NVR FW V4.1.1 INSTRUCTION

QNAP Security

New Supported Feature and Enhancement

Edge Recording

Seamless recording

Smart Recording

Add SONY G6 Series cameras

Firmware 4.1.1

User Defined Multi-Stream

Add SONY G6 Series cameras

New Camera Support

Surveillance Storage Expansion

Compatible with NAS FW4.0.2

2-way Audio

Add AXIS IP cameras

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EDGE RECORDING

Seamless Recording

Why Edge Recording

- Problem Scenario:

The recording file cannot be stored when the camera loses connection with the NVR,

- Solution:

Several network cameras support video recording directly to on-board SD-Card now. This SD card recording solution can be leveraged for redundancy in our system.

- Advantage

If the camera loses connection with the NVR, edge recording requires the failover ability to resume the connection.

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Disconnected-1
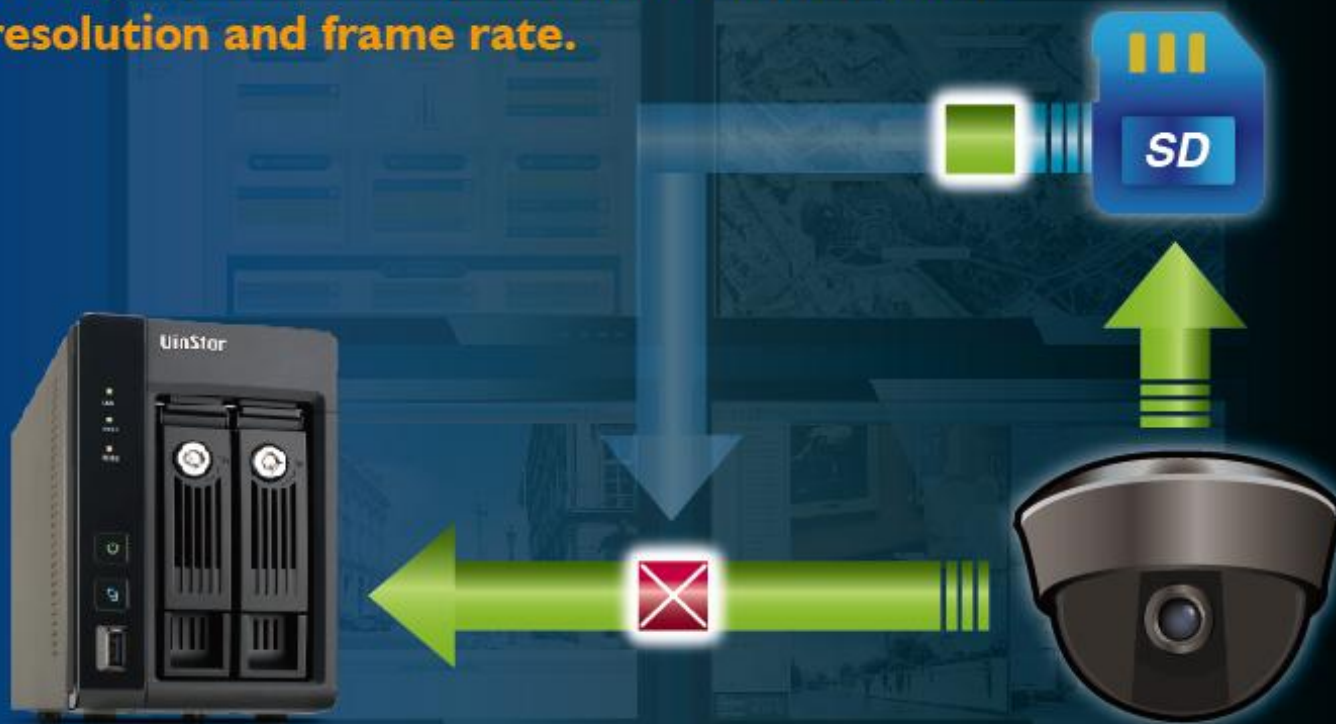
Disconnected-2

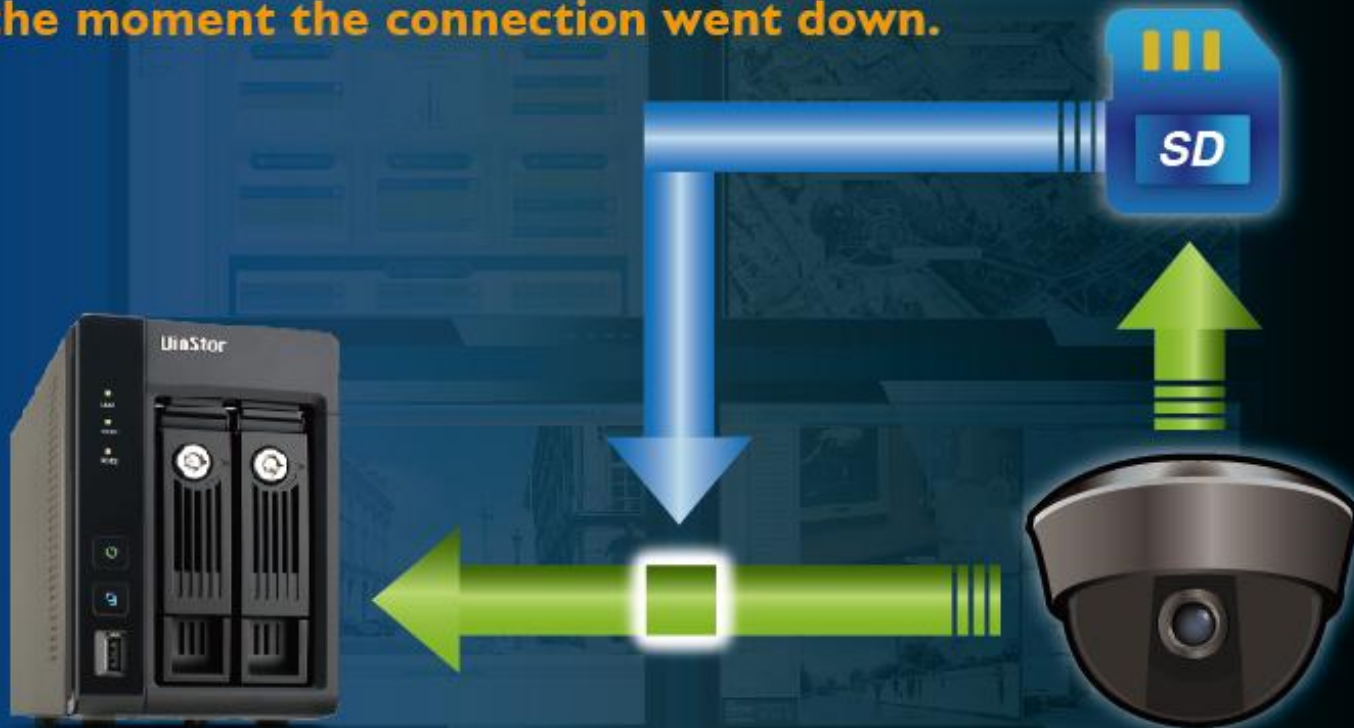The camera will keep recording to its on-board storage (ex: SD card) and maintain the same resolution and frame rate.

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SD

UinStor

http://www.qnapsecurity.com/

Resume the Connection

Supported Camera Models

AXIS:

AXIS M5013, P1343, P1344, P3343, P5534, Q1602

Important Reminders

- The codec setting of videos recovered from Edge Recording is fixed as H.264.

- Alarm stream of smart recording will be the recording stream on camera edge. So when you enable both smart recording and edge recording, the stream recovered from camera will be the stream you set for alarm recording.

- Edge Recording will only check and recover recording files in the scheduled period.

SURVEILLANCE STORAGE EXPANSION

NVR + NAS for Long-term Recording

Storage Expansion Solutions

* Applied series:

QNAP VioStor Pro(+) series (FW v4.1.0 or above)
Turbo NAS x69, x79, x70 series (QTS 4.0.2)

Turbo NAS
StorageExpansion App

VioStor NVR

IP camera

Video
Server

Analog
camera

IP camera

Video
Server

Surveillance
Storage Expansion

Analog
camera

Scalable and
higher efficiency

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Suggested Scenario

□ To make sure NVR CPU working well with the recording and storage expansion, we strongly suggest the following limitation of recording network throughput for specific VioStor NVR series, and CPU loading can be reserved for storage expansion.

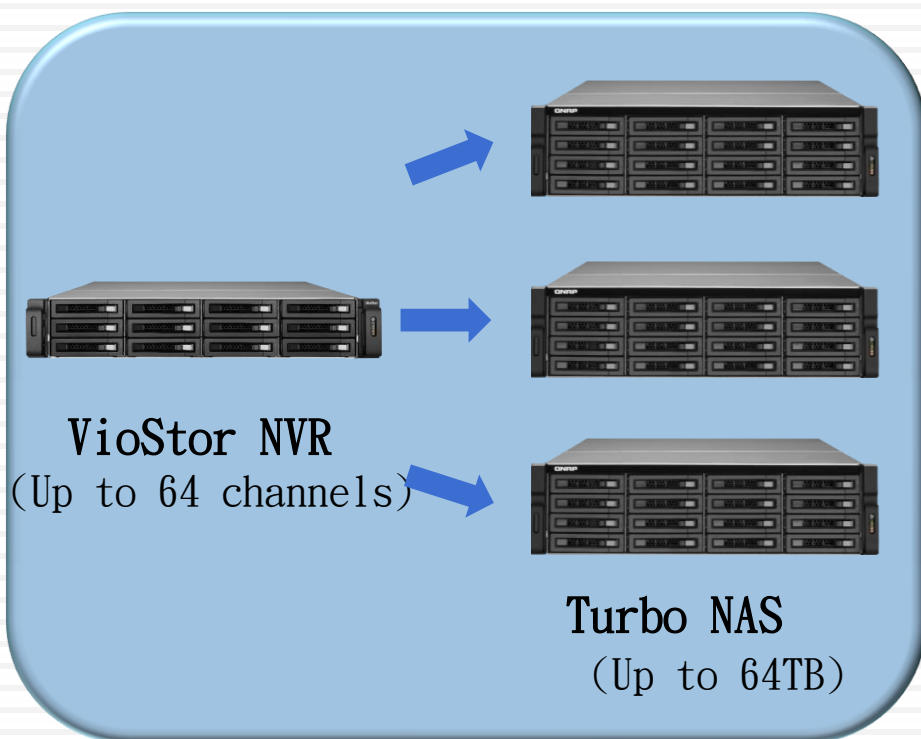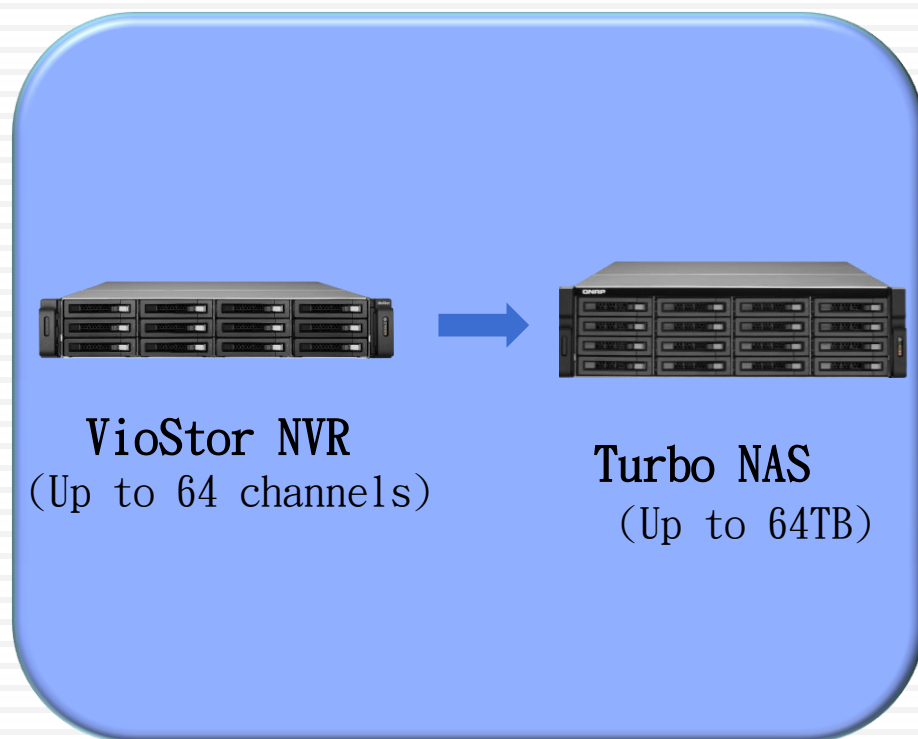| VS-2100 Pro+ 4100 Pro+ 6100 Pro+ series:	• Suggested limitation for recording network throughput: 160 Mbps.
VS-8100 Pro+/8100U-RP Pro(+)/12100U-RP Pro(+) series	• suggested limitation of recording network throughput: 360 Mbps.
VS-2000 Pro/4000 Pro/6000 Pro series	• suggested limitation of recording network throughput: 90 Mbps.

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Surveillance Storage Expansion

Solution A: One to N

Solution B: One To One

VioStor NVR
(Up to 64 channels)

Turbo NAS
(Up to 64TB)

VioStor NVR
(Up to 64 channels)

Turbo NAS
(Up to 64TB)

Whooping up to additional 200TB mass storage

Note: Design and specifications are subject to change without notice.

Important Reminders

- Applied models:

  QNAP VioStor Pro(+) series (FW v4.1.1 or above) Turbo NAS x69, x79, x70 series (FW v4.0.2).

- NAS must be dedicated for surveillance storage expansion use.

- For NVR and NAS servers located on the same subnet, please always use static IP addresses and the same subnet mask.

- Gigabit switch must be required for this application.

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USER DEFINED MULTI-STREAM

Configurable stream profile

User defined Multi-stream

*Stream setting can be configured by users

Supported Camera Models

AXIS

M1014/ M1033/ M1034/ M1054/ M1143/ M1144/ M3004/ M3006/ M7010/ M7014/ P1204/ P1214/ P1353/ P1354/ P1355/ P1357/ P3353/ P3363/ P3364/ P3367/ P3384/ P5544/ P7210/ P7214/ P7224/ P8513/ P8514/ Q1602/ Q1604/ Q1921/ Q1922/ P5522/ Q6035

SONY

SNC-VB600/SNC-VB600B/SNC-VB630/SNC-VM600/SNC-VM600B/SNC-VM630/SNC-VM601/SNC-VM601B/SNC-VM631

Vivotek

PZ81X1/ SD81X1/ FD8134/ IP8133/ IP8132/ FD8136/ FD8131/ CC8130

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SMART RECORDING

Save HDD Cost
and Boost Alarm Recording

The Solution

Different Recording Modes

BENEFIT : IMPROVE STORAGE EFFICIENCY ; REDUCE COST

■ **System configured (for standard usage):**

NVR System automatically select and allocate video streams from IP camera for different use.

■ **User defined (for advance usage):**

■**Round-the-clock Recording Mode**

Regular and Alarm: Record at defined video stream profile.

■**Smart Recording Mode**

Regular: Record normal routines in lower quality.

Alarm: Boost recording quality to include enough details for better observation.

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Round-the-clock Recording

Camera

VioStor NVR

Full HD 1080P recording, H.264, 30fps, 6Mbps bit rate

Full HD 1080P recording, H.264, 30fps, 6Mbps bit rate

Continuous Recording
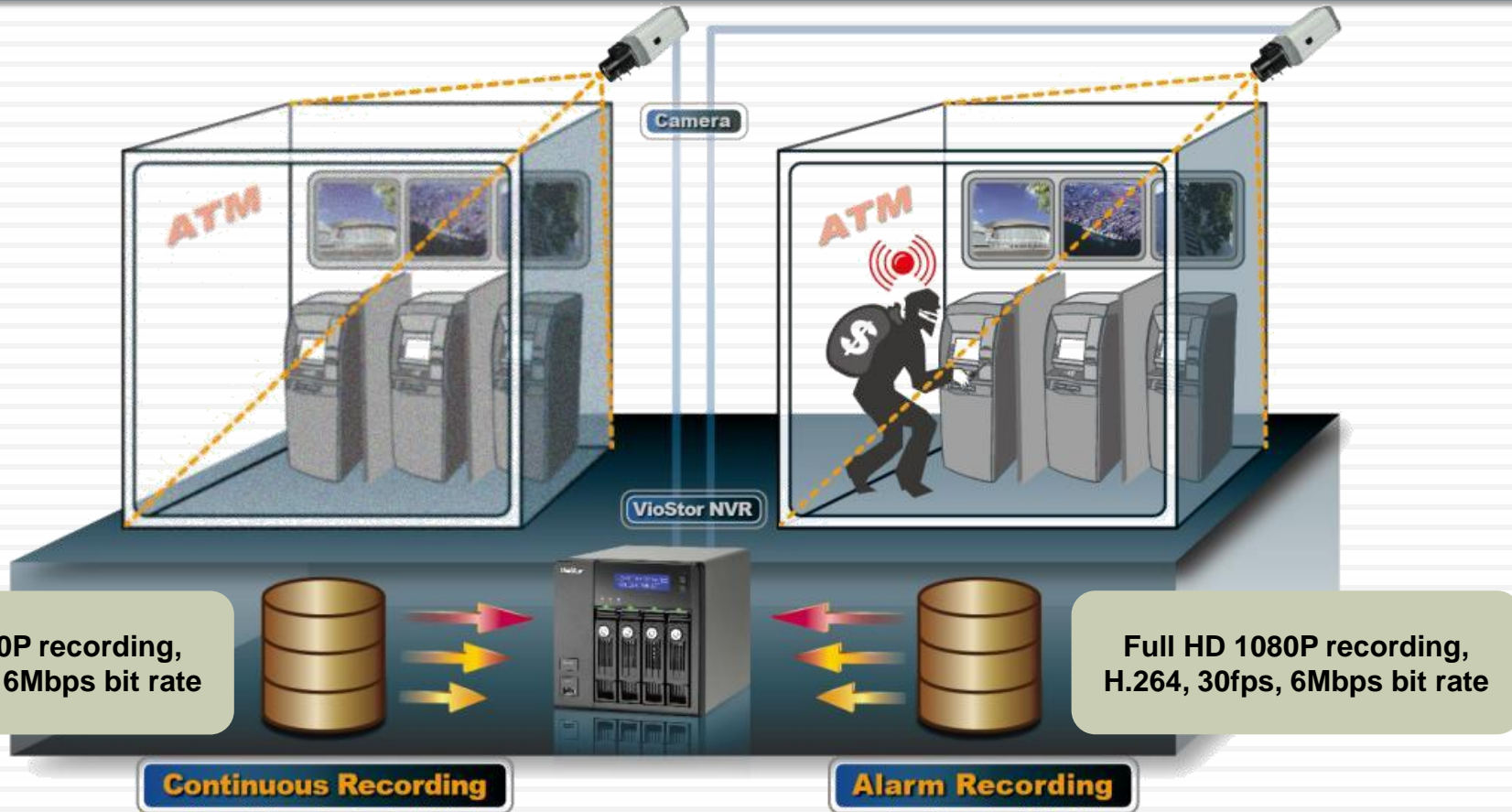
Alarm Recording

Uses one/same video stream for both alarm and regular recording at same resolution and FPS at ALL times.
---> Same demand for storage space ALL the time. Little flexibility.

Smart Recording

User defined – Smart Recording

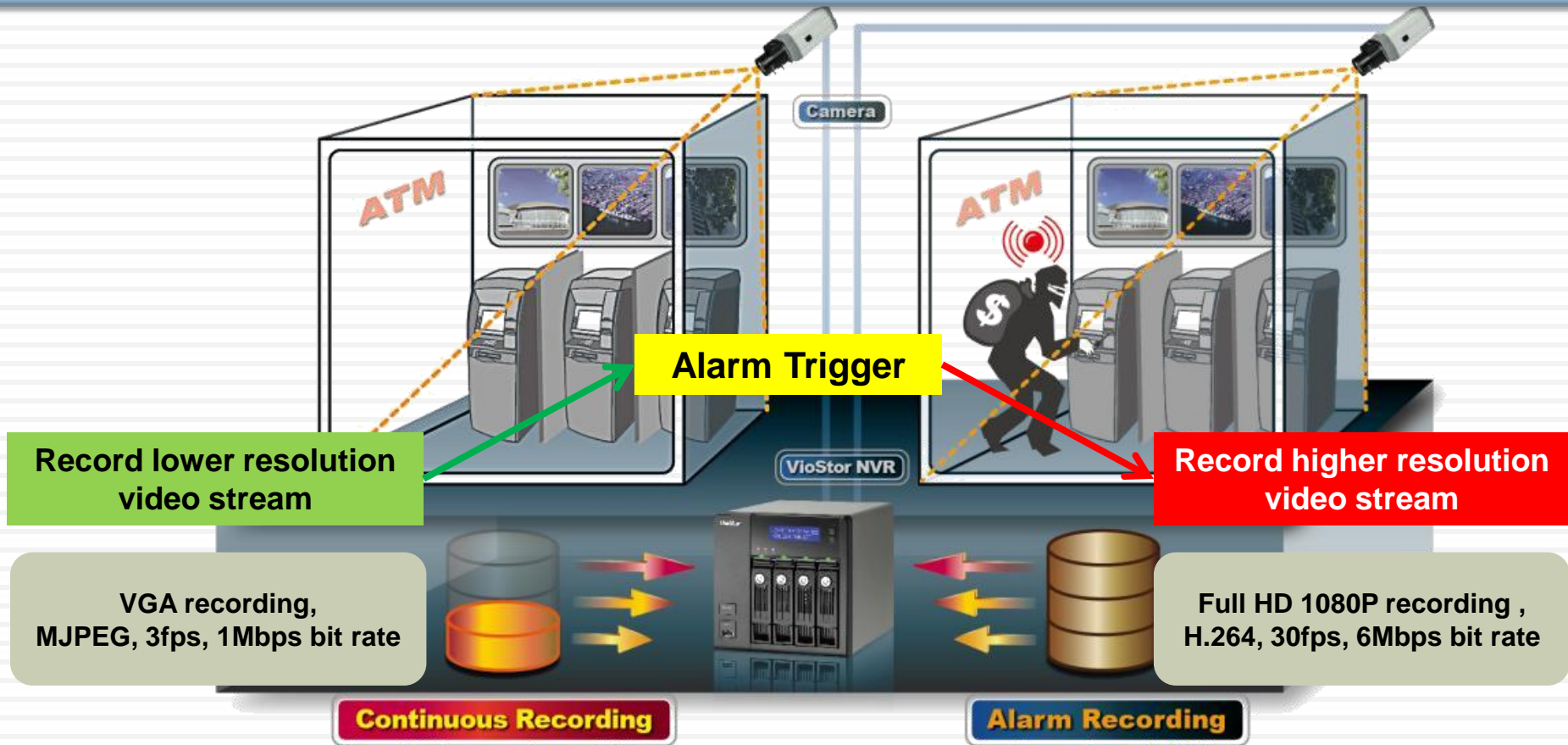Camera

Alarm Trigger

Record lower resolution video stream

Record higher resolution video stream

VioStor NVR

VGA recording, MJPEG, 3fps, 1Mbps bit rate

Full HD 1080P recording, H.264, 30fps, 6Mbps bit rate

Continuous Recording

Alarm Recording

**Dynamically switch to record higher resolution and FPS on alarm trigger.
Small bit rate stream for Regular Recording; high bit rate stream for Alarm Recording.
---> Higher demand for HDD storage space ONLY when an event occurs!**

Supported Camera Models

AXIS

M1014/ M1033/ M1034/ M1054/ M1143/ M1144/ M3004/ M3006/ M7010/ M7014/ P1204/ P1214/ P1353/ P1354/ P1355/ P1357/ P3353/ P3363/ P3364/ P3367/ P3384/ P5544/ P7210/ P7214/ P7224/ P8513/ P8514/ Q1602/ Q1604/ Q1921/ Q1922/ P5522/ Q6035

SONY

SNC-VB600/SNC-VB600B/SNC-VB630/SNC-VM600/SNC-VM600B/SNC-VM630/SNC-VM601/SNC-VM601B/SNC-VM631

Vivotek

PZ81X1/ SD81X1/ FD8134/ IP8133/ IP8132/ FD8136/ FD8131/ CC8130

Important Reminders

1. User cannot select the same stream as regular recording or alarm recording at the same time.

2. Camera specification can affect stream content. When user changes one of stream settings, other stream settings could be changed. This is a camera limitation. For example, if user selects H.264 or Full HD as video compression in the stream 1, stream 2 only can support M-JPEG or VGA as video compression.

3. Local display does not support smart recording related configuration.

4. When user modifies the recording setting on the local display, the NVR will change the "Multi- stream profile" from user defined to system configured.

5. Please estimate your internet status, smart recoding can consume more bandwidth.

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Two-way Audio
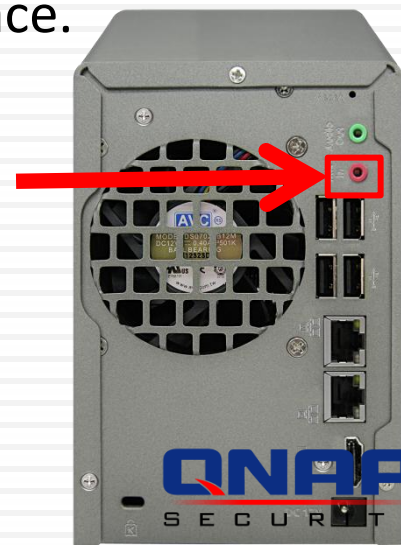# New Camera Support

Two-way Audio new camera support

☐ **Two-way Audio：**

➡ AXIS 212/ 214/ M1033/ M1034/ M1054/ P1343/ P1344/ P1346/ P1347/ P1353/ P1354/ P1355/ P1357/ P3301/ P3304/ P3346/ P3363/ P3364/ P3367/ P3384/ P5512/ P5534/ P5544/ P8221/ Q1602/ Q1604/ Q1755/ Q1902/ Q1910/ Q1921/ Q1922/ Q6032 / Q6034/ Q6035

➡ **VS-2100 Pro+/4100 Pro+/6100 Pro+ series：**

two-way audio is also supported in local display interface.

Audio in

NEW CAMERA SUPPORT

Newly Supported Brands

- ZERO ONE : IP2193PV2

Newly Supported Models

- **AVTECH**

  AVN284, AVM459, AVM500

- **Brickcom**

CB500Ap-360, FD-131AF, FD-132Np, MD-300Ap, VD-131Af, VD-301Af, MB-300Ap, WMB-300Ap, CB-300Ap, WCB-300Ap, CB-302Ap, WCB-302Ap, FD-302Ap, VD-302Ap, VD-300Ap, FD-300Ap, OB-300Ap, FB-300Ap, MD-300Ap, OB-302Ap, OB-300Af, VD-300Af

- **CP PLUS**

CP-UNC-TY30FL2, CP-RNC-TP20FL3C, CP-NC9W-K , CP-RNC-DV10, CP-UNC-BY20C, CP-UNC-DP10, CP-RNP-1820

- **D-Link**

DCS-2310L, DSC-5010L, DSC-5020L

- **Dynacolor**

W3A2(fisheye)

Newly Supported Models

- **Foscam**
  FI9826
- **Hikvision**
  DS-2DF7284-A
- **IQinVision**
  IQeye IQA31NI-B5
- **Panasonic**
  WV- SF438, WV-SW458
- **Planet**
  IVS-H125
- **TOA**
  N-CC2650M, N-CC2420MR
- **VIVOTEK**
  FD8131V, FD8151V, FD8163, FD8166, FE8173, FD8363, IP8152-F4, IP8332-C, IP8371-E, SD8363E
- **WISION**
  WS-A5P31-A
- **ZAVIO**
  D3110, D5114

Newly Supported ONVIF Models

- Supports monitoring, recording, and playback from more ONVIF conformant products.
  * To use ONVIF conformant products with QNAP VioStor NVR, ONVIF specification must be fully implemented by camera vendors. The following IP camera and video server models have been tested by QNAP.

  - BOSCH
    NBN-932V-IP
  - LILIN
    IPR6122ES

  Note: For other ONVIF conformant products, please execute the compatibility test before any further usage.