

QTS 4.3.5 Preview

Enhanced network management

Network & Virtual Switch

QVPN 2.0

QTS 4.3.5 highlights - Network

- High speed 10G era (VM / Container / vQTS)
 - H/W: QNAP 10G switch + QNAP 10G NAS
 - S/W: Connect everything together with [Network & Virtual Switch].
- Brand new UI design (Easy to locate the ethernet port/USB wireless dongle)
 - Clear topology for virtual and physical networking.
 - User Story: Lots of forum users have the same issue: they are not sure about how to connect virtual and physical environment.
- Updated interface for wireless connections and support for QNAP PCIe wireless adapters (QWA-AC2600) in client mode.

QTS 4.3.5 highlights - Network

Added support for network :

- More streamlined functions for users:
 - Network interfaces can now display customized names.
 - Supports customized DDNS and allows multiple services.

Advanced functions:

- Support stateful/stateless auto-configuration of IPv6 addresses, and each network interface supports full RADVD services.
- Supports reserved IPs with the DHCP service.
- Auto Default Gateway + NCSI service can now be disabled.
- Supports IPv4 & IPv6 static routes.

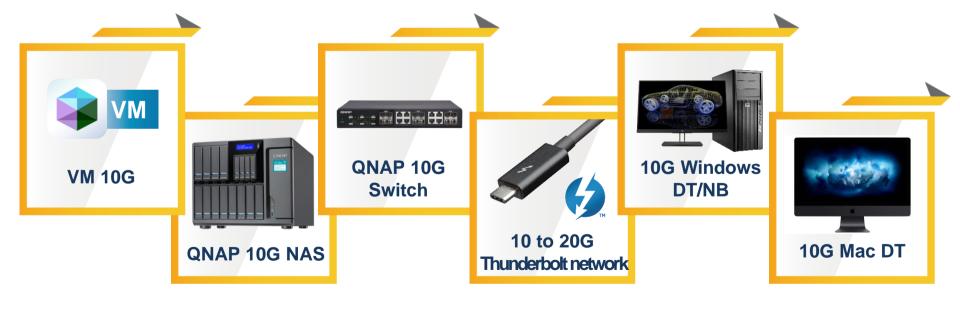
Summary

QNAP NVS

(Network & Virtual Switch) connects your virtual and physical environments with high speed networks.

Are you ready for 10G evolution?

Not only QNAP NAS, virtually all elements support high speed transmission now.



Link internally with 10G transmission

NVS connect internal and external environments with 10G speeds

- internal virtual machines connect in the 10G speed as well

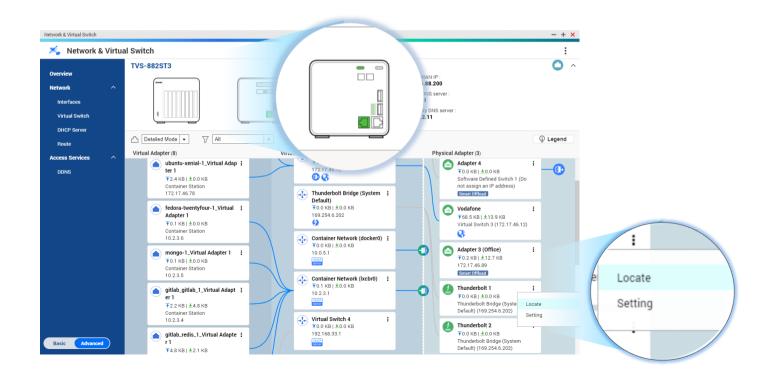


Connectivity checking always gives you a hard time?



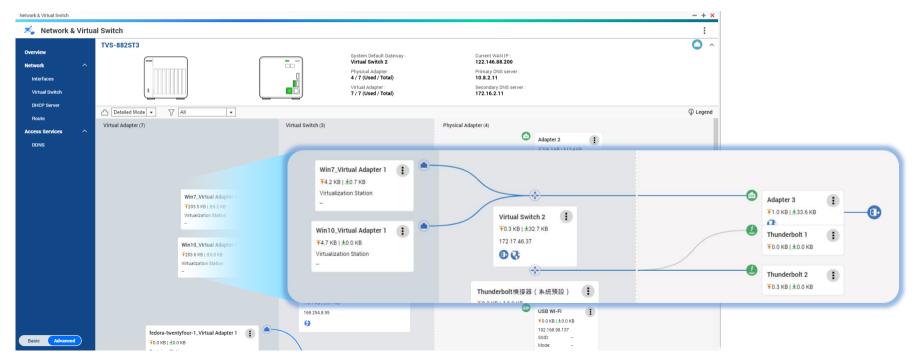
New overview screen: easy to identify port locations

Just click locate and find out where it is on your NAS immediately.



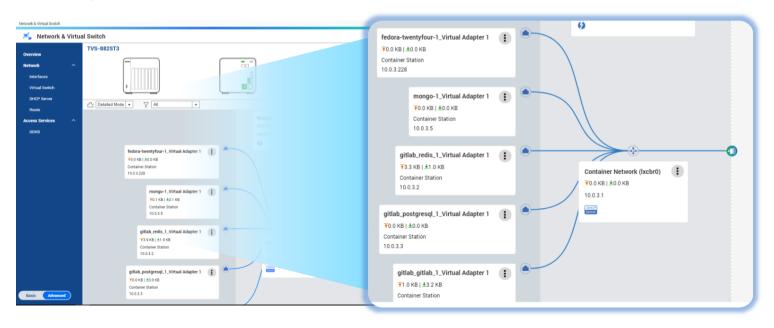
Clear network topology for virtual and physical networking

Virtual machines can be bridged to external networks by virtual switches and physical network ports.



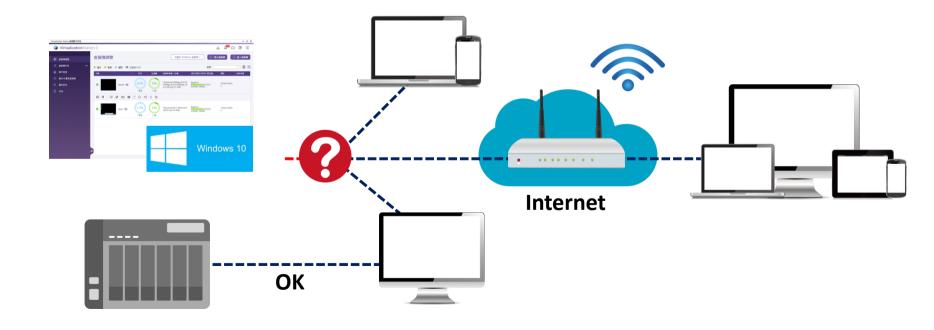
Virtual network won't bother you anymore

Containers will be using a closed and independent network built by a virtual switch, and only internal access is allowed. (DHCP will assign IP addresses automatically, and NAT can be enabled if Internet access is required)



Common problems from forums (1)

I have set up a virtual machine; how can other users access it within the same local network, as well as from the Internet side?



Common problems from forums (1): Solution

QVS will bridge the VM with the system default gateway as a virtual switch when 1st launched.

The router of the current physical network segment will assign an IP address to the VM

You could configure the vNIC to be bridged with another adapter.

All devices on the same segment could access this VM.

Router: set port forwarding to the IP address of the VM

VM can be accessed from Internet side with router WAN IP + port number

VM just looks like an independent device on this network.

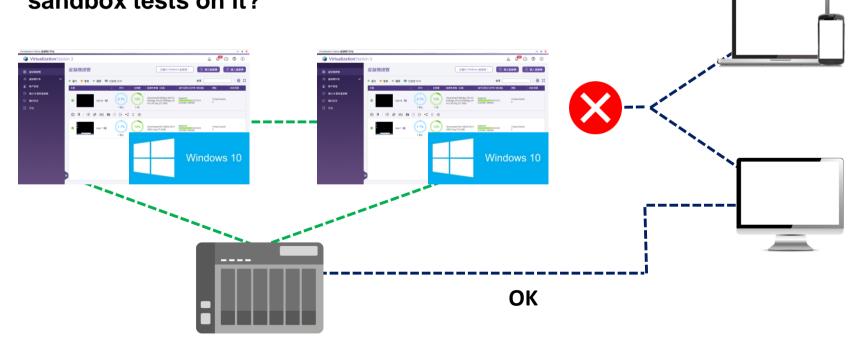
(Careful! All services running on this bridge mode virtual switch might affect this network.)





Common problems from forums (2)

I have set up a virtual machine; how can I prevent other local devices from accessing it? How can I keep VM isolated and secure so I can run sandbox tests on it?



Common problems from forums (2): Solution

Click configure to modify settings

Uncheck the selection of physical adapters

Set static IP for the virtual switch

Enable DHCP to assign IP addresses for VM

The DHCP default gateway should be the same as that in step 3

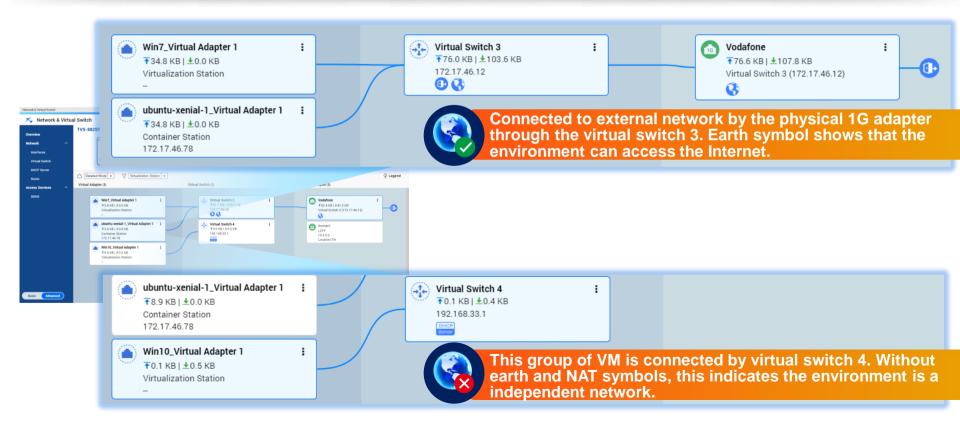
It's a closed and independent network, and access from local networks can be blocked.

(You could run functional verification, internal data computing, sandbox testing, etc.)

NAT can be enabled if VMs need access to the Internet



Overview helps you quickly check QNAP overall status



4.3.5 Brand new features: Make your NAS easy to master



Just plug in network cable and start using NAS

Download Qfinder Pro

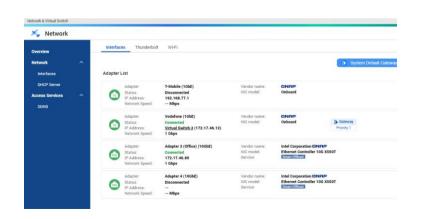
Find your NAS:

- (1) Open NAS web UI by clicking in the list
- (2) Mount shared folders easily



Control Panel > Network & Virtual Switch

If you do not use VM / Container, just check the IP address, and confirm the adapter speed before starting to use your NAS.



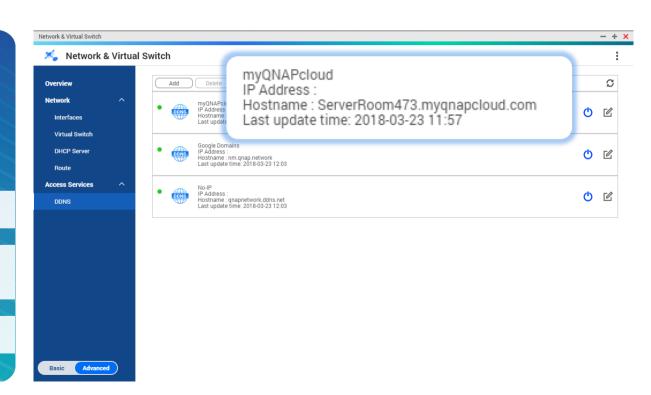
Multiple DDNS – more than 1 URL for NAS

Access your NAS easily via DDNS URL

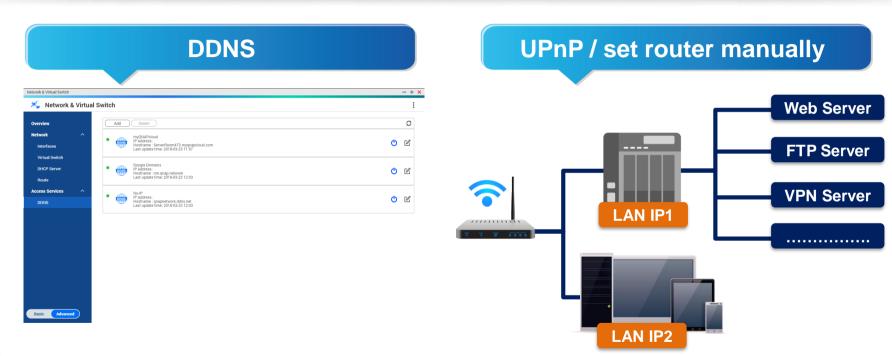
QNAP myQNAPcloud

More service providers (Google domains, etc.)

Customize for virtually any online services



Easy to access from Internet QNAP (DDNS + router setting)



Access the NAS anytime, anywhere!

Thunderbolt (on select QNAP NAS) MPP more convenient for Mac users

Plug in

Qfinder Pro auto scan

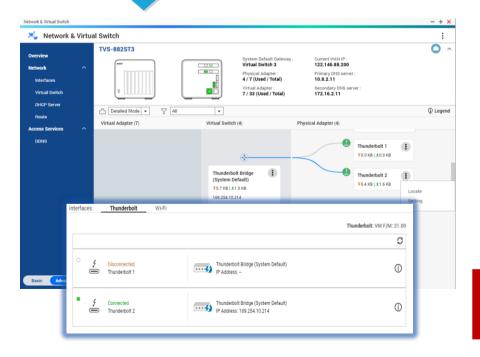
mount & auto adjustment



Easy to use for all Mac users!

Dedicated Thunderbolt info tab & highly performance

Dedicated UI



Performance with Mac



Equivalent to built-in 10~20G NIC (some Windows PCs have almost 2,000 MB/s performance)

4.3.5 Brand new features: Enhanced advanced features



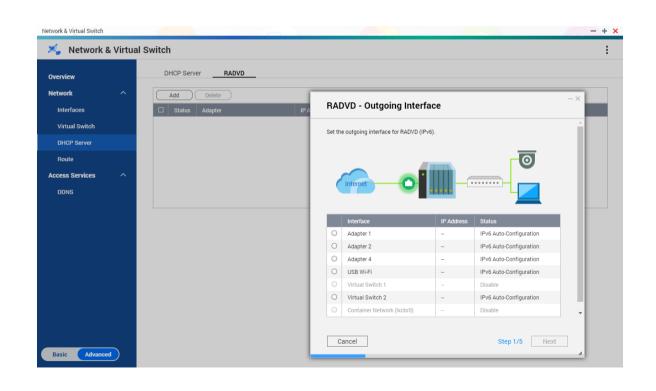
1. Improved IPv6 & RADVD support

IPv6 revision and more support:

IPv6 stateful

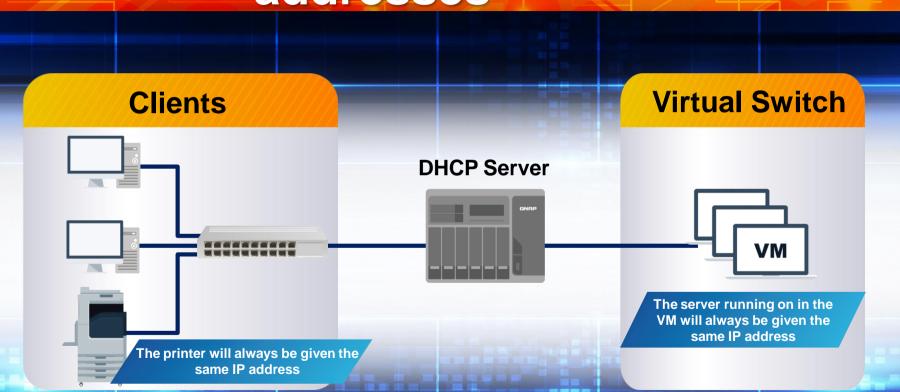
IPv6 stateless

Every adapter can act as the IPv6 RA server



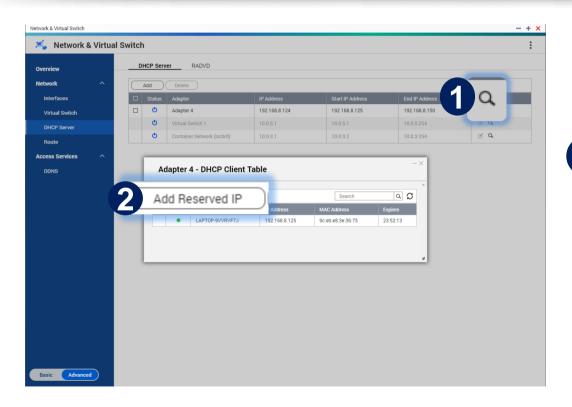
2. DHCPv4 supports reserved IP addresses







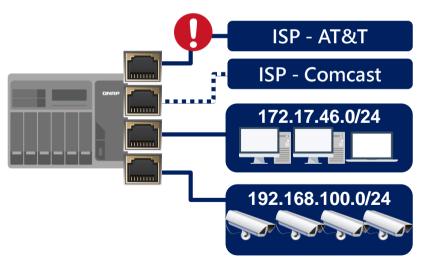
How to configure reserved IP addresses

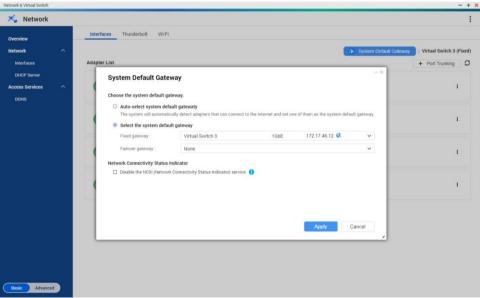


Add Reserve	ed IP
Device Name:	HP-LaserJet
IP Address: MAC Address:	192.168.8.130 9c:eb:cf:21:74:a5
	Apply Close

3. Auto Default Gateway + NCSI setting

- Network failover
- Support VPN / PPPoE
- It checks NAS Internet connection status automatically (similar to Microsoft NCSI), and provide the setting to disable the auto-detect function.





4. Static Route: Allows you to configure packet direction

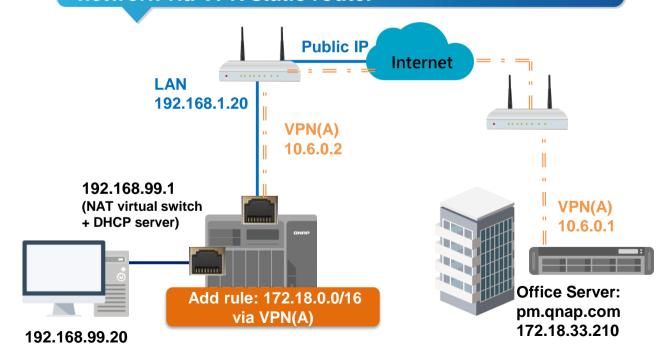
Static Route:
Specify the packet direction.

Physical adapter

VPN

PPPoE

You can browse the Internet, and access the office network via VPN static route.



Applications of various high-speed network interfaces







Faster wireless network delivered with new QNAP solution



Wireless makes things easier...

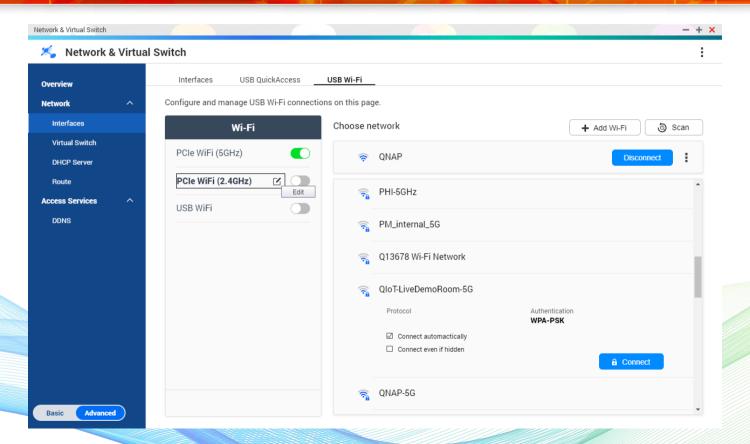
When physical wiring for your home is not feasible.







New wireless setup screen



QNAP NVS(Network & Virtual Switch)

QNAP NVS strings the high speed network between physical and virtual interfaces. It's the best tool to bridge your versatile devices and NAS!







QTS 4.3.5 Preview

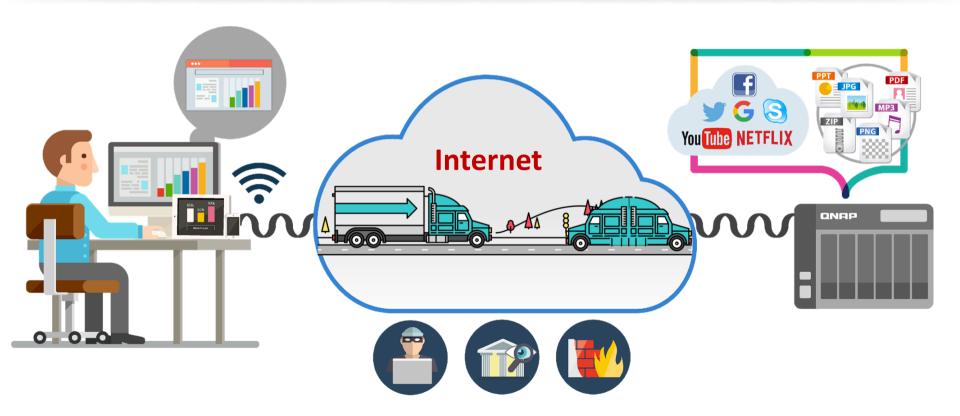
QVPN 2.0 Virtual Private Network

Secure network experience



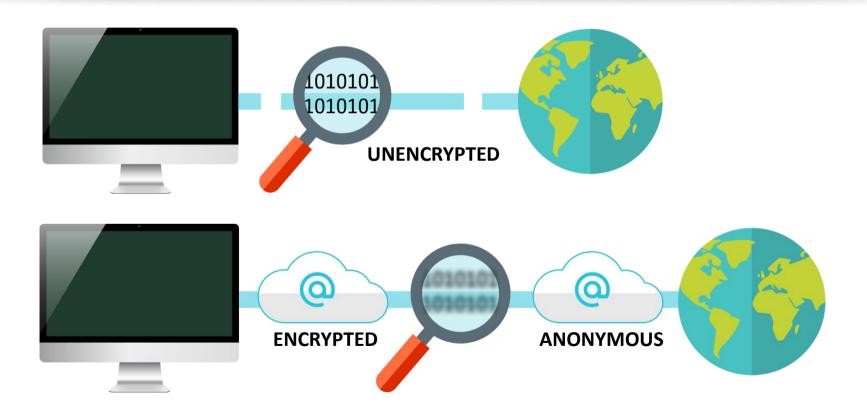


The general Internet style

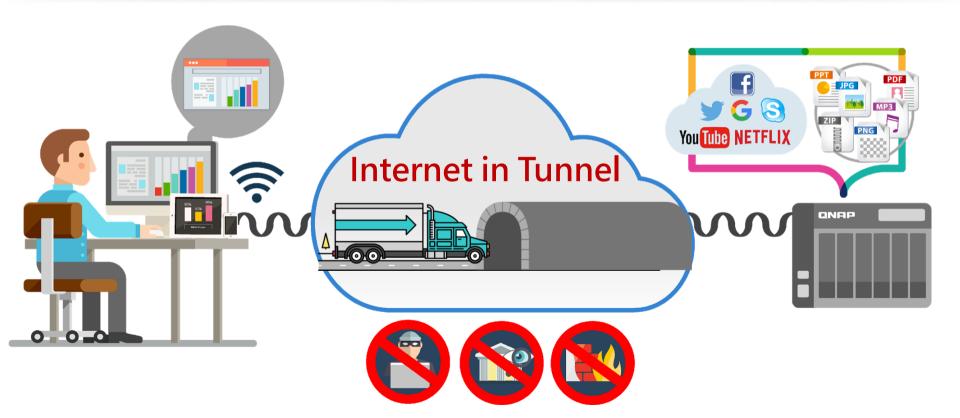




What is VPN?



When you connect through the VPN





Who needs the VPN service



Business Users



Multinational businesses (Sending and backing up files)



Sensitive data (Financial transactions)



Home Users/ Gamers

(Regional restrictions)

VPN does make you feel secure

Offers the flexibility for employees to take advantage of the company's Intranet over an existing Internet connection. (It can also be the case between student and school)

Secure communication is easier

Privacy protection

Reduces business travel costs

Access to geo-blocked contents







New: QVPN topology map



QNAP's new proprietary VPN protocol - QBelt



Secure Encrypted Connection

DTLS + SSL + AES-256 encryption



New protocol

decreases the chance of being detected



Works on all your devices



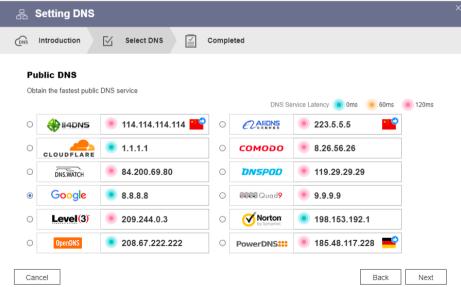
Easy to Use

Select the suitable DNS service

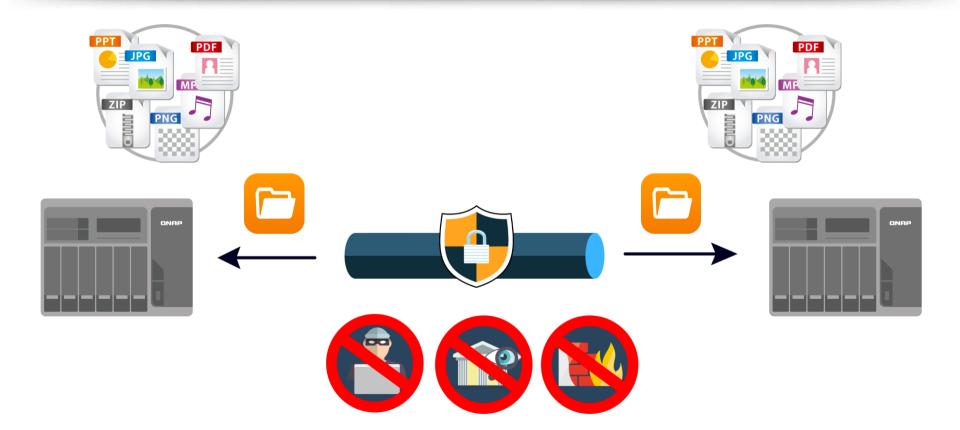
Set manually or apply NAS default settings



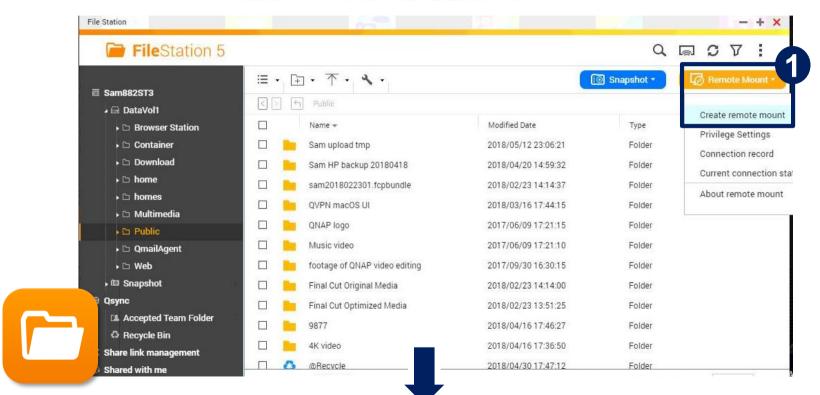
Choose a suitable public DNS server



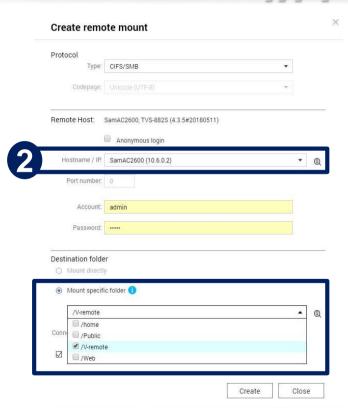
Secure folder mount: VPN + File Station

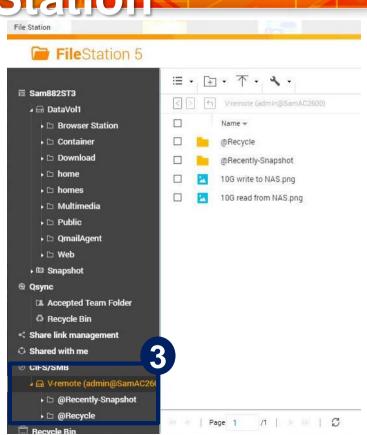


Mount remote folder via VPN in File Station



Mount remote folder via VPN GNAF in File Station







The most common issues when you set up a VPN server





The most common issues



The router does not know which device to relay the traffic to





Manually set up the router

Port Forwarding

Control everything yourself

Supported by most routers

Set the port to be forward

More secure (only open the required port)

VPN passthrough can be enabled



too many steps and complicated

DMZ

Super easy

- 1. Set the forwarding IP
- 2. All ports/packets forwarded



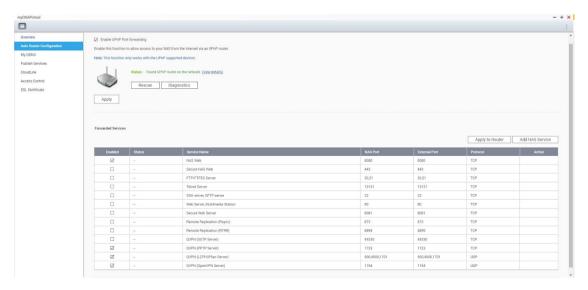
Security Concern => all ports exposed

UPnP auto enables VPN port forwarding



myQNAPcloud will take care of it!



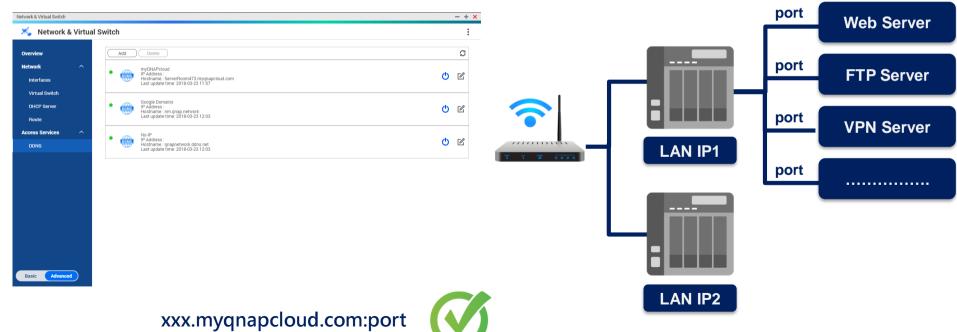


The best tool when the IP address is not fixed



QNAP NVS DDNS (include myQNAPcloud....)

UPnP (Auto Router Configuration)





How to set up client devices to connect to NAS via VPN

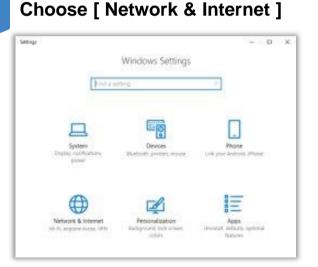


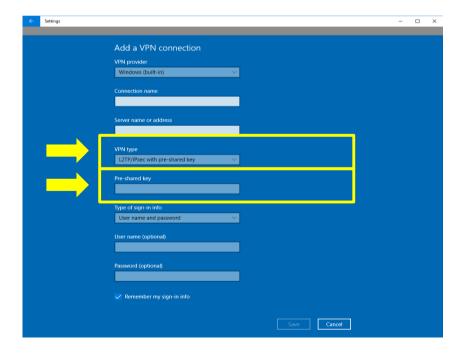
Use Windows to connect to VPN

Click Start Menu > [Settings]



Select the VPN type: for PPTP, only entering the credential is required; for L2TP, one more setting of Pre-shared key is required





Choose [VPN] >> [Add a VPN connection 1

Use macOS to connect to VPN



System Preferences => Network

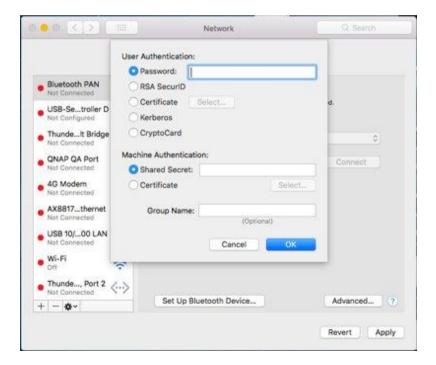


Next, click "Authentication Settings...", then set the Password & Shared Secret



click the plus sign to add a VPN interface, Type is L2TP over IPsec





Use Android to connect to VPN

Setting

Wireless & Network

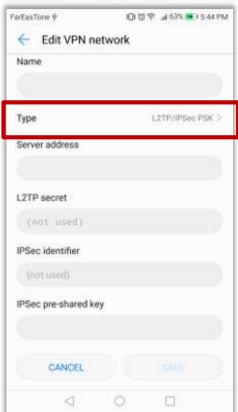
choose VPN

add Network

If VPN type L2TP is selected, you must insert the IPsec pre-shared key

Insert the credential when you connect





Use iOS to connect to VPN

Settings

click VPN

Add VPN configuration

The type should be L2TP

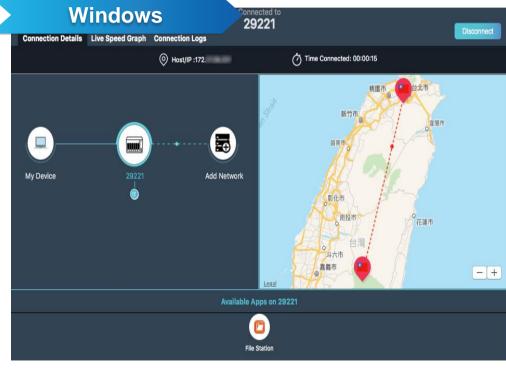
Insert credential & Secret (pre-shared key)



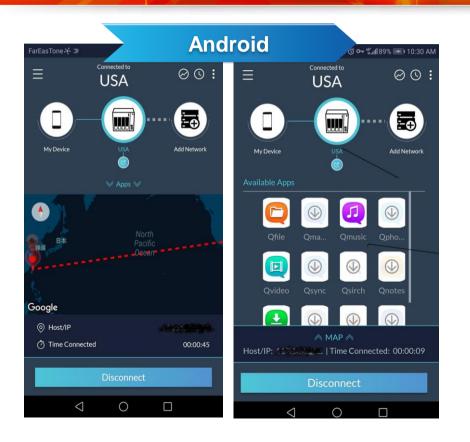


New desktop app will soon be available





New mobile app will soon be available





Let your NAS connect to remote NAS/VPN server via the VPN Client function



Your NAS can reach almost everywhere

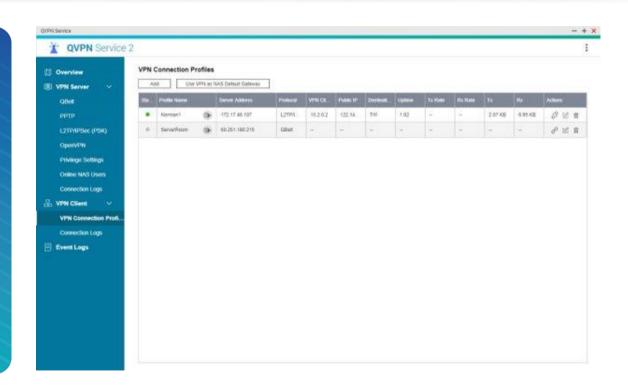
Your NAS can connect to another VPN easily. (Yours / shared NAS from your friend / public VPN server)

QBelt (QNAP only)

PPTP

L2TP / IPsec

OpenVPN

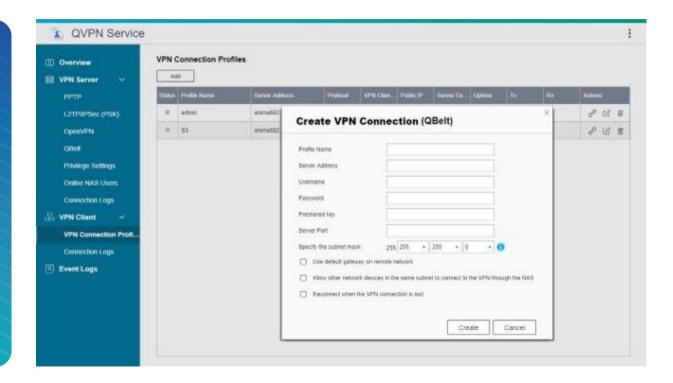


Supports versatile VPN client modes

Set the necessary VPN parameters

- QBelt
- PPTP
- ♦ L2TP
- OpenVPN

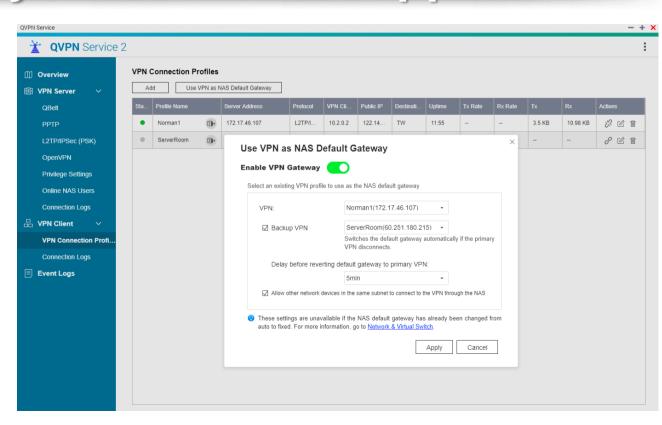
Allows other local networked devices to connect to the same VPN connection.



Set VPN as NAS default gateway with failover support

VPN = NAS gateway

Set the secondary VPN as redundant one

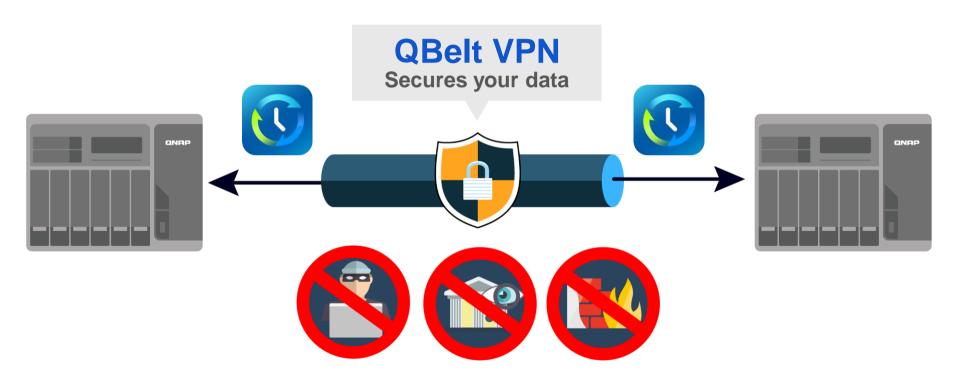


Use QWA-AC2600 to share VPN wirelessly

QNAP



A way to securely back up between 2 NAS



Detailed connection log of VPN Client



Cross the world with your NAS!

Integrated the service provider VyprVPN (It could help you if you don't have VPN resources at the target location) **VPN** Tunnel **VPN** Tunnel



QWA-AC2600 share the VPN wirelessly





QVPN is your Best Choice Thank you!



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