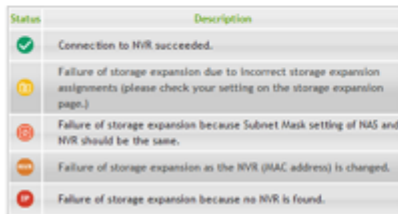
2. You can check available NVRs and their status.







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NVR MAC Address	NVR IP Address	NVR Port	NVR Destination Folder	Status
00091E0A0146	10.65.11.98	80	2	

At the bottom of the table, there is a "Delete" button, a pagination control showing "Page 1 of 1", and a count "NVR 1 - 1 of 1".



The screenshot shows a log table with two columns: "Status" and "Description".

Status	Description
	Connection to NVR succeeded.
	Failure of storage expansion due to incorrect storage expansion assignments (please check your setting on the storage expansion page.)
	Failure of storage expansion because Subnet Mask setting of NAS and NVR should be the same.
	Failure of storage expansion as the NVR (MAC address) is changed.
	Failure of storage expansion because no NVR is found.

Please note: The NVR status will become  after the storage expansion assignment is completed.

2015/07/22

[Tutorial] Set up the QNAP VioStor NVR to record and monitor fisheye network cameras

QNAP's VioStor network video recorder (NVR) series is among the first Linux-embedded standalone device provider to support fisheye cameras. Users can also view a complete scene unfold without obstruction while simultaneously displaying multiple independent dewarped views using fisheye cameras.

This article will guide you to configure the VioStor NVR to record videos from fisheye cameras and to dewarp fisheye images for live monitoring.

Applicable camera models:

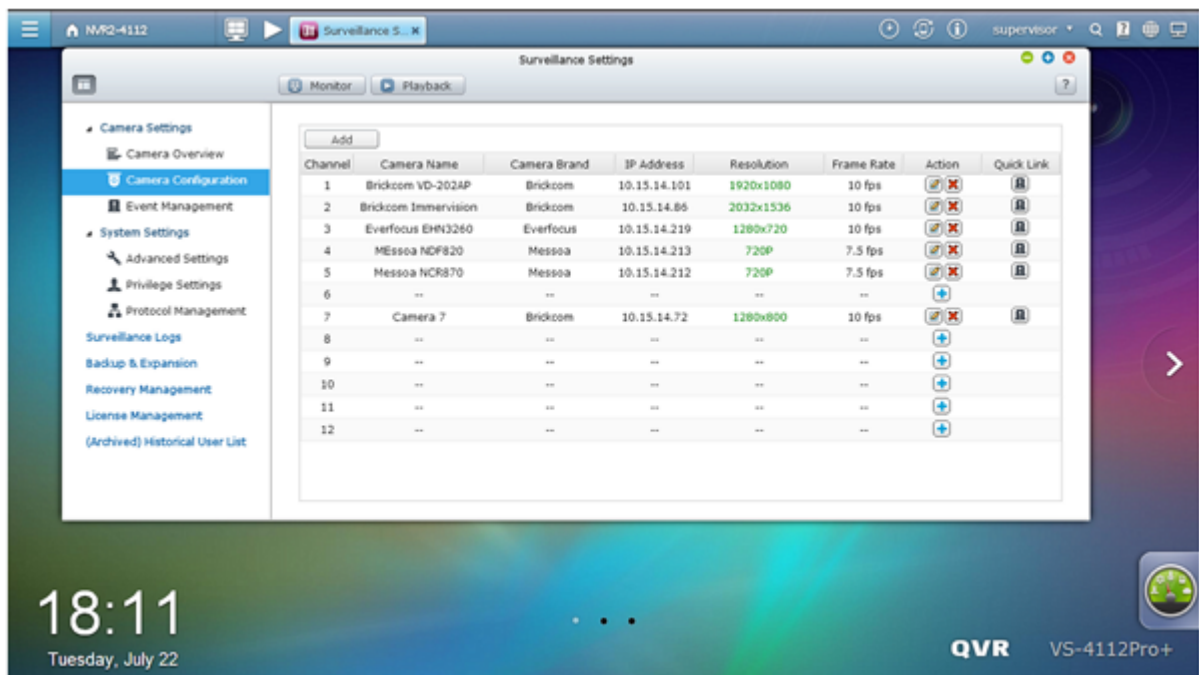
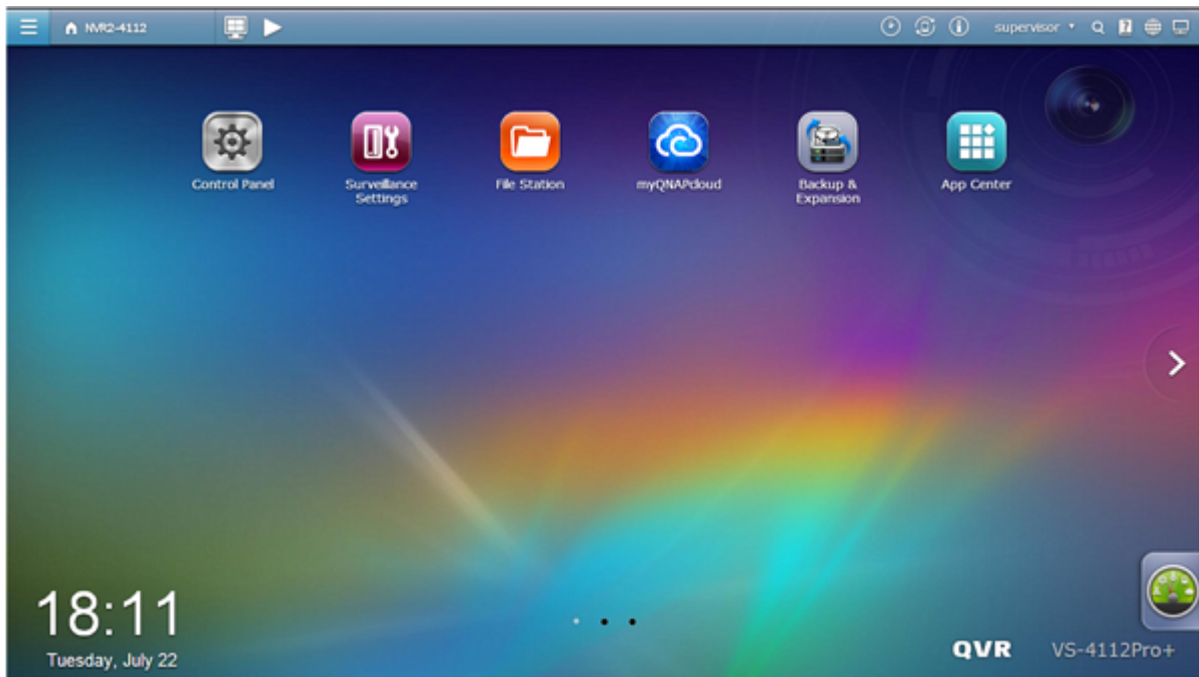
- AXIS M3007 (Please select AXIS M3007-dewarp model in our camera model list)
- Dynacolor NA083
- Oncam Grandeye EVO-05NMD
- VIVOTEK FE 8172/8172/8174 (camera firmware version should be v0100h or above)

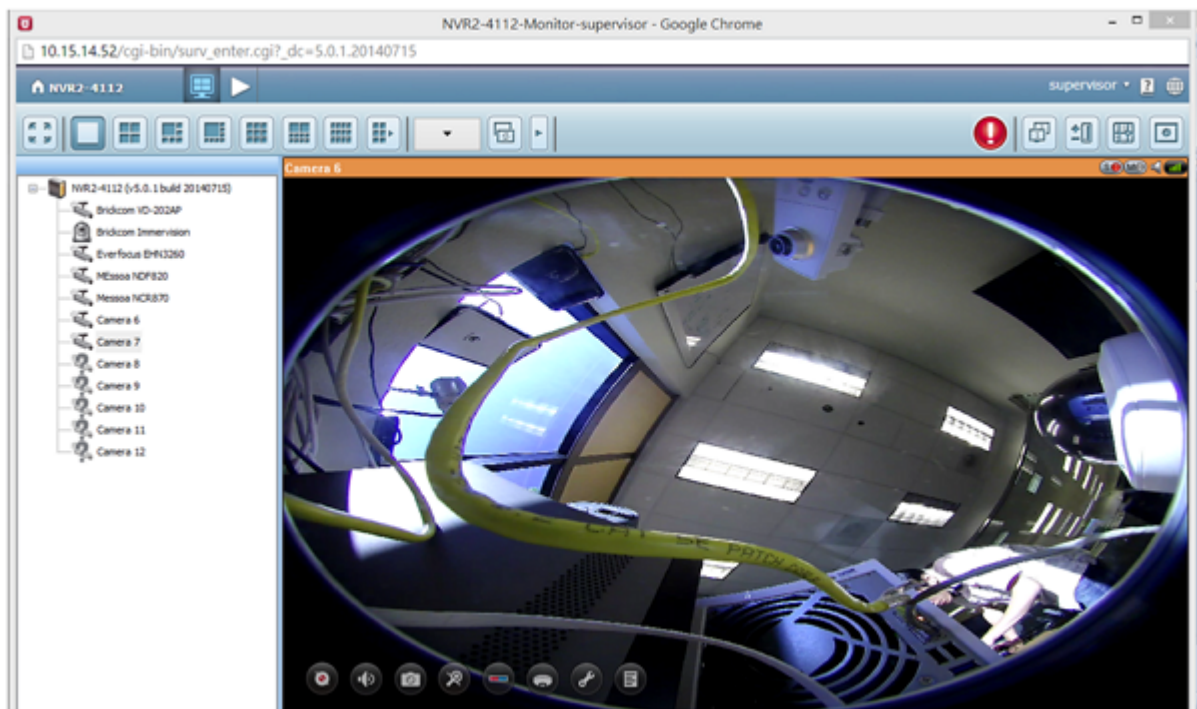
Prerequisites:




- The firmware version of the VioStor NVR must be QVR 5.0 or above. You can download the latest firmware from [here](#).
- The fisheye camera must be mounted in a proper position.

A. Set up the VioStor NVR

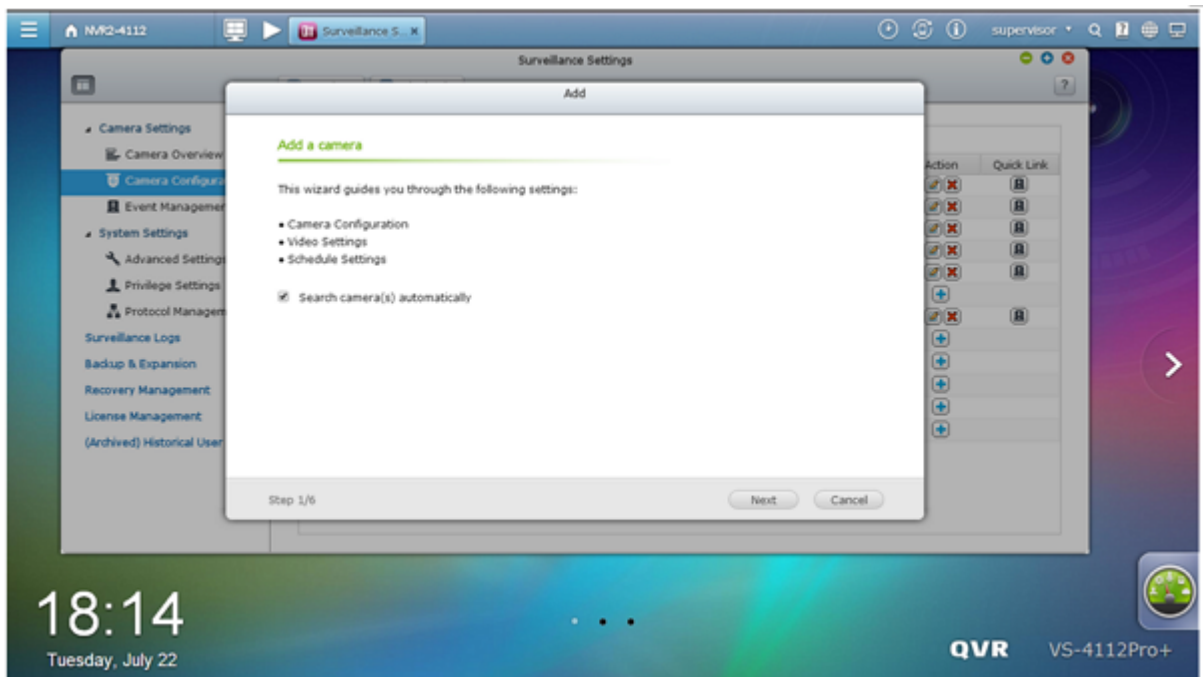
Follow the below steps to configure the VioStor NVR.



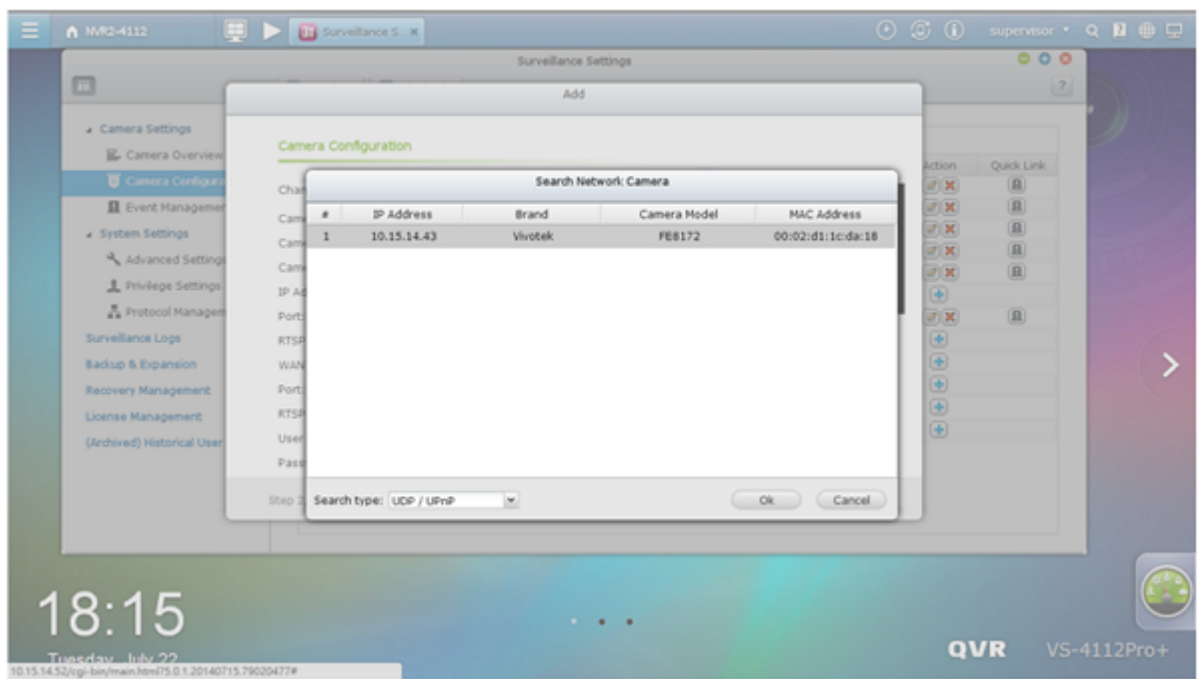


1. Run the "QNAP Finder" on a Windows PC to find the NVR. Double click the NVR name to connect to the login page via web browser.
2. Login to the NVR as "admin".
3. To enter the surveillance settings page, click .
4. Go to "Camera Settings" > "Camera Configuration". Click  or select a channel for the camera and click  to add a camera.

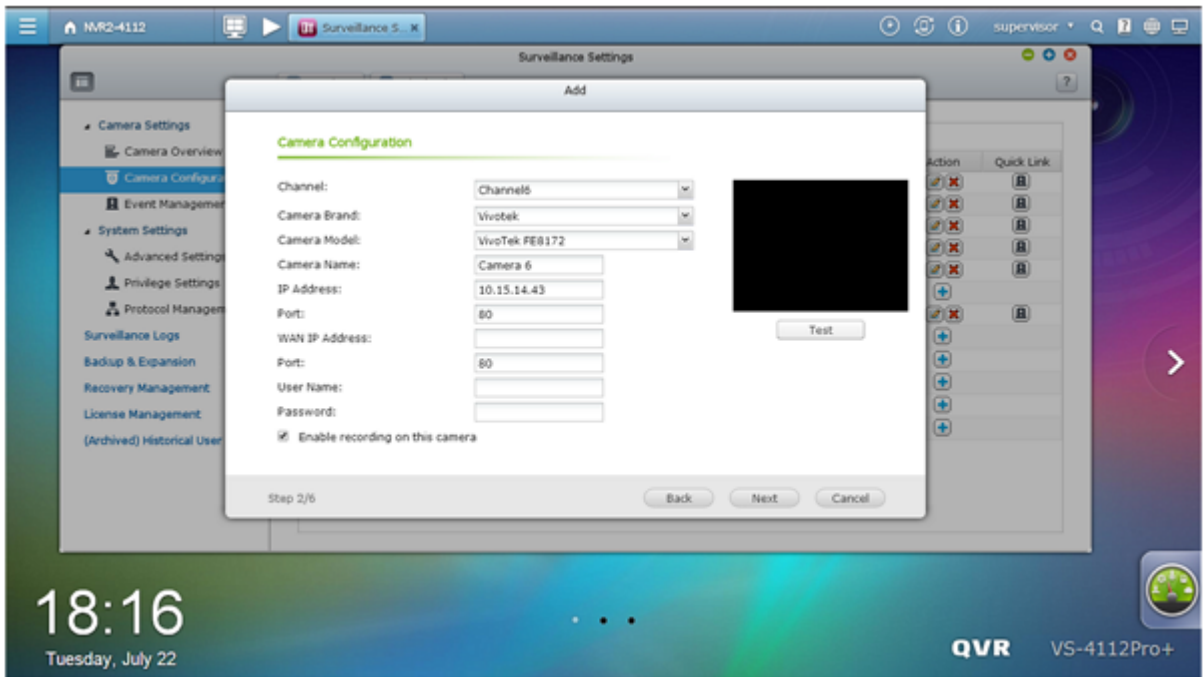
5. Click "Next" to use auto search to find the fisheye camera.



When it is found, choose the camera and click "OK".

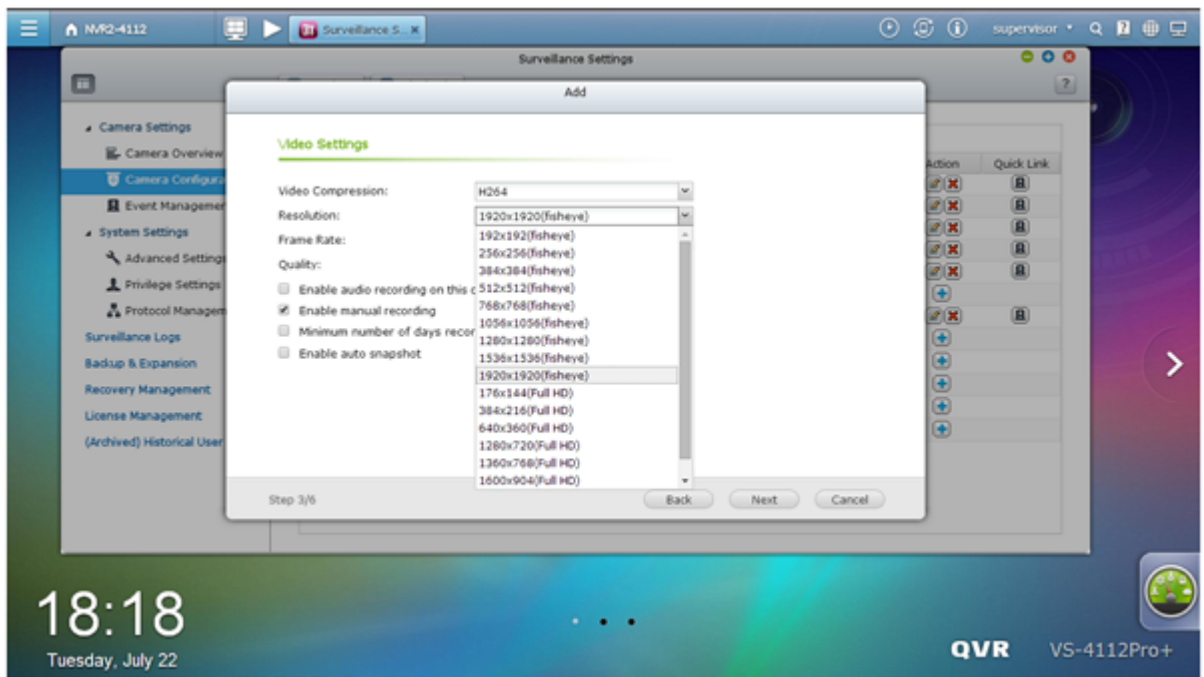


Enter the camera's IP address, username and password.



Or manually add the camera brand and model.

6. Specify the video and schedule settings.



Please note: To use the dewarping function, please select a resolution that includes (fisheye).


7. Click "Apply".
8. Now return to the live view window of the VioStor NVR. You can now view the live image of the fisheye camera.

Fisheye view without dewarping.

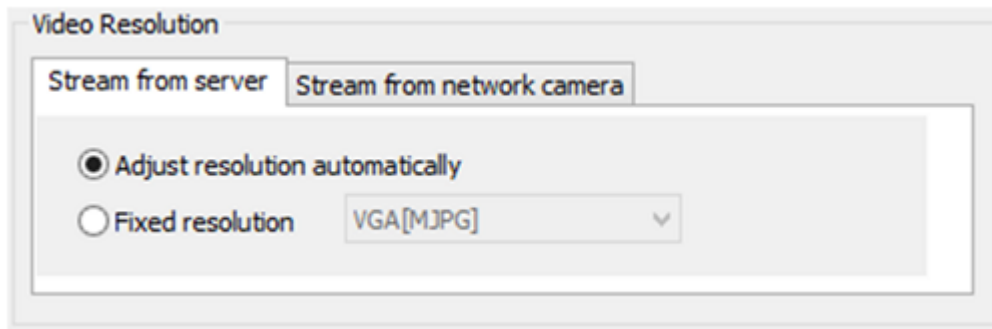
B. Configure the live view settings



1. Move the mouse cursor over a camera channel and the supported function buttons (Interactive Control Buttons) of the camera will show up for quick access.
2. Click “Camera information” in the Interactive Control Buttons and select “Properties” from the list.


Icon	Description
	<p>Camera information:</p> <ol style="list-style-type: none">1. Properties: Configure other monitoring options.2. Locate in E-map: Highlight camera icon on E-map.3. Visit the camera homepage.

3. Select "Fixed resolution" under "Video Resolution".

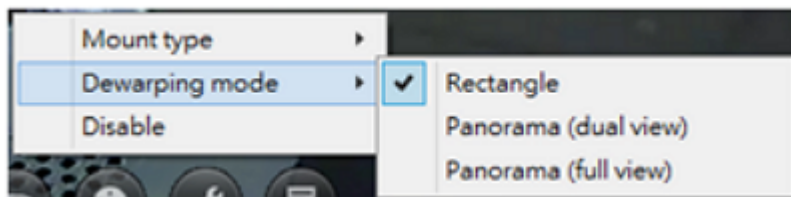
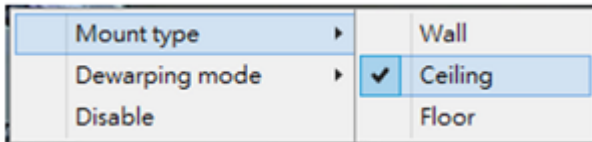


Choose the video stream you want to see in the live view.

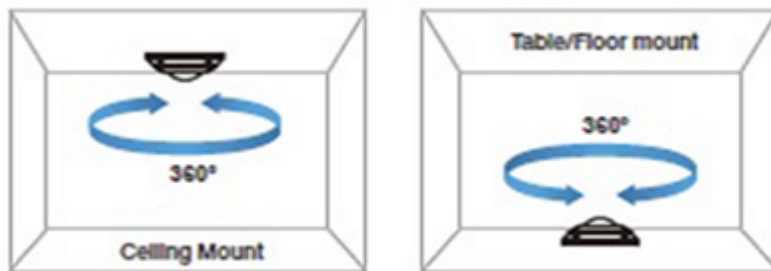
C. Dewarp fisheye images of the fisheye camera in live view

Icon	Description
	<p>Dewarp fisheye images:</p> <p>For specific fisheye cameras and camera models with panomorph lenses, you can toggle the dewarping function. After enabling this function, you can then select the mount type and dewarping mode.</p>

1. To dewarp the fisheye images of the fisheye camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable fisheye dewarping function.
2. Click “Dewarp fisheye images” in the Interactive Control Buttons to select the "Mount type" (Wall, Ceiling, or Floor) according to your setup environment and specify the "Dewarping mode".




- Example 1. Select "Ceiling" for the mount type.
- **Note:** For *Ceiling* and *Floor* Mount type, FullView will display 360 degrees of viewing angle.



- Example 2. Select “Rectangle” for the dewarping mode.

D. Dewarp fisheye images of the fisheye camera in playback

1. Click  to enter the playback page.
2. To dewarp the fisheye images of the fisheye camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable fisheye dewarping function.
3. Click “Dewarp fisheye images” in the Interactive Control Buttons and select the "Mount type" (Wall, Ceiling, or Floor) according to your setup environment and specify the "Dewarping mode".

T16.[Tutorial] How to Configure Storage Expansion for Long-term Recording?

Key Benefits:

After installing the Storage Expansion App (QPKG) on the QNAP NAS and enabling the storage expansion to the QNAP NAS on the NVR, the QNAP NAS will frequently ask the NVR if it has new recording files. If the NVR has new recording files and the backup buffer meets your defined threshold, the QNAP NAS will then download the recordings from the NVR. Under our testing, this method largely improves file backup throughput, with some processes offloaded to the QNAP NAS CPU.

Key features:

VioStor NVR + QNAP NAS + REXP for long-term recording

1. Addressing user needs: Users can expand their storage capacity based on their needs.
2. Reduces expenses: This is a cost-effective choice to expand storage.
3. Highly scalable for storage expansion in the future.

Storage Expansion - Introduction

http://eu1.qnap.com/Surveillance/presentation/Storage_Expansion-Introduction.pdf

Storage Expansion - Selection guide

http://eu1.qnap.com/Surveillance/presentation/Storage_Expansion-Guide.pdf

QNAP RAID Expansion Enclosures

http://files.qnap.com/news/pressresource/product/Use_QNAP_RAID_Expansion_Enclosure_to_Expand_Storage_Capacity_en.pdf

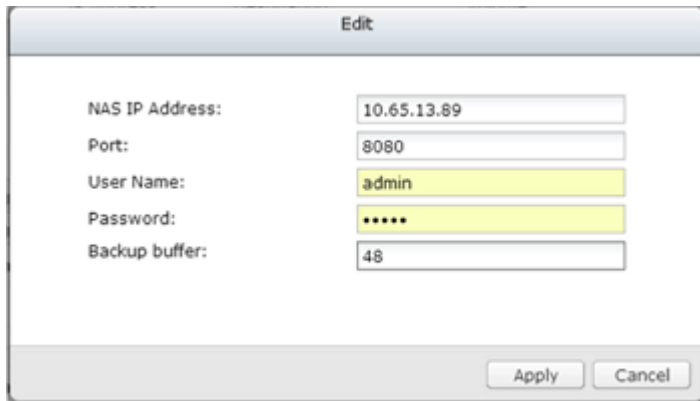
Storage Expansion Architecture



How it works?

Suppose the NVR only has enough space for storing 5 days of recording files, and the QNAP NAS only has enough space for storing 7 days of backup files.

The backup buffer on the NVR is set to 48 hours.

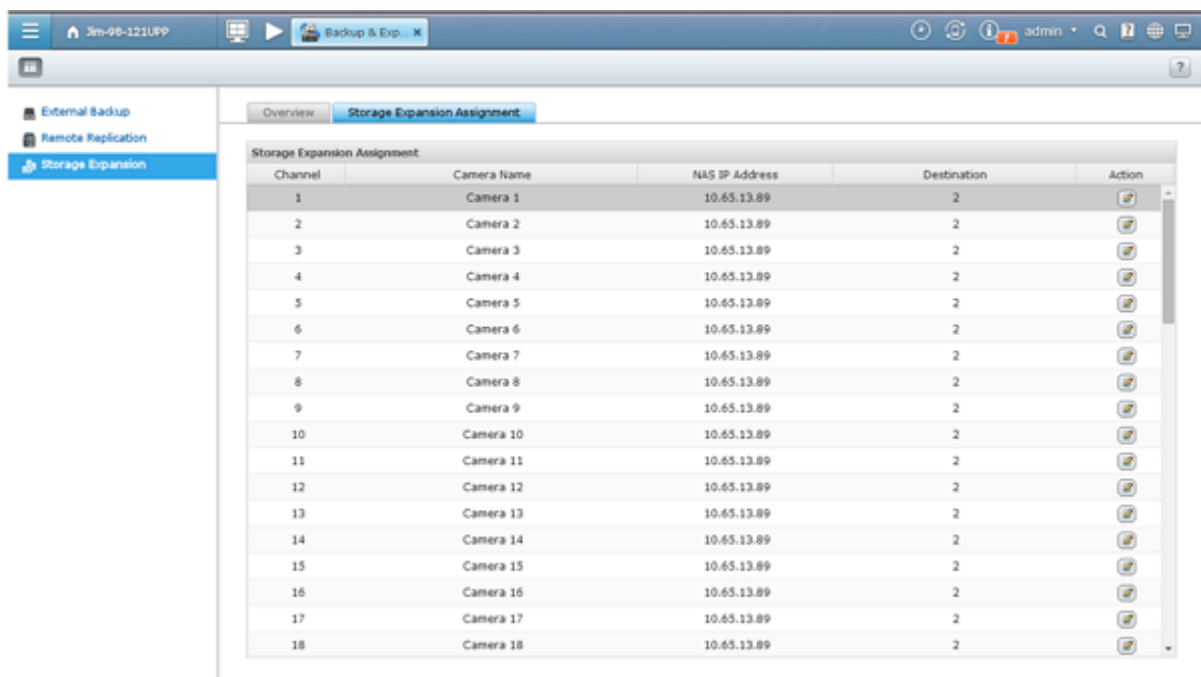


The screenshot shows a configuration window titled "Edit" with the following fields:

- NAS IP Address: 10.65.13.89
- Port: 8080
- User Name: admin
- Password: *****
- Backup buffer: 48

Buttons for "Apply" and "Cancel" are located at the bottom right.

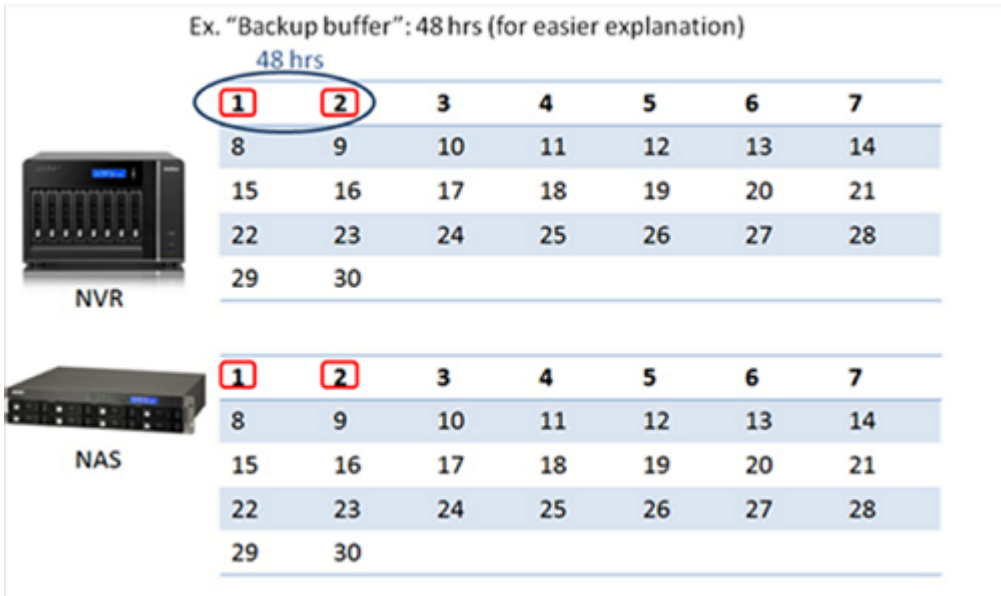
The recording files are set to be backed up to the QNAP NAS.



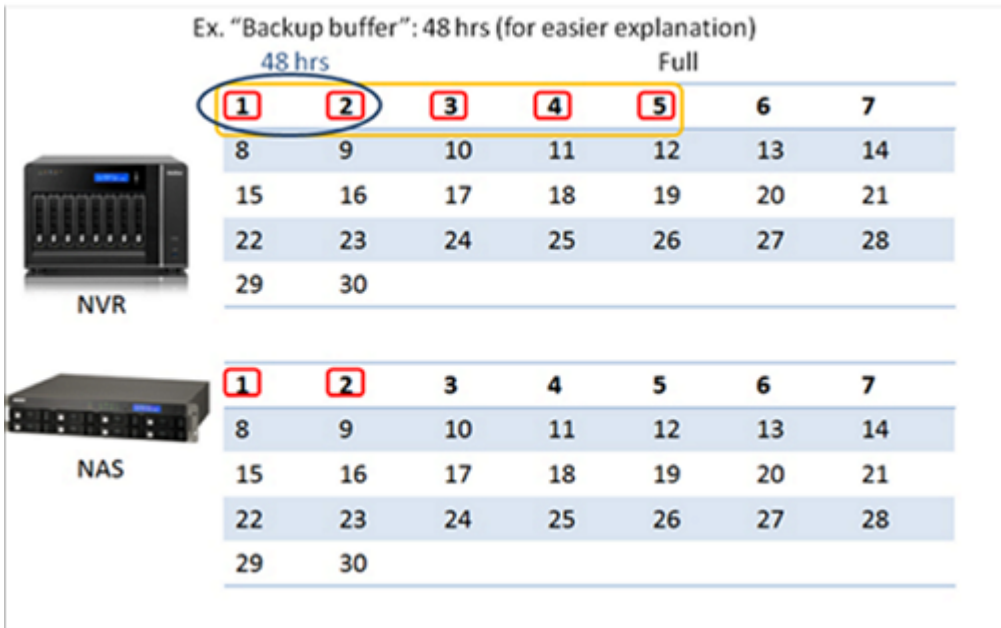
The screenshot shows the "Storage Expansion Assignment" page in the NVR interface. The page has a sidebar with "External Backup", "Remote Replication", and "Storage Expansion" (selected). The main content area shows a table with the following columns: Channel, Camera Name, NAS IP Address, Destination, and Action.

Channel	Camera Name	NAS IP Address	Destination	Action
1	Camera 1	10.65.13.89	2	
2	Camera 2	10.65.13.89	2	
3	Camera 3	10.65.13.89	2	
4	Camera 4	10.65.13.89	2	
5	Camera 5	10.65.13.89	2	
6	Camera 6	10.65.13.89	2	
7	Camera 7	10.65.13.89	2	
8	Camera 8	10.65.13.89	2	
9	Camera 9	10.65.13.89	2	
10	Camera 10	10.65.13.89	2	
11	Camera 11	10.65.13.89	2	
12	Camera 12	10.65.13.89	2	
13	Camera 13	10.65.13.89	2	
14	Camera 14	10.65.13.89	2	
15	Camera 15	10.65.13.89	2	
16	Camera 16	10.65.13.89	2	
17	Camera 17	10.65.13.89	2	
18	Camera 18	10.65.13.89	2	

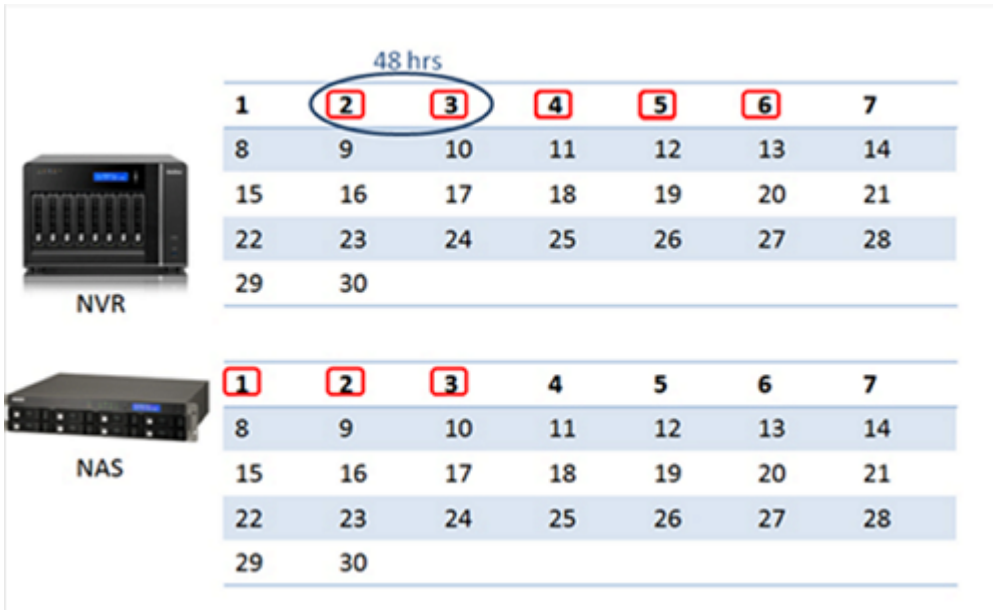
After the settings are applied, the QNAP NAS will check and download the earliest 48 hours of recording files from the NVR. So, the first two days of recording files will be downloaded and stored on the QNAP NAS.



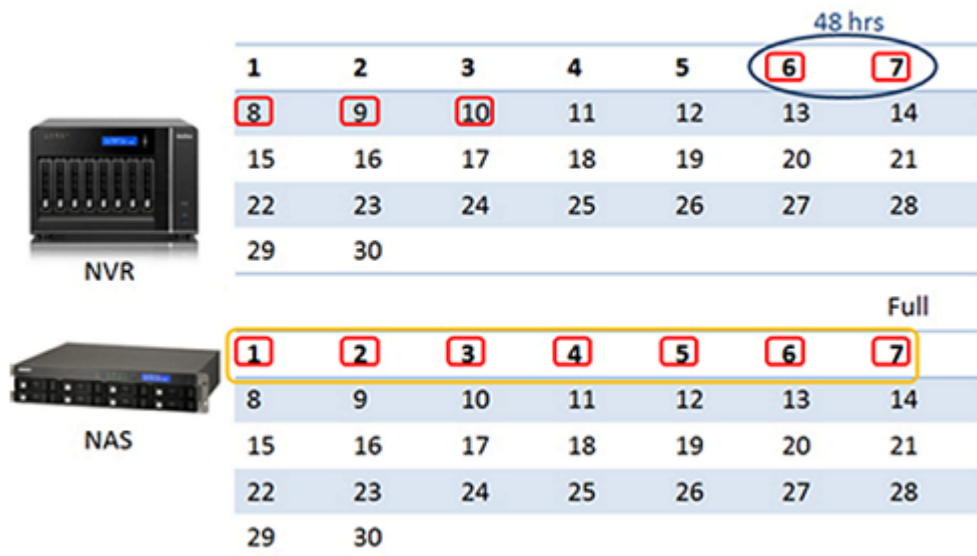
As time passes, the NVR storage space will be full by the 5th day. As the earliest 48 hours of recording files are the same as before, no more recording files are downloaded and stored on the QNAP NAS..



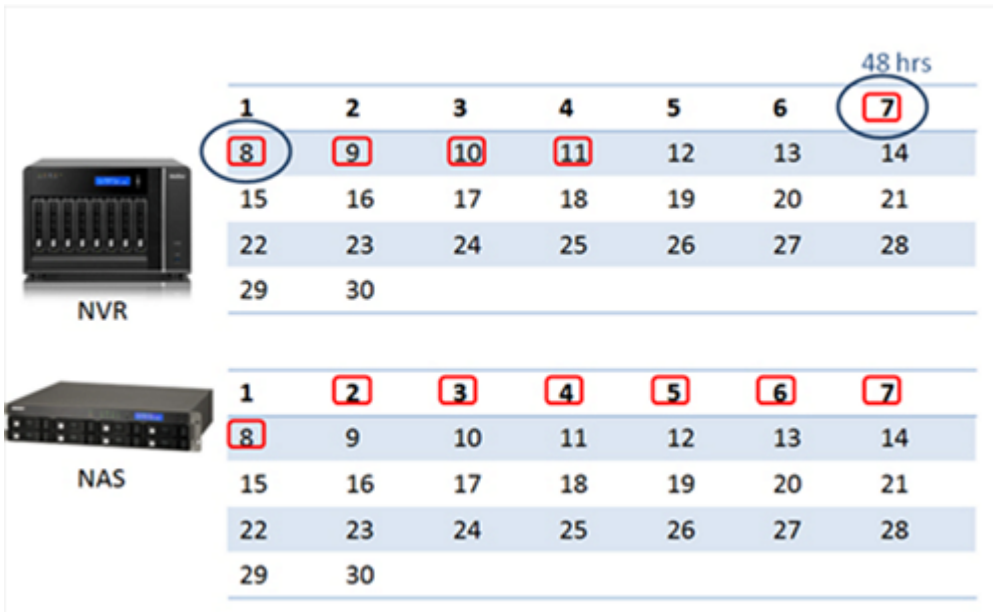
On the 6th day, to store new recording files, the NVR will delete the first day's recording files. Now the earliest 48 hours are the second and third days. So, the recording files of the third day will be downloaded to the QNAP NAS.



Based on these settings, the QNAP NAS will keep downloading recording files until it is full, and a total of 10 days of recording files will be kept (the earliest 5 days on the QNAP NAS and latest 5 days on the NVR.)



To store new recording files, the NVR will delete the recording files of the sixth day, and the eighth day's recording files (the new, earliest 48 hours) will be downloaded to the QNAP NAS. As the QNAP NAS is full, it will delete the first day's recording files.



The total hours of recording files = total hours of recording files on the NVR + total hours of recording files on the NAS – Backup buffer.

Please note:

In order to ensure that the Storage Expansion can be executed whilst recording, please calculate the bandwidth requirements for specific VioStor NVR models.

The following is estimated bandwidth requirements for specific NVR models:

VS-8100 Pro+, 8100U-RP Pro(+), 12100U-RP Pro(+) series: 360 Mbps.

VS-2200 Pro+, 2100 Pro+, 4100 Pro+, 6100 Pro+, 4100U-RP Pro+ series: 160 Mbps.

VS-2000 Pro, VS-4000 Pro, VS-6000 Pro, 4000U-RP Pro series: 90 Mbps.

Limitations and Restrictions:

1. Storage Expansion is currently supported by the VioStor Pro(+) series (running QVR v5.1.0 or higher version) and QNAP NAS TVS-ECx80, x71U, x71, x70, x63 series and TS-x79U, ECx80, ECx80U, x53U, x53 Pro, x51 series (running QTS v4.1.4 or higher version), and they must be set on the same LAN.

For VS-12100U-RP Pro(+), 8100U-RP Pro(+), 8100 Pro+ series, it is recommended to configure up to 3 NAS servers for storage expansion.

For VS-2200 Pro+, 4100U-RP Pro+, 6100 Pro+, 4100 Pro+, VS-2100 Pro+ series, it is recommended to configure up to 2 NAS servers for storage expansion.

For VS-4000U-RP Pro, 6000 Pro, 4000 Pro, 2000 Pro series, it is recommended to configure up to 1 NAS server for storage expansion.

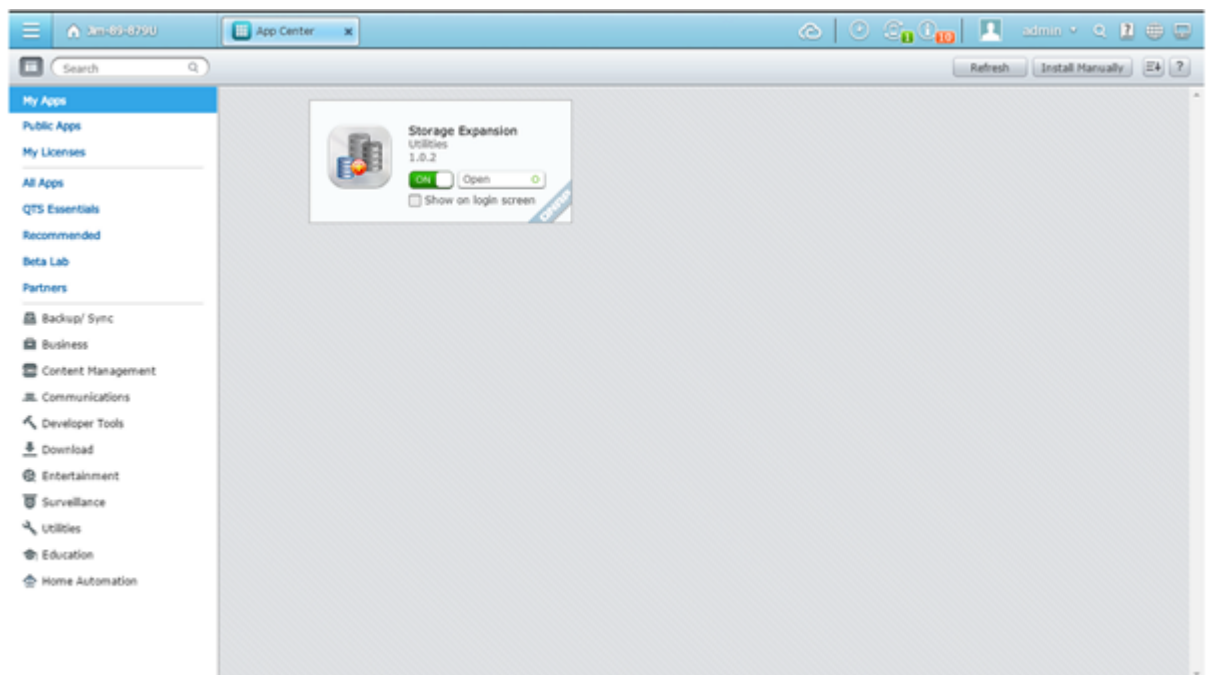
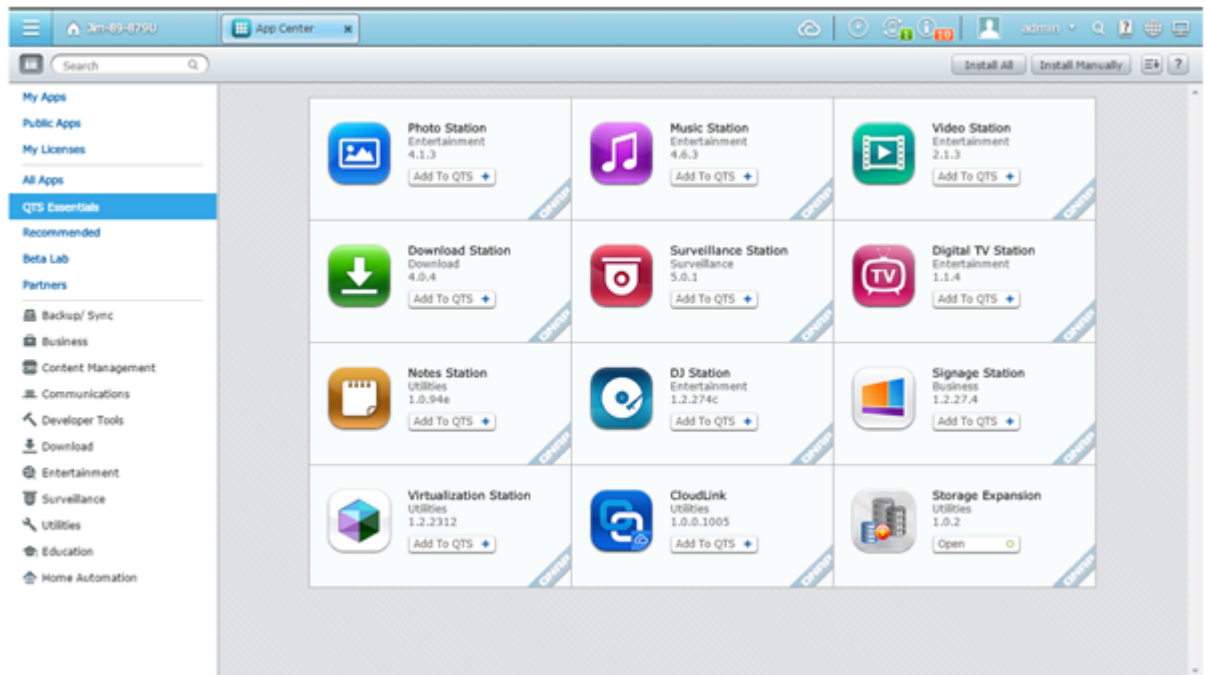
2. A gigabit switch is required for this application.
3. All QNAP NVR and NAS units are required to use fixed IP addresses and be under same subnet mask & gateway.
4. Storage expansion related settings cannot be modified using local display.
5. The file transfer process between the QNAP NVR and NAS will be completed even if it is suddenly interrupted (for example, the destination folder is deleted.) For example, the cache count is set to six hours. The destination is changed to none in the middle of processing. When this happens, the NVR will still move recording files to the QNAP NAS until the entire process is finished.

How to configure storage expansion?

Step 1: Install the StorageExpansion App (QPKG) on the QNAP NAS

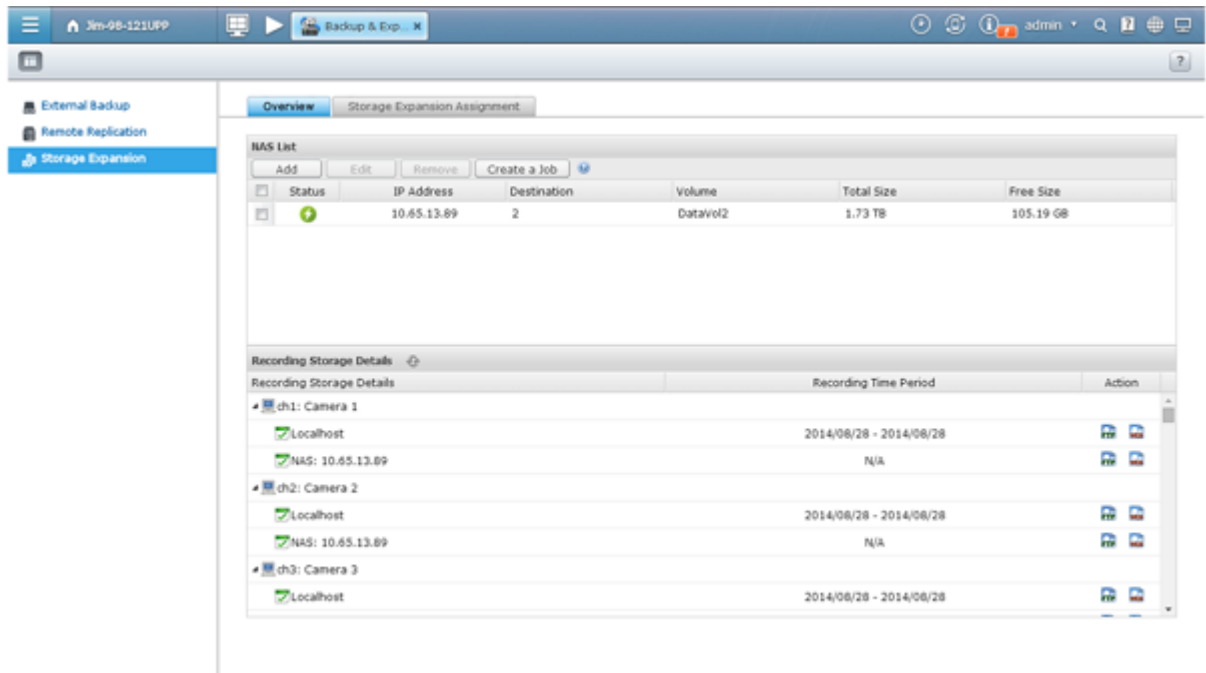
Please note: Download the app from the QTS App Center. Before installing the app, please ensure the app is correct, carefully read the instructions, and back up the important data on the QNAP NAS.

- Download and install the StorageExpansion package.
- To install the app, click “Add to QTS”.



Step 2: Configure Storage Expansion on the NVR

1. Go to "Backup & Expansion" → "Storage Expansion" to configure relevant settings.
2. Click "Add" in "NAS List" table under "Overview".



3. Please enter the QNAP NAS/destination settings.
 - A. Enter NAS IP, port, and user credentials.
 - B. Enter the destination name (the name cannot be used same as any folder under root.).
 - C. Select the volume.
 - D. Enter a value for the backup buffer.

Add NAS

NAS IP Address:

Port:

User Name:

Password:

Destination:

Volume:

Backup buffer:

If you want to configure storage expansion to a REXP Expansion Enclosure, please select the right volume on REXP to enable storage expansion to REXP.

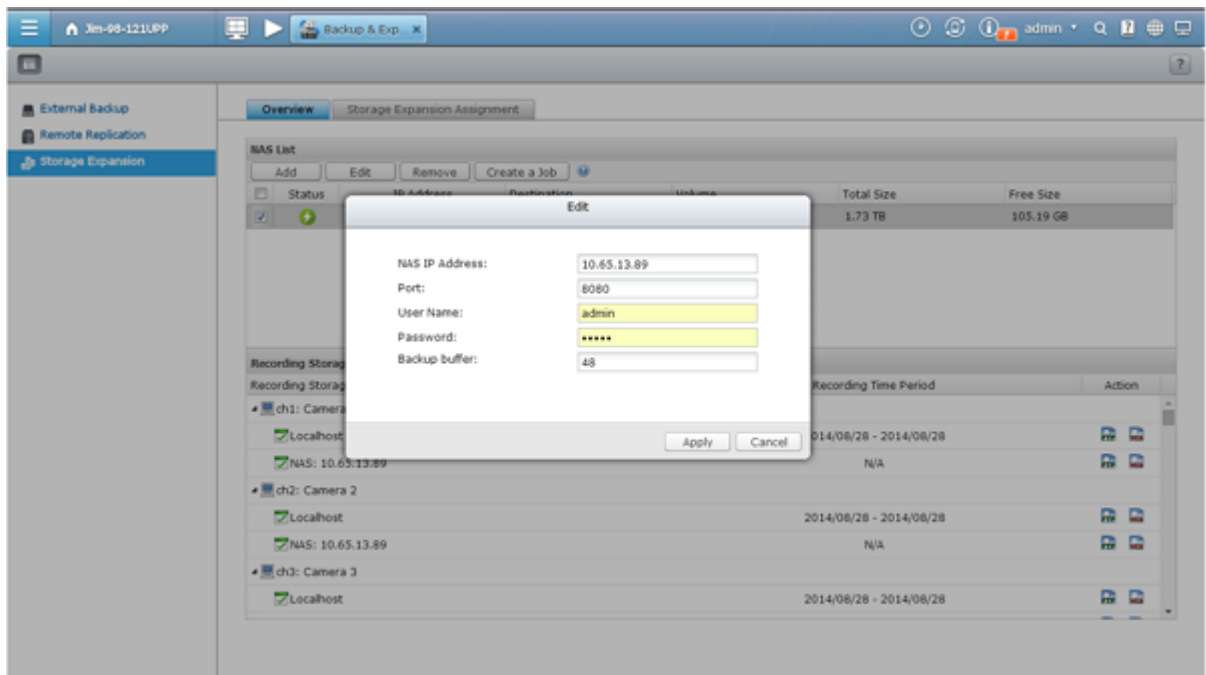
Please note:

Destination: The folder created on the QNAP NAS to save recording files.

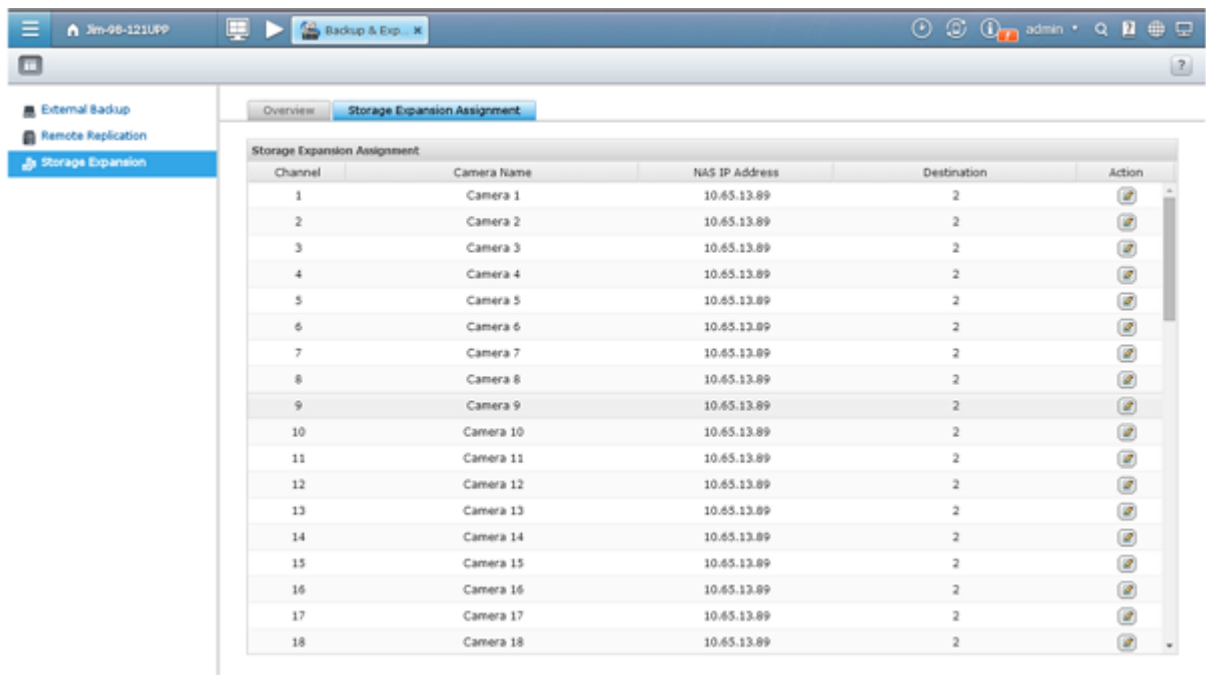
Volume: The volume assigned for storage expansion.

Backup buffer: As an example, if you configure the backup buffer as 6, the latest six hours of recordings will be copied to the QNAP NAS. The maximum value is 48.

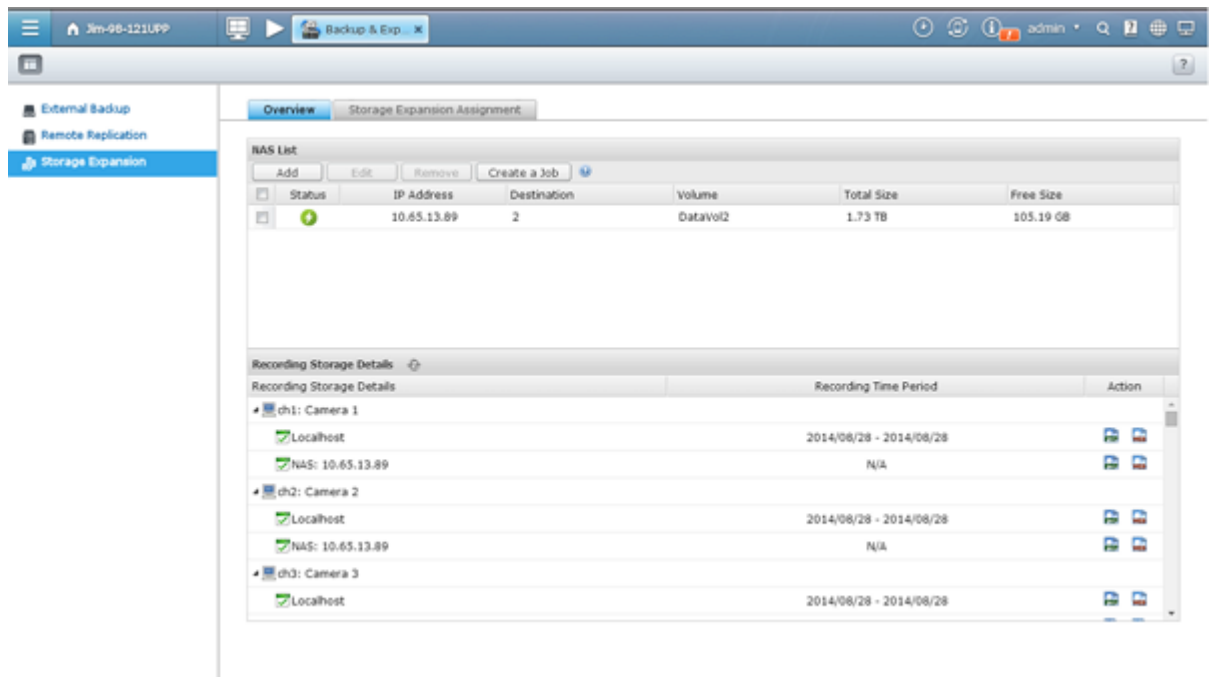
4. You can enable a QNAP NAS and modify its settings on this page.



5. Click "Storage Expansion Assignment" to choose a QNAP NAS as the storage unit for each channel.



- Review all of the configured settings and recording storage details under “Overview”.

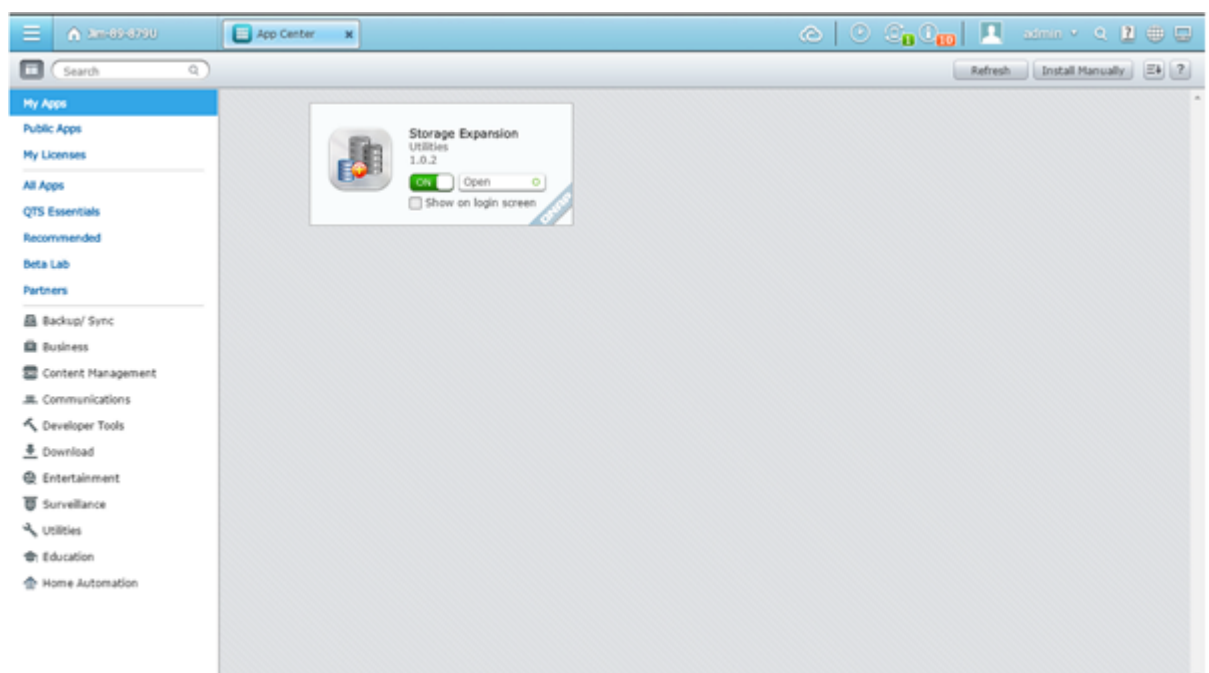


This page will automatically refresh every fifteen minutes.

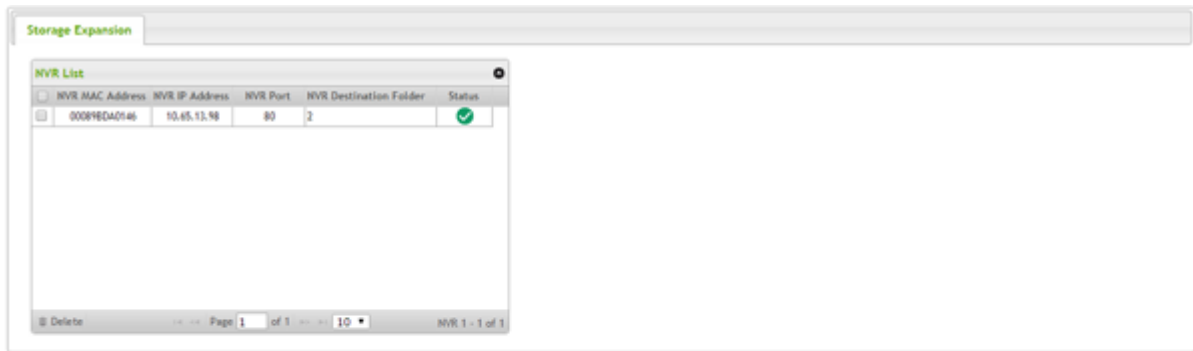
QNAP NAS models are an ideal solution for expanding the storage capacity of the NVR to save more recording files. Integration of both QNAP devices can help users to save recording files more flexibly and efficiently.

Step 3: Check available NVRs on the list and their status on the QNAP NAS


- Click “Open” on StorageExpansion.



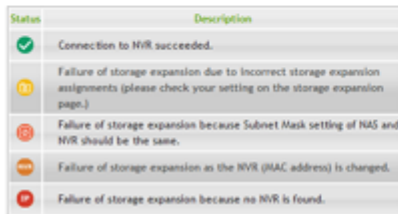
2. You can check available NVRs and their status.







The screenshot shows a web interface titled "Storage Expansion" with a sub-section "NVR List". It contains a table with the following data:


NVR MAC Address	NVR IP Address	NVR Port	NVR Destination Folder	Status
00091E0A0146	10.65.11.98	80	2	

Below the table, there is a "Delete" button, a pagination control showing "Page 1 of 1", and a count "NVR 1 - 1 of 1".



The screenshot shows a log table with the following entries:

Status	Description
	Connection to NVR succeeded.
	Failure of storage expansion due to incorrect storage expansion assignments (please check your setting on the storage expansion page.)
	Failure of storage expansion because Subnet Mask setting of NAS and NVR should be the same.
	Failure of storage expansion as the NVR (MAC address) is changed.
	Failure of storage expansion because no NVR is found.

Please note: The NVR status will become  after the storage expansion assignment is completed.

2015/07/2

T17.[Tutorial] Set up the QNAP VioStor NVR to record and monitor fisheye network cameras

QNAP's VioStor network video recorder (NVR) series is among the first Linux-embedded standalone device provider to support fisheye cameras. Users can also view a complete scene unfold without obstruction while simultaneously displaying multiple independent dewarped views using fisheye cameras.

This article will guide you to configure the VioStor NVR to record videos from fisheye cameras and to dewarp fisheye images for live monitoring.

Applicable camera models:

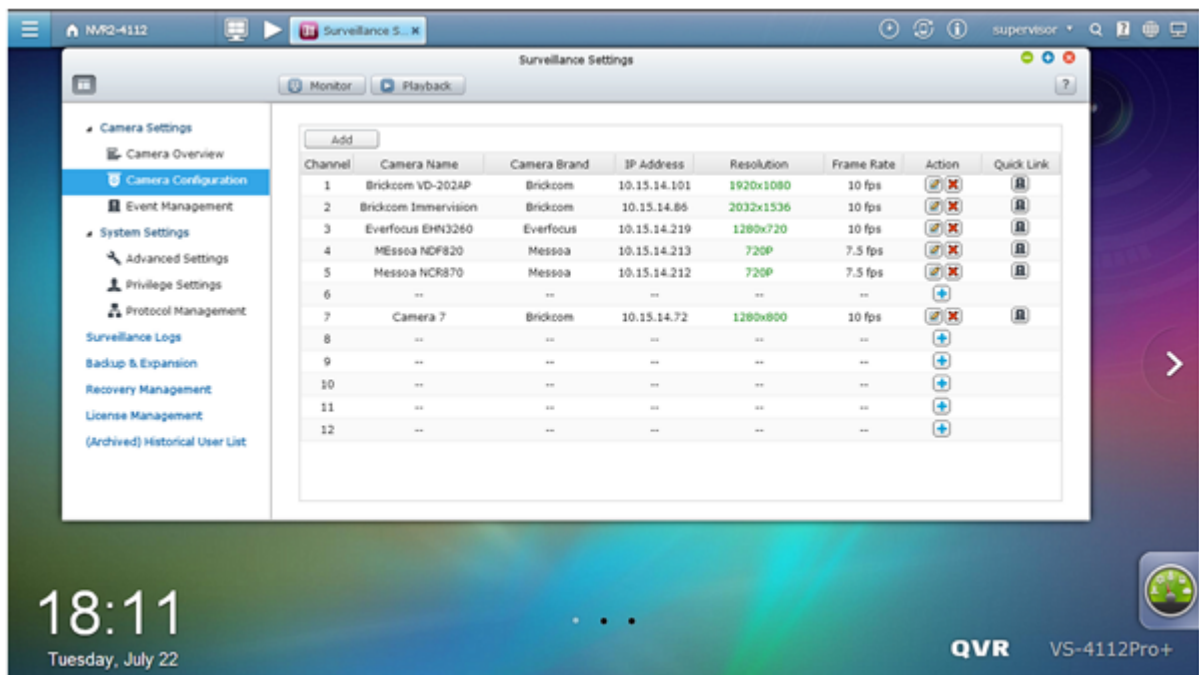
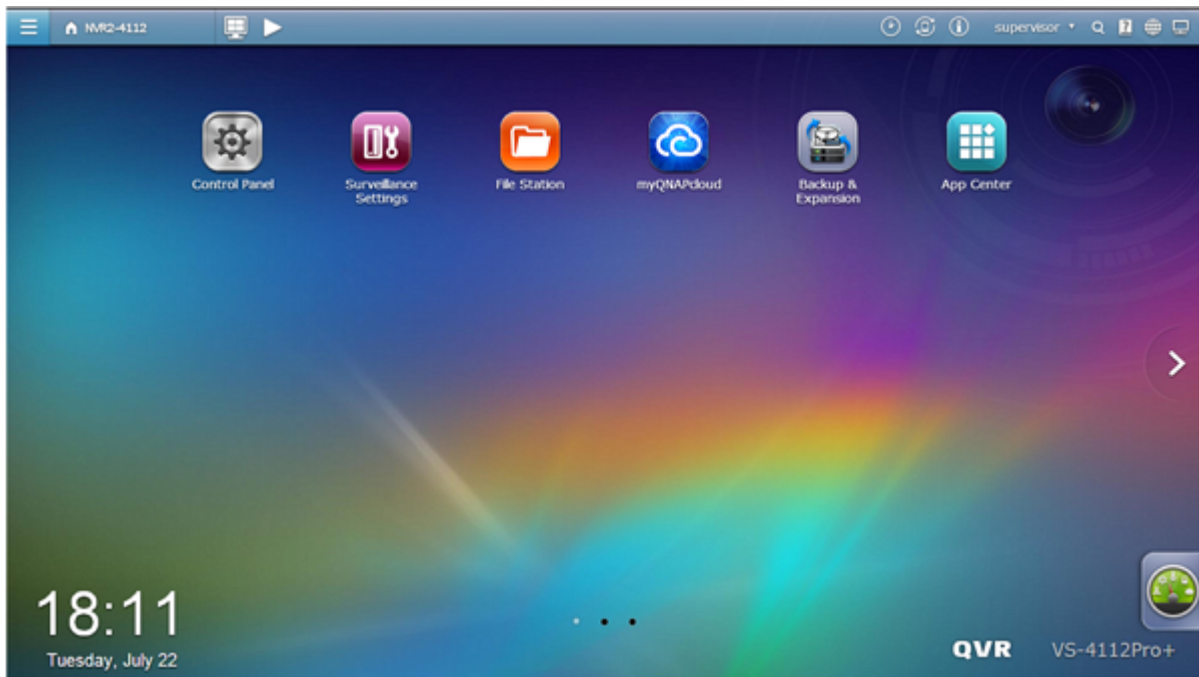
- AXIS M3007 (Please select AXIS M3007-dewarp model in our camera model list)
- Dynacolor NA083
- Oncam Grandeye EVO-05NMD
- VIVOTEK FE 8172/8172/8174 (camera firmware version should be v0100h or above)

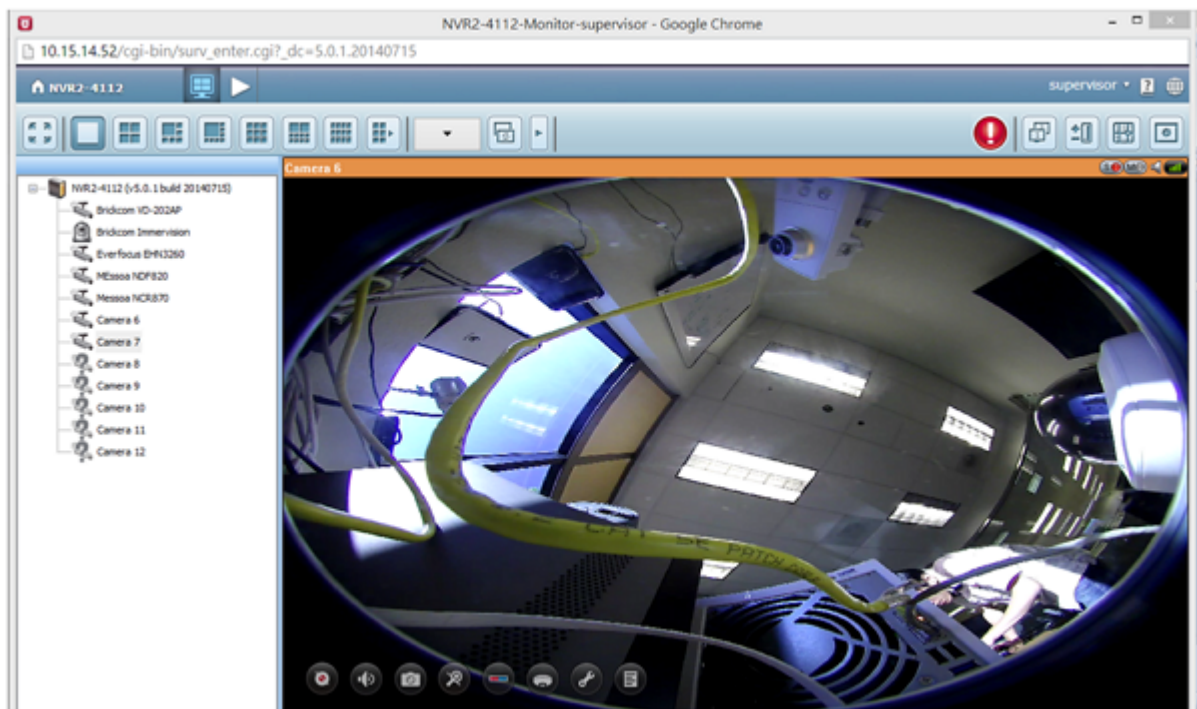
Prerequisites:




- The firmware version of the VioStor NVR must be QVR 5.0 or above. You can download the latest firmware from [here](#).
- The fisheye camera must be mounted in a proper position.

A. Set up the VioStor NVR

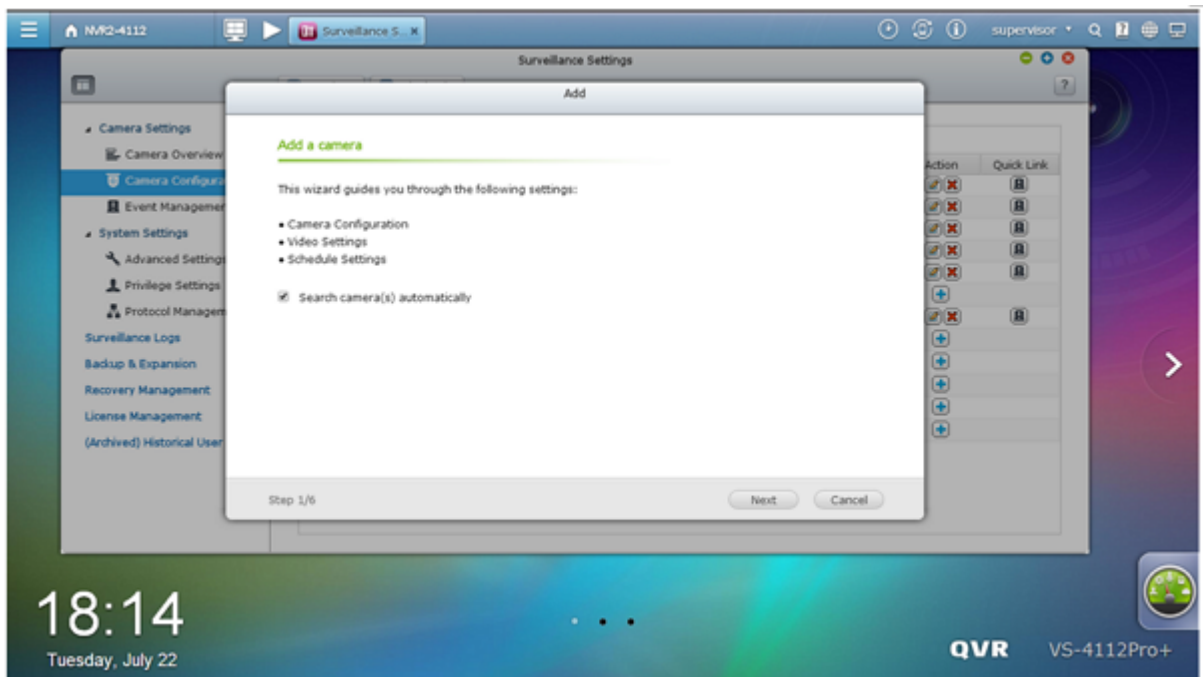
Follow the below steps to configure the VioStor NVR.



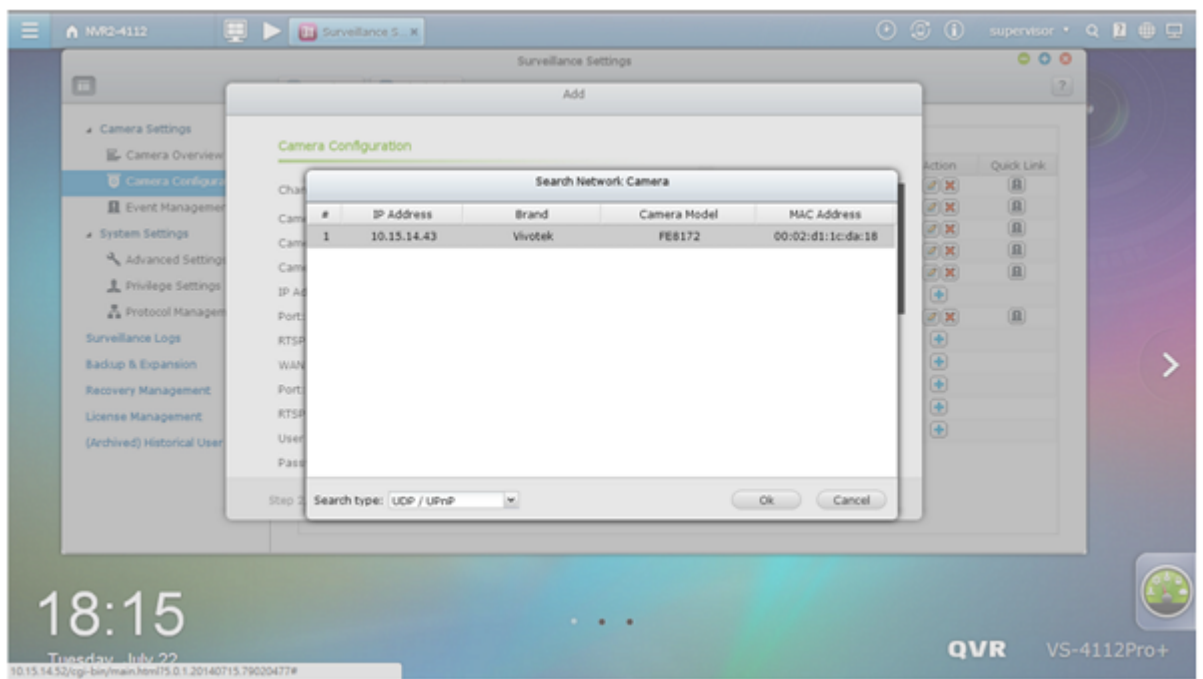


1. Run the "QNAP Finder" on a Windows PC to find the NVR. Double click the NVR name to connect to the login page via web browser.
2. Login to the NVR as "admin".
3. To enter the surveillance settings page, click .
4. Go to "Camera Settings" > "Camera Configuration". Click  or select a channel for the camera and click  to add a camera.

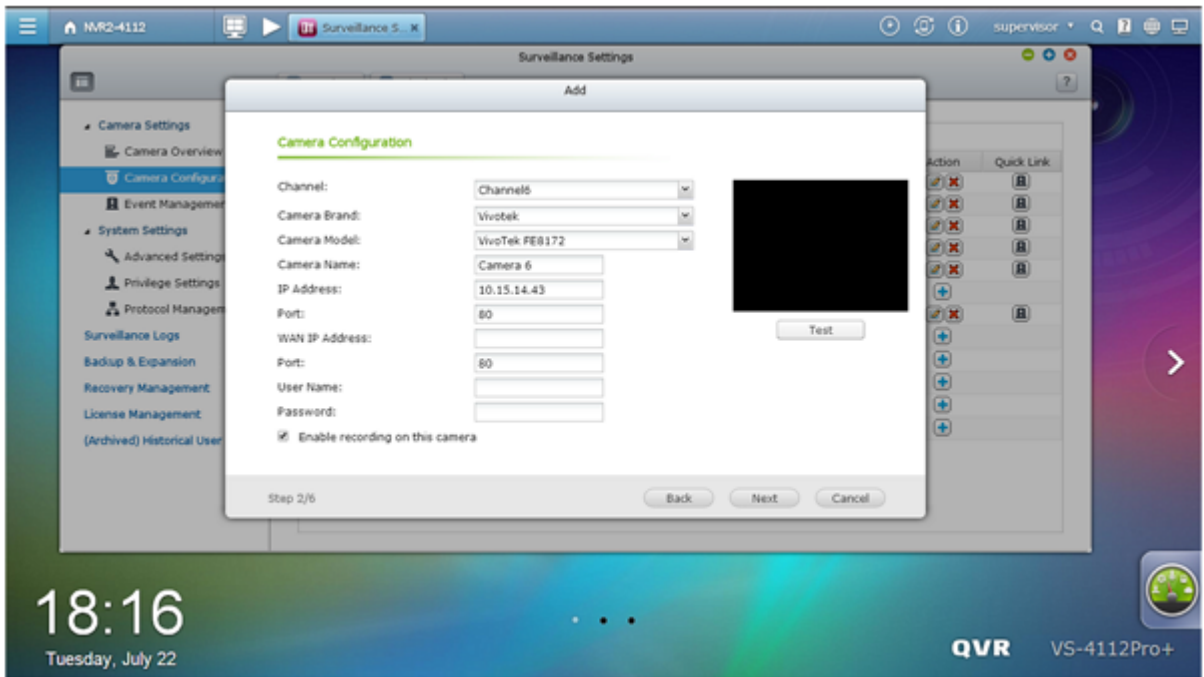
5. Click "Next" to use auto search to find the fisheye camera.



When it is found, choose the camera and click "OK".

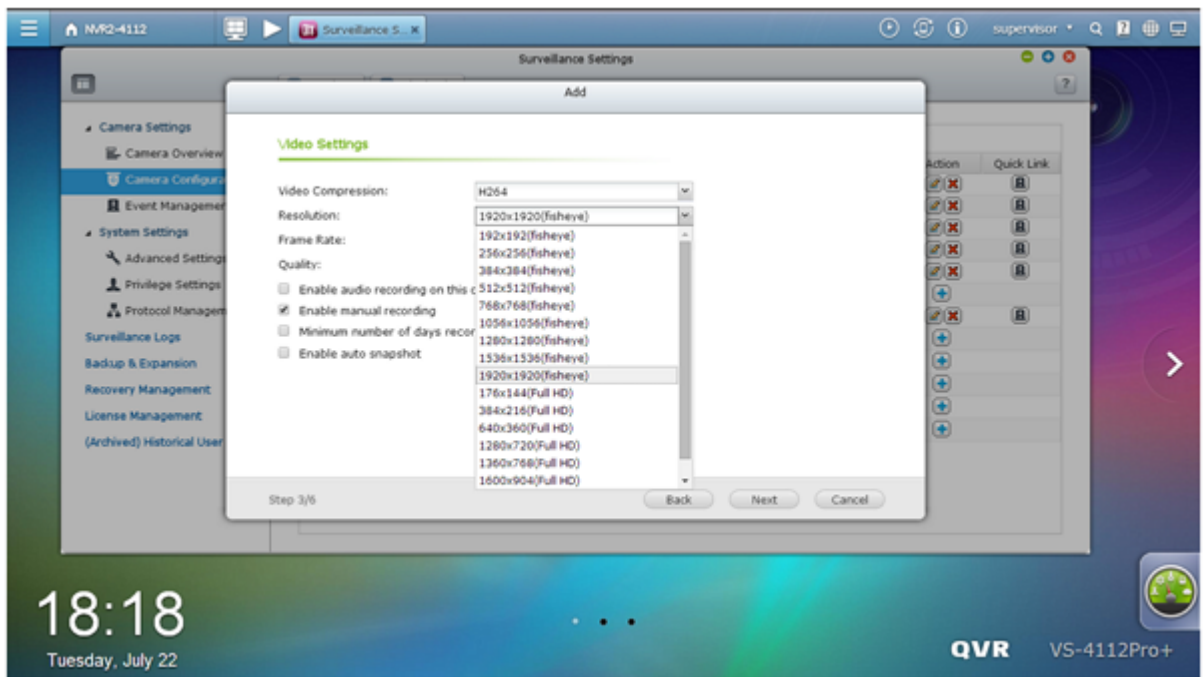


Enter the camera's IP address, username and password.



Or manually add the camera brand and model.

6. Specify the video and schedule settings.



Please note: To use the dewarping function, please select a resolution that includes (fisheye).


7. Click "Apply".
8. Now return to the live view window of the VioStor NVR. You can now view the live image of the fisheye camera.

Fisheye view without dewarping.

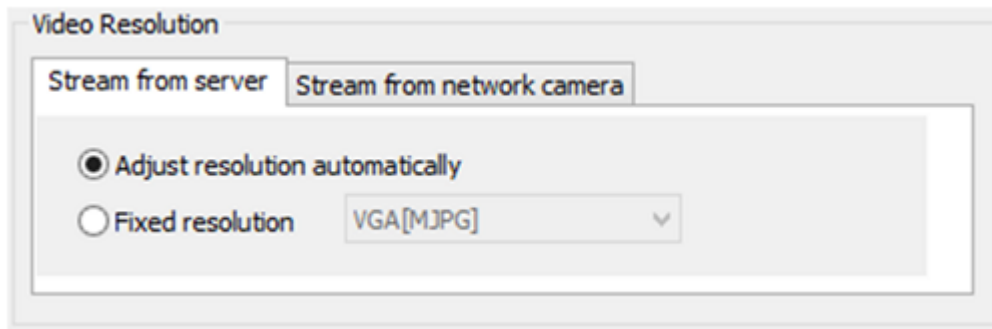
B. Configure the live view settings



1. Move the mouse cursor over a camera channel and the supported function buttons (Interactive Control Buttons) of the camera will show up for quick access.
2. Click “Camera information” in the Interactive Control Buttons and select “Properties” from the list.


Icon	Description
	<p>Camera information:</p> <ol style="list-style-type: none"> 1. Properties: Configure other monitoring options. 2. Locate in E-map: Highlight camera icon on E-map. 3. Visit the camera homepage.

3. Select "Fixed resolution" under "Video Resolution".

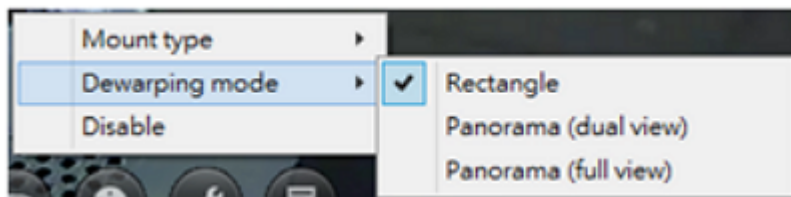
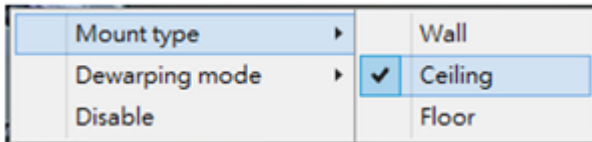


Choose the video stream you want to see in the live view.

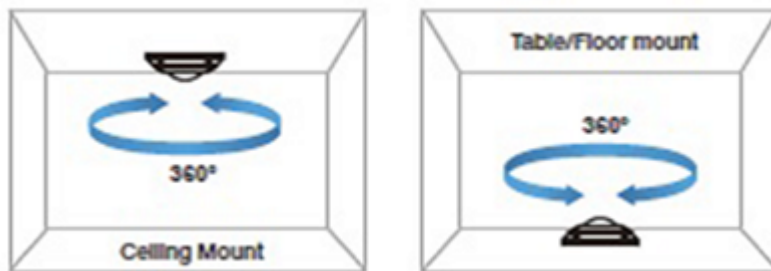
C. Dewarp fisheye images of the fisheye camera in live view

Icon	Description
	<p>Dewarp fisheye images:</p> <p>For specific fisheye cameras and camera models with panomorph lenses, you can toggle the dewarping function. After enabling this function, you can then select the mount type and dewarping mode.</p>

1. To dewarp the fisheye images of the fisheye camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable fisheye dewarping function.
2. Click “Dewarp fisheye images” in the Interactive Control Buttons to select the "Mount type" (Wall, Ceiling, or Floor) according to your setup environment and specify the "Dewarping mode".




- Example 1. Select "Ceiling" for the mount type.
- **Note:** For *Ceiling* and *Floor* Mount type, FullView will display 360 degrees of viewing angle.



- Example 2. Select “Rectangle” for the dewarping mode.

D. Dewarp fisheye images of the fisheye camera in playback

1. Click  to enter the playback page.
2. To dewarp the fisheye images of the fisheye camera, click “Dewarp fisheye images” in the Interactive Control Buttons to enable fisheye dewarping function.
3. Click “Dewarp fisheye images” in the Interactive Control Buttons and select the "Mount type" (Wall, Ceiling, or Floor) according to your setup environment and specify the "Dewarping mode".

T18.[Tutorial] Generic Methods to Add IP Cameras

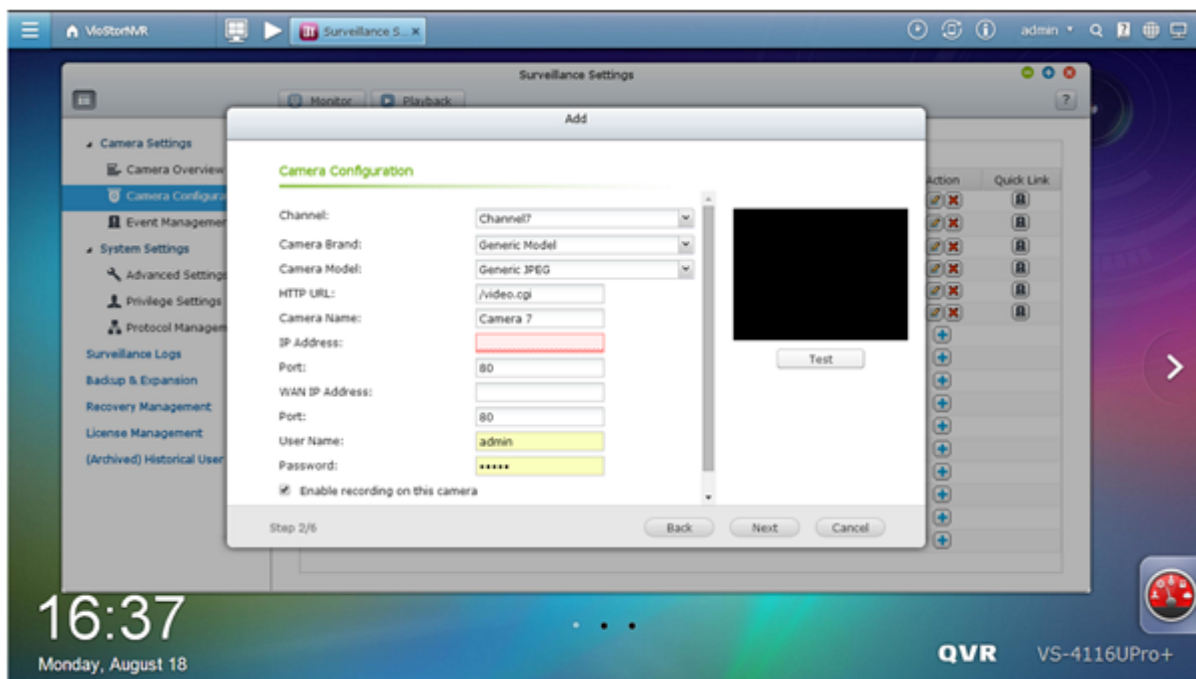
QNAP NVR supports some generic methods to add IP cameras to enhance its compatibility and expandability. Please see the below tutorials for more details.

Please note: Even by using these methods, we cannot guarantee universal compatibility with every IP camera. Please see the following URL for IP cameras that have been tested and are fully compatible with QNAP NVR:

http://www.qnapsecurity.com/n/en/product_z_g_qvr/cat_intro.php

1. Generic JPEG

QNAP NVR provides an interface for the users to enter the JPEG CGI command of IP cameras to use them with the NVR. This feature largely enhances the compatibility and expandability of the NVR.

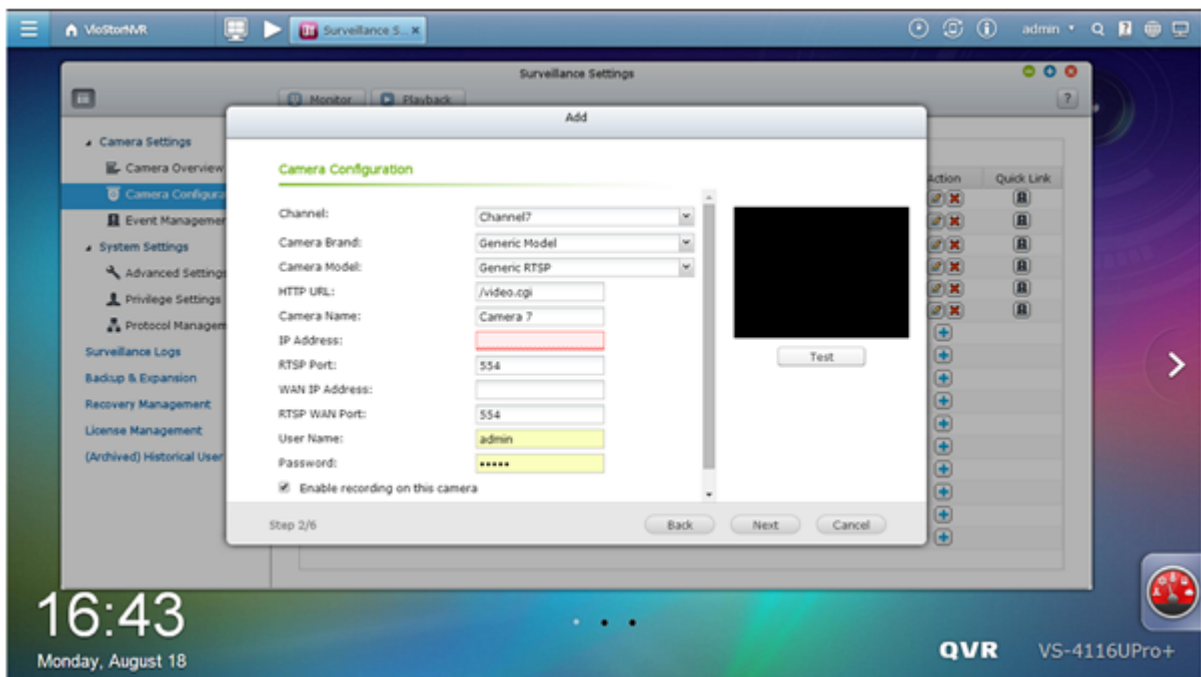


- A. Select "Generic Model" for the camera brand.
- B. Select "Generic JPEG" for the camera model.
- C. Enter the camera's cgi path in the "HTTP URL" field (e.g. "/video.cgi").
- D. Enter the camera's name.

- E. Enter the camera's IP address.
- F. Enter the camera's user name and password.
- G. Enable recording on the camera.
- H. Configure all other settings.

2. Generic RTSP

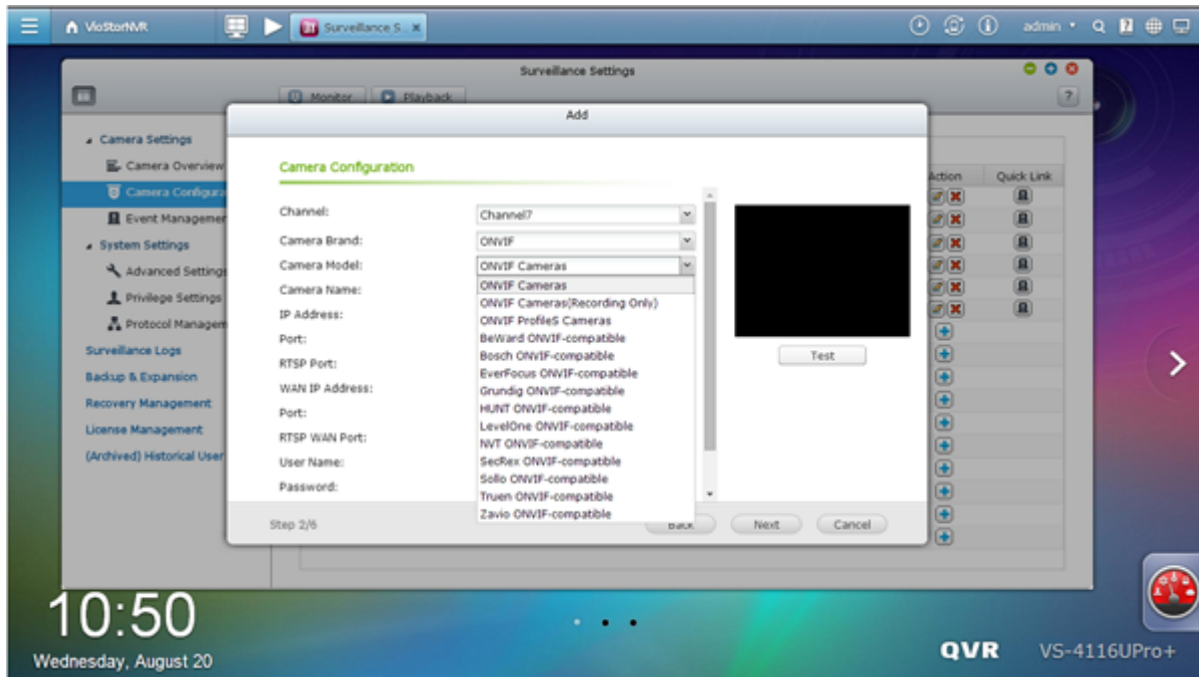
QNAP NVR provides an interface for the users to enter the RTSP path of IP cameras to use them with the NVR.



- A. Select "Generic Model" for the camera brand.
- B. Select "Generic RTSP" for the camera model.
- C. Enter the camera's URL in the "HTTP URL" field (e.g. "/axis-media/media.amp").
- D. Enter the camera's name.
- E. Enter the camera's IP address.
- F. Enter the camera's user name and password.
- G. Enable recording on the camera.
- H. Configure all other settings.

3. ONVIF

QNAP NVR provides an interface for the users to enter the RTSP path of IP to use them with the NVR.

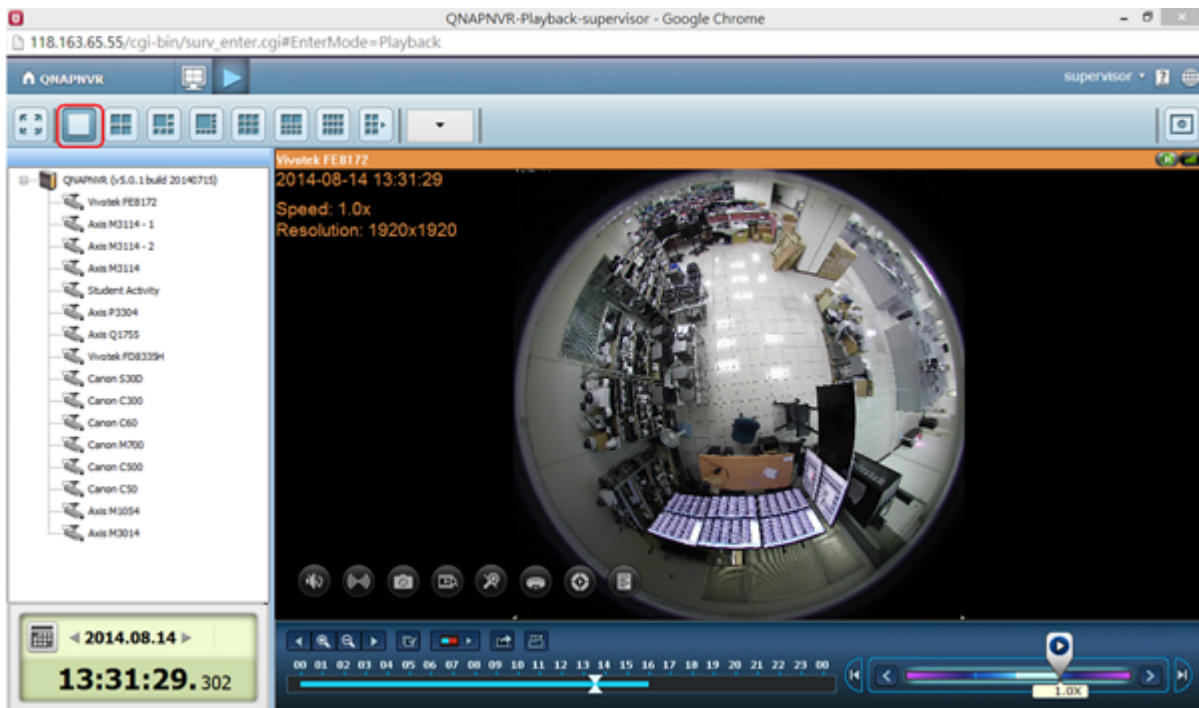


- A. Select "ONVIF" for the camera brand.
- B. Select a camera model.
 - i. For cameras listed in the following URL, please use "ONVIF Profile S Cameras":
<http://www.onvif.org/FindaProduct/ProfileProducts.aspx>.
 - ii. If your camera's manufacturer is listed, then please select that option.
 - iii. For ONVIF 1.0.2-compatible cameras, please use "ONVIF Cameras".
- C. Enter the camera's name.
- D. Enter the camera's IP address.
- E. Enter the camera's user name and password.
- F. Enable recording on the camera.
- G. Configure all other settings.

2015/07/22

T19.[Tutorial] Does QNAP NVR support real-time transcoding for smooth video playback when users are in low bandwidth environments or remote locations?

1. To use real-time transcoding, please use single-channel playback.



2. Whenever you move the mouse cursor over a camera channel, the supported function buttons of the channel will show up for quick access.



3. Click  to switch to "Low bandwidth" mode.



Note: Audio is not supported when using low bandwidth mode.


2015/07/22

T20.[Tutorial] To use two-way audio to receive and transmit audio, what should I do?


Applicable firmware: QVR 5.0 and above.

Camera models: AXIS Q6035(-E), Q6034(-E), Q6032(-E), Q1921(-E), Q1910(-E), Q1765(-E), Q1755(-E), Q1604(-E), Q1602(-E), P8221, P5544, P5534(-E), P5532(-E), P5522(-E), P5512(-E), P3384-V/-VE, P3367-V/-VE, P3364(-V/-VE), P3363(-V/-VE), P3346(-V/-VE), P3304(-V), P3301(-V), P1357, P1355, P1354, P1353, P1347(-E), P1346(-E), P1344(-E), P1343(-E), M1054, M1034(-W), M1033(-W), 214PTZ



1. Upon logging in, click  on the QVR desktop to go to the monitoring page.
2. Whenever you move the mouse cursor over a camera channel, the supported function buttons of the camera will show up for quick access.



3. Click  to enable two-way audio.

Icon	Description



Two-way audio (optional):

Toggles two-way audio support on the monitoring page. To learn more about the compatibility of this feature, please visit

<http://www.qnap.com/NVR/CompatibilityX01.html>. Please note: the two-way audio function is currently only supported by Internet

Explorer 11.

Please note : Please ensure you have set up your microphone.

2015/07/22

T21.[Tutorial] How to install QSCM Lite App?

Introduction

QNAP Surveillance Central Management Lite (QSCM Lite) is a powerful and free app supported by QVR 5.0 (and above) that allows you to easily manage up to 16 QNAP NVRs and 256 cameras. No extra hardware or software is required to add the CMS server function to a NVR – all you have to do is install the QSCM Lite App from the App Center.

QSCM Lite can manage NVRs that are in the same private LAN with QSCM Lite.



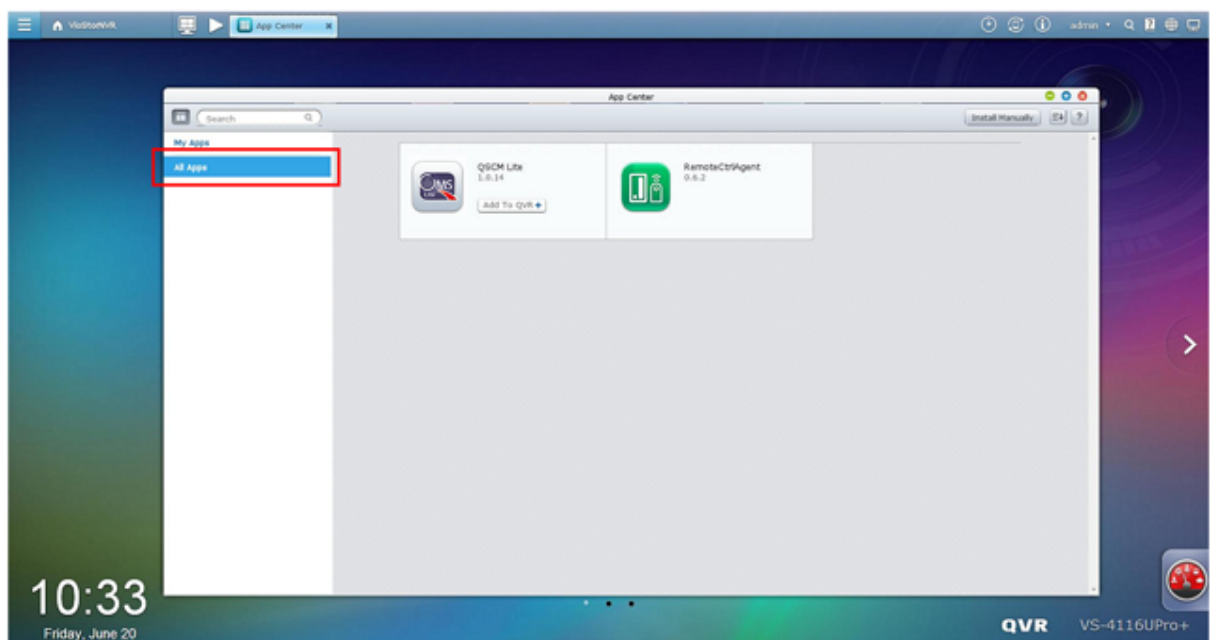
Install QSCM Lite to NVR Server

Online installation

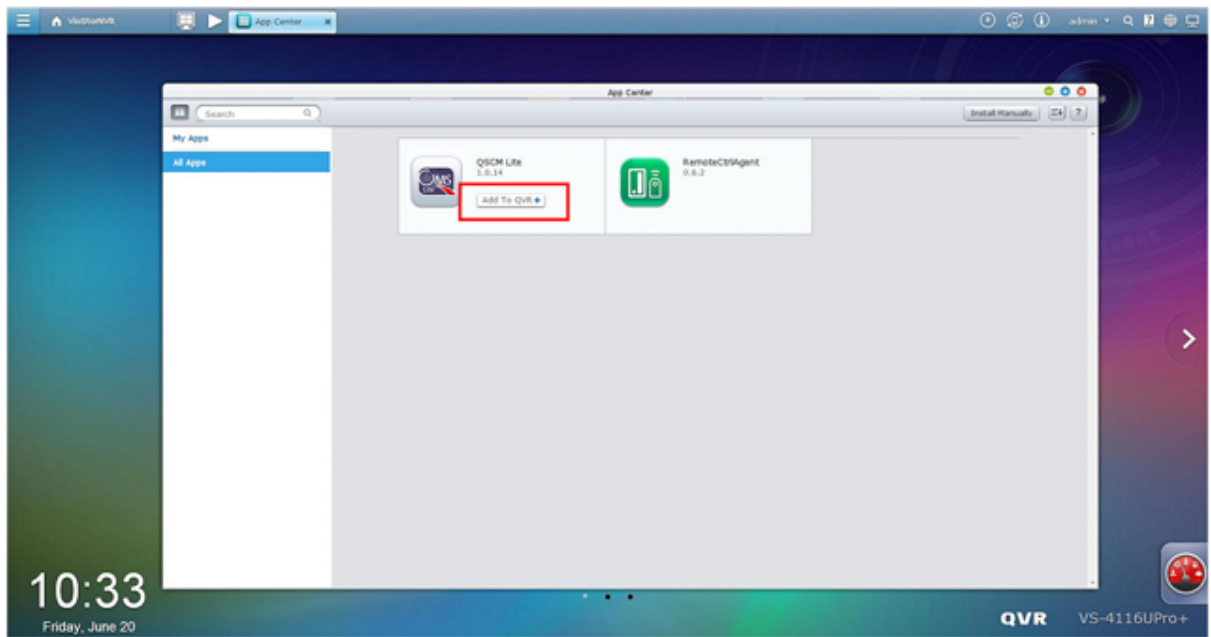
To install QSCM Lite, please download it from the QVR 5.0 App Center. Your NVR must be connected to the Internet to use the App Center. For more information about the App Center, please refer to the VioStor NVR (version 5.0.0.) user manual Section 10.3 App Center.



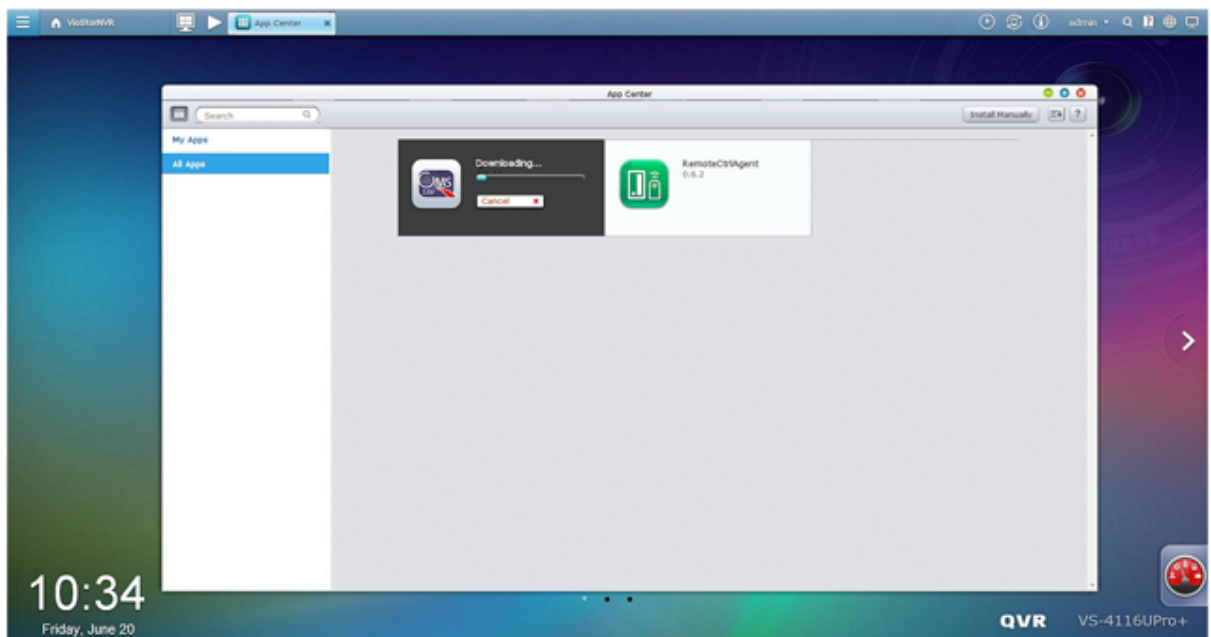
1. Go to the App Center on the desktop of QVR 5.0.
2. Go to All Apps.



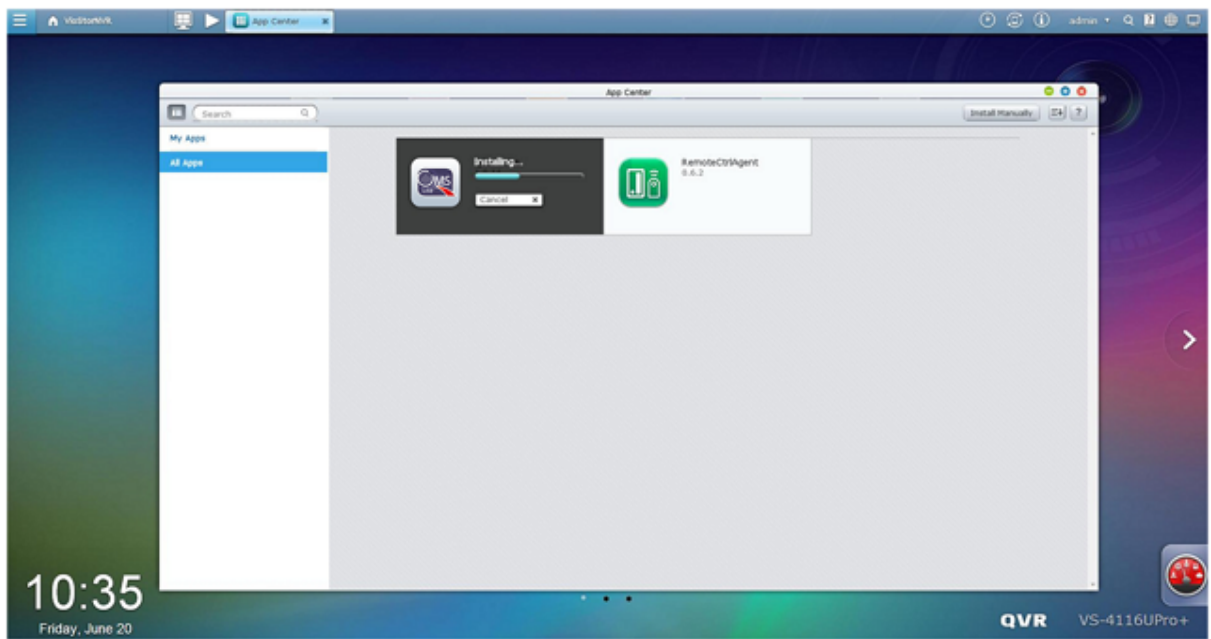
3. Click "Add QSCM Lite to QVR"



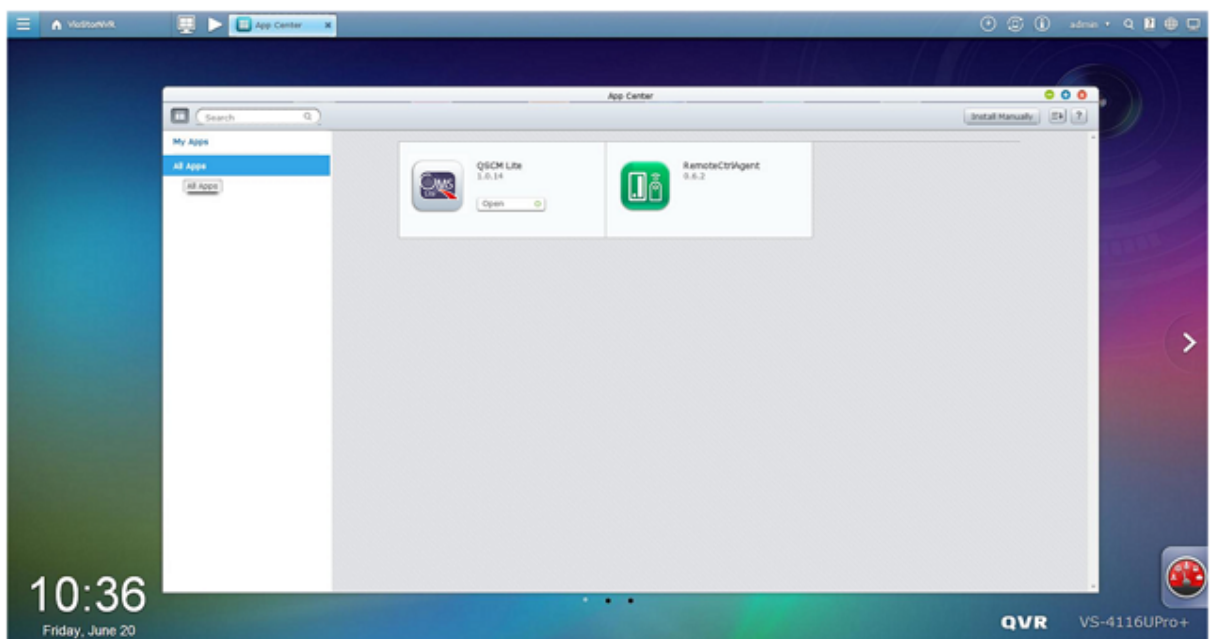
4. Start downloading QSCM Lite



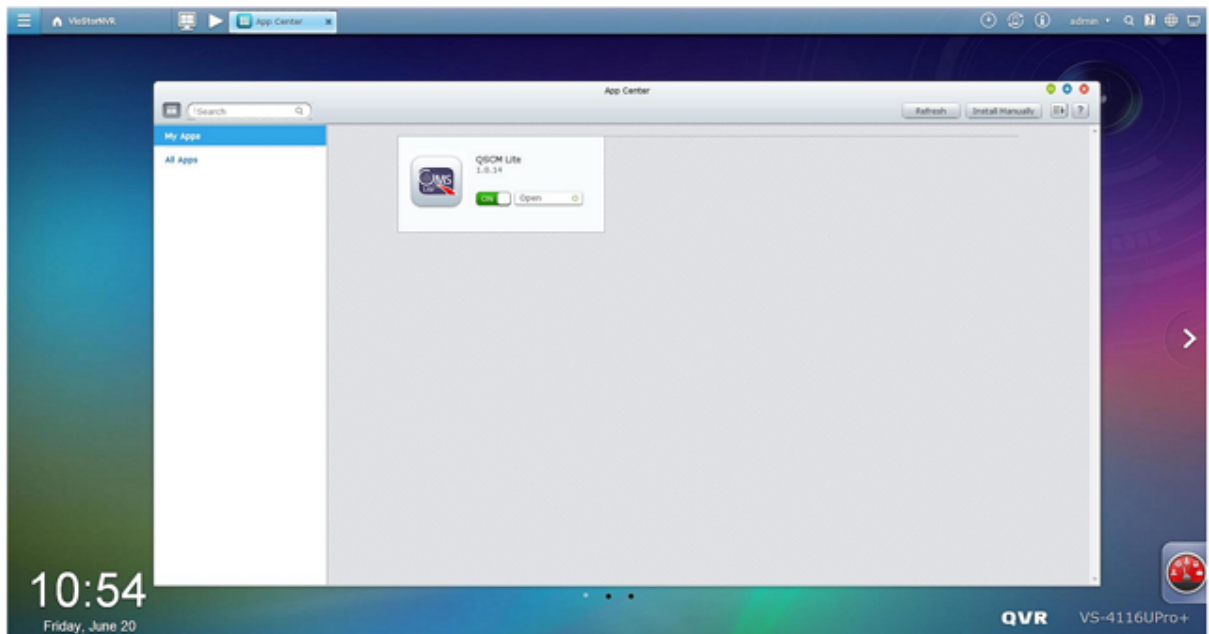
5. After QSCM Lite has been downloaded, the system will automatically install QSCM Lite.



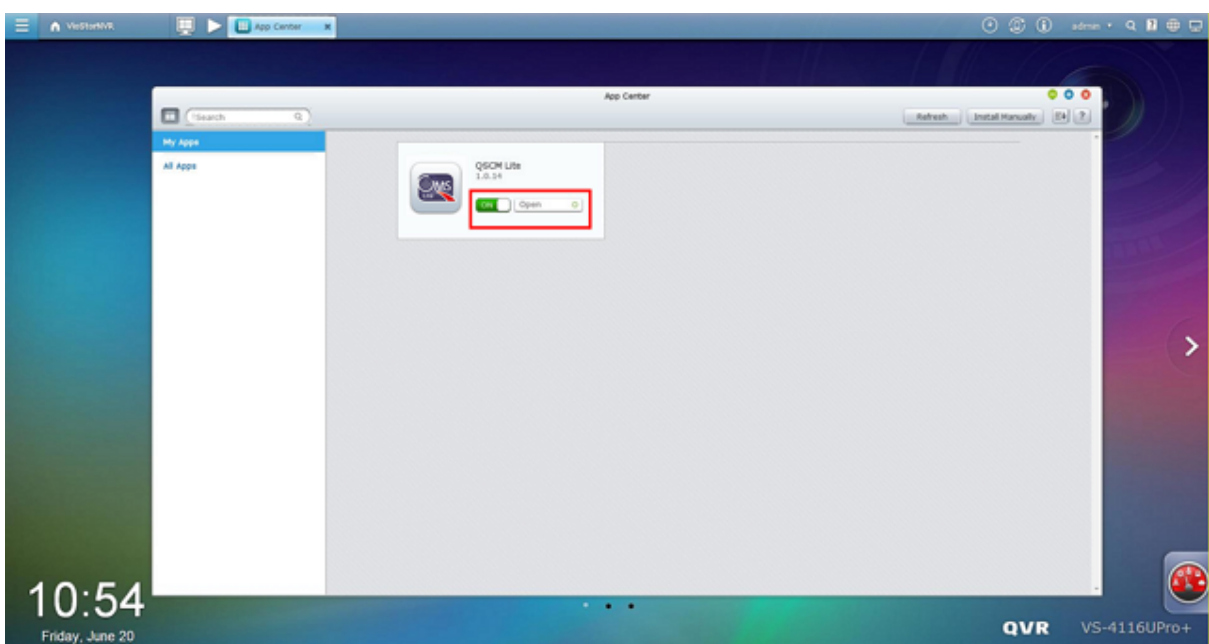
6. When the option to "Open" appears, QSCM Lite has been successfully installed.



- QSCM Lite will now be listed in My Apps, with the default Open status. QVR 5.0 is now a CMS server.



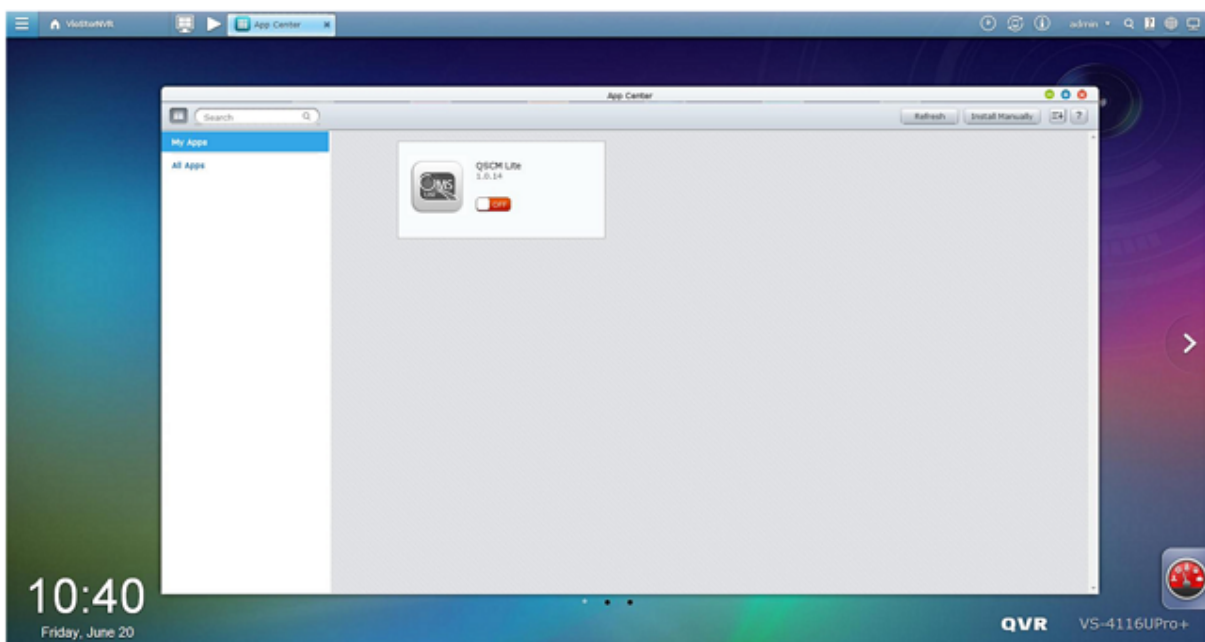
- Click on the QSCM Lite icon to go to the QSCM Lite login page



- The system will automatically redirect to the QSCM Lite login page, and you can log in by using the default username/password (admin/admin).



If needed, QSCM Lite can be turned off to disable the CMS server function.



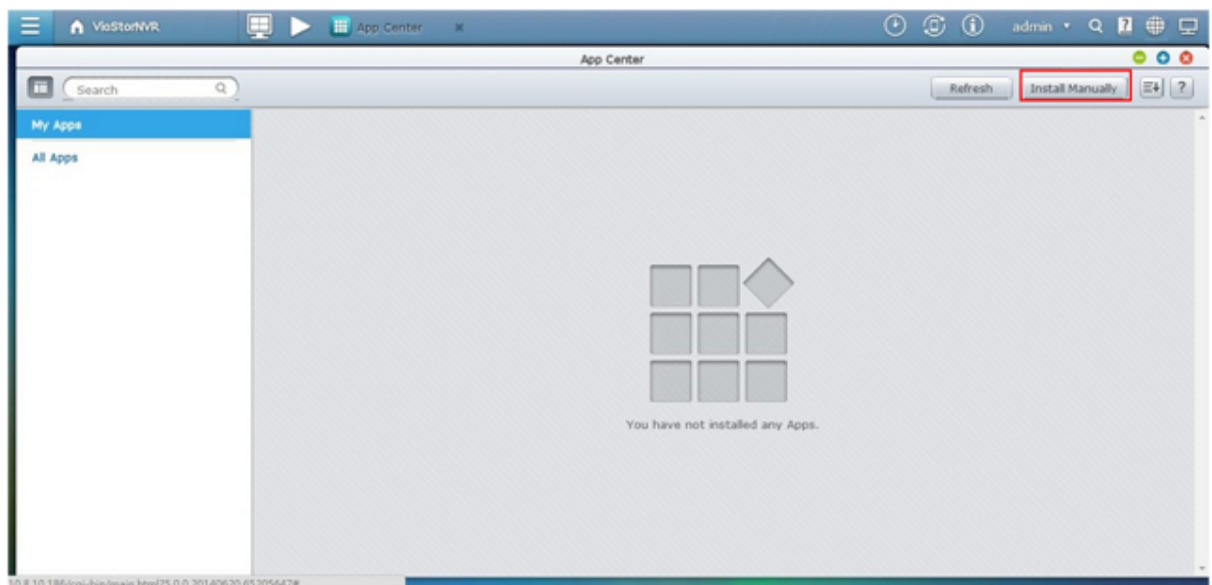
Offline installation

If the NVR is not connected to the Internet, an offline installation is available.

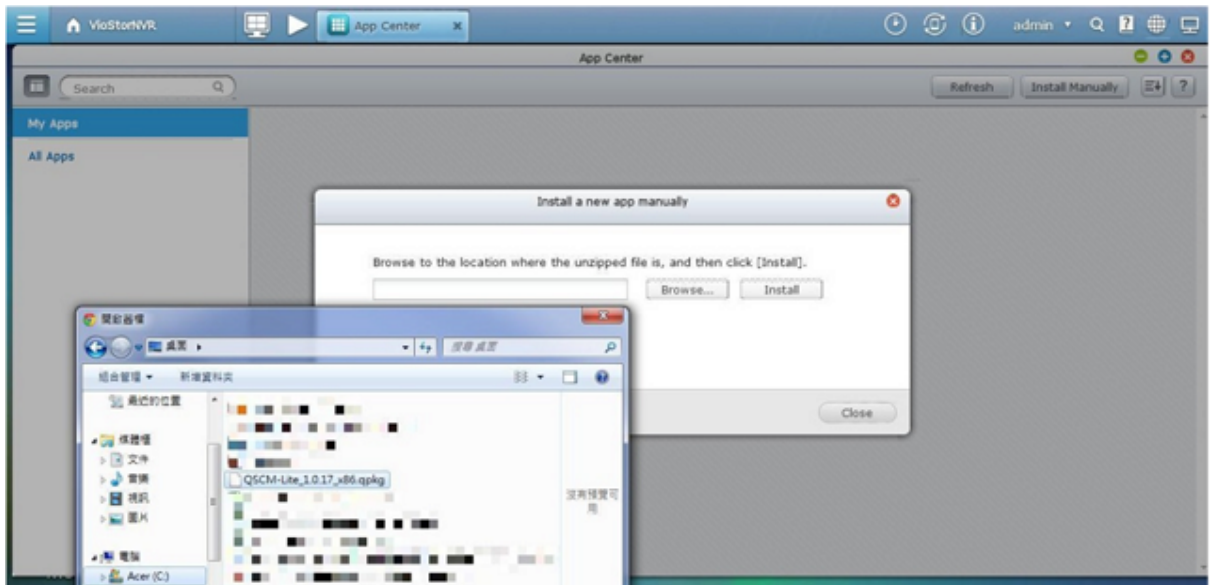
1. Download QSCM Lite from the QNAP Security website (http://www.qnapsecurity.com/n/en/product_x_down/).
2. Unzip the files
3. Return to the NVR and enter the App Center



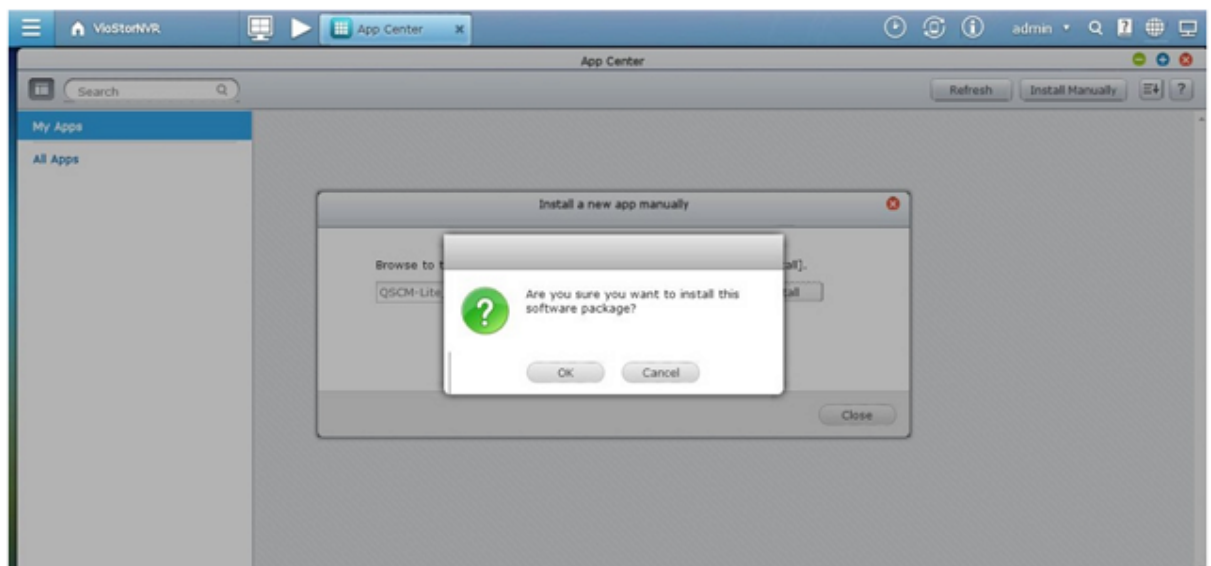
4. Click "Install Manually"



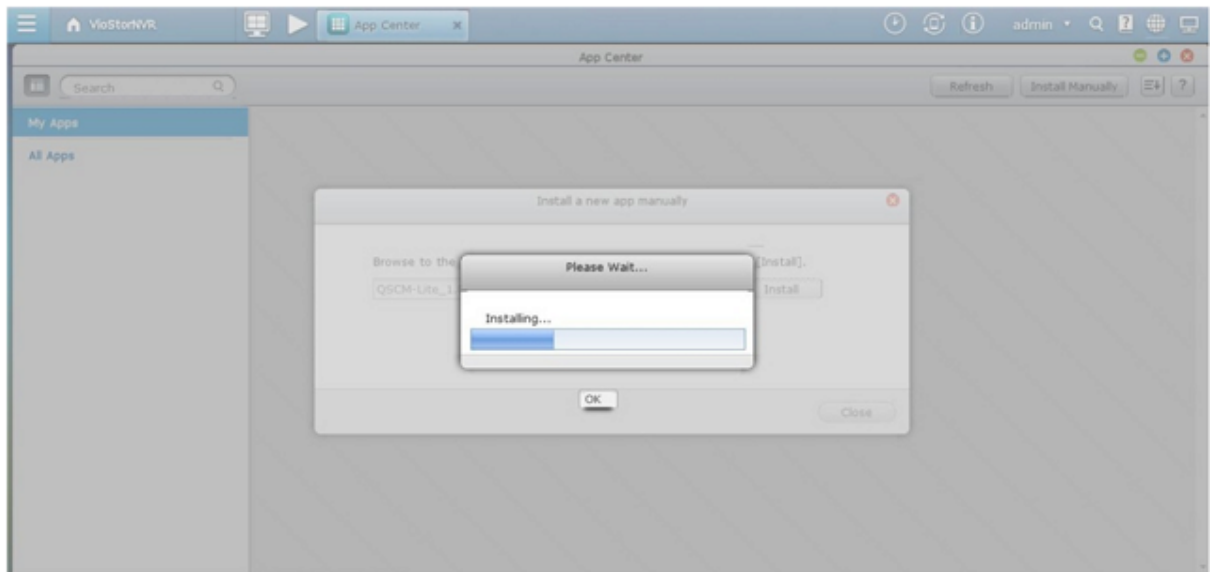
5. Find the unzipped QSCM Lite, and click [Install]



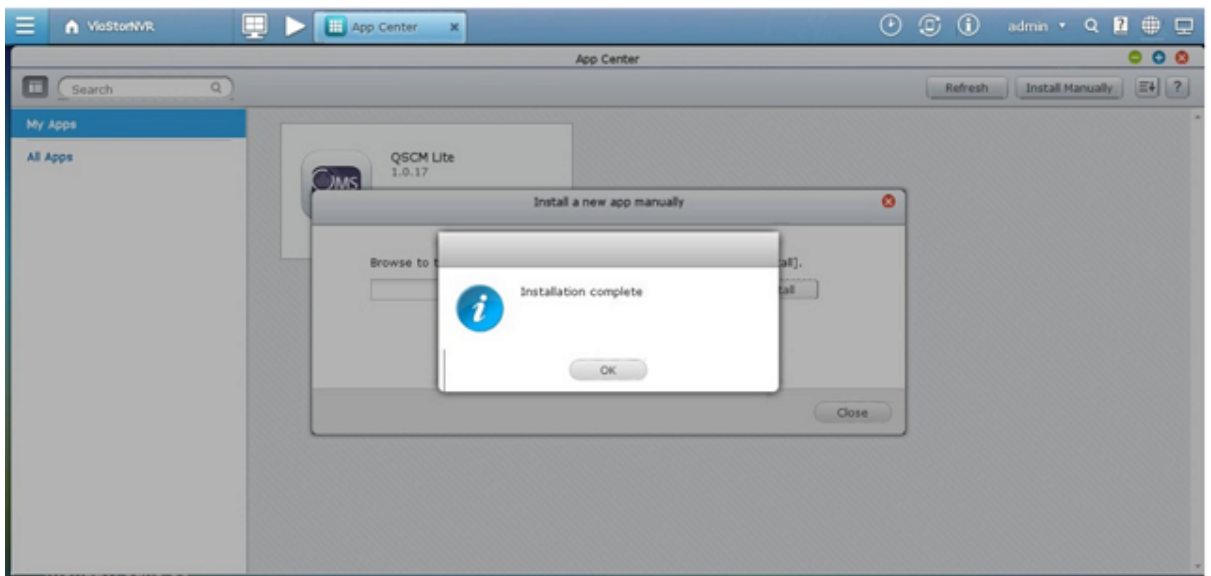
6. Click OK



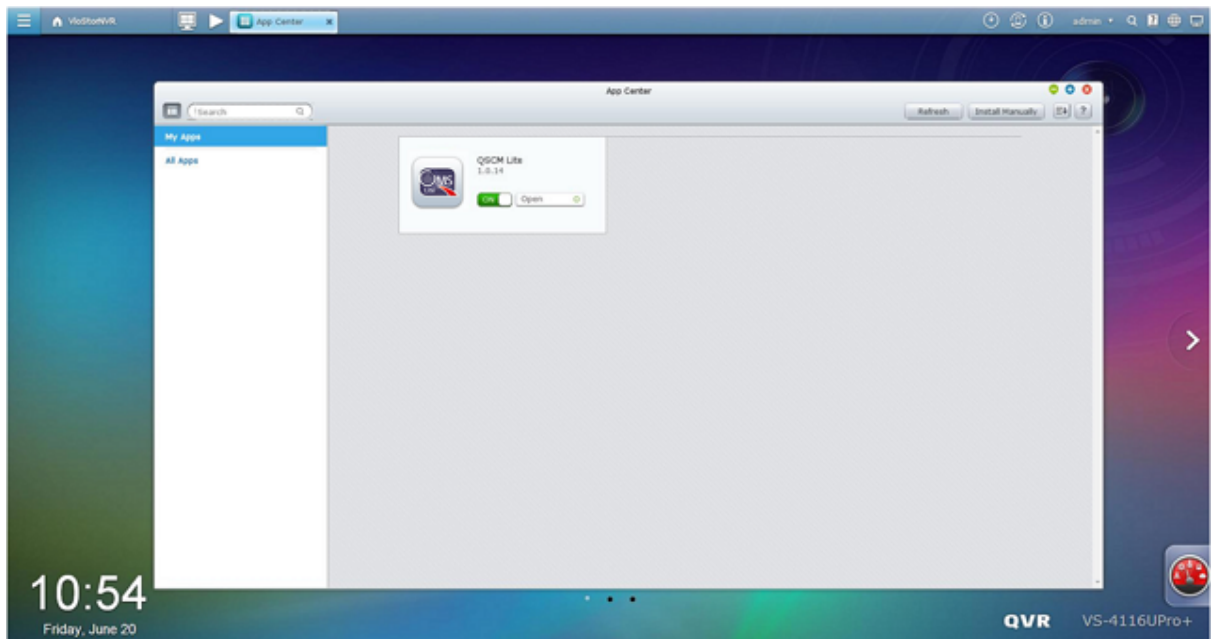
7. The NVR will then install QSCM Lite



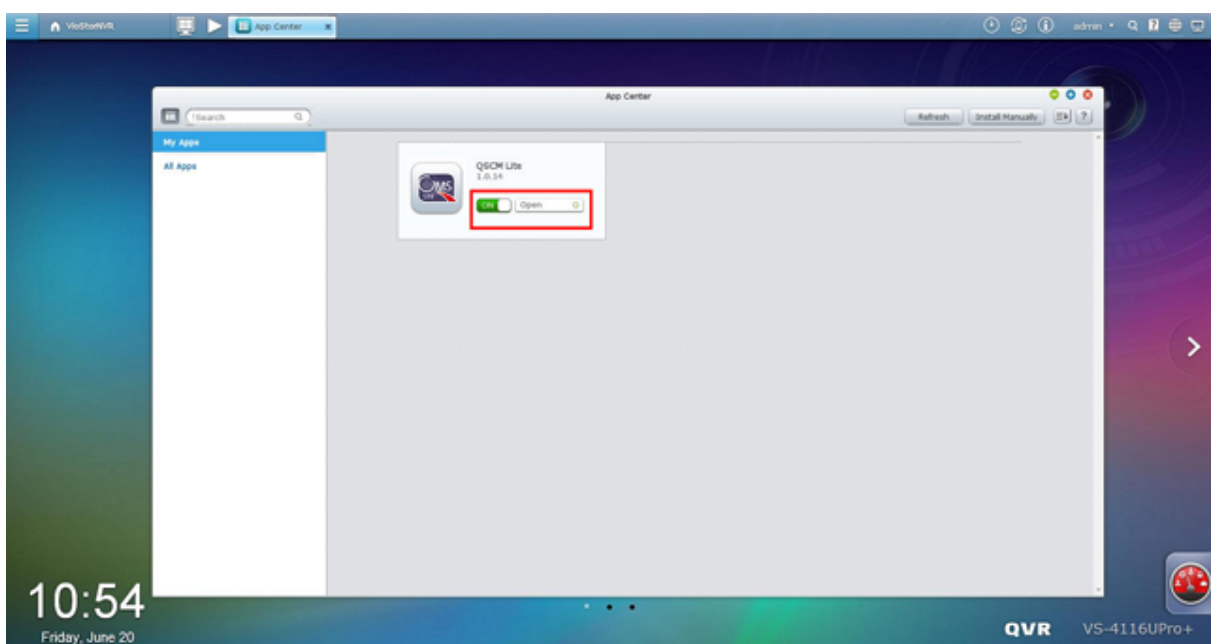
8. Click OK



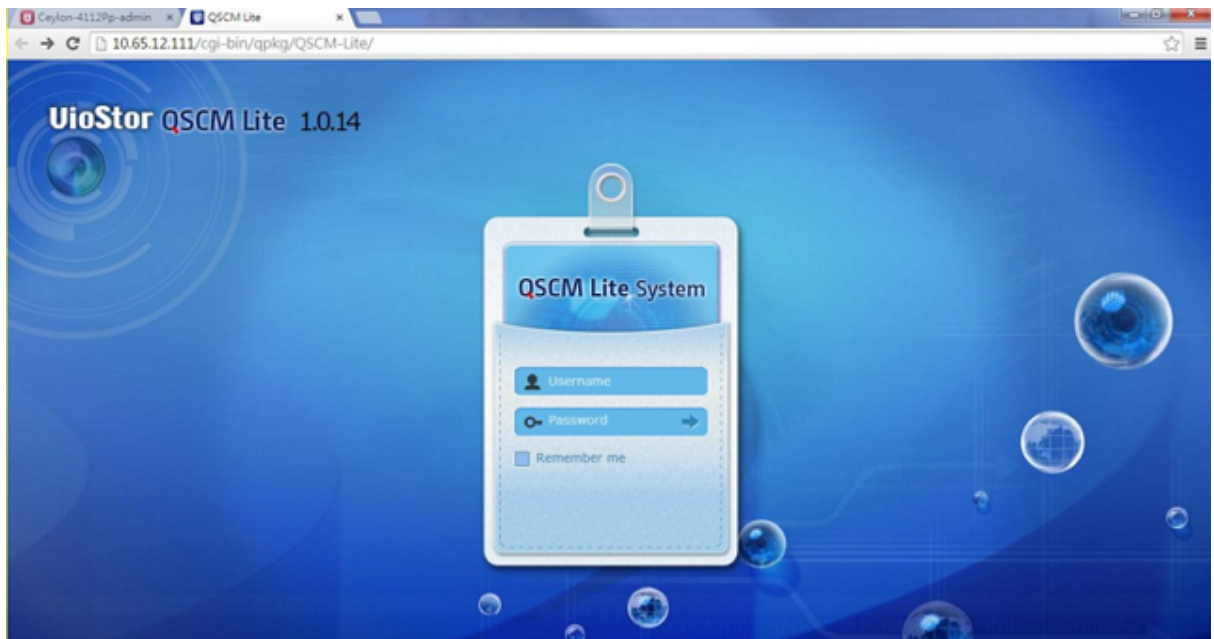
9. QSCM Lite will now be listed in My Apps, with the default Open status. QVR 5.0 is now a CMS server.



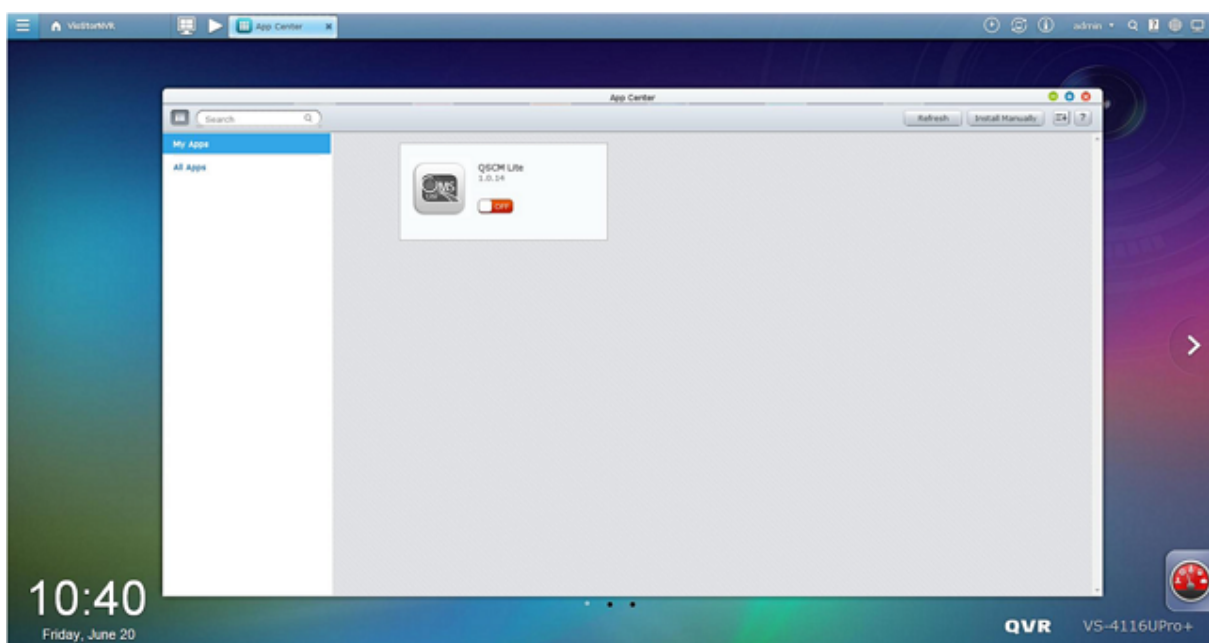
10. Click on the QSCM Lite icon to go to the QSCM Lite login page.



11. The system will automatically redirect to the QSCM Lite login page, and you can log in by using the default username/password (admin/admin).



If needed, QSCM Lite can be turned off to disable the CMS server function.



2015/07/22

T22.[Tutorial] Protect QNAP NVR Data with Real-time Remote Replication (RTRR)

“RTRR Make Backup More Efficient”

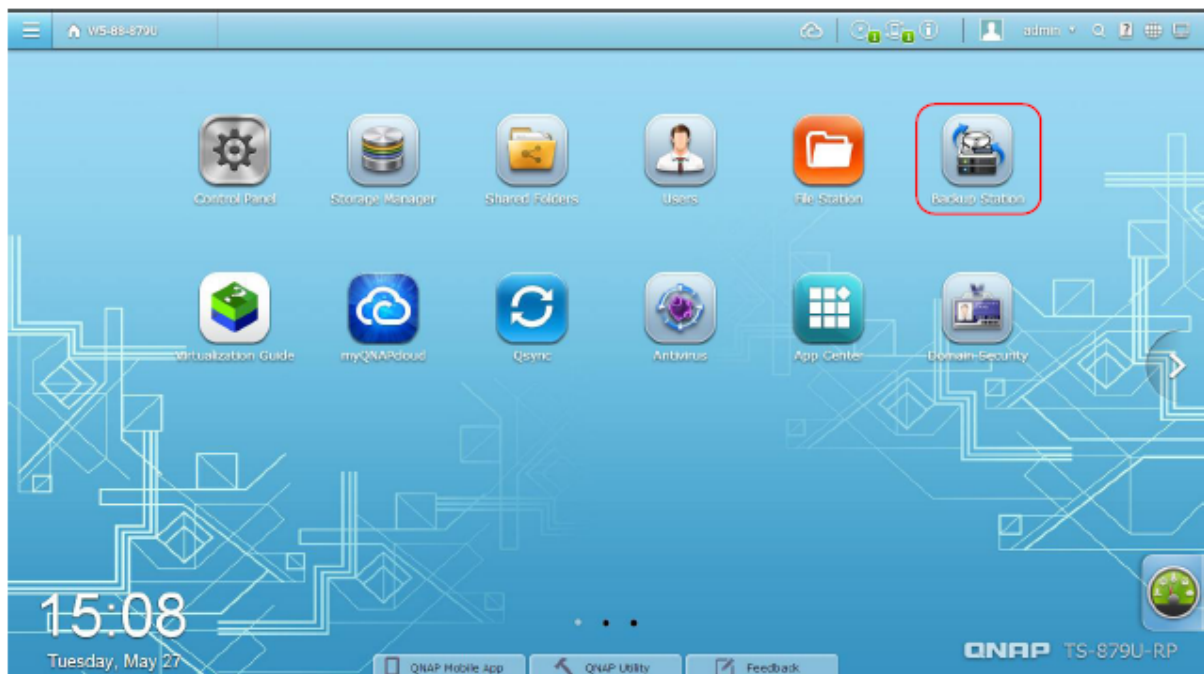
Introduction

Real-time Remote Replication (RTRR) is powerful backup feature exclusively provided by QNAP Turbo NAS to back up new and modified files on a remote NVR immediately to the folder on the local Turbo NAS. RTRR improves backup efficiency and reduces backup time

Applied VioStor NVR model: VioStor Pro(+) series with QVR 5.0 firmware

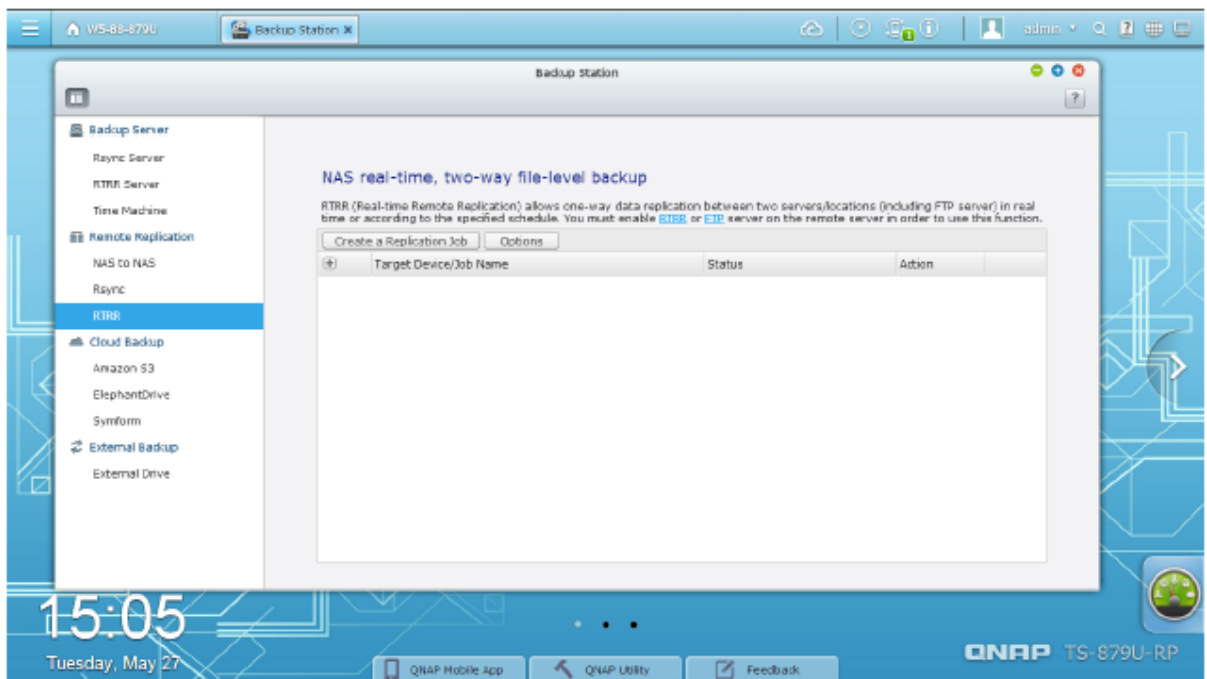
Applied Turbo NAS model: Turbo NAS with QTS 4.1 firmware.

Configure the job settings on the local NAS

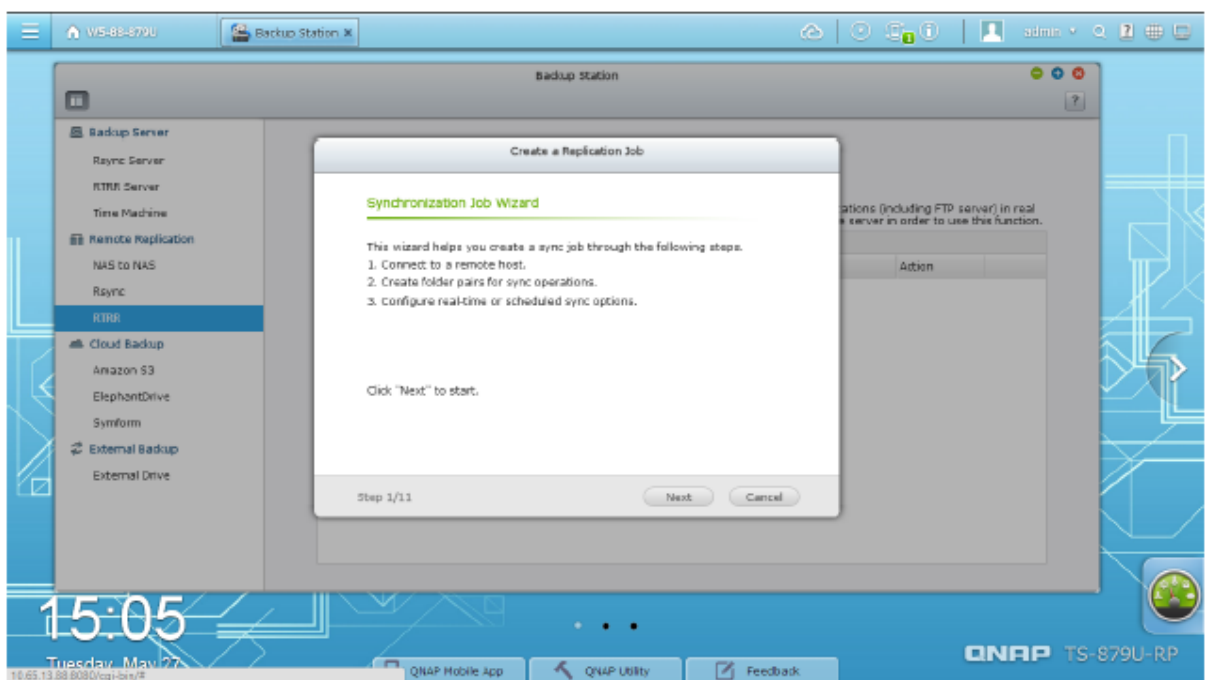


1. Go to the “Backup Station” > “Remote Replication”.

2. Under the “RTRR” tab click “Create a Replication Job” to open the wizard.



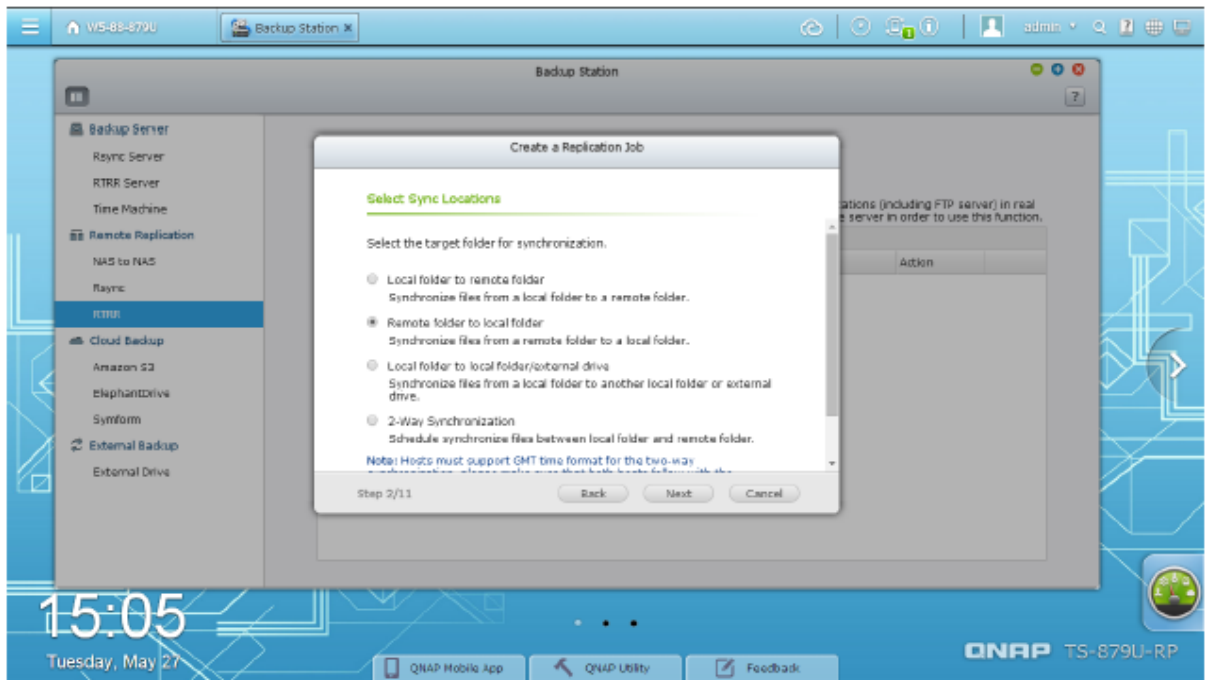
3. Click “Next”.



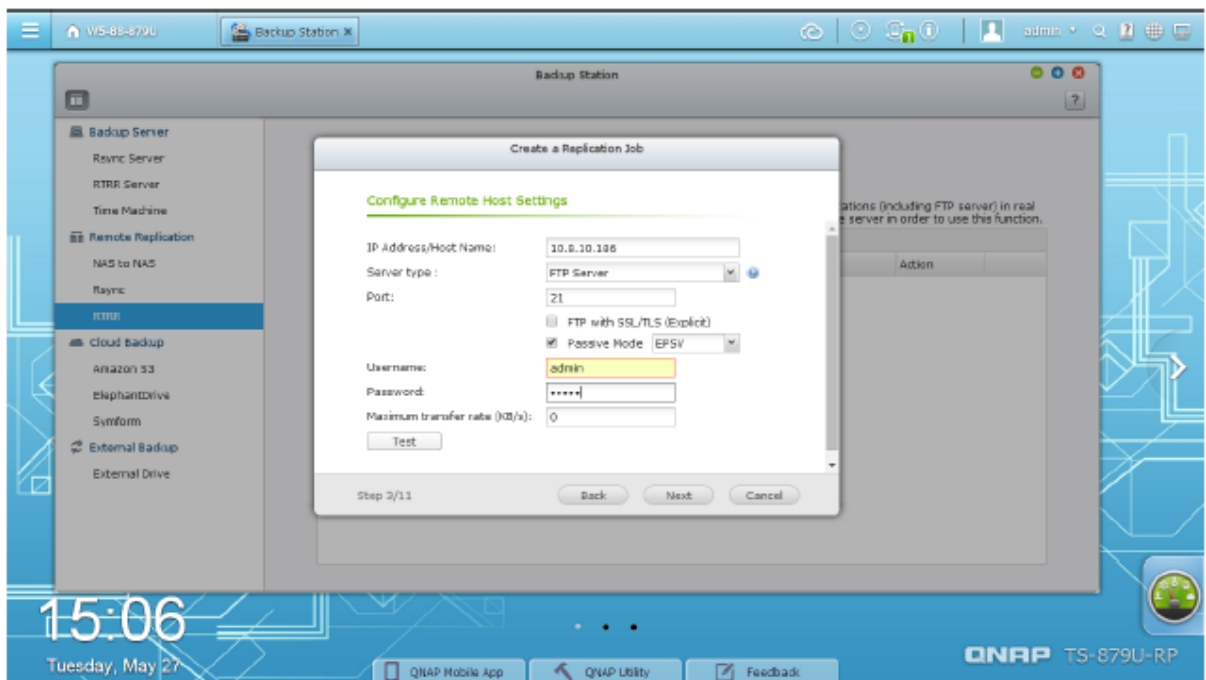
4. Select the sync locations. You can choose to back up data from:
 - (1) Local folder to remote folder
 - (2) Remote folder to local folder
 - (3) Local folder to local folder or external drive

Please select “Remote folder to local folder” to replicate files from the remote NVR to the local

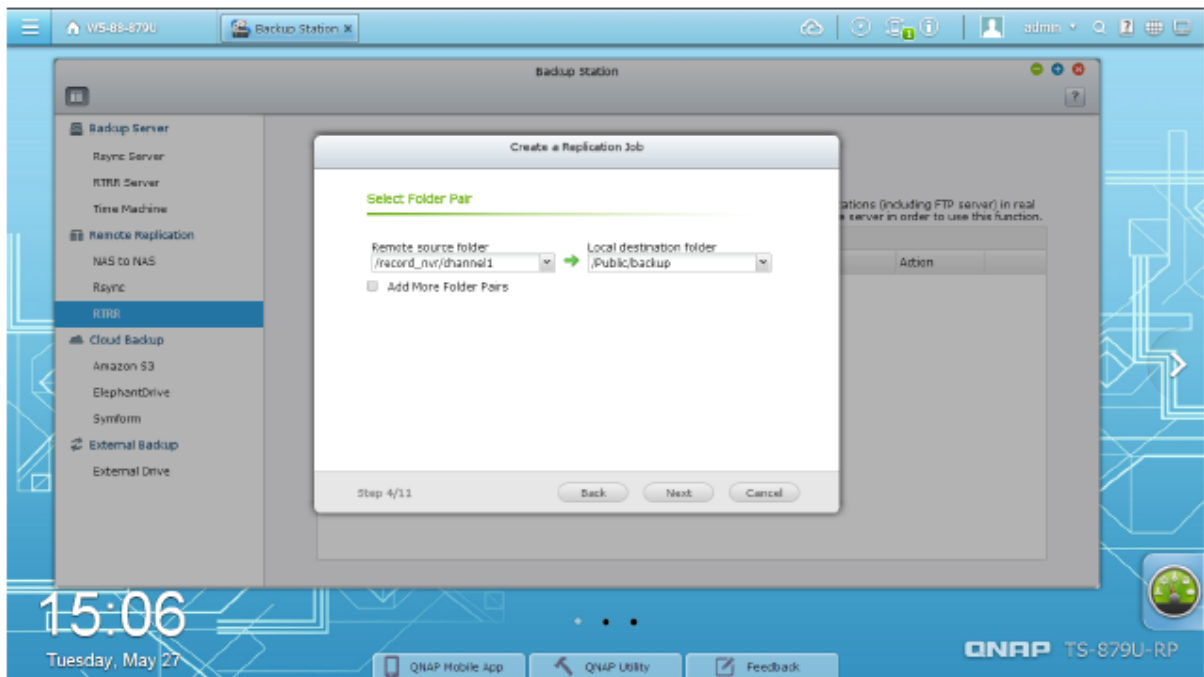
Turbo NAS. Click “Next” to continue.



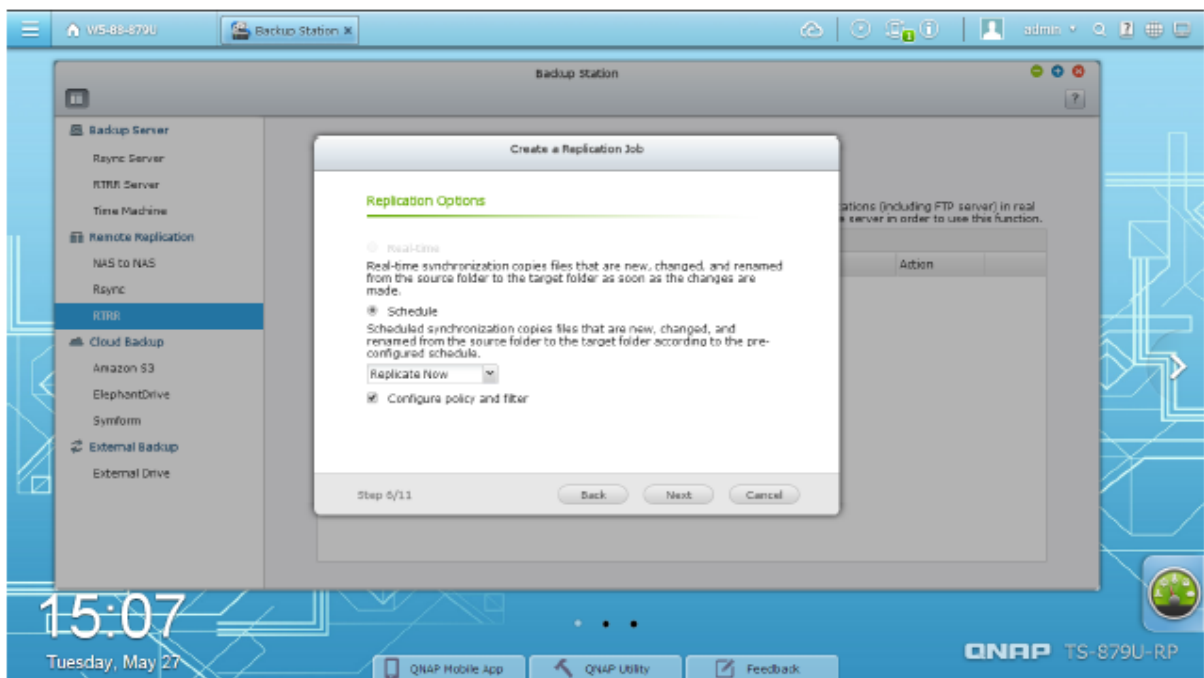
5. Enter the IP address of the remote NVR and select FTP server service. Enter the user name/password of the remote NVR. Click “Next” to continue.



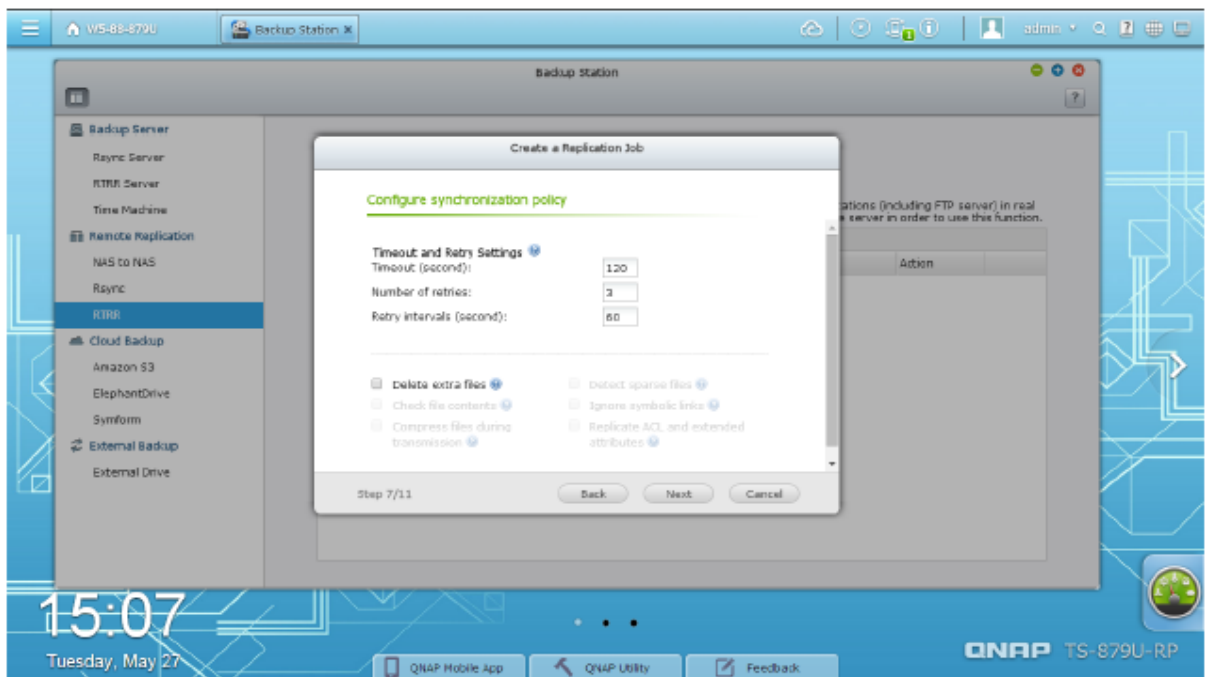
6. Select the source folder for the backup and target folders. To add more folder pairs for backup, select “Add More Folder Pairs”. Click “Next”.



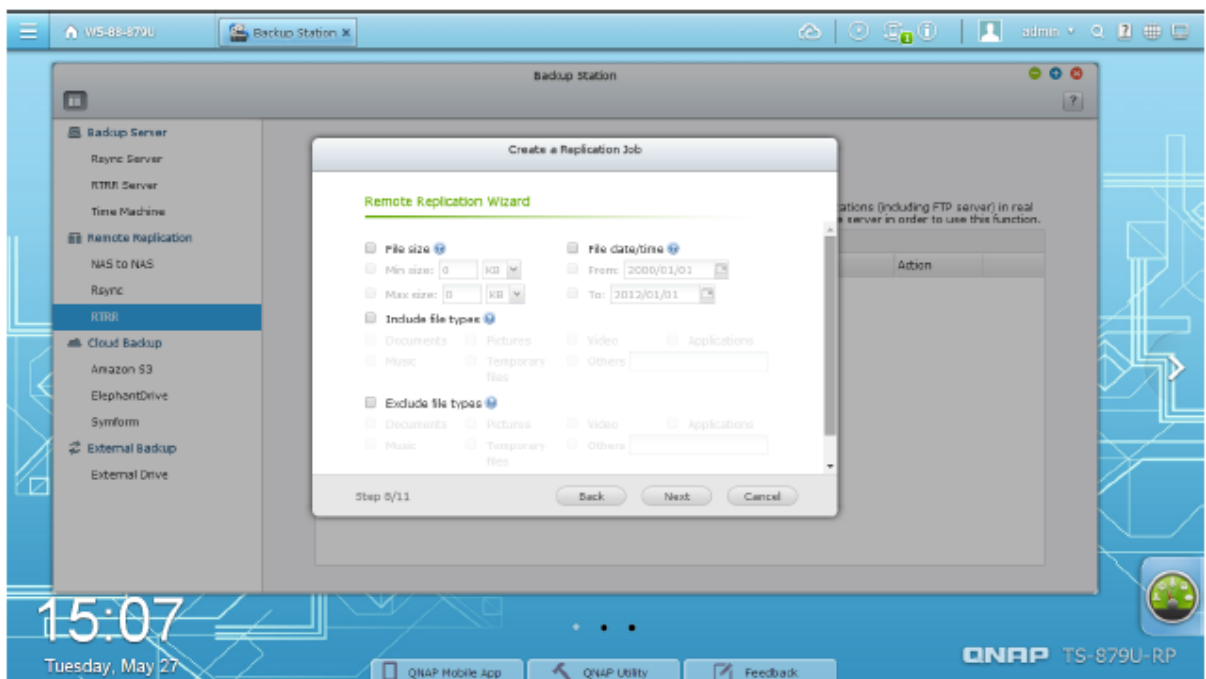
7. Select “Schedule” and configure the backup schedule. To configure the backup policy and filter to increase data transmission efficiency, click “Configure policy and filter”.



8. You can enable and configure the following policies. Click “Next” to continue.



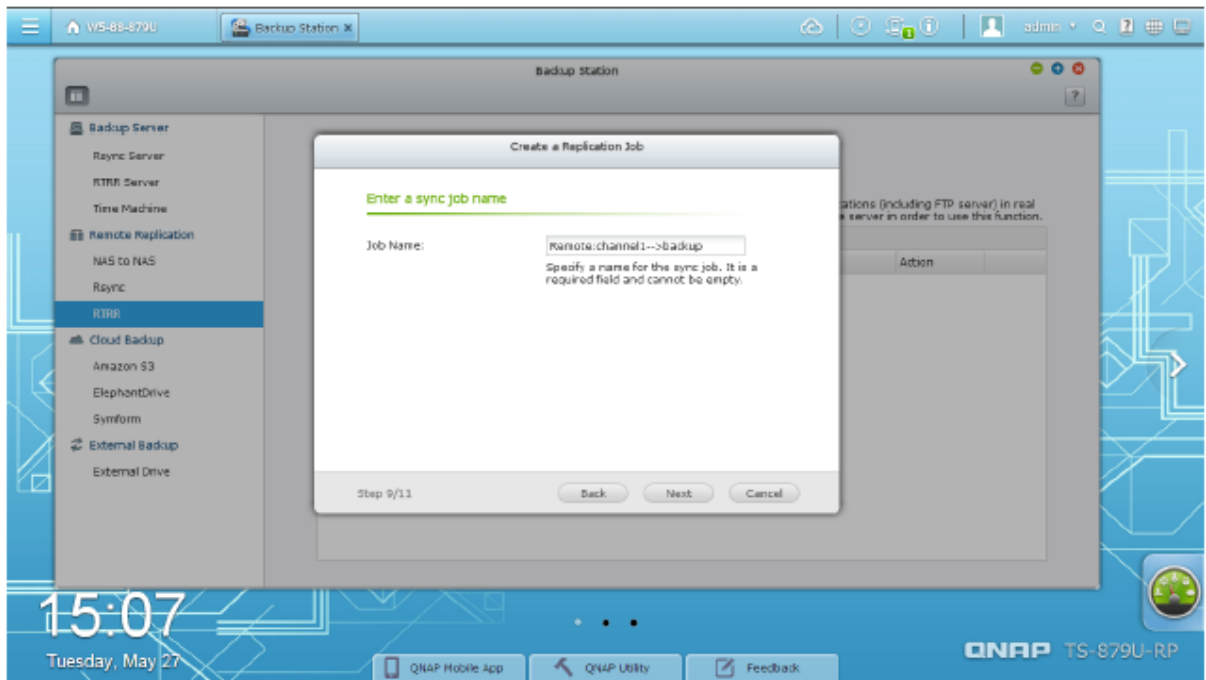
9. Specify the criteria for the following items as you wish. Only the files that match the criteria will be replicated.
- A. File size
 - B. File date/time
 - C. Included file types
 - D. Excluded file types



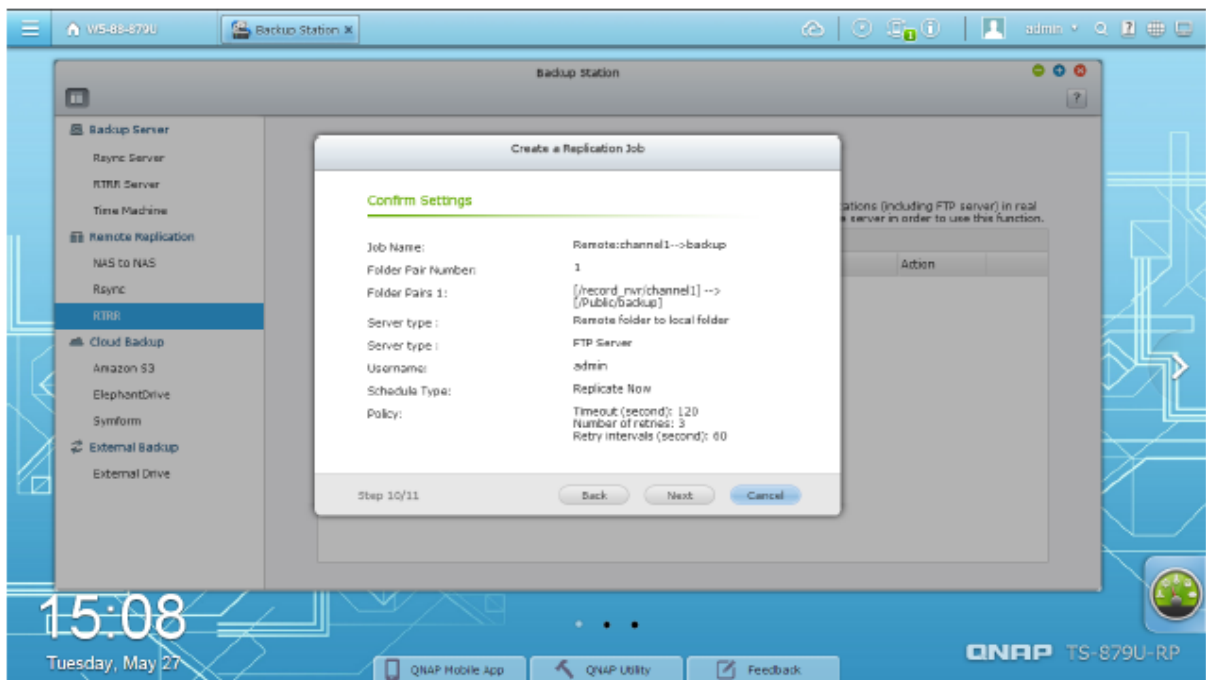
10. Click “Next” to continue.

The sync job name is generated automatically. You can modify the name as you wish. Click

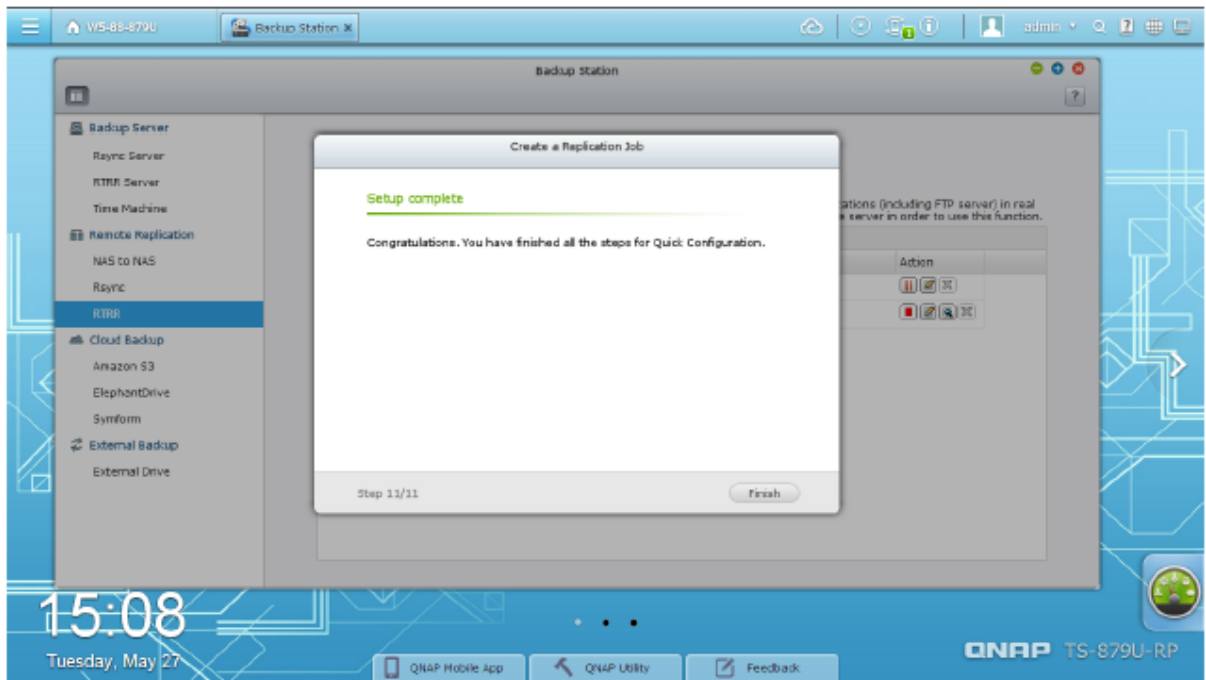
“Next”.



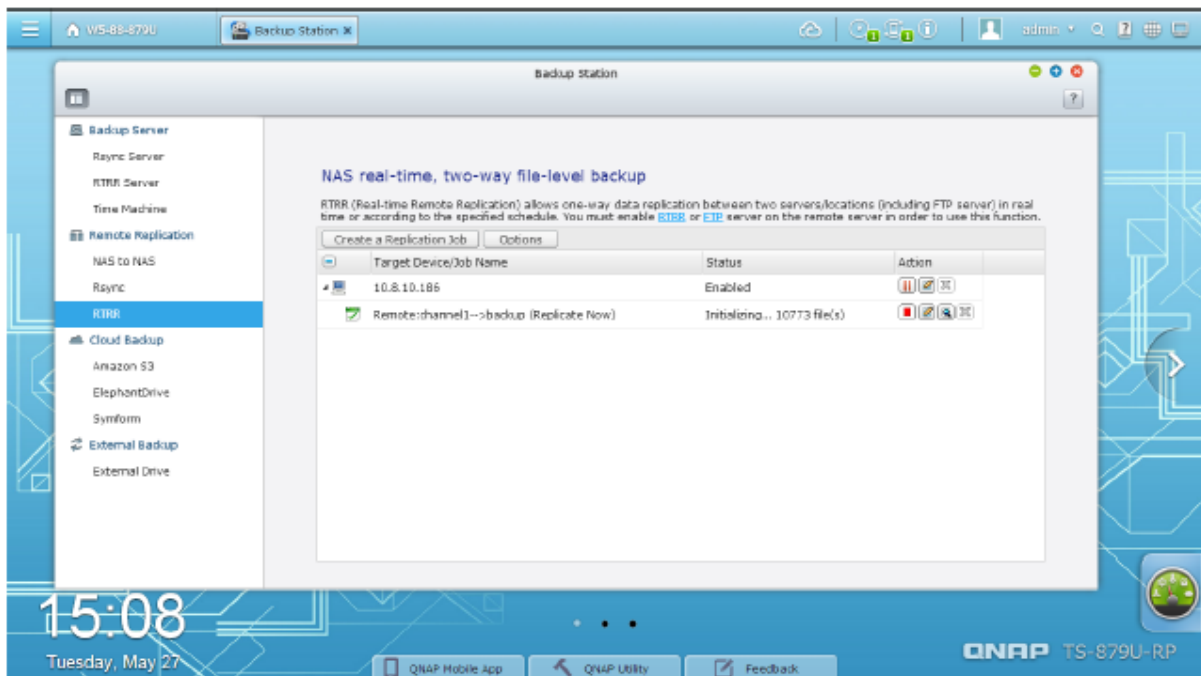
11. Review your configuration settings and click “Next” to continue.



12. Click “Finish” to close the wizard.



The target host and the replication job name will be shown on the list. The status column will display “Standby”, meaning the folder is being monitored. Any changes to the source folder will be replicated to the remote server immediately.



T23.[Tutorial] How to use Vcam?

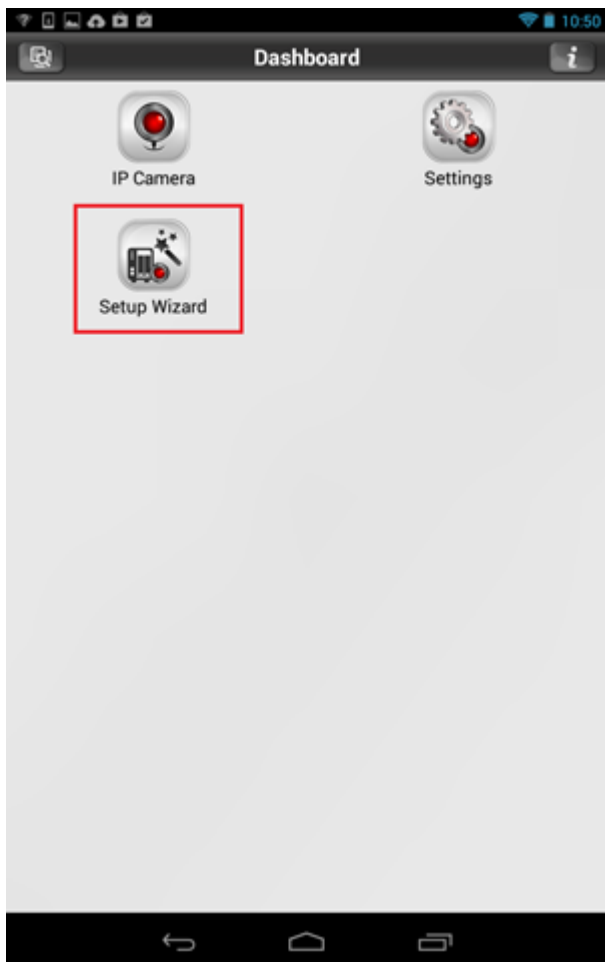
Overview

The Vcam mobile app can turn your mobile device into a network camera. With the Vcam mobile app, you can record any moment around you to your VioStor NVR. The Vcam solution provides a great way to deploy a home surveillance system without purchasing expensive IP cameras.

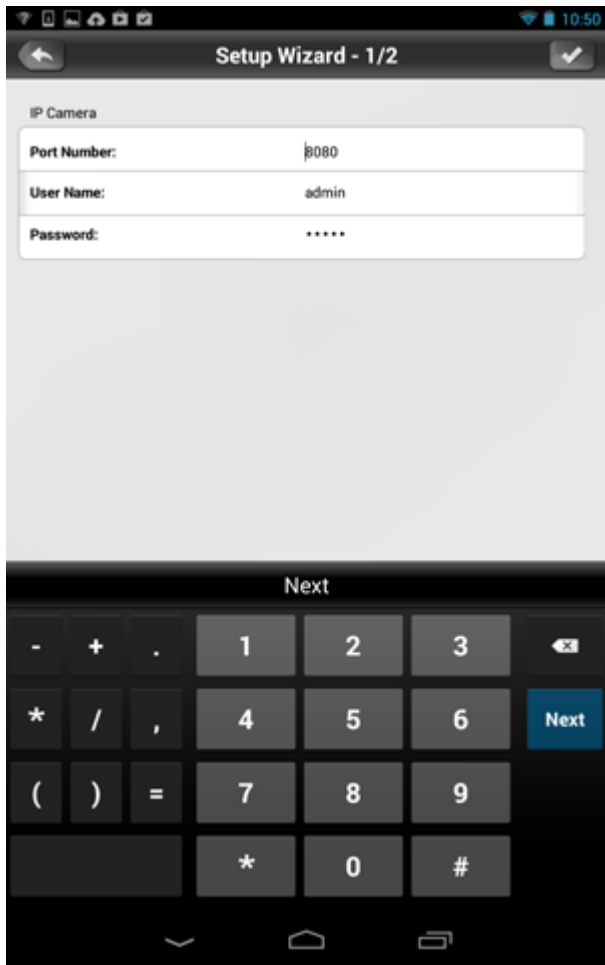
Starting Vcam

Please make sure Vcam is installed on your mobile device. You can install the QNAP mobile app “Vcam” from Google Play or the Apple App Store.

Please click “Setup Wizard” to enter the Vcam quick setup wizard.



Please enter the “Port number”, “User Name” and “Password”. Then click “Next” to go to the next page. The port number must be within range of “1025 ~ 65535”.



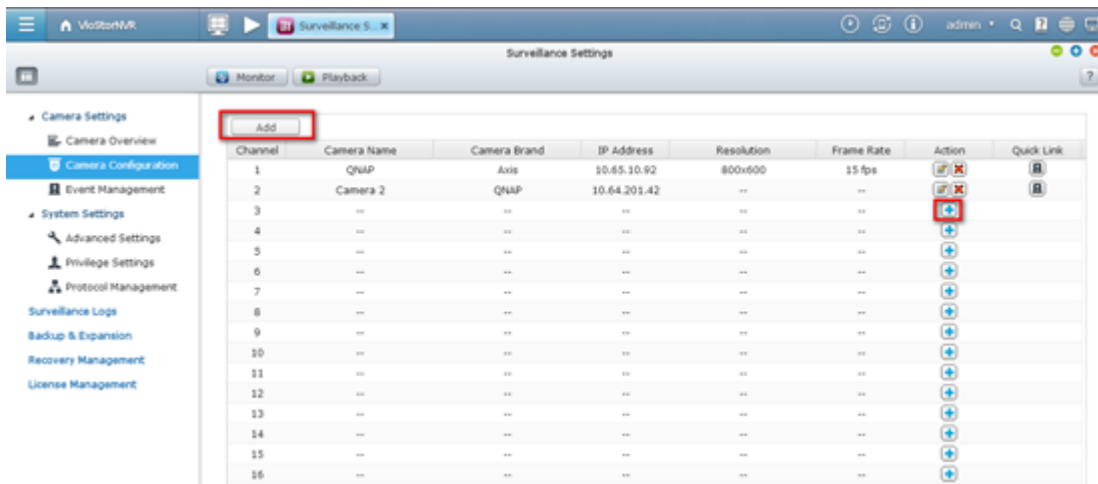

You can configure the Connectivity and Video Streaming here. You can choose “WiFi only” or “3G and WiFi”. We recommend that you choose “WiFi only” here. Vcam will use only mobile devices that have WiFi connectivity.

After you finish configuration, please click “Start” to Vcam.




















Press the Blue Button to enable recording. If the button turns red then it is ready to record.

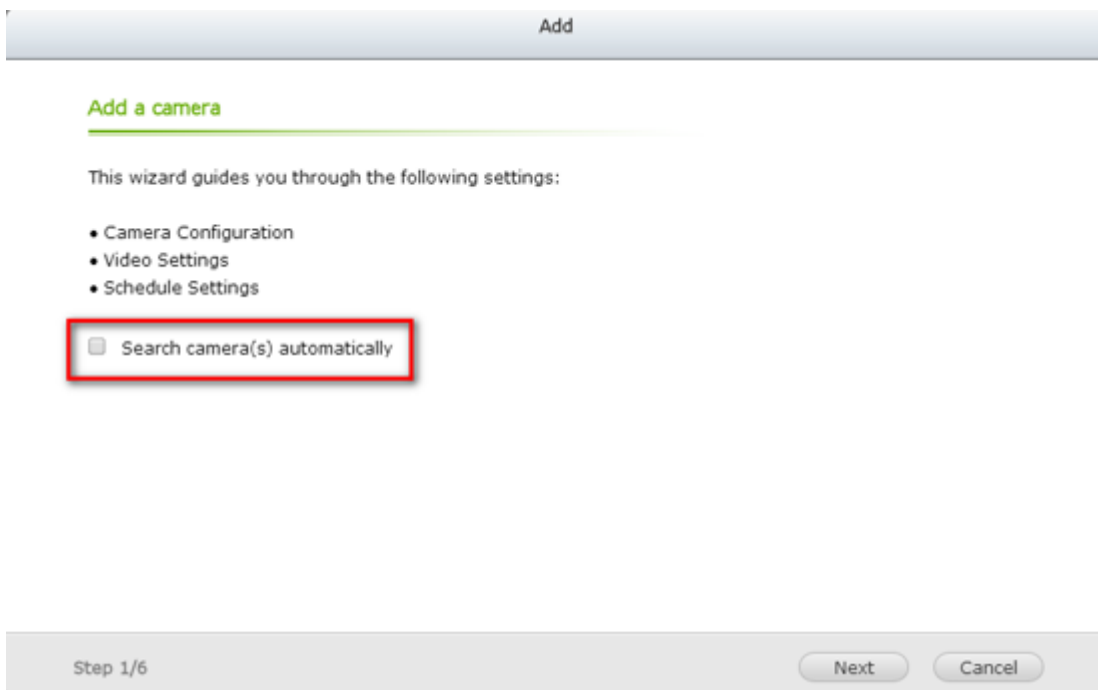


Please go to “Surveillance Settings” > “Camera Settings” > “Camera Configuration” > “Add” or click the “

The screenshot shows the 'Surveillance Settings' window with a sidebar on the left containing various settings categories. The main area displays a table of camera channels. The 'Add' button is highlighted with a red box in the top-left corner of the table.

Channel	Camera Name	Camera Brand	IP Address	Resolution	Frame Rate	Action	Quick Link
1	QNAP	Axis	10.65.10.92	800x600	15 fps		
2	Camera 2	QNAP	10.64.201.42	--	--		
3	--	--	--	--	--		
4	--	--	--	--	--		
5	--	--	--	--	--		
6	--	--	--	--	--		
7	--	--	--	--	--		
8	--	--	--	--	--		
9	--	--	--	--	--		
10	--	--	--	--	--		
11	--	--	--	--	--		
12	--	--	--	--	--		
13	--	--	--	--	--		
14	--	--	--	--	--		
15	--	--	--	--	--		
16	--	--	--	--	--		

Please uncheck the option “Search camera(s) automatically” and click “Next”.



Please enter the camera configurations as followed, then click test to check the connection between the camera and Surveillance Station.

- **Camera brand** : QNAP
- **Camera model** : QNAP VCAM
- **Camera Name** : You can set the camera as you want.
- **IP Address** : Please set the IP Address of your mobile device. You can check the IP Address in the upper-right corner (check the picture below). If your mobile device does not get a IP Address, please check your network environment again.
- **Port** : Please configure the Port number you set for Vcam.

- **User Name** : Please configure the user name you set for Vcam.
- **Password** : Please configure the password you set for Vcam.



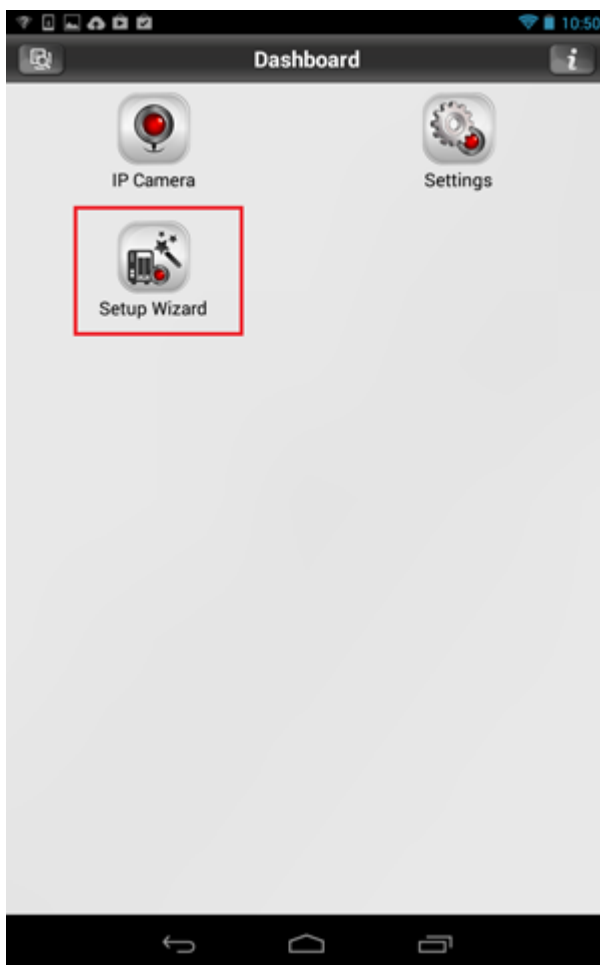
Overview

The Vcam mobile app can turn your mobile device into a network camera. With the Vcam mobile app, you can record any moment around you to your VioStor NVR. The Vcam solution provides a great way to deploy a home surveillance system without purchasing expensive IP cameras.

Starting Vcam

Please make sure Vcam is installed on your mobile device. You can install the QNAP mobile app “Vcam” from Google Play or the Apple App Store.

Please click “Setup Wizard” to enter the Vcam quick setup wizard.



Please enter the "Port number", "User Name" and "Password". Then click "Next" to go to the next page. The port number must be within range of "1025 ~ 65535".

The screenshot shows a mobile application interface titled "Setup Wizard - 1/2". It features three input fields for configuration:

Field	Value
Port Number:	8080
User Name:	admin
Password:	*****

Below the input fields is a numeric keypad with a blue "Next" button. The keypad includes standard numeric keys (0-9), a backspace key, and symbols for "-", "+", ".", "*", "/", ",", "(", ")", "=", "*", "0", and "#. The "Next" button is highlighted in blue.

You can configure the Connectivity and Video Streaming here. You can choose "WiFi only" or "3G and WiFi". We recommend that you choose "WiFi only" here. Vcam will use only mobile devices that have WiFi connectivity.


After you finish configuration, please click "Start" to Vcam.

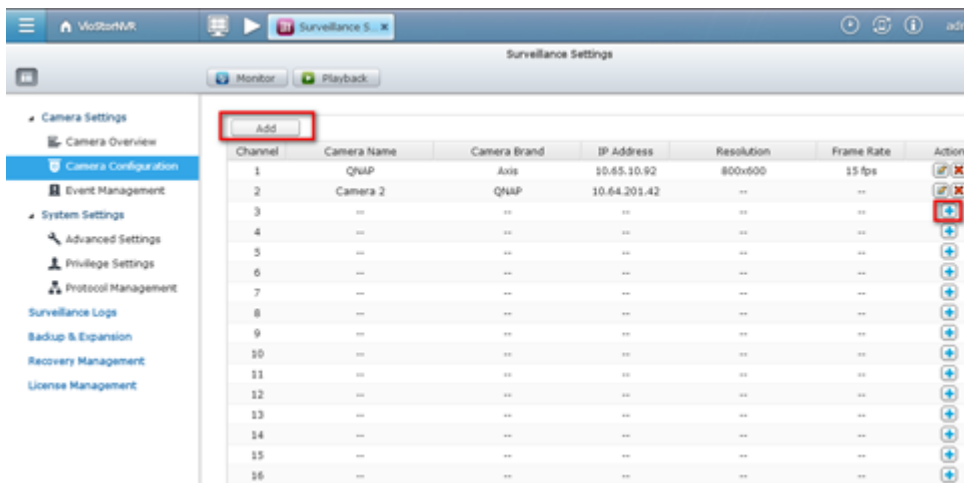


Press the Blue Button to enable recording. If the button turns red then it is ready to record.



Please go to “Surveillance Settings” > “Camera Settings” > “Camera Configuration” >

“Add” or click the “” to add the Vcam camera.



Please uncheck the option “Search camera(s) automatically” and click “Next”.

Add

Add a camera

This wizard guides you through the following settings:

- Camera Configuration
- Video Settings
- Schedule Settings

Search camera(s) automatically

Step 1/6

Next

C

Please enter the camera configurations as followed, then click test to check the connection between the camera and Surveillance Station.


- **Camera brand** : QNAP
- **Camera model** : QNAP VCAM
- **Camera Name** : You can set the camera as you want.
- **IP Address** : Please set the IP Address of your mobile device. You can check the IP Address in the upper-right corner (check the picture below). If your mobile device does not get a IP Address, please check your network environment again.
- **Port** : Please configure the Port number you set for Vcam.
- **User Name** : Please configure the user name you set for Vcam.
- **Password** : Please configure the password you set for Vcam.



Add

Camera Configuration

Channel:	Channel3
Camera Brand:	QNAP
Camera Model:	QNAP VCAM
Camera Name:	Camera 3
IP Address:	10.64.201.42
Port:	8080
WAN IP Address:	
Port:	8080
User Name:	admin
Password:	*****
<input checked="" type="checkbox"/> Enable recording on this camera	



Step 2/6 Back Next C

If connection test passes, you can click "Next" to configure the Video Settings. Please configure the Video Compression settings here and click "Next" to configure the recording schedule.

Add

Video Settings

Video Compression:	Motion JPEG
Resolution:	--
Frame Rate:	--
Quality:	--
<input type="checkbox"/> Enable audio recording on this camera	
<input checked="" type="checkbox"/> Enable manual recording	
<input type="checkbox"/> Minimum number of days recording files are kept <input type="text" value="1"/> day(s)	
<input type="checkbox"/> Enable auto snapshot	

Step 3/6 Back Next C

On this page, you will see the "Schedule Settings." On the table, 0~23 represents the time period. For example, 0 means 00:00~01:00, 1 means 01:00~02:00. You can set a continuous recording in any period that you want.

Add

Schedule Settings

Enable schedule recording

Active: Inactive:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Mon	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Tues	Active	Active	Active	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Wed	Active	Active	Active	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Thurs	Active	Active	Active	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Fri	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Sat	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active

Step 4/6 Back Next Cancel

Then you will be able to confirm the settings on the next page.

Add

Confirm Settings

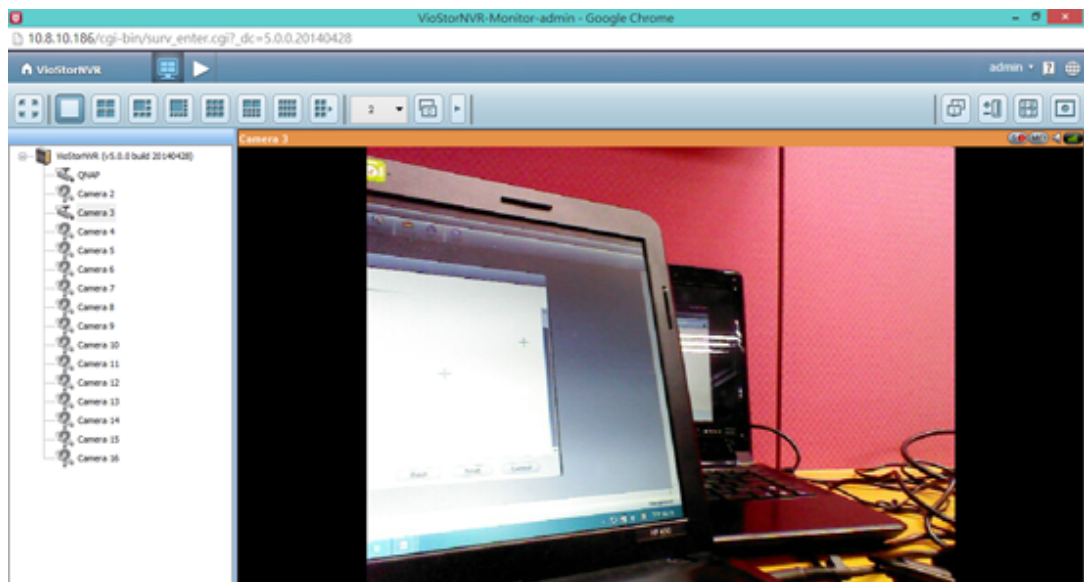
Channel:	Channel 2
Camera Brand:	QNAP
Camera Model:	QNAP VCAM
Camera Name:	Camera 2
IP Address/Port:	10.64.201.42/8080
Recording:	Enabled
Video Compression:	Motion JPEG
Resolution:	--
Frame Rate:	--
Quality:	--
Enable manual recording:	Enabled
Enable auto snapshot:	Disabled

Step 5/6 Back Next Cancel

After you have added the network cameras to the NVR, you can check the monitoring screen in. You can observe that the NVR IP Address is shown on the upper-left side. If the NVR IP address is not shown, this means that the connection has not been successfully established.



Please go to the “Monitor” page. Then you can start monitoring & playback the recordings Surveillance Station.

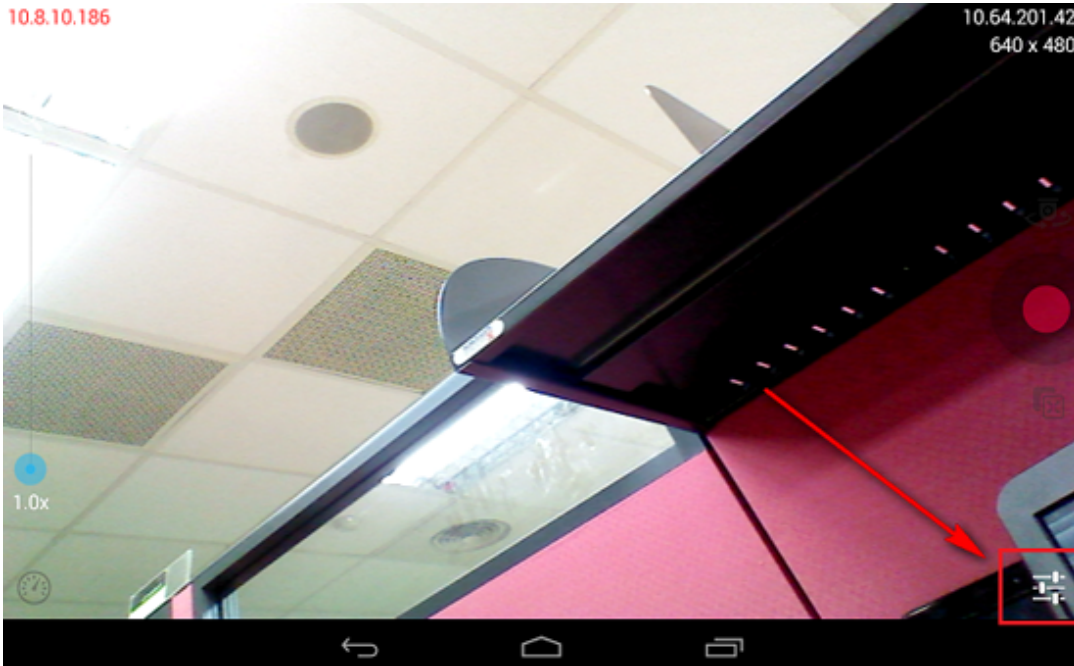







Camera function:





You can click the button shown in the below picture to adjust the camera function that your mobile device provides. Please note that some functions may not be supported by your mobile device.

10.8.10.186

10.64.201.42
640 x 480



Icon	Function	Description
	Anti-banding	Adjust the frequency of display panel.
	Color Effect	Adjust the color effect.
	Flash Mode	Enable/Disable flash.
	Focus Mode	Switch focus mode.
	Scene Mode	Switch scene

	White Balance	Switch white balance.
	Exposure Compensation	Adjust exposure compensation.
	Screen Rotation	Rotate screen.
	Black Screen	Turn on/off black screen to save power.

Limitation:

1. Vcam is only supported by QVR5.0 or on newer firmware versions.
2. It is possible that power will be consumed faster than charging when the video stream is set to compression H.264 and resolution 1280*720.
3. Due to hardware & network limitations, the real "Frame rate" and "Bit rate" may not reach the number you set on your mobile device.
4. Both the mobile device and NVR must be on the same LAN.
5. Video Compression H.264 is currently not supported in the iOS version.
6. Video Compression H.264 may not work on some mobile devices due to hardware limitations.
The following are the mobile devices that have passed our lab testing:

Vendor	Product	Android version	Test result
Acer	Iconia B1-A71	4.1.2	Pass
LG	Nexus 4	4.2.2	Pass
Samsung	Galaxy Nexus	4.2.2	Pass
Samsung	Galaxy Note 10.1	4.1.1	Pass
Asus	Padfone infinity	4.1.2	Pass

T24.[Tutorial] How to Add Recording Channels?



Based on the model, the VioStor NVR comes with a different number of base channels. To add extra recording channels, please contact authorized distributors for detail. Or, you can contact QNAP Security (<http://www.qnapsecurity.com/SalesInquiry>) for information on authorized distributors.

How to activate licenses

Please select the "Install License" button to begin the process of activating a license. If your VioStor NVR is connected to the Internet, please select "Online activation". If not, please select "Offline activation".

Online License Activation

Step 1: If your VioStor NVR is connected to the Internet, please select "Online Activation".

Add a License

Activate the License

Online Activation
Activate the license online. Make sure the system is connected to the Internet.

Offline Activation
Activate the license offline.

Step 1/4 Next Cancel

Step 2: Enter your Product Authorization Key (PAK) code to activate the license.

Add a License

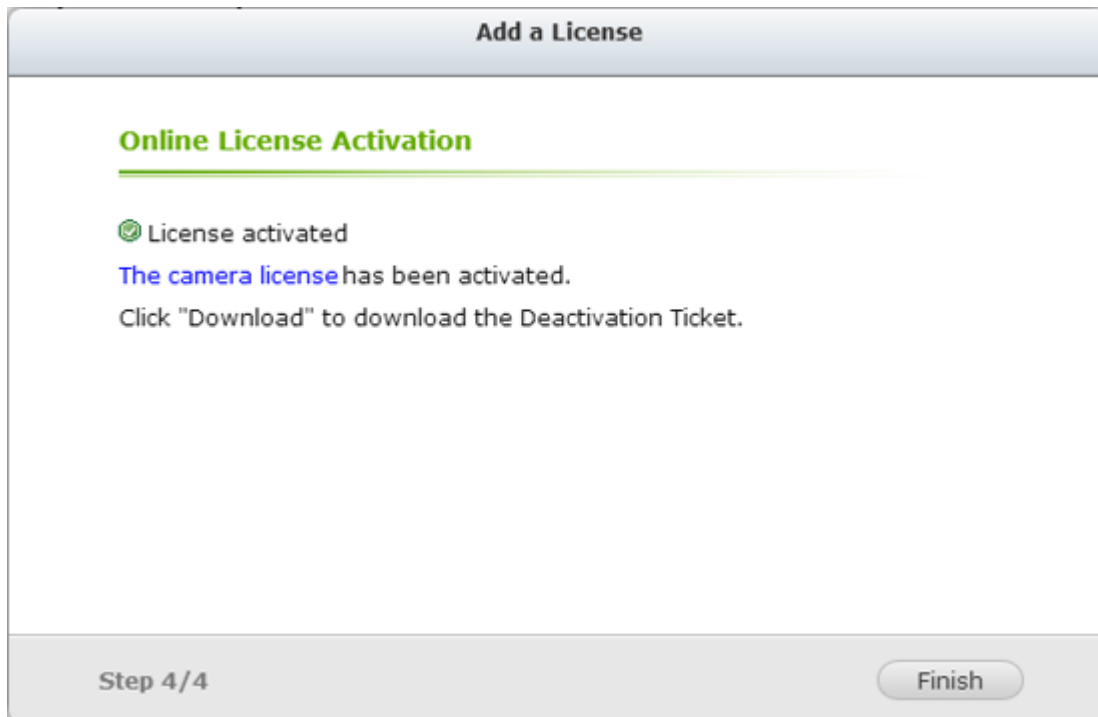
Online License Activation

Enter the Product Authorization Key (PAK) code to activate.

Note: Make sure the system is connected to the Internet.

Step 3/4 Back Next Cancel

Step 3: Your license has now been activated. Please click [FINISH] button to close the window.



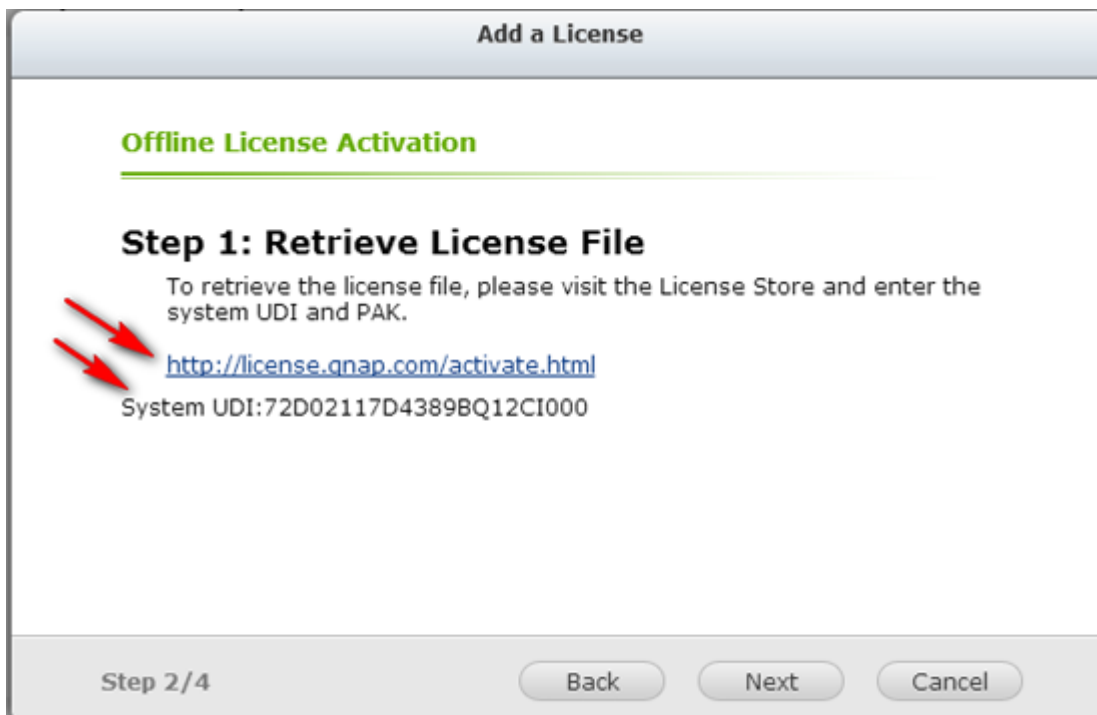
Step 4: This additional camera license will be displayed in the license management list after the license activation.

Offline License Activation

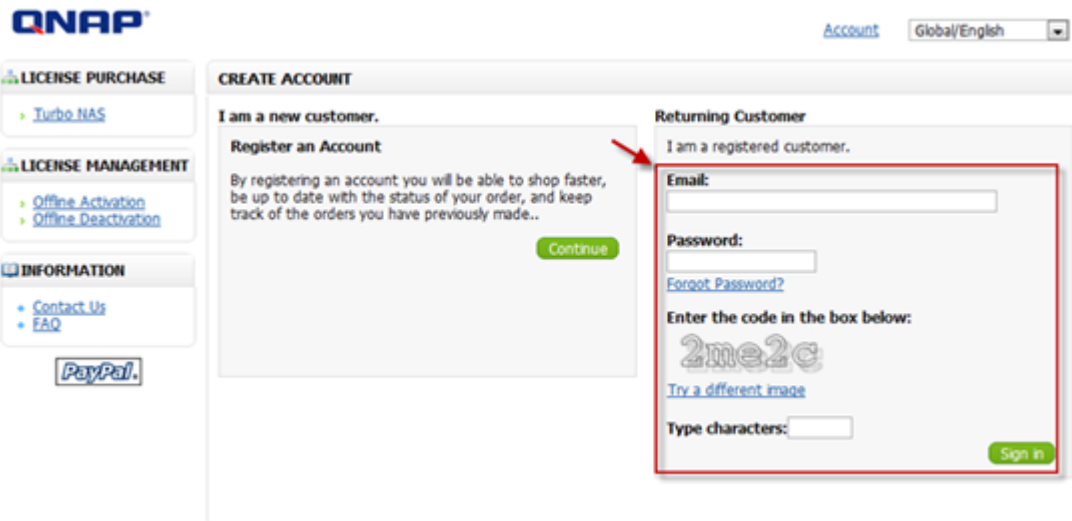
Step 1: If the VioStor NVR is behind a firewall or does not have an Internet connection, please select "Offline Activation".



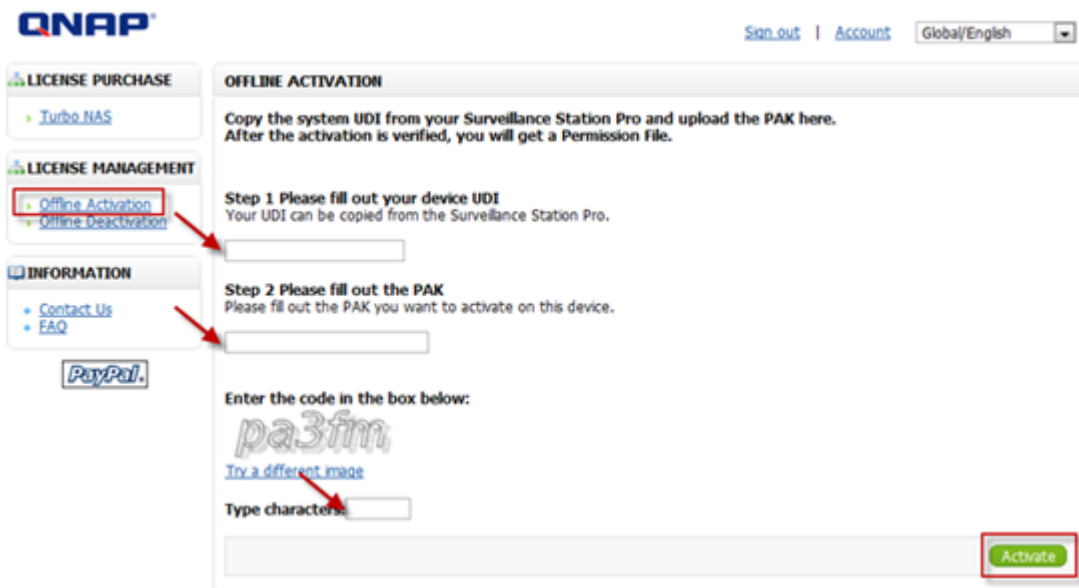
Step 2: Please copy the system UDI and go to the License Store for offline license activation.



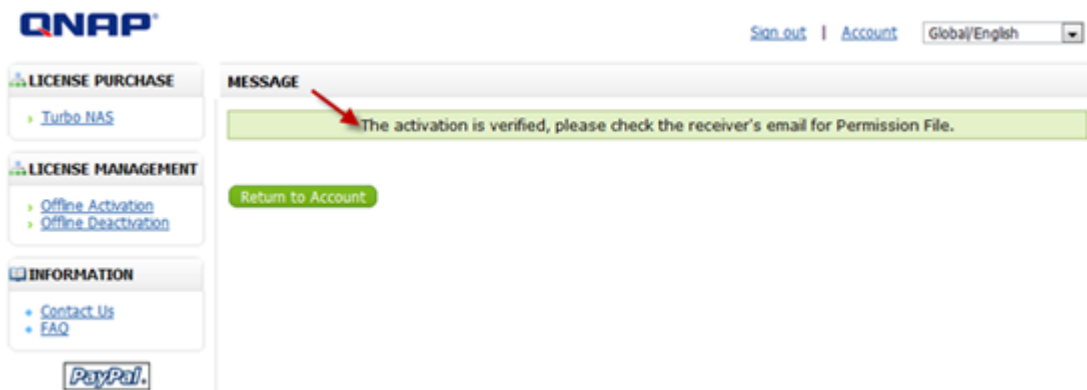
Step 3: Please login to the License Store with your registered account.



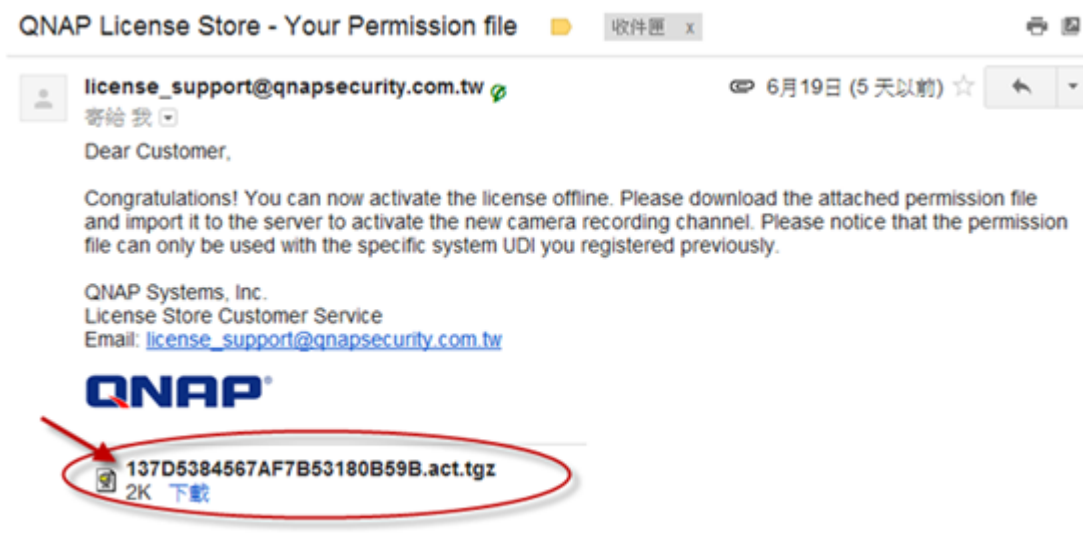
Step 4: On the Offline Activation page, please fill out your UDI and PAK information, and then click the [Activate] button.



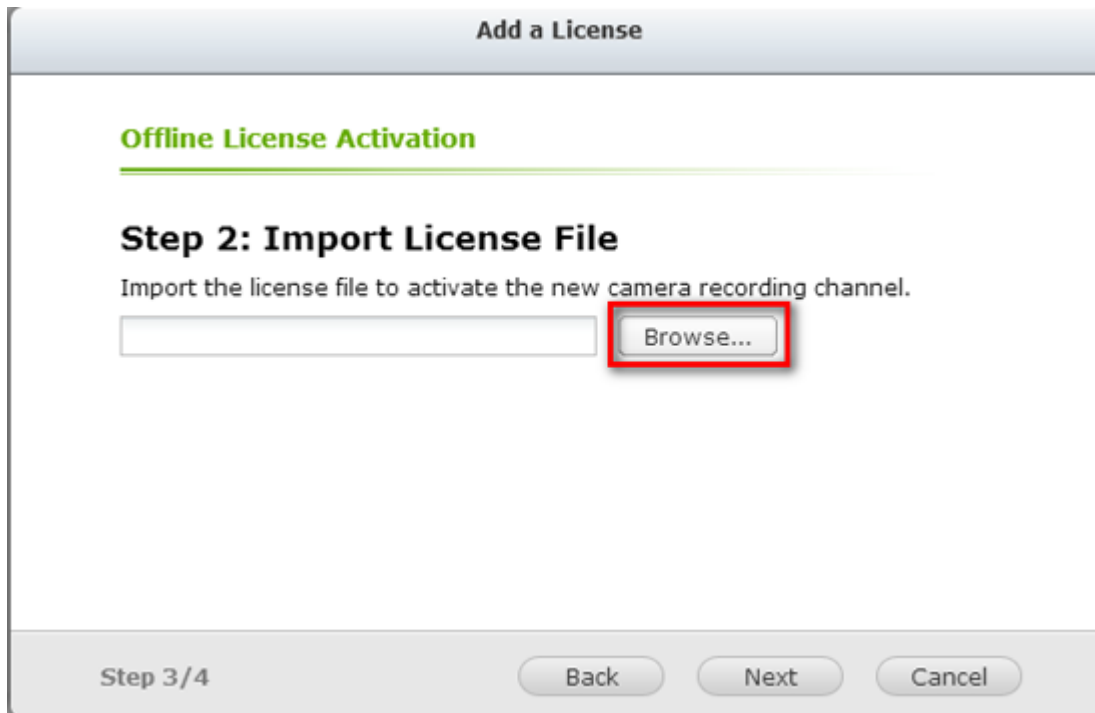
Step 5: You will receive an email with an attached Permission File after your offline activation is verified.



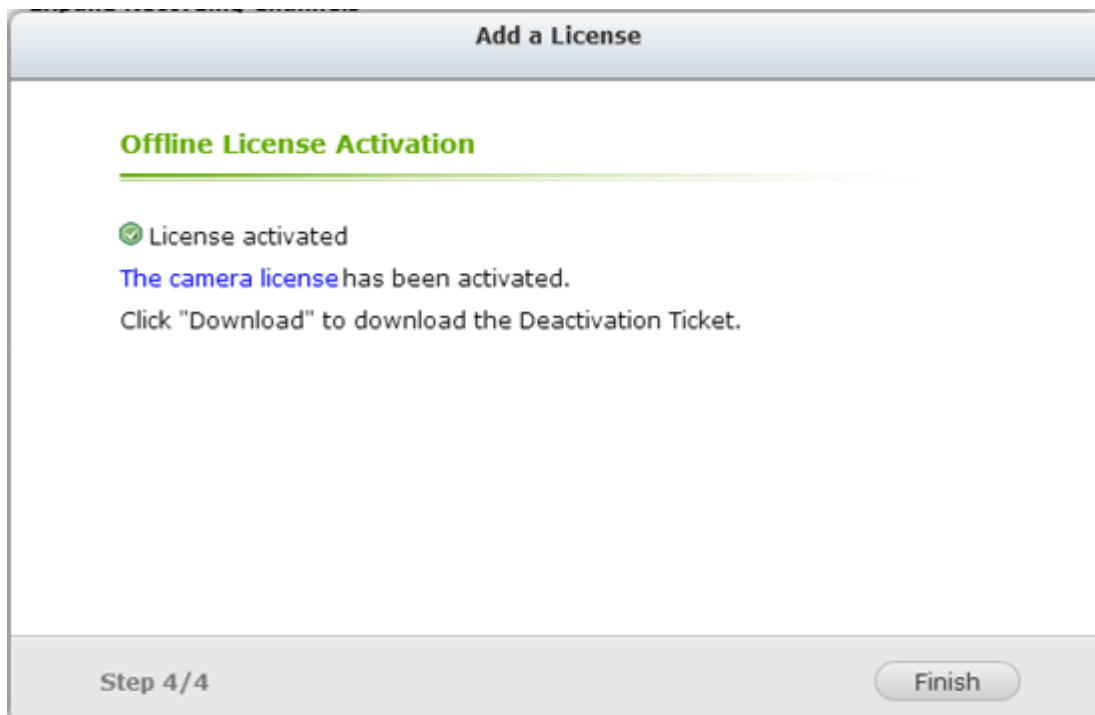
Step 6: Please check your email and download the Permission File. This file can only be used on the VioStor NVR with the UDI you specified. Do not decompress the permission file.



Step 7: Please go back to the offline activation page on your VioStor NVR. You will need to import the permission file to activate the license.



Step 8: Your license has now been activated.



T25.[Tutorial] How to update the NVR BIOS?

This document has two parts and will instruct you how to update the BIOS of a NVR in local display mode.

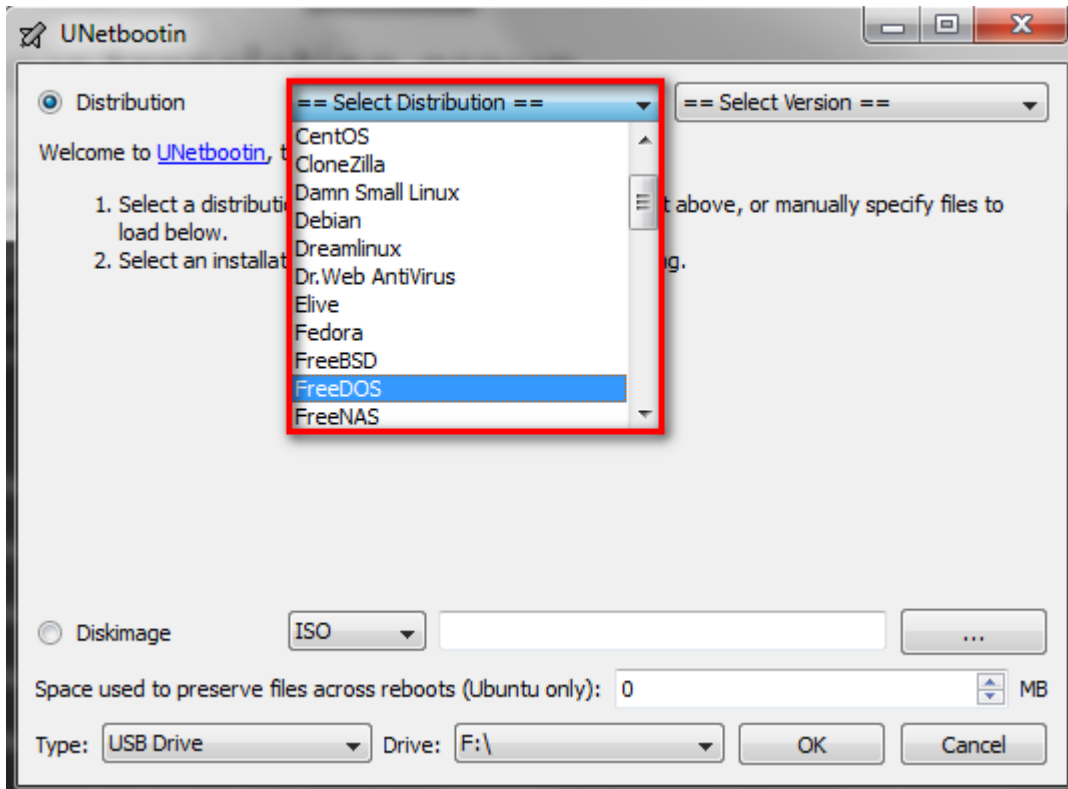
Part A: Making a bootable USB drive

Part B: Entering DOS mode with the USB drive

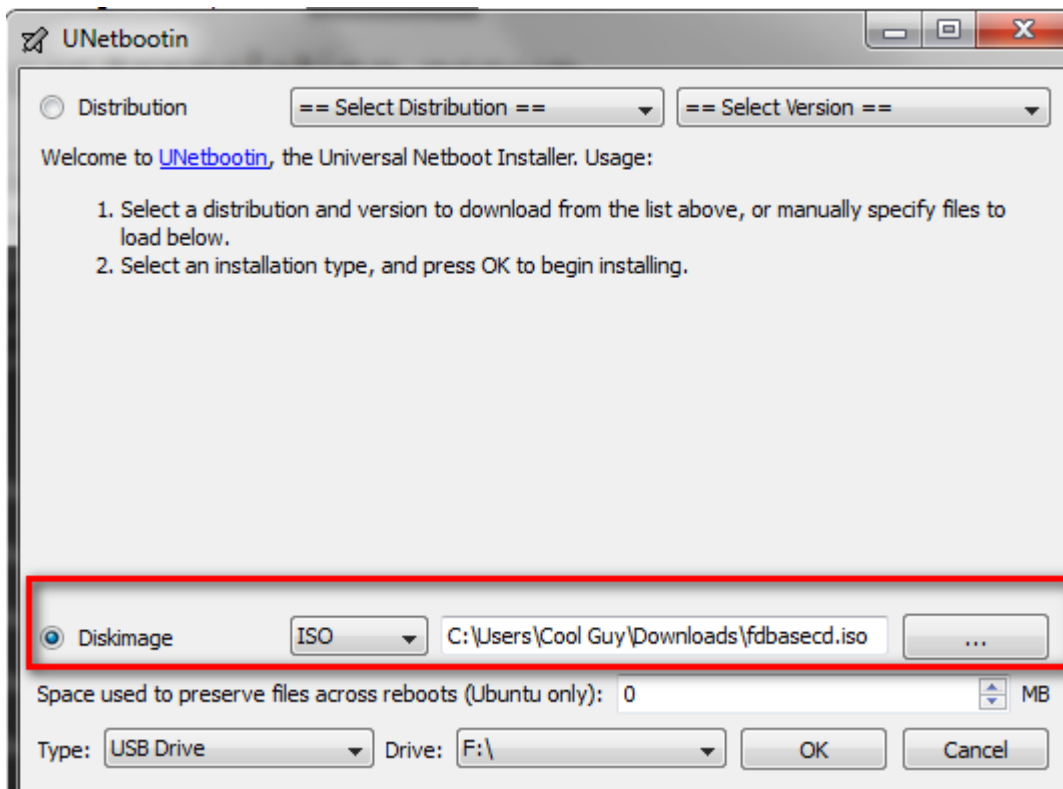
Requirement:

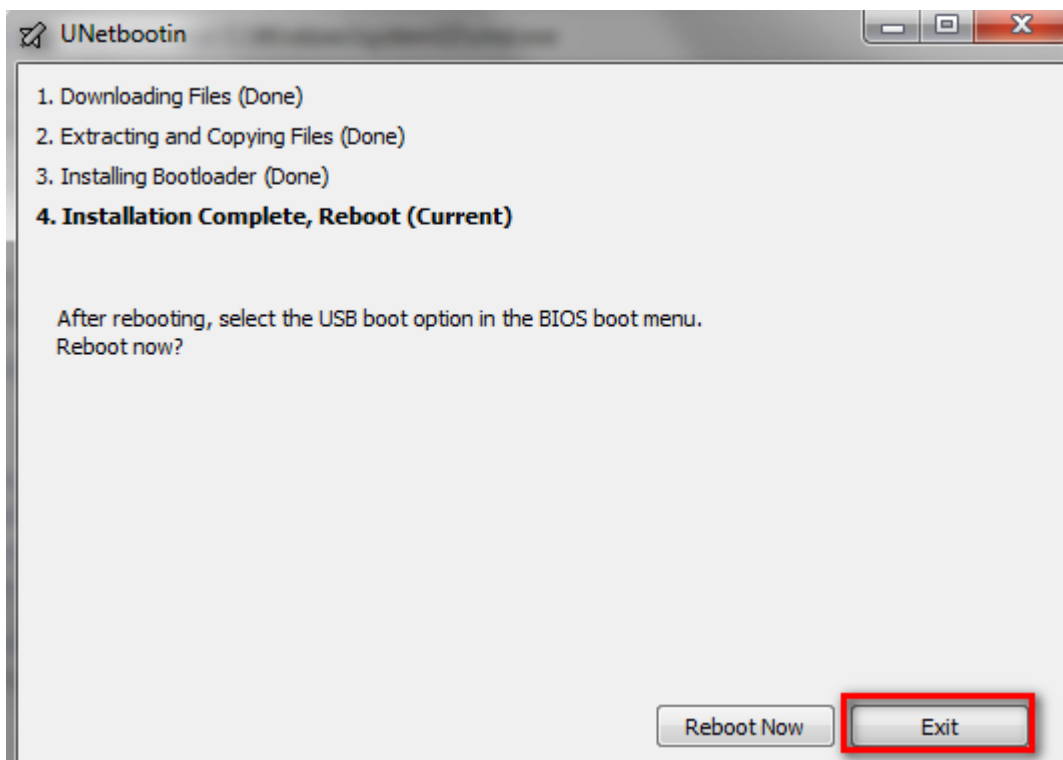
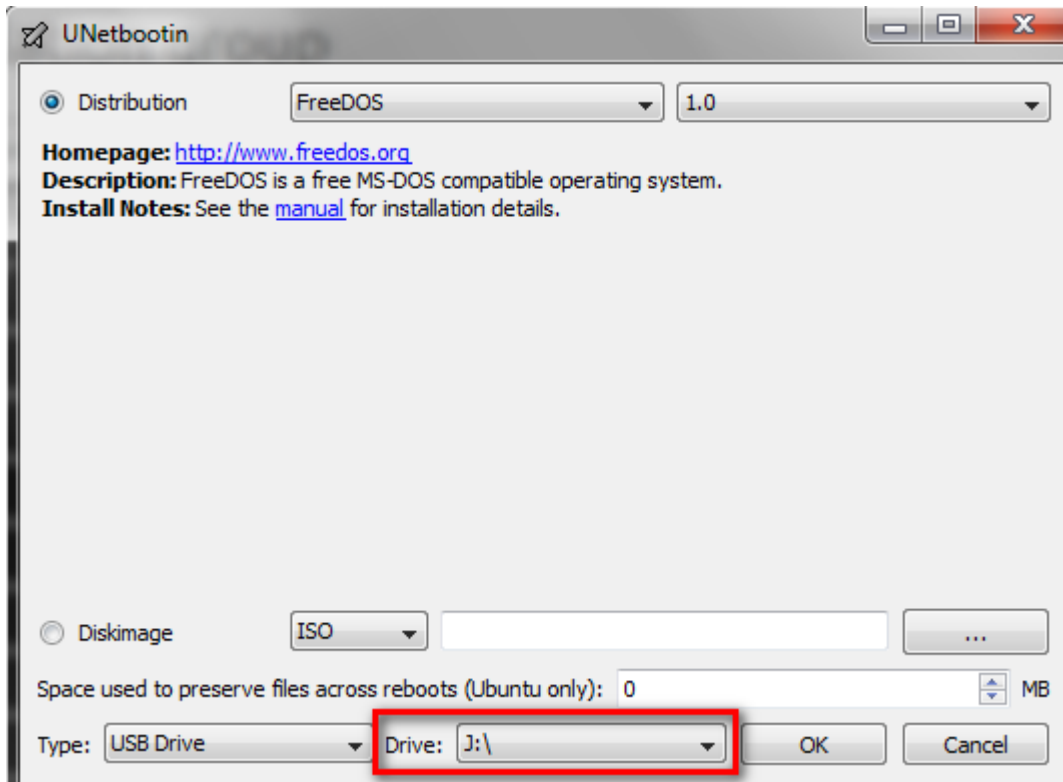
1. USB drive *1
 2. Windows-based computer
 3. "UNetbootin" software for making a bootable USB drive
(download from <http://unetbootin.sourceforge.net/>)
 4. BIOS upgrade package
 5. NVR *1
 6. Keyboard *1
 7. Monitor *1
-

Part A: Making a bootable USB drive



Please note: If the next step fails to download FreeDOS, please import the ISO file directly. You can download the FreeDOS ISO file from here: <http://www.freedos.org/download/>

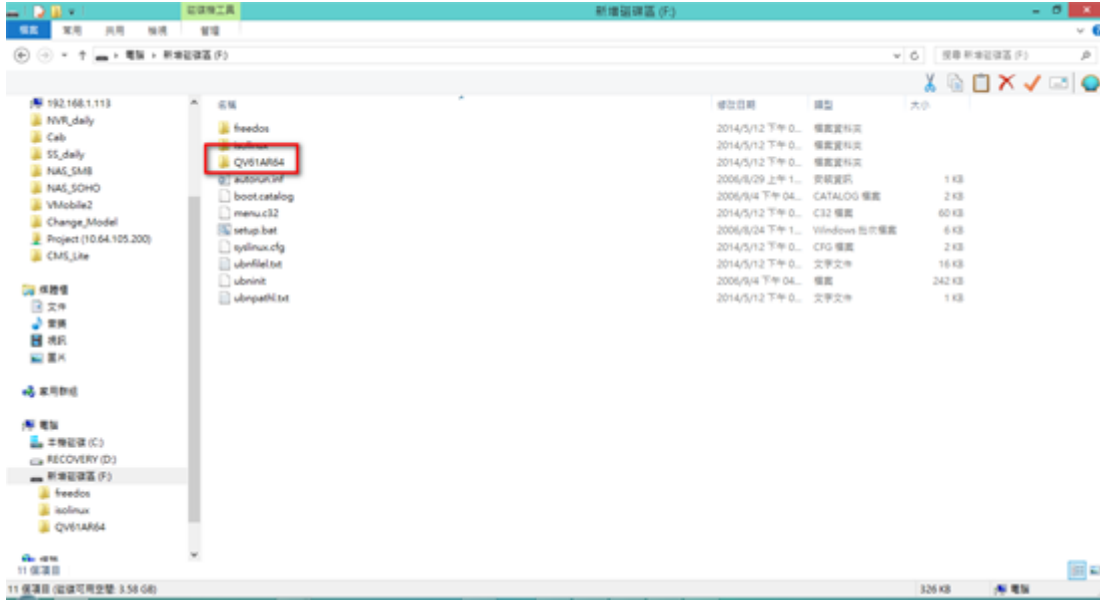




1. Please plug the USB drive into the computer, and then run "UNetbootin".
2. Please select the "FreeDos" mode
3. Please select the USB drive.
4. Please click "OK".

5. "UNetbootin" will now create a bootable USB drive. Once this process is completed, please select "Exit".

Part B: Entering DOS mode with the USB drive



Connect the Keyboard and monitor to NVR

Total view



Please select boot device:

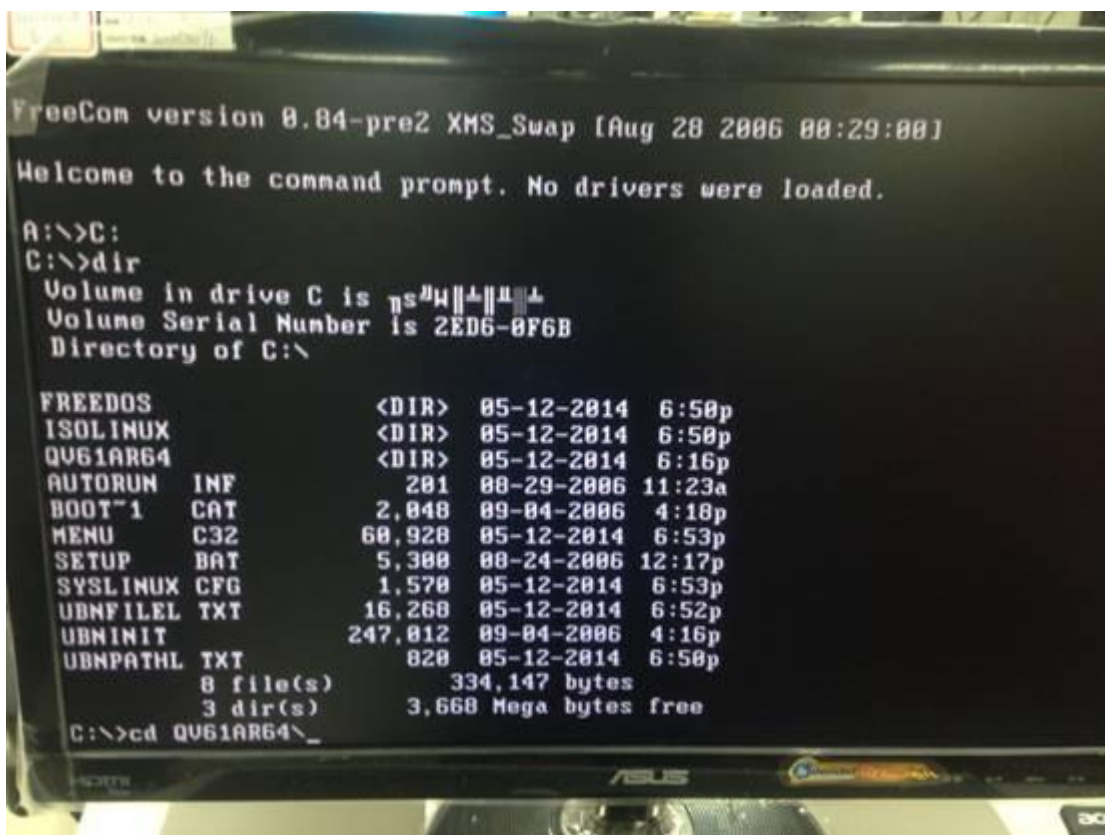
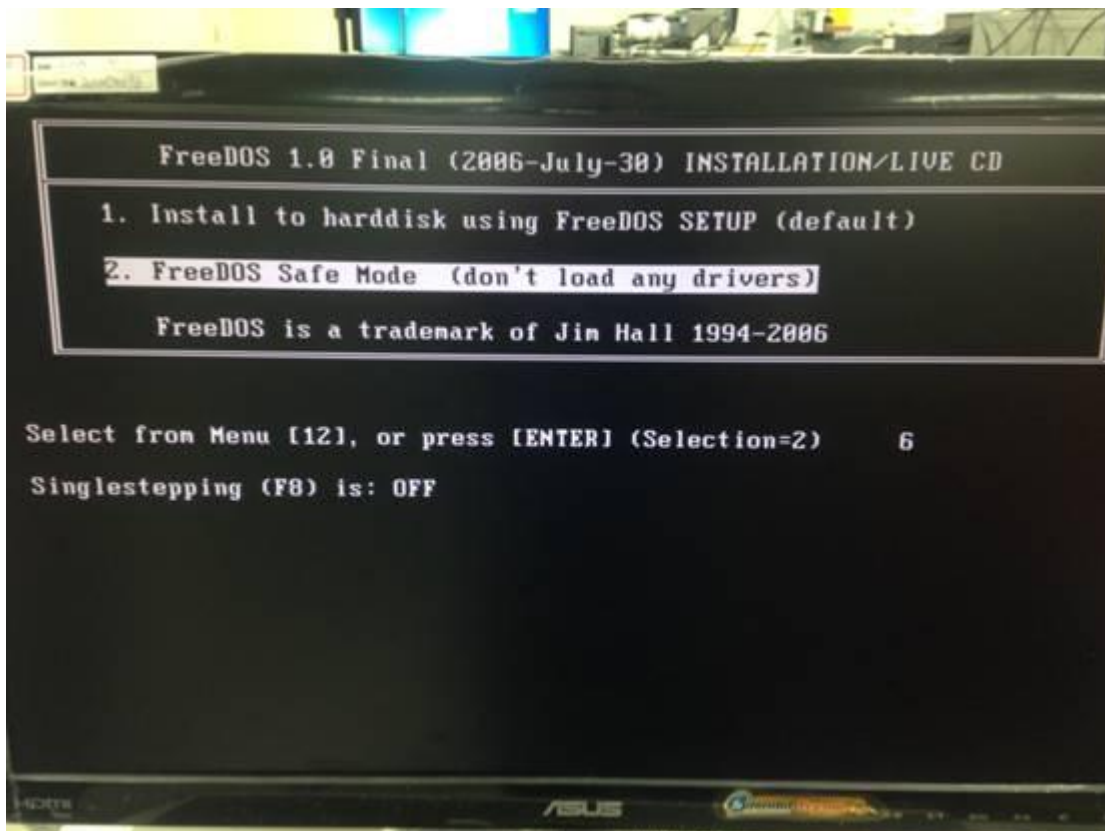
~~USB DISK MODULE PMAP~~
KingstonDT 101 II 1.00
UEFI: KingstonDT 101 II 1.00
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults

UNetbootin

Default
fdos
freedos
1
win98
reactos
2
winpe
win2000
nt4
fdoshd
mentest

Press [Tab] to edit options



```

C:\QV61AR64>dir
Volume in drive C is  $\pi s^{\mu} \parallel \perp \parallel \parallel \perp$ 
Volume Serial Number is 2ED6-0F6B

Directory of C:\QV61AR64

.                <DIR>      05-12-2014   6:54p
..               <DIR>      05-12-2014   6:54p
FPARTS          TXT           7,696      07-06-2012   3:32a
FPT             EXE          647,292    07-06-2012   3:37a
QV61AR64        BAT              71         02-13-2014   1:52p
QV61AR64        BIN          4,194,304  02-13-2014   1:47p
RELEASES~1      TXT          10,238     02-13-2014   1:56p
                5 file(s)      4,859,601 bytes
                2 dir(s)      3,668 Mega bytes free
C:\QV61AR64>QV61AR64.Bat

```

```

- Verifying Flash [0x400000] 4096KB of 4096KB - 100% complete.
RESULT: The data is identical.

FPT Operation Passed
C:\QV61AR64>fpt -gbe -f temp.eep

Intel (R) Flash Programming Tool. Version: 8.1.0.1265
Copyright (c) 2007 - 2012, Intel Corporation. All rights reserved.

Platform: Intel(R) H61 Express Chipset
Reading HSFSTS register... Flash Descriptor: Valid

--- Flash Devices Found ---
SST25VF032B   ID:0xBF254A   Size: 4096KB (32768Kb)

PDR Region does not exist.

- Reading Flash [0x003000] 8KB of 8KB - 100% complete.
- Erasing Flash Block [0x003000] - 100% complete.
- Programming Flash [0x003000] 8KB of 8KB - 100% complete.
- Verifying Flash [0x003000] 8KB of 8KB - 100% complete.
RESULT: The data is identical.

FPT Operation Passed
C:\QV61AR64>_

```



1. Copy the BIOS update package to the USB drive.
2. Remove the USB drive from the computer and plug it into the NVR.
3. Please connect a keyboard and monitor to the NVR.
4. Power on the NVR.
5. After the NVR boots up, press "F7" on the keyboard to enter the BIOS. Please select the boot device as your USB drive and press Enter.
6. Please select "win98".
7. Please select the option "FreeDOS Safe Mode".
8. Switch the directory to "C:" by using command "C:". (Please refer to the picture in step 9)
9. Enter the folder that the BIOS update package is located in by using the command "cd folder name" (for example if the folder name is "QV61AR64" you would enter: "cd QV61AR64").
10. Execute the .bat file entering the filename. (for example: "QV61AR64.BAT")
11. After a short period of time, the BIOS will be updated.
12. After you have finished, please follow these steps:
 - Power off the NVR
 - Disconnect the power cord
 - Wait for 10 seconds
 - Reconnect in the power cord
 - Remove the USB drive
 - Power on the NVR
 - Check if the BIOS version is updated or not.
 - If the BIOS version has been updated (as in the picture below) then you have successfully updated the BIOS. If not, then please contact QNAP for further assistance.

2015/07/22

T26.[Tutorial] How to Enable Smart Recording to Maximize Storage Efficiency and Boost Alarm Recording?



Smart Recording is a powerful digital surveillance feature that provides high-quality videos during unexpected events, and standard-quality videos for regular happenings. This can be extremely beneficial in providing detailed footage during potentially-important events while conserving storage space during routine/normal activities in 24/7 recording.


As of the publication of this document, the cameras that have been tested for Smart Recording are:

ACTi	B97, E34, E54, E84
AXIS	M1011, M1054, M1103, M1104, M1113, M1114, M3006, M3011, M3014, M3026, M3113, M3114, M3204, M5013, M5014, M5014-V, M7010, M7014, P1204, P1214, P1214-E, P1353, P1354, P1355, P1357, P3301, P3304, P3344, P3346, P3353, P3354, P3363, P3364, P3364-LV/-LVE, P3367, P3384, P5414, P5512, P5522, P5532, P5534, P5544, P7210, P7214, P7224, P8513, P8514, Q1602, Q1604, Q1755, Q1765, Q1910, Q1921, Q1922, Q6032, Q6034, Q6035, Q6042, Q6044, Q6045, Q7401, Q7411
Sony	SNC-CX600, SNC-CX600W, SNC-EB600, SNC-EB600B, SNC-EB630, SNC-EB630B, SNC-EM600, SNC-EM601, SNC-EM602R, SNC-EM630, SNC-EM631, SNC-EM632R, SNC-VB600, SNC-VB600B, SNC-VB630, SNC-VB635, SNC-VM600, SNC-VM601, SNC-VM601B, SNC-VM630, SNC-VM631, SNC-VM632R, SNC-WR600, SNC-WR602, SNC-WR630, SNC-XM632
VIVOTEK	CC8130, FD8131, FD8131V, FD8134, FD8136, FD8137H, FD8137HV, FD8151V, FD8163, FD8164, FD8164V, FD8166, FD8355EHV, FD8363, FD8371EV, FE8173, FE8174, IP8131W, IP8132, IP8133, IP8152-F4, IP8335, IP8355EH, IP8364-C, IP8371-E, PZ81X1, SD81X1, SD8314E, SD8316E, SD8324E, SD8326E, SD8363E

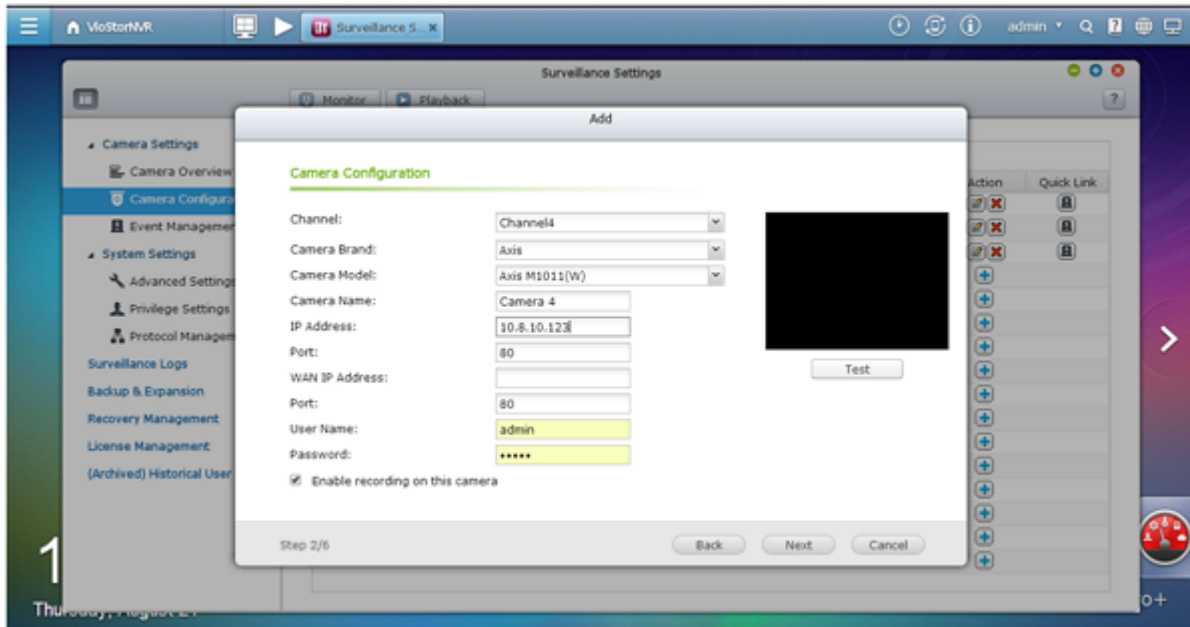
To see the latest list of compatible cameras, please visit our compatibility list.

To enable Smart Recording, please follow the below steps:

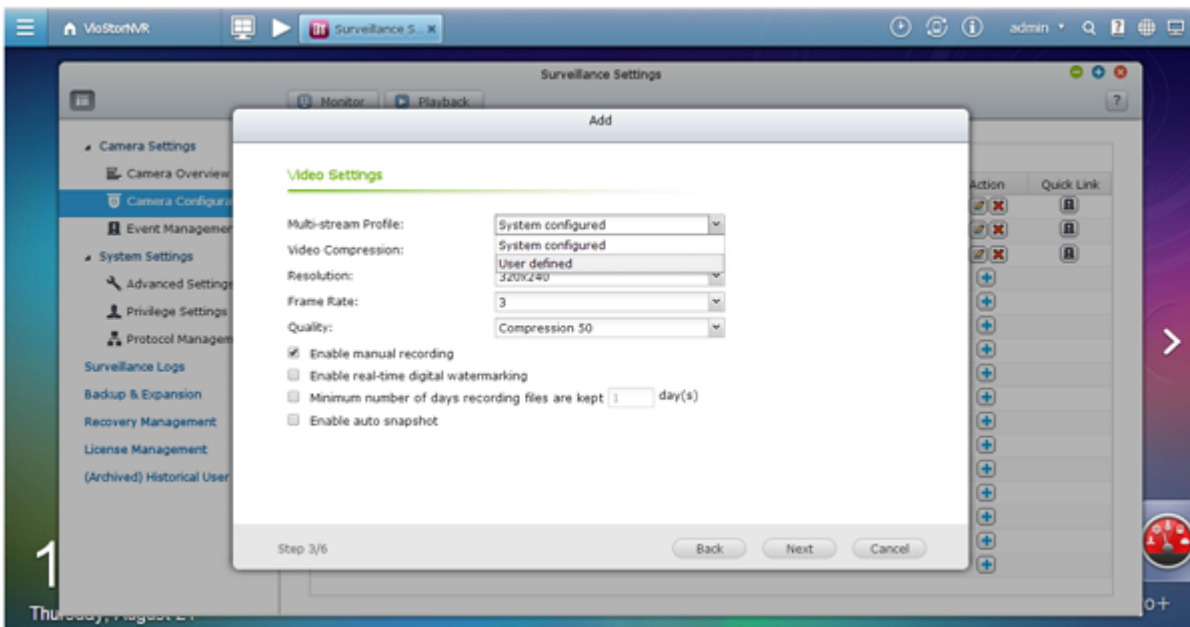
1. Access the QVR desktop  as an administrator and click “Surveillance Settings”  .
2. Go to “Camera Settings” -> “Camera Configuration”.

3. Click  to add a camera.
4. Select the camera you wish to apply these settings to.

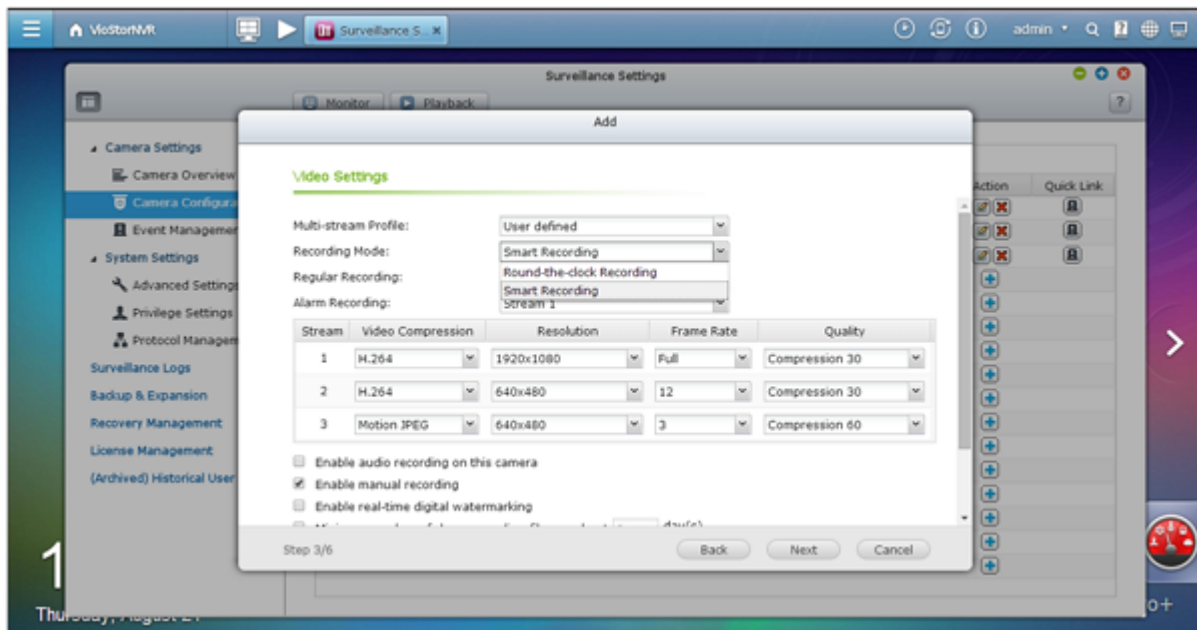
Please refer to the latest list of compatible cameras.



5. In "Multi-stream Profile", select "User defined" from the dropdown list.



6. In "Recording Mode", select "Smart Recording" from the dropdown list.



7. Adjust the settings for each stream to fit your requirements.
8. In “Regular Recording”, select one camera stream from the dropdown list.
9. Select a different camera stream from the “Alarm Recording” dropdown list.

(Please remember to enable Scheduled Recording and Alarm Recording beforehand.)

Limitations and Restrictions:

1. A camera stream can only be selected as Regular Recording or Alarm Recording.
2. The number of streams supported and streaming properties (including codec, resolution, frame rate and quality) may vary or be limited by the camera, and the same property value may not be available on different cameras. For example: if H.264 or Full HD is selected as the video compression setting for Stream 1, users may only be able to select M-JPEG or VGA for Stream 2.
3. Please refer to our camera compatibility list and occasionally check our website for updates.
4. More bandwidth is required for Smart Recording. Carefully calculate your bandwidth usage before using this feature. For example: A VIVOTEK IP8132 offers three streams. Stream 1 uses 663Kbps, Stream 2 uses 1000Kbps and Stream 3 uses 3000Kbps – leading to a total bandwidth requirement of 4663Kbps per camera. If 30 VIVOTEK IP8132 cameras are connected to a NVR for live view and Smart Recording is used, they would require a minimum of 139,890Kbps.
5. Required NVR CPU loading for smart recording is higher than it for only standard recording.

T27.[Tutorial] PC-less Network Surveillance by HD Local Display via VGA Connector

Diversified Monitoring Modes

- 1/4/6/8/9/10/12-channel display mode
- Sequential display mode

High Resolution Local Display

VioStor NVR supports widescreen VGA monitor or TV of different resolutions, up to full HD (1920 x 1080).

Convenient Control of PTZ and Speed Dome Cameras

You can adjust the PTZ cameras directly and view the preset positions of the IP cameras on the local display interface of VioStor NVR.

Digital Zoom

You can zoom in or zoom out the video image on the monitoring and playback interfaces.

On-screen Event Alert

When an event occurs, an alert icon will be shown instantly on local monitoring page. You can click the icon to view the alert details.



Video Search

VioStor NVR supports convenient video search by date and time on the local playback interface.

Local Video Playback on VGA Monitor or TV

VioStor NVR supports video playback on a VGA monitor or TV.



Quick System Setup

You can set up VioStor NVR in simple steps on the local display interface.

Intuitive Local Display Interface

All quick configurations, monitoring, and playback can be managed by the local display via a USB mouse, a USB keyboard, and a monitor connected to VioStor NVR via the VGA connector.


* For VioStor Pro series only

2015/07/22

T28.[Tutorial] How to Use E-map?



Applied Firmware Version: VioStor NVR Firmware v3.5.0 or above

The VioStor NVR's electronic map (E-map) feature is to provide graphic map information for users to overview entire CCTV layout. Enable users to upload digital maps desired, pinpoint the position of all connected IP cameras and GPI devices of a monitoring location or region to ensure efficient


management. To activate e-map function of VioStor NVR, please click  on the upper right corner of remote monitoring page. An E-map window will pop up on your screen as below.

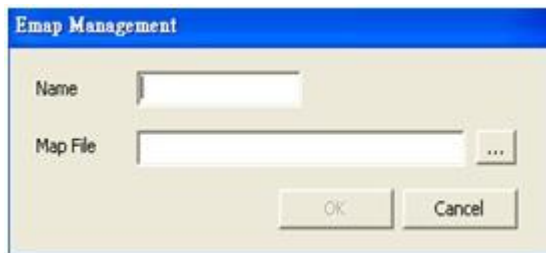


To upload a digital map of the monitoring location, follow these steps:

Click  to enter edit mode. The icon  will change to accordingly.



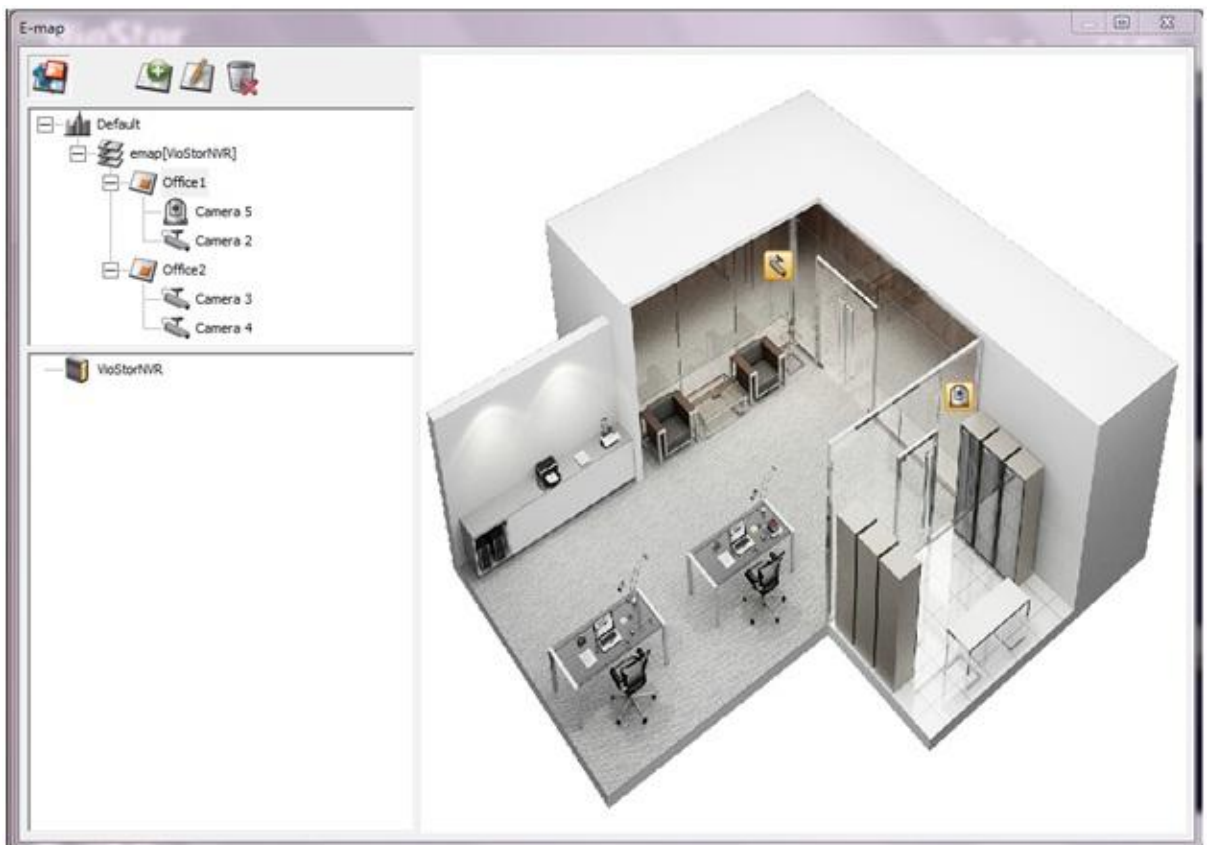
Click  to enter the name of the E-map then browse to upload the map file in JPG graphic format.



* Note: E-map only support JPG format.



Add IP camera



- First, select the E-map that you would like to edit from the map tree located on the upper left column.
-
- Secondly, highlight an IP camera from the camera tree in the column just below the map tree and drag the camera icon onto the selected E-map.
-
- Right click on the camera icon to adjust the direction of the camera in the E-map.



To enable event notification, please click  so that event alerts from the IP cameras are shown in the E-Map.

When an event is triggered, the map with that specific camera on it will pop up. The original

camera icon  will automatically change into a particular alert icon 

    according to status once trigger is sensed.



2015/07/22

T29.[Tutorial] Advanced Event Management

When it comes to a critical event having a smart and responsive event management in place is essential for video surveillance system. The VioStor NVR offers **advanced event management** function polished with intuitive AJAX Web interface. The VioStor NVR is equipped with **enterprise-level alarm-triggering mechanism** and supports various alerts and abnormal event. This feature greatly strengthens the **security, management efficiency, and compatibility** of the VioStor NVR systems.

Example:

When a moving object is detected by IP camera 1, the NVR triggers the alarm sensor connected to IP camera 1, adjusts the monitoring angle of IP camera 2 to the specified preset position, enables alarm recording on both cameras, and delivers email and SMS alert instantly to the administrator.

Advanced event management can be divided into two parts:

- **Events**
Supports more event types, e.g. motion detection, alarm input, connection failure, recording failure, and user-defined event to trigger follow-up actions.
- **Actions**
More actions can be activated when an event is triggered, such as multi-channel recording, adjusting the PTZ camera to the preset position, alarm output, built-in buzzer, email & SMS alert, and user-defined action.



Events Overview



Camera Events

- **Motion Detection**

When the camera detects the movement, the defined actions will be activated to notify related person to look over the monitoring area.



- **Alarm Input**

When the VioStor NVR receives the signal from the IP camera's alarm input connecting to other alert devices, the defined actions will be activated to notify related person to deal with this event immediately.



- **Connection Failure**

When the VioStor NVR fails to connect to the IP camera, the defined actions will be triggered to notify related person to check the status of the camera.

NVR Events



- **Recording Failure**

When the VioStor NVR fails to record due to hard drive failure or system crash, the defined actions will be triggered to notify related person to examine the VioStor NVR.

External Events



- **User-defined Event**

The VioStor NVR supports user-defined event. After applying the settings, you can enter the CGI command in the browser to trigger the event, and the defined actions will be activated.



Add Event

Event name:

Note: After entering an event name and applying the setting, you can enter the following URL in the browser to trigger the event: http://NVR_IP/cgi-bin/logical_input.cgi?name=User-defined Event Name

Note: You can enter the following URL in the browser to trigger the event: http://NVR_IP/cgi-bin/logical_input.cgi?name=User-defined Event Name

Actions Overview



Recording

When an event is triggered, the VioStor NVR starts recording one or more channels at the same time.



Camera Control

When an event occurs, the PTZ camera will be adjusted to the specified **preset position** for monitoring and recording. Also, you can use **HTTP URL** to activate further action.



Alarm Output

When an event occurs, the alarm output from the IP cameras will trigger other alert systems, such as lighting system, auto phone dialing system, security system and so on.

Note: The AXIS, Panasonic, SONY, ACTi, VIVOTEK camera models of which the alarm output is supported by the NVR will be listed.



Email

When an event occurs, the VioStor NVR sends email to notify the specified recipients.



SMS

It will send the SMS message to inform the related persons when event happened. This will allow those persons to get the information and deal with it promptly.



Buzzer

The buzzer in the VioStor NVR will sound when an event occurs.



User-defined Action


The VioStor NVR supports user-defined actions. You can enter the HTTP URL from other surveillance systems. When an alert occurs, the NVR will activate other systems, such as extinguishing system, electronic control system, air-conditioning control system.

2015/07/22

T30.[Tutorial] How to Use Auto Cruising of Preset Positions?

The auto cruising feature of the VioStor NVR is used to configure the PTZ cameras to cruise according to the preset positions and the staying time set for each preset position.

To use the auto cruising feature, follow the steps below.

1. On the monitoring page of the VioStor NVR, click  to go to the configuration page of the PTZ camera.
2. Set the preset positions on the PTZ camera.
3. Return to the monitoring page of the VioStor NVR. Right click the display of the PTZ camera. Select "Auto Cruising".



4. Click the numbers on the left to view the preset positions of the PTZ camera. When you click the button, the name of the corresponding preset position is shown on the "Preset Name"

drop down menu.

Auto Cruising

Server Name: NVR
Camera Name: Camera 6 233D

1 6
2 7
3 8
4 9
5 10

Preset Name: fan Interval: 300 sec

Add Update Delete

Preset Name	Interval

Enable auto cruising

OK Cancel

5. Add: To add a setting for auto cruising, select the "Preset Name" from the drop down menu and enter the staying time (interval, in seconds). Click "Add".

Preset Name: fan Interval: 5 sec

Add Update Delete

Preset Name	Interval
fan	5

- Update: To change a setting on the list, highlight the selection. Select another preset position from the drop down menu and/or change the staying time (interval). Click "Update".

Preset Name: Interval: sec

Preset Name	Interval
fan	5

Preset Name	Interval
ipe	100

- Delete: To delete a setting, highlight a selection on the list and click "Delete". To delete more than one setting, press and hold the Ctrl key and click the settings. Then click "Delete".

Preset Name: Interval: sec

Preset Name	Interval
fan	5
ipe	100
201	30

- After configuring the auto cruising settings, check the box "Enable auto cruising" and click "OK". The system will start auto cruising according to the settings.

Preset Name	Interval
1	180
2	180
ipe	180
fan	300
201	300

Enable auto cruising

Note:

- The default staying time (interval) of the preset position is 5 seconds. You can enter 5-999 seconds for this setting.

2. The system supports up to 10 preset positions (the first 10) configured on the PTZ cameras. You can configure up to 20 settings for auto cruising on the NVR. In other words, the NVR supports maximum 10 selections on the drop down menu and 20 settings on the auto cruising list.

2015/07/22

T31.[Tutorial] How to Use Intelligent Video Analytics (IVA) on Playback?

Intelligent video analytics (IVA)

QNAP NVR supports intelligent video analytics to allow the users to search the video files efficiently. The time and effort for video search are largely reduced.

The following features are supported for video analytics:

1. Motion detection: Detects movement of objects in the video.
2. Foreign object: Detects new object in the video.
3. Missing object: Detects missing object in the video.
4. Out of focus: Detects out of focus of the camera in the video.
5. Camera occlusion: Detects if the IP camera is obstructed.

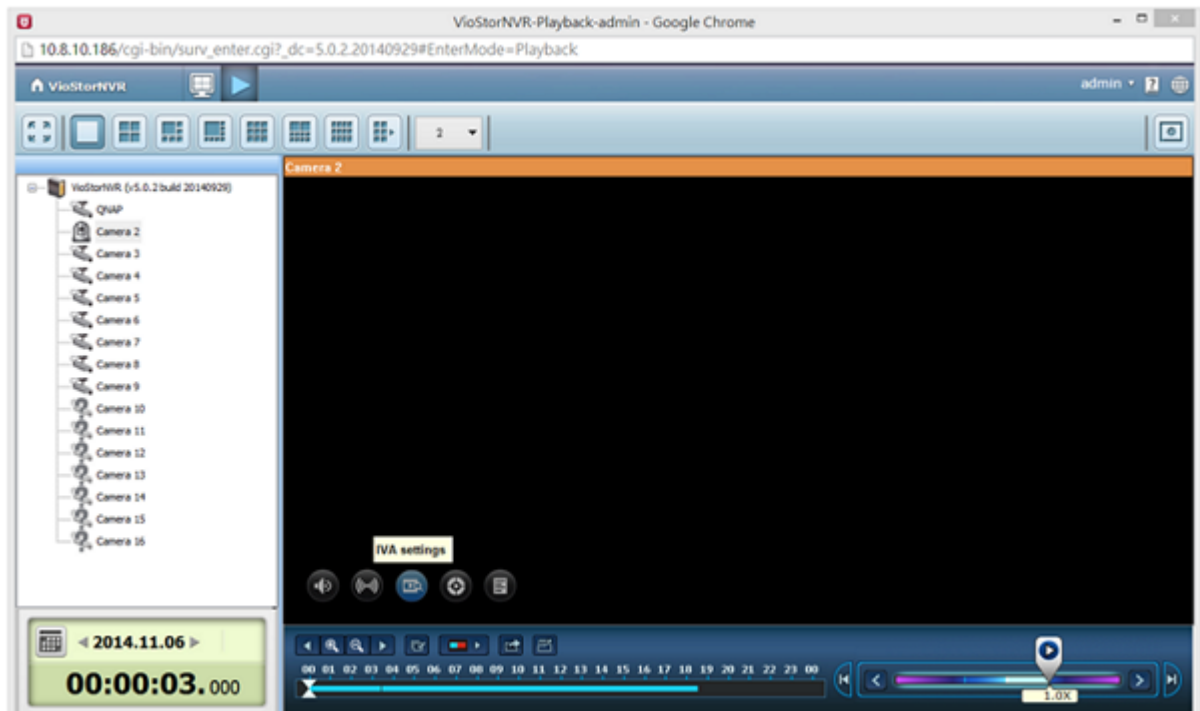
To use this function, follow the steps below:

For NVR FW v5.x

Note: The intelligent video analytics support video search on one IP camera channel only.

Other options:

1. Enter the playback page. Select one channel and click



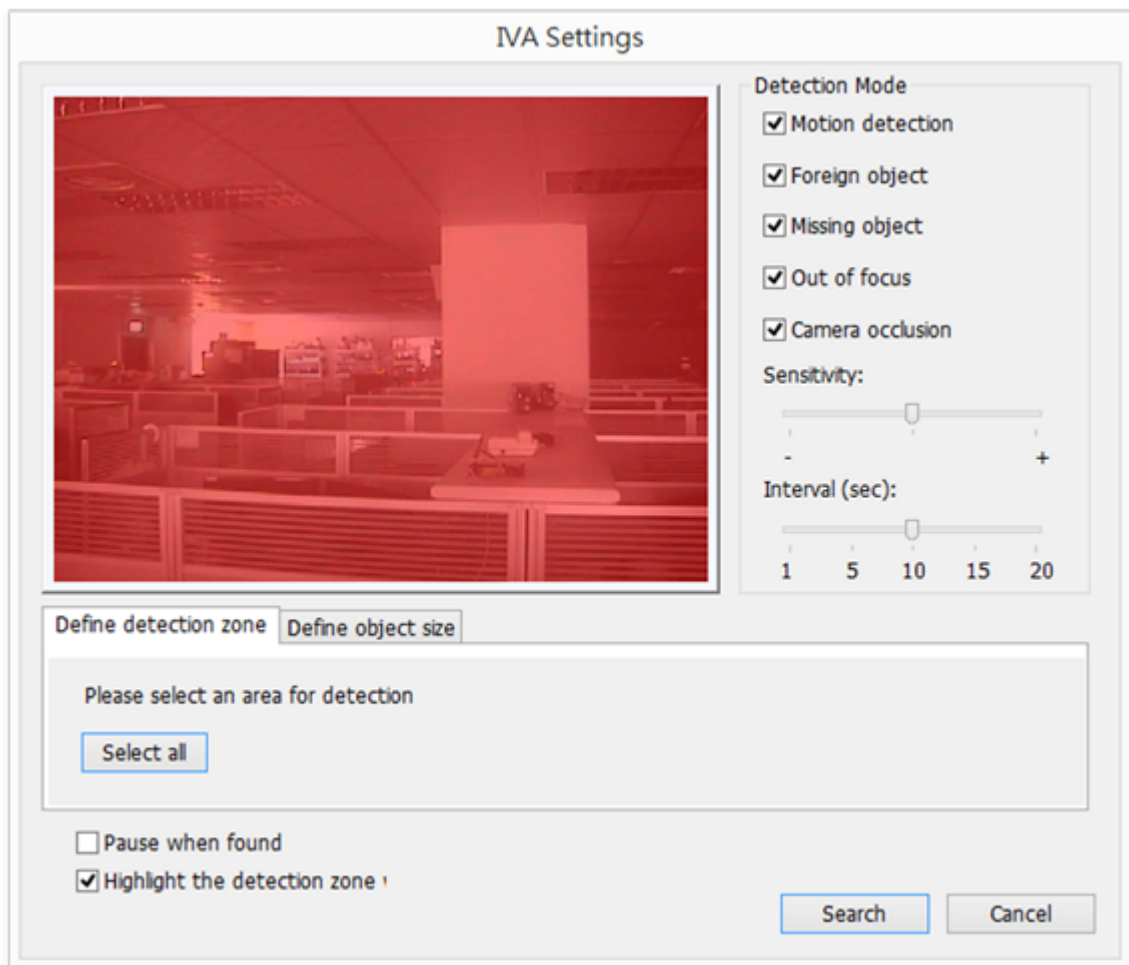
2. Select recording type, start time and end time for video search.

Please select a time range

Recording Type:	Search all recording data	
From:	2014/11/ 6	10:00
To:	2014/11/ 6	11:00

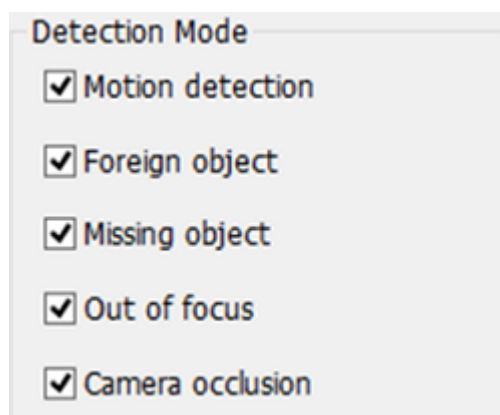
OK Cancel

3. Configure the IVA settings for video search.

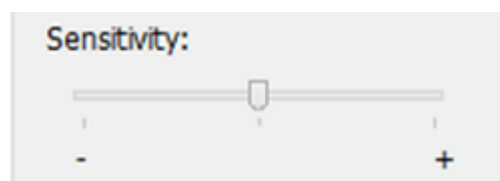


Note: The Interval slide bar appears only when 'Foreign object' or 'Missing object' is selected.

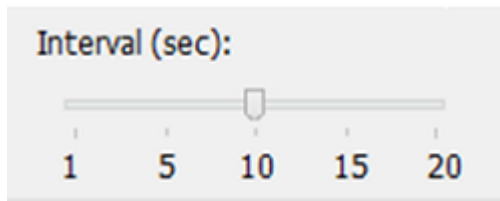
- Select the detection mode: Motion detection, Foreign object, Missing object, Out of focus, or Camera occlusion. Multiple options can be selected.



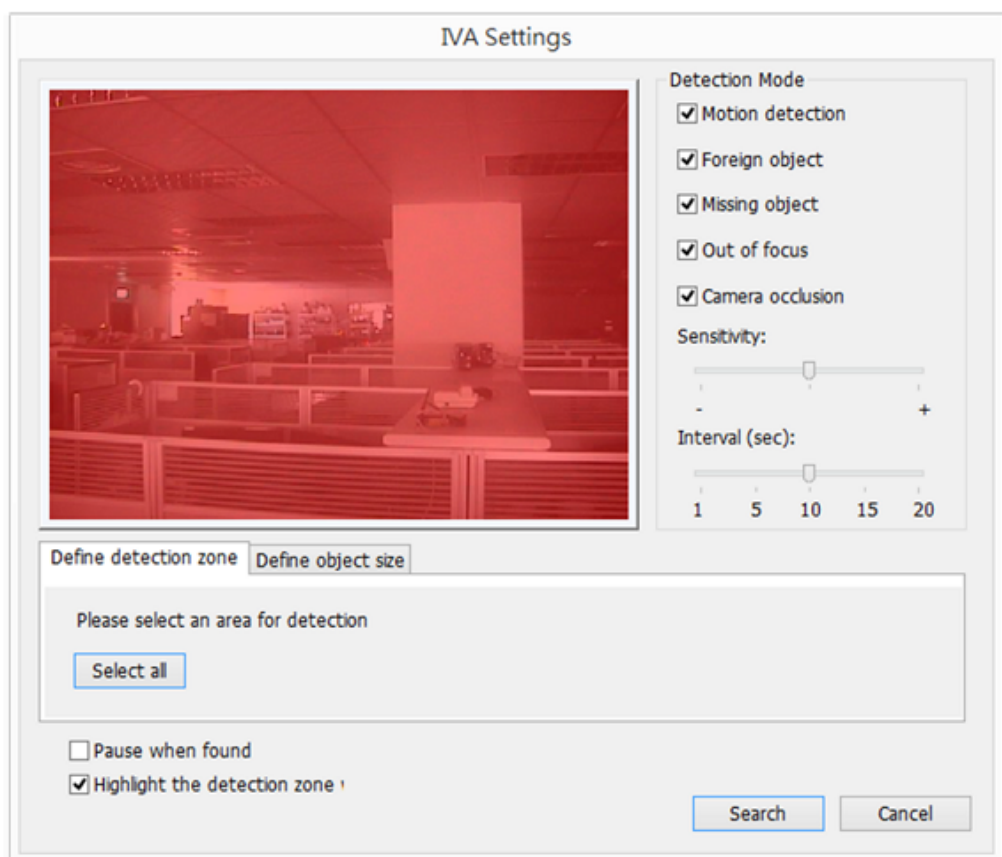
- Adjust the sensitivity for object detection.



- Adjust the time interval for detecting the foreign objects and missing objects. If a foreign object appears or a missing object disappears for a period of time which is longer than the time interval, the NVR will record the event.



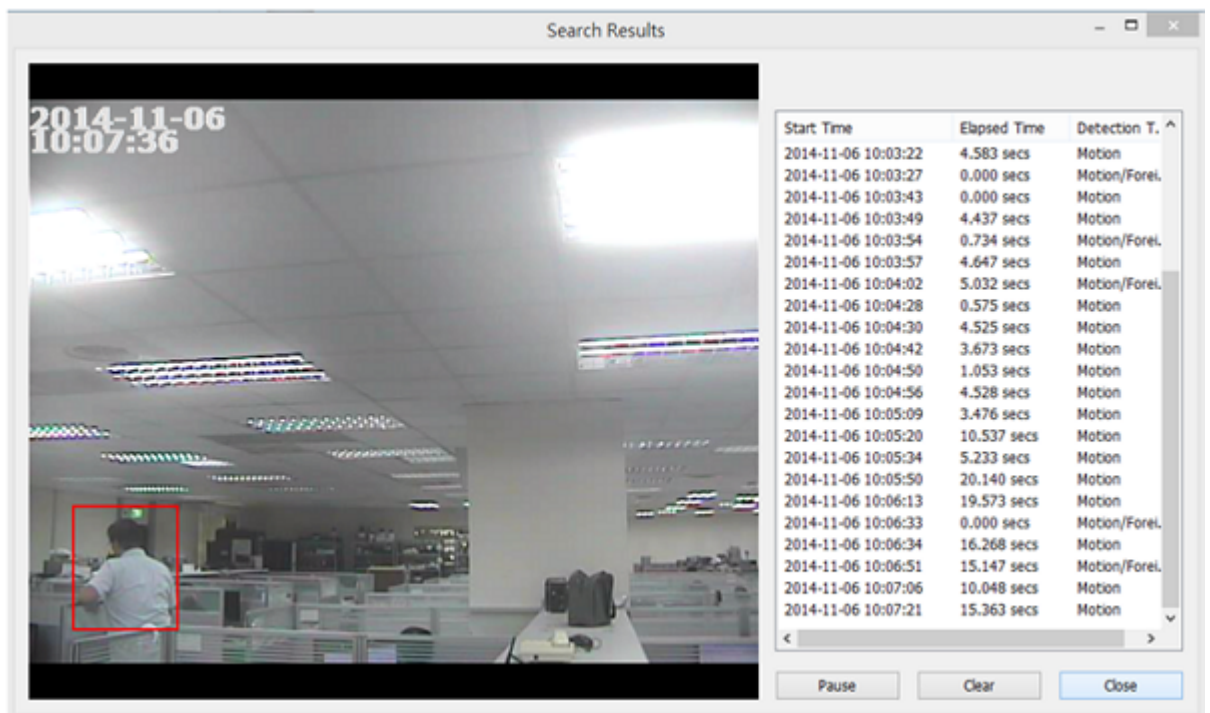
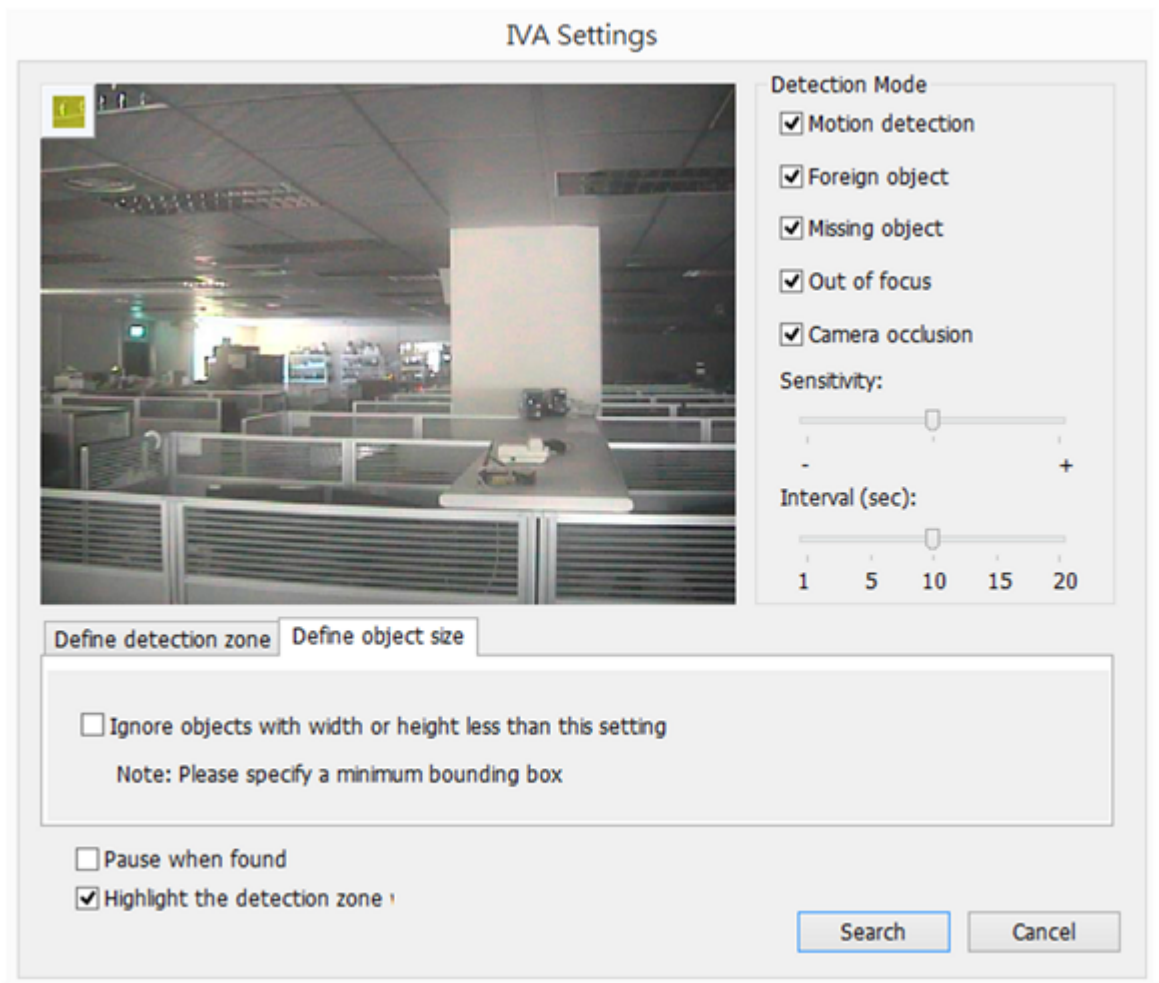
- Define the detection zone. Mouse over the edge of the red zone and use the mouse to define the detection zone. Click 'Select all' to highlight the entire area.
- Define the object size for detection. Use the mouse to drag the yellow zone to define the minimum object size for detection.



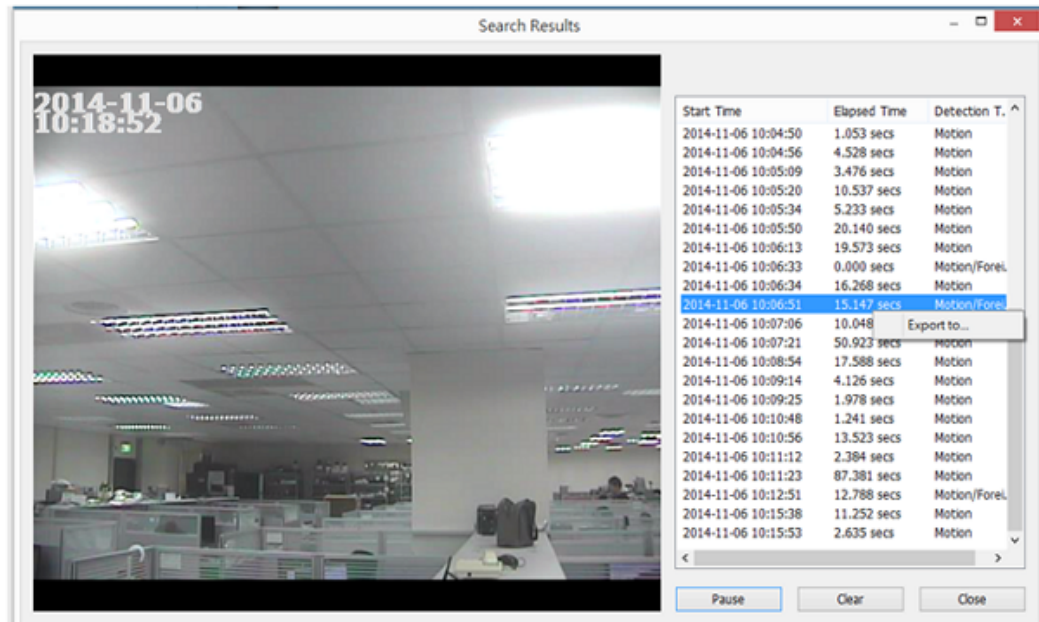
Ignore objects with width or height less than this setting: Enable this option to ignore all the objects smaller than the yellow zone.

- Enable/Disable other options for video search.
 - Pause when found: Enable this option and the video search will stop when a video file matching the search criteria is found.
 - Highlight the detection zone: The moving objects detected in the video will be highlighted in red boxes; the foreign or missing objects will be highlighted in yellow boxes; the video which is out of focus or obstructed will be displayed in transparent red.

- Click 'Search' to start searching the video by IVA. The results will be shown.



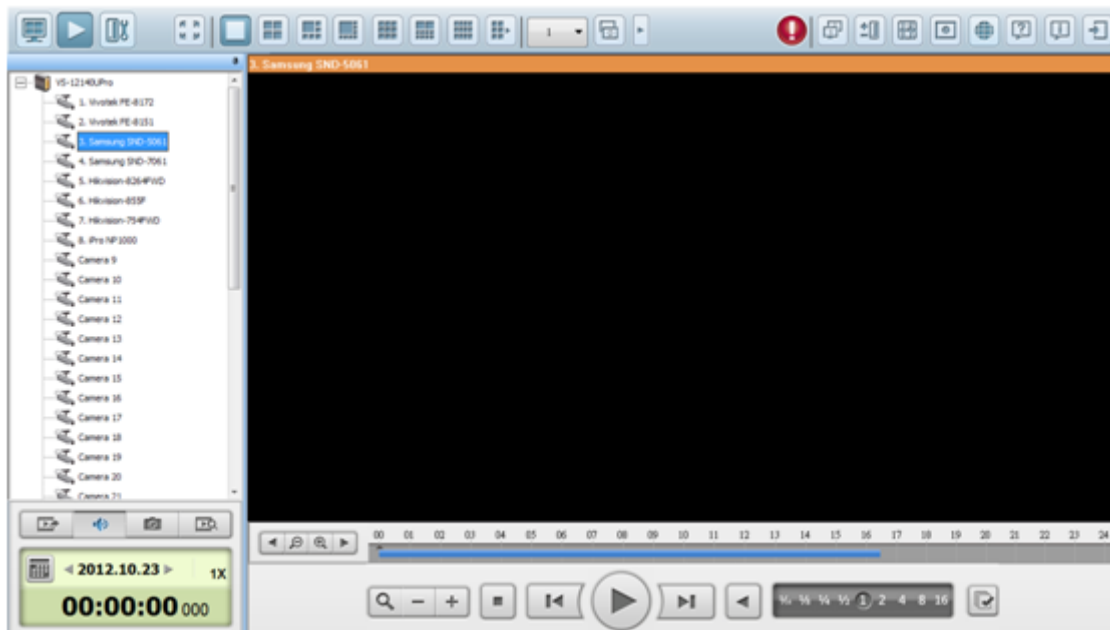
- Double click an entry on the search result dialog to play the video. The player will play the video starting from 15 seconds before the event to 15 seconds after the event.
- Right click an entry on the search result dialog to export the video (AVI format) and save it to the computer. The exported video starts from 15 seconds before the event to 15 seconds after the event.



For NVR FW v4.x

Note: The intelligent video analytics support video search on one IP camera channel only.

1. Enter the playback page. Select one channel and click



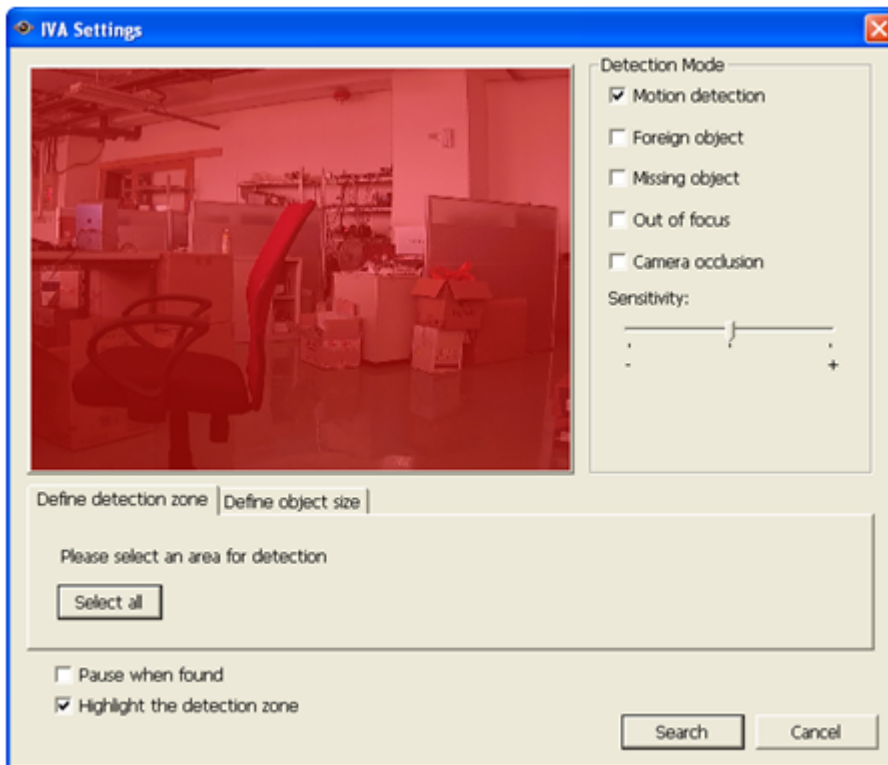
2. Select recording type, start time and end time for video search.

Please select a time range

Recording Type:	Search all recording data	
From:	2012/ 6/25	11:00
To:	2012/ 6/25	15:27

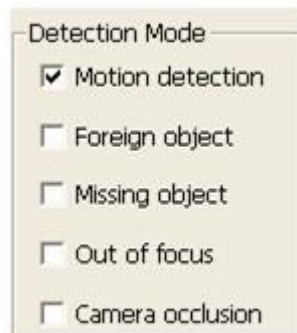
OK Cancel

3. Configure the IVA settings for video search.



Note: The Interval slide bar appears only when 'Foreign object' or 'Missing object' is selected.

- Select the detection mode: Motion detection, Foreign object, Missing object, Out of focus, or Camera occlusion. Multiple options can be selected.

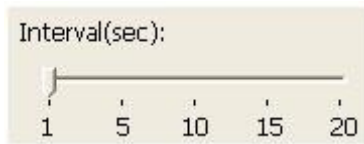


- Adjust the sensitivity for object detection.

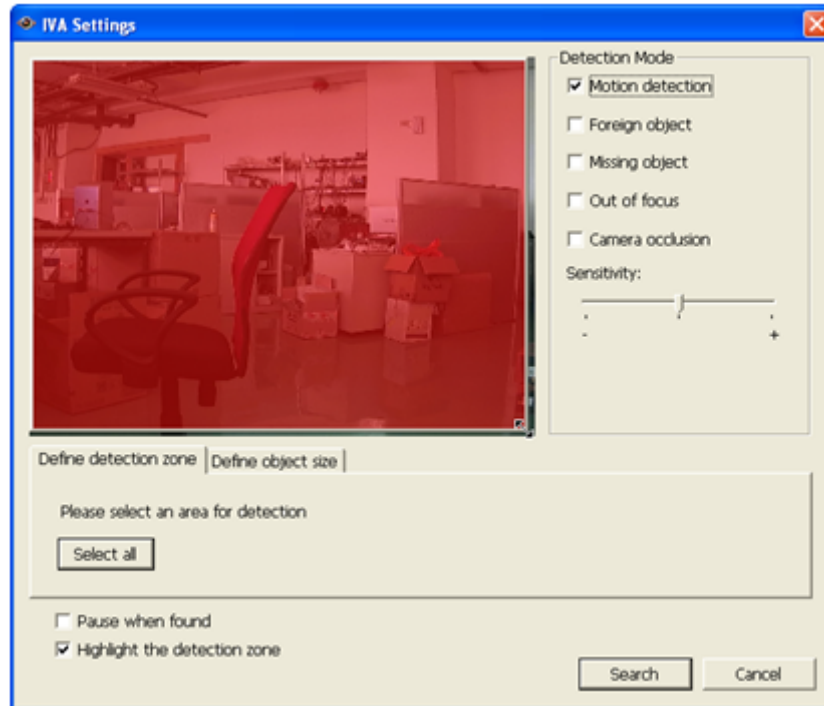


- Adjust the time interval for detecting the foreign objects and missing objects. If a foreign object appears or a missing object disappears for a period of time which is

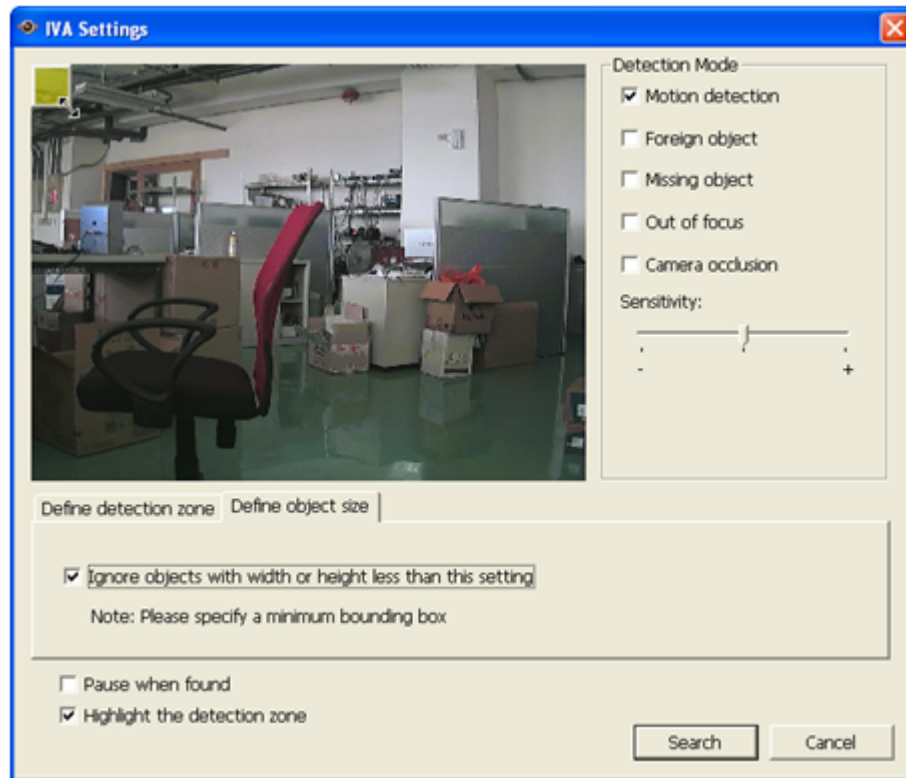
longer than the time interval, the NVR will record the event.



- Define the detection zone. Mouse over the edge of the red zone and use the mouse to define the detection zone. Click 'Select all' to highlight the entire area.



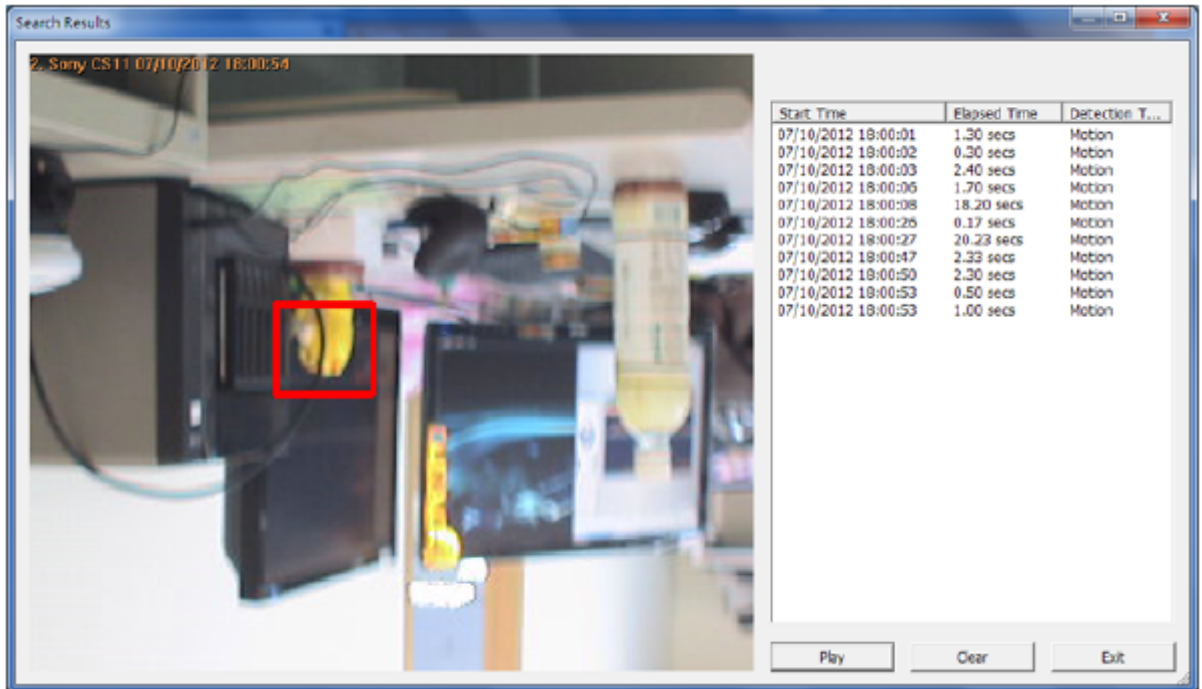
- Define the object size for detection. Use the mouse to drag the yellow zone to define the minimum object size for detection.



Ignore objects with width or height less than this setting: Enable this option to ignore all the objects smaller than the yellow zone.

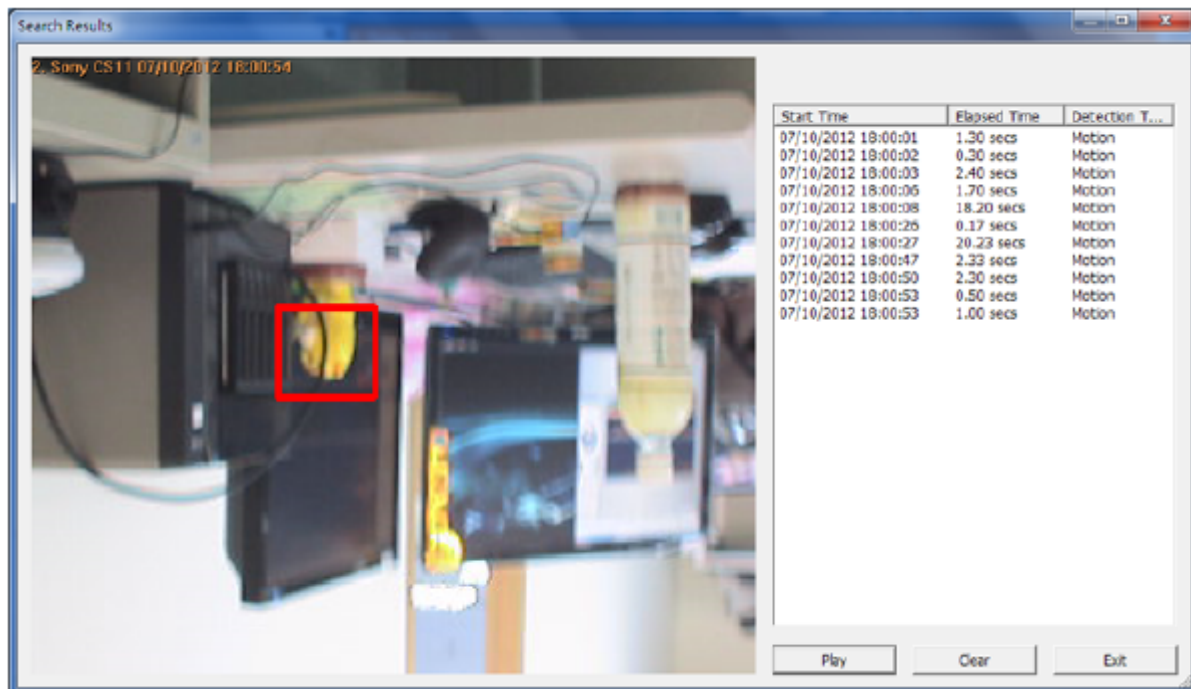
- Enable/Disable other options for video search.
 - Pause when found: Enable this option and the video search will stop when a video file matching the search criteria is found.
 - Highlight the detection zone: The moving objects detected in the video will be highlighted in red boxes; the foreign or missing objects will be highlighted in yellow boxes; the video which is out of focus or obstructed will be displayed in transparent red.

4. Click 'Search' to start searching the video by IVA. The results will be shown.



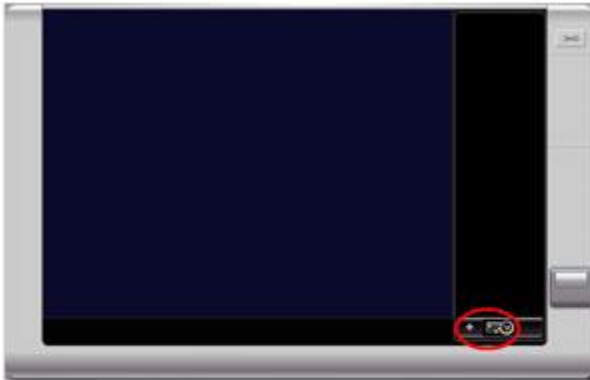
Other options:

- Double click an entry on the search result dialog to play the video. The player will play the video starting from 15 seconds before the event to 15 seconds after the event.
- Right click an entry on the search result dialog to export the video (AVI format) and save it to the computer. The exported video starts from 15 seconds before the event to 15 seconds after the event.




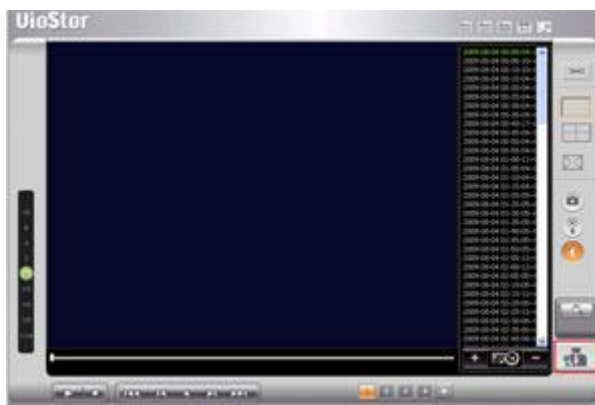
For NVR FW v3.6.1 or below

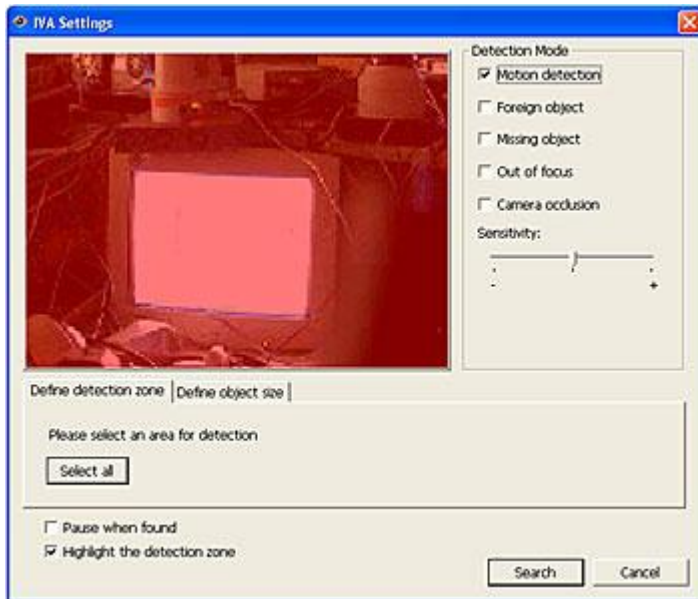
1. Go to Playback page of the NVR. Add files to the playlist.



Note: Intelligent video analytics support video search on one channel .

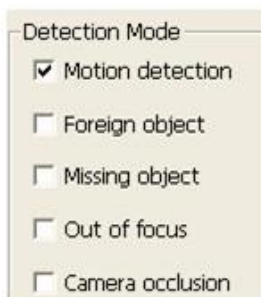
2. On the playback window, click 



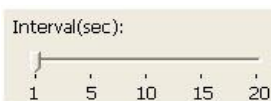


Note:

- When you check the option "Pause when found", the data search stops when a video file which matches the search criteria is found.
 - When you enable "Highlight the detection zone", the moving objects will be highlighted in red brackets; the foreign or missing objects will be highlighted in yellow brackets; out of focus and camera occlusion will be displayed in transparent red.
3. Select the detection mode: motion detection, foreign object, missing object, out of focus, or camera occlusion. You can select multiple options.



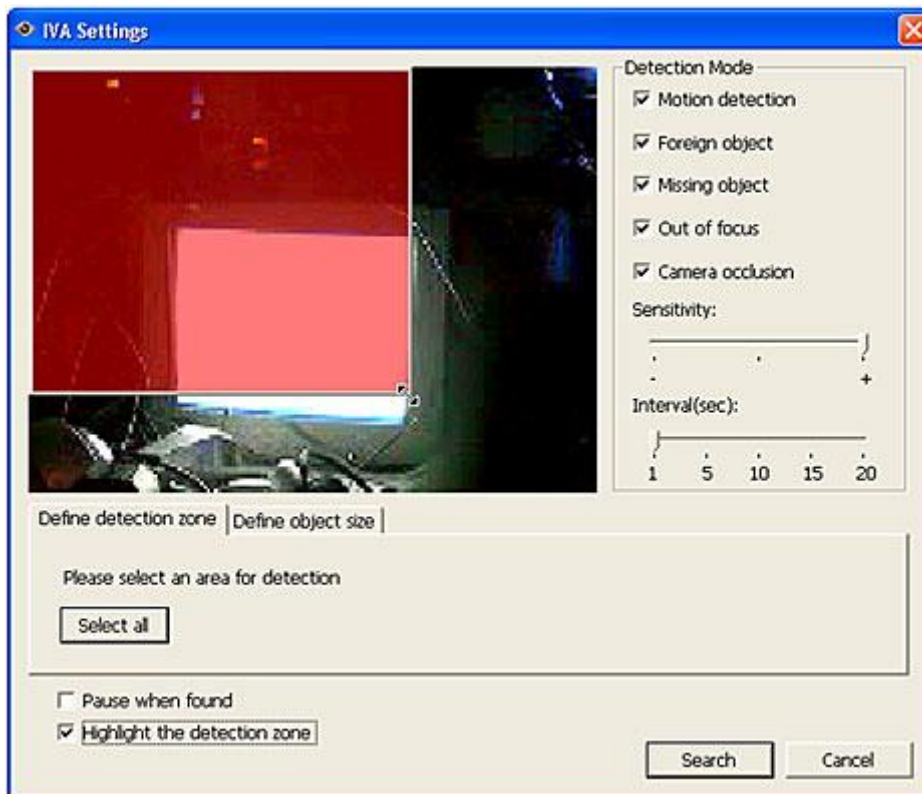
4. Adjust the sensitivity for object detection.



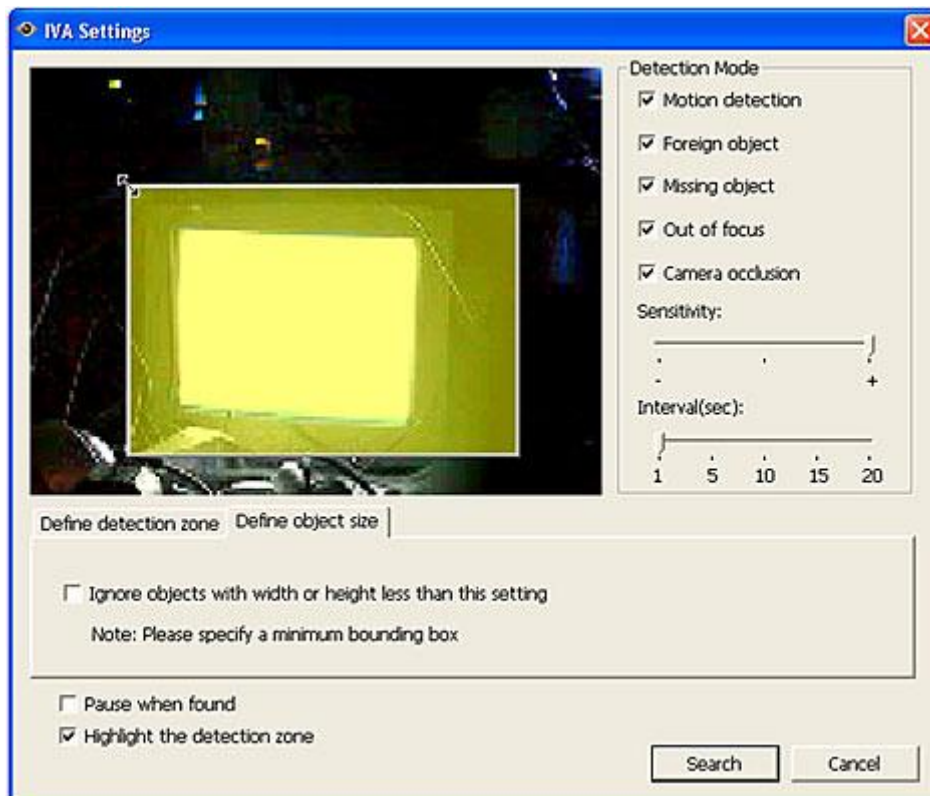
5. Adjust the time interval for foreign object and missing object. If a foreign object appears or a missing object disappears for a time period longer than the time interval, the system will record an event.

Note: The interval slide bar appears only when "foreign object" or "missing object" is checked.

6. Define detection zone. Mouse over the edge of the red zone and use the mouse to define the detection zone. Click "Select all" to highlight all the area for detection.



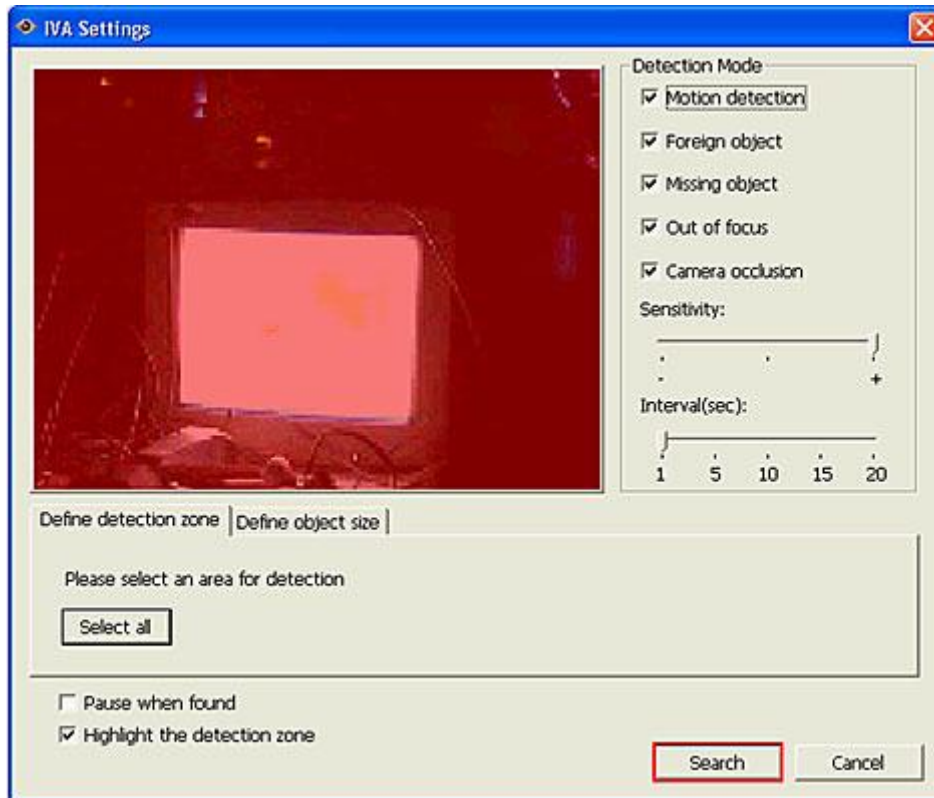
7. Define object size for the detection. You can use the mouse the drag the yellow zone to highlight the minimum object size for detection.



Note: After enabling this option, all the objects smaller than the yellow zone will be ignored for detection

- Click "Search" to start searching the video by IVA. The results and will be shown.

Note:



- You can double click an entry on the search result dialog to play the video. The player will play the video starting from 15 seconds before the event to 15 seconds after the event.

- You can also right click an entry on the search result dialog to export the video and save it on your computer. The exported video starts from 15 seconds before the event to 15 seconds after the event.

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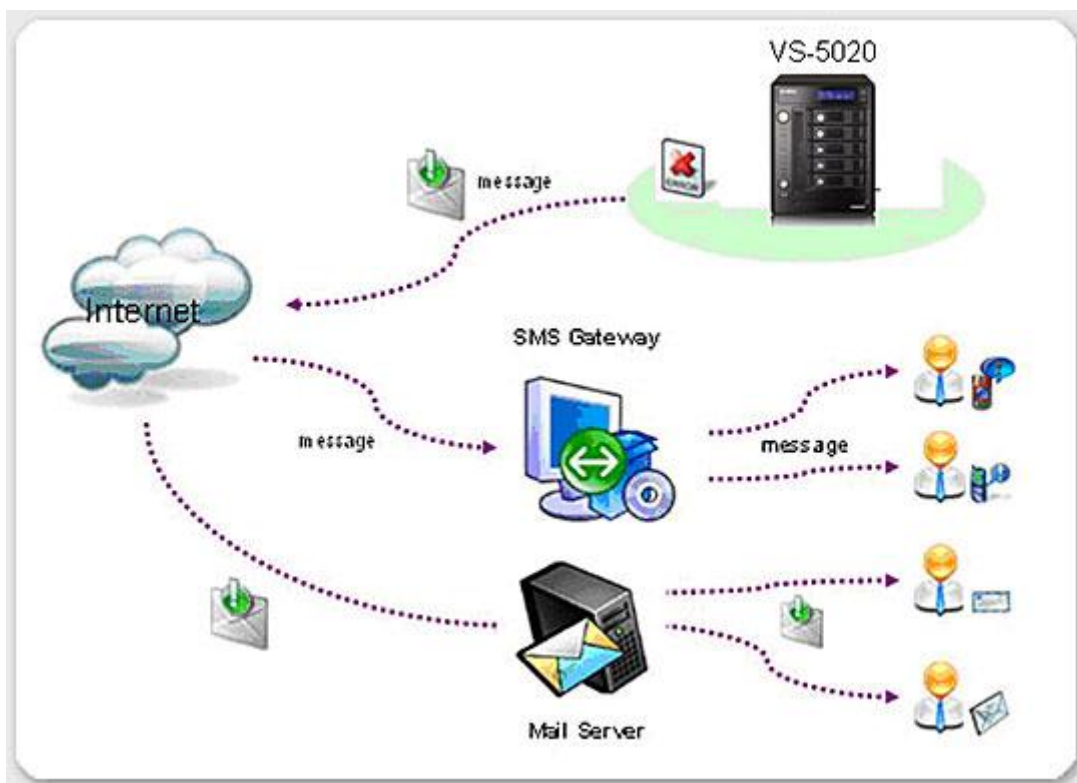
T32. [Tutorial] Setup SMS and Email Alert Notifications

"Never miss an important event from your QNAP VioStor NVR"



What is SMS and email alert?

QNAP VioStor NVR supports SMS and email alert to inform the users about system error or warning. SMS is the abbreviation of Short Message Service which is known for the mobile text message service. By subscribing with the SMS service providers you are able to setup QNAP VioStor NVR to send SMS to the designated mobile phones in the event of system warning or errors. This demonstration will show you how to setup both the SMS and Email alert notification on your QNAP VioStor NVR. See below for the usage diagram.



Step 1

Sign up and setup a SMS service account

In this demonstration I will use Clickatell simply because it offers 10 free SMS after the registration.

Now go to Clickatell's website <http://www.clickatell.com/login.php> under the '**New Customers**' setion select '**Clickatell Central (API)**'



Fill out your personal information then click on '**Continue**'.



Upon successful registration you should receive an email containing the account activation link. You may now check your inbox to complete your account activation. By following the activation link you will be brought to the login screen as the image show below. Type in the password and click on '**Login**' to proceed.



Next you will need to verify your mobile number by entering an activation code sent by Clickatell after you enter your mobile phone number and click on '**SEND ACTIVATION CODE**'



While still logged in with Clickatell, go to '**Manage my Products**' and select '**HTTP**' from '**My Connections**' dropdown list.



Set up the '**HTTP API**' by entering the minimum required information, the '**Name**', '**Dial Prefix**' and '**Callback Type**' as the image shown below. Click on '**Submit**' once done.

HTTP API

This product provides an interface between your applications and the Messaging Gateway. It is a lower level connectivity option, but offers the most functionality and flexibility for the Developer and Systems Integrator. With the API you can set up alert-based SMS delivery from your server, deliver information to your mobile sales staff and keep in contact with your customers. This product is intended for machine-generated to User messaging.

Add HTTP API - Bold Items Required

Name:	<input type="text" value="VS-5020"/>
IP Lock Down:	<input type="text"/>
Dial Prefix:	<input type="text" value="Taiwan (886)"/>
Callback Type:	<input type="text" value="HTTP GET"/>
Callback Url:	<input type="text"/>
Callback Username:	<input type="text"/>
Callback Password:	<input type="text"/>

Minimum information required

NOTE: submission of this form will delete any session_id currently valid for this api_id. Any application using this session_id will have to re-authenticate.

Submit

You should now obtain an '**API ID**' that is required before using the SMS service. Write this down somewhere as we will need it for the setup in the NAS administration in the next step.



Up to this point you have completed the account registration and mobile number verifications with Clickatell and have successfully obtained an '**API ID**'. You may now proceed to step 2.

Step 2

Set up the SMSC and alert notification by SMS on the NAS

Go to '**System Administration**' > '**Notification**' > '**Configure SMSC server**' and enter the information we got from step 1 to configure the SMSC server and cell phone number, you can send the SMS text message when the different events were chosen, such as Motion detection is detected on an IP camera, Alarm input is triggered on an IP camera as the image shown below.



System Tools

- Alert Notification
- SMSC Settings**
- Restart/ Shutdown
- Hardware Settings
- System Update
- Backup/ Restore/ Reset Settings
- Remote Replication
- Hard Disk SMART
- E-map
- Ping Test
- Advanced System Settings

SMSC Settings

You can configure the SMSC settings to send instant system alerts via the SMS service provided by the SMS provider.

[SMS Server Settings]

SMS Service Provider: <http://www.clickatell.com>

Enable SSL Connection

SSL Port:

SMS Server Login Name:

SMS Server Login Password:

SMS Server API_ID:

[SMS Notification Settings]

Country Code:

Cell Phone No. 1: +93: (Do not enter the beginning "0".)

Cell Phone No. 2: +93: (Do not enter the beginning "0".)

Send a test SMS message (If the SMSC settings are incorrect, you will not be able to receive the test message.)

Send SMS text messages when the following events take place:

- Motion detection is detected on an IP camera
- Alarm input is triggered on an IP camera
- An IP camera is disconnected
- The system fails to save recording files

Interval of sending SMS text messages of the same events: Minute(s)

Congratulations it's all setup and now you may wanna test if your have configure the SMS notification properly by clicking on the '**SEND A TEST SMS MESSAGE**' button. If nothing goes wrong you should be able to receive it in less than 10 seconds.

Step 3

Setup the SMTP server and alert notification by Email

Go to '**System Administration**' > '**Notification**' > '**Configure SMTP server**' and enter the e-mail address of the administrator and the IP address of the SMTP server. In case of warning or malfunction, e.g. power outage, a drive is unplugged, an e-mail will be sent to the administrator automatically. You can go to Event Logs to check the details of all errors and warnings. You also get to test if the email sending process works by clicking on the '**SEND A TEST E-MAIL**' button.



Now no matter if you are out at work or away from home you will still be notified of the status and the condition of your QNAP right away by either a SMS sent to your mobile or a letter to your inbox and be able to act in case of any unexpected events.

2015/07/22


T33. [Tutorial] How to Use Digital Watermarking to Protect the Videos and Snapshots from Unauthorized Modification?

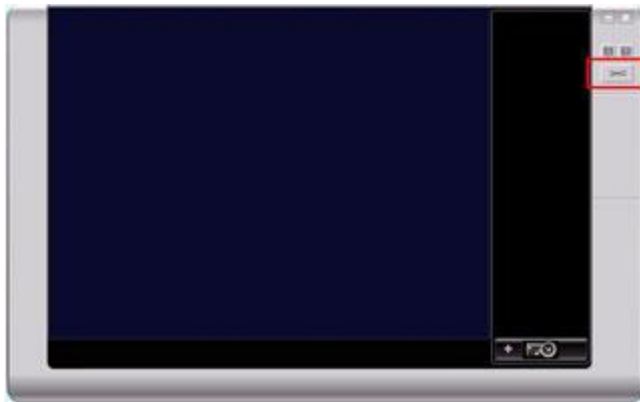
The VioStor NVR supports digital watermarking to protect the videos and snapshots from unauthorized modification. You can select to add digital watermark on the exported video and snapshot on the VioStor Player. A permanent digital signal will be added to the exported files which are selected for digital watermarking. The watermark cannot be removed and is only visible by using watermark proof software.

Step 1

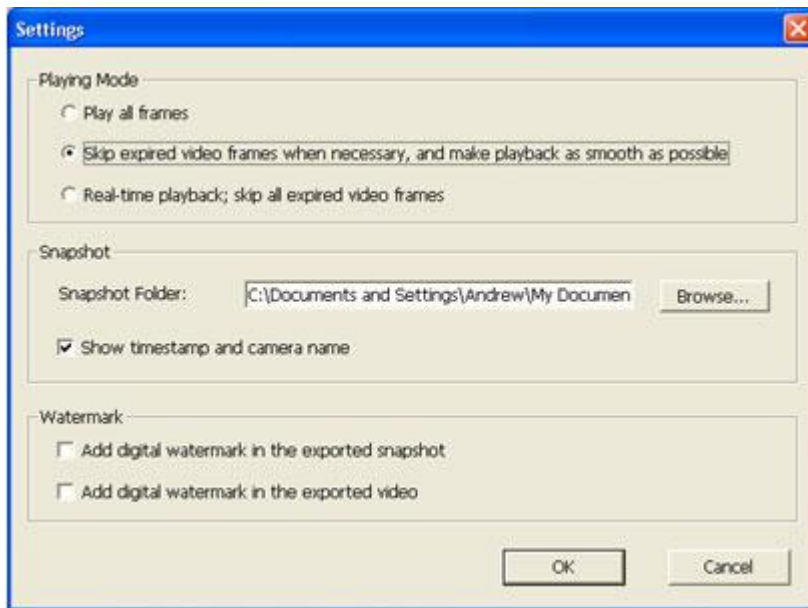
Digital Watermark

To use digital watermarking by VioStor Player, follow the steps below.

1. Click "Playback" to open the VioStor Player.
2. Click "Settings" .



3. Select to add digital watermark in the exported snapshot or video.

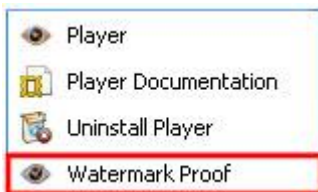


Step 2

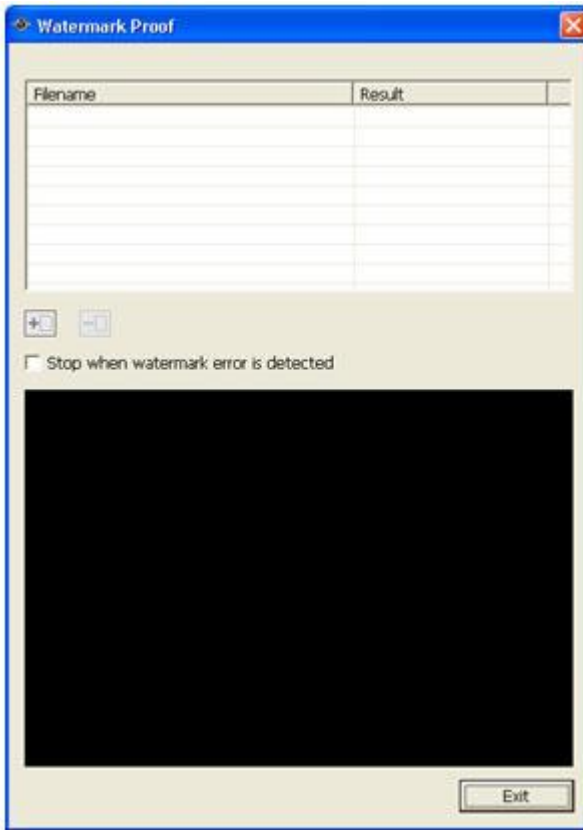
Watermark Proof


To use Watermark Proof, follow the steps below:

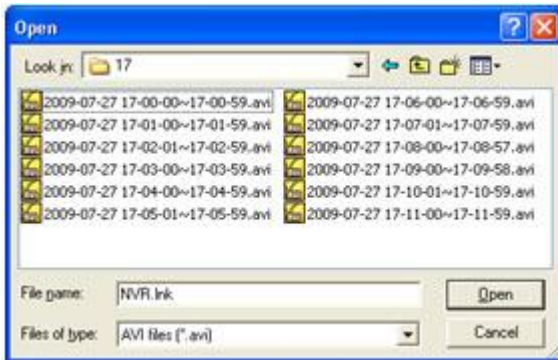
1. After installing the VioStor Player, Watermark Proof will be installed. From the Windows Start menu, select "All Programs" > "QNAP" > "Player" to locate "Watermark Proof".



2. Run Watermark Proof. The following window will be shown.



3. Click  to browse and locate the files. You can select more than one file at one time.



4. The Watermark proof program will start checking the files and show the proof result. If you check the option "Stop when watermark error is detected", the checking procedure will stop if a failed file is detected. Otherwise the program will check all the files you have selected. If a file is modified, the proof result will be shown as "Failed".

- 5.

T34. [Tutorial] How to use Remote Replication on VioStor NVR to QNAP Turbo NAS?

This tutorial will help you to use the remote replication feature to copy the recording data stored on your local NVR to a remote QNAP network attached storage (NAS) on the local area network (LAN). The remote QNAP NAS is hereafter referred to as 'the remote storage device'.

Limitations and Restrictions:

1. **Remote Replication is limited to the local network only.**
2. Before using this function, ensure that the Microsoft networking service of the remote storage device is enabled, and that the corresponding path and user access rights have been correctly configured.
3. The time required by the NVR to replicate the data to the remote storage device will vary depending on the network environment. If the remote replication task takes too long, some recording files may be overwritten by the NVR. To avoid this, it is recommended to refer to the status messages to analyze the time required for the remote replication and adjust the replication schedule accordingly.

Applied VioStor NVR firmware version: QVR 5.0 or above

Steps

1. Login to the QVR desktop and go to 'Backup & Expansion' > 'Remote Replication'.

The screenshot shows the 'Remote Replication' configuration page. It includes the following sections and fields:

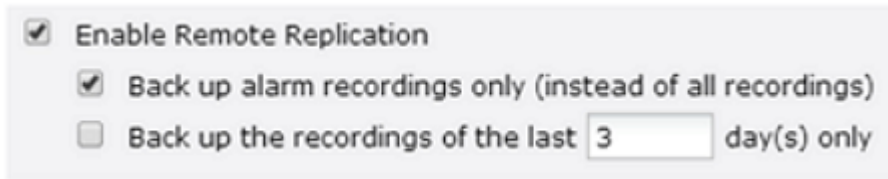
- Remote Replication:**
 - Enable Remote Replication
 - Back up alarm recordings only (instead of all recordings)
 - Back up the recordings of the last day(s) only

- Remote Destination:**
- Remote Host IP Address:
- Destination Path (Network Share/Directory): /
- User Name:
- Password:
- Remote Host Testing: (Status:---)

- Replication Schedule:**
- Replication Schedule
 - Daily: :
 - Weekly:

At the bottom of the page, there are two buttons: and .

2. Enable remote replication (supports multiple choices)



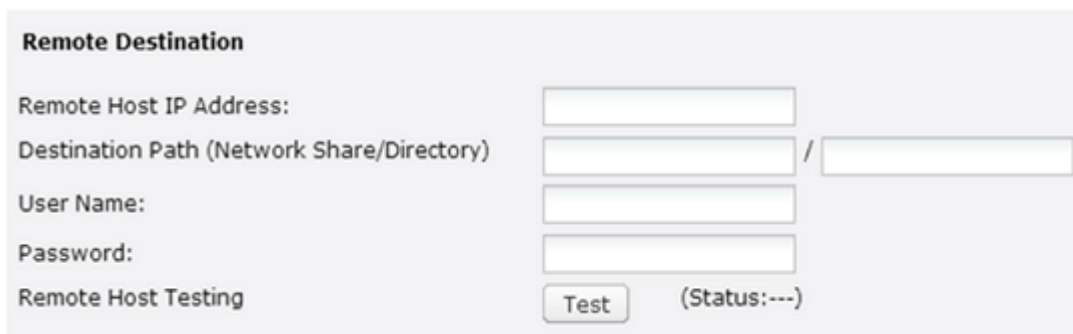
The screenshot shows a configuration panel for remote replication. It contains three options, each with a checkbox:

- Enable Remote Replication
- Back up alarm recordings only (instead of all recordings)
- Back up the recordings of the last day(s) only

In the above example, the NVR only copies the alarm recording data of the latest 3 days to the remote storage device.

- Select 'Enable remote replication' to activate this feature. The NVR will execute an automatic backup of the recording data to the remote storage device according to the settings.
- Select 'Back up alarm recordings only (instead of all recordings)', the NVR will only copy the alarm recording data to the remote storage device. If this option is unselected, the NVR will back up all of the recording data to the remote storage device.
- Select 'Back up the recordings of the latest...day(s) only' and enter the number of days, the NVR will back up the latest recording data to the remote storage device automatically according to the settings. If this option is unselected, the NVR will copy all of the recording data to the remote storage device.

3. Configure the remote storage server



The screenshot shows the 'Remote Destination' configuration section. It includes the following fields and controls:

- Remote Host IP Address:
- Destination Path (Network Share/Directory): /
- User Name:
- Password:
- Remote Host Testing: (Status:---)

Enter the IP address, path, user name and password of the remote storage device.

Note: It is recommended to execute the 'Remote host testing' function to verify the connection to the remote storage device is successful.

4. Configure the remote replication schedule

Replication Schedule

Daily 00 ▾ : 00 ▾

Weekly Sunday ▾

Monthly 01 ▾

For example, to enable the NVR to copy the recording data automatically to the remote storage device at 01:15 every Monday, please do the following:

Select 'Replication Schedule', select 'Weekly', enter 01 Hour: 15 minute, and select 'Monday'.

5. Select the backup options

Replication Now

Overwrite the oldest recordings when the available storage on the remote host is less than 4GB

Perform mirroring replication by deleting extra files on the remote destination

Note: When remote replication is in process, the recording performance will be decreased

- Select 'Replication Now', the NVR will back up the recording data to the remote storage device immediately.
- Select 'Overwrite the oldest recordings when the available storage on the remote host is less than 4GB'; the NVR will overwrite the oldest recording data when the free space on the server is less than 4GB.
- Select 'Perform mirroring replication by deleting extra files on the remote replication', the NVR will synchronize the recording data between itself and the remote storage device and delete any extra files on the remote storage device.

When the above options are all selected and remote replication is executed, the NVR will do the following:

- i) The NVR checks if there are files on the remote storage device that are different from the local source. If yes, the differentiated files will be deleted.
- ii) Next, the NVR checks the free space of remote storage device. If the free space is larger than 4GB, the remote replication will be executed immediately.
- iii) If the free space of the remote storage device is less than 4GB, the NVR will overwrite the recording data of the oldest day and then executes the remote replication.

6. The NVR displays the latest 10 remote replication records.

Start Time ▾	Finish Time	Replicated Data Size	Status
2014-06-15 00:00...	2014-06-15 02:17...	801.3 MByte(s)	Failed (Remote access error)
2014-06-12 21:34...	2014-06-14 00:04...	13.37 GByte(s)	Failed (Remote access error)
2014-06-05 16:00...	2014-06-06 11:16...	13.98 GByte(s)	Failed (Remote access error)
2014-05-26 00:28...	2014-05-26 06:33...	3.13 GByte(s)	Failed (Remote access error)
2014-05-19 00:00...	2014-05-21 11:53...	37.09 GByte(s)	Failed (Remote access error)
2014-05-12 00:00...	2014-05-17 11:37...	79.05 GByte(s)	Failed (Remote access error)
2014-05-05 00:00...	2014-05-05 13:35...	8.20 GByte(s)	Failed (Remote access error)
2014-04-29 15:38...	2014-04-29 20:57...	3.98 GByte(s)	Aborted (The remote replication was cancelled)
2014-04-26 23:43...	2014-04-27 15:01...	7.16 GByte(s)	Failed (Remote access error)

In the above example:

- When the status is shown as 'Failed (Remote access error)': Check to see if the remote storage device is running and if the network settings are correct.
- When the status is shown as 'Failed (An internal error occurred)': Check the hard drive status of the NVR and view the Event Logs.

Applied VioStor NVR firmware version: NVR FW v4.2.0 or below

Steps

1. Login to the NVR and go to 'System Administration' -> 'System Tools' > 'Remote Replication'.

The screenshot shows the 'Remote Replication' configuration page in the VioStor NVR web interface. The sidebar on the left lists various system tools, with 'Remote Replication' selected. The main content area includes the following settings:

- Remote Replication:**
 - Enable Remote Replication
 - Back up alarm recordings only (instead of all recordings)
 - Back up the recordings of the latest day(s) only
- Remote Destination:**
 - Remote Host IP Address:
 - Destination Path (Network Share/Directory): /
 - User Name:
 - Password:
 - Remote Host Testing: (Status: --)
- Replication Schedule:**
 - Replication Schedule
 - Daily: Hour : Minute
 - Weekly:
 - Monthly: Day
- Replication Now:**
 - Overwrite the oldest recordings when the available storage on the remote host is less than 4GB
 - Perform mirroring replication by deleting extra files on the remote destination

Note: When remote replication is in process, the recording performance will be decreased

2. Enable remote replication (supports multiple choices)

Enable Remote Replication

Back up alarm recordings only (instead of all recordings)

Back up the recordings of the last day(s) only

In the above example, the NVR only copies the alarm recording data of the last 3 days to the remote storage device.

- Select 'Enable Remote Replication' to activate this feature. The NVR will carry out automatic backups of the recording data to the remote storage device according to the settings chosen.
- Select 'Back up alarm recordings only (instead of all recordings)', the NVR will only copy the alarm recording data to the remote storage device. If this option is unselected, the NVR will back up all of the recording data to the remote storage device.
- Select 'Back up the recordings of the last...day(s) only' and enter the number of days, the NVR will back up the latest recording data to the remote storage device automatically according to the settings. If this option is unselected, the NVR will copy all of the recording data to the remote storage device.

3. Configure the remote storage server

Enter the IP address, path, user name and password of the remote storage device.

Remote Destination

Remote Host IP Address

Destination Path (Network Share/Directory) /

User Name

Password

Remote Host Testing (Status: --)

Note: It is recommended to test the 'Remote Host Testing' function to verify the connection to the remote storage device is successful.

4. Configure the remote replication schedule

Replication Schedule

Daily Hour : Minute

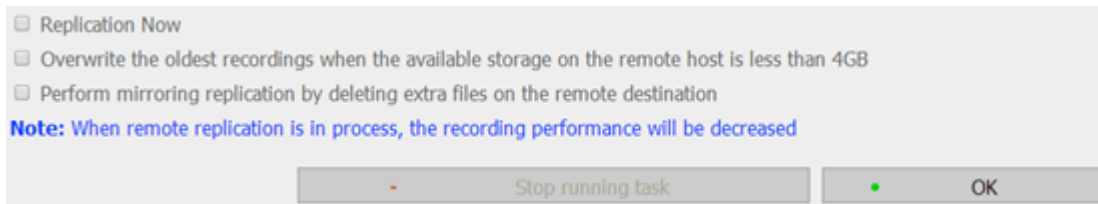
Weekly

Monthly Day

For example, to enable the NVR to copy the recording data automatically to the remote storage device at 00:00 every Monday, please set the following:

Select 'Replication Schedule', select 'Weekly', and enter 00 Hour: 00 minute, and select 'Monday'.

5. Select the backup options



- Select 'Replication Now', the NVR will immediately back up the recording data to the remote storage device.
- Select 'Overwrite the oldest recordings when the available storage on the remote host is less than 4GB'; the NVR will overwrite the oldest recording data when the free space on the server is less than 4GB.
- Select 'Perform mirroring replication by deleting extra files on the remote replication', the NVR will synchronize the recording data between itself and the remote storage device and delete any extra files on the remote storage device.

When the above options are all selected and remote replication is executed, the NVR will do the following:

- i. The NVR checks if there are extra files on the remote storage device that are different from the local source. If yes, the extra files will be deleted.
- ii. Next, the NVR checks the free space of the remote storage device. If the free space is larger than 4GB, the remote replication task will be immediately carried out.
- iii. If the free space of the remote storage device is less than 4GB, the NVR will overwrite the oldest recording data and then carry out the remote replication task.

6. The NVR will display the latest 10 remote replication records.

Start Time	Finish Time	Replicated Data Size	Status
2011-06-07 15:08:26	2011-06-08 00:02:32	56.06 GByte(s)	Succeeded
2011-06-07 14:36:23	2011-06-07 15:04:04	2.68 GByte(s)	Aborted (The remote replication was cancelled)

In the above example:

- When the status is shown as 'Failed (Remote access error)': Check if the remote storage device is running and that the network settings are correct.
- When the status is shown as 'Failed (An internal error occurred)': View the hard drive status of the NVR or view the Event Logs.

T35. [Tutorial] How to Expand the Storage Capacity and Upgrade the RAID Level of the VioStor NVR by Online RAID Capacity Expansion & RAID Level Migration?

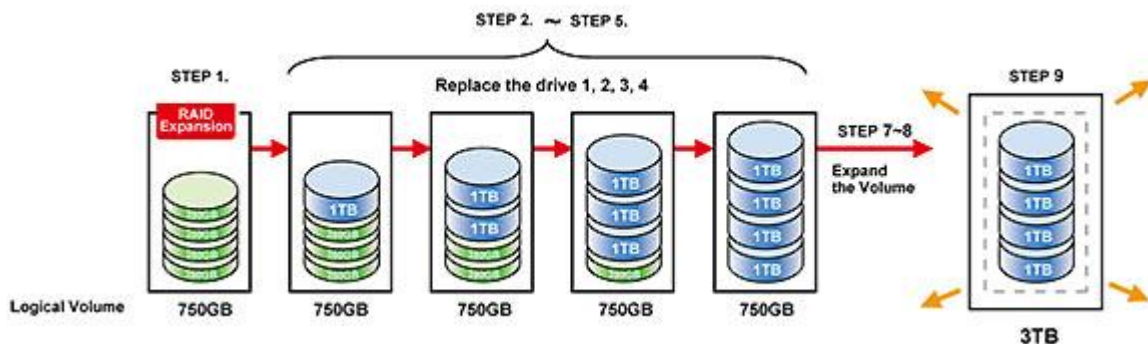
The VioStor NVR is a high performance network video surveillance system for high-end, convenient, and reliable IP-based real-time monitoring and video recording. It is also an expandable system that users can expand the storage capacity of RAID volume and upgrade the RAID configuration.

This tutorial demonstrates how to use Online RAID Capacity Expansion and Online RAID Level Migration of the VioStor to expand the storage capacity and upgrade the RAID configuration level of the system respectively. Furthermore, you can use Online RAID Capacity Expansion and Online RAID Level Migration together.

Case 1: Online RAID Capacity Expansion

Online RAID Capacity Expansion enables users to expand the storage capacity of RAID without turning off the server. Andrew can expand the current logical volume of RAID 5 from 750GB storage capacity to 3TB.

1. Execute the RAID Expansion function. Replace the 250GB hard drives with 1TB ones step by step.
2. Expand the capacity of the logical volume.



Operation Procedure:

Step 1

In **Device Configuration/ RAID Management tool** page, select the drive volume and click **Expand capacity**.

Device Configuration
 SATA Disk · RAID Management Tool · USB Disk · UPS

– RAID Management Tool

This function enables capacity expansion, RAID configuration migration or spare drive configuration with the original drive data reserved.

Note: Make sure you have read the instructions carefully and you fully understand the correct operation procedure before using this function.

Current Disk Volume Configuration

Volume	Total Size	Status	Description
RAID 5 Disk Volume: Drive 1 2 3 4	684.47 GB	Ready	The operation(s) you can execute: -- Expand capacity

The operation(s) you can execute:

Expand capacity Add hard drive Repair Configure RAID Drive Description

Step 2

Click [Replace] so that the first hard drive can be replaced. Follow the instructions to proceed.

– RAID Management Tool - Expand capacity

Select the drive to replace

Disk	Model	Capacity	Status	Description
Drive 1	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	Replace You can replace this drive.
Drive 2	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	Replace You can replace this drive.
Drive 3	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	Replace You can replace this drive.
Drive 4	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	Replace You can replace this drive.

Target Disk Volume: RAID 5 Disk Volume: Drive 1 2 3 4

Expand Capacity Back

Tips: After replacing the hard drives, the description field shows "You can replace this drive". This means you can replace the hard drive to a larger one or skip this step if the hard drives have been replaced already.

⚠ Caution: When the hard drive synchronization is in process, do **NOT** turn off the NVR or plug/unplug the hard drives.

Step 3

When the description displays "Please remove this drive", remove the hard drive from the NVR. Wait for the NVR to beep twice after removing the hard drive.

– RAID Management Tool - Expand capacity

Select the drive to replace

Disk	Model	Capacity	Status	Description
Drive 1	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	Cancel Please remove this drive.
Drive 2	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.
Drive 3	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.
Drive 4	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.

Target Disk Volume: RAID 5 Disk Volume: Drive 1 2 3 4

Expand Capacity Back



Step 4

When the description displays "Please insert the new drive", insert the new drive to the drive slot.

– RAID Management Tool - Expand capacity

Select the drive to replace

Disk	Model	Capacity	Status	Description
Drive 1	--	--	No Disk	Please insert the new drive.
Drive 2	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.
Drive 3	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.
Drive 4	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	No operation can be executed on this drive or the drive is busy.

Target Disk Volume: RAID 5 Disk Volume: Drive 2 3 4

Expand Capacity Back



Step 5

After inserting the hard drive, wait for the NVR to beep. The system starts rebuilding.

Status	Description
Rebuilding... (0%)	No operation can be executed on this drive or the drive is busy.
Rebuilding... (0%)	No operation can be executed on this drive or the drive is busy.
Rebuilding... (0%)	No operation can be executed on this drive or the drive is busy.
Rebuilding... (0%)	No operation can be executed on this drive or the drive is busy.

Step 6

After rebuilding finishes, follow steps 2-5 to replace other hard drive(s).

RAID Management Tool - Expand capacity

Select the drive to replace

Disk	Model	Capacity	Status	Description
Drive 1	Hitachi HD5721010KLA330 GK40	931.51 GB	Ready	<input type="button" value="Replace"/> You can replace this drive.
Drive 2	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	<input type="button" value="Replace"/> You can replace this drive.
Drive 3	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	<input type="button" value="Replace"/> You can replace this drive.
Drive 4	WDC WD2500AAKS-00VYA12.0	232.89 GB	Ready	<input type="button" value="Replace"/> You can replace this drive.

Target Disk Volume: RAID 5 Disk Volume: Drive 1 2 3 4

Step 7

After changing the hard drives and rebuilding completes, click **[Expand capacity]** to execute RAID expansion.

RAID Management Tool

This function enables capacity expansion, RAID configuration migration or spare drive configuration with the original drive data reserved.

Note: Make sure you have read the instructions carefully and you fully understand the correct operation procedure before using this function.

Current Disk Volume Configuration

Volume	Total Size	Status	Description
<input checked="" type="radio"/> RAID 5 Disk Volume: Drive 1 2 3 4	694.47 GB	Ready	The operation(s) you can execute: - Expand capacity

The operation(s) you can execute:

Click **OK** to proceed.



The NVR beeps and starts to expand the capacity.

Select the drive to replace

Disk	Model	Capacity	Status	Description
Drive 1	Hitachi HD5724040KLSA80 KFAO	931.51 GB	Ready	Processing...
Drive 2	Hitachi HD5724040KLSA80 KFAO	931.51 GB	Ready	Processing...
Drive 3	Hitachi HD5724040KLSA80 KFAO	931.51 GB	Ready	Processing...
Drive 4	Hitachi HD5724040KLSA80 KFAO	931.51 GB	Ready	Processing...

Target Disk Volume: RAID 5 Disk Volume: Drive 1 2 3 4 You can expand the disk volume capacity to approximately **2747 GB**

Step 8

The process may take from hours to tens of hours depending on the drive size. **Please wait patiently for the process to finish. Do NOT turn off the NVR during the process.**

- RAID Management Tool

This function enables capacity expansion, RAID configuration migration or spare drive configuration with the original drive data reserved.

Note: Make sure you have read the instructions carefully and you fully understand the correct operation procedure before using this function.

Current Disk Volume Configuration

Volume	Total Size	Status	Description
<input type="radio"/> RAID 5 Disk Volume: Drive 1 2 3 4	684.47 GB	Expanding... (1%)	No operation can be executed for this drive configuration.

The operation(s) you can execute:

Expand capacity Add hard drive Migrate Configure spare drive Description

Step 9

After RAID capacity expansion is finished, the new capacity is shown and the status is **Ready**. You can start to use the server.

Current Disk Volume Configuration						
Physical Disks						
Disk	Model	Capacity	Status	Bad Blocks Scan	SMART Information	
Drive 1	Hitachi HD5721010KLA330 GKA0	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 2	Hitachi HD5721010KLA330 GKA0	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 3	Hitachi HD5721010KLA330 GKA0	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 4	Hitachi HD5721010KLA330 GKA0	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	

Logical Volumes						
Volume	Total Size	Free Size	Status	Format	Check Disk	Delete Disk Volume
RAID 5 Disk Volume: Drive 1 2 3 4	2747.45 GB	2336.77 GB	Ready	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>

Current Disk Volume Configuration			
Volume	Total Size	Status	Description
<input checked="" type="radio"/> RAID 5 Disk Volume: Drive 1 2 3 4	2747.45 GB	Ready	The operation(s) you can execute: - Expand capacity

The operation(s) you can execute:

Tips: The description still shows "You can replace this hard drive". If the drive volume is **Ready**, you can perform RAID expansion.

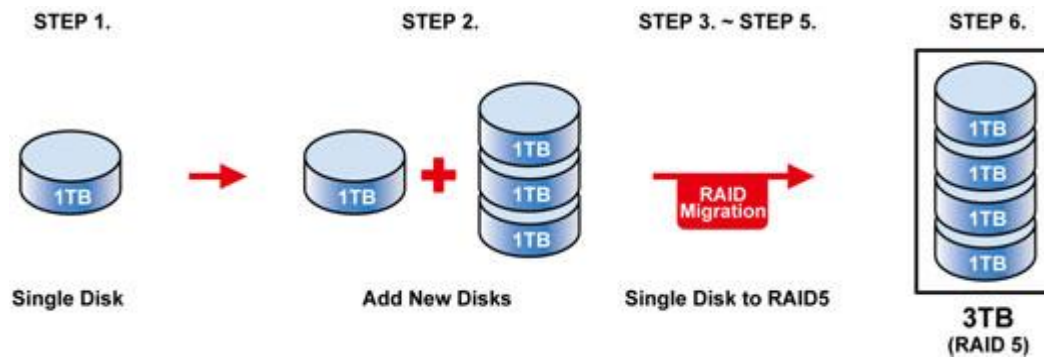
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Case 2: Online RAID Level Migration

Online RAID Level Migration enables upgrade the RAID configuration level of the VioStor without turning off the server or losing any data. The following example shows you how to migrate the system from single disk volume (1TB) to RAID 5 (3TB).

PS: Online RAID migration function enables you to:

- Migrate the system from "Single Disk" to "RAID 1" or "RAID 5" or "RAID 6"
- Migrate the system from "RAID 1" to "RAID 5" or "RAID 6"
- Migrate the system from "RAID5 with 3 hard drives" to "RAID 6"



1. Prepare hard drives of the same or larger capacity as an existing drive in the RAID configuration.
2. Execute RAID Migration (Migrate the system from Single Disk mode to RAID 5 with 4 hard drives).

Step 1

Go to **Device Configuration/ SATA Disk** page. The current disk volume configuration displayed on the page is Single Disk (the capacity is 1TB).

Current Disk Volume Configuration						
Physical Disks						
Disk	Model	Capacity	Status	Bad Blocks Scan	SMART Information	
Drive 1	Seagate ST31000340AS SD04	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 2	--	--	No Disk	<input type="button" value="Scan now"/>	---	
Drive 3	--	--	No Disk	<input type="button" value="Scan now"/>	---	
Drive 4	--	--	No Disk	<input type="button" value="Scan now"/>	---	
Logical Volumes						
Volume	Total Size	Free Size	Status	Format	Check Disk	Delete Disk Volume
Single Disk: Drive 1	915.82 GB	524.68 GB	Ready	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>

Step 2

Insert the new hard drives of 1TB capacity to drive slots 2, 3, and 4 of NVR. The NVR system detects the new hard disks. The status of the new disks is "Unmounted".

Current Disk Volume Configuration						
Physical Disks						
Disk	Model	Capacity	Status	Bad Blocks Scan	SMART Information	
Drive 1	Seagate ST31000340AS S004	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 2	Seagate ST31000340AS S004	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 3	Seagate ST31000340AS S004	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Drive 4	Seagate ST31000340AS S004	931.51 GB	Ready	<input type="button" value="Scan now"/>	Good	
Logical Volumes						
Volume	Total Size	Free Size	Status	Format	Check Disk	Delete Disk Volume
Single Disk: Drive 1	915.82 GB	524.68 GB	Ready	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>
Single Disk: Drive 2	--	--	Unmounted	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>
Single Disk: Drive 3	--	--	Unmounted	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>
Single Disk: Drive 4	--	--	Unmounted	<input type="button" value="Format now"/>	<input type="button" value="Check now"/>	<input type="button" value="Remove now"/>

Step 3

On **Device Configuration/ RAID Management Tool** page, select the drive configuration and click **Migrate**.



– RAID Management Tool

This function enables capacity expansion, RAID configuration migration or spare drive configuration with the original drive data reserved.

Note: Make sure you have read the instructions carefully and you fully understand the correct operation procedure before using this function.

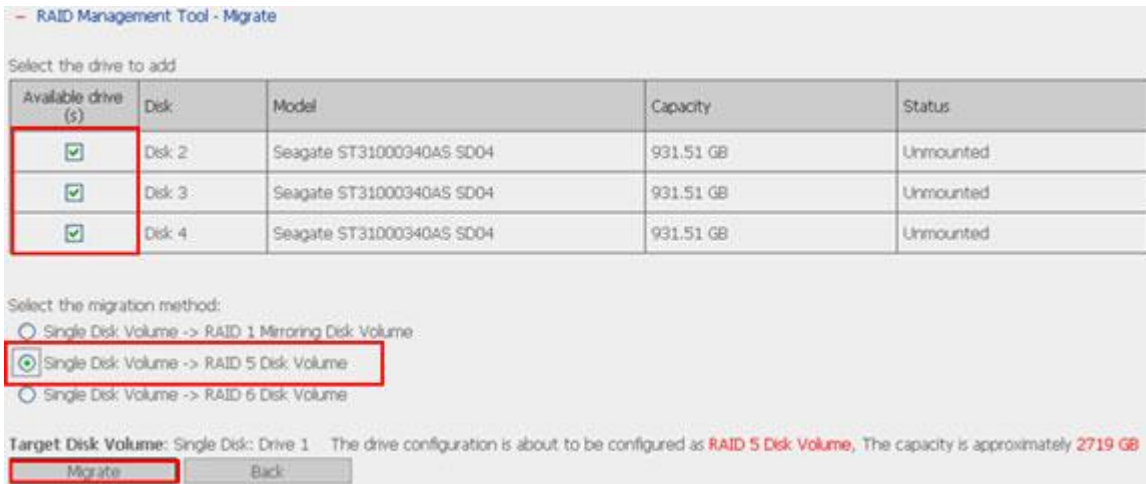
Current Disk Volume Configuration

Volume	Total Size	Status	Description
<input checked="" type="radio"/> Single Disk: Drive 1	915.82 GB	Ready	The operation(s) you can execute: - Migrate
<input type="radio"/> Single Disk: Drive 2	--	Unmounted	No operation can be executed for this drive configuration.
<input type="radio"/> Single Disk: Drive 3	--	Unmounted	No operation can be executed for this drive configuration.
<input type="radio"/> Single Disk: Drive 4	--	Unmounted	No operation can be executed for this drive configuration.

The operation(s) you can execute:

Step 4

Select one or more available drives and the migration method. The drive capacity after migration is shown. Click **Migrate**.

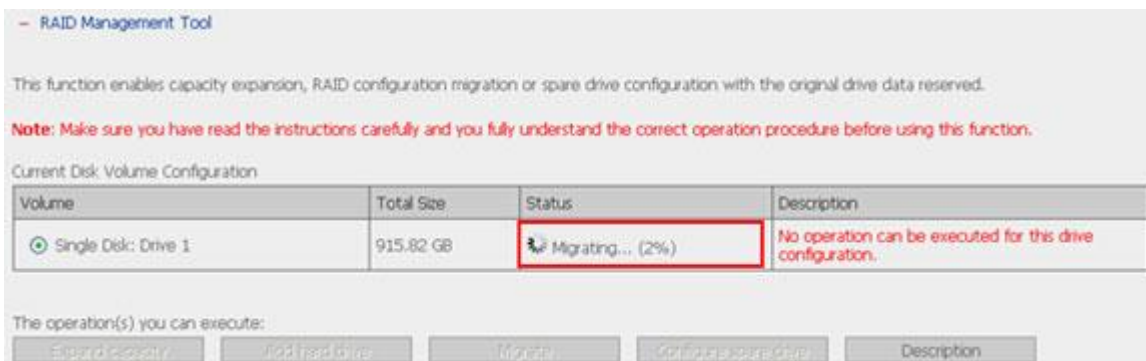


Note that all the data on the selected drives (new drives) will be cleared. Click **OK**.



Step 5

When migration is in process, the required time and total drive capacity after migration are shown in the description field.



Note: The NVR system will enter "read only" mode when the migration is in process during 11%~49% to assure the data of RAID configuration will be consistent after the RAID migration completes.

Step 6

After migration completes, the new drive configuration is shown (RAID 5) and the status is **Ready**. You can start to use the new drive configuration.

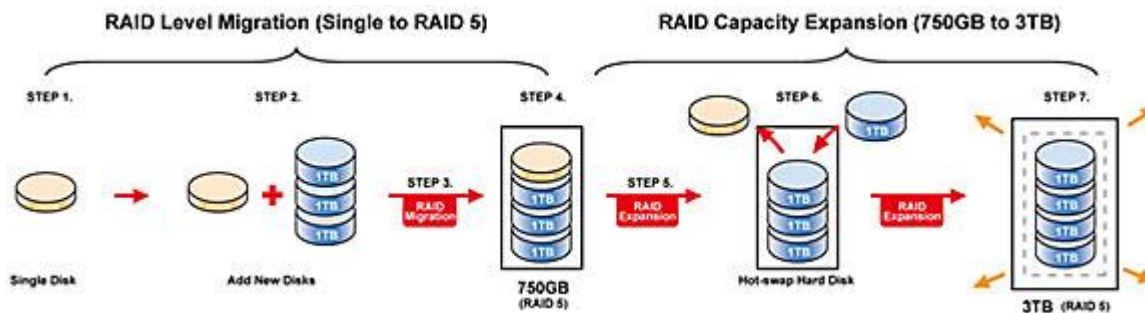
Current Disk Volume Configuration						
Physical Disks						
Disk	Model	Capacity	Status	Bad Blocks Scan	SMART Information	
Drive 1	Seagate ST31000340AS SD04	931.51 GB	Ready	Scan now	Good	
Drive 2	Seagate ST31000340AS SD04	931.51 GB	Ready	Scan now	Good	
Drive 3	Seagate ST31000340AS SD04	931.51 GB	Ready	Scan now	Good	
Drive 4	Seagate ST31000340AS SD04	931.51 GB	Ready	Scan now	Good	
Logical Volumes						
Volume	Total Size	Free Size	Status	Format	Check Disk	Delete Disk Volume
RAID 5 Disk Volume: Drive 1 2 3 4	2747.45 GB	2336.77 GB	Ready	Format now	Check now	Remove now

The process may take from hours to tens of hours to finish depending on the drive size. You can connect to the web page of NVR to check the status later.

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Case 3: Online RAID Capacity Expansion and Online RAID Level Migration together

To migrate the disk configuration of the VioStor from single disk volume (250GB) to RAID 5 and expand the storage capacity to 3TB. Follow the steps below.



1. Execute **Online RAID Level Migration** to migrate the system **from Single Disk to RAID 5**. The total storage capacity will be 750GB of RAID 5. (With one 250GB drive and three 1TB drives, the disk usage will be 250GB*4 for RAID 5.)
PS: You can refer to the Case 2 for detailed operation procedure.
2. Execute **Online RAID Capacity Expansion**, to replace the 250GB drive with a new 1TB drive, and then expand the logical volume **from 750GB to 3TB** of RAID 5.
PS: You can refer to the Case 1 for detailed operation procedure.

The VioStor NVR is an ideal end-to-end network surveillance system for system integrators, SMB, and enterprise. For more information about VioStor NVR, please refer to QNAP Security Products.

2015/07/22

T36. [Tutorial] How to Install the VioStor Series NVR in Different Network Environment for Standalone Use?

The VioStor series NVR provides two ports that you can configure failover, load balancing, or standalone functions. If you want to assign different IP settings for each network port, you can login "Network settings-> TCP/IP Configuration" page to configure standalone option. When your network surveillance system VioStor NVR, IP cameras, and PCs are installed behind the router, virtual server, or firewall, you will have to configure port forwarding (port mapping) for some of the IP cameras that use particular ports for MPEG4 image compression. This article demonstrates a few examples about installing the VioStor in different network environment for standalone use.

Note: In standalone mode, the LAN 2 is provided for internal connection among the NVR client, NVR server, and the network cameras. It does not support connection beyond the router.

Application 1:

1. The IP camera and the PC are in LAN 1.
2. The IP camera and the PC are in LAN 2.



Situation:

LAN 1:

Router 1 -> Camera 1, Local PC 1, VioStor

LAN 2:

Router 2 -> Camera 2, Local PC 2, VioStor

Please follow the steps below to install the VioStor.

1. Plan the IP address and the port of the VioStor, the camera, and the PC.

Network	Device	IP Address/ Port
LAN 1	LAN IP of the router 1	192.168.1.1
	VioStor	192.168.1.100
	Camera 1	192.168.1.101
	Local PC 1	192.168.1.200
LAN 2	LAN IP of the router 2	172.17.1.1
	VioStor	172.17.1.11
	Camera 2	172.17.1.12
	Local PC 2	172.17.1.100

2. Install the IP camera. Please refer to the user guide of the IP camera for the network configuration.

Conclusion:

Local PC 1:

Live View Function -

Status	Camera
OK	Camera 1
Failed	Camera 2

Recording Function - Successful for all cameras.

Local PC 2:

Live View Function -

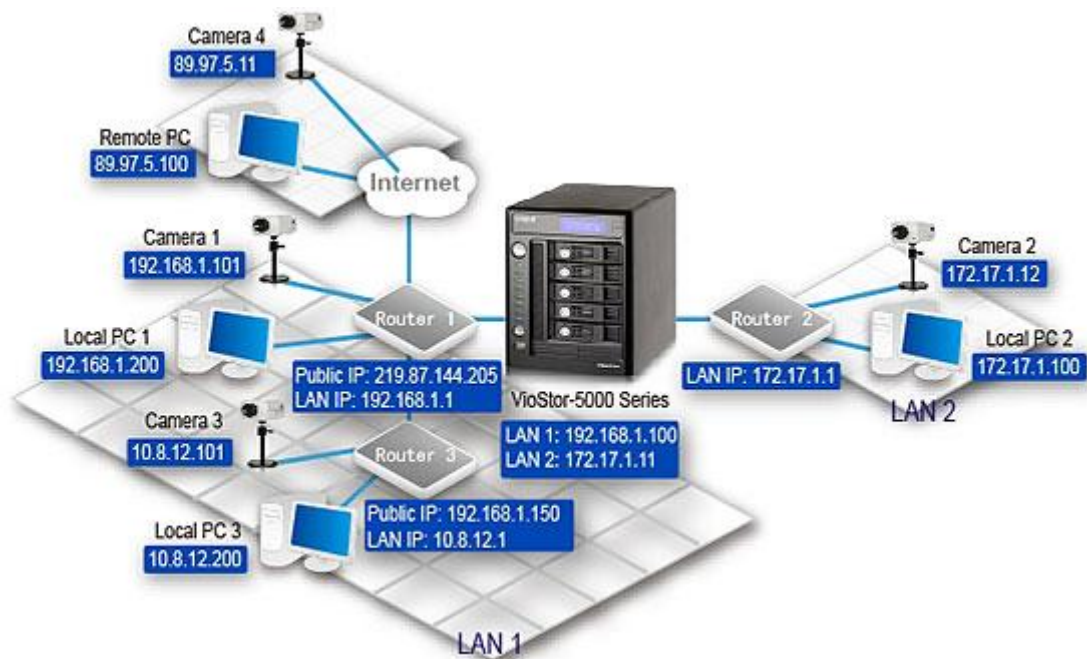
Status	Camera
OK	Camera 2
Failed	Camera 1

Recording Function - Successful for all cameras.

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Application 2:

1. Some IP cameras and the PCs are in LAN 1.
2. The IP camera and the PC are in LAN 2.
3. The IP camera is installed in remote location with Public IP.
4. Allow users to connect the VioStor from remote PC over the Internet.



Situation:

LAN 1:

Router 1-> Camera 1, Local PC 1, VioStor

Router 3-> Camera 3, Local PC 3

LAN 2:

Router 2-> Camera 2, Local PC 2, VioStor

WAN:

Camera 4, Remote PC

Please follow the steps below to install the VioStor.

1. Plan the IP address and the port of the VioStor, the camera, and the PC.

Configure the port mapping or virtual server on the Router 1 in LAN 1:
HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80

219.87.144.205:8001	192.168.1.101:80
---------------------	------------------

2. RTP port: Configure the port for VioStor to receive remote video data from the Camera 4

From	Forward to
219.87.144.205:6100	192.168.1.100:6100
219.87.144.205:6101	192.168.1.100:6101
219.87.144.205:6102	192.168.1.100:6102
:	:
:	:
:	:
219.87.144.205:6259	192.168.1.100:6259

3. Note: The default RTP (Real-time Transport Protocol) port range of the VioStor is 6100~6259. Please refer to FAQ.

4. The router's port forwarding:

The screenshot shows the router's configuration page with the following data:

Section	Item	Value
Version Info	Firmware Version	5.01.05
	Boot Version	0.01
	Hardware	01
	Serial No.	0E70057031A
LAN Settings	LAN/WLAN MAC	90-17-3F-5B-2E-C7
	IP Address	192.168.2.1
	Subnet mask	255.255.255.0
Internet Settings	WAN MAC address	00-17-3F-5B-2E-C8
	Connection Type	Dynamic
Features	UPnP	Enabled
	Firewall	Enabled
	Security	Enabled
WAN IP	WAN IP	219.87.144.205
	Default gateway	02.00.00.1
	DNS Address	62.30.512.39

The public IP of your router

5.



6.

7. Configure the port mapping on the Router 3 in LAN 1
HTTP port:

From	Forward to
192.168.1.150:8002	89.97.5.101:80

8. RTSP port: Configure the protocol for controlling video or audio streaming media from the Camera 3

From	Forward to
192.168.1.150:5001	89.97.5.101:554

9. Note:

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.

Please refer to the user guide of the IP camera for its RTSP port settings.

10. Install and configure the VioStor

Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields respectively on the "Camera Settings" page of the VioStor.

1. Enter the settings of the IP cameras in LAN 1.
Camera 1 "IP Address": 192.168.1.101 port 80
"WAN IP Address": 219.87.144.205 port 8001

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Axis	172.17.1.12	
3	Camera 3	Axis	192.168.1.150	10.8.12.101
4	Camera 4	Axis	89.97.5.11	
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Number: 1: Camera 1

Camera Brand: Axis 206

Camera Name: Camera 1

IP Address: 192.168.1.101

Port: 80

WAN IP Address: 219.87.144.205

(for monitoring) (for monitoring) (mark *)

Port: 8001

User Name: root

Password:

Enable recording on this camera

Buttons: Apply, Remove, Search, Test

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Camera 3 "IP Address": 192.168.1.150 port 8002/5001
 "WAN IP Address": 10.8.12.101 port 80

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.2
2	Camera 2	Axis	172.17.1.12	
3	Camera 3	Axis	192.168.1.150	10.8.12.101
4	Camera 4	Axis	89.97.5.11	
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera 3: 3: Camera 3

Camera Brand: Axis 207/207W

Camera Name: Camera 3

IP Address: 192.168.1.150

Port: 8002/5001

WAN IP Address: 10.8.12.101

(for monitoring from public network *)

Port: 80

User Name: root

Password:

Enable recording on this camera

Buttons: Apply, Remove, Search, Test

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note: The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.

2. Enter the settings of the IP camera in LAN 2.
Camera 2 "IP Address": 172.17.1.12
3. Enter the settings of the IP cameras in the Internet.
Camera 4 "IP Address": 89.97.5.11

Note:

1. The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
2. The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
 - The port 21 must be forwarded on the router in the following two situations:
 1. You use the alarm function of the remote IP camera (the alarm between the VioStor and the camera is delivered by FTP).
 2. You need to login the VioStor by FTP (port 21).

From	Forward to
------	------------

219.87.144.205:21	192.168.1.100:21
-------------------	------------------

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)
- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use the DDNS service, enter the DDNS settings on the router, but not on the VioStor.

Conclusion:

Local PC 1:

Live View Function -

Status	Camera
OK	Camera 1, Camera 3, Camera 4
Failed	Camera 2

Recording Function - Successful for all cameras.

Local PC 3:

Live View Function -

Status	Camera
OK	Camera 1, Camera 3, Camera 4
Failed	Camera 2

Recording Function - Successful for all cameras.

Local PC 2:

Live View Function -

Status	Camera
OK	Camera 2
Failed	Camera 1, Camera 3, Camera 4

Recording Function - Successful for all cameras.

Remote PC:

Live View Function -

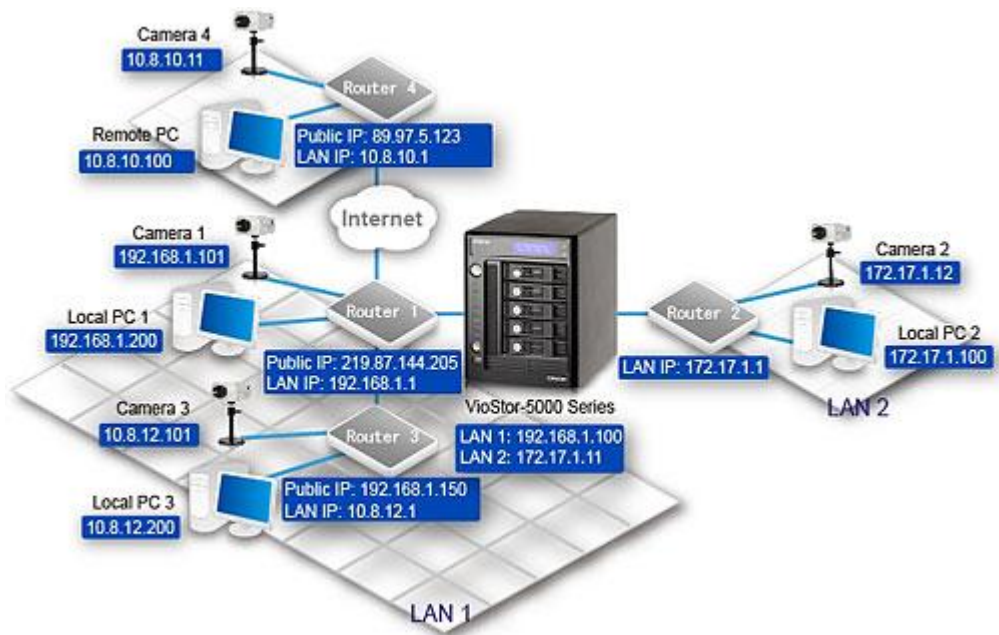
Status	Camera
OK	Camera 1, Camera 4
Failed	Camera 2, Camera 3

Recording Function - Successful for all cameras.

[↩ back to top](#)

Application 3:

1. Some IP cameras and the PCs are in LAN 1.
2. The IP camera and the PC are in LAN 2.
3. The IP camera is installed behind a different router in a remote location.
4. Allow users to connect the VioStor from remote PC over the Internet.



Situation:

LAN 1:

Router 1 -> Camera 1, Local PC 1

Router 3 -> Camera 3, Local PC 3, VioStor

LAN 2:

Router 2 -> Camera 2, Local PC 2, VioStor

WAN:

Router 4 -> Camera 4, Remote PC

Please follow the steps below to install the VioStor.

1. Plan the IP address and the port of the VioStor, the cameras, and the PCs.

Network	Device	IP Address/Port	Mapped Port (HTTP) on the Router
LAN 1	Public IP of the router 1	219.87.144.205	
	LAN IP of the router 1	192.168.1.1	

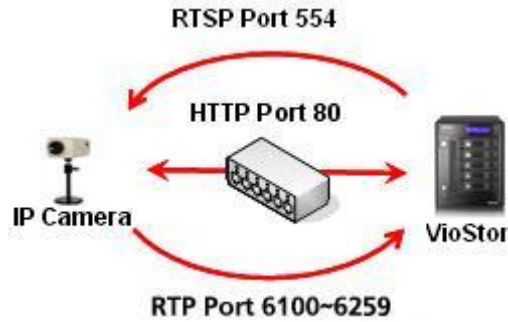
	VioStor	192.168.1.10 0:80	219.87.144.205:8000
	Camera 1	192.168.1.10 1:80	219.87.144.205:8001
	Local PC 1	192.168.1.20 0	
	Public IP of the router 3	192.168.1.15 0	
	LAN IP of the router 3	10.8.12.1	
	Camera 3	10.8.12.101:8 0	192.168.1.150:8002
	Local PC 3	10.8.12.200	
LAN 2	LAN IP of the router 2	172.17.1.1	
	VioStor	172.17.1.11	
	Camera 2	172.17.1.12	
	Local PC 2	172.17.1.100	
WAN	Public IP of the router 4	89.97.5.123	
	LAN IP of the router 4	10.8.10.1	
	Camera 4	10.8.10.11:80	89.97.5.123:8003
	Remote PC	10.8.10.100:8 0	89.97.5.123:8004

2. Install the IP cameras. Please refer to the user guide of the IP cameras for the network configuration.
3. Configure the router/ virtual server/ firewall
In this application, you have to configure the port mapping or virtual server of the routers in LAN 1 and LAN 2; and forward the ports to the corresponding LAN IP by the NAT router so that the VioStor can save the recording data from the remote IP camera and the remote PC can access the monitoring page over the Internet.

Note:

1. Some IP cameras delivers MPEG4 image via RTSP or RTP ports. If the IP camera is installed outside the router, you have to configure the RTSP and RTP ports on the router and the VioStor so that the VioStor can save the recording data from the IP cameras, e.g. Vivotek, Axis, D-link, GANZ, or LevelOne cameras that support MPEG4 streaming.

2. In this sample, you must configure the RTP port setting on the router of LAN 1 and the RTSP port setting on the router of the internet. Please refer to FAQ.
3. RTP (Real-time Transport Protocol): The protocol for delivering video or audio data.
4. RTSP (Real-Time Streaming Protocol): The protocol for controlling video or audio streaming media.



4. Configure the port mapping or virtual server on the Router 1 in LAN 1 HTTP port:

From	Forward to
219.87.144.205:8000	192.168.1.100:80
219.87.144.205:8001	192.168.1.101:80

5. RTP port: Configure the port for VioStor to receive remote video data from the Camera 4

From	Forward to
219.87.144.205:6100	192.168.1.100:6100
219.87.144.205:6101	192.168.1.100:6101
219.87.144.205:6102	192.168.1.100:6102
⋮	⋮
219.87.144.205:6259	192.168.1.100:6259

6. Note: The default RTP (Real-time Transport Protocol) port range of the VioStor is 6100~6259. Please refer to FAQ.
7. The router's port forwarding:

The screenshot shows the Mikrotik WinBox Status page. The WAN IP address is highlighted in red and labeled as "The public IP of your router".

Version Info	LAN Settings
Routerboard Version: 9.01.05	LAN/WLAN MAC: 98-17-3F-5B-2E-C3
Boot Version: 0.01	IP Address: 192.168.2.1
Hardware: RL	Subnet mask: 255.255.255.0
Serial No.: BE700570314	DHCP Server: Enabled

Internal Settings	Wireless
WAN MAC address: 98-17-3F-5B-2E-C8	MAC: Enabled
Connection Type: Dynamic	Firewall: Enabled
Subnet mask: 255.255.255.0	SSID: 98&u54g
WAN IP: 209.87.144.205	Security: Enabled
Default gateway: 192.168.1.1	
DNS Address: 82.30.112.39	

8.

The screenshot shows the Mikrotik WinBox Firewall > Virtual Servers configuration page. A table of port forwarding rules is shown, with a red box highlighting the first 11 rows. The text "Port Forwarding" is written in red over the table.

No.	LAN IP Address	Protocol Type	LAN Port	Public Port	Enable	
1	192.168.1.100	TCP&UDP	80	8000	<input checked="" type="checkbox"/>	Set Clean
2	192.168.1.100	TCP&UDP	6100	6100	<input checked="" type="checkbox"/>	Set Clean
3	192.168.1.100	TCP&UDP	6101	6101	<input checked="" type="checkbox"/>	Set Clean
4	192.168.1.100	TCP&UDP	6102	6102	<input checked="" type="checkbox"/>	Set Clean
5	192.168.1.100	TCP&UDP	6103	6103	<input checked="" type="checkbox"/>	Set Clean
6	192.168.1.100	TCP&UDP	6104	6104	<input checked="" type="checkbox"/>	Set Clean
7	192.168.1.100	TCP&UDP	6105	6105	<input checked="" type="checkbox"/>	Set Clean
8	192.168.1.100	TCP&UDP	6106	6106	<input checked="" type="checkbox"/>	Set Clean
9	192.168.1.100	TCP&UDP	6107	6107	<input checked="" type="checkbox"/>	Set Clean
10	192.168.1.100	TCP&UDP	6108	6108	<input checked="" type="checkbox"/>	Set Clean
11	192.168.1.100	TCP&UDP	6109	6109	<input checked="" type="checkbox"/>	Set Clean

9.

10. Configure the port mapping on the Router 3 in LAN 1 HTTP port:

From	Forward to
192.168.1.150:8002	89.97.5.101:80

11. RTSP port: Configure the protocol for controlling video or audio streaming media from the Camera 3

From	Forward to
192.168.1.150:5001	89.97.5.101:554

12. Note:

Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.
Please refer to the user guide of the IP camera for its RTSP port settings.

13. Configure the port mapping on the Router 4 in WAN HTTP port:

From	Forward to
67.52.84.200:8003	10.8.10.11:80
67.52.84.200:8004	10.8.10.100:80

14. RTSP port: Configure the protocol for controlling video or audio streaming media from the Camera 4

From	Forward to
67.52.84.200:5002	10.8.10.11:554

15. Note:
 - Please check the RTSP (Real-Time Streaming Protocol) port of the IP camera before configuring the port mapping on the router.
 - Please refer to the user guide of the IP camera for its RTSP port settings.
16. Install and configure the VioStor
 - Enter the IP address of the camera in the "IP address" field of the "Camera Settings" page of the VioStor. Then enter the Public IP and the port number of the camera configured on the router in "WAN IP" and "Port" fields respectively on the "Camera Settings" page of the VioStor.
1. Enter the settings of the IP cameras in LAN 1.
 - Camera 1 "IP Address": 192.168.1.101 port 80
 - "WAN IP Address": 219.87.144.205 port 8001

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Axis	172.17.1.12	
3	Camera 3	Axis	192.168.1.150	10.8.12.101
4	Camera 4	Axis	89.97.5.123	10.8.10.11
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Number: 1: Camera 1

Camera Brand: Axis 206

Camera Name: Camera 1

IP Address: 192.168.1.101

Port: 80

WAN IP Address: 219.87.144.205

(for monitoring mark *)

Port: 8001

User Name: root

Password:

Enable recording on this camera

Buttons: Apply, Remove, Search, Test

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Camera 3 "IP Address": 192.168.1.150 port 8002/5001
 "WAN IP Address": 10.8.12.101 port 80

- Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Axis	172.17.1.12	
3	Camera 3	Axis	192.168.1.150	10.8.12.101
4	Camera 4	Axis	89.97.5.123	10.8.10.11
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera: 3. Camera 3

Camera Brand: Axis 207/207W

Camera Name: Camera 3

IP Address: 192.168.1.150

Port: 8002/5001

WAN IP Address: 10.8.12.101

(for monitoring from Internet *)

Port: 80

User Name: root

Password:

Enable recording on this camera

Apply Remove Search

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

- Note: The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.
2. Enter the settings of the IP camera in LAN 2.
Camera 2 "IP Address": 172.17.1.12
 3. Enter the settings of the IP camera in the Internet.
Camera 4 "IP Address": 89.97.5.123 port 8003/5002
"WAN IP Address": 10.8.10.11 port 80

Camera Configuration

	Camera Name	Brand	IP Address	WAN IP Address
1	Camera 1	Axis	192.168.1.101	219.87.144.205
2	Camera 2	Axis	172.17.1.12	
3	Camera 3	Axis	192.168.1.150	10.8.12.101
4	Camera 4	Axis	89.97.5.123	10.8.10.11
5	Camera 5			
6	Camera 6			
7	Camera 7			
8	Camera 8			

Camera Name: 4: Camera 4

Camera Brand: Axis 207M/207MW

Camera Model: Camera 4

IP Address: 89.97.5.123

Port: 8003/5002

WAN IP Address: 10.8.10.11

(for monitoring from public network *)

Port: 80

User Name: root

Password: *****

Enable recording on this camera

Buttons: Apply, Remove, Search, Test

Note: All the camera configuration will not take effect until you click the "Apply" button.
 * If your IP camera is installed behind NAT router, you may input the public IP address (or URL) and the corresponding forwarded port of the router.

Note: The "Port" field refers to the HTTP and RTSP port. The default number of HTTP port: 80. To specify the RTSP port of the IP camera, add a slash (/) and RTSP port number after the HTTP port number.

Note:

1. The "IP address" is for the VioStor to acquire the streaming from the VioStor directly and for browsing by LAN users.
2. The "WAN IP Address" is for remote access to the monitoring page of the VioStor over the Internet. If your IP camera is installed behind the NAT router, enter the public IP address (or URL) and configure the port forwarding correctly.
 - The port 21 must be forwarded on the router in the following two situations:
 1. You use the alarm function of the remote IP camera (the alarm between the VioStor and the camera is delivered by FTP).
 2. You need to login the VioStor by FTP (port 21).

From	Forward to
219.87.144.205:21	192.168.1.100:21

- After changing the settings, enter the address in the browser to access the VioStor over the Internet: [http:// 219.87.144.205:8000/](http://219.87.144.205:8000/)

- If you have configured port 80 to VioStor, enter the address to access the VioStor (the default port of HTTP is 80): [http:// 219.87.144.205/](http://219.87.144.205/)
- To use the DDNS service, enter the DDNS settings on the router, but not on the VioStor.

Conclusion:

Local PC 1:

Live View Function -

Status	Camera
OK	Camera 1, Camera 3, Camera 4
Fail	Camera 2

Recording Function - Successful for all cameras.

Local PC 3:

Live View Function -

Status	Camera
OK	Camera 1, Camera 3, Camera 4
Failed	Camera 2

Recording Function - Successful for all cameras.

Local PC 2:

Live View Function -

Status	Camera
OK	Camera 2
Failed	Camera 1, Camera 3, Camera 4

Recording Function - Successful for all cameras.

Remote PC:

Live View Function -

Status	Camera
OK	Camera 1, Camera 4
Failed	Camera 2, Camera 3

Recording Function - Successful for all cameras.

2015/07/22

T37. [Tutorial] How to Use Multi-server Monitoring?

There're 2 ways to centrally monitor multiple servers at one VioStor NVR client.

1. **QSCM Lite:** QSCM Lite is a free app provided by QVR 5.0 that allows you to easily manage up to 16 QNAP NVRs and 256 cameras. This pioneering, powerful and free App can be directly downloaded from QNAP NVR UI. For more information about QSCM Lite, please refer:

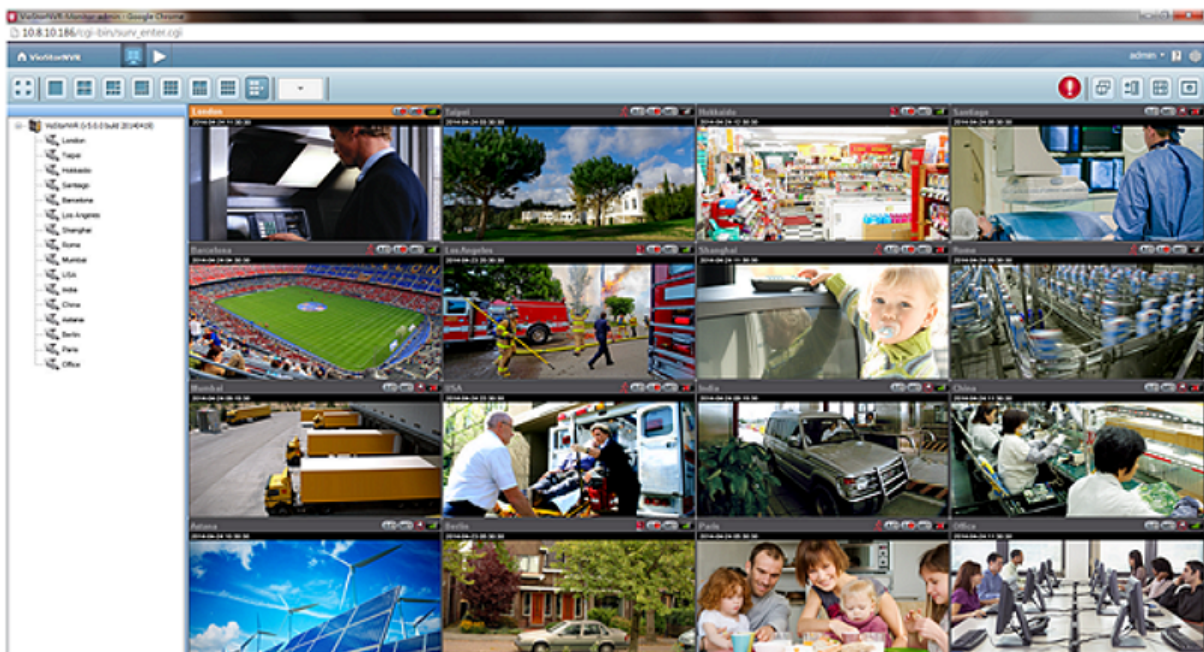
QSCM Lite tutorial:

[T21.\[Tutorial\] How to install QSCM Lite App?](#)

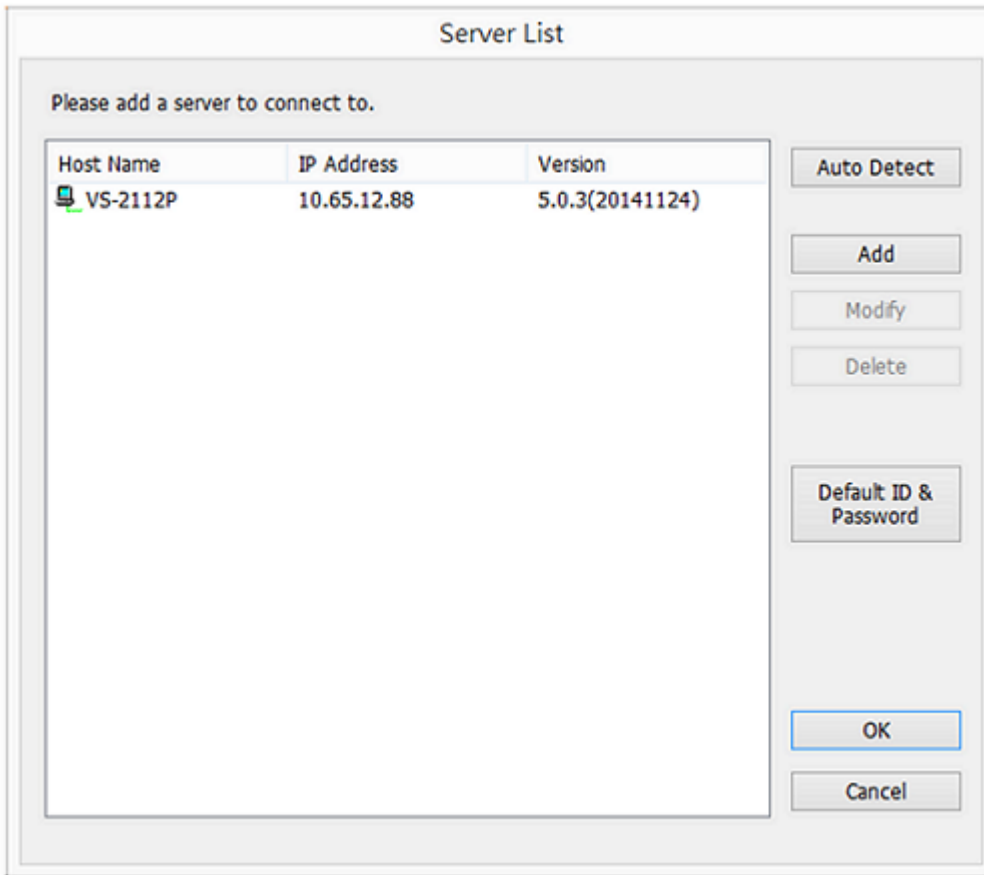
2. **Embedded multi-server monitoring:**

All VioStor NVR series support the stunning multi-server monitoring feature which allows 128-channel monitoring from multiple NVR servers. To use multi-server monitoring, please just follow these steps.

Step 1. When you have successfully logged in the VioStor, the monitoring page is shown.



Step 2. Click "Server List"  on the live view page.



a. Click "Auto Detect" to search for the QNAP NVR in the LAN and add the server to the server list.

b. Click "Add" to add the QNAP NVR to the server list.

Up to 128 channels from different NVR servers can be added for monitoring.

Such embedded system is, in the mean time, the most recognized and reliable surveillance deployment and a breakthrough which has never seen in the surveillance industry.

2015/07/22

T38. [Video] QNAP VioStor NVR (Network Video Recorder)



https://www.youtube.com/watch?v=IIOd8_Rek84

Applied to NVR FW v3.6.x



- H.264, MxPEG, MPEG-4 and M-JPEG recording
- Video search by intelligent video analytics (IVA)
- Digital watermark
- SMS and email alert
- Complete recording features
- Multi-server monitoring
- Multi-channel playback
- Simple installation
- Supports multi-display mode
- Advanced RAID feature with hot-swap hard drive design
- Energy-saving design

T39. [Video] A reliable surveillance solution - QNAP VioStor NVR



<https://www.youtube.com/watch?v=buwwfDITseE>

Applied to NVR FW v4.x

QNAP Security, a professional Linux-embedded standalone NVR provider, offers quality surveillance solutions with remarkable stability on remote monitoring, recording, HD local display and surveillance tasks under diverse environments. QNAP VioStor NVR delivers powerful surveillance features, including live-view, recording (various modes including motion detection and contiguous etc.), multi-server monitoring, PTZ control, preset position control and auto cruising, E-map, advanced event management, and intelligent video analytics, etc.

QNAP CMS supports centralized management of different NVRs and IP cameras at different locations. In combination with QNAP Turbo NAS, QNAP VioStor NVR offers a total storage expansion solution.

See how QNAP Security helps protect things you value.

