QNAP

Q vPC Technology

Use your NAS as a PC

A New Era of NAS
Running Virtual PC with High Performance Dual Core Turbo NAS

Celeron® dual-core 2.41GHz CPU, burst up to 2.58GHz

$$a^2 + b^2 = c^2$$

ABC

$1+2=3$

TS-x51 Series

| TS-251 | TS-451 | TS-651 | TS-851 | UX-500P | UX-800P |

- Dual-core Intel® 2.41GHz CPU and 4GB/1GB DDR3L RAM, delivering up to 220MB/s read & write speed
- Run your NAS as a PC with build-in QvPC Technology
- On-the-fly and 4K offline full HD hardware accelerated video transcoding
- Built-in virtual machines technology with Virtualization Station
- Up to 7.1 channel audio passthrough and high-quality multimedia playback via HDMI
- Personal cloud for creating a multimedia library with DLNA, AirPlay, and Plex support
- Centralized storage, file sharing and backup
- Economical storage expansion with scale-up solution by UX-800P or UX-500P, maximum 8 hard drives with 48TB more storage capacity

ULTRA HD 4K 2K

Dual Core **2.41** GHz

1GB/4GB DDR3L RAM

On-the-fly Transcoding

HDMI 1080P

dlna

intel inside CELERON

With the growing popularity of smartphones and cameras, a staggering amount of digital media is being created and downloaded every day. This media is also becoming increasingly larger in size, with Full HD movies available to download for mobile devices and 4K on the horizon for HDTVs and download services. This rise in file size makes it impossible for limited mobile devices to store large amounts of media, and also forces users to sacrifice quality for storage space.

With the new TS-x51 Series, QNAP offers customers a NAS with a large & scalable storage solution with a powerful Intel Dual-core processor and HDMI connectivity for home entertainment and QNAP's unique accelerated transcoding that allows mobile devices to enjoy media with optimized resolutions and saving their local storage space.

The TS-x51 Series also features QNAP's exclusive QvPC Technology that allows you to use a TS-x51 series model as a PC by simply plugging in a keyboard, mouse and HDMI monitor – greatly extending its functionality and providing even more value for home users.

QvPC Technology

Built-in VMs

QNAP´s Unique Transcoding Technology

*Available in QTS 4.1.2

Table of Contents

QvPC Technology

Powered by QNAP's exclusive QvPC Technology

■ About QvPC Techonology

Based on Software-defined Everything, QvPC Technology is the result of years of R&D effort that QNAP has put into developing and perfecting its software and hardware expertise. QvPC Technology has consolidated a number of high-end technologies and latest IT trends including VM integration, multimedia transcoding, HDMI output, cloud integration, and NAS connection technologies, allowing users to operate TS-x51 as a PC when they plug in a keyboard, mouse and monitor. QvPC Technology can turn a NAS into a low-cost & high-performance 2-in-a box NAS that can function as a NAS and a PC. Whether you are working in a studio or at a remote site, you are assured to receive the best user experience.

QvPC Technology features HybridDesk Station (HD Station) as the user interface, which consists of QVM Desk*, Defense Desk, and Local Display Desk and provides various software applications.

* QVM feature is scheduled to be available in September, 2014
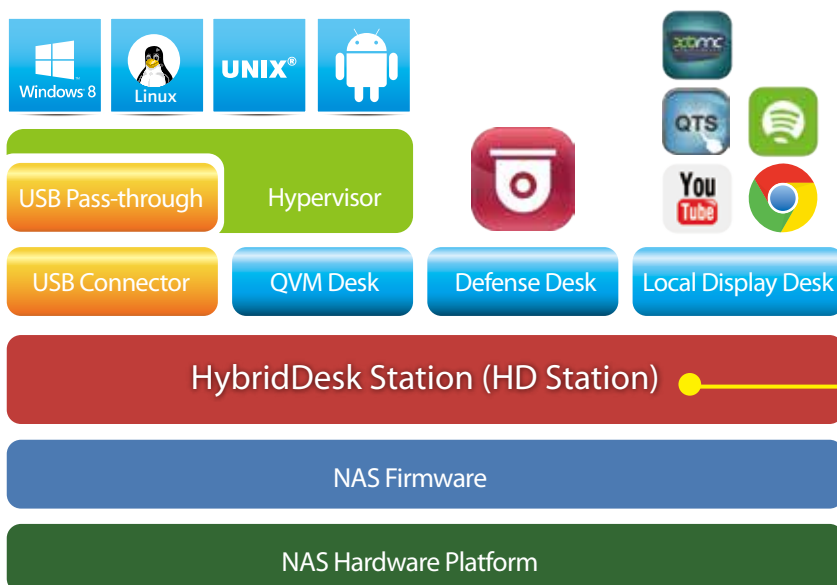
Connect a monitor with HDMI, and you can enjoy a variety of applications with HD Station. You can initiate the service in QTS system and install different applications according to your needs.

Windows 8	Linux	UNIX®	Android

USB Pass-through	Hypervisor
USB Connector	QVM Desk	Defense Desk	Local Display Desk

HybridDesk Station (HD Station)

NAS Firmware

NAS Hardware Platform

* All trademarks in this brochure are the property of their respective owners.

QVM Desk

Defense Desk

Local Display Desk

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

The highlights of QNAP's exclusive QvPC Technology

▪ HybridDesk Station (HD Station)

HD Station is a monitor-based user interface based on QNAP's exclusive QvPC Technology. Simply plug in a keyboard, mouse, and HDMI monitor to a TS-x51, and you can start the installation process and access data without connecting to a PC, tablet, or smartphone. A variety of local display applications are available on HD Station including QTS, Google Chrome, QVM, XBMC, and Surveillance Station.

HD Station is touchscreen enabled*. Simply plug in a touchscreen monitor and start using it immediately.
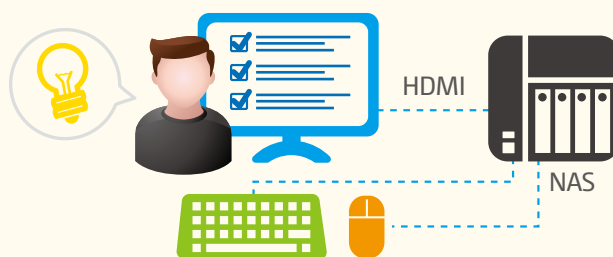
▪ Streamlined installation*: No complicated procedures necessary to install your NAS.

After purchasing a NAS, users usually install firmware from an installation disc and search for the NAS on their network, or log in to the NAS manufacturer's website to complete the installation process. For users without relevant networking knowledge, this installation process may be difficult. Some users decide to purchase other external storage devices that can be instantly access (such as USB hard drives). However, these devices are "islands of information" that can only be accessed by the computer they are connected to. These storage solutions also have no protection against failure, and can be easily lost.

NAS is an ideal solution for storing data. With QvPC Technology users only need to plug in a HDMI monitor, keyboard, mouse and follow on-screen instructions to complete their NAS installation. Even users without any network knowledge can easily set up and install a NAS. All files stored on a NAS are protected with RAID technology and are accessible via the Internet anytime.

NAS

HDMI

NAS
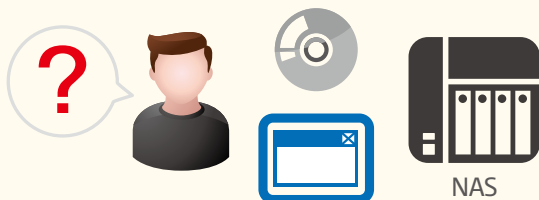
Conventional installation: You need an disc or to login to a website to complete the installation, and it can be complicated for general users

Streamlined installation: simply plug in a monitor, keyboard and mouse and you can quickly complete the on-screen instructions to complete the installation.

*Available in QTS 4.1.2

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QvPC
Technology

▪ QNAP QVM Desk* turn a NAS into an office PC

Run Windows, Linux and Android** virtual machines on a HDTV

Leveraging virtualization technology, QNAP QVM Desk* supports local display for a virtual interface and runs the NAS as a PC when connected to a HDMI monitor, keyboard, and mouse. Any files on the TS-x51 can be opened using virtual machines running Windows, Android**, Linux, and Unix through QVM Desk*. You can also instantly switch between different virtual machines to meet your needs, just like using multiple PCs at the same time. Compared to the operations via a webpage, it's smoother, more secure, and worry-free to do on a NAS. Even when the Internet connectivity is limited, you can still access data and run virtual machines on a NAS.

Linux

Windows

Android**

* QVM feature is scheduled to be available in September, 2014
**Available in QTS 4.1.2

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Run Android on a NAS with QvPC*

Have you ever constricted by the lack of storage space on your tablet or smartphone with no idea where to backup your files or what apps to delete for more space? With QvPC Technology, you can run Android on a virtual machine, and back up apps or files like LINE, WeChat, Gmail, your phonebook, photos, and chat messages from your Android device to the virtual machine with backup software like App Backup & Restore and My Backup Pro. This way, the files on the pubic cloud can be stored on your private cloud. You no longer need to worry about having difficulty accessing your data anymore. In addition, your NAS can be transformed to an Android device and the millions of apps on Google Play can be operated on it as well.

*Available in QTS 4.1.2

| LINE | WhatsApp | Gmail | Facebook |

To learn more about QNAP Virtualization Station, please turn to Page 7.

QvPC Technology

■ Defense Desk
24/7 Safeguard your home and property
Surveillance Station is the monitoring center for your home

Live-view

QvPC Technology supports local display of live surveillance feeds on the screen with a QNAP remote control. You don't need an additional PC for live-view, nor do you need an Internet connection to check the stored video recordings. You can monitor up to 16 channels simultaneously, adjust PTZ functions, and conduct audio surveillance. QvPC also supports instant notification functions and will show alerts on the monitored page should any incident happens, helping you take immediate action and control the home environment more efficiently.

Playback

You can connect your NAS to a monitor to playback recordings. Just select a timeframe, and you can search the recordings within this period. It also supports video fast-forwarding and rewinding (up to 16x speed). You can quickly look for detailed images with the zoom function, and listen to audio for key background sounds during the playback.

■ Manage Local Display Desk easily

Quickly install* QTS and access files

Just plug in a HDMI monitor/TV, keyboard and mouse to a TS-x51, and within a few simple steps you will complete installation and be able to access files using the QTS operating system.

*Available in QTS 4.1.2

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Surf the web via Chrome on TV

QvPC Technology supports HDMI-out and Google Chrome, allowing you to surf the web easily, and is ideal for offices to build a information search center with minimal costs.

Build an online music center with Spotify

Over a million songs can be found on Spotify. Create a media center and enjoy your music collections with your NAS while at work.
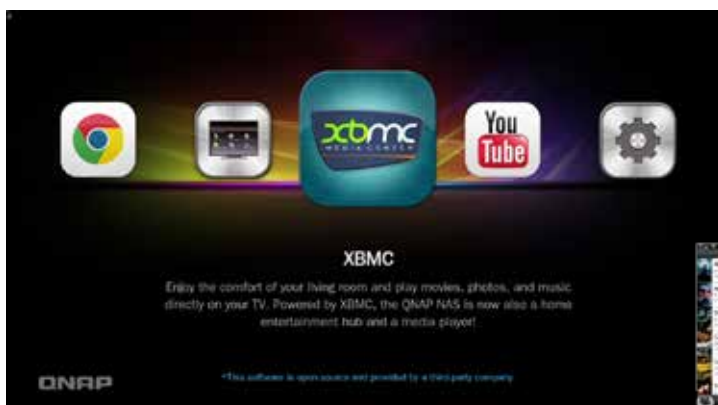

QNAP Remote Control
(RM-IR002)

Qremote mobile app turns your mobile device into a handy remote control

iOS and Android users can download the Qremote app to turn their smartphones into a remote control to conveniently play videos, music, and photos on TV via HD Station. The Official XMBC Remote app can also be used.


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# Multi-purpose on a Machine (Virtualization Station)

▪ Introduction

The TS-x51 Series is the world's first consumer-grade NAS that supports Intel VT-x and virtual machine applications. Just download the Virtualization Station App from App Center, and you can install & operate multiple operating systems with Windows, Linux, and UNIX. The virtual machines can be used in a variety of different ways to boost the functionality of your Turbo NAS.
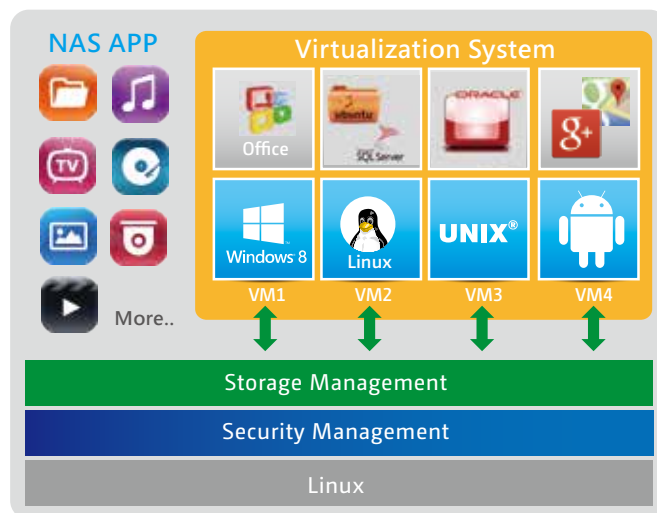
Virtualization technology is normally solely used in enterprise environments, but with the growing needs of a digital household, virtualization is slowly becoming part of our everyday applications. Many households have printers, and when users want to print out the photos stored on their Turbo NAS, but have a printer with Windows-only drivers, they would need to startup their PC just for this simple task.

With the Virtualization Station, you can install these drivers on a Windows-based virtual machine, allowing you to easily print out documents & photos stored on the Turbo NAS.

Creating multiple VMs on TS-x51
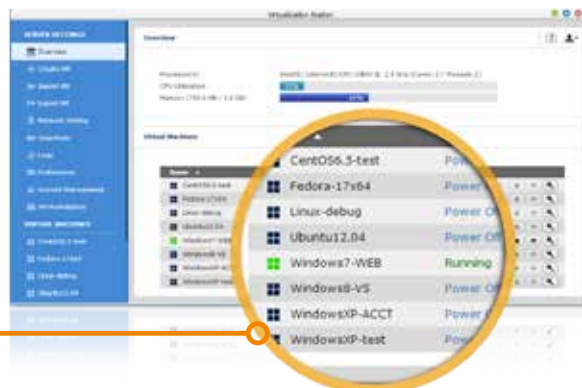
To use Virtualization Station, we recommend that you buy a TS-x51-Series model with 4GB RAM (TS-x51-4G). If you purchased a TS-x51 Series model with 1GB RAM you will need to upgrade the RAM to at least 2GB (recommended: 4GB) before you can use Virtualization Station.

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Select a file to print !!

You can carry out the aforementioned scenario using the below steps.

❶ Download the Virtualization Station from the App Center and create a Windows-based VM (you will need at least two Ethernet cables connected to the Turbo NAS)*

❷ Install the printer drivers in the VM

❸ Download the QNAP mobile app "Qfile" from the App Store (iOS) or Play Store (Android) and set a destination folder on the Turbo NAS for uploading photos

❹ Map the destination folder into the VM

❺ Access the VM remotely via web browser to select a photo and then print it instantly

*The network usage of Virtualization Station is separated from the Turbo NAS. One Ethernet cable is reserved for the Turbo NAS to use, so you will need at least another one for the Virtualization Station to use.

How to map the destination folder into a Windows VM?
Please follow these steps:

Ⓐ (Using Windows 7 as an example) Please go to "Computer" and click [Map network drive]

Ⓑ Please insert the IP address of your Turbo NAS and click [Browser]. Select the folder you want to use and click [Finish].

Ⓒ This folder you want to use will appear as a network drive on your "Computer"

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Virtualization Station

■ QNAP-exclusive virtualization technology highlights

Direct access to files & data via VM

Specific file formats cannot be opened directly by the Turbo NAS, but the Virtualization Station makes it possible. Administrators can install Windows, Linux, and UNIX on the Turbo NAS to run any supported application or file.

QTS File Station
SolidWorks on Windows Virtual Machine

Local — Access NAS to download file — Waiting for downloading — Download file from NAS
VM1 — Access NAS to download file — Directly open in VM1

Save bandwidth & time

Downloading a large amount of data to a local PC has the potential to take a long time and use up network bandwidth. When accessing data on the Turbo NAS through virtual machines on the Virtualization Station, you can enjoy secure data transmission and save bandwidth & time as the data is not transmitted via physical network cables.

Enhance security and save bandwidth

When accessing files & data on a virtual machine they are not transmitted outside of the Turbo NAS. This provides a secure environment that prevents sensitive data from being intercepted and also saves bandwidth & network resources when you need to access large files.

Photoshop
資料被下載有機密外洩風險！！
Windows 作業系統
虛擬機
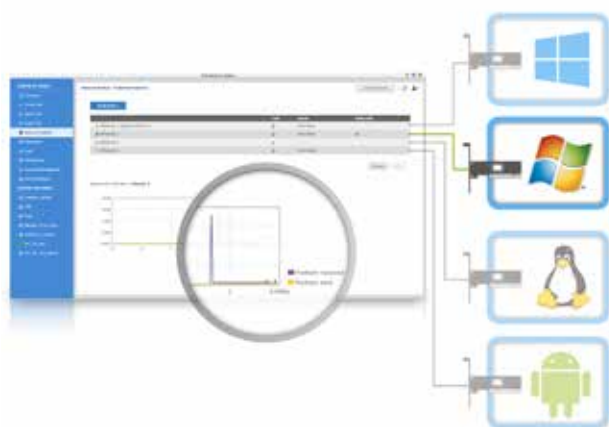
Dedicated network for VM only

The Virtualization Station provides functions for network monitoring. You can monitor all NIC (network interface controller) traffic and assign a specific NIC exclusively to a single VM.

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User-based permissions settings

The Virtualization Station administrator can create users and set proper permissions for each Virtual Machine (VM), helping to efficiently manage and allocate VM resources for users with different needs. With these permissions, users can work independently on their VM without worrying about their work being interrupted or data being lost because another user has accidentally powered-off the VM.

User-based permissions include：
· Console permissions: Control and View-only
· VM controls: Power, Snapshot and Advanced
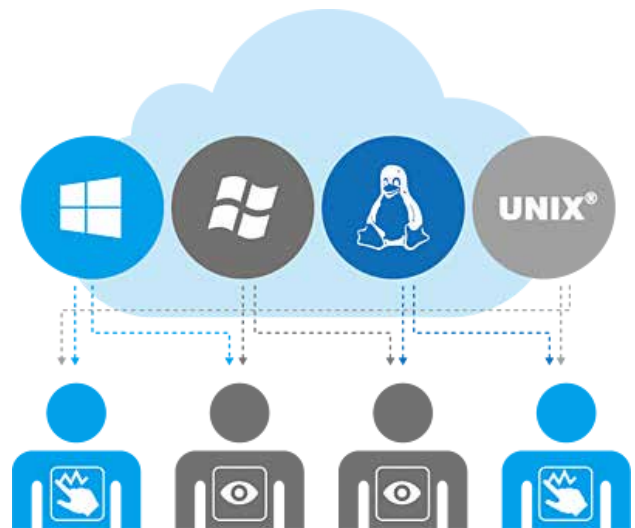
Auto Start

VM auto-start

VMs can be set to automatically start when the Turbo NAS restarts, allowing the applications on VMs not to be disrupted.

Operate VMs as Remote Desktops

Enjoy utmost convenience by operating Windows, Linux and UNIX-based VMs as remote desktops. A list of buttons is provided on the left side of each individual VM display, allowing users to suspend, shutdown, force shutdown, reset, bring up key combinations Ctrl + Alt + Del & function keys, and even take snapshots for the VMs.

QNAP QVM Desk*

QNAP QVM Desk* supports local display for deploying virtual applications on a big screen when connected to a HDMI monitor, keyboard, and mouse. Compared to webpage operations it's smoother, more secure, and worry-free to do on a NAS. Even when Internet connectivity is limited, you can still access data and run virtual machines on a NAS.

Linux

Windows

Android**

* QVM Desk feature is scheduled to be available in September, 2014

**Available in QTS 4.1.2

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

Transcoding Center

QNAP's Unique Transcoding Technology

An increasing amount of people are using mobile devices as their movie player of choice – especially when it comes to streaming videos across the internet. But when you consider the numerous file formats/codecs used for video files and the bandwidth requirements to stream HD videos, there can be numerous problems when watching or sharing videos to different mobile devices. The TS-x51 series supports real-time and offline file transcoding that provides bandwidth and device-optimized videos in universal file formats for convenient viewing across a range of devices and network environments.

▪ Transcode Management

On-the-fly Transcoding and Background Transcoding allows you to convert videos to lower resolutions to accommodate slower/restricted network environments and device limitations.

▪ Why We Need Transcoding?

With the popularity of high-definition smartphones and digital cameras, the resolution of videos is getting higher. A higher resolution means larger file sizes and more bandwidth. Transcoding can provide lower resolution videos when sharing and watching, saving bandwidth, but also retains the unaltered original video on the Turbo NAS.

▪ Smart Transcoding Adapts to

Suit Different Bandwidth

The TS-x51 Series provides a range of resolutions to play/share videos according to different bandwidth limits. Higher resolutions need more bandwidth, and you can select the right resolution for your network environment to get the best viewing experience.

Network \ Resolution	240p	360p	480p	720p	1080p	4K2K
Ethernet	🖥	🖥	🖥	🖥	🖥	🖥
Wi-Fi (108.11 ac)	🖥	🖥	🖥	🖥	🖥	🖥
Wi-Fi (108.11 a/b/n)	🖥📱	🖥📱	🖥📱			
4G (LTE)	📱	📱	📱			
3G	📱					

■ Multi-mode Transcoding Function

TS-x51 Series provide multiple transcoding functions for you to have the best video experience.

ULTRA **HD** 4K 2K

Background hardware-accelerated transcoding

The TS-x51 fully supports offline background transcoding for 1080p and 4K (H.264) videos. Just add videos to the transcoding list and use the Turbo NAS to convert the original high-resolution video for use with multiple resolutions. Then you can select an appropriate resolution when sharing or watching to match your device or network environment.

Auto transcoding

When you set a folder on the Turbo NAS to be an auto-transcoding folder, videos added to it will be automatically converted to a resolution you have set. For example, if you set the folder to 360p, videos added to this folder will be automatically transcoded to 360p as a background task.
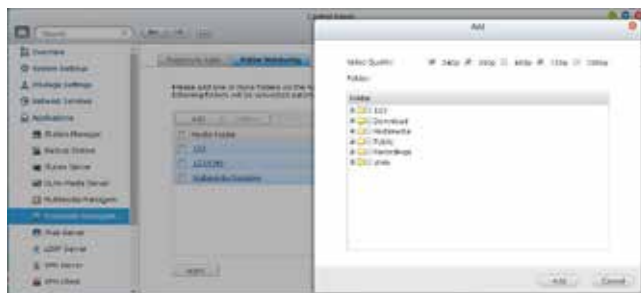
On-the-fly transcoding

If you have many high-resolution videos, but did not transcode in advance, you can use on-the-fly transcoding. This will adapt to meet bandwidth limits, with the Turbo NAS transcoding in real time for watching the video directly. For this hardware based transcoding technology, up to users can watch videos streamed simultaneously from the same Turbo NAS.

QNAP's Unique Transcoding Technology

With Intel® HD Graphics video creation & conversion is faster, easier and can significantly reduce transcoding time while handling multiple on-the-fly transcode tasks.

Performance

Compare the transcoding time between the TS-x51 and TS-x69L / TS-x69 Pro with using the same high resolution (1080p) video.

18X faster

TS-469 Pro

TS-451

Transcoding times (sec)
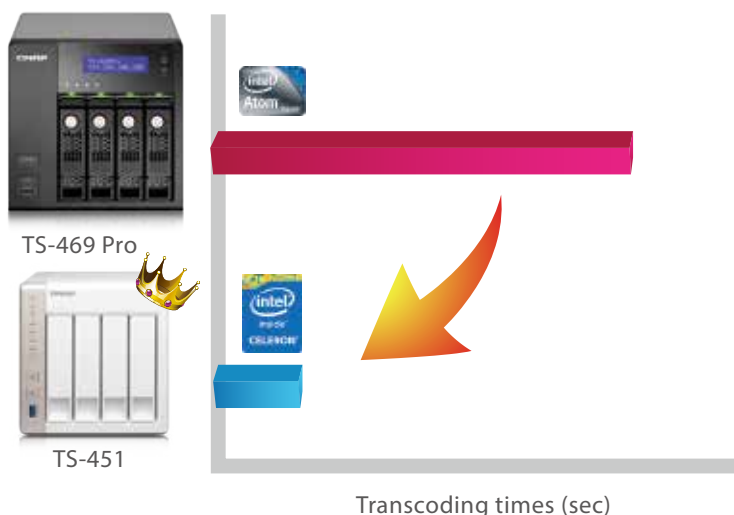
Results: The performance of Hardware-accelerated Transcoding is 18 times better than Software Transcoding.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

QTS 4.1 OS

Intuitive & Simple QTS 4.1

Based on Linux, QTS is designed to be simple and flexible, and centralizes multiple applications efficiently in the App Center.

QTS kernel highlights:

〉Multi-Window: Simultaneous multi-window operation, ease of usage.

〉Multi-Task: Perform multiple tasks at the same time, improve work efficiency.

〉Multi-Device: Synchronize cross multiple devices anytime, anywhere.

〉Multi-App: Download apps, easy to manage.

〉Multi-Scenario: Various functions for you to customize own cloud platform.

■ Intelligent Desktop

The QTS 4.1's intelligent desktop offers an intuitive, sleek, and easy-to-follow graphic user interface, simplifying the whole Turbo NAS experience. It allows you to open multiple application windows and run multiple tasks simultaneously. Application windows can be minimized to the toolbar which allows you to see an overview of the opened applications and switch between running applications.

Smart toolbar

Background tasks
Displays all the active tasks and scheduled jobs performed in the background.

External device
Access the connected storage devices and eject the devices safely with only one click.

Event notifications
Displays constant updates of system information such as system warnings and other error messages.

Quick search
Quickly search the system settings and QTS Help content using relevant keywords.

Main menu
All your applications, system preferences, and additional apps installed from the App Center are neatly presented for you to find your desired app quickly. Drag and drop frequently used icons to the desktop as shortcuts for quick access.

Multiple desktops
This extended desktop workspace is designed specifically to improve your productivity. You can separate the apps onto different desktops according to their nature or genre and switch between the desktops freely.

Smart dashboard
In one click the smart dashboard presents all important system information in a single panel. Drag any status to the desktop for constant monitoring.

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Customized Login Page

■ Public photo wall and app shortcuts on the login page
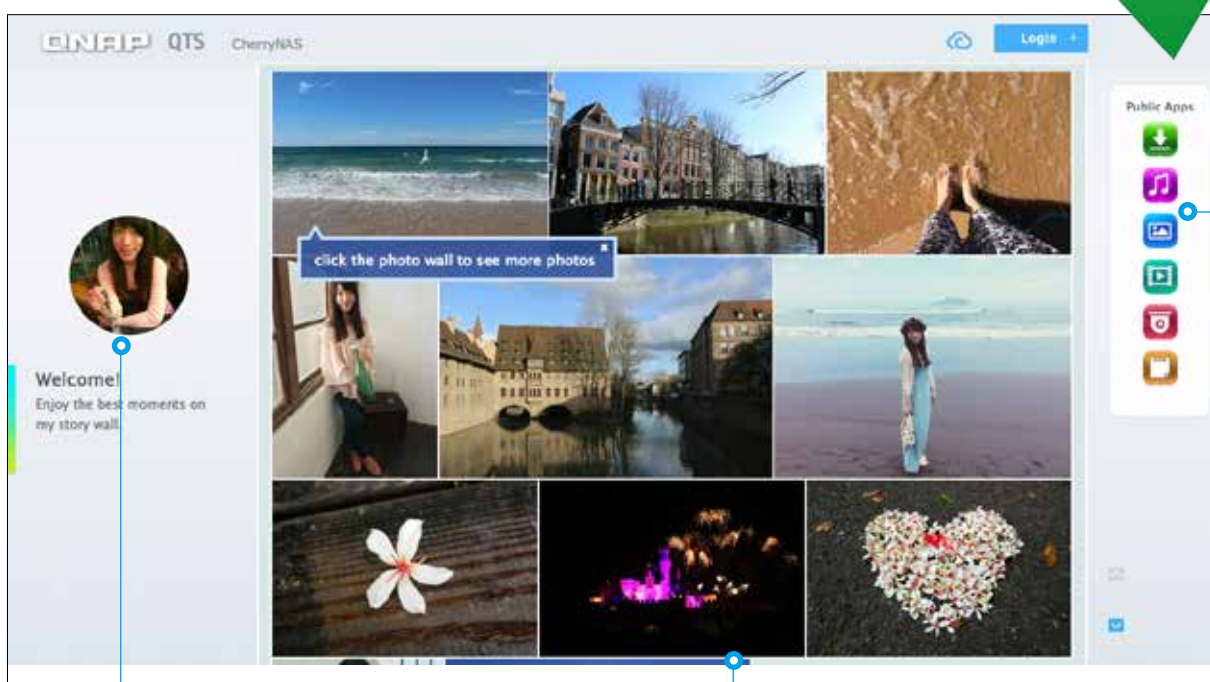
Customize the photo wall based on your own image and display it on the login page. Each app has its own shortcut that you can place on the login page to allow direct access without the need to log into QTS first.

Enable this option and ...

Display the app shortcut on the login page.

App shortcuts become available

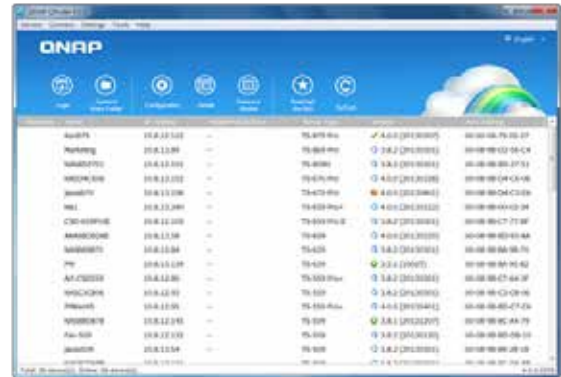Customized admin photo

Public photo wall

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NAS Connection and Network Settings

▪ Qfinder

Connect and set up NAS easily

Qfinder is a utility, available for Windows, Mac, and Linux, to quickly find and access the Turbo NAS over the LAN. Install the Finder on your computer, open it, and double click your Turbo NAS name, and the login page is ready for you.

Easily access the NAS by Storage Plug & Connect

Windows version of Qfinder provides a convenient way to connect to the Turbo NAS and map a network drive or a virtual disk. By creating a shared folder on the Turbo NAS and mapping it as a network drive, you can use it as an additional drive and store files on it as it is a local drive of the computer.

▪ Network Settings - Dual LAN Ports Supported

Setup the network under control panel. The TS-x51 Series support multiple port-trunking modes, enabling administrators to set up link aggregation to increase total data transmission capability. Failover is also supported to ensure continuous system operations. The supported port-trunking modes include: Balance-rr (Round-Robin), Active Backup, Balance XOR, Broadcast, IEEE 802.3ad, Balance-tlb (Adaptive Transmit Load Balancing) and Balance-alb (Adaptive Load Balancing).

File Backup/Disaster Recovery

QTS allows data on PCs, servers, virtual machines, and external drives to be backed up to the Turbo NAS and provides disaster recovery solutions to back up data on the Turbo NAS to external devices and remote servers.

▪ Backup Center

Backup from computer to NAS

PC backup

Windows users can install the free QNAP NetBak Replicator utility to back up files from Windows PC. Entire disk drives, documents, pictures, music, videos, fonts, emails, and more can be backed up to one or more Turbo NAS units.

With a few clicks, you can set up real-time backup, scheduled backup and auto-backup. You can set power off after the backup is finished to save energy, filter unwanted files, and receive email notifications when the backup finishes.

Mac backup

Mac users can use Time Machine to back up data to the Turbo NAS. You only need to set the Turbo NAS as the backup destination on the Time Machine management page and it's done.

3rd party backup software

QTS is compatible with various renowned backup software such as Acronis® True Image, Symantec® Backup Exec, and more. Users that use this software can immediately back up data from other sources to the Turbo NAS.

▪ Disaster Recovery

Backup to remote server with Rsync / RTRR
・Use rsync protocol to execute scheduled backup to remote rsync server
・Use RTRR (Real-Time Remote Replication) services for real time data backup to a remote Turbo NAS or FTP server.

Backup to cloud storage
Users can back up the data from the Turbo NAS to online cloud storage services, such as Amazon® S3, Amazon Glacier, ElephantDrive®, Microsoft® Azure, Google® Drive, and Dropbox®, and restore the data to your Turbo NAS anytime.

Backup to external device
Connect your external device to a USB interface of the Turbo NAS, click [Control Panel] > [Applications] > [Backup Station] > [External Backup] to create a task to back up the Turbo NAS data to the external device.

Q Tips The front-panel USB port supports a [One touch copy] function. Just click to backup files from an external device to the NAS.

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QTS 4.1 OS

Data Security Management

▪ Privilege settings

You can create multiple user accounts and shared folders, and set user permissions for accessible shared folders with the support of system privilege settings and ACL advanced folder permissions.

▪ Storage Manager

RAID configuration & management

The Turbo NAS supports comprehensive RAID configurations for better data protection. Based on the number of hard drives installed, administrators can choose from RAID 0, 1, 5, 6, 10, 5+hot spare, 6+hot spare, and 10+hot spare configurations. Considering needs for performance and extra redundancy, administrators can choose the most appropriate RAID configuration to reduce the risk of data loss from unexpected hard disk failures.

The Global Hot Spare feature allows shared spare drives with multiple RAID volumes on the Turbo NAS. When a hard drive fails in any RAID volume, the global hot-spare drive will automatically replace the failed drive to prevent data from being lost. Compared with a local spare drive, the Global Hot Spare function offers a more efficient use of spare drives.

RAID volume expansion

The TS-x51 makes RAID volume expansion convenient and easy. At initial setup, administrators can create RAID volumes by using small-sized hard drives, and replace the hard drives with larger ones anytime as the RAID volume expansion can be done easily with the Turbo NAS. All the actions of expanding the volume capacity can be done online, without turning off the server and with all the data retained.

RAID 5   RAID 6

You can install the Qmanager app on your mobile devices to conveniently manage & monitor your Turbo NAS anytime, anywhere.
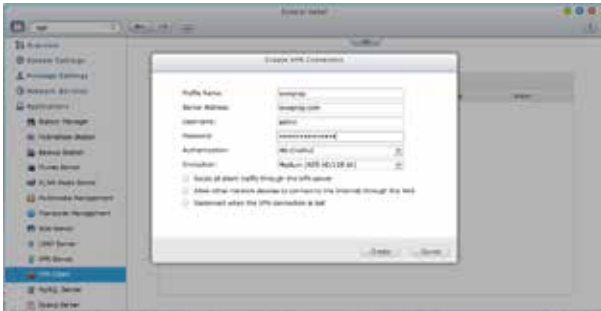
Available on the App Store   Google play

▪ Anti-interception

VPN Server

QTS supports VPN Server, with VPN connections secured with up to 256-bit encryption. It is easy to configure and is seamless integrated with the QNAP myQNAPcloud service and Auto Router Configuration. Complicated port forwarding settings for PPTP and OpenVPN are therefore simplified.

VPN Client*

QTS supports VPN Client with the support for PPTP/ Open VPN, allowing Turbo NAS outside the company's Intranet and connect to the VPN Server in the company. It increases the security of data transmission when transferring files between Turbo NAS units.

*Available in QTS 4.1.2

# ▪ Anti-hacking

IP blocking

IT administrators can set up the black and white lists to grant proper access from different users to the Turbo NAS by IP address. It operates as a policy-based automatic IP blocking by enabling the network access protection command.
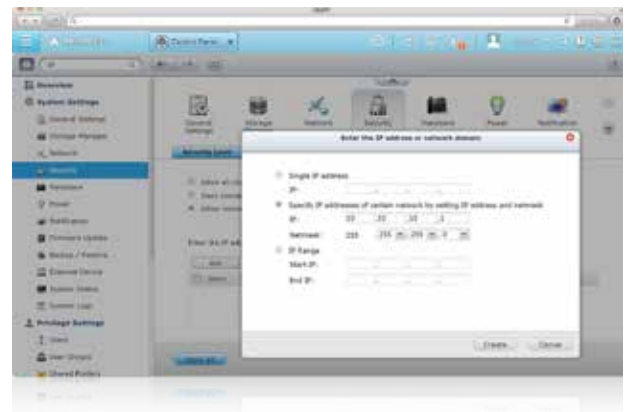
▪ Anti-theft

Hard drive encryption

QTS supports up to AES 256-bit encryption for internal drives and external USB/eSATA drives, and adopts a military-level FIPS 140-2 validated encryption, which is considered to be the highest security certification for compliance.
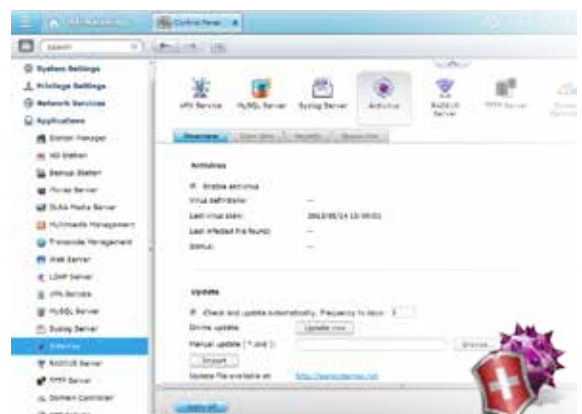
▪ Anti-virus

## Virus scan

QTS integrates the ClamAV antivirus toolkit to defend against the latest viruses, malware, worms, and Trojan horses with continuous free virus database updates, ensuring continuous business operation. An email notification upon task completion or virus detection is provided. QTS also supports McAfee virus scanner which is available in the QTS App Center with a free 30-day trial.

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Uninterruptible Power Supply (UPS)

Activate the UPS support to ensure the Turbo NAS is properly shutdown if power fails. In the event of a power failure the Turbo NAS will shut down automatically or enter auto-protection mode by probing the power status of the connected UPS unit. You can set up the function by clicking QTS [Control Panel] > [System Settings] > [External Device] > [UPS].

■ Case study for NAS connecting to a USB UPS

You can set the Turbo NAS to shut down or enter auto-protection mode if the power fails, and determine the action after few minutes of the power failure. Once the auto-protection mode is activated, the Turbo NAS will revert to the state before power failure and continue to operate when the power restores.
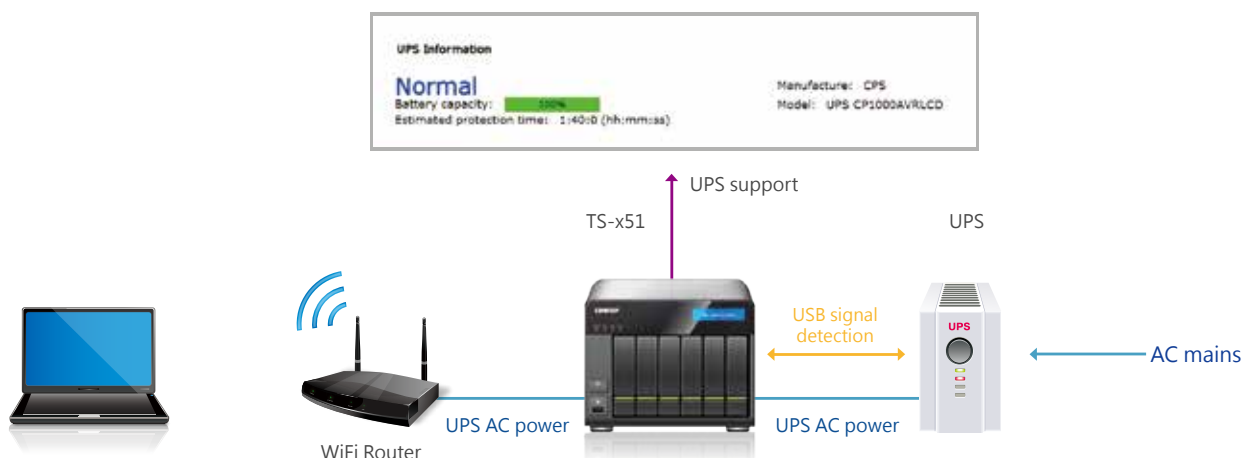
■ UPS with SNMP management

When the Turbo NAS and the SNMP-based UPS server connect to the same network, you can select [SNMP connection] and enter the IP address of SNMP UPS server to set up the power failure notification.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology
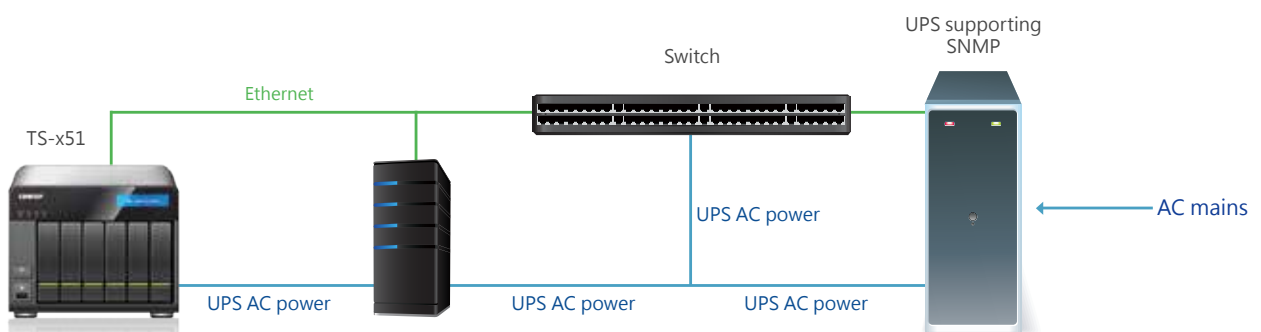
▪ Multiple NAS units share USB UPS

The network UPS "master" is connected to the UPS via USB cable. If the power fails, the UPS sends a notification to the network UPS "master" via USB and all the UPS "slaves" are informed by the UPS master via Ethernet. To set your Turbo NAS as a UPS "slave": connect the UPS and the Turbo NAS by USB, select [NetworkUPS slave], enter the IP address of the master server, so the slave server will get notification when the power fails.

Step 1: Select "Network UPS slave"

Step 2: Enter the IP address of the master server

TS-x51 (UPS Master)

UPS

USB signal detection

Low power shutdown signal

UPS AC power

AC mains

Ethernet

Ethernet

UPS AC power

UPS AC power

UPS AC power

TS-x51 (UPS Slave)

TS-x51 (UPS Slave)

WiFi Router

20

TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology
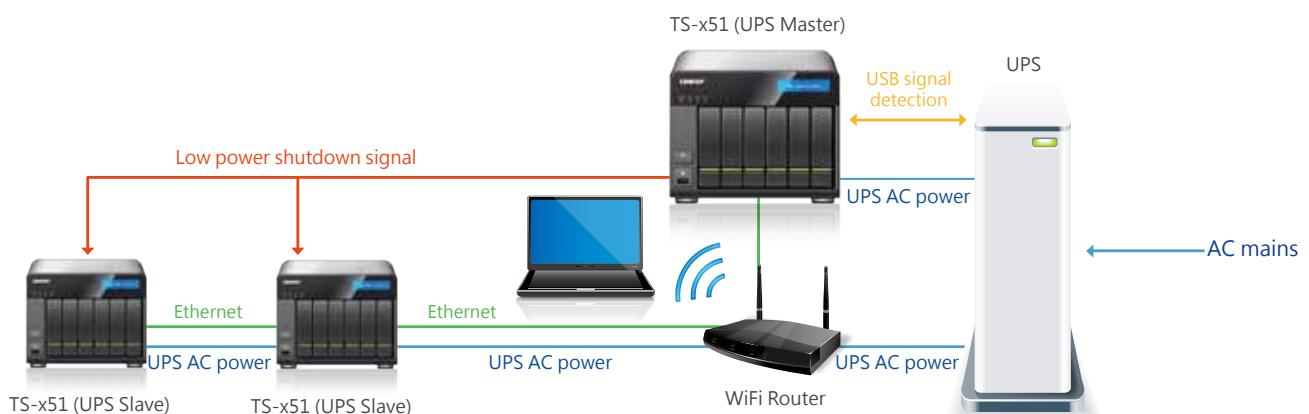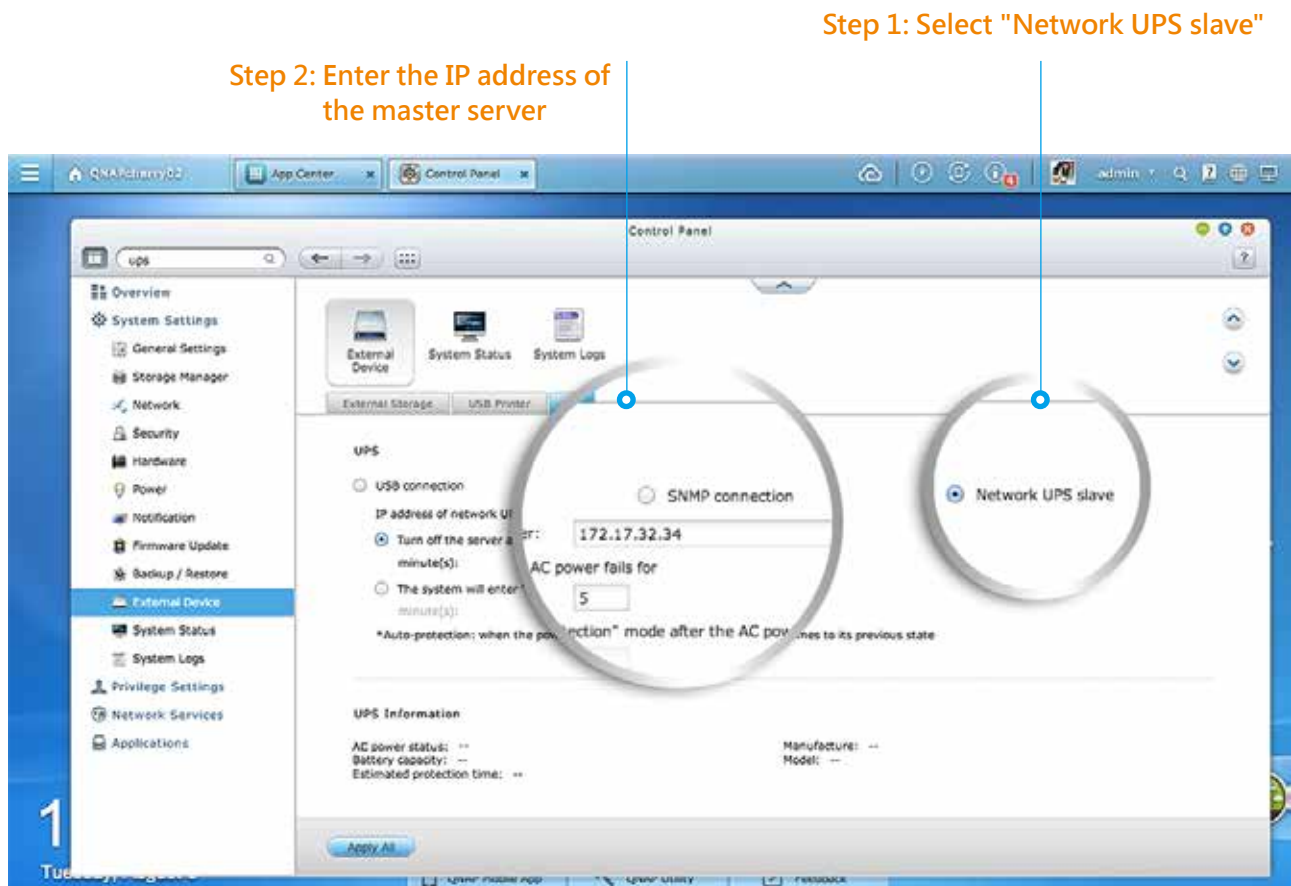
myQNAPcloud SmartLink Service

■ myQNAPcloud Connection

It's so easy to create your personal cloud or private cloud. With the myQNAPcloud service, you can always enjoy the Turbo NAS services safely and conveniently.

myQNAPcloud ID (QID)

Access your Turbo NAS by signing into your myQNAPcloud portal with "QID", a unique ID for you to access your Turbo NAS and securely share your private data and files.

Web-based file management

The myQNAPcloud portal enables you to manage multiple Turbo NAS units in one place. With the easy-to-use management interface, you can simply download, move, and copy files on your Turbo NAS, lessening the difficulty in accessing multiple Turbo NAS servers. All you need is to sign myQNAPcloud.

Trustworthy file protection

To ensure the security of remote access service, myQNAPcloud strengthens keys on SSL Certificates to 2048-bits. The files on the Turbo NAS are 100% under the NAS owner's control.

Publish and share

myQNAPcloud is an easy-to-setup service that simplifies the steps in publishing Turbo NAS contents over the Internet. On QTS myQNAPcloud, you can select numerous web-based Turbo NAS services, such as Photo Station, Music Station, and File Station to be published to the myQNAPcloud.com website. Likewise, you can easily view friends' public services on myQNAPcloud.com website too.


myQNAPcloud Connect

myQNAPcloud Connect application is designed for Windows PC users. By installing the myQNAPcloud Connect, users will be able to connect to the Turbo NAS and easily manage files by drag-and-drop within the Windows Explorer. It's a great remote VPN gateway to access restricted websites via the NAS remotely.

CloudLink for easy remote access

myQNAPcloud features the new CloudLink App (QPKG) for an easier remote access experience. Without any complex router settings, all you need to do is install the app and login with your myQNAPcloud ID (QID), then you can access to your Turbo NAS through the myQNAPcloud.com website. CloudLink will automatically choose the best way to connect based on your network environment. CloudLink supports access to the Turbo NAS via mobile devices with the Qfile/ Qmanager apps or via computer with the Qsync utility. Visit the QNAP App Center to download the CloudLink App (QPKG), and experience the new myQNAPcloud Smart Link remote access service.
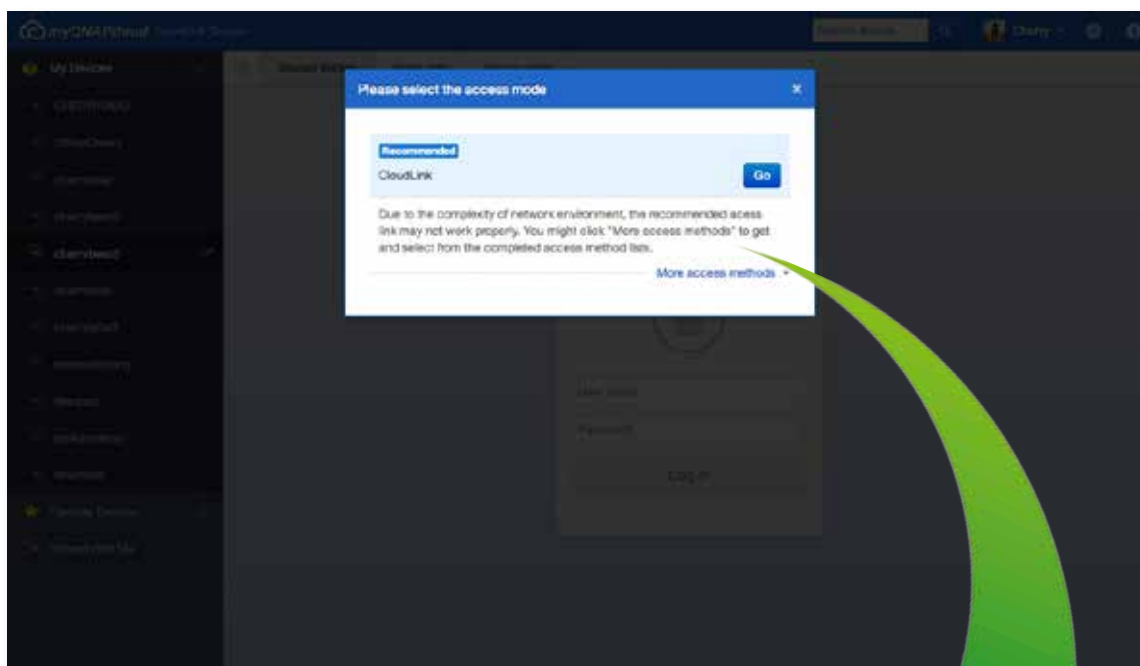
**Automatically choose the connection method**

Please note: the CloudLink App (QPKG) requires firmware v. 4.1.0 or newer.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

File Management

▪ File Station

With File Station, you can easily manage, upload, download, share files, and enjoy media playback anywhere with a web browser. File Station brings conventional file operations performed on the computer desktop to the web browser.
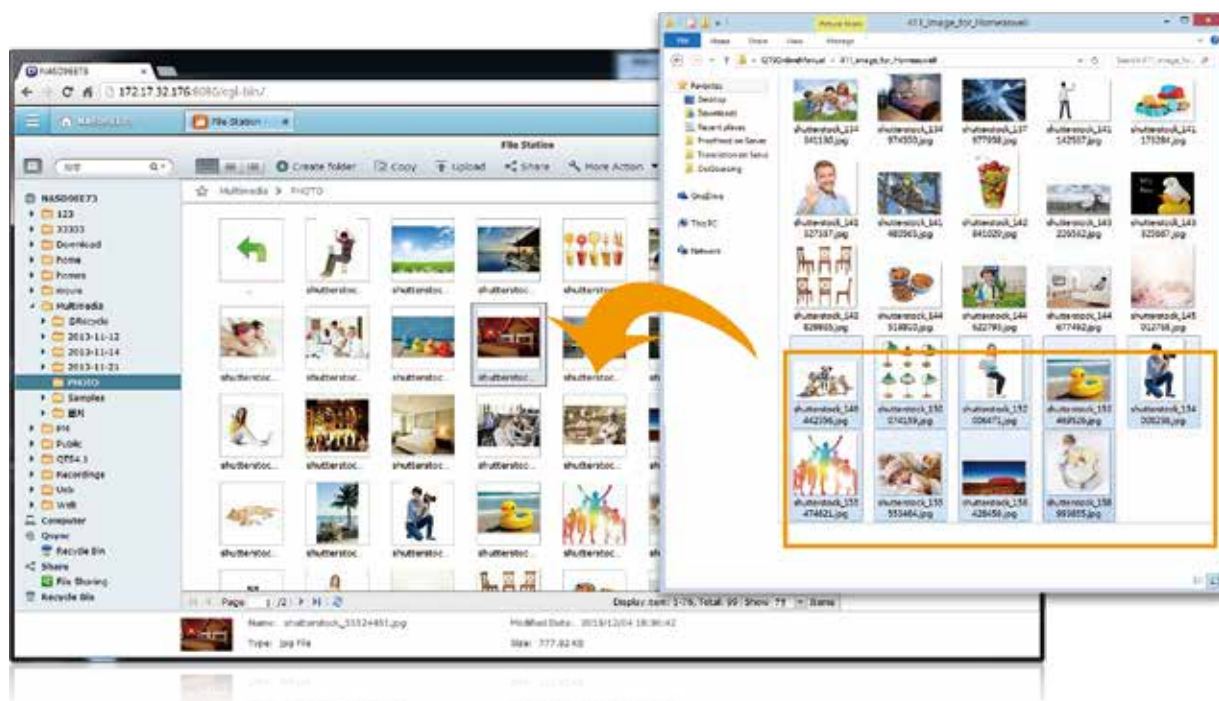
File upload

Easily upload the files to your Turbo NAS by dragging-and-dropping them into File Station.

Mutual file sharing

You can easily share multiple files in a shared folder with friends via a Share Link. By activating the file upload function, your friends will be granted the privilege to upload files to your File Station without requiring a user account. You can even set an expiration time for shared files.

Photo slideshow

Right-click on selected photos to play a smooth slideshow.

Media streaming & playing

File Station supports VLC for multimedia streaming. Just click on your photos, music and videos to directly play them. The slideshow display helps gather media files in an organized manner for you to preview and play.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

Click and play videos

TS-x51 supports real-time transcoding which allows immediate and smooth video, music, and photo playback. No need to wait for the files to be converted in advance.

Real-time transcoding allows maximum 5 users to simultaneously connect and watch videos. Offline transcoding allows more users. Check page 11 to learn more about transcoding feature.

Advanced quick search

File Station provides smart filters for file searching and browsing by file size, modified date, file name, and so on. Pop-up thumbnails enable you to quickly & clearly preview files. File browsing is more intuitive with File Station.

Photo thumbnails preview

File Station makes file management easier by showing thumbnails of photos, music and videos.

Recycle bin

The recycle bin helps retrieve files accidentally deleted. It is categorized by shared folders to increase file retrieval efficiency.

Compress/Extract multiple files

If you need extra space you can easily compress files & folders into a Zip file. You can also easily unzip files straight to File Station.

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QTS 4.1 OS

▪ Qfile: Share files with mobile devices

You can install the Qfile app on your mobile device to browse and manage files stored on your Turbo NAS anytime, anywhere.

Access from anywhere

Open Qfile on your mobile device to browse files on the Turbo NAS. You can open or share files, and easily rename, copy, move, download any selected files.
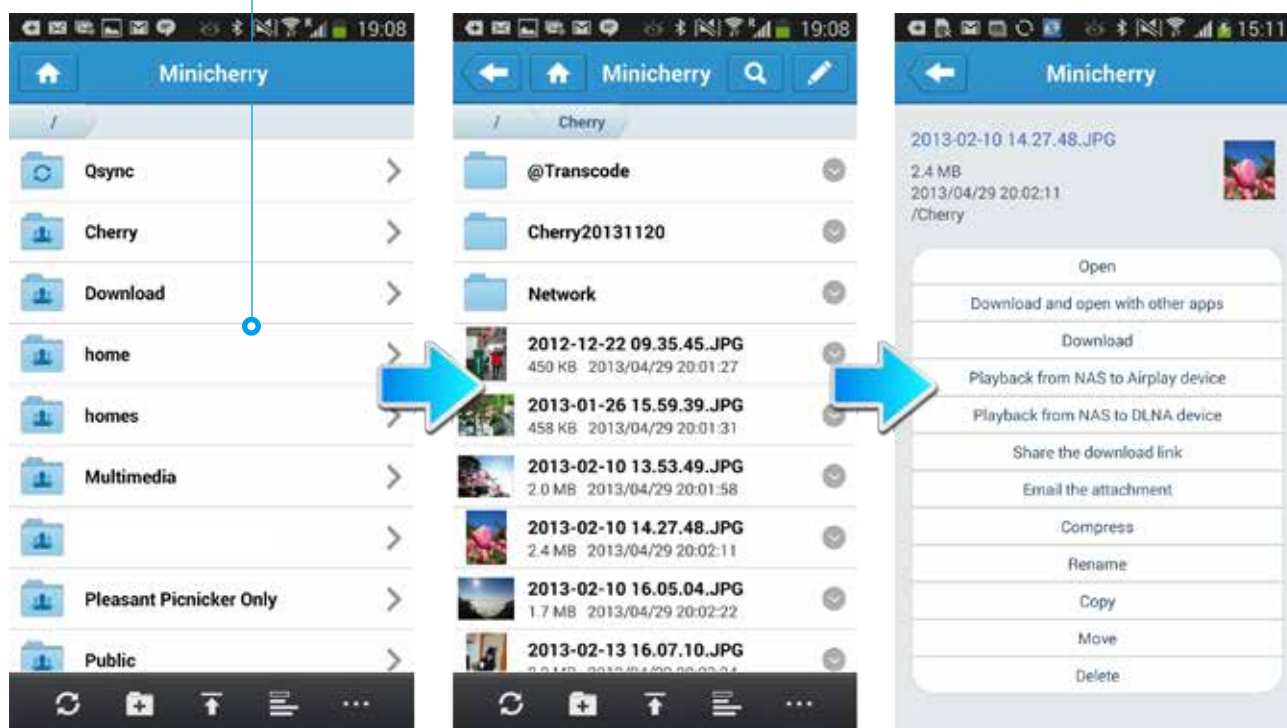
Qfile will download the file to your handheld device and send it via your default email function. This file cannot exceed 20MB, so please ensure there is enough free space on your device to save the file.

Install Qfile on your mobile device to browse and manage files stored on your Turbo NAS anytime, anywhere.

Stream multimedia contents

Use Qfile to stream multimedia content to AirPlay or DLNA-compatible devices and play to enjoy.
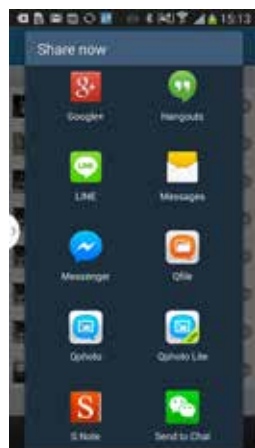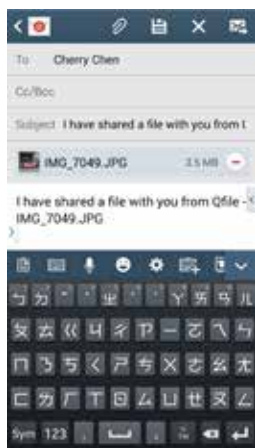
Share files instantly

Qfile provides various ways for instant file sharing, including email or SMS.

Qfile also provides Share Links to easily share large files. You can paste the Share Link on instant messenger such as LINE, WhatsApp, WeChat, and more to share files with others.

Your friends can click on the Share Link to download the files.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology
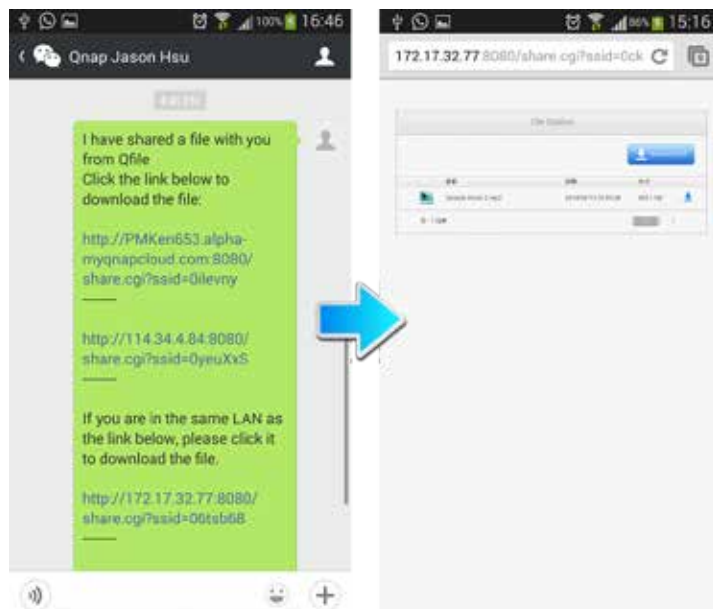
Qsync: A Powerful Utility for File Synchronization in Home & Personal Applications.

Public cloud services like Dropbox can greatly help you in storing and sharing your files, but they also come with certain drawbacks:

1. Security: there is the possibility of data leaks and interception of confidential information.
2. Cost: the greater your data storage needs, the greater the cost of the service.

With QNAP's Qsync utility on Turbo NAS, you can create a Dropbox-like private cloud with a large storage capacity to fulfill your personal needs. Any files added to the Qsync folder will be automatically accessible across multiple devices, and synchronized with different friend groups flexibly and effortlessly. With no additional costs or storage limits, Qsync can centralize files from different friend groups and assist in teamwork on important projects anytime, anywhere.

▪ 7 reasons why you need Qsync

1. Cross-device synchronization

Qsync turns your Turbo NAS into a safe data center for file synchronization. Every file uploaded to the Qsync folder will be made available to multiple devices including computers, laptops and mobile devices. When you are away on a business trip, Qsync ensures that the most up-to-date files are accessible on all linked devices and reduces your need to rely on USB storage to carry files and on emails to get the latest files.

Synchronize with Windows
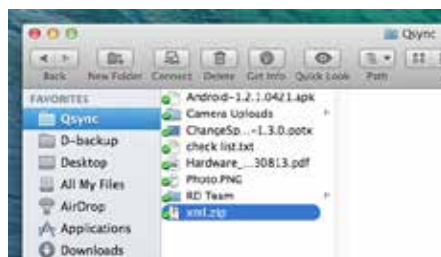
Synchronize with Mac

Synchronize with iPhone/Android smartphones via Qfile. Synchronize with iPad via Qfile HD

2. Intelligent offline editing

You can edit your files offline and once your device is online, Qsync will automatically sync them. This offline editing feature ensures your files are protected without the risk of information loss.

3. Flexible synchronization methods

Qsync has many sync settings to prevent taking up significant storage space on your computer. With the Full Sync and Smart Sync options, you can choose to synchronize all the files in the Qsync folder or you can enable the Smart Sync option to remove local files without affecting the centralized files stored on your Turbo NAS.

4. Share files & folders more efficiently

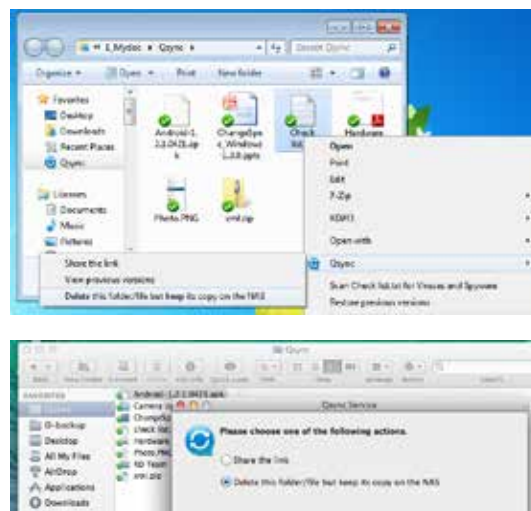You can create sub-folders within the Qsync folder, share each with different work groups and everyone with the same sub-folder is always kept up-to-date with the latest files. All your files are shared via drag-and-drop. With Qsync, your Turbo NAS becomes an aggregative data center and greatly enhances teamwork flexibility.

5. Auto-upload from mobile devices

You can enable the auto-upload option on the Qfile mobile app and automatically sync your files to multiple devices. Your travel photos, notes, and seminar recaps will be automatically uploaded and synchronized as well.
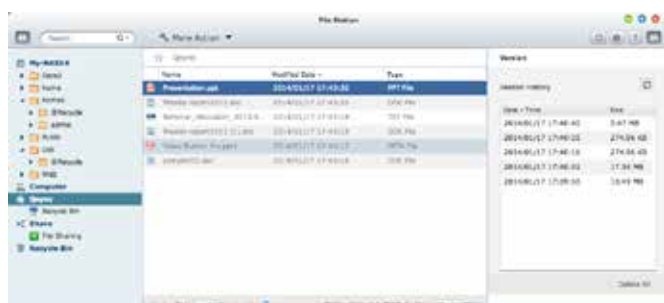
6. Integrated version controls protect against accidental deletion

The Turbo NAS will retain up to 64 versions of files when they are modified, allowing you to retrieve a specific previous version at any time. Even if you have accidentally deleted a file you can restore previous versions of it from the recycle bin. With capacity-efficient restoration, the reserved version only keeps the changes made to the file and assists in optimizing your storage space.

7. High security

Qsync can create a private cloud within your intranet and benefit from your existing secure network environment. The Turbo NAS also supports HTTPS connection assisting in creating a safer, more reliable network environment.

QTS 4.1 OS

Multimedia Center

QTS Photo Station, Music Station and Video Station provide intuitive user interfaces to simplify the multimedia applications and make them more fun. All the multimedia files are safely stored and classified to be easily shared, even being shared via social networking sites. You can use the powerful Download Station to enrich your video collections and have more fun.

▪ Photo Station

QTS Photo Station helps you archive your life and memories, easily mange, and quickly share with the easiest way. The unique Private Collections safeguard your private photos with the highest level of protection.

Centralized management
No matter by drag-n-drop uploading or by Qsync synchronization, all the photos, including RAW photos, can be centrally managed via the Photo Station.

Convenient virtual albums
Freely drag and drop photos from your photo gallery to arrange various virtual albums. These virtual albums are convenient for you to enjoy photos in an organized way and make them easier to share. Feel free to create as many virtual albums as possible as they don't take up additional storage space.

Review photos on Google Maps
You can use the geo-tagging function to pinpoint the locations of the photos on Google Maps to identify where the photos were taken. In each photo album, you can review the history of your photos on Google Maps to rediscover your path around the world.

Preview by video thumbnails
You can quickly identify the video content by the dynamic thumbnails without opening the videos.

Private collection
You can create albums in the "Private Collection" to archive private photos. Whenever accessing the private albums, the user account and password are required. Your private photos and videos are well protected.

Play by slideshows
View the photos by slideshow with dazzling transition effects. Turn on the background music to add more fun while enjoying the photos.

Group photo sharing
Just arrange the sub-folders in the Qsync folder as Team Folders, and move photos to the Team Folders, people with access right to the Team Folders can browse those photos in their Photo Station.

Q Tips Install Qphoto Lite app on your mobile device to enjoy the photos and to share the best moment anytime, anywhere.

Available on the App Store   Google play

■ Music Station

Build a home music center easily and enjoy your music collection on the go. Your Turbo NAS is your music center in the cloud.

Organize huge music collection

You have 4 ways to browse the music collection, and can create max. 200 playlists to enjoy and rate each song. The highest rating titles will be added to "My Favorites" collection.

Personal music cloud

The Music Station allows you to play stored music on PC and mobile devices via the Internet, acting as your personal music cloud. With the Internet, you can enjoy the terabytes of music on the Turbo NAS anywhere.

Sing along with lyrics

You can enter the lyrics of each song, and feel free to sing out loud when listening to your music collection on the Turbo NAS.

Thousands of Internet radio stations

With the built-in TuneIn radio, you can listen to thousands of local and global online radio programs. You can also add new radio stations manually.

Share your taste of music

Simply choose the music to share, and enjoy the flexibility of b eing able to share it via email, a download link, or social networking sites such as Facebook, Google+, and Twitter.

Audio output

Want to enjoy the music on the Turbo NAS with a USB speaker? Just set the "NAS audio output" and enjoy the fantastic music playing.

Tips The free Qmusic mobile app allows you to listen to your terabytes of music collection on the Turbo NAS anytime and anywhere. Scan the QR Code to download!

Available on the App Store

Google play

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QTS 4.1 OS

▪ Video Station

QTS Video Station is your personal video library with more friendly functions to enhance your video experience. Now, organizing video collections becomes much easier, and sharing videos more fun!

Build a personal video website
The Video Station is great for archiving and playing your personal video collection online. Just upload videos, and the Video Station will smoothly play the video with appropriate resolution according to the available bandwidth environment.

Easily classify your videos
You can classify your videos into categories such as home videos, movies, TV shows, and music videos. You can also manually adjust the classification by individual videos.

Movie information sourcing
You can right click the videos classified as movies, and look up the information automatically obtained from the Internet, such as director and cast member. You can also manually modify the movie title to re-obtain the movie information.

Organize by tags and labels
Use video tags to efficiently manage video collection using words, rating, and color labels. It's also convenient to collect videos by categories and labels. Archiving and browsing your personal video collection online is easy.

Smart collection
You can create a smart collection of videos that match your predefined criteria such as names and ratings. The smart collections automatically collect videos with the same criteria, making it easier to find the videos you want to watch.

More fun with sharing
Video sharing is easy on the Video Station. Simply choose the video and share via email, social networking sites such as Facebook, Google+, and Twitter or a sharing link.

Mobile app Qvideo is coming soon. With Qvideo, you can watch videos with mobile devices on the go.

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Home Theater Entertainment

You can enjoy the multimedia content stored on the Turbo NAS with a TV, using the feature of AirPlay, DLNA and HDMI.

■ AirPlay Support

AirPlay
You can use the Qfile app on an iOS device to browse videos and photos stored on the Turbo NAS and play on the TV via AirPlay-enabled devices such as Apple TV.

QAirplay
Available in the App Center, QAirplay allows you to stream your media content directly on TV via Apple TV. The media contents are streaming on Apple TV, bypassing your mobile device, thus saves the energy of your mobile device.

■ DLNA

Media streaming and playing
You can use DLNA-compatible devices such as Smart TV sets, Sony® PS3, Microsoft® Xbox 360 and Hi-Fi system to enjoy HD quality videos stored on the Turbo NAS.

■ Plex Media Server

Plex Media Server is the back-end media server component of Plex. Plex Media Server for TS-x51 Series is used to host the content and plugins that are then streamed to Plex Media Center and Plex mobile app clients, either on the same machine, the same local area network or over the Internet. Plex Media Server can be configured to index content in any directory on the NAS. Content may be transcoded by the server before it is streamed in order to reduce bandwidth requirements or for compatibility with the device being streamed to. Plex Media Server allows extensibility through the addition of plug-ins. Many of these plug-ins are available through the built-in Plex Online digital distribution service. The library organizer gives you the best browsing and watching experience through different platforms.

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Download Center

■ Download Station

The Download Station provides offline download so you can shut down your PC after configuring download tasks. The Turbo NAS will go on downloading even without your PC on. It is energy-saving and eco-friendly.

Your 24/7 download center

Once you finish managing download tasks, just turn off the computer. The download tasks will keep going until they are finished. Easy, and power-saving.

Powerful BT search engine

Search for a certain file using the built-in BT search engine to add download task easily.

Wide range of download types

Supports BT, PT, Magnet, FTP/FTPS and HTTP/ HTTPS downloads, as well as RSS download.

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QGet for Remote Download Tasks Management

You can manage download tasks of the Turbo NAS even you are away from home. QGet is available for Windows and Mac computers, and can connect multiple Turbo NAS units to search, add, remove or watch BT download through the Internet. QGet supports intuitive drag and drop of torrent files, HTTP or FTP URL to the software interface for convenient adding of download tasks.

Q Tips Install Qget app to easily search download sources, download contents to the Turbo NAS, and manage download tasks on android mobile devices.

HappyGet

Easily back up online videos

Found so many interesting videos online and want to archive them? The HappyGet, a third-party app available in the App Center , helps easily back up YouTube and Vimeo videos and Facebook photos to the Turbo NAS.

Download files in the playlist in one click

As the playlist on the video sharing site contains multiple videos, you can easily download all the videos with single click, saving lots of time to click one by one.

Music playlist playback

HappyGet supports music playlist. The playlist of music archived through HappyGet is provided immediately for easy overview and playback. You can also download the files from the playlist to the computer conveniently.

Ringtone editing

HappyGet includes HappyCut function to easily choose a song, and cut it to a preferred length and section or a ringtone for iOS® and Android ™ devices. Customizing personal music or ringtone is just that simple!
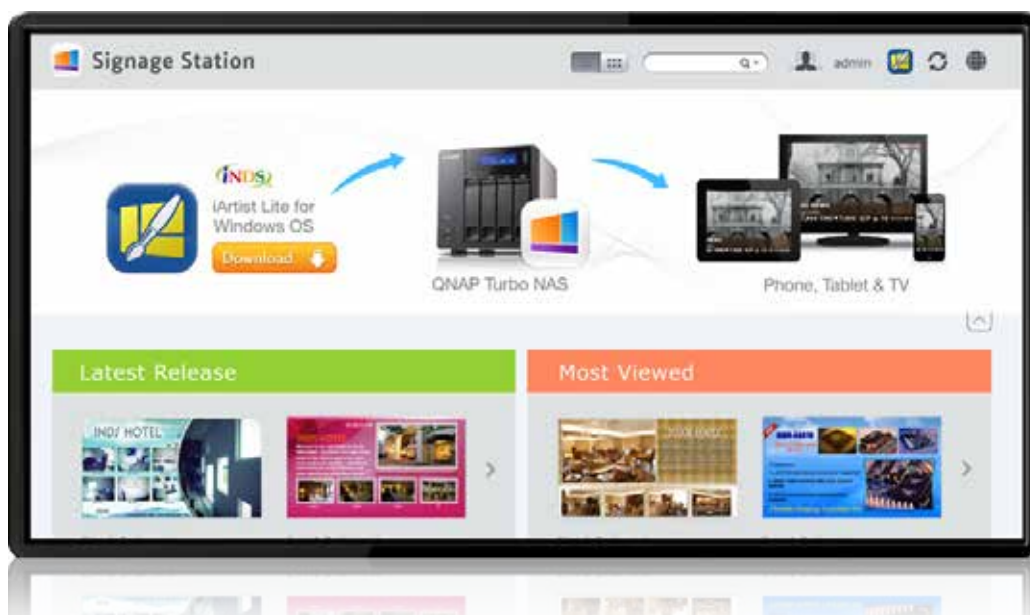

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QTS 4.1 OS

▪ Signage Station

The Signage Station is a free Turbo NAS app that allows businesses to create attractive menu boards, advertising posters, and business profiles and easily publish them to monitors and tablet devices to attract more customers.

Drive business growth and increase revenue

Your content can be presented on a web browser and when on the go, and you can even show your profile, business card and product catalogs on mobile devices and share on Facebook. The Turbo NAS with the Signage Station is an ideal tool to present creativity and drive business growth.

Instantly publish and conveniently revise

With iArtist Lite you can save your designs as different projects and upload them to multiple Turbo NAS with Signage Station installed. Whenever you want to revise the content, just open iArtist Lite to update and publish instantly. You can fully control all your content in a timely way.

Absolutely easy-to-use

iArtist Lite provides a drag-and-drop interface that allows you to flexibly embed videos, marquees, pictures, and PowerPoint slides on the canvas panel. With the layered playlist and timeline features, you can freely arrange the order of media objects. iArtist Lite also offers numerous templates for various scenarios, saving you lots of time & effort. Useful widgets such as audio, clock, RSS are also available to add to the designed content.

Collaboration increasing efficiency

The original content can be saved on a local computer or the Turbo NAS with the help of the connection wizard. Content saved on the Turbo NAS is accessible for every authorized user to increase the work efficiency in projects involving multiple members.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

▪ Create your advertising content easily

How to make advertising content on iArtist Lite?

The concept of dynamic multimedia content is quite simple: just drag & drop media files to the iArtist Lite canvas and arrange it as required.

Choose the device that you want to display, such as tablet, HDTV or smartphone. After selecting the device resolution you can select whether to present it in portrait or landscape.

Introduction of iArtist Lite functions：

A Add new content

B Open previous content

C Save content

D Upload to Turbo NAS

E Preview design

F Online template support

Introduction of iArtist Lite tools：

・Video, photo, and music: Add the file to the canvas from Windows.

・Digital & analog clock: Supports multiple types of clocks and formats, just drag & drop to canvas.

・Background image: Choose a background color or choose a background image.

・Mask: Add an image mask to the content.

・Text & banner: Edit the text on the banner you d like to promote.

・RSS: Share an RSS link from a website to share messages.

・Digital menu board: Design a neat menu board, and edit the price and picture anytime, anywhere.

・Combo menu board: Select the template and add the price and picture.

・HTML: Drop a website on the canvas for the most direct promotion.

・PPT and PDF: Easily add documents to the canvas including slideshows, retaining the animations from the PPT.

Intuitive user interface with timeline view

After dragging & dropping from the left panel to the canvas, each media file will have a corresponding timeline at the bottom of the canvas to allow users to easily manage their timing and placement.

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QTS 4.1 OS

▪ Surveillance Station

One of the standard Turbo NAS applications, the Surveillance Station is professional network surveillance Video Management System (VMS) that can be activated in the QTS App Center to turn the Turbo NAS into a professional Network Video Recorder (NVR) system for real-time monitoring, recording, playback, alarm notifications, Intelligent Video Analytics (IVA), and management to safeguard your assets and property when used with supported IP cameras. The TS-x51 series comes with **2** free camera channels, allowing users to easily build a surveillance system.

2 free camera license

Highly-professional NVR system

Wide range of supported IP cameras

Surveillance Station is compatible with over 2,600 IP camera models across over 90 brands and ONVIF specifications, including those that support advanced features such as multi-streaming and fisheye dewarping.

Comprehensive Turbo NAS support

TS-x51 offers 2 free IP camera channels and can be expanded to 24 channels to fulfill various surveillance deployment needs.

Cross-platform support

Surveillance Station works with all major web browsers including Google Chrome, Mozilla Firefox and Internet Explorer. With the QNAP Surveillance Client for Mac, users can enjoy a similar experience on their Macs.

Advanced storage technology protection

Surveillance Station is installed on the Turbo NAS platform and is protected against loss, theft, and damage of recorded videos with the help of advanced security features and RAID technology.

You can also use USB webcams for Surveillance Station to record videos. Just install the QUSBCam App on a TS-x51 from the QTS App Center to assist in building a small surveillance system for your office with USB webcams.

Live-view

Various remote monitoring modes

The Surveillance Station supports various monitoring modes to display up to 64 channels on a single screen. Users can also choose to sequentially display each channel or use dual displays for more information.

PTZ (Pan/Tilt/Zoom) control

On the Surveillance Station web interface, you can directly adjust the PTZ (Pan/Tilt/Zoom) functions of supported cameras, greatly enhancing the convenience in remote monitoring.

Instant playback

On the Live-view page, whenever you want to check suspicious events of a camera channel you just missed, just hit `Instant Playback to bring up the window to review recent events.

Visual aid by E-map

Just upload pictures of monitored locations to the Surveillance Station and drag & drop the IP camera icons to them on the E-map. Once an alarm event happens, the camera icons will flash to indicate the event type for you to be immediately alerted to take necessary actions.

Instant notification

When alarm recording is enabled and an event occurs, an alarm icon will be instantly shown on the monitoring page. The alert details can be viewed by clicking the icon.

Playback

Preview recordings by thumbnails

You can move the mouse cursor over the timeline to preview video thumbnails to quickly identify and search for events. No need to play the video from the start and wait.

Intelligent Video Analytics (IVA)

IVA is an advanced way to quickly search videos corresponding to particular modes, greatly saving the time & effort of manually screening out matching videos. IVA includes motion detection, foreign/missing objects, out-of-focus and camera occlusion.

Real-time watermarking

The support of digital watermarking assists in verifying the authenticity of exported videos and snapshots by showing the exact recording date & time, camera name, and Turbo NAS model name, making it essential when videos are needed as verifiable evidence.

Playback and speed control by shuttle bar

With the speed control shuttle bar, you are able to fast forward playback by dragging the button to the right and to the left to rewind, helping you quickly find the desired screenshots.

Flexible Management

Flexible camera access control

You can create up to 32 user accounts on the Surveillance Station and flexibly assign them to different user groups with different rights for monitoring, playback, PTZ control, and audio monitoring.

Advanced event management

The system starts alarm recording when alarm events occur. Administrators can configure events and assign 7 types of event actions to ensure that they are alerted immediately, including recording, PTZ Control, alarm output, email notification, SMS notification, buzzer notification, and user-defined actions.

Expendable license management

The Surveillance Station comes with at least one free IP camera license for each Turbo NAS by default. Administrators can expand the channel number by purchasing additional licenses based on their demands. This provides a flexible and cost-effective method for scaling surveillance needs.

Manage large-scale camera

By connecting multiple Turbo NAS units, you can simultaneously manage, monitor and playback up to 128 IP cameras with one Turbo NAS.effective method for scaling surveillance needs.

Mobile apps

VMobile – Surveillance at anytime, anywhere

VMobile allows you to monitor the Surveillance Station anytime, anywhere using iOS and Android devices. It provides camera live-view, PTZ control, instant event notifications, video snapshot, video playback, and searching videos by date and time.

Vcam – Turn your mobile device into a camera

Vcam turns your mobile device into a network camera. With the Vcam mobile app, you can record any moment around you to your Turbo NAS, saving the need in buying expensive IP cameras.

App Center & Developers

App Center

QTS App Center provides various apps for you to install on demand, enjoying more applications and lowering the cost of purchase.

■ Powerful and, Rich-in-content

The App Center provides more than 100 add-on apps, including backup/sync, business, content management, communications, developer tools, download, entertainment, surveillance and utilities.

■ Install on Demand

Find what you need and install it immediately with just one click.

■ Upgrade Reminder

If newer versions of your installed apps are available, an upgrade reminder will show on the QTS desktop to help you keep your Turbo NAS applications up-to-date.

★ Most Popular Apps:

■ Dropbox App

The Dropbox service is a cloud-based storage service that allows you to access your photos, documents, and videos anywhere, anytime with easy sharing. The free space from the Dropbox service is limited however, and to make it more efficient you can connect it with your Turbo NAS to store files.

How to use Dropbox App?

The QNAP Dropbox app can synchronize your Dropbox account and your Dropbox folder on the Turbo NAS in both directions and in real-time. After you install the Dropbox QPKG and log into your Dropbox account, a Turbo NAS folder called "Dropbox" will be created and the synchronization process will start. With Real Time Remote Replication (RTRR), a built-in Turbo NAS function, you can easily back up files from your Dropbox account.

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▪ Google Drive Sync App

Google Drive is a cloud storage service provided by Google that lets users save their files online for accessing them anywhere. By installing the Google Drive Sync QPKG on QNAP Turbo NAS you can select a shared folder on the Turbo NAS to synchronize the data with Google Drive or simply use Google Drive as a backup destination.

3rd party Development Platform

The open-source Linux kernel of the QTS makes it a friendly development platform with features including RAID technology, backup security and cloud storage, allowing software developers to develop all kinds of applications. Coupled with rich applications of QTS and the leading Turbo NAS hardware design, developers can enjoy the much more efficient process for R&D.

Fully supportive customer services, sales and R&D

QNAP NAS applications can be developed using the following three approaches:

### Development Toolkit (API & SDK)

Developers can use QNAP Development Toolkit (API & SDK) to design applications that can run on a client's device (such as a smart phone or PC), and remotely manage and access files and documents stored on the NAS.

NAS App (QPKG) Development

Developers can design add-ons or applications running on the Turbo NAS and have the applications and related data integrated on the same platform. Also, through the built-in App Center on QNAP Turbo NAS, users can easily install and manage those applications.

VM Integration

Ever wanted to run non-Linux based applications on the Turbo NAS? No problem! VM integration is the solution for you to install a different OS and non-Linux based applications on the Turbo NAS.

App Center & Developers
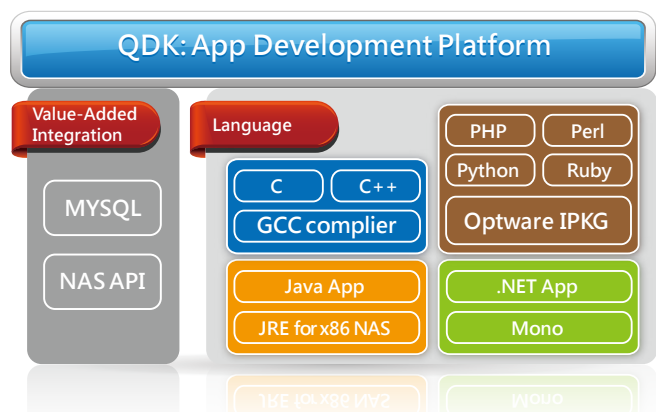
■ Nextep

Nextep allows you to easily manage yo... private cloud using a mobile device. Photo... documents, and webpages can all be display... in the windows-like interface, and you can al... use the built-in browser to save documen... photos or videos to your private cloud, usi... a "lazy bag" or TeamSync feature to drag... share different types of contents.

Features

• TeamSync

A simple "drag" approach to sharing information exclusively with team members from a mobile device via the team private cloud improves team efficiency and security of information exchange no matter where you are.

• Speedy Synchronization

Nextep synchronizes content with your private cloud. Whether it is external information gathering via Nextep, or quickly uploading files from PC, all of the data can be presented side by side immediately in Nextep App or downloaded to PC. This allows you to get the latest information anytime, anywhere.

• Ultimate Storage

Nextep integrates different types of information & content from different sources on your mobile device, and displays it side by side immediately. Documents, images, and webpage content can be stored in the private cloud for solving the problem of scattered information.

• Nextep Lazy Bag

Freely pack different types of files on mobile devices, share via email, LINE, WeChat, Facebook, Twitter, LinkedIn, and view/download it on another mobile device or computer.

• Cross-platform, Cross-device

Whether your web browser is Internet Explorer, Chrome, or Safari or your mobile device is iOS or Android: shared contents can be viewed and downloaded.

■ hicloud S3

hicloud S3 is an Infrastructure as a service (IaaS) in Taiwan and provides unlimited storage for enterprises with RESTful API data transmission and management, and users only pay for what they use. By integrating a QNAP Turbo NAS and hicloud S3, enterprises can easily deploy the best remote replication and storage solution to diversify storage risks and save human & capital resources.

Features

• Perfect plan for business storage

No one can ensure that their data will be safe from equipment failures, nature disasters or other unpredictable factors. This has led to remote replication becoming an indispensable part of enterprise IT planning to avert risks.

• Multiple protection

The control room of hicloud S3 is ISO 27001 certified, and all the deployed equipment is based on HA (High Availability) architecture to minimize the risks of service interruption. To prevent data loss, hicloud S3 also stores 3 copies of user data and they are only retrieved via a unique, developer-assigned key, ensuring the most reliable cloud services for enterprises.

• Versatility and Flexibility

Enterprises can use hicloud S3 as a starting point for development and create various services and applications.

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■ GiantView

GiantView creates a web platform or mobile app and lets you use video & communications anytime, anywhere, on any device to meet business, training and learning requirements. It also provides private and public business communication for meeting environments.

You can reduce wasted time and cost from travel/transport to the same place at fixed times. You can deal with more business, services and work more efficiently. It also provides the best communicating tool for your business and career:

Features

• Time Cost:

You can greatly reduce the time & cost of meetings and communication.

• Transportation costs:

You can save round trip traveling costs and accommodation expenses.

• Training costs:

You can train your employees anytime, anywhere and on any device without specific equipment or venue.

• Investment costs:

You can use the host device, virtual machine, and Turbo NAS to become a multi-purpose conference communications platform.

■ BitTorrent Sync

BitTorrent Sync uses the P2P (peer-to-peer) protocol to synchronize an unlimited number of files (stored on the Turbo NAS) between your devices. Your data is not stored on a server in the cloud but is protected using private keys during file transmission.

Features

• Access your files anywhere.

Create a Sync folder for your QNAP Turbo NAS. Open QTS and access docs, share photos, and start working from anywhere.

• Send and sync, without speed limits.

BitTorrent Sync skips the cloud to deliver your files at lightning speed. no matter where you are.

• Free for all.

Sync, send and share as much as you want. There are no file size limits, or caps on creativity. It's as simple as that.
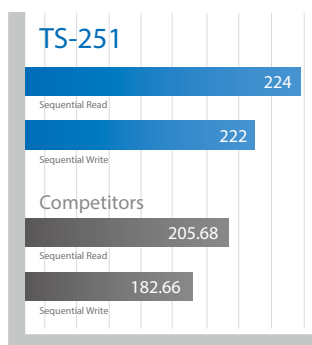
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Features

Intel Celeron® Dual Core processor

Powered by a dual-core Intel® Celeron® 2.41GHz processor (burst up to 2.58GHz), 4GB/1GB (expandable to 8GB) energy-efficient DDR3L RAM and two LAN ports, the TS-x51 is a powerful NAS with the highest-standard hardware that delivers unrivaled performance with up to 220MB/s read/write speeds. Also, with QvPC technology, the TS-x51 can be used as a PC, making it much greater than just a simple storage solution.
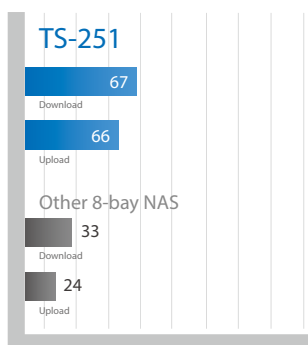
Throughput
(Quad-LAN Link Aggregation)

Windows Upload/Download, 5GB file,
IO Meter 8 worker settings

TS-251

224
Sequential Read

222
Sequential Write

Competitors

205.68
Sequential Read

182.66
Sequential Write

AES 256-bit Encryption

Windows Upload/Download, 5GB file

TS-251

67
Download

66
Upload

Other 8-bay NAS

33
Download

24
Upload

The TS-x51's fast encryption performance provides a transfer speed of up to 67MB/s with AES-256bit volume encryption that boosts system performance & security while ensuring the safety of personal sensitive data stored on the TS-x51.

Eco-friendly design

The TS-x51 Pro provides high performance with minimal power requirements and reduced heat generation with a cutting-edge 22nm processor and low-voltage, low-power DDR3L RAM. Other eco-friendly designs include scheduled power on/off, hard disk standby mode, and Wake on LAN.

SSD cache acceleration

The SSD cache accelerates the IOPS performance and reduces I/O latency for the storage volumes*. It is perfect for IOPS-demanding applications such as virtualization in significantly improving overall workflow. The QTS cache technology adopts the Read Cache with Write Through algorithm and can greatly improve random read performance and ensure data security.

* System performance may vary based on network conditions

Power Consumption

TS-251

0.47W
S3 Sleep Mode

10.27W
with HDD standby

20.36W
In operation

Other 2-bay Atom NAS

23W
In operation

PC

150W

Faster data transfer speeds with 802.11ac Wi-Fi standard support

TS-x51 supports the latest 802.11ac Wi-Fi standard. With a 802.11ac or 2.4GHz/5GHz dual-band USB Wi-Fi NIC, it can rapidly transmit large files and multimedia.

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology
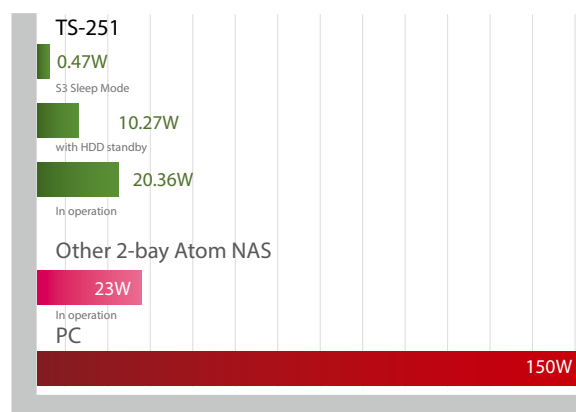
■ UX-800P / UX-500P
The most economical way to expand your Turbo NAS storage

When expanding data storage, deploying multiple servers can lead to increased complexity in management and dramatically increased costs. The QNAP 8–bay UX-800P / 5-bay UX-500P expansion enclosure is a budget-friendly expansion alternative designed with easy setup in mind for expanding the total storage space of your Turbo NAS. The UX-800P offers a hassle-free storage expansion for home/small office use. The UX-800P provides space for an additional 8 hard drives for the Turbo NAS and allows for a total expansion raw capacity of 48 TB* making it especially useful for data backup, multimedia collections, and video surveillance.

* The maximum capacity is calculated by using 6TB hard drives

High speed USB 3.0 connection

NAS   UX-800P / UX-500P

Excellent hardware design - LCD panel

The UX series includes an internal 250W power supply to provide ample power even under sustained full load. The well-ventilated chassis and smart fan helps to provide efficient cooling for better stability and reliability, with the fan enabling efficient heat removal even when all drives are under full operation simultaneously.

Easily add additional capacity to a Turbo NAS

Simply connect a UX-800P / UX-500P to a Turbo NAS and power it on. The Turbo NAS will automatically detect the hard drives in the UX series as newly-installed local drives. The Turbo NAS capacity can then be expanded with an additional volume seamlessly by using the powerful QTS Storage Manager.

Flexible RAID configuration

The UX series features hot-swappable drive bays for easy installation and removal. The automatic insertion/removable detection and rebuild allows for easy management. Featuring RAID 0, 1, 5, 6 and 10 support and managed by the powerful QTS Storage Manager, the UX series ensures maximum performance and data security.

An excellent backup solution for Turbo NAS

The UX series can be used as a budget-friendly external storage to perform speedy and secure backup tasks for the Turbo NAS. The administrator can back up the Turbo NAS data to the UX series on a real time or scheduled basis.

Missing mode protection

If your UX series is accidentally disconnected, the Turbo NAS enters missing mode and blocks I/O access to the expansion enclosure to protect stored data. The system can then recover from missing mode to the normal state with data staying intact.

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Eco-friendly design

The UX series automatically powers on/off with your Turbo NAS, allowing for total convenience and energy saving. The hard drives in the UX series can be configured to enter sleep mode after the system becomes idle after a preset period of time, extending their lifetime and saving you money on energy bills.

Powerful QTS Storage Manager

The QTS Storage Manager neatly presents tools and options for managing system storage with a modern & intuitive graphical user interface, which greatly simplifies the process of NAS capacity expansion and UX-800P/UX-500P management. No matter if you are an IT administrator or general user, you can easily monitor the status of UX-800P/UX-500P and the disks within it.

Step 1: Connect the UX-800P/UX-500P to the NAS using USB 3.0.

Step 2: Log in to the QTS Storage Manager.

Step 3: Create new volumes and shared folders on the UX-800P/UX-500P.

QNAP USB 3.0 Expansion Enclosure

QNAP USB 3.0 Expansion Enclosure

UX Expansion Enclosure	UX-500P	UX-800P
Supported HDD/SSD Types	5 x 3.5" or 2.5" SATA 6Gb/s,3Gb/s	8 x 3.5" or 2.5" SATA 6Gb/s,3Gb/s
Max. Number of HDDs and HDD Bays	5 hot-swappable HDDs and lockable bays	8 hot-swappable HDDs and lockable bays
RAID Management	Yes (using QNAP Storage Manager)	Yes (using QNAP Storage Manager)
USB Ports	1 x USB 3.0 (Back)	1 x USB 3.0 (Back)
LED Indicators	Power, network and status	Power, network and status
LCD Panel	Monochrome-LCD display (with backlight)	Monochrome-LCD display (with backlight)
Anti-theft Design	Kensington lock	Kensington lock
Fan	Silent fan x 1 (12 cm, 12V DC)	Silent fan x 1 (12 cm, 12V DC)
Power Supply Specification	Input: 100-240V AC, 50/60Hz, Output: 250W	Input: 100-240V AC, 50/60Hz, Output: 250W
Form Factor	Tower	Tower
Temperature	5˚ C ~ 35˚ C (40˚ F ~ 95˚ F)	5˚ C ~ 35˚ C (40˚ F ~ 95˚ F)
Humidity	5~95% RH; Web bulb: 27˚C	5~95% RH; Web bulb: 27˚C

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TS-x51 Series. Powered by QNAP's Exclusive QvPC Technology

The maximum raw storage capacity available by connecting QNAP expansion enclosures:

Turbo NAS Model	RAID Expansion Enclosure	No. of RAID Expansion Enclosure	Total HDD No.	Max. Raw Capacity (TB)
TS-851 (8 bay)	UX-800P	1	16 (8+8)	96
	UX-500P	1	13 (8+5)	78

Turbo NAS Model	RAID Expansion Enclosure	No. of RAID Expansion Enclosure	Total HDD No.	Max. Raw Capacity (TB)
TS-651 (6 bay)	UX-800P	1	14 (6+8)	84
	UX-500P	1	11 (6+5)	66

Turbo NAS Model	RAID Expansion Enclosure	No. of RAID Expansion Enclosure	Total HDD No.	Max. Raw Capacity (TB)
TS-451 (4 bay)	UX-800P	1	12 (4+8)	72
	UX-500P	1	9 (4+5)	54

Turbo NAS Model	RAID Expansion Enclosure	No. of RAID Expansion Enclosure	Total HDD No.	Max. Raw Capacity (TB)
TS-251 (2 bay)	UX-800P	1	10 (2+8)	60
	UX-500P	1	7 (2+5)	42

\# The maximum capacity is calculated by using 6TB hard drives.

Accessories

Category		Order P/N	Description
RAM		RAM-1GDR3L-SO-1600	1GB DDR3L-1600 RAM Module SODIMM
RAM		RAM-2GDR3L-SO-1600	2GB DDR3L-1600 RAM Module SODIMM
RAM		RAM-4GDR3L-SO-1600	4GB DDR3L-1600 RAM Module SODIMM
RAM		RAM-8GDR3L-SO-1600	8GB DDR3L-1600 RAM Module SODIMM
QNAP Infrared (IR) Remote Control		RM-IR002	QNAP Infrared (IR) Remote Control

Hardware Specification

Turbo NAS Model	TS-251-4G / TS-251	TS-451-4G / TS-451	TS-651-4G / TS-651	TS-851-4G / TS-851
CPU	Dual-Core Intel Celeron 2.41GHz (Burst up to 2.58GHz)			
Memory (DRAM)	4GB SO-DIMM DDR3L-1333 / 1GB SO-DIMM DDR3L-1333			
Flash Memory	512MB (DOM)			
No. of RAM Slots	2 (Max 8 GB)			
Max. number of HDDs/SSDs	2 x 2.5" or 3.5" SATA 6Gb/s, 3Gb/s; hot-swappable	4 x 2.5" or 3.5" SATA 6Gb/s, 3Gb/s; hot-swappable	6 x 2.5" or 3.5" SATA 6Gb/s, 3Gb/s; hot-swappable	8 x 2.5" or 3.5" SATA 6Gb/s, 3Gb/s; hot-swappable
Expansion Enclosure Support	1 (UX-800P, UX-500P)			
Gigabit LAN Ports	2			
USB Ports	USB 3.0: 2, USB 2.0: 2	USB 3.0: 2, USB 2.0: 2	USB 3.0: 3, USB 2.0: 2	USB 3.0: 3, USB 2.0: 2
IR Sensor (MCE Remote)	Yes	Yes	Yes	Yes
HDMI	1	1	1	1
LED Indicators	Power, Reset, USB One-Touch-Copy、USB、HDD1-2	Power, Reset, USB One-Touch-Copy、USB、HDD1-4	Power, Reset, USB One-Touch-Copy、USB、HDD 1-6	Power, Reset, USB One-Touch-Copy、USB、HDD 1-8
Buttons	Power, Reset, USB One-Touch-Copy			
Dimensions (HxWxD)	168.5 x 102 x 225 mm 6.63 x 4.02 x 8.86 inch	177 x 180 x 235 mm 6.97 x 7.09 x 9.25 inch	175 x 257 x 235 mm 6.89 x10.12 x 9.25 inch	185.2 x 298.2 x 235.4 mm 7.29 x 11.74 x 9.27 inch
Weight (Net/ Gross)	1.28 kg (2.82 lbs) / 2.32 kg (5.11 lbs)	3 kg (6.61 lbs) / 4.3 kg (9.48 lbs)	6.18 kg (13.62 lbs) / 6.9 kg (15.21 lbs)	7.83 kg (17.26 lbs) / 8.9 kg (19.62 lbs)
Temperature and Humidity	0 - 40 ℃, 5 - 95% R.H	0 - 40 ℃, 5 - 95% R.H	0 - 40 ℃, 5 - 95% R.H	0 - 40 ℃, 5 - 95% R.H
Power Supply Specification	External Power Adapter, 60W, 100-240V	External Power Adapter, 90W, 100-240V	ATX 250W, Input: 110-240 Vac~, 50-60Hz, 5A	ATX 350W, Input: 110-240 Vac~, 50-60Hz, 5A
Power Consumption: HDD Sleep (W)	10.28	15.85	21.08	26.81
Power Consumption: Typical Operation (W)	19.22	31.07	39.42	56.79
Power Off: S3 Sleep (W)	0.47	0.55	0.41	0.72
Windows Upload / Download - Link Aggregation (MB/s)	222 / 224	216 / 224	223 / 224	223 / 224
AES 256-bit Encrypted Windows Upload / Download (MB/s)	67 / 68	68 / 68	68 / 69	68 / 69
File System: Internal Hard Drive	EXT4			
File System: External Hard Drive	EXT3, EXT4, NTFS, FAT32, HFS+			
RAID Recovery	Yes			
Online RAID Capacity Expansion	Yes			
Online RAID Level Migration	Yes			
RAID Type	Single Disk, RAID 0, RAID 1, JBOD	Single Disk, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID 5 + Spare, JBOD	Single Disk, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID 5/6/10 + Spare, JBOD	
Global Hot Spare	-	Yes		
USB One-Touch-Copy Backup	Yes			
Surveillance Station - Default IP Cameras	2			
Virtualization Station - Max. IP cameras	24(optional license purchase)			
Virtualization Station	Yes (Max. 1 Runnung VM; RAM of NAS >= 2GB)			
VPN Server (PPTP + OpenVPN)	Yes			
Max. Number of Users	4096			
Max. Number of User Groups	512			
Max. Number of Shared Folders	512			
Max. Number of Concurrent Connections	600			

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Software Specification

Operating System
· QTS 4.1 (embedded Linux)

Supported Clients*
· Windows 7 and Windows Server 2003 onward, Apple Mac OS X onward, Linux & UNIX

Supported Browsers
· Google Chrome
· Microsoft Internet Explorer 10+
· Mozilla Firefox
· Apple Safari

Multilingual Support
· Chinese (Traditional & Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Romanian, Russian, Spanish, Swedish, Thai, Turkish

File System
· Internal hard drive: EXT4
· External hard drive: EXT4, EXT3, NTFS, FAT32, HFS+

Networking
· TCP/IP: IPv4 & IPv6*
· Dual Gigabit NICs with jumbo frame (failover, multi-IP settings, port trunking/NIC teaming)
· Service binding based on network interfaces
· Proxy client, proxy server
· DHCP client, DHCP server

NTP server
· Protocols: CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and SMSC
· UPnP & Bonjour discovery
· USB Wi-Fi adapter support

Security
· Network access protection with auto-blocking: SSH, Telnet, HTTP(S), FTP, CIFS/SMB, AFP
· CIFS host access control for shared folders
· FIPS 140-2 validated AES 256-bit volume-based data encryption**
· AES 256-bit external drive encryption**
· Importable SSL certificate
· Instant alert via E-mail, SMS, and beep
· Antivirus protection

Storage Management
· Single Disk, JBOD, RAID 0, 1, 5, 6, 10, 5/6/10 + spare***
· Global hot spare***
· Online RAID capacity expansion
· Online RAID level migration
· Storage expansion via QNAP UX-500P / UX-800P expansion unit (Max: 1 unit)
· Bad block scan and hard drive S.M.A.R.T.
· Bad block recovery
· RAID recovery
· Bitmap support

Power Management
· Wake on LAN
· Internal hard drive standby mode
· Scheduled power on/off
· Automatic power on after power recovery
· USB and network UPS support with SNMP management
· System sleep mode (S3)

Access Right Management
· Import/export users
· User quota management
· Local user access control for CIFS, AFP, FTP, and WebDAV
· Application access control for Photo Station, Music Station, Video Station, and Multimedia Station
· Subfolder permissions support for CIFS/SMB, AFP, FTP, and File Station

myQNAPcloud Service
· Private cloud storage and sharing with myQNAPcloud id (QID)
· Free host name registration (DDNS)
· Auto router (via UPnP) configuration
· Web-based file manager with HTTPS 2048-bit encryption
· Cloudlink for remote access without complicated router setup
· myQNAPcloud connect for easy VPN connection (Windows VPN utility)

Qsync
· Syncs files among multiple devices with SSL support

· Selective synchronization for syncing specific folders only
· Share team folder as a file center for team collaboration
· Shares files by links via e-mail
· Policy settings for conflicted files and file type filter support
· Version control: up to 64 versions
· Incremental synchronization for HDD space saving
· Supports Windows & Mac OS

Web Administration
· Personalized desktop
· Smart toolbar and dashboard for system status
· Dynamic DNS (DDNS)
· SNMP (v2 & v3)
· Resource monitor
· Network recycle bin for file deletion via CIFS/SMB, AFP and File Station
  - Automatic cleanup
  - File type filter
· Comprehensive logs (events & connection)
· Syslog client/server
· Mobile app: Qmanager for remote system monitoring & management

File Server
· File Sharing across Windows, Mac, and Linux/UNIX
· Windows ACL
· Advanced folder permission for CIFS/SMB, AFP, FTP
· Shared folder aggregation (CIFS/SMB)

FTP Server
· FTP over SSL/TLS (Explicit)
· FXP supported

File Station
· Supports ISO Mounting (Up to 256 ISO Files)
· Support thumbnail display of multimedia files
· Support share download link and upload link
· Drag-n-drop Files via Chrome and Firefox Browsers
· Photo, music, and video preview and playback with hardware accelerated transcoding
· File Compression and decompression (ZIP and 7z)

Backup Station
· Remote replication server (over rsync)
· Real-time remote replication (RTRR) to another QNAP NAS or FTP server
· Works as both RTRR server & client with bandwidth control
· Real-time & scheduled backup
· Encryption, compression, file filter, and transfer rate limitation
· Encrypted replication between QNAP NAS servers
· Desktop backup with QNAP NetBak Replicator for Windows
· Apple Time Machine backup support
· Data backup to multiple external storage devices
· Third party backup software support: Veeam backup & replication, Acronis True Image, Arcserve backup, EMC retrospect, Symantec Backup Exec, etc.

Photo Station
· Show photos in thumbnails, list, timeline, or folder view
· Supports virtual/smart album
· Tags photos with text, color, and rating
· Slideshows with background music and different transition effects
· Animated thumbnails for videos
· Geotags photos and display them on Google maps
· Shares slideshows link to social websites or through email
· Supports Facebook friends login

Music Station
· Plays or shares music collections with web browser
· Automatic classification via Media Library
· Internet radio streaming (MP3)
· Up to 8 music alarms
· Mobile app: Qmusic for music playing and management

iTunes Server
· Audio and Video Sharing for Windows & Mac iTunes

Video Station
· Show photos in thumbnails, list, timeline, or folder view

· Tags videos with text, color, and rating
· Animated thumbnails for videos
· Shares video collection link to social websites or through email
· Display movie information from IMDB

DLNA Server
· Supports DLNA/UPnP TVs and players such as PlayStation 3 and Xbox 360
· Video and audio on-the-fly transcoding

Transcode Management
· Transcode video files to 240p, 360p, 480p, 720p and 1080p resolution
· Automatic video transcoding for watched folders
· Hardware accelerated transcoding support

AirPlay
· Streams videos, photos and music from NAS to Apple TV via Qfile or QAirPlay's web-based controller

Digital TV Station
· DVB-T Digital TV Live View, Recording, and Playback
· Supports up to 2 USB TV Tuners
· Electronic Programming Guide (EPG) with Scheduled Recording
Note: The availability of DVB-T broadcasting and EPG may vary depending on geographic locations.

Download Station
· PC-less BT, FTP/FTPS, and HTTP/HTTPS download (up to 500 Tasks)
· BT download with Magnet Link and PT support
· Scheduled download and bandwidth control
· RSS subscription and download (broadcatching)
· Bulk download with wildcard settings
· BT search
· Proxy support for BT download
· PC utility: Qget for downloads browsing and management
· Mobile app: Android Qget for downloads browsing and management

HD Station
· Playbacks videos, music, photos on TV with XBMC via HDMI output
· Watch various online contents such as Youtube, Flickr, Picasa, Shoutcast, etc.
· Web browser
· Supports USB U.S. keyboard and mouse
· Supports QNAP Qremote app and the official XBMC remote app

Note:
- The playback and quality of some video files may be affected due to the current CPU and GPU's decoding capability.
- Up to 7.1 channel audio passthrough can be supported

Cloud Storage Backup
· Amazon S3
· Amazon Glacier
· WebDAV-based cloud storage
· Microsoft Azure
· Open Stack
· Google Drive
· Dropbox

Print Server
· Max number of printers: 3
· Print job display and management
· IP-based and domain name-based privilege control

Virtualization Station
· Support Virtual Machine (VM) creation to run an operating system such as Windows, Linux, Unix and Android
· Support importing VM from the other virtual platform, e.g. VirtualBox, VMware Workstation
· Support exporting VM with *.ovf, *.qvm formats
· VM clone and snapshot
· HTML5-based shared remote console
· User-based permission setting
· Support USB device pass-through
· Support VM console display via HDMI

Surveillance Station
· Supports over 2,700 IP cameras
· Includes 2 free camera licenses, up to 24 camera channels via additional license purchase
· Instant playback to check the recent event
· Visual aid by e-map
· Playback and speed control by shuttle bar
· Video preview on playback timeline
· Intelligent video analytics (IVA) for advanced video search

· Surveillance client for Mac
· Mobile surveillance app: vmobile (iOS and Android)
· Mobile recording app: vcam (iOS and Android)

Notes Station
· Graphical web-based editor for taking notes
· Integrate with NAS file system: insert attachment or image from NAS file system
· Event calendar and to-do list
· Image editor
· Provide Chrome Extension: Notes Station Clipper
· Clip web page content to your note
· Mobile app: Qnotes

Signage Station
· Support dynamic content includes video, image, music, and text message
· Multi-user collaboration
· Support email and social network sharing
· Support design software - iArtist Lite for Windows®
· Support various browser playback (Chrome, Firefox, IE, Safari)

iSCSI (IP SAN)
· iSCSI Target
· Multi-LUNs per Target
· Up to 256 Targets/LUNs Combined
· Supports LUN Mapping & Masking
· File-based LUN
· Online LUN Capacity Expansion
· Supports SPC-3 Persistent Reservation, MPIO, MC/S
· iSCSI LUN Backup, One-time Snapshot, and Restore
· iSCSI Connection and Management by QNAP Finder (Windows)
· Virtual Disk Drive (via iSCSI Initiator)
· Max No. of Virtual Disk Drives: 8

VPN Server
· Secure remote access: PPTP & OpenVPN VPN services
· Max number of clients: 15 for PPTP & 15 for OpenVPN

Domain Authentication Integration
· Microsoft Active Directory (AD)
· Domain controller
· LDAP server, LDAP client
· Domain users login via CIFS/SMB, AFP, FTP, and File Station

App Center
· More than 100 official and community software add-ons (ex: Dropbox, Google Drive Sync, McAfee, WordPress, HappyGet II, etc.)

Mobile Apps
· Qfile: iOS, Android Phone, window phone
· Qfile HD: iPad version
· Qmanager: iOS, Android Phone
· Qmusic: iOS, Android Phone
· Qremote: iOS, Android Phone
· Qget: Android Phone
· Vmobile: iOS, iPad, Android Phone

* Not all services are supported.
** The data encryption functions may not available in accordance with the legislative restrictions of some countries.
*** The supported features may vary among models.

Design and specifications are subject to change without notice.

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