



# Innovative NVR Solutions

(For Enterprise, SMB, SOHO, Home Applications)



- PC-less network surveillance by HD local display
- 128-channel multi-server monitoring
- Megapixel recording

## QNAP VioStor NVR

**NVR Innovative Network Video Recorder**  
**VS-8040U-RP/8032U-RP/8024U-RP Pro**

- 8-bay, 24TB, 2U chassis, 40/32/24-channel
- Intel® Core™ 3.3GHz CPU, 2GB DDR3 memory
- Redundant power supply available
- PC-less network surveillance by HD local display
- Max network throughput: 360 Mbps\*

**NVR Innovative Network Video Recorder**  
**VS-8040/8032/8024 Pro**

- 8-bay, 24TB, 2U chassis, 40/32/24-channel
- Intel® Core™ 3.3GHz CPU, 2GB DDR3 memory
- PC-less network surveillance by HD HDMI or VGA local display
- High quality megapixel recording
- Max network throughput: 360 Mbps\*

**NVR Innovative Network Video Recorder**  
**VS-6020/6016/6012 Pro**

- 6-bay, 18TB, 2U chassis, 16/12/8-channel
- Dual-core Intel® Atom™ CPU, 1GB memory
- PC-less network surveillance by HD local display
- High quality megapixel recording
- Max network throughput: 176 Mbps\*

**NVR Innovative Network Video Recorder**  
**VS-4016/4012/4008 Pro**

- 4-bay, 12TB, 1U chassis, 16/12/8-channel
- Dual-core Intel® Atom™ CPU, 1GB memory
- PC-less network surveillance by HD local display
- High quality megapixel recording
- Max network throughput: 176 Mbps\*

**NVR Innovative Network Video Recorder**  
**VS-2012/2008/2004 Pro**

- 2-bay, 6TB, 12/8/4-channel
- Dual-core Intel® Atom™ CPU, 1GB memory
- PC-less network surveillance by HD local display
- High quality megapixel recording
- Max network throughput: 176 Mbps\*
- Power-saving design, consumes only 25W

**NVR Innovative Network Video Recorder**  
**VS-2008L/2004L**

- 2-bay, 6TB, 8/4-channel
- Marvell 1.2 GHz CPU, 256MB DDR2 memory
- Max network throughput: 28 Mbps\*
- Power-saving design, consumes only 13W

**QNAP SECURITY** is a member of **ONVIF**

- ▶ The standard system is shipped without hard drives.
- Based on QNAP's laboratory tests. Actual performance may vary depending on the network environment.

## Why QNAP NVR?

- ❶ **Supports a Broad Range of IP Cameras**  
The VioStor NVR supports H.264, MPEG-4, M-JPEG, and MxPEG recording from over 1,100 network camera models of many popular brands.
- ❷ **PC-less Network Surveillance by HD Local Display**  
The VioStor NVR supports PC-less system configuration, monitoring of IP cameras over the network, and video playback by a monitor or high-definition TV, a USB mouse, and a USB keyboard.  
\* For VioStor Pro series NVR only.
- ❸ **Multi-server Monitoring**  
You can connect to the VioStor NVR and add other QNAP NVR servers to monitor up to 128 channels on a PC over LAN or WAN.
- ❹ **Intelligent Video Analytics (IVA) for Fast Video Retrieval**  
The VioStor NVR supports intelligent video analytics (IVA), such as motion detection, missing object, foreign object, out of focus, and camera occlusion to provide fast video retrieval.
- ❺ **Advanced Event Management**  
The NVR provides various handling options when events are detected or alarms are triggered on the IP cameras.
- ❻ **Mobile Surveillance by VMobile App**  
With the VMobile app installed on your iPhone, iPad, iPod touch, Android phones, or Windows PDA, you can monitor your home and office and receive instant event alert anytime, anywhere.
- ❼ **RAID Data Protection**  
The VioStor NVR supports RAID 1, 5, 6, 5+hot spare, 6+hot spare to protect the recording data against hard drive failure. Single disk, JBOD, and RAID 0 are also offered.  
\* The RAID levels supported depend on the number of hard drives installed.
- ❽ **Convenient Video Backup to External USB Storage**  
You can press the one touch auto video backup button on the front of the NVR to copy the data from the NVR to an external USB storage device.
- ❾ **Linux-embedded System**  
The VioStor NVR is a Linux-embedded system which is more power-saving and less vulnerable to virus attack compared to PC-based surveillance solutions.

## Powerful Surveillance Features

**Real-time Remote Monitoring**

Up to 128 channels

**Multi-server Monitoring**

Cascade to other VioStor NVR servers to support up to 128 IP cameras.

**Diversified Remote Monitoring Modes**

- 1, 4, 6, 8, 9, 10, 12, 16, 20, 25, 36, 42-channel display mode
- Sequential display mode
- Exclusive Picture-in-Picture mode
- Dual display mode

**Smart Control of PTZ & Speed Dome Cameras**

You can adjust the PTZ cameras directly by the web-based and local display interface of the NVR.

**Preset Position Control and Auto Cruising**

You can view different preset positions of the IP cameras and configure auto cruising settings on the VioStor NVR for periodic monitoring of the preset positions of the PTZ cameras.

**Event Notification on Monitoring**

When alarm recording is enabled and an event occurs, an alarm icon is shown instantly on monitoring page. You can click the icon to view the alert details.

**Digital Zoom**

The VioStor NVR supports digital zoom for flexible monitoring and playback. It is a powerful function for megapixel IP cameras.

**Video Snapshot**

The VioStor NVR provides real-time monitoring and snapshot. You can take a snapshot of the monitoring screen anytime.

**Dynamic E-map**

The VioStor NVR provides an E-map function for users to upload digital maps and indicate the locations of the IP cameras of a monitoring location or region.

## High-definition (HD) Local Display

**Intuitive Local Display Interface**

You can configure the system, monitor the IP cameras and play the video conveniently via a USB mouse and a full HD (1920 x 1080) VGA monitor connected to VioStor NVR.  
\* For VioStor Pro series NVR only.

## Most Complete Recording Functions

- **High Quality H.264, MPEG-4, M-JPEG, and MxPEG Recording**  
Simultaneous multi-channel H.264, MPEG-4, M-JPEG, and MxPEG video recording of IP cameras.
- **Various Recording Functions**
  - Continuous, manual, scheduled recording
  - Alarm recording (by multiple alarm event)
  - Multiple alarm recording schedules
  - Pre-alarm and post-alarm recording
  - Audio recording
- **High Performance Megapixel Recording**  
The VioStor NVR supports high performance megapixel recording (up to 10-megapixel cameras supported) from various IP cameras.
- **Auto Snapshot**  
You can create maximum 15 schedules for automatic snapshot taking or configure the NVR to take snapshots (max 60) of an IP camera automatically every hour.
- **ONVIF-conformant Cameras Support**  
VioStor NVR users can now easily connect with standardized ONVIF network devices to support monitoring, video recording, and playback on the NVR.

## Convenient Backup Solution

- **Scheduled Remoted Replication**  
The VioStor NVR supports scheduled remote replication for secure recording backup to a remote NAS on LAN.
- **Convenient Video Backup to External USB Storage by One Touch Auto Video Backup Button\***  
The recording data on the NVR can be copied to an external storage device via the one touch auto video backup button.  
\* VS-8040U-RP/8032U-RP/8024U-RP Pro do not support this feature.

## Advanced Event Management

Advanced event management can be divided into two parts:

**Events**

The VioStor NVR supports different event types, including motion detection, alarm input, connection failure, recording failure, and user-defined event to trigger follow-up actions.

- **Motion Detection**  
When the IP camera detects any movement, the defined actions will be activated.
- **Alarm Input**  
When the VioStor NVR receives a signal from the IP camera's alarm input, the defined actions will be activated.
- **Connection Failure**  
When the VioStor NVR fails to connect to the IP camera, the defined actions will be triggered.
- **Recording Failure**  
When the VioStor NVR fails to record video due to hard drive failure or system crash, the defined actions will be triggered.
- **User-defined Event\***  
The VioStor NVR supports user-defined events. You can enter the CGI command in the browser to trigger the event, and the defined actions will be activated.  
\* 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](http://NVR/IP/cgi-bin/logical_input.cgi?name=User-defined Event Name)  
\* VS-8040U-RP/8032U-RP/8024U-RP Pro do not support this feature.

**Actions**

The NVR supports different actions when an event is triggered. These actions include multi-channel recording, adjusting the PTZ camera to the preset position, alarm output, built-in buzzer, email & SMS alert, and user-defined action.

- **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. 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.  
\* The VioStor NVR supports the alarm output of AXIS, Panasonic, SONY, ACTi, and VIVOTEK camera models.
- **SMS**  
The VioStor NVR sends an SMS message to inform the specified recipients when an event occurs.
- **Email**  
When an event occurs, the VioStor NVR sends an email with snapshot to notify the specified recipients.
- **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, and air-conditioning control system.

### Example

When a moving object is detected by IP camera 1, the VioStor 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.

## Playback Features

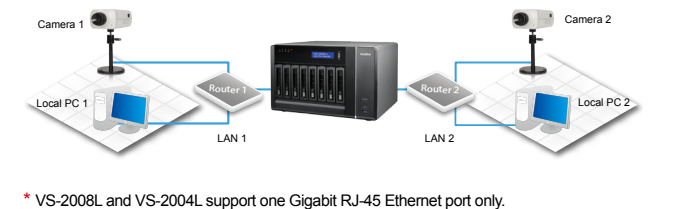
- **Multi-view Playback**  
You can use the multi-view playback feature to divide a video equally into multiple sessions for playback in a multi-view window, or play the videos of multiple IP cameras in the multi-view window simultaneously.
- **Real-time Digital Watermarking**  
The VioStor NVR supports digital watermarking to protect the videos and snapshots from unauthorized modification.
- **Data Search by Date & Time, Timeline, Event, and Intelligent Video Analytics (IVA)**  
The VioStor NVR supports quick search of recording data by date and time, timeline, event, and intelligent video analytics (IVA), including **motion detection, foreign object, missing object, out of focus, and camera occlusion**.
- **Motion Detection:**  
Detects movement in the video. The moving objects of the search area are highlighted in red brackets.
- **Foreign Object:**  
Detects a new object in the video. The foreign objects of the search area are highlighted in yellow brackets.
- **Missing Object:**  
Detects a missing object in the video. The missing objects of the search area are highlighted in yellow brackets.
- **Out of Focus:**  
Detects if the IP camera is out of focus.
- **Camera Occlusion:**  
Detects if the IP camera is obstructed.

## Security Control

- **Authority Management**  
Up to 32 users can be created on the VioStor NVR. The users can be classified as administrator, system manager, or general users with specified rights of monitoring, video playback, PTZ camera control, and audio monitoring.
- **Auto Logoff**  
The VioStor NVR supports automatic user logoff from idling configuration pages. The administrator can set the timeout period to log off the users when the idling time has reached.
- **Host Access Control**  
You can specify the host or IP connections to be allowed and denied to access the NVR.
- **Detailed Event Logs**  
You can view the record of users currently logged on and previously logged on to the VioStor NVR.
- **On-line and Historical User Lists**  
The VioStor NVR provides detailed event logs, such as system warning, hard disk error, network disconnection, motion detection and access to video files.
- **Intelligent Auto Power on after Power Recovery**  
The VioStor NVR turns on automatically when the power recovers after an outage.
- **UPS Support for 24/7 Service**  
The VioStor NVR supports APC, CyberPower, MGE, and YEC UPS devices to enable stable and continuous recording 24/7.
- **Advanced RAID Management**  
The VioStor NVR supports RAID 0, 1, 5, 6, 5+hot spare, 6+hot spare, single, and JBOD disk configurations.  
\* The RAID levels supported depend on the NVR models and number of hard drives installed.
- **Online RAID Capacity Expansion**  
The storage capacity of a RAID disk volume of the NVR can be expanded by replacing the hard drives with larger ones.
- **Online RAID Level Migration**  
You can upgrade the disk configuration of the NVR to a higher RAID level with the data retained. There is no need to turn off the server during the process.

## Network Services

- **Dual Gigabit LAN Ports for Failover, Load Balancing, or Multi-IP Settings\***
  - ▶ **Failover**  
Failover allows the VioStor NVR to sustain the failure of one network port to provide continuous services.
  - ▶ **Load Balancing**  
Bandwidth aggregation is supported to boost the file transfer speed (works with managed Ethernet switch with 802.3ad configured).
  - ▶ **Multi-IP Settings**  
Two IP settings can be configured on the NVR to allow network access from two different subnets.
- **Built-in DDNS Support**  
The VioStor NVR supports dynamic DNS (DDNS). You can register a unique domain name from a DDNS service provider and assign it to your NVR.
- **Built-in NTP Server**  
The date and time of the IP cameras can be synchronized with the VioStor NVR.
- **Convenient Data Access**  
You can access the recording data and snapshots on the VioStor NVR by Microsoft Networking (SMB/CIFS), web-based management (HTTP), or FTP.
- **Easy System Setup in Simple Steps**  
You can access the recording data and snapshots on the VioStor NVR by Microsoft Networking (SMB/CIFS), web-based management (HTTP), or FTP.
- **Intuitive User Interface**  
All the functions of the VioStor NVR can be managed anytime, anywhere via the web interface.
- **IP Cameras Search for Quick Settings**  
The VioStor NVR supports searching the IP cameras on the local network for quick configuration via the web-based management interface.
- **Quick Links to IP Cameras**  
Besides configuring the IP cameras by the administration interface of the VioStor NVR, you can also click the quick link buttons to connect to the management interface of the IP cameras.



\* VS-2008L and VS-2004L support one Gigabit RJ-45 Ethernet port only.

