

# Innovative Network Surveillance System for SOHO and Home

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

- 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

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

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



**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

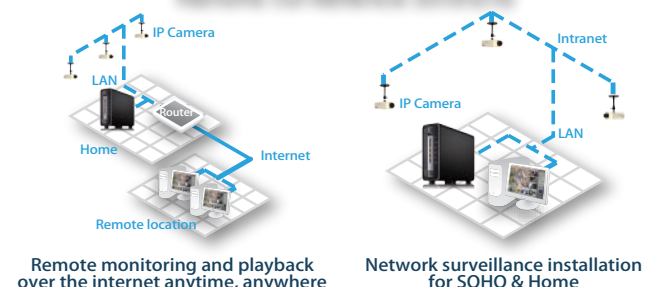
- ✓ High quality video recording in MPEG4 and Motion JPEG format
- ✓ Real-time monitoring and recording for up to 30 frames/sec per channel!!!
- ✓ Live 2-way audio supported for monitoring and voice broadcasting \*1
- ✓ All sorts of alarms supported (sensor-triggered, motion detection, etc.) \*2 \*3
- ✓ 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.



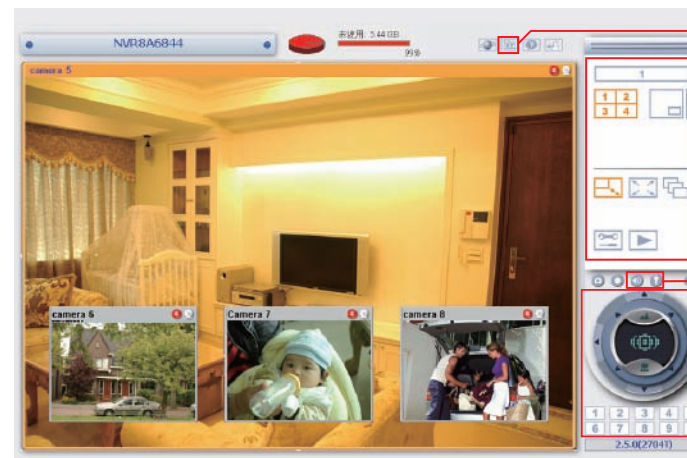
### Applications

- **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



### 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.



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 |
|--|-------------|-------|----------|---------------------|---------------------------|--------|
| <b>Panasonic</b>                                 |             |       |          |                     |                           |        |
| BL-C1/ BL-C20                                    | ○           |       | 1-way    | ○                   | ○                         |        |
| BL-C11/ BL-C10/ BL-C111/ BL-C131/ BL-C30/ BL-C31 | ○           |       | 1-way    | ○                   | ○                         | PT     |
| <b>AXIS</b>                                      |             |       |          |                     |                           |        |
| AXIS 206   | ○           |       |          |                     |                           |        |
| AXIS 207   | ○           |       |          | ○                   | ○                         |        |
| AXIS 207W  | ○           |       | 1-way    | ○                   | ○                         |        |
| <b>IPUX</b>                                      |             |       |          |                     |                           |        |
| ICS 1013/ ICS 1003                               | ○           |       | 2-way    | ○                   |                           |        |
| <b>Linksys</b>                                   |             |       |          |                     |                           |        |
| WVC54GCA   | ○           |       |          |                     |                           |        |
| <b>D-Link</b>                                    |             |       |          |                     |                           |        |
| DCS-900  | ○           |       |          |                     |                           |        |
| DCS-2120   |             | ○     |          | ○                   |                           |        |
| DCS-3220(G)/ DCS-3420                            |             | ○     |          | ○                   | ○                         |        |
| DCS-5220   |             | ○     |          | ○                   |                           | PT     |
| DCS-5300(G)                                      |             | ○     |          | ○                   | ○                         | PT     |
| DCS-6620(G)                                      | ○           | ○     |          | ○                   | ○                         | PTZ    |
| <b>Vivotek</b>                                   |             |       |          |                     |                           |        |
| IP3112/ IP3122/ IP3111/ IP3121/ IP3132           |             | ○     |          | ○                   | ○                         |        |
| IP3135/ IP3137                                   |             | ○     |          | ○                   |                           |        |
| PT3112/ PT3122/ PT3117/ PT3127                   |             | ○     |          | ○                   | ○                         | PT     |
| IP7135/ IP7137                                   |             | ○     |          | ○                   |                           |        |
| IP7131/ IP7132                                   |             | ○     |          | ○                   | ○                         |        |
| PT7135/ PT7137                                   |             | ○     |          | ○                   |                           | PT     |
| <b>LevelOne</b>                                  |             |       |          |                     |                           |        |
| 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



## Optional Accessories



## Hardware Illustration



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

## QNAP Systems, Inc.

TEL: 886-2-8698 2000 FAX: 886-2-8698 2270

Address: 21F, No. 77, Sec. 1, Xintai 5th Rd, Xizhi City, Taipei County, 221, Taiwan

QNAP is a registered trademark of QNAP Systems, Inc. Microsoft and Windows are either registered trademarks of Microsoft® Corporation in the United States and other countries.

**QNAP**  
www.qnap.com