QNAP NVR-101

Innovative Network Surveillance System for SOHO and Home

QNAP Network Video Recorder for IP Camera

*Live Monitoring & Video Playback
over the Internet Anytime, Anywhere*

Secure Life, Secure Property

Powerful All-in-one Recording Functions
- Continuous/ Manual/ Schedule recording
- Alarm recording (by motion detected or sensor triggered)
- Alarm recording schedule
- Real-time e-mail notification to user upon alert events
- Variety live video monitoring:
  - Single/ Quad/ Sequential/ Picture-in-Picture mode
- E-map function for easy preview of the camera location

Professional Surveillance Features
- High quality video recording in MPEG4 and Motion JPEG format
- Live 2-way audio supported for monitoring and voice broadcasting
- Convenient video backup to external USB storage by one touch auto video backup button

Easy to Use
- Easy setup in only 6 steps!
- All functions can be managed anytime, anywhere via web interface
- Intuitive user interface and simple GUI

High Performance
- Real-time monitoring and recording for up to 30 frames/sec per channel!!!
- High-speed Gigabit LAN interface

STATUS
HDD
eSATA
LAN
POWER

AUDIO | MOTION DETECTION | SENSOR TRIGGERED Alarm | PTZ | TIME STAMP AM 10:00 | MJPEG MPEG4 | Linux Embedded | RAID 0/1/JBOD | Gigabit Ethernet | SATA I / II

Real-time monitoring everywhere via web interface !

QNAP NVR-101

Secure Life, Secure Property

Innovative Network Surveillance System for SOHO and Home

The new era of network surveillance technology is coming!

Traditional analog surveillance system lacks of remote management and takes high installation cost since video monitoring, recording, and maintenance can only be done locally over the physical wiring. Due to the popularity of broadband environment, the QNAP NVR-101 network surveillance system has broken through the limitations of traditional surveillance. The live videos of the IP cameras can be monitored and recorded. It is an ideal solution for various applications, including remote monitoring of childcare situation, elder care, home and office security, and long-term environmental monitoring that provides tremendous peace of mind.

The unrivaled QNAP NVR technology realized the true boundless surveillance over the network. The NVR-101 can be easily set up in an Ethernet-ready environment without any complicated wiring. The system settings can be managed via the IE browser anytime, anywhere. All the professional surveillance software functions are embedded in the NVR without the need of installing extra software. The NVR supports smart PTZ camera control. Users can simply click on the graphic control panel to zoom in or zoom out the PTZ camera, or move the monitoring direction. Preset positions can also be defined for the PTZ camera by the NVR for intelligent

monitoring. The recordings can be accessed remotely via web, FTP, or My Network Places with access right control. The NVR-101 provides a user-friendly web interface for straightforward management and allows even novice to use the system easily.

The NVR-101 provides versatile professional recording modes: continuous recording, motion-detection recording, event-triggered recording, schedule recording, and manual recording. Advanced features such as sensor-triggered recording, schedule recording upon different alarm modes, and two-way audio recording are offered for different deployment applications, efficient storage capacity usage, and quick recording data search.

The embedded and energy-saving design of QNAP NVR-101 enables non-stop system operation 24x7. The power consumption of the NVR is less than 18W, which is more power-saving than an energy-saving bulb! Moreover, the NVR-101 is equipped with a low-noise fan for quiet operation. The compact server can be installed anywhere at home or office like other ordinary electric home appliances. It is the new generation digital surveillance solution for modern home and small office.

Application

Application Diagram: Live Monitoring, Recording, and Video Playback over the Internet Anytime, Anywhere
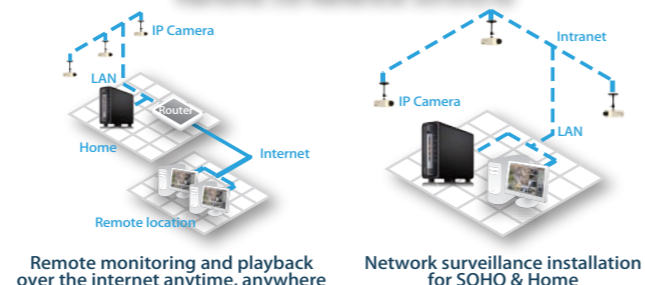
- ☑ High quality video recording in MPEG4 and Motion JPEG format
- ☑ Real-time monitoring and recording for up to 30 frames/sec per channel!!!
- ☑ Live 2-way audio supported for monitoring and voice broadcasting [*1]
- ☑ All sorts of alarms supported (sensor-triggered, motion detection, etc.) [*2 *3]
- ☑ Easy installation and management from remote locations
- ☑ Standalone system, no extra PC or utility required
- ☑ Stable, energy-saving, can operate 24x7 non-stop
- ☑ Small-sized, easy to deploy.

Garage

PTZ camera

Zoom in/ zoom out and control camera's direction remotely

Living room

UPS

Fixed IP camera

Childcare and elder care

Router

Internet

RAID 1 mirroring (QBack-35S)

Family

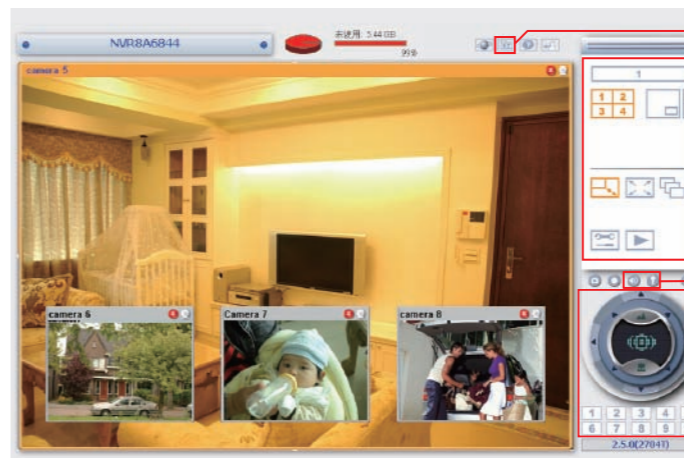Remote monitoring over the Internet

Garden

Applications

◎ **Business Service**
- Live production line monitoring for quality and security control
- Shipping process recording
- Crime prevention, e.g. shoplifting
- Parking lot monitoring
- Construction site monitoring
- Convenience store security management
- Campus security management
- Server room security management
- Gas station security
- Hotel security
- Multiple remote offices/ factory sites live monitoring

◎ **Office Management**
- Real-time office monitoring from remote locations
- In-house office monitoring
- Office security fortification
- False alarm identification

◎ **Home Care**
- Home surveillance to secure life and property
- Enhanced protection for kids, elders, and pets
- Crime prevention
- Evidence or aid to police investigations

Remote Surveillance Solutions

IP Camera

LAN

Router

Home

Internet

Remote location

Remote monitoring and playback over the internet anytime, anywhere

IP Camera

Intranet

LAN

Network surveillance installation for SOHO & Home

Live real-time monitoring

Electronic map for easy preview
Electronic map (E-map) can be uploaded for ease of identification of monitoring locations.

Variety live video monitoring
Single-channel, multi-channel (max. 4 channels), and picture-in-picture monitoring modes are supported for flexible and key-location monitoring.

Supports live 2-way audio
Real-time audio and video monitoring, voice broadcasting. [*1]

Smart PTZ camera control by direct clicking on the control panel
You can zoom in/ zoom out and control camera's direction by the "click and go" intuitive control panel. Preset positions can be easily and precisely controlled. [*4]

Instant alarm, in case any accident should happen

Instant on-screen alert and e-mail alert

- Instant alarm signal will appear on the monitoring screen to alert users.

- Alert e-mails will be sent to administrator immediately when a system error or emergent event takes place.

Various alarm type to capture

- **Motion detection**
  Recording is triggered when a moving object is detected by the camera. [*2]

- **Sensor-triggered alarm**
  The NVR can receive any alarm signals from the cameras specified by the users, e.g., when a door or window is opened, or smoke is detected, recording will be activated automatically. [*3]

- **Alarm schedule recording**
  Different recording modes can be defined for different time periods, e.g. alarm recording at daytime and continuous recording at night time.

Powerful system functions and data protection

UPS (Uninterruptible Power Supply) supported for continuous services against interruption or risk of data crash caused by power outage.

Video data can be exported to an external storage device via the one-touch copy button for ease of archiving. *It is suggested to use USB backup devices, e.g. QBack-25S, QBack-35S.

When the power resumes after a power outage, PC-based recording solution will not be started up automatically and recording is stopped. QNAP NVR supports automatic system startup and recording is enabled immediately after power resumes. The system maintenance cost is largely reduced.

RAID 1
Supports advanced RAID1 mirroring for ultra secure data protection by connecting to an external eSATA device, e.g. QBack-35S.

Most complete recording functions

All-in-one recording modes
- Continuous/ Schedule/ Manual recording
- Alarm schedule recording (by motion detected or sensor triggered) [*2 *3]
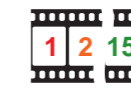- Synchronized audio recording [*1]

With scheduled recording, users can set different recording schedules for different cameras. Up to 15 schedules are supported for each camera. Manual recording allows users to activate recording in any necessary conditions. The NVR-101 also provides alarm recording that starts automatically when motion detection or camera sensor is triggered.

Standard video recording format with Time Stamp
The recordings are saved in AVI format (codec provided) for easy playing by Windows Media Player. Time stamp on the video is provided for convenient data search and can be used as legal evidence.

Flexible adjustment of the length of recording files
User can adjust the length of the recording files flexibly (1-15 minutes).

Trouble-free setup and effortless maintenance

Easy 6-step Setup
Quick installation wizard is provided for users to finish system setup in 6 steps within 5 minutes. Intuitive web-based interface is provided for easy configuration.

Manage and access recordings remotely
Recording data can be retrieved securely and remotely via web, FTP, and My Network Places with login access control.

Environment-friendly and energy-saving design

The normal power consumption of the NVR in operation is less than 18W (less than the power consumption of an energy-saving light bulb).

Low Power Consumption
Power Consumption

NVR-101 (In operation)	18 W
Laptop	65 W
Desktop PC	350 W

The low-noise fan design allows long-term and quiet operation at home or in office.

Hardware Specifications

HDD:
- Support 1 x 3.5" SATA I/II HDD, up to 1TB or above, expandable to 2TB via eSATA (the HDD is not included)

LAN Port:
- 1 x Gigabit RJ-45 Ethernet port

LED Indicator:
- Power, USB, status, LAN, hard disk USB: 3 x USB; for USB storage device (One Touch Auto-Video Backup) and UPS device

Button:
- USB auto-video backup button, power button, reset button

Form Factor:
- Portable desktop

Hardware Dimension:
- 218.4(D) x 60(W) x 165.5(H) mm

Hardware Net Weight:
- 0.71Kg (without HDD) Color Box Shipping Weight: 1.57 Kg (without HDD)

Temperature:
- 0~35˚C

Humidity:
- 0~85% R.H

Power Supply:
- External power adapter, 36W, 100~240V

Energy Saving Design:
- Low power consumption & low noise

Thermal Solution:
- Low noise fan

Secure Design:
- K-Lock security slot for theft prevention
- Power cord hook for kicking-off prevention

Functions supported by QNAP NVR-101 corresponding to the IP camera models

	Motion JPEG	MPEG4	*1 Audio	*2 Motion Detection	*3 Sensor-Triggered Alarm	*4 PTZ
Panasonic						
BL-C1/ BL-C20	○		1-way	○	○	
BL-C11/ BL-C10/ BL-C111/ BL-C131/ BL-C30/ BL-C31	○		1-way	○	○	PT
AXIS						
AXIS 206	○					
AXIS 207	○			○	○	
AXIS 207W	○		1-way	○	○	
IPUX						
ICS 1013/ ICS 1003	○		2-way	○		
Linksys						
WVC54GCA	○					
D-Link						
DCS-900	○					
DCS-2120		○		○		
DCS-3220(G)/ DCS-3420		○		○	○	
DCS-5220		○		○		PT
DCS-5300(G)		○		○	○	PT
DCS-6620(G)	○	○		○	○	PTZ
Vivotek						
IP3112/ IP3122/ IP3111/ IP3121/ IP3132		○		○	○	
IP3135/ IP3137		○		○		
PT3112/ PT3122/ PT3117/ PT3127		○		○	○	PT
IP7135/ IP7137		○		○		
IP7131/ IP7132		○		○	○	
PT7135/ PT7137		○		○		PT
LevelOne						
FCS-1010/ WCS-2010		○		○	○	PT
FCS-1030/ WCS-2030		○		○		
FCS-1040/ WCS-2040	○	○		○	○	PTZ
FCS-1060/ WCS-2060		○		○		PT
FCS-1070/ WCS-2070	○	○		○	○	
FCS-3000/ FCS-3021	○	○		○	○	

For latest information about supported camera models, please visit QNAP website at http://www.qnap.com

Software Specifications

Video
Display Mode:
- 1, 4, Picture in Picture, Sequential mode

Recording Connection:
- Up to 4 channels

Compression Format:
- Motion JPEG and MPEG 4 (depend on IP Camera)

Video Setting:
- Resolution, quality, frame rate

E-map:
- Upload E-map

Recording
Recording Mode:
- Continuous, manual, schedule, alarm, motion, snapshot

Buffer Storage for Alarm Images (before & post events):
- Pre-recording: 300 seconds; post–recording: 300 seconds (total 600 seconds/ 10 minutes)

Recording Performance:
- Up to 120 frames at QVGA (320x240) or CIF (352x240 in NTSC, 352x288 in PAL)
- Up to 40 frames at VGA (640x480)
* Real performance may vary in different environment

File format:
- AVI

Playback
Playback Mode:
- Play, pause, stop, fast forward, full screen display

Video Search:
- Search by date, time, alarm event, file

Video Player:
- Immediate playback by default video player

Download:
- Click to download recorded files from web page

Alarm Notification
- Real-time e-mail notification to user upon alert events

Storage
Disk Mode:
- Single, RAID 0, RAID 1, JBOD/ Linear

Capacity:
- Support 1 x 3.5" SATA I/II HDD, up to 1TB or above, expandable to 2TB via eSATA

Management:
- Web File Manager, FTP, SMB/CIFS

Network
Support:
- HTTP, TCP/IP, SMTP, DHCP, Static IP, DNS, DDNS, FTP, NTP, UPnP

Camera IP Address & Port:
- Allow setting LAN/WAN IP address of each camera

Security
Operation System:
- Linux-embedded, free from PC crash and virus attack

User Management:
- The right to access control (up to 32 users)

Alert Notification:
- E-mail, buzzer, event logs, recording

UPS:
- Support APC (USB type of UPS)

Event Logs:
- Detailed record of all events

Client PC Requirement (suggested system requirement for better video performance)
CPU:
- Pentium® 4 CPU 2 GHz, higher Memory: 512 MB or above

Operation System:
- Windows XP® or later

Browser:
- Internet Explorer 6.0 or later

Network Interface:
- 10/100 Mbps or above

View Resolution:
- 1024 X 768 pixel or above

Language Support
English/ Japanese/ French/ Italian/ German/ Spanish/ Russian/ Dutch/ Simplified Chinese/ Traditional Chinese
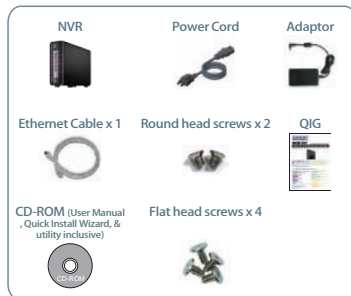
Utility Software
QNAP Finder:
- QNAP Finder is provided for quick server setup and NVR discovery in LAN

Certification
- CE, FCC, VCCI, BSMI

Package Contents

NVR
Power Cord
Adaptor
Ethernet Cable x 1
Round head screws x 2
QIG
CD-ROM (User Manual , Quick Install Wizard, & utility inclusive)
Flat head screws x 4

Optional Accessories

QBack-35S

QBack-25S

Hardware Illustration

One Touch Auto Video Backup Button
USB 2.0
USB
Status
HDD 1
eSATA
LAN
Power
LED Indicators
Power Button

USB 2.0 × 2
eSATA
Giga LAN
K-Lock Security Slot
Reset Button
Power Connector
Power Cord Hook

*Designs and specifications are subject to change without notice. Please contact QNAP for updated information.

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