

# QNAP All-in-one SOHO and Home NAS Series

Brand NEW  
**800MHz CPU**  
256MB DDR2 Memory



CoverFlow-like AJAX Web Interface



TS-210



TS-410



TS-110

Product Presentation

October 2009

<http://www.qnap.com>

QNAP

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# About QNAP

- QNAP, with more than 8 years experience in embedded systems, is devoted to be world's leading company in IA (Internet Appliance) field.
- Successful experience in developing innovative IA products.
  - Most Advanced Digital Surveillance Systems (Digital Video Recorder, Network Video Recorder)
  - Best synergy in storage and surveillance
  - Most Extensive Networking Storage (RAID, NAS)
  - NMP (Network Multimedia Player)



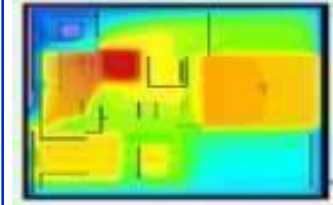
## Awards



# Core Competencies

## *The Top-notch R&D Team in the Industry!!!*

- **Software Team (over 32 engineers)**
  - Pioneer in embedded Linux technology
  - High performance and high reliability server & video technology
  - Extensive experience in RISC I/O processor
  - Experts in TCP/IP offload engine technology
  - Most complete self-developed management software
  - Advanced network distributed management technology
- **Hardware Team (over 12 engineers)**
  - Top notch E/E and ME design engineer team
  - Partner with major chipset vendors: Intel/VIA/Freescale/Marvell/Silicon Image
  - ID/ME/Thermal in house design & simulation capability



## *Quality, Reliability and Compatibility are the Key Factors for the Success of QNAP and Our Partners*

- **Hardware Test:**
  - Rigid stress test, reliability/stability test
  - Performance test, function test
  - Compatibility test
  - EMI test
- **Software Test:**
  - Full function test
  - Compatibility test
  - Real environment 32 clients NetBench test
- **Most Stringent Quality Controlled Manufacturing**
  - SMT/DIP Facility/Assembly Facility
  - Well setup IQC/IPQC/OQC system

32 Clients  
Simulation



Chamber



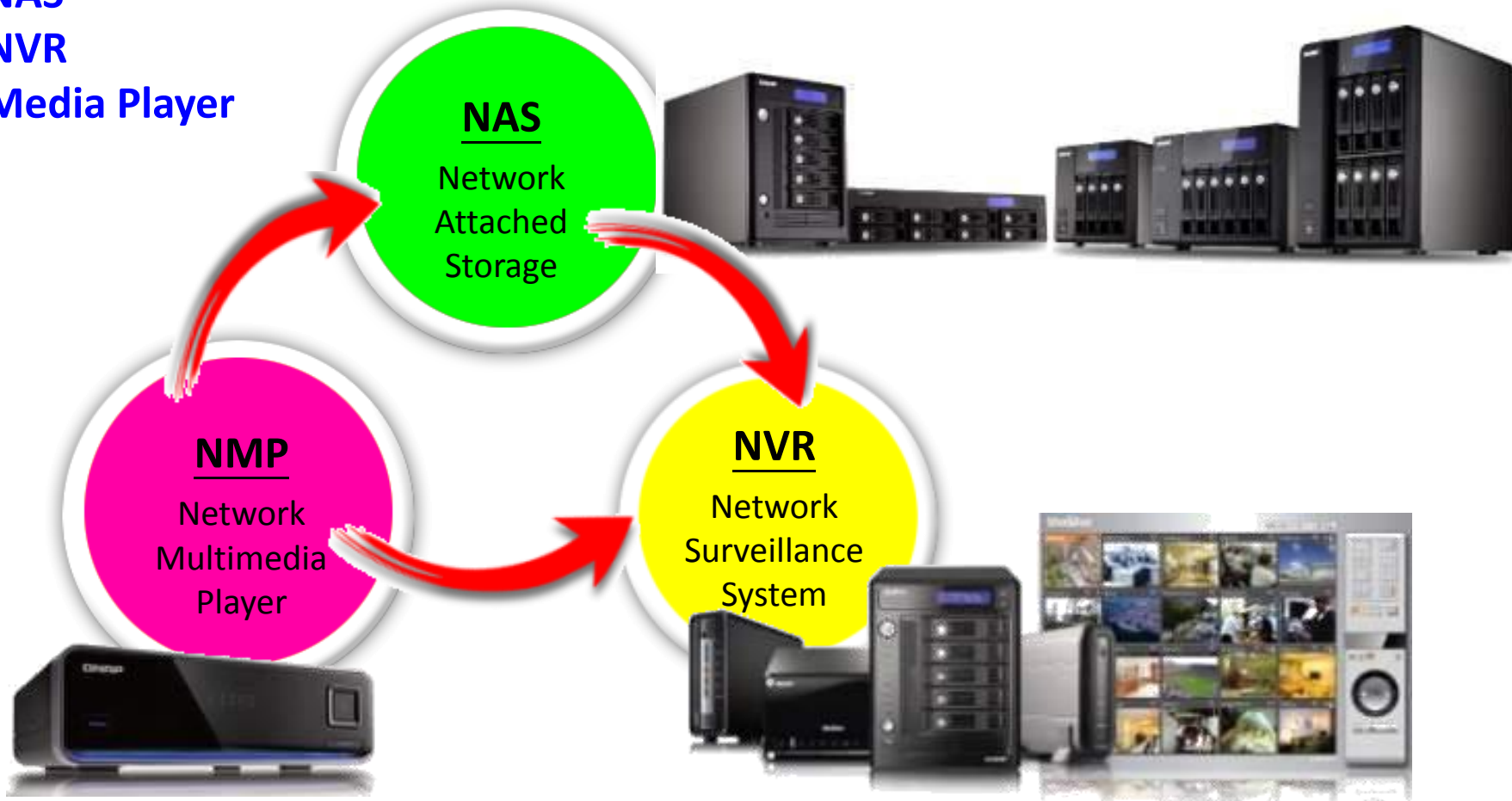
EMI Lab



# QNAP Core Technology

QNAP is one of the few NAS suppliers who owns three core technology ---

- ✓ NAS
- ✓ NVR
- ✓ Media Player



# QNAP Product Lines Overview

## 1. Turbo NAS Series (Network Attached Storage)

### Home & SOHO NAS

-All-in-one Home & SOHO NAS Series



TS-110 TS-119 TS-210 TS-219P TS-410 TS-419P

### Intel-based iSCSI NAS for SMB & Enterprise Entry

-High Performance NAS with iSCSI



TS-239 Pro TS-439 Pro TS-509 Pro TS-639 Pro TS-809 Pro TS-809U-RP

## 2. QNAP NVR Series (Network Video Recorder)

### Home NVR

NVR-104  
NVR-101  
(4-CH)



### SOHO/ SMB NVR:

- 8-CH~12CH NVR



VS-101 VS-201 VS-2008/ 2012

### Enterprise NVR:

- 16~40 CH NVR



VS-4016U VS-5012/ 5020 VS-8024/32/40 Series

## 3. QNAP NMP Series (Network Multimedia Player)

### Home NMP

NMP-1000



# Recognition from Media around the World -1



Editor's Choice



Editor's Choice



**QNAP TS-809 Pro & TS-809U-RP** are powered by **Intel 2.8GHz CPU** and **2GB DDR2 memory**, a powerful NAS system designed for business users.

- Dual Gigabit LAN ports
- LCD panel for first installation (Touch-N-Go)
- RAID 0/1/5/6/5 + hot spare/JBOD
- Online RAID Capacity Expansion
- Online RAID Level Migration
- Wake on LAN & Schedule Power on/off
- 2.5" & 3.5" HDD Dual Support

# Recognition from Media around the World -2



Tempo Award



Gold Award



Best Performance

**QNAP TS-439 Pro & TS-639 Pro** are powered by **Intel 1.6GHz CPU** and **1GB DDRII memory**, a powerful NAS system designed for business users.

- Dual Gigabit LAN ports
- LCD panel
- RAID 0/1/5/6/5 + hot spare/JBOD
- Online RAID Capacity Expansion
- Online RAID Level Migration
- Wake on LAN & Schedule Power on/off
- 2.5" & 3.5" HDD Dual Support

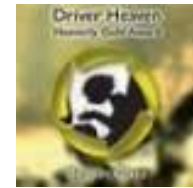


# Recognition from Media around the World -3



**QNAP TS-509 Pro** is powered by **Intel 1.6GHz CPU** and **1GB DDRII memory**, a powerful NAS system designed for business users.

- Dual Gigabit LAN ports
- LCD panel for first installation (Touch-N-Go)
- RAID 0/1/5/6/5 + hot spare/JBOD
- Online RAID Capacity Expansion
- Online RAID Level Migration
- Wake on LAN & Schedule Power on/off
- 2.5" & 3.5" HDD Dual Support



# Recognition from Media around the World -4



**QNAP TS-119/219/219P** are all powered by **Marvell 1.2GHz CPU** and **512MB DDRII memory**, a powerful NAS system designed for home and SOHO users.

- 2-Bay Hot-swappable (TS-219/219P only)
- Exclusive Q-RAID 1 (TS-119 only)
- RAID 0/1/JBOD (TS-219/219P only)
- Online RAID Capacity Expansion (TS-219/219P only)
- Online RAID Level Migration (TS-219/219P only)
- Schedule Power on/off

PRODUCT OF THE YEAR



Product of the year



PC Go Excellent



Benchmark Reviews.com

Silver Tachometer Award



Excellent Hardware



Gold Award



Recommended



Recommended



Best Test



Best Performance



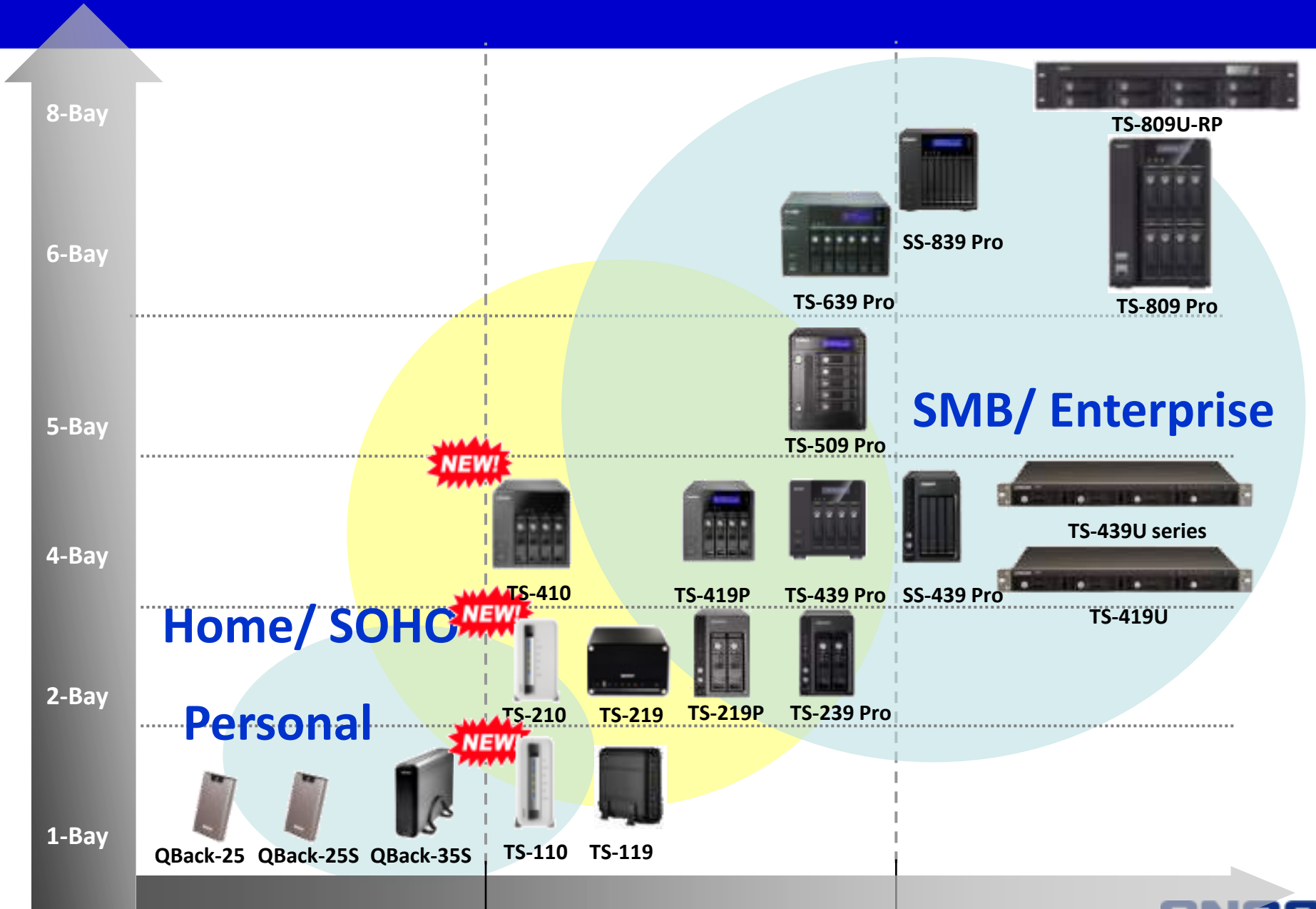
Top Rank



Best Buy

**QNAP**

# New Products in NAS Product Lines



# Overview of SOHO and Home NAS: TS-110 (1-Bay)

## TS-110

- The TS-110 is the 1-bay NAS designed for entry-level SOHO and Home users who are eager for a NAS of **powerful all-in-one features, excellent appearance, low power consumption and high reliability**.
- Powered by **Marvell 800MHz CPU** and **256MB DDRII memory**, it is **the best price performance ratio 1-bay NAS** in current SOHO and Home NAS market.
- **Exclusive Q-RAID 1 for higher redundancy**
- Configurable One Touch Copy Button offers more backup convenience
- **3 x USB 2.0 ports** & **1 x eSATA port** supported for high expandability!



# Overview of SOHO and Home NAS: TS-210 (2-Bay)

## TS-210

- The TS-210 is the 2-bay NAS designed for entry-level SOHO and Home users who are eager for a NAS of **powerful all-in-one features, excellent appearance, low power consumption and high reliability.**
- Powered by **Marvell 800MHz CPU** and **256MB DDRII memory**, it is **the best price performance ratio 2-bay NAS** in current SOHO and Home NAS market.
- **RAID 0/ 1, single, JBOD configuration supported.**
- Configurable One Touch Copy Button offers more backup convenience
- **3 x USB 2.0 ports** supported for high expandability!



# Overview of SOHO and Home NAS: TS-410 (4-Bay)-1

## TS-410

- The TS-410 is the **4-bay, hot-swappable** network-attached storage server with **iSCSI** dedicated to the SOHO and home users who need a mass storage center to store and share huge amount of digital data.
- Powered by **Marvell 800MHz CPU** and **256MB DDRII memory**, it is **the best price performance ratio** 4-bay NAS for multiple applications and concurrent data access.
- **Online RAID capacity expansion, online RAID level migration, and RAID Recovery**
- **RAID 0/ 1/ 5/ 6/ 5+hot spare, single, JBOD configurations** are supported.
- Affordable yet Powerful iSCSI Solution: **Built-in iSCSI target** service, **Thin provisioning, Virtual disk for storage expansion!!!**



# Overview of SOHO and Home NAS: TS-410 (4-Bay)-2

## TS-410

- The NAS **supports 2.5" and 3.5" SATA hard drives**, and is featured with the excellent hardware design for storage expansion, high system reliability
- Configurable One Touch Copy Button offers more backup convenience
- **4 x USB 2.0 ports** and **2 x eSATA ports** are supported for high expandability!
- Dual Gigabit LAN: **Port Trunking** (7 bonding modes supported)
  - **Failover, Load-balancing** and **Multiple IP setting**



# Overview of SOHO and Home NAS: Efficient Power Solution

The Turbo NAS offers efficient power management solutions:

- **Hard Disk Standby :**

Users can configure the hard disks to enter standby mode if there is no disk access within the specified period.

- **Schedule power on/ off (max. 15 sets):**

The flexible schedule power on/off feature helps users to manage the NAS server's up time according to the demands.

## Low Power Consumption



## Low Power Consumption



## Low Power Consumption





# Dominant Features of Turbo NAS

- **CoverFlow-like AJAX Web Interface**
- **All-in-one NAS Server Application**
- **Advanced RAID and Disk Management**
  - **Online RAID Capacity Expansion\***
  - **Online RAID Level Migration\***
  - **HDD S.M.A.R.T.**
  - **RAID Recovery\***
- **Affordable yet Powerful iSCSI Solution**
  - **Built-in iSCSI Target**
  - **Thin Provisioning**
  - **Virtual Disk for Storage Expansion**
- **Network Service Discovery**
- **Comprehensive Log Systems**
- **Policy-based Automatic IP Blocking**
- **The Most Complete Backup Solution**
- **Surveillance Station**
- **QPKG Software Expansion Platform**
- **and more...**

\* For TS-410 only

# CoverFlow-like AJAX Web Interface

## Turbo NAS Firmware V3

Bring you the best use experience with the AJAX technology



# QNAP All-in-one Turbo NAS Application



# All-in-one NAS Applications for Digital Home

## Cinema-Grade Digital Home Multimedia Center

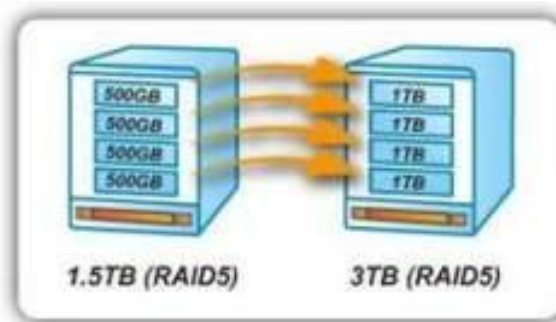
The Turbo NAS can work as **a powerful multimedia storage center** to store and share your digital data. Meanwhile, for those cherished HD videos, pictures and music can also be displayed on your HDTV via DMA, such as **QNAP NMP-1000 (Network Multimedia Player)**. It provides you a better watching atmosphere and achieve the cinema-grade enjoyment.



# Advanced RAID and Disk Management

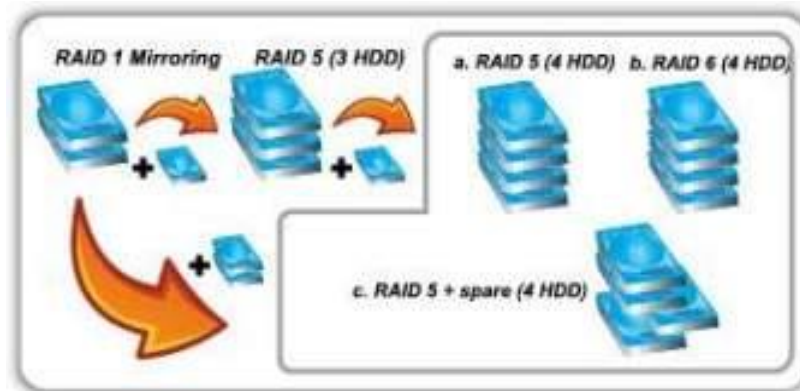
## Online RAID Capacity Expansion \*

- Online RAID Capacity Expansion enables users to flexibly expand the storage capacity with all the data reserved.
- Replace the hard drives on Turbo NAS Series step by step to increase the storage capacity.



## Online RAID Level Migration \*

- Add a hard drive to the disk configuration and migrate to higher RAID configuration for higher level of redundancy.
- Online RAID Level Migration allows users to transfer and upgrade the RAID level settings easily.

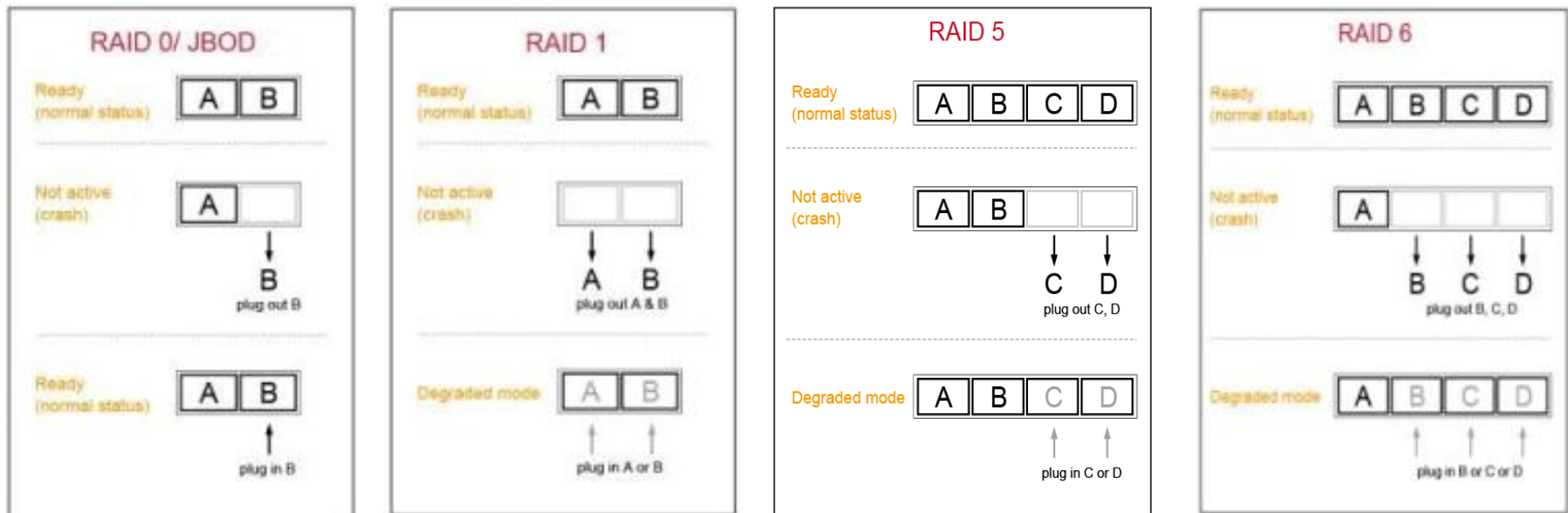


\* For TS-410 only

# RAID Recovery

## RAID Recovery\*

RAID Recovery is the QNAP exclusive technology. It can recover failed RAID 1/ 5/ 6 to the degraded mode and failed RAID 0 and JBOD to the normal state.



\* TS-410 only

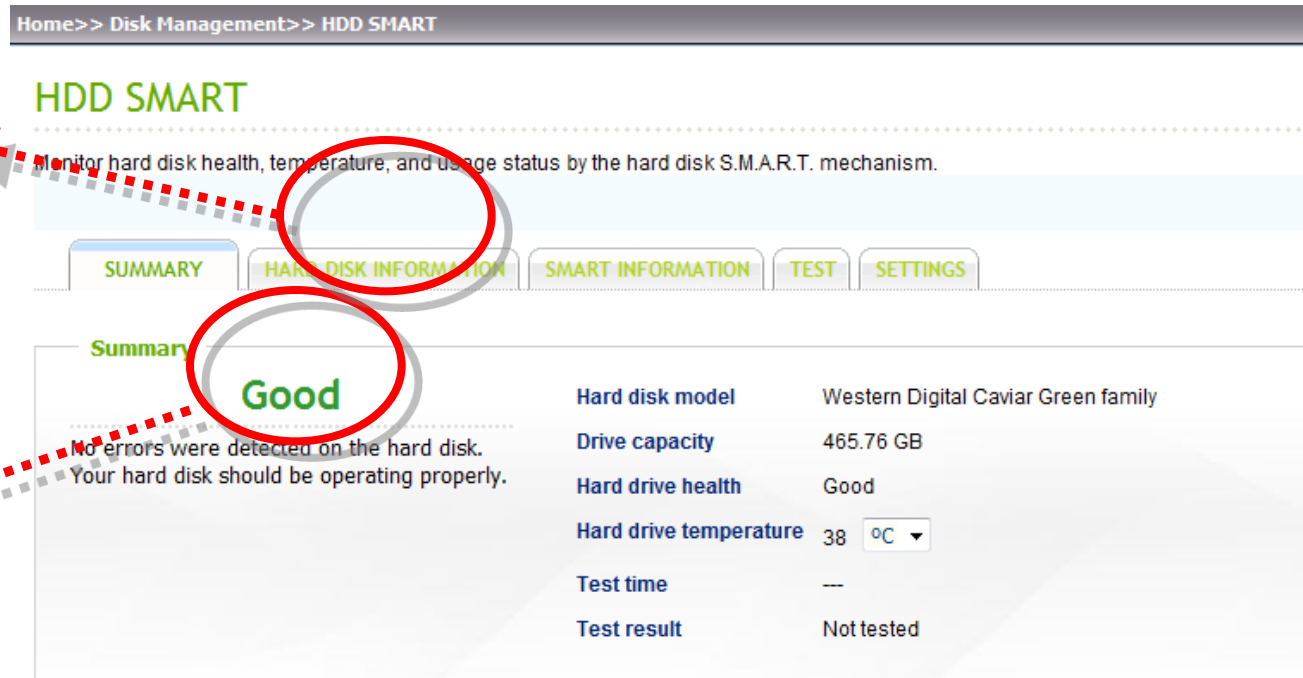
# Hard Drive Protection: HDD S.M.A.R.T.-1

## HDD S.M.A.R.T.

HDD S.M.A.R.T. (Self-monitoring Analysis and Reporting Technology) offers a quick overview of the hard drive status which enables users to monitor the hard drives and check potential problems. This tool helps prevent unexpected HDD failure and avoid critical data loss.

Select the hard disk to check the HDD health status.

In the summary page, users can view the health status of the selected drive.



The screenshot shows the 'HDD SMART' interface. At the top, there is a breadcrumb trail: 'Home >> Disk Management >> HDD SMART'. Below this, the title 'HDD SMART' is displayed in green. A subtitle reads: 'Monitor hard disk health, temperature, and usage status by the hard disk S.M.A.R.T. mechanism.' There are five tabs: 'SUMMARY', 'HARD DISK INFORMATION', 'SMART INFORMATION', 'TEST', and 'SETTINGS'. The 'SUMMARY' tab is selected. The main content area shows a 'Summary' section with a large green 'Good' status. Below this, it states: 'No errors were detected on the hard disk. Your hard disk should be operating properly.' To the right, there is a table of drive specifications:

Hard disk model	Western Digital Caviar Green family
Drive capacity	465.76 GB
Hard drive health	Good
Hard drive temperature	38 °C
Test time	--
Test result	Not tested

# Hard Drive Protection: HDD S.M.A.R.T. -2

The **S.M.A.R.T.** information helps the server managers to easily monitor the health status of the hard disks.

ID	Description	Value	Worst Value	Threshold	Raw value	Status
1	Raw_Read_Error_Rate	200	200	051	12	OK
3	Spin_Up_Time	142	141	021	5883	OK
4	Start_Stop_Count	100	100	000	253	OK
5	Reallocated_Sector_Ct	200	200	140	0	OK
7	Seek_Error_Rate	200	200	000	0	OK
9	Power_On_Hours	098	098	000	1633	OK
10	Spin_Retry_Count	100	100	000	0	OK
11	Calibration_Retry_Count	100	253	000	0	OK
12	Power_Cycle_Count	100	100	000	80	OK
192	Power-Off_Retract_Count	200	200	000	10	OK
193	Load_Cycle_Count	200	200	000	253	OK
194	Temperature_Celsius	109	091	000	38	OK
196	Reallocated_Event_Count	200	200	000	0	OK
197	Current_Pending_Sector	200	200	000	0	OK
198	Offline_Uncorrectable	200	200	000	0	OK
199	UDMA_CRC_Error_Count	200	200	000	0	OK



# Hard Drive Protection: HDD S.M.A.R.T. -3

Users can select to execute the diagnostic testing by “**rapid**” or “**complete**” test. The NAS will provide a health status result after the testing process is done.

## HDD SMART

Monitor hard disk health, temperature, and usage status by the hard disk S.M.A.R.T. mechanism.

The screenshot shows the 'HDD SMART' interface with the 'TEST' tab selected. A red box highlights the 'Test method' section, which includes radio buttons for 'Rapid test' (selected) and 'Complete test'. Below this, the 'Progress' is shown as 10% and the 'Status' is 'Testing' with a green refresh icon. A 'TERMINATE TEST' button is visible at the bottom of the highlighted area.

Test method	Progress	Status
<input checked="" type="radio"/> Rapid test <input type="radio"/> Complete test	10%	Testing

- Rapid Test: Check the first **1.5 GB** of the hard disk drive
- Complete Test: Check the complete hard disk drive

# Hard Drive Protection: HDD S.M.A.R.T. -4

Users can set the schedule for S.M.A.R.T. test (rapid or complete) to ensure the health of the hard disks. The regular job can be done by the NAS automatically according to the configured policy.

## HDD SMART

Monitor hard disk health, temperature, and usage status by the hard disk S.M.A.R.T. mechanism.

**Settings**

Enable Temperature Alarm:  °C

**SMART Test schedule**

Enable Rapid Test: At  (hh)  (mm), once every  day(s).

Enable Complete Test: At  (hh)  (mm), once every  day(s).

Alert emails will be automatically sent to server managers in case of any potential problems

# Hard Drive Protection: Bad Block Scan & Disk Checking

## Advanced Hard Drive Protection (HHS)

The embedded **HHS (HDD health scan)** technology help users discover the abnormal issue of hard disks to prevent disaster. It is a **dual insurance** for valuable data on the NAS.



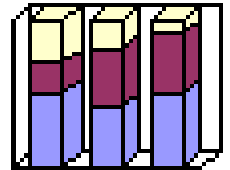
- **Bad Block Scanning** reports bad blocks of a HDD.
- **Disk Checking** performs Linux file system checking and fixes any potential errors.

# Comprehensive Event Log System

## Comprehensive Event Log System

Detailed logs of **file-level** data access to the Turbo NAS via **Samba, FTP, AFP, HTTP(HTTPS), Telnet, iSCSI and SSH**, and network services accessed by the online users are all recorded.

*IT administrators can easily control detailed logs of each file (who, when, and what actions were done).*



Home >> System Administration >> System Logs

### System Logs

SYSTEM EVENT LOGS | SYSTEM CONNECTION LOGS | ON-LINE USERS | SYSLOG

All events | Clear | Save

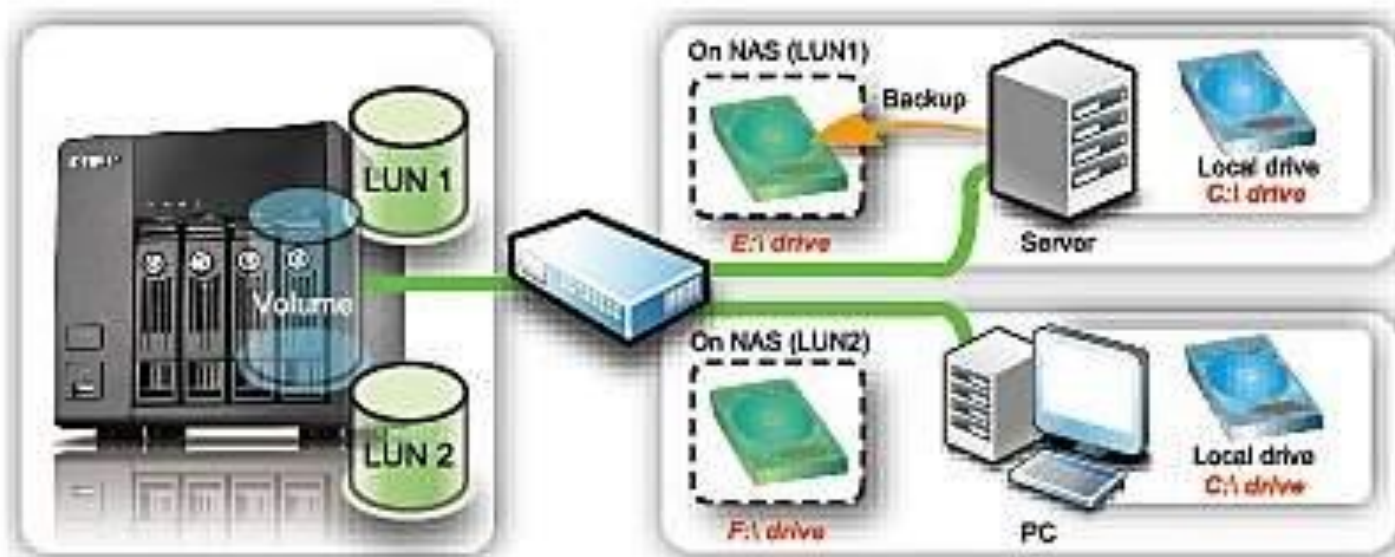
Type	Date	Time	Users	Source IP	Computer name	Content
🚫	2009-05-25	13:39:33	System	127.0.0.1	localhost	Failed to synchronize the time from NTP server.
🚫	2009-05-22	20:36:05	System	127.0.0.1	localhost	Failed to synchronize the time from NTP server.
⚠️	2009-05-21	02:22:10	System	127.0.0.1	localhost	Re-launch process [nvrtd].
⚠️	2009-05-21	01:55:09	System	127.0.0.1	localhost	Re-launch process [nvrtd].
🚫	2009-05-19	15:29:00	System	127.0.0.1	localhost	Failed to synchronize the time from NTP server.
⚠️	2009-05-19	10:08:00	System	127.0.0.1	localhost	Re-launch process [_tthttpd_].
⚠️	2009-05-19	09:28:58	System	127.0.0.1	localhost	Re-launch process [nvrtd].
🕒	2009-05-19	09:25:12	System	127.0.0.1	localhost	[Mirror Disk Volume: Drive 1 2] Recovering journal.
🕒	2009-05-19	09:25:01	System	127.0.0.1	localhost	System started.
🕒	2009-05-19	09:22:30	System	127.0.0.1	localhost	System was shut down on Tue May 19 09:22:30 CST 2009.

There are 161 events. Displays 10 records per page.

The logs can also be exported as Excel (csv) file for analysis.

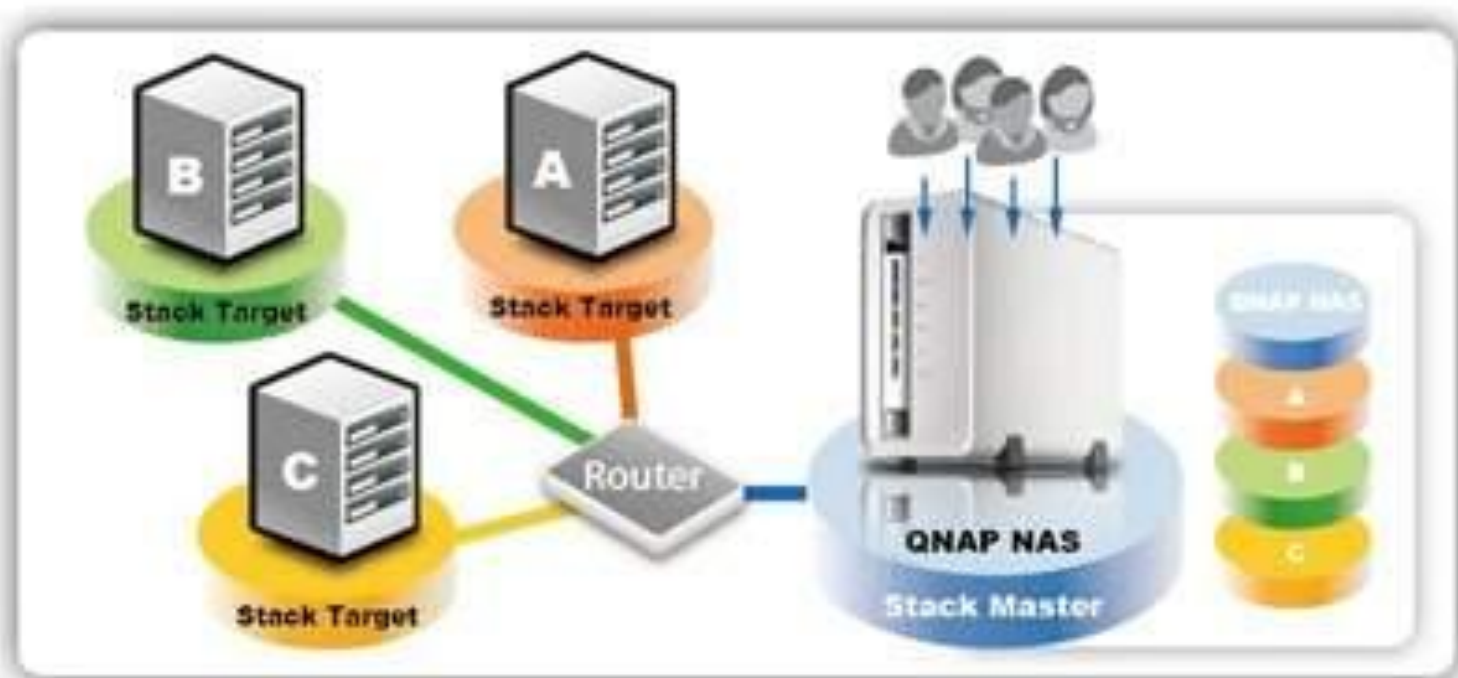
# Flexible Built-in iSCSI Target Service

- With the built-in iSCSI target feature, the NAS can be an ideal solution for backup or storage expansion. SOHO and home users can easily **create dedicated virtual drives (up to 8 iSCSI target LUN)** on the NAS for their PCs. The iSCSI drives on the NAS can be formatted as file system and used as local drives.



# Virtual Disk for Storage Expansion

The VDD (Virtual Disk Drive) feature is supported on the Turbo NAS that you can use the built-in iSCSI initiator to connect to other iSCSI targets on the network to expand the storage capacity of the NAS.



# Network Service Discovery

## UPnP Discovery Service

After enabling this service, your NAS can be discovered by any operating systems that support UPnP.

## Bonjour

Bonjour uses industry standard IP protocols to allow devices to automatically discover each other without the need to enter IP addresses or configure DNS servers, and which makes your NAS becomes more compatible with Mac OS X.



# The Most Complete Backup Solution-1

## Encrypted Remote Replication

1. NAS-to-NAS Backup over the Network
2. Advanced Encrypted Remote Replication

QNAP Backup Software - NetBak Replicator

USB one touch copy



3rd party backup software supported

Standard Rsync supported



# The Most Complete Backup Solution-2

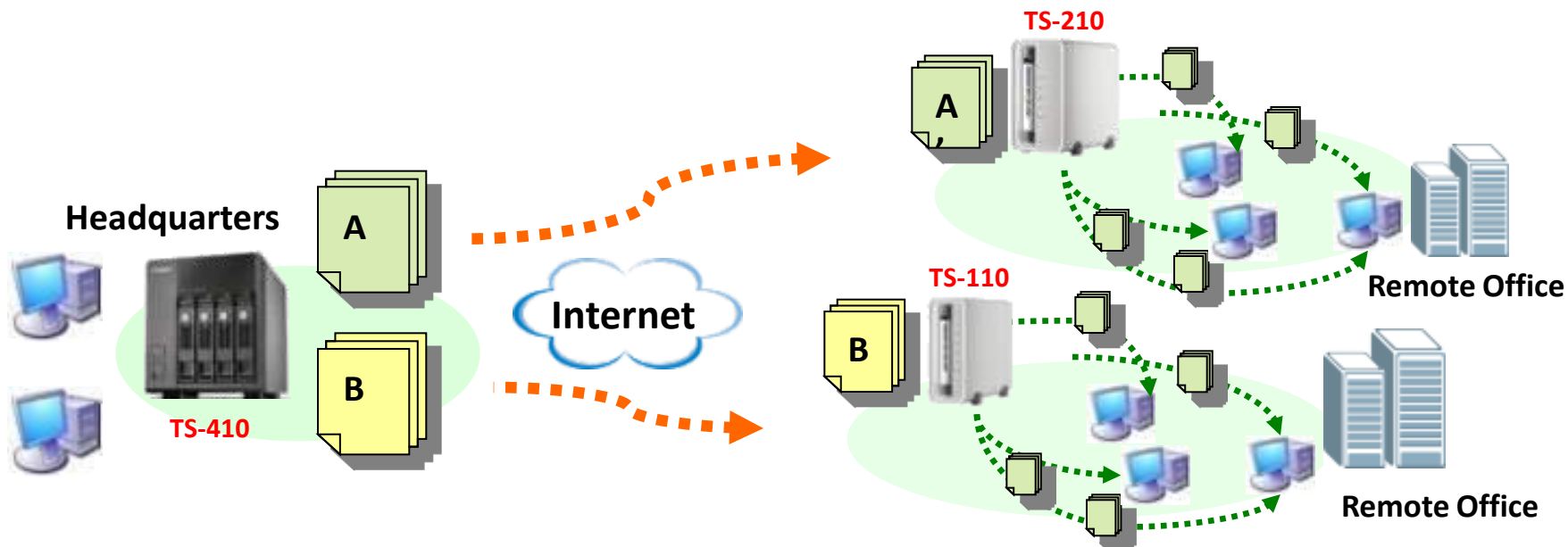
## Encrypted Remote Replication

### 1. NAS-to-NAS Backup over the Network

Files can be backed up from the Turbo NAS to other QNAP NAS products in remote locations.

### 2. Advanced Encrypted Remote Replication

Advanced options including **data compression**, **block level incremental backup**, and **data synchronization** which save tremendous bandwidth and time for data backup.



# The Most Complete Backup Solution-3

## Standard Rsync supported

Data on the NAS can be backed up to or from another Turbo NAS or Rsync server over the network securely.

## 3rd party backup software supported


QNAP's Turbo NAS provides a great alternative for tape replacement. Several well-known backup software have been verified that they could smoothly work with QNAP NAS server.

1. CA BrightStor ARCserve Backup
2. Acronis True Image
3. EMC Retrospect
4. Symantec Backup Exec
5. LaCie SilverKeeper (backup)

# The Most Complete Backup Solution-4

## QNAP Backup Software - NetBak Replicator

The intelligent automatic backup software- **NetBak Replicator** is provided for the NAS users to perform **real-time synchronization** or **schedule backup** from multiple PCs to the NAS. There is no license issue about user account limitation.



The screenshot shows the NetBak Replicator interface. At the top, there are fields for 'NAS Server' and 'Share Path'. Below these are buttons for 'Backup', 'Export', and 'Log'. The main area is a file explorer showing a tree view of folders on the left and a list of files on the right. The file list includes folders like 'AUDIO', 'Document and Settings', 'MUSIC', 'Program Files', 'WINDOWS', and files like 'AUTOEXEC.BAT' and 'CONFIG.SYS'. At the bottom, there are buttons for 'Quit', 'File Filter', 'Schedule', 'Monitor', and 'Show As Details'.

**Select Backup Destination**

**Easy Selection: Select All or My Document**

**Backup Log: Record Errors**

**Backup Level: Folder or File Level**

**Backup option: Real Time/ Schedule/Instant**

# Surveillance Station

## *Live Audio & Video Monitoring, Recording and Playback over the Internet*

### Application:

- Remote monitoring of childcare situation,
- Elder care,
- Home and office security,
- long-term environmental monitoring



# QPKG Software Expansion Platform

## Explore the unlimited possibilities of your QNAP NAS!

The QPKG is a convenient platform developed by QNAP to **enable users to install lots of useful software applications**. The software developed from the users and community worldwide

By a few simple clicks and uploading on the user-friendly GUI, all these applications can be installed. **There is no need to go through the hassles of any complicated programming.**



# QNAP NAS Community Forum

QNAP forum is *the largest NAS community* with more than 27,300 members (September, 2009). QNAP users can share experience, find answers, get direct support and receive the latest update information here.

**QNAP FORUM** QNAP NAS Community Forum  
Strive to Bring You the Best User Experience

Search Search  
Advanced search

Portal » Board Index

User Control Panel (8 new messages) • View your posts

FAQ Members Logout [ QNAPivan ]

It is currently Thu Feb 28, 2008 11:51 am  
[ Moderator Control Panel ]

Last visit was: Wed Feb 27, 2008 9:00 pm

View unanswered posts • View new posts • View active topics

Mark forums read

QNAP GENERAL	TOPICS	POSTS	LAST POST
<b>Announcements</b> Welcome note and must-know for QNAP Forum members. Moderator: QNAPivan	7	6	by flowerchild on Fri Jan 25, 2008 3:03 pm
<b>Hello Stranger!</b> Introduce yourself to us and other members here. Moderator: QNAPivan	129	321	by QNAPivan on Tue Feb 26, 2008 8:45 pm
<b>Features Wanted</b> Tell us your most wanted features from QNAP products. Moderator: QNAPivan	329	1301	by Sylver on Thu Feb 28, 2008 8:38 am
<b>User Reviews, Comments, Tips Sharing</b> Share your own product reviews, suggestions, and tips and tricks of using QNAP products with other members here. Moderator: QNAPivan	45	195	by mgreen on Thu Feb 28, 2008 5:25 am
<b>News &amp; Awards</b> Read the latest news from QNAP and our awards. Moderators: QNAPivan, QNAPRay	54	55	by QNAPRay on Wed Feb 27, 2008 5:32 pm

FIRMWARE & UTILITIES (LOGIN REQUIRED)	TOPICS	POSTS	LAST POST
<b>[OFFICIAL] TS-409 Pro Turbo NAS Series Official Firmware (Version 2.0.0 Build 0122)</b> Discussion about the firmware version 2.0.0 Build 0122 of TS-409/409 Pro. Login required to view the...	10	59	by xavierh on Thu Feb 28, 2008 1:38 am

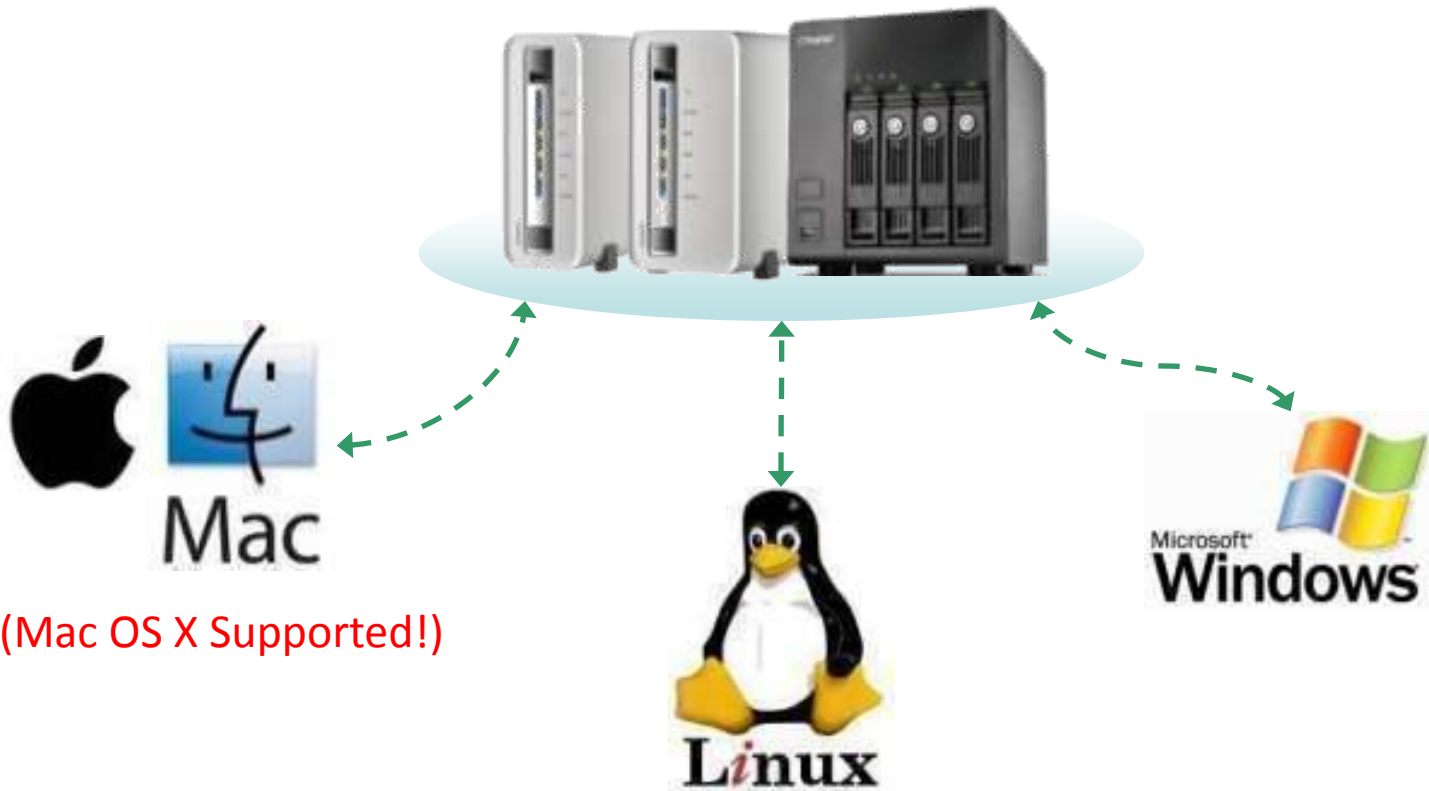
# Appendix

# A. All-in-one Server: File Server -1



## 1. Sharing File Across Windows, Mac, and Linux:

QNAP's Turbo NAS supports **NFS, AFP, and SMB/CIFS**. You can share files among PCs with different OS easily!



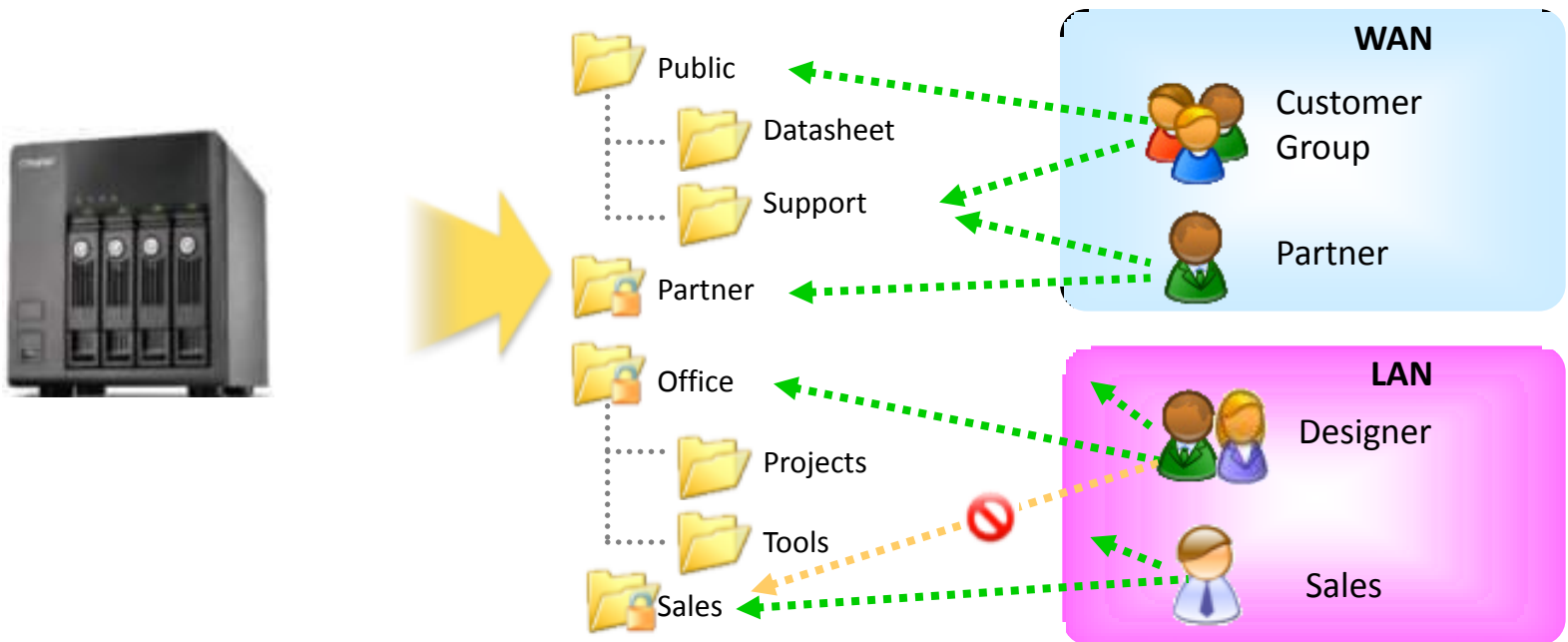


# A. All-in-one Server: File Server -2



## 2. Store Files with Access Right Control

Centralized management of documents. Access right of users and user groups can be configured easily. Only authorized parties can read or modify files, which greatly enhances the security of data access.



# A. All-in-one Server: File Server -3



## 3. Easy-to-use Web-based Management Interface

You can create user ID and password, and define the authority and quota for each user by web browser easily without MIS help.

The screenshot displays the QNAP Turbo NAS web management interface. At the top, a navigation bar shows "Home >> Access Right Management >> Users" and "Welcome admin | Logout English". The main heading is "Users". Below it, there are buttons for "Create A New User" and "Create Multiple Users". A table lists existing users:

<input type="checkbox"/>	User Name	Quota	Action
<input type="checkbox"/>	admin	--	
<input type="checkbox"/>	ssods	--	

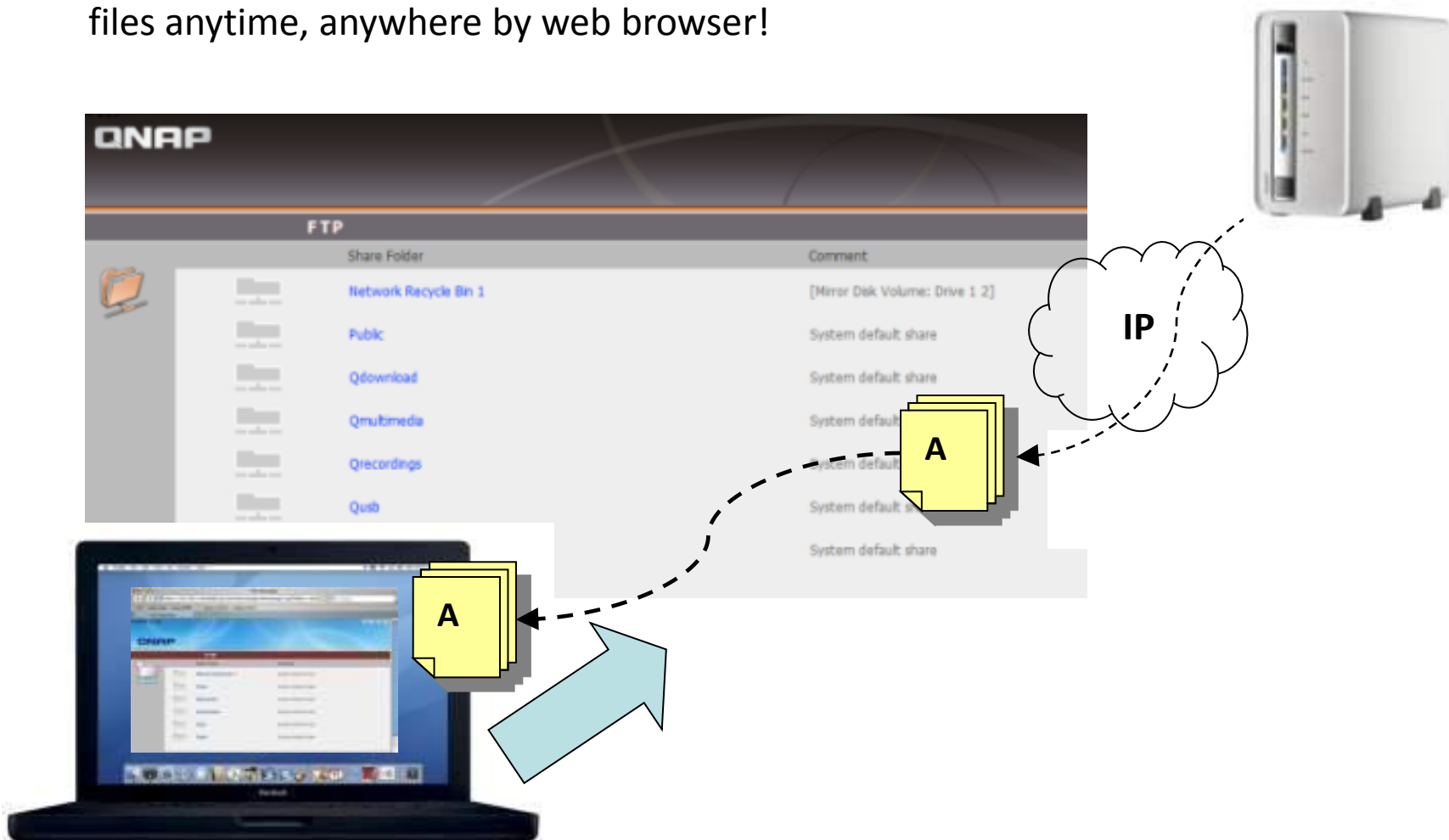
Below the table, there are two wizard windows. The "Multiple Users Creation Wizard" (Step 2 of 5) shows fields for "User Name Prefix", "User Name Start No.", "User Number", "Password", and "Verify Password". The "Add A New User" wizard (Step 1 of 5) lists settings: "User Information", "Quota", "User Group", "Personal Share Folder", and "Privilege".

# A. All-in-one Server: File Server -4



## 4. Web File Manager:

More than just a disk on your local network, you can also access your stored files anytime, anywhere by web browser!



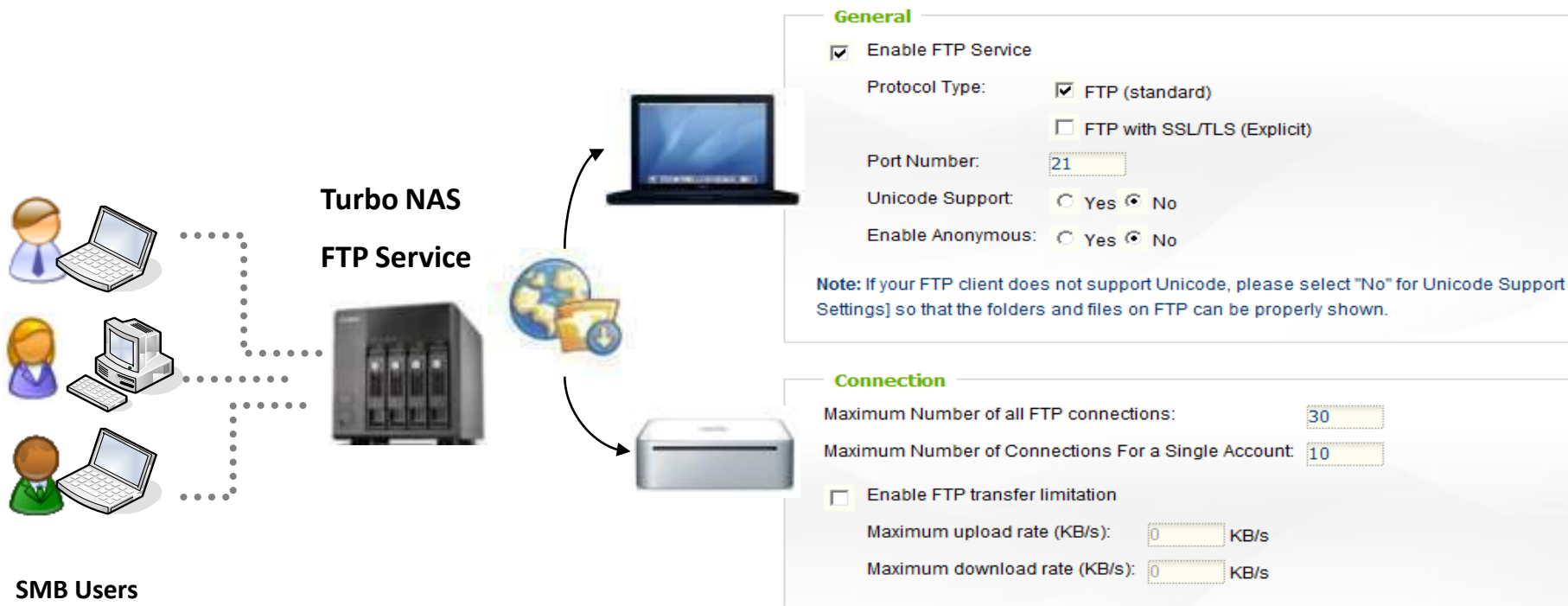
# B. All-in-one Server: FTP Server -1



*Having troubles with sending large files by e-mails due to the limited capacity?*

## 1. Establish Your Own FTP Server to Share Your Files.

Just a few installation steps, you can manage the access authority of the FTP server and share your files with your customers easily!



# B. All-in-one Server: FTP Server -2



## 2. Sharing File over the Internet Securely

Besides access right control, the FTP server supports secure encryption (FTP over SSL/ TLS). **Passive mode** FTP port range setup is also supported.

**General**

Enable FTP Service

Protocol Type:  FTP (standard)  FTP with SSL/TLS (Explicit)

Port Number:

Unicode Support:  Yes  No

Enable Anonymous:  Yes  No

**Note:** If your FTP client does not support Unicode, please select "No" for Unicode Support Settings] so that the folders and files on FTP can be properly shown.

**Connection**

Maximum Number of all FTP connections:

Maximum Number of Connections For a Single Account:

Enable FTP transfer limitation

Maximum upload rate (KB/s):  KB/s

Maximum download rate (KB/s):  KB/s

# C. All-in-one Server: Web Server



## Create Your Forum, Blog, and Online Store Easily

Exclusive Built-in phpMyAdmin, Joomla!, MySQL & SQLite Dual Support!

Users can either develop programs by themselves or download a variety of open-sourced applications, such as **online shops, forums, blogs** over the Internet.

A screenshot of the Joomla! website interface. The page features the Joomla! logo at the top left, a navigation menu with "About Joomla!", "Features", "News", and "The Community", and a main content area with sections for "Main Menu", "Latest News", "Popular", "Welcome to the Frontpage", and "Polls". The "Main Menu" includes links for Home, Joomla! Overview, Joomla! License, More about Joomla!, FRO, The News, Web Links, and News Feeds. The "Latest News" section lists "Content Layouts", "The Joomla! Community", "Welcome to Joomla!", "Newsflash 4", and "Newsflash 5". The "Popular" section lists "Joomla! Overview", "Extensions", "Joomla! License Guidelines", "Welcome to Joomla!", and "What's New in 1.5!". The "Welcome to the Frontpage" section includes a "Welcome to Joomla!" message by Administrator, dated Thursday, 12 October 2006 12:00, and a description of Joomla! as a free open-source framework and content publishing system. The "Polls" section shows "Joomla! is used by" with options like "Community Sites", "Public Brand Sites", "eCommerce", "Blogs", "Intranets", "Portals", and "All of them". The "Who's Online" section is partially visible at the bottom right.

Blog

Web album

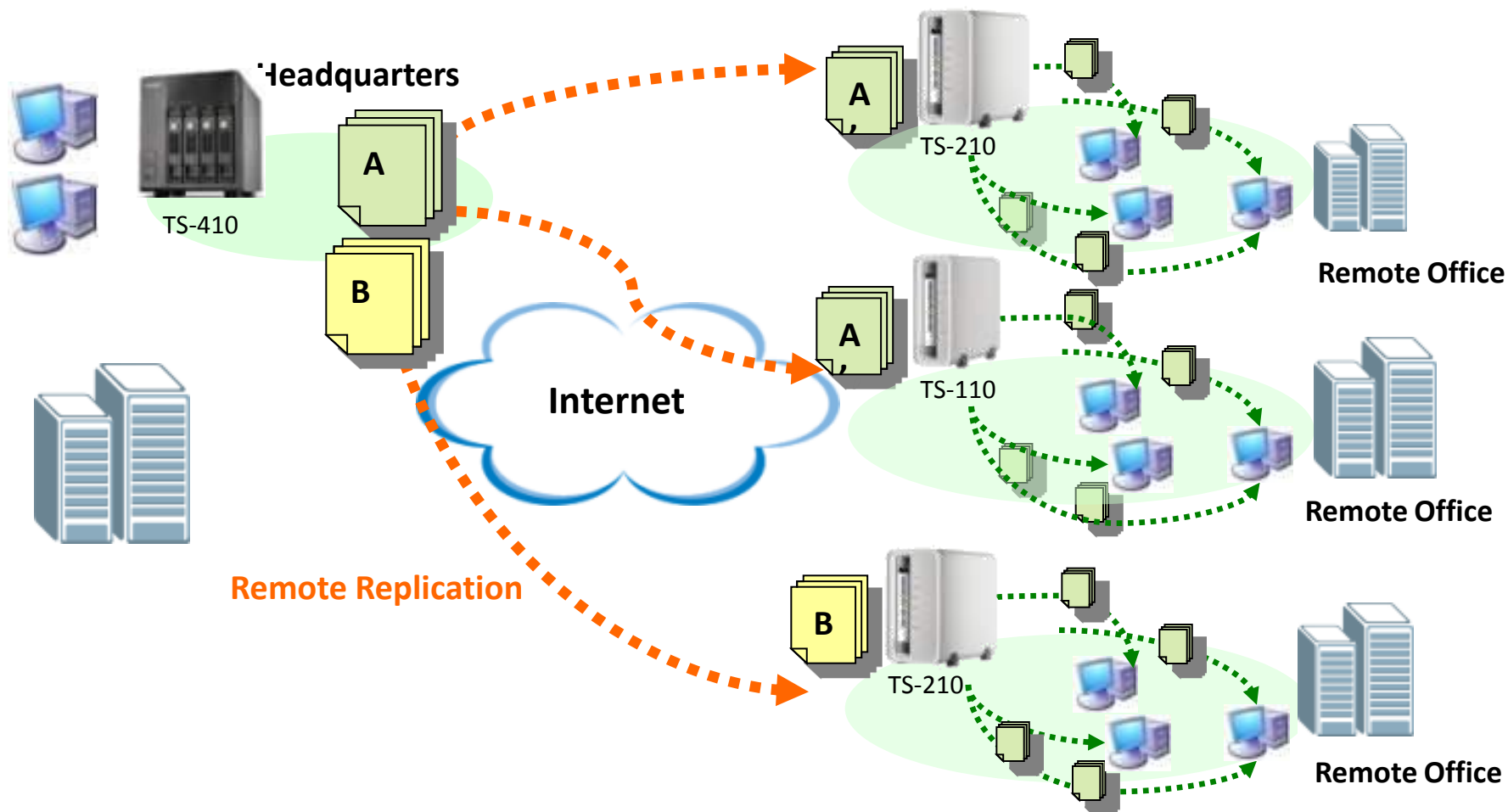
Community Website

# D. All-in-one Server: Remote Replication



## NAS-to-NAS Backup over the Network

Files can be backed up from the Turbo NAS to other QNAP NAS products (or Rsync Servers) in remote locations.



# E. All-in-one Server: MySQL Server

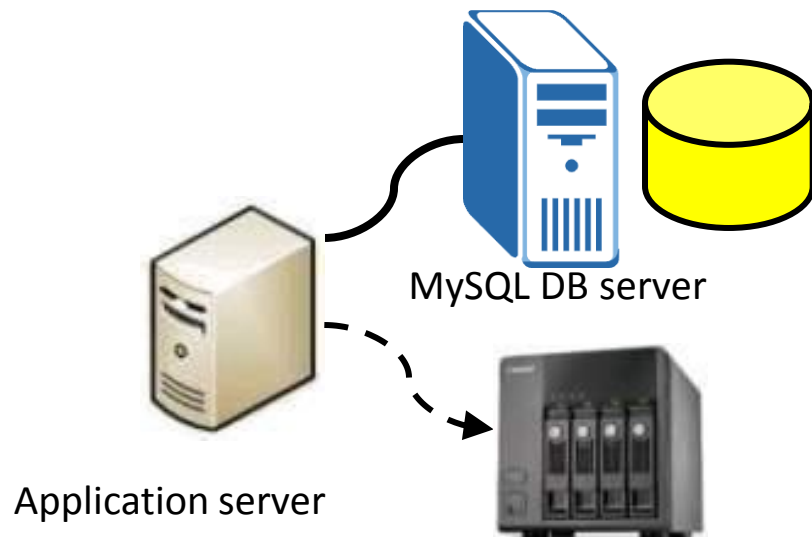


## Great Solution for System Integrators

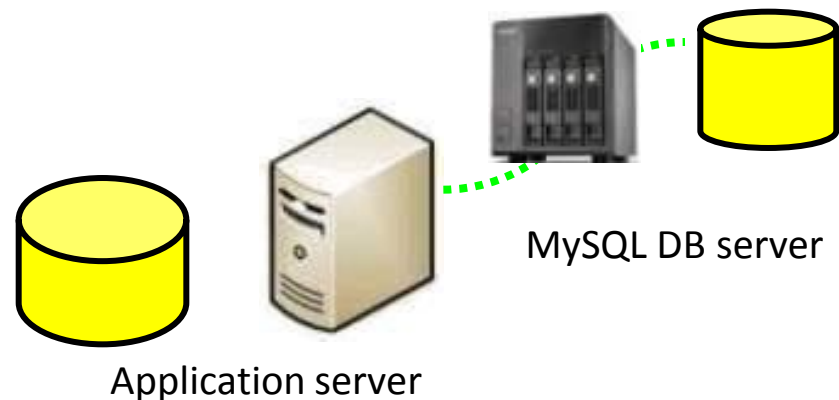
QNAP Turbo NAS can be an ideal alternative solution of **standalone MySQL database server**.

It can be flexibly applied in various deployments such as:

- (1) a **database server of another web server in remote site**
- (2) an **additional backup database server** to achieve system redundancy.



Lower investment in smaller scale deployment (SMB/SOHO)



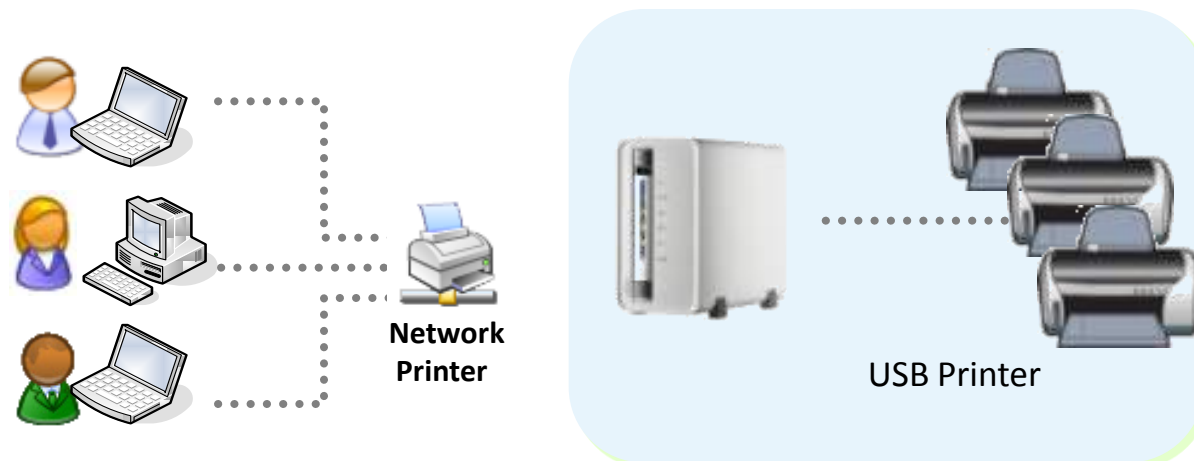


# F. All-in-one Server: Printer Server



## Share Your Printer Resource by Printer Server

You can share your printer device over the network without duplicating investment by simply connecting a USB printer to NAS's USB port and enabling the printer sharing function.



Small Office

USB printer can be shared through the high-speed USB 2.0 port

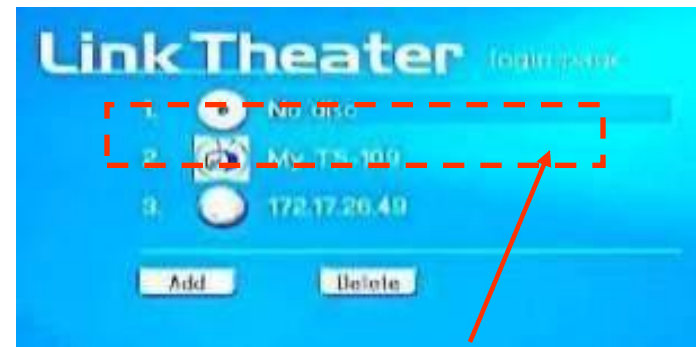
# G. All-in-one Server: UPnP Media Server-1



## UPnP Media Server (with built-in TwonkyMedia Server!!!)

Turbo NAS is a perfect media storage center and it works well with DLNA (Digital Living Network Alliance) compliant media players. You can play the photos and videos on TV. In addition, you can listen to your favorite music and Internet Radio on your Hi-Fi System.

Screen on Digital Media Player



Watch Your Stored Photos on TV !!



Watch Your Stored Video on TV



# G. All-in-one Server: UPnP Media Server-2



# G. All-in-one Server: UPnP Media Server-3



QNAP NAS is the first NAS can support DLNA media application for **Sony PS3 & Xbox360 Game consoles!!!**

You can enjoy your digital contents on your TV and Hi-Fi system by using your game console !!!



# G. All-in-one Server: UPnP Media Server-4



## Easy-to-share Home Storage Center

Turbo NAS is a perfect media storage center and can also **supports mobile devices for digital contents sharing.**

- **Sony PSP** game console can becomes a high-quality wireless music player



# G. All-in-one Server: UPnP Media Server-5



QNAP NAS can be your ideal data sharing center in digital home

Watch the stored video and photos on TV

Sony PSP (Wireless music player)



Nokia N95  
(Remote Control)

# H. All-in-one Server: Download Station -1

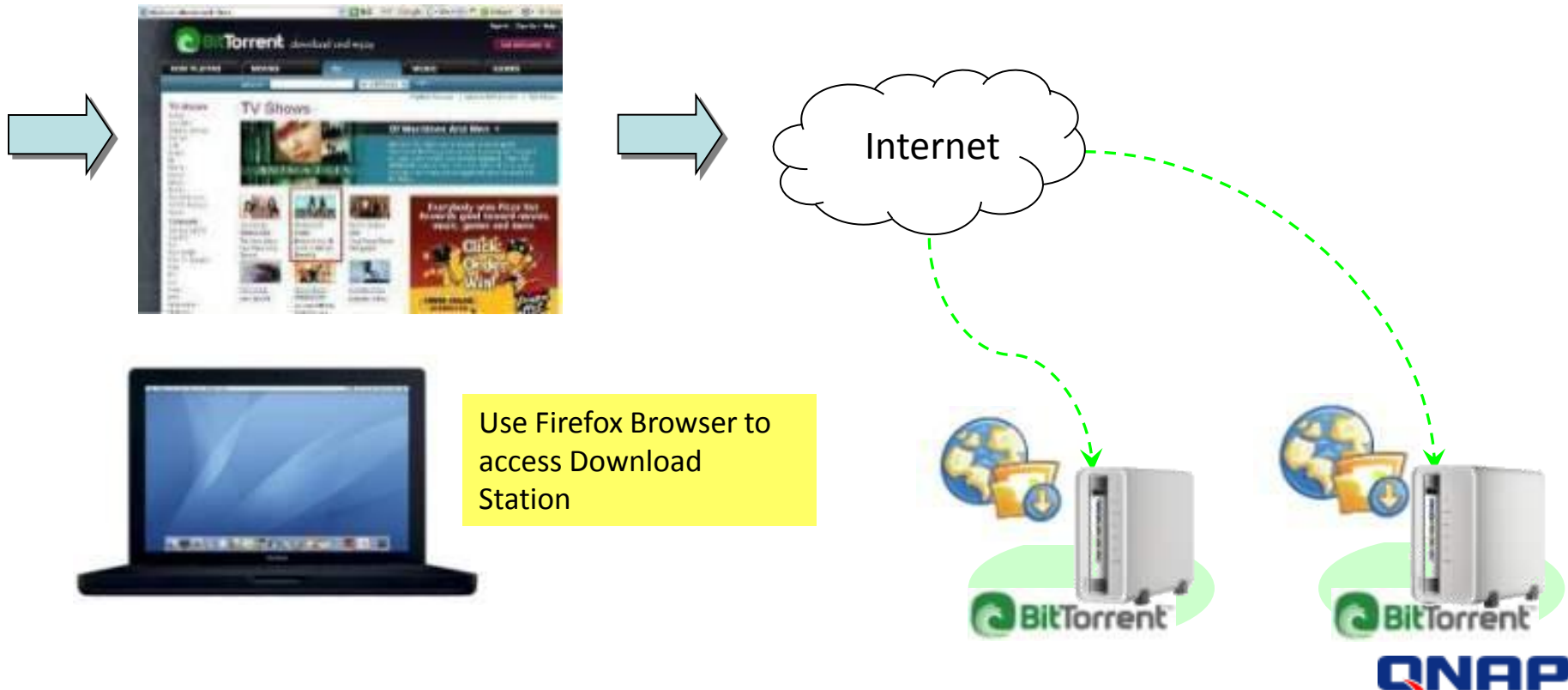


## Enjoy Continuous Download Independent of PC

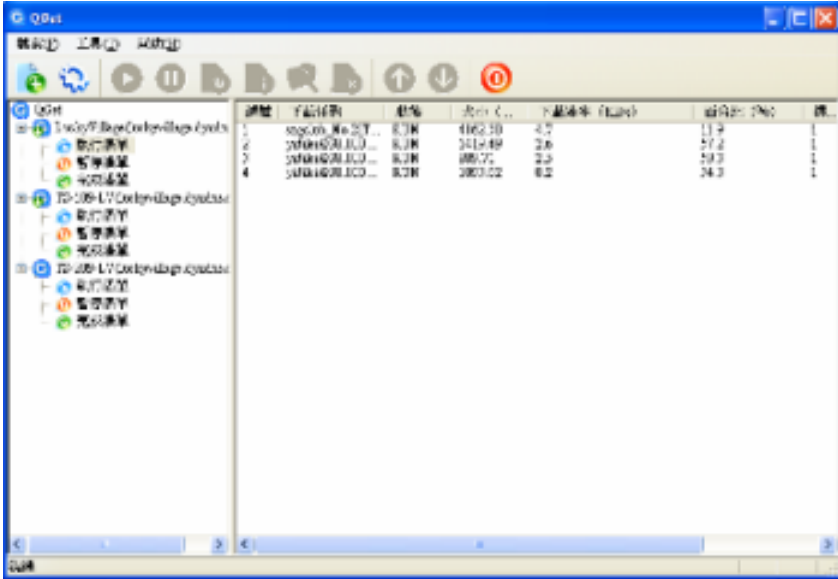
Turbo NAS serves as continuous BT Download ( BitTorrent ), FTP, or HTTP download centers **without turning on your PC**. The great web-based interface allows you to manage the download tasks anytime, anywhere!

1. Buy Videos from BitTorrent

2. Remote Manage Home NAS to Download

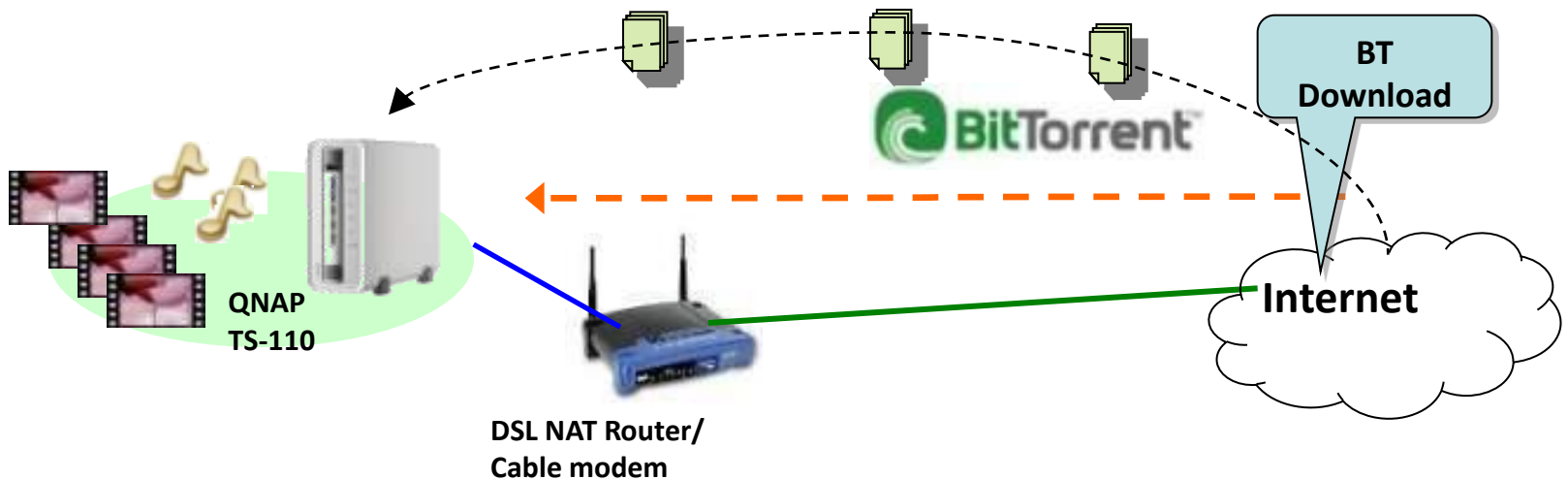


# H. All-in-one Server: Download Station - 2



Powerful P2P download software-QGet !!!

You can simultaneously manage download tasks of multiple Turbo NAS Server in one PC!

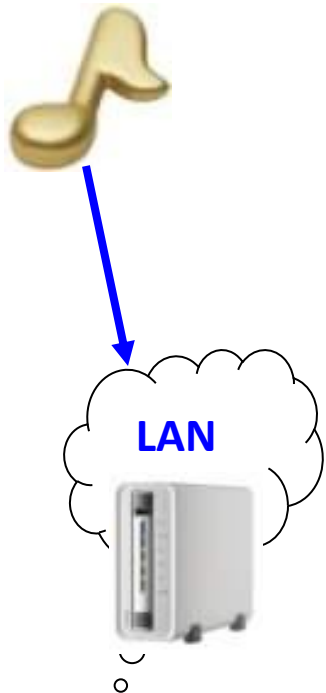




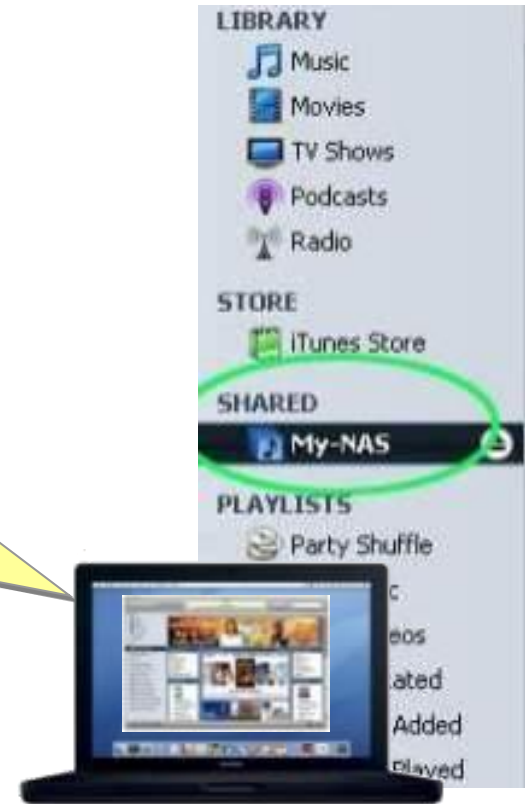
# I. All-in-one Server: iTunes Server



All your MP3 music can be collectively stored and streamed to Mac or Windows PC. Just Turn on the iTunes program and enjoy all the music around your home network!



Run the iTunes Software; Your PC Will Automatically Find the Turbo NAS and Can Play the Stored Music by iTunes Server !!!



# J. All-in-one Server: Multimedia Station



## Built-in On-line Album

Turbo NAS series provides the most user-friendly web interface to manage personal albums and multimedia files easily.



**Directory tree:** Directory shown in tree structure for easy browsing

**View the video or music file** by double-click the icon. Default player will be activated automatically.



**File sorting:** Sort by alphabet, file size, create date

**File thumbnail:** Show photo thumbnail or icon indicating file format

**Movie or Music file:** shown as icon corresponding to the file format

**Viewing control:** Rotate picture, zoom in, zoom out, photo slide show...etc.

**Photo information:** Name, resolution, date, time, camera, detail setting...etc.

# K. All-in-one Server: Surveillance Station- 1



## *Live Audio & Video Monitoring, Recording and Playback over the Internet*

### Application:

- Remote monitoring of childcare situation,
- Elder care,
- Home and office security,
- long-term environmental monitoring



# K. All-in-one Server: Surveillance Station- 2



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 real-time monitoring, and voice broadcasting



Complete recording function

- **Motion Detection**  
Recording is triggered when a moving object is detected by the camera.
- **Continuous / Schedule recording**
- **Synchronized audio recording**

# K. All-in-one Server: Surveillance Station- 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.



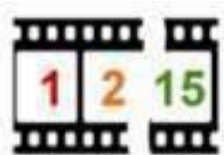
- **E-mail notification**

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



- **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.



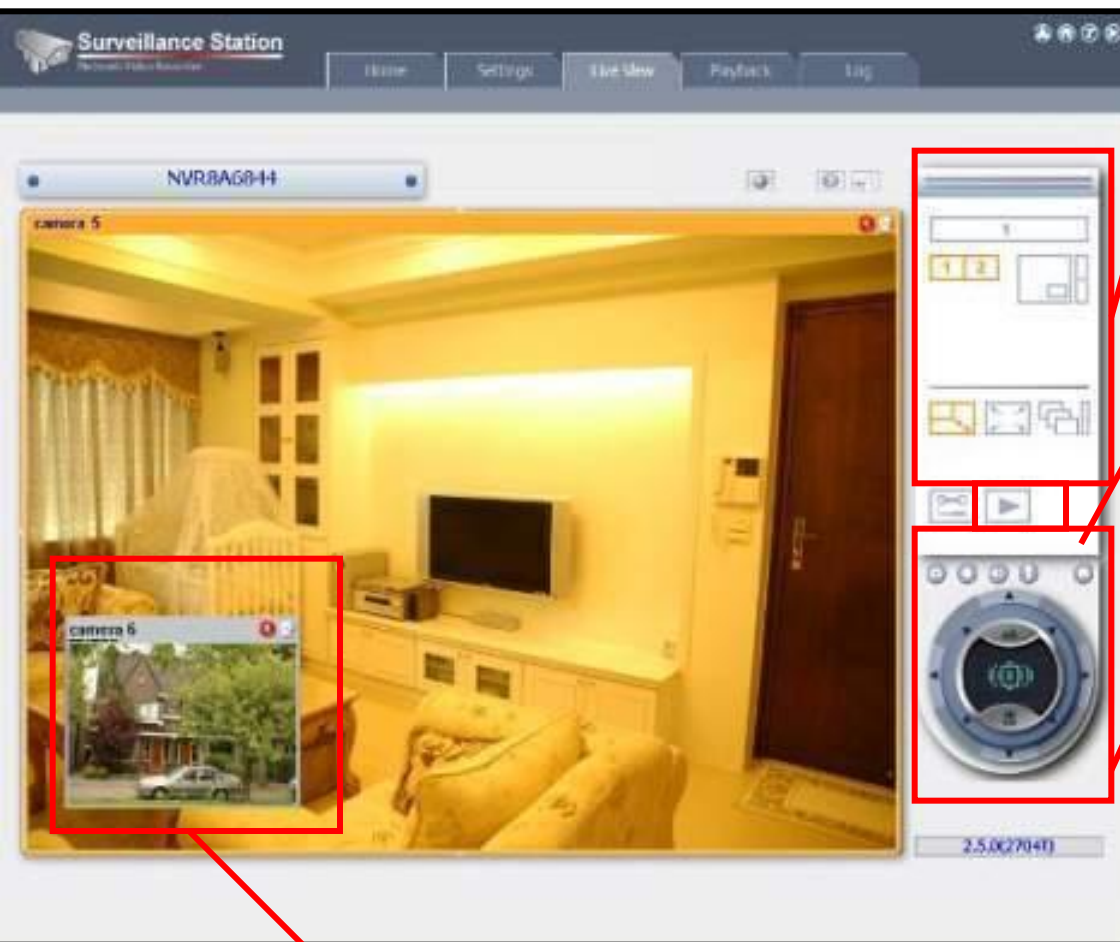
- **Flexible adjustment of the length of recording files**

Users can adjust the length of the recording files flexibly **(1-15 minutes)**

# K. All-in-one Server: Surveillance Station- 4



## Live real-time monitoring



Picture-in-picture mode



**Variety Live video monitoring**  
Single-channel, 2-channel and Picture-in-picture (PIP) monitoring modes are supported for flexible and key-location monitoring



**Support live 2-way audio**  
Real-time audio and video monitoring, voice broadcasting



**Smart PTZ camera control by direct clicking on the control panel**

Users 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.

# QPKG Software Expansion Platform

## Explore the unlimited possibilities of your QNAP NAS!

The QPKG is a convenient platform developed by QNAP to **enable users to install lots of useful software applications**. The software developed from the users and community worldwide. By a few simple clicks and uploading on the user-friendly GUI, all these applications can be installed. **There is no need to go through the hassles of any complicated programming.**



# Policy-based Automatic IP Blocking- 1

To prevent the NAS from malicious attacks, the server manager can create an IP filter policy to **allow, deny, or auto-blocking the IP address or network domain** which attempts to connect to the NAS via SSH/ Telnet/HTTP(S)/ FTP/ samba/AFP.

## Security

SECURITY LEVEL   NETWORK ACCESS PROTECTION   IMPORT SSL SECURE CERTIFICATE

### Security Level

High: Allow connections from the list only  
 Medium: Deny connections from the list  
 Low: Allow all connections

Enter the IP address or network from which the connections to this server will be allowed or rejected.

+   -

Genre	IP address or network domain	Time left for IP blocking
<div style="border: 1px solid gray; padding: 5px;"><h4>Enter the IP address or network domain</h4><p><input checked="" type="radio"/> Single IP address</p><p><input type="radio"/> Specify IP addresses of certain network by setting IP address and netmask</p><p>IP: <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/></p><p>Netmask: 255 . <input type="text" value="255"/> . <input type="text" value="0"/> . <input type="text" value="0"/></p><p><input type="radio"/> IP Range</p><p>Start IP: <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/></p><p>End IP: <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/></p><p style="text-align: right;">Create   Cancel</p></div>		



# Policy-based Automatic IP Blocking- 2

Users can control the access to the server according to the number of times an IP fails to login the server via a certain connection method.

The connection type includes SSH, Telnet, HTTP(S), FTP, SAMBA, and AFP.

## Security

SECURITY LEVEL

NETWORK ACCESS PROTECTION

IMPORT SSL SECURE CERTIFICATE

### Network Access Protection

Enable network access protection

- SSH: In  , after unsuccessful attempts for  , block the IP for
- Telnet: In  , after unsuccessful attempts for  , block the IP for
- HTTP(S): In  , after unsuccessful attempts for  , block the IP for
- FTP: In  , after unsuccessful attempts for  , block the IP for
- SAMBA: In  , after unsuccessful attempts for  , block the IP for
- AFP: In  , after unsuccessful attempts for  , block the IP for

# Instant SMS Alert

The instant system alerts would be sent via the SMS Service provided by the SMS Provider.

Users could enter **2 sets of mobile phone number** worldwide at most to receive the message and manage the system in time.



# SNMP (Simple Network Management Protocol)

Enable SNMP service on the NAS to actively send the information, warning or error of the NAS to max 3 SNMP trap addresses installed SNMP management tool. Moreover, MIB of NAS can be downloaded and imported to your PC with SNMP tool. Your PC can then acquire the info of the NAS actively, e.g. cpu-usage, temperature.



Event log  
(info, error, warning)

----->



## SNMP Settings

### SNMP

After enabling this service, the NAS will be able to report information via SNMP to the managing systems.

Enable SNMP Service

Port Number:

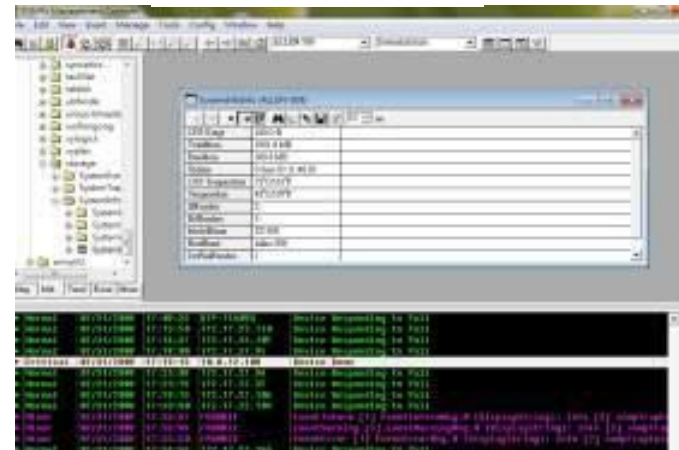
Community:

Send Event:  Information  Warning  Error

Trap Address 1:

Trap Address 2:

Trap Address 3:



# Volume Status Report

- Users can check the status of the network share folders of the system including the storage capacity, number of folders and files etc.
- Clicking on “Name”, “Size”, “No. of Folders”, “No. of Files”, or “Hidden” to sort the contents in ascending or descending order.

## Share Folders

<input type="checkbox"/>	Folder Name	Size	Folders	Files	Hidden	Action
<input type="checkbox"/>	My_VD_Share_1	970 KB	7	9	No	NFS
<input type="checkbox"/>	NFS_share	970 KB	7	9	No	NFS
<input type="checkbox"/>	Network Recycle Bin 1	1 MB	9	12	No	NFS
<input type="checkbox"/>	Network Recycle Bin 2	970 KB	7	9	Yes	NFS
<input type="checkbox"/>	Network Recycle Bin 3	970 KB	7	9	Yes	NFS
<input type="checkbox"/>	Project	24 GB	12	6247	No	NFS
<input type="checkbox"/>	Project1	4 KB	0	0	No	NFS
<input type="checkbox"/>	Public	114 MB	113	23	No	NFS
<input type="checkbox"/>	Qdownload	970 KB	7	9	No	NFS
<input type="checkbox"/>	Qmultimedia	234 MB	28	120	No	NFS

Delete Total: 16 | Display 10 entries per page. 1 / 2

# Syslog Server Settings Supported

Syslog is a standard for forwarding log messages in an IP network. Users can save the **event logs** and **connection logs** to a remote syslog server.

## System Logs

SYSTEM EVENT LOGS

SYSTEM CONNECTION LOGS

ON-LINE USERS

SYSLOG

### Syslog Settings

Enable syslog

You can enable this option to save the event logs and connection logs to a remote syslog server.

Syslog Server IP:

UDP Port:

Select the logs to record

System Event Logs

System Connection Logs (You must enable system connection logs to use this option.)

# Import SSL Secure Certificate

The administrator can upload a secure certificate and an **RSA** private key in **X.509PEM** format issued by a trusted provider in order to allow the users to access the NAS by secure SSL login

Home>> System Administration>> Security Welcome admin | Logout English

## Security

[SECURITY LEVEL](#) [NETWORK ACCESS PROTECTION](#) **[IMPORT SSL SECURE CERTIFICATE](#)**

### Import SSL Secure Certificate

You can upload a secure certificate issued by a trusted provider. After you have uploaded a secure certificate successfully, you can access the administration interface by SSL connection and there will not be any alert or error message.

If you upload an incorrect secure certificate, you may not be able to login the server via SSL. To resolve the problem, you can restore the secure certificate to default and access the system again.

Status: Uploaded secure certificate being used

[Download certificate](#) [Download private key](#) [Restore default certificate](#)

**Certificate:** Please enter a certificate in X.509PEM format below. [View sample](#)

**Private Key:** Please enter a certificate or private key in X.509PEM format below. [View sample](#)

**Thank you !!!**