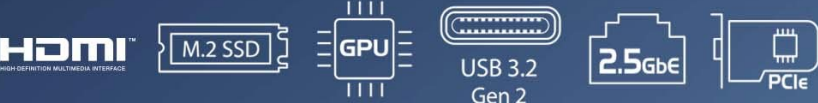


TVS-hx74

ZFS QuTS hero NAS Series supports PCIe Gen 4 expandability, 10/25GbE and M.2 NVMe SSD caching



Optional: 10/25 GbE



Powerful CPU provides multi-tasking ability, NAS can be Storage, VMs and surveillance station

Not only back-up and file server. NAS in now days are also multiple function server, such as iSCSI/SMB server, VMs and surveillance station



File Server



SQL server



VMs



surveillance



Backup Server

Powered by Intel 12 Gen desktop CPUs

Pentium Gold G7400 / Core i3-12100 / Core i5-12400



TVS-h474-PT-8G

- 2-core Pentium G7400 2C/4T 3.7GHz
- DDR4 8GB RAM (1 x 8GB)
- 2.5GbE port x2



TVS-h874-i5-32G

- 6-core Core i5-12400 6C/12T 4.6GHz
- DDR4 32GB RAM (2 x 16GB)
- 2.5GbE port x2



TVS-h674-i5-32G

- 6-core Core i5-12500 6C/12T 4.6GHz
- DDR4 32GB RAM (2 x 16GB)
- 2.5GbE port x2

TVS-h674-i3-16G

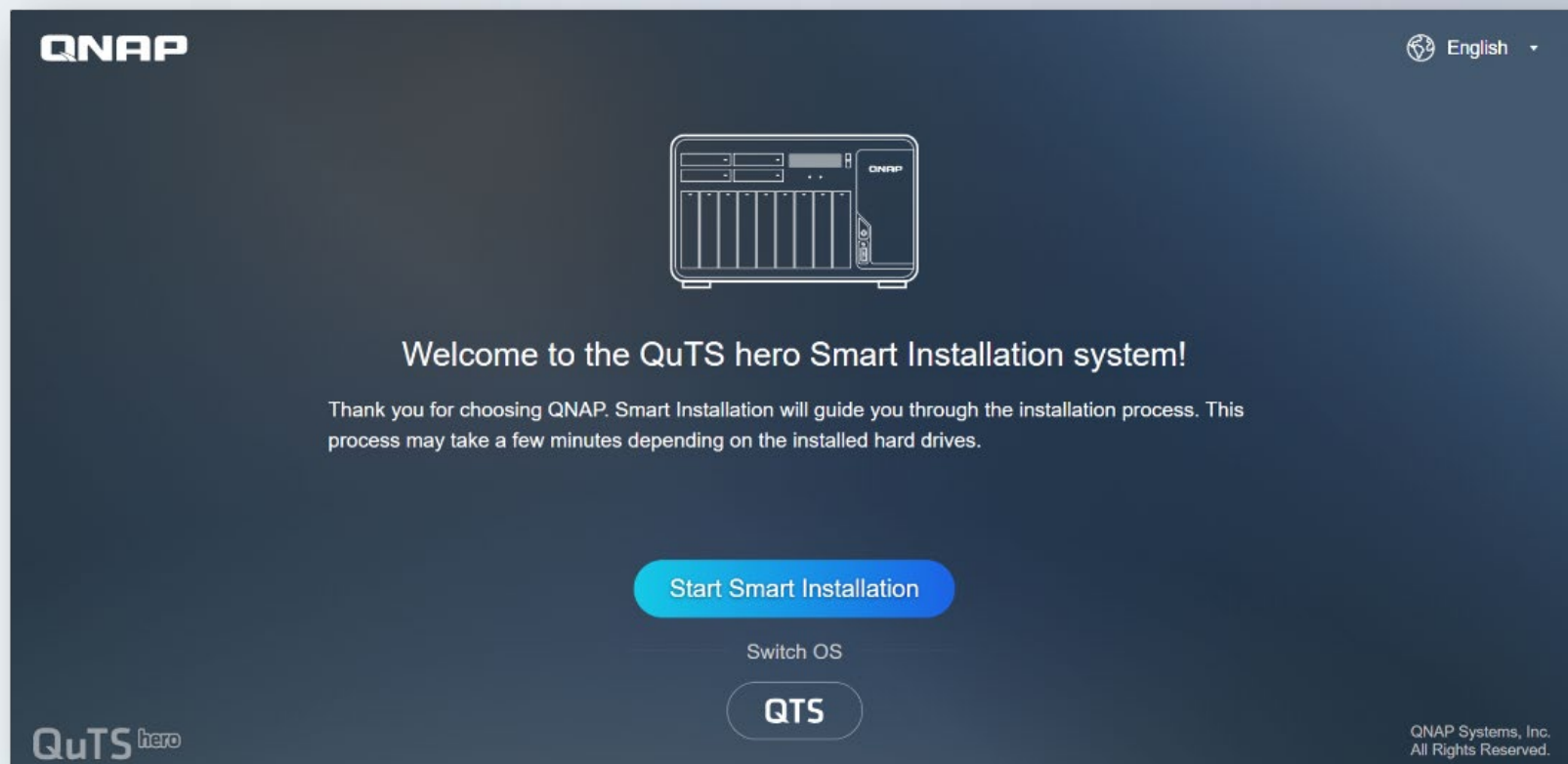
- 4-core Core i3-12100 4C/8T 4.3GHz
- DDR4 16GB RAM (1 x 16GB)
- 2.5GbE port x2

Switch NAS operating systems between QuTS hero and QTS for higher everyday performance

Supports QTS - QNAP's standard NAS operating system – that provides performance, efficient memory utilization, and the advantage of Qtier auto-tiering. You can also migrate drives from your current QTS-based NAS to the TVS-hx74.

Note:

QTS and QuTS hero use different file systems. You must remove all the drives from the TVS-hx74 before switching from QuTS hero to QTS.



Choose between QTS and ZFS based QuTS hero

ZFS-based QuTS hero ensures performance and data integrity

Faced with the explosive growth of data, VDI popularity, increasing SSD adoption, 8K media, and other disruptive IT trends, modern businesses need dependable storage systems to meet future demands. QNAP's new "QuTS hero" operating system combines the app-based QTS with a 128-bit ZFS file system to provide flexible storage management, comprehensive data protection and optimized performance to meet the needs of business-critical applications.

Learn More: [Why QNAP business NAS uses ZFS](#)

	QuTS hero	QTS
Filesystem	ZFS	Ext4
SSD Cache	Read Cache	Read/Write Cache Read Cache Write Cache
Inline Compression	Yes (LZ4 compression, ideal for RAW files and document files)	No
Inline Deduplication	Yes (At least 16 GB RAM required)	No
HBS with QuDedup for Remote Backup	Yes	Yes
Power Failure Protection (Hardware)	Uninterruptible power supply (UPS)	Uninterruptible power supply (UPS)
Power Failure Protection (Software)	ZIL Copy-On-Write (Service continues after power recovery)	No (Risk of filesystem-level corruption on power-loss and system downtime required for "Check File System")
Permission Management	Rich ACL (14 types)	POSIX ACLs (3 types) + certain special permissions
Capacity Expansion	Upgrade RAID capacity Change higher capacity disk drives Attach expansion enclosures/JBODs	Add a disk drive to a RAID group Upgrade RAID capacity Change higher capacity disk drives Attach expansion enclosures/JBODs
Data Security	Better (Self-Healing & Copy-on-Write)	Standard
Recommendation SSD Configuration for Video Editing Applications	Use SSD Pools	Editing (from original/RAW files): Use SSD Pools Post production: Enable Read/Write cache
	Note: Set the block size 128K when creating Folders/LUNs	Note: Set the block size to 32K or 64K when creating Volumes, and choose "All I/O" for cache mode.

Up to 6-core 12-thread powerful Intel CPU

Powerful 12 Gen Intel® Pentium™ Gold and Core™ i3 / i5 family CPU

Intel 12 Gen powerful CPU provides strong performance, up to 12MB cache and 4.4GHz. Also integrated with UHD graphics, which support HDMI out put and boost AI application performance

Max frequency

4.4 GHz

1.75x

Single core compared with 72XT

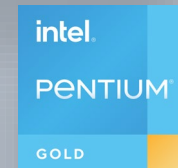
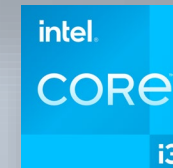
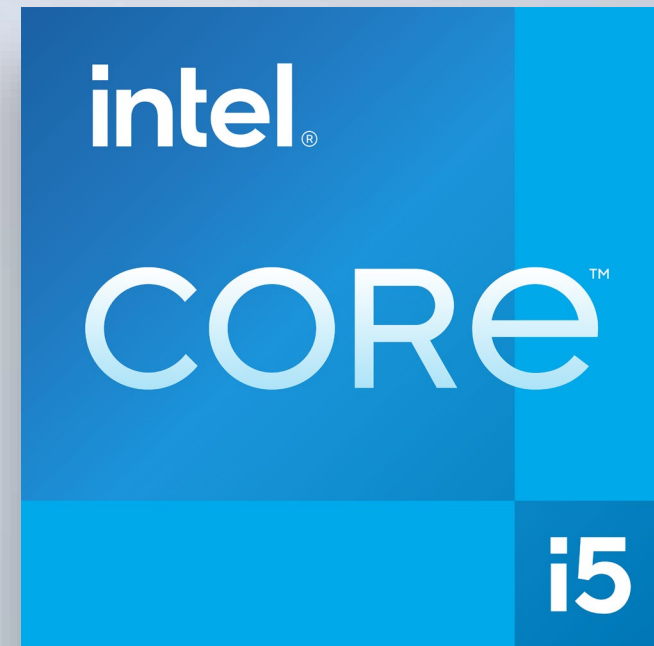
6-core / 12-thread

6-core

3.55x





CPU mark compared to 72XT

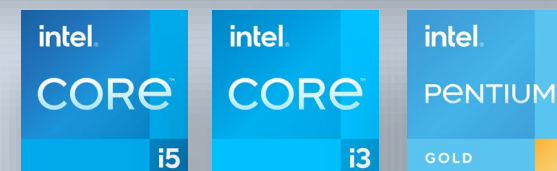
[*Performance compare](#)



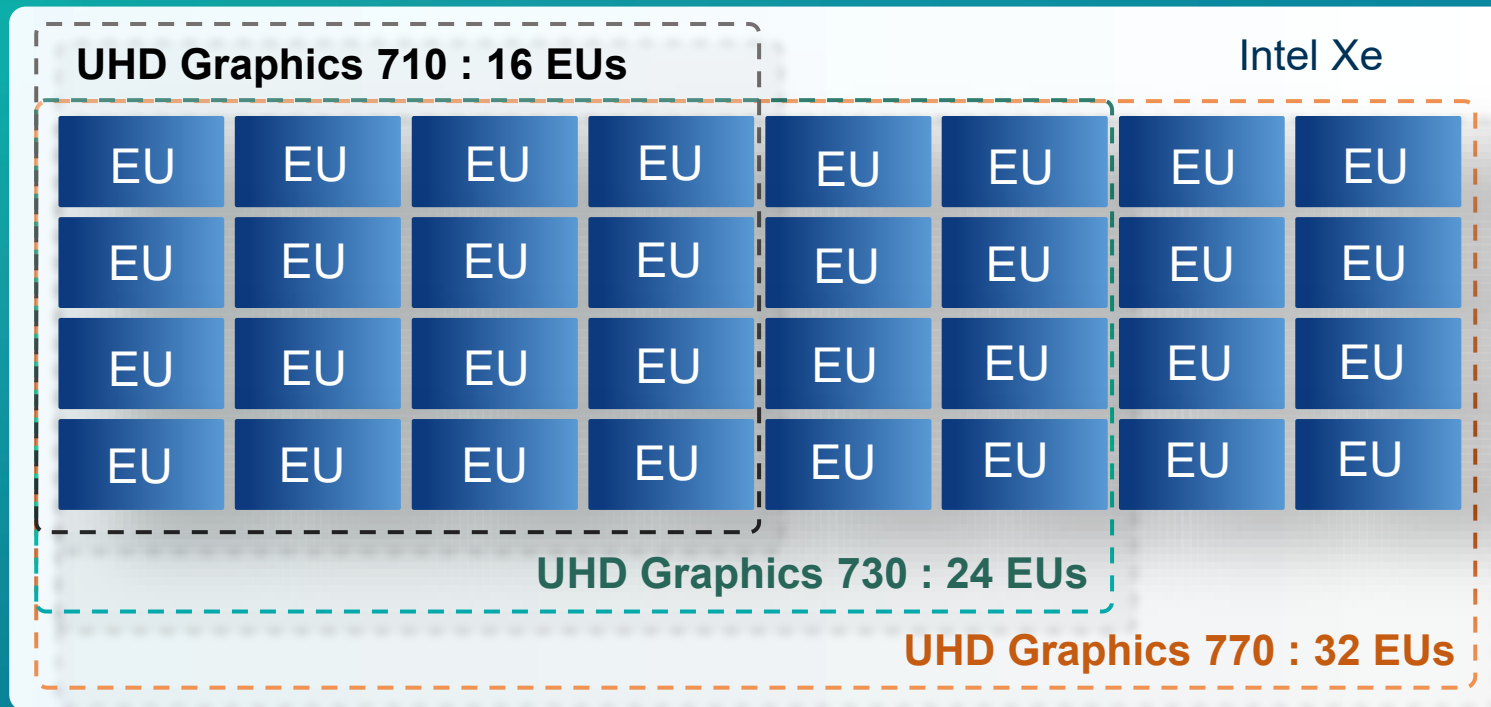
*CPU is different for each SKU, please check on our website for detail specification

Detailed CPU specification on TVS-hx74

Model	Core/Thread	Cores	Max. Freq.	Model
Pentium™ G7400	2-core/4-thread	2	3.7GHz	TVS-h474 
Core™ i3-12100	4-core/8-thread	4	4.3GHz	TVS-h674 
Core™ i5-12400	6-core/12-thread	6	4.4GHz	TVS-h674  TVS-h874 

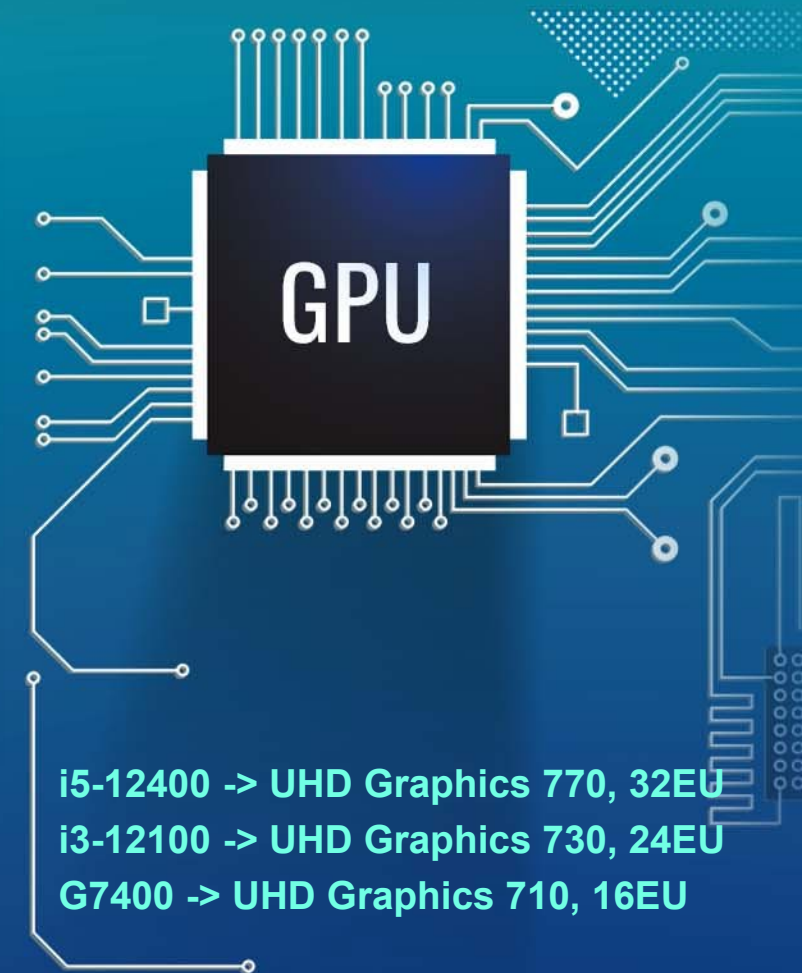


UHD 700 series GPU, up to 32 EU, support HDMI output and boost performance for OpenVINO、QuMagie



Intel 12 Gen CPU with new Intel Xe architecture - Intel UHD Graphics 700 series graphics, provide up to 32 EUs(EUs; Execution Units) bring performance upgrade for NAS to have HDMI output and transcoding.

QNAP has also intergrade with out AI application, GPU can now boost performance of OpenVINO, QuMagie, etc.



i5-12400 -> UHD Graphics 770, 32EU
i3-12100 -> UHD Graphics 730, 24EU
G7400 -> UHD Graphics 710, 16EU

TVS-h474 / h674 / h874 Front view

LCM system indicator



TVS-h674

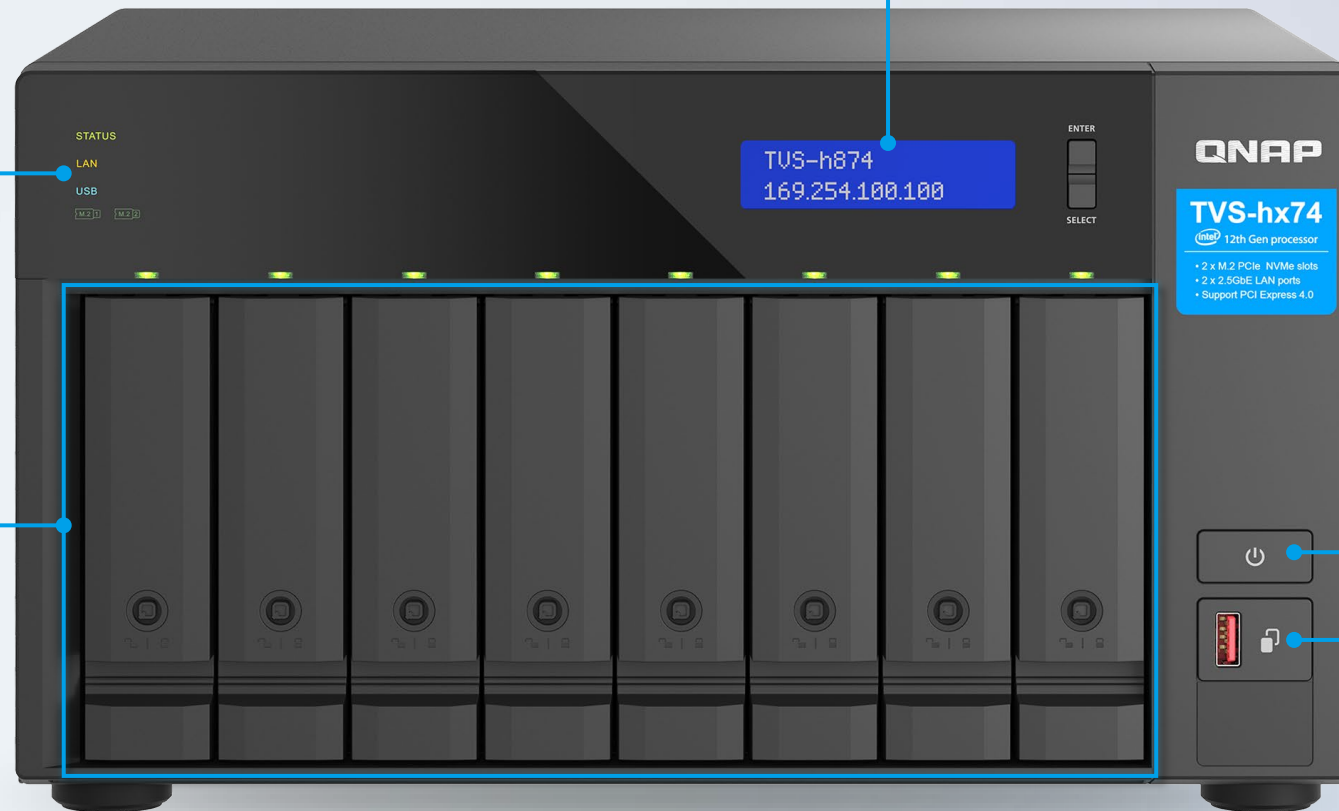
TVS-h474

Comes with keys



Adjustable LED :HDD、Status、LAN、USB、M.2

3.5"/ 2.5" SATA 6Gb/s HDD/SSD tray (Lock-able)



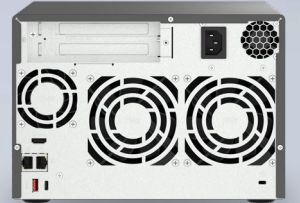
TVS-h874

QNAP
TVS-hx74
Intel® 12th Gen processor
• 2 x M.2 PCIe NVMe slots
• 2 x 2.5GbE LAN ports
• Support PCI Express 4.0

Power

USB 3.1 Gen 2 (10Gb) & One Touch Copy

TVS-h674 / h874 Rear view



TVS-h674

Two PCIe Gen4 slots
1 x PCIe Gen4 x16
1 x PCIe Gen4 x4

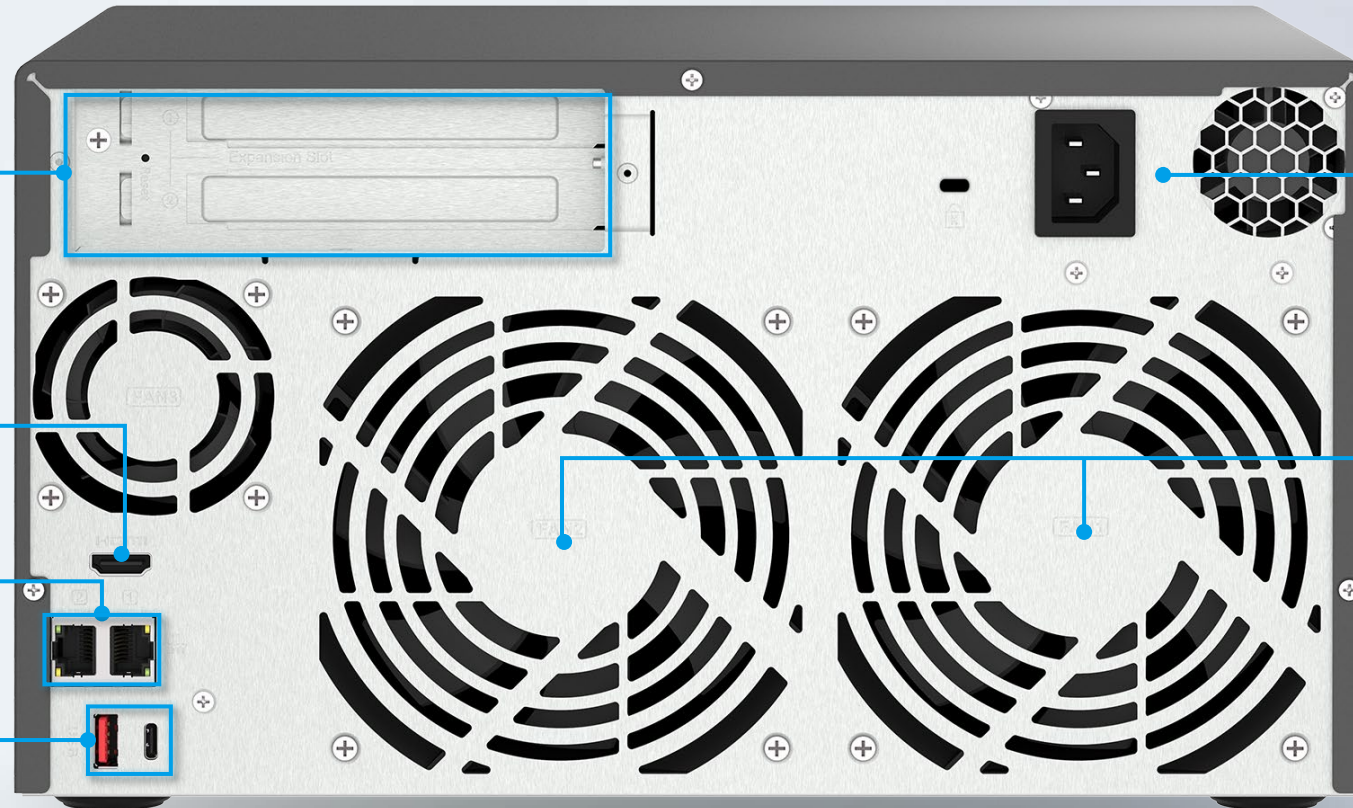
One FHD HDMI
V1.4b output

Two 2.5GbE
LAN ports

Two USB ports :
2 x USB 3.1 Gen 2
(Type-C & Type-A)

Internal
250W
power
supply

Smart Fan



TVS-h874

TVS-h474 Rear view

Two PCIe Gen4 slots
1 x PCIe Gen4 x16
1 x PCIe Gen3 x2

Internal 250W
power supply

One FHD HDMI
V1.4b output

Smart Fan

Two 2.5GbE
LAN ports

Two USB ports :
2 x USB 3.1 Gen 2
(Type-C & Type-A)

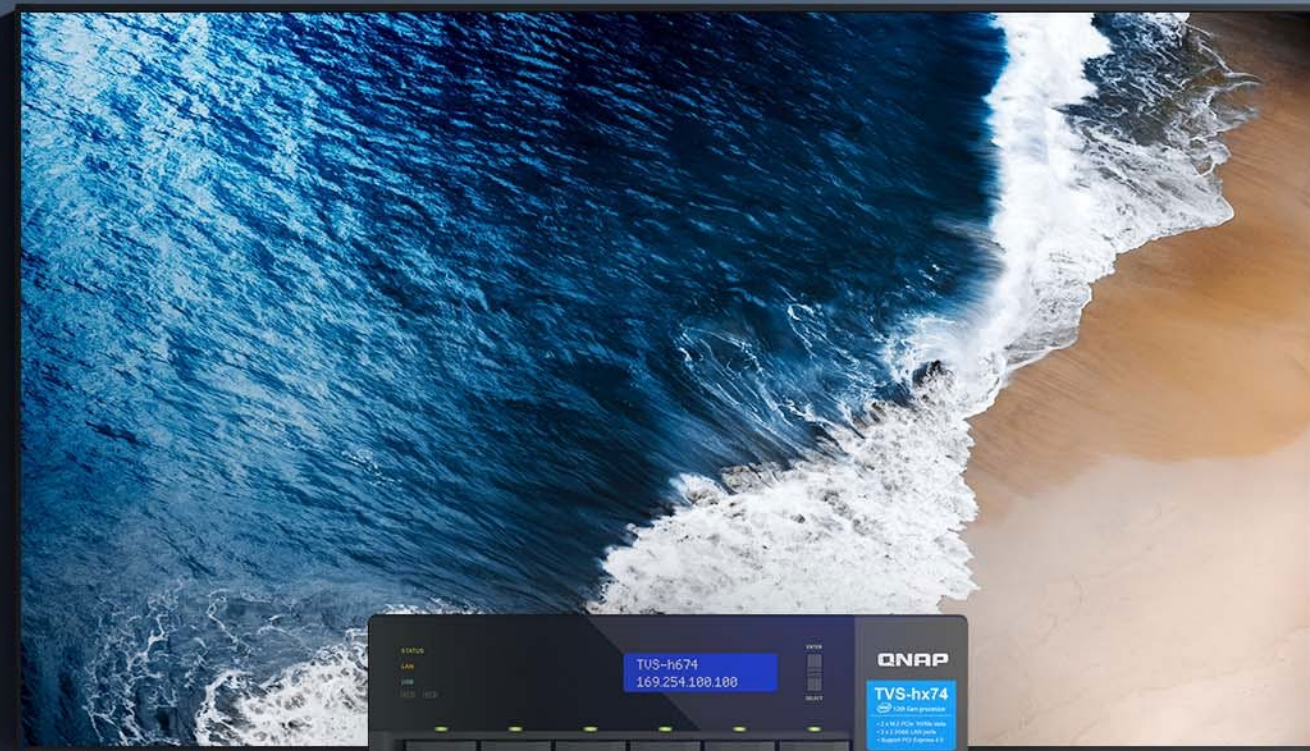


TVS-h474

Built in HDMI port for video output or Surveillance station

Up to 1.50 GHz
Intel UHD
Graphics 710/730/770

HDMI output
1 x HDMI v1.4b
1920 x 1080, 60Hz



Up to 32 EUs
Dedicated EU for
graphic

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE



HybridDesk Station



Compartmentalized smart cooling

Enhanced design over the previous generation to separately detects the CPU and hard drive temperatures for dynamically adjusting separate fan speeds for an quieter operations in the office.

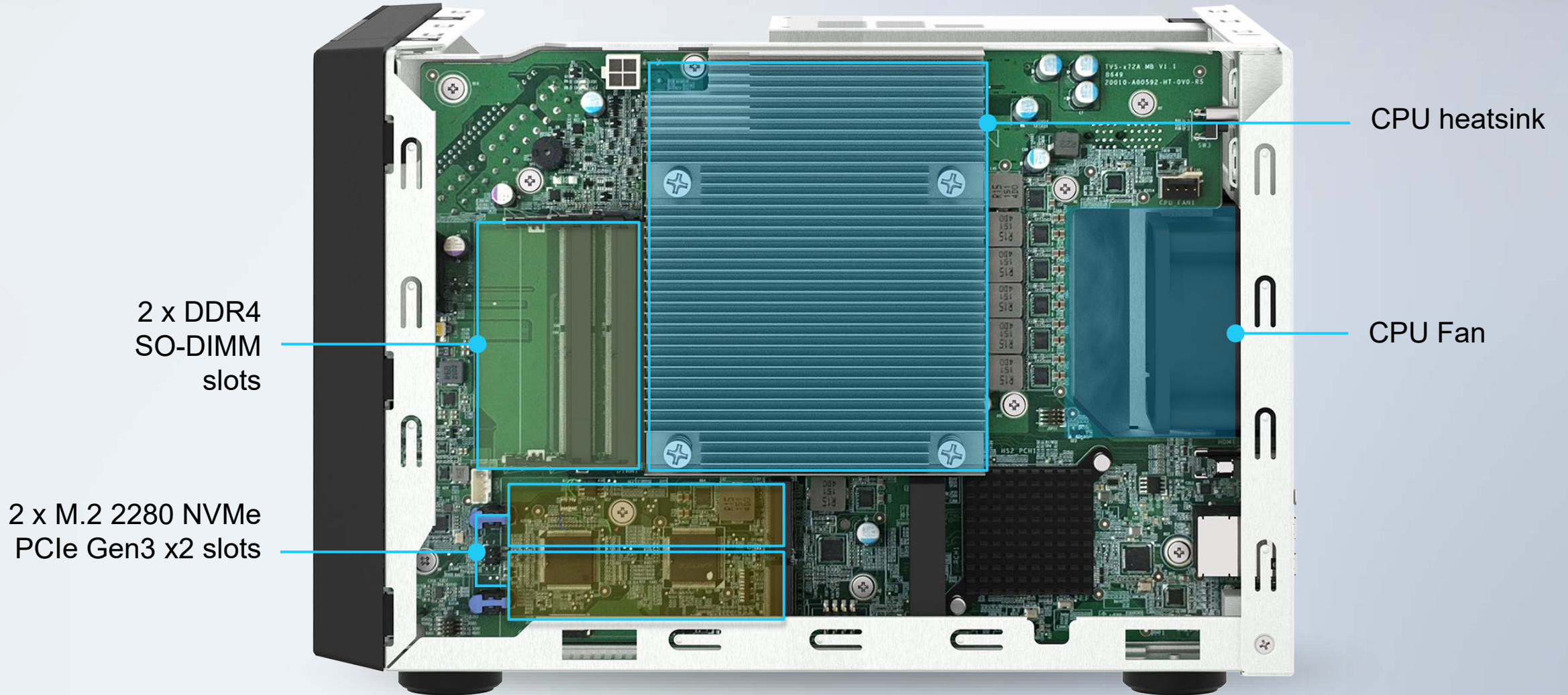
HDD side

CPU side

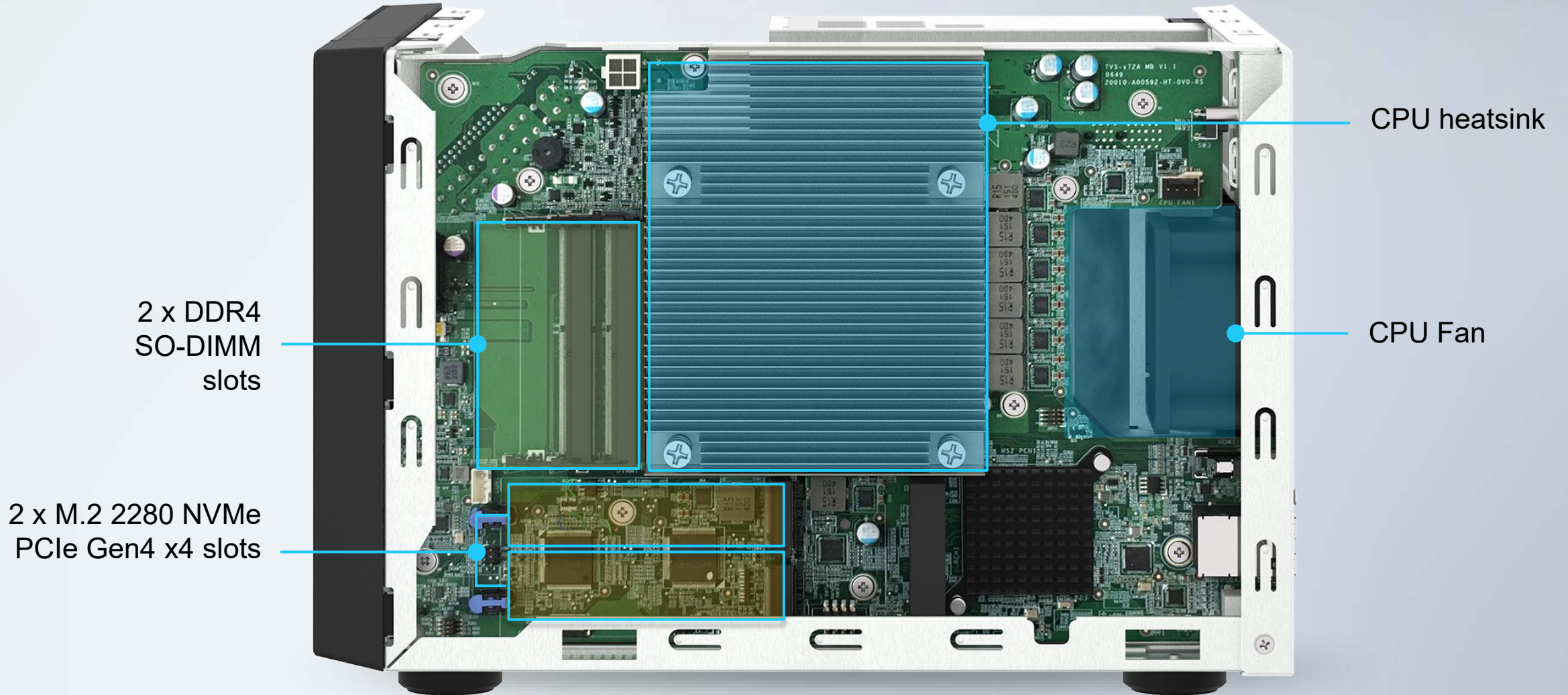


*Sound pressure is measured at the front bystander position with low fan speed.

TVS-h474 Internal view



TVS-h674/h874 Internal view



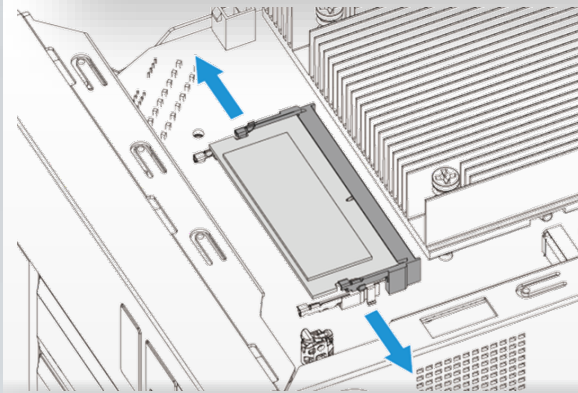
Large pre-installed 8/16/32 GB DDR4 RAM, upgradeable to max 64GB DDR4 memory

NAS ordering P/N

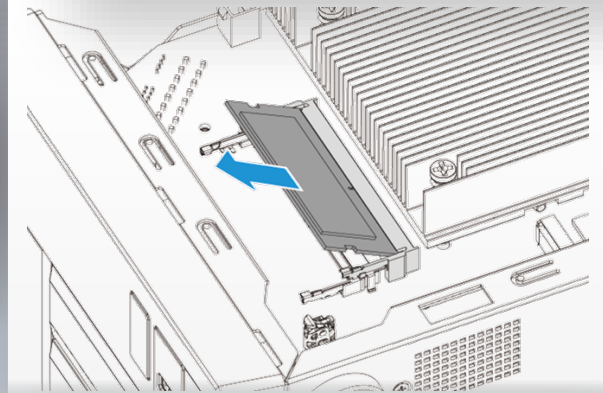
Ordering P/N	Memory
TVS-h474-PT-8G	8GB (1 x 8GB SODIMM)
TVS-h674-i3-16G	16GB (1 x 16GB SODIMM)
TVS-h674-i5-32G	32GB (2 x 16GB SODIMM)
TVS-h874-i5-32G	32GB (2 x 16GB SODIMM)

- 2 x DDR4 SO-DIMM slots, max. 64 GB (2 x 32 GB), DDR4 dual channel memory
- QNAP 8/16/32 GB RAM modules for easy upgrade and better multi-app or multi-user usage.

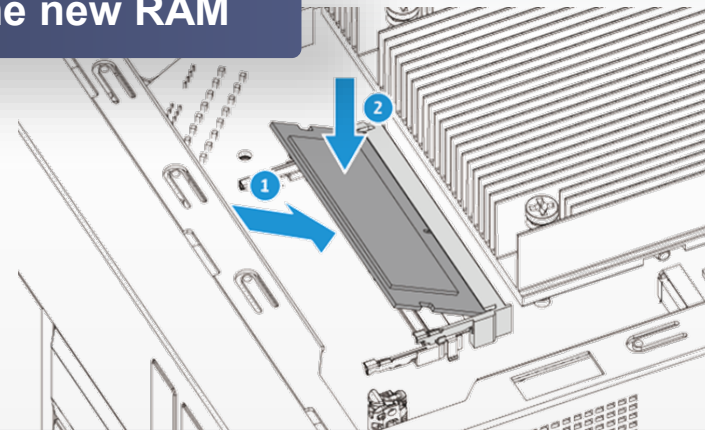
1. Remove the cover



2. Remove the old RAM (optional)



3. Install the new RAM



2 x M.2 SSD slots as default shared folder to improve overall performance in QuTS hero

- **Use 2 x M.2 slot as System Drive & Default Shared Folders to improve performance in QuTS hero**

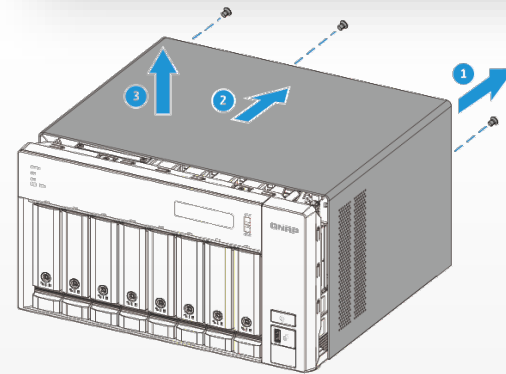
The first Storage Pool you create is where the system drive, default shared folders, and apps are stored. In this step, it is recommended to create an SSD RAID with at least two SSDs to attain optimal system performance and efficient app metadata management. (With an all-HDD configuration, the first Storage Pool is also where the system drive and default shared folders are stored.)

- **Improve random data access speeds with an SSD cache**
- **Maximize the value of SSDs with Qtier Technology**

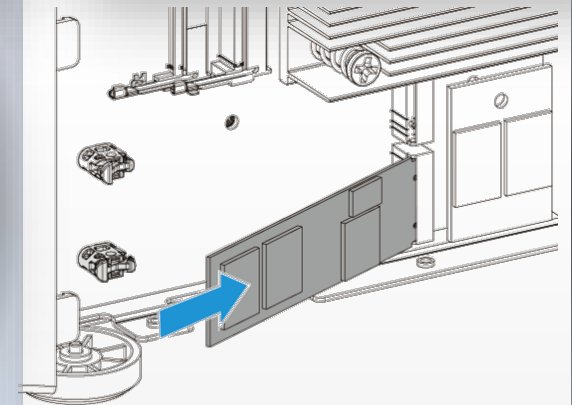
Note: Qtier is only supported in the QTS OS, not in the QuTS hero OS.



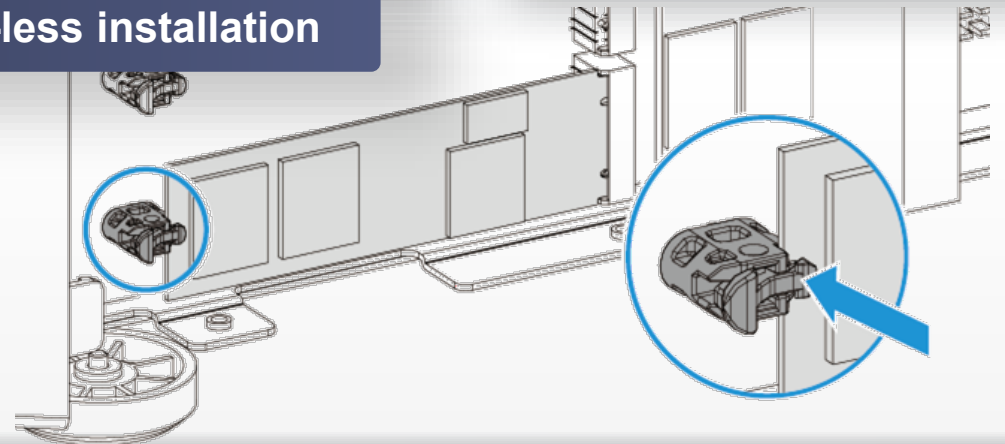
1. Remove screws and cover



2. install M.2 NVMe SSD



3. Tool-less installation



SSD Cache Acceleration Improve QNAP NAS performance with an SSD cache

What is SSD cache acceleration?

An SSD cache is a way of obtaining faster storage, reduced latency, and improved all-round NAS performance and access speeds by storing frequently-accessed data on SSDs. It is greatly beneficial for IOPS-demanding applications such as databases (online transaction processing, email servers), virtual machines, and virtual desktop infrastructure (VDI).



Higher IOPS performance and quick response time



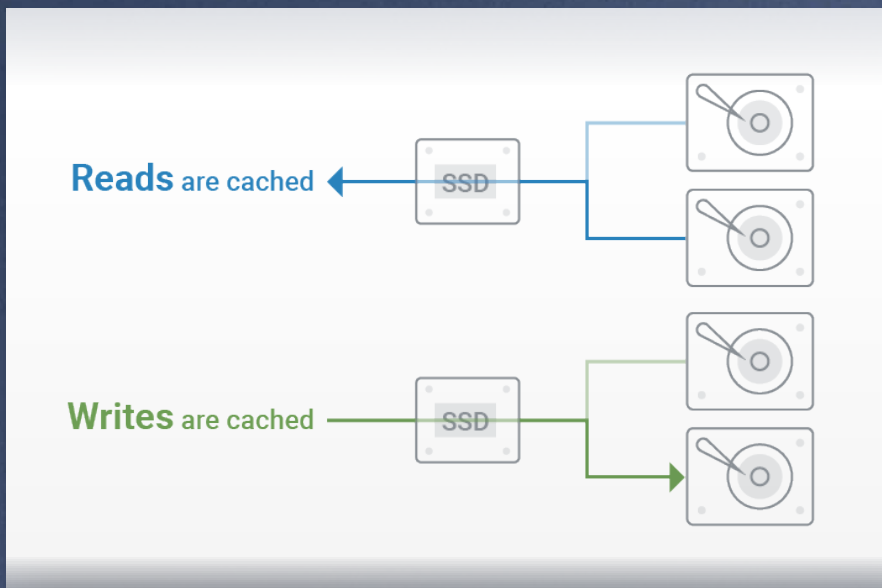
No disk heads - less chance of drive failure



Physically smaller



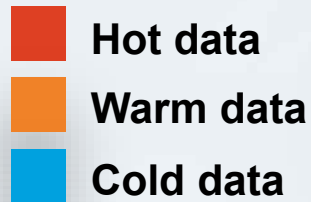
Lower power usage and quieter



	QTS NAS	QuTS hero NAS
	QTS 5.0.0 (and later)	QuTS hero
SSD Cache Capacity	RAM Requirement	
512GB	-	≥ 16GB
1TB	≥ 2 GB	≥ 32GB
2TB	-	≥ 64GB
4TB	≥ 4 GB	≥ 128GB
8TB	≥ 8 GB (ARM CPU)	-
16TB	≥ 8 GB (x86 CPU)	≥ 512GB
30TB	-	≥ 1TB
120TB	-	≥ 4TB

M.2 NVMe SSD and Qtier auto-tiering for speed and capacity

Qtier engine

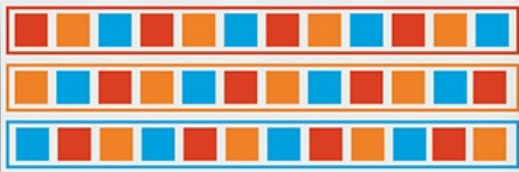


- Automatically moves data between different tiers
- SSD tier capacity is not limited by RAM size

01

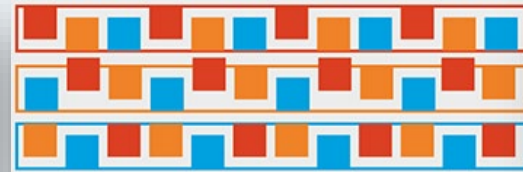
Before tiering

Frequently accessed data is not optimized.



02

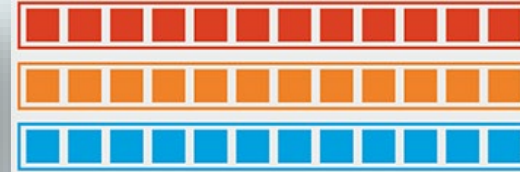
Start tiering



03

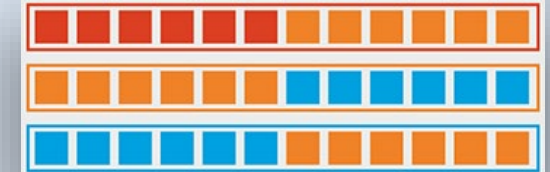
After tiering

Data is optimized



04

Changes in data access pattern



Note: Qtier is only supported in the QTS OS, not in the QuTS hero OS.

Built-in 2 x 2.5 GbE LAN ports, aggregated for maximum 5Gbps bandwidth



2.5GbE-supported motherboards, Wi-Fi 6 AP, switches, and LAN cards are now becoming popular

2.5GbE benefits



2.5X the speed



1GbE 2.5GbE
Huge leap in performance

Same cable



Use the same Cat.5e/
Cat.6/ Cat. 6A
LAN cables

2 x 2.5GbE LAN ports
(also 1GbE/100M)



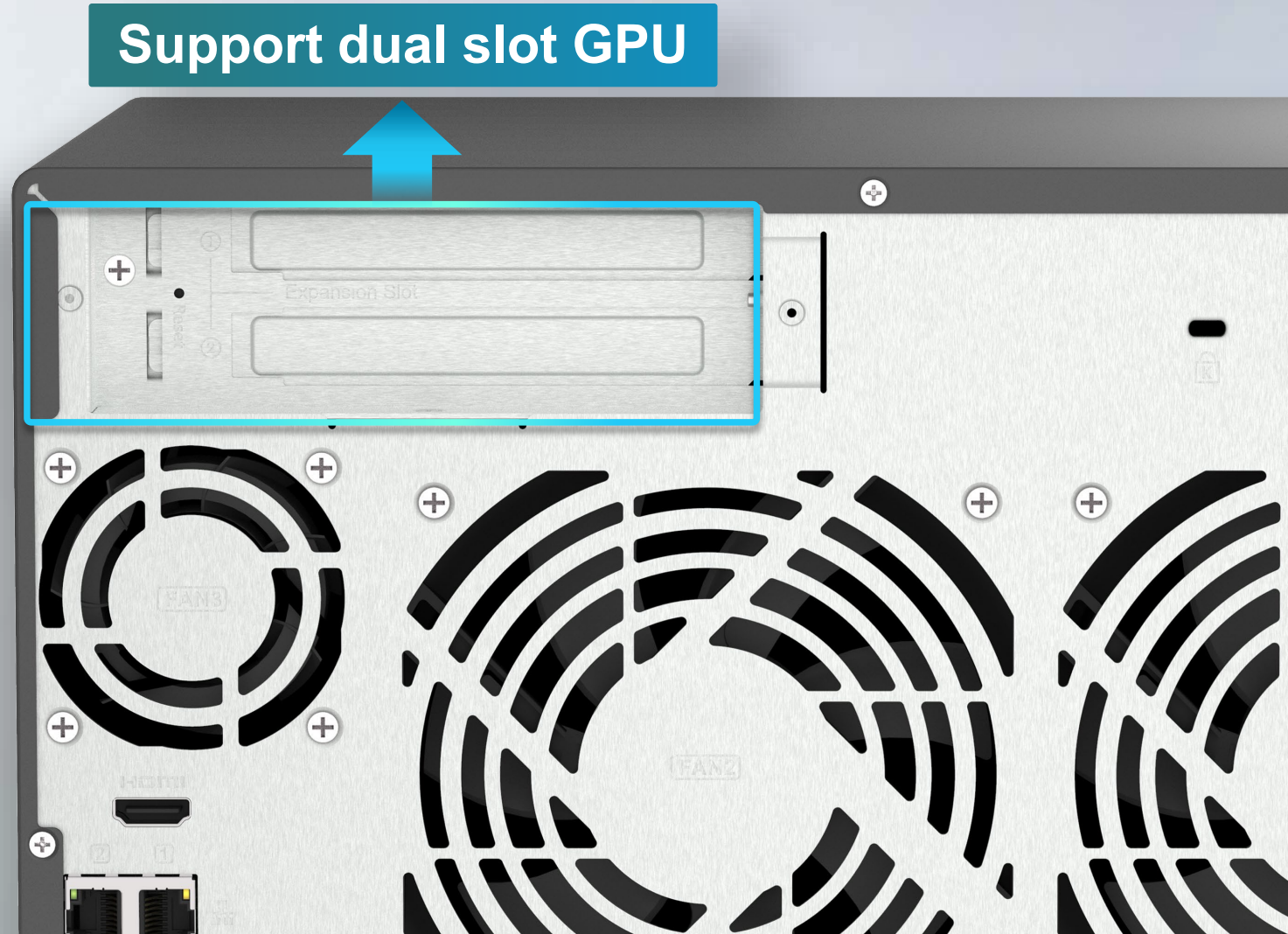
TVS-hx74 support dual slot width GPU

TVS-hx74 series support dual slot width and no additional power pin required GPU

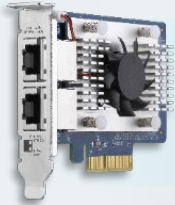
Maximum dimension:

TVS-h474: 169*47*68.9 mm

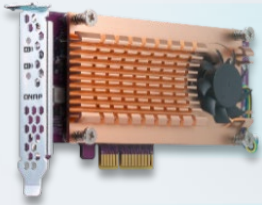
TVS-h674 & TVS-h874: 169*47*111.5 mm



Slot # 1 support network, storage, Wi-Fi and expansion card



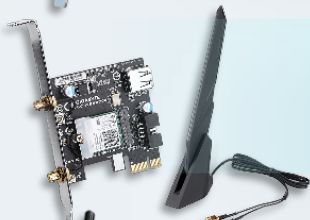
QXG
25GbE/10GbE/5GbE/2.5GbE
NIC



QM2 M.2 SSD Expansion



QXP SAS, SATA, USB
Expansion

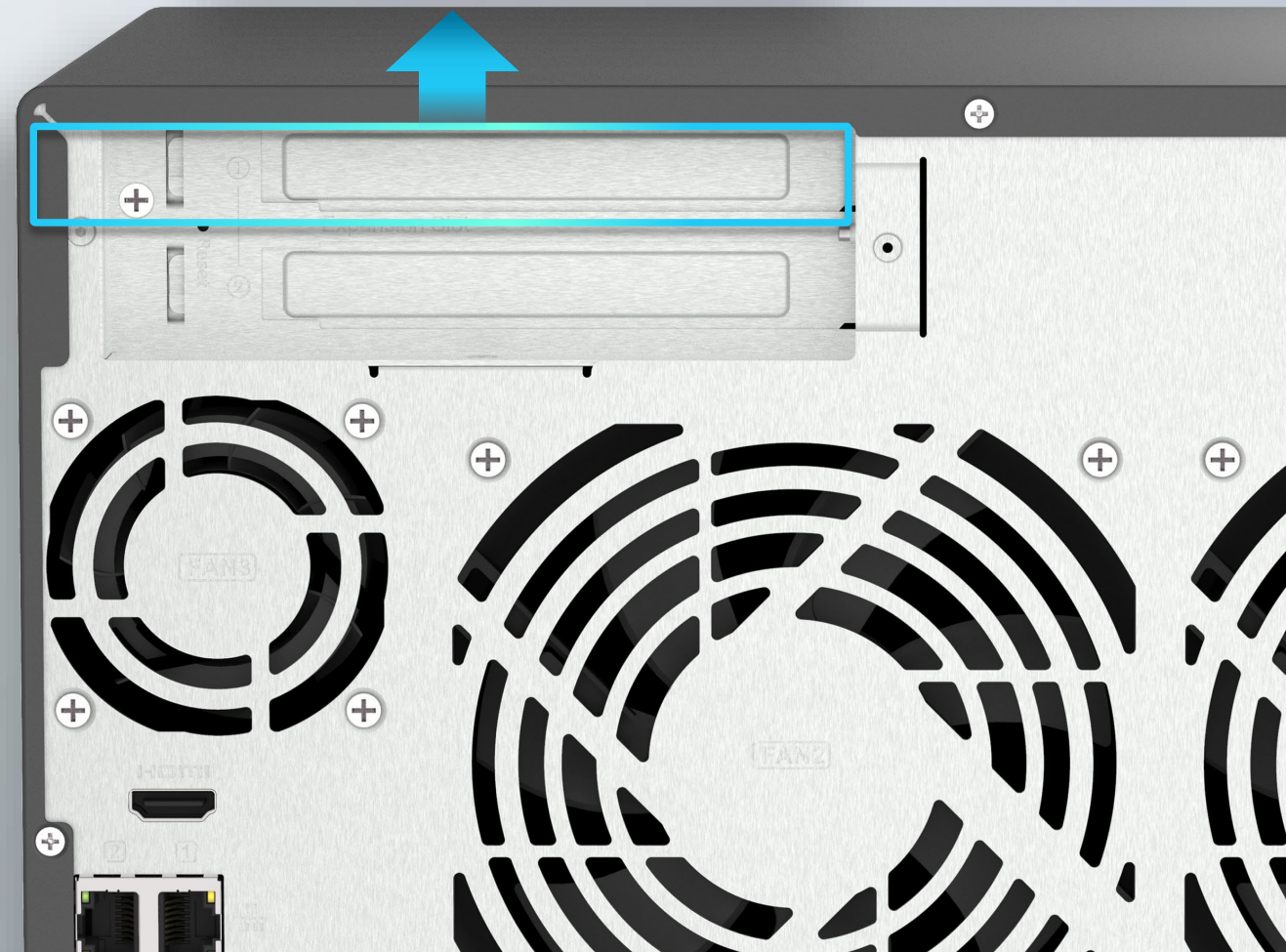


QXP Wi-Fi 6 & FC AIC



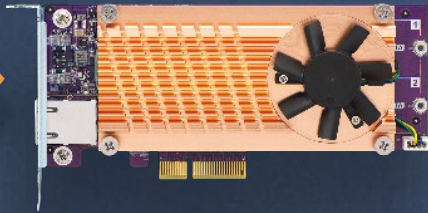
QWA-AC2600 Wi-Fi AP card
Wi-Fi 5 2.4GHz/5GHz wireless AP

Slot #1: PCIe Gen4 x16



PCIe Slot #2 support QM2 expansion for expand SSD slots or Ethernet ports

2 x M.2 SSD
+ 10GbE



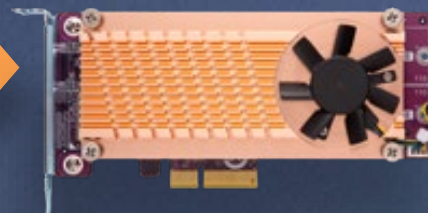
QM2-2P10G1TB

Bandwidth: PCIe Gen2 x4
2 x M.2 PCIe Gen2 x2
+ 1 x 10GBASE-T

QM2-2P410G1T/2T

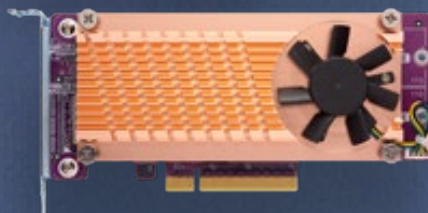
Bandwidth: PCIe Gen4 x8
2 x M.2 PCIe Gen4 x4
+ 1 or 2 x 10GBASE-T

2 x M.2 SSD



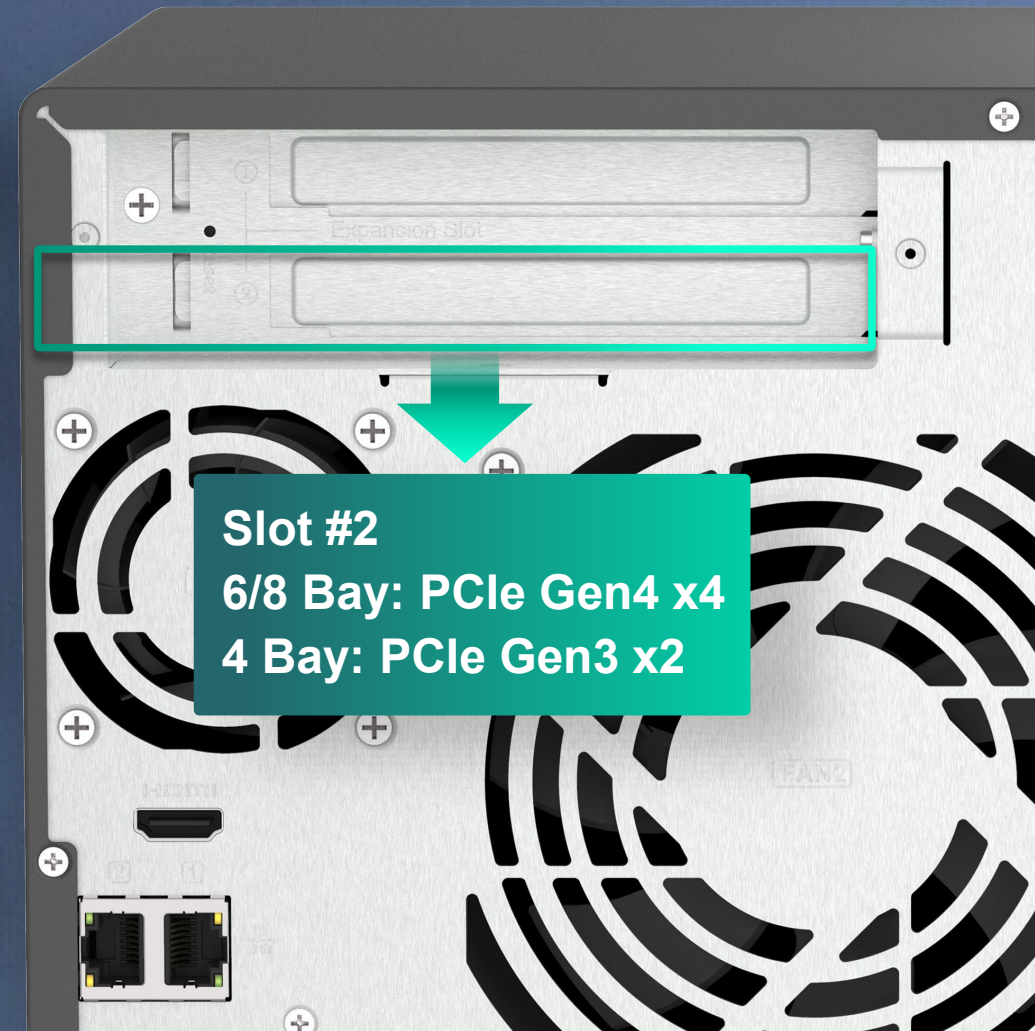
QM2-2P-344

Bandwidth: PCIe Gen3 x4
2 x M.2 PCIe Gen3 x4



QM2-2P-384

Bandwidth: PCIe Gen3 x8
2 x M.2 PCIe Gen3 x4



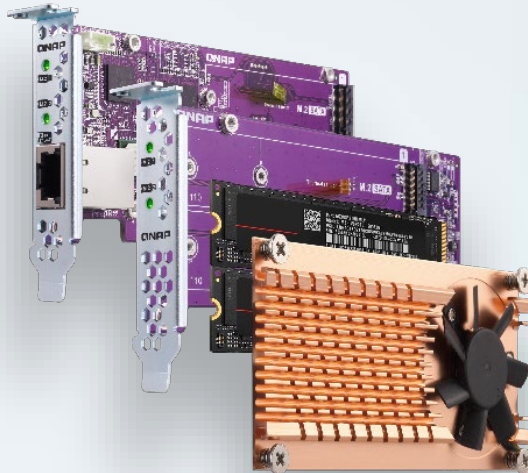
Slot #2

6/8 Bay: PCIe Gen4 x4

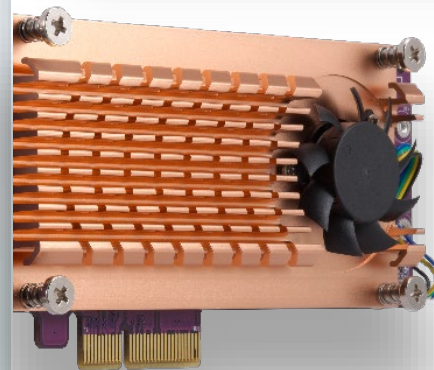
4 Bay: PCIe Gen3 x2

QM2 cards add support for SSD caching and 10GbE connectivity

- QM2 M.2 SSD PCIe cards allow adding 2 or 4 M.2 NVMe / SATA SSDs to TS-x73A. Enable SSD caching or create RAID 5 group with the two on-board M.2 NVMe SSDs using Qtier.
- Maximize the storage capacity and performance without occupying any 3.5" drive bays. Some QM2 models even combine M.2 SSD and 10GBASE-T connectivity into one solution.

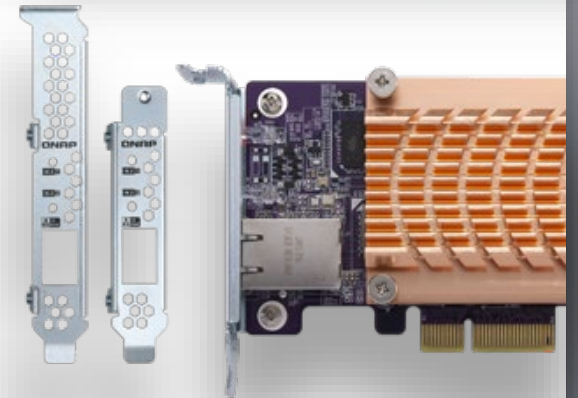


Active cooling module



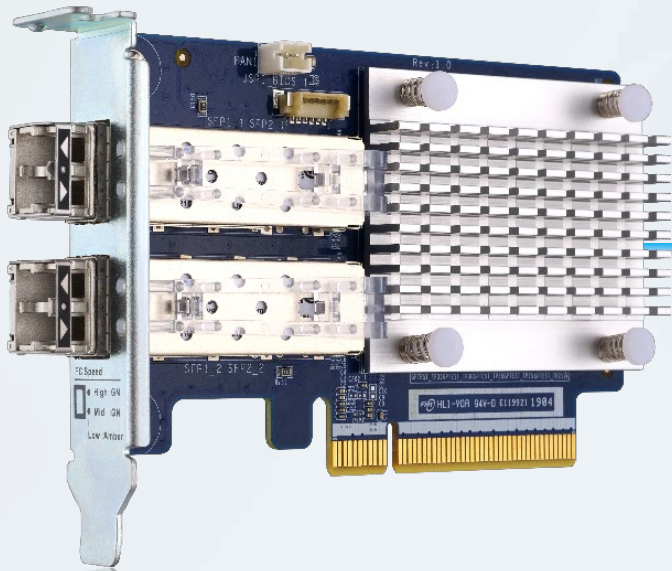
Thermal sensors allow real-time temperature monitoring and adjust fan rotation speed

Compatible with standard PCIe slots



Low-profile PCIe card including full-height bracket

QNAP 16/32Gb Fibre Channel card for FC SAN



QXP-16G2FC

Dual-port 16Gbps

QXP-32G2FC

Dual-port 32Gbps

FC HBA

with 16/32Gb FC
transceivers

Manage Fibre Channel
connection using **iSCSI &
Fibre Channel** app



16/32Gb FC transceiver

TRX-16GFCSFP-SR

TRX-32GFCSFP-SR

Budget-friendly unmanaged switches for multi-user environment



QSW-1105-5T (Unmanaged)

- 5 x 2.5GbE Multi-Gig RJ45

Fanless & metal housing



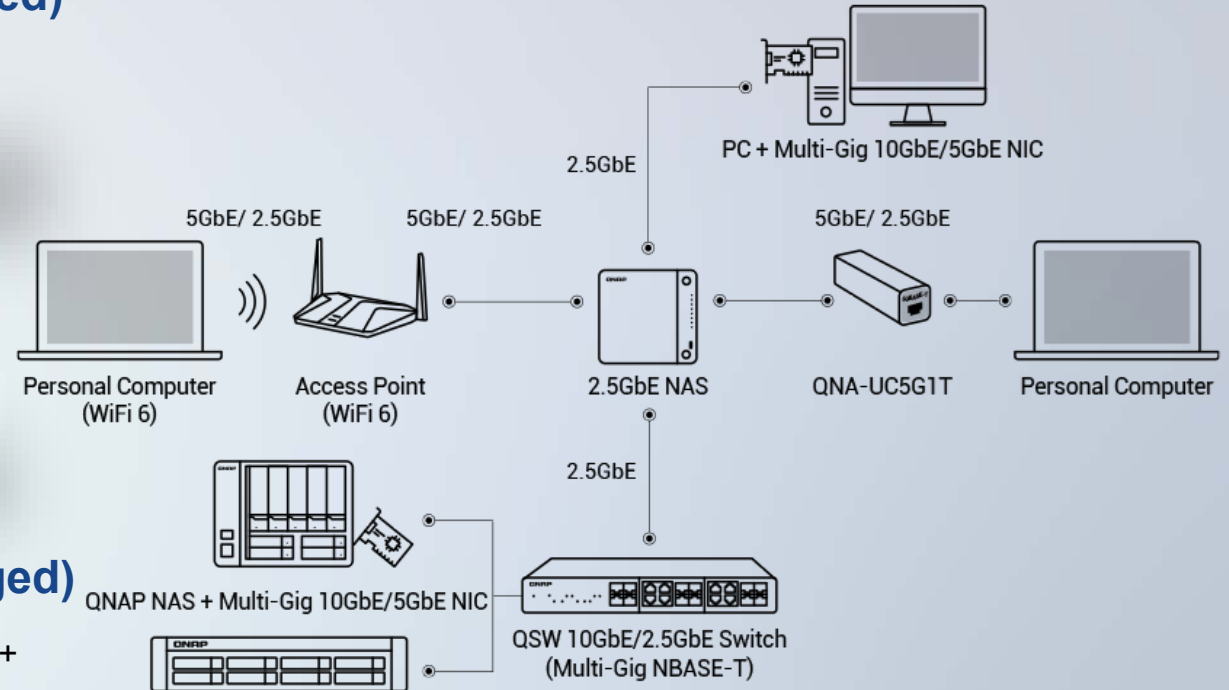
QSW-1208-8C (Unmanaged)

- 8 x 10GbE Multi-Gig RJ45 / SFP+ combo port
- 4 x 10GbE SFP+



QSW-308-1C (Unmanaged)

- 1 x 10GbE Multi-Gig RJ45 / SFP+ combo port
- 2 x 10GbE SFP+
- 8 x 1GbE RJ45



Layer-2 managed switches for multi-user environment and efficient deployment



QSW-M1208-8C (Managed)

- 8 x 10GbE Multi-Gig RJ45 / SFP+ combo
- 4 x 10GbE SFP+



QSW-M1204-4C (Managed)

- 4 x 10GbE Multi-Gig RJ45 / SFP+ combo
- 8 x 10GbE SFP+



QSW-M804-4C (Managed)

- 4 x 10GbE Multi-Gig RJ45 / SFP+ combo
- 4 x 10GbE SFP+



QSW-M408-4C (Managed)

- 4 x 10GbE Multi-Gig RJ45 / SFP+ combo
- 8 x 1GbE RJ45

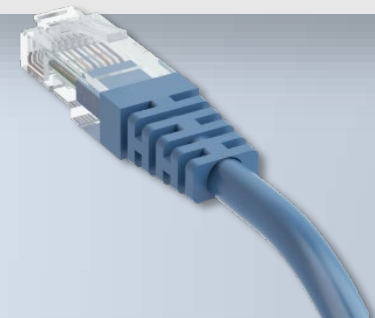


QSW-M408-2C (Managed)

- 2 x 10GbE Multi-Gig RJ45 / SFP+ combo
- 2 x 10GbE SFP+
- 8 x 1GbE RJ45

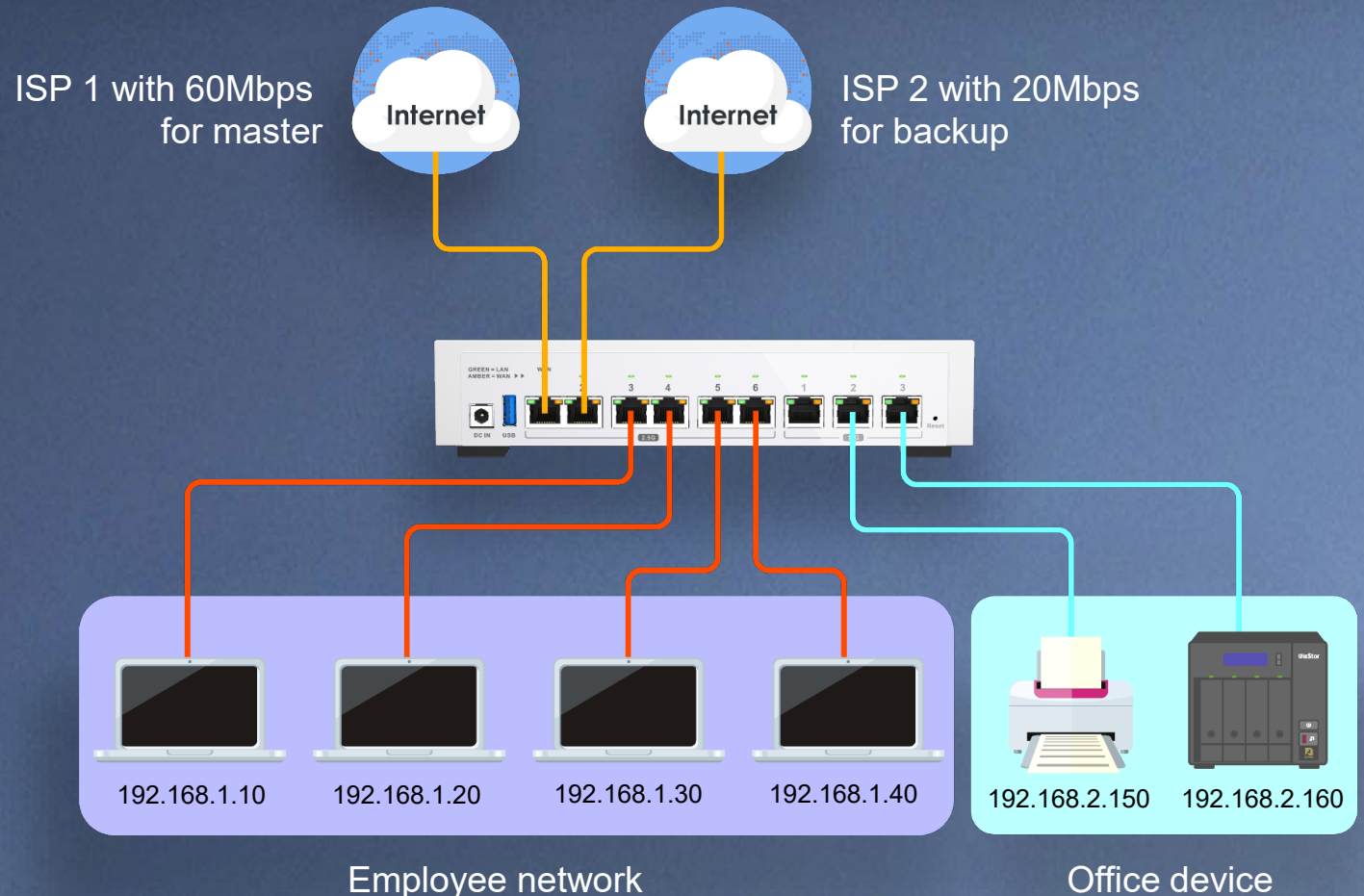
Keep existing wiring for **2.5GbE**

	CAT 5e	CAT 6	CAT 6A
100M	✓	✓	✓
1G	✓	✓	✓
2.5G	✓	✓	✓
5G	✓	✓	✓
10G	X	✓(55m)	✓



SOHO/SB – few edge devices in same subnet, no additional switch and AP request

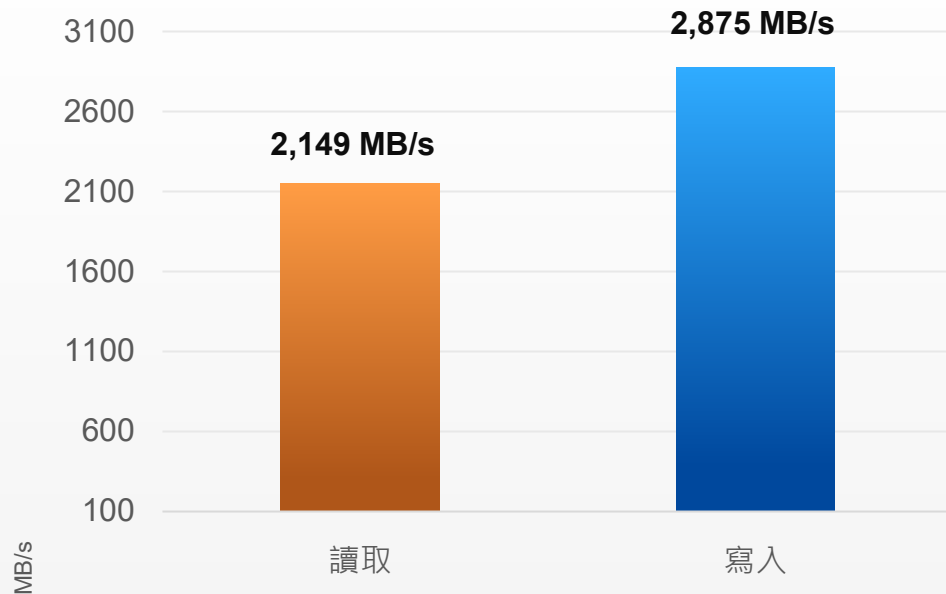
- There are not so much edge devices, which means can connect to router directly
- Need to parallel multiple physical interfaces for assigning same subnet network
- It needs dual WAN for back up usage



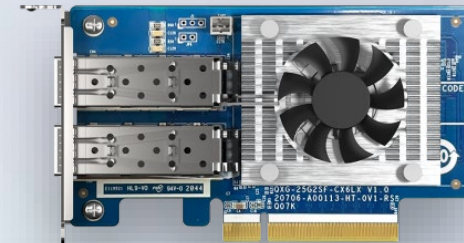
Employee network: 192.168.1.x
Office device network: 192.168.2.x

TVS-h874 optional 25GbE card for fast performance

1 x 25GbE Windows transfer
QuTS hero h5.0.0



QXG-25G2SF-CX6

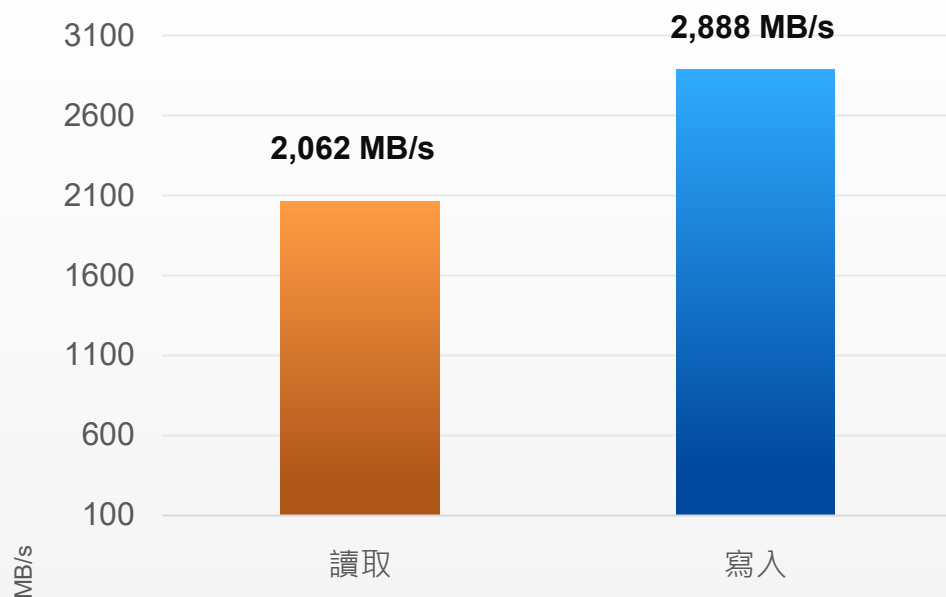


TVS-h874

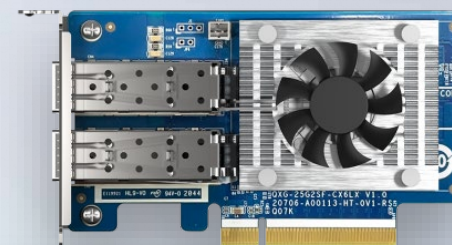
Test Environment:
NAS: TVS-h874 with QXG-25G2SF-CX6
OS : QTS 5.0
Volume type: RAID 5; 8 x Samsung 860 EVO 1TB Client PC: Windows Server 2019, Intel Xeon W-1250, 32GB RAM, QNAP QXG-25G2SF-CX4 NIC

TVS-h674 optional 25GbE card for fast performance

1 x 25GbE Windows transfer
QuTS hero h5.0.0



QXG-25G2SF-CX6



TVS-h674

Test Environment:

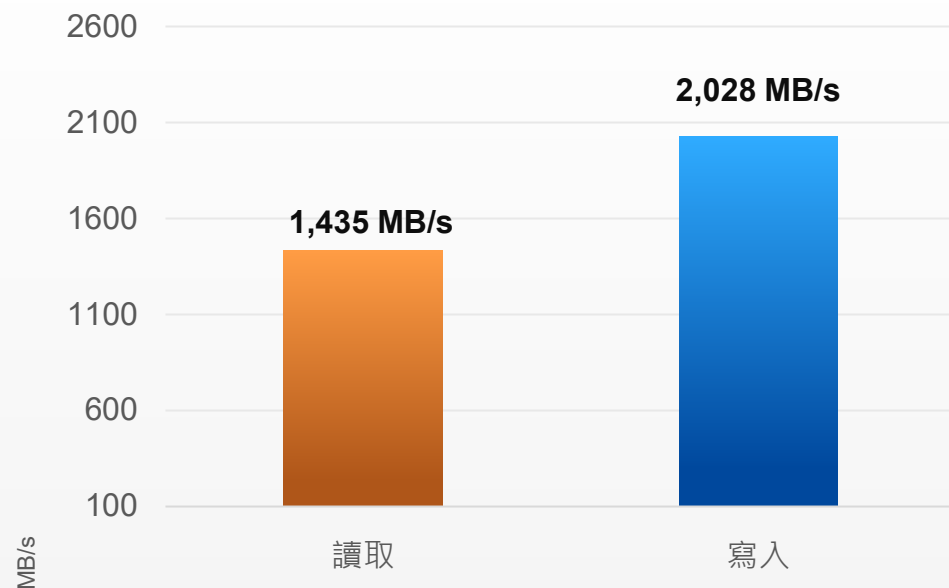
NAS: TVS-h674 with QXG-25G2SF-CX6

OS : QTS 5.0

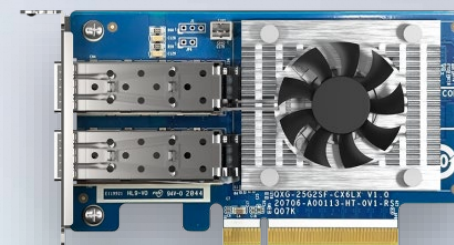
Volume type: RAID 5; 6 x Samsung 860 EVO 1TB Client PC: Windows Server 2019, Intel Xeon W-1250, 32GB RAM, QNAP QXG-25G2SF-CX4 NIC

TVS-h474 optional 25GbE card for fast performance

1 x 25GbE Windows transfer
QuTS hero h5.0.0



QXG-25G2SF-CX6



TVS-h474

Test Environment:

NAS: TVS-h474 with QXG-25G2SF-CX6

OS : QTS 5.0

Volume type: RAID 5; 4 x Samsung 860 EVO 1TB Client PC: Windows Server 2019, Intel Xeon W-1250, 32GB RAM, QNAP QXG-25G2SF-CX4 NIC

DEMO

Performance



Enterprise-level OS

ZFS-based QuTS hero

QTS
QuTS hero

TVS-h874



TVS-h674



TVS-h474



NAS & QuTS hero O.S. support powerful data reduction technologies to extend SSD endurance

Only available when during inline data process before writing

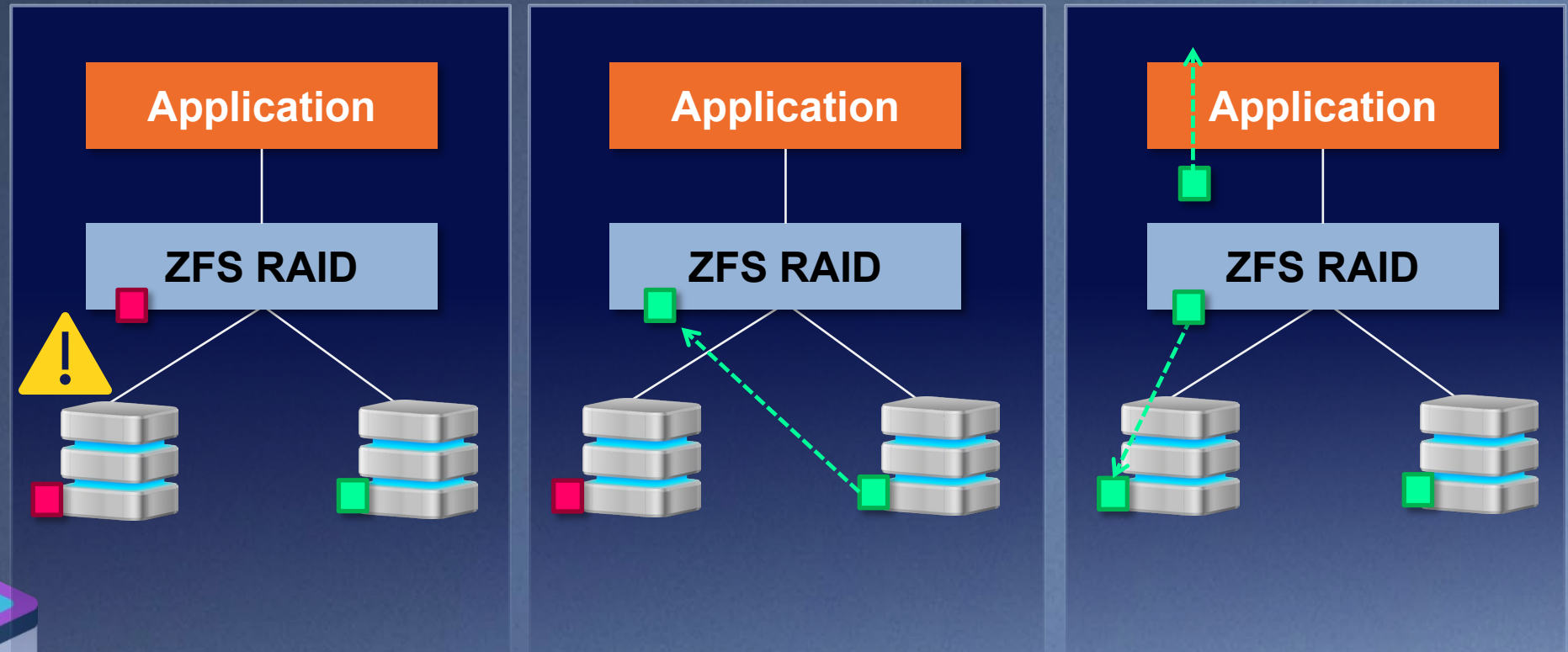
ZFS file system with inline deduplications and compression feature

It's the best choice to pair with the all-flash and SSD storage because it reduces the data size and pattern that need to be written to the SSD directly.

Deduplication
Minimum : 16GB RAM



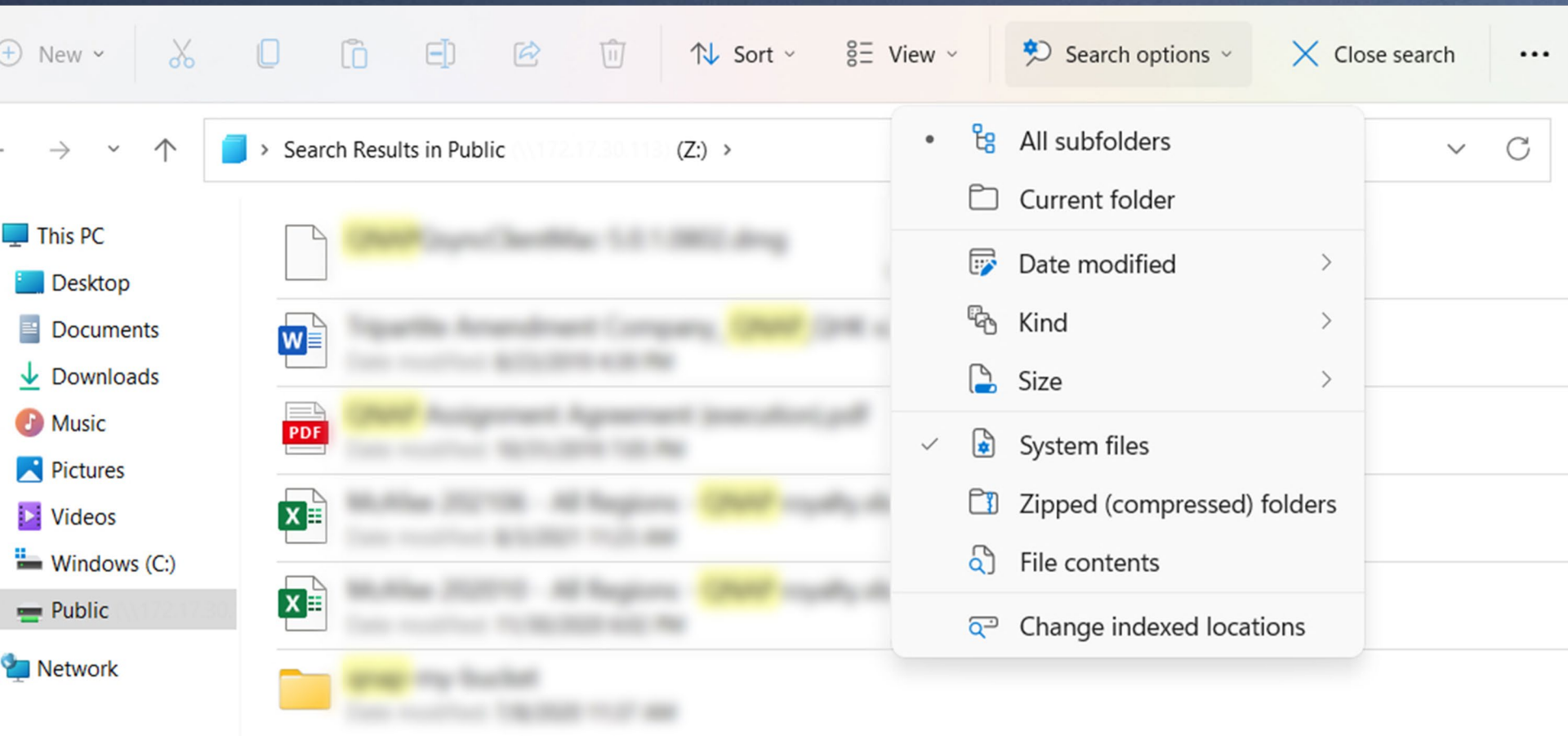
Prevent silent data corruption & self-healing



Avoid silent data corruption that occurred on the running system.

Convenient file search with Windows® Search Protocol (WSP) support for NAS shared folders

Windows® 10/ Windows Server® 2016 (or later) users can easily search NAS shared folders via Windows® when an SMB drive is mounted to the NAS. Advanced file search by time, file type, or size is supported for greater convenience.



For an optimized full-text search experience, we recommend [Qsirch PC Edition](#)!

**Qsirch
PC Edition**

The most powerful search engine that integrate with NAS and PC local search.

License-free backup solutions to provide the most complete data backup protection



RPO : daily / scheduled



HBS 3 (Hybrid Backup Sync 3):

File level, multi-version management: RTRR, Rsync, FTP, WebDAV, and CIFS/SMB protocols.



RPO : hourly / daily / yearly



Snapshot & Replica:

File level, multi-version management.
Lightweight snapshot w/o performance impact.



RPO : real-time



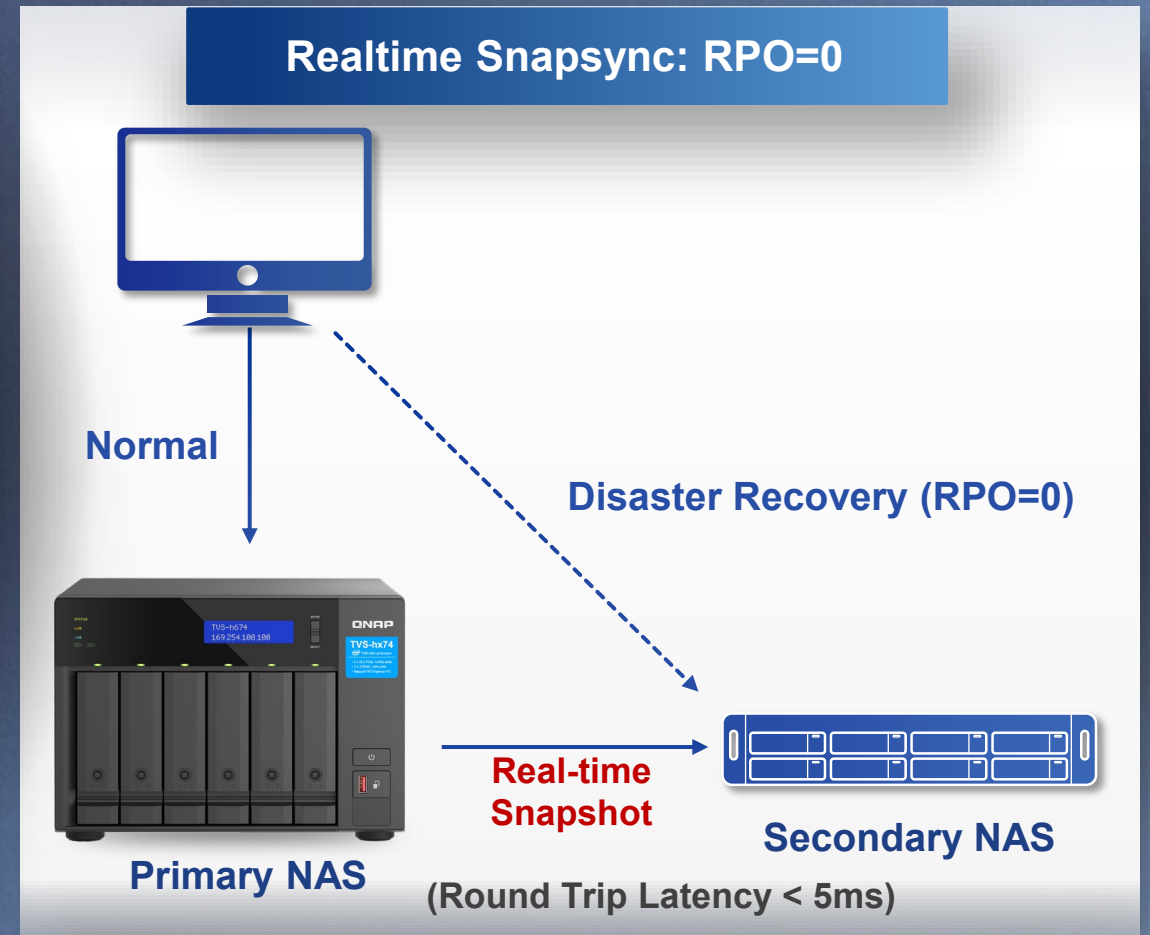
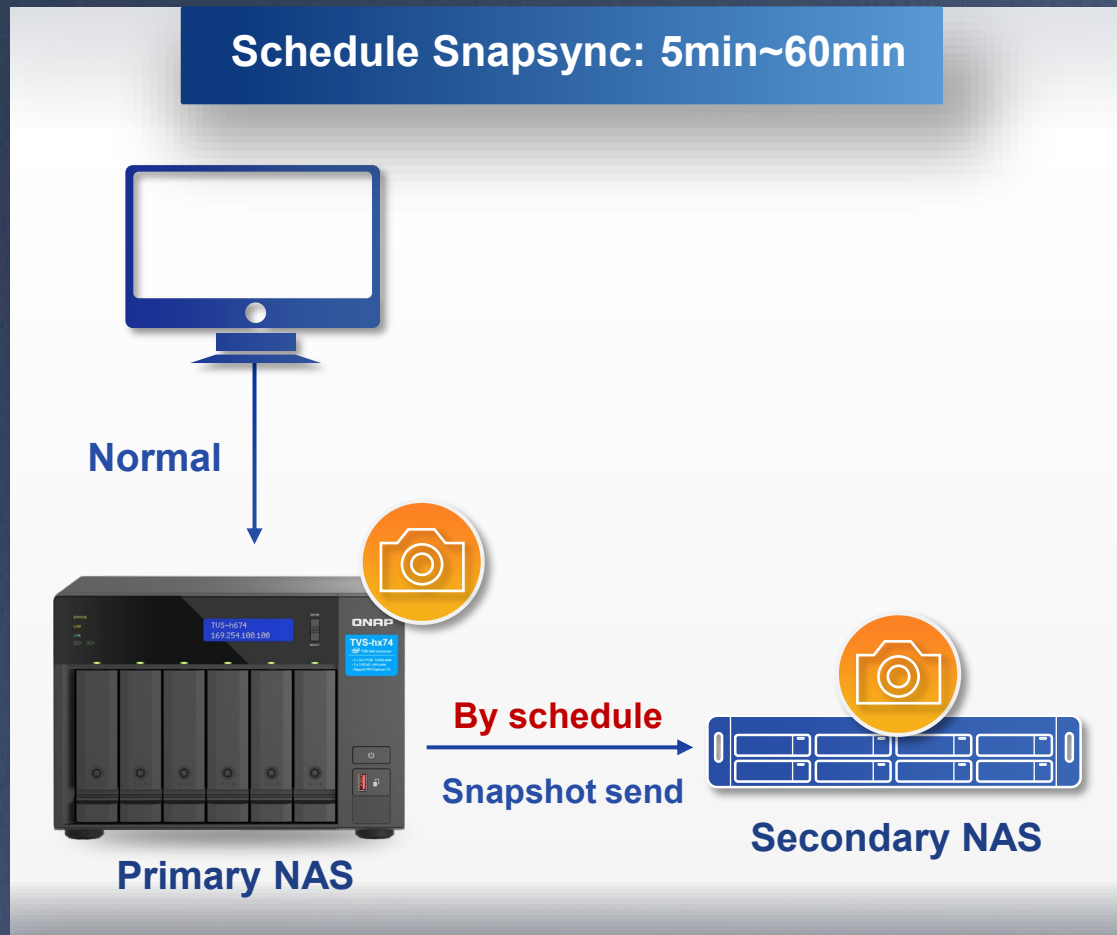
SnapSync:

Block level, Mirror the data copy and always kept up to date.



Real-time SnapSync ensures minimal RPO with real-time disaster recovery

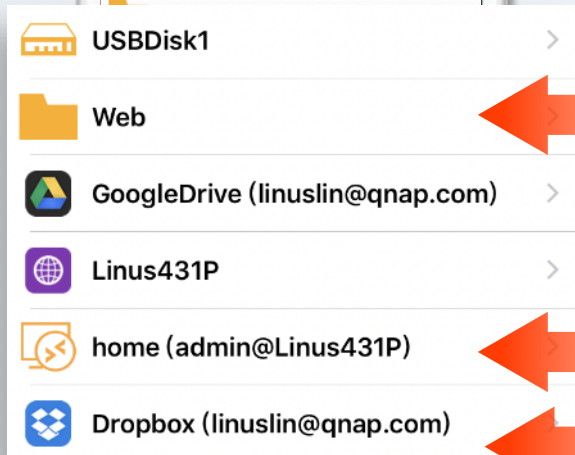
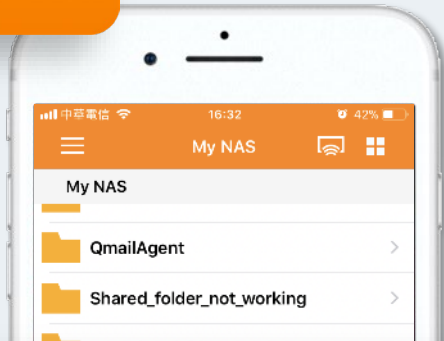
Back up data from the local NAS to another QNAP NAS using block-level replication in real time.



Connect to Dropbox, OneDrive, Google Drive and more



Qfile



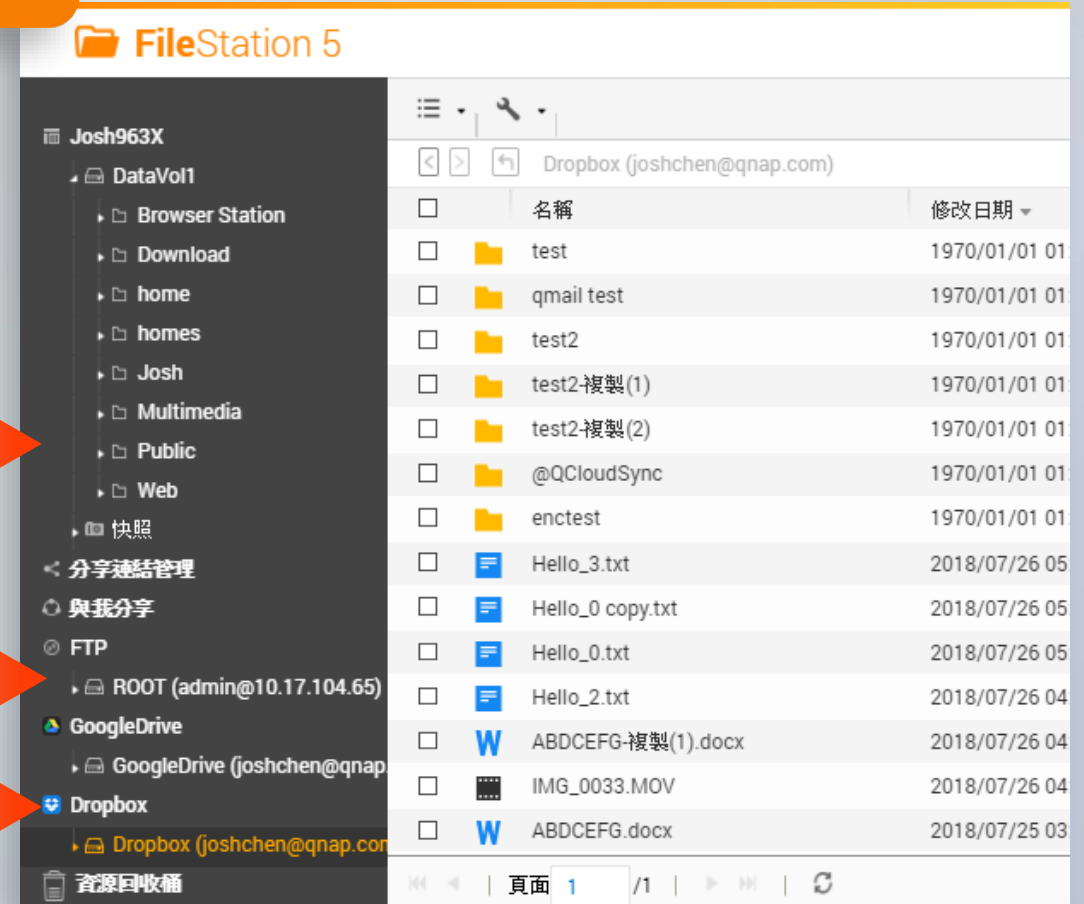
Local
NAS

Remote
NAS

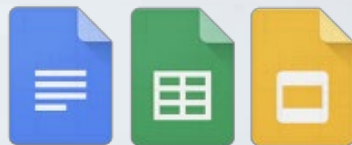
Cloud
Storage



File Station



Easily make NAS your team collaboration portal with File Station



Edit with Office Online

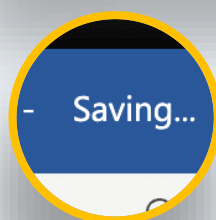
View in Google Docs

Open with Google Chrome Extension

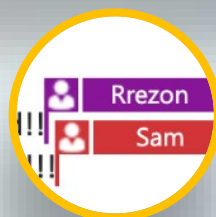
Requirement	CloudLink needs to be enabled	CloudLink needs to be enabled	Use Chrome with extension "Office Editing for Docs, Sheets & Slides" to open
Supported formats	.docx, .pptx, .xlsx	.doc, .ppt, .xls .docx, .pptx, .xlsx	.doc, .ppt, .xls .docx, .pptx, .xlsx
Capabilities	<ul style="list-style-type: none"> File collaboration Auto save to NAS in real time 	<ul style="list-style-type: none"> Document preview Convert to Google docs for editing & saving in your Google Drive 	<ul style="list-style-type: none"> Document preview Convert to Google docs for editing & saving in your Google Drive



Select the default open action based on your preference in Settings > Documents.

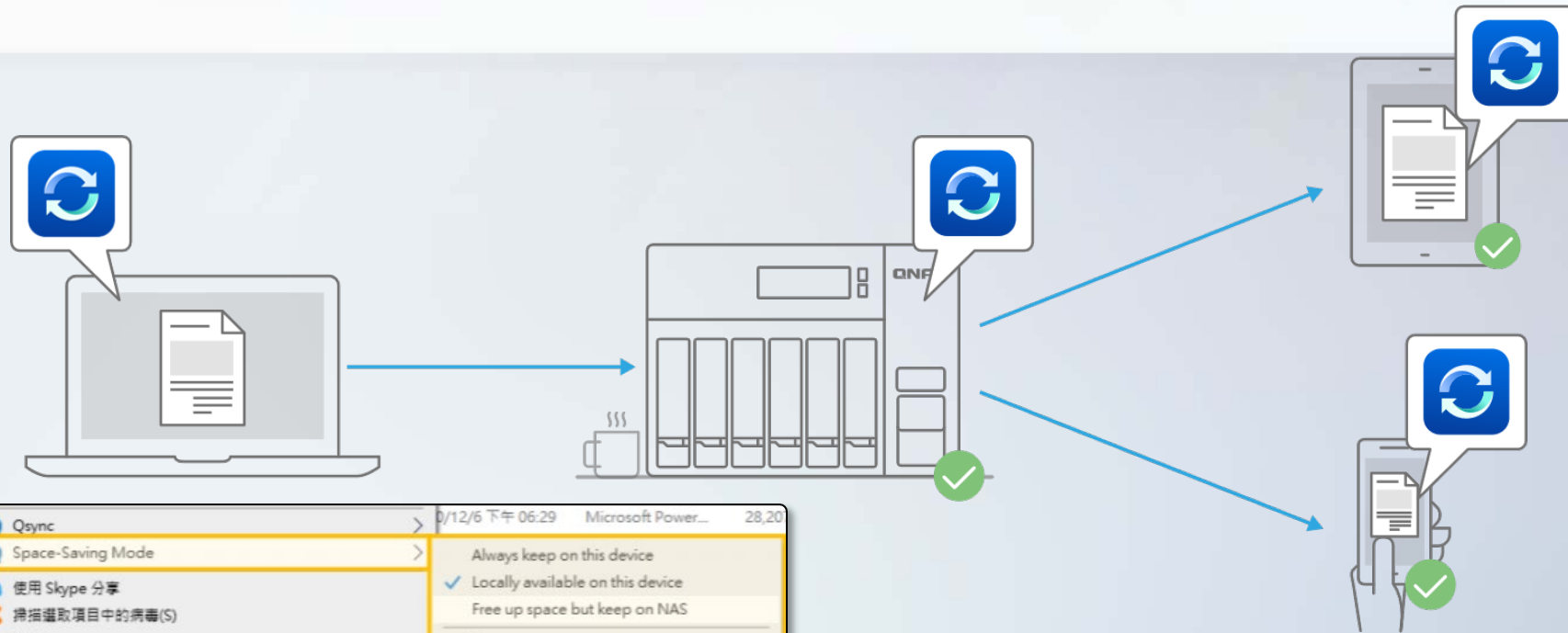


Save to NAS in real time

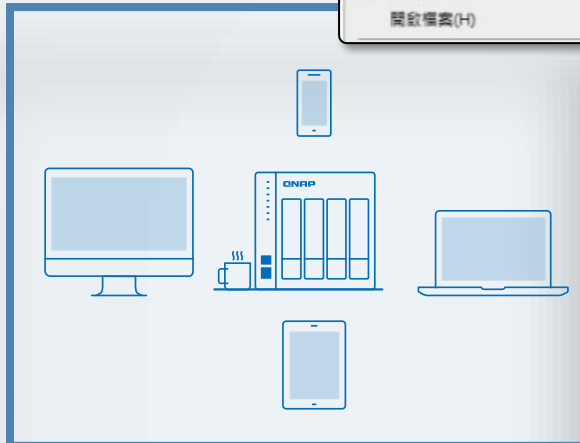
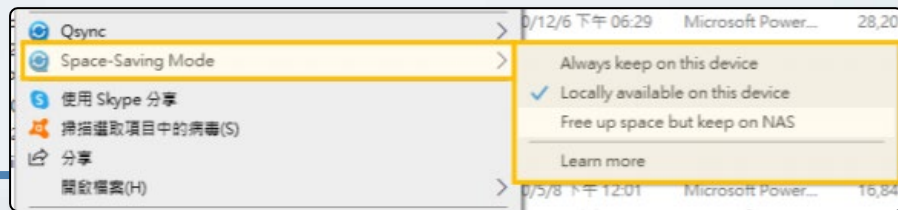


Multi-user online editing

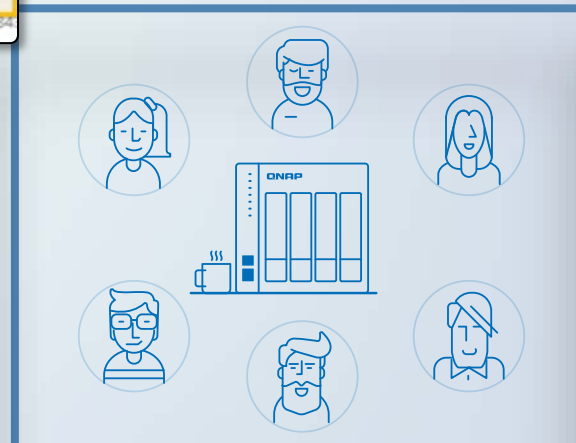
Qsync 5.0 – Cross-device file sync for individuals and teams



Windows & macOS
Space-Saving Mode!

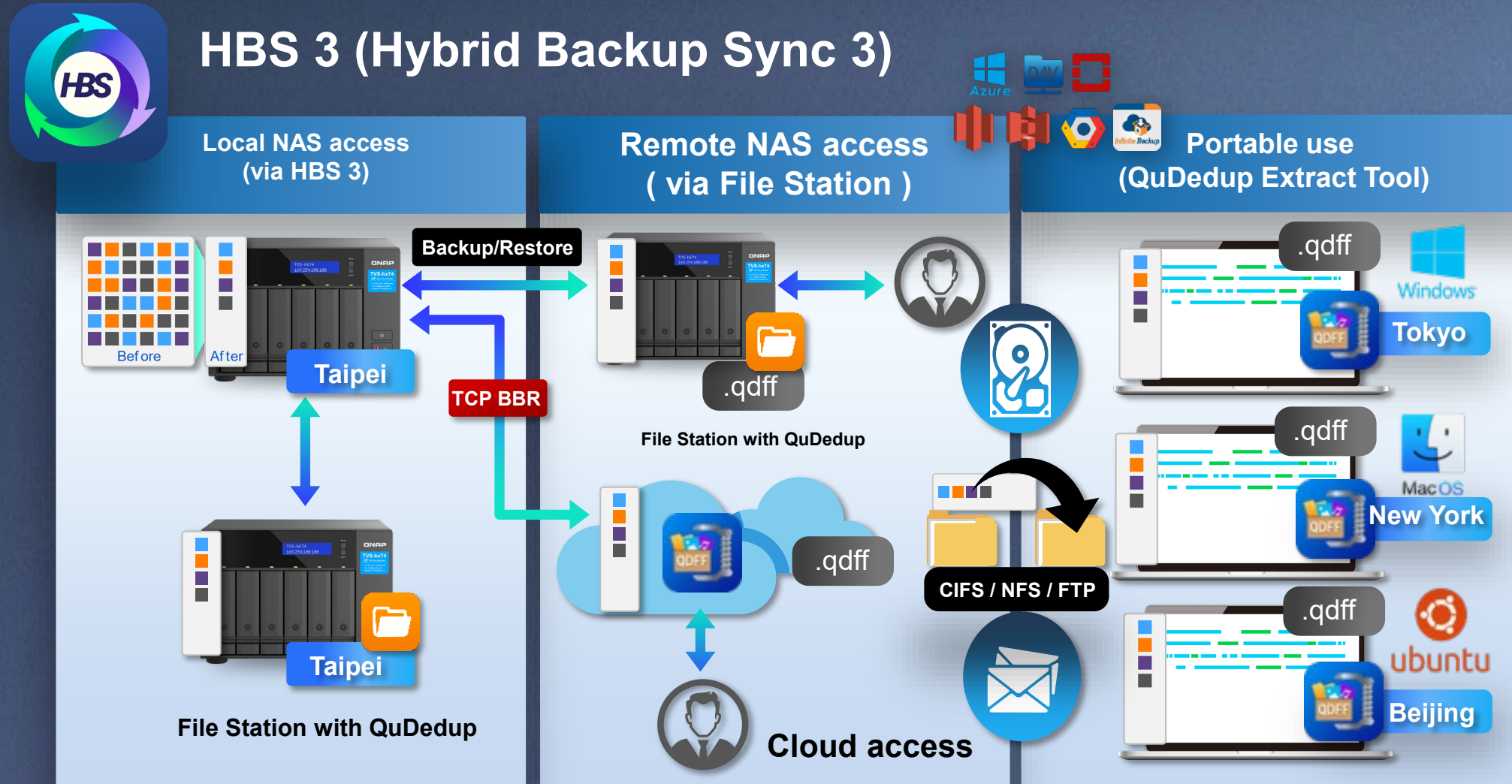


If you own many devices, any file changed on one device will be automatically synchronized with the others.

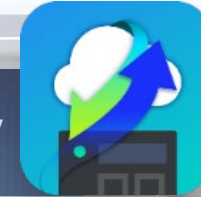


For team works, any file changed will be automatically distributed to your teams' devices, accelerating and streamlining your workflows.

Easy to use HBS 3.0 app fulfilling backup 3-2-1 practice with deduplication



Mount cloud storage and file servers with HybridMount for greater storage & faster access



Network Drive Mount

File Cloud Gateway

Setup Method

Mount cloud drives

Select "File Cloud Gateway" mode and create a dedicated cache space

Connections

No limit

2 free and perpetual connections. Purchase license for more connections

Access Performance

Depends on network speed

High performance thanks to caching

Access in File Station

Supported

Supported

Access through SMB / NFS / AFP

Not Supported

Supported

Sync with the cloud

Sync only when browsing

Sync constantly for quick access

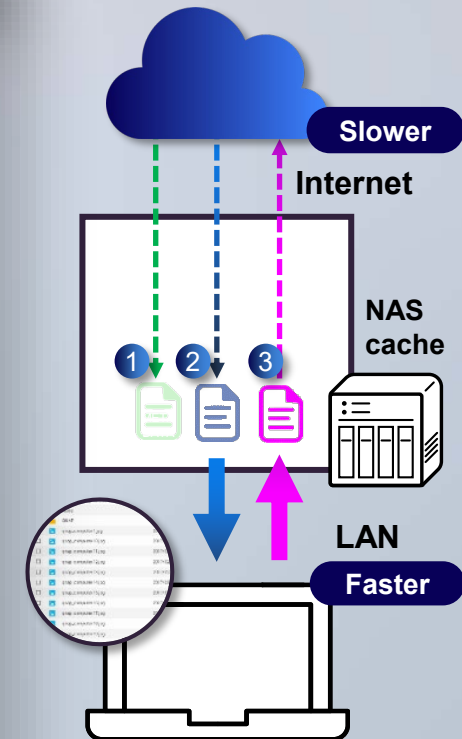
Integration with QTS Apps

Not supported

Supported

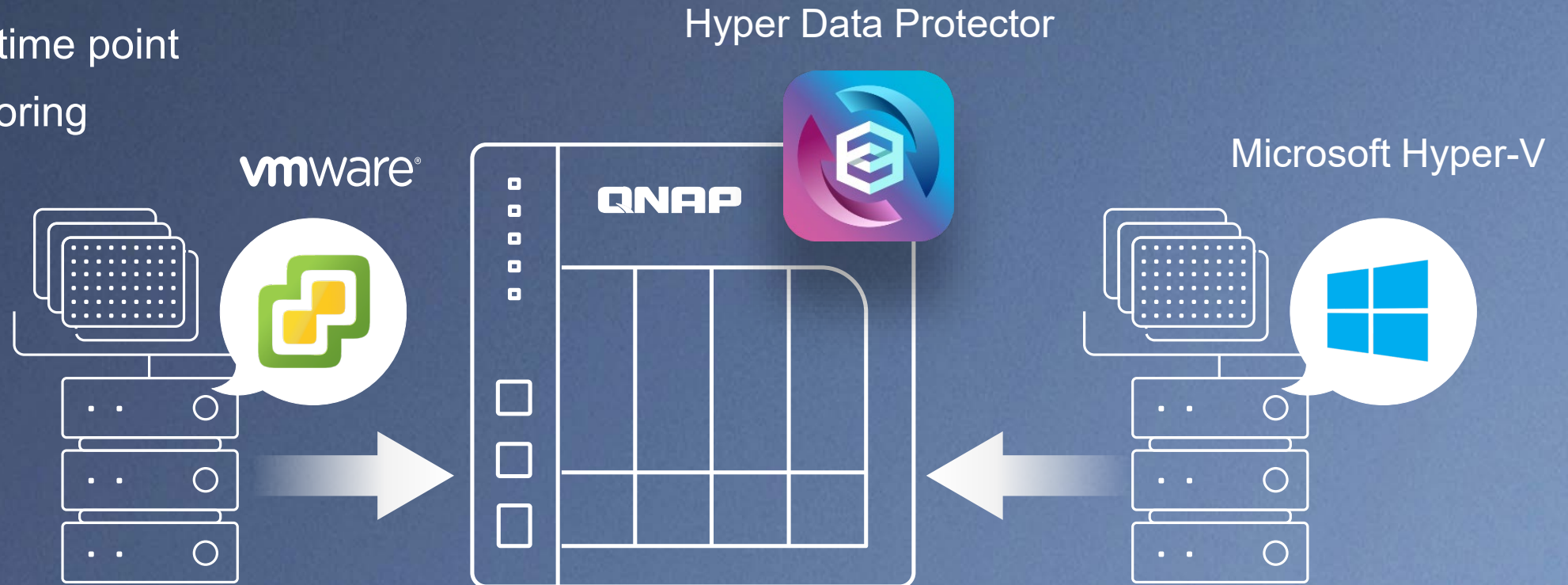


- Online collaboration
- File data analysis



Hyper Data Protector : All-in-one active backup solution for virtual machines

- Supports VMware and Microsoft Hyper-V
- Unlimited VM backups and license-free
- Active backup solution
- Restore at any time point
- Constant monitoring



Boxafe: Comprehensive Backup Solution for Google Workspace and Microsoft 365



- Keep important data in your hands
- Move older data out of the cloud to reduce cost

Google™ Workspace



Gmail

Backup all your emails and attachments in Gmail



Google Drive

Backup all your file versions in Google Drive and supports My Drive and Shared Drive



Contacts

Backup all your contacts in Google Contacts



Calendar

Backup all your events and attachments in Google Calendar

Microsoft 365®



Outlook

Backup all your emails and attachments in Outlook



Contacts (People)

Backup all your contacts in Outlook People



Calendar

Backup all your events and attachments in Outlook Calendar

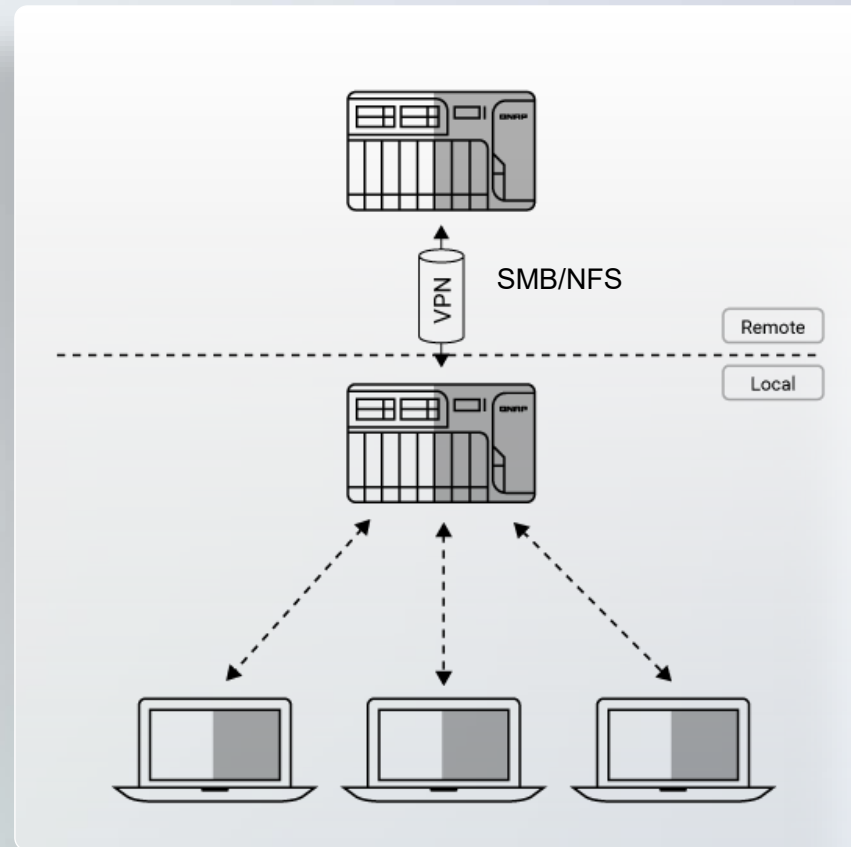
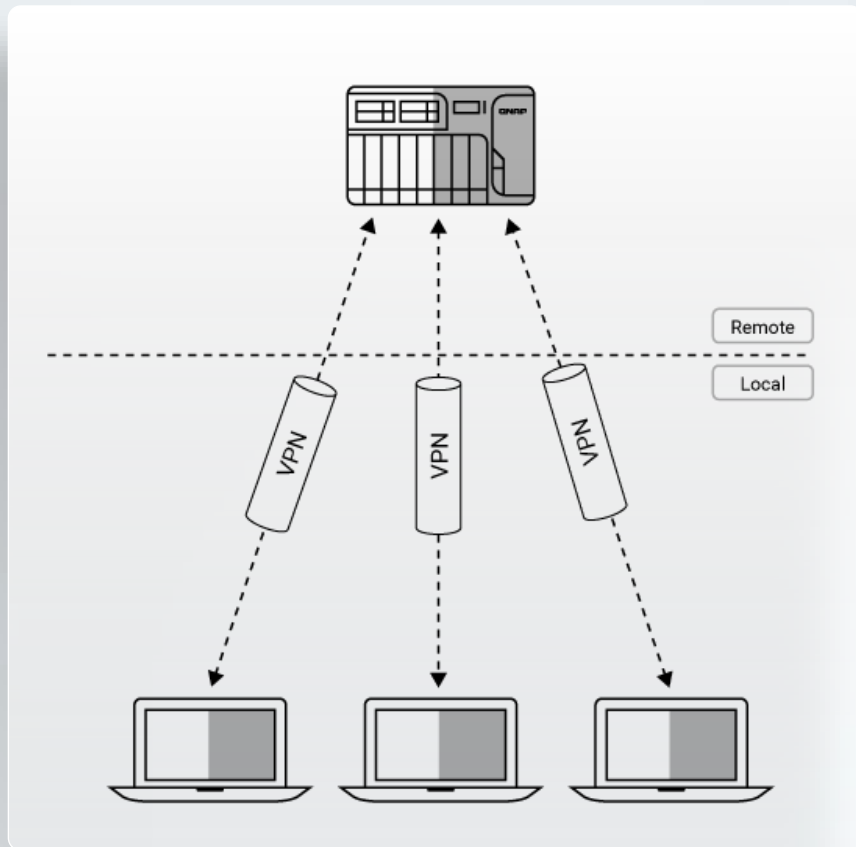


OneDrive

Backup all your files in OneDrive and support SharePoint

HybridMount - Cascade share the access permission to remote devices

The remote data mounted by SMB/NFS can be shared with other devices with folder permission to achieve a cascade share architecture.

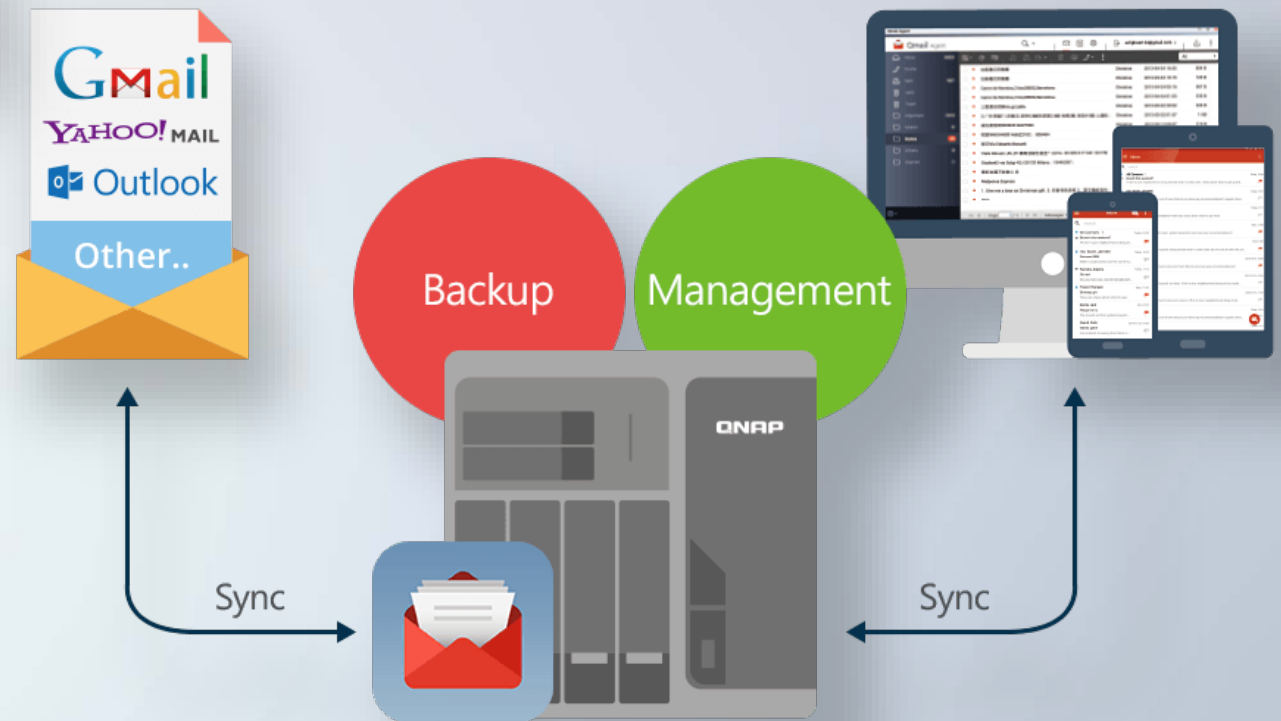


- To avoid local users accessing the remote data by VPN and to reduce the security concern and risk of VPN.
- No longer need to manage user accounts in the remote server. The local admin retains full control over assigning different permissions to local users.

QmailAgent – email backup solution

Best Email Retention Solution

- Collectively manage and back up your personal and business emails.
- Easily auto back up all your emails and attachments.
- Quickly search and gain access to specific messages.
- Back up emails for disaster recovery.
- Encryption service protects backed up private emails.



Install an NVIDIA graphics card to add HDMI output and improve VM / container performance



Support graphic cards that do not need power cables, including **NVIDIA® GTX 1650, 1050, or 1030** to add an HDMI output and boost performance of GPU-accelerated computing, virtual machines, and containers via GPU passthrough.

Note:

1. Supported video formats depend on the hardware and software specifications of the devices. Playback capability and quality may vary due to factors including the original file formats/quality, hardware and software limitations, and output devices.
2. When Virtualization Station uses graphics cards, the NAS will temporarily stop hardware transcoding acceleration for QTS (and vice versa).
3. Consult the [Compatibility List](#) for information on supported NAS and graphics cards.



Virtualization Station



Container Station



Ubuntu Linux Station

All-in-one solution for hosting virtual machines and containerized apps



Virtualization Station

Virtualization Station allows you to create virtual machines (VM) on Turbo NAS, supporting Windows、Linux®、UNIX®、Android、QuTScloud operating systems.



Container Station

Experience LXD and Docker® lightweight virtualization technologies, download apps from the Docker Hub Registry®, import/export containers, and create abundant microservices.

Container Station



Container

Application

Application

Application

Filesystem

Filesystem

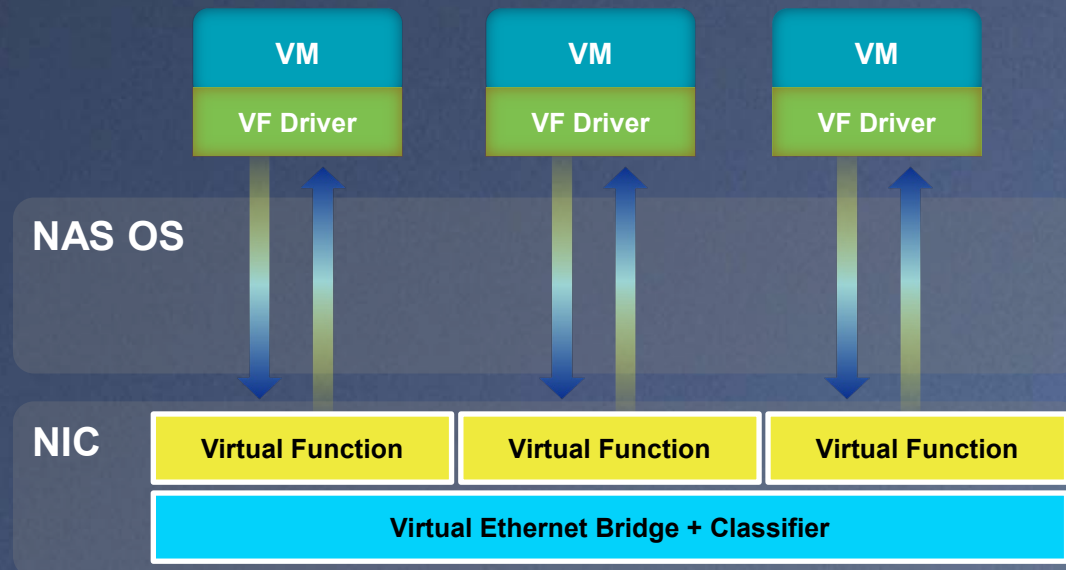
Filesystem

Host OS

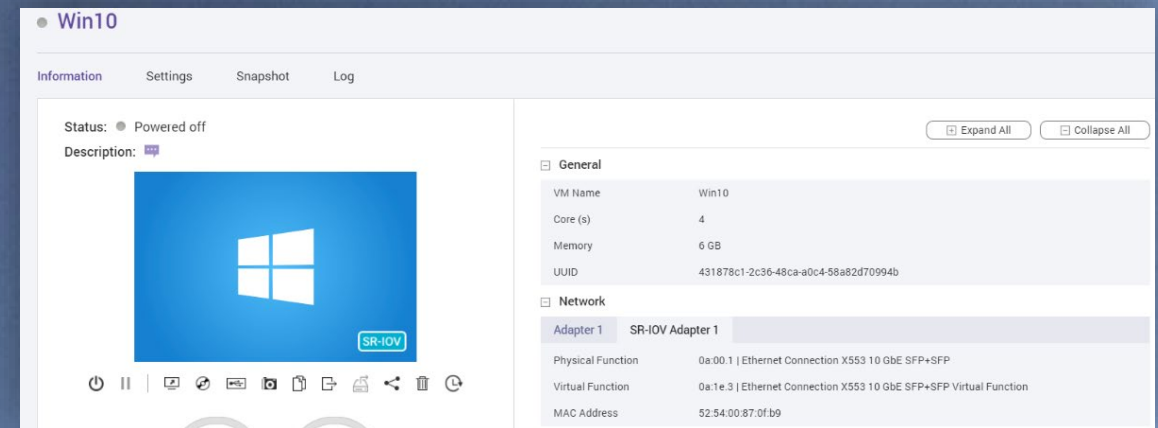
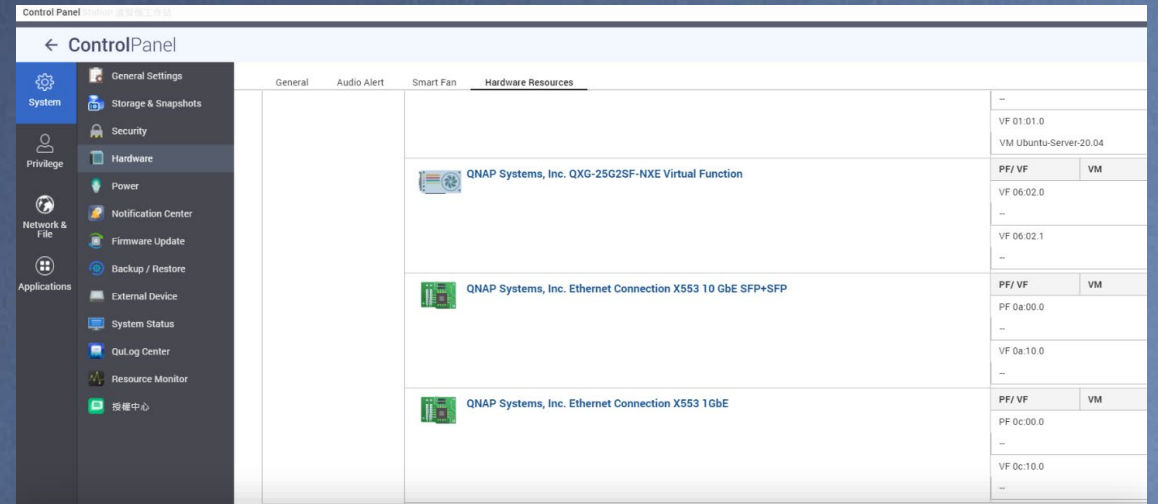
Hardware

SR-IOV improves the network performance of virtual machines by 20% with HW acceleration

SR-IOV (Single-Root Input/Output Virtualization) let the services on your virtual machine enjoy the physical network speed.



Note: NAS must install SR-IOV supported NICs



Establish and run dual systems - Ubuntu & QuTS hero



Ubuntu Linux Station

- Run QuTS hero and Ubuntu dual system, dual system application to enjoy.
- One-click installation of multiple versions Ubuntu: 16.04 / 18.04 / 20.04
- Ubuntu Software Center enjoy a variety of application downloads
- Remotely access the Ubuntu Linux desktop through a browser /
- Install a PCIe graphic card to add an HDMI output screen, and use a USB keyboard and mouse with it.

You Tube



INTERNET



Smart and automatic file management



Qsirch 5

A powerful, Google™-like search tool

- Search image, music, video, document, and email by keyword and filters.
- 5 advanced image search: search by face, text in image, things, color and map.
- Supports Qfiling to perform archival tasks based on your search criteria.



Qfiling 3

Automatically filing and archiving



- 2 type of task: filing task, recycling task
- 3 type of scheduling rule: one-time, scheduling, real-time
- 9 editing module: AI face blur, encryption and decryption, video transcoding and so on

Notification Center - diversity of active notification



Centralized setting

One interface to integrate all notification settings and operations



Multiple notification methods

Meet your various notification scenarios



Highly flexible rule setting

Easily filter important messages



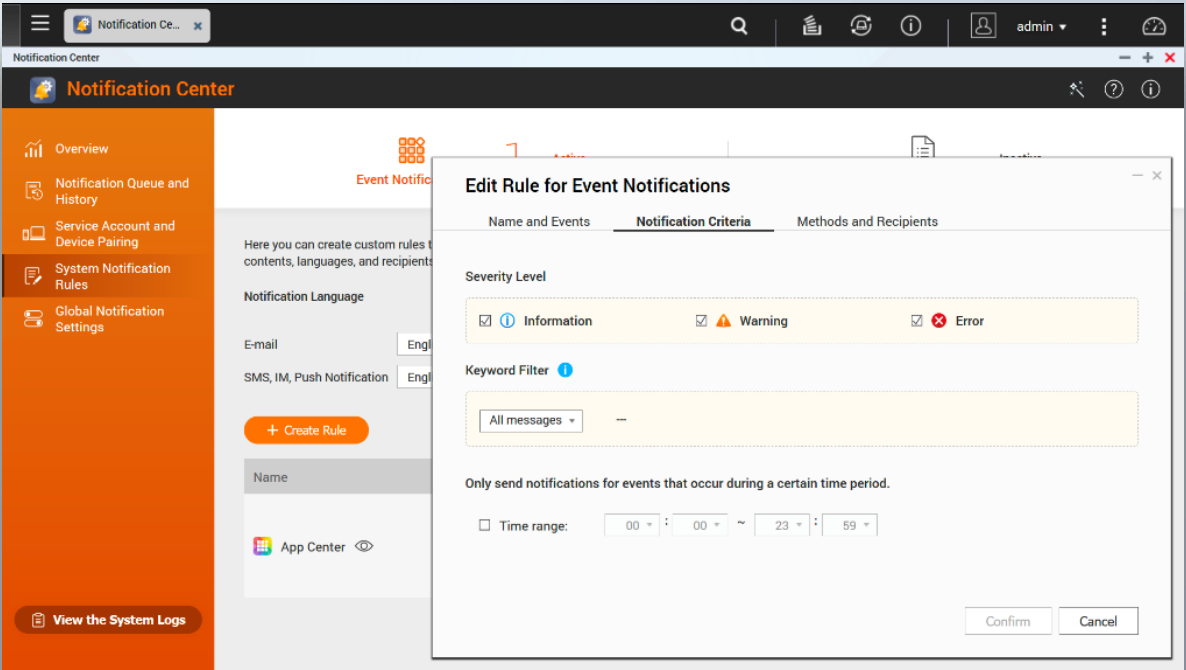
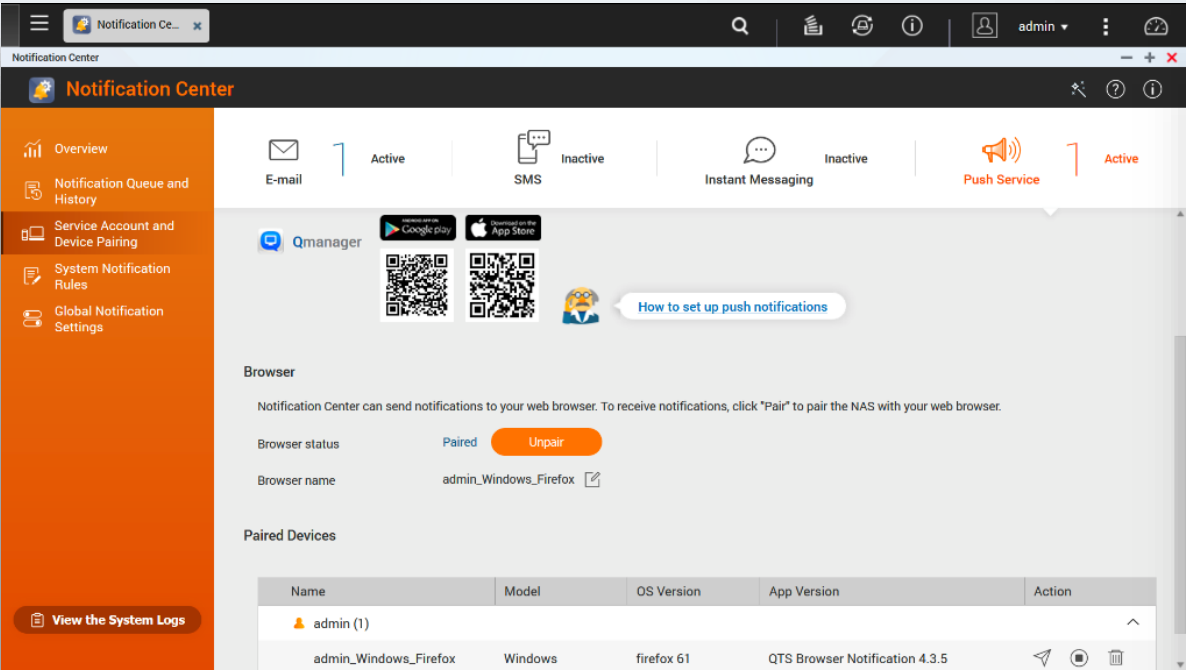
Multi-language support

Support 23 language & composed by professionals



Double insurance

Notification history and test function



QuLog Center proactively analyze and monitor connections

Proactive analysis

- List the top 5 Applications for Error/Warning Logs
- System access statistics such as connection types and logged in IP

Quick filtering

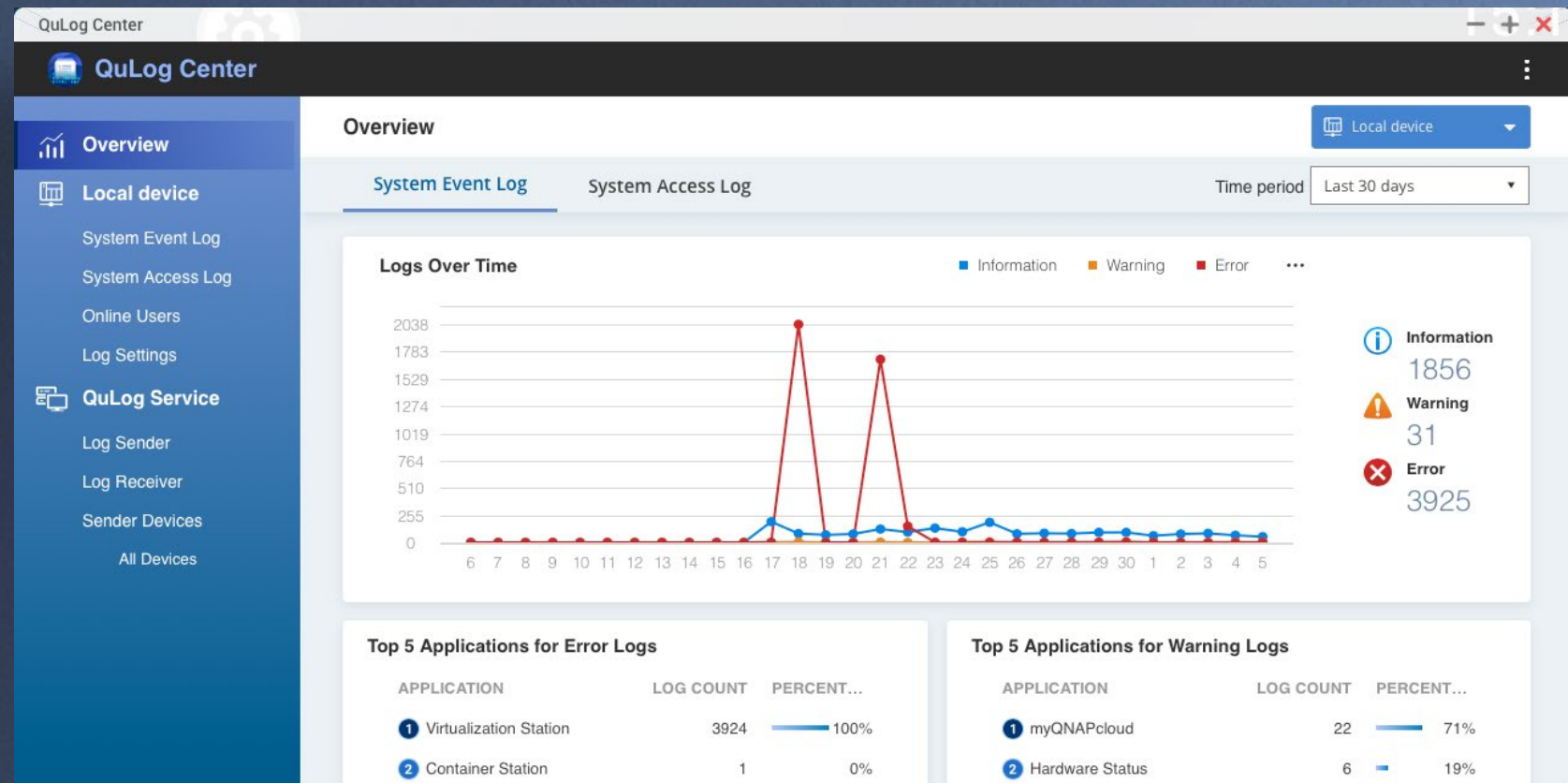
- Categorize by APP name or date
- Customize labels/styles/flags for advanced search

Real-time monitoring

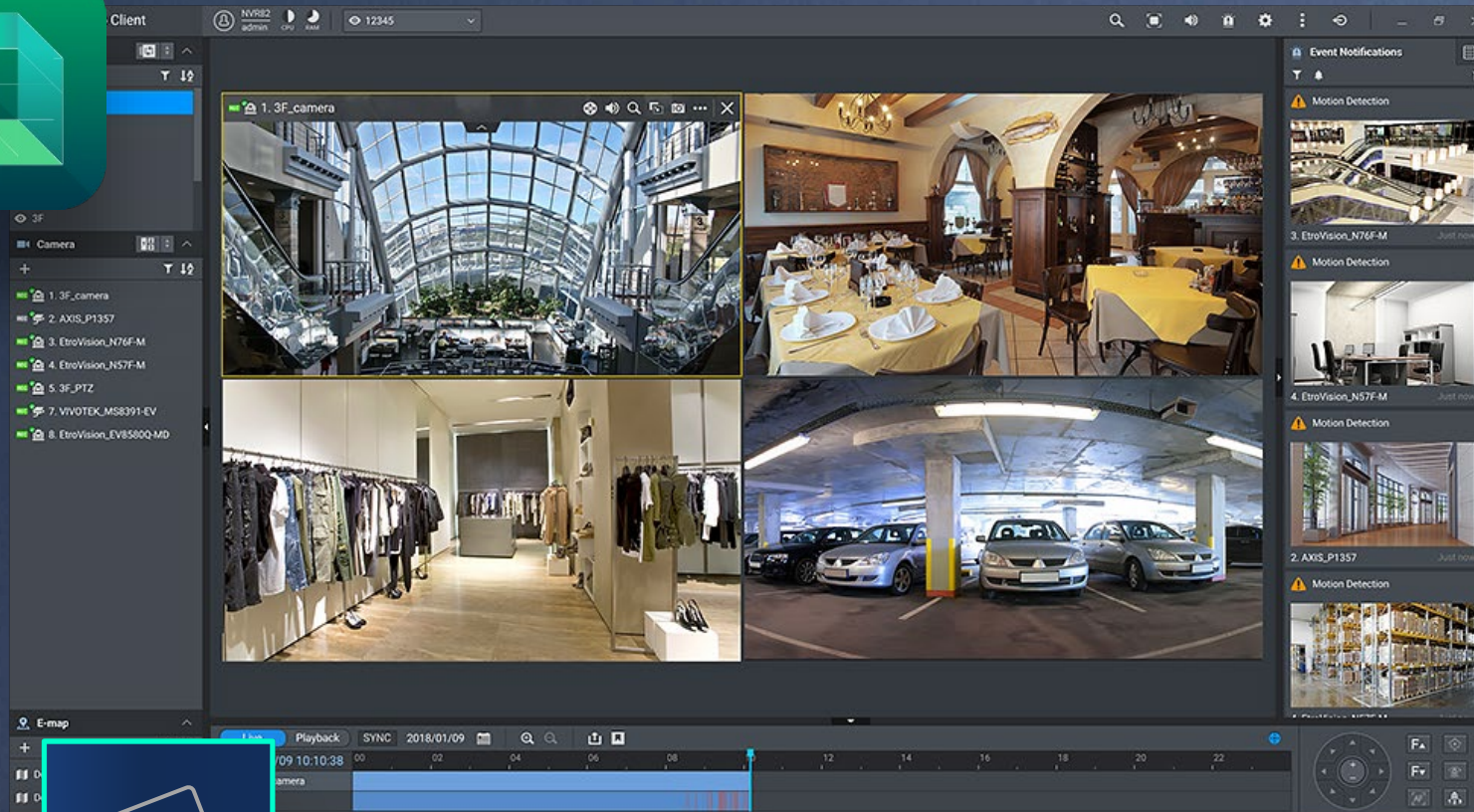
- View the online members and their connection types

Unified management

- Consolidate detailed local and remote NAS record files
- Set the size of the space for the record
- Send NAS log files to a standard Syslog server
- Notify specified notifications by Notification Center

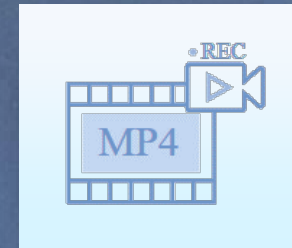


QVR Elite- Surveillance System

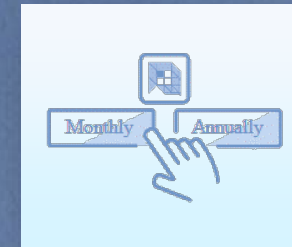


Base embedded channels

(Flexible expansion)



MP4 Recording Format



Flexible Subscription



Expandable Capacity

Compatible with a huge amount of camera models

Over **180 Brands**

 GeoVision

 VIVOTEK
BUILT WITH RELIABILITY

 Panasonic

 AXIS
COMMUNICATIONS

 MOBOTIX

 Canon

 HIKVISION

 dahua
TECHNOLOGY

 Honeywell

 Brickcom

Over **6700 Models**



ONVIF Profile Supported

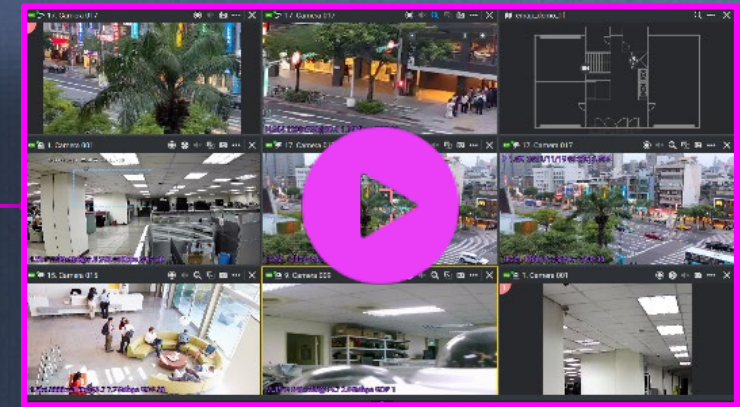
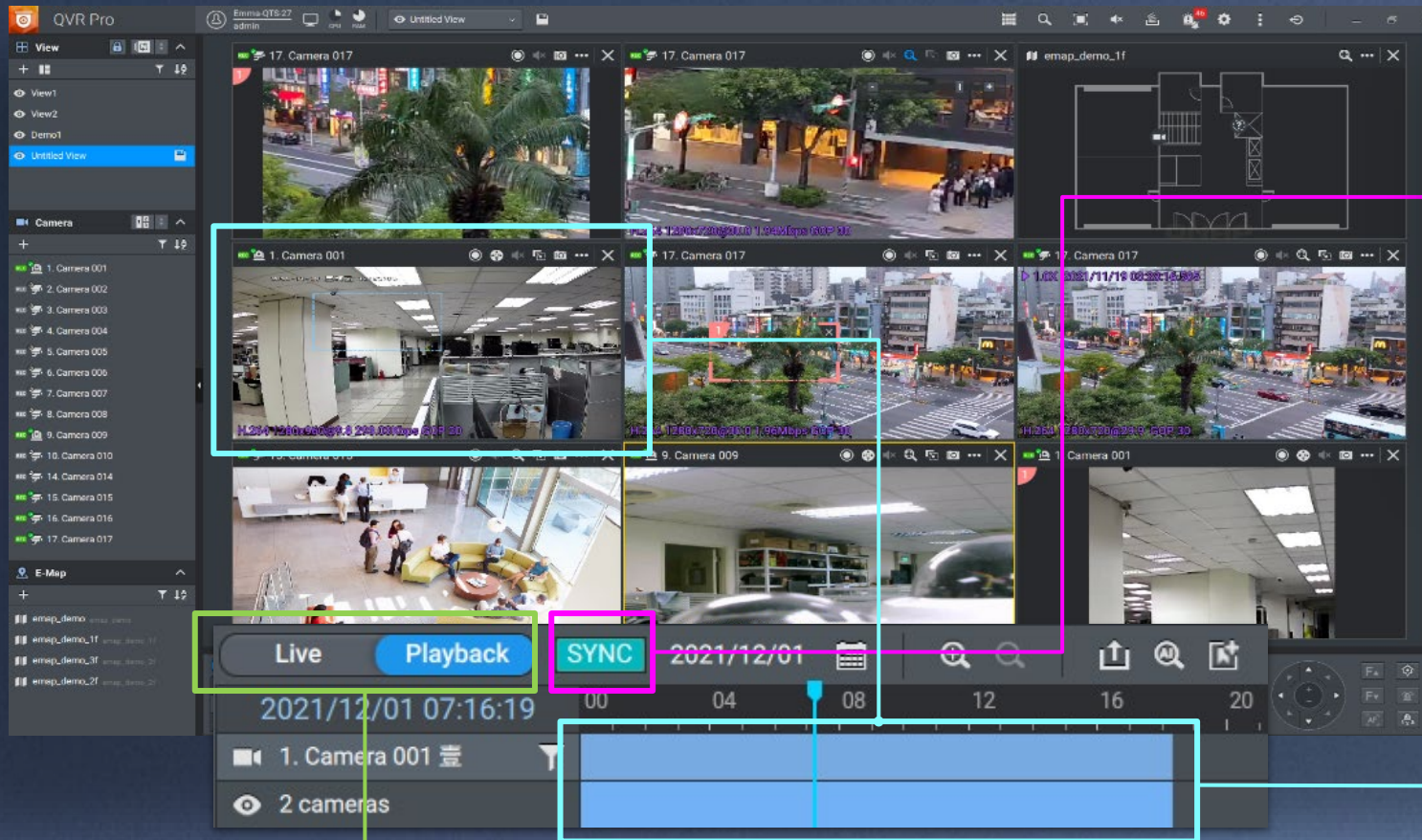


**RTSP Stream
Input / Output**

**RTMP Stream
Input**

Unified interface for live view & playback, anywhere with a PC or mobile device

Monitor the live view of multiple channels and playback on 1 single interface.



1-click to sync playback all video views

1 click to jump to the previous playback time

1 click to switch between Live & Playback

Surveillance Client for mobile and home environment



QVR Pro Client

Mobile device recording and playback

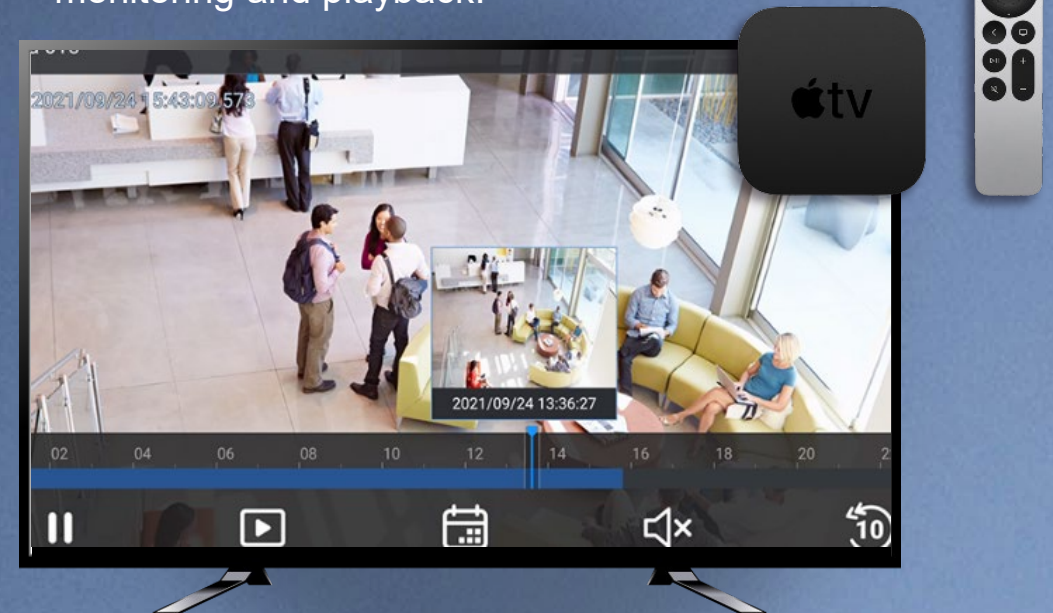
Mobile device recording and playback protect important people, things, and objects anytime, anywhere.



QVR Viewer

Apple TV Monitoring App

The new Apple TV monitoring application is a convenient APP installed on Apple TV for monitoring and playback.



High-performance multimedia streaming platform



**QuMagie AI smart photo albums
and auto classification**



Plex Server media streaming



**CAYIN MediaSign Player
HEVC (H.265) video transcoding**

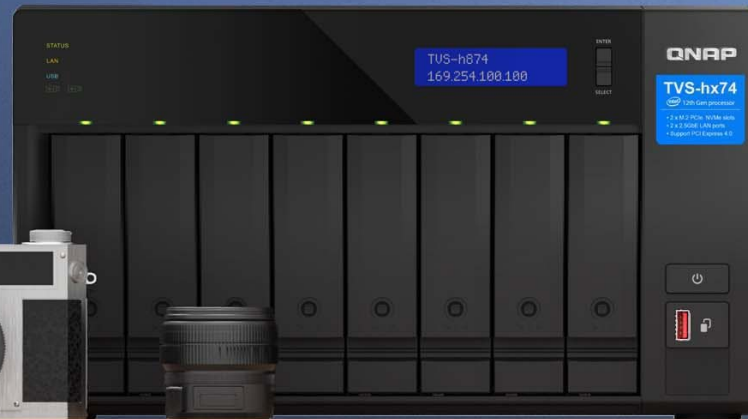


**Use Cinema28 for
multi-room streaming**

Multiple Storage Expansion Solutions

QTS
QuTS hero

TVS-h874



TVS-h674



TVS-h474



Storage expansion: TR-002 / TR-004 USB RAID units

- NAS with a USB port can support TR USB RAID enclosures
- Integrated USB Type-C port for plug & play, supporting USB Type-A & Type-C hosts
- NAS can connect max. 2 of TR-002/TR-004 enclosures



TR-002

USB 3.2 Gen2 10Gbps



TR-004

USB 3.2 Gen1 5Gbps



included

USB 3.2 Gen 1 or
Gen 2 Type-C to
Type-A cable



Optional

Type-C to Type-C cable

Storage expansion : TL-D800C USB JBOD units

- NAS with a USB port can support TL USB JBOD enclosures
- USB Type-C provide speed up to USB 3.2 Gen 2 10Gb/s



TL-D800C



included

USB 3.2 Gen1 or Gen 2
Type-C to Type-A cable



included

Type-C to Type-C cable

High-speed storage expansion with PCIe to SATA enclosures

- Install a QNAP QXP SATA HBA on NAS to access the TL expansion units via PCIe Gen3 bandwidth
- Each SFF-8088 cable provides 4 x SATA 6Gb/s = 24 Gb/s bandwidth. Connect multiple cables for up to 64 Gb/s performance

TL-D400S



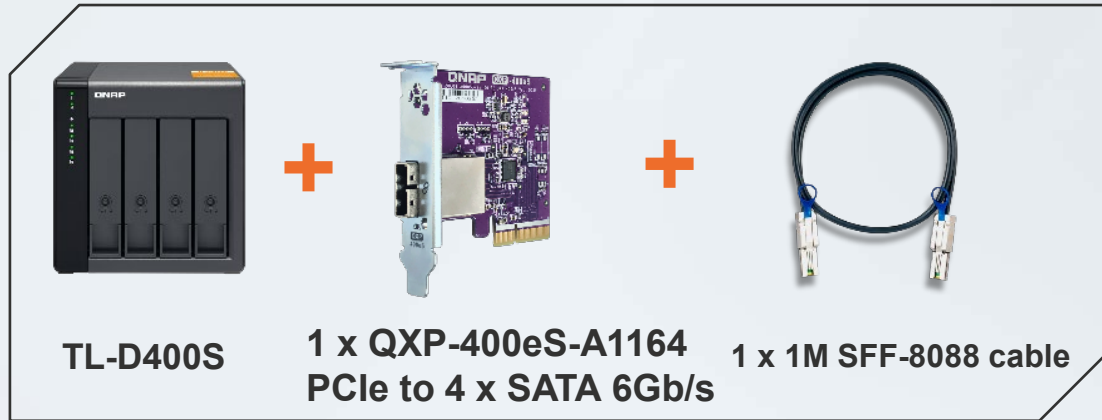
TL-D800S



TL-D1600S



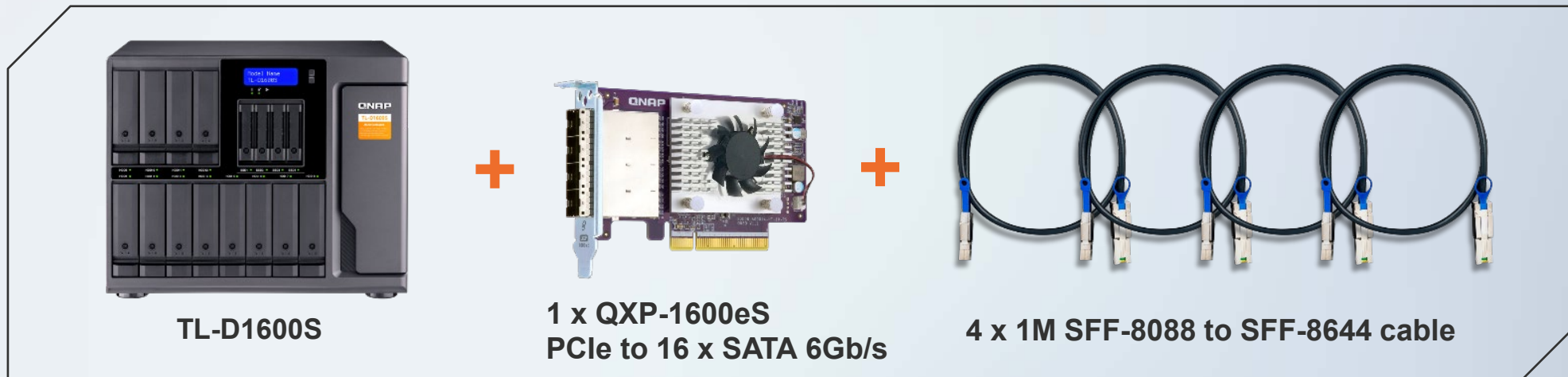
QXP SATA HBA and cables are included



TL-D400S + 1 x QXP-400eS-A1164 PCIe to 4 x SATA 6Gb/s + 1 x 1M SFF-8088 cable



TL-D800S + 1 x QXP-800eS-A116 PCIe to 8 x SATA 6Gb/s + 2 x 1M SFF-8088 cable



TL-D1600S + 1 x QXP-1600eS PCIe to 16 x SATA 6Gb/s + 4 x 1M SFF-8088 to SFF-8644 cable

Brand new TVS-hx74 series

Faster CPU 、 more cores 、 ZFS file system



TVS-h474-PT-8G

TVS-h674-i3-16G

TVS-h674-i5-16G

TVS-h874-i5-32G

CPU	Intel Pentium Gold G7400	Core i3-12100	Core i5-12400
Memory	Max. 128GB (2 x 64GB)		
PCIe	1 x PCIe Gen4 x16 1 x PCIe Gen3 x2	1 x PCIe Gen4 x16 1 x PCIe Gen4 x4	
Graphics	UHD Graphics 710; 16EUs	UHD Graphics 730; 24EUs	UHD Graphics 770; 32EUs
Drive slot	4 x 2.5"/3.5" HDD/SSD; SATA 6Gbps	6 x 2.5"/3.5" HDD/SSD; SATA 6Gbps	8 x 2.5"/3.5" HDD/SSD; SATA 6Gbps
M.2 slots	2 x PCIe Gen3 x2	2 x PCIe Gen4 x4	
Ethernet	2 x 2.5GbE Optional 10/25GbE NICs		
OS	Pre-install QuTS hero (ZFS) Optional QTS		

3-year standard warranty covering hardware repair and support services

Backed by a **3-year** warranty at no additional cost.

You can also purchase a warranty extension that extends your warranty coverage up to 5 years total (2 additional years).



TVS-hx74

is your best choice!

QTS

QuTS hero

TVS-h874



TVS-h674



TVS-h474

