

QNAP Turbo NAS

(: 4.0)

Turbo NAS : TS-269L, TS-269 Pro, TS-469 Pro, TS-469L,
TS-469U-RP, TS-469U-SP, TS-470 Pro, TS-470, TS-569 Pro, TS-569L, TS-669 Pro, TS-669L, TS-670 Pro,
TS-670, TS-869 Pro, TS-869L, TS-869U-RP, TS-870 Pro, TS-870, TS-870U-RP, TS-879 Pro, TS-879U-RP,
TS-1079 Pro, TS-1269U-RP, TS-1270U-RP, TS-1279U-RP, TS-1679U-RP, TS-EC879U-RP,
TS-EC1279U-RP, TS-EC1279U-SAS-RP, TS-EC1679U-RP, TS-EC1679U-SAS-RP, SS-EC1279U-SAS-RP,
SS-EC1879U-SAS-RP and SS-EC2479U-SAS-RP.

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1.



6

8

12

13

1.1

QNAP Turbo NAS()
Turbo NAS가

- ! "Turbo NAS" "NAS"
- Turbo NAS

QNAP QNAP QNAP Systems, Inc.

TM

QNAP

QNAP

QNAP

QNAP /

QNAP

QNAP Systems, Inc. (QNAP)

QNAP

QNAP

QNAP

NAS

QNAP, QNAP, QTS, myQNAPcloud VioStor QNAP Systems, Inc.

1.2



FCC

QNAP NAS
가

FCC A

1. FCC 15
- 2.

: FCC 15 A

, 가 , 가

: QNAP Systems, Inc.
가 FCC가

FCC B

1. FCC 15
- 2.

: FCC 15 B

, 가) (

- 가
- /TV
-
-

: QNAP Systems, Inc.
가

FCC가



QNAP Turbo NAS

CE

NAS	FCC	CE
TS-EC1679U-RP	A	A
TS- EC1279U- RP	A	A
TS- EC879U- RP	A	A
TS- 1679U- RP	A	A
TS- 1279U- RP	A	A
TS- 879U- RP	A	A
TS- 1270U- RP	A	A
TS- 879U- RP	A	A
TS- 1269U- RP	A	A
TS- 869U- RP	A	A
TS- 469U- RP/ SP	A	A
TS- 419U II	A	A
TS- 412U	A	A
TS- 420U	A	A
TS- 421U	A	A
TS- 1079 Pro	A	A
TS- 879 Pro	A	A
TS- 869 Pro	B	B
TS- 669 Pro	B	B
TS- 569 Pro	B	B
TS- 469 Pro	B	B
TS- 269 Pro	B	B

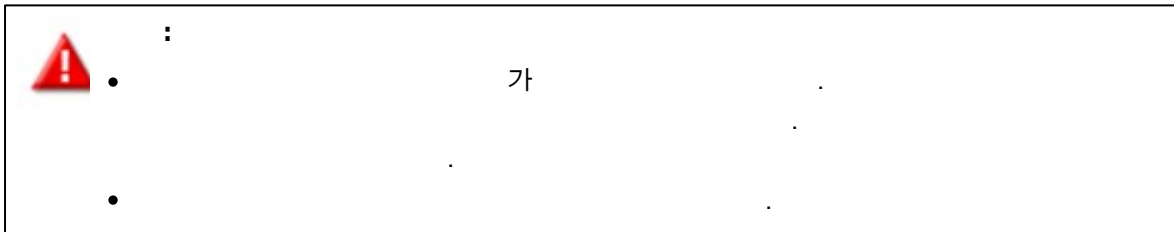
TS-869L	B	B
TS-669L	B	B
TS-569L	B	B
TS-469L	B	B
TS-269L	B	B
TS-419P II	B	B
TS-219P II	B	B
TS-119P II	B	B
TS-412	B	B
TS-212	B	B
TS-112	B	B
TS-120	B	B
TS-220	B	B
TS-420	B	B
TS-121	B	B
TS-221	B	B
TS-421	B	B

1.3

	가
	가
	가

1.4

-
1. NAS 0 -40 0%-95%
 2. NAS (100W, 90-264V)
 3. 가 NAS 가
 4. NAS NAS
 5. NAS NAS
 6. NAS NAS
 7. NAS 가
 8. NAS
 9. NAS
 - 10.
 11. NAS
 12. () NAS
IT 가

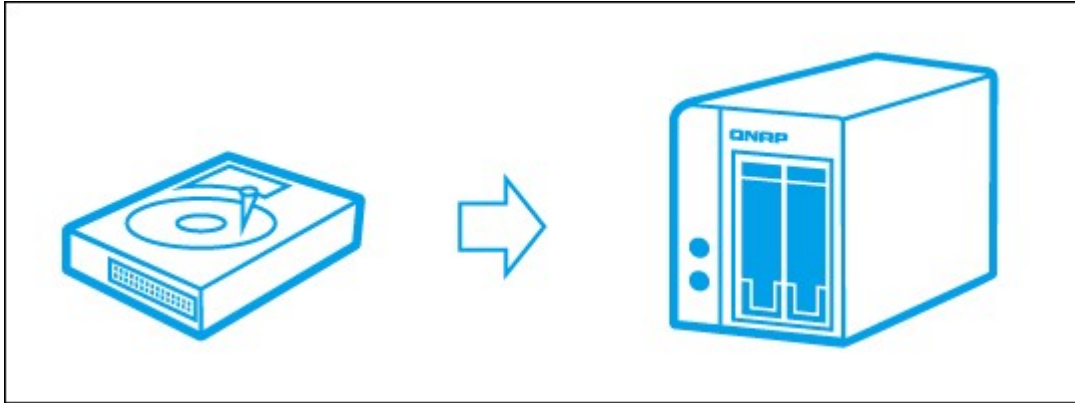


2.1

NAS

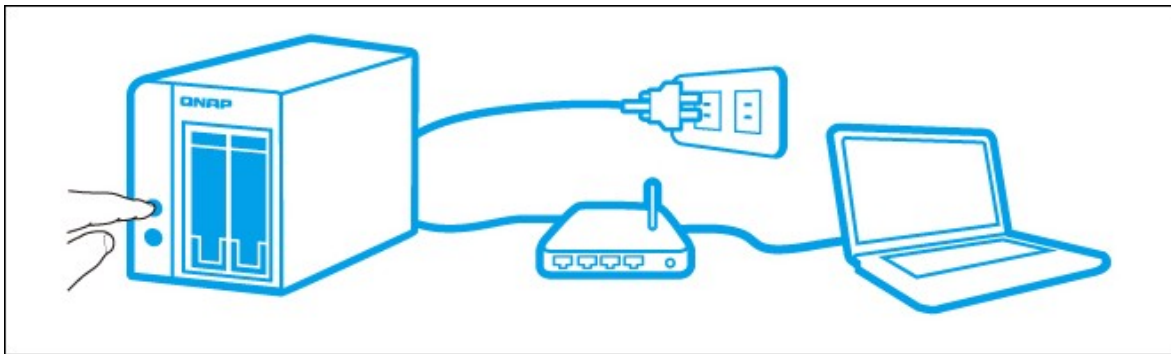
1.

(HDD)가 NAS
[16]



2. QNAP NAS PC
NAS가



LED
[17]



: QNAP (<http://start.qnap.com>)
(QIG)

2.1.1

(SSD) compatibility) . 2.5"/ 3.5" SATA QNAP (http://www.qnap.com/)

	: QNAP	/	/	.	
	: NAS	가	()	가

2.1.2

LED

LED		LED	
		0.5 가	1) NAS 가 2) NAS가 3) 가 4) RAID 5) RAID 6) RAID
	/		1) 가 2) 3) 4) 가 (TS- 119 .) 5) (/) 가 6) 가 7) NAS가 (2 가 RAID 5 RAID 6 . 가) 8) ()
		0.5	NAS가 (RAID 1, RAID 5 RAID 6)
		0.5	1) NAS가 2) NAS가 3) 가
			NAS가
			NAS 가
LAN			NAS가
10 GbE*			10GbE 가
			10GbE 가
HDD	/		가 / 가

			/ 가
			가
			가
USB	0.5	1)	USB USB 가
		2)	USB USB 가
		3)	NAS USB USB
		4)	가 USB/eSATA ()
			USB 가 ()
		1)	USB
		2)	NAS가 USB USB ()
eSATA			eSATA 가
**			eSATA

*10 GbE TS- 470 Pro, TS- 670 Pro, TS- 870 Pro, TS- 870U- RP, TS- 879 Pro, TS- 1079 Pro, TS- 879U- RP, TS- 1270U- RP, TS- 1279U- RP, TS- EC879U- RP TS- EC1279U- RP

**TS- 210, TS- 212, TS- 219, TS- 439U- SP/RP, TS- 809 Pro, TS- 809U- RP eSATA




Control Panel()">"System Settings()"> Hardware()">
 "Buzzer()"

(0.5)	1	1) NAS가 2) NAS가 () 3) 가 NAS 4) 가
(0.5)	3	가 NAS USB 가 가 .
(0.5), (1.5)	3 , 5	가 (TS- 119 .)
(1.5)	2	1) 2) 3) NAS 가 4) 가 HDD
	1	1) NAS가 () 2) NAS가

2.2

NAS

가

1. 
2. 
3. CD 

NAS

(

CD가

가

CD

).

가

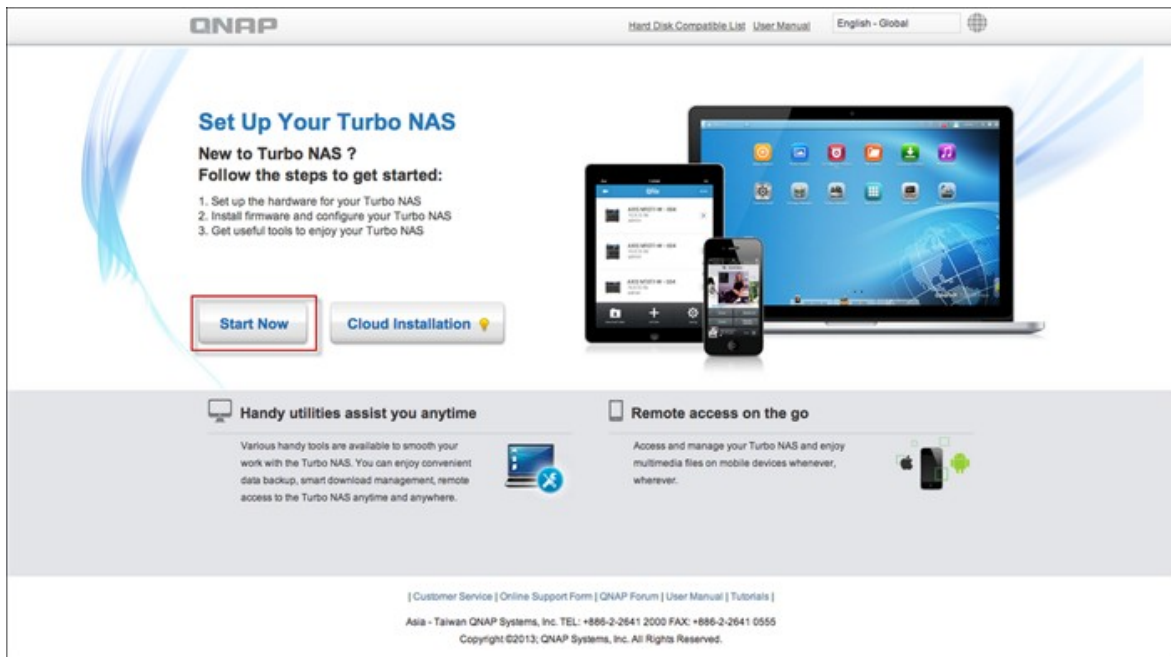
가

(<http://www.qnap.com/support>).

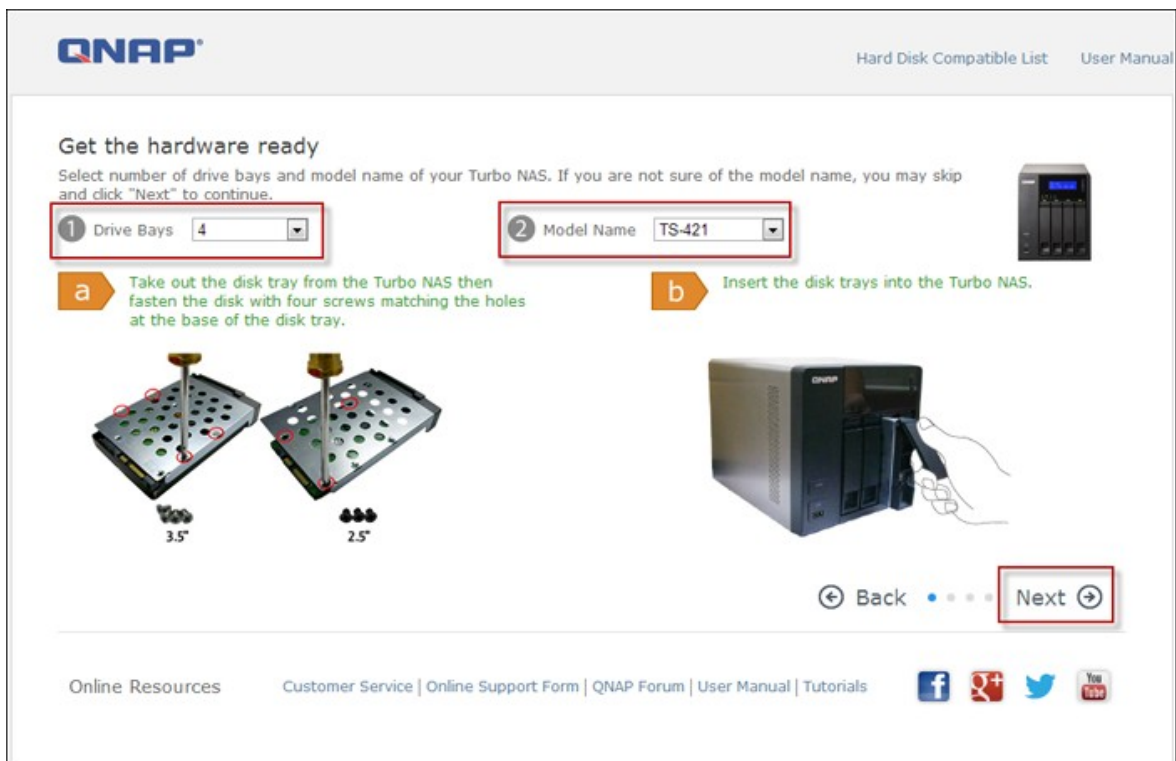
2.2.1

NAS

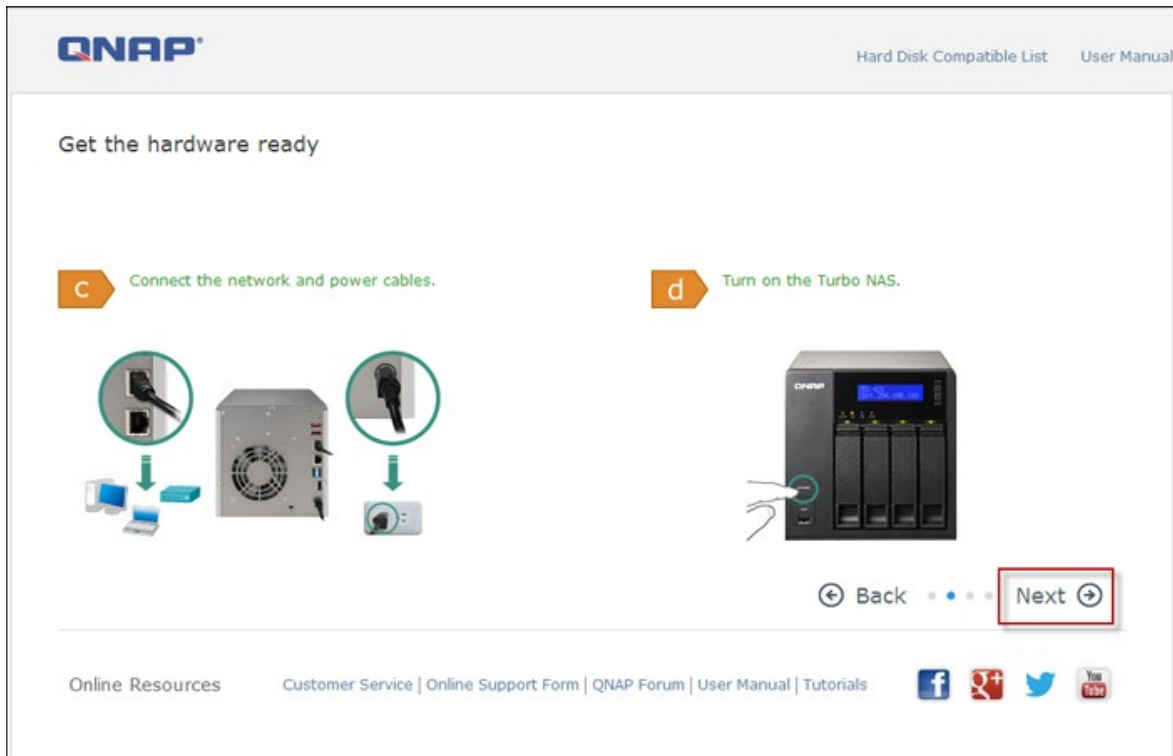
1. <http://start.qnap.com> 가 Start Now()”



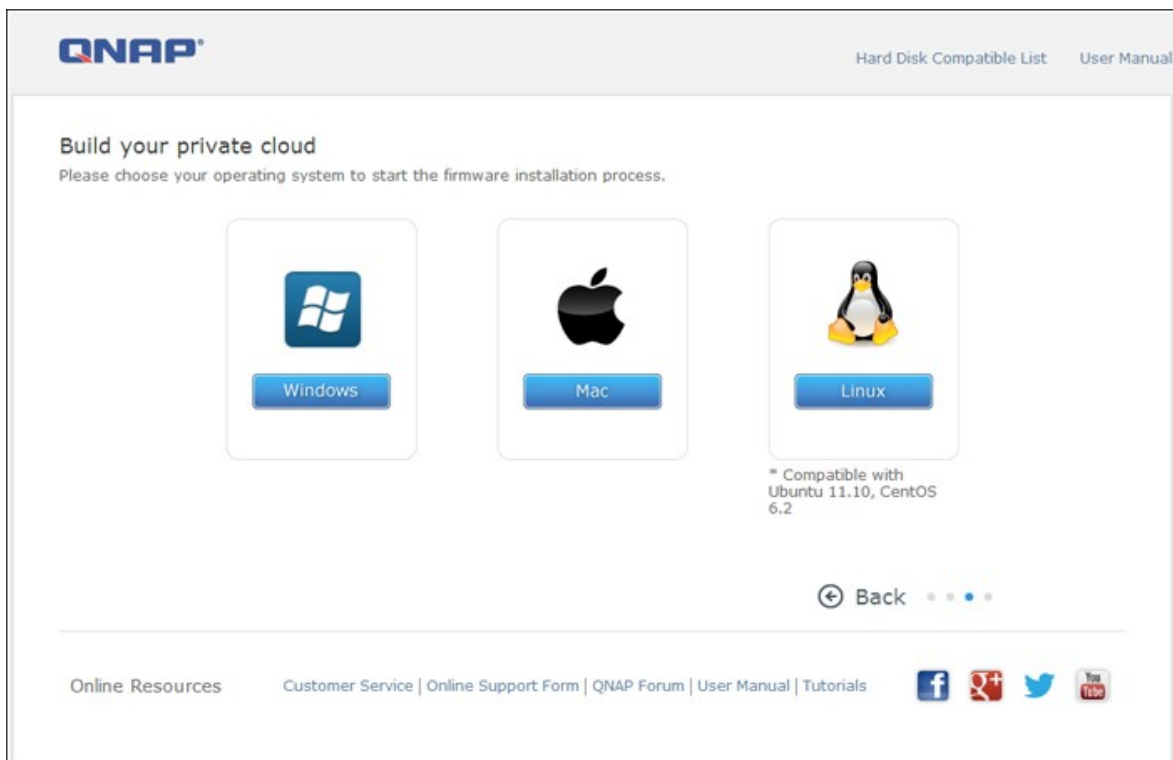
2. HDD NAS Next()”



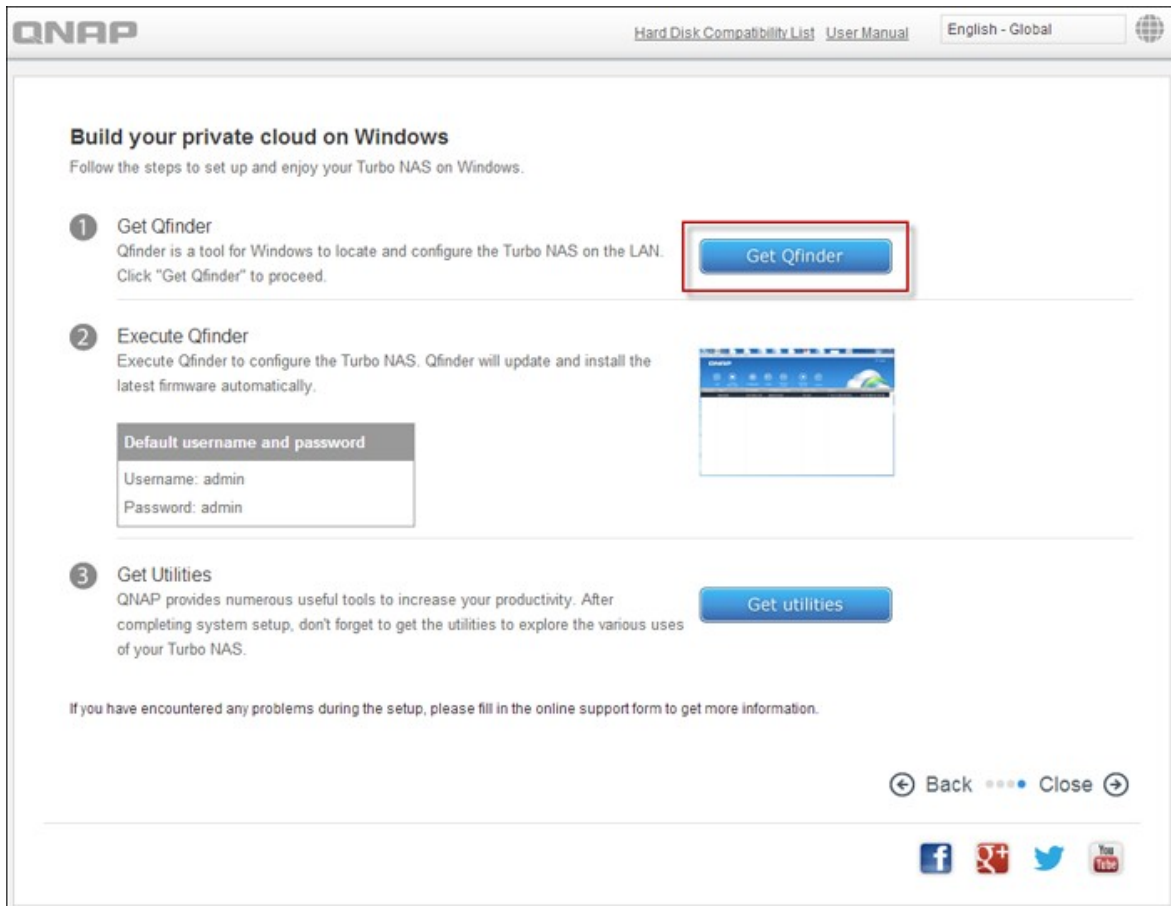
3. NAS Turbo NAS Next()”



4. 가



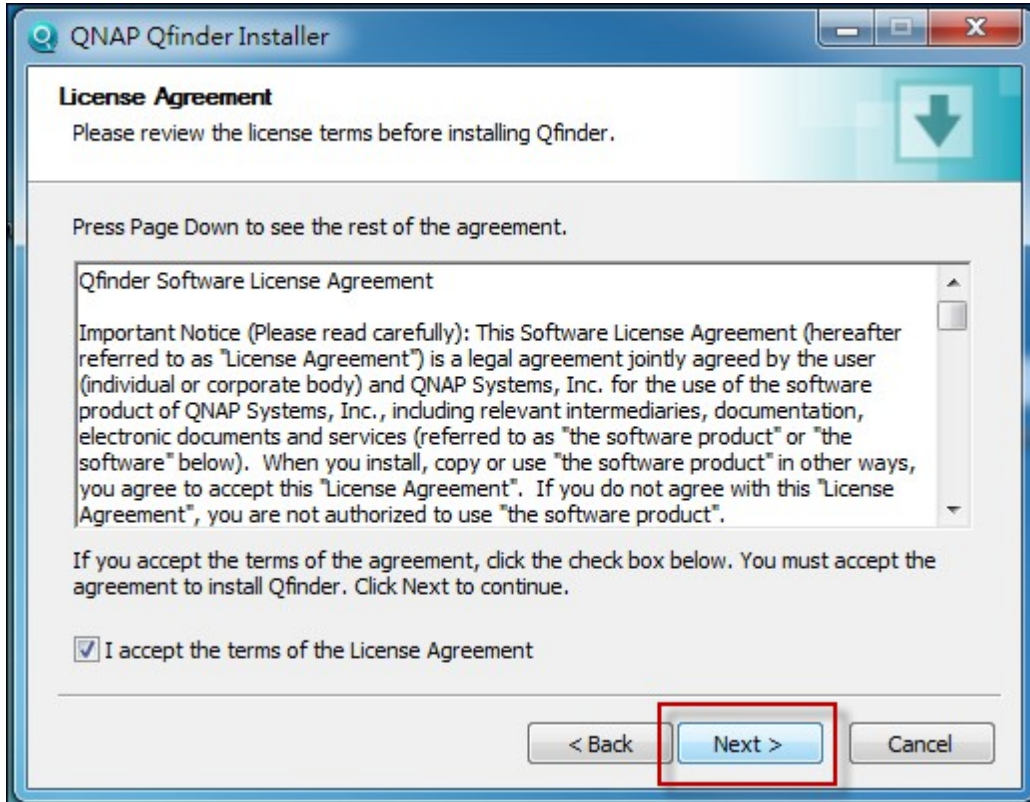
5. 'Get Qfinder(Qfinder)” QNAP Qfinder . (Mac
19|29)



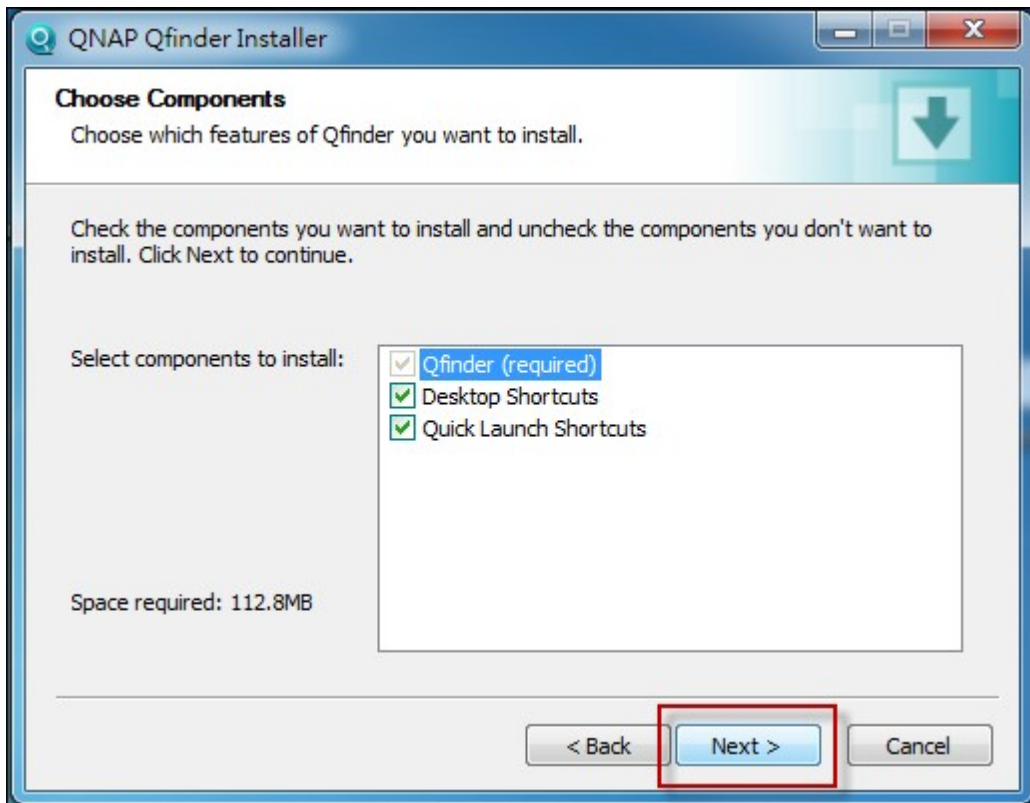
6. QNAP Qfinder Next()”



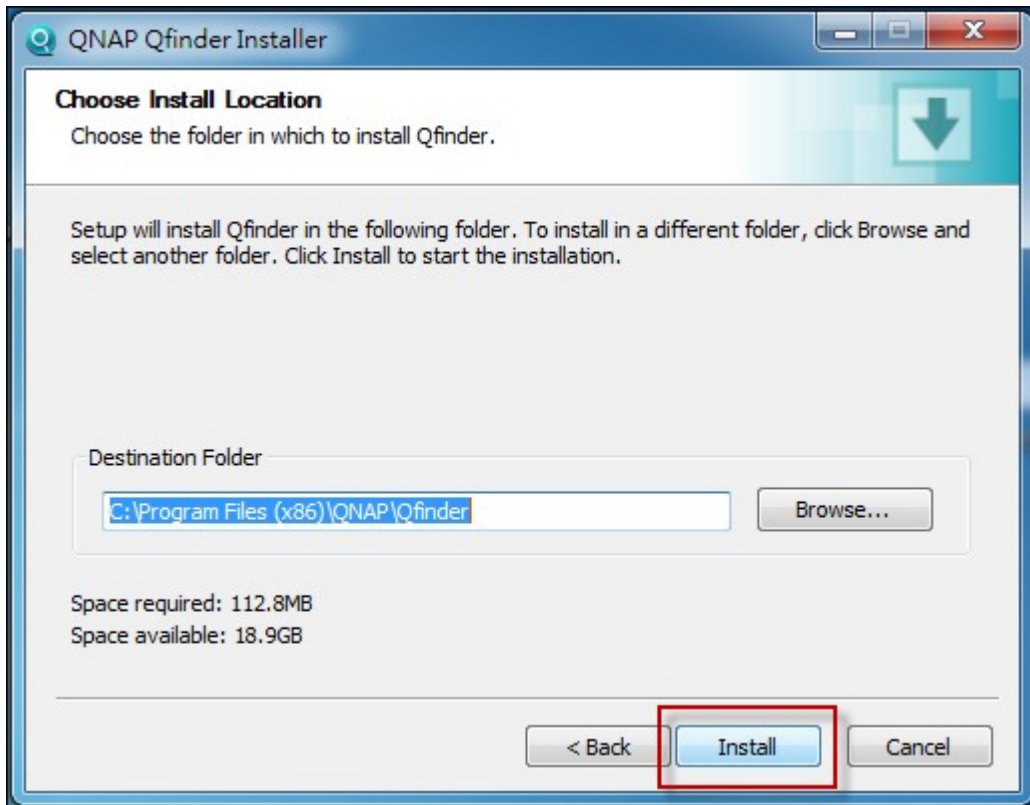
7.)” f accept the terms of the License Agreement(Next()”



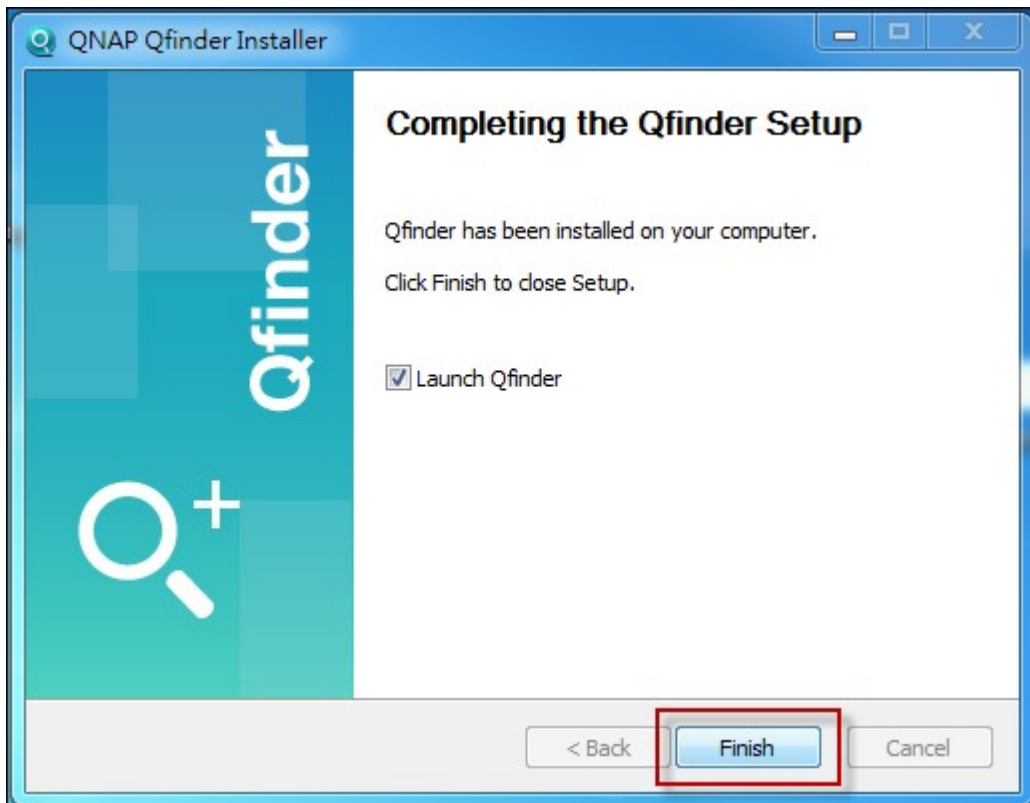
8. Next()”



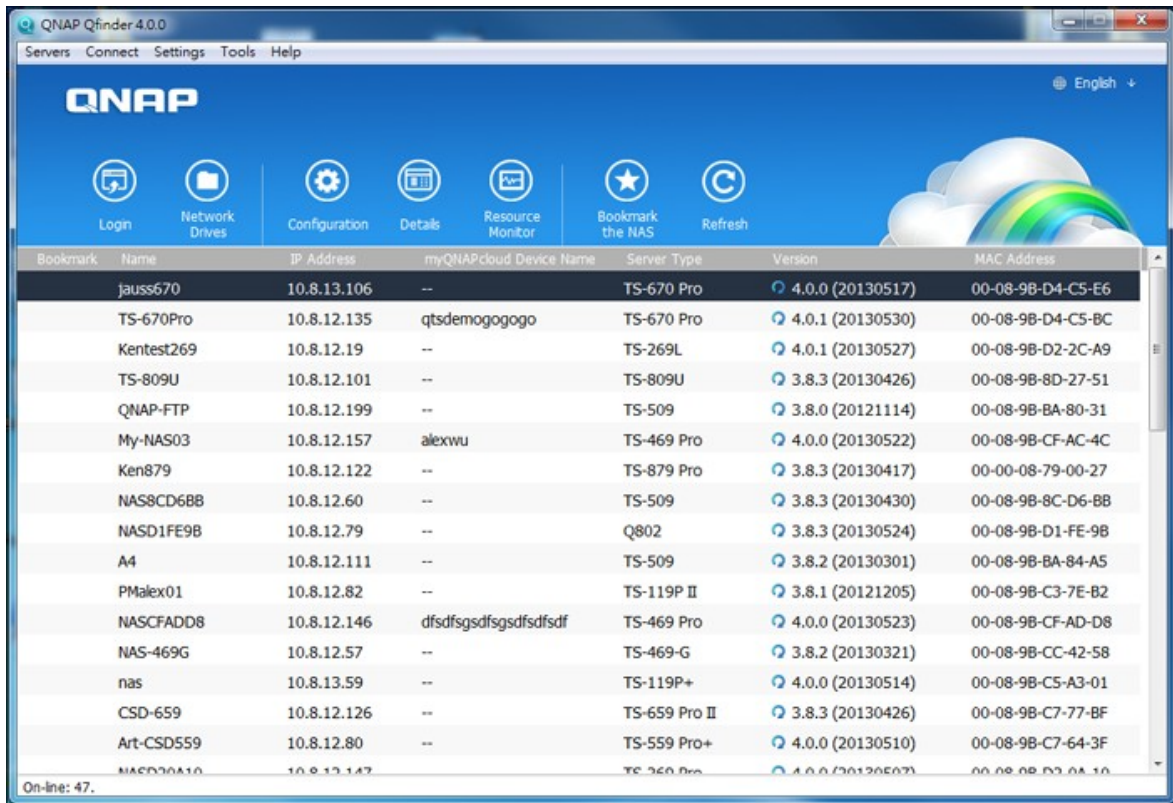
9. Install()”



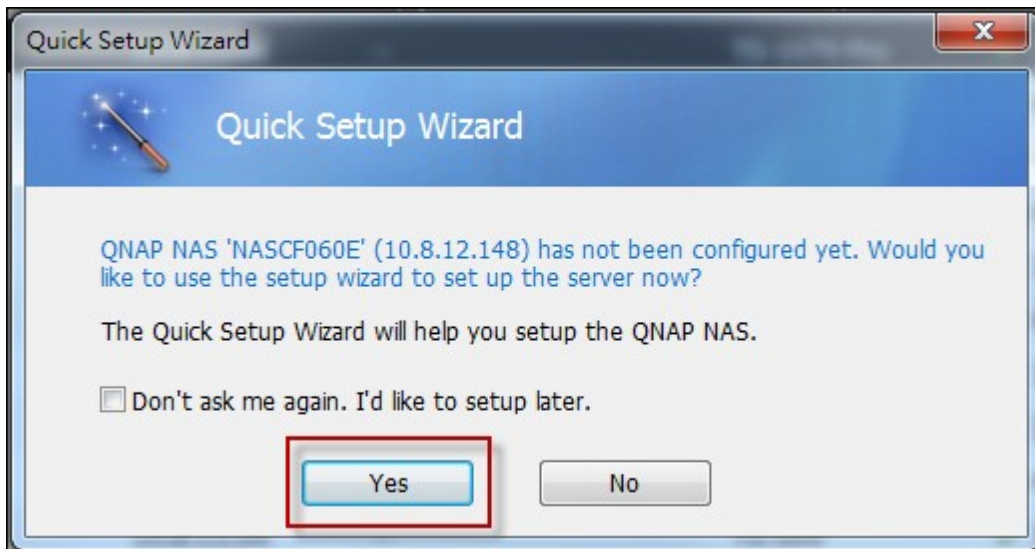
10. Finish()”



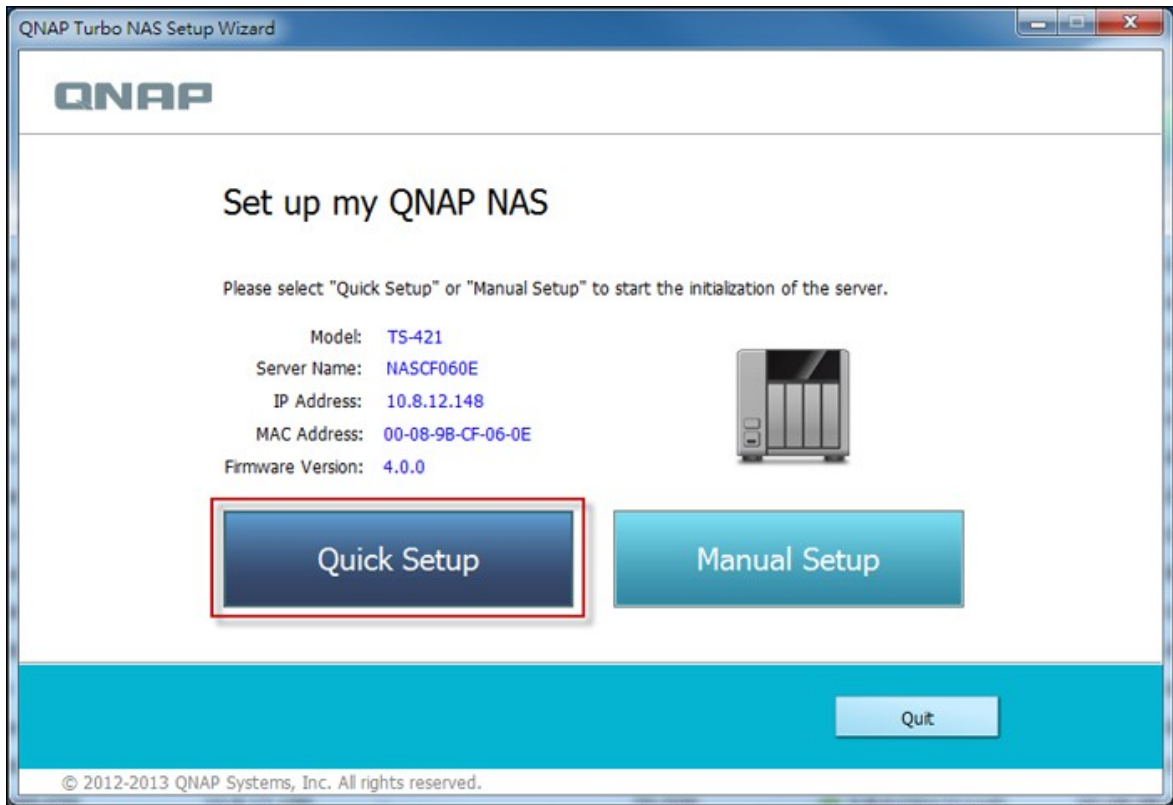
11. QNAP Qfinder



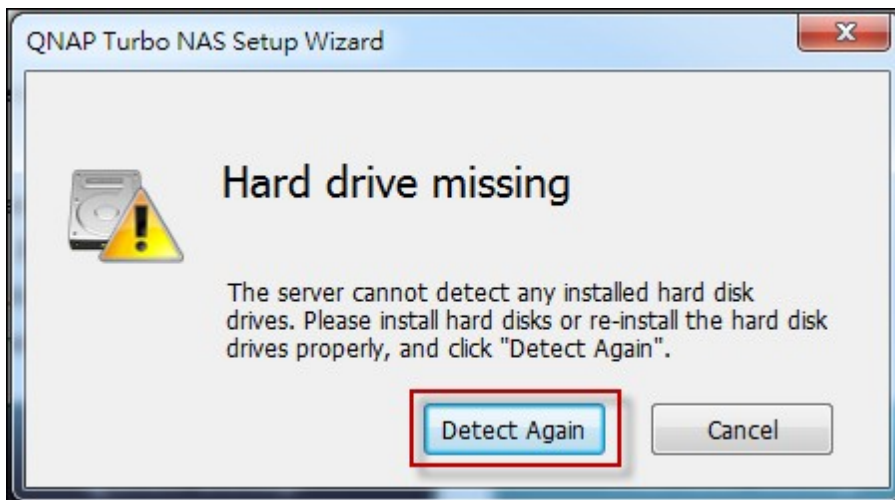
12. 가 IP 가 Turbo NAS (QNAP Qfinder MAC IP) Yes()” Turbo NAS



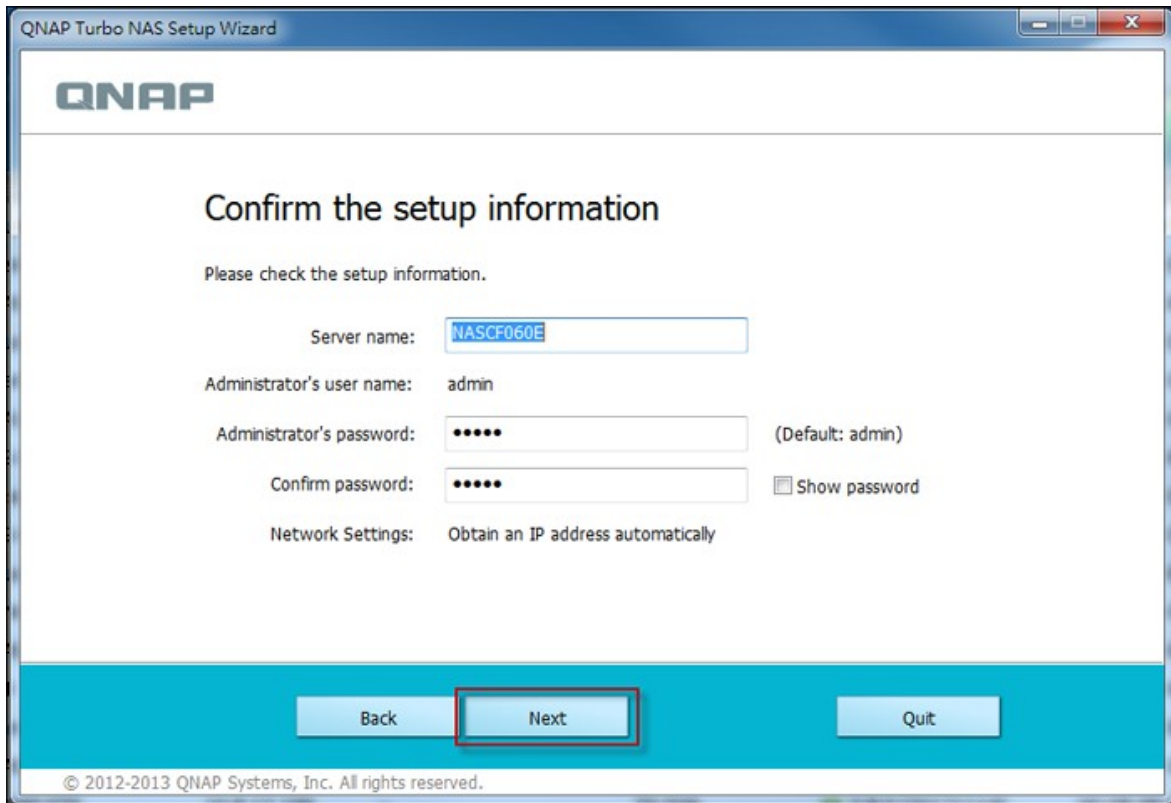
13. Quick Setup()”



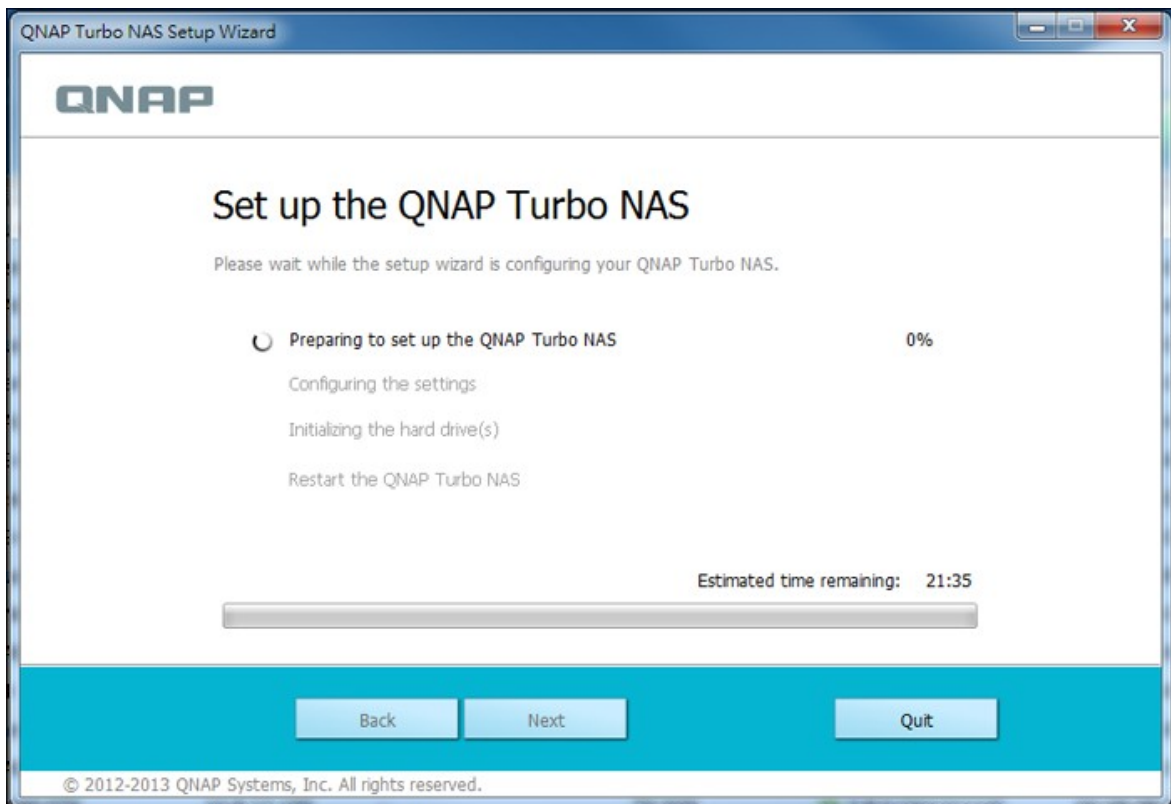
14. Turbo NAS Detect Again()”



15. "Next()”

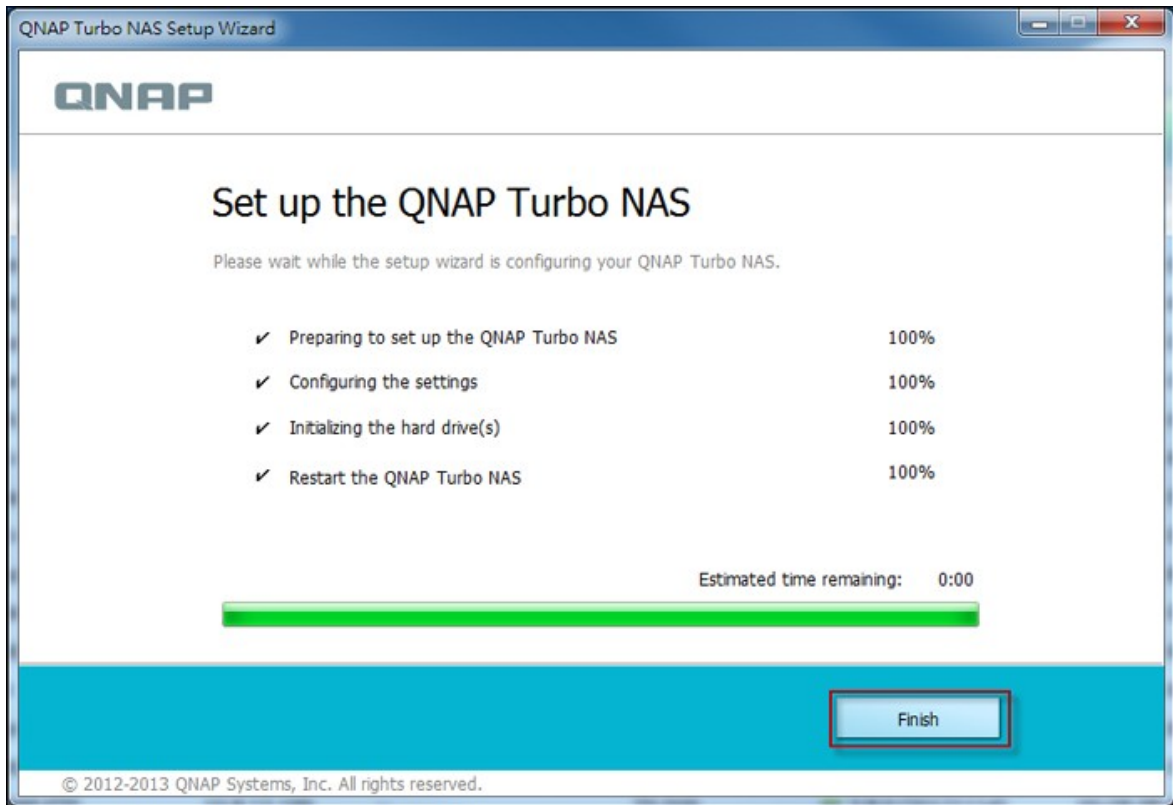


16. 가



17. Finish()”

NAS 가



18. Confirm the setup information()” ID



19. Get Qfinder(Qfinder)” QNAP Qfinder . (19 - 23 Mac .)

Build your private cloud on Mac
 Follow the steps to set up and enjoy your Turbo NAS on Mac.


- 1 Get Qfinder**
 Qfinder is a tool for Mac to locate and configure the Turbo NAS on the LAN. Click "Get Qfinder" to download.

[Get Qfinder](#)
- 2 Execute Qfinder**
 Execute Qfinder to configure the Turbo NAS.

Default username and password

Username: admin

Password: admin


- 3 Get Utilities**
 QNAP provides many useful tools to increase your productivity. After completing system setup, don't forget to get utilities to explore the various uses of your Turbo NAS.

[Get utilities](#)

If you have encountered any problems during the setup, please fill in the online support form to get more information.

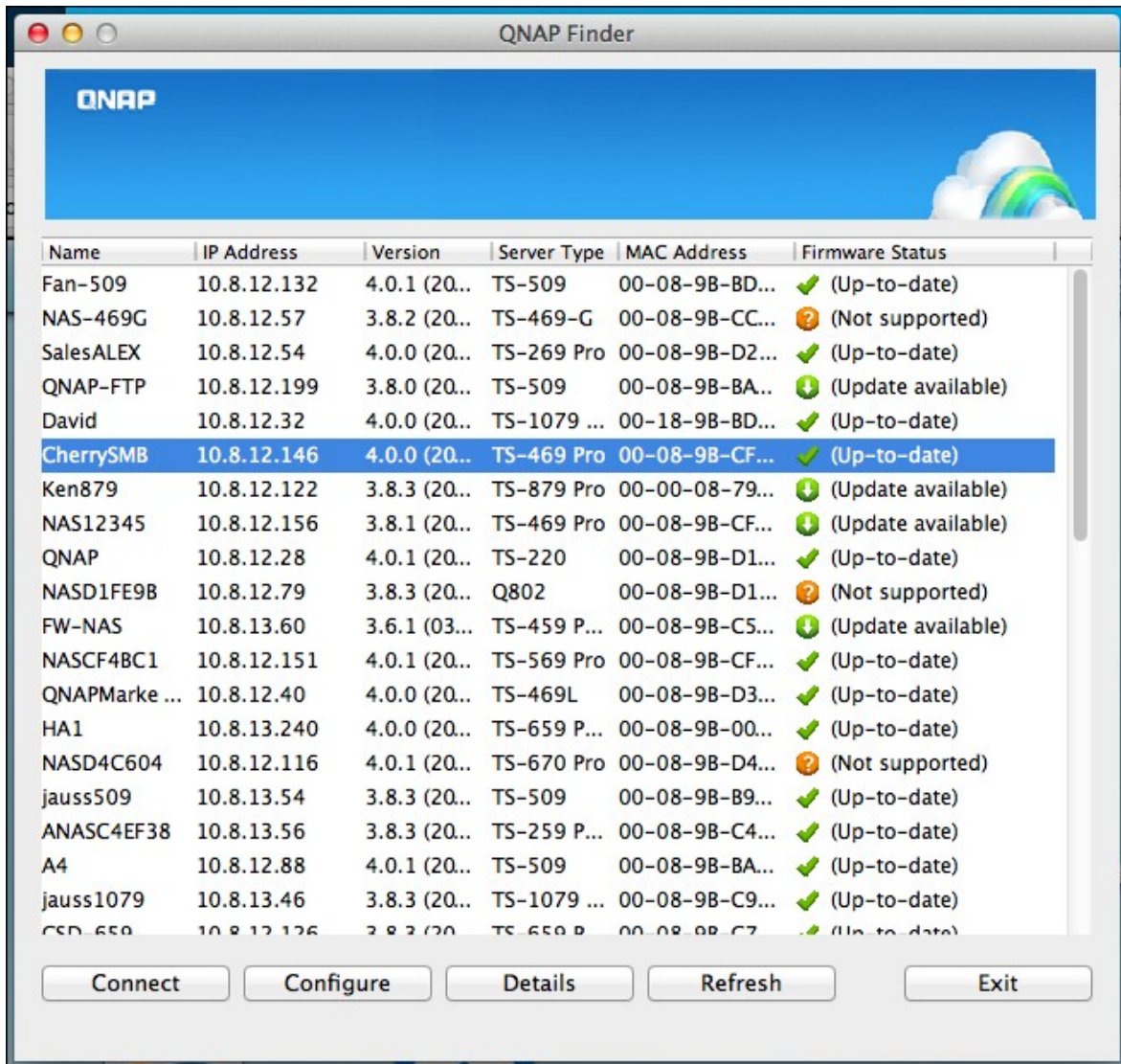
⏪ Back •••• Close ⏩

20. QNAP Qfinder



21. QNAP Qfinder

NAS



22.



23. Confirm the setup information()”

ID



2.2.2

NAS

1. NAS PC "start.qnap.com" Cloud Installation()"

QNAP Hard Disk Compatible List User Manual English - Global

Set Up Your Turbo NAS

New to Turbo NAS ?
Follow the steps to get started:

1. Set up the hardware for your Turbo NAS
2. Install firmware and configure your Turbo NAS
3. Get useful tools to enjoy your Turbo NAS

[Start Now](#) [Cloud Installation](#)

Handy utilities assist you anytime
Various handy tools are available to smooth your work with the Turbo NAS. You can enjoy convenient data backup, smart download management, remote access to the Turbo NAS anytime and anywhere.

Remote access on the go
Access and manage your Turbo NAS and enjoy multimedia files on mobile devices whenever, wherever.

[Customer Service | Online Support Form | QNAP Forum | User Manual | Tutorials]
Asia - Taiwan QNAP Systems, Inc. TEL: +886-2-2641 2000 FAX: +886-2-2641 0555
Copyright ©2013; QNAP Systems, Inc. All Rights Reserved.

QR



2. (QNAP NAS)
Enter "



: Device not found()” 가 1) NAS
 , 2) NAS LAN , 3)
 가 .

3. myQNAPcloud myQNAPcloud
 . I agree to myQNAPcloud Terms of Use and QNAP Privacy Policy(myQNAPcloud
 QNAP)” Next Step()” .

myQNAPcloud TS-421 English ▾

1 Sign in and register **2 Installing your NAS**

Register myQNAPcloud device name

Please enter a name to register your QNAP NAS. This name will be used to access your NAS remotely. This will allow remote access to your QNAP NAS and help you to connect to your NAS more easily after finishing the installation process.

myQNAPcloud Device Name:

After finishing the installation, you will be able to access your QNAP NAS remotely using the following Internet address.
Q70140962.myqnapcloud.com




Copyright © QNAP Systems, Inc. All Rights Reserved.

6. Turbo NAS

myQNAPcloud TS-421 English ▾

1 Sign in and register **2 Installing your NAS**



Hard Drive Missing

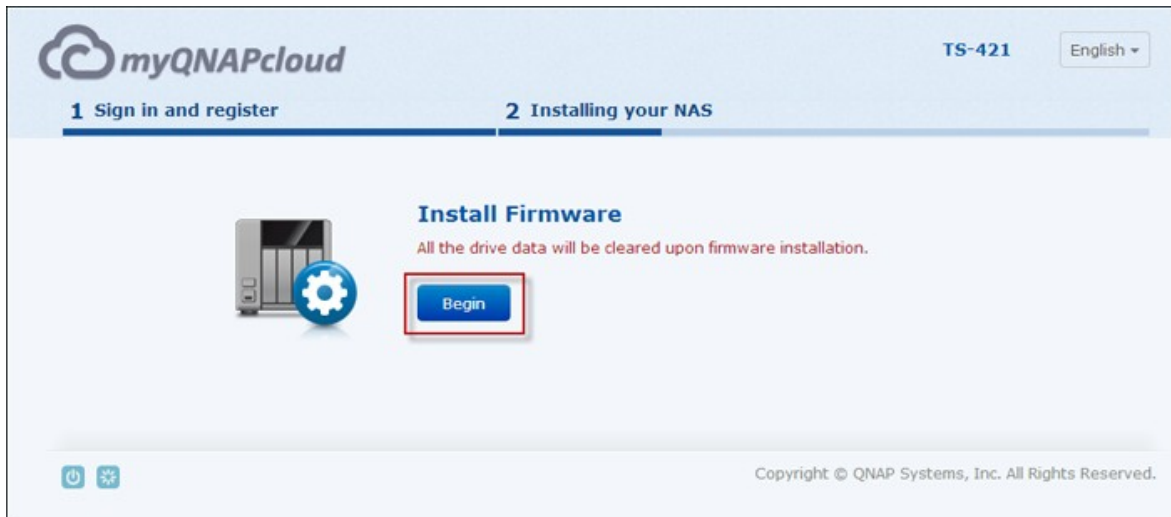
Install and format at least one hard drive before using the NAS. A hard drive can be inserted to an empty disk bay without turning off the NAS. For the hard disk compatibility list, please visit http://www.qnap.com/go/compatibility_hdd35.html

Note: All the drive data will be cleared upon hard drive initialization.

Please make sure the hard drive(s) are installed correctly and the hard drive cable(s) are securely connected.

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7. Begin()” Turbo NAS



8. "Start()"



9. "Proceed()"



Quick Setup

Please review the following settings and click "Proceed" to continue. Don't worry! You can modify these settings later in the NAS administration page.

NAS Name: **NASCF059E**

Username: **admin**

Password: ******* (Default password : admin)**

IP Address: **(DHCP)**

Time Zone: **(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi**

Date / Time: **2013/05/13 19:49:21**

Disk Configuration: **Single (Total Storage Capacity : 232.89 GB)**

Bad Block Scan: **No**

Tip

You may click on the above texts to change the settings.

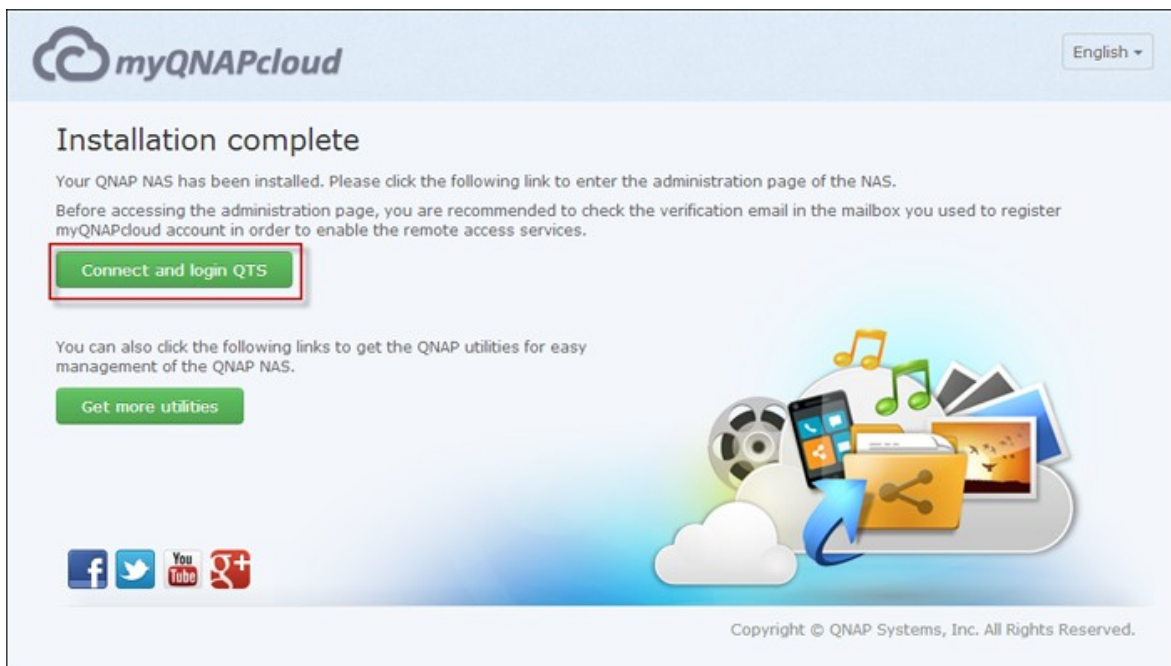
Proceed

Cancel

10.



11. "Connect and Login QTS(QTS)" .



12. ID Turbo NAS .

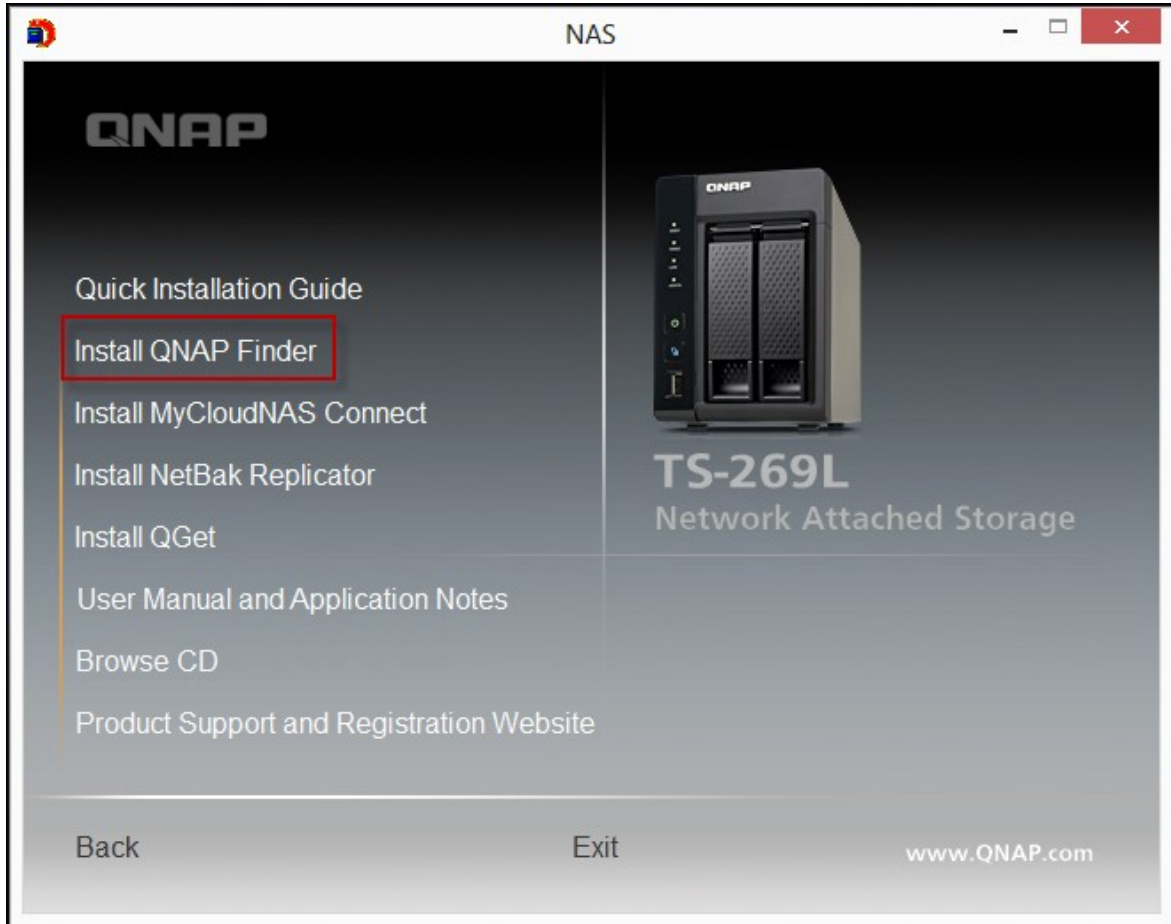


The image shows a login window titled "Turbo System" with a metallic header. It contains a "Username:" text box, a "Password:" text box with a visibility toggle icon, and two checkboxes: "Remember me" and "Secure login". The background is a blue gradient with a globe-like pattern of data points.

2.2.3 CD

NAS CD

1. CD-ROM QNAP Qfinder



2. QNAP Qfinder . QNAP Qfinder가

3. 

:		
• TS- x12, TS- x20, TS- x21	NAS	CD가
• NAS	ID	admin

2.3 가

QNAP NAS 가 . NAS

가

A. QNAP

<http://www.qnap.com/> > 가 (" ")
. PC

[Home](#) > [Features](#) > [For Business](#) > [Utility](#)

QNAP utilities

- [Qfinder](#)
- [myQNAPcloud Connect](#)
- [Qsync](#)
- [NetBak Replicator](#)
- [QGet](#)
- [vSphere Clinet plug-in](#)

Various handy utilities are available for you to work smartly with your Turbo NAS. These utilities help increase your productivity and make it absolutely easy with connecting the Turbo NAS, setting up the system, data backup and synchronization, downloading files, and so on. Visit the [Download](#) center, find your Turbo NAS model, and the list of available utilities are ready for you.

B. CD - ROM

CD-ROM QNAP Qfinder, myQNAPcloud Connect, NetBak Replicator, QGet
가



CD-ROM

- : NAS
- QNAP Qfinder : QNAP Finder (Windows).
- myQNAPcloud Connect : myQNAPcloud Connect (Windows).
- NetBak Replicator : NetBak Replicator (Windows OS QNAP NAS Windows).
- QGet : QGet (Windows).
- : , Turbo NAS

2.4 NAS

NAS

Mac

Linux

NAS

- Windows

47

51

2.4.1 Windows

Windows NAS 가 가

:

A. QNAP Qfinder^[47]

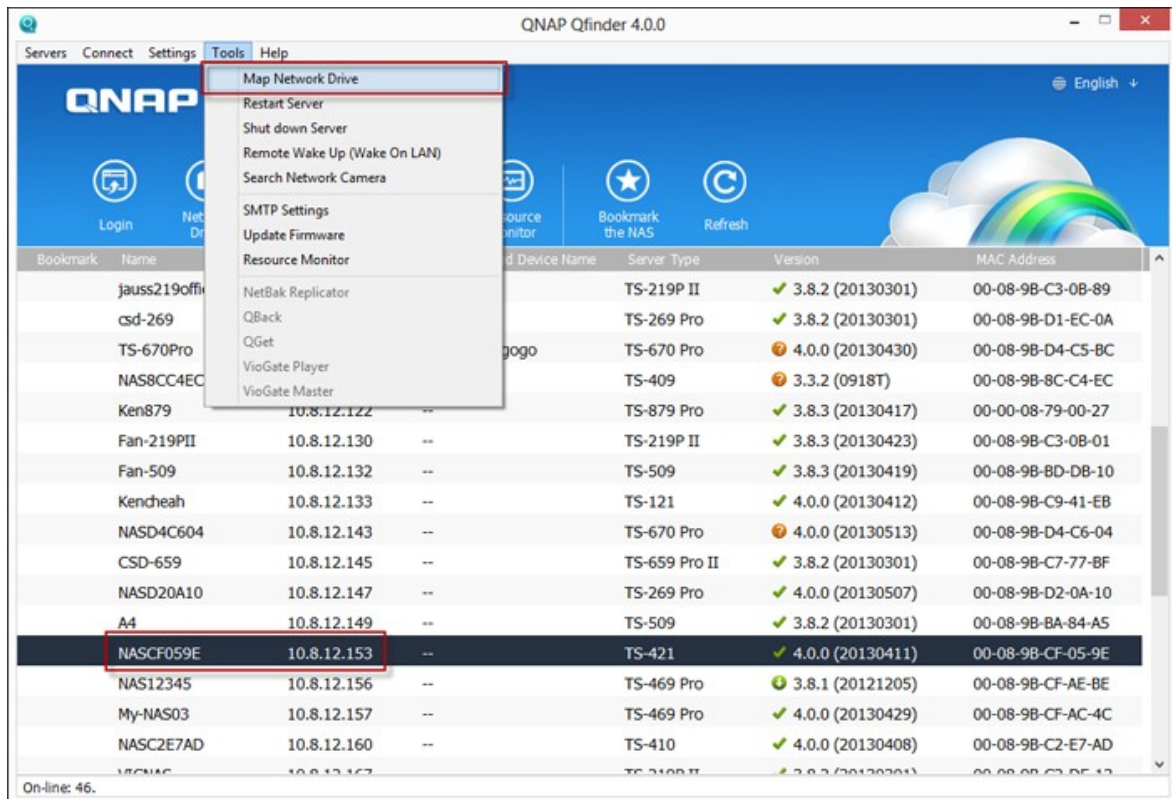
B. ^[50]

A. QNAP Qfinder

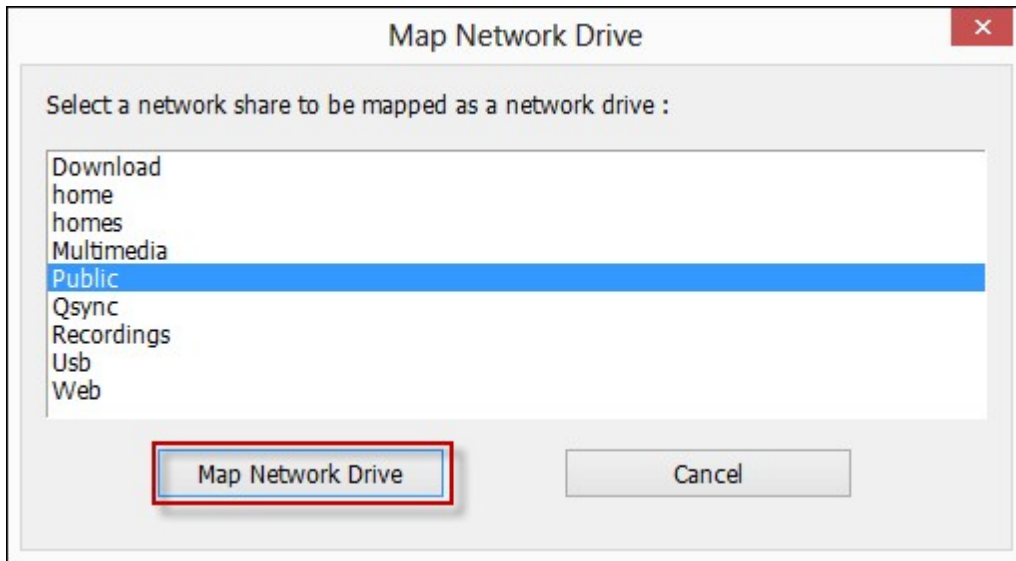
NAS

:

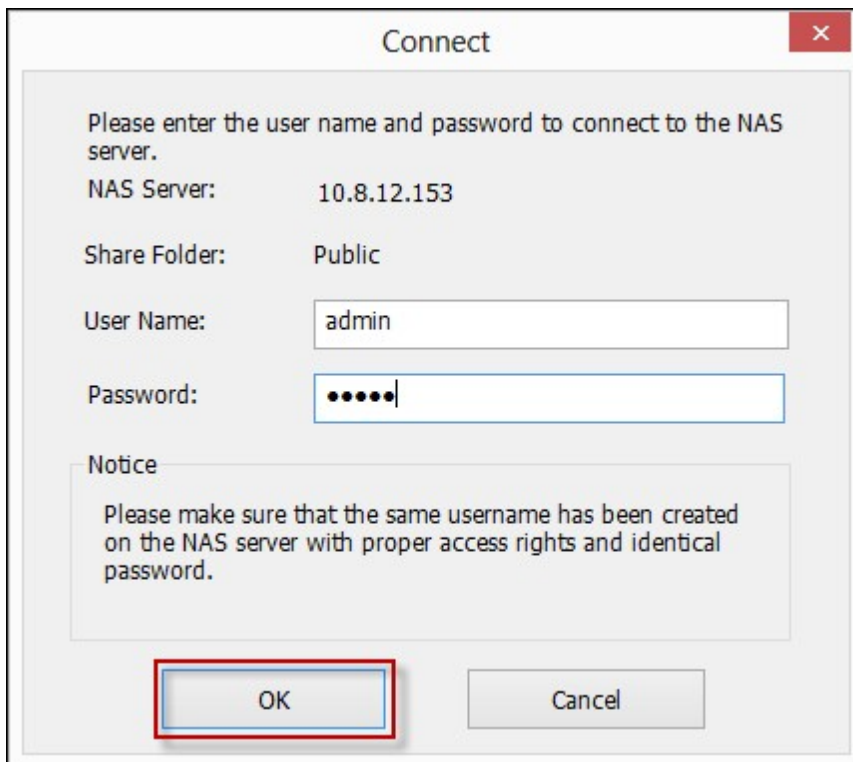
1. QNAP Qfinder NAS "Map Network Drive()"



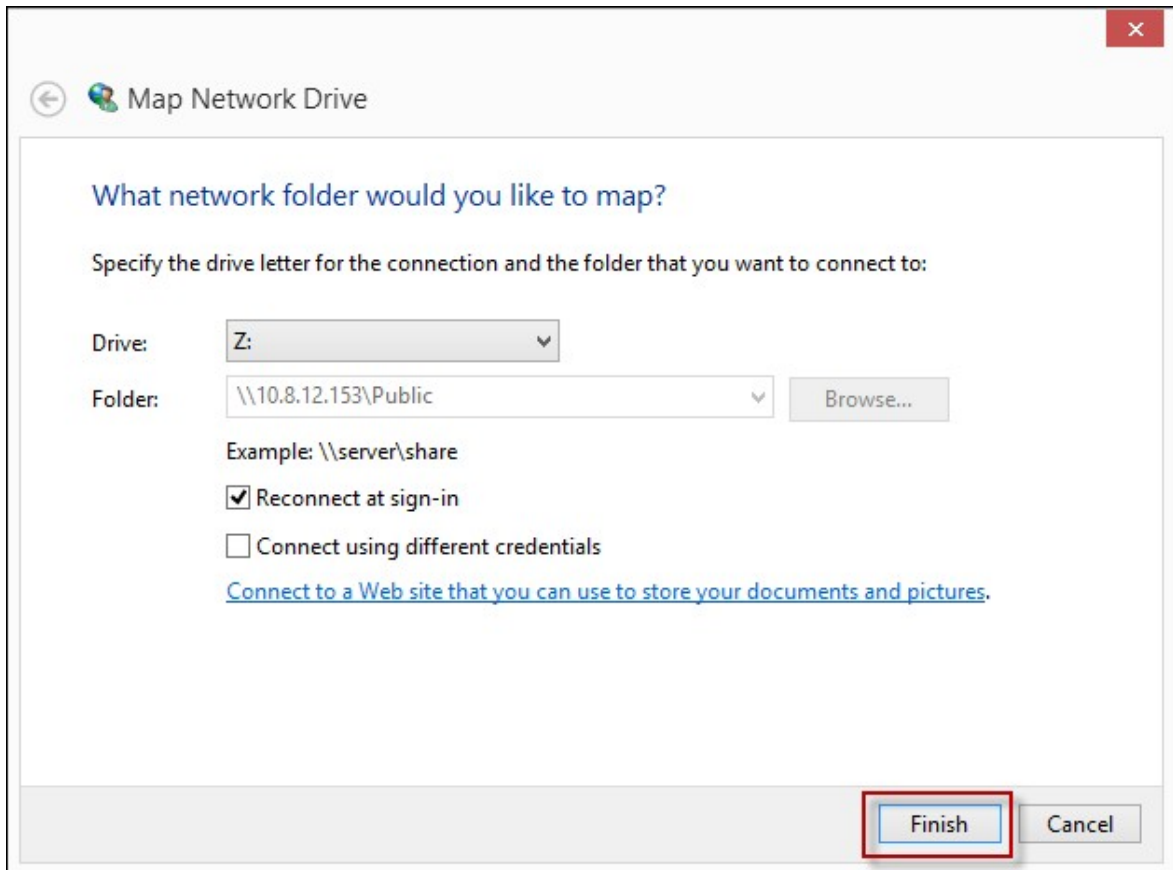
2. NAS "Map Network Drive()"



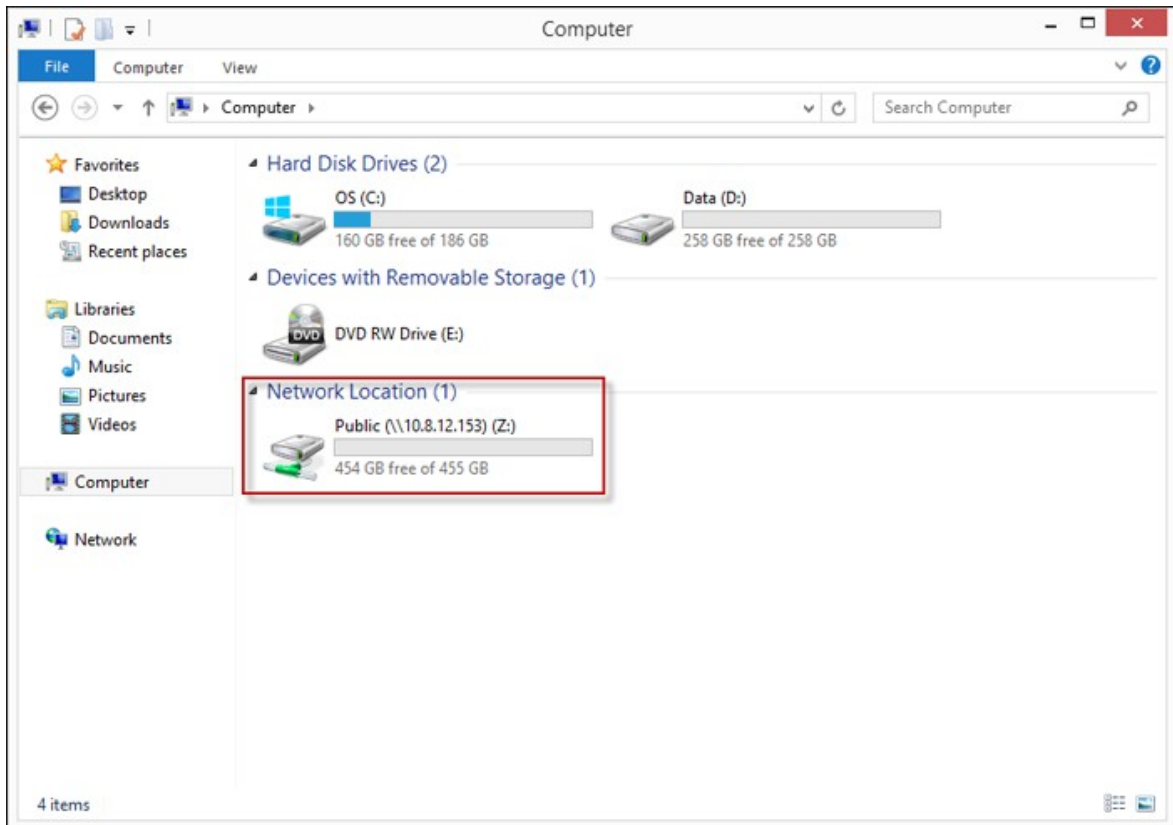
3. NAS "OK()"



4. 2 OS Finish()"



5. 가 .



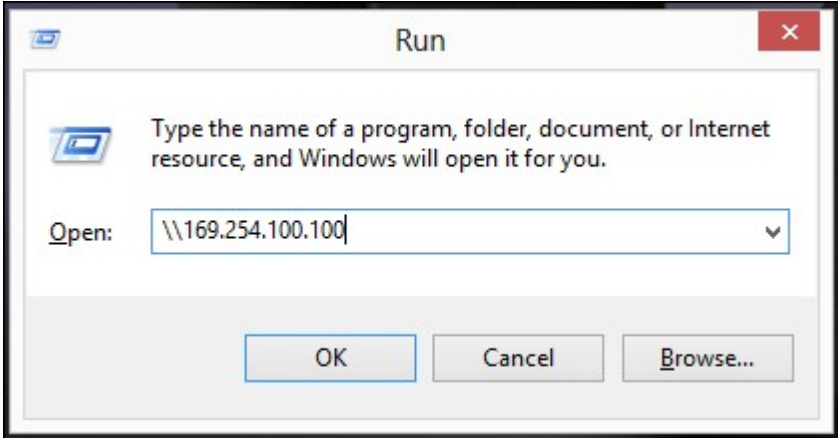
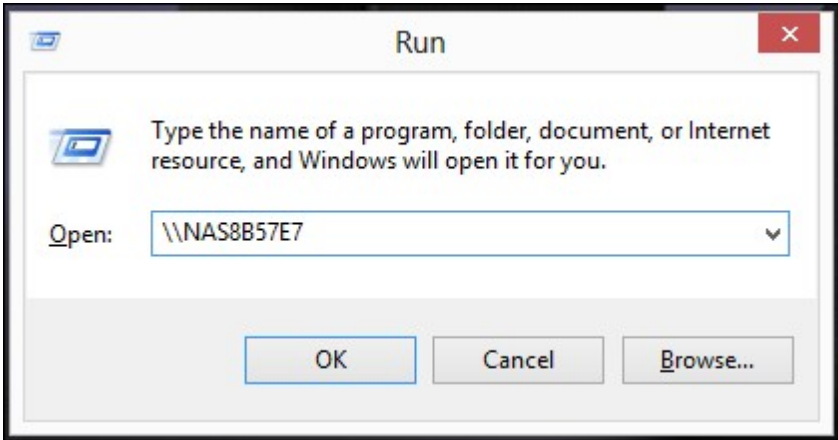
: Storage Plug & Connect NAS
 : 1) QNAP Qfinder . 2) Connect Storage Plug & Connect . 3)
 "Login with username and password()"
 . 4) NAS . 5) "Map the Network
 Drive()"

B. **NAS**

:

1a. NAS . NAS

1b. Windows . \ \ NAS_name \ \ NAS_IP



1.
 : admin
 : admin

2.

2.4.2 Mac Linux

Mac

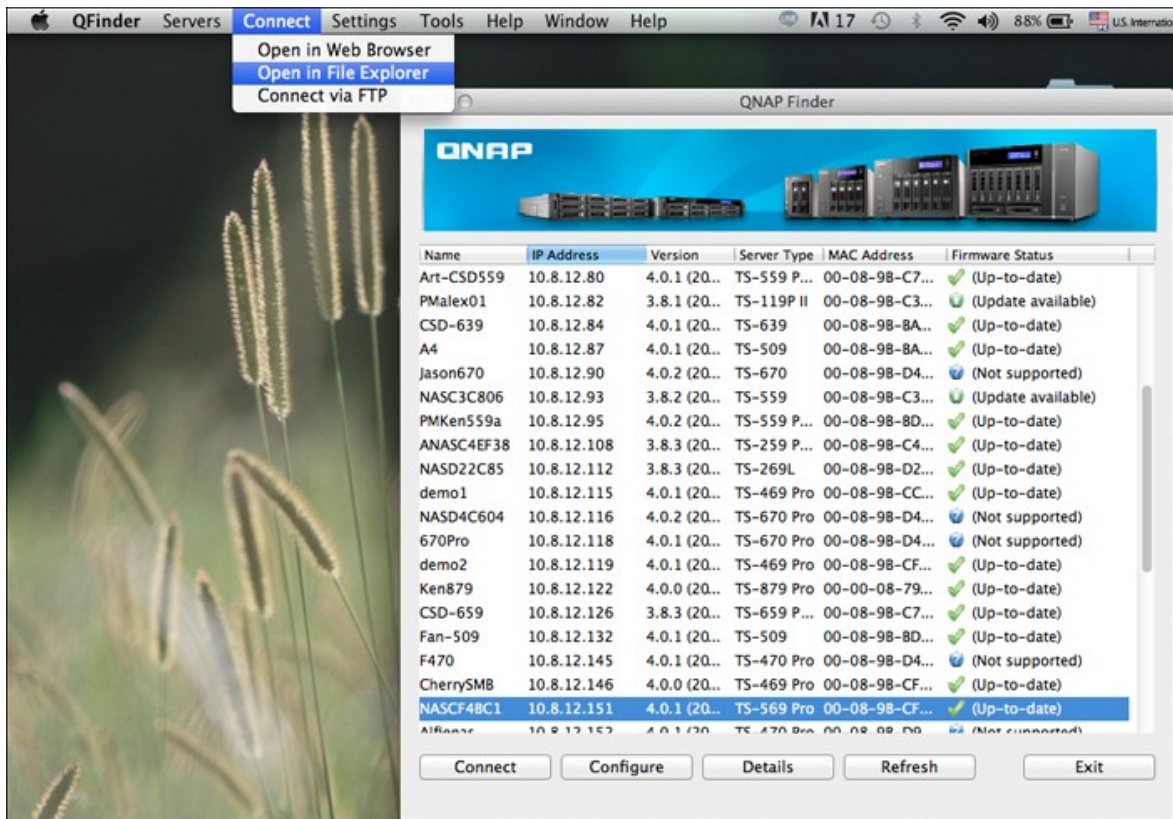
NAS

가 가 :

- A. QNAP Qfinder 51
- B. 53

A. QNAP Qfinder

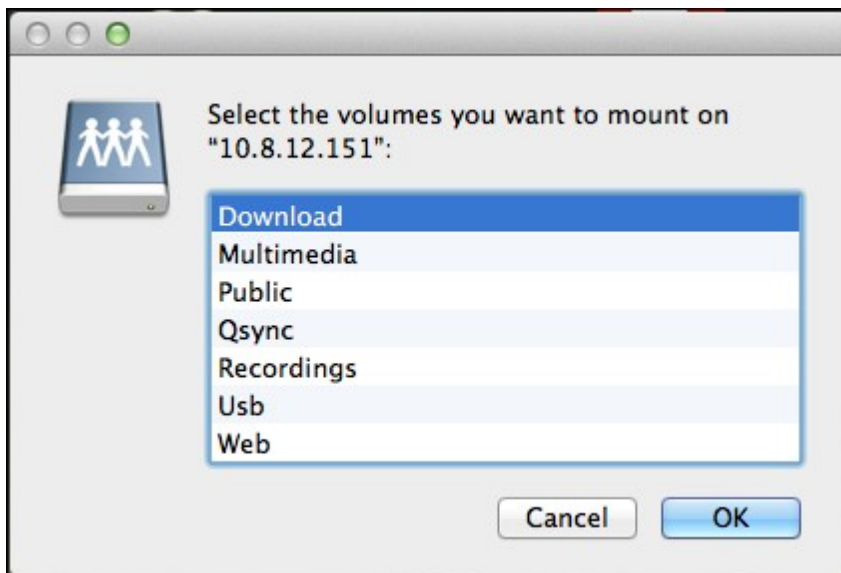
1. QNAP Qfinder , NAS "Connect()" > "Open in File Explorer()"



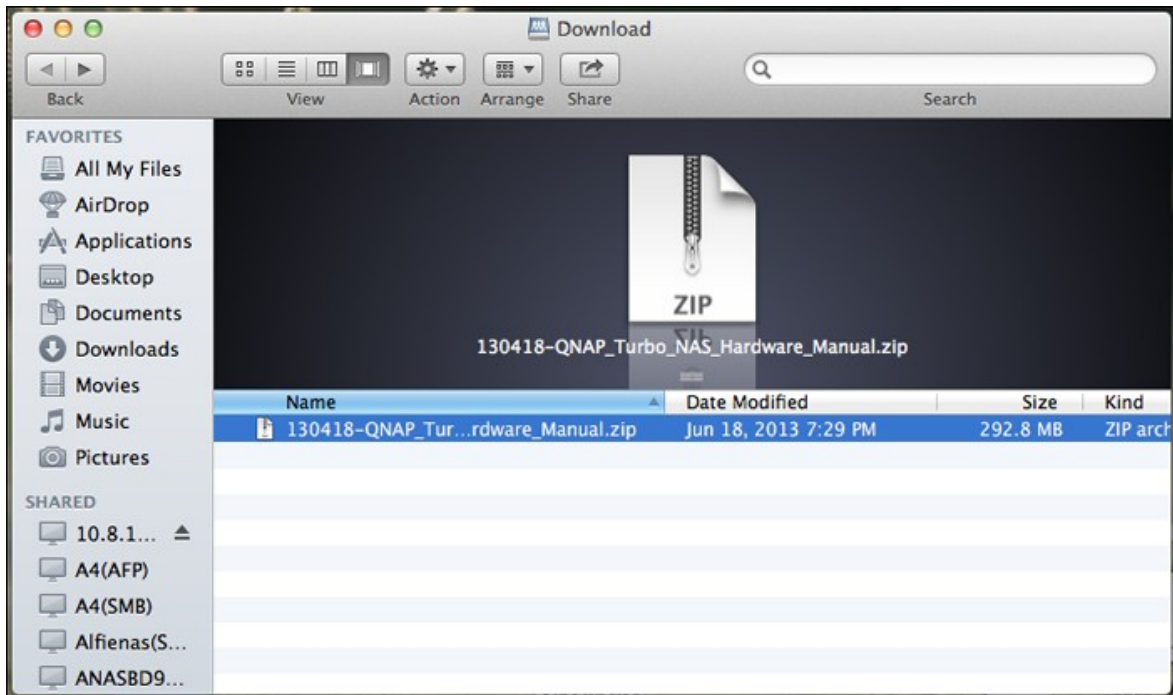
2. ID



3.

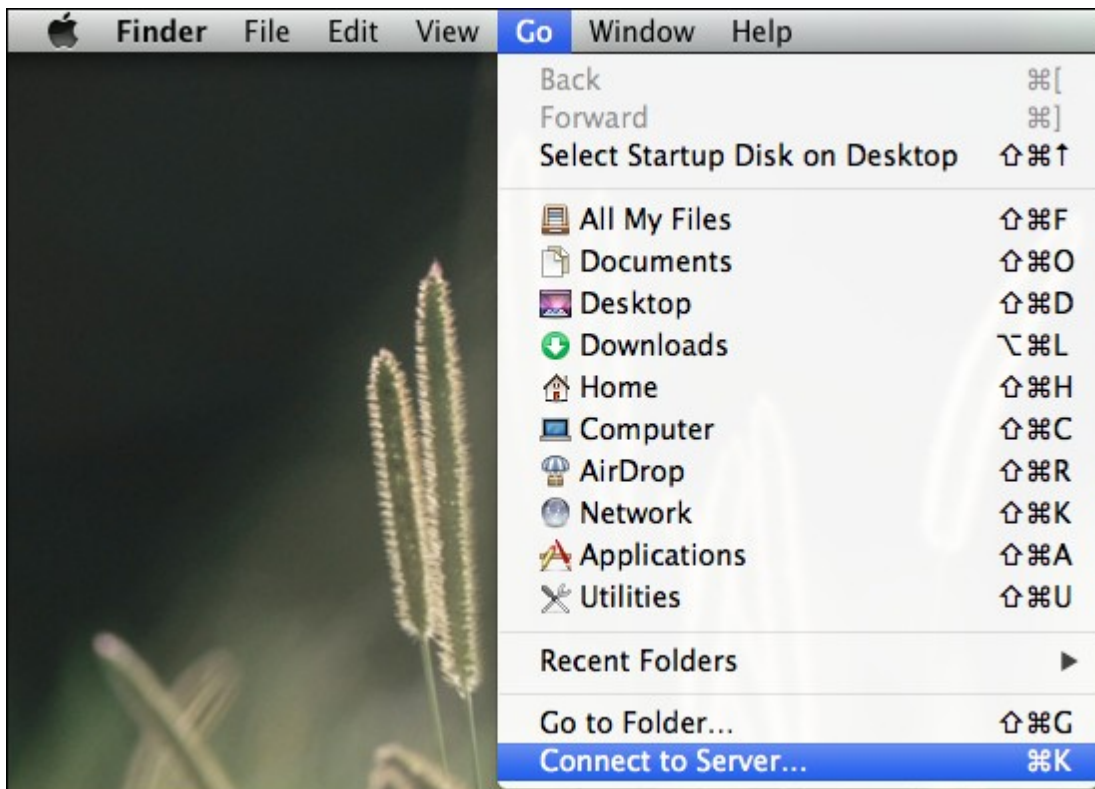


4. 가

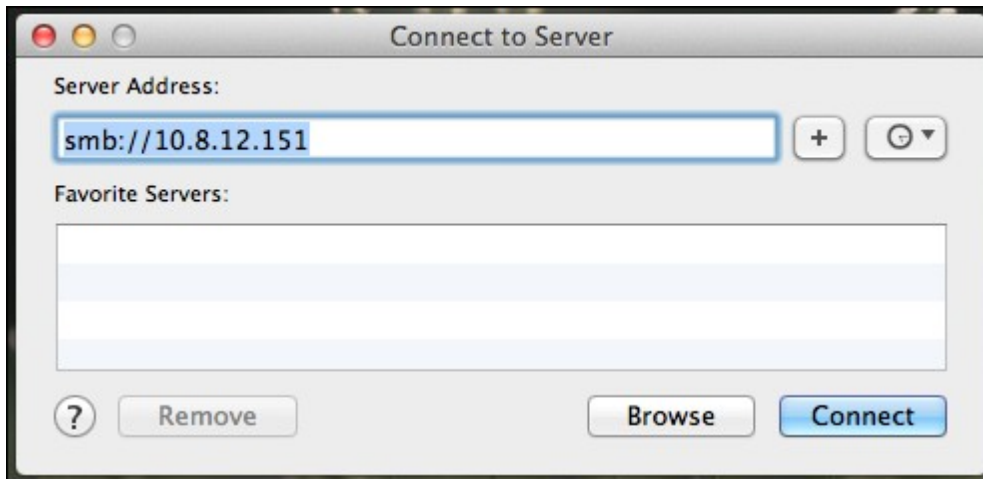


B.

1. "Go(가)" > "Connect to Server()"



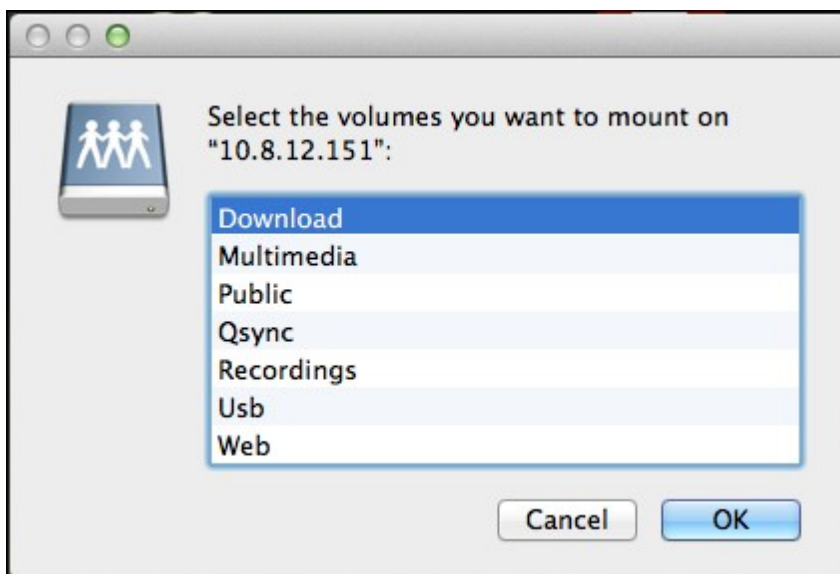
2. NAS IP



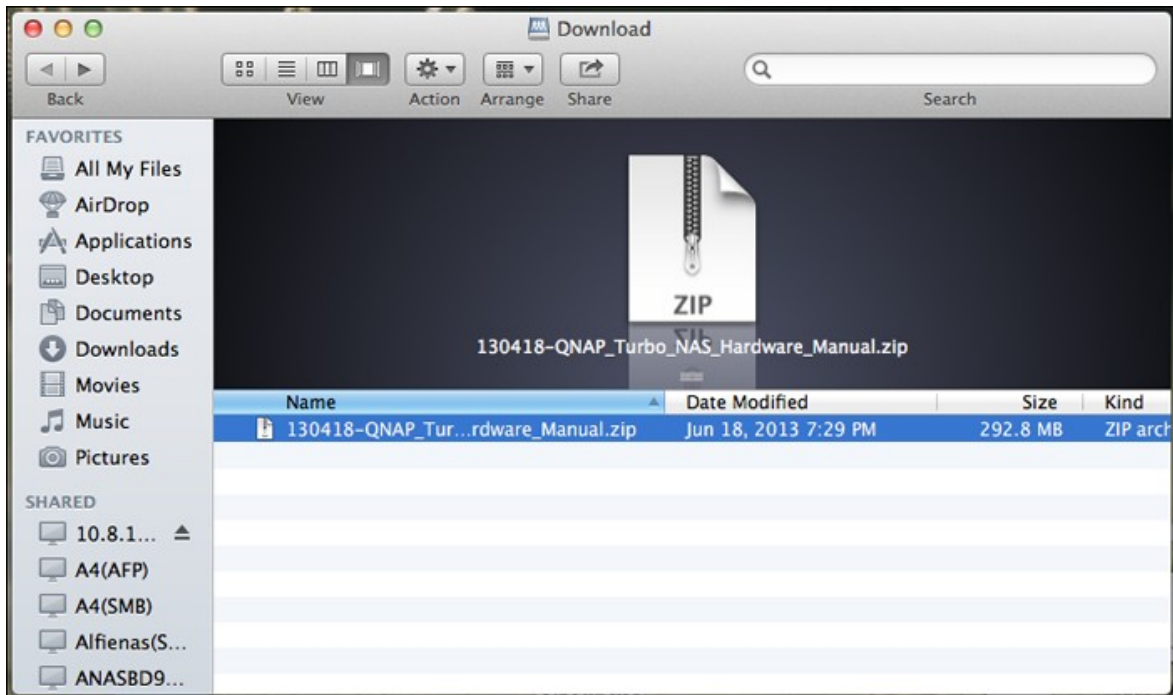
3. ID



4.



5. 가



Linux

Linux

mount -t nfs <NAS IP>:/<Shared Folder Name> <Directory to Mount>

, NAS IP 가 192.168.0.1 /mnt/pub " (public)"

mount -t nfs 192.168.0.1:/public /mnt/pub

: "root()"

id

2.5

NAS

NAS

1. <http://NAS IP:8080> QNAP Qfinder NAS . NAS
NAS 가 .



: NAS IP 169.254.100.100:8080 . NAS DHCP
QNAP Qfinder NAS IP . NAS가 QNAP Qfinder
. NAS IP , NAS
QNAP Qfinder .

2. . Secure login() ()
NAS . NAS

: admin
: admin

: NAS NAT NAS
, NAT 443 NAS LAN IP .

3. NAS



2.6 NAS

() NAS () NAS QNAP NAS
 Turbo NAS NAS
 NAS 가
 가 NAS
 Restore Settings(/)” System Administration()”> Backup/
 NAS 가

NAS

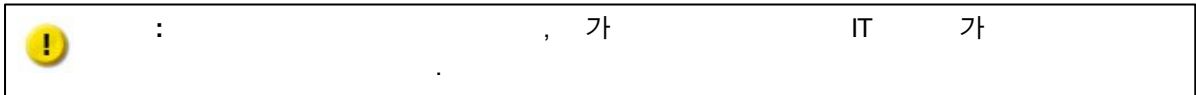
NAS	NAS	
TS-x10, TS-x12, TS-x19, TS-x20, TS-x21, TS-x39, TS-509, TS-809, SS-x39, SS-469, TS-x59, TS-x69, TS-x70, TS-x79	TS-x10, TS-x12, TS-x19, TS-x20, TS-x21, TS-x39, TS-509, TS-809, SS-x39	
TS-x10, TS-x12, TS-x19, TS-x20, TS-x21, TS-x39, TS-509, TS-809, SS-x39, TS-x59, TS-x69, TS-x70, TS-x79	TS-x59, TS-x69, TS-x70, TS-x79, SS-469 Pro	가

- NAS NAS 가
- SS-x39 SS-469 Pro 2.5- HDD
- NAS NAS
 TS-110, TS-119, TS-210, TS-219, TS-219P, TS-x20, TS-x21, TS-410, TS-419P, TS-410U, TS-419U, TS-119P+, TS-219P+, TS-419P+, TS-112, TS-212, TS-412, TS-419U+, TS-412U, TS-420U TS-421U
- -TS-x79 TS-x70U/TS-x79
 , iTunes , DLNA Multimedia/
 Qmultimedia, Download/Qdownload
- NAS myQNAPcloud NAS
 NAS myQNAPcloud
 NAS MyCloudNAS NAS
 myQNAPcloud QNAP

NAS	
-----	--

1- NAS	1-
2- NAS	1 ~ 2- , JBOD, RAID 0, 2- RAID 1.
4- NAS	1 ~ 4- , JBOD, RAID 0, 2- RAID 1, 3 ~ 4- RAID 5, 4- RAID 6, 4- RAID 10.
5- NAS	1 ~ 5- , JBOD, RAID 0, 2- RAID 1, 3 ~ 5- RAID 5, 4 ~ 5- RAID 6, 4- RAID 10.
6- NAS	1 ~ 6- , JBOD, RAID 0, 2- RAID 1, 3 ~ 6- RAID 5, 4 ~ 6- RAID 6, 4- 6- RAID 10.
8- NAS	1 ~ 8- , JBOD, RAID 0, 2- RAID 1, 3 ~ 8- RAID 5, 4 ~ 8- RAID 6, 4- 6- , 8- RAID 10.

1. NAS HDD
2. HDD NAS NAS HDD
3. HDD NAS() HDD가
4. (QIG) NAS
5. NAS (: admin, : admin).
6. NAS ,
7. "Start Migrating()" NAS가



- NAS
- Windows AD
 -

3. QTS

QTS 

QTS 

3.1 QTS

Linux

QTS 4.0 Turbo NAS

QTS 4.0 GUI Turbo NAS

App Center

Turbo NAS

QTS 4.0

가 , iSCSI 가 , 가
가 가

QTS 4.0



*

가 Turbo NAS -

가 , , , 가

QNAP Turbo NAS

. 가

가

가

. QNAP Turbo

NAS가

- , , , 가 GUI
- ,
- ,
- ,
- Dropbox 가 가
- App Center 90 가
-

Turbo NAS -

IT

.

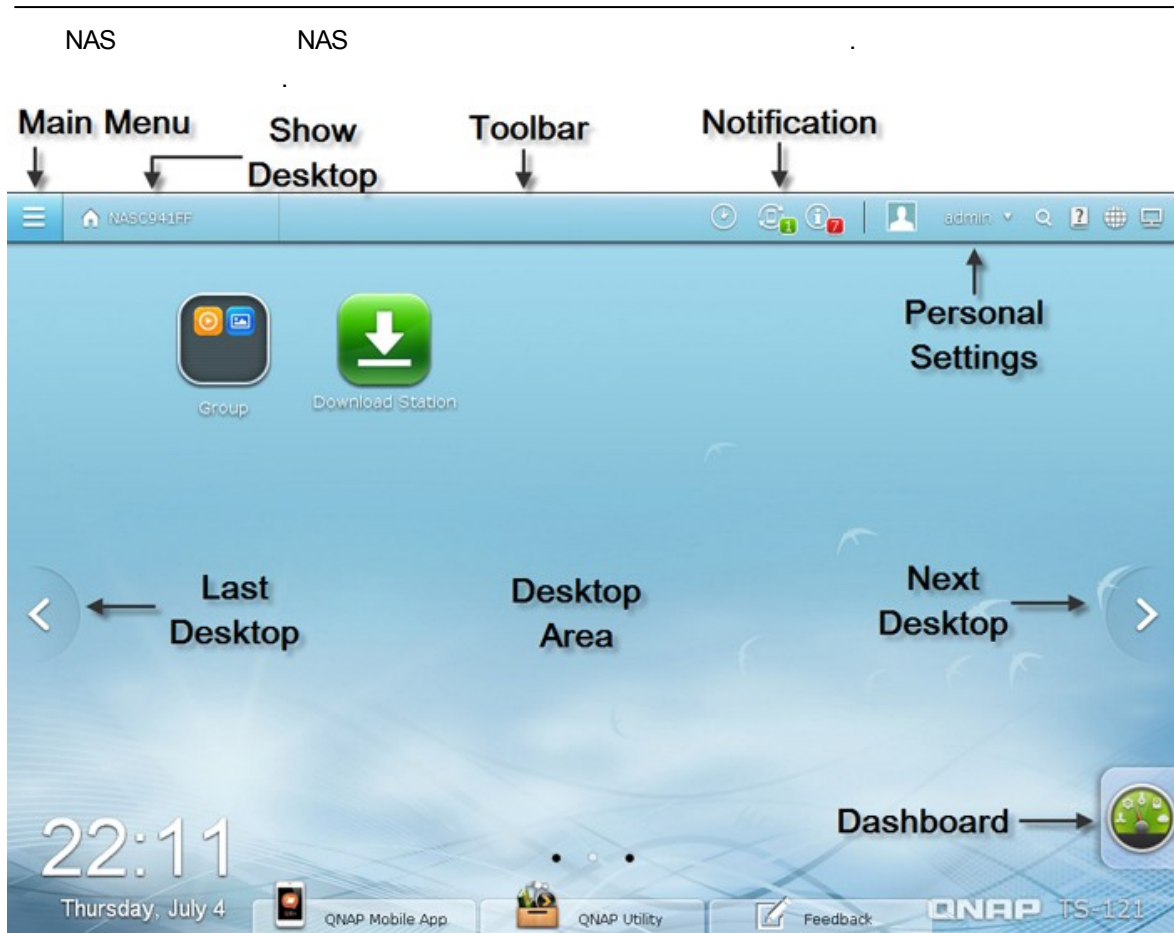
TCO() IT

QNAP Turbo NAS

, , , 가 IT , , 가 가 QNAP Turbo NAS가

- ,
-
- , SSD , JBOD
-
- 가 1 2 IP SAN (iSCSI)
-
- Dropbox 가 가
- App Center 90 가
- 가 Turbo NAS

3.2 QTS



☰ 가 . 1) NAS
 QNAP , 2) , and 3) NAS
 QNAP NAS 가 NAS .(
 App Center .) NAS
 가 .

APPLICATIONS

- Photo Station
- Music Station
- Video Station
- Download Station
- File Station
- Surveillance Station Pro
- DJ Station
- Digital TV Station

SYSTEMS

- Control Panel
- Storage Manager
- Users
- Backup Station
- myQNAPcloud
- Qsync (Beta)
- App Center
- Quick Start

- TappIn
- QAirplay
- HappyGet 2
- Fengoffice
- Claroline

QNASMarketing



SMART

(: HDD

).

Background Tasks

Testing HDD SMART Disk1	10%	⊘
Scanning virus VirusScanDisk1		⊘

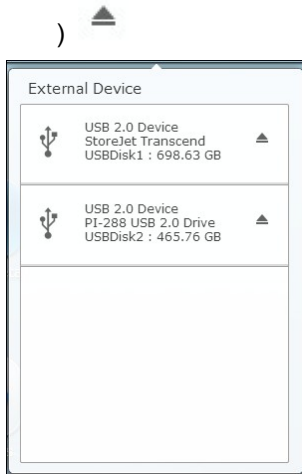


NAS USB

SATA

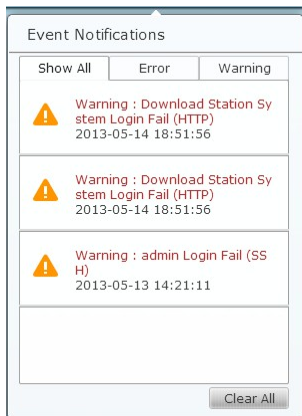
File Station , “ ”
가 (File Station

File Station 535



“ ”

349

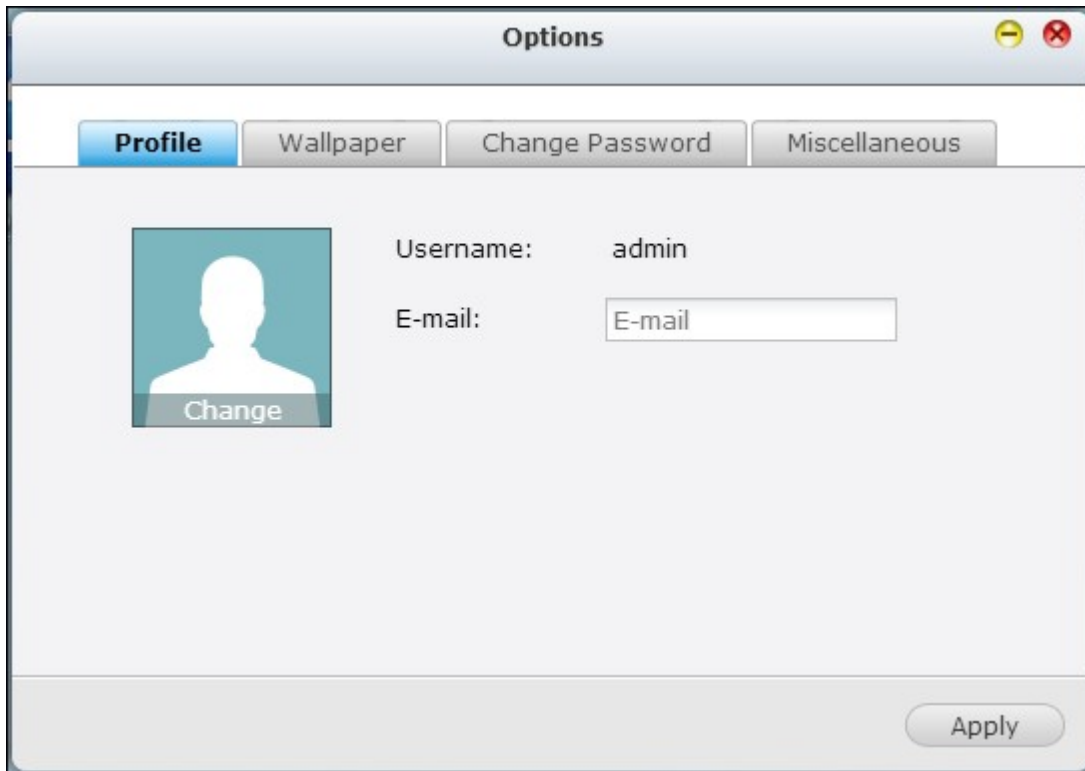


: admin

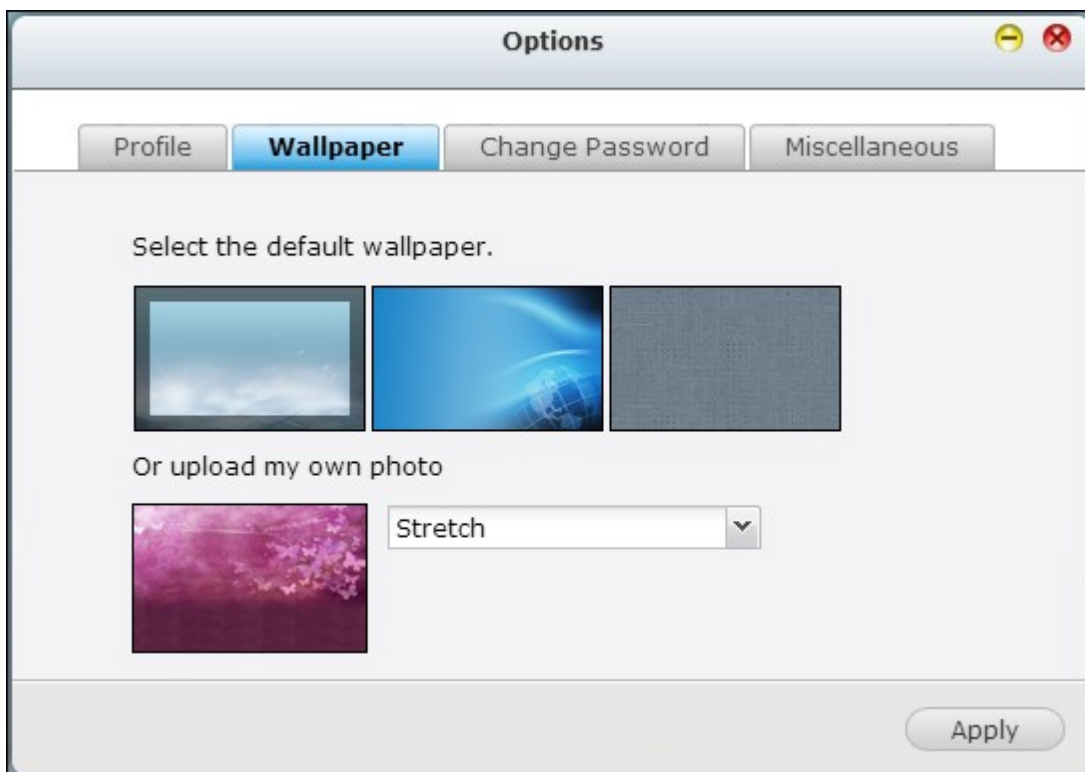
NAS



1. (Options):
 - i. :



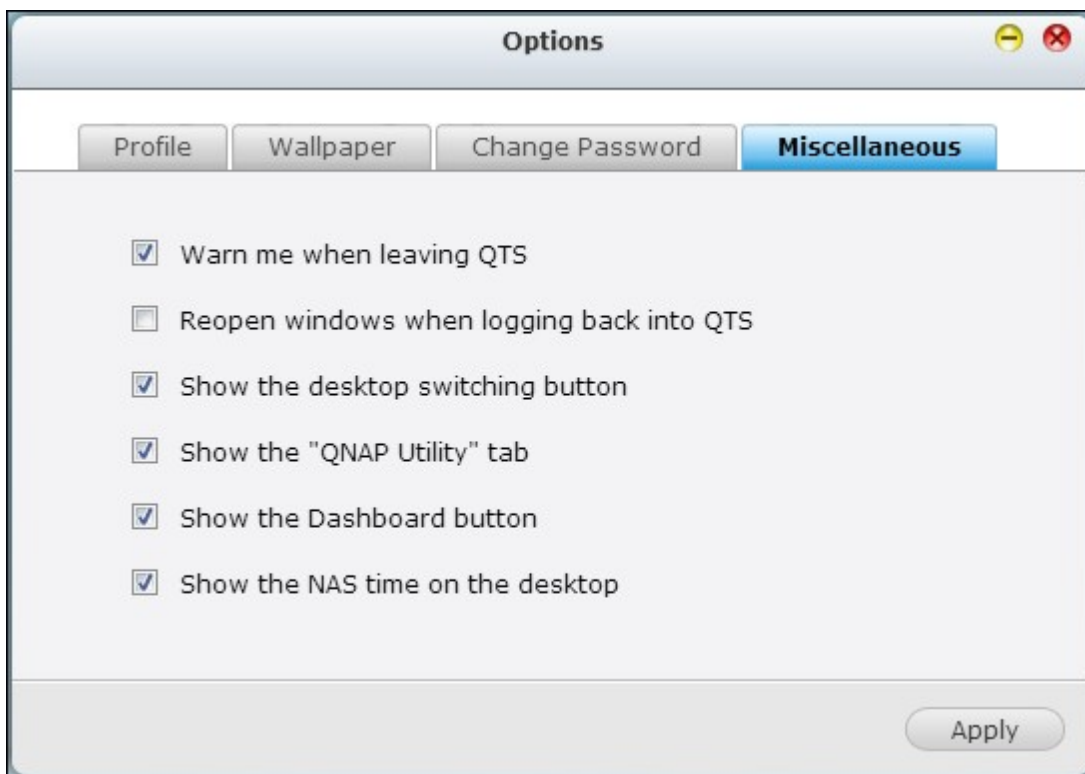
ii. :



iii. :



iv. :



• QTS :

QTS

가 (:
)).



- QTS : (:"

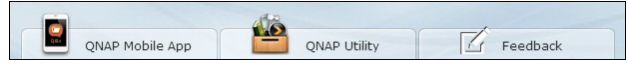
) NAS



- : (



- QNAP 가 QNAP , QNAP



- : NAS (



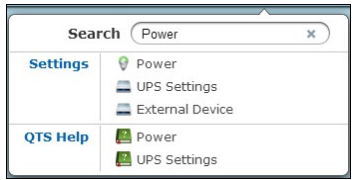
- NAS : NAS NAS (Wednesday, May 15

1. : Change Password
2. : Restart
3. : Shutdown
4. : Logout
5. : About

NAS
 NAS
 NAS , HDD 가 ()



QTS





가 , QTS () , QNAP Wiki (/) QNAP

- Quick Start
- QTS Help
- Tutorials
- QNAP Wiki
- QNAP Forum
- Customer Service
- Feedback

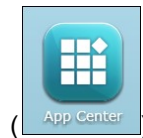


UI

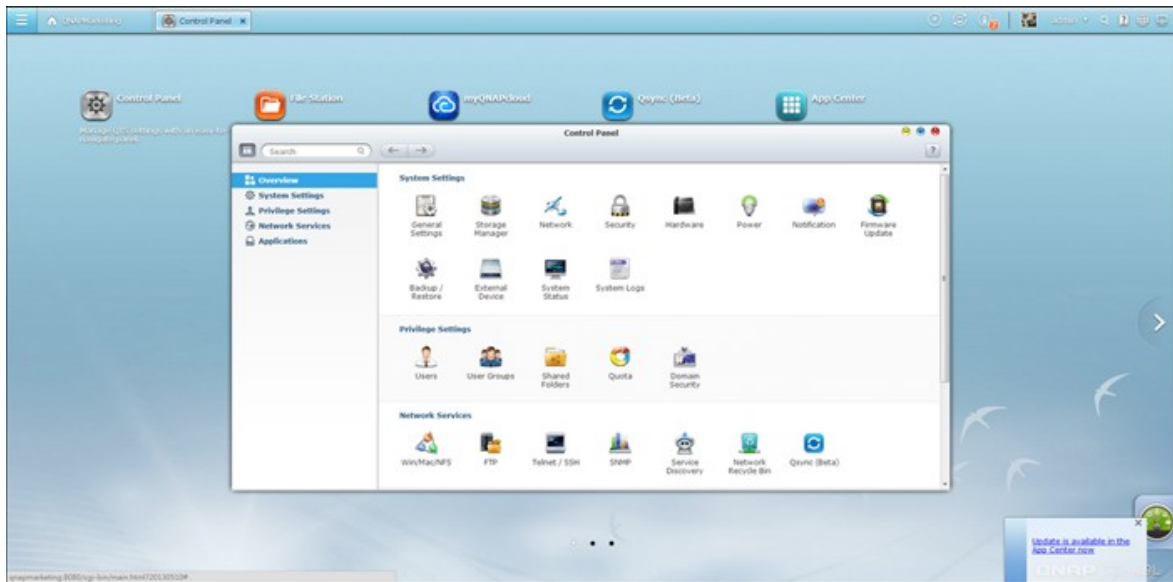
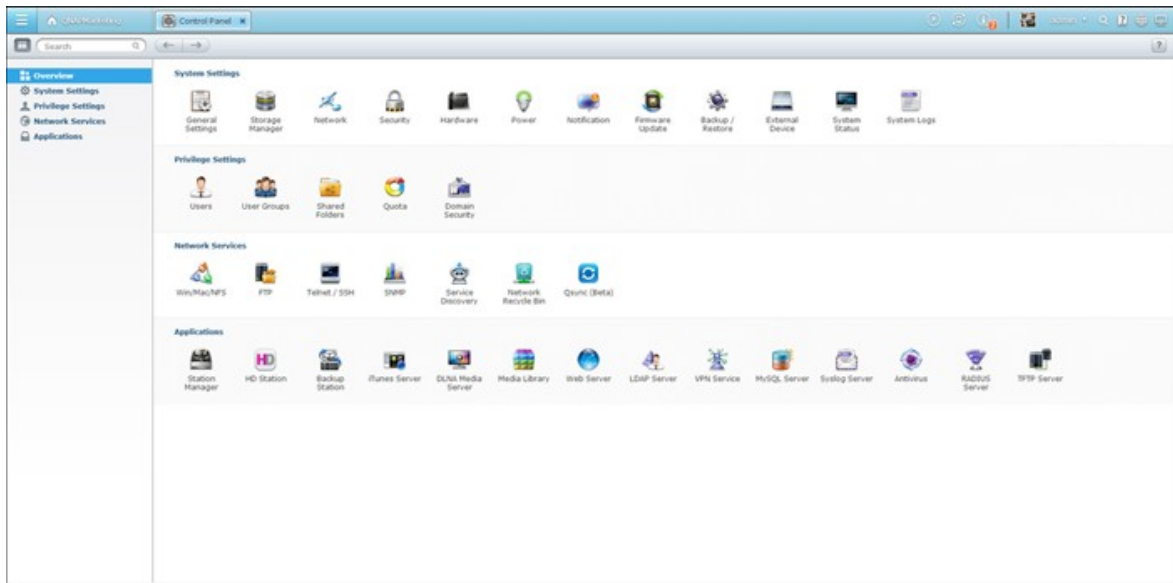
- Auto Detect
- English
- 简体中文
- 繁體中文
- Czech
- Dansk
- Deutsch
- Español
- Français
- Italiano
- 日本語
- 한글
- Norsk
- Polski
- Русский
- Suomi
- Svenska
- Nederlands
- Türk dili
- ไทย
- Português
- Magyar
- Ελληνικά
- Român



가



NAS



가



HDD QTS

System Health

Good

Uptime 2 day(s) 10:16:04

Resource Monitor

3%

CPU

32%

RAM

LAN 1

↓ 10 KB/s ↑ 9 KB/s

HDD Health

Good

x1

No errors were detected

Storage

Single Disk: Drive 1

Ready

■ Used: 11.03 GB

■ Available: 283.22 GB

Multimedia: 8.70 GB

Public: 148.43 MB

homes: 204.05 KB

Recordings: 32.00 KB

Download: 24.00 KB

Others: 40.42 KB

Hardware

System	34°C/93°F	✓
CPU	45°C/113°F	✓
Fan	1107 RPM	✓

Online Users (3)

admin	00 : 01 : 29
admin	00 : 01 : 13
admin	00 : 00 : 24

Scheduled Tasks

All Jobs Last 24 hours

Summary: 0 succeeded, 1 fail...

Task: 1
Time:
Status: Failed


News

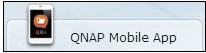

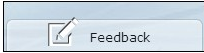
- ✚ [Utility] MyCloudNAS Connect (Windows) v1.0.0 Build0213
- ✚ [Utility] QNAP QGet (Windows) v3.1.0 Build1311 ,Support Windows 8 Now
- ✚ [Utility] QNAP Finder (Windows) v3.6.5 Build1031,Support Windows 8 now.
- ✚ [Utility] NetBak Replicator (Windows) v4.2.2 Build1031,Support Windows 8 now.
- ✚ [Utility] QNAP QFinder (Mac OS) v1.0.17 Build1101
- ✚ [Utility] QNAP QFinder (Linux) v1.0.6 Build1101

- : NAS 가
- HDD : NAS HDD 가 . X1 NAS HDD
- HDD 가 HDD " HDD SMART
- HDD HDD HDD HDD

72

- : CPU, RAM
가
NIC
- : (), 가
“ ” 가
- : HDD ,
NAS “ ” “ ”
가
- : NAS 가 IP
“ ” 가
- :
- : NAS QNAP 가 QNAP

:
 •
 • 가 가
 • ().

- QNAP :  가 QNAP
- QNAP :  가 NAS
- : 
- : 가



: NAS NAS App Center ^[652]
 QTS

4.

$$\begin{array}{r} \boxed{75} \\ - \quad \boxed{84} \\ \hline \boxed{25} \\ \boxed{274} \\ - \quad \boxed{27} \\ \hline \boxed{283} \\ \boxed{287} \\ \quad \quad \boxed{290} \\ / \quad \boxed{294} \\ - \quad \boxed{296} \\ \hline \quad \quad \boxed{342} \\ \quad \quad \boxed{340} \end{array}$$

4.1

NAS . NAS 14 (a-z, A-Z), (0-9) (-)
() (.)

General Settings Storage Manager Network Security Hardware Power Notification Firmware Update

System Administration Time Daylight Saving Time Codepage Password Strength Login Screen

Server name: (IP Address: 123.193.203.234)

You can change the default port number (HTTP) for Web Administration.

System port:

Enable secure connection (SSL)
Port number:

Force secure connection (SSL) only

Note: After enabling the "Force secure connection (SSL) only" option, the Web Administration can only be connected via https.

8080

: , File Station, Multimedia Station Download Station.

(SSL)
가 https NAS (SSL)
" (SSL) " https

Multimedia Station, Photo Station, Music Station, Surveillance Station, Download Station, iTunes DLNA /

Multimedia Station, Photo Station, Music Station, Surveillance Station, Download Station, iTunes , Media Library DLNA / SMB
: x70U, x79 Pro, x79U.

General Settings Storage Manager Network Security Hardware Power Notification Firmware Update

System Administration Time Daylight Saving Time Codepage Password Strength Login Screen

Server name: (IP Address: 172.17.24.181)
You can change the default port number (HTTP) for Web Administration.

System port:

Disable and hide the home/multimedia features such as Multimedia Station, Photo Station, Music Station, Surveillance Station, Download Station, iTunes server, and DLNA media server

Enable secure connection (SSL)
Port number:

Force secure connection (SSL) only

Note: After enabling the "Force secure connection (SSL) only" option, the Web Administration can only be connected via https.

가

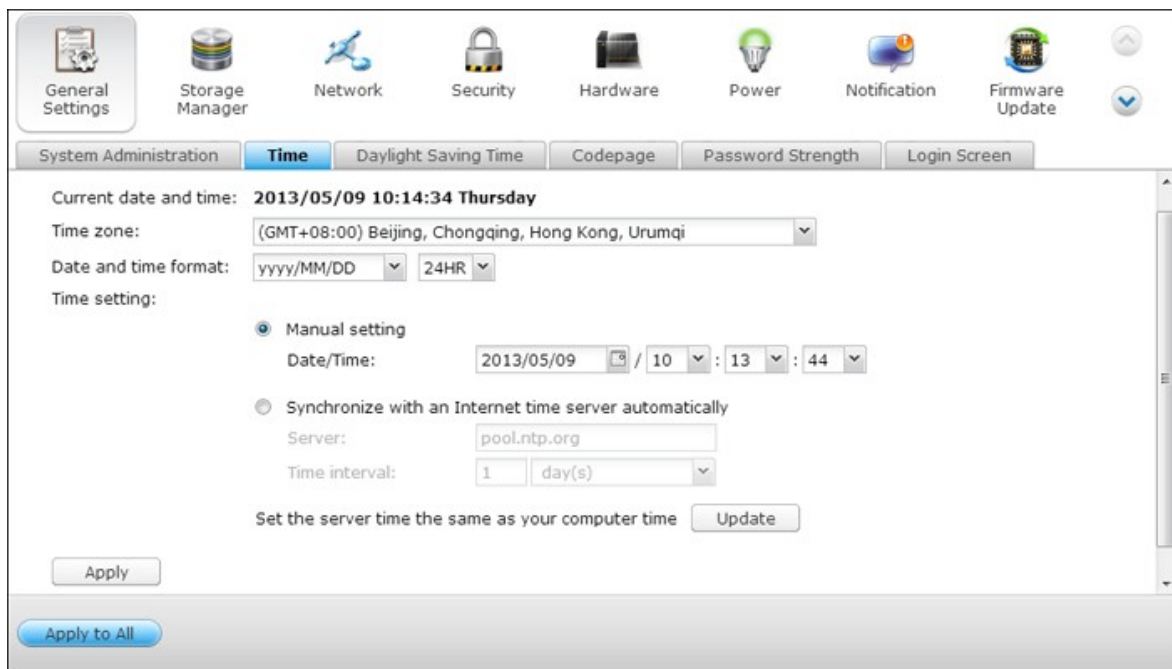
-
-

"Update now()"

NTP ()

time.nist.gov, time.windows.com

NTP IP
NAS가



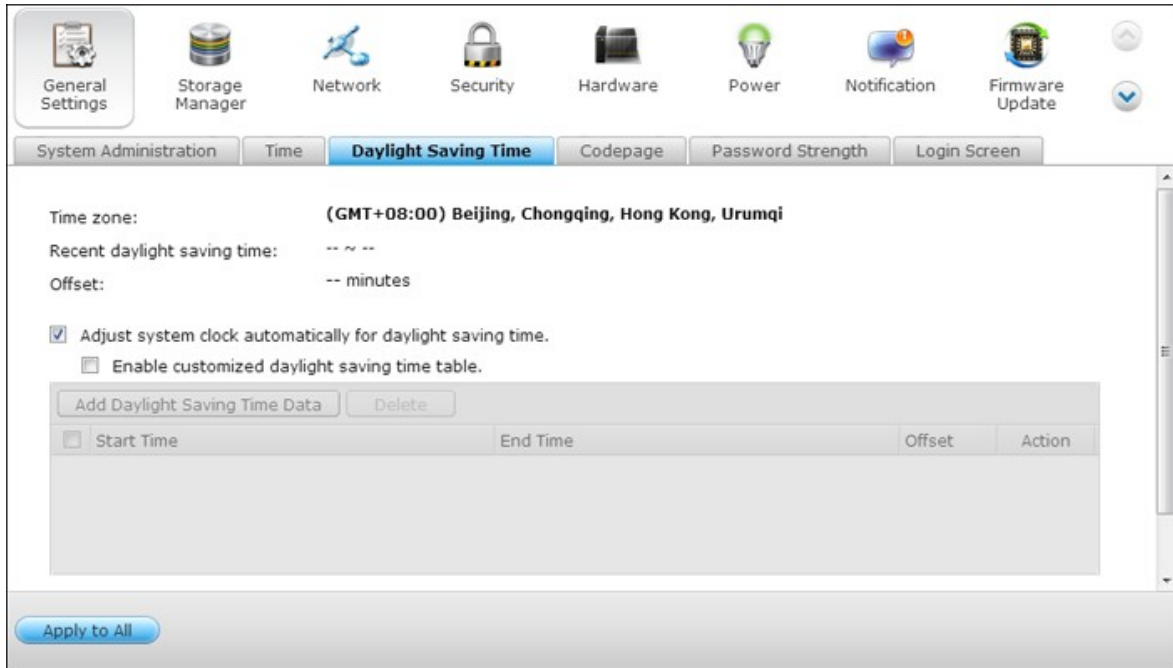
: NTP

가

(DST) , "Adjust system clock automatically for daylight saving time()"

'Apply()" . "Time()" DST

DST



DST

가 "Enable customized daylight saving time table()"

가) . "Add Daylight Saving Time Data()"

"Apply()"

The screenshot shows a system administration interface with a top navigation bar containing icons for General Settings, Storage Manager, Network, Security, Hardware, Power, Notification, and Firmware Update. Below this is a sub-navigation bar with tabs for System Administration, Time, Daylight Saving Time (selected), Codepage, Password Strength, and Login Screen.

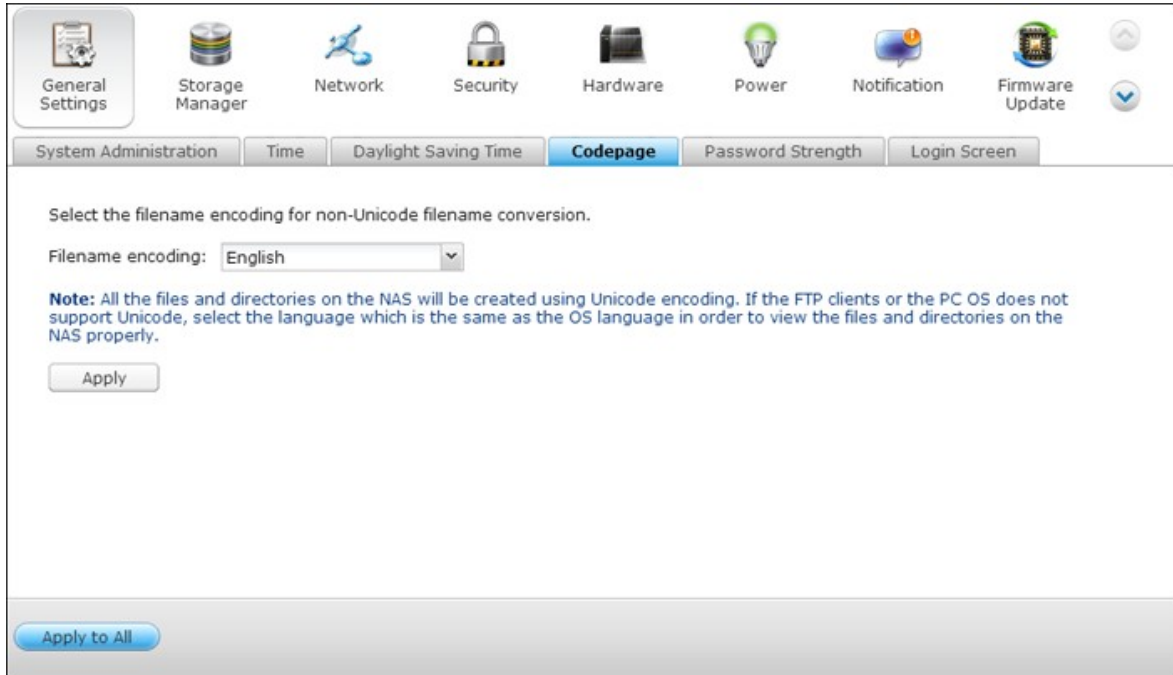
The main content area is titled "Daylight Saving Time" and includes the following elements:

- Recent daylight saving time: -- ~ --
- Offset: -- minutes
- Adjust system clock automatically for daylight saving time.
- Enable customized daylight saving time table.
- A button labeled "Add Daylight Saving Time Data" and a "Delete" button.
- A table with the following structure:

<input type="checkbox"/>	Start Time	End Time	Offset	Action
- An "Apply" button.

At the bottom of the interface is a blue "Apply to All" button.

NAS가



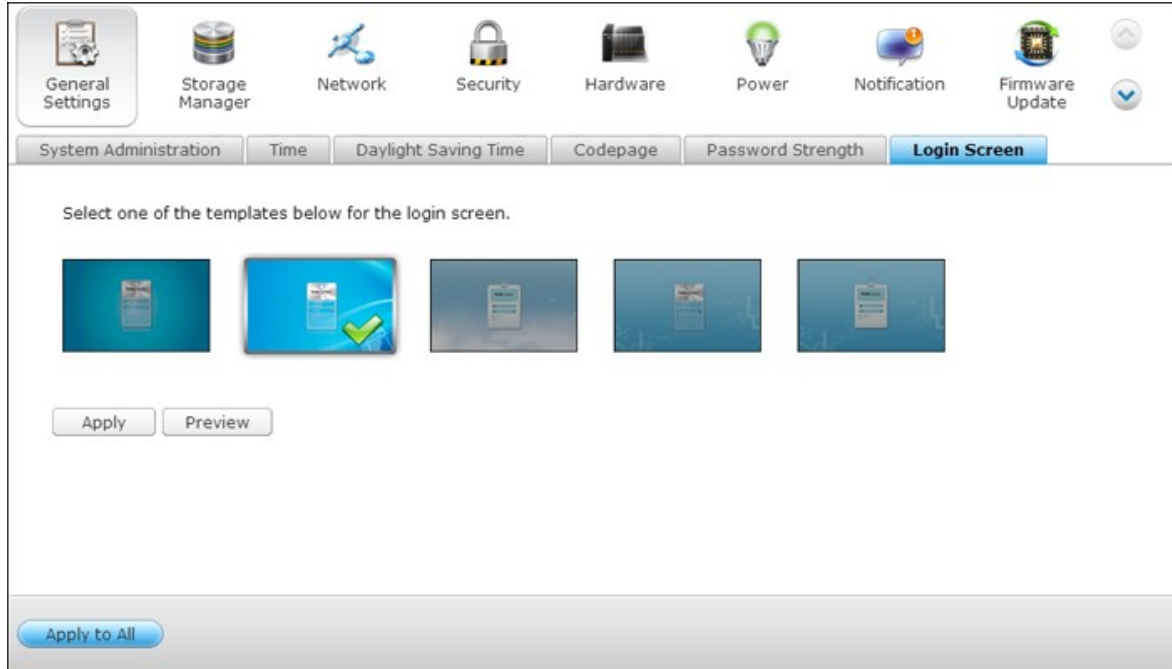
: NAS . FTP
 PC OS(, Windows 95/98/ ME) ,
 가 OS .

The screenshot displays a system administration window with a top navigation bar containing icons for General Settings, Storage Manager, Network, Security, Hardware, Power, Notification, and Firmware Update. Below this is a secondary menu with tabs for System Administration, Time, Daylight Saving Time, Codepage, Password Strength (which is highlighted), and Login Screen. The main content area features the heading "The following criteria could be applied to strengthen password security." followed by three unchecked checkboxes:

- A new password has to contain characters from at least three of the following classes: lowercase letters, uppercase letters, digits, and special characters.
- No character in the new password may be repeated more than three times consecutively.
- The new password must not be the same as the associated username, or the username reversed.

Below the checkboxes is an "Apply" button. At the bottom of the window is a blue "Apply to All" button.

Preview()”
Apply()”



4.2

85
88
iSCSI 18
가 247

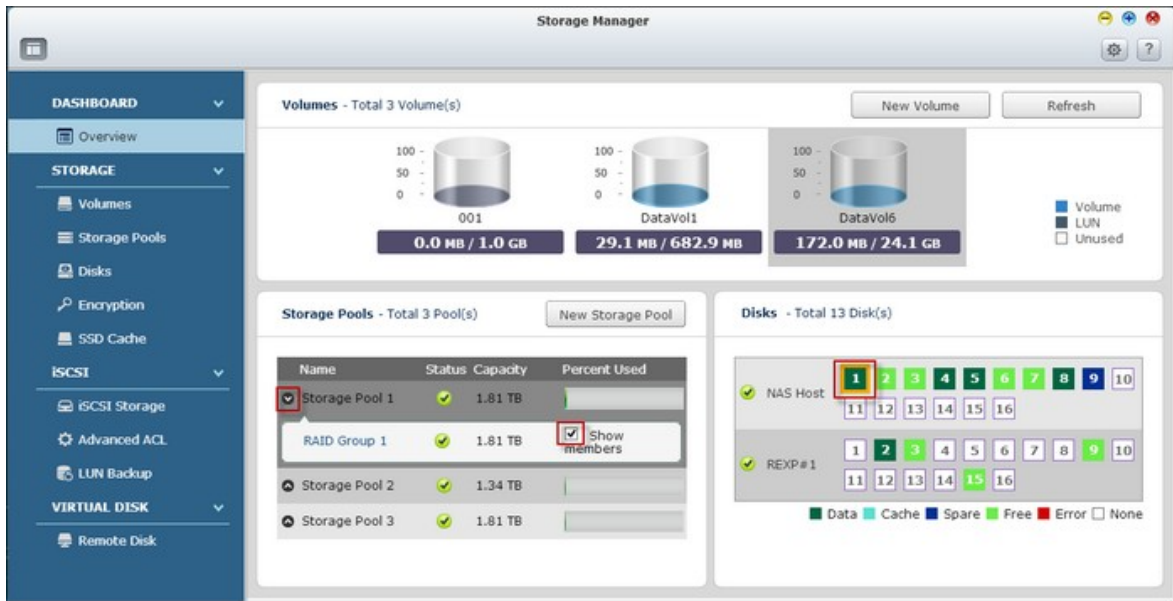
4.2.1

NAS

가



- : 가 (, LUN,)
New Volume()” Refresh()”
- : New Storage Pool()”
- : (NAS)가
- RAID “ ” “ ” RAID Show members()”



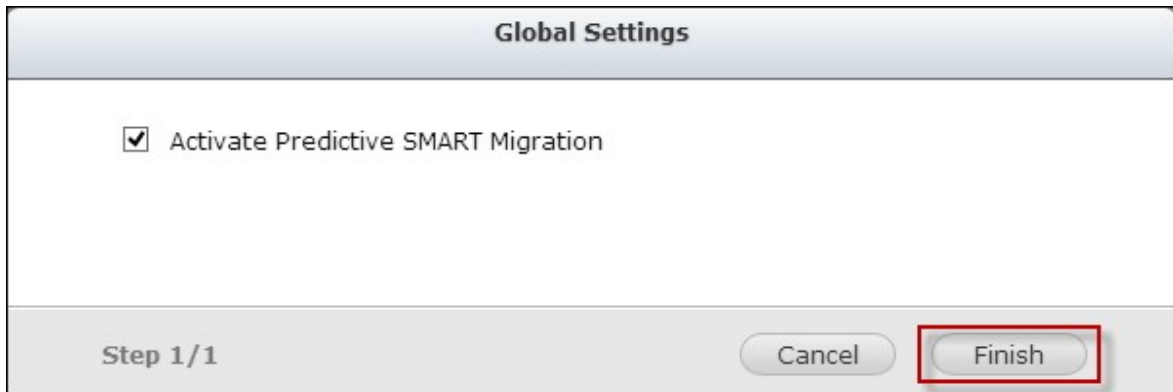
S.M.A.R.T

RAID S.M.A.R.T 가 (가
 RAID) 가 . RAID 가
 RAID 가 .



Activate Predictive SMART Migration(

SMART)”



4.2.2

89

110

145

155

SSD

165

4.2.2.1

The screenshot displays the Storage Manager application window. On the left is a navigation sidebar with categories: DASHBOARD (Overview), STORAGE (Volumes, Storage Pools, Disks, Encryption, SSD Cache), ISCSI (iSCSI Storage, Advanced ACL, LUN Backup), and VIRTUAL DISK (Remote Desk). The main content area is titled "Volume List: Total 1 Volume(s)" and includes buttons for "New Volume", "Remove Volume", "Expand Volume", and "Actions". A volume named "DataVol1" is listed in a table with the following details:

Name/Alias	Capacity	Free Size	Thin	SSD Cache	Status
DataVol1	1.75 TB	1.75 TB	Yes	Disable	Ready

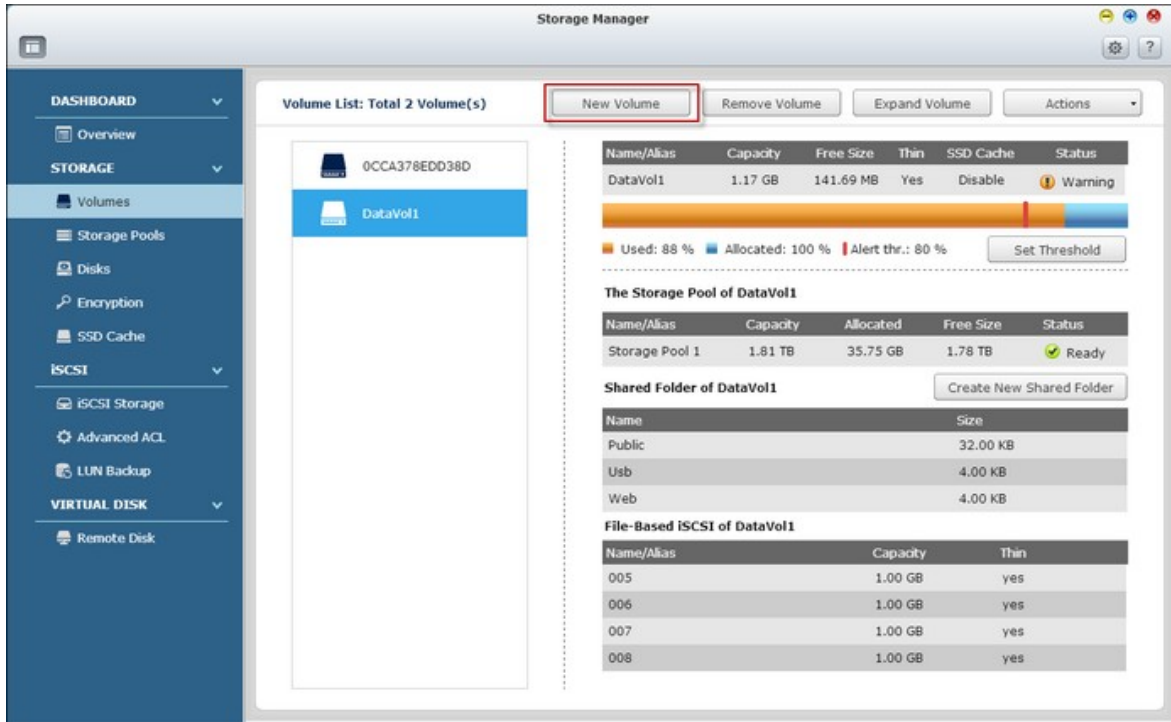
Below the table is a progress bar showing "Used: 0 %", "Allocated: 1 %", and "Alert thr.: 80 %", with a "Set Threshold" button. The section "The Storage Pool of DataVol1" contains a table:

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 1	1.81 TB	64.20 GB	1.75 TB	Ready

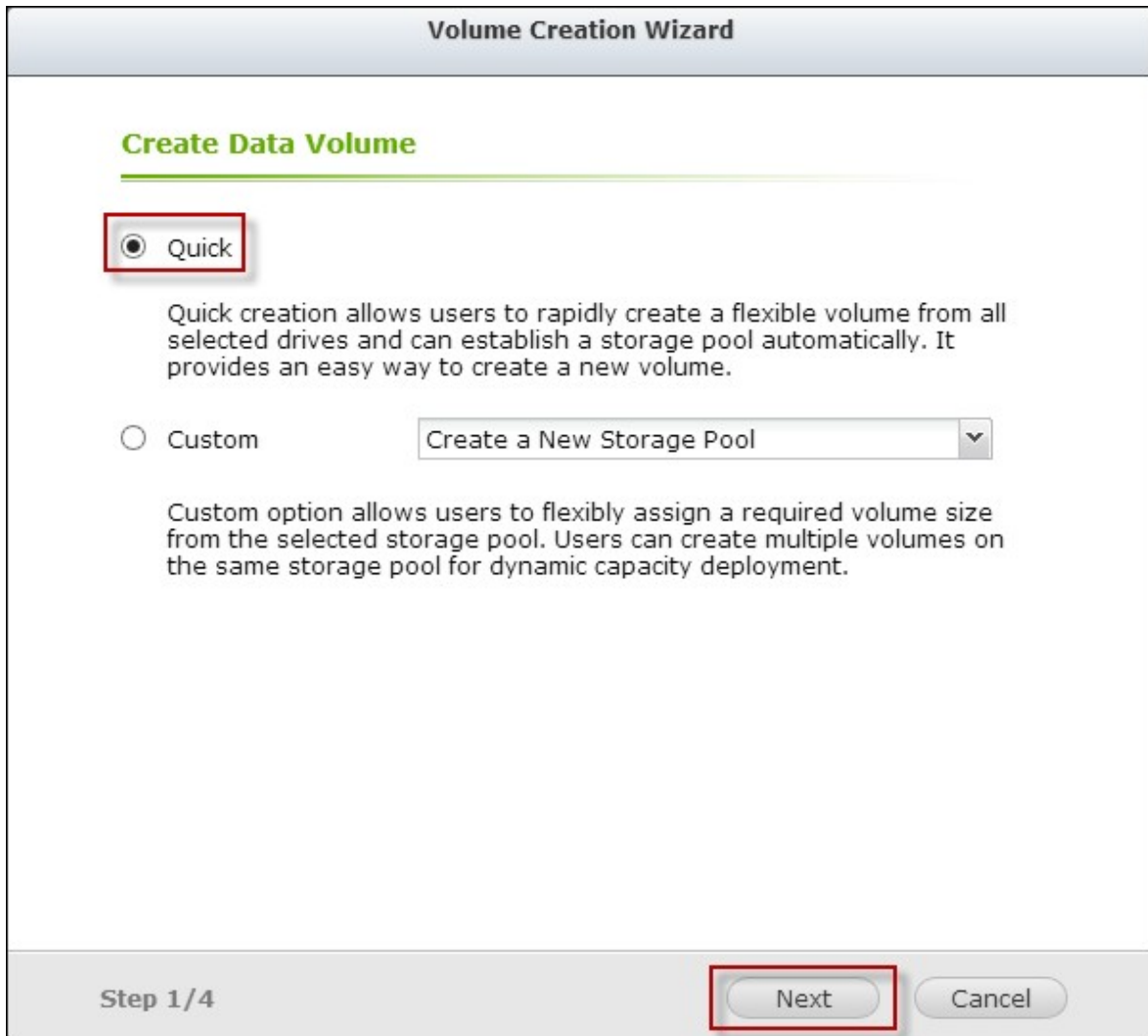
The "Shared Folder of DataVol1" section includes a "Create New Shared Folder" button and a table of existing folders:

Name	Size
Public	4.00 KB
Usb	4.00 KB
Web	4.00 KB
homes	12.03 KB

1. New Volume()”



2. Quick() { Custom() }
Next()”



3. Next()” , RAID

Volume Creation Wizard

Select Hard Drive(s)

Enclosure Unit [Total: 2 Unit(s)]: NAS Host [available disk(s): 5/16] ▼

Please select at least one disk

<input type="checkbox"/>	Disk	Model	Type	Bus Type	Capacity	Status
<input type="checkbox"/>	Drive 2	WDC WD20E...	HDD	SATA	1.82 TB	Ready
<input checked="" type="checkbox"/>	Drive 3	ATA C300-CT...	SSD	SATA	119.24 GB	Ready
<input type="checkbox"/>	Drive 6	WDC WD20E...	HDD	SATA	1.82 TB	Ready
<input type="checkbox"/>	Drive 7	WDC WD250...	HDD	SATA	232.89 GB	Ready
<input type="checkbox"/>	Drive 9	Hitachi HDS7...	HDD	SATA	465.76 GB	Data

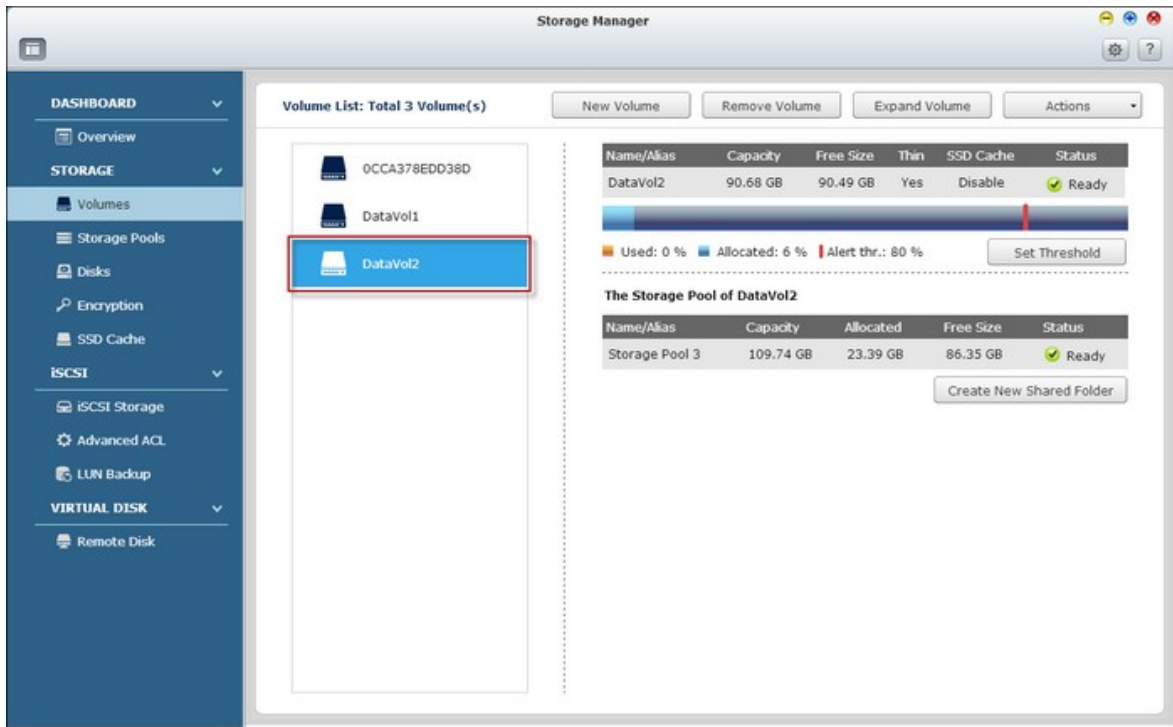
RAID Type: Single ▼ Hot Spare Disk: None ▼

Estimated Capacity: 92.14 GB

Step 2/4 Back Next Cancel

: RAID 1, RAID 5, RAID 6 RAID 10
 . RAID .

4. Finish()”



1. Custom()”
Next()”

Volume Creation Wizard

Detailed Settings

Storage pool capacity: 1.78 TB

(Note: The Max Volume Capacity of the current storage pool is 35.60 TB.)

Volume capacity: MB

Thin Provisioning ⓘ

Alert threshold: %

Volume Alias:

Encryption ⓘ

Input Password:

Verify Password:

Save encryption key:

A shared folder will be automatically created after the new volume is initialized.

Shared Folder Name: ⓘ

Step 3/4

3. Finish()”

Volume Creation Wizard

Confirm the Following Settings

Storage Pool

Storage pool name: Storage Pool 1

Volume

LUN Allocation: Thin Provisioning

Capacity: 32MB

Alert threshold: 50%

Volume Alias: DataVol5

Encryption: Yes

Shared folder

Shared Folder Name: Test1

Step 4/4

Back Finish Cancel

4.

Storage Manager

Volume List: Total 3 Volume(s) [New Volume](#) [Remove Volume](#) [Expand Volume](#) [Actions](#)

Name/Alias	Capacity	Free Size	Thin	SSD Cache	Status
0CCA378EDD38D					
DataVol1					
DataVol5					

Used: 13 % Allocated: 41 % Alert thr.: 50 % [Set Threshold](#)

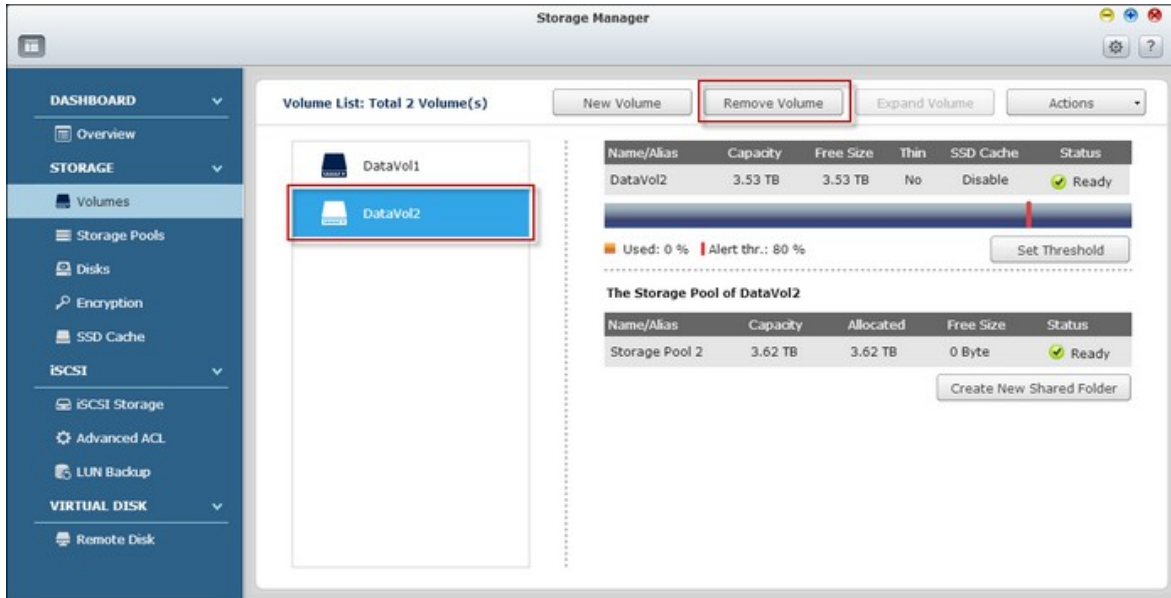
The Storage Pool of DataVol5

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 1	1.81 TB	35.76 GB	1.78 TB	Ready

Shared Folder of DataVol5 [Create New Shared Folder](#)

Name	Size
Test1	4.00 KB

1. Remove Volume()”



2. 'Apply()”

Volume Removal Wizard

Caution: When you press **[Apply]**, all shared folders and data in this volume will be removed.

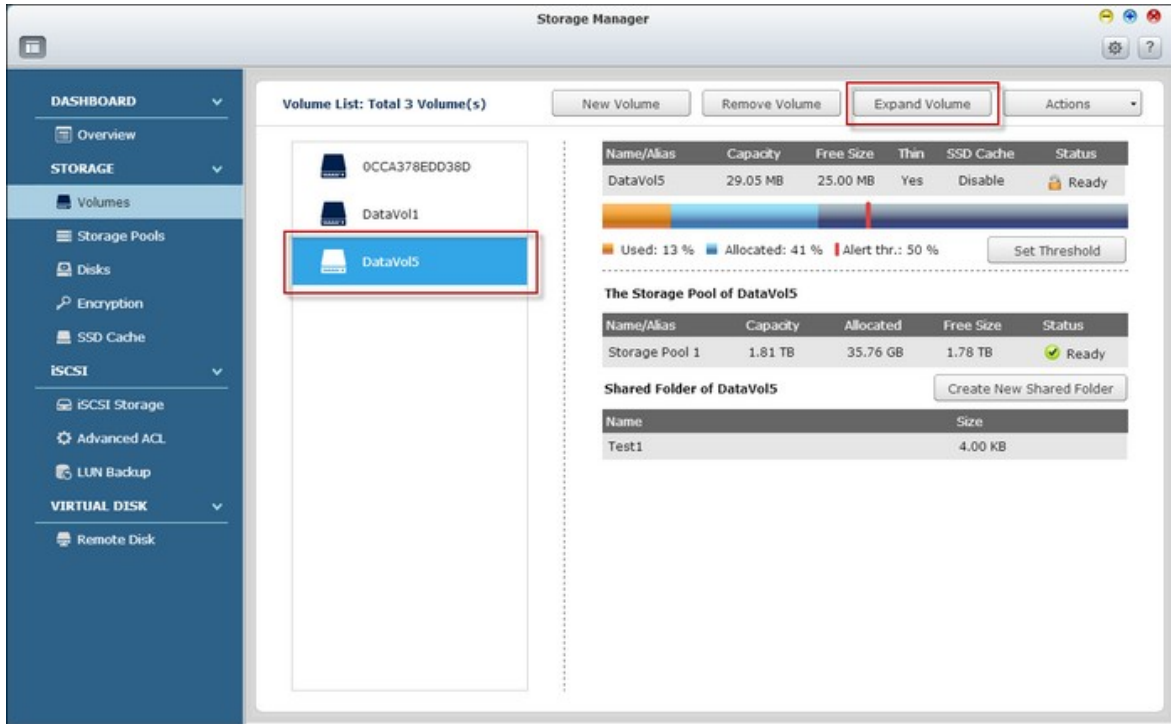
Summary

Name/Alias:	DataVol2
Type:	Thick volume
Release Size:	3.53 TB
Location:	Storage Pool 2
Shared Folder:	No shared folder

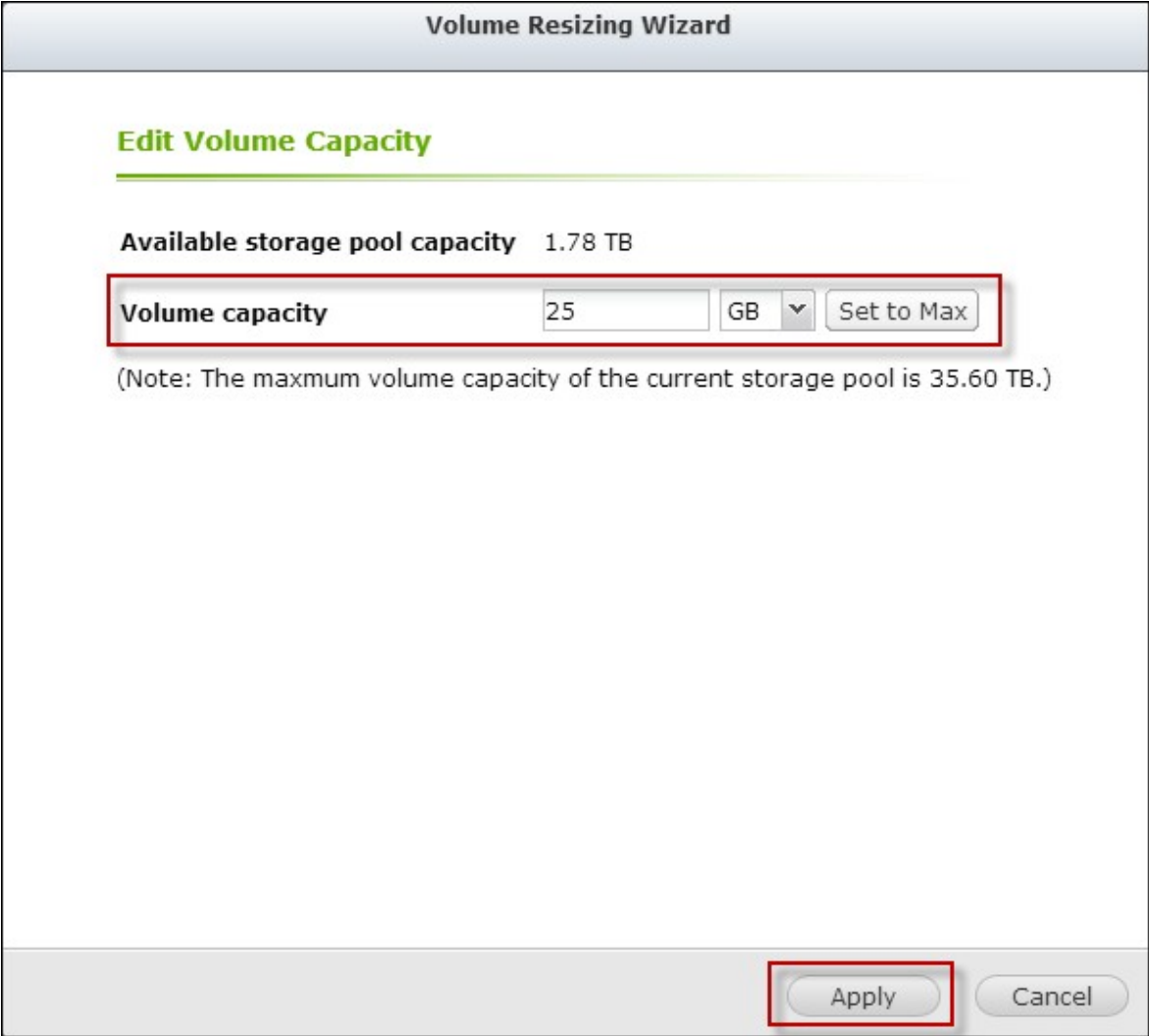
Apply

Cancel

1. Expand Volume()”



2. Apply()”



3.

Storage Manager

DASHBOARD ▾

- Overview

STORAGE ▾

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache

ISCSI ▾

- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK ▾

- Remote Disk

Volume List: Total 3 Volume(s) New Volume Remove Volume Expand Volume Actions ▾

Name/Alias	Capacity	Free Size	Thin	SSD Cache	Status
0CCA378EDD38D					
DataVol1					
DataVol5	24.81 GB	24.81 GB	Yes	Disable	Ready

Used: 0 % Allocated: 5 % Alert thr.: 50 % Set Threshold

The Storage Pool of DataVol5

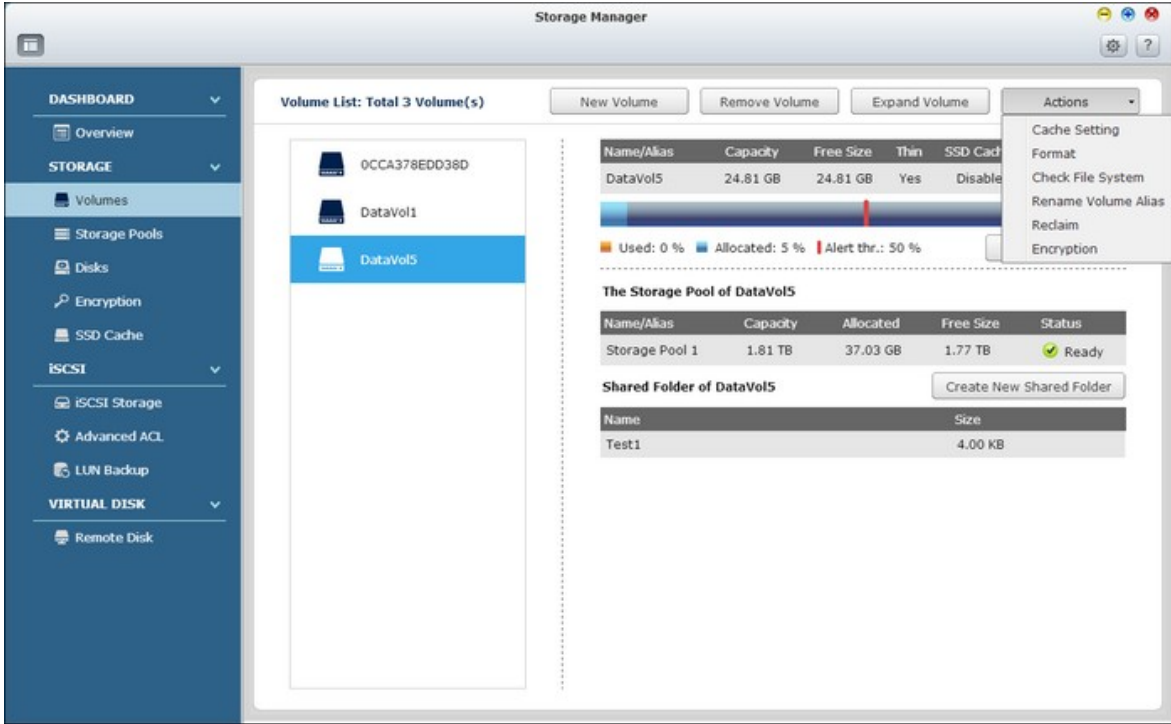
Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 1	1.81 TB	37.03 GB	1.77 TB	Ready

Shared Folder of DataVol5 Create New Shared Folder

Name	Size
Test1	4.00 KB

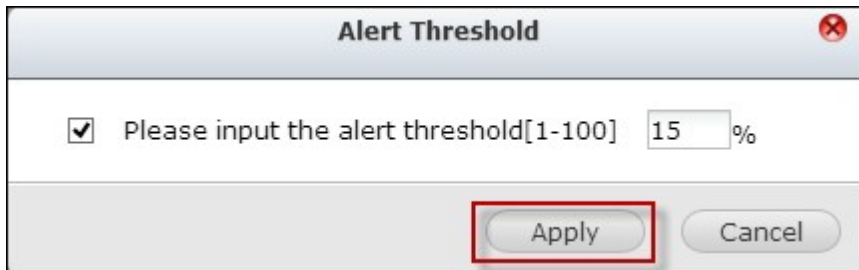
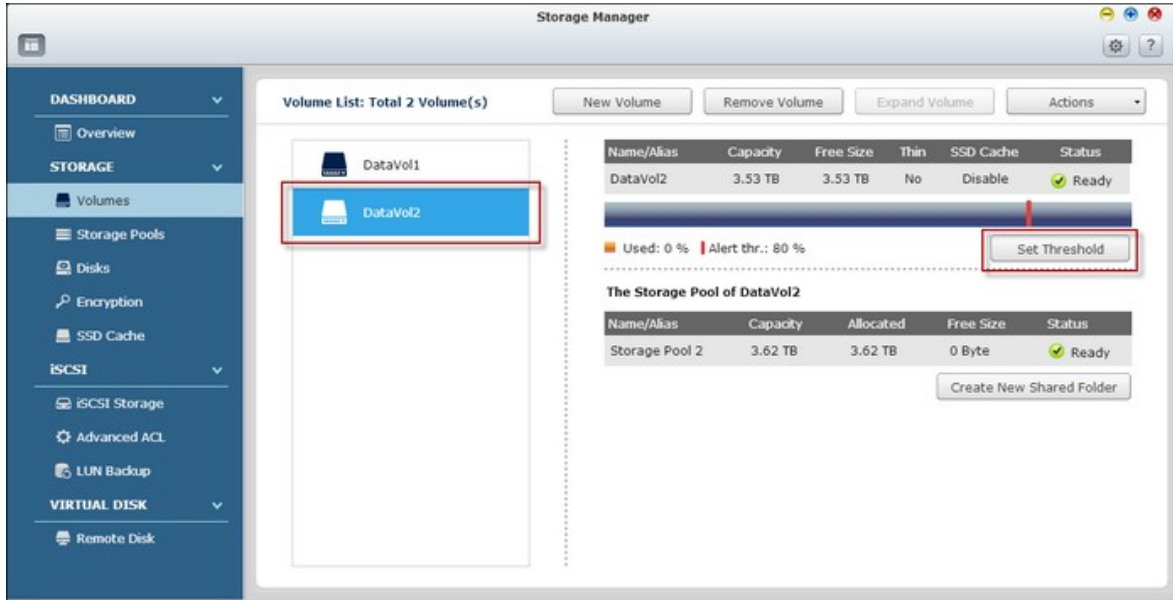
가

Actions()”



- : 가 가 . Format()”
- (, , ,)
- 2TB EXT4

가
Set Threshold()”
Apply()”



Storage Manager

DASHBOARD ▾

- Overview

STORAGE ▾

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache

ISCSI ▾

- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK ▾

- Remote Disk

Volume List: Total 2 Volume(s) New Volume Remove Volume Expand Volume Actions ▾

Name/Alias	Capacity	Free Size	Thin	SSD Cache	Status
DataVol1					
DataVol2	3.53 TB	3.53 TB	No	Disable	Ready

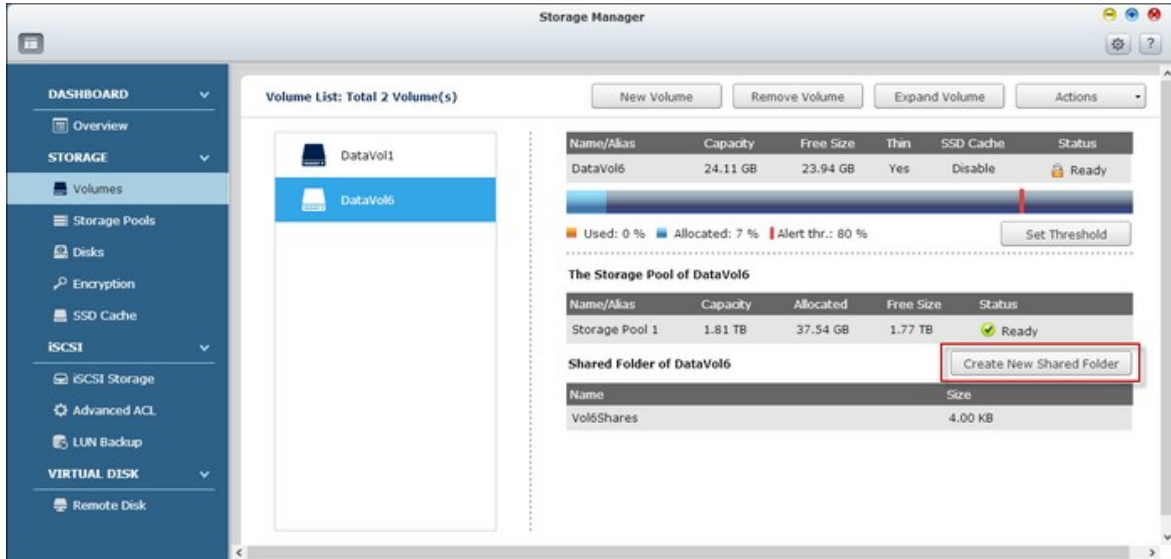
Used: 0 % Alert thr.: 15 % Set Threshold

The Storage Pool of DataVol2

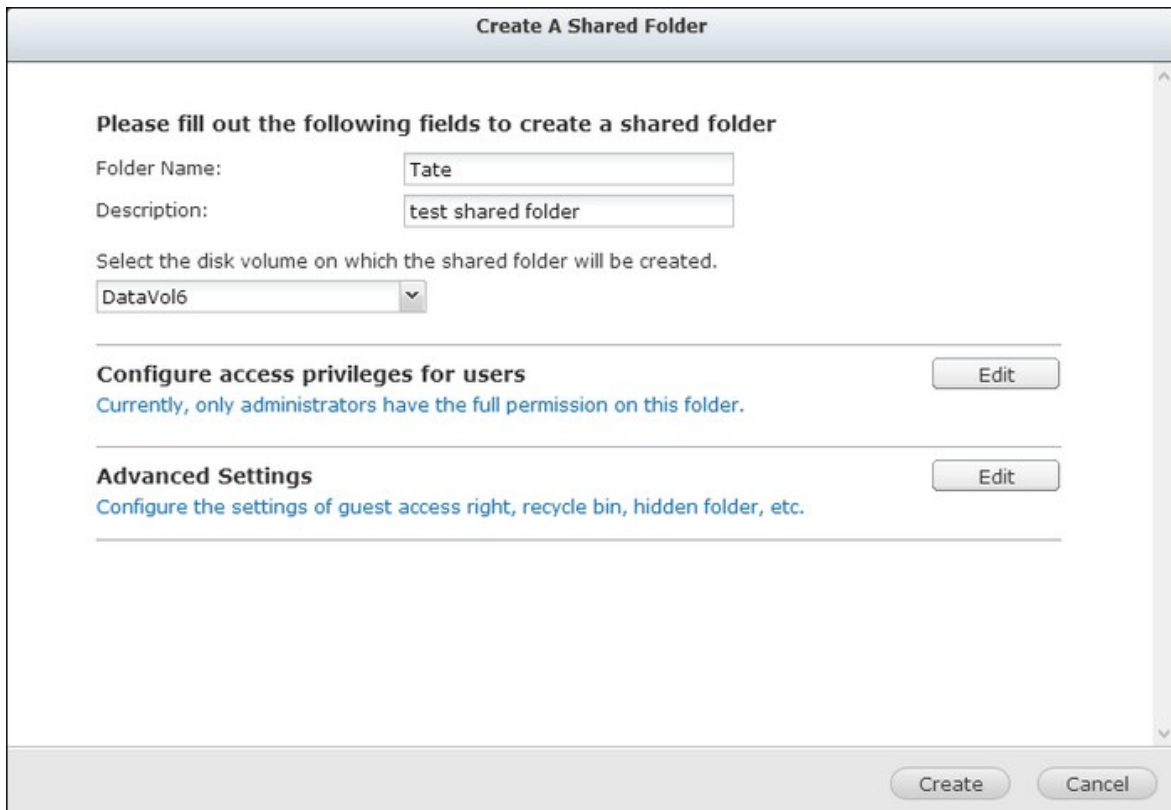
Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	3.62 TB	3.62 TB	0 Byte	Ready

Create New Shared Folder

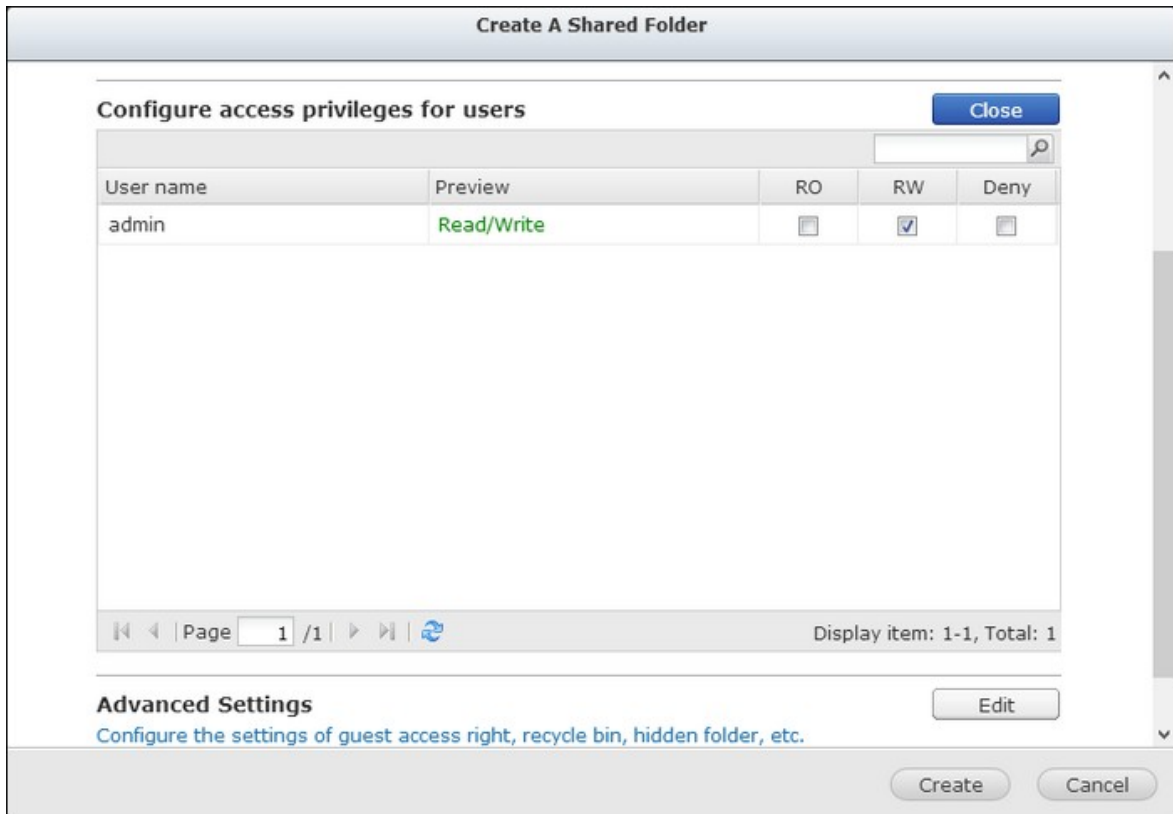
1. "Create New Shared Folder()"



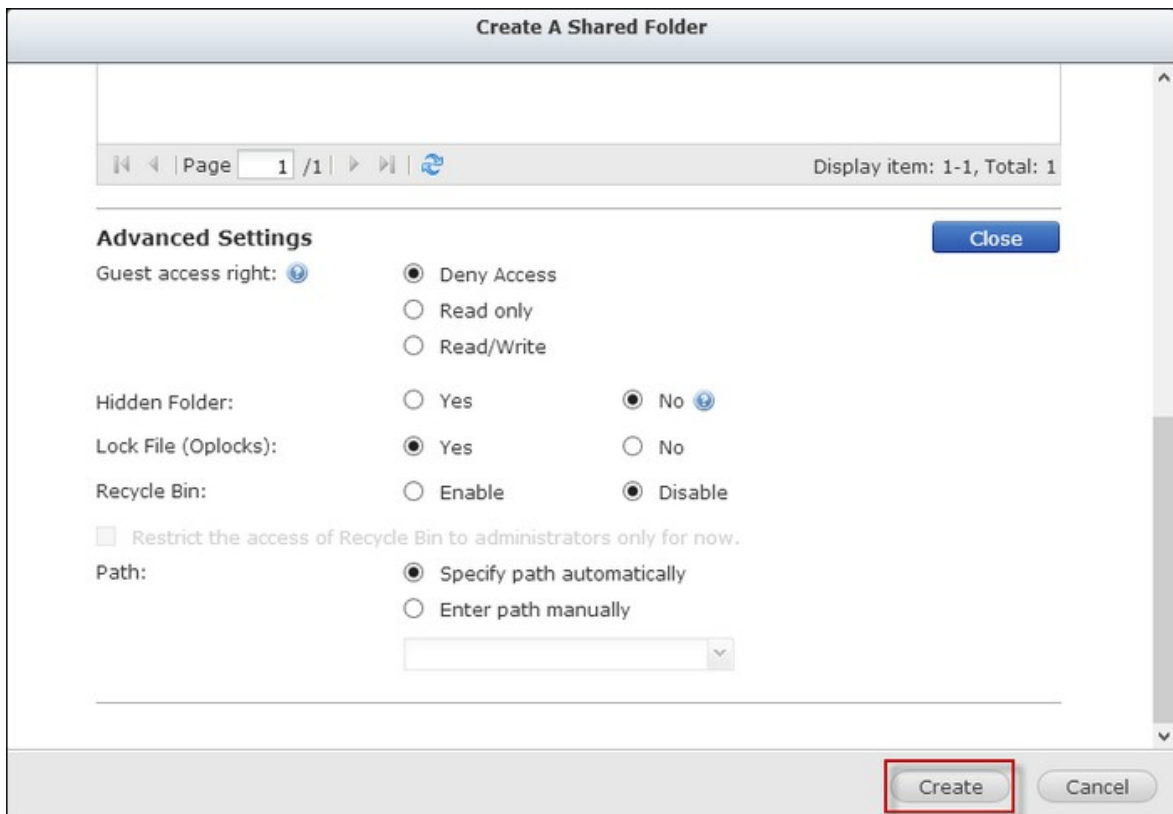
2.



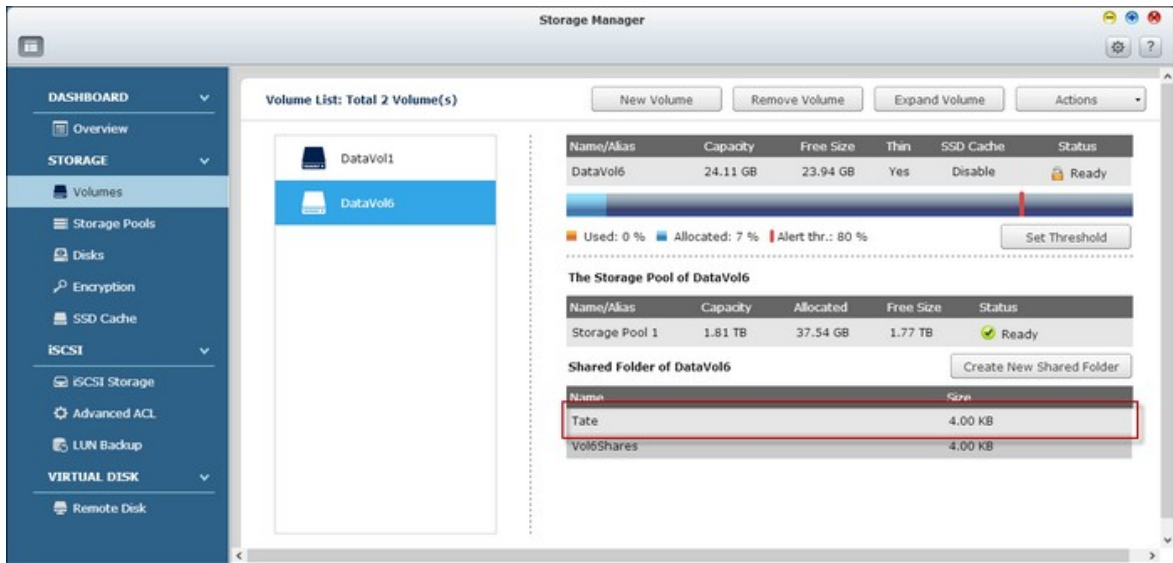
3. 2 "Configure access privileges for users(Edit())"



4. 2 'Advanced settings()' Edit()"
 , , Oplocks, . Create()"

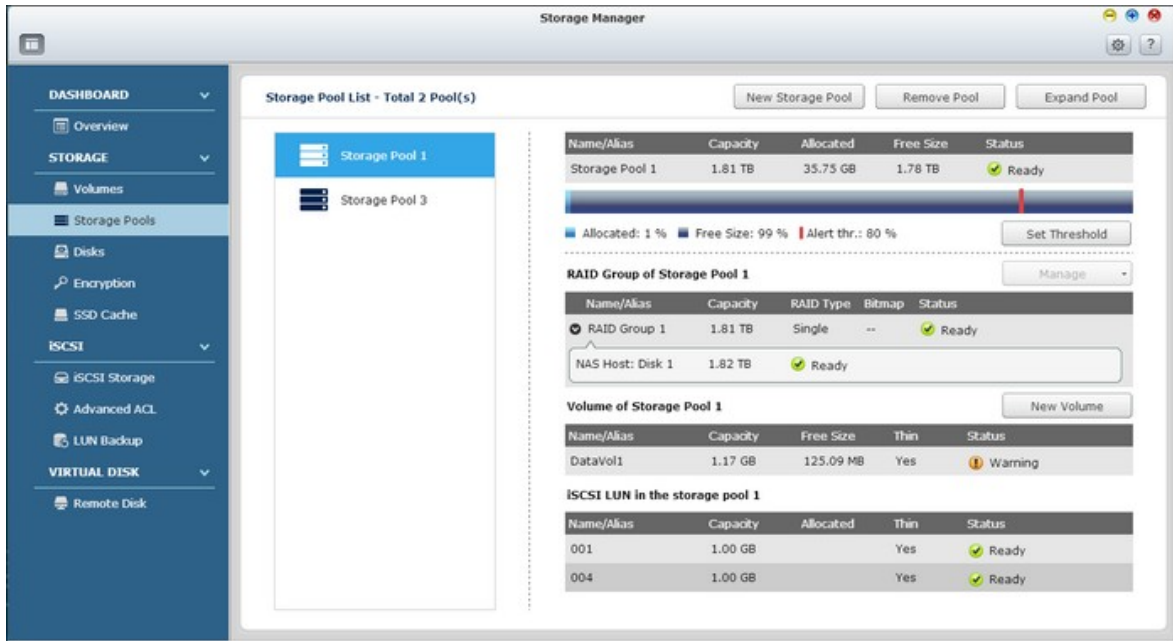


5. 가 .



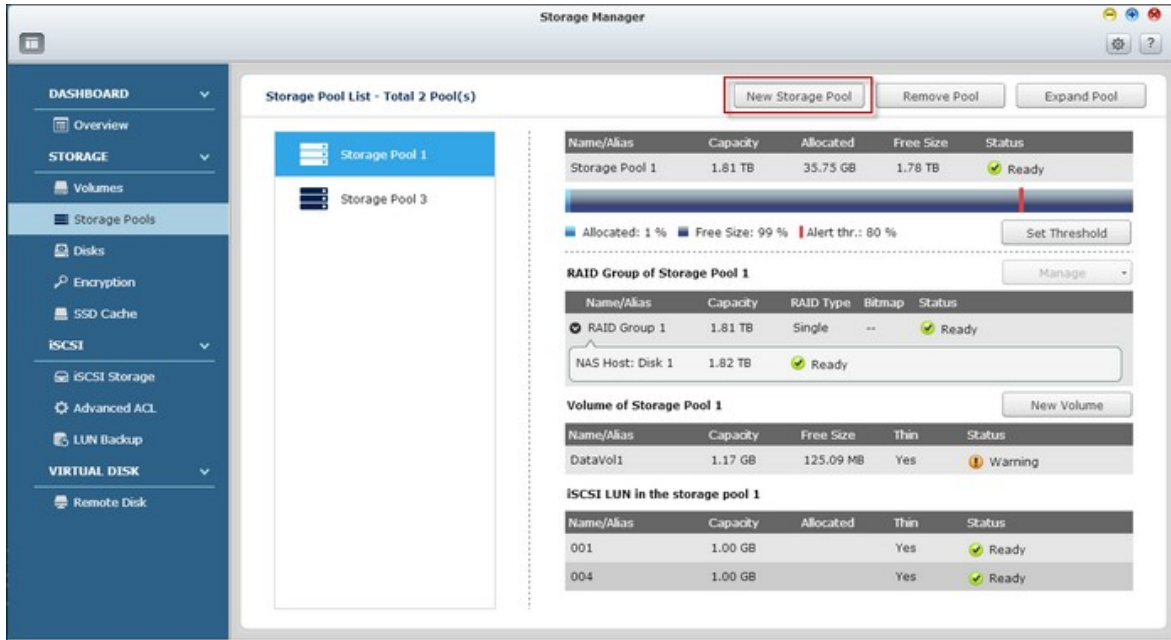
4.2.2.2

RAID NAS 가 , RAID , iSCSI LUN 가 , RAID ,



: 가 QNAP

1. "New Storage Pool()"



2. , RAID "Create()"

Storage Manager

DASHBOARD

- Overview

STORAGE

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache

ISCSI

- ISCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK

- Remote Disk

Storage Pool List - Total 3 Pool(s)

New Storage Pool Remove Pool Expand Pool

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	223.39 GB	2.23 GB	221.16 GB	Ready

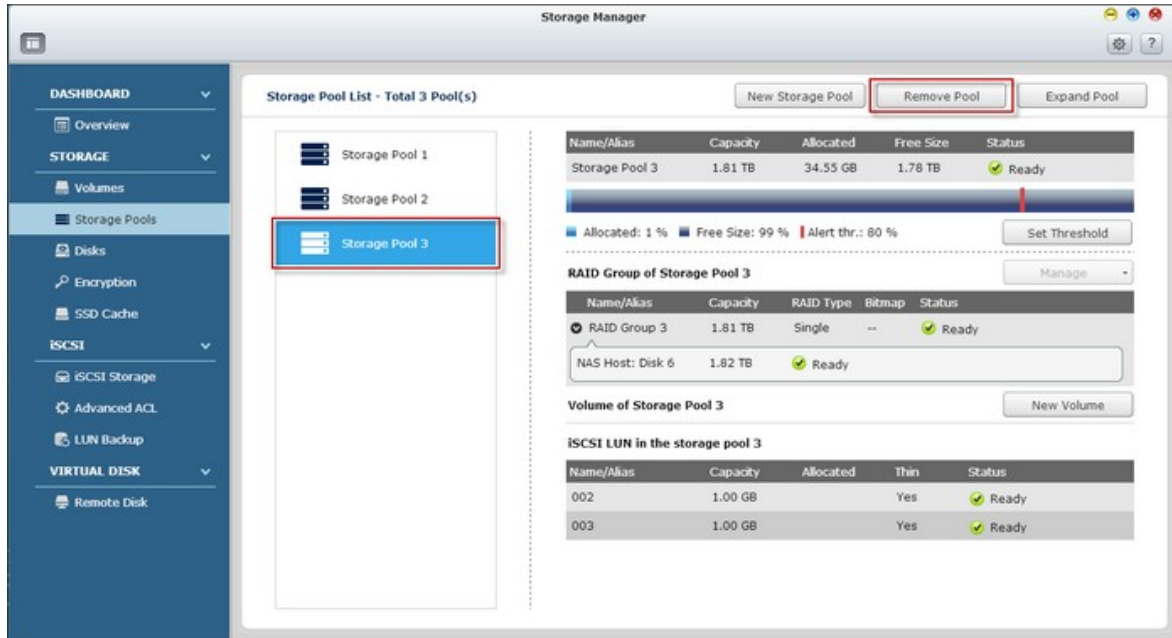
Allocated: 0 % Free Size: 100 % Alert thr.: 80 % Set Threshold

RAID Group of Storage Pool 2 Manage

Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	223.39 GB	RAID 1	Disable	Synchronizing (0.0%)

Volume of Storage Pool 2 New Volume

1. "Remove Pool()"



2. 'Apply()'

Storage Pool Removal Wizard

Summary

Storage Pool 3

RAID Group 3: NAS Host (Disks: 6)
 WDC WD20EVDS-63T3B0 (SATA)

3.

Storage Manager

DASHBOARD ▾

Overview

STORAGE ▾

Volumes

Storage Pools

Disks

Encryption

SSD Cache

ISCSI ▾

iSCSI Storage

Advanced ACL

LUN Backup

VIRTUAL DISK ▾

Remote Disk

Storage Pool List - Total 2 Pool(s)

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	446.78 GB	4.46 GB	442.32 GB	Ready

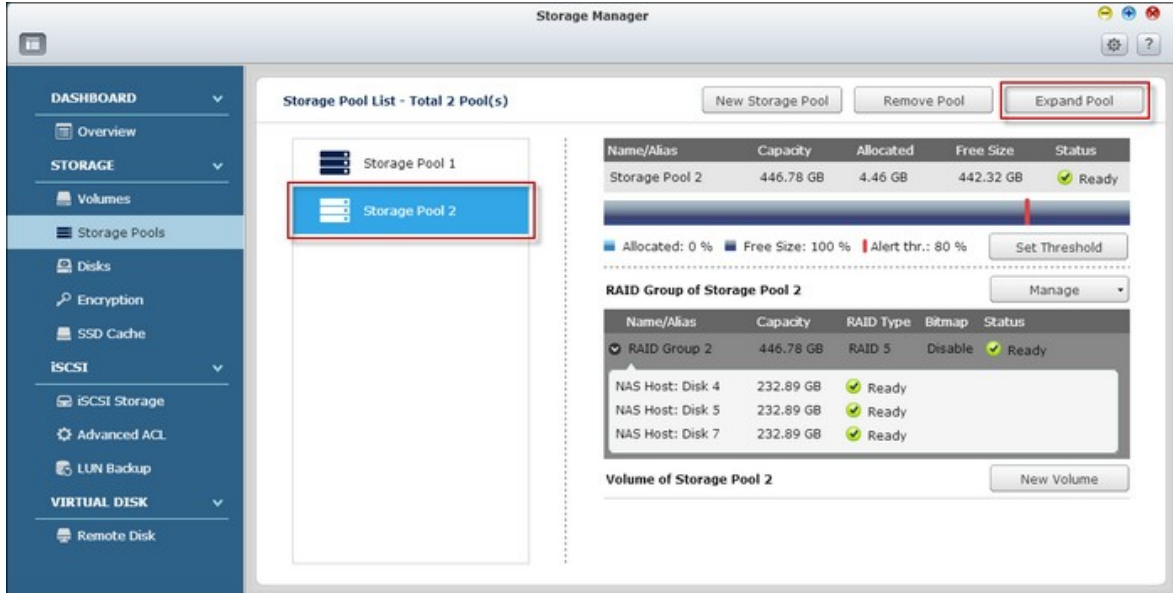
■ Allocated: 0 % ■ Free Size: 100 % ■ Alert thr.: 80 %

RAID Group of Storage Pool 2

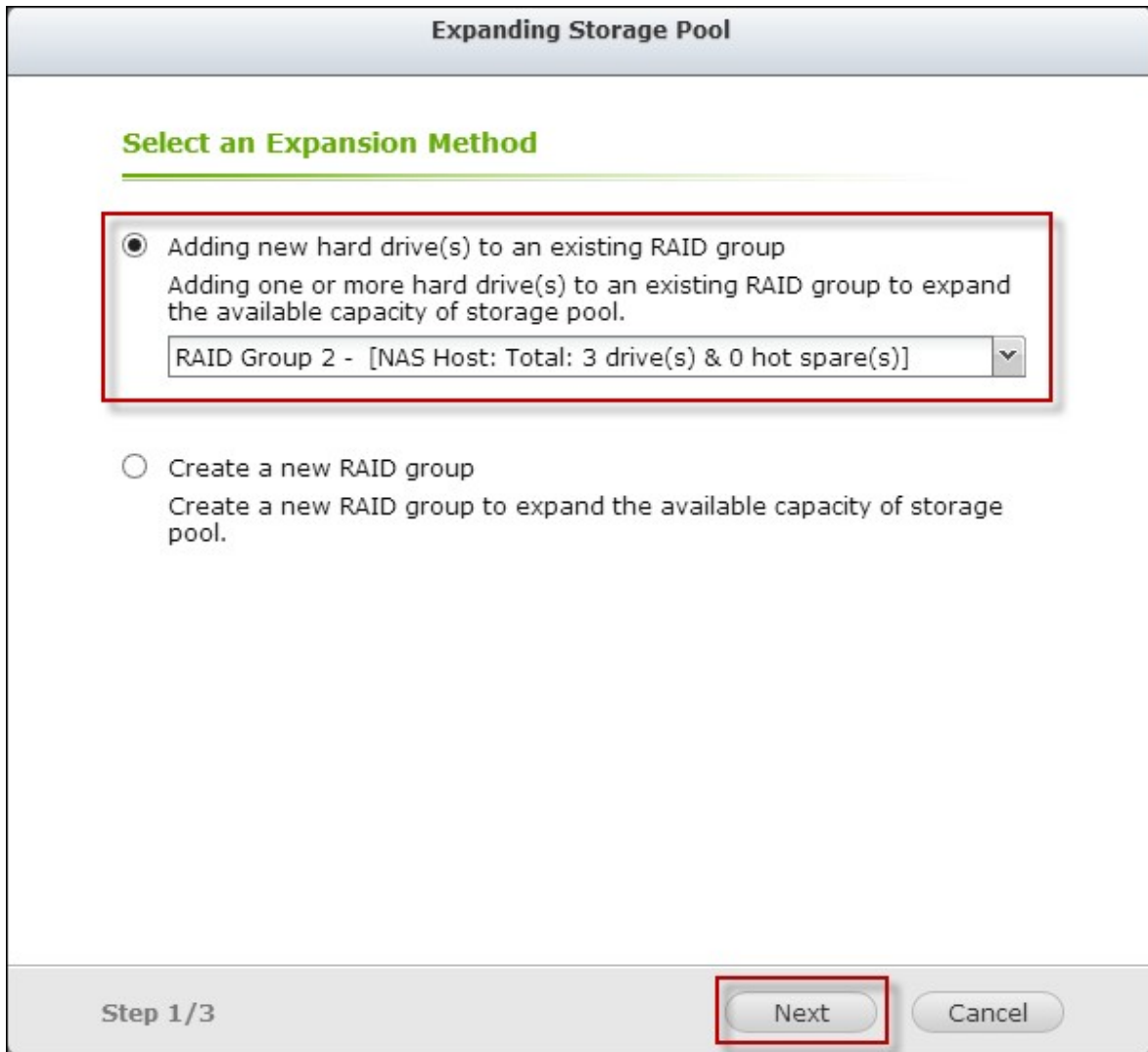
Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	446.78 GB	RAID 5	Disable	Ready
NAS Host: Disk 4	232.89 GB	Ready		Ready
NAS Host: Disk 5	232.89 GB	Ready		Ready
NAS Host: Disk 7	232.89 GB	Ready		Ready

Volume of Storage Pool 2

1. "Expand Pool()"



2. RAID 가 ("Create a new RAID group()". "Adding new hard drive(s) to an existing RAID group(RAID 가)" , RAID 0, RAID 1, Single JBOD
 RAID "Next()"



3.

"Next()"

Expanding Storage Pool

Select Hard Drive(s)

Enclosure Unit [Total: 2 Unit(s)]: NAS Host [available disk(s): 3/16] ▼

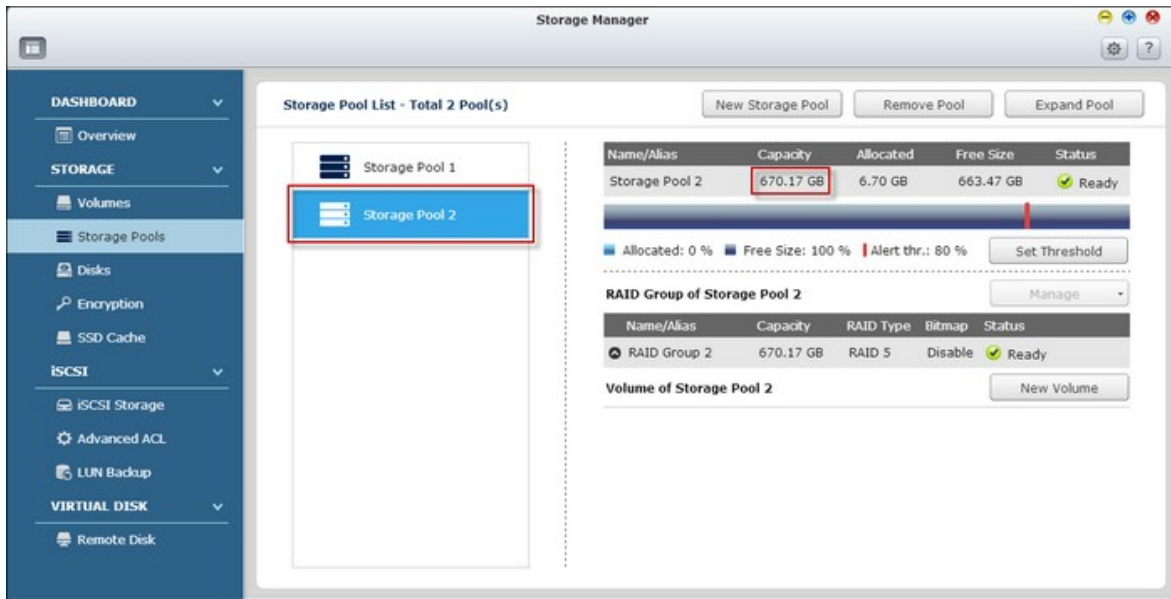
Please select at least one hard drive.

<input type="checkbox"/>	Disk	Model	Type	Bus Type	Capacity	Status
<input checked="" type="checkbox"/>	Drive 2	WDC WD20E...	HDD	SATA	1.82 TB	Ready
<input type="checkbox"/>	Drive 3	ATA C300-CT...	SSD	SATA	119.24 GB	Ready
<input type="checkbox"/>	Drive 6	WDC WD20E...	HDD	SATA	1.82 TB	Ready

Estimated Capacity: 670.17 GB

Step 2/3
Back
Next
Cancel

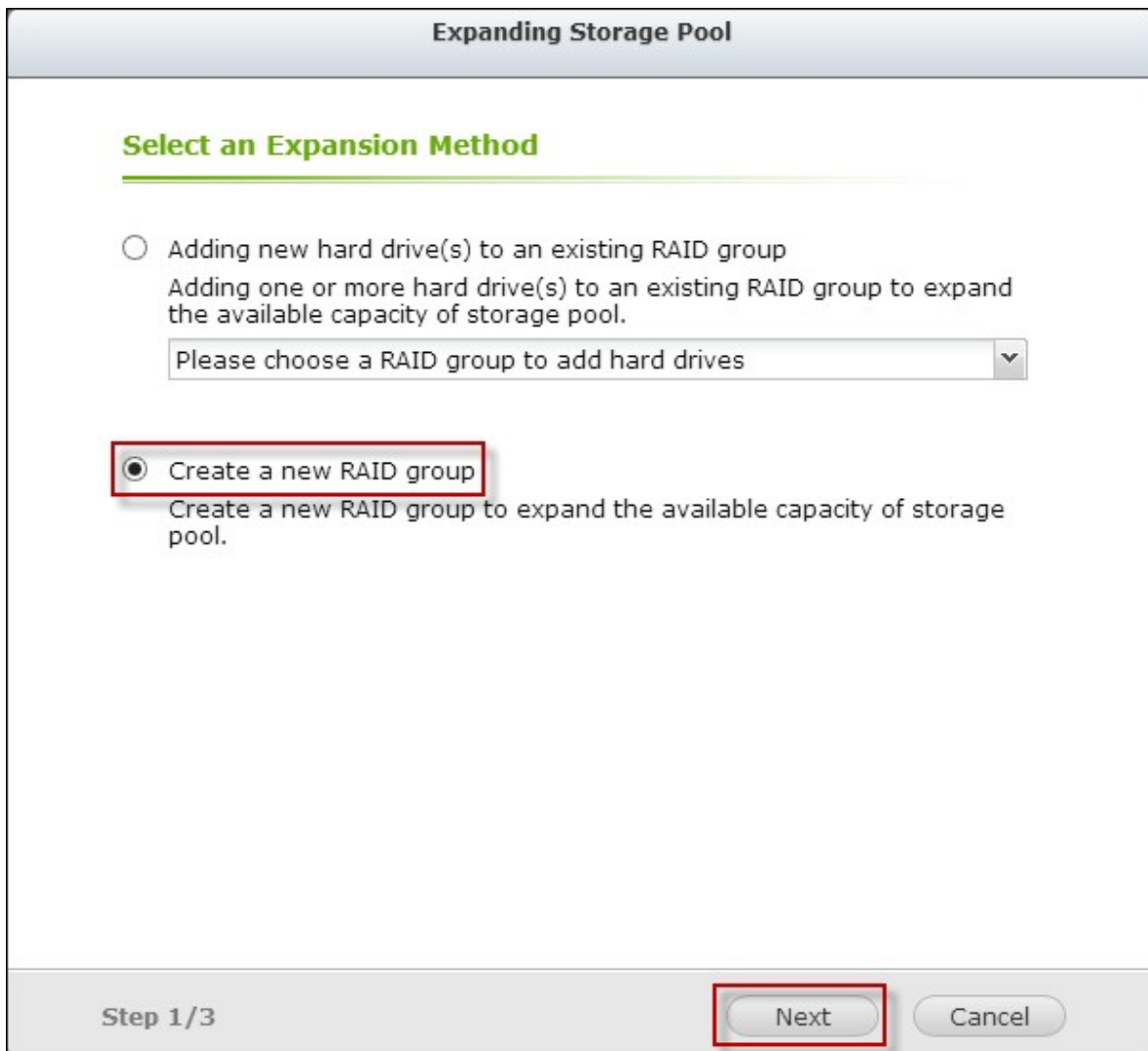
4. "Expand()"



RAID

RAID

1. "Create a new RAID group(RAID)" "Next()"



2. , RAID "Next()"

Expanding Storage Pool

Select Hard Drive(s)

Enclosure Unit [Total: 2 Unit(s)]: REXP#1 [available disk(s): 4/16] ▼

Please select at least one hard drive.

<input type="checkbox"/>	Disk	Model	Type	Bus Type	Capacity	Status
<input checked="" type="checkbox"/>	Drive 2	Hitachi HDS5...	HDD	SATA	1.82 TB	Ready
<input type="checkbox"/>	Drive 3	WDC WD20E...	HDD	SATA	1.82 TB	Ready
<input checked="" type="checkbox"/>	Drive 9	Hitachi HDS5...	HDD	SATA	1.82 TB	Ready
<input type="checkbox"/>	Drive 15	Seagate ST3...	HDD	SATA	1.82 TB	Ready

RAID Type: RAID 1 ▼ Hot Spare Disk: None ▼

Estimated Capacity: 2.46 TB

Note: You must use RAID type with fault tolerance.

Step 2/3
Next
Back
Cancel

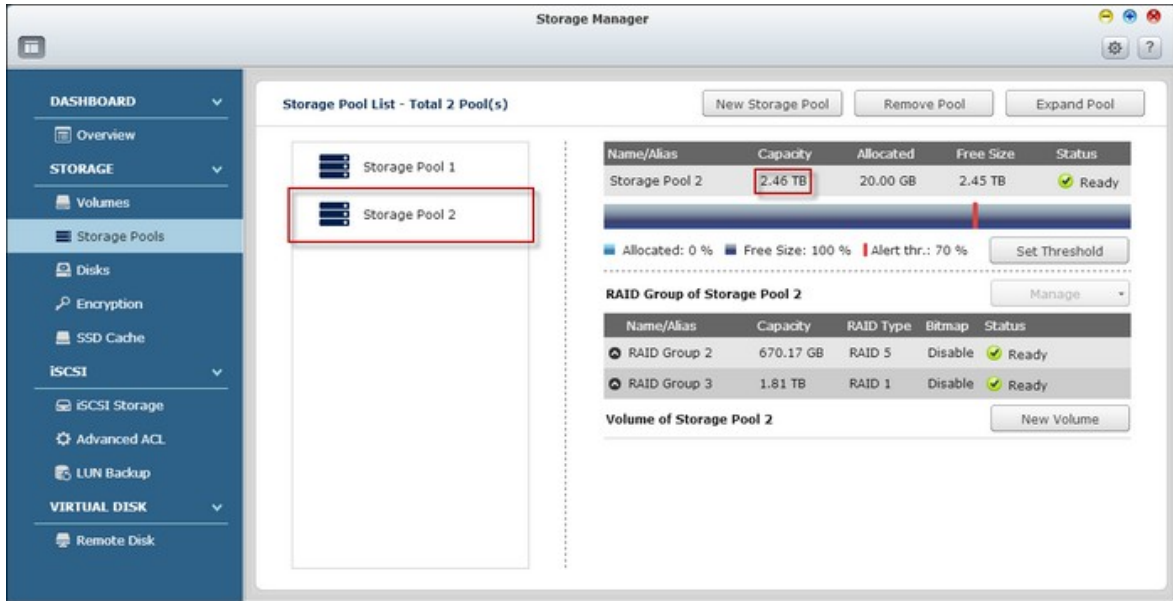
3. RAID RAID "OK()"

A different type of RAID group is detected

Adding a different type of the RAID group could cause performance degradation. It is strongly recommended to choose only RAID groups of the same type for the best performance. Do you want to continue?

OK
Cancel

4. "Expand()"



RAID

RAID

	RAID NAS 가 가
RAID 0	RAID 2 가 가 RAID 0
RAID 1	가 가 RAID 1
RAID 5	RAID 5 3 가 RAID 5 가 (-1) 가 ()

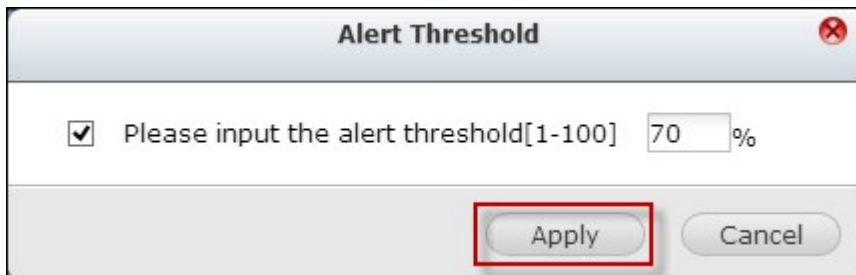
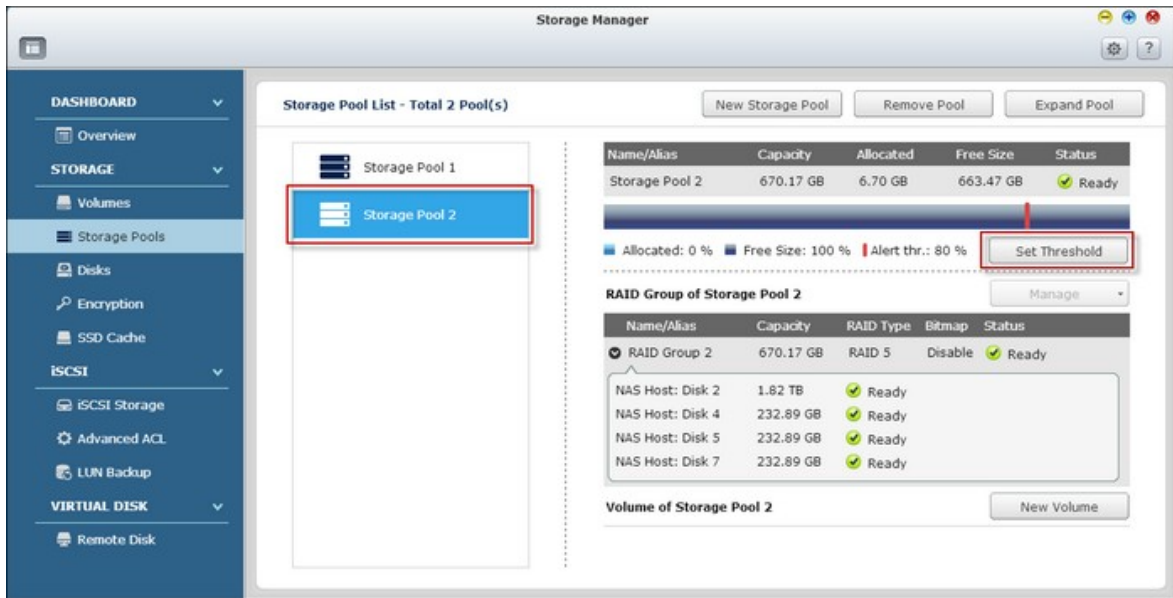
	<p>가 4 가 , RAID 5 3 RAID 5 RAID 5 가 , "degraded mode(가 , 가 가 가 가 가 "rebuilding()" : 가 "degraded(2 가 가</p>
RAID 6	<p>RAID 6 RAID 6 4 가 RAID 6 가 (-2) 가 (). RAID 6 2 : 가 "degraded(2 가 가</p>
RAID 10	<p>RAID 10 , RAID 1() RAID 0() RAID 10 RAID 10 가 10 () RAID RAID 10 RAID 10 2 2 가 : 가 "degraded(2 가 가</p>

JBOD	2 가 . JBOD
------	------------

가

Set Threshold()”

Apply()”



Storage Manager

Storage Pool List - Total 2 Pool(s) New Storage Pool Remove Pool Expand Pool

Storage Pool 1

Storage Pool 2

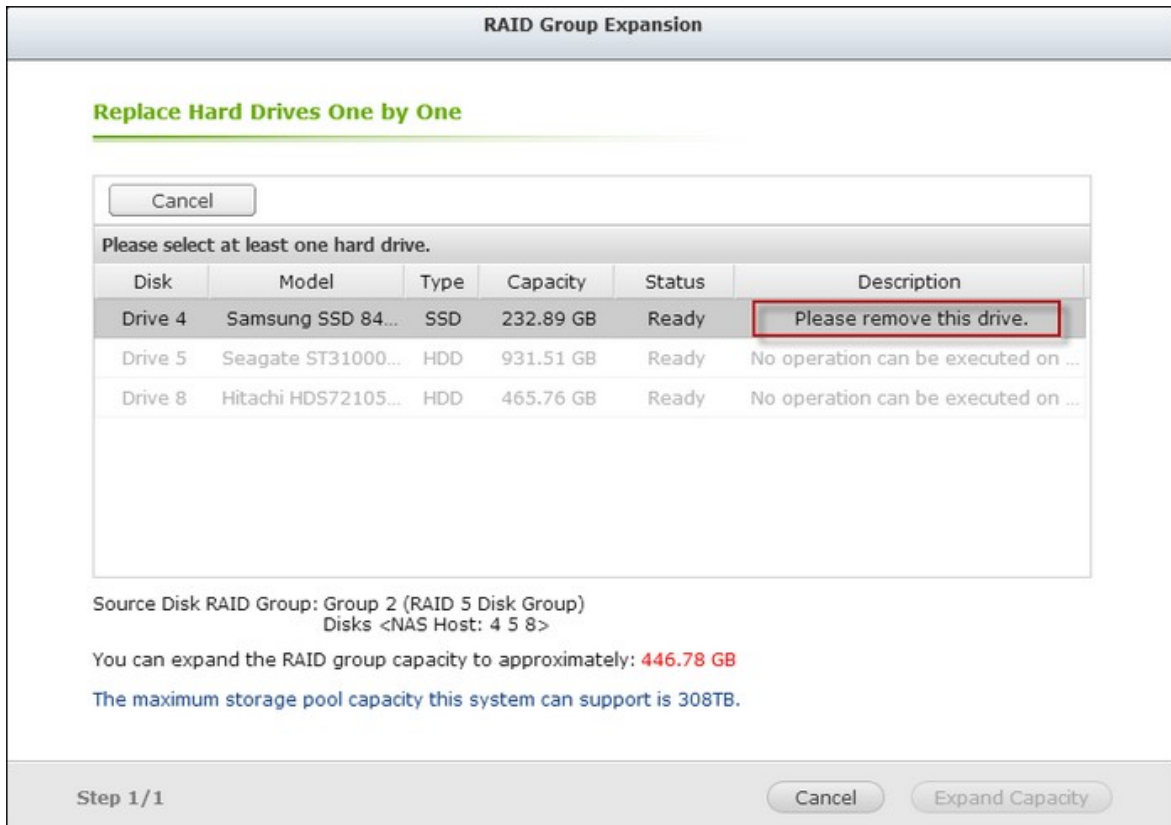
Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	670.17 GB	6.70 GB	663.47 GB	Ready

Allocated: 0 % Free Size: 100 % **Alert thr.: 70 %** Set Threshold

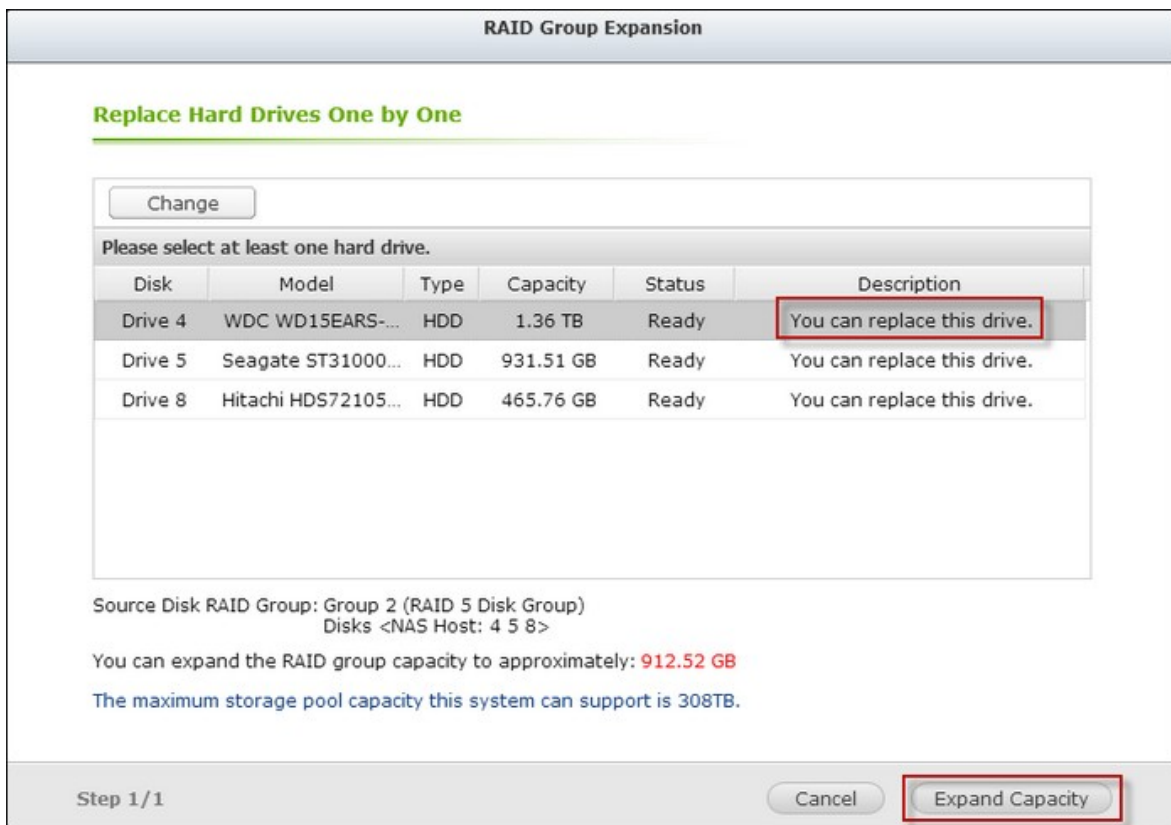
RAID Group of Storage Pool 2 Manage

Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	670.17 GB	RAID 5	Disable	Ready
NAS Host: Disk 2	1.82 TB	Ready		Ready
NAS Host: Disk 4	232.89 GB	Ready		Ready
NAS Host: Disk 5	232.89 GB	Ready		Ready
NAS Host: Disk 7	232.89 GB	Ready		Ready

Volume of Storage Pool 2 New Volume



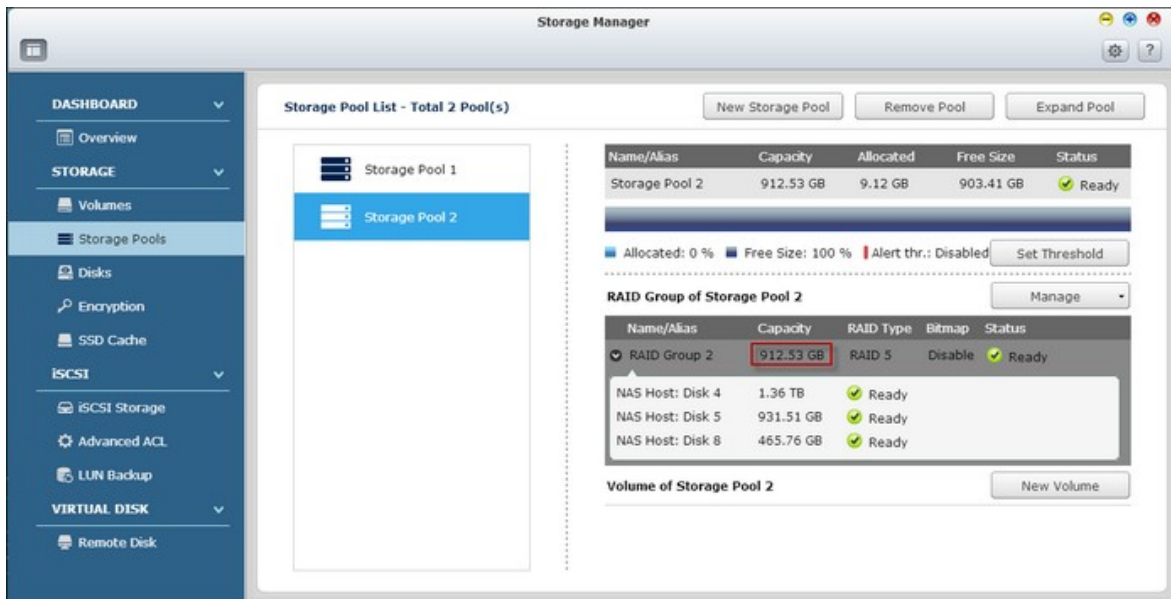
3. "You can replace this drive()"
- . "Expand Capacity()"



4. "Yes()"



5. RAID



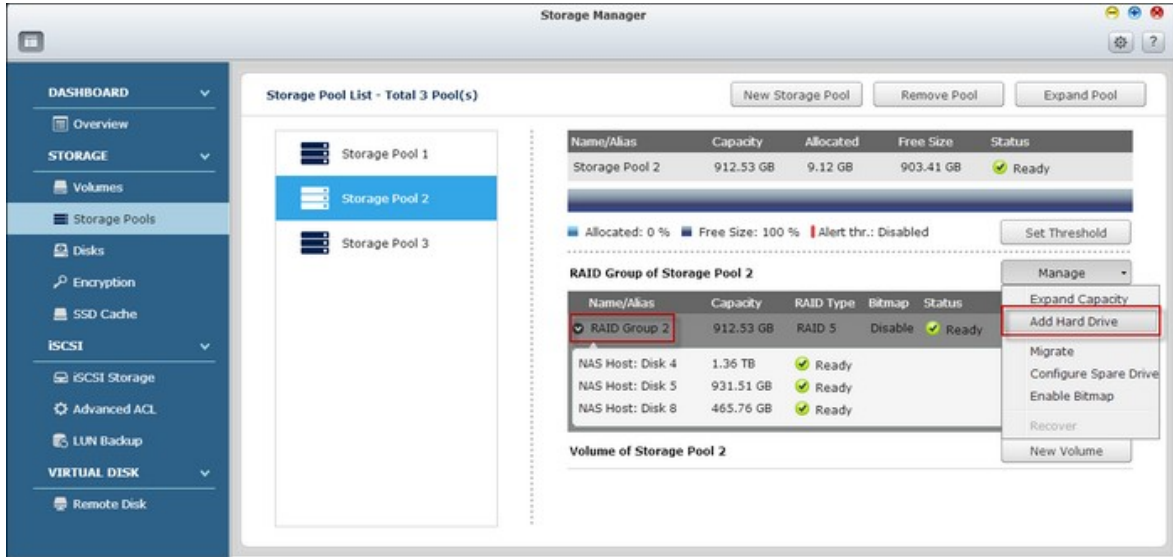
가

RAID 가

RAID 5 RAID 6.

RAID 가

1. RAID "Manage()" > "Add Hard Drive(가)"



2. RAID 가 "Apply()"

Storage Manager

Storage Pool List - Total 3 Pool(s)

New Storage Pool Remove Pool Expand Pool

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	1.34 TB	13.69 GB	1.32 TB	Ready

Allocated: 0 % Free Size: 100 % Alert thr.: Disabled Set Threshold

RAID Group of Storage Pool 2 Manage

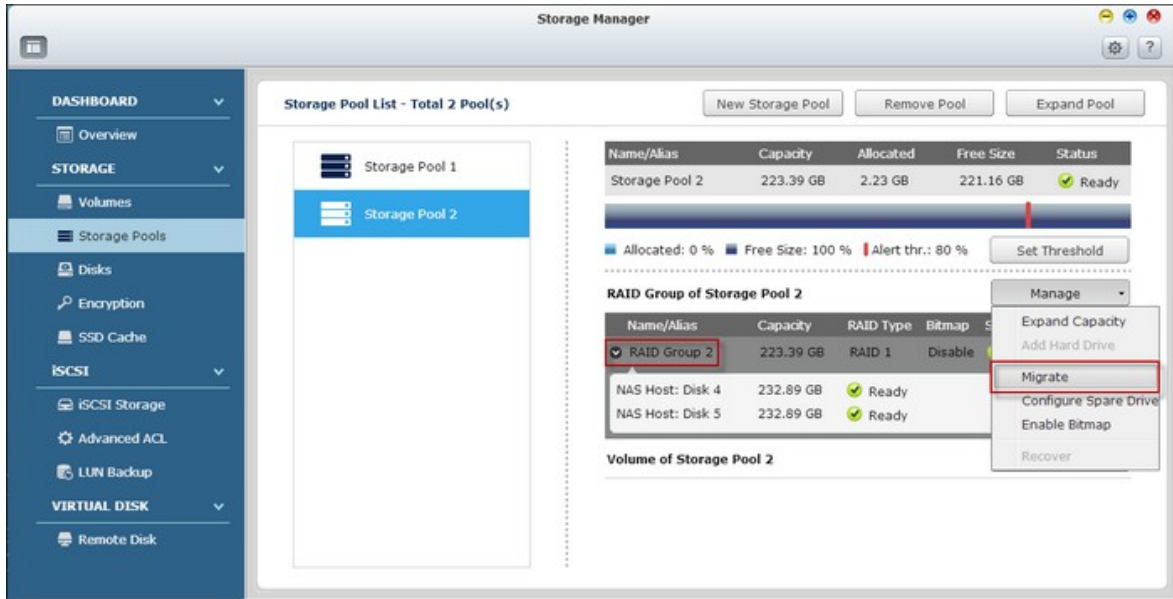
Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	1.34 TB	RAID 5	Disable	Ready
NAS Host: Disk 4	1.36 TB			Ready
NAS Host: Disk 5	931.51 GB			Ready
NAS Host: Disk 8	465.76 GB			Ready
NAS Host: Disk 9	465.76 GB			Ready(Spare)

Volume of Storage Pool 2 New Volume

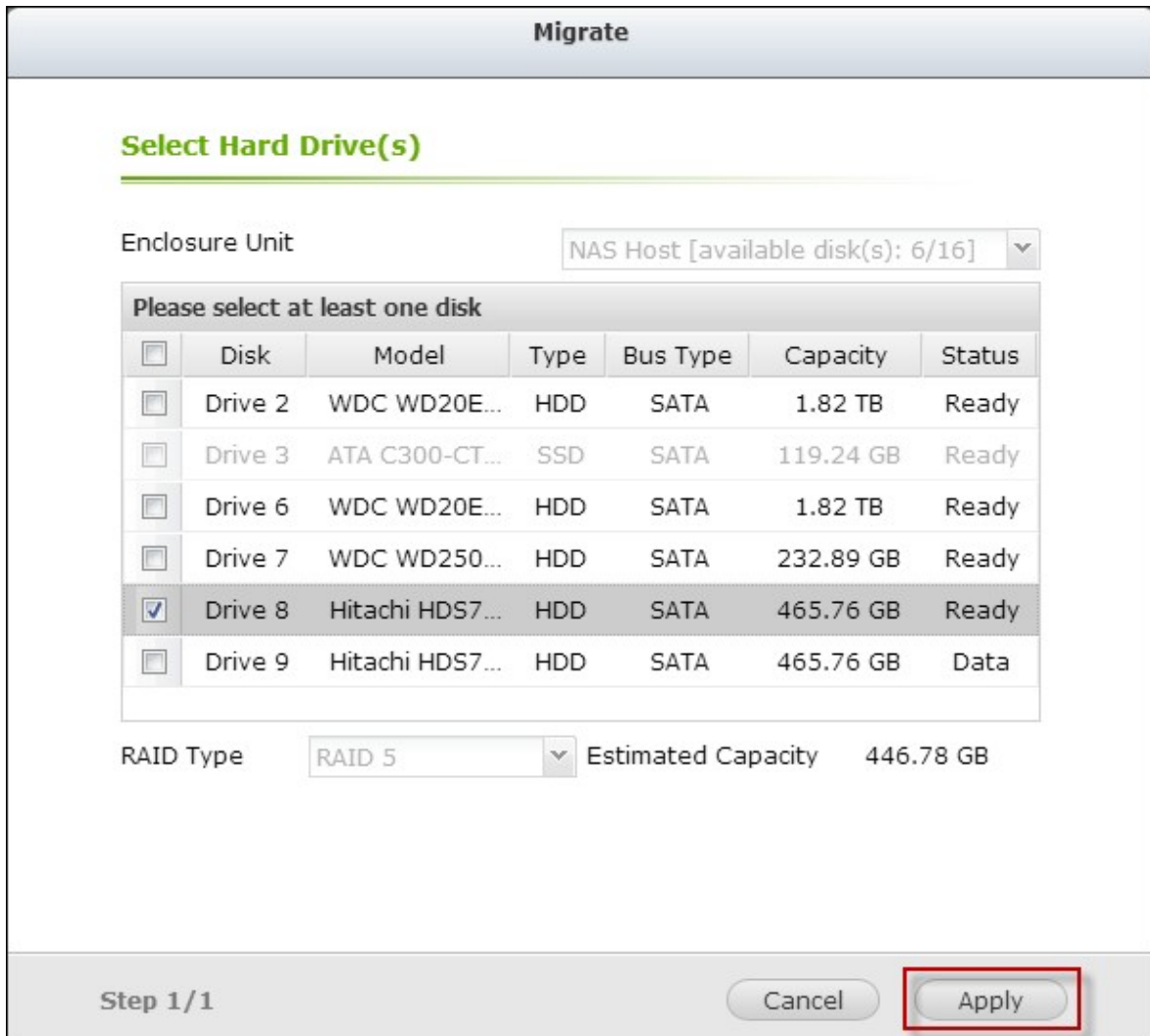
RAID

, RAID RAID
 , RAID 5 RAID 6 RAID 1 , RAID 1 RAID 5
 가 (: XDove).

1. RAID "Manage()"> "Migrate()"



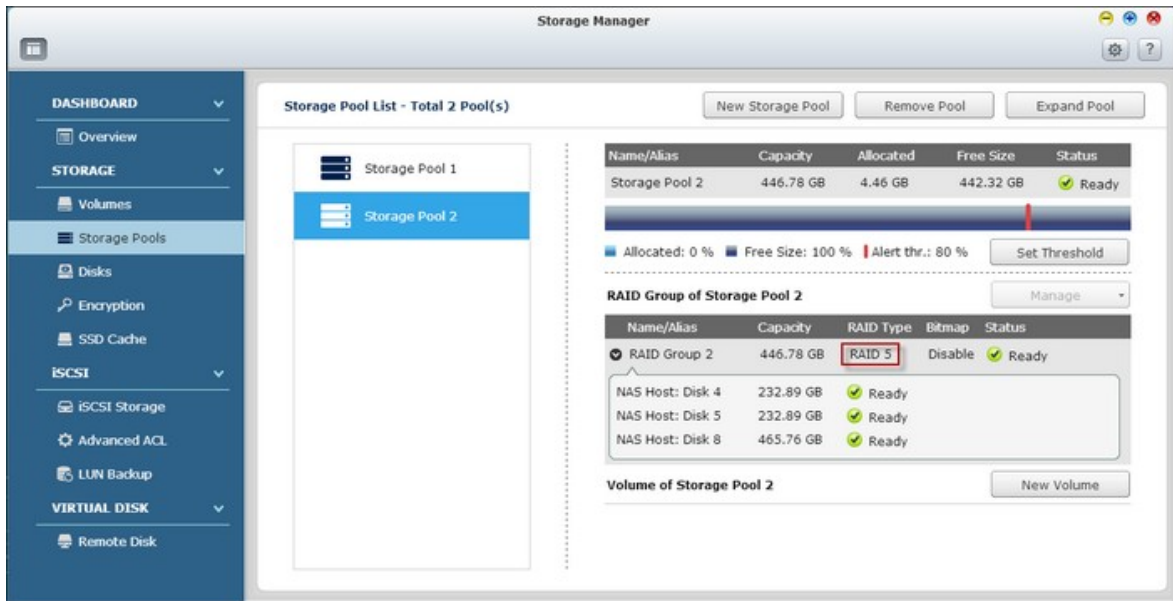
2. Apply()"



3. Yes() 가

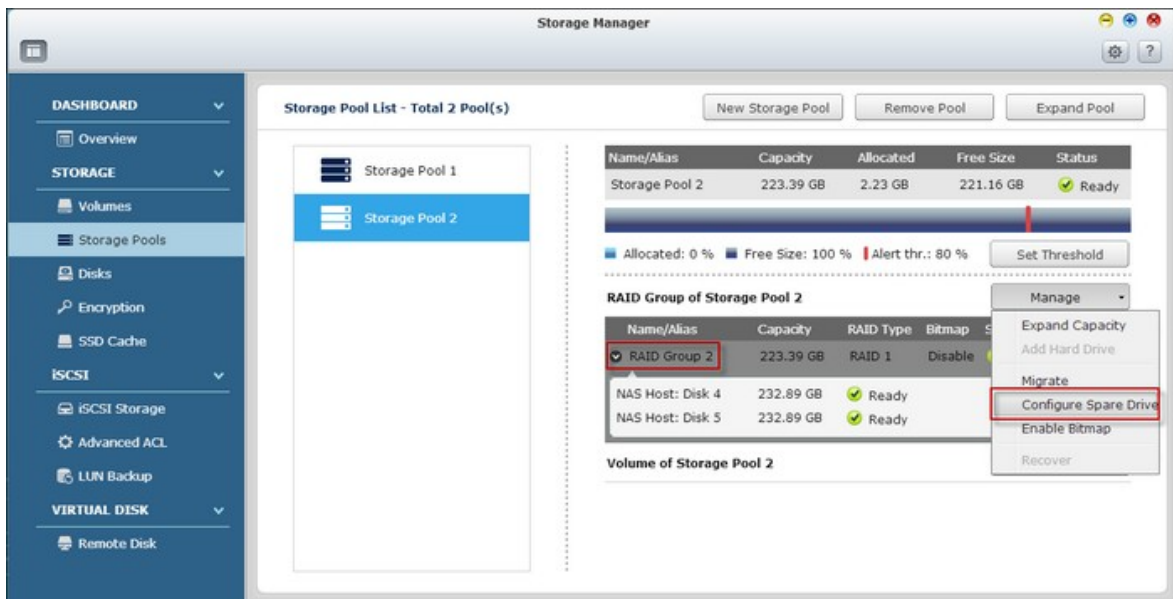


4. RAID



RAID 1, RAID 5, RAID 6 RAID 10 가

1. RAID "Manage()" > "Configure Spare Drive()"



2. 'Apply()'

Storage Manager

Storage Pool List - Total 2 Pool(s)

New Storage Pool Remove Pool Expand Pool

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	223.39 GB	2.23 GB	221.16 GB	Ready

Allocated: 0 % Free Size: 100 % Alert thr.: 80 % Set Threshold

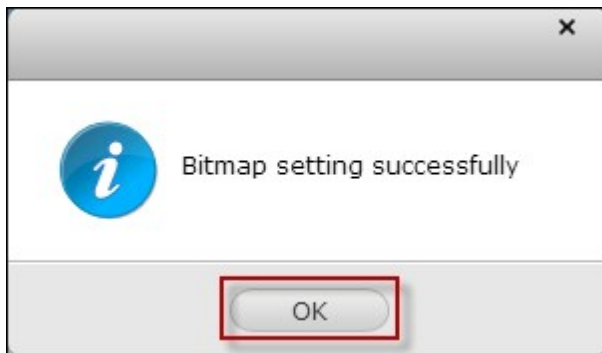
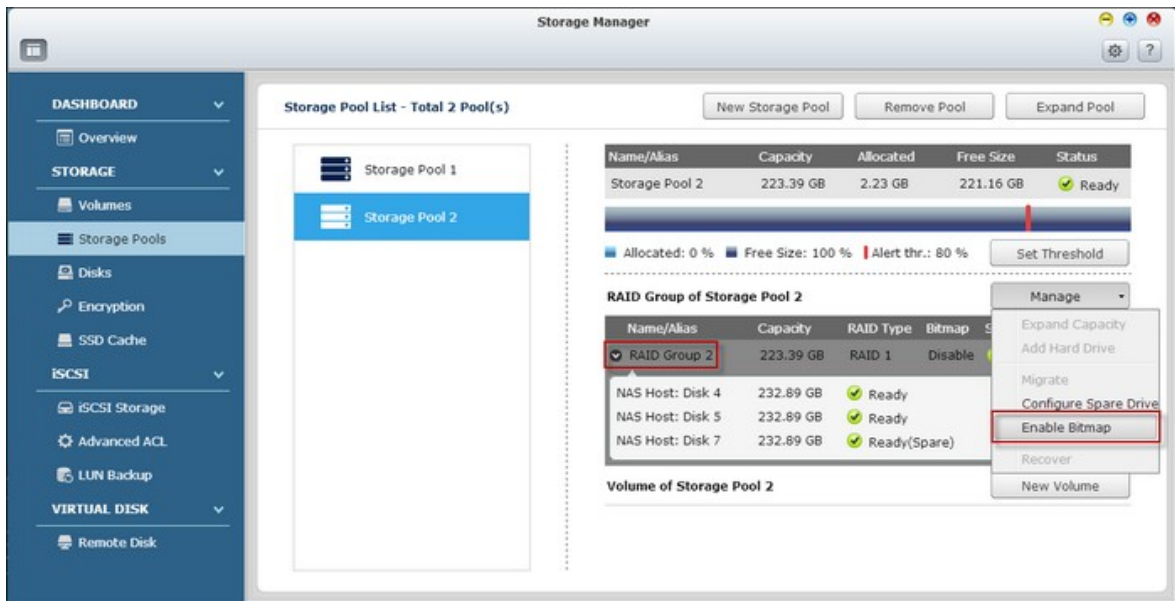
RAID Group of Storage Pool 2 Manage

Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	223.39 GB	RAID 1	Disable	Ready
NAS Host: Disk 4	232.89 GB			Ready
NAS Host: Disk 5	232.89 GB			Ready
NAS Host: Disk 7	232.89 GB			Ready(Spare)

Volume of Storage Pool 2 New Volume

RAID 1, RAID 5, RAID 6 RAID 10

, RAID "Manage()">"Enable Bitmap()"
"OK()"



, RAID "Manage()">"Disable Bitmap()"
"OK()"

Storage Manager

Storage Pool List - Total 2 Pool(s)

New Storage Pool Remove Pool Expand Pool

Name/Alias	Capacity	Allocated	Free Size	Status
Storage Pool 2	223.39 GB	2.23 GB	221.16 GB	Ready

Allocated: 0 % Free Size: 100 % Alert thr.: 80 % Set Threshold

RAID Group of Storage Pool 2

Name/Alias	Capacity	RAID Type	Bitmap	Status
RAID Group 2	223.39 GB	RAID 1	Enable	
NAS Host: Disk 4	232.89 GB		Ready	Ready
NAS Host: Disk 5	232.89 GB		Ready	Ready
NAS Host: Disk 7	232.89 GB		Ready(Spare)	Ready(Spare)

Volume of Storage Pool 2

Manage

- Expand Capacity
- Add Hard Drive
- Migrate
- Configure Spare Drive
- Disable Bitmap
- Recover
- New Volume

Bitmap setting successfully

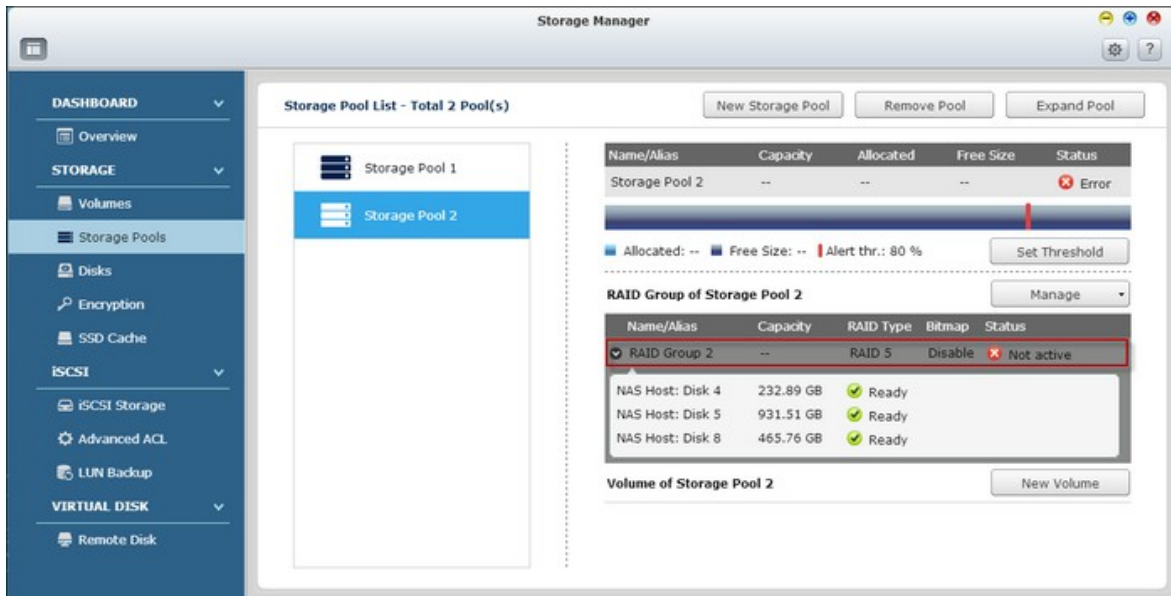
OK

가 RAID

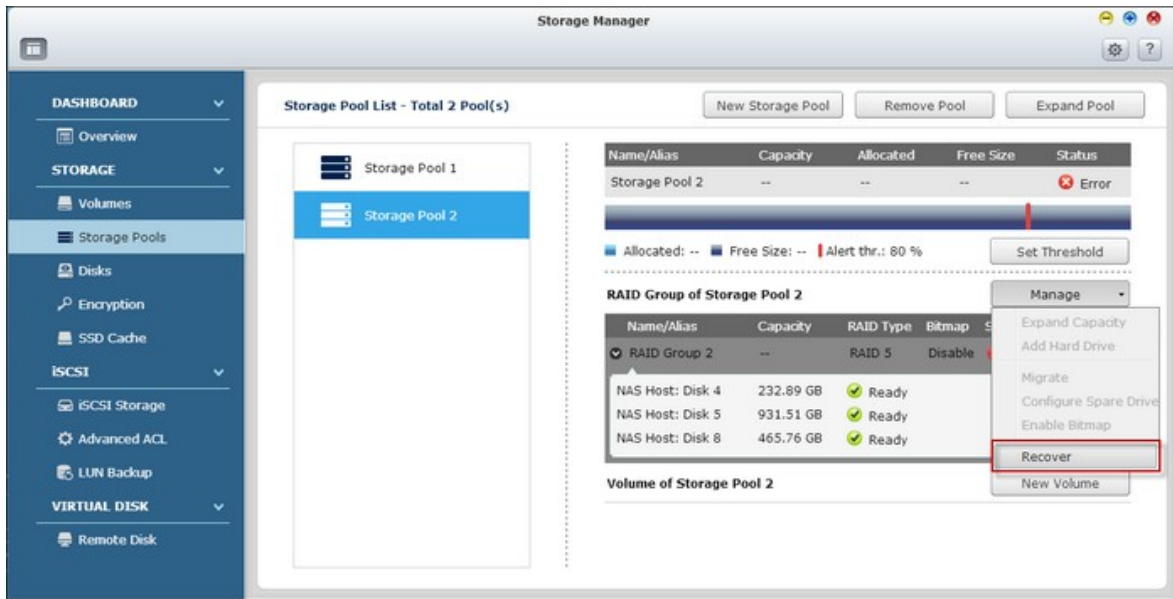
가 RAID "Inactive()"
 .(RAID 1, RAID 5, RAID 6 RAID 10 RAID 0 JBOD
 .) 가
 가 NAS . 가 ,
 가
 RAID NAS RAID 가 가
 3 가 RAID 5 가
 NAS 2 가 가
 RAID RAID

RAID	
RAID 1	1
RAID 5	2
RAID 6	2
RAID 10	2

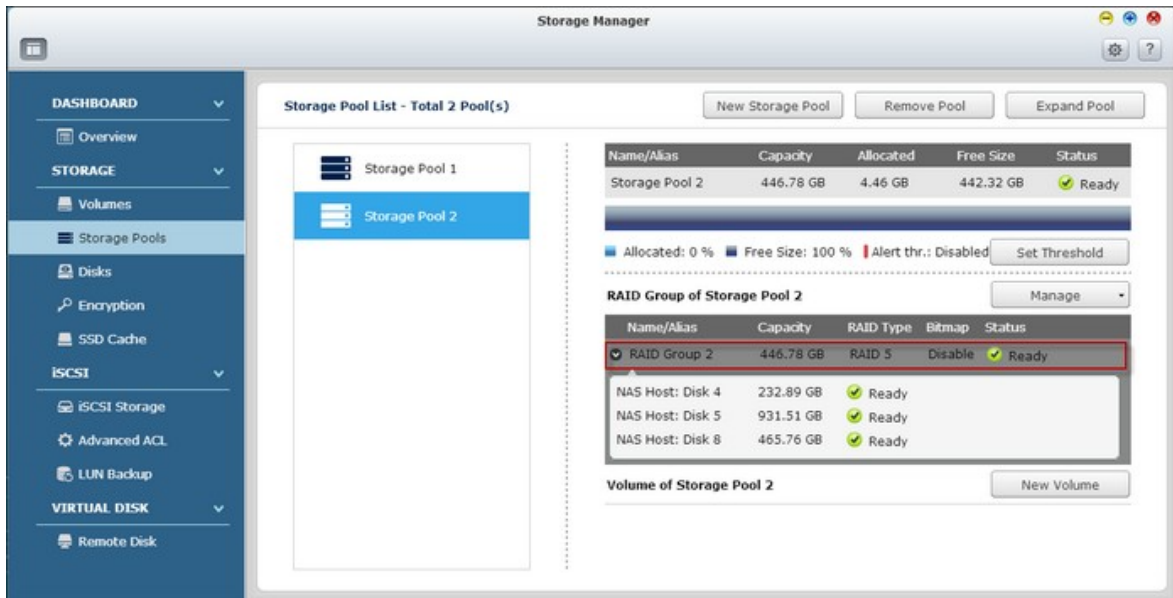
1. 가 RAID



2. "Manage()">"Recover()"



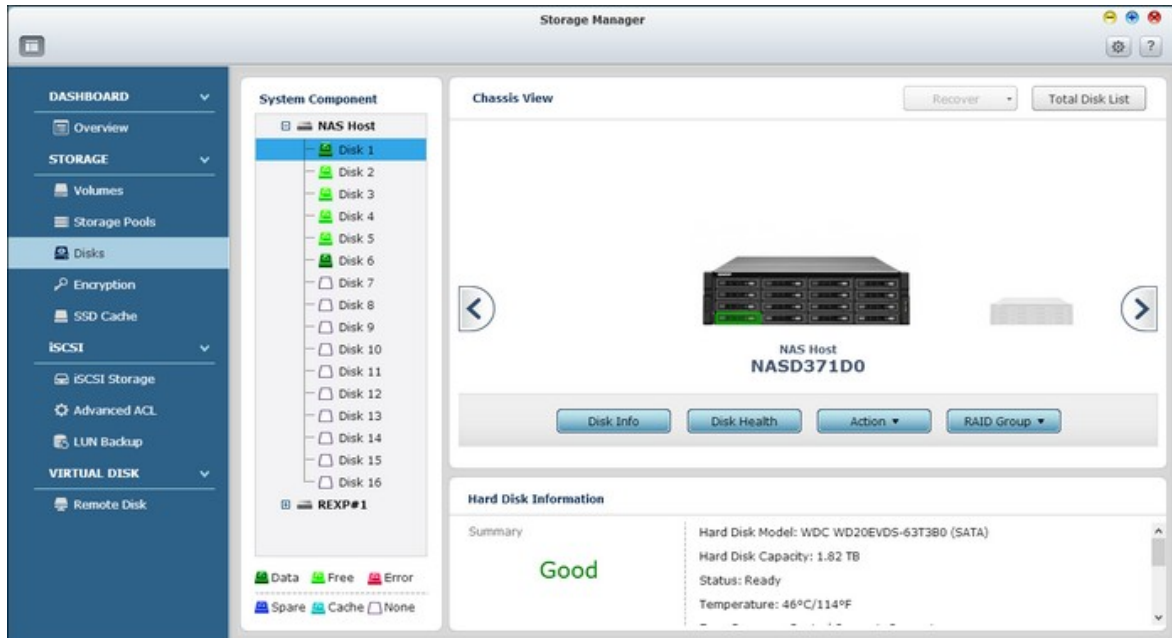
3. RAID



"New Volume()"
[89]

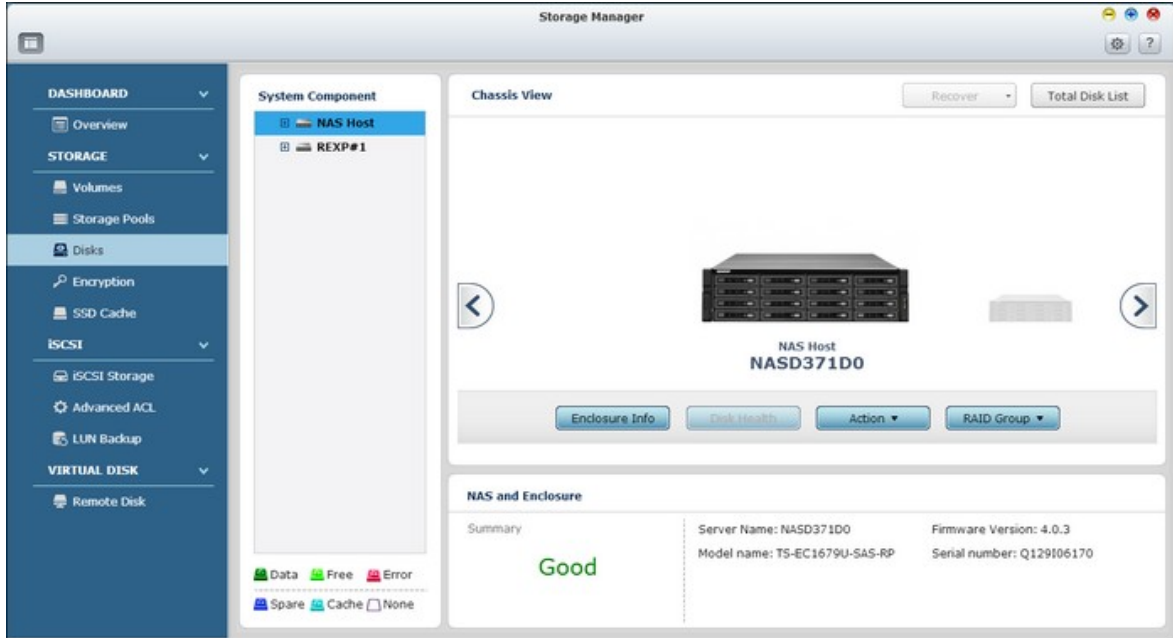
4.2.2.3

가 NAS



NAS

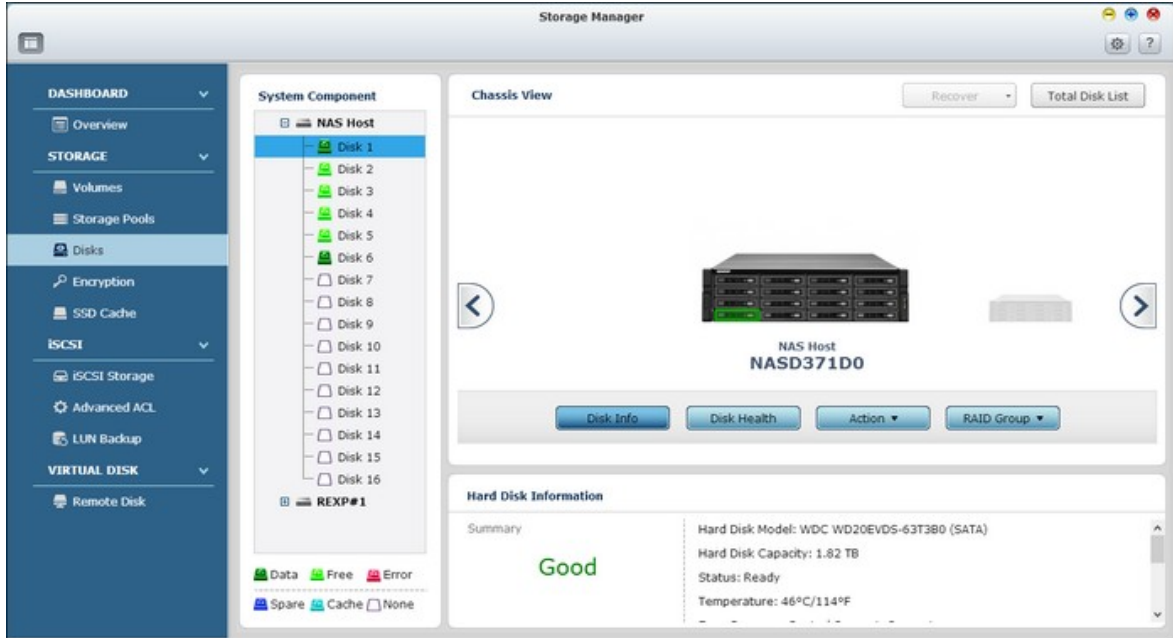
NAS System Component()” NAS



NAS

	, BUS , CPU ,
('Action() ”)	NAS LED가 ,
RAID	RAID , RAID , RAID
	가 NAS, , (HDD SSD), BUS , , (Refresh() ”

System Component()” NAS “ 4 ”



System Component()”
가

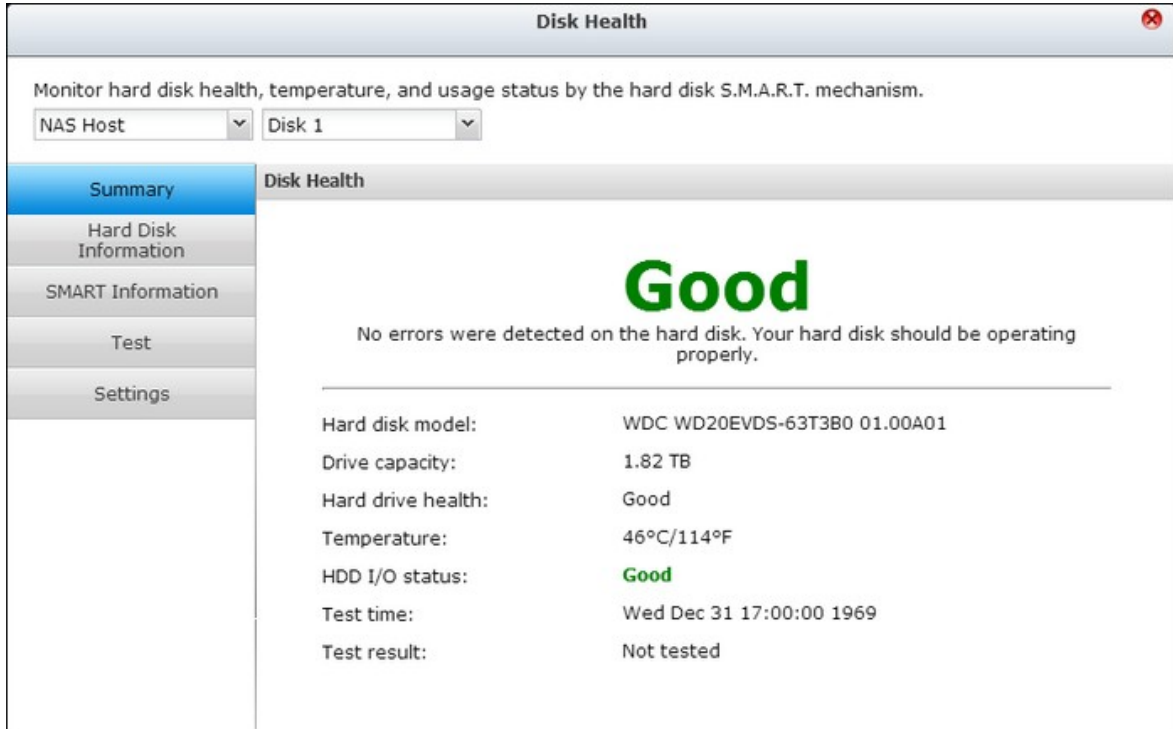
- : 가
- : 가
- : (I/O)가
- : RAID
- :
- :

:	ATA , , , , , ATA
	S.M.A.R.T . S. M.A.R.T
('Action()”)	가 가 가 'Status()” bad blocks()”

('Action()")	LED가
('Action()")	RAID 1, RAID 5, RAID 6 RAID 10 가 RAID 가 RAID RAID
RAID	RAID , RAID , RAID
	가 NAS, , (HDD SSD), BUS , , (,) Refresh()"

HDD S.M.A.R.T

Disk Health()”



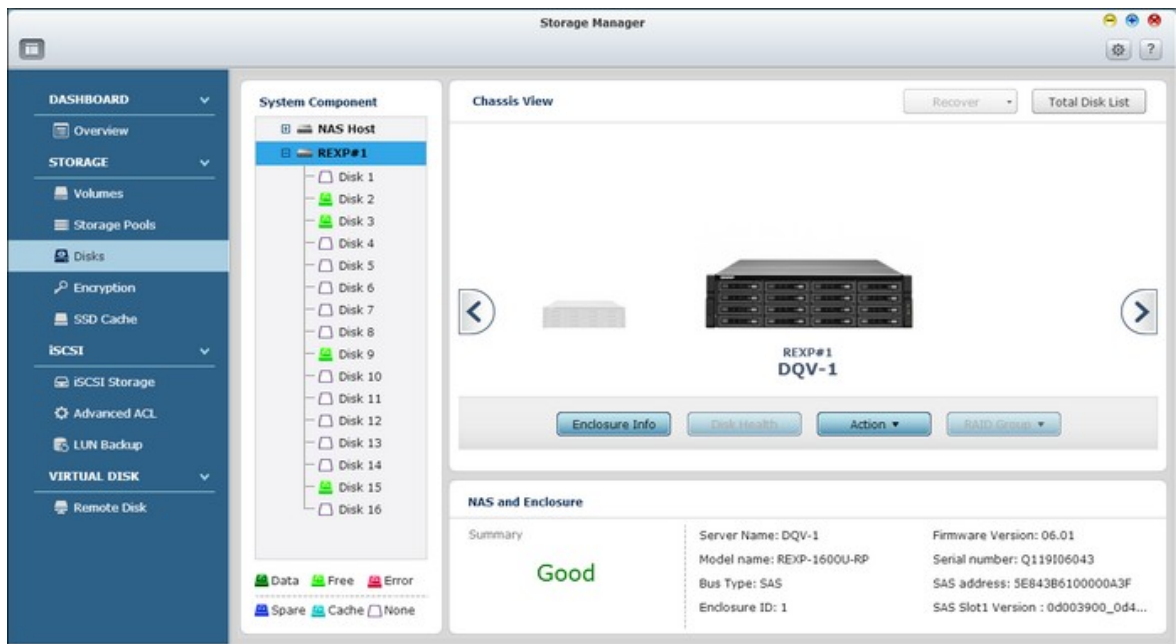
S.M.A.R.T

NAS

	S.M.A.R.T
	, ATA
SMART	ATA
	S.M.A.R.T
	가
	. 1) : 가
	. 2) Summary
	()”
	‘APPLY to Selected HDD(HDD)”
	HDDs()” ‘APPLY to All

: : TS- 470 Pro, TS- 470, TS- 670 Pro, TS- 670, TS- 870 Pro, TS- 870, TS- 870U- RP, TS- 879 Pro, TS- 879U- RP, TS- 1079 Pro, TS- 1270U- RP, TS- 1279U- RP, TS- 1679U- RP, TS- EC879U- RP, TS- EC1279U- RP, TS- EC1279U- SAS- RP, TS- EC1679U- RP, TS- EC1679U- SAS- RP, SS- EC1279U- SAS- RP, SS- EC1879U- SAS- RP, SS- EC2479U- SAS- RP.

(REXP) System Component()”
(REXP)

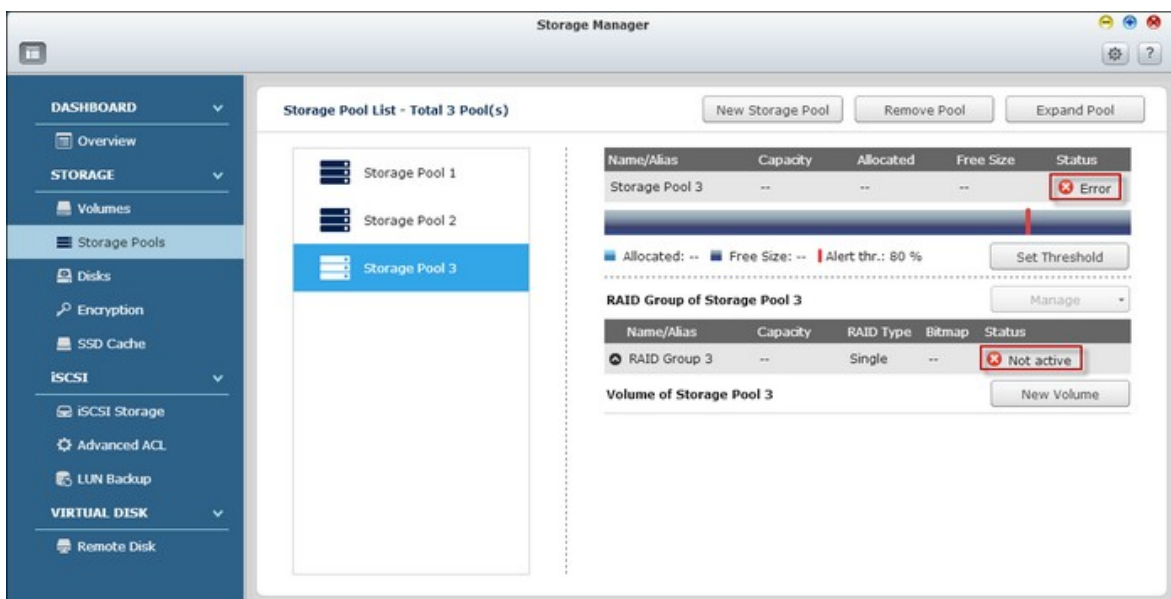
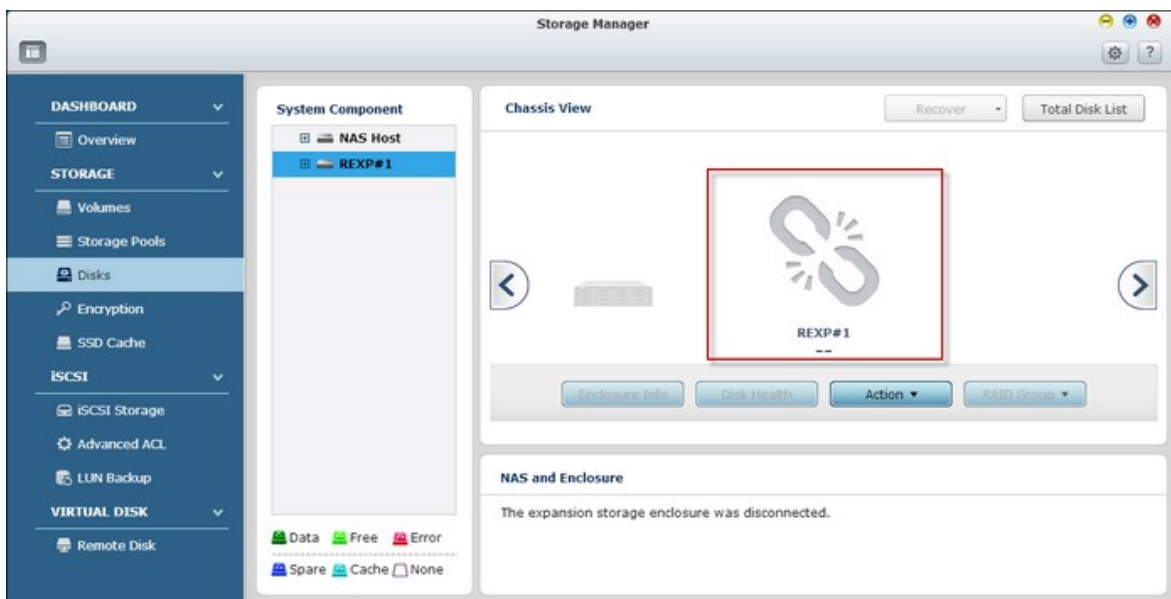


	, CPU , , , , BUS
(‘Action()”)	LED가 ,
(‘Action ()”)	.
(‘Action()”)	
RAID	RAID RAID , RAID ,

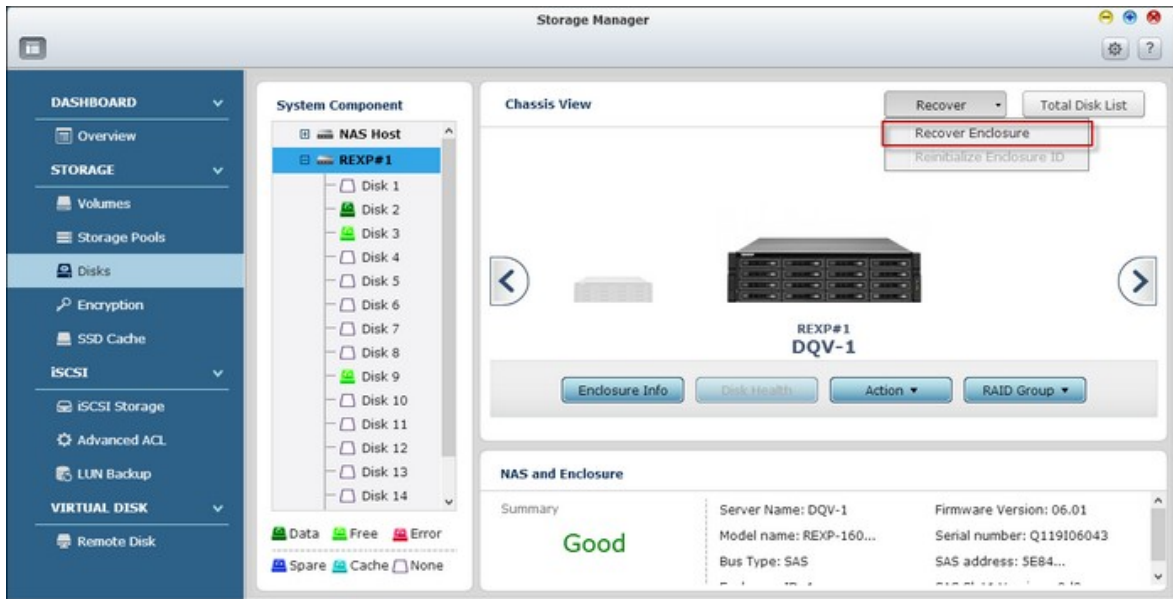
	<p>가 , (HDD SSD), BUS , , (, ,) Refresh()”</p>
--	--

: TS- 470 Pro, TS- 470, TS- 670 Pro, TS- 670, TS- 870 Pro, TS- 870, TS- 870U- RP, TS- 879 Pro, TS- 879U- RP, TS- 1079 Pro, TS- 1270U- RP, TS- 1279U- RP, TS- 1679U- RP, TS- EC879U- RP, TS- EC1279U- RP, TS- EC1279U- SAS- RP, TS- EC1679U- RP, TS- EC1679U- SAS- RP, SS- EC1279U- SAS- RP, SS- EC1879U- SAS- RP, SS- EC2479U- SAS- RP.

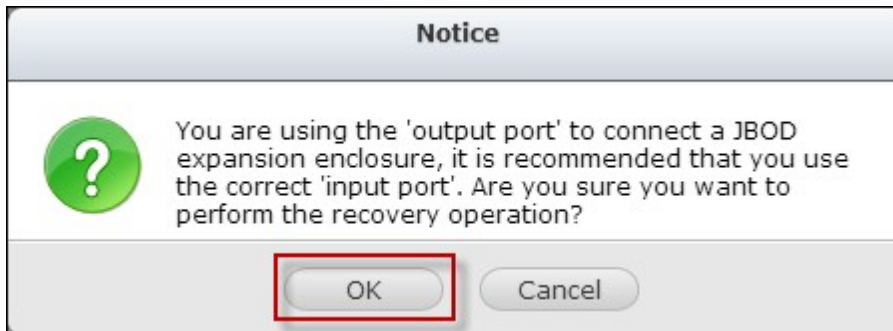
Recover()” NAS (: SAS) 가 Error()” , RAID Not active()”



1. Recover()"> Recover Enclosure()"



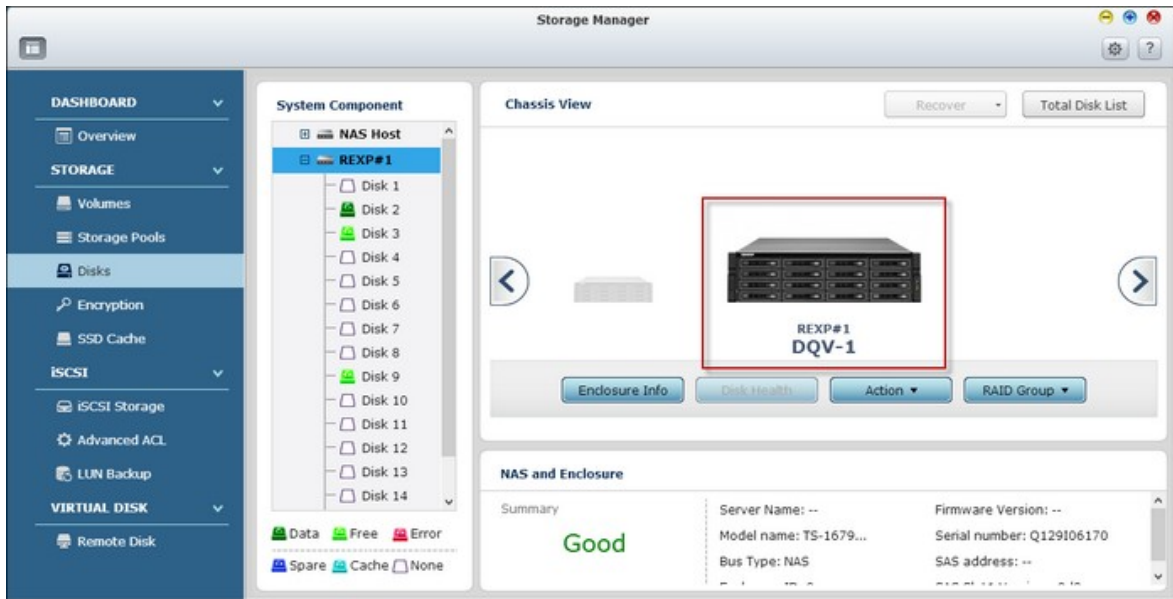
2. 가 OK()"



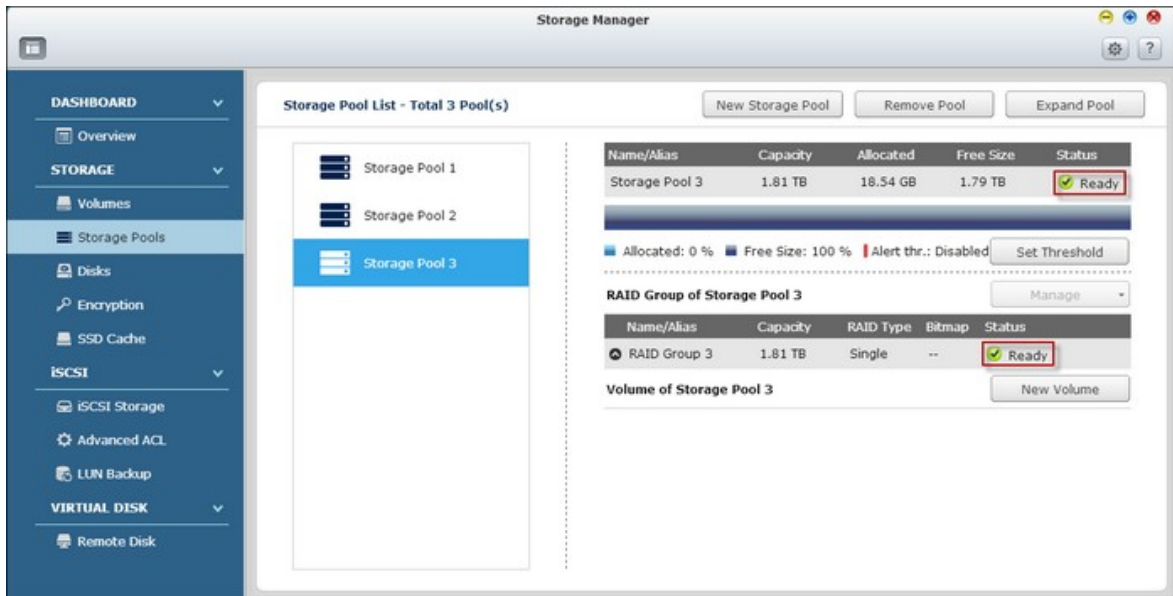
3. OK()"



4. 가



5. RAID



- Recover()”
- Reinitialize enclosure ID(ID)” NAS 가 32 ID

4.2.2.4

Turbo NAS

256 AES

NAS 가

: AES

QNAP NAS

QNAP Turbo NAS

NAS

- "admin" : 8-16 (!@#\$%^&*()_+=?)
- : NAS Encryption()"

Turbo NAS

- Turbo NAS , JBOD RAID
- NAS
- 가
- 가
-
-

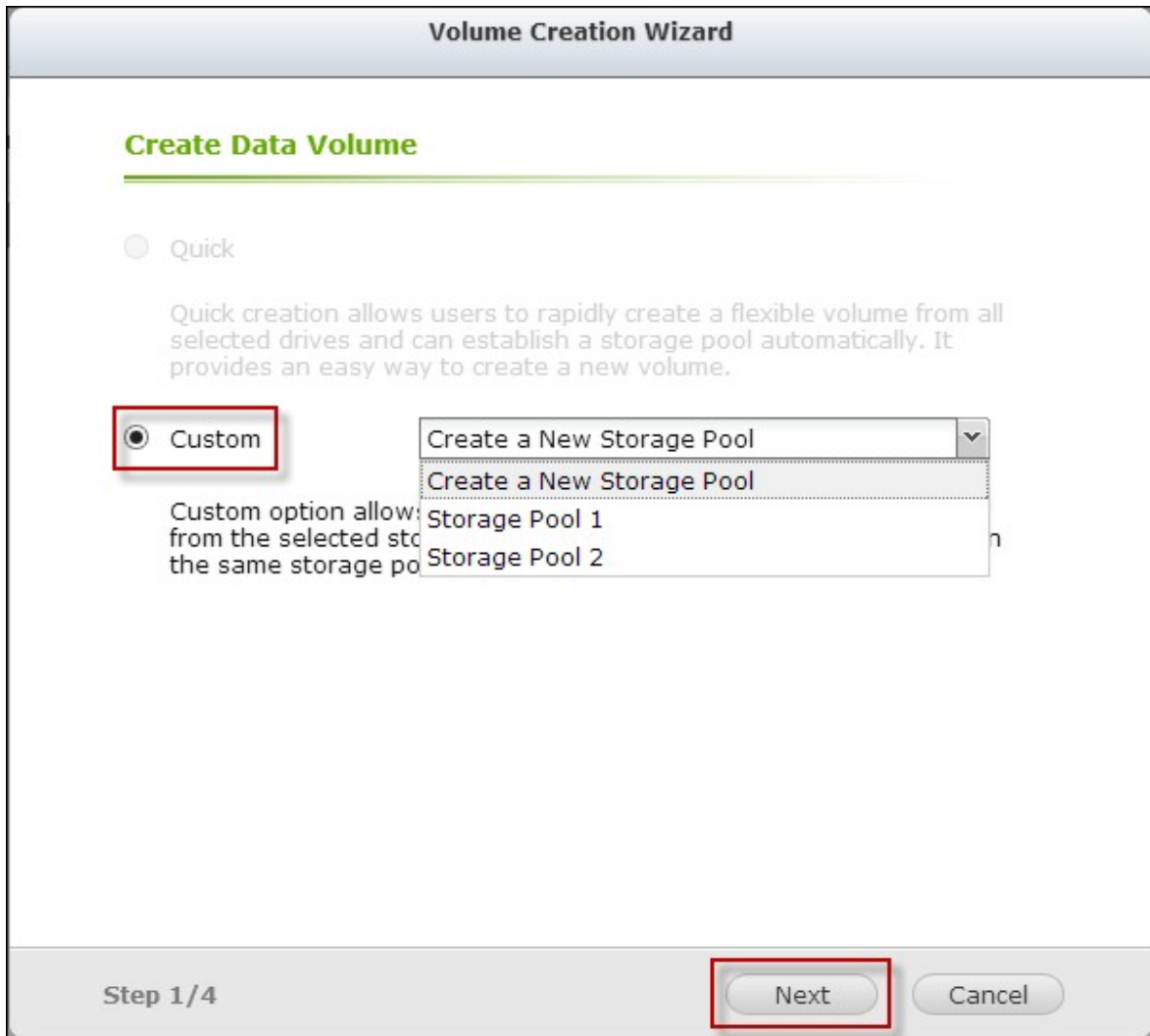
: 가

NAS

1. NAS . Storage Manager()> Encryption()> Create Encryption Volume()



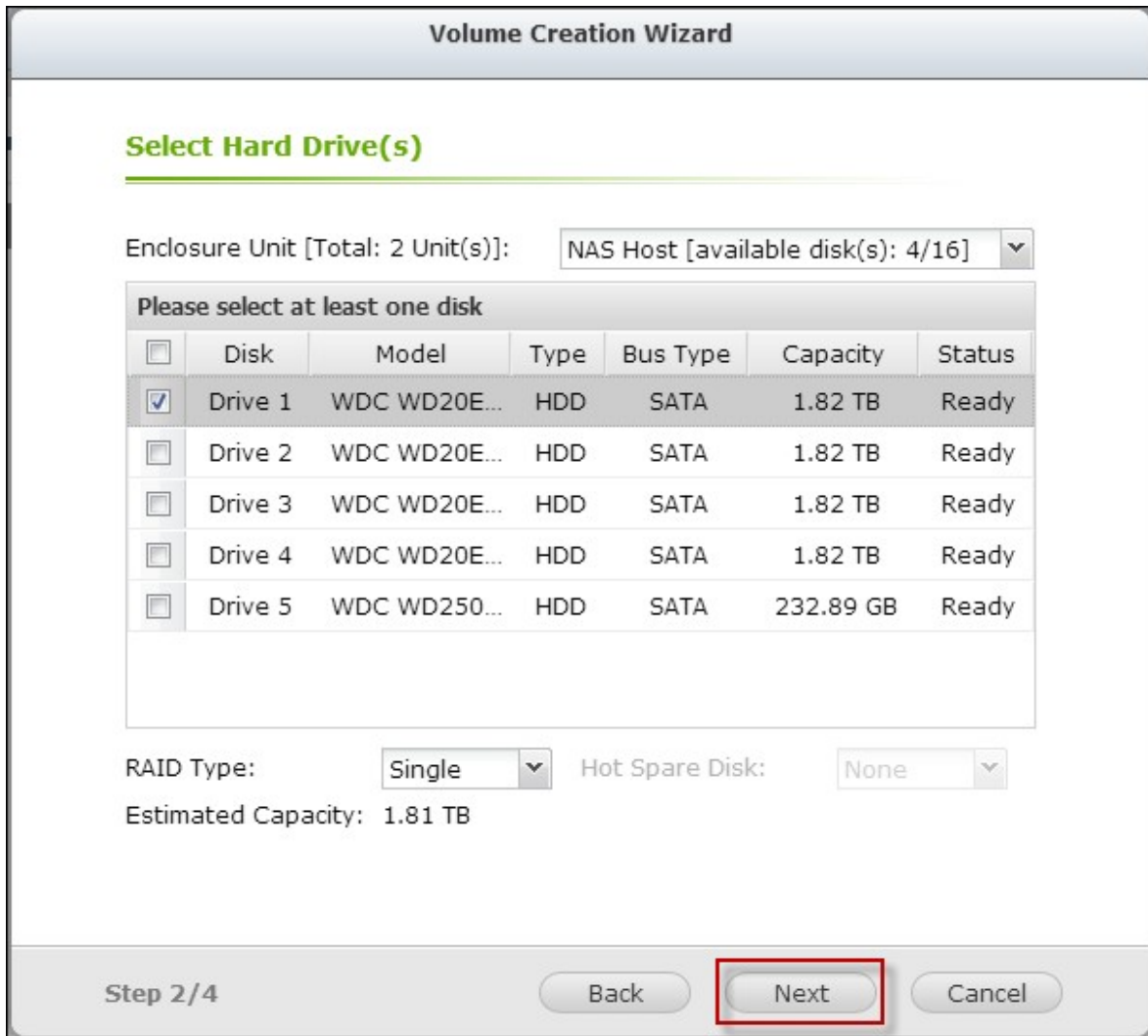
2. Custom() . Next ()



3.

RAID

. Next()”



4. , , . Next()” .

Volume Creation Wizard

Detailed Settings

Storage pool capacity: 1.81 TB
(Note: The Max Volume Capacity of the current storage pool is 36.20 TB.)

Volume capacity: MB

Thin Provisioning ⓘ

Alert threshold: %

Volume Alias:

Encryption ⓘ

Input Password:

Verify Password:

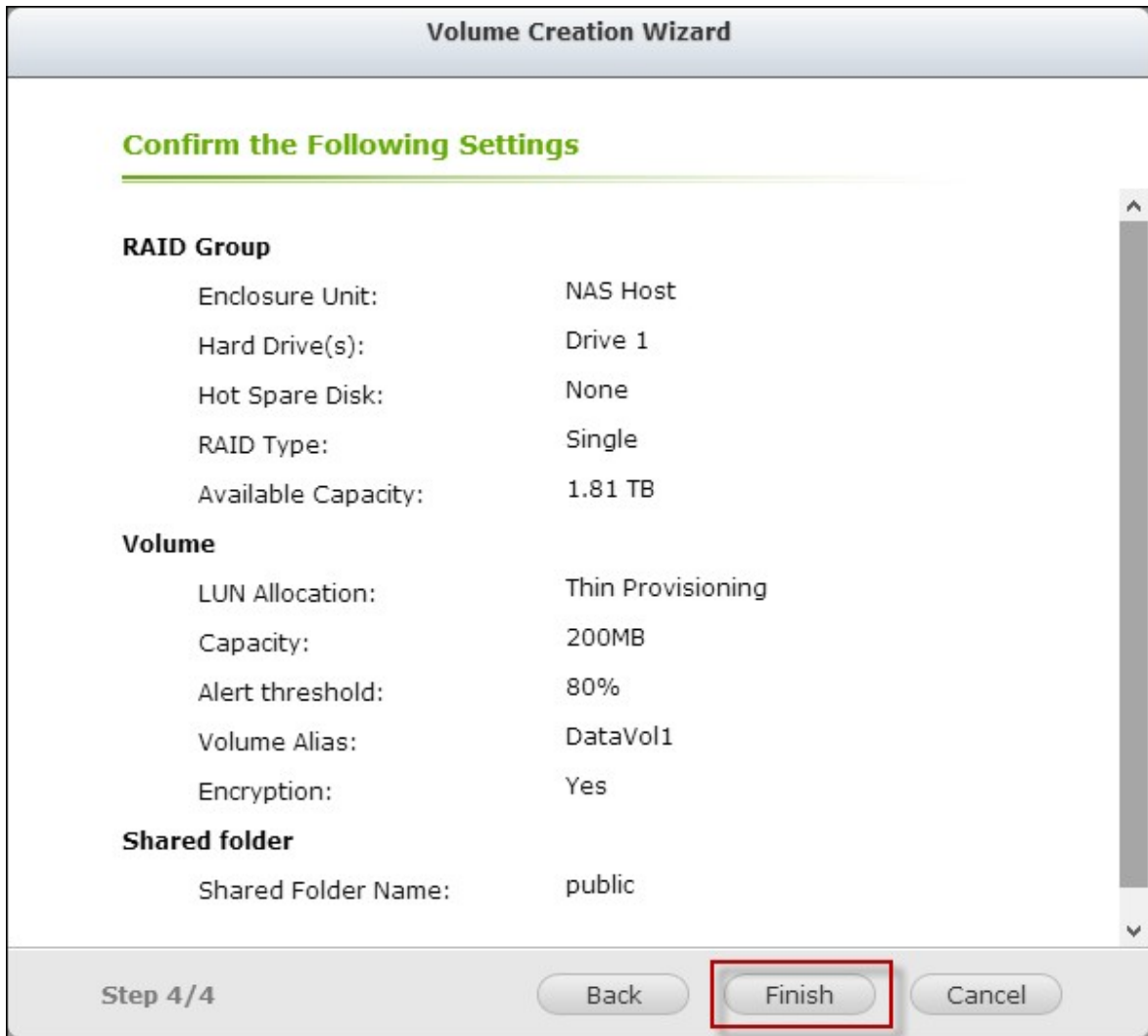
Save encryption key:

A shared folder will be automatically created after the new volume is initialized.

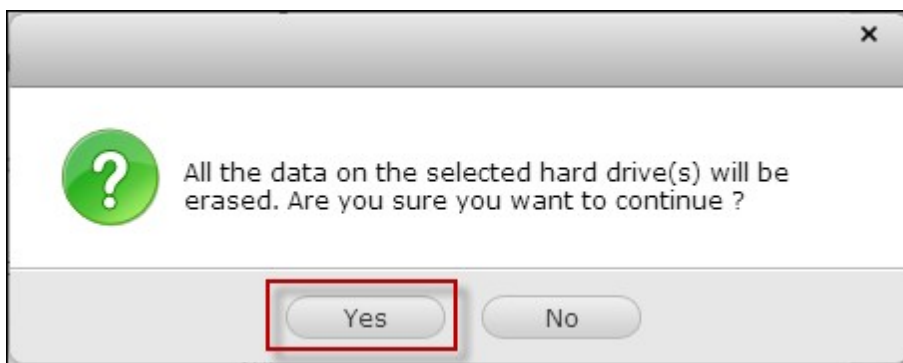
Shared Folder Name: ⓘ

Step 3/4

5. Finish()”

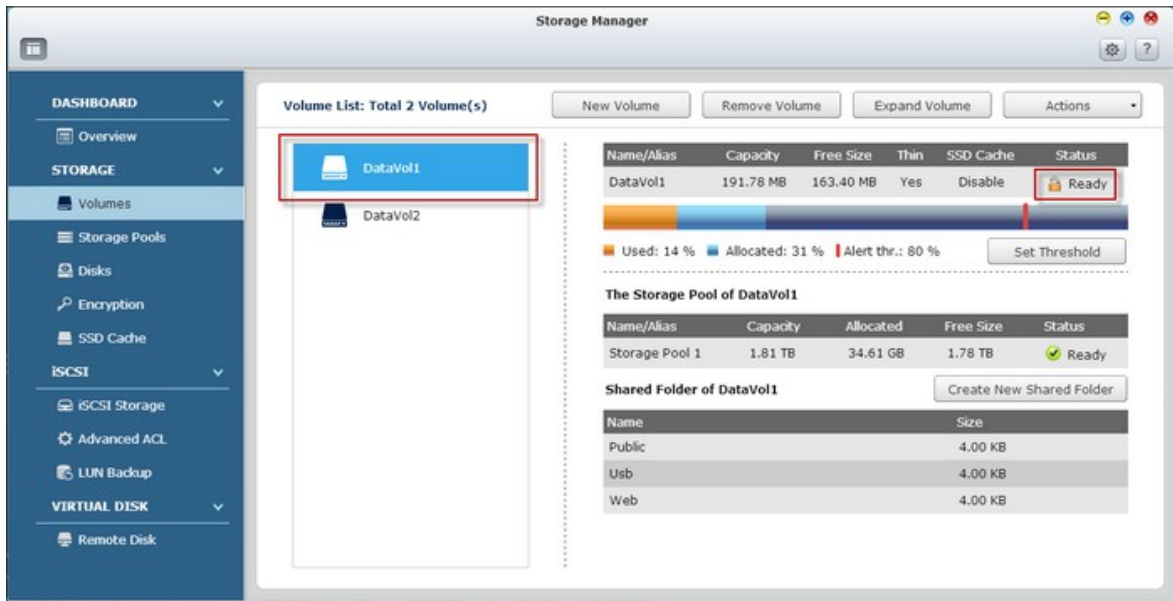


6. 가 !
 Yes()"



7. NAS

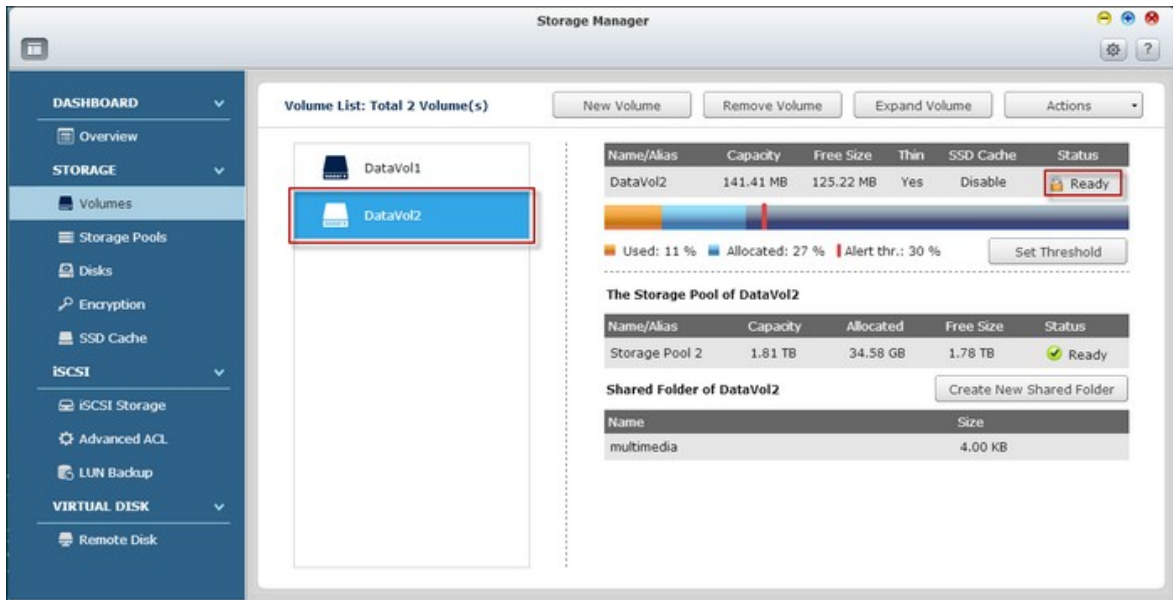
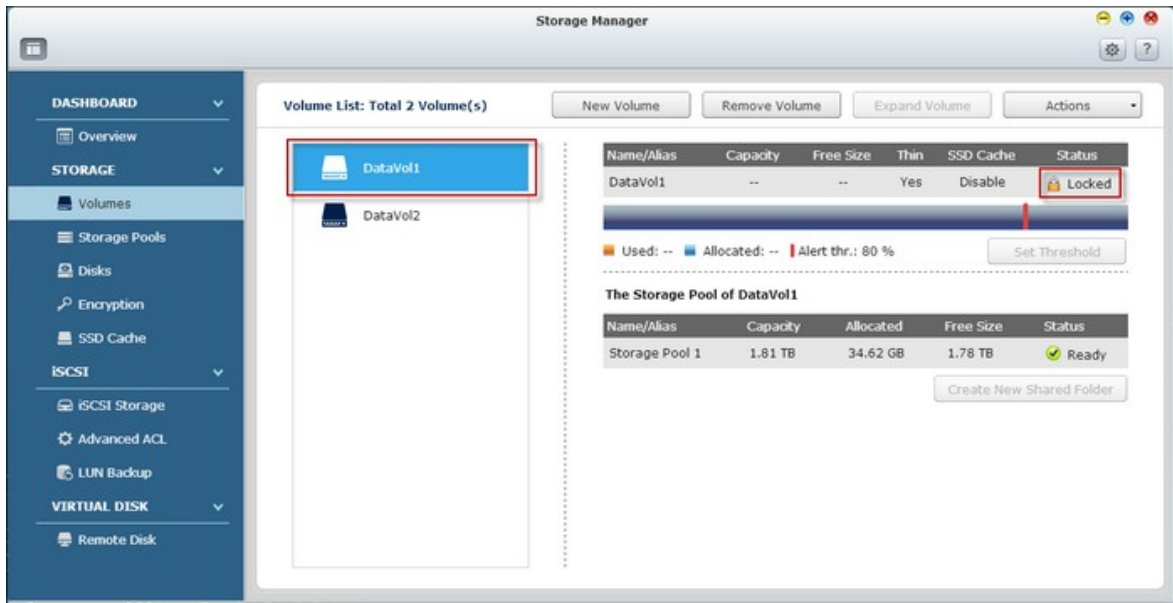
)"> Volumes()”
 Status()”
 가 Status()”



- 2 NAS
- DataVol1 Save Encryption Key()”가
 - DataVol2 Save Encryption Key()”가

: Save Encryption Key()”
 164

NAS DataVol1 가 DataVol2
 가 DataVol1
 DataVol1



NAS

NAS

가

가
NAS

가

NAS

NAS

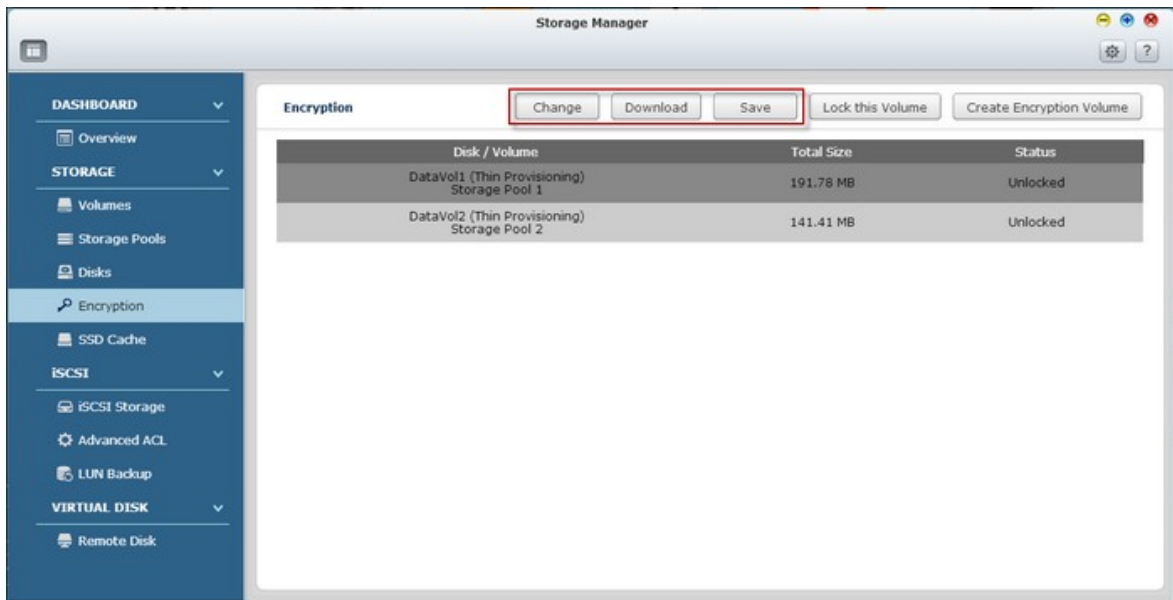
가

NAS

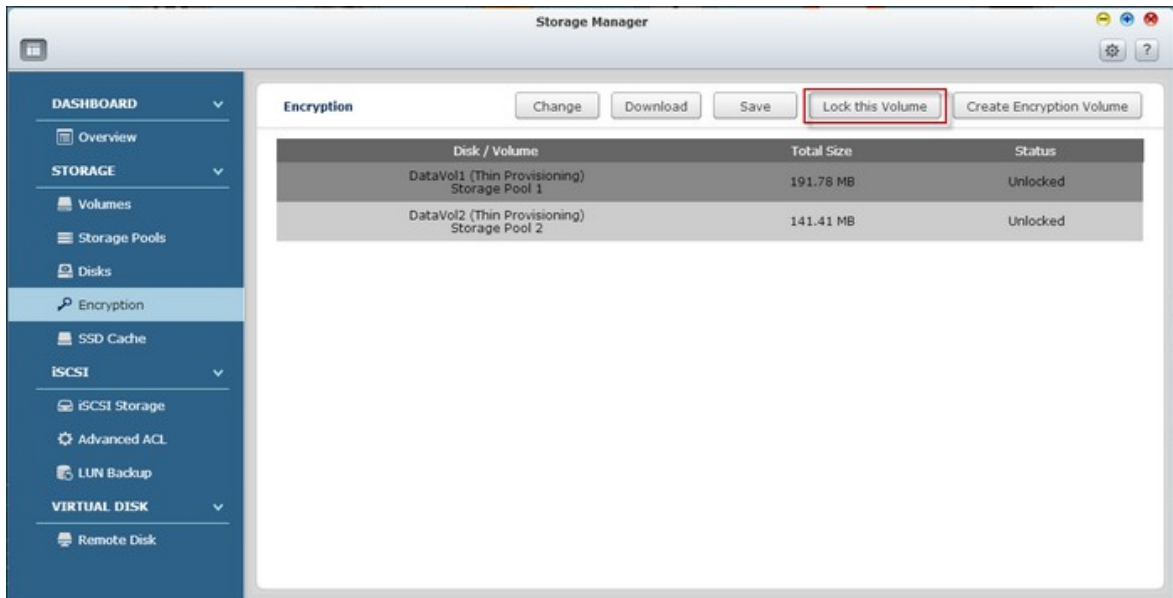
Encryption()” NAS Storage Manager()”>

가 가

- : (가
- 가 .)
- :
- “ !
- : NAS NAS가



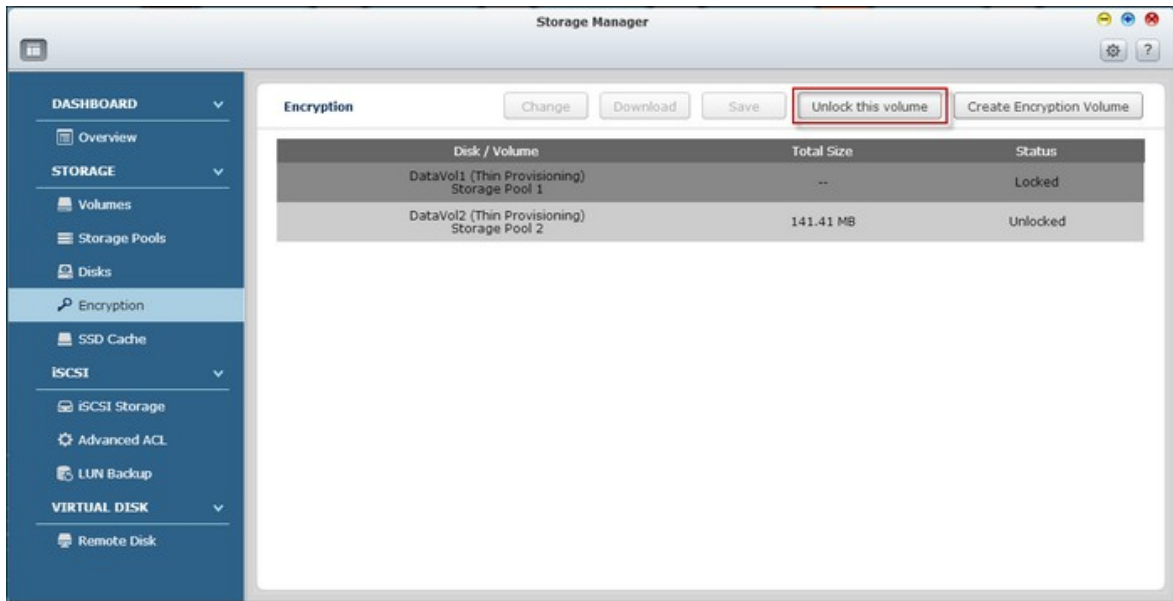
Encryption()” NAS . Storage Manager()”>
 Lock this Volume()”



"Yes()"



Encryption()” NAS . Storage Manager()”>
 Unlock this volume()”



. 'Apply()' ”



Storage Manager

Encryption

Change Download Save Lock this Volume Create Encryption Volume

Disk / Volume	Total Size	Status
DataVol1 (Thin Provisioning) Storage Pool 1	191.78 MB	Unlocked
DataVol2 (Thin Provisioning) Storage Pool 2	141.41 MB	Unlocked

DASHBOARD

- Overview

STORAGE

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache

ISCSI

- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK

- Remote Disk

4.2.2.5 SSD

SSD Turbo NAS SSD 가
 가 SSD NAS

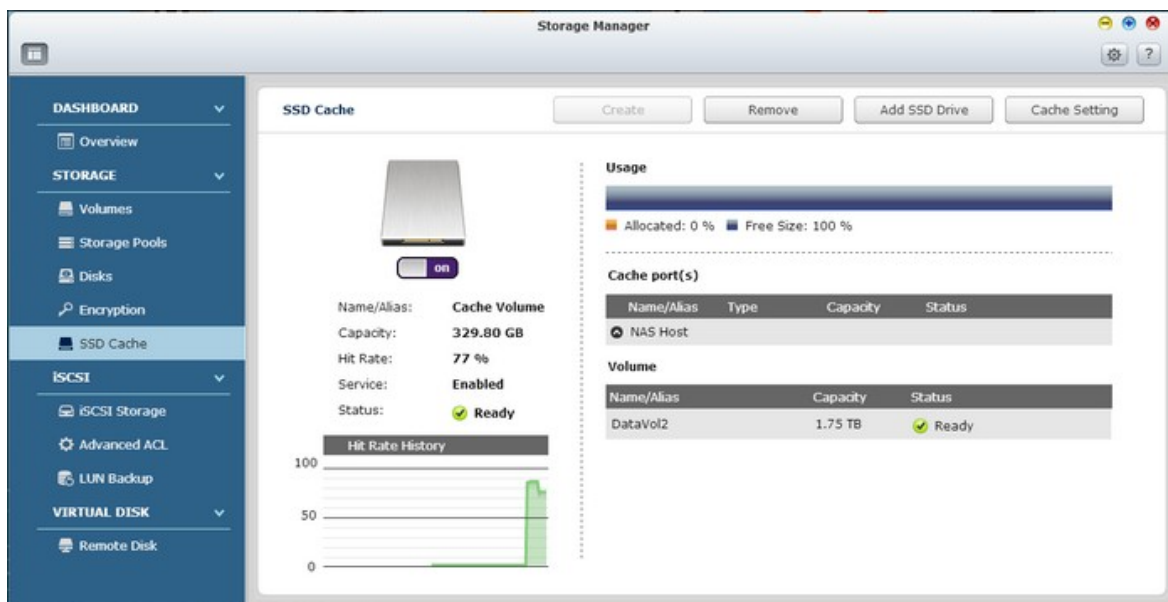
가	SSD *
TS-x79U-SAS	
TS-x79U	3, 4
TS-x79 Pro	7, 8
TS-x70U	3, 4
TS-x70 / TS-x70 Pro	2
SS-x79U-SAS	

* SSD SSD Tray(SSD)”

	RAM *
512 GB	1 GB
1 TB	4 GB
2 TB	8 GB
4 TB	16 GB

* SSD 1 TB NAS 4GB RAM

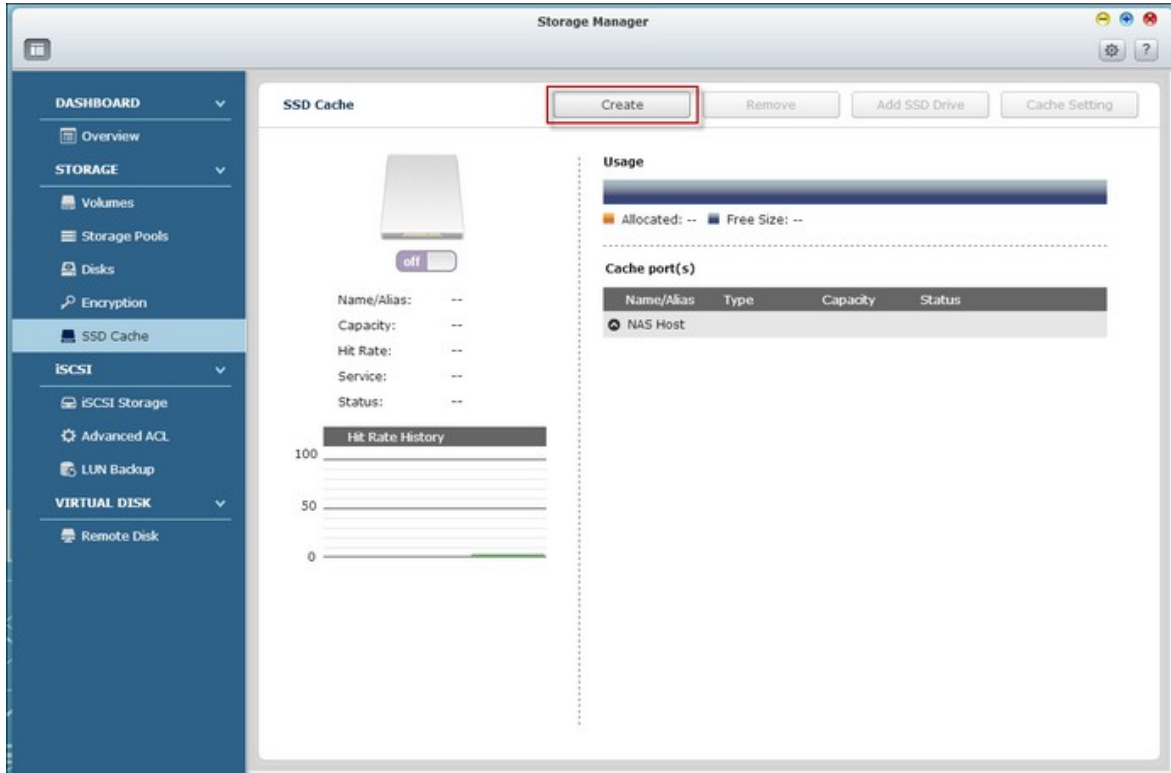
SSD , , SSD



SSD

SSD

1. 'Create()' ”



2. SSD

SSD

. 'Create()' ”

Storage Manager

SSD Cache

DASHBOARD ▾

- Overview

STORAGE ▾

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache

ISCSI ▾

- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK ▾

- Remote Disk



on

Name/Alias: **Cache Volume**

Capacity: **108.64 GB**

Hit Rate: **0 %**

Service: **Enabled**

Status: **Ready** ✔

Hit Rate History

100
50
0

Usage

Allocated: 0 % Free Size: 100 %

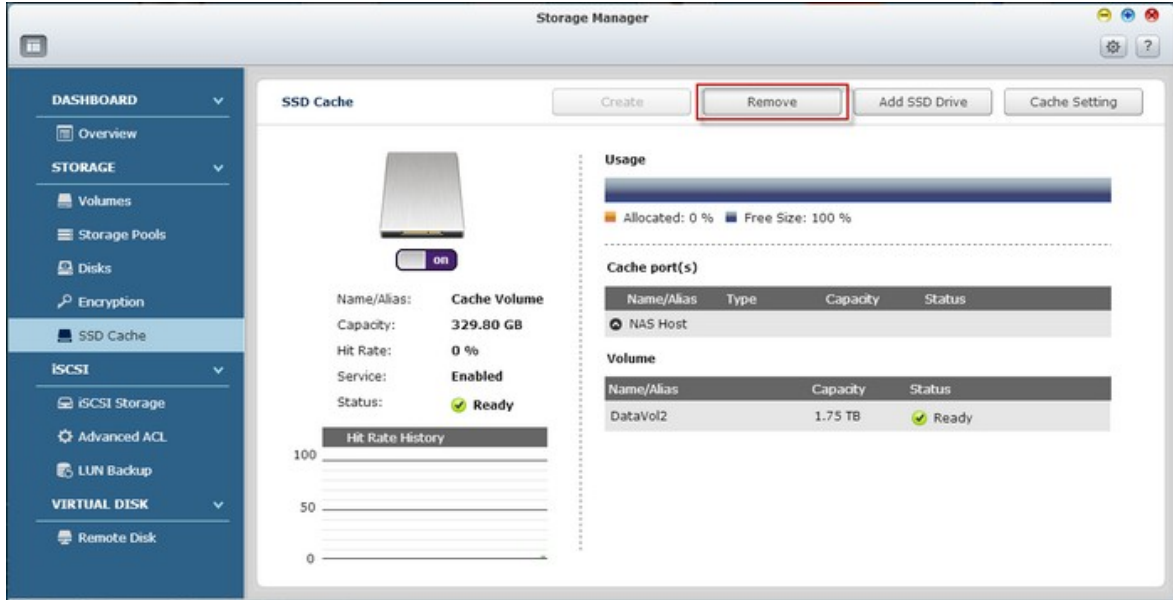
Cache port(s)

Name/Alias	Type	Capacity	Status
NAS Host			

SSD

SSD

1. Remove()”



2. 가

Yes()”



3. SSD


Storage Manager

DASHBOARD ▾
 Overview

STORAGE ▾
 Volumes
 Storage Pools
 Disks
 Encryption
SSD Cache
 iSCSI ▾
 iSCSI Storage
 Advanced ACL
 LUN Backup

VIRTUAL DISK ▾
 Remote Disk

SSD Cache Create Remove Add SSD Drive Cache Setting



off

Name/Alias: --
 Capacity: --
 Hit Rate: --
 Service: --
 Status: --

Hit Rate History

100
50
0

Usage

Allocated: -- Free Size: --

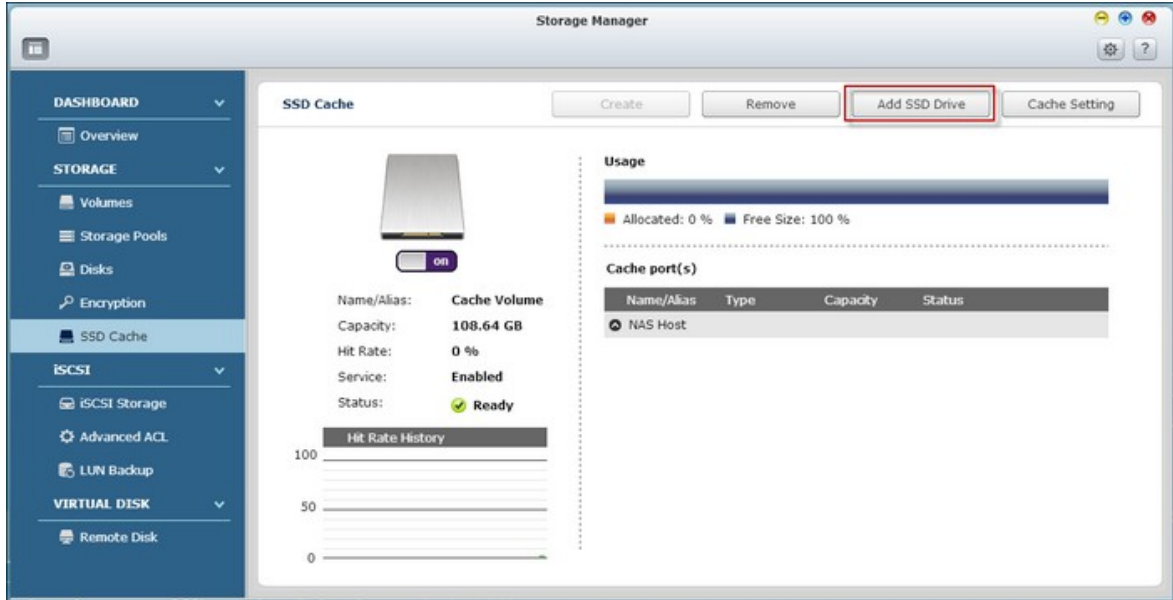
Cache port(s)

Name/Alias	Type	Capacity	Status
NAS Host			

SSD

SSD

1. 'Add SSD Drive(SSD 가)'



2. SSD Expand()"

Storage Manager

DASHBOARD

- Overview

STORAGE

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache**

ISCSI


- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK

- Remote Disk

SSD Cache

Create Remove Add SSD Drive Cache Setting

 on

Name/Alias: **Cache Volume**

Capacity: **329.80 GB**

Hit Rate: **0 %**

Service: **Enabled**

Status: **Ready**

Hit Rate History

Usage

Allocated: 0 % Free Size: 100 %

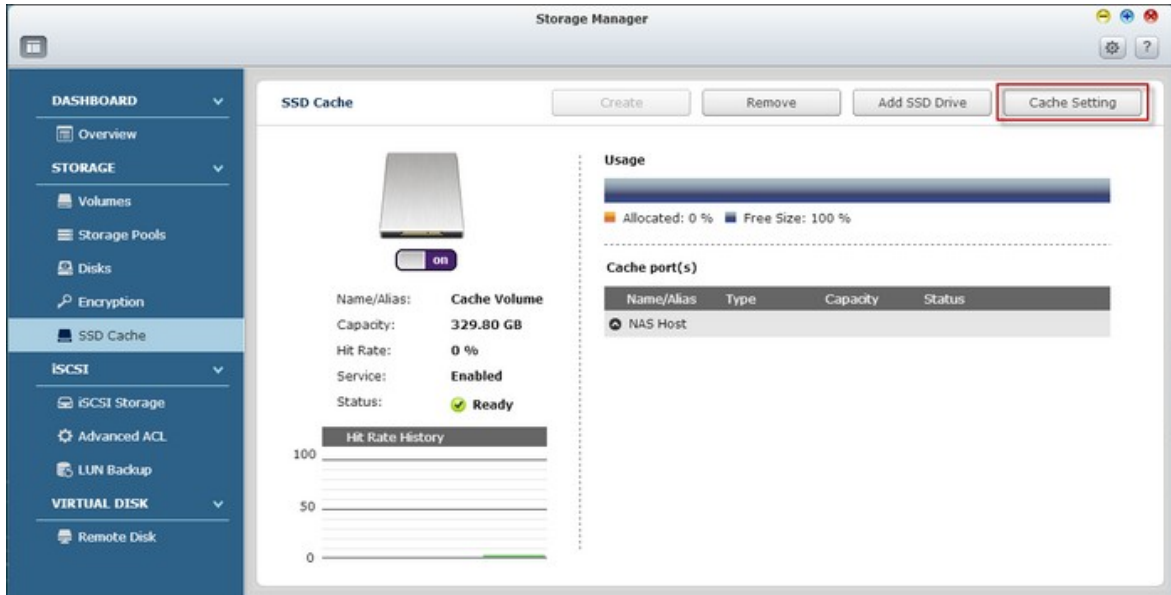
Cache port(s)

Name/Alias	Type	Capacity	Status
NAS Host			

SSD

SSD

1. Cache Setting()”



2. SSD / Finish()”

Switch SSD Cache

Enable/Disable SSD Cache

Select to enable SSD cache / Deselect to disable SSD cache

<input type="checkbox"/>	Name/Alias	Type	SSD Cache
<input type="checkbox"/>	DataVol1	Volume	Disabled
<input checked="" type="checkbox"/>	DataVol2	Volume	Enabled

Step 1/1

3.

Storage Manager

DASHBOARD

- Overview

STORAGE

- Volumes
- Storage Pools
- Disks
- Encryption
- SSD Cache**

ISCSI

- iSCSI Storage
- Advanced ACL
- LUN Backup

VIRTUAL DISK

- Remote Desk

SSD Cache
Create
Remove
Add SSD Drive
Cache Setting

off

Name/Alias: **Cache Volume**

Capacity: **329.80 GB**

Hit Rate: **0 %**

Service: **Disabled**

Status: ✔ Ready

Hit Rate History

Usage

Allocated: -- Free Size: --

Cache port(s)

Name/Alias	Type	Capacity	Status
NAS Host			

Volume

Name/Alias	Capacity	Status
DataVol2	1.75 TB	✔ Ready

: SSD . SSD 가

4.2.3 iSCSI

iSCSI [182](#)

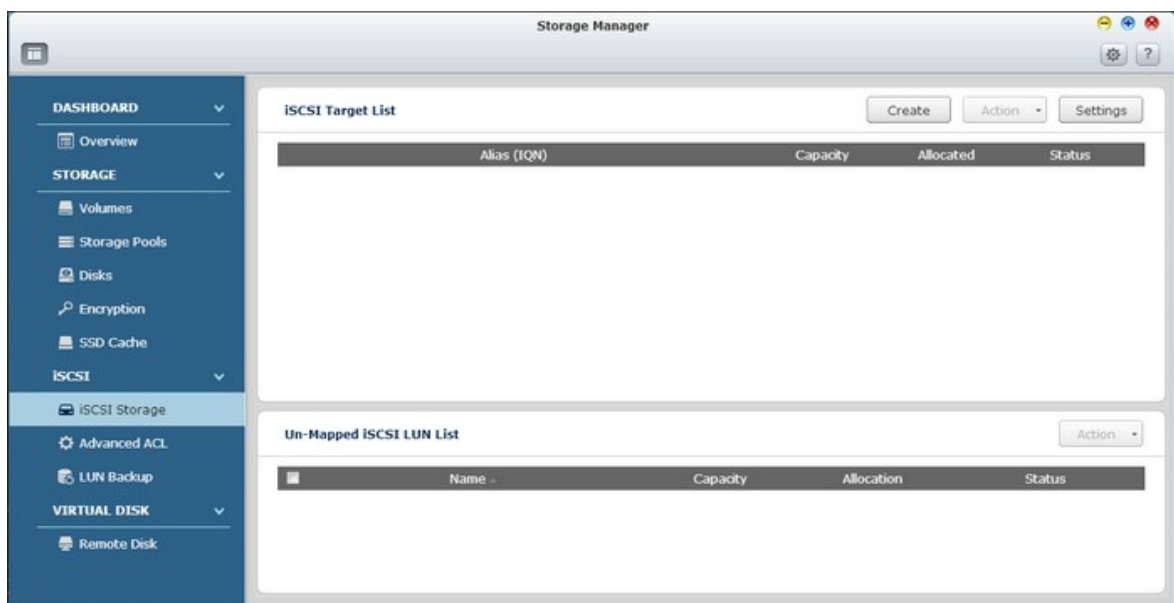
ACL [219](#)

LUN [223](#)

4.2.3.1 iSCSI

NAS 가 iSCSI(Internet Small Computer System Interface)

iSCSI / iSCSI LUN , iSCSI LUN , iSNS . NAS . iSCSI LUN



: 가 QNAP

iSCSI

NAS iSCSI

1. iSCSI (Windows PC, Mac Linux)
2. NAS iSCSI
3. iSCSI NAS iSCSI
4. iSCSI () NAS 가

iSCSI LUN (Logical Unit Number) iSCSI LUN 가 LUN LUN.

LUN LUN , LUN NAS

LUN LUN

	LUN()	LUN()
VAAI		
VAAI		
VAAI		
VAAI		
	(VAAI Windows 2012 8)	
Microsoft ODX		
LUN		
LUN		1

LUN 가 LUN

- LUN 가 : NAS RAID
- : NAS LUN LUN
- iSCSI LUN 256 NAS가 iSCSI 100 가 NAS
LUN 156 NAS가 iSCSI 가 NAS

: iSCSI

iSCSI

NAS iSCSI

1. iSCSI 가 iSCSI LUN
가

2. iSCSI Target with a mapped LUN(LUN iSCSI)”(iSCSI ” iSCSI LUN ”) Next()”

Quick Configuration Wizard

Create a Job

I want to create

iSCSI Target with a mapped LUN

iSCSI Target only

iSCSI LUN only

Step 1/10

Next Cancel

3. Next()”

Quick Configuration Wizard

iSCSI Quick Configuration Wizard

This wizard will guide you through the following settings -

- * Create an iSCSI target.
- * Create an iSCSI LUN and map it to the target.

Step 2/10

Back Next Cancel

4. iSCSI 가 iSCSI
 Next()”

Quick Configuration Wizard

Create New iSCSI Target

iSCSI Target Profile

Target Name:

iSCSI Target IQN: iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0

Target Alias:

CRC/Checksum (optional)

Data Digest

Header Digest

Step 3/10 Back **Next** Cancel

5. CHAP (CHAP)” Next()” Use CHAP authentication
 iSCSI
 iSCSI
 Mutual CHAP(CHAP) ”
 Mutual CHAP(CHAP) ”

CHAP	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • : 256 	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • : 12- 16
CHAP	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • (), (), - () • : 12- 16 	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • (), (), - () • : 12- 16

Quick Configuration Wizard

CHAP Authentication Settings

Use CHAP authentication

Username:

Password:

Re-enter Password:

Mutual CHAP

Username:

Password:

Re-enter Password:

Step 4/10 Back **Next** Cancel

6. LUN (NAS), LUN, LUN . Next()” .

Quick Configuration Wizard

Create an iSCSI LUN

LUN Type Block-based **i** File-based

LUN Allocation: Thin Provisioning **i** Instant Allocation

LUN Name:

LUN Location: ▼

Free Size: 1.78 TB

Capacity: GB ▼

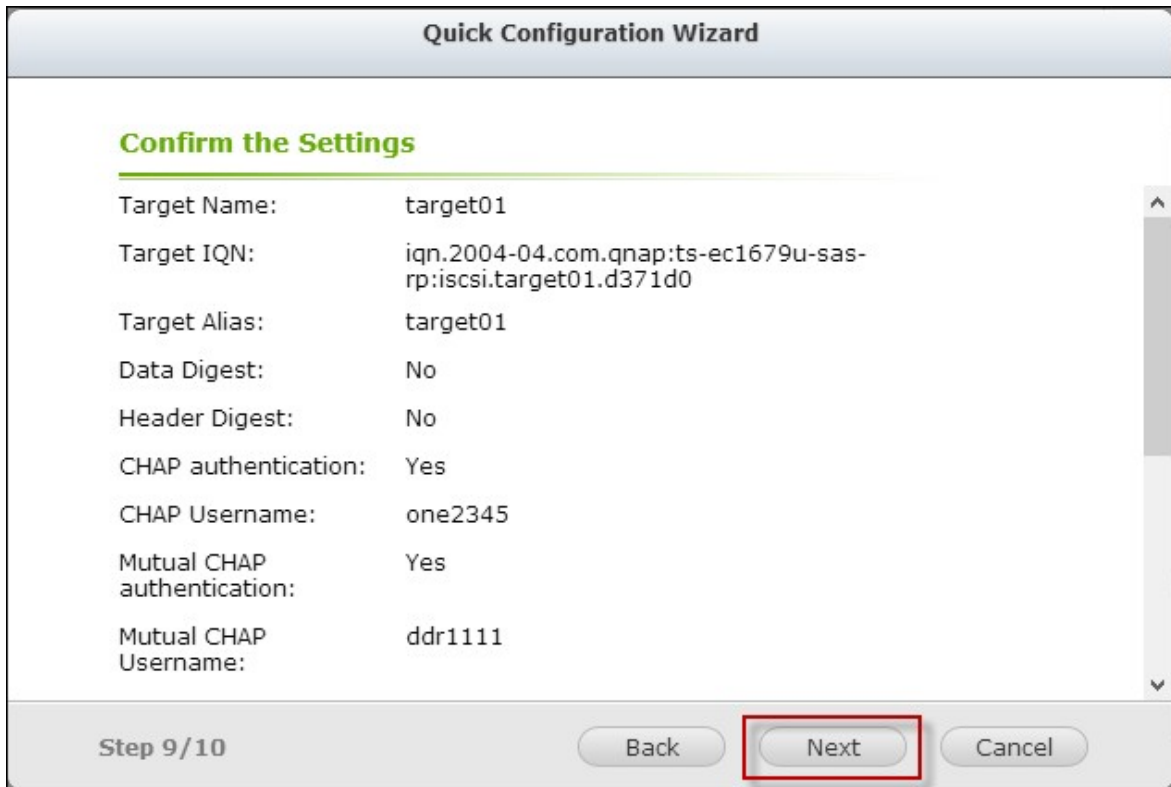
Alert threshold: 80 %

4K bytes Sector Size

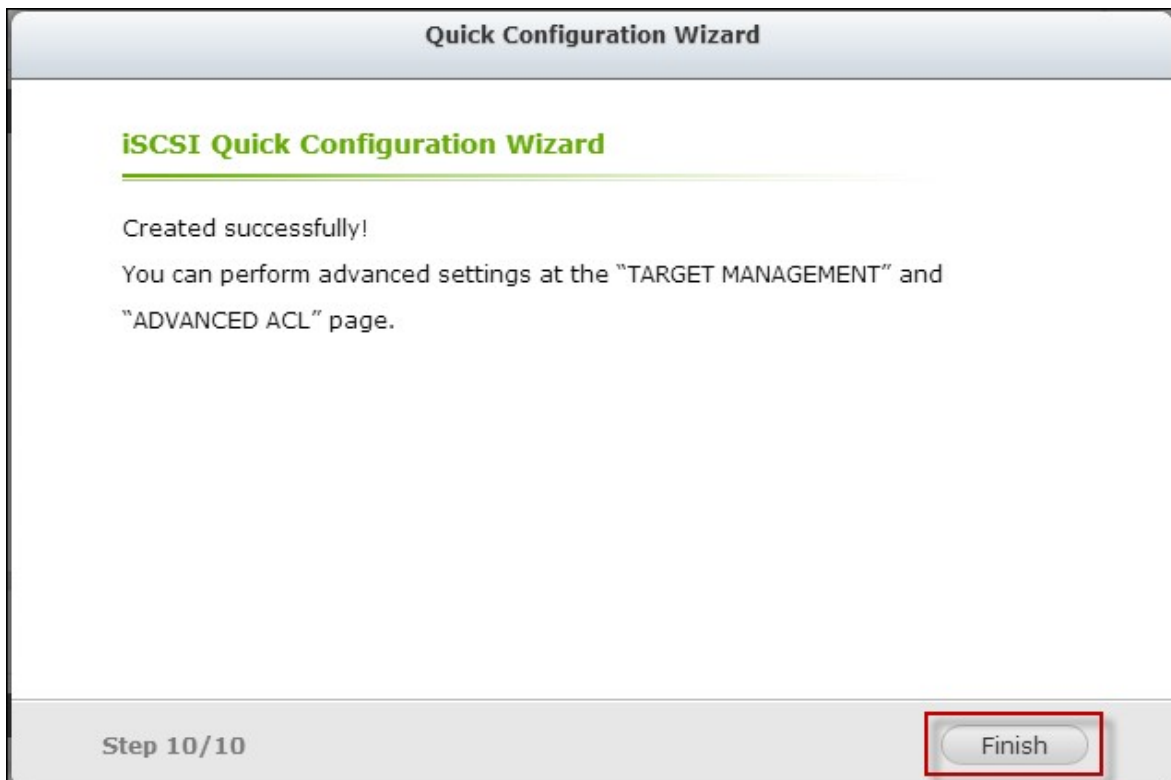
SSD Cache

Step 5/10 Back **Next** Cancel

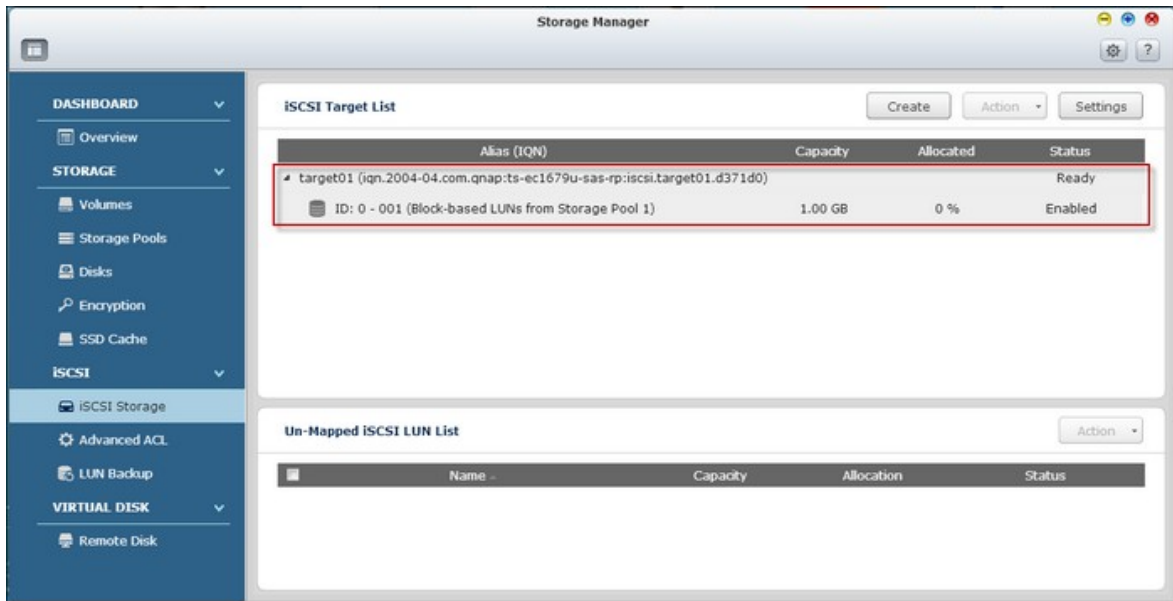
7. Next()” .



8. Finish()”



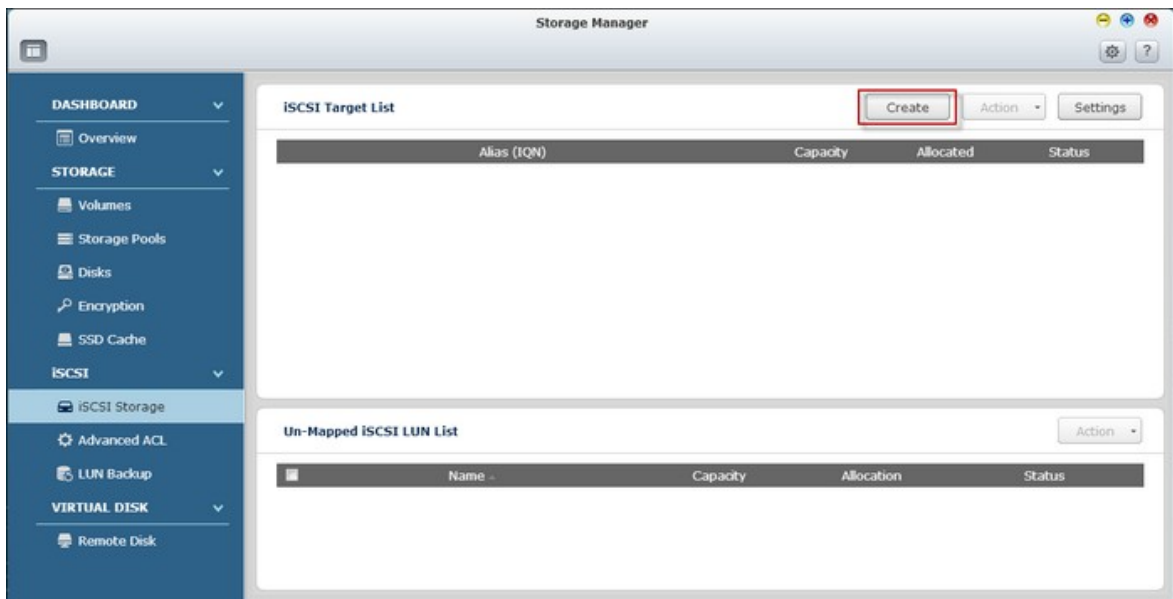
9. LUN



iSCSI

iSCSI

1. 'Create()' "



2. 'iSCSI Target only(iSCSI)' " Next()' "

Quick Configuration Wizard

Create a Job

I want to create

iSCSI Target with a mapped LUN
 iSCSI Target only
 iSCSI LUN only

Step 1/10

3. Data Digest()” / Header Digest()”
 . Next()” .

Quick Configuration Wizard

Create New iSCSI Target

iSCSI Target Profile

Target Name:

iSCSI Target IQN: iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0

Target Alias:

CRC/Checksum (optional)

Data Digest
 Header Digest

Step 3/10

- Use CHAP authentication(CHAP)” / Mutual CHAP(CHAP) ”
 Next()” . Use CHAP authentication
 (CHAP)” iSCSI . iSCSI
 Mutual CHAP(CHAP) ” . Mutual CHAP(
 CHAP) ”

Quick Configuration Wizard

CHAP Authentication Settings

Use CHAP authentication

Username:

Password:

Re-enter Password:

Mutual CHAP

Username:

Password:

Re-enter Password:

Step 4/10

- Next()”

Quick Configuration Wizard

Confirm the Settings

Target Name:	allen
Target IQN:	iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0
Target Alias:	allen
Data Digest:	Yes
Header Digest:	Yes
CHAP authentication:	Yes
CHAP Username:	one11111
Mutual CHAP authentication:	Yes
Mutual CHAP Username:	ddr1111

Step 7/10

6. Finish()”

Quick Configuration Wizard

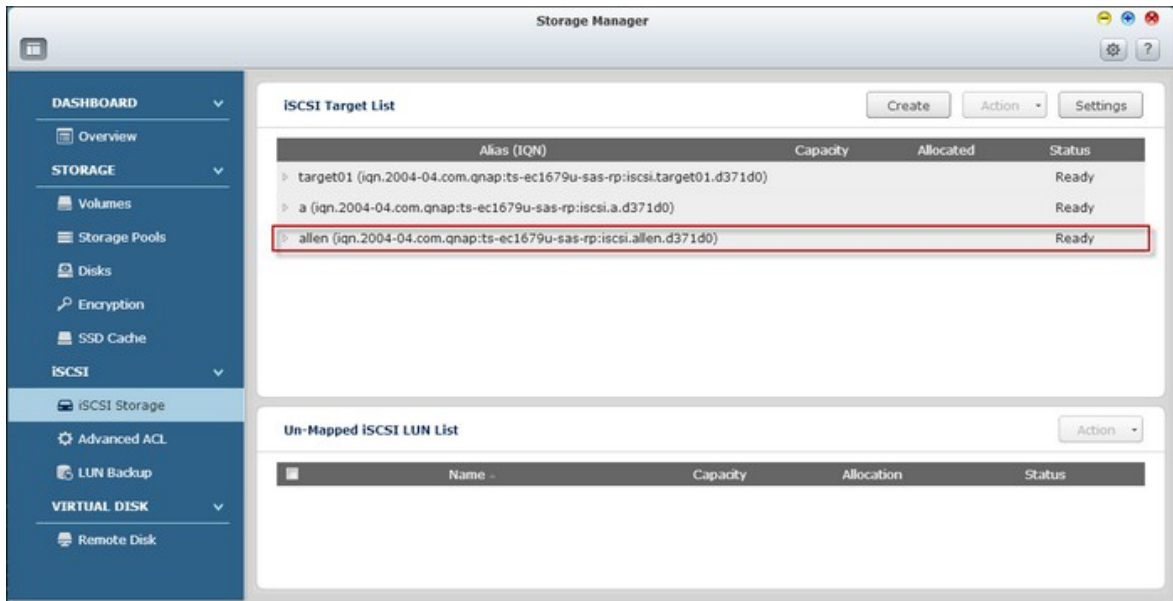
iSCSI Quick Configuration Wizard

Created successfully!

You can perform advanced settings at the "TARGET MANAGEMENT" and "ADVANCED ACL" page.

Step 10/10

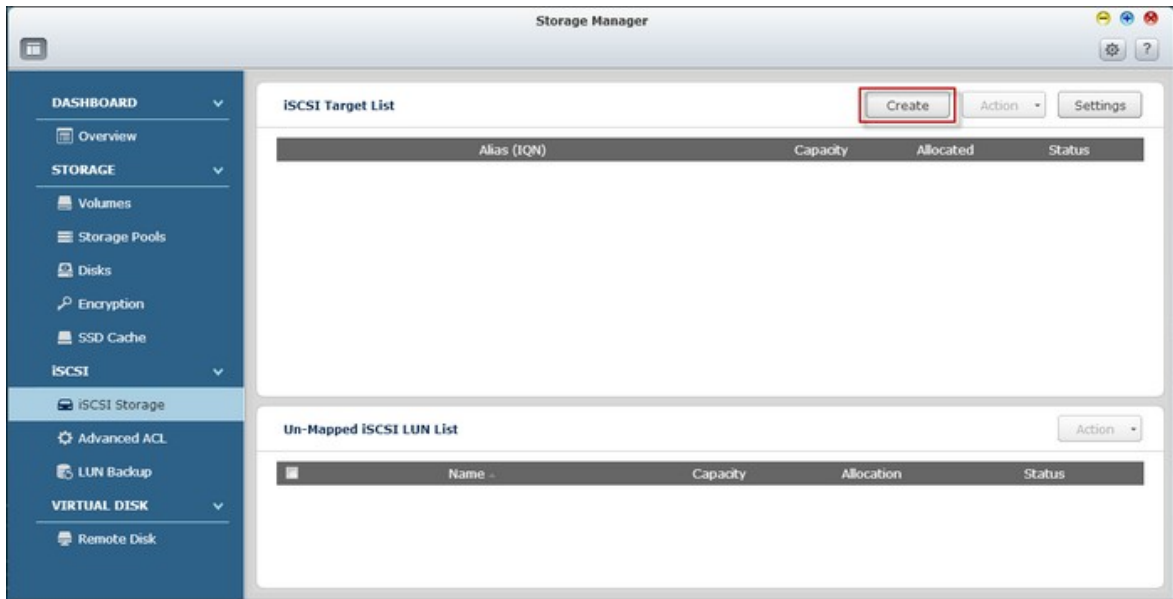
7.



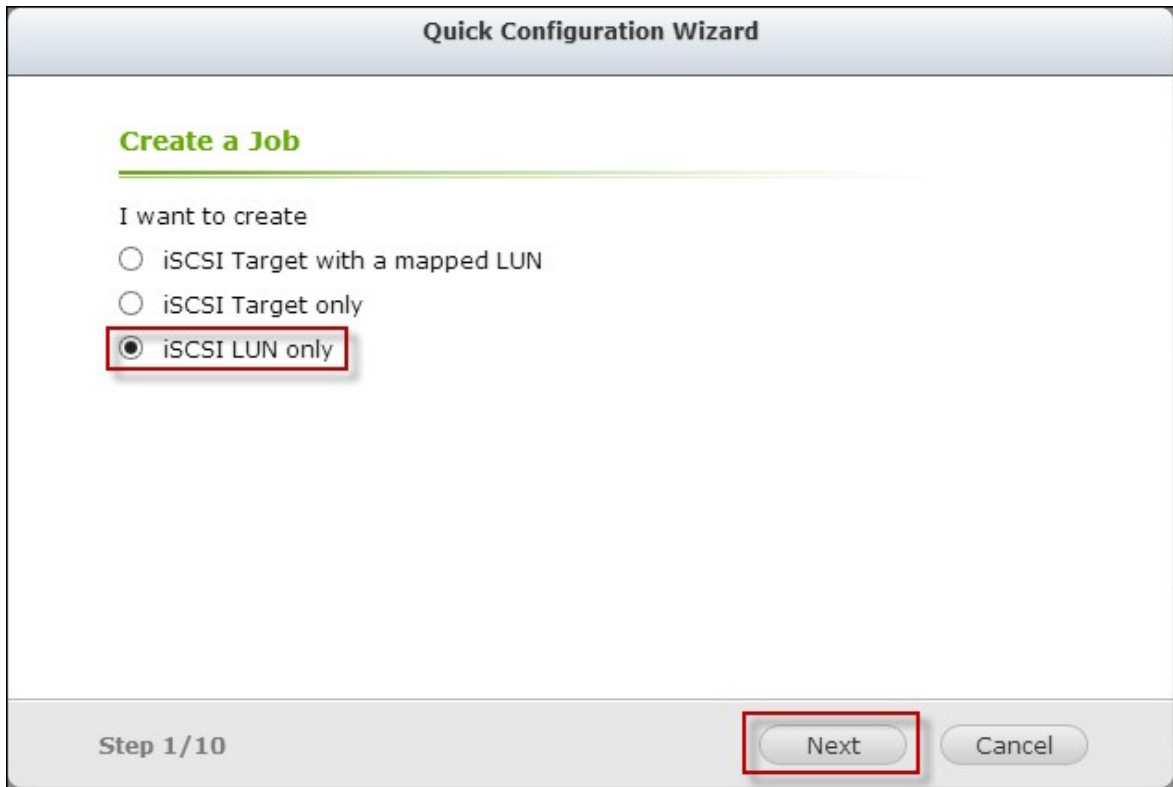
iSCSI LUN

iSCSI LUN

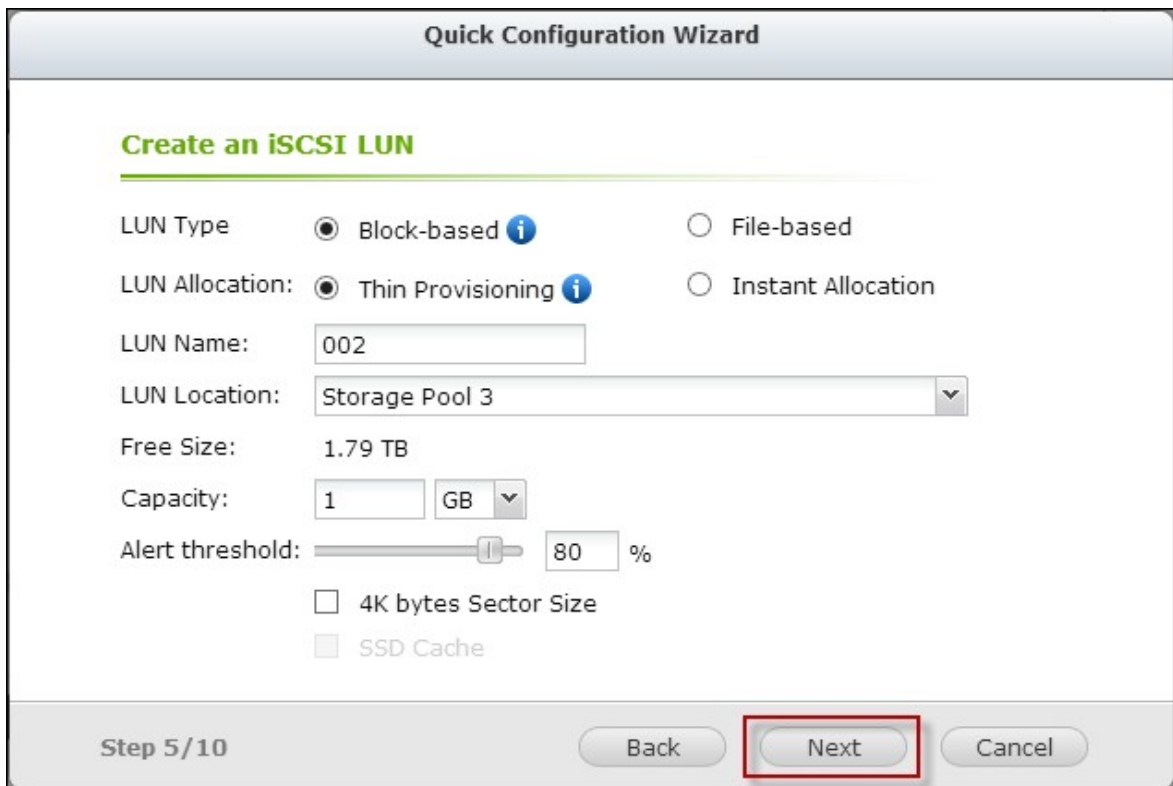
1. Create()”



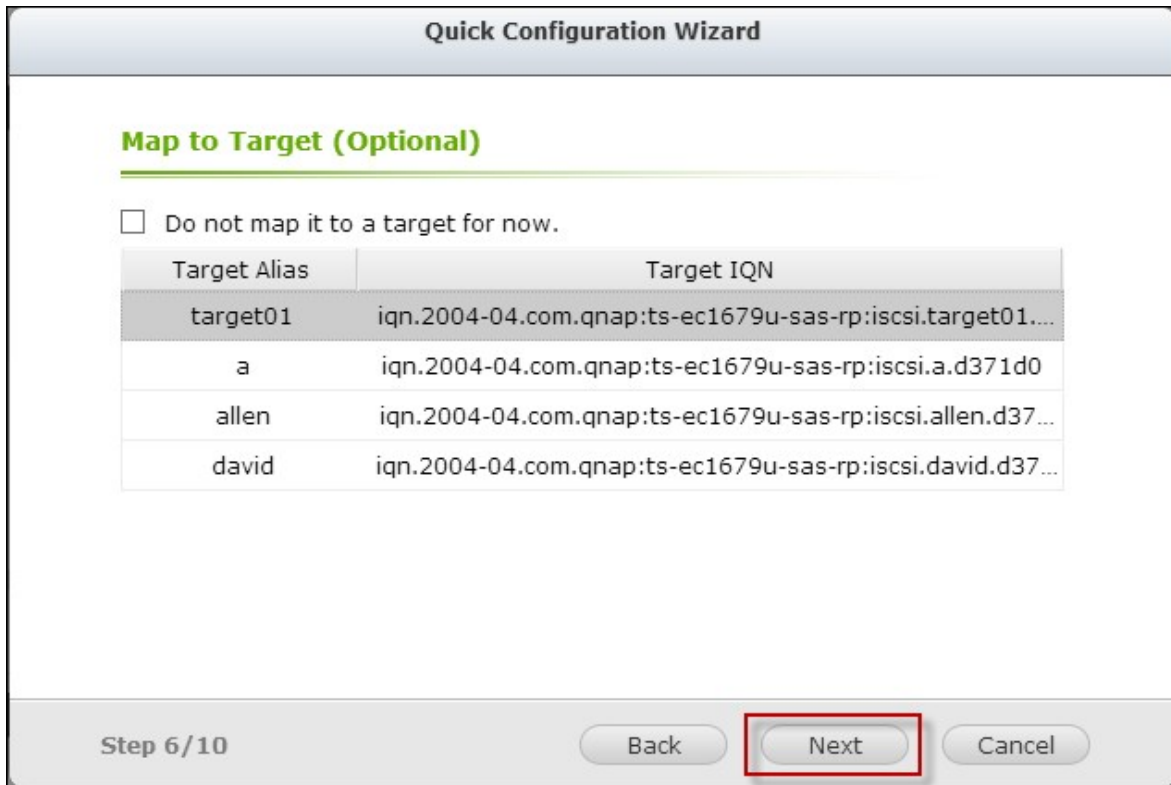
2. iSCSI LUN only(iSCSI LUN)” Next()”



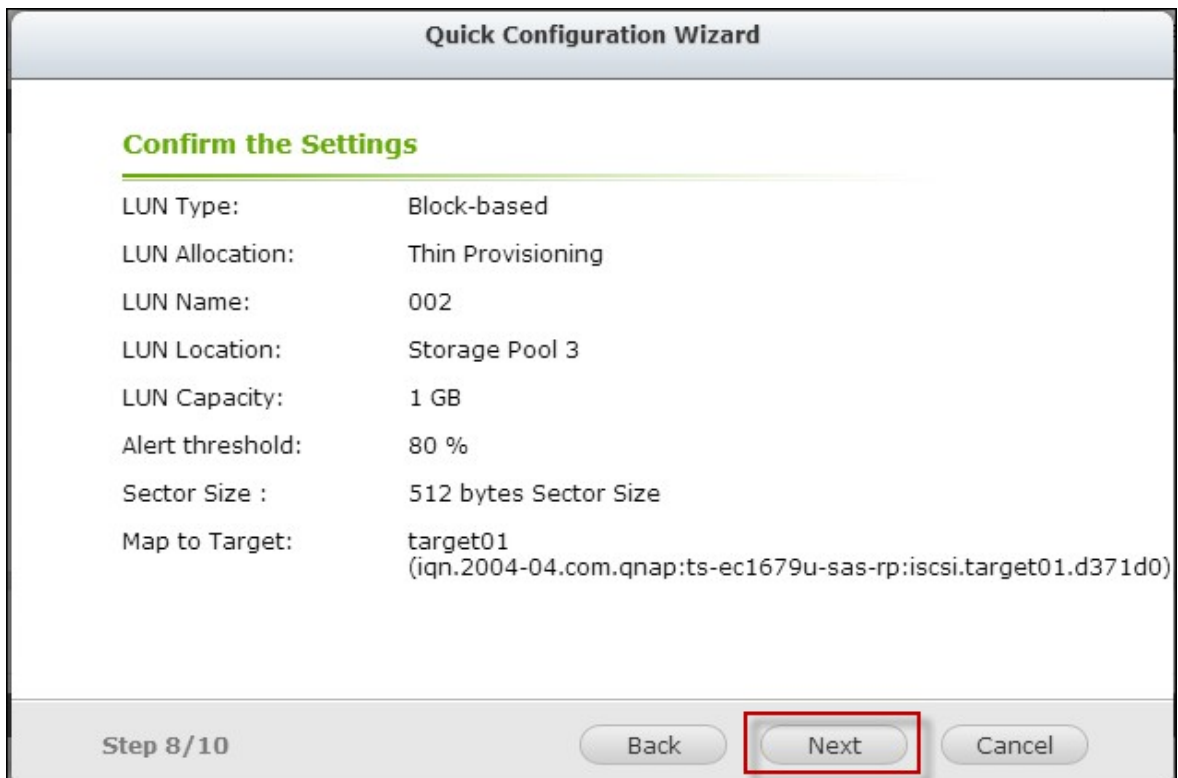
3. LUN (NAS), LUN, LUN . Next()” .



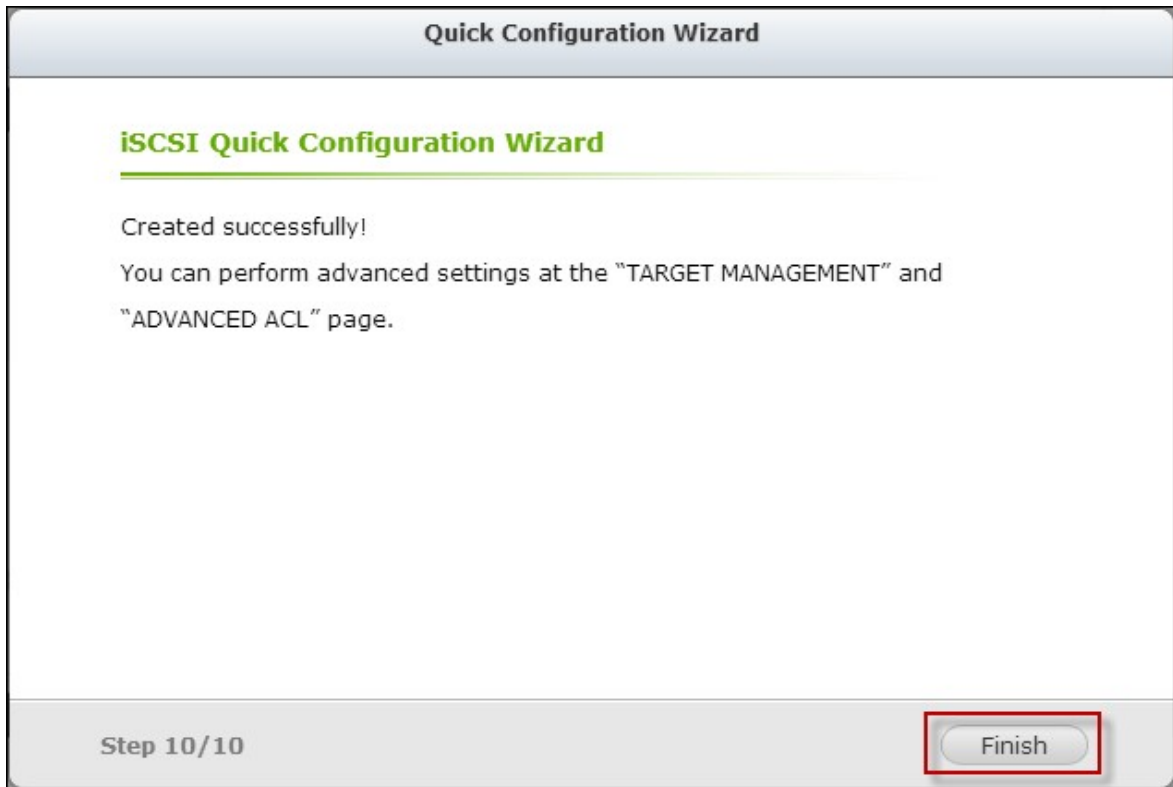
4. Next()” .



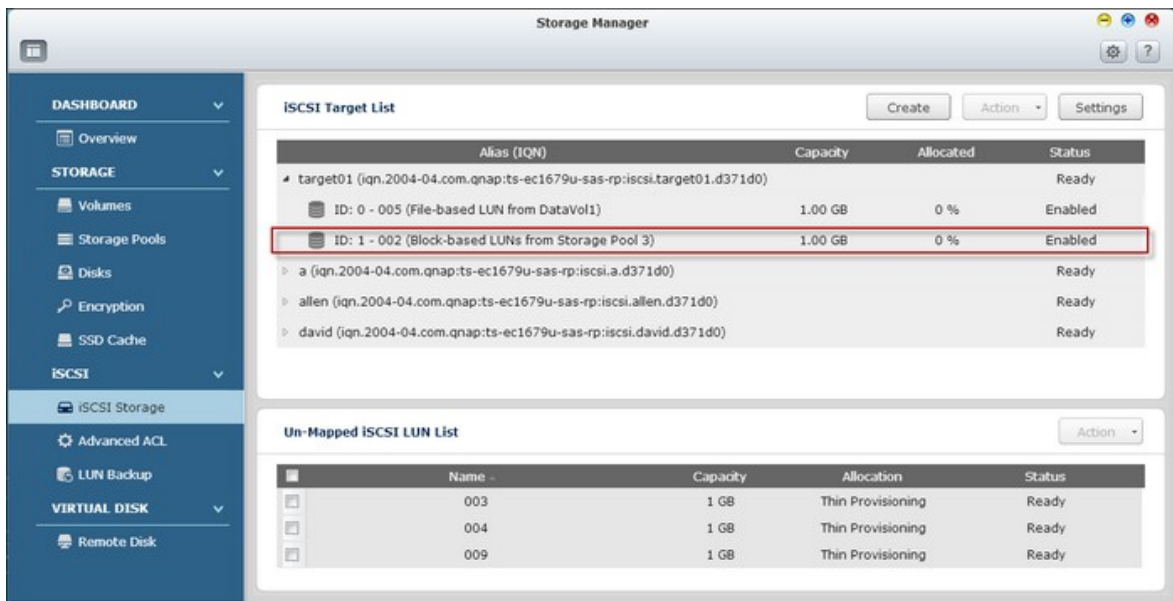
5. Next()”



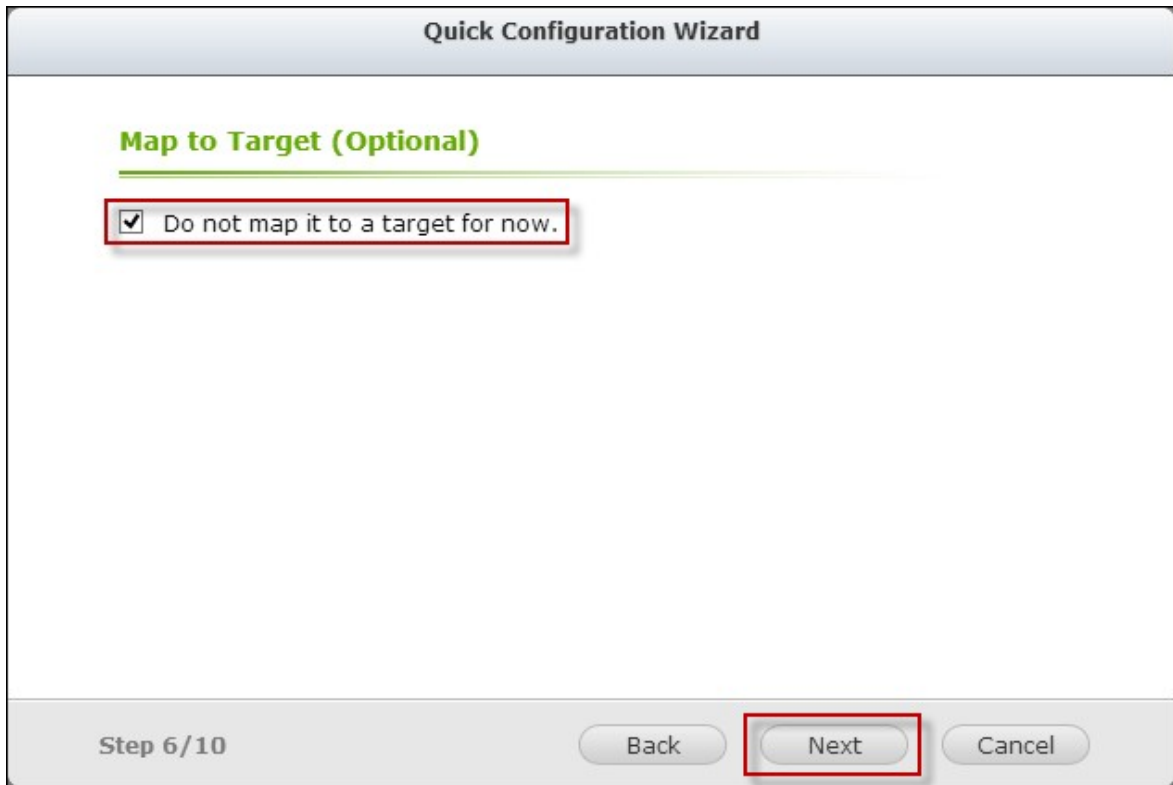
6. Finish()”



7. LUN 4

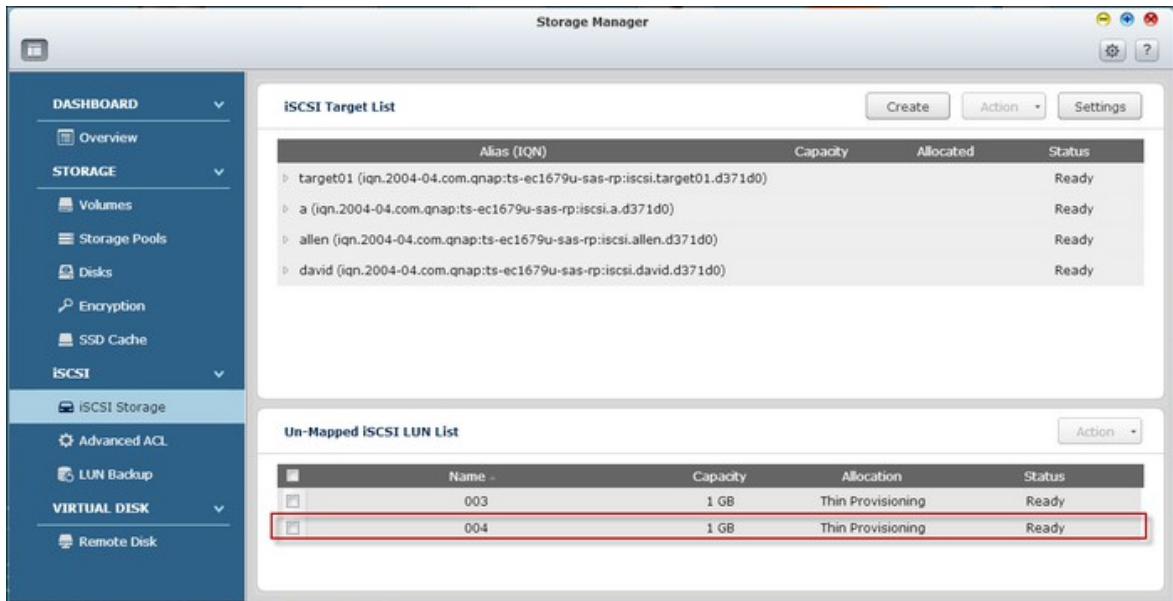


iSCSI LUN 4 Do not map it to a target for now()”



LUN

iSCSI LUN



iSCSI

LUN

iSCSI		iSCSI 가
		iSCSI

		iSCSI
		iSCSI
LUN		LUN
		LUN

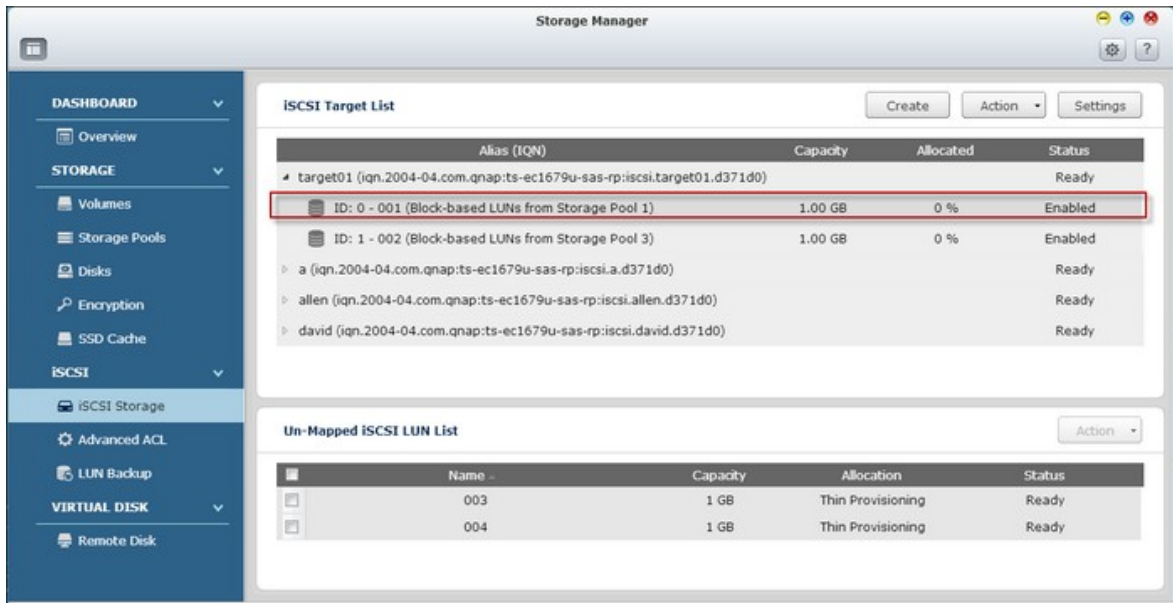
iSCSI LUN 가 ('Action()")

	, CHAP LUN LUN , ,
Delete()	iSCSI
	LUN
	LUN
	LUN LUN iSCSI LUN LUN
	LUN iSCSI iSCSI LUN
	iSCSI

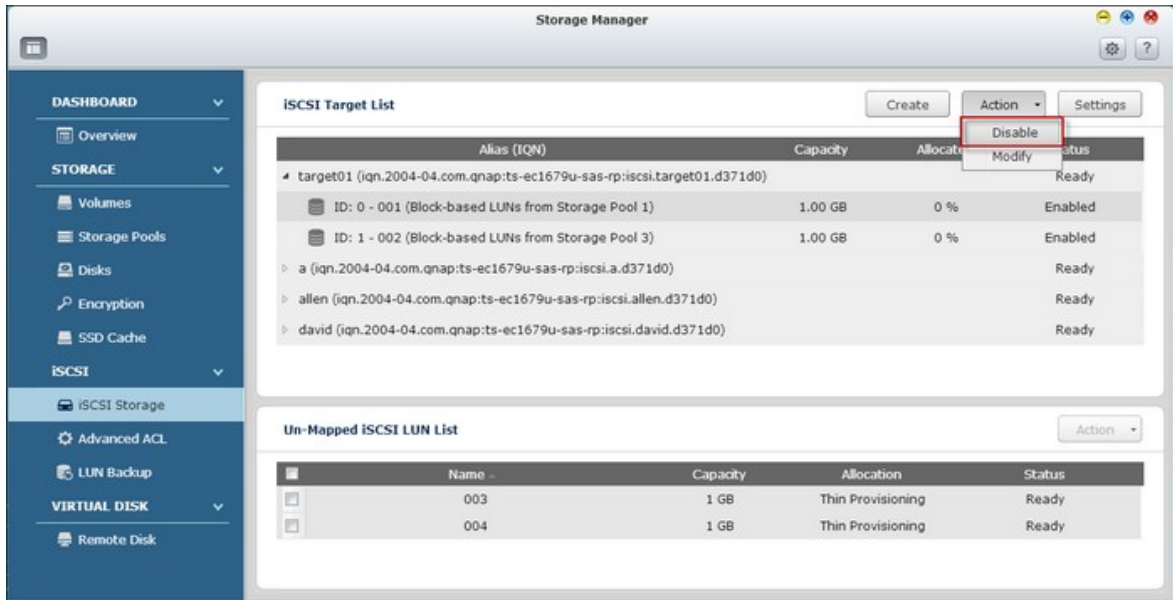
iSCSI LUN

iSCSI LUN

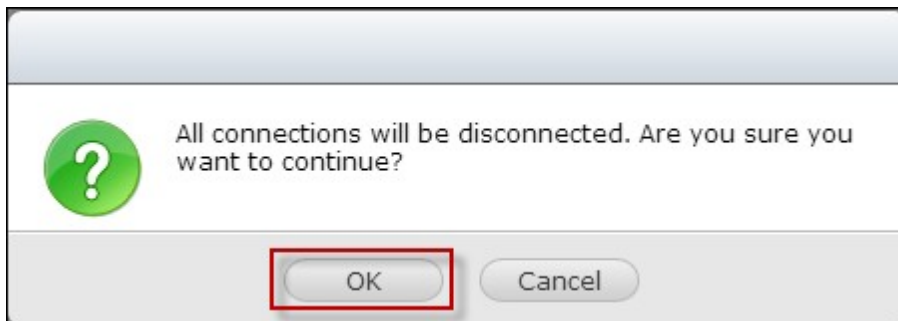
- 1. iSCSI iSCSI LUN



2. 'Action()' > 'Disable()' "



3. 'OK()' "



4. 'Action()' > 'Un-map()' LUN . LUN
iSCSI LUN .

Storage Manager

DASHBOARD Overview STORAGE VOLUMES Storage Pools Disks Encryption SSD Cache ISCSI iSCSI Storage Advanced ACL LUN Backup VIRTUAL DISK Remote Disk

ISCSI Target List

Create Action Settings

Alias (IQN)	Capacity	Allocated	Status
target01 (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0)			Ready
ID: 0 - 001 (Block-based LUNs from Storage Pool 1)	1.00 GB	0 %	Disabled
ID: 1 - 002 (Block-based LUNs from Storage Pool 3)	1.00 GB	0 %	Enabled
a (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.a.d371d0)			Ready
allen (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0)			Ready
david (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.david.d371d0)			Ready

Un-Mapped iSCSI LUN List

Action

Name	Capacity	Allocation	Status
003	1 GB	Thin Provisioning	Ready
004	1 GB	Thin Provisioning	Ready

Storage Manager

DASHBOARD Overview STORAGE VOLUMES Storage Pools Disks Encryption SSD Cache ISCSI iSCSI Storage Advanced ACL LUN Backup VIRTUAL DISK Remote Disk

ISCSI Target List

Create Action Settings

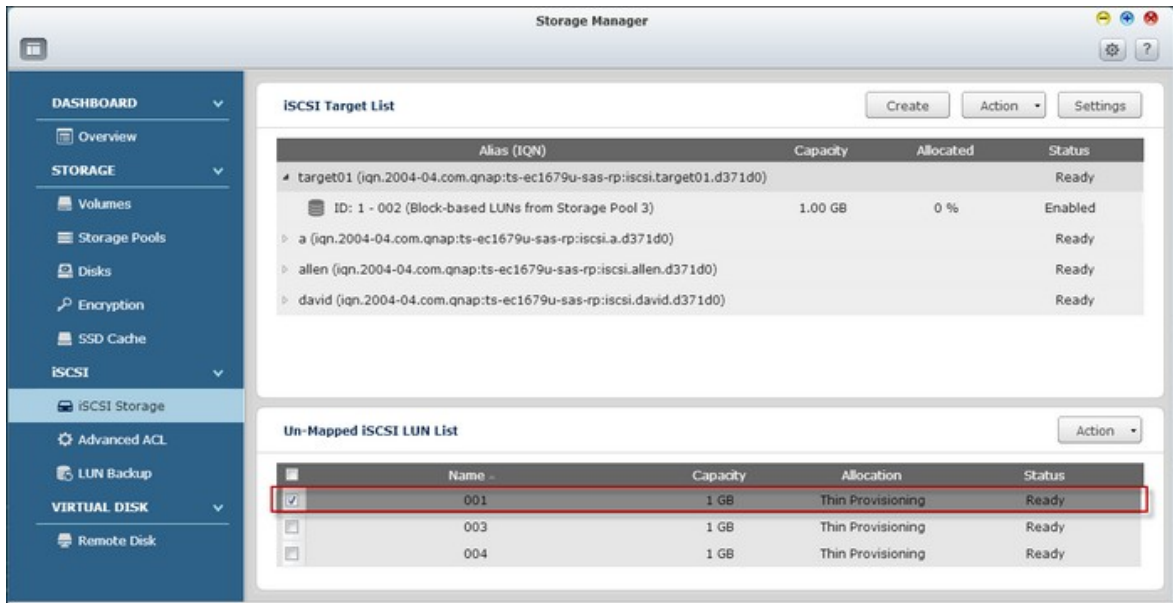
Alias (IQN)	Capacity	Allocated	Status
target01 (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0)			Ready
ID: 1 - 002 (Block-based LUNs from Storage Pool 3)	1.00 GB	0 %	Enabled
a (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.a.d371d0)			Ready
allen (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0)			Ready
david (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.david.d371d0)			Ready

Un-Mapped iSCSI LUN List

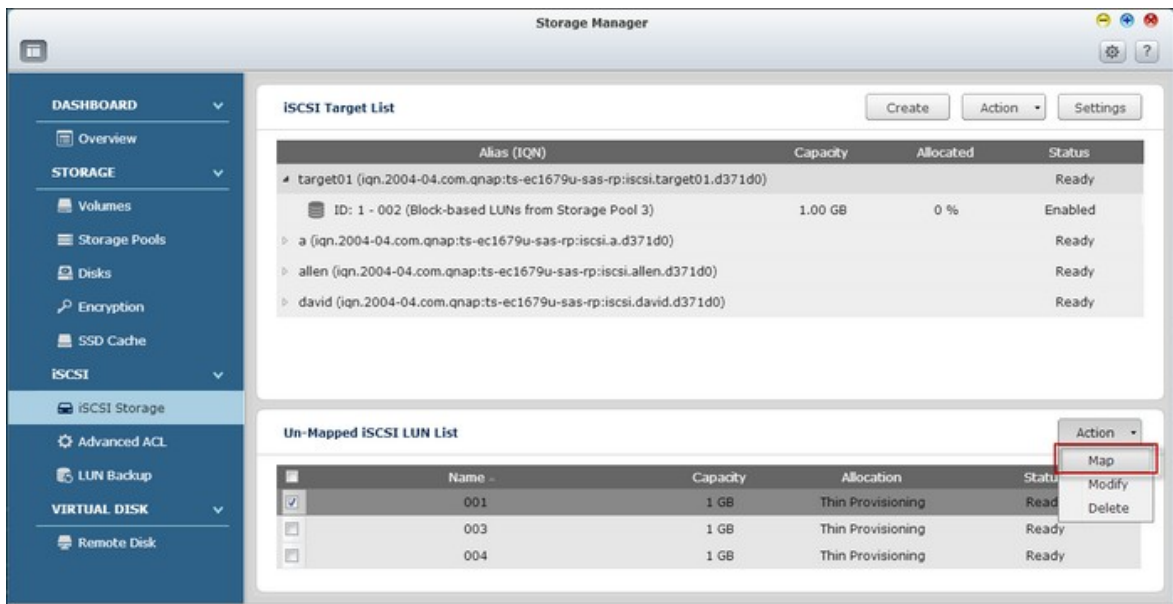
Action

Name	Capacity	Allocation	Status
001	1 GB	Thin Provisioning	Ready
003	1 GB	Thin Provisioning	Ready
004	1 GB	Thin Provisioning	Ready

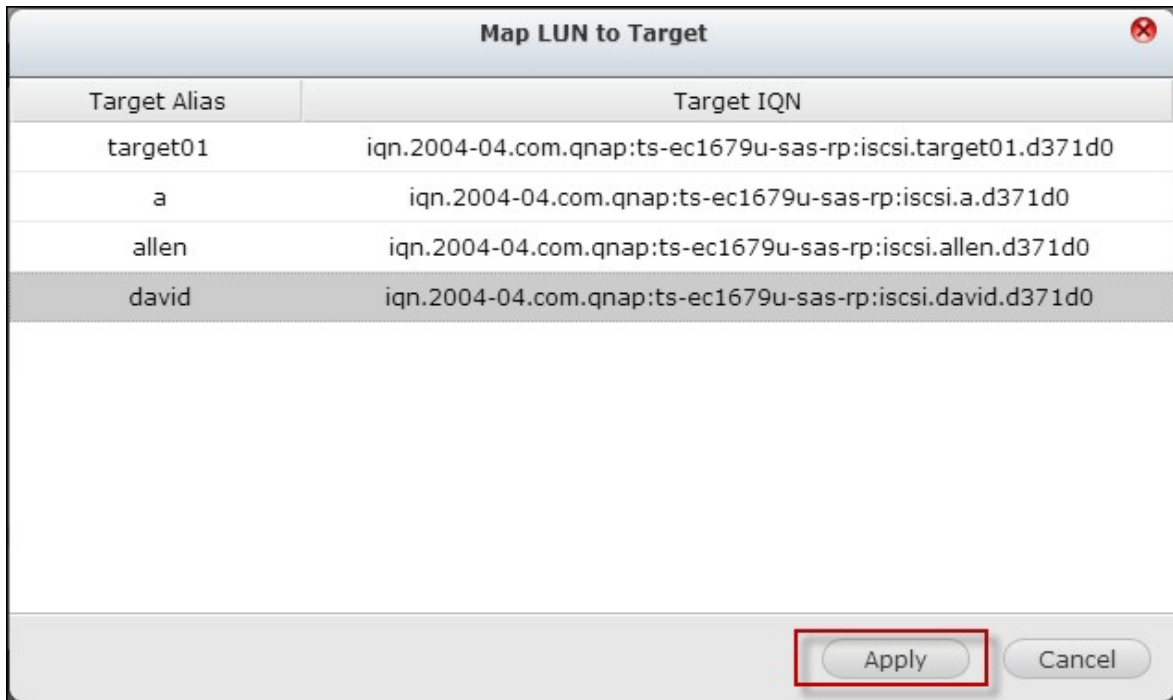
5. iSCSI LUN



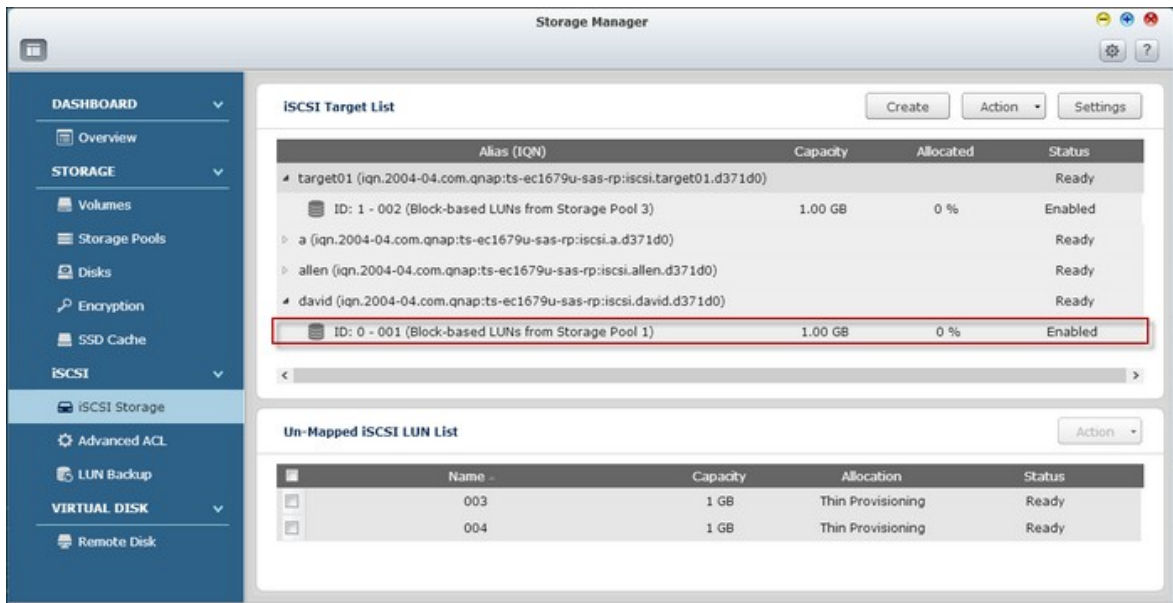
6. 'Action()' > Map()" LUN



7. LUN 'Apply()'



8. LUN

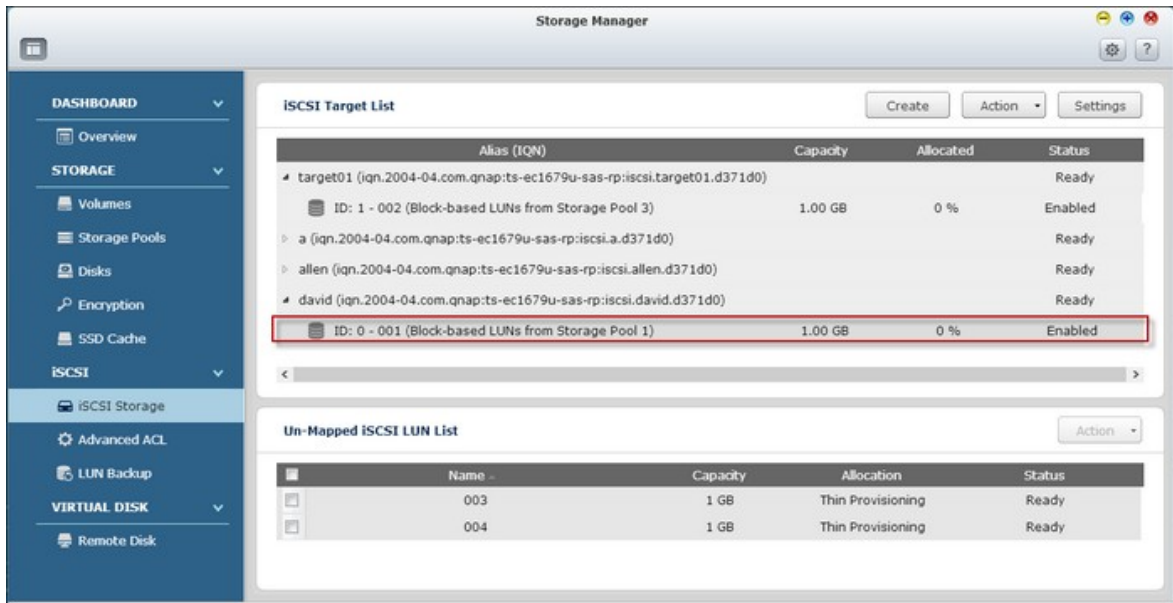


NAS iSCSI LUN (Windows PC, Mac Linux) 가 iSCSI LUN

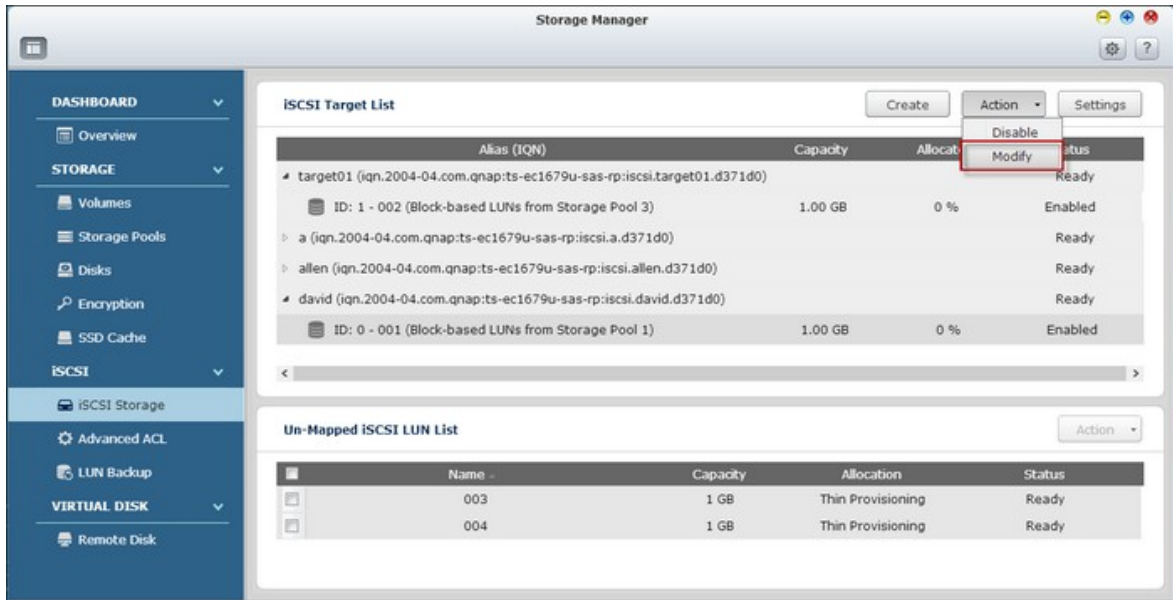
iSCSI LUN

NAS iSCSI LUN

1. iSCSI LUN iSCSI



2. 'Action()'> 'Modify()'



3. LUN . LUN
LUN

LUN	LUN
	32TB

4. 'Apply()'

Modify an iSCSI LUN ✖

LUN Type: Block-based

LUN Allocation: Thin Provisioning

LUN Name:

LUN Location: Storage Pool 1
[1.78 TB]

LUN serial number: 151169b3-28b7-48be-b857-9e93c2043ed3

Capacity: GB

Alert threshold: 80 %

SSD cache

: iSCSI LUN iSCSI .

iSCSI

가 가 iSCSI NAS

- : iSCSI LUN Instant Allocation()” iSCSI

Quick Configuration Wizard

Create an iSCSI LUN

LUN Type Block-based ⓘ File-based

LUN Allocation: Thin Provisioning ⓘ Instant Allocation

LUN Name:

LUN Location: ▼

Free Size: 1.78 TB

Capacity: ▼

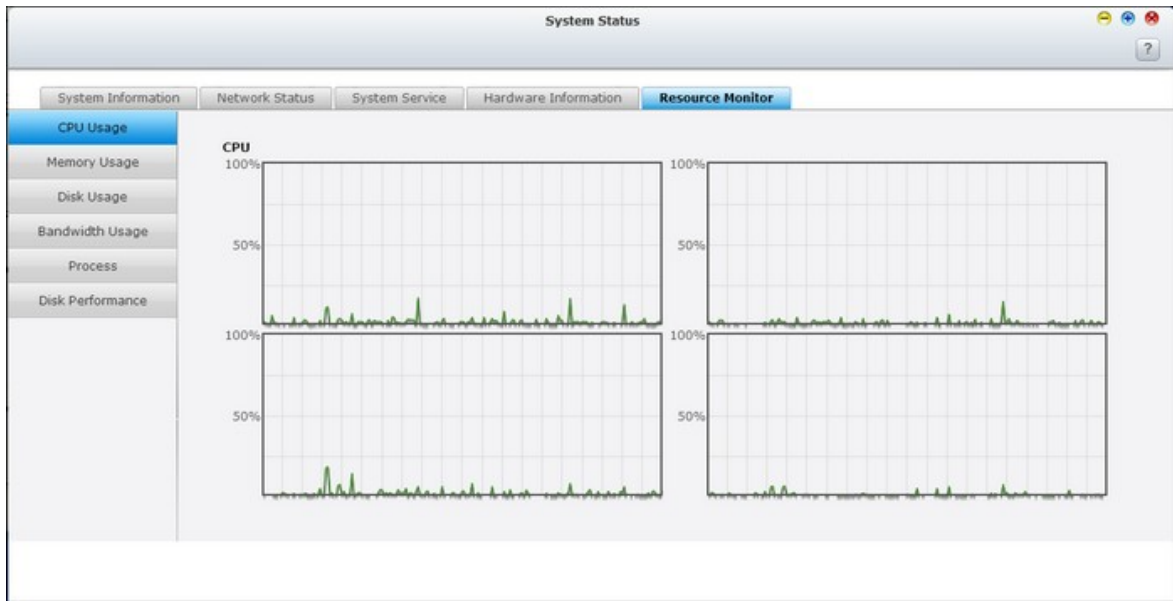
4K bytes Sector Size

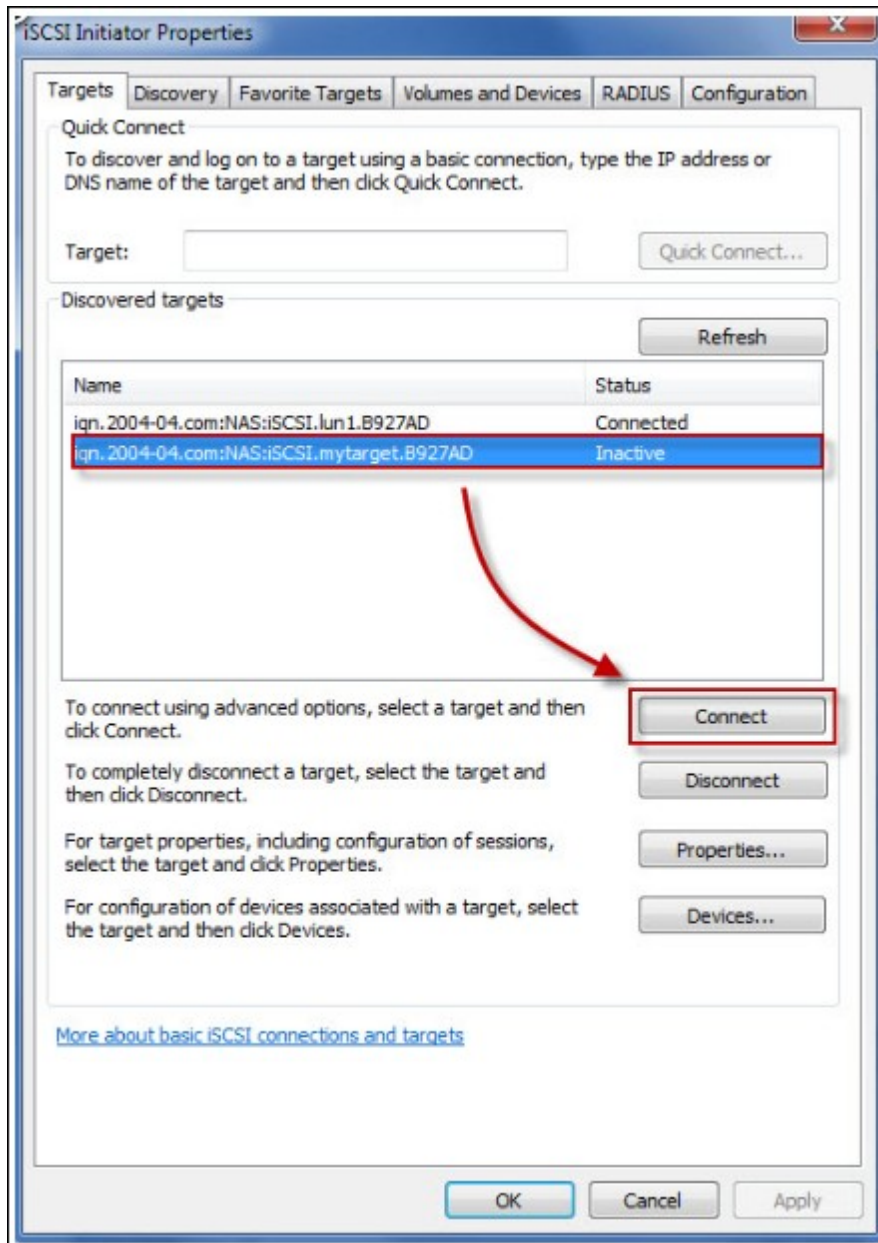
SSD Cache

Step 5/10

- LUN : NAS LUN
 System Status()"> Resource Monitor()"
 NAS 가 , LUN iSCSI

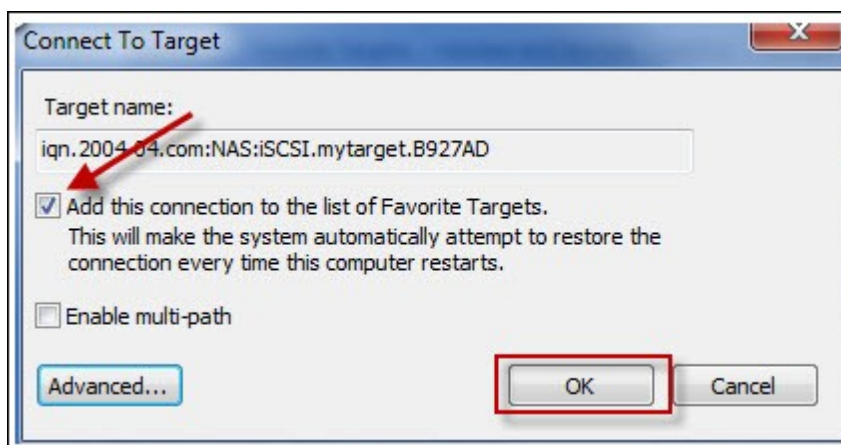
- LUN : / 가
 LUN LUN
 가 , VM LUN NAS LUN





"Advanced()"

"OK()"

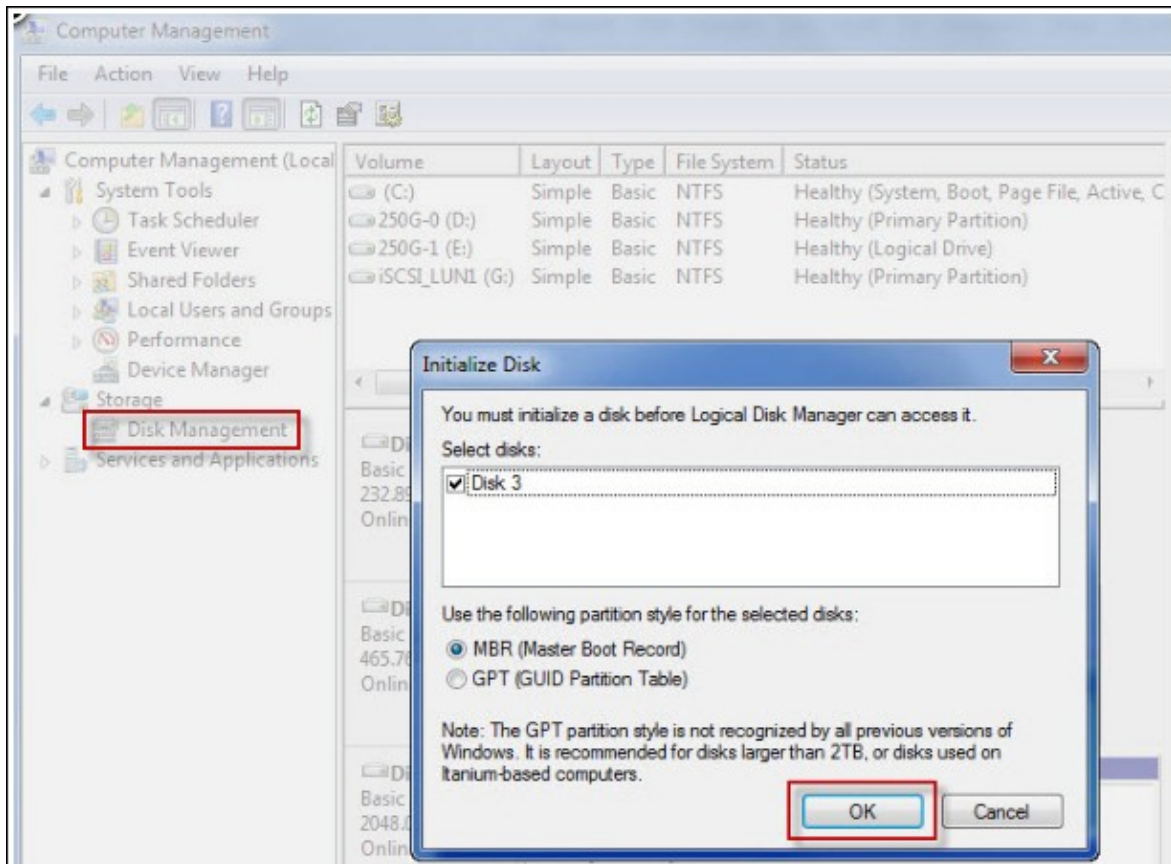


가 "Connected()"

Name	Status
iqn.2004-04.com:NAS:iSCSI.lun1.B927AD	Connected
iqn.2004-04.com:NAS:iSCSI.mytarget.B927AD	Connected

Windows

가 가 . "My Computer()" > "Manage()"
 "Computer Management()" "Disk Management()" 가
 . "OK()"
 가



가 PC

iSCSI

Computer Management

File Action View Help

Computer Management (Local)

- System Tools
 - Task Scheduler
 - Event Viewer
 - Shared Folders
 - Local Users and Groups
 - Performance
 - Device Manager
- Storage
 - Disk Management
 - Services and Applications

Volume	Layout	Type	File System	Status
(C:)	Simple	Basic	NTFS	Healthy (System, Boot, Page File, Activ
250G-0 (D:)	Simple	Basic	NTFS	Healthy (Primary Partition)
250G-1 (E:)	Simple	Basic	NTFS	Healthy (Logical Drive)
iSCSI LUN1 (G:)	Simple	Basic	NTFS	Healthy (Primary Partition)
My iSCSI Target (F:)	Simple	Basic	NTFS	Healthy (Primary Partition)

Disk 0
Basic
232.89 GB
Online

250G-0 (D:) 50.00 GB NTFS Healthy (Primary Partition)	250G-1 (E:) 182.88 GB NTFS Healthy (Logical Drive)
---	--

Disk 1
Basic
465.76 GB
Online

(C:) 465.76 GB NTFS Healthy (System, Boot, Page File, Active, Crash Dump, Primary)
--

Disk 2
Basic
2048.00 GB
Online

iSCSI_LUN1 (G:) 2048.00 GB NTFS Healthy (Primary Partition)

Disk 3
Basic
10.00 GB
Online

My iSCSI Target (F:) 10.00 GB NTFS Healthy (Primary Partition)
--

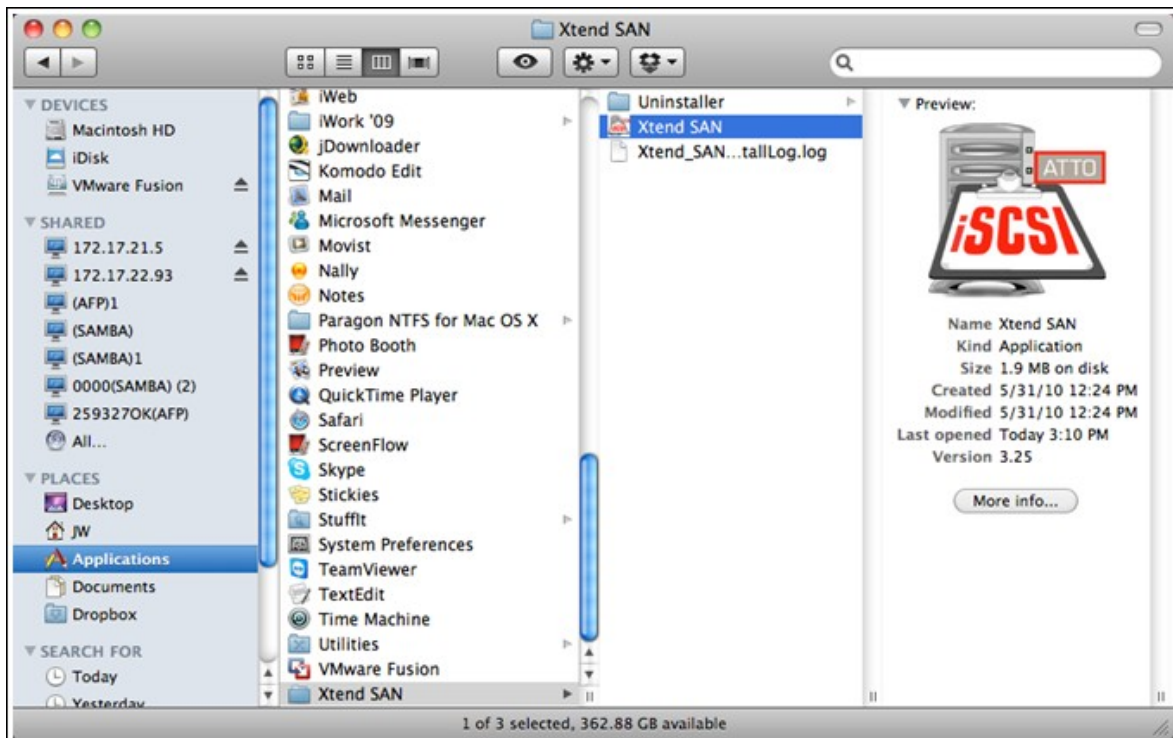
Legend: ■ Unallocated ■ Primary partition ■ Extended partition ■ Free space ■ Logical drive

Mac OS X
 Xtend SAN iSCSI Initiator
 iSCSI (QNAP NAS)
 ATTO iSCSI LUN

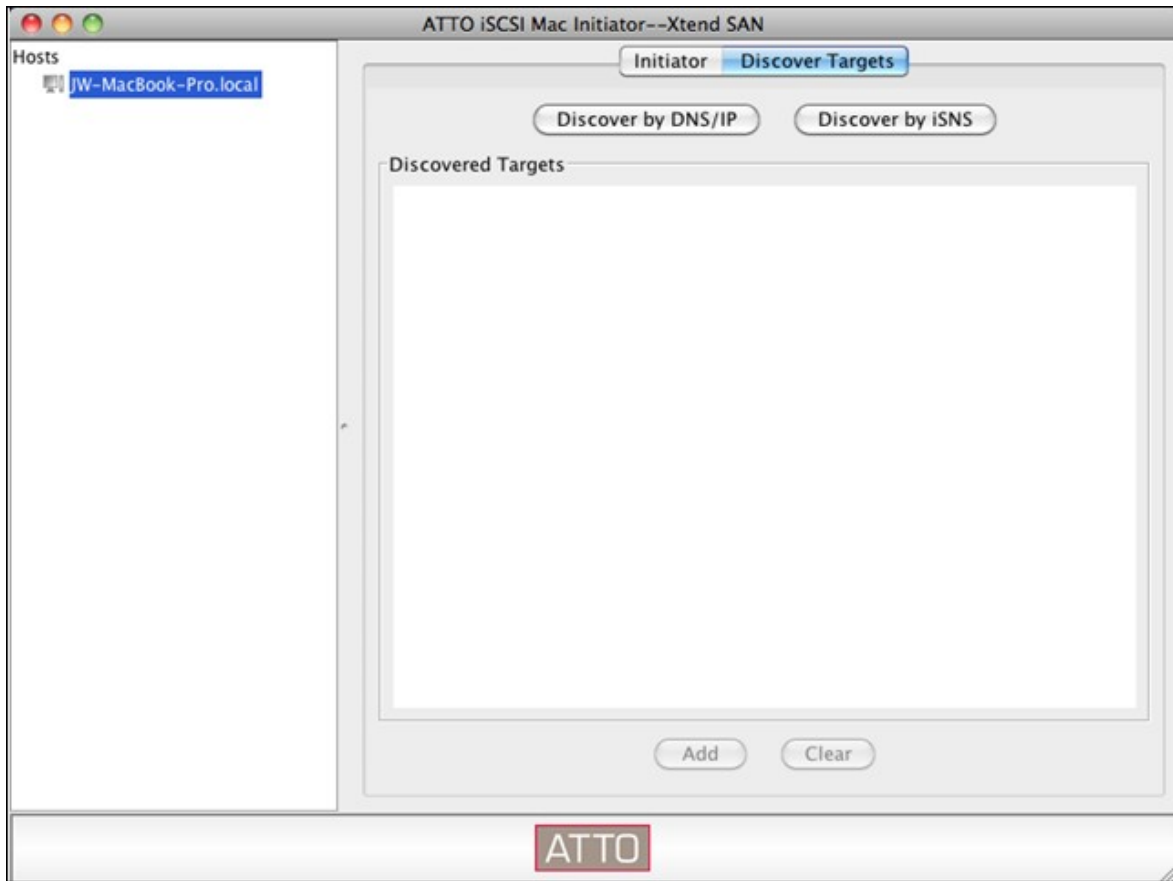
Xtend SAN iSCSI Initiator :
 ATTO Mac OS X Xtend SAN iSCSI Initiator Mac 가 iSCSI
 . Mac OS X 10.4.x - 10.6.x

<http://www.attotech.com/products/product.php?sku=INIT-MAC0-001>

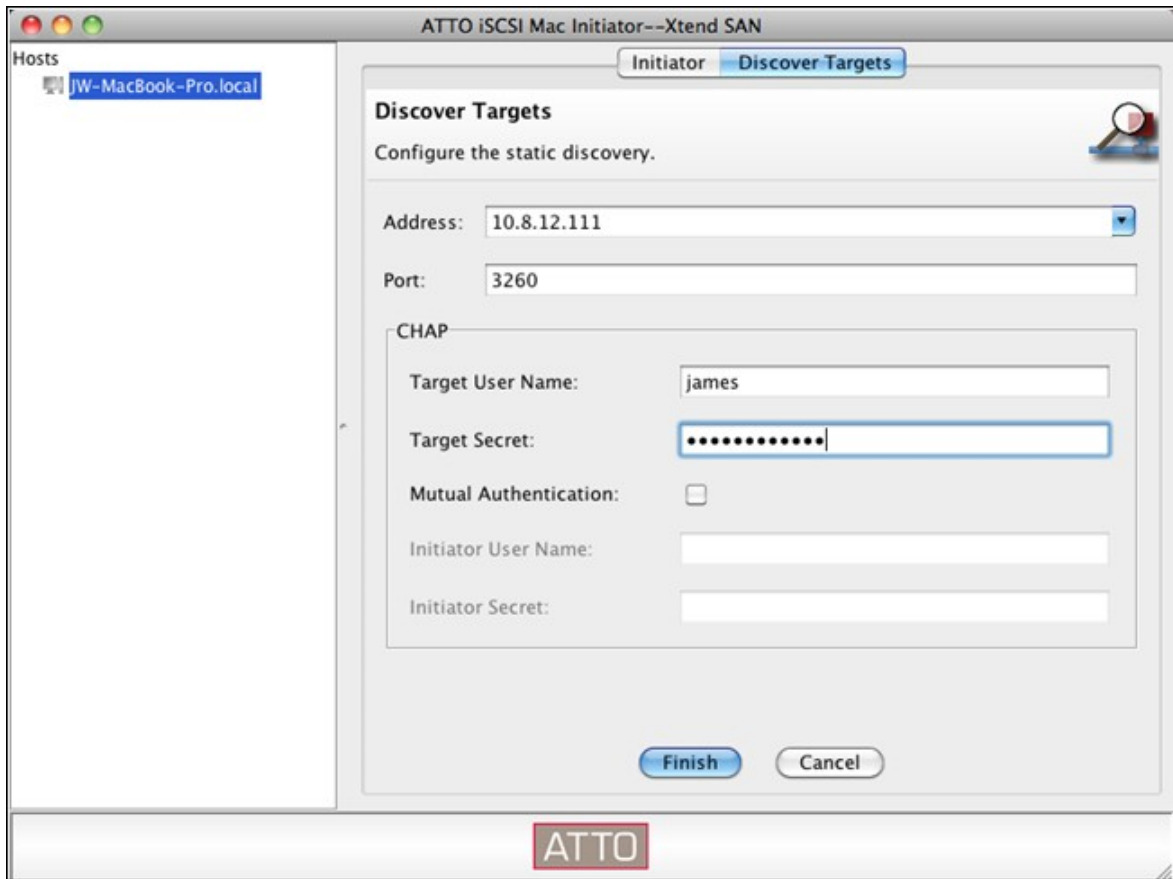
Xtend SAN iSCSI Initiator "Applications ()"



"Discover Targets ()"
 (DNS/IP) "Discover by iSNS(iSNS)"
 iSCSI "Discover by DNS/IP IP



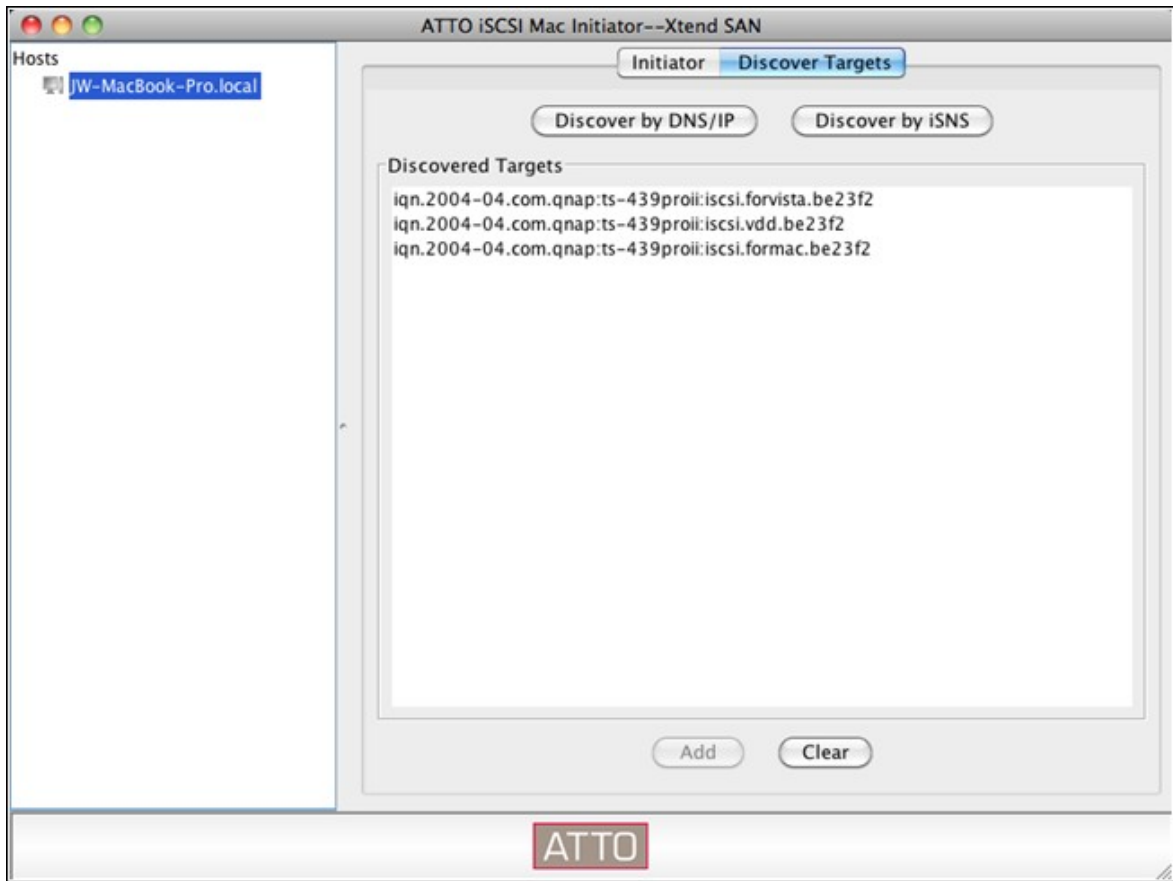
, iSCSI (: 3260), CHAP ()
 "Finish()"



NAS

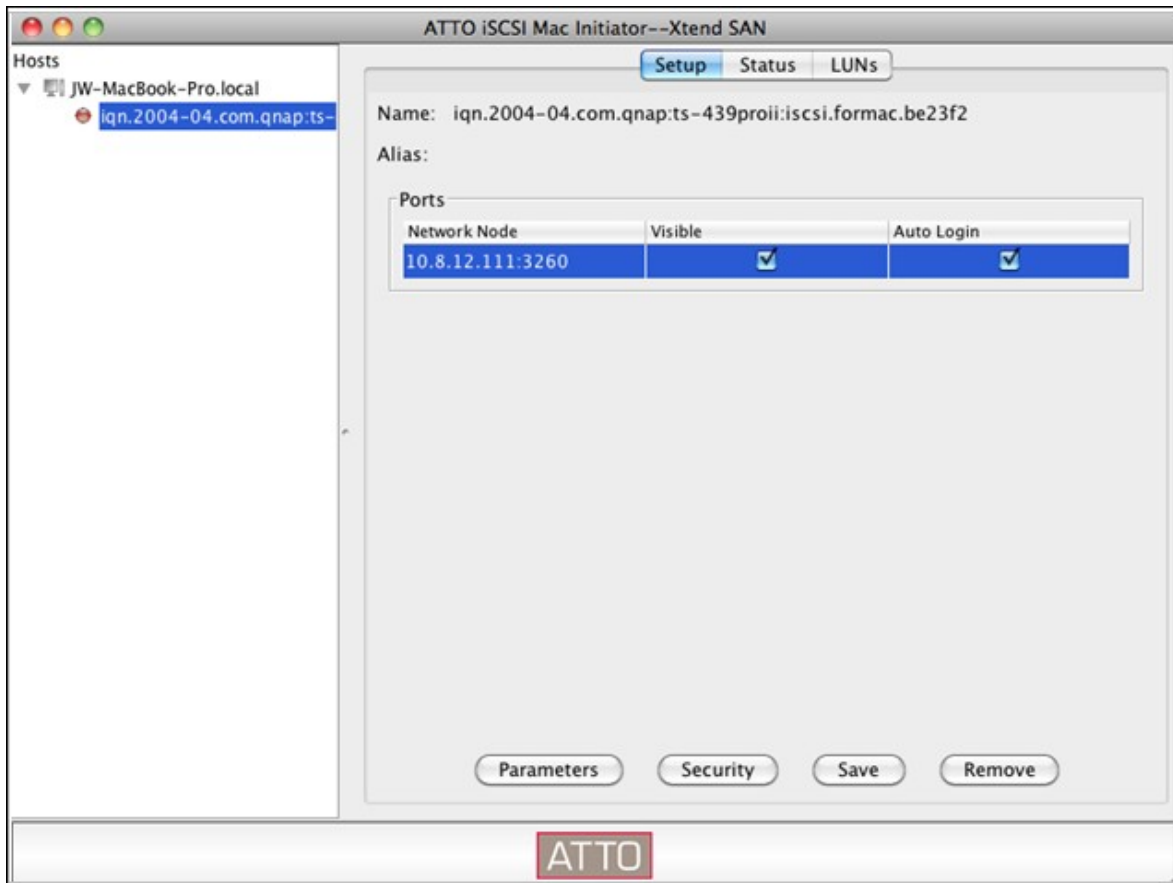
iSCSI

"Add(가)"



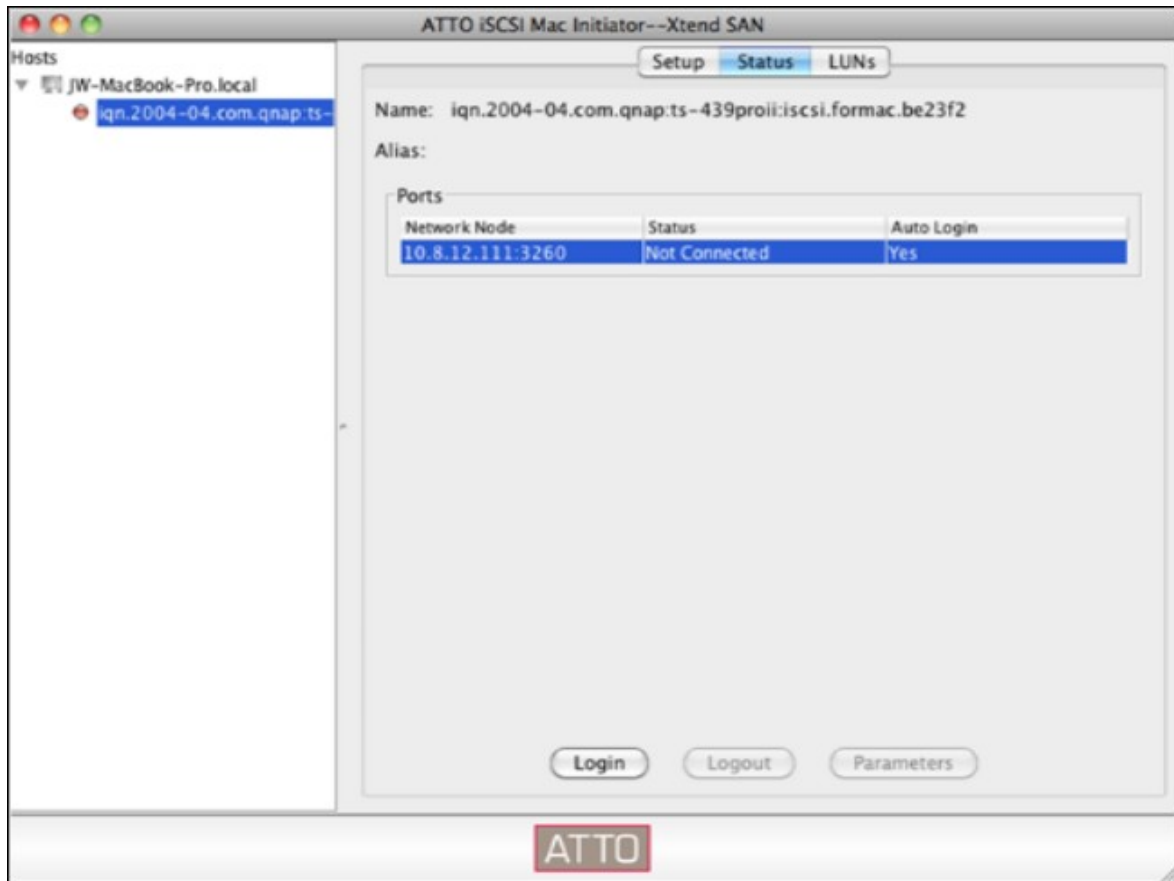
"Setup()"

iSCSI



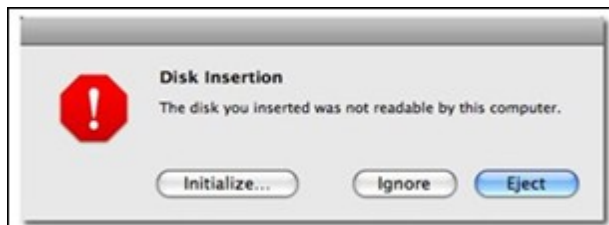
"Status()"

. "Login()"



iSCSI 가 "Initialize...()"

가 "Disk Utilities()"



iSCSI Mac



Ubuntu Linux Open- iSCSI Initiator iSCSI (QNAP NAS) 가
 가 . iSCSI NAS iSCSI
 LUN OS iSCSI .

Linux Open- iSCSI Initiator

Linux Open- iSCSI Initiator Ubuntu 8.04 LTS()
 iSCSI . Ubuntu <http://www.ubuntu.com>
 Open- iSCSI
 : <http://www.open-iscsi.org>

: LUN Linux Open- iSCSI .

open-iscsi . Linux Open- iSCSI Initiator .

```
# sudo apt-get install open-iscsi
```

```
Linux Open- iSCSI Initiator iSCSI (QNAP NAS)
node.session.auth.username & node.session.auth.password CHAP
iscsid.conf 가 .
```

```
# vi /etc/iscsi/iscsid.conf
```

```
open-iscsi
# /etc/init.d/open-iscsi restart
```

```
( QNAP NAS), 가 3260 10.8.12.31 iSCSI
```

```
# iscsiadm -m discovery -t sendtargets -p 10.8.12.31:3260
```

```
iSCSI
# iscsiadm -m node
```

```
** 가 :
# iscsiadm -m node --op delete --targetname THE_TARGET_IQN
```

```
open-iscsi 가
# /etc/init.d/open-iscsi restart
```

```
가 :
[iface: , : iqn.2004-04.com:NAS:iSCSI.ForUbuntu.B9281B, :
10.8.12.31,3260] [ ]
```

```
dmesg
# dmesg | tail
```

```
./dev/sdb .
```

```
# fdisk /dev/sdb
```

```
# mkfs.ext3 /dev/sdb1
```

```
# mkdir /mnt/iscsi
```

```
# mount /dev/sdb1 /mnt/iscsi/
```

```
        I/O
```

```
# hdparm -tT /dev/sdb1
```

```
        "iscsiadm"
```

```
        :
```

```
# iscsiadm -m discovery --type sendtargets --portal HOST_IP
```

```
        :
```

```
# iscsiadm -m node --targetname THE_TARGET_IQN --login
```

```
        :
```

```
# iscsiadm -m node --targetname THE_TARGET_IQN --logout
```

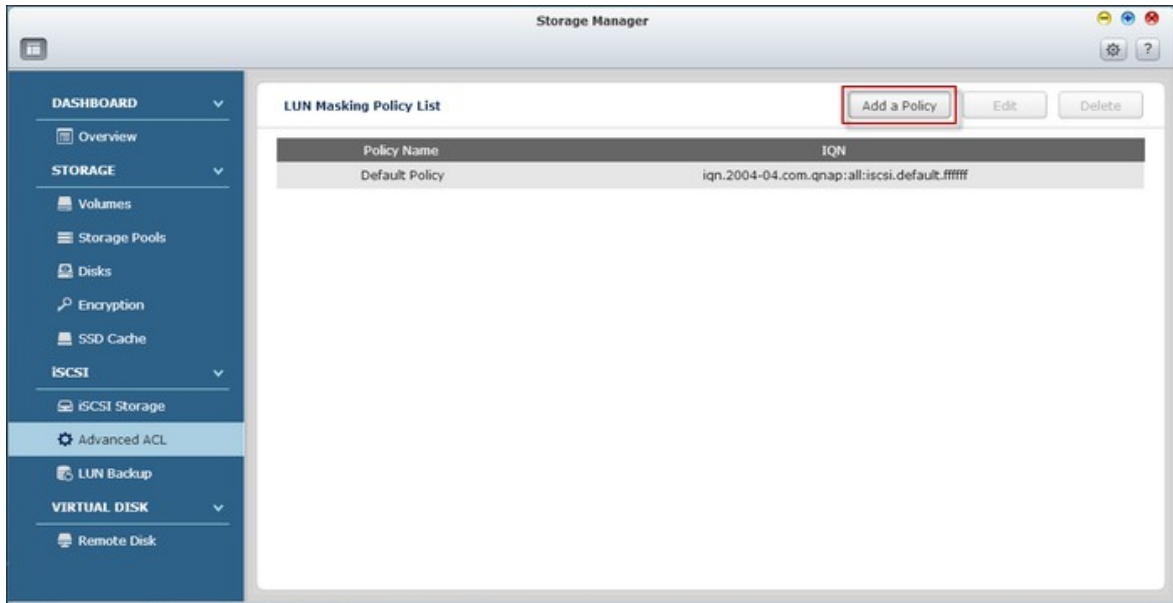
```
        :
```

```
# iscsiadm -m node --op delete --targetname THE_TARGET_IQN
```


4.2.3.2 ACL

(ACL) LUN
가 “ ”

‘Add a Policy(가) ’



)” IQN NAS LUN ‘Apply(

Add a Policy ✖

Define the LUN Masking policy for the initiator you input below.

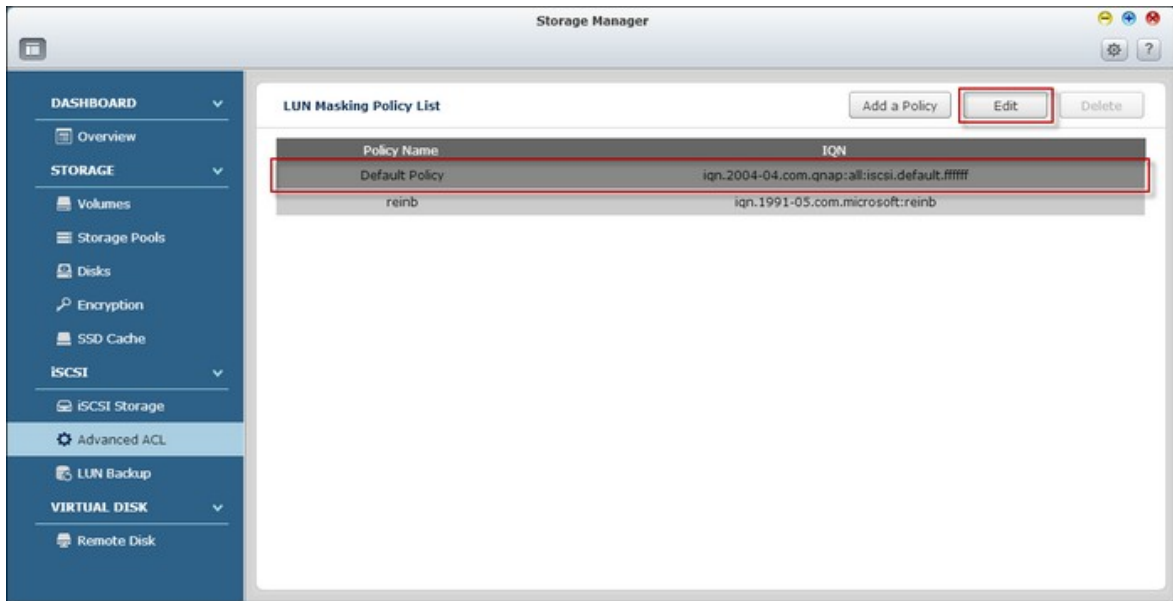
Policy Name:

Initiator IQN:

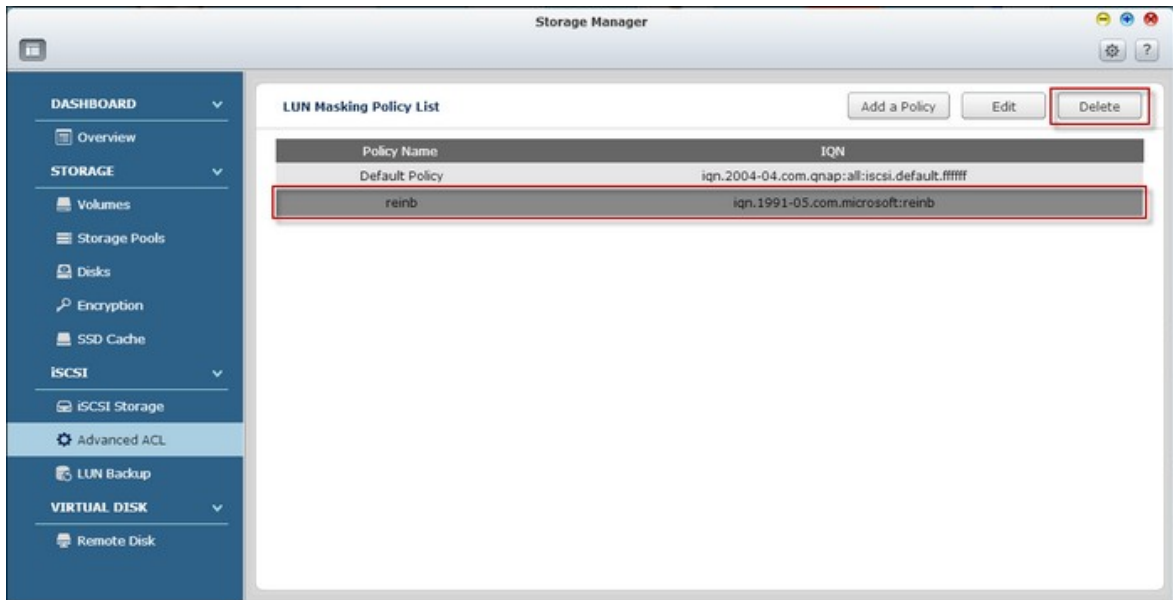
Name ▲	Read Only	Read/Write	Deny Access

	LUN
/	LUN
	LUN

iSCSI LUN
 Edit()” iSCSI 가가

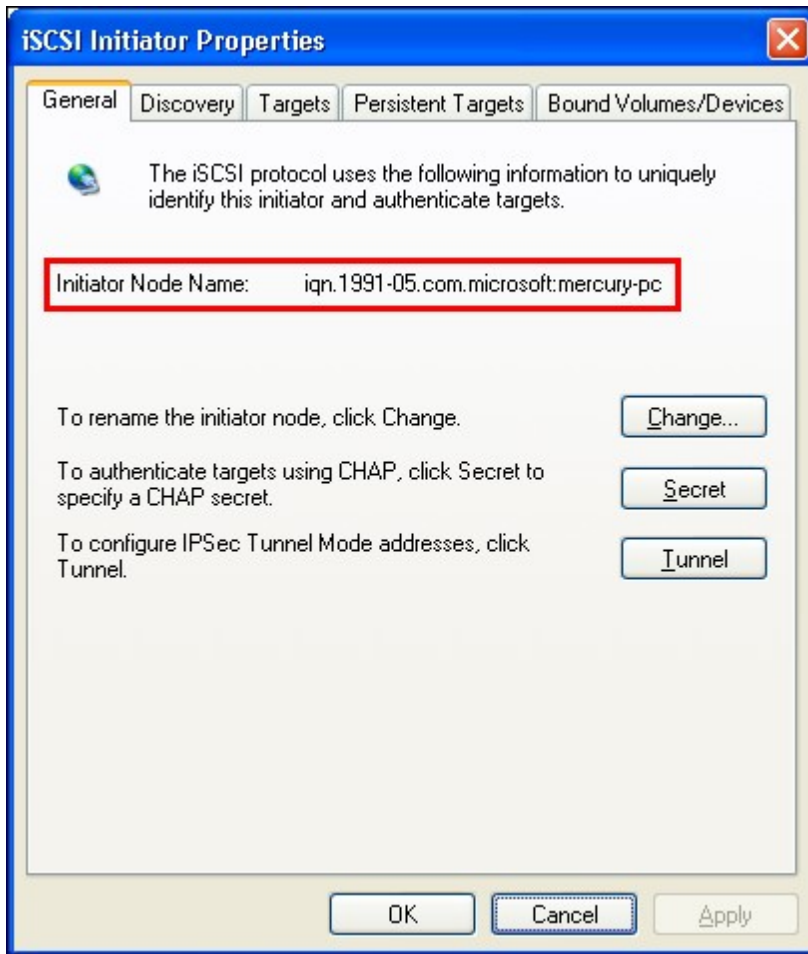


Delete()”



: LUN LUN NAS

: IQN ?
 Microsoft iSCSI General()” IQN



4.2.3.3 LUN

NAS LUN (Windows, Linux) iSCSI LUN , NAS LUN iSCSI

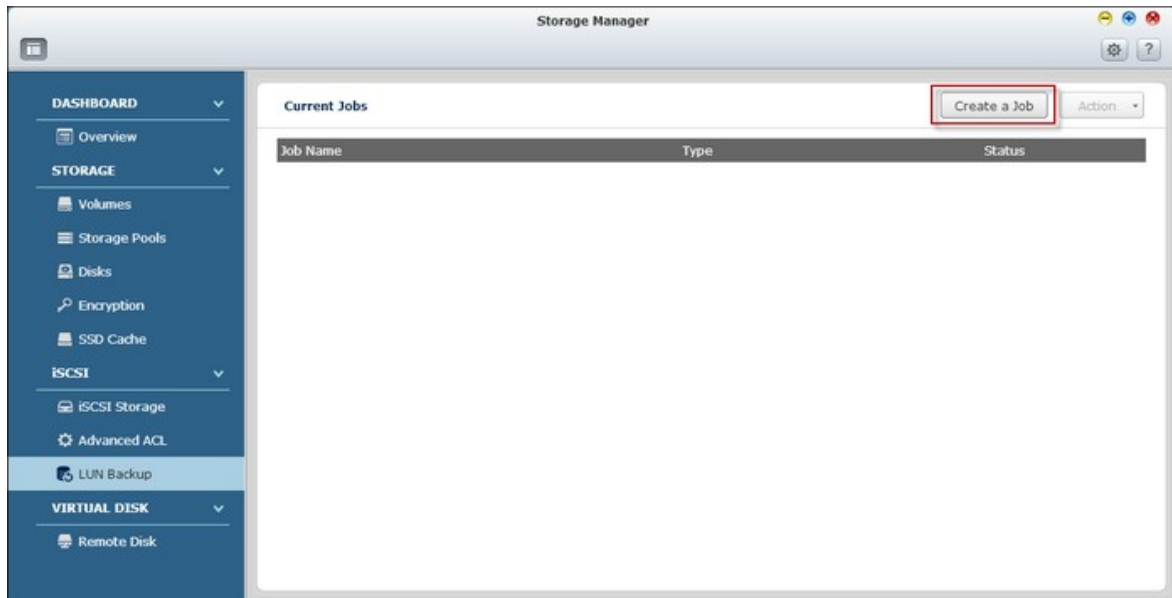
: 가 QNAP

LUN

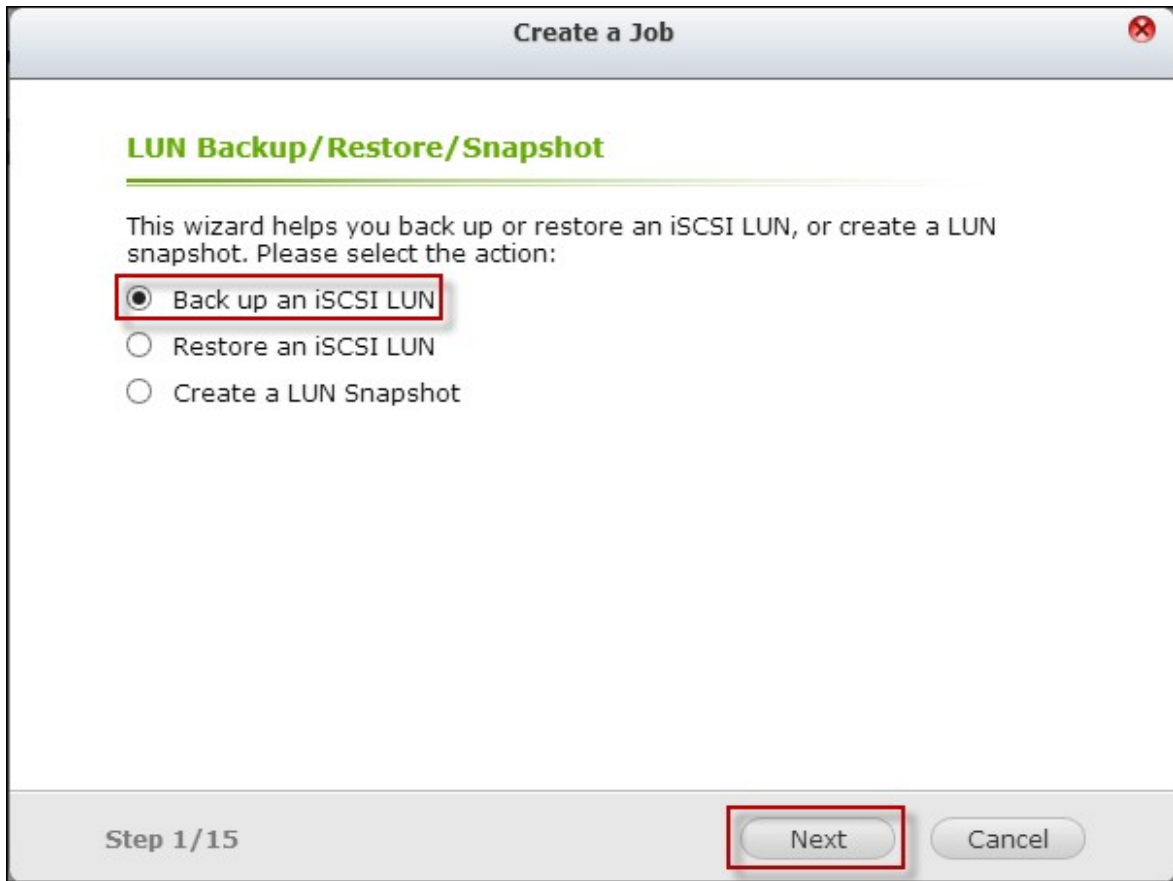
LUN (SMB/CIFS), Linux (NFS) NAS Windows

iSCSI LUN NAS iSCSI LUN . iSCSI LUN

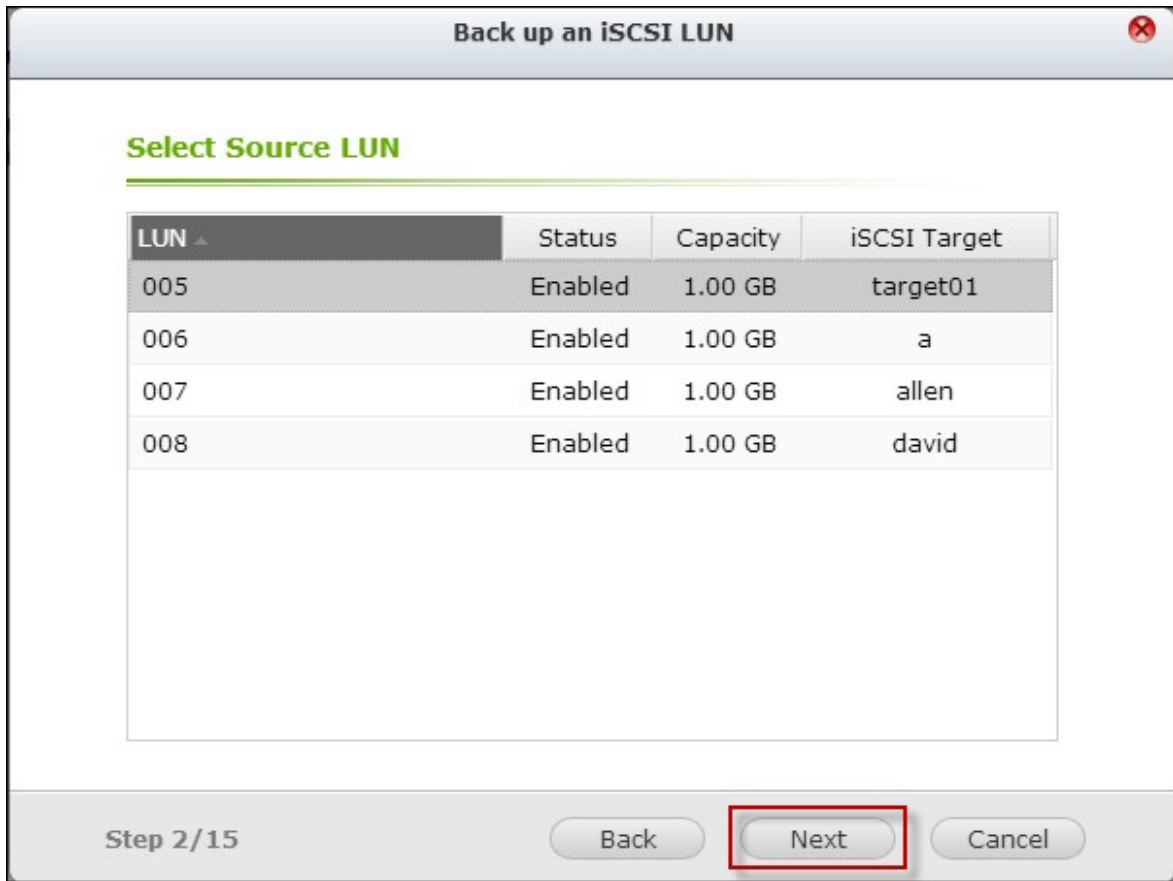
1. "Storage Manager()"> "LUN Backup(LUN)" . "Create a job()"



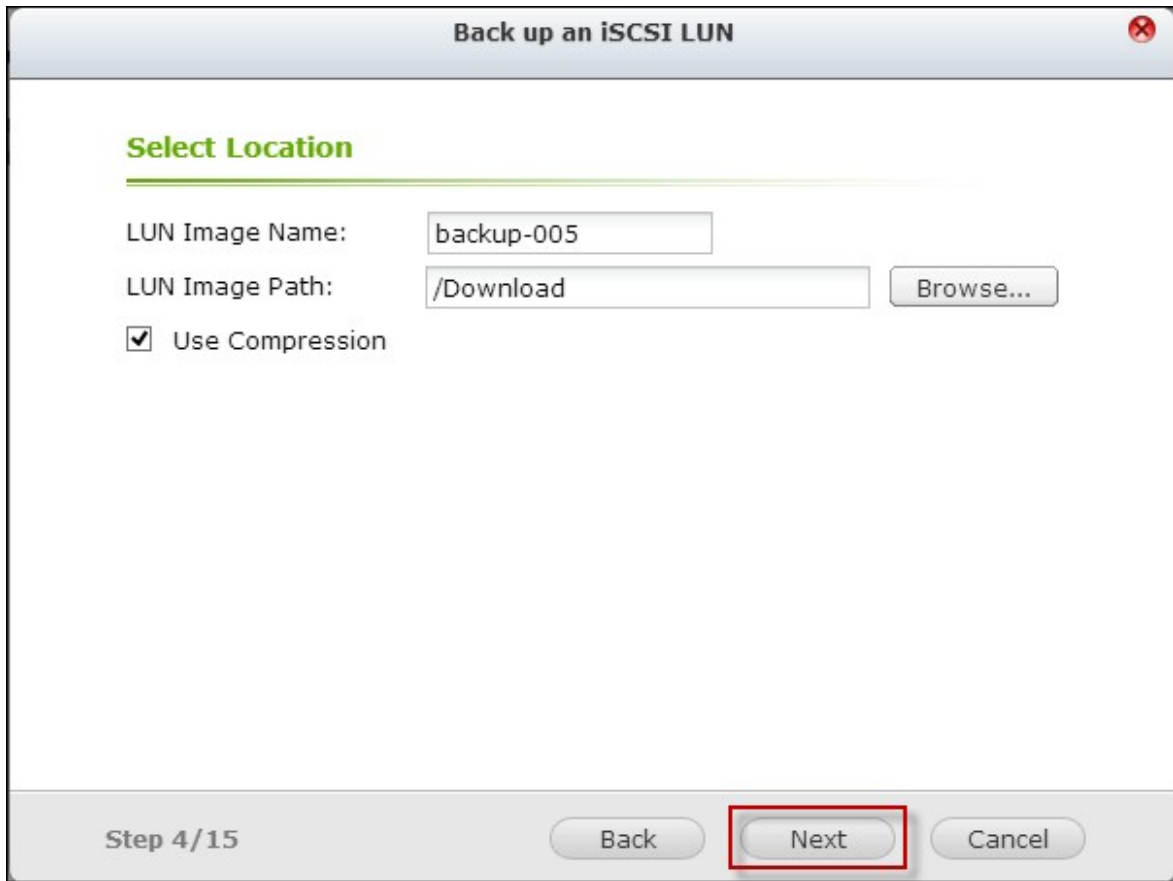
2. "Back up an iSCSI LUN(iSCSI LUN)" "Next()"



3. LUN "Next()" LUN NAS LUN



- LUN NAS Linux (NFS), Windows (CIFS/SMB)
 NAS LUN . "Test()"
 Next()"

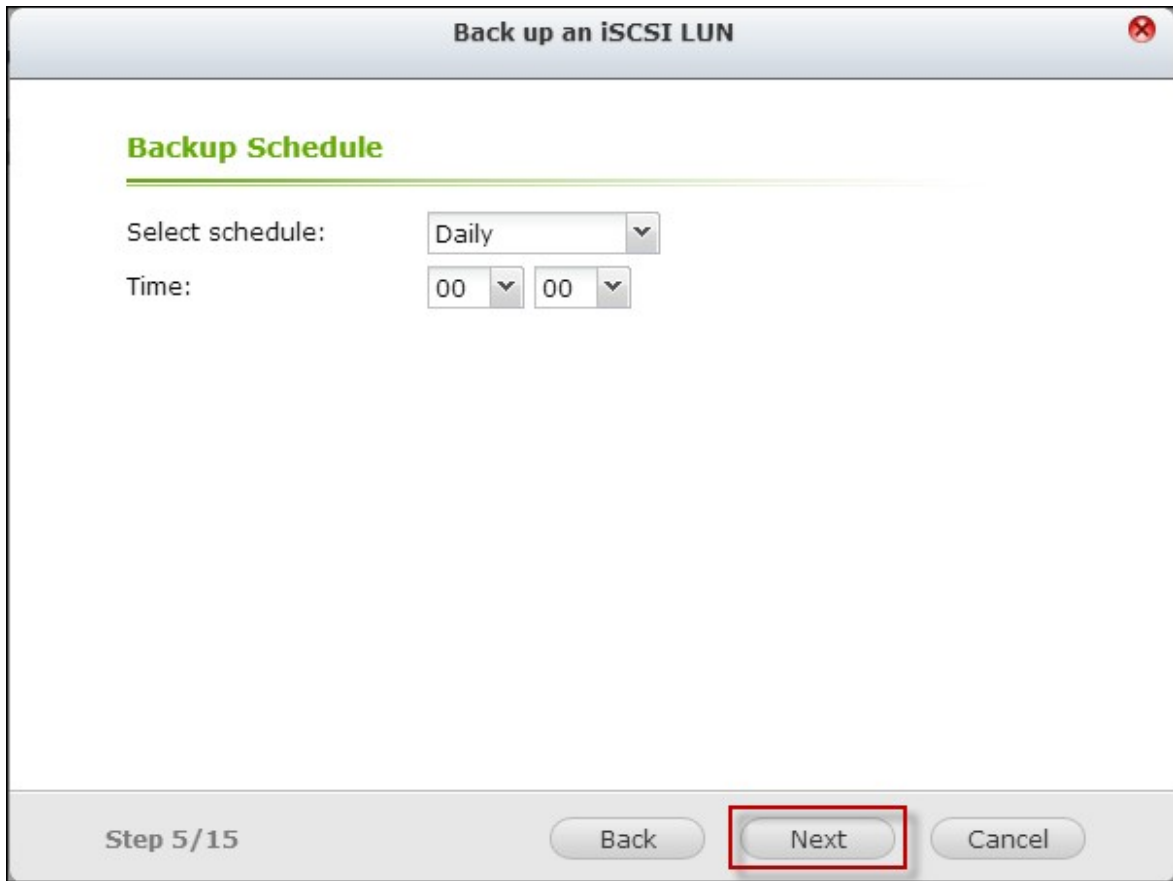


* : NAS CPU 가 LUN
iSCSI LUN

6. 가

-
-
-
-
-

Next()”

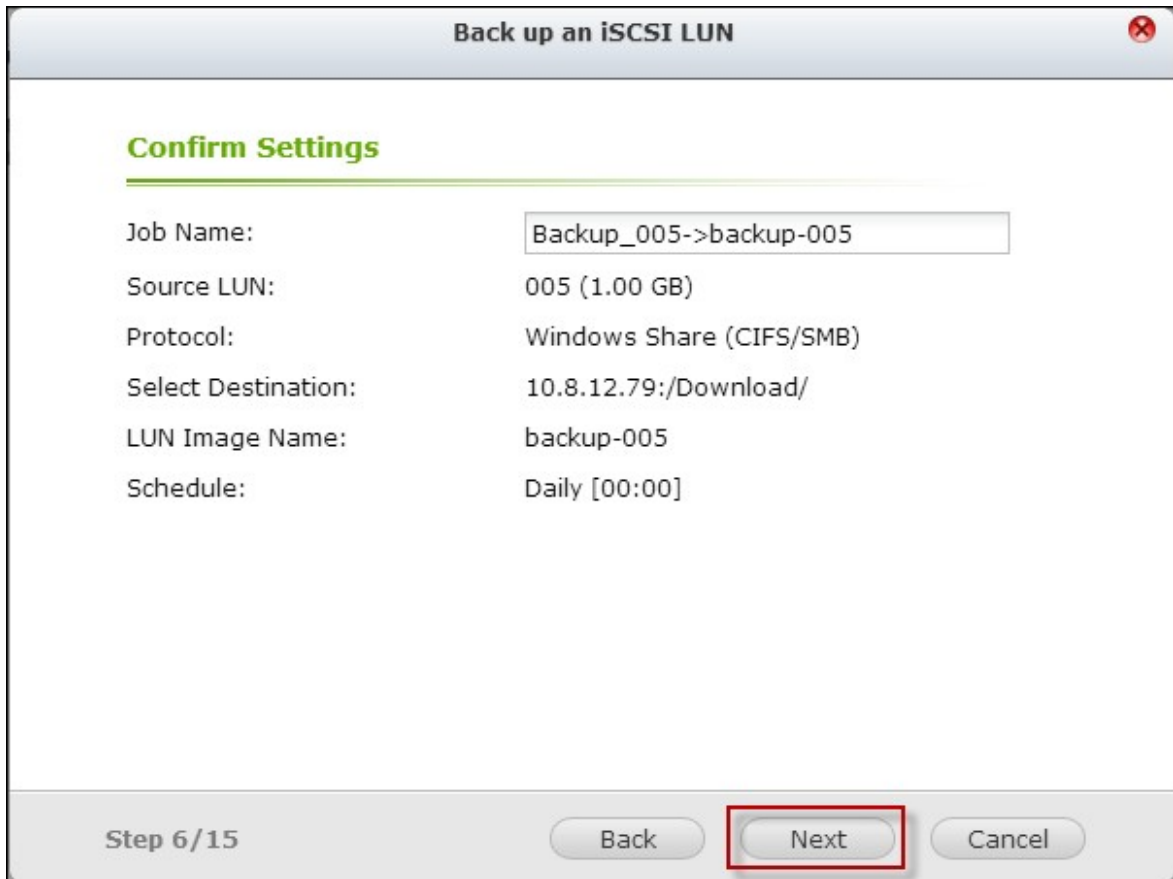


7.

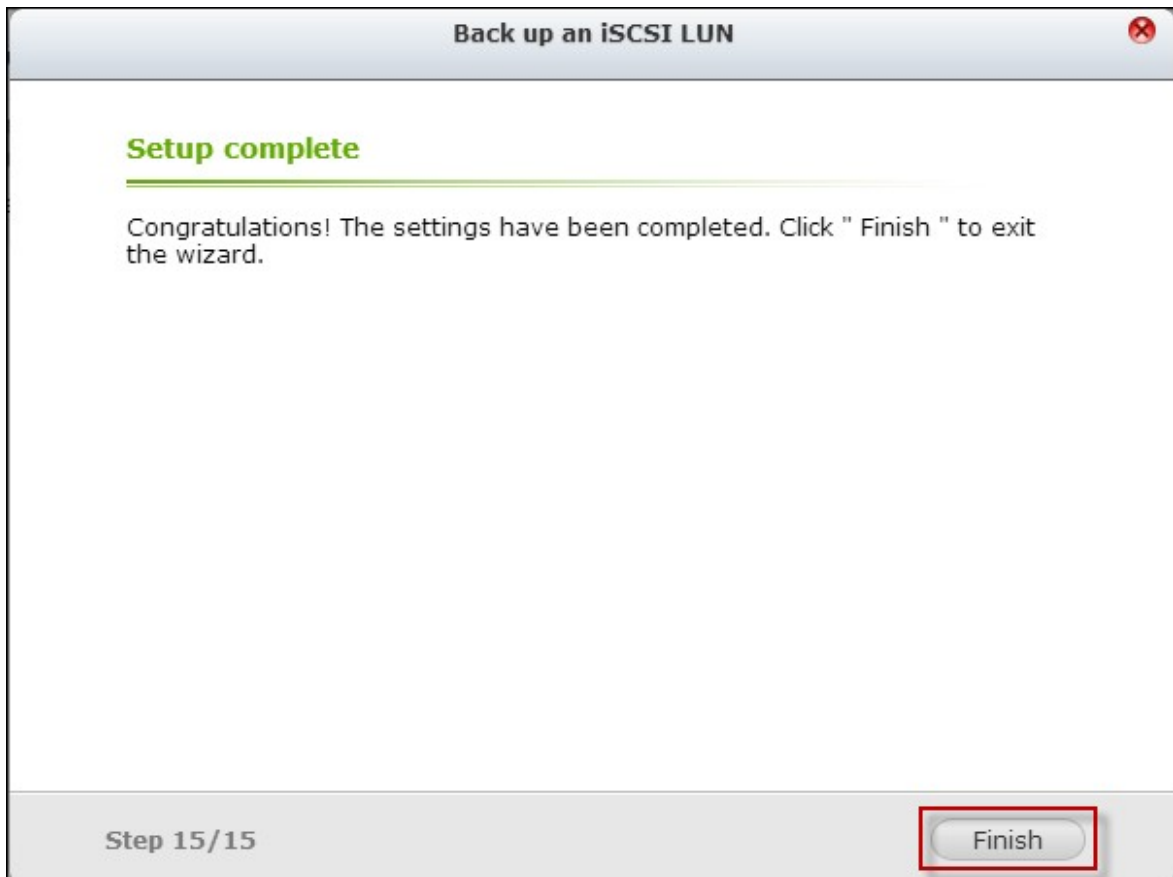
)”

NAS

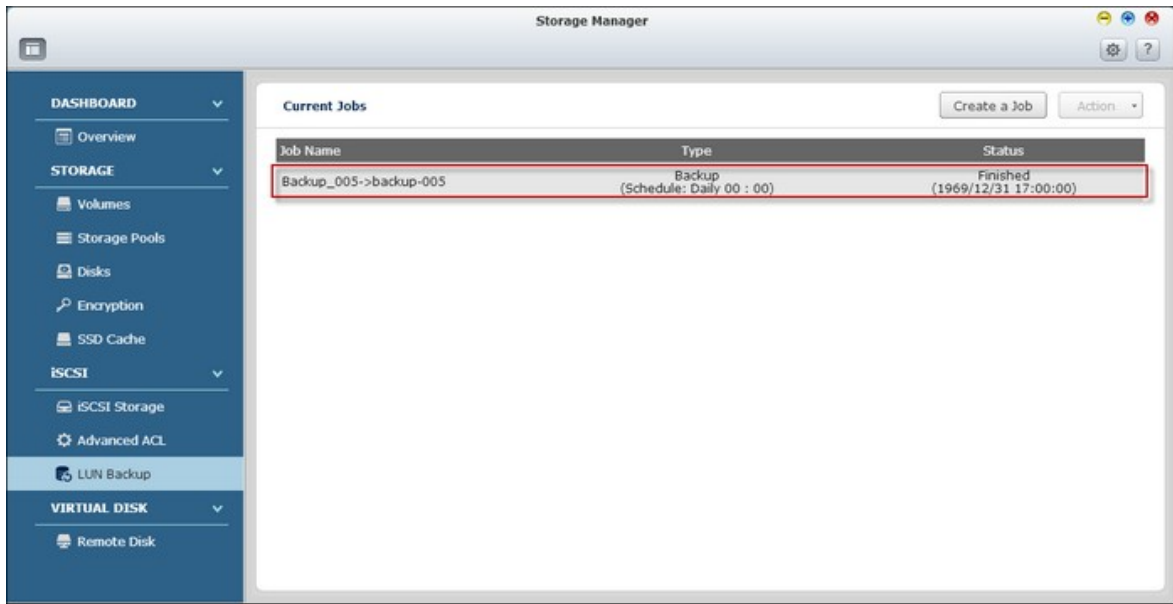
. Next(



8. Finish()”



9.



가 ("Action()")

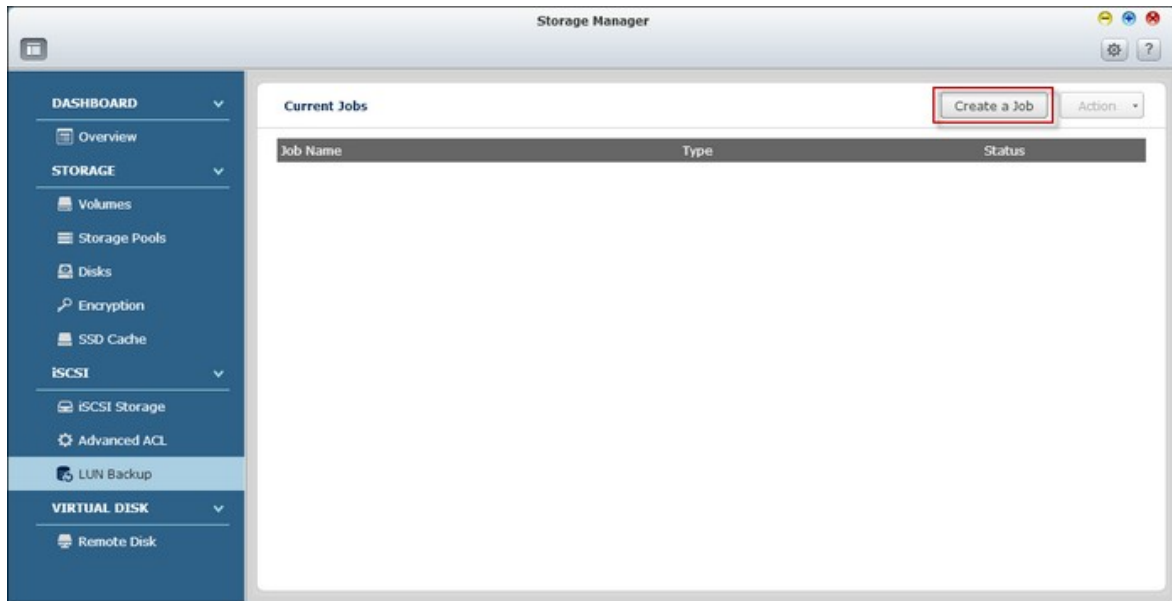
Edit()	
Delete()	
Start()	
Stop()	
View Logs ()	

iSCSI LUN

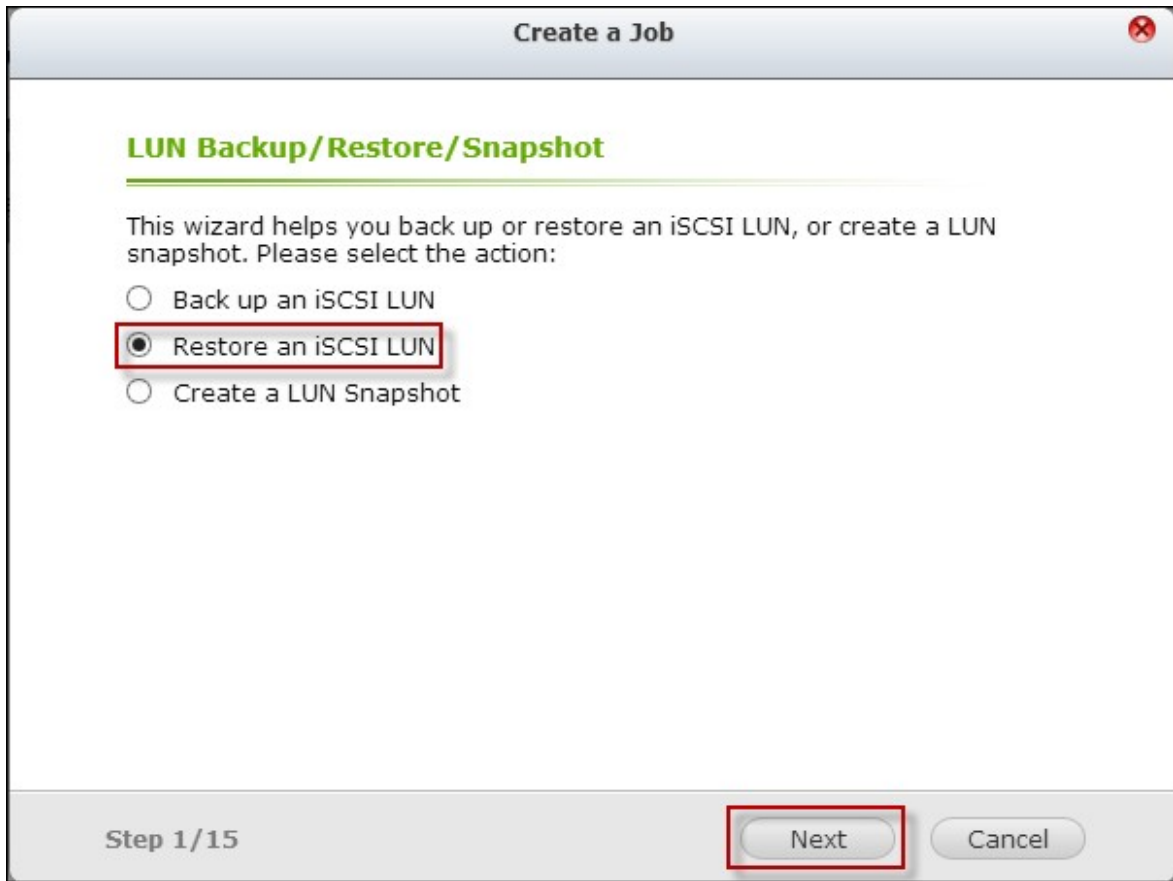
LUN NAS . LUN LUN
LUN

iSCSI LUN NAS

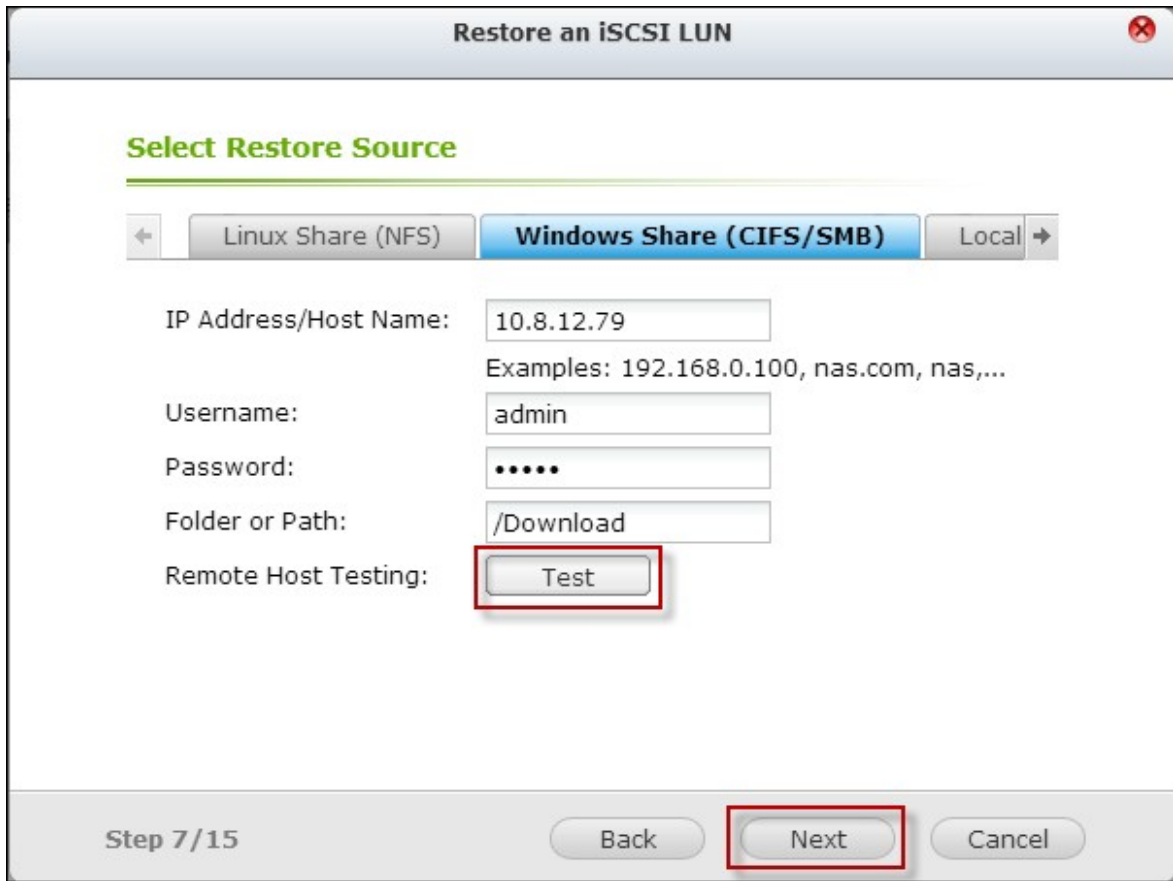
1. "Storage Manager()"> "LUN Backup(LUN)" . "Create a job()"



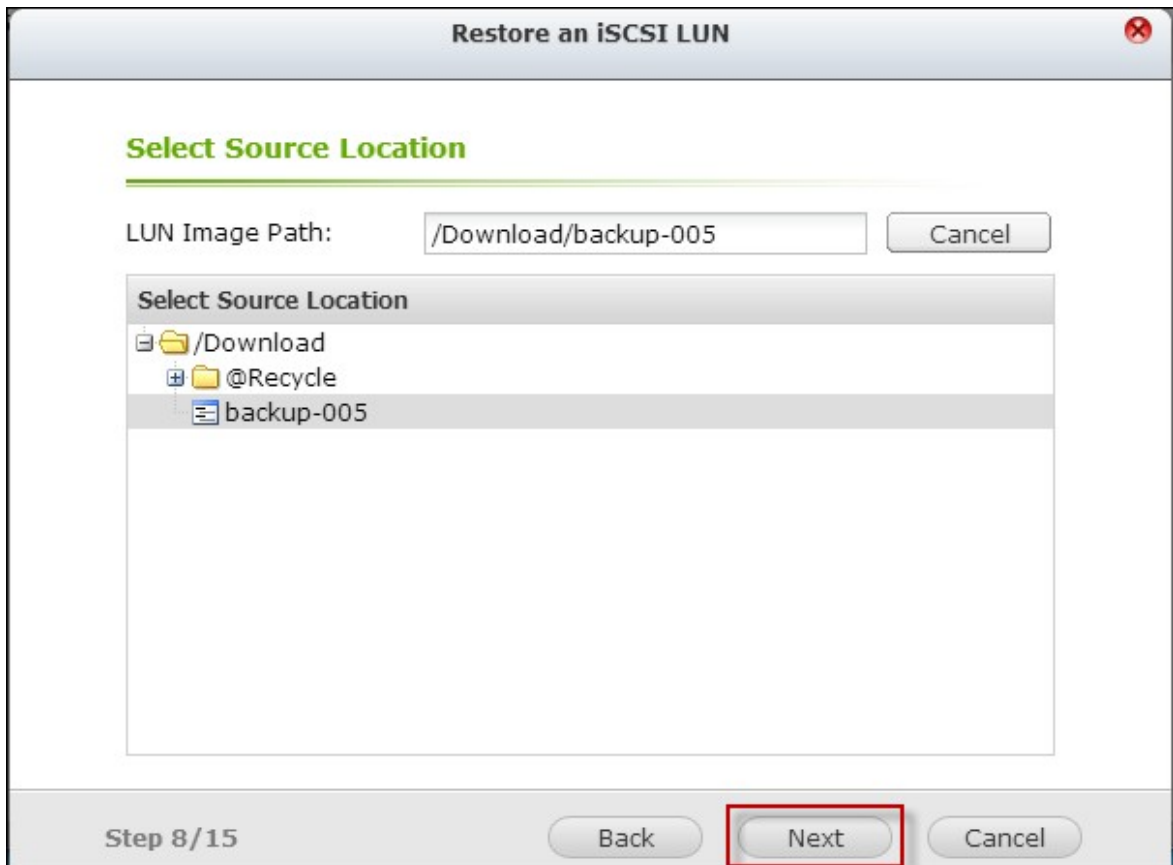
2. "Restore an iSCSI LUN(iSCSI LUN)" "Next()"



3. , IP / / . Test()”
Next()”



4. LUN . Next()” .



5.

- LUN : iSCSI LUN NAS LUN LUN
- LUN : iSCSI LUN LUN NAS LUN

Next()”

Restore an iSCSI LUN

Select Destination

Overwrite existing LUN
005 (1.00 GB, Enabled)

Note: The original data on the LUN will be overwritten.

Create a new LUN
LUN Name: 009
LUN Location: DataVol1 [1.14 GB]

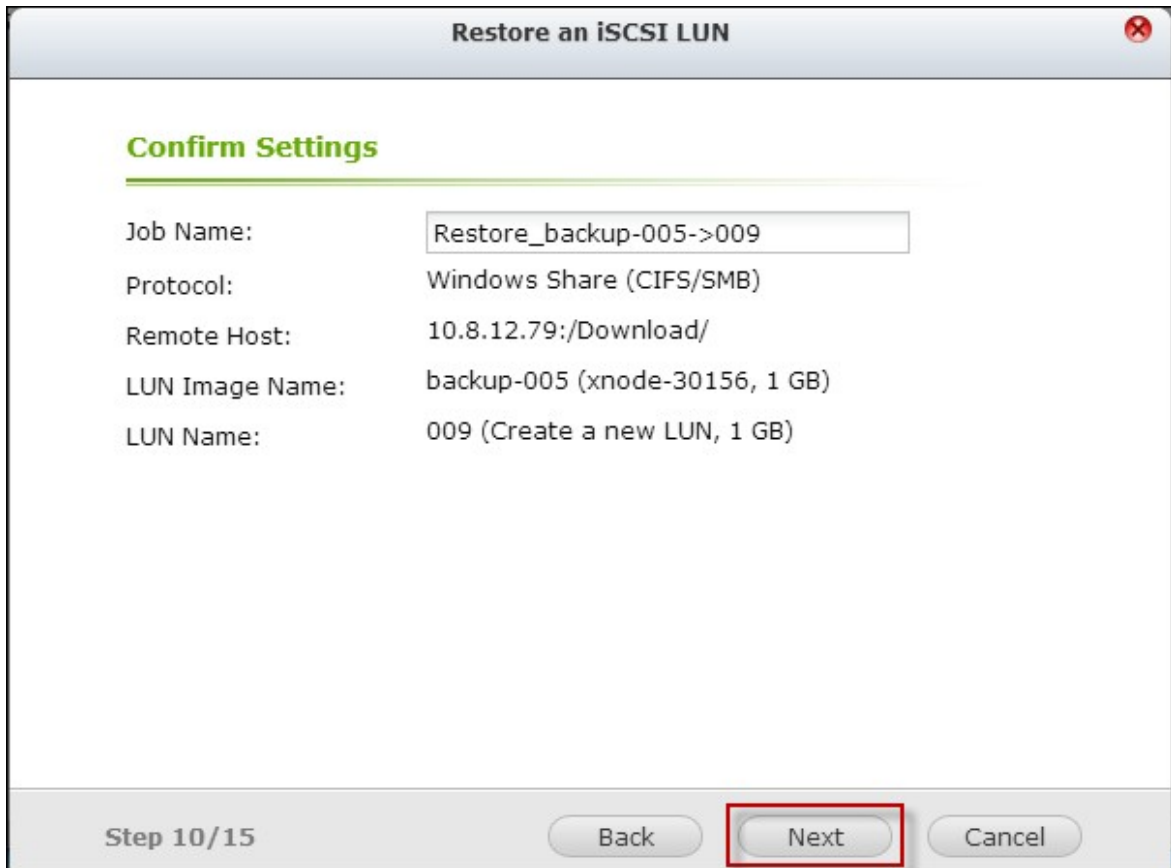
Step 9/15 Back **Next** Cancel

6.

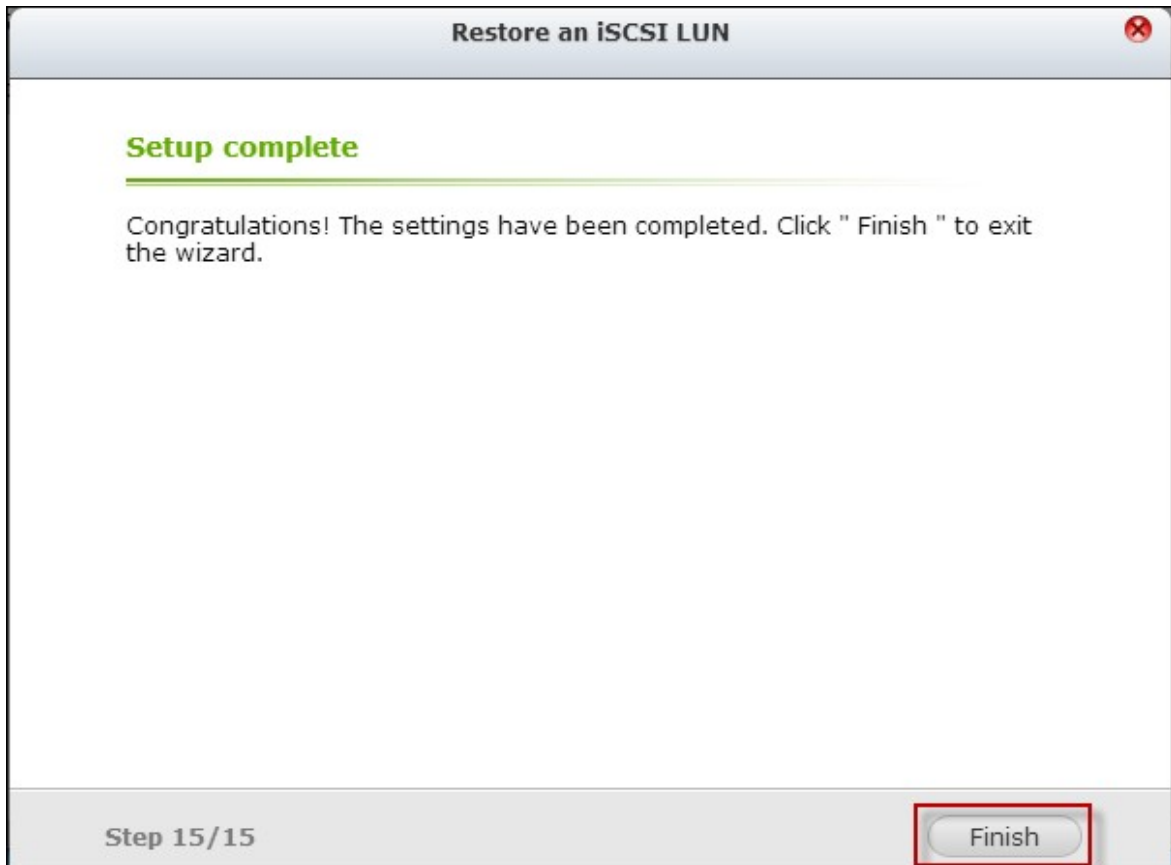
)”

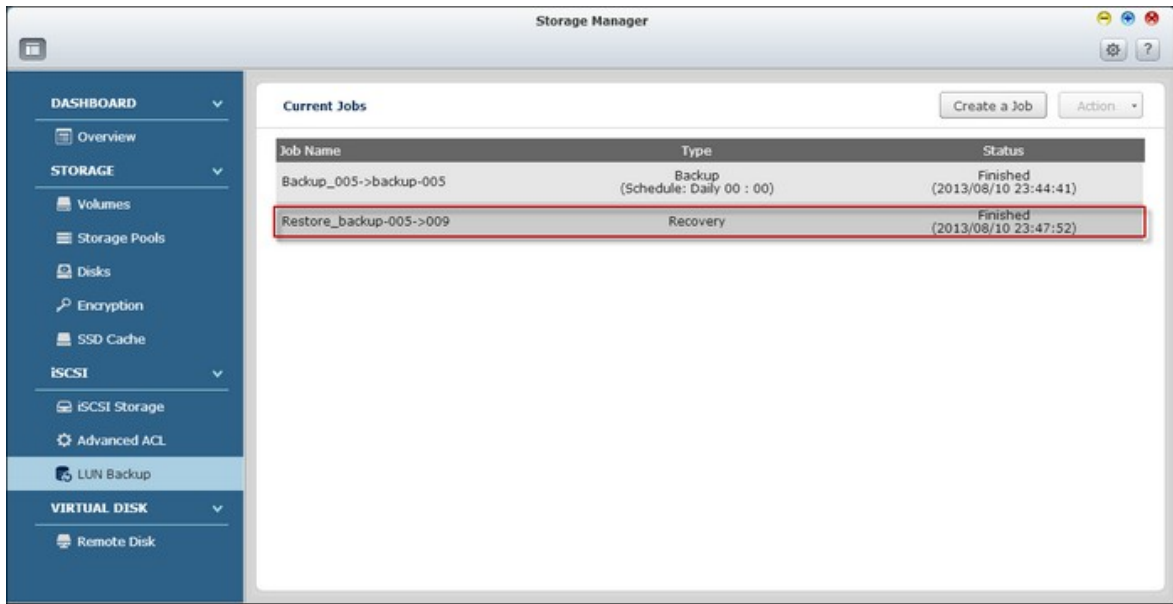
NAS

Next(



7. Finish()”





가 ("Action()")

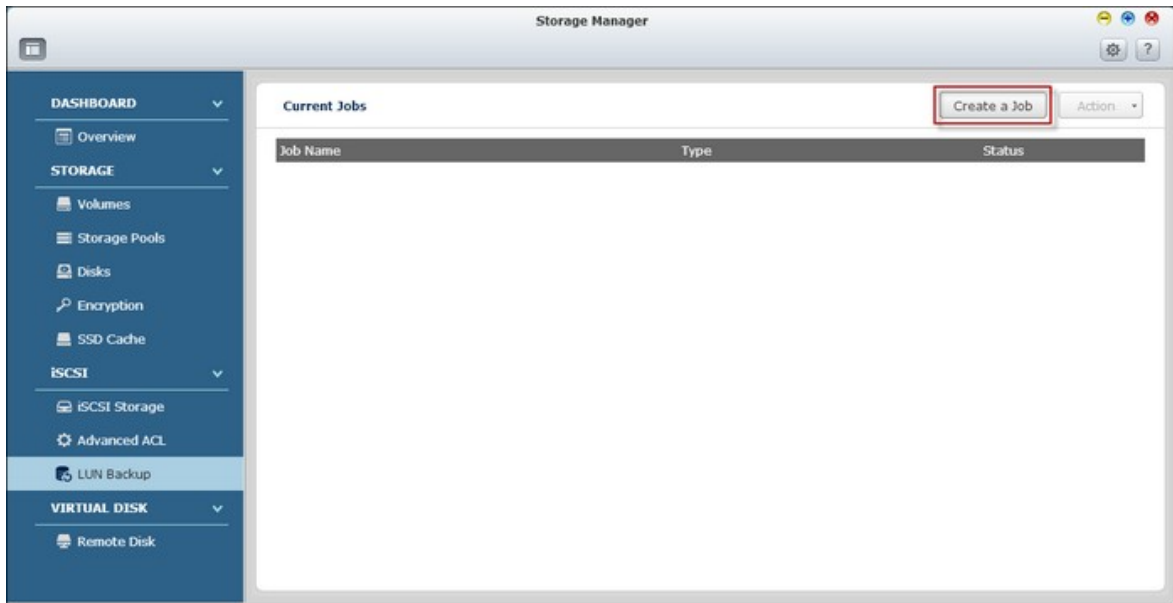
Edit()	
Delete()	
Start()	
Stop()	
View Logs ()	

iSCSI LUN

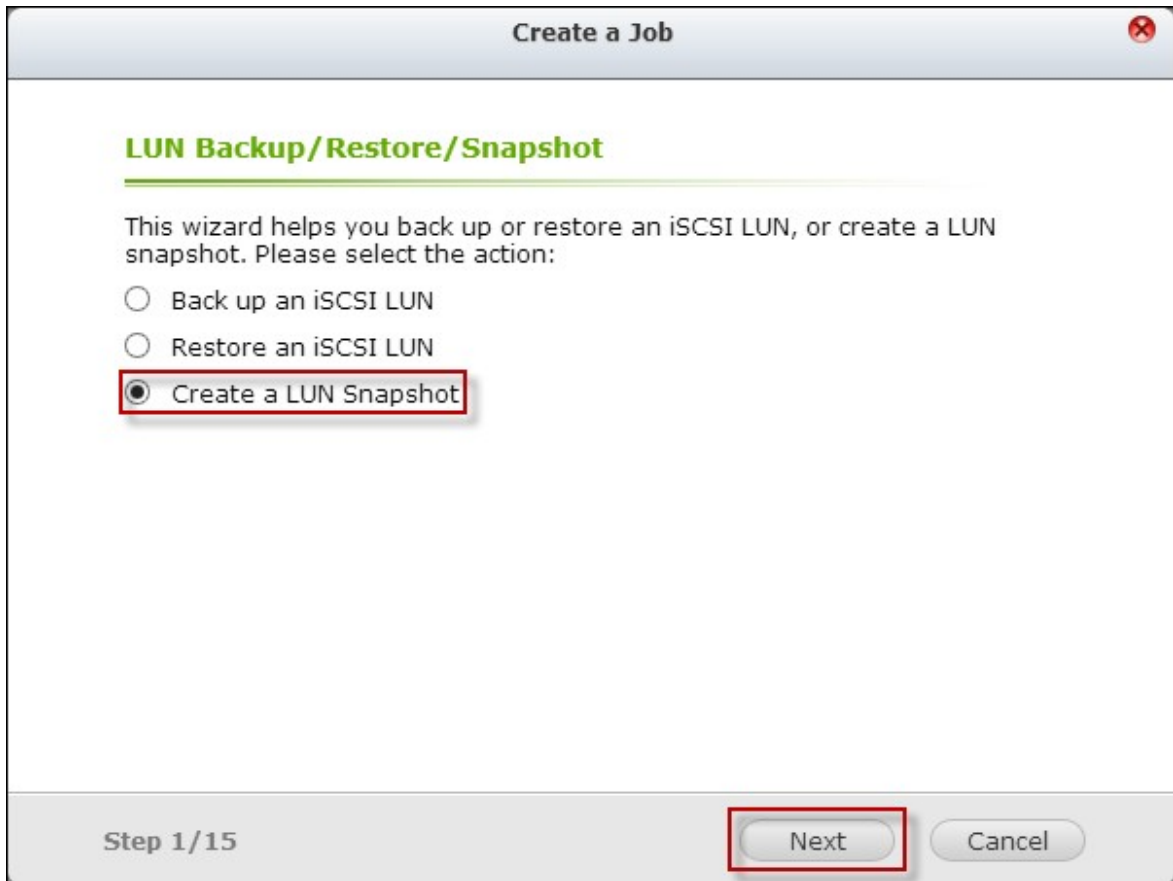
LUN NAS iSCSI LUN

iSCSI LUN NAS iSCSI LUN iSCSI가
 . iSCSI LUN

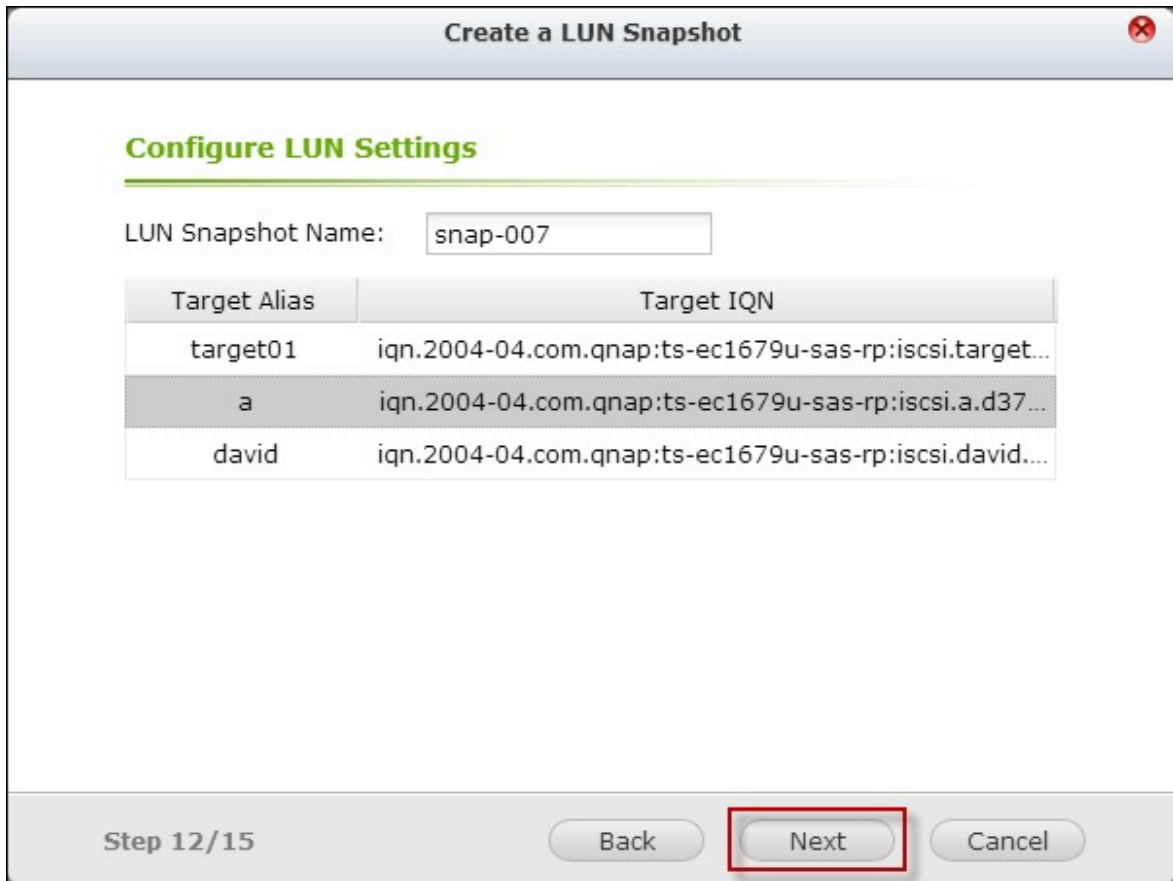
1. "Storage Manager()"> "LUN Backup(LUN)" . "Create a job()"



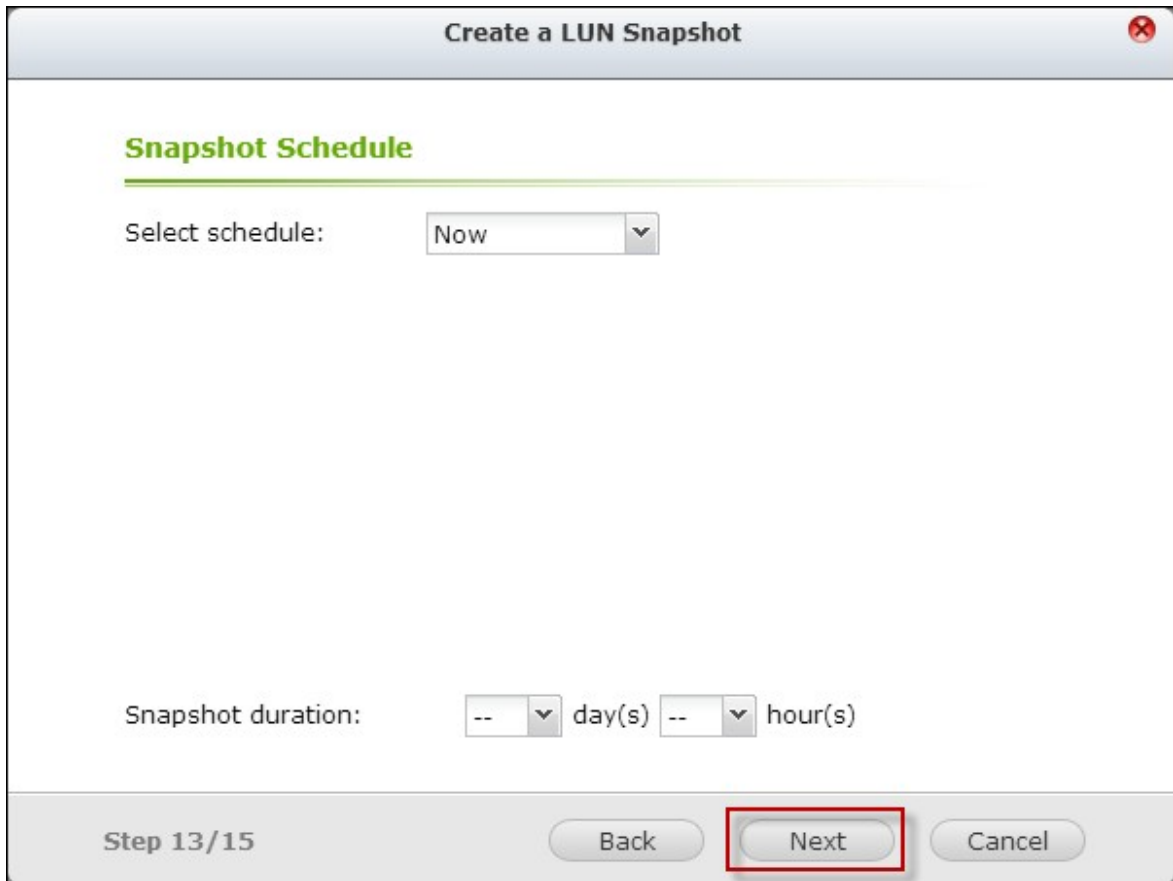
2. "Create a LUN Snapshot(LUN)" "Next()"



3. NAS iSCSI LUN "Next()" . iSCSI LUN



5. . Next()”



6.

)”

NAS

. Next(

Create a LUN Snapshot ✖

Confirm Settings

Job Name:

Source LUN: 007

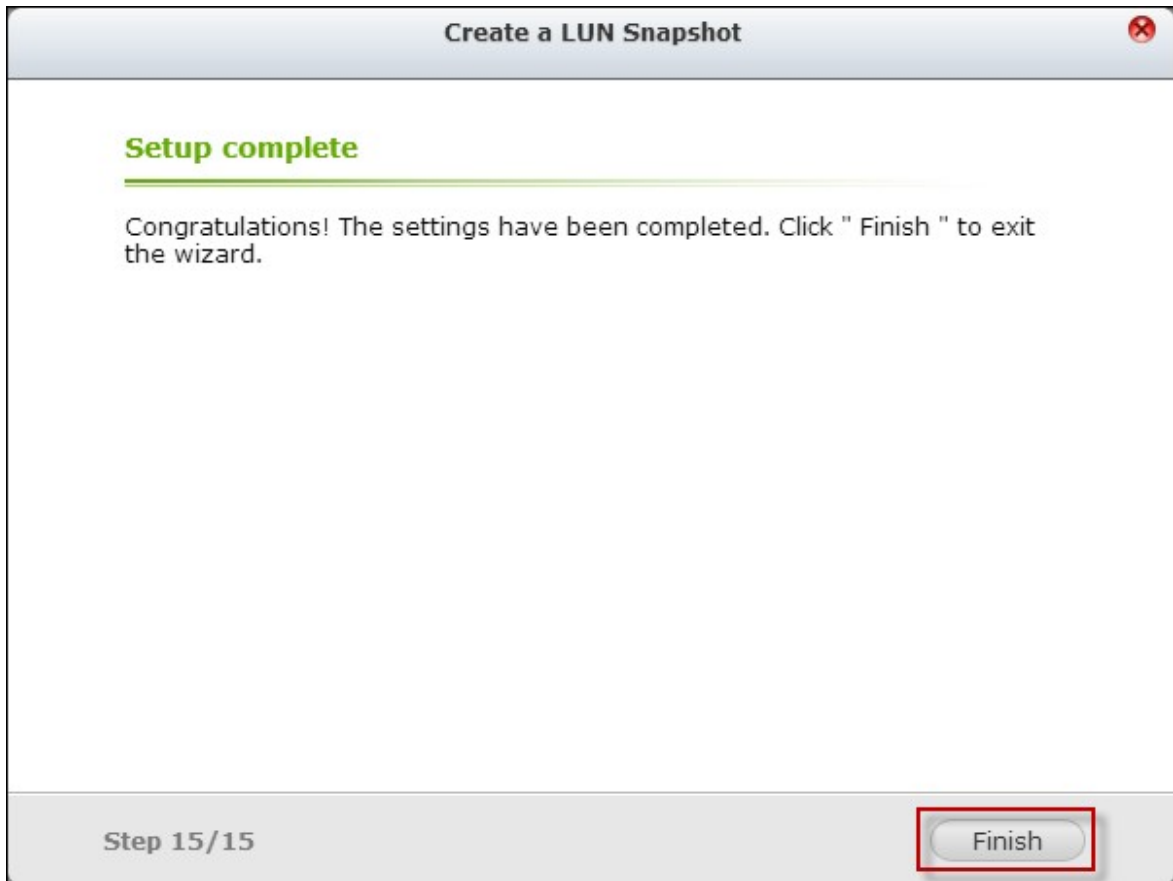
LUN Snapshot Name: snap-007

Map LUN to Target: a
iqn.2004-04.com.qnap:ts-ec1679u-sas-
rp:iscsi.a.d371d0

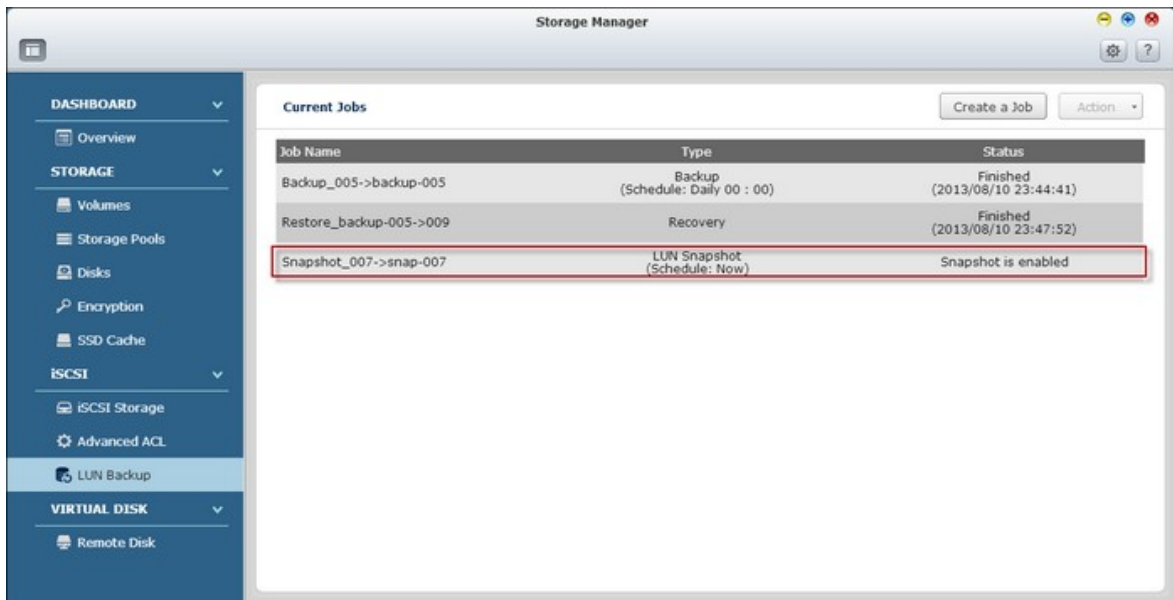
Schedule: Now

Step 14/15 Back Next Cancel

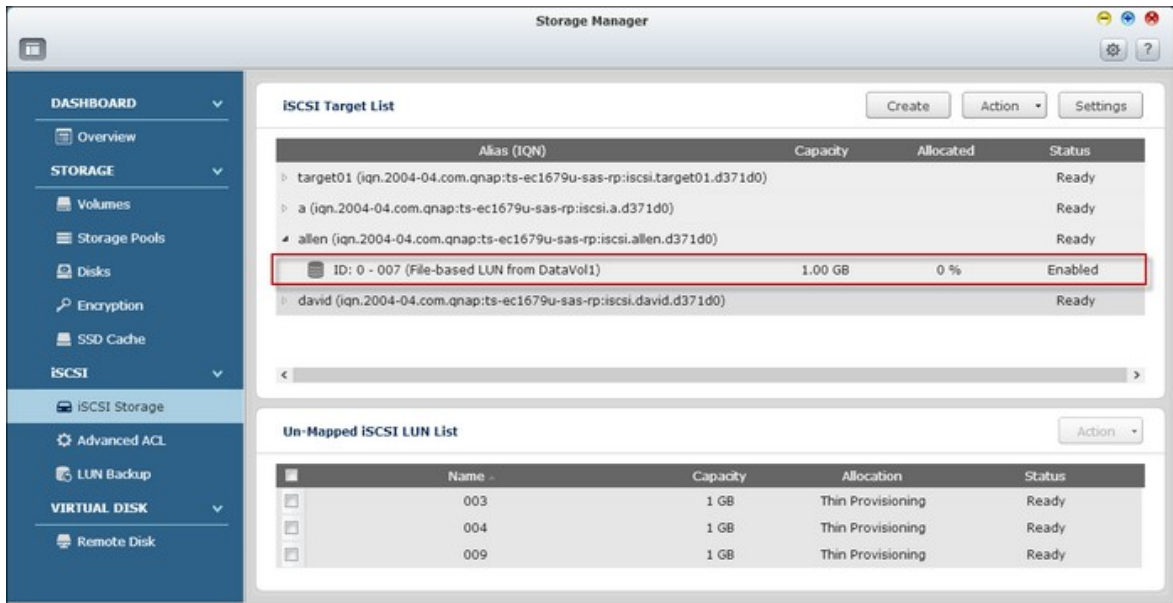
7. Finish()”



8.



9. 'Storage Manager() "> iSCSI Storage(iSCSI)"
 LUN iSCSI . iSCSI iSCSI
 LUN



: Windows 7 NAS	Windows 2008 R2 .	LUN	NAS	LUN	LUN .
--------------------	----------------------	-----	-----	-----	----------

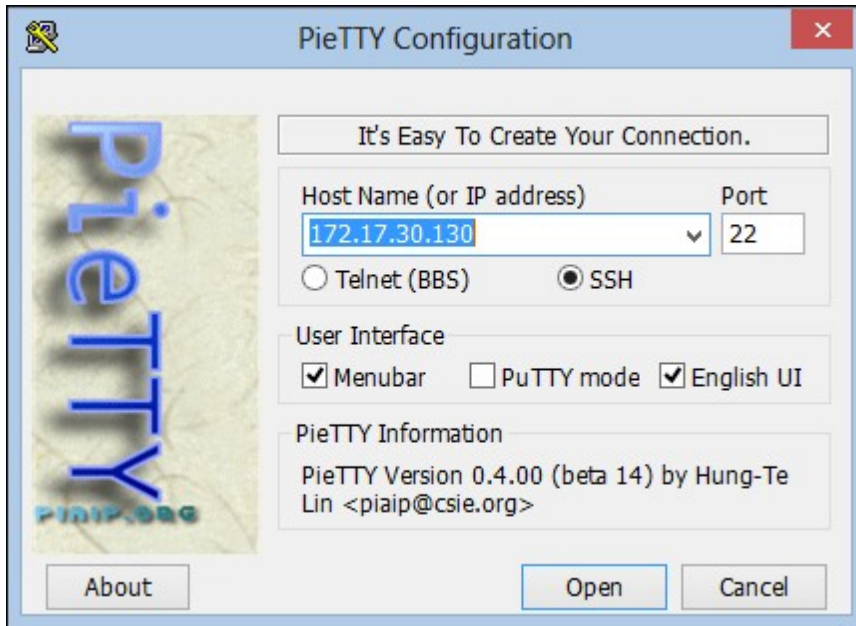
LUN

QNAP NAS

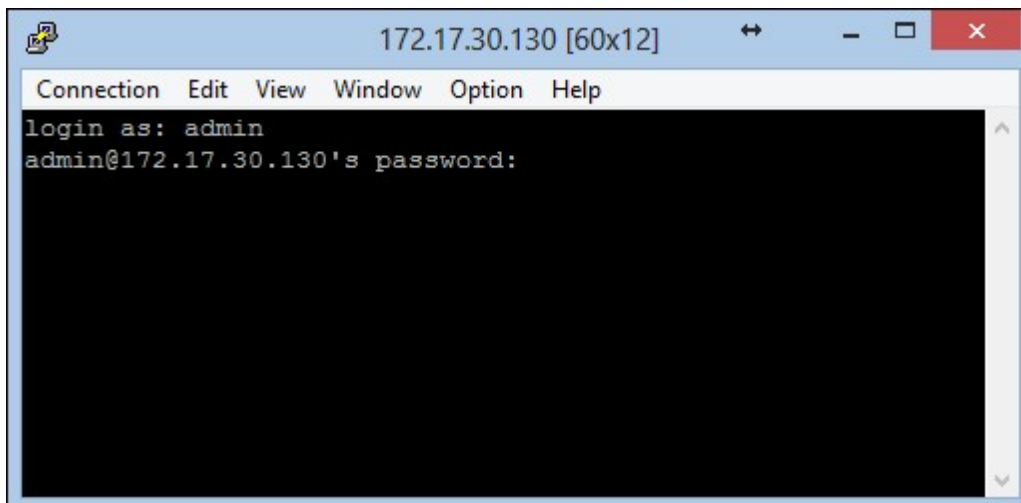
NAS iSCSI LUN

1. iSCSI LUN , Storage Manager()"> LUN
Backup(LUN)" NAS

2. Piety SSH NAS



3. NAS



4. funbackup "

```
172.17.30.130 [60x12]
Connection Edit View Window Option Help
[~] # lunbackup
Usage:
    lunbackup -j[ob] JOB_NAME -status
    lunbackup -j[ob] JOB_NAME -start
    lunbackup -j[ob] JOB_NAME -stop
[~] #
```

5. lunbackup NAS iSCSI LUN ,

```
172.17.30.130 [60x12]
Connection Edit View Window Option Help
[~] # lunbackup -j 'Snapshot_LUN_0->snap-LUN_0' -start
Snapshot is now enabled.
[~] #
```

: IT 가 .

4.2.4 가

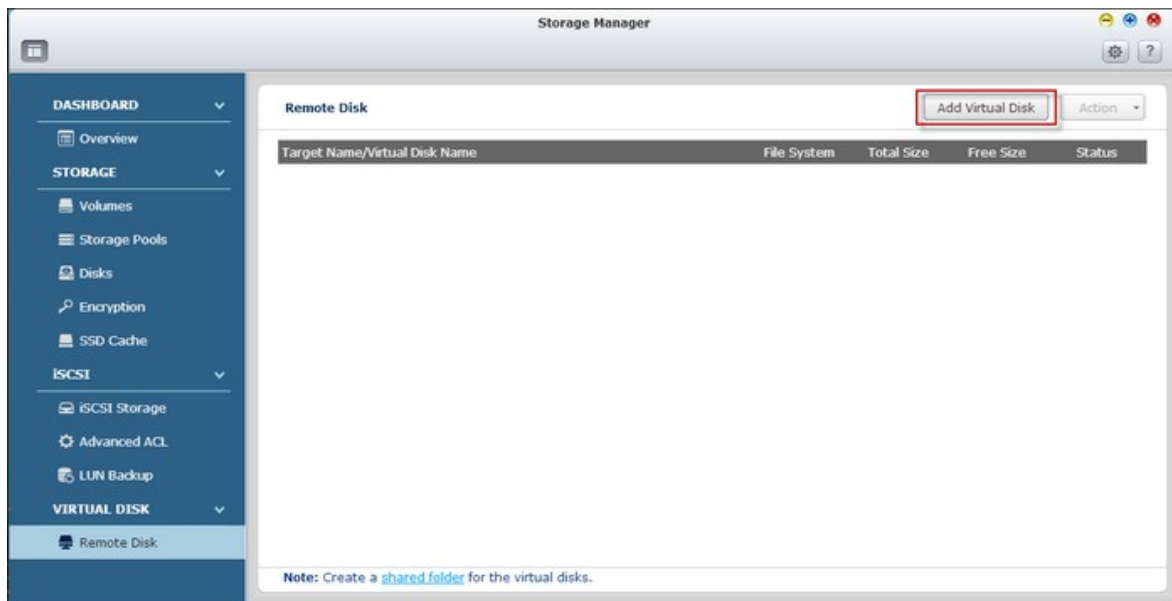
iSCSI 가 (VD) . VD
turbo NAS

: Ext3, Ext4, FAT, NTFS HFS+.
: Ext3, Ext4, FAT, NTFS HFS+.

• NAS 가 16TB
 • 가 (iSCSI) 가 가 UI NAS가 2
 Disconnected()”
 • 가
 • 가 QNAP

NAS 가 가

1. iSCSI . 'Add Virtual Disk(가 가) ”



2. IP (: 3260). 'Get Remote Disk()”

Data Digest()” / Header Digest()” ()
). iSCSI 가 iSCSI 가
 Next()”

Add Virtual Disk

Target Server IP/Name:

Port:

Target Name: ▼

Initiator IQN:

Authentication CRC/Checksum (optional)

Username: Data Digest

Password: Header Digest

Step 1/3

3. 가 . NAS LUN . LUN . NAS EXT3, EXT4, FAT32, NTFS, HFS+ LUN
 virtual disk now(가)” Unknown()” Format
 EXT3, EXT4, FAT 32, NTFS HFS+ . 가
 가)” LUN 가 . Format virtual disk now(Next()”

Add Virtual Disk

Virtual Disk Name:

LUN List: File System: Unknown

Note: Make sure only this NAS can connect to the selected LUN.

Format virtual disk now

File System:

Warning: All the disk data will be removed!

Step 2/3 Back **Next** Cancel

4. Finish()”

Add Virtual Disk

A virtual disk has been created successfully.

Virtual Disk Name: VirtualDisk1

File System: EXT3

Total Size: 1023 MB

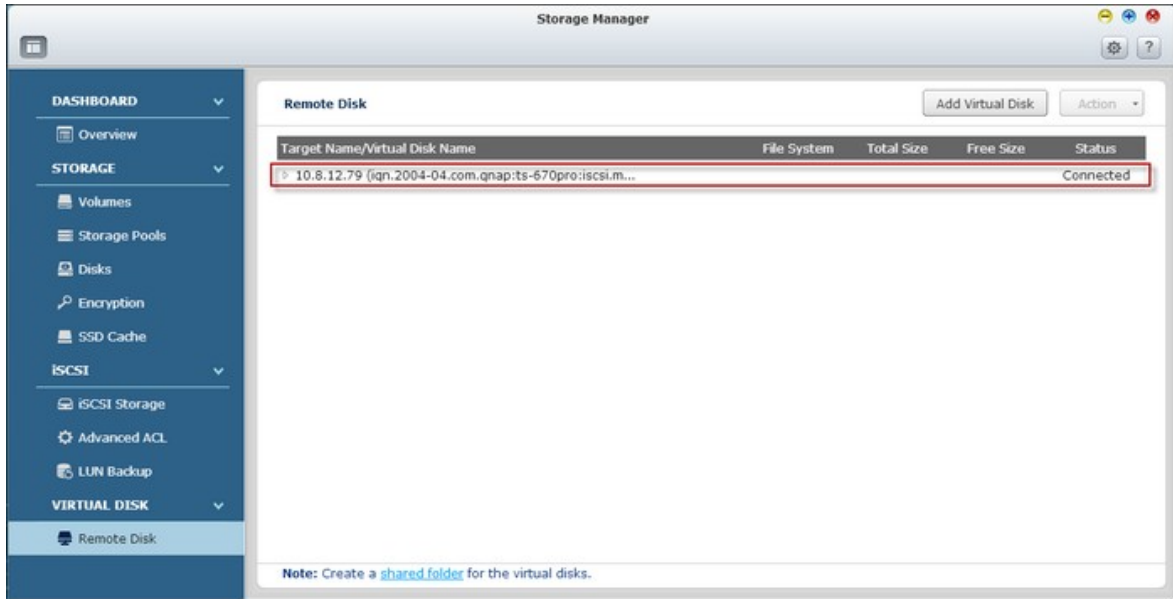
Free Size: 978 MB

Status: Ready

LUN serial number: 04257fcf-4423-4dda-b803-3b3010ca5599

Step 3/3 **Finish**

5. NAS 가 . Privilege Settings()"> Share Folders()” 가 .



가 가 ("Action()")

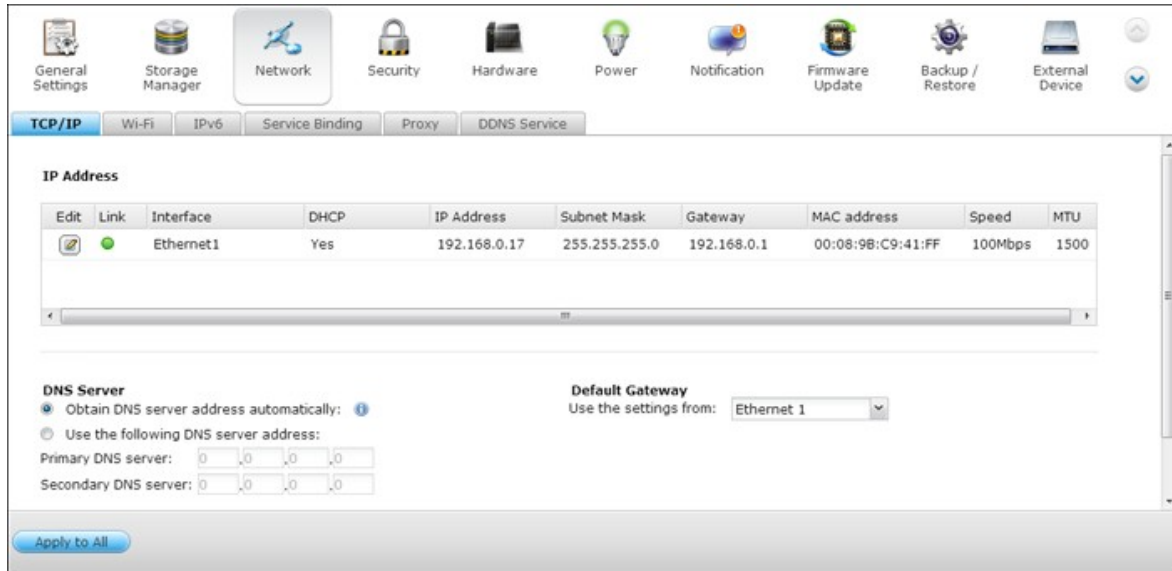
Edit()	iSCSI 가
Connect()	iSCSI
Disconnect ()	iSCSI
Format()	가 EXT3, EXT 4, FAT 32, NTFS HFS+
Delete()	가 iSCSI

4.3

TCP/IP

(i) IP

NAS TCP/IP , DNS

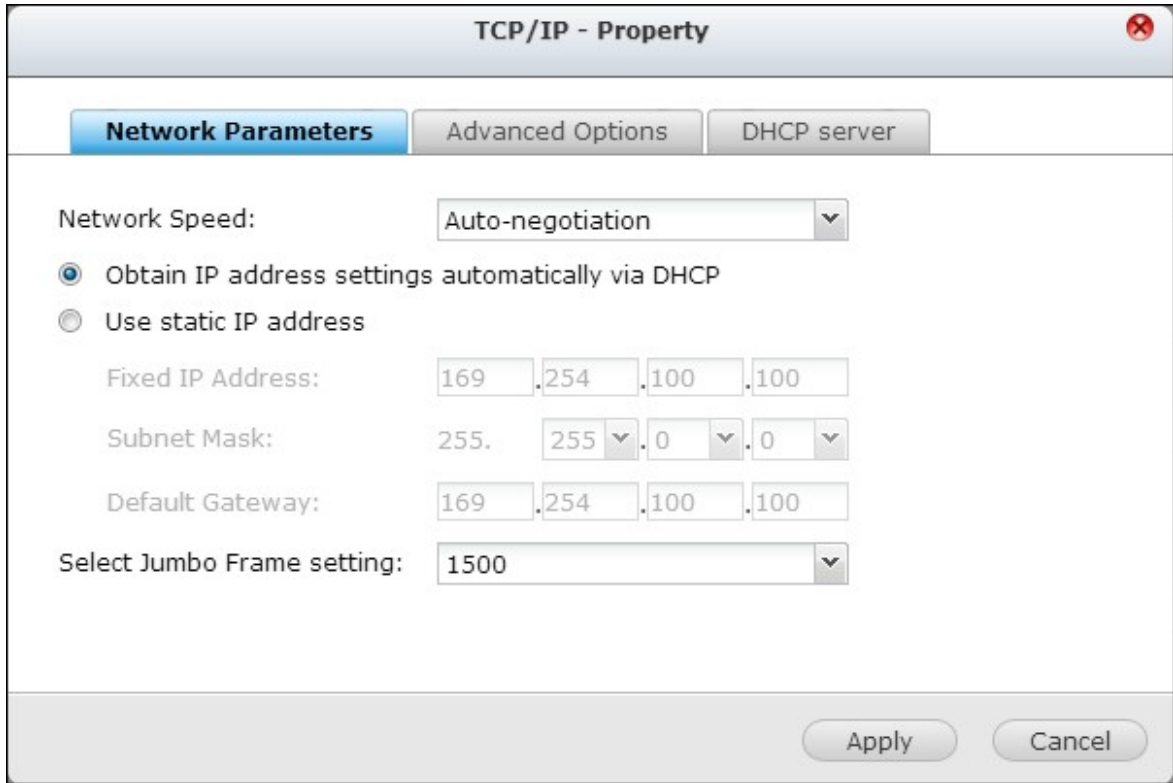


LAN NAS , NAS
 TCP/IP . NAS
 IP IP
 * . Finder NAS IP , 1 IP LAN 1 2
 IP LAN 2 . LAN (iii)

* TS- 110, TS- 119, TS- 210, TS- 219, TS- 219P, TS- 119P+, TS- 219P+, TS- 112, TS- 212
 가 LAN LAN

Edit	Link	Interface	DHCP	IP Address	Subnet Mask	Gateway	MAC address	Speed	MTU
		Ethernet1	Yes	192.168.0.17	255.255.255.0	192.168.0.1	00:08:9B:C9:41:FF	100Mbps	1500

TCP/IP



NAS가

NAS가

DHCP

IP

가 DHCP

NAS IP

IP

IP

IP

(MTU)

TS-509 Pro, TS-809 Pro TS-809U-RP

“Jumbo Frames()” 1,500
가

CPU

(MTU)

가

(:)

NAS

1,500

가

MTU

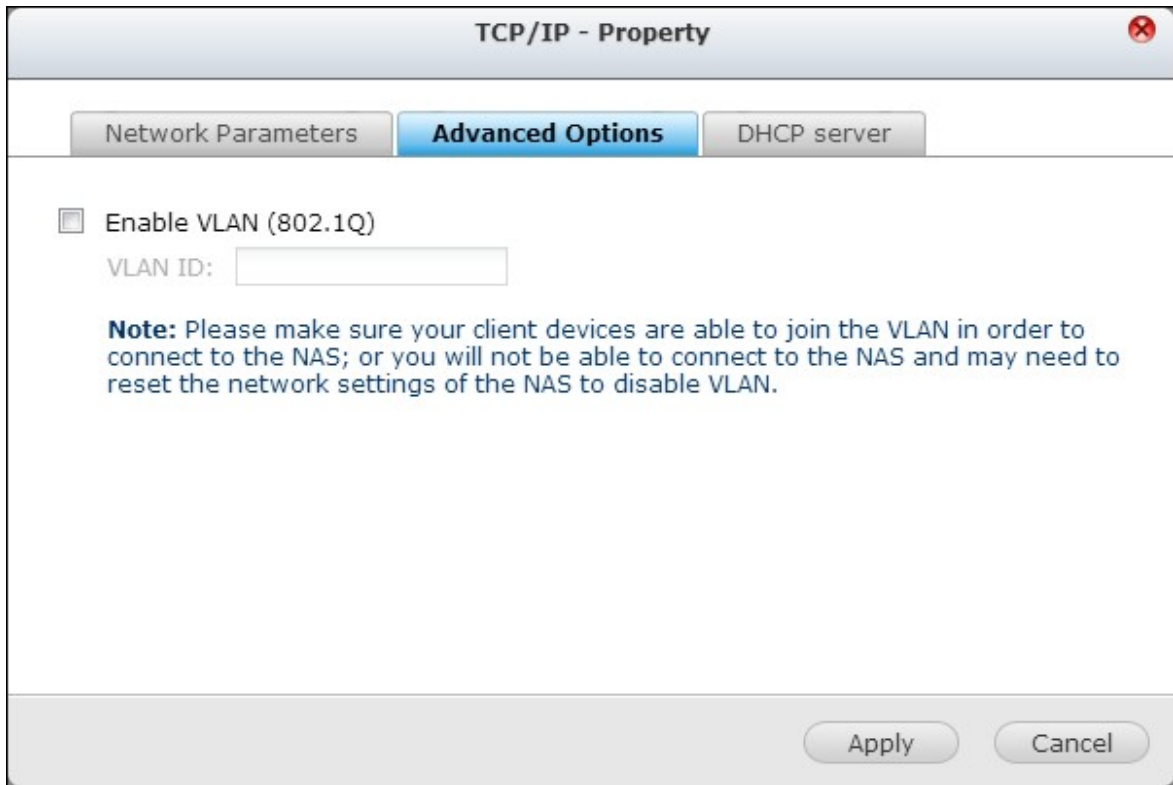
. NAS MTU 4,074,

7,418 9,000

: 가 MTU

Virtual LAN (VLAN)

. NAS VLAN NAS VLAN
"Enable VLAN(VLAN)" VLAN ID (0 4,094)
. VLAN ID 가 VLAN
. VLAN ID NAS NAS
. NAS가 VLAN . NAS가 2
LAN VLAN 가
NAS



:VLAN Intel NAS
<http://www.qnap.com>

DHCP

DHCP () IP
 NAS가 가 "Enable DHCP Server (DHCP)"
 NAS DHCP

- 가 IP DHCP
- DHCP LAN NAS LAN
 IP Ethernet 1

IP, IP, : NAS가 DHCP IP
 IP가 IP

WINS (): WINS (Windows Internet Naming Service) Windows
 (NetBIOS names) IP Windows
 가 WINS IP

DNS (): DNS

TFTP (): NAS PXE TFTP
 (TFTP) IP , TFTP
 IP

TCP/IP - Property

Network Parameters | Advanced Options | **DHCP server**

Enable DHCP Server

Start IP address: 192 . 168 . 1 . 100

End IP address: 192 . 168 . 1 . 200

Lease Time : 1 day 0 Hour

WINS Server: 0 . 0 . 0 . 0

DNS Suffix :

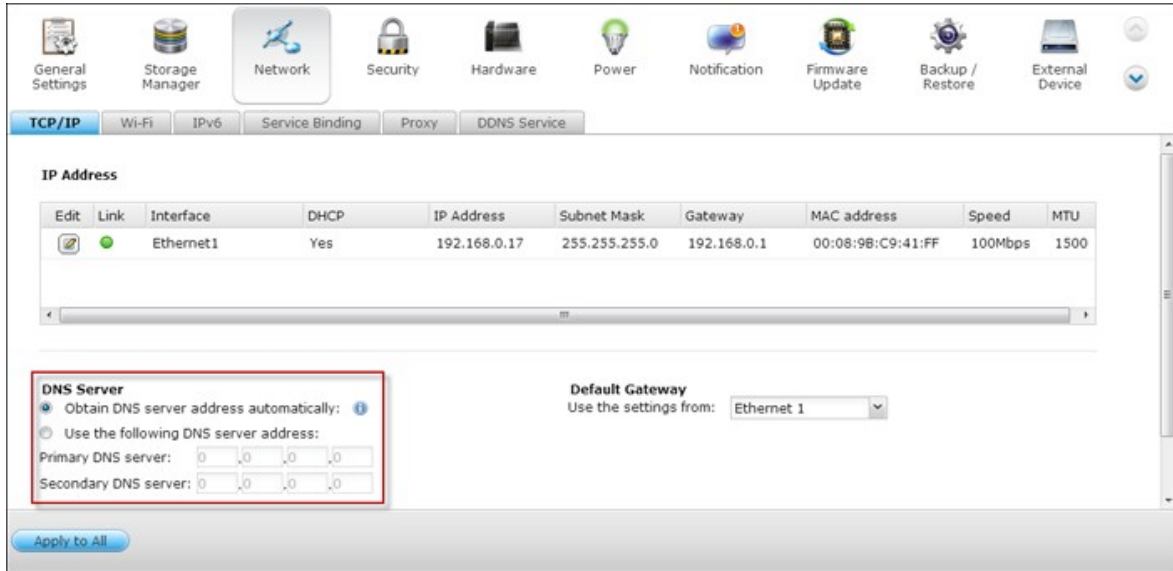
TFTP Server: 0 . 0 . 0 . 0

Boot File:

Apply Cancel

(ii) DNS

DNS() (: google.com) IP (74.125.31.105)
 . DNS NAS DNS IP



- 1 DNS : 1 DNS IP .
- 2 DNS : 2 DNS IP .

• ISP 1 2 DNS IP .
 NAS가 BT ,
 URL 1 DNS IP ,

• DHCP IP 가 , 1 2 DNS 가 .
 "0.0.0.0"

(iii)

LAN
)

(LAN NAS

The screenshot shows a network configuration window with a top navigation bar containing icons for General Settings, Storage Manager, Network (selected), Security, Hardware, Power, Notification, Firmware Update, Backup / Restore, and External Device. Below the navigation bar are tabs for TCP/IP (selected), Wi-Fi, IPv6, Service Binding, Proxy, and DDNS Service.

The main content area is titled "IP Address" and contains a table with the following data:

Edit	Link	Interface	DHCP	IP Address	Subnet Mask	Gateway	MAC address	Speed	MTU
		Ethernet1	Yes	192.168.0.17	255.255.255.0	192.168.0.1	00:08:9B:C9:41:FF	100Mbps	1500

Below the table is a "DNS Server" section with two radio buttons: "Obtain DNS server address automatically" (selected) and "Use the following DNS server address". The latter has input fields for Primary and Secondary DNS servers, both set to 0.0.0.0.

A red box highlights the "Default Gateway" section, which includes the text "Use the settings from:" followed by a dropdown menu currently showing "Ethernet 1".

At the bottom left of the window is a blue "Apply to All" button.

(iv)

2 LAN 가 NAS

NAS

()

()가 ()가

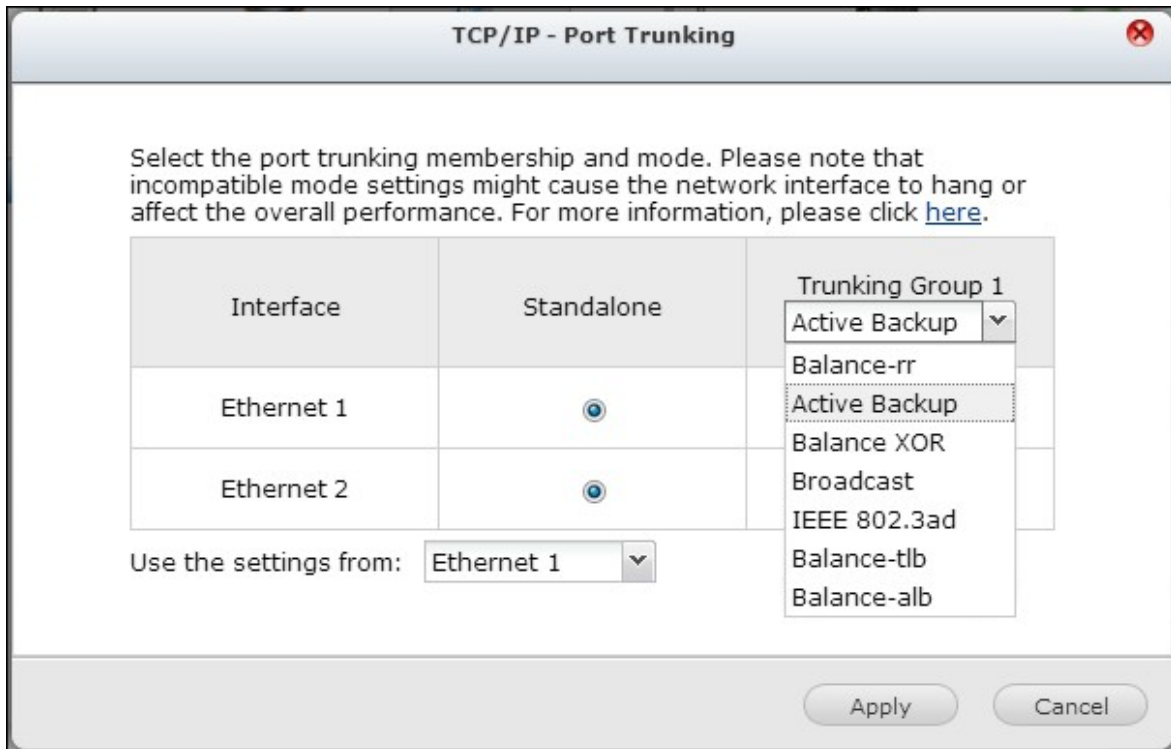
NAS 2 LAN 가 NAS가 (i) (ii)

NAS

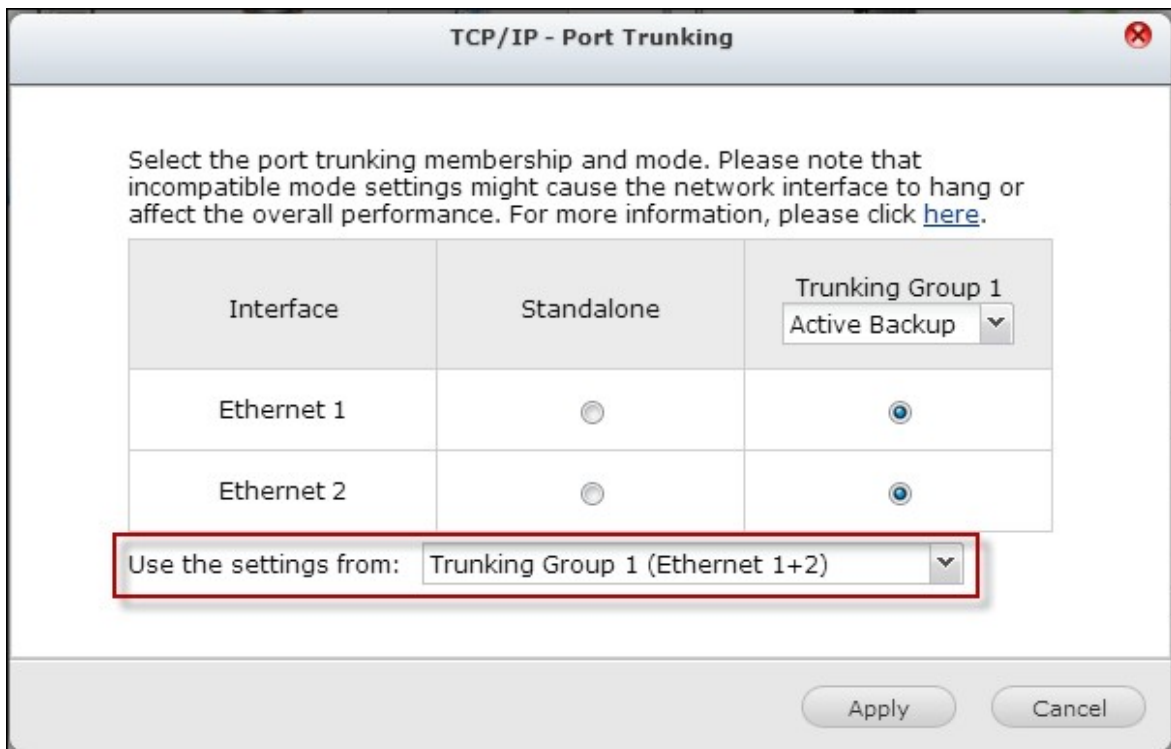
1. Port Trunking()”



2. (1+2, 3+4, 5+6, 7+8).



3. . 'Apply()' .



4. here()” .

General Settings Storage Manager **Network** Security Hardware Power Notification Firmware Update

TCP/IP Settings

The TCP/IP settings are being configured. Please wait and use the following link to connect to the server. If you cannot connect to the server, please use the Finder to find the new IP of the server.

Configuration completed. Click [here](#) to connect to the login page.

5. "IP Address(IP)" Edit()

TCP/IP Wi-Fi IPv6 Service Binding Proxy DDNS Service

IP Address

Edit	Link	Interface	DHCP	IP Address	Subnet Mask	Gateway	MAC address	Speed	MTU
<input checked="" type="checkbox"/>	●	Ethernet 1+2	Yes	10.8.12.153	255.255.254.0	10.8.12.1	00:08:9B:CF:05:9E	100Mbps	1500

Port Trunking

가 NAS

NAS

Balance-rr (Round-Robin) (- rr())	Round-Robin() 가 Balance-rr(- rr)	
Active Backup ()	Active Backup() 가 MAC 가 () Active Backup()	
Balance XOR (XOR)	Balance XOR(XOR) 가 MAC 가 MAC 2 xmit_hash_policy Balance XOR(XOR)	

Broadcast()	Broadcast()	
IEEE 802.3ad (Dynamic Link Aggregation)()	802.3ad . Dynamic Link Aggregation() LACP 가 IEEE 802.3ad	802.3ad LACP
Balance-tlb (Adaptive Transmit Load Balancing)(-tlb())	Balance-tlb (-tlb) () 가 가 MAC 가 . Balance-tlb(-tlb)	
Balance-alb (Adaptive Load Balancing)(-alb())	Balance-alb (-alb) Balance-tlb(-tlb) IPV4 (). 가 , Balance-alb(-alb)	ARP

Wi-Fi

NAS Wi-Fi

NAS USB

NAS가

. NAS Wi-Fi

가 가

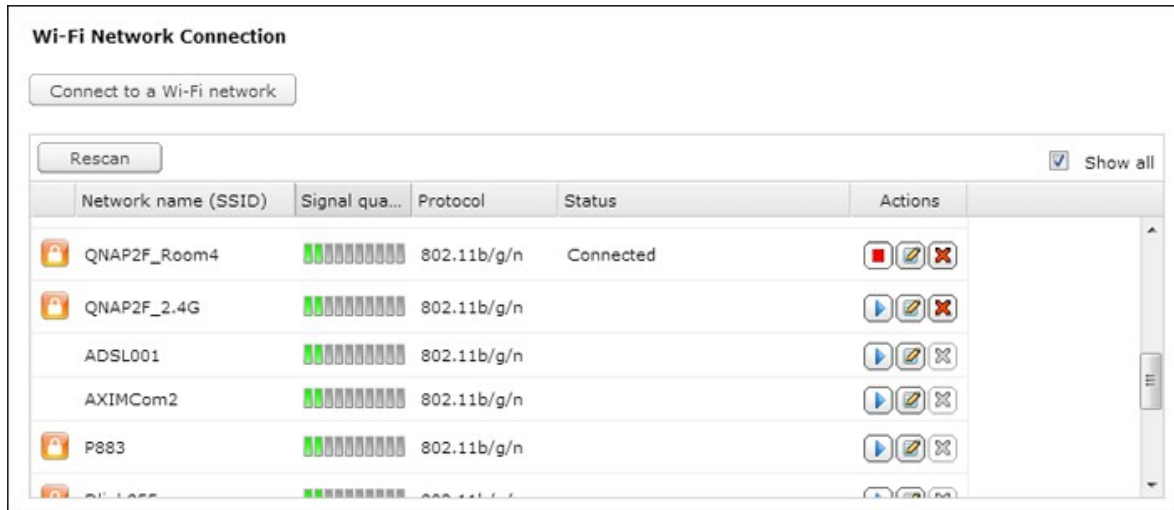
- , USB
- USB Wi-Fi

A. Wi-Fi

"Wi-Fi Network Connection(Wi-Fi

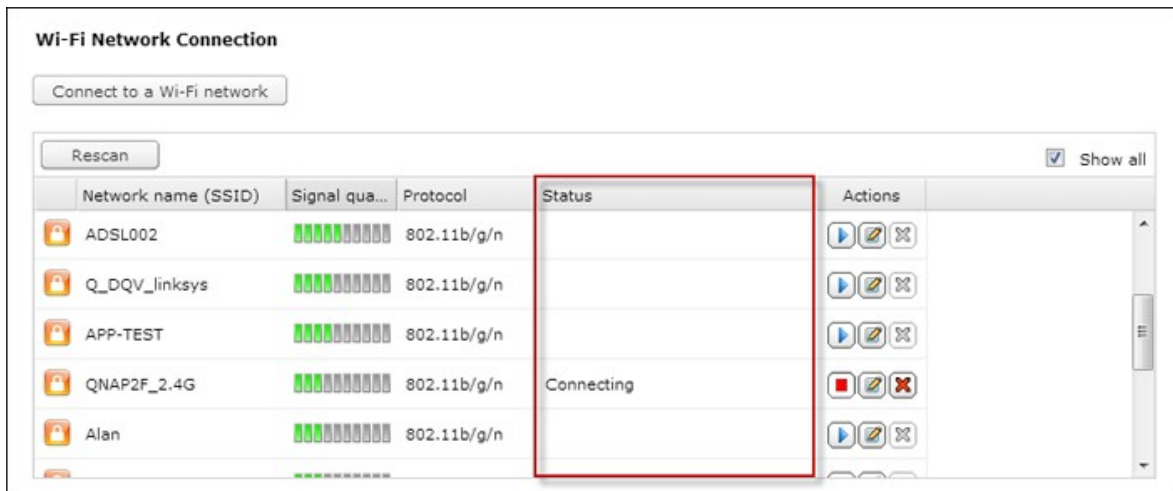
)"

Wi-Fi



	Wi-Fi
()	Wi-Fi ;
()	Wi-Fi 가
()	Wi-Fi
()	Wi-Fi
()	Wi-Fi
	Wi-Fi

"Rescan()" Wi-Fi . Wi-Fi
 NAS 가 . "NEXT()"



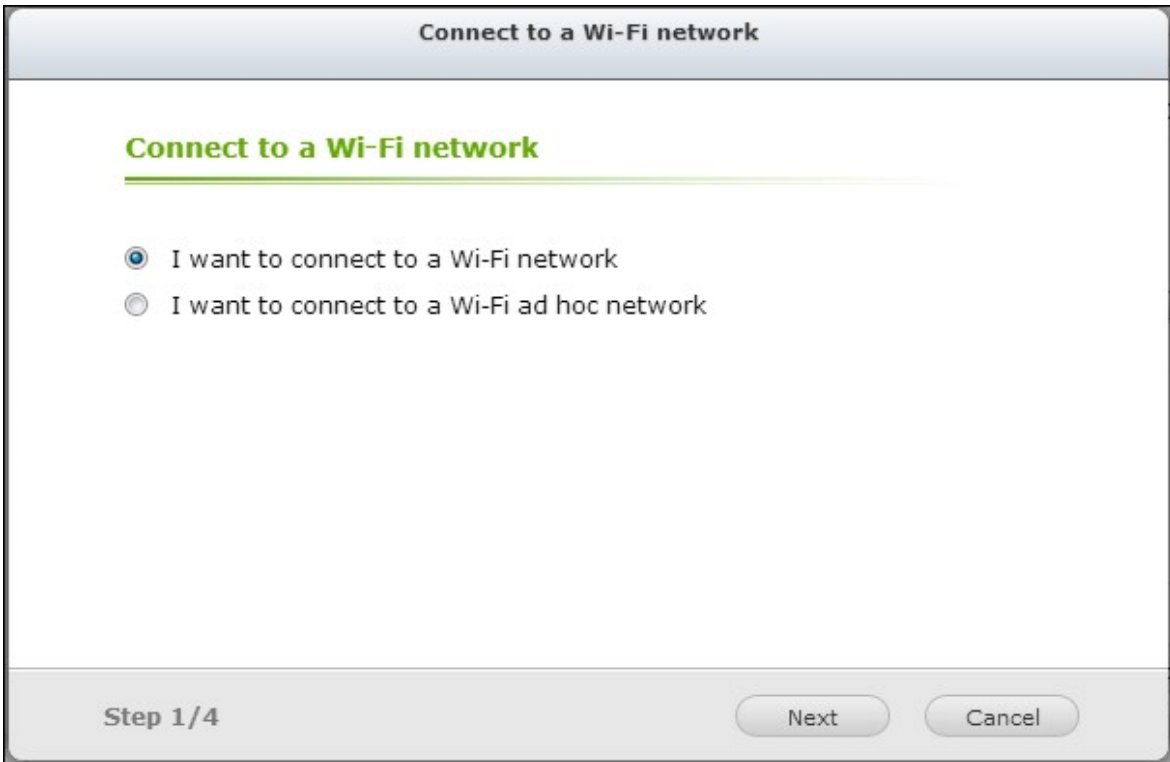
	NAS가 Wi-Fi
	NAS Wi-Fi
SSID	가 SSID가 가

IP	NAS가 Wi-Fi	DHCP	IP
	NAS가 Wi-Fi		
	가		
	Wi-Fi	Wi-Fi	SSID가

B. **Wi-Fi** : SSID()가 Wi-Fi "CONNECT TO A WIRELESS NETWORK(Wi-Fi)"



ad hoc



- (SSID) security type()
- No authentication (Open)(()): 가
 - WEP(): 4 WEP 1
 - WPA- Personal (WPA-): AES TKIP
 - WPA2- Personal (WPA2-):

Connect to a Wi-Fi network

Wi-Fi Network Property

Network name:

Security type: ▼

Connect automatically with this network

- No authentication (Open)
- WEP
- WPA-Personal
- WPA2-Personal

Step 2/4 Back Next Cancel

- WEP 5 13 ASCII 10 26 (0-9 A-F)
- 가 /AP "N-only (N-
- WPA2 Windows 7 NAS ad-hoc
- Windows 7 WEP
- ad-hoc IP

Connect to a Wi-Fi network

Wi-Fi Network Property

Network name:

Security type:

Encryption type: AES

Security Key:

Connect automatically when the Wi-Fi network is in range

Step 2/4 Back Next Cancel

NAS Wi-Fi

"FINISH()"

Connect to a Wi-Fi network

Wi-Fi Network Property

The system is trying to connect to a Wi-Fi network.
Click **FINISH** to exit.

Step 4/4 Finish

IP



. DHCP

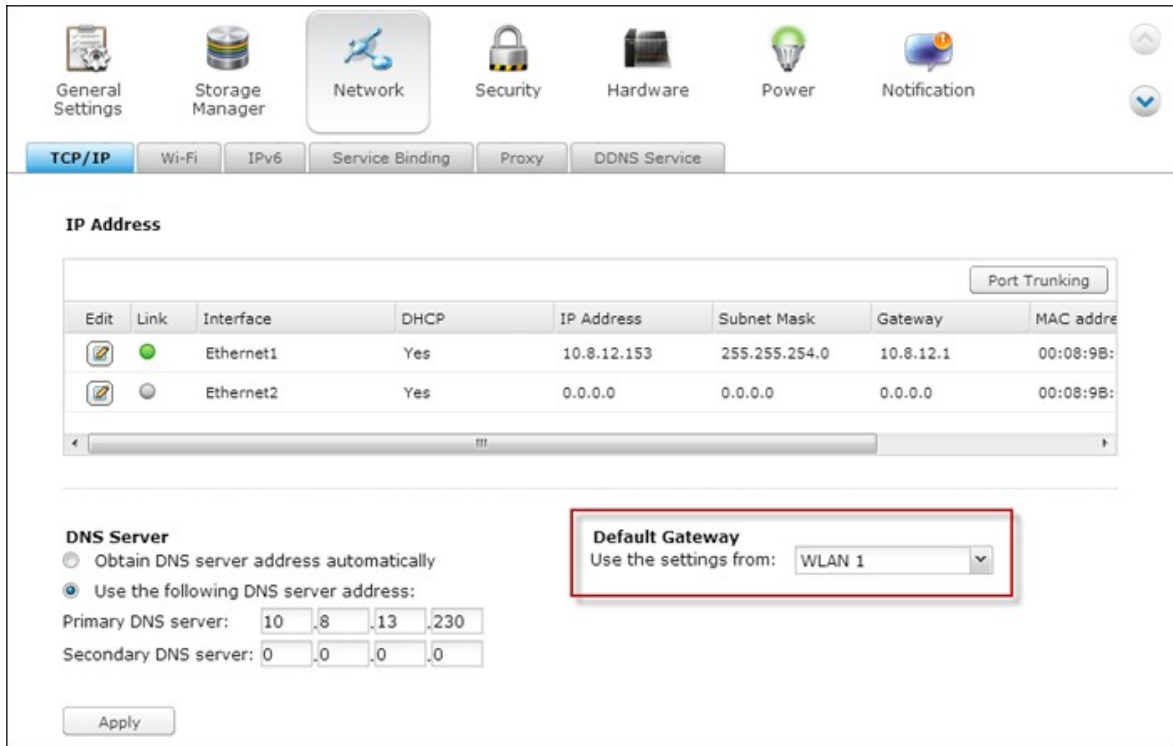
IP

IP



Wi-Fi NAS / AP "Network()" > "TCP/IP" "WLAN1"

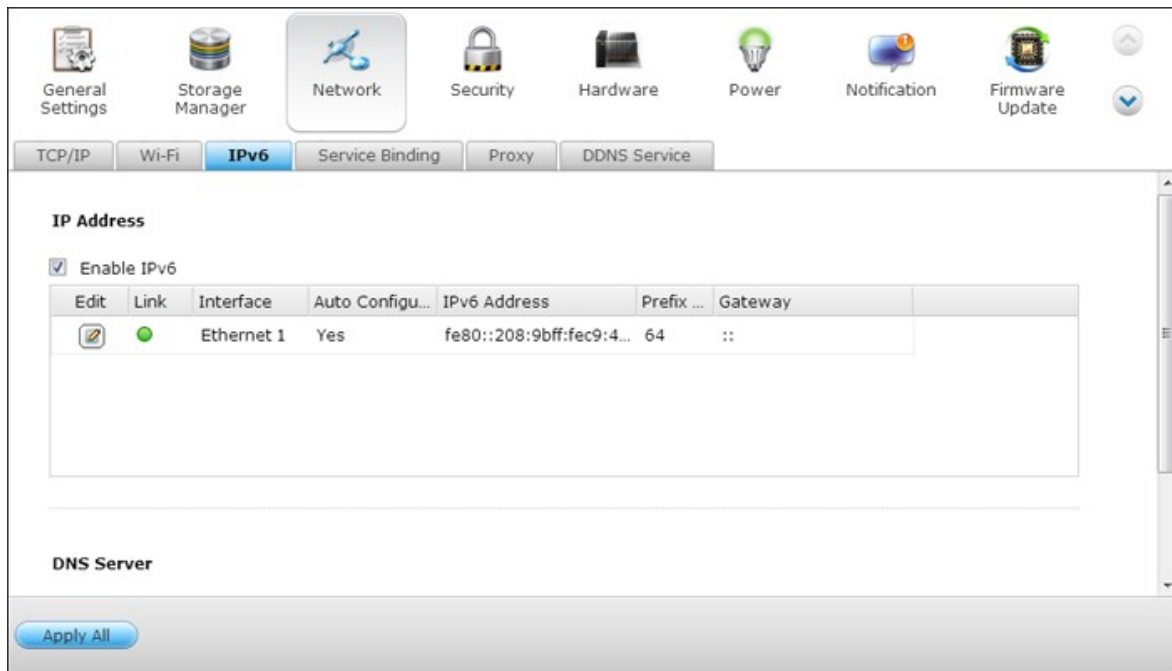
NAS가



IPv6

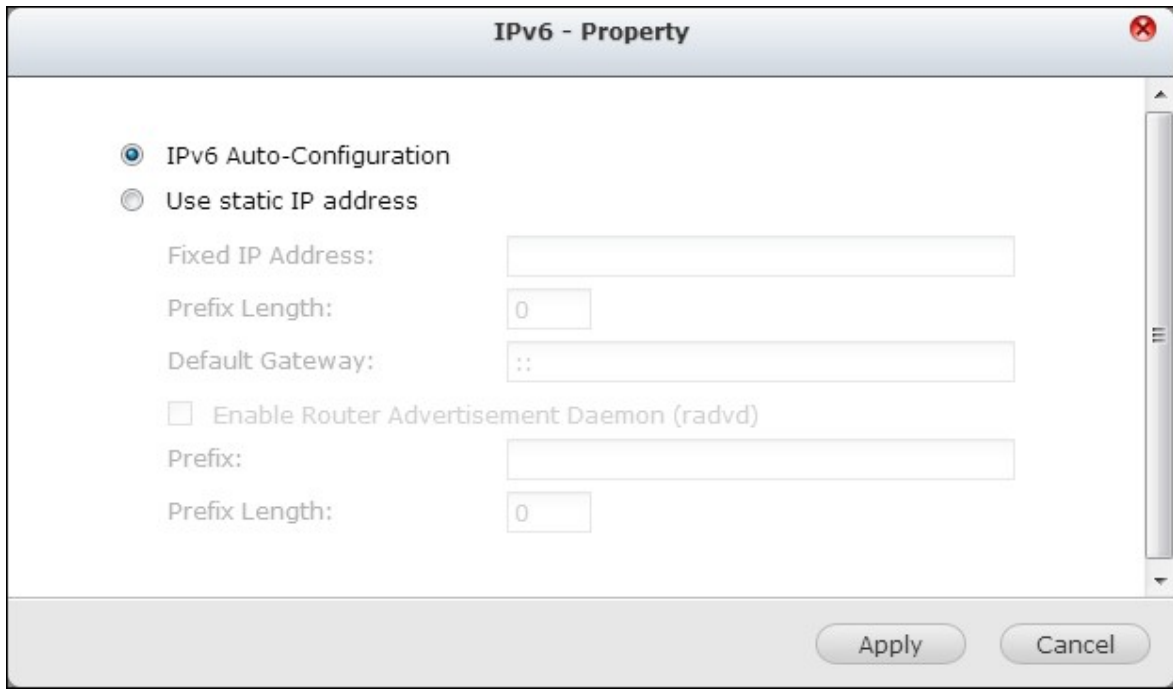
NAS " " IPv6, RFC 2461 RADVD() IPv6
 가 IPv6 NAS 가 . IPv6 NAS

- Remote replication
-
- FTP
- iSCSI (가)
- SSH (putty)



"IPv6 " "Apply()" . NAS가
 IPv6 . IPv6





IPv6

가 IPv6 가 , NAS가 IPv6 가 .

IP

IP IP (: 2001:bc95:1234:5678), (: 64), NAS .
 • (radvd) : NAS IPv6 ISP IPv6 IPv6 .

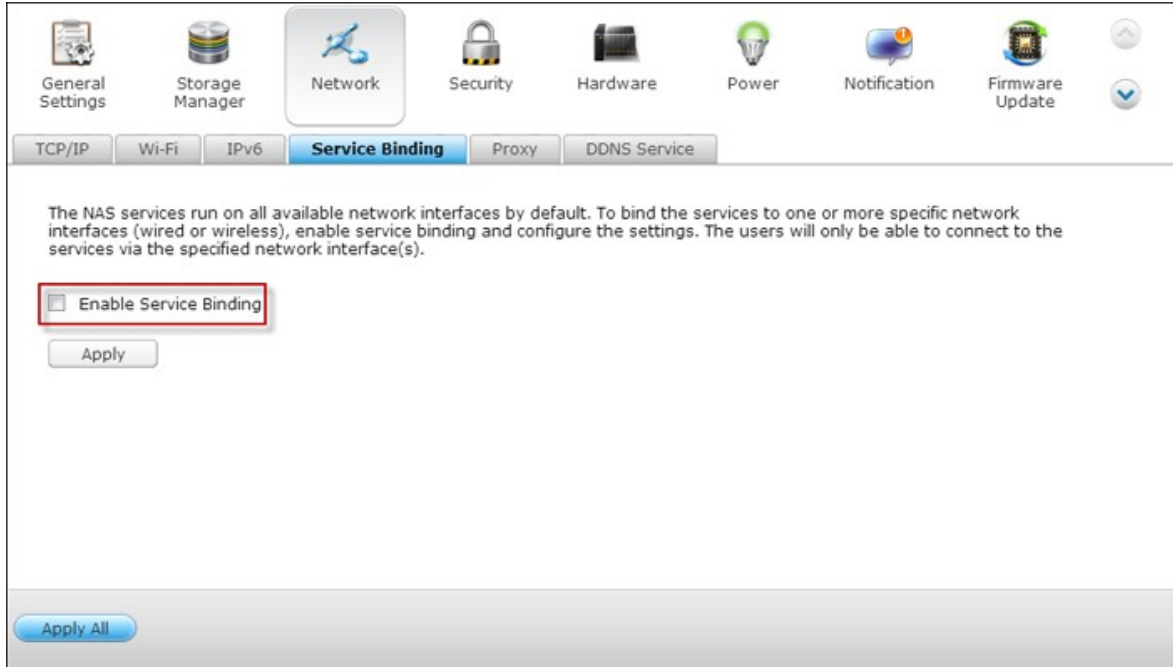
IPv6 DNS

DNS DNS .
 ISP . IPv6
 "..."

NAS

가

()



: ()가 NAS

NAS

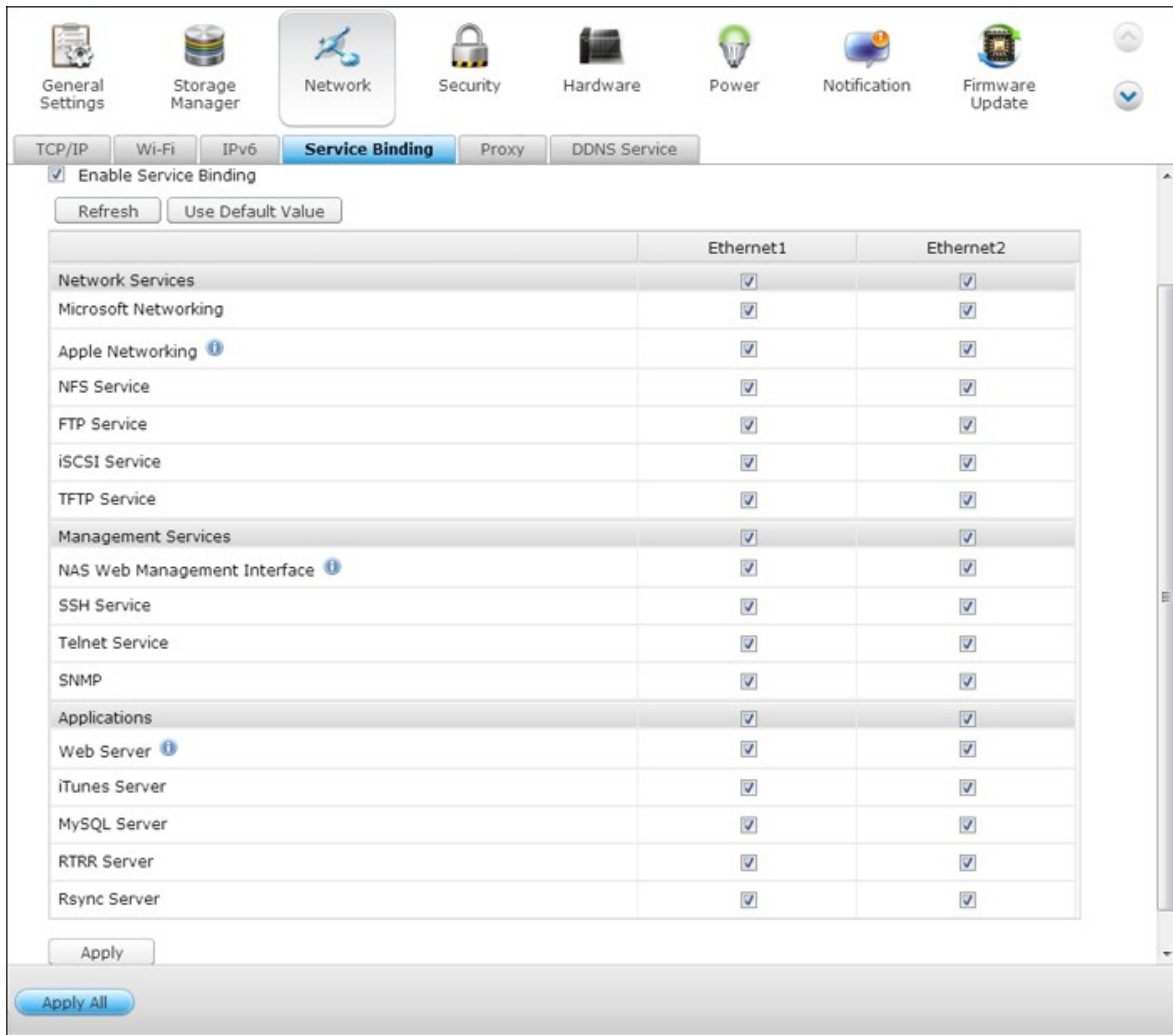
가

. NAS

가

'Apply()'

"Refresh()"



가

가

General Settings Storage Manager Network Security Hardware Power Notification Firmware Update

TCP/IP Wi-Fi IPv6 Service Binding Proxy DDNS Service

Use a proxy server

Proxy server:

Port number:

Authentication

User name:

Password:

Apply

Apply All

DDNS

가 NAS , DDNS IP

The screenshot shows the DDNS Service configuration page. At the top, there is a navigation bar with icons for General Settings, Storage Manager, Network (selected), Security, Hardware, Power, Notification, and Firmware Update. Below this is a sub-menu with tabs for TCP/IP, Wi-Fi, IPv6, Service Binding, Proxy, and DDNS Service (selected). The main content area is titled "DDNS Service" and contains the following options:

- Enable Dynamic DNS Service
- Select DDNS server:
- Enter the account information you registered with the DDNS provider
- Username:
- Password:
- Host name:
- Check the external IP address automatically
- Current WAN IP: 61.62.220.74

At the bottom left, there is an "Apply All" button.

NAS DDNS : <http://www.dyndns.com>, <http://update.ods.org>, <http://www.dhs.org>, <http://www.dyns.cx>, <http://www.3322.org>, <http://www.no-ip.com>.

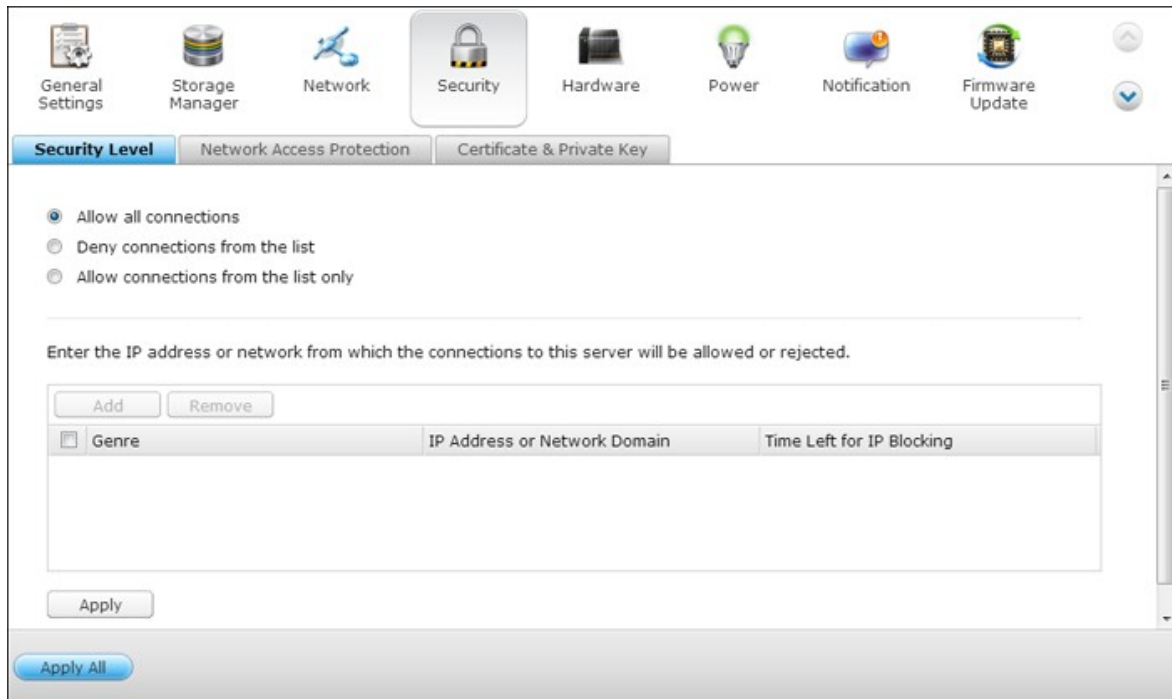
4.4

IP

가

, "Apply()"

가



IP가

, IP

The screenshot shows a web-based configuration interface for Network Access Protection. At the top, there is a navigation bar with icons for General Settings, Storage Manager, Network, Security (selected), Hardware, Power, Notification, and Firmware Update. Below the navigation bar, there are three tabs: Security Level, Network Access Protection (active), and Certificate & Private Key. The main content area is titled "Network Access Protection" and contains the following settings:

- Enable Network Access Protection
The network access protection enhances system security and prevents unwanted intrusion. You can block an IP for a certain period of time or forever if the IP fails to login the NAS from a particular connection method. Check the blocked's IP at [Security Level](#).
- SSH:
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes
- Telnet:
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes
- HTTP(S):
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes
- FTP:
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes
- SAMBA:
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes
- AFP:
In 1 minute, after unsuccessful attempts for 5 time(s), block the IP for 5 minutes

At the bottom of the settings area, there is an "Apply" button. At the very bottom of the interface, there is a blue "Apply All" button.

&

(SSL)

가

SSL

NAS

가

. NAS X.509

-
-
-

&

The screenshot shows a web management interface with a top navigation bar containing icons for General Settings, Storage Manager, Network, Security (highlighted), Hardware, Power, Notification, and Firmware Update. Below the navigation bar are three tabs: Security Level, Network Access Protection, and Certificate & Private Key (selected). The main content area contains the following text:

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

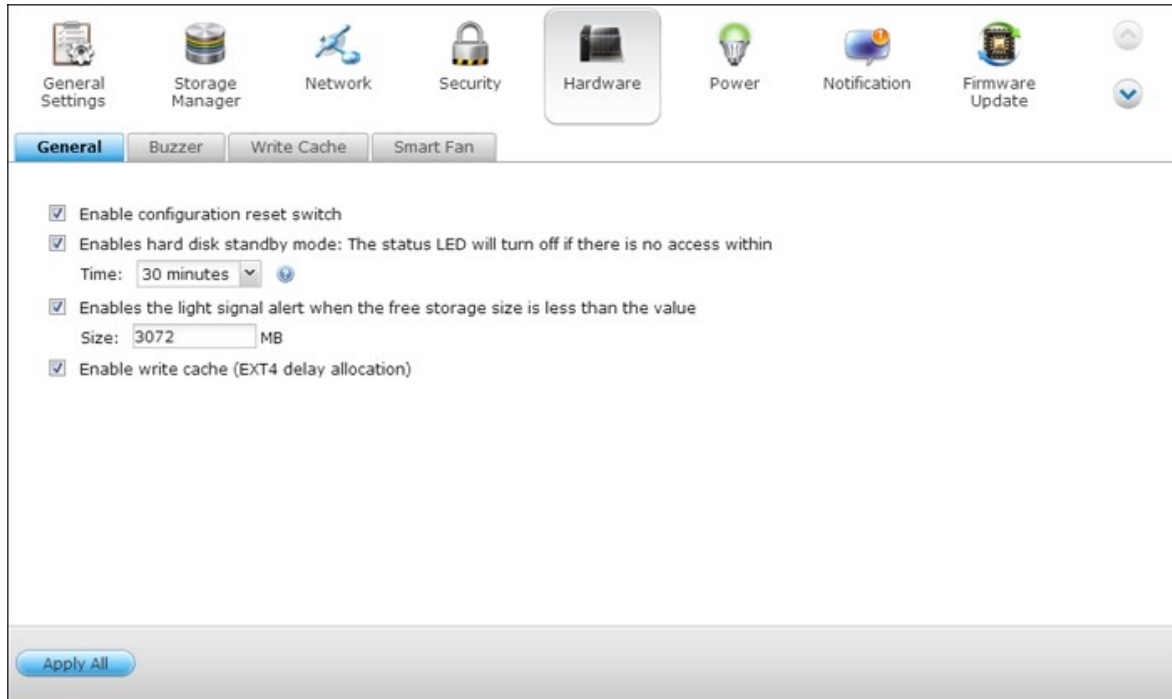
If you upload an incorrect secure certificate, you may not be able to login the server via SSL. To resolve the problem, you can restore the secure certificate to default and access the system again.

Status: default secure certificate being used

Below the text are three buttons: Download Certificate, Download Private Key, and Restore Default Certificate & Private Key. There are two large text input fields. The first is labeled "Certificate: please enter a certificate in X.509PEM format below." and has a "View Sample" button to its right. The second is labeled "Private Key: please enter a certificate or private key in X.509PEM format below." and also has a "View Sample" button to its right. At the bottom of the input area are two buttons: Clear and Upload.

4.5

NAS



3

	(1)	(2)
NAS	3	10

(3)

3

- : admin.

- TCP/ IP : DHCP IP

- TCP/ IP :

- TCP/ IP : (LAN), "
- ()"

- : 8080()

- : ().

- LCD : ()*

- VLAN

- : 가

NAS 가

* LCD NAS <http://www.qnap.com>

(10)

10 3 10
NAS "Administration()" > "Restore to Factory Default()"

, NAS

가

SATA

가 :
SATA 가 LED
1-51,200 MB

(EXT4)

NAS EXT 4

가 : Download Station, MySQL
, Surveillance Station. NAS가 가

NAS (PSU) : PSU NAS
(1U 2U). "System Settings()" > "Hardware(
)"
. PSU 가 PSU가 NAS "System Logs(
)"

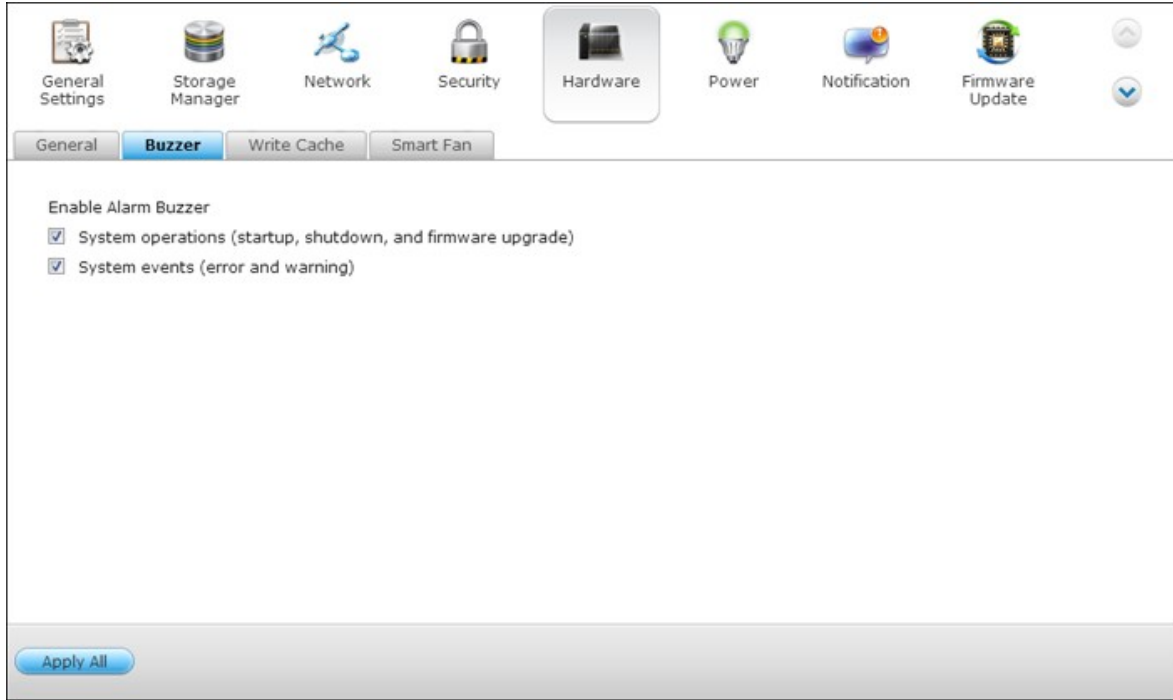
NAS PSU

The image shows a BIOS/UEFI settings interface. At the top, there is a navigation bar with icons for General Settings, Storage Manager, Network, Security, Hardware (selected), Power, Notification, and Firmware Update. Below this, there are sub-tabs for General, Buzzer, and Smart Fan. The main area contains several checked options:

- Enable configuration reset switch
- Enables hard disk standby mode: The status LED will turn off if there is no access within
Time: 30 minutes
- Enables the light signal alert when the free storage size is less than the value (Only support simple volume.)
Size: 3072 MB
- Enable write cache (EXT4 delay allocation)
- Enable Redundant Power Supply Mode

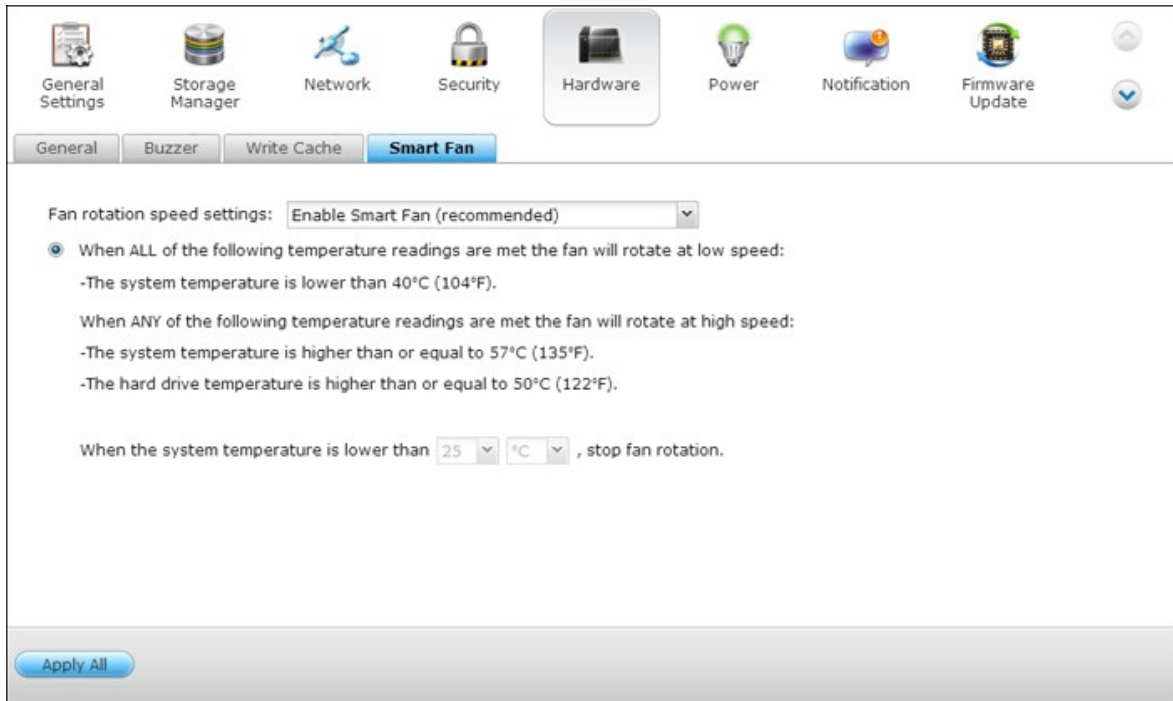
An "Apply All" button is located at the bottom left of the settings area.

() ()가 가



Download Station MySQL 가

The screenshot shows a web-based configuration interface. At the top, there is a navigation bar with icons for General Settings, Storage Manager, Network, Security, Hardware (which is highlighted), Power, Notification, and Firmware Update. Below this is a sub-menu with tabs for General, Buzzer, Write Cache (which is selected), and Smart Fan. The main content area contains a warning message: "You can gain better write performance when this option is enabled. Please note an unexpected system shutdown might cause incomplete data transfer when data write is in process. This option will be disabled when Download Station or MySQL service is enabled." Below the warning is a checkbox labeled "Enable write cache (EXT4 delay allocation)" which is checked. At the bottom left of the interface is an "Apply All" button.



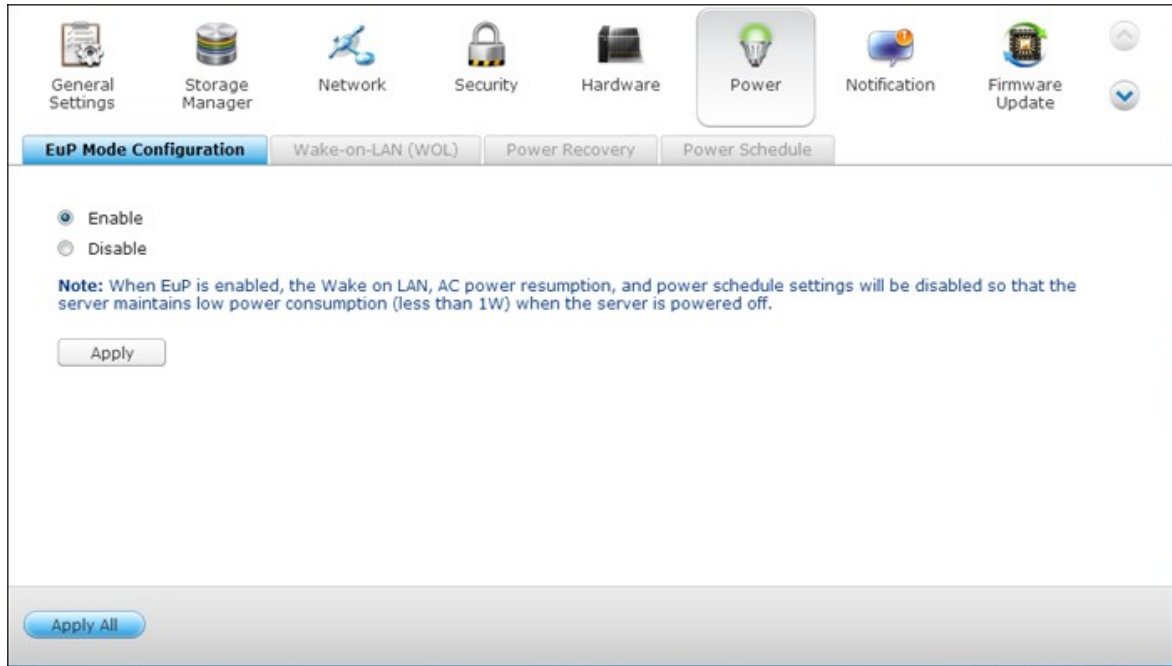
- () , CPU , 가 가

- , .

4.6

EuP

EuP () 가, (EU)



EuP (1W)

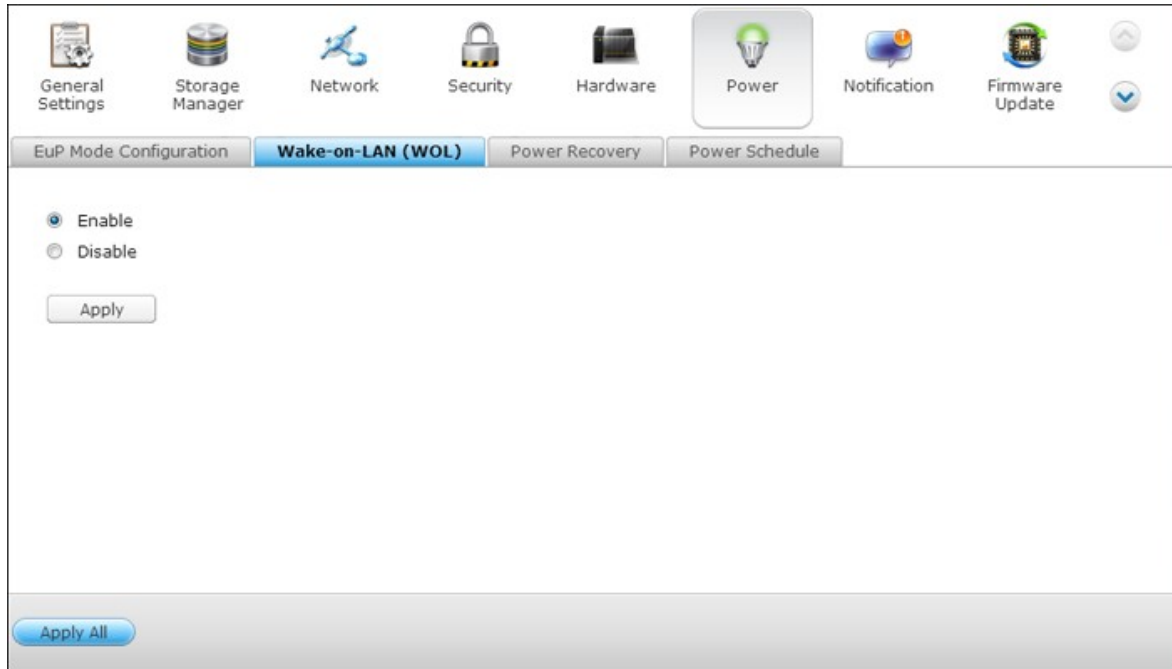
- Wake on LAN:
- AC :
- / / :

EuP 가 1W . EuP Wake on LAN, AC

<http://www.qnap.com>

Wake-on-LAN ()

NAS가 (Wake on LAN) NAS
(Wake on LAN)

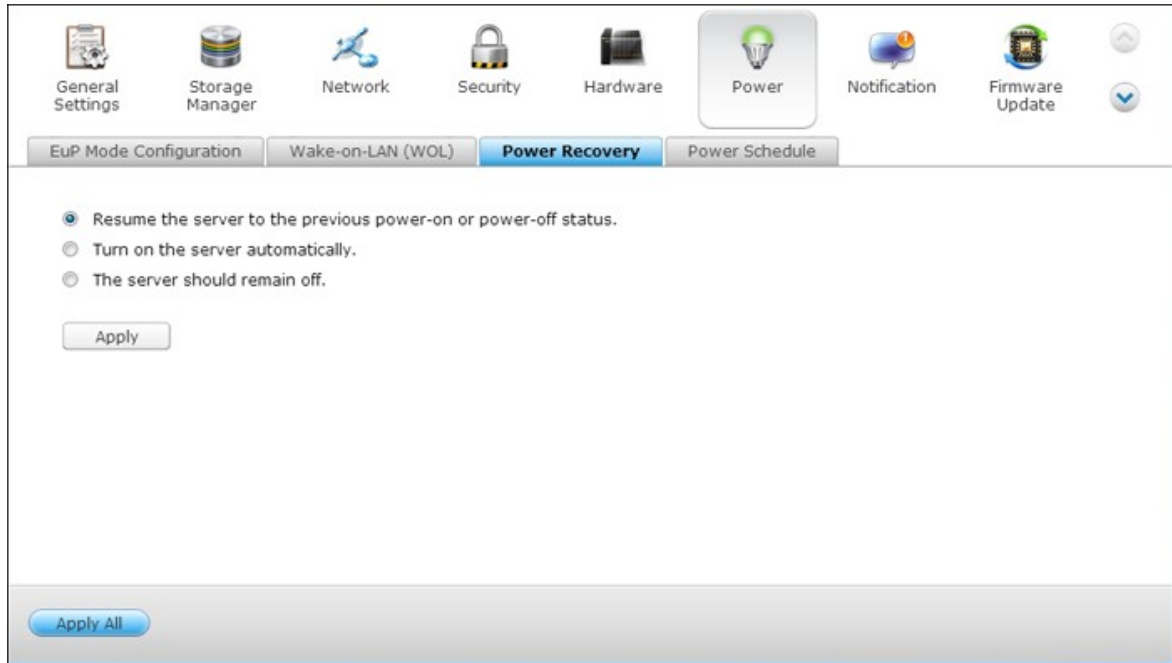


<http://www.qnap.com>

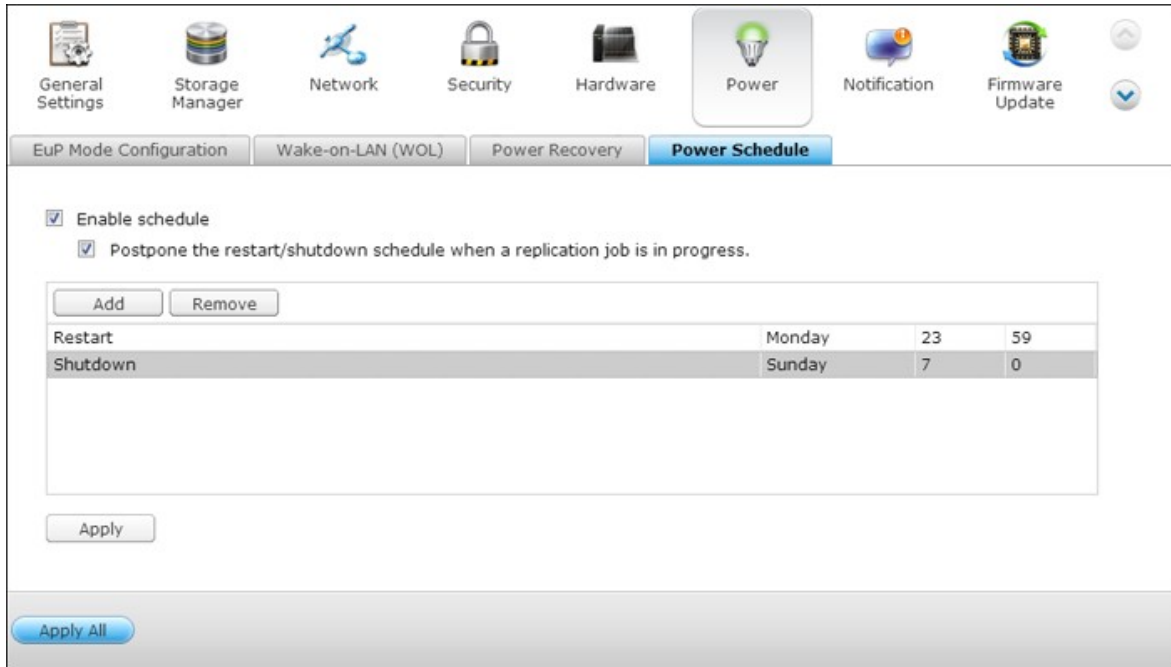
AC가

NAS

가 ,



: X86 NAS . X86 NAS
,"Control Panel()" > "System Settings()" > "Power()" >
"Power Recovery()" "Turn on the server automatically()"



"Postpone the restart/ shutdown schedule when replication job is in process(/)"

4.7

SMTP

NAS

SMTP

-
- SMTP : SMTP : smtp.gmail.com.
- : SMTP 25
-
-
- : SSL TLS NAS SMTP
- SMTP 가

General Settings Storage Manager Network Security Hardware Power Notification Firmware Update

SMTP Server SMSC Server Alert Notification

Select an e-mail account: Custom

SMTP server: mail

Port number: 465

E-mail: tester@qnap.com

Username: tester@qnap.com

Password:

Secure connection: SSL

Send a Test E-mail

Apply

Apply All

(/)가

NAS

The screenshot shows the 'Alert Notification' configuration page. At the top, there is a navigation bar with icons for General Settings, Storage Manager, Network, Security, Hardware, Power, Notification (selected), and Firmware Update. Below this, there are tabs for SMTP Server, SMSC Server, and Alert Notification. The main content area is titled 'Alert Notification' and contains the following sections:

- Alert Notification:** A heading followed by the instruction 'When a system event occurs, do the following immediately:'. Below this, there are two rows of settings: 'Send system error alert by:' with checkboxes for 'E-mail' and 'SMS' (both checked), and 'Send system warning alert by:' with a checked 'E-mail' checkbox.
- E-mail Notification Settings:** This section includes two input fields for 'E-mail address 1:' and 'E-mail address 2:'. Below these is a button labeled 'Send a Test E-mail'. A note states: 'Note: The SMTP server must be configured first for alert mail delivery.'
- SMS Notification Settings:** This section includes a dropdown menu for 'Country code:' set to 'Afghanistan(+93)'. Below it are two input fields for 'Cell phone No. 1:' and 'Cell phone No. 2:', both starting with '+93'. A button labeled 'Send a Test SMS Message' is located below these fields. A note states: 'Note: You must configure the SMSC server to be able to send SMS notification properly.'

At the bottom of the page, there is an 'Apply' button and an 'Apply All' button.

NAS

(2)

SMS

NAS

(2)

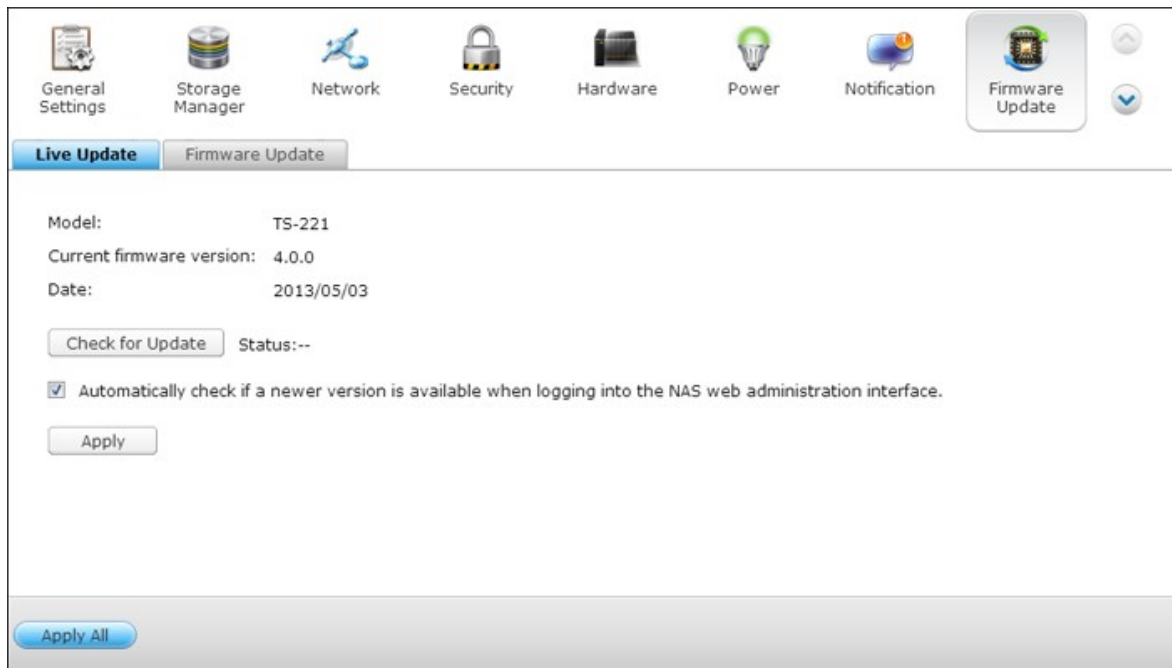
4.8

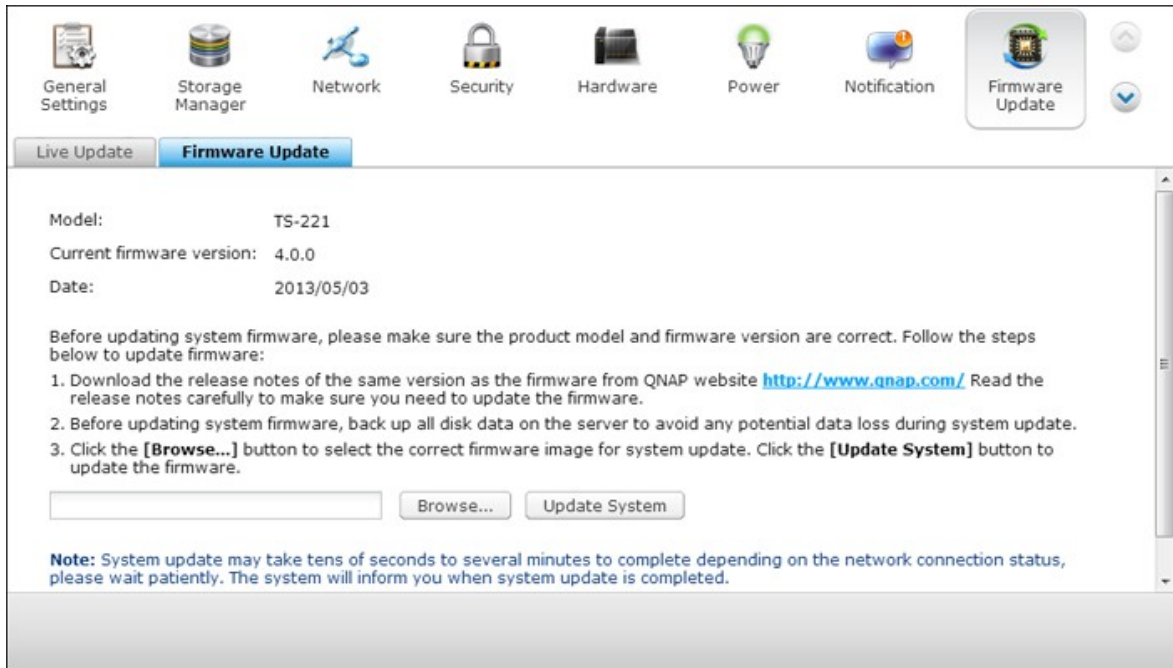
"Automatically check if a newer version is available when logging into the NAS web administration interface(NAS)"

가 NAS

"Check for Update()"

NAS





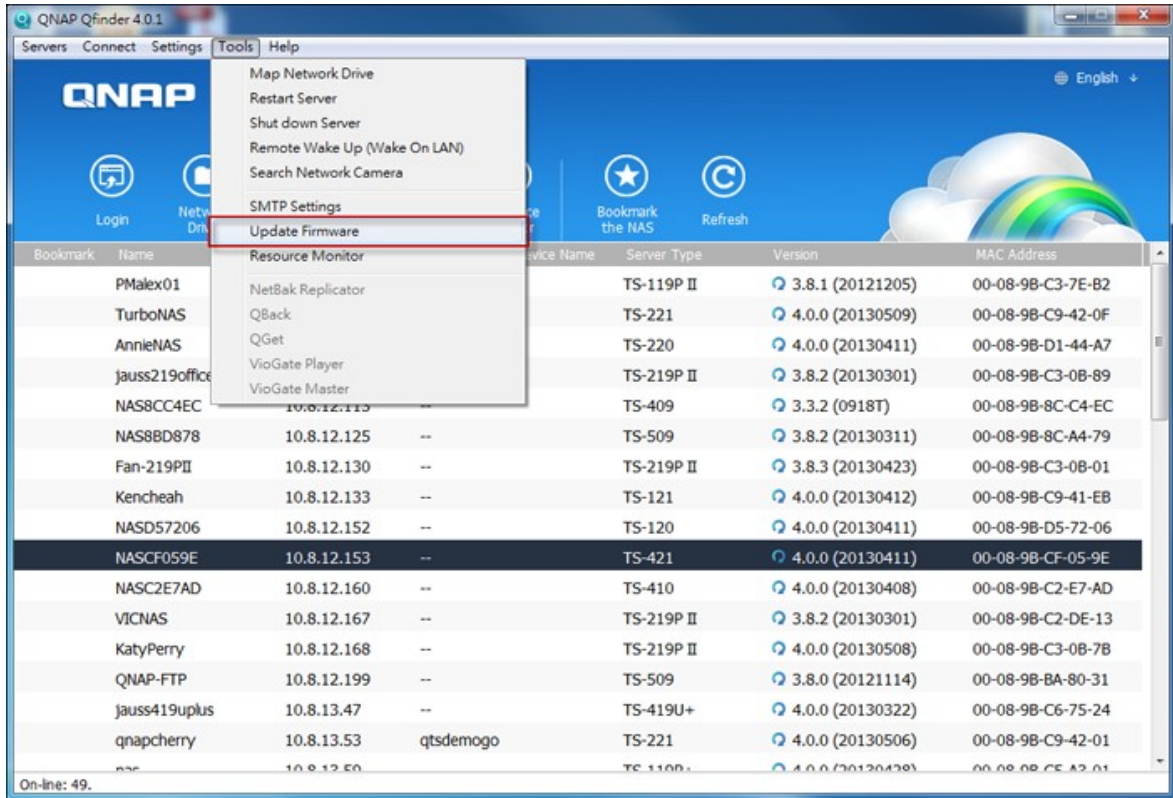
:

1. QNAP <http://www.qnap.com> 가
 2. NAS IMG
 - 3.
 4. "Browse()"
"Update System()"
- 가 NAS가

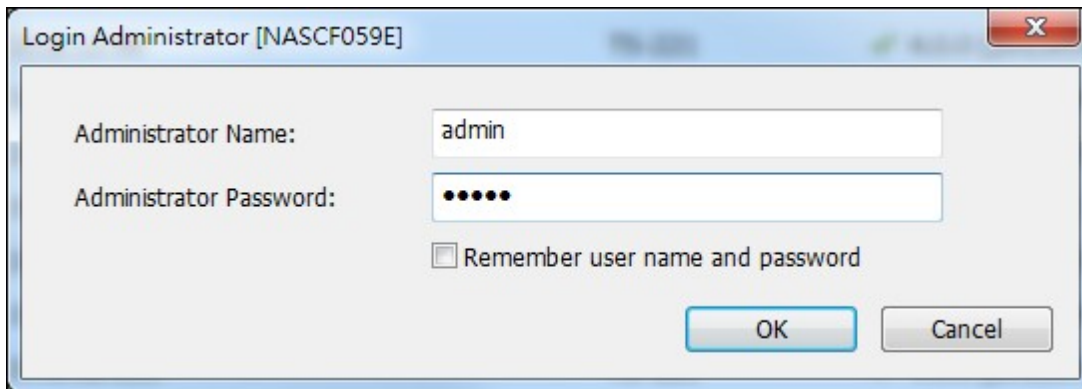
QNAP Qfinder

QNAP Qfinder NAS

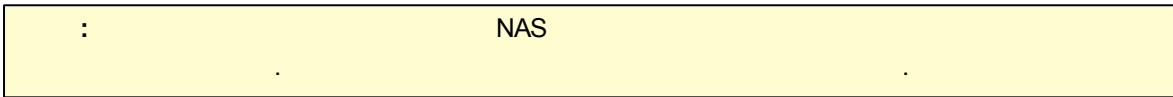
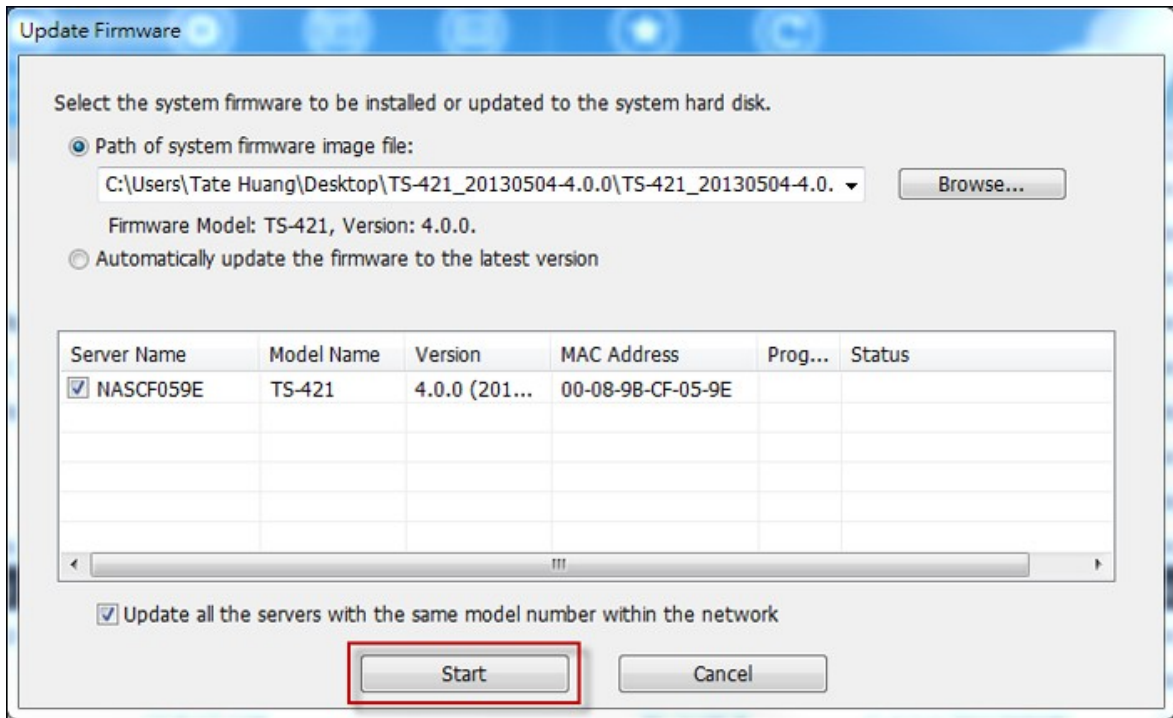
1. NAS "Update Firmware()"



2. NAS

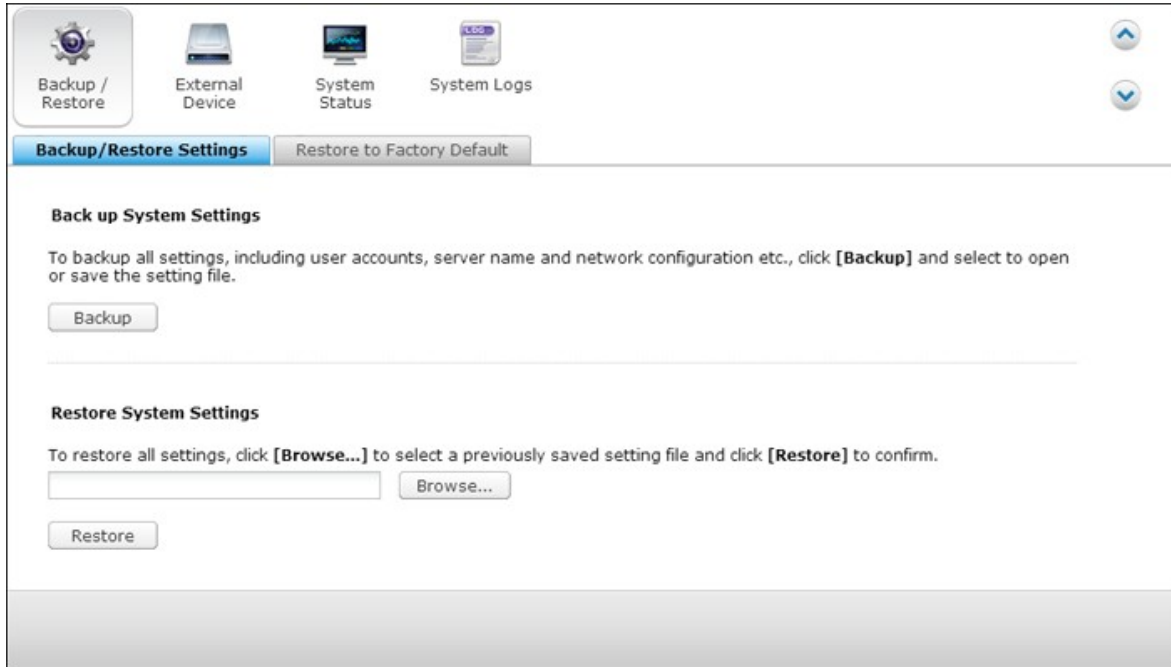


3. NAS "Start()"



4.9 /

/

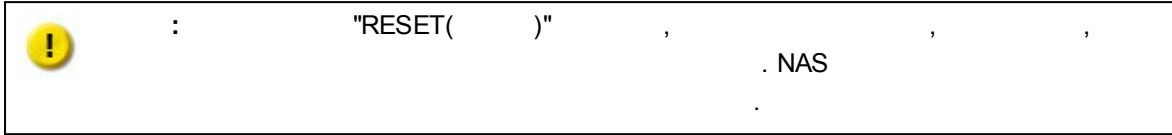


Backup()”

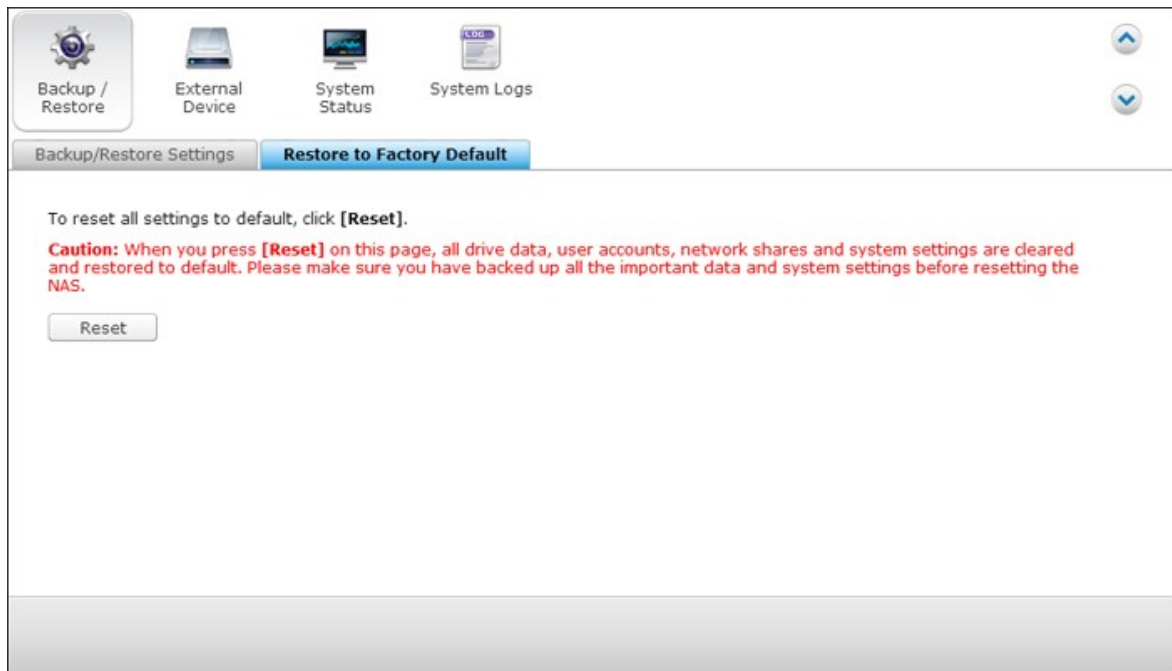
()”
"Browse()”

"Restore

,"RESET()" "OK()"



NAS System Settings()"> Hardware()"

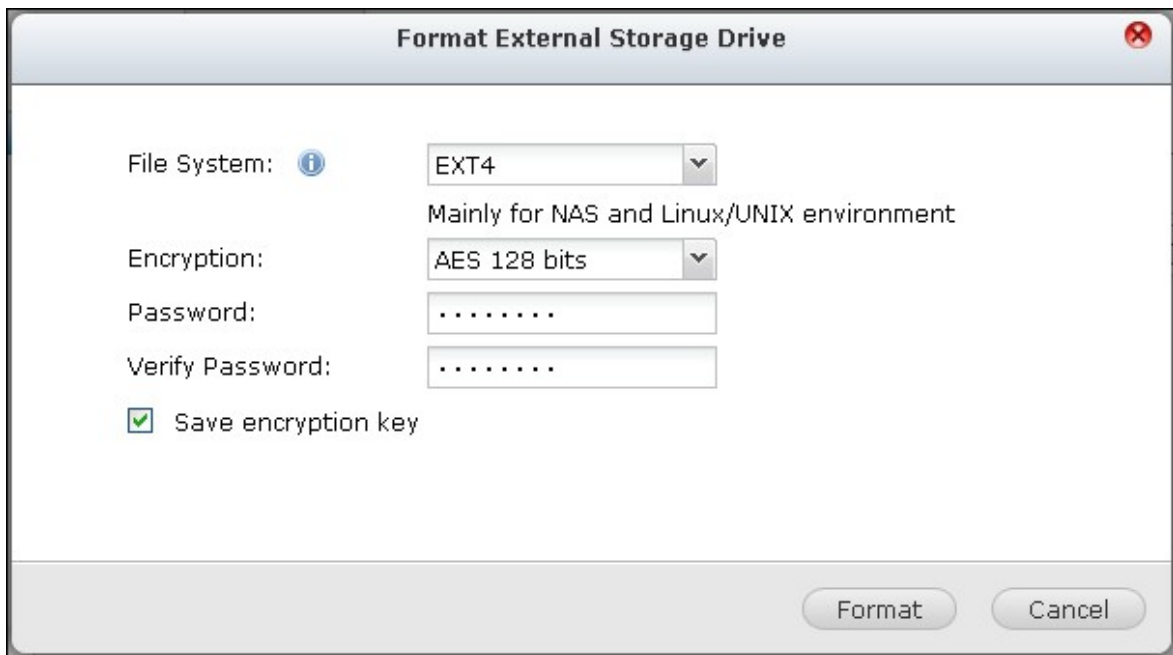


4.10

USB ²⁹⁷
UPS ³⁰⁶
UPS ³³⁵

EXT3, EXT4, FAT32, NTFS HFS+ (Mac)
Format()”

NAS Encryption()”
: AES 128-, 192- 256- (8- 16)
Save encryption key()”
NAS 가



OK()” 가



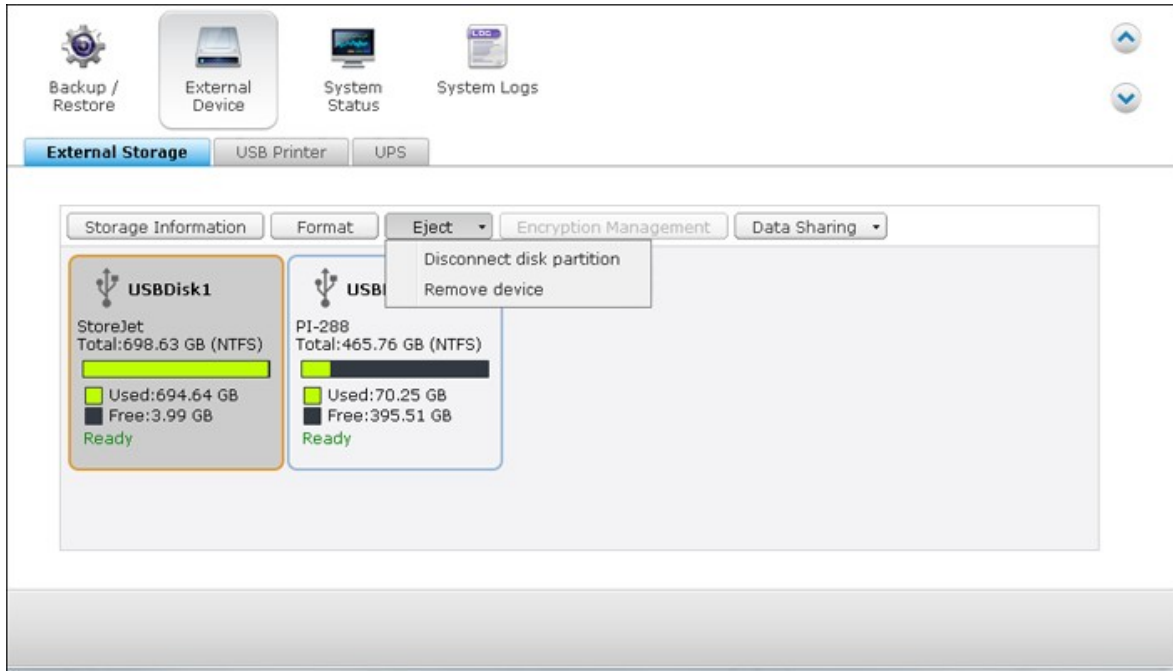
가 Ready()”



:	2TB	EXT4, NTFS	HFS+
---	-----	------------	------

“ ” 가 “ ”

Eject()”

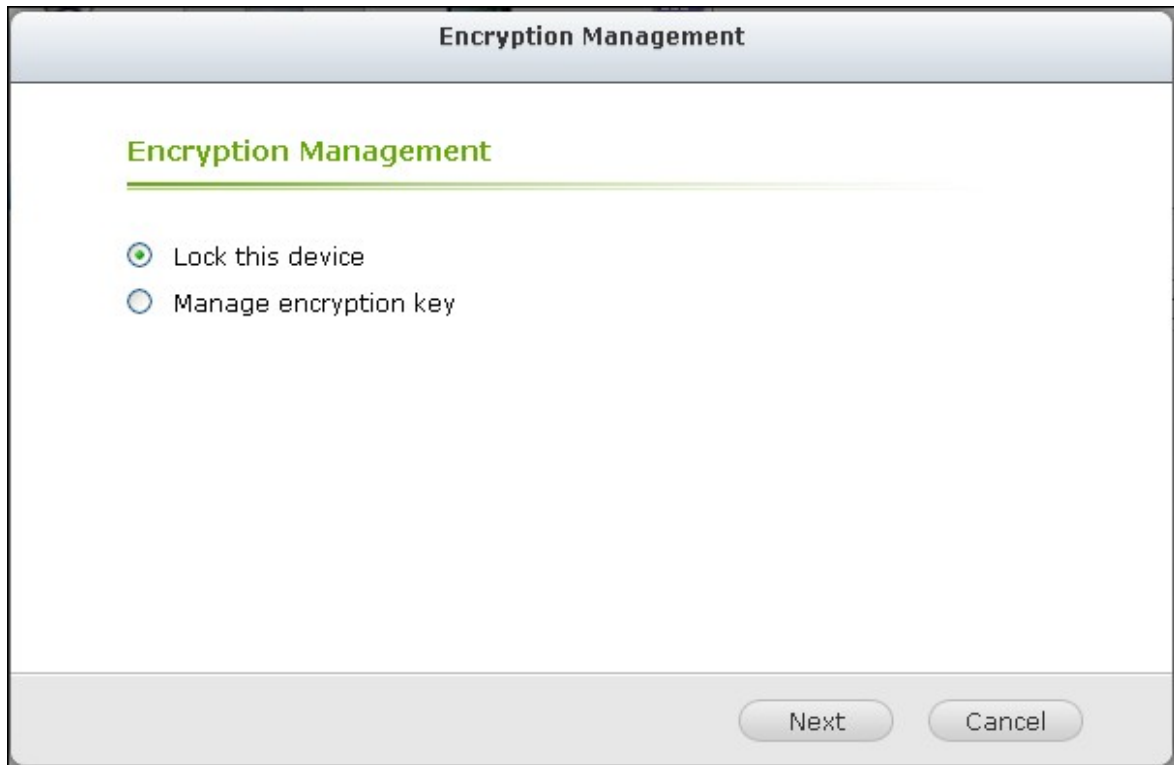


가 NAS , "Encryption Management()"

: , 'Control Panel()' > 'Applications()' > 'Backup Station' > "External Drive()"

1. , "Encryption Management()"

2. Lock this device() " Next() "



3. Next() "



1. , "Encryption Management()"

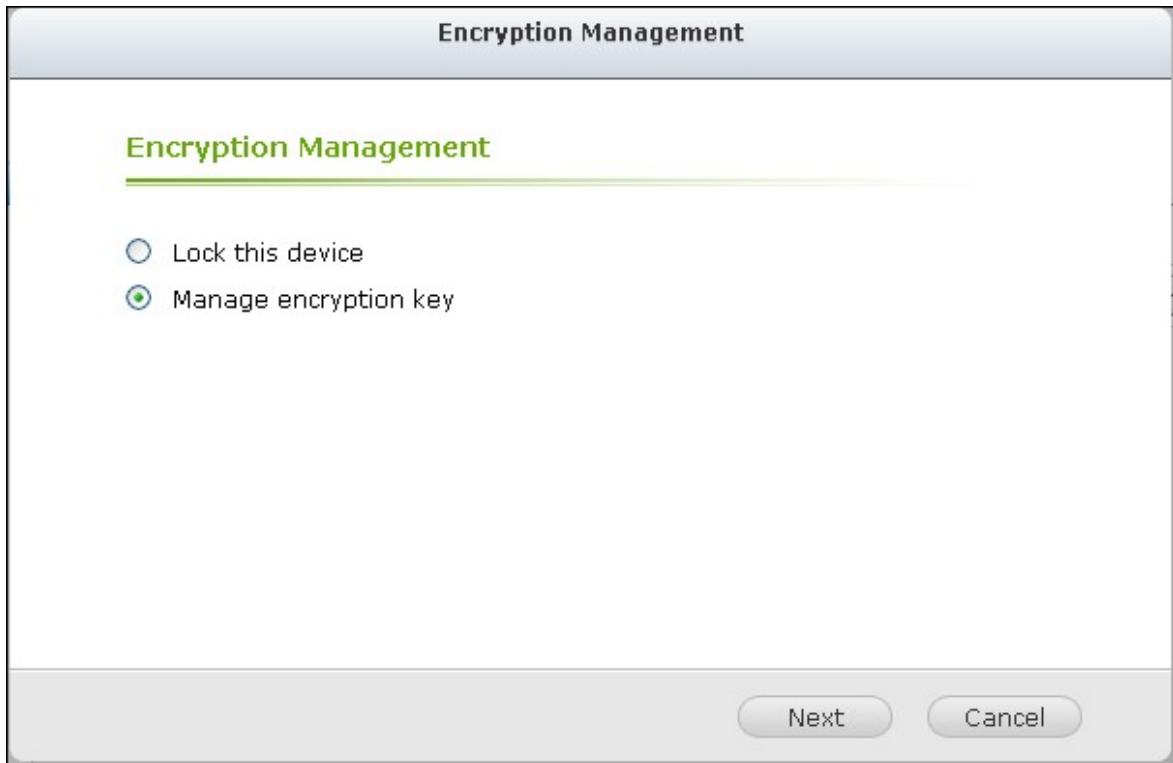
2. "Unlock the device()" . " " .



3. NAS . "Save encryption key()"



1. Encryption Management ()"
2. "Manage encryption key()" . " "



3.

“ ”



1-

가 NAS

• : NAS

• Q- RAID 1: NAS

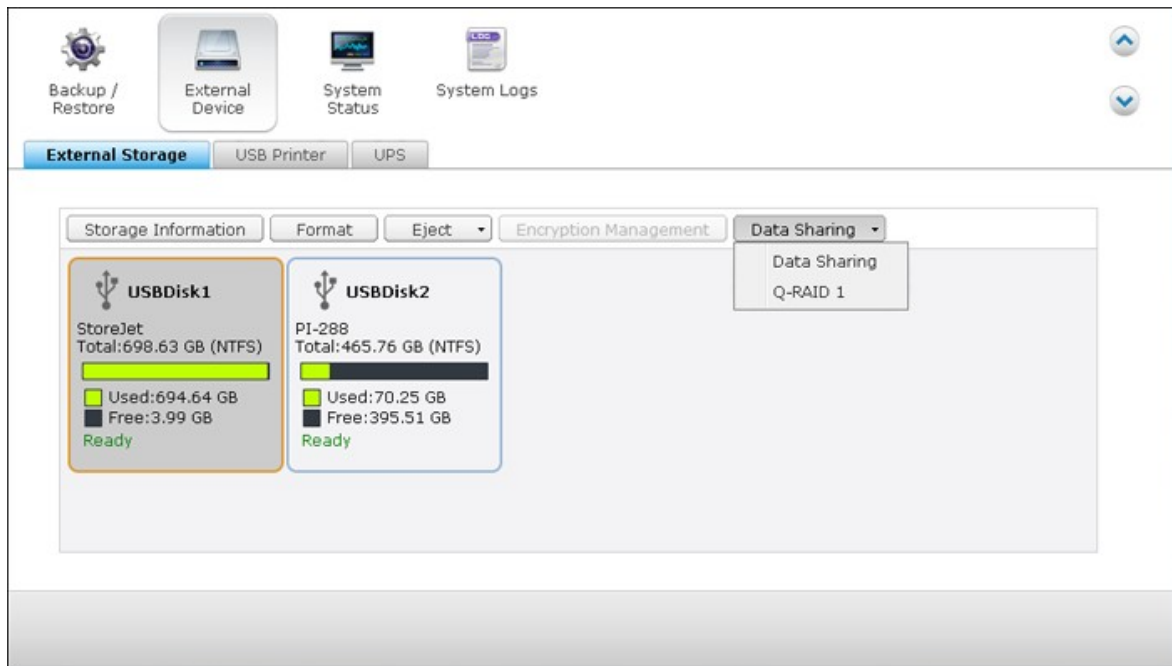
Q- RAID 1

. Q-

RAID 1 NAS

RAID

Q- RAID 1



Q- RAID 1

가 NAS

NAS

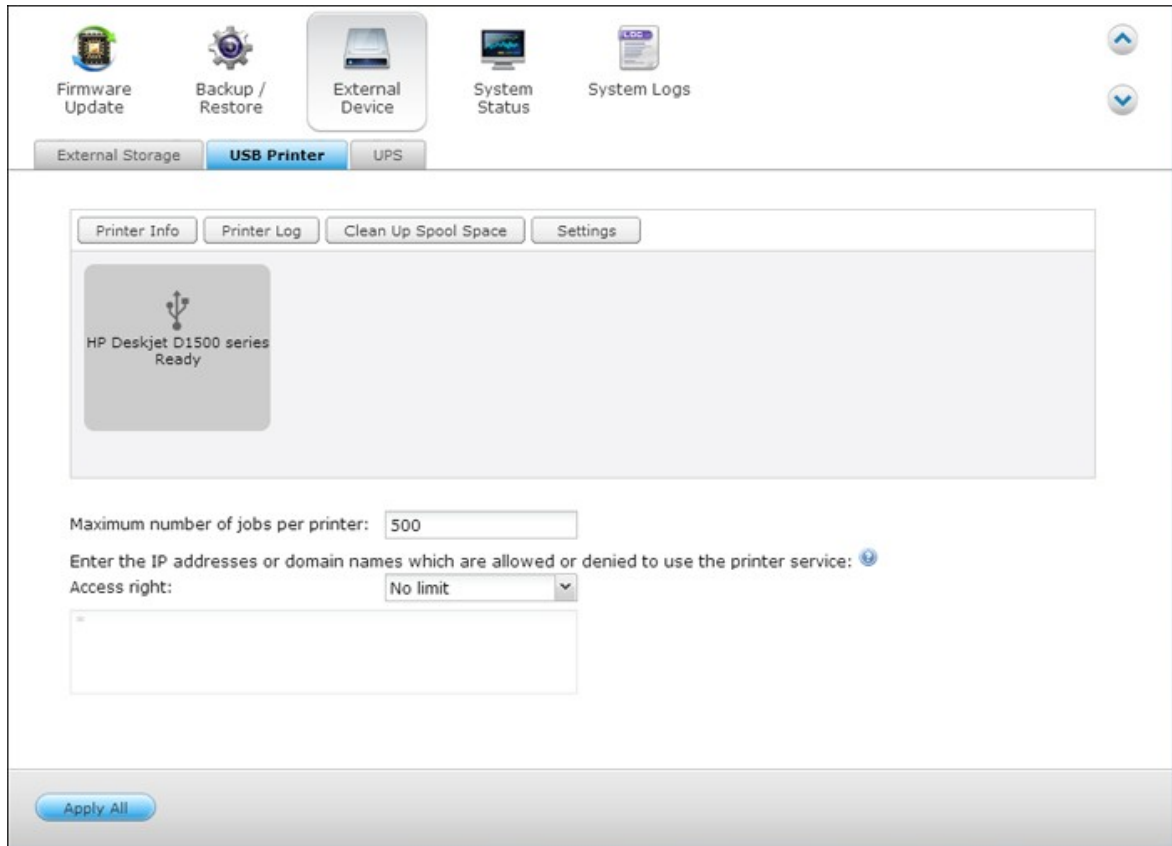
가

- Q- RAID 1
 - Q- RAID 1 2TB
 - NAS
- 가

4.10.2 USB

NAS Windows, Mac Linux (Ubuntu)
3 USB

NAS USB 가 NAS USB 가



USB Printer Info()”

Printer Info	
Service Name	NASCF059EPR
Manufacturer	HP
Model	Deskjet D1500 series
Status	Ready

- :
- USB
- NAS
- IPP ()
- USB <http://www.qnap.com>

USB

Printer Info()”

"Clear()"

Printer Log				
Clear				
Users	Source IP	File name	Status	Action
tate	10.8.12.12	--	printing	

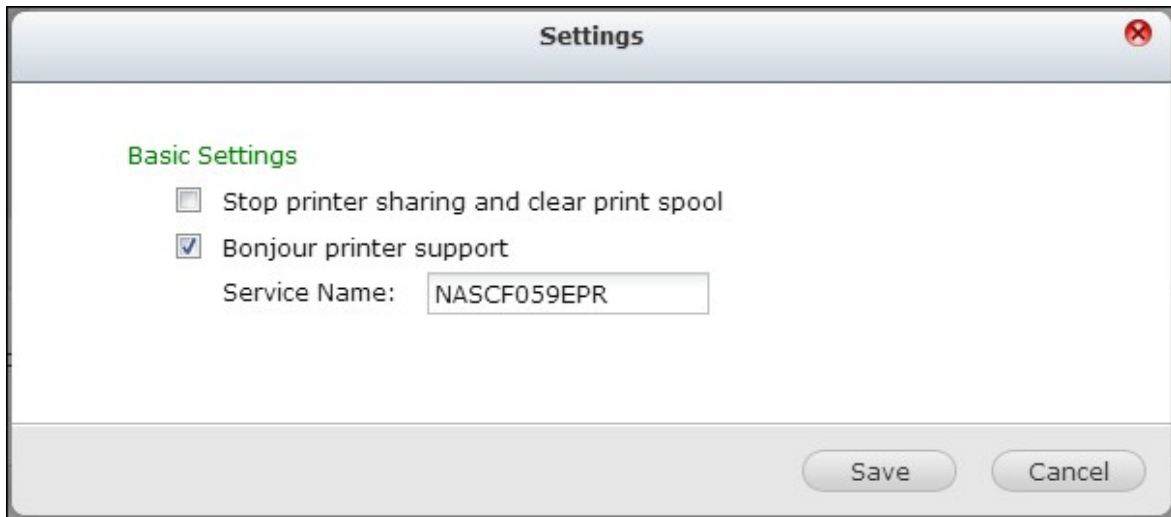
Page 1 / 1 | Display item: 1-1, Total: 1 | Show 10 Items

: 가 NAS

Clean Up Spool Space()"

가

Settings()"



가

Bonjour

가

(-)

Bonjour

Mac

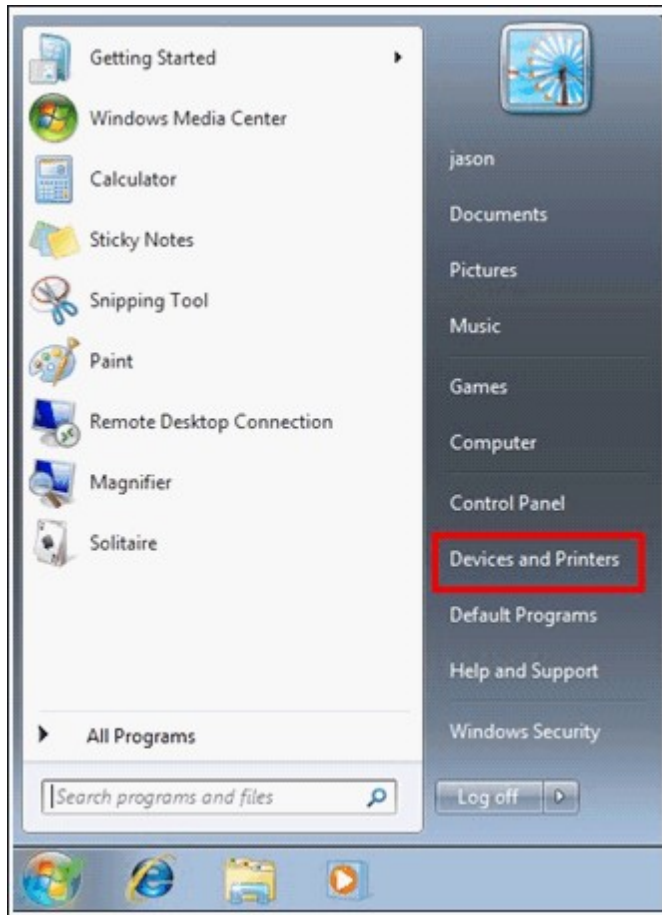
가

. Bonjour
"a-z", "A-Z", "0-9", dot (.), (,)

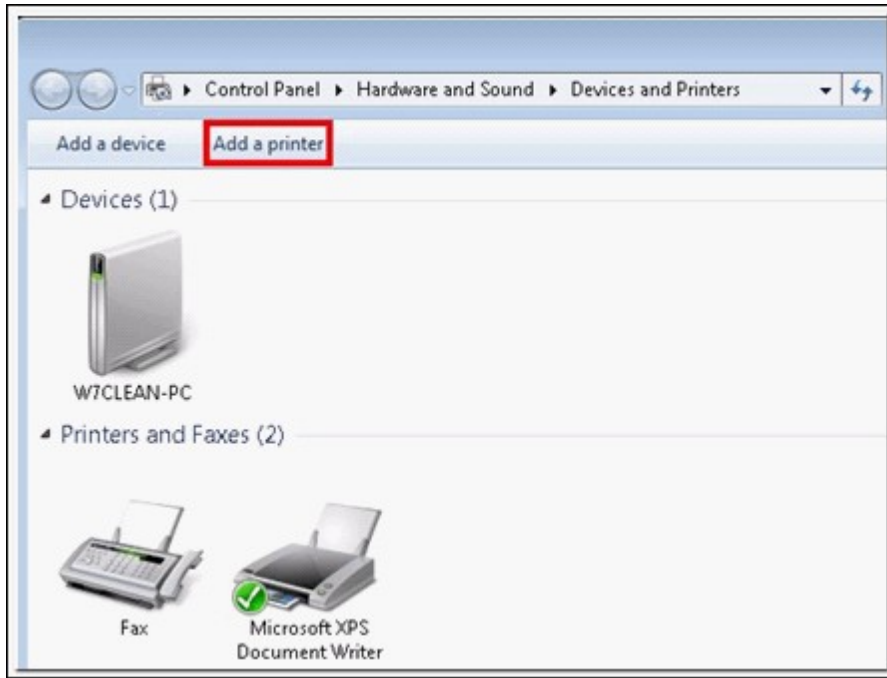
4.10.2.1 Windows 7

Windows 7

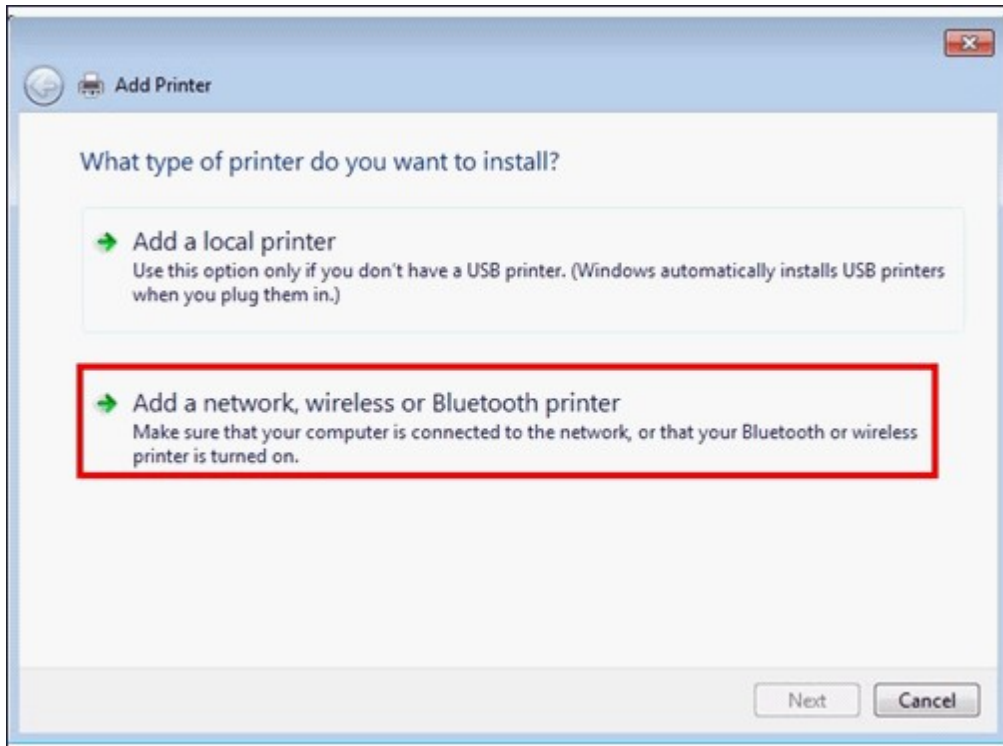
1.



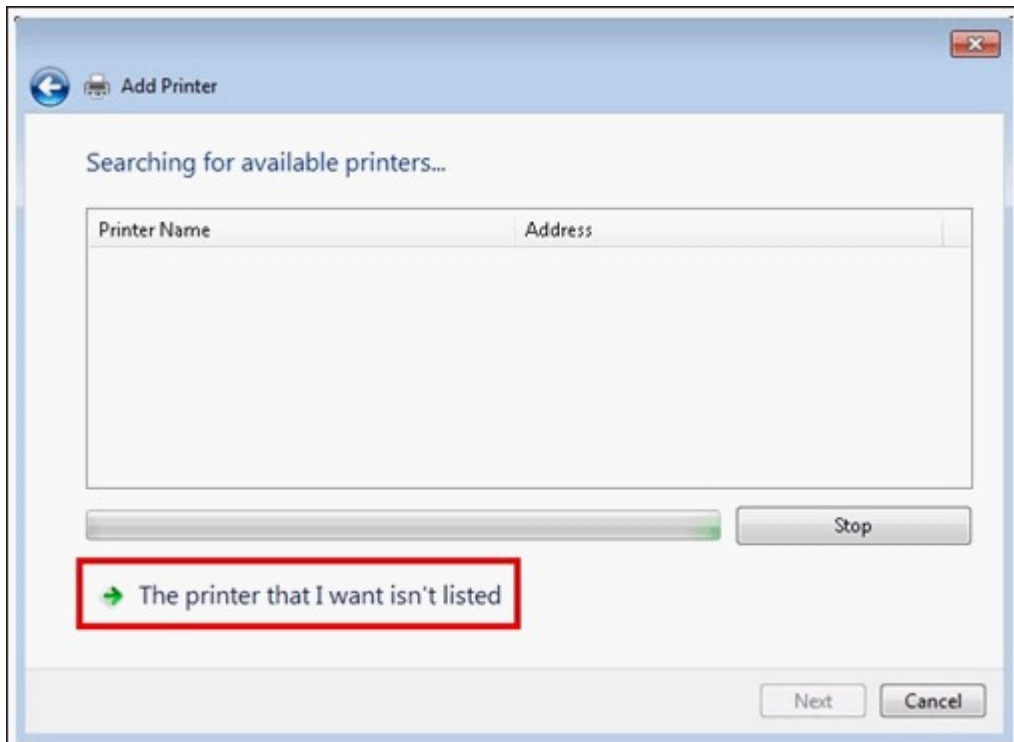
2. "Add a printer(가)"



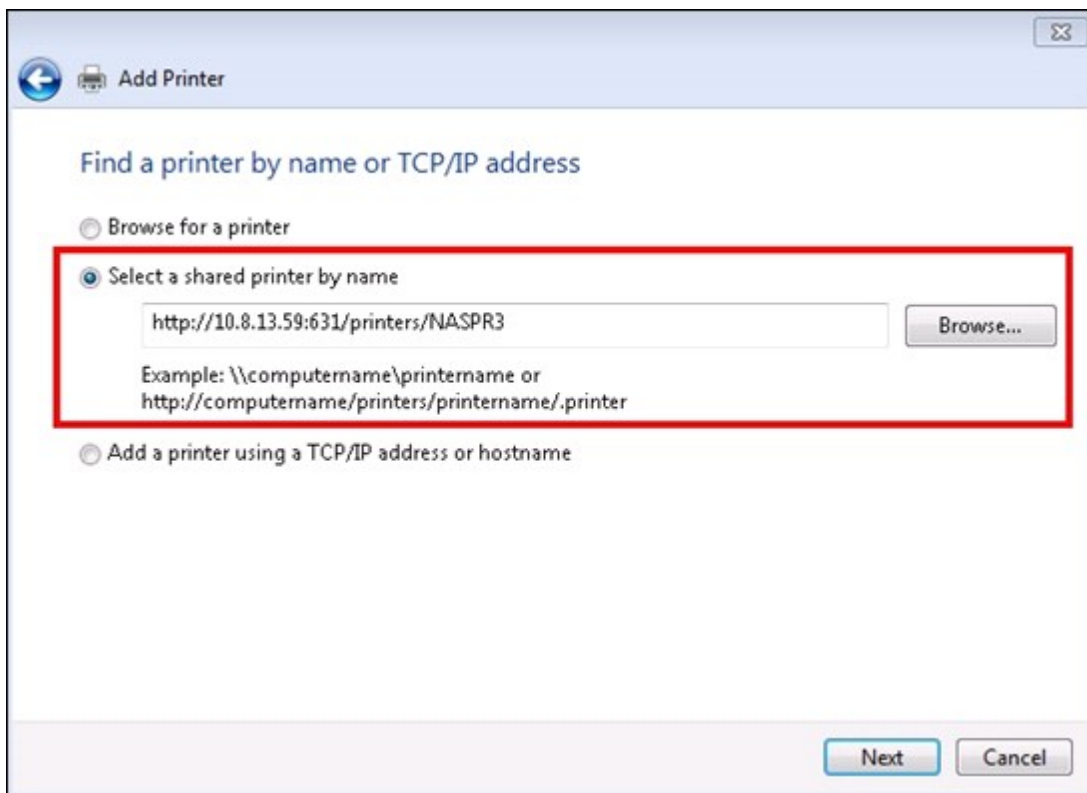
3. 가 "Add a network, wireless or Bluetooth printer(가)"



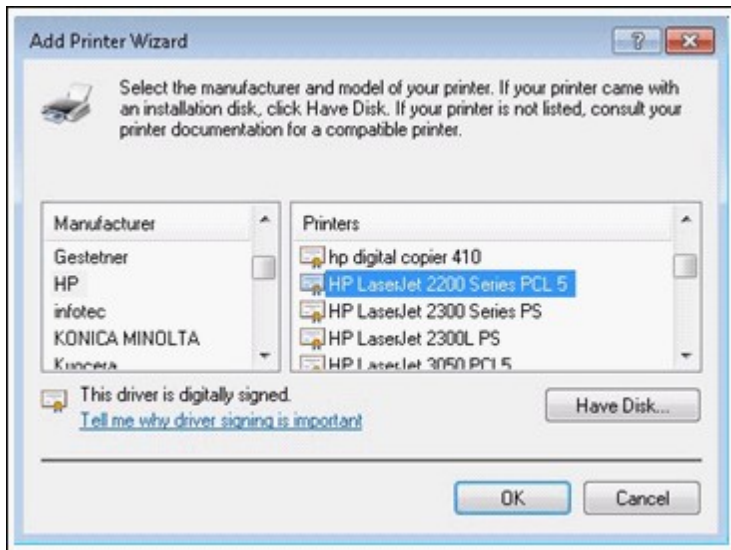
4. Windows listed(가) "The printer that I want isn't"



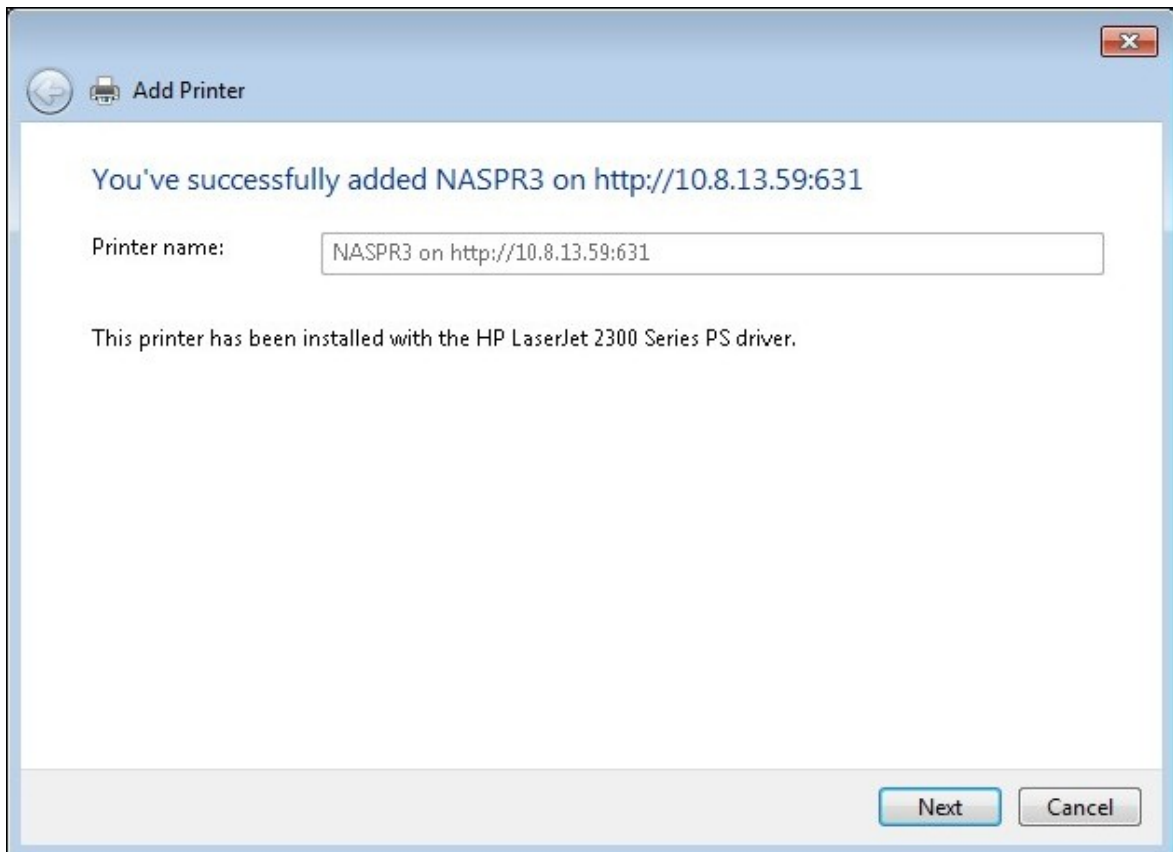
5. "Select a shared printer by name(NAS_IP)"
http://NAS_IP:631/printers/ServernamePR.
http:// 10.8.13.59:631/ printers/NASPR3



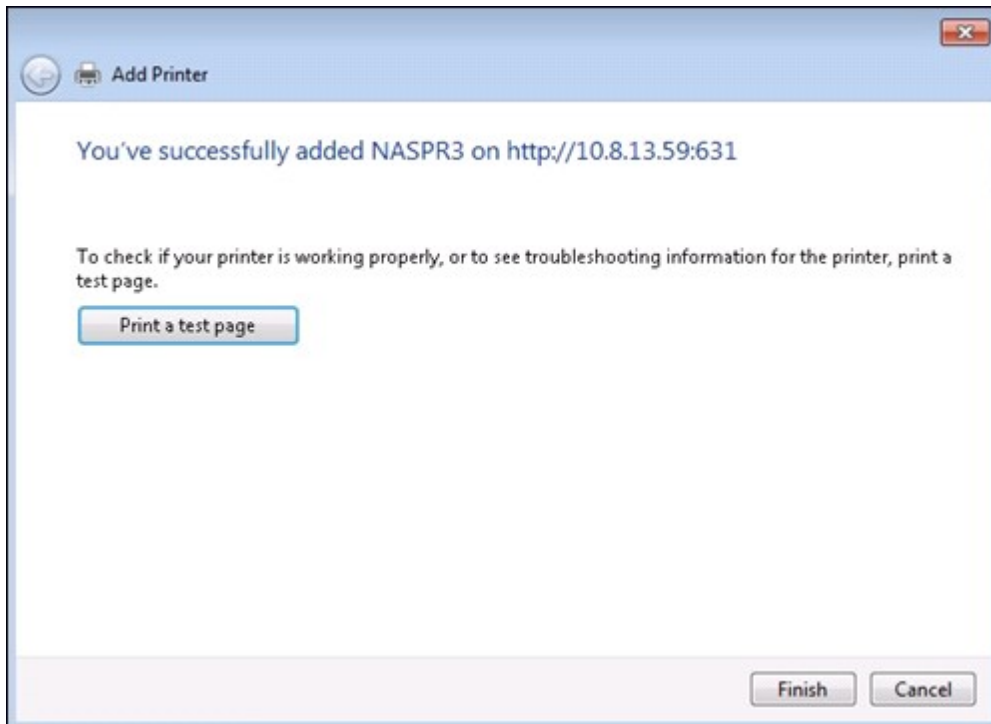
6. 가 . Windows



7. 가



8.)" . "Finish(



9.

4.10.2.2 Windows XP

1

1. Windows Explorer \ \ NAS IP
- 2.
- 3.



4. 가 NAS

2

1. " " Windows XP
2. 가
3. " "
4. " " 가
5. PC
- 6.
7. " 가" " "

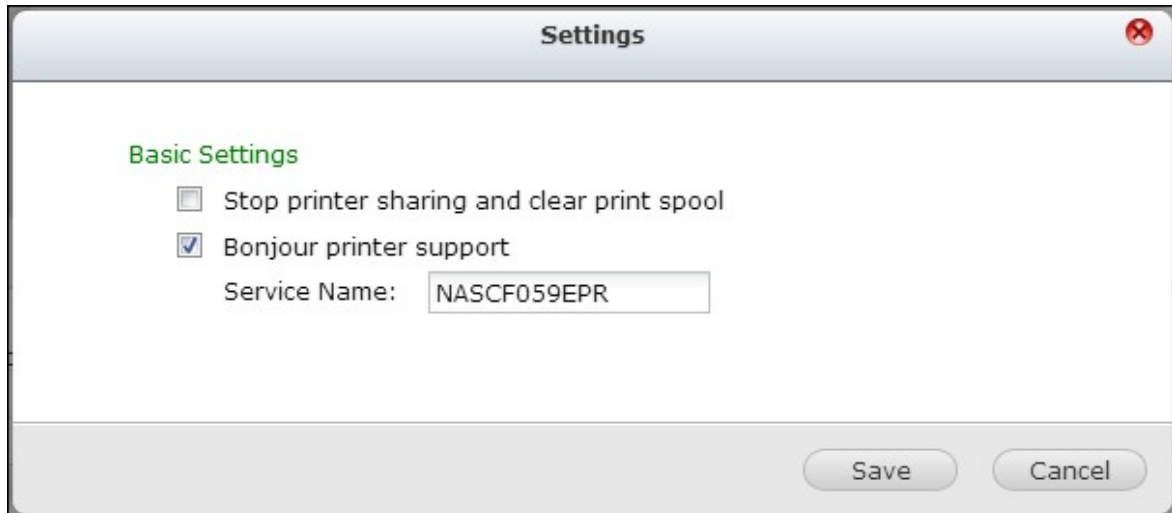
8. " " " " " "
9. " " " " " " " "
10. , NAS IP= 192.168.1.1, NAS = myNAS \ \ NAS IP\ NAS namepr , \ \ 192.168.1.1\ myNASpr
- 11.
- 12.

4.10.2.3 Mac OS 10.6

Mac OS X 10.6

NAS

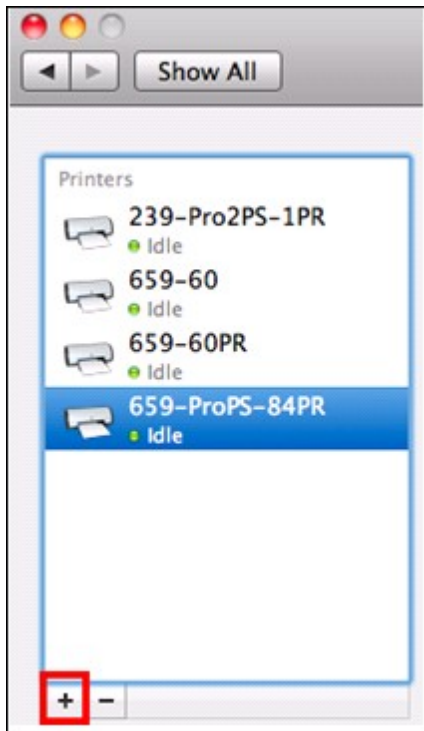
1. NAS "External Device()" > "USB Printer(USB)" > "Settings()"
NAS Bonjour printer support (Bonjour)
. Service Name()



2. Mac "System Preferences()" 가 "Print & Fax()"



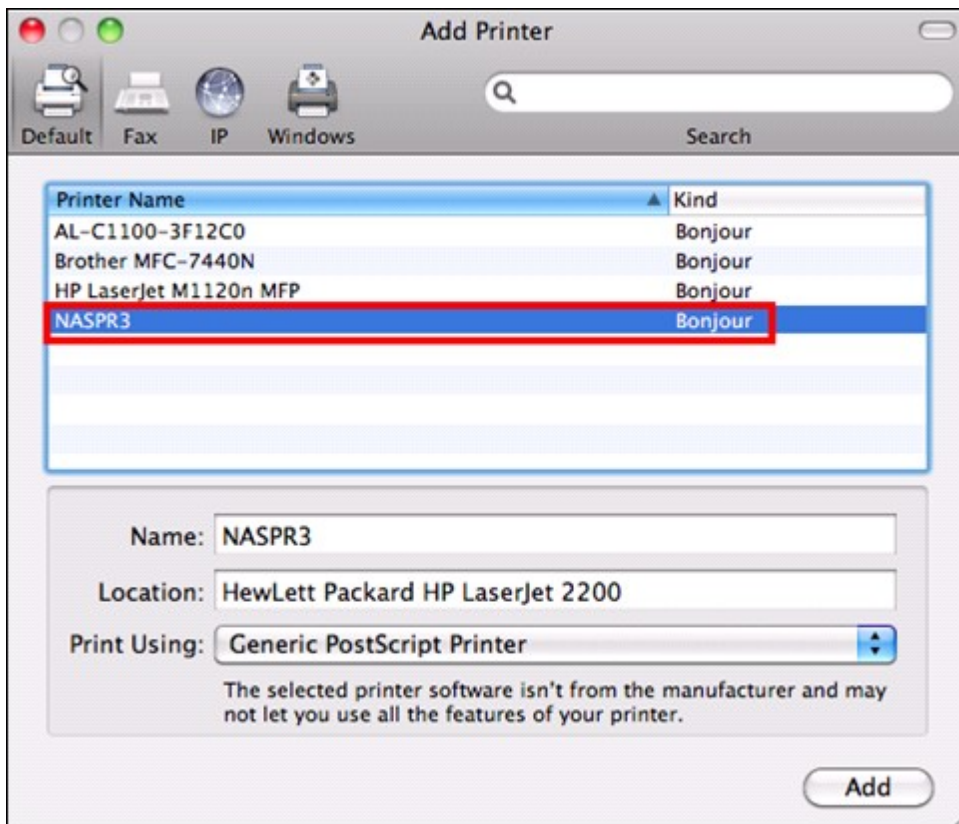
3. + 가 .



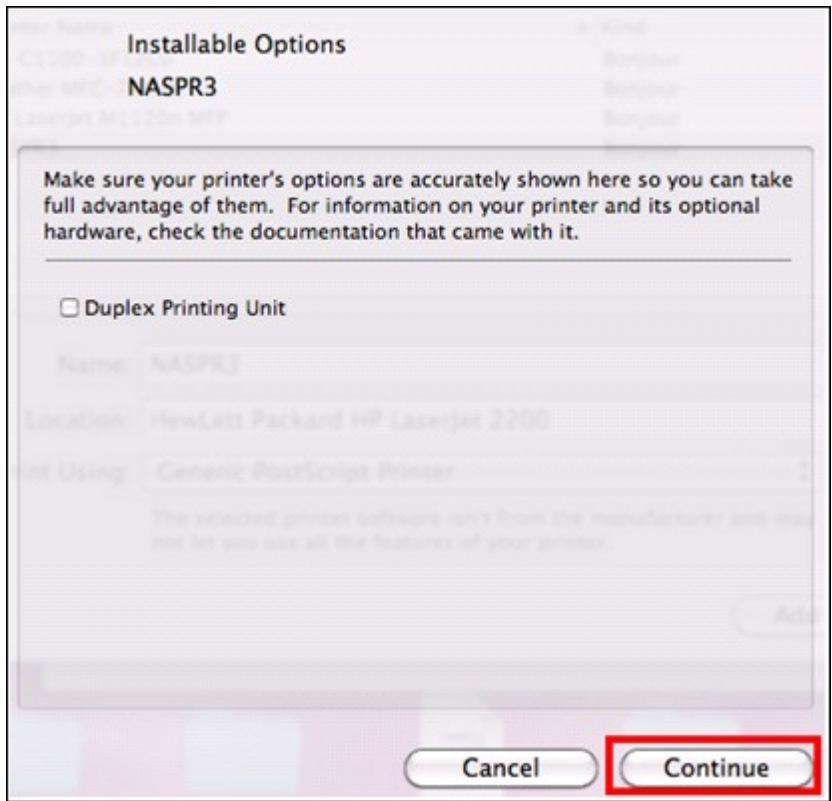
4. USB 가 Bonjour

. "Add(가)"

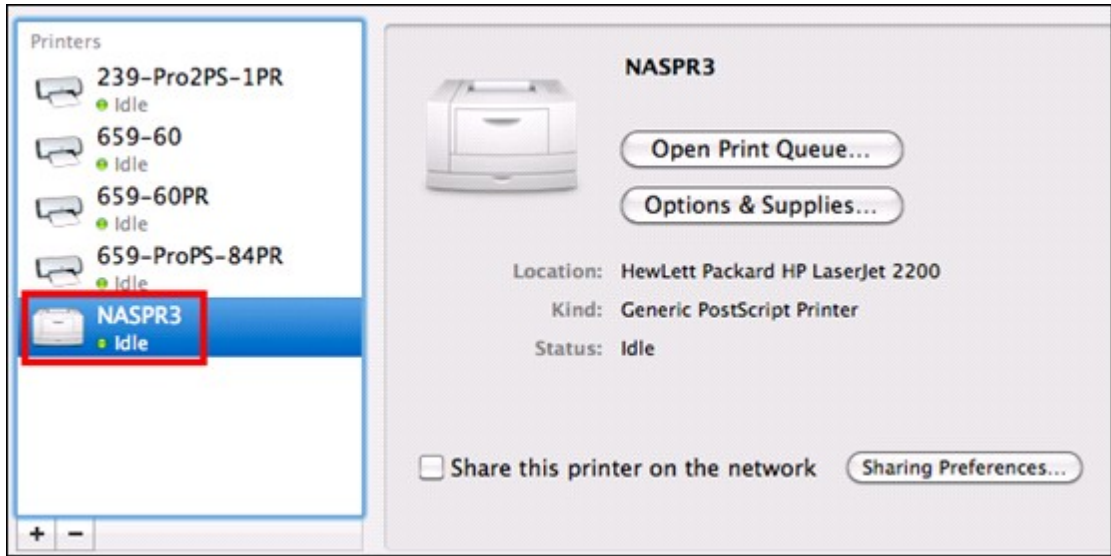
가



5. 가 . "Continue()"



6.



4.10.2.4 Mac OS 10.5

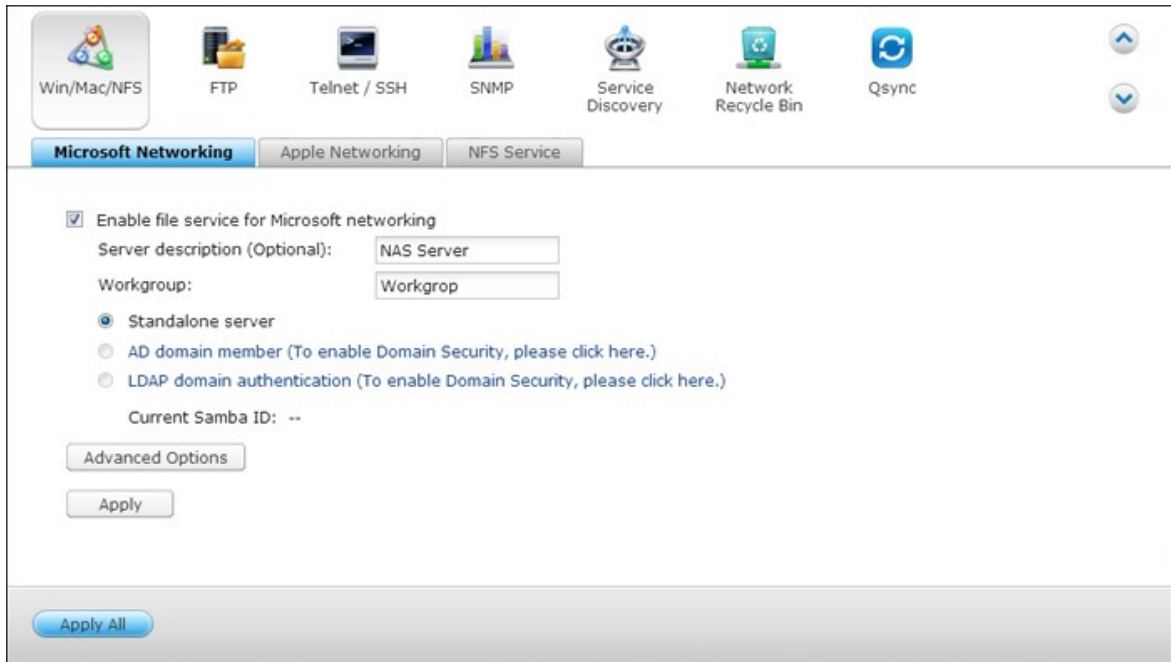
Mac OS X 10.5

NAS

가 NAS

가 "USB Printer(USB)"

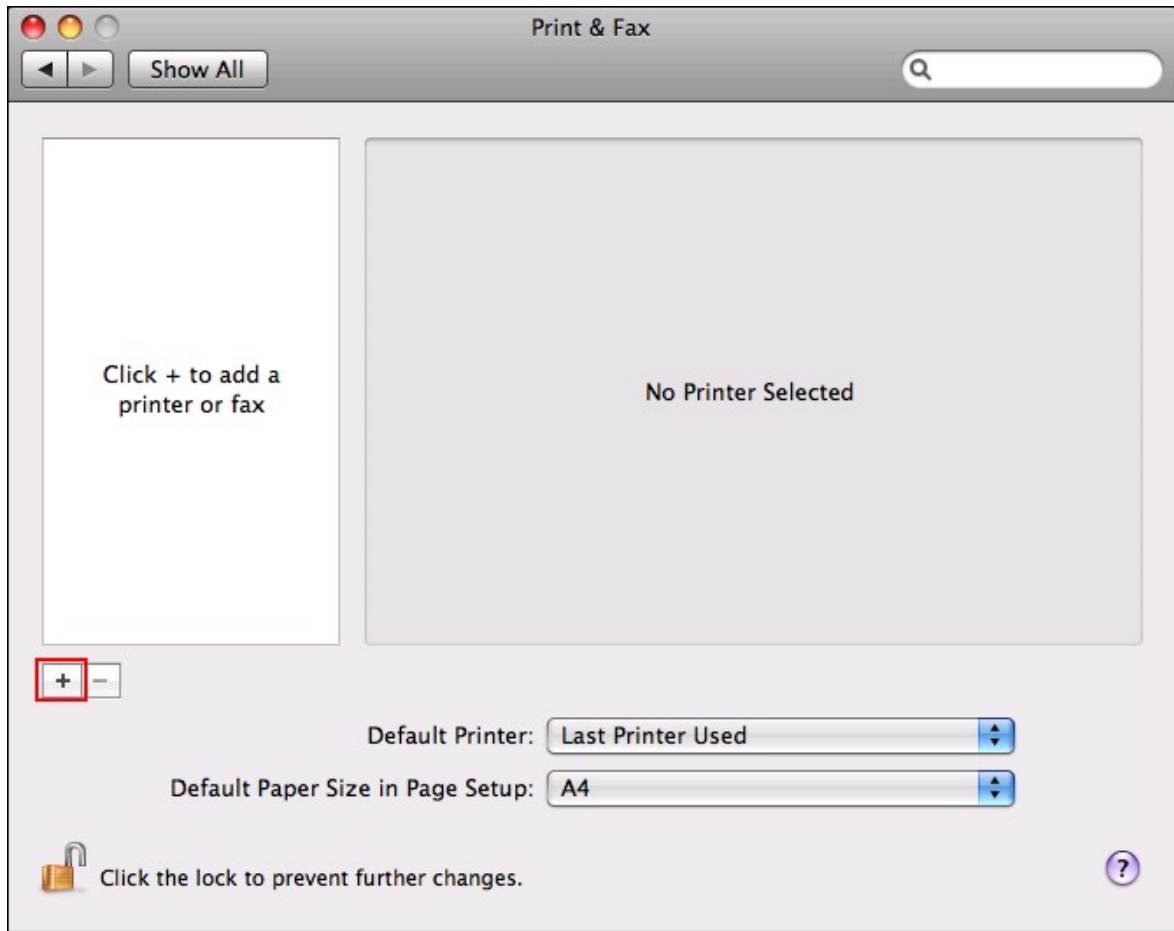
1. "Network Services()" > "Microsoft Networking(Microsoft)"
 . NAS 가



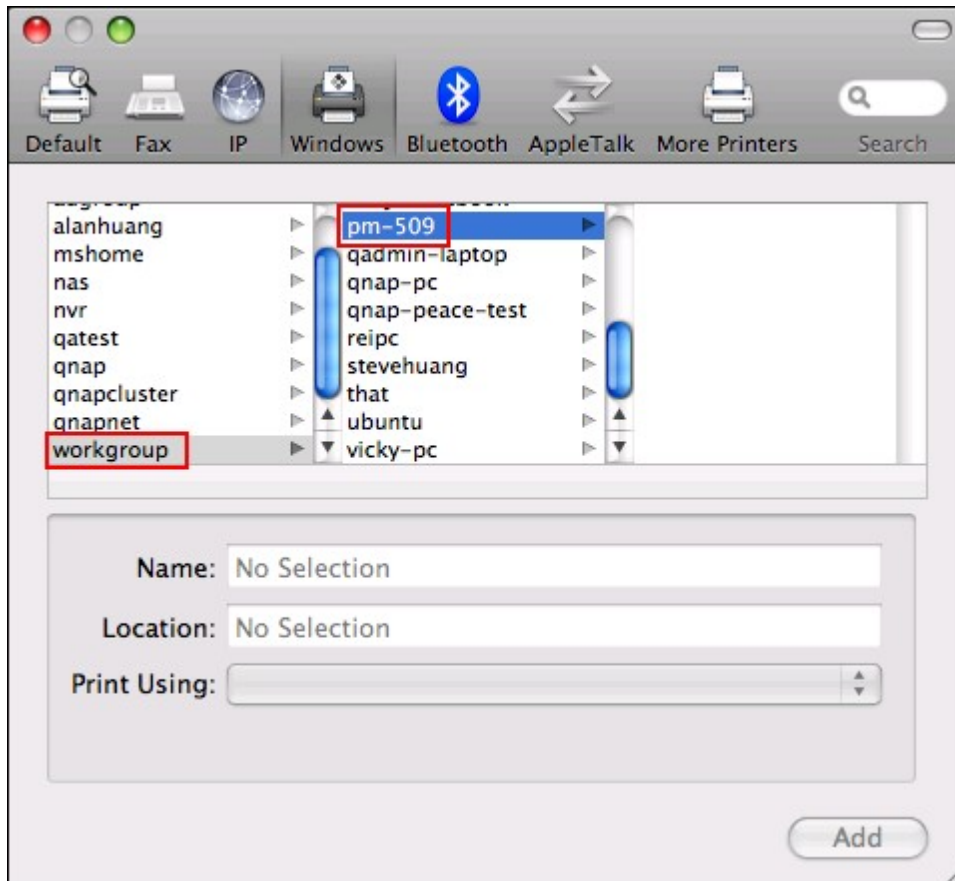
2. Mac "Print & Fax()"



3. + 가



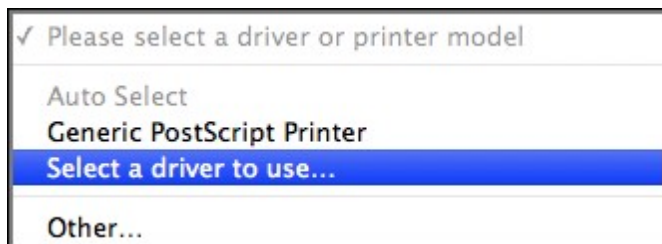
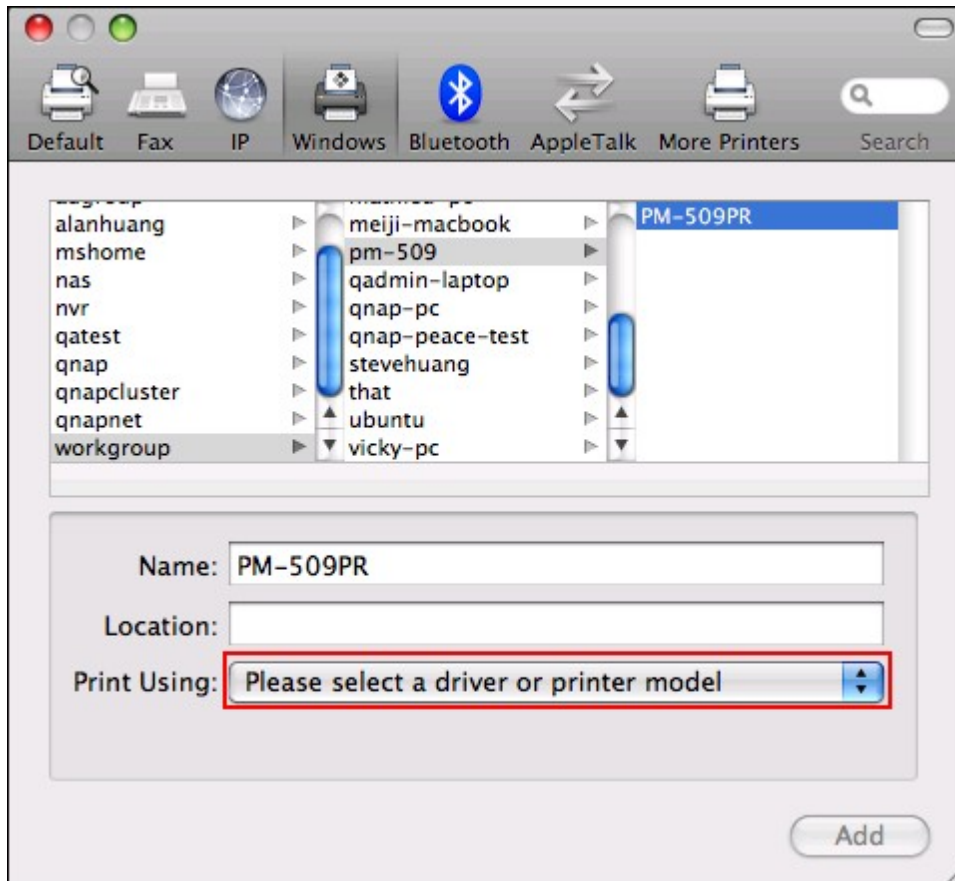
4. NAS



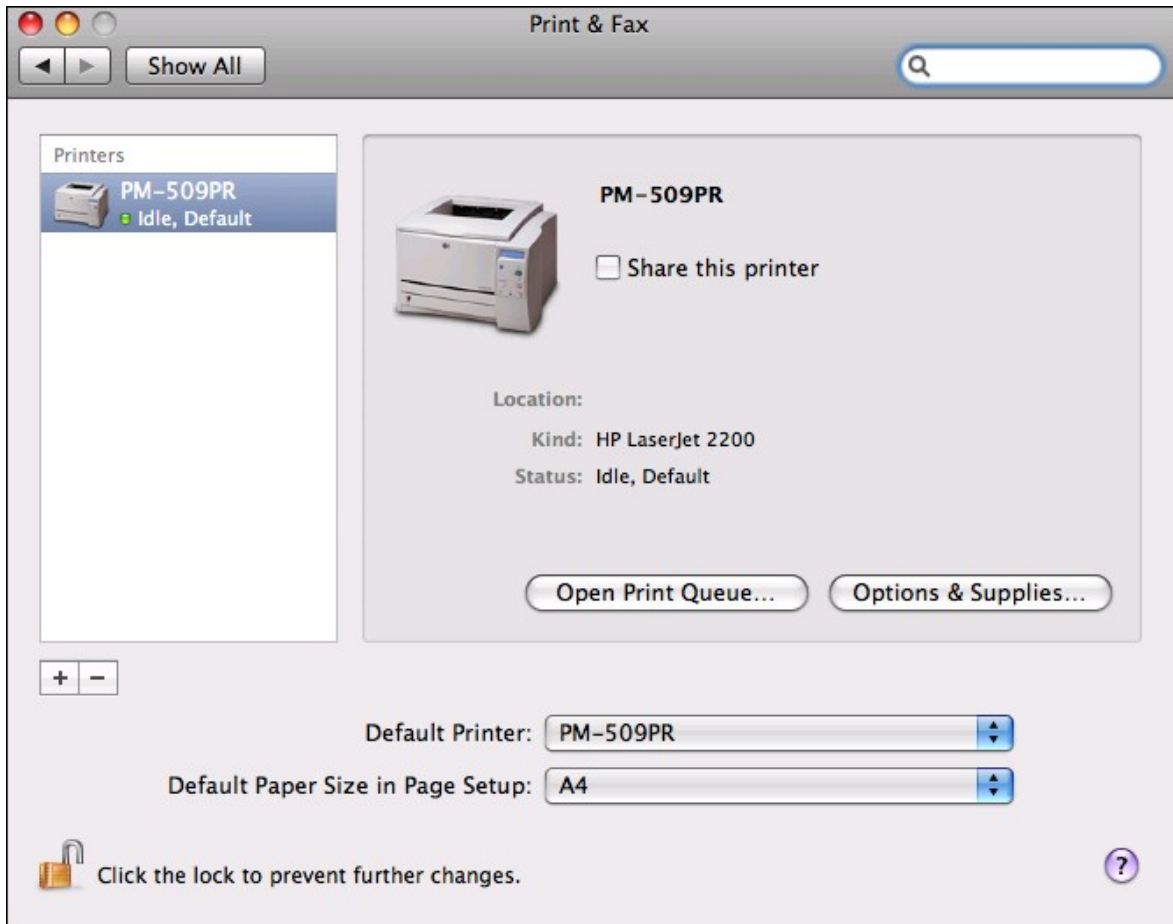
5. NAS



6.



7.

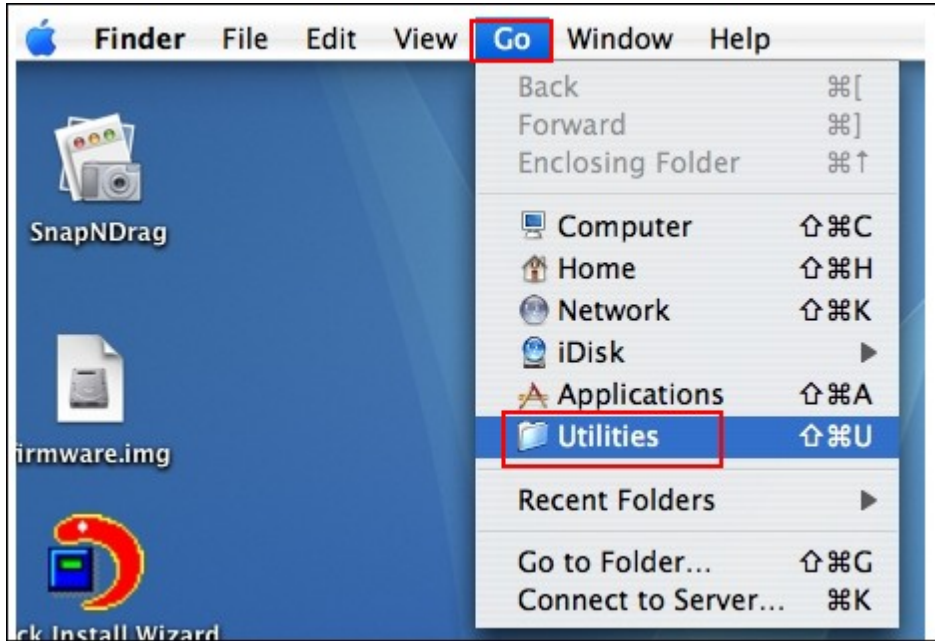


4.10.2.5 Mac OS 10.4

Mac OS X 10.4

NAS

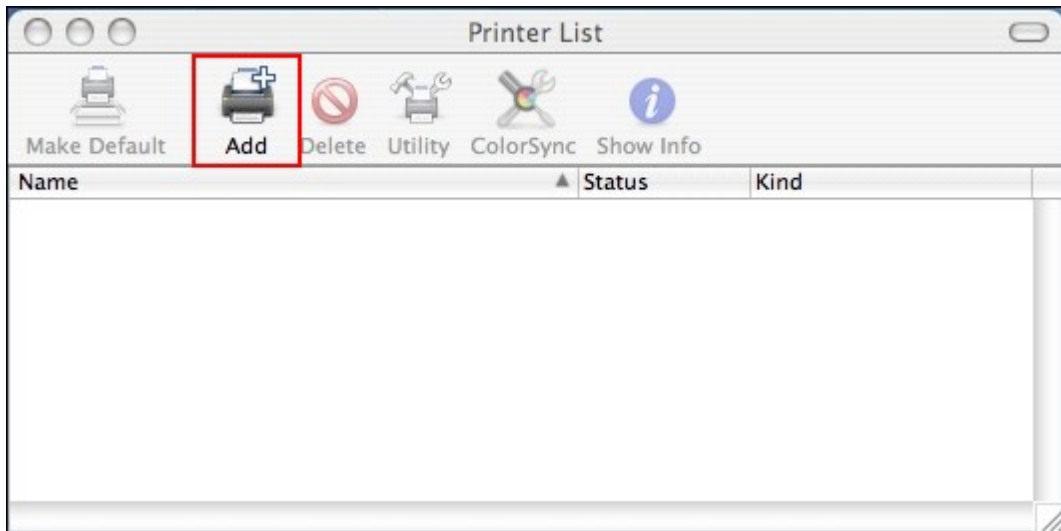
1. "Go()/ Utilities()"



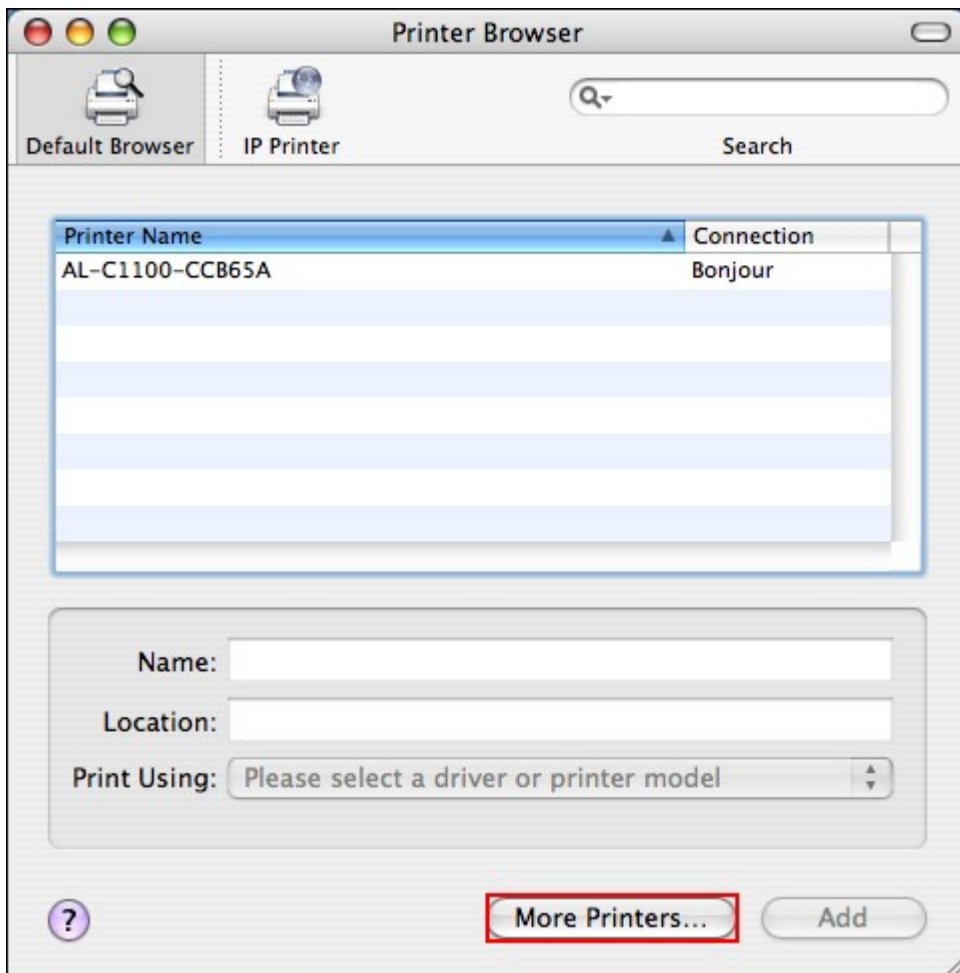
2. "Printer Setup Utility()"



3. Add(가)

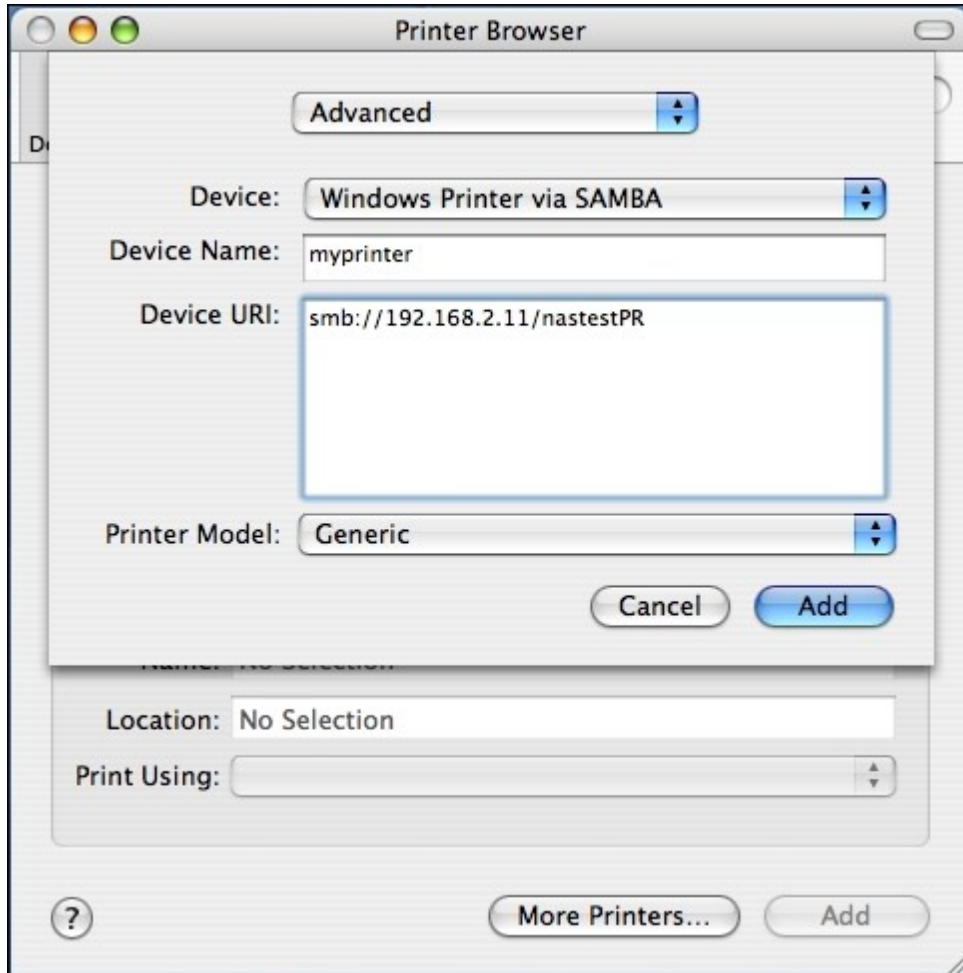


4. alt option "More Printers()"



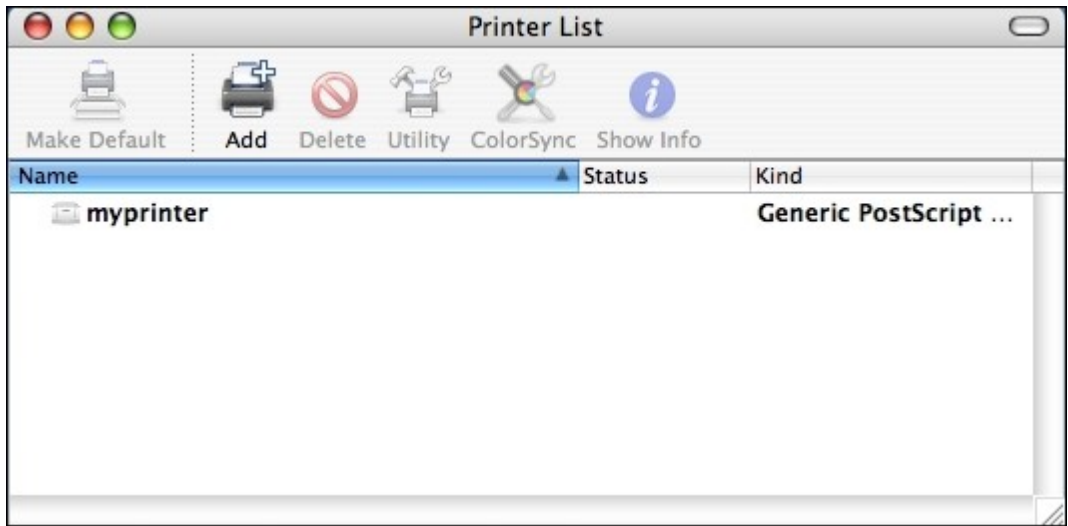
5. :
- "Advanced()"
 - "Windows Printer with SAMBA(SAMBA Windows)"

-
- URI smb://NAS IP/ "Device Configuration()/ USB Printer(USB)"
- Printer Model() "Generic()"
- Add(가)



*"alt" "More Printers()"

6. 가 가



: NAS Mac OS .

4.10.2.6 Linux (Ubuntu 10.10)

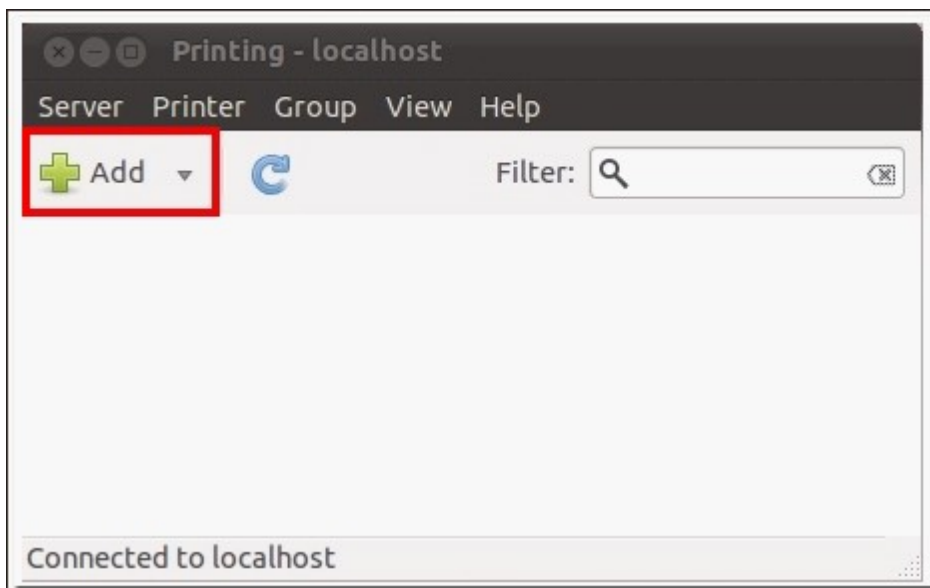
Linux (Ubuntu 10.10)

NAS

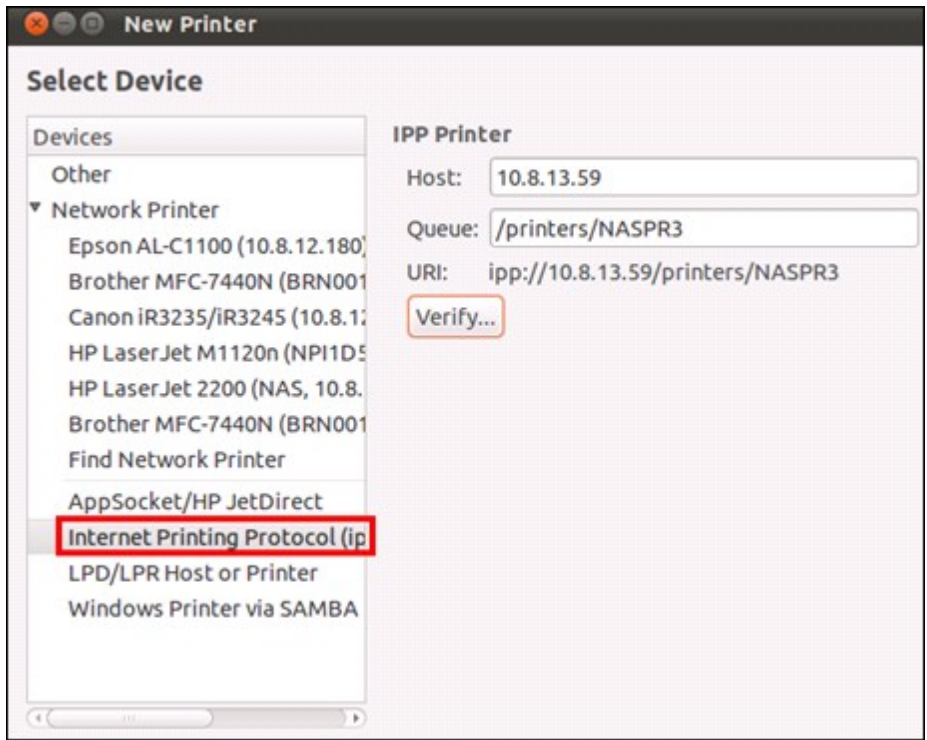
1. "System()" "Administration()" "Printing()"



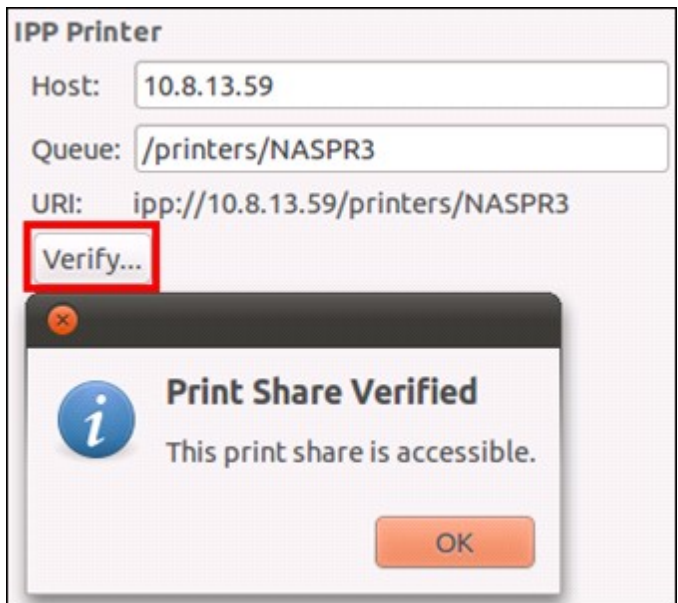
2. "Add(가)" 가



3. "Network Printer()" "Internet Printing Protocol (ipp)(
(ipp))" "Host()" "NAS IP" "/printers"
"Queue()" "printers/"



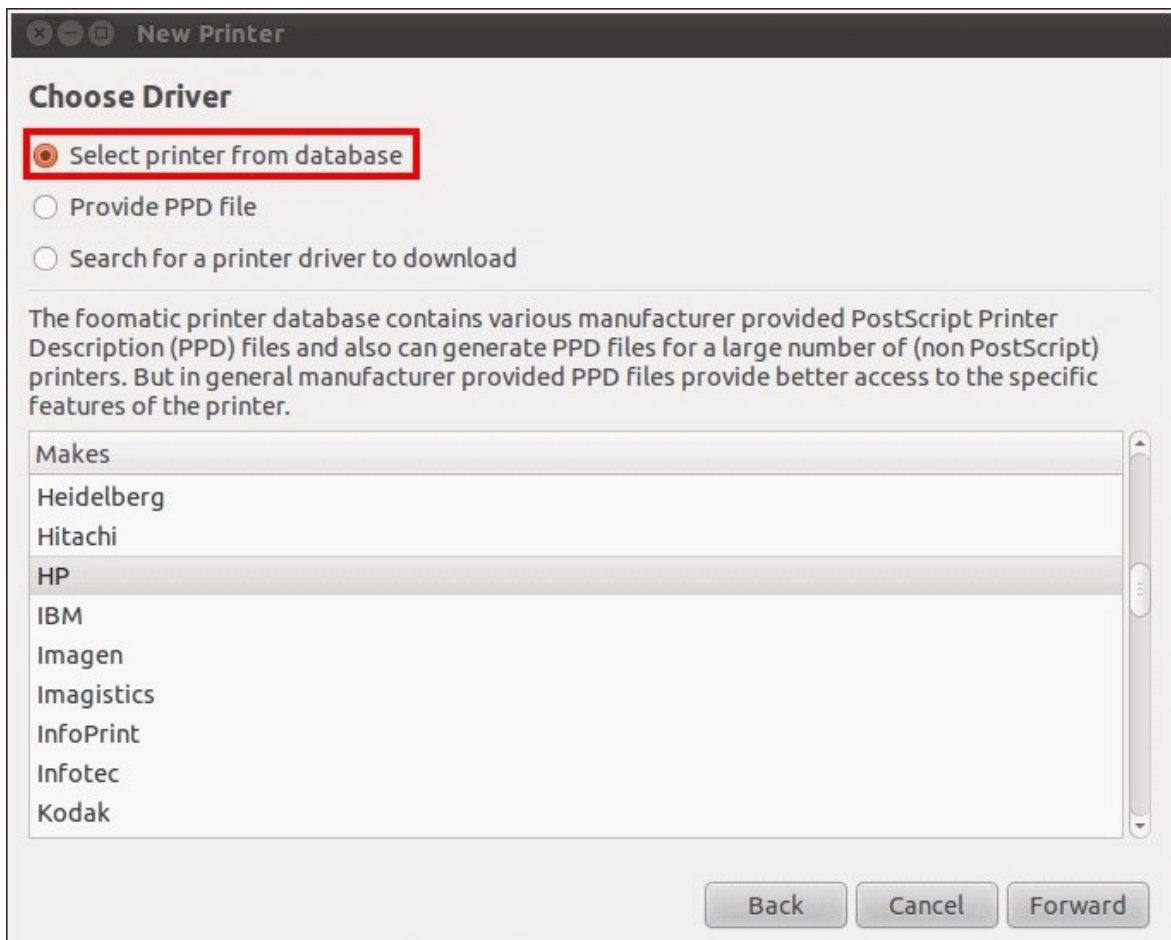
4. "Verify()"



5. 가

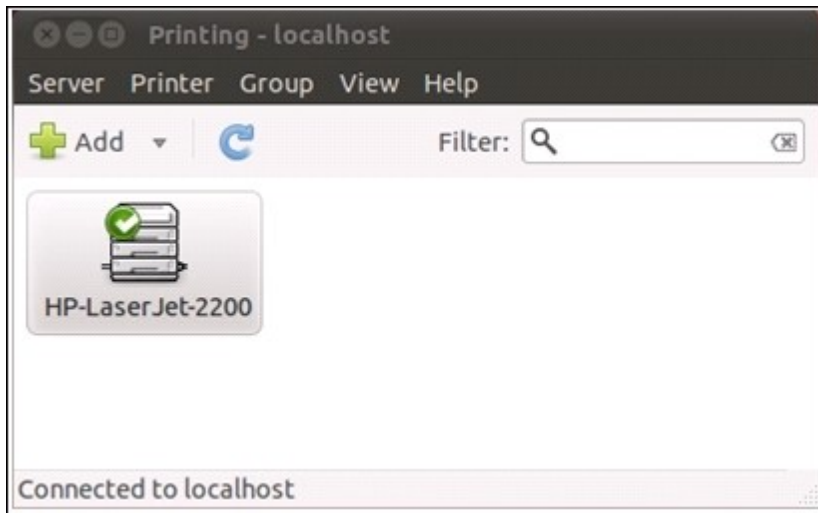


6.



7.

가



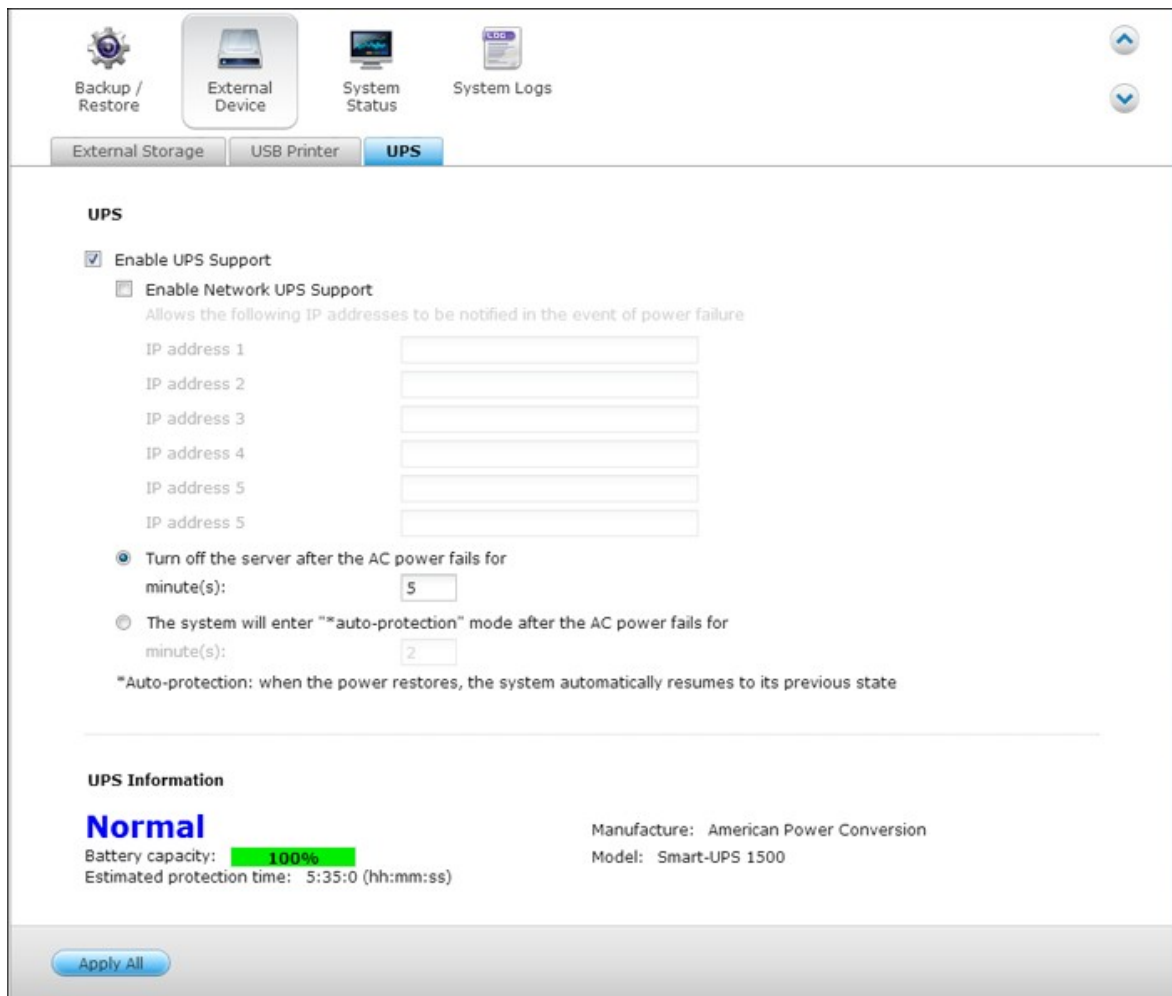
4.10.3 UPS

UPS() NAS
 NAS UPS

- USB

USB :


1. USB UPS NAS
2. "Enable UPS Support (UPS)"
3. AC NAS가
 NAS가 . NAS가 가
 NAS가
4. "Apply All()"





- S N M P


SNMP :

1. NAS가 SNMP UPS
2. "Enable UPS Support (UPS)"
3. "Protocol()" 'APC UPS with SNMP management(SNMP APC UPS) "
4. SNMP UPS IP
5. AC NAS가 NAS가 . NAS가 가 NAS가
6. "Apply All()"


Backup /
Restore


External
Device


System
Status


System Logs

↑
↓

External Storage
USB Printer
UPS

UPS

Enable UPS Support

Protocol: APC UPS with SNMP management ▼

IP Address of UPS: 172.17.25.220

Turn off the server after the AC power fails for
minute(s): 5

The system will enter "auto-protection" mode after the AC power fails for
minute(s): 2

*Auto-protection: when the power restores, the system automatically resumes to its previous state

UPS Information

Normal

Battery capacity: --

Estimated protection time: --

Manufacture: American Power Conversion

Model: apc-snmp-ups

Apply All

- UPS 가 UPS NAS UPS
- USB NAS :
1. NAS(UPS)가 UPS
 2. "Enable UPS Support (UPS)"
 3. "Enable network UPS Support(UPS)" NAS가
USB UPS
 4. AC NAS가 NAS가 NAS가 가
 5. UPS "IP "
 6. "Apply All()" NAS

Backup / Restore External Device System Status System Logs

External Storage USB Printer **UPS**

UPS

Enable UPS Support

Enable Network UPS Support
Allows the following IP addresses to be notified in the event of power failure

IP address 1:

IP address 2:

IP address 3:

IP address 4:

IP address 5:

IP address 6:

Turn off the server after the AC power fails for
minute(s):

The system will enter "auto-protection" mode after the AC power fails for
minute(s):

*Auto-protection: when the power restores, the system automatically resumes to its previous state

UPS Information

Normal

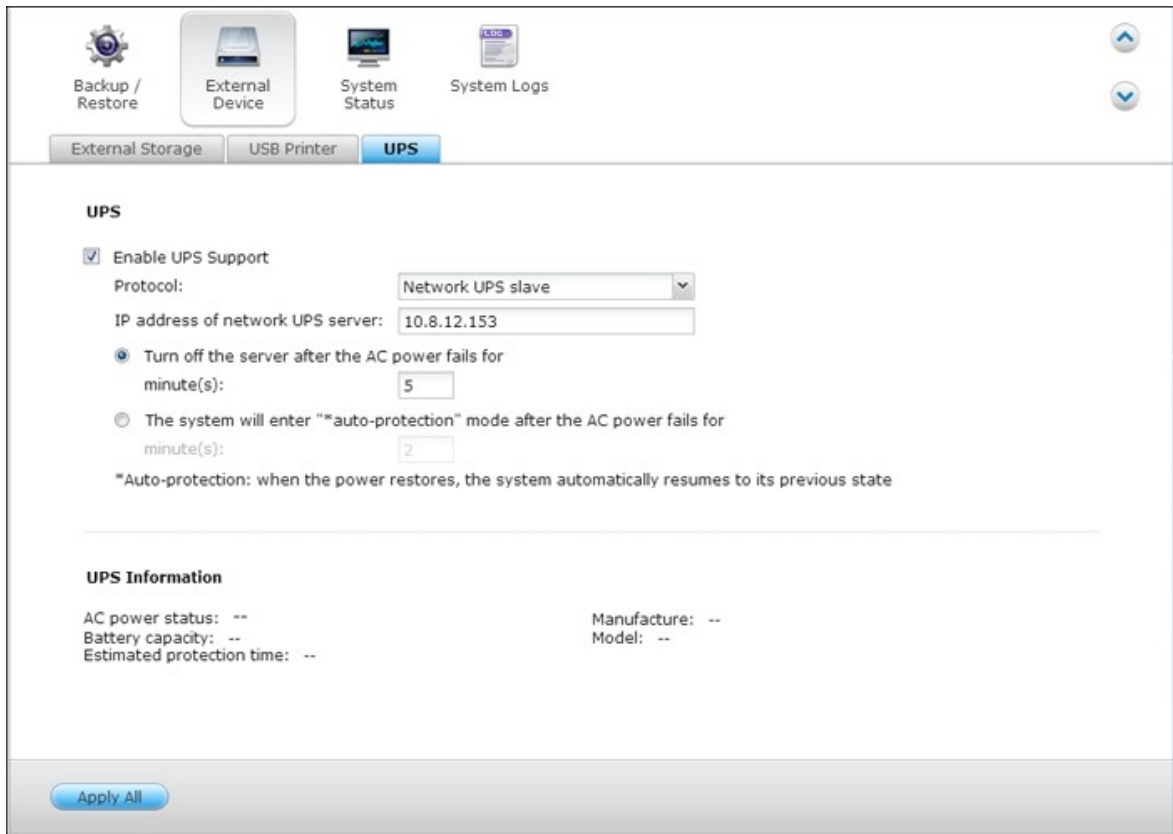
Battery capacity:

Estimated protection time: 3:57:0 (hh:mm:ss)

Manufacture: American Power Conversion
Model: Smart-UPS 1500

[Apply All](#)

- NAS : UPS가
1. NAS가 UPS
 2. "Enable UPS Support (UPS)"
 3. "Protocol()" "Network UPS slave(UPS)"
 4. UPS IP
 5. AC NAS가 NAS가 NAS가 NAS가 가
 6. "Apply All()"



: UPS 가 SNMP QNAP NAS , UPS
 NAS IP

NAS UPS :

가 "System Event Logs()"

NAS 가 "UPS Settings(UPS)"

, NAS

- NAS가
- NAS가

	NAS가	UPS가 , NAS가
	NAS가	NAS가

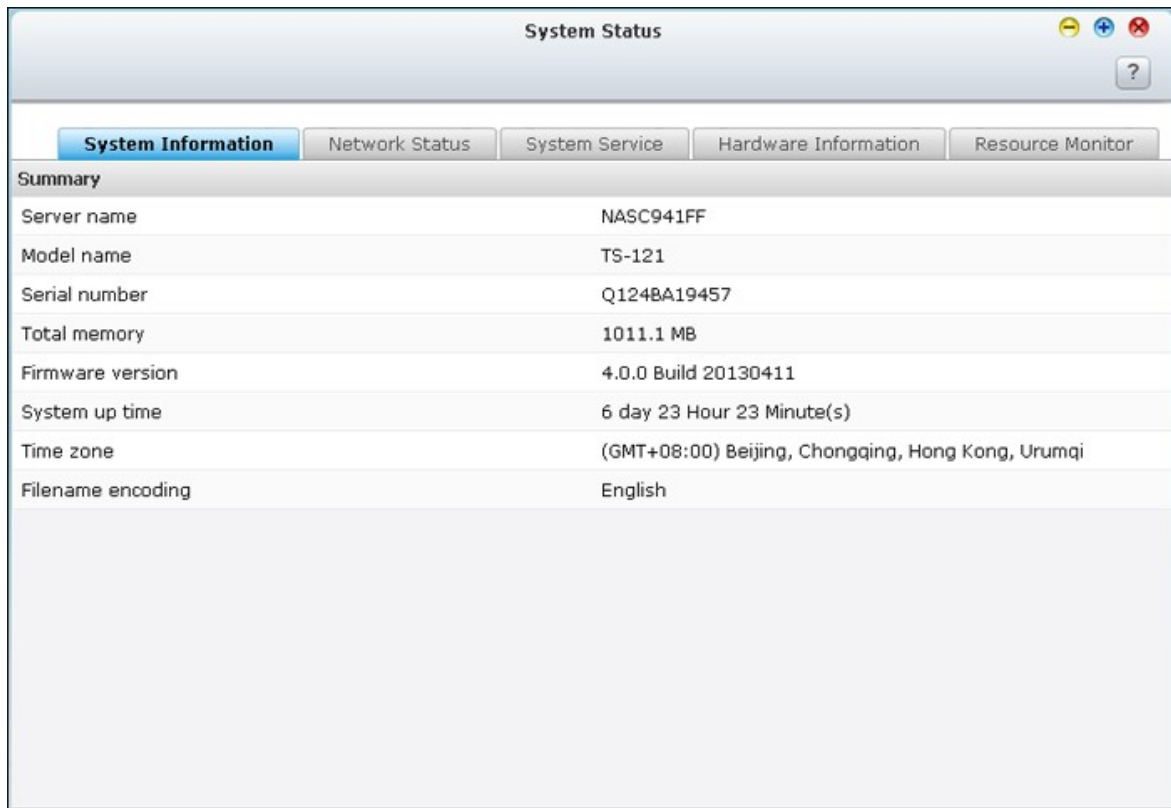
NAS가 UPS 가 , WOL(Wake on LAN)*
 NAS (NAS UPS 가 WOL WOL NAS
).

* TS- 110, TS- 119, TS- 210, TS- 219, TS- 219P, TS- 410, TS- 419P, TS- 410U, TS- 419U,
 TS- 112, TS- 212, TS- 412, TS- 412U <http://www.qnap.com>

NAS UPS 가 , NAS System Settings() "> Power
 Recovery()"



4.11



The screenshot shows a window titled "System Status" with a standard macOS-style title bar (yellow, green, red buttons and a question mark icon). Below the title bar is a navigation bar with five tabs: "System Information" (selected), "Network Status", "System Service", "Hardware Information", and "Resource Monitor". The main content area displays a "Summary" section with the following information:

Server name	NASC941FF
Model name	TS-121
Serial number	Q124BA19457
Total memory	1011.1 MB
Firmware version	4.0.0 Build 20130411
System up time	6 day 23 Hour 23 Minute(s)
Time zone	(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi
Filename encoding	English

System Status

System Information **Network Status** System Service Hardware Information Resource Monitor

Ethernet 1

Link	Up
IP address	192.168.0.17(DHCP)
MAC address	00:08:9B:C9:41:FF
Subnet mask	255.255.255.0
DNS	61.31.233.1 61.31.1.1 168.95.1.1
Packets received	13142160
Packets sent	18240597
Error packets	0

NAS가

System Status		
System Information	Network Status	System Service
Antivirus		
Enabled	<input checked="" type="radio"/>	
Apple Networking		
Enabled	<input type="radio"/>	
Apple Zone name	*	
DDNS Service		
Enabled	<input type="radio"/>	
Disk Management		
Enable iSCSI target service	<input type="radio"/>	
Port	3260	
Download Station		
Enabled	<input checked="" type="radio"/>	
FTP Service		
Enabled	<input checked="" type="radio"/>	
Port	21	
Maximum connections	30	
LDAP Server		
Enabled	<input type="radio"/>	
Rsync Server		
Enabled	<input checked="" type="radio"/>	
RTRR Server		
Enabled	<input type="radio"/>	
RADIUS Server		
Enabled	<input type="radio"/>	
Service Binding		
Enabled	<input type="radio"/>	
SNMP		
Enabled	<input type="radio"/>	
Port	161	
Surveillance Station		
Enabled	<input checked="" type="radio"/>	
Syslog Server		
Enabled	<input type="radio"/>	
System Port Management		
Port	8080	
Secure connection port	443	

NAS

The screenshot shows a window titled "System Status" with a standard macOS-style title bar (yellow, green, red buttons and a help icon). Below the title bar is a navigation bar with five tabs: "System Information", "Network Status", "System Service", "Hardware Information" (which is selected and highlighted in blue), and "Resource Monitor".

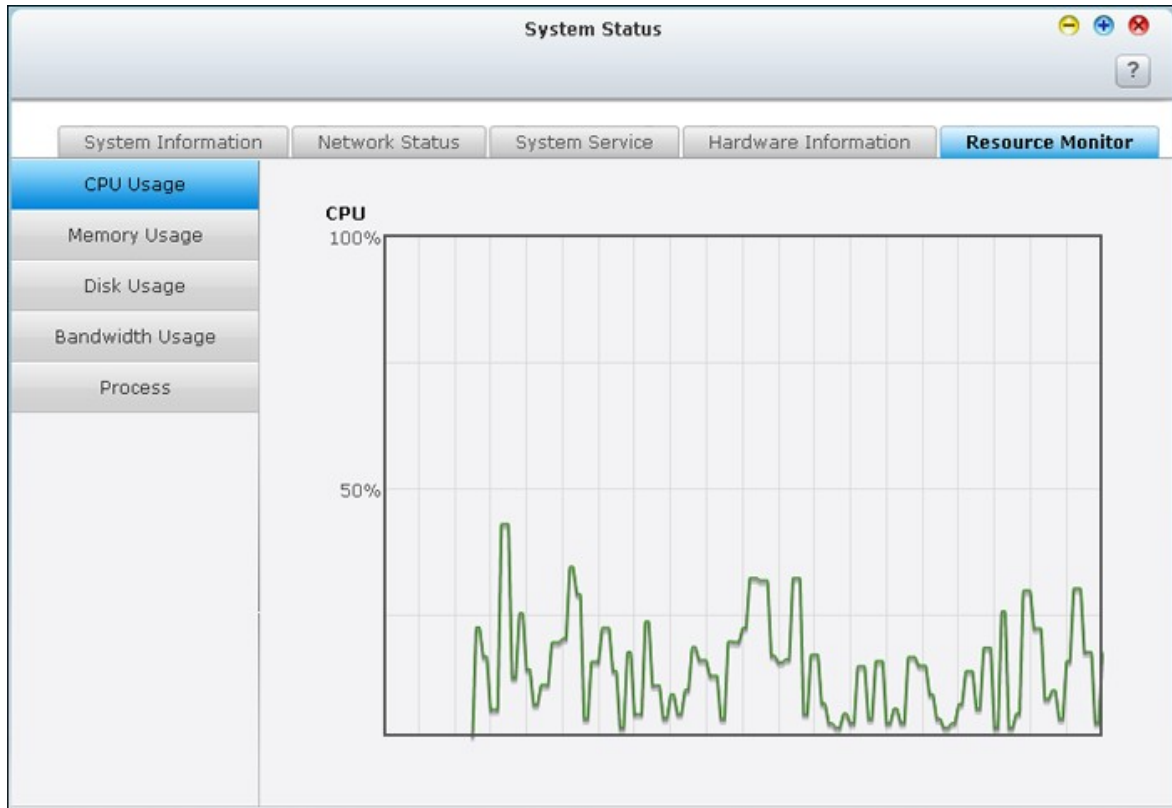
The main content area is titled "My NAS" and displays a table of hardware metrics:

CPU Usage	17.8 %
Total memory	1011.1 MB
Free memory	650.5 MB
System temperature	47°C / 116°F
HDD 1 temperature	39°C / 102°F

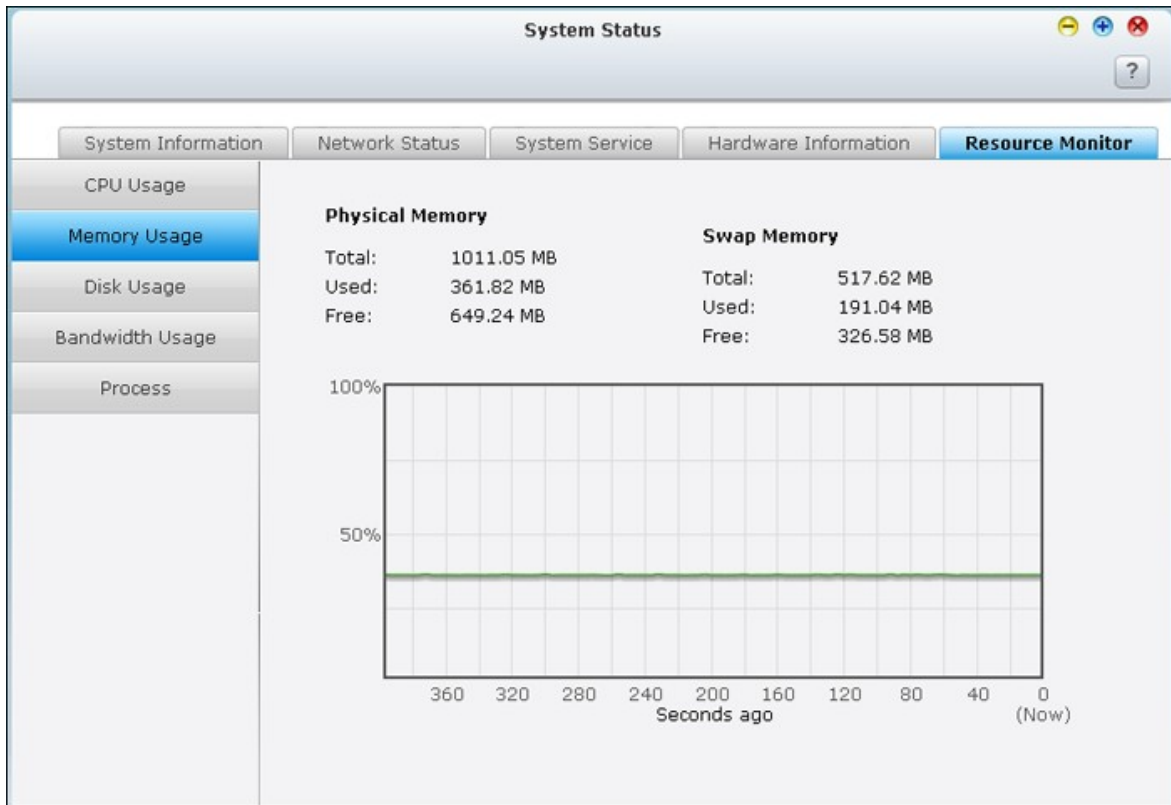
Below the table is a large, empty light gray rectangular area.

NAS CPU

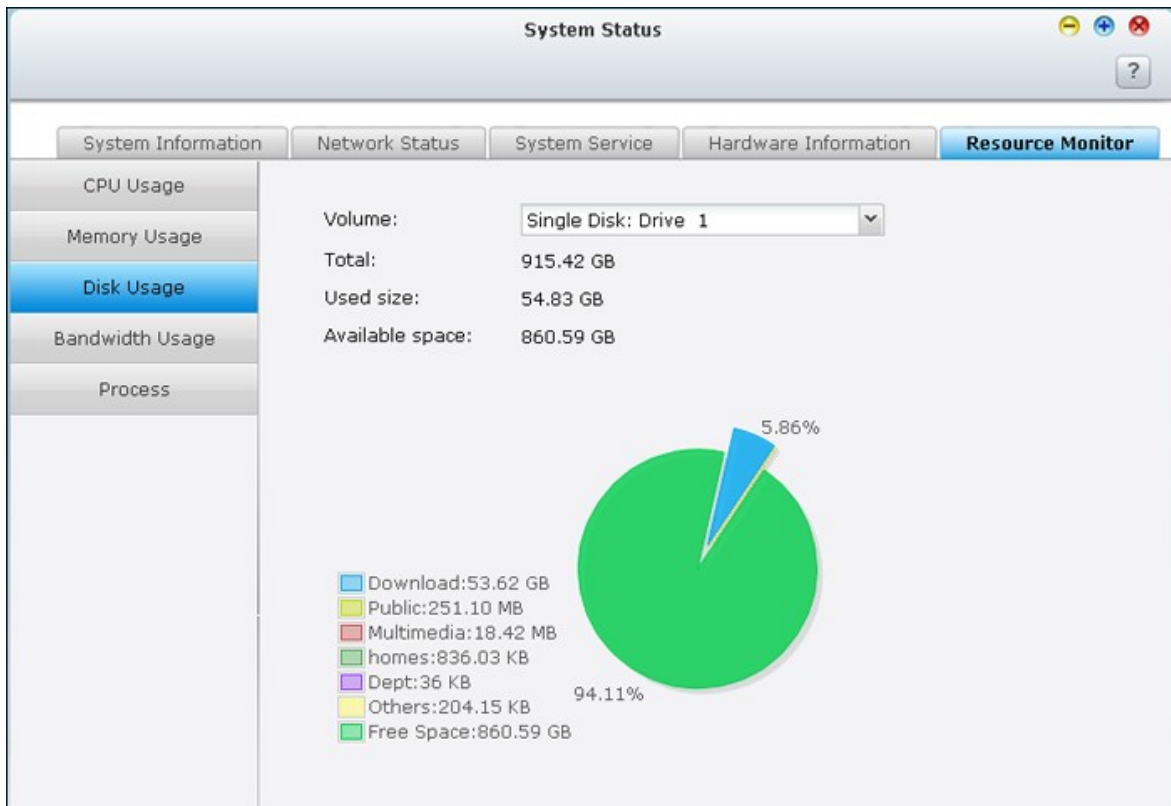
- CPU Usage(CPU): NAS CPU



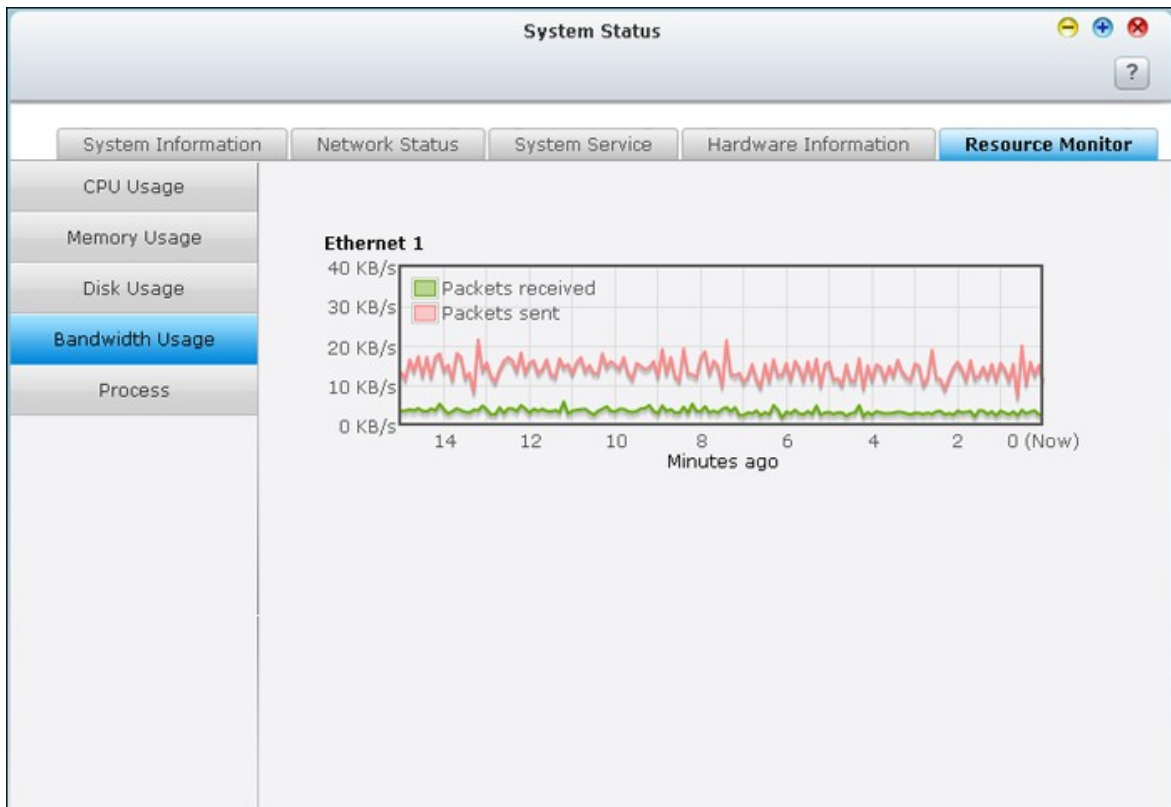
- Memory Usage(): NAS



- Disk Usage():



- Bandwidth Usage(): NAS 가 LAN



- Process(): NAS

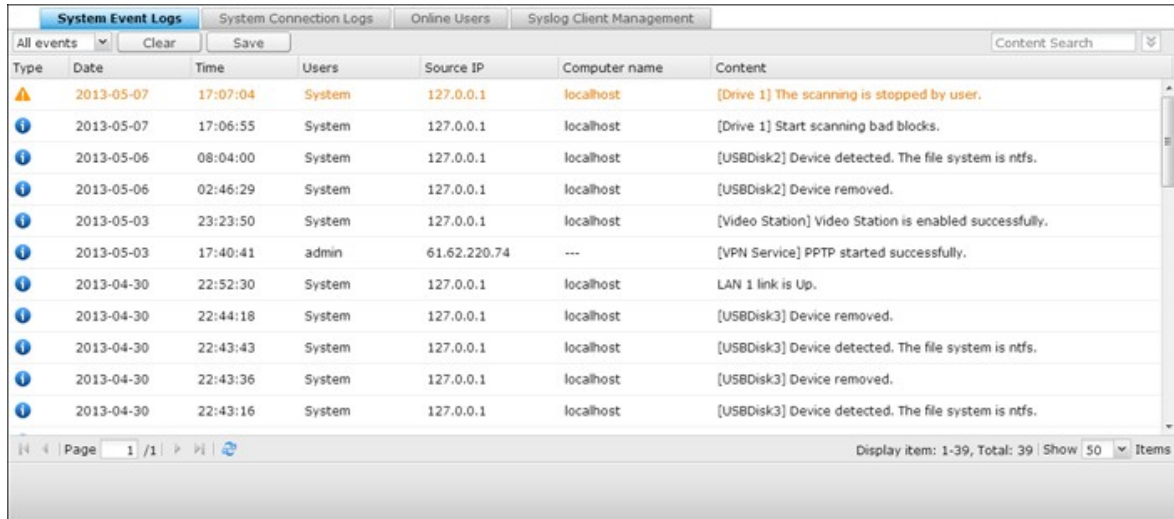
Process Name	Users	PID	CPU ...	Memory ^
md9_raid1	admin	449	0.9 %	0 K
top	admin	10847	4.6 %	872 K
tthttpd	admin	26325	0 %	1748 K
twonkymediaserv	admin	4157	0 %	1776 K
apache	httpdusr	23902	0 %	1828 K
mysqld	admin	7217	0 %	1880 K
nvrtd	admin	17675	0 %	2156 K
iscsid	admin	7143	0 %	2200 K
manaRequest.cgi	admin	10876	3.7 %	3164 K
manaRequest.cgi	admin	10839	0 %	3168 K
manaRequest.cgi	admin	10854	4.6 %	3184 K
squid	httpdusr	7093	0 %	3272 K
apache	httpdusr	10123	0 %	3488 K
proftpd	guest	6790	0 %	4504 K
btd	admin	6424	0.9 %	8148 K

4.12

NAS

10,000

"Clear()"



The screenshot shows a web-based interface for "System Event Logs". At the top, there are tabs for "System Event Logs", "System Connection Logs", "Online Users", and "Syslog Client Management". Below the tabs, there are buttons for "All events", "Clear", and "Save", along with a "Content Search" input field. The main area contains a table with the following columns: Type, Date, Time, Users, Source IP, Computer name, and Content. The table lists several events, including a warning about scanning being stopped by user, and several information events related to USB disk detection and removal, and video station enabling. At the bottom, there is a pagination control showing "Page 1 / 1" and "Display item: 1-39, Total: 39 | Show 50 Items".

Type	Date	Time	Users	Source IP	Computer name	Content
Warning	2013-05-07	17:07:04	System	127.0.0.1	localhost	[Drive 1] The scanning is stopped by user.
Information	2013-05-07	17:06:55	System	127.0.0.1	localhost	[Drive 1] Start scanning bad blocks.
Information	2013-05-06	08:04:00	System	127.0.0.1	localhost	[USBDisk2] Device detected. The file system is ntfs.
Information	2013-05-06	02:46:29	System	127.0.0.1	localhost	[USBDisk2] Device removed.
Information	2013-05-03	23:23:50	System	127.0.0.1	localhost	[Video Station] Video Station is enabled successfully.
Information	2013-05-03	17:40:41	admin	61.62.220.74	---	[VPN Service] PPTP started successfully.
Information	2013-04-30	22:52:30	System	127.0.0.1	localhost	LAN 1 link is Up.
Information	2013-04-30	22:44:18	System	127.0.0.1	localhost	[USBDisk3] Device removed.
Information	2013-04-30	22:43:43	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.
Information	2013-04-30	22:43:36	System	127.0.0.1	localhost	[USBDisk3] Device removed.
Information	2013-04-30	22:43:16	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.

NAS HTTP, FTP, Telnet, SSH, AFP, SAMBA iSCSI . "Options()"

IP IP
"Clear()"

Type	Date	Time	Users	Source IP	Computer name	Connection type	Accessed Resources	Action
!	2013-05-09	17:01:49	admin	10.8.12.8	localhost	FTP	---	Logout
!	2013-05-09	17:01:40	admin	10.8.12.8	localhost	FTP	---	Login OK
!	2013-05-09	17:01:40	admin	10.8.12.8	localhost	FTP	---	Logout
!	2013-05-09	17:01:35	admin	10.8.12.8	localhost	FTP	---	Login OK
!	2013-05-09	17:01:35	admin	10.8.12.8	localhost	FTP	---	Logout
!	2013-05-09	17:01:30	admin	10.8.12.8	localhost	FTP	---	Login OK
!	2013-05-09	17:01:30	admin	10.8.12.8	localhost	FTP	---	Logout
!	2013-05-09	17:01:06	admin	10.8.12.8	localhost	FTP	---	Login OK

가 : . NAS CSV

Options

Select the connection type to be logged.

<input checked="" type="checkbox"/> HTTP	<input checked="" type="checkbox"/> FTP	<input checked="" type="checkbox"/> Telnet
<input checked="" type="checkbox"/> SSH	<input type="checkbox"/> AFP (Mac)	<input type="checkbox"/> SMB (Windows)
<input type="checkbox"/> iSCSI	<input type="checkbox"/> RADIUS	<input type="checkbox"/> VPN

When the number of logs reaches 10,000, archive the connection logs and save the file in the folder:

Download

. NAS가 "Options()"

"Stop logging()"

System Event Logs		System Connection Logs		Online Users		Syslog Client Management		
All events	Stop Logging	Options	Clear	Save	Accessed Resources Set			
Type	Date	Time	Users	Source IP	Computer name	Connection type	Accessed Resources	Action
	2013-05-10	17:31:52	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Transmissio...	Read
	2013-05-10	17:31:50	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Transmissio...	Read
	2013-05-10	17:31:48	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Transmissio...	Read
	2013-05-10	17:31:48	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Transmissio...	Read
	2013-05-10	17:31:47	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Milstead_QN...	Read
	2013-05-10	17:31:35	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Chrome_gra...	Read
	2013-05-10	17:31:30	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Chrome_gra...	Read
	2013-05-10	17:31:29	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Chrome_gra...	Read
	2013-05-10	17:31:28	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Milstead_QN...	Read
	2013-05-10	17:31:28	guest	10.8.12.6	tatehuang-nb	SAMBA	Public/Milstead_QN...	Read

Page 1 / 3 Display item: 1-10, Total: 22 Show 10 Items

NAS

가

:

IP

IP

Type	Login Date	Login Time	Users	Source IP	Computer name	Connection t...	Accessed Resources
	2013-05-09	15:27:44	admin	10.8.12.8	---	HTTP	Administration

Users search []

- Disconnect this connection
- Add to the block list**
- Disconnect this connection and block the IP

Syslog

Syslog IP

Syslog

System Event Logs System Connection Logs Online Users **Syslog Client Management**

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

Syslog server IP:

UDP port:

Select the logs to record

System Event Logs

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

Apply All

CSV

0 - UNKNOWN	0 - UNKNOWN
1 - SAMBA	1 - DEL
2 - FTP	2 - READ
3 - HTTP	3 - WRITE
4 - NFS	4 - OPEN
5 - AFP	5 - MKDIR
6 - TELNET	6 - NFSMOUNT_SUCC
7 - SSH	7 - NFSMOUNT_FAIL
8 - ISCSI	8 - RENAME
	9 - LOGIN_FAIL
	10 - LOGIN_SUCC
	11 - LOGOUT
	12 - NFSUMOUNT
	13 - COPY
	14 - MOVE
	15 - ADD

"Search()"

IP

System Logs

System Event Logs | System Connection Logs | Online Users | Syslog Client Management

All events | Clear | Save | Content Search

Log type: All events | Date: 2013-05-03 | 2013-05-11

Users: system | Source IP:

Computer name:

Search | Reset

Type	Date	Time	Users	Source IP	Computer name	Content
⚠	2013-05-07	17:07:04	System	127.0.0.1	localhost	[Drive 1] The scanning is stopped by user.
ℹ	2013-05-07	17:06:55	System	127.0.0.1	localhost	[Drive 1] Start scanning bad blocks.
ℹ	2013-05-06	08:04:00	System	127.0.0.1	localhost	[USBDisk2] Device detected. The file system is ntfs.
ℹ	2013-05-06	02:46:29	System	127.0.0.1	localhost	[USBDisk2] Device removed.
ℹ	2013-05-03	23:23:50	System	127.0.0.1	localhost	[Video Station] Video Station is enabled successfully.

Page 1 / 1 | Display item: 1-5, Total: 5 | Show 50 Items

IP

5.

$\overline{356}$

$\overline{371}$

$\overline{372}$

$\overline{406}$

$\overline{408}$

5.1

NAS

가

- admin: " "
- : " " "guest"
- : " " .FTP

NAS

NAS

NAS

<http://www.qnap.com>

	NAS
1,024	TS-110, TS-210
2,048	TS-112, TS-119, TS-119P+, TS-212, TS-219P+, TS-410, TS-239 Pro II+, TS-259 Pro+
4,096	TS-412, TS-419P+, TS-410U, TS-419U, TS-412U, TS-419U+, SS-439 Pro, SS-839 Pro, TS-439 Pro II+, TS-459U-RP/SP, TS-459U-RP+/SP+, TS-459 Pro+, TS-459 Pro II, TS-559 Pro+, TS-559 Pro II, TS-659 Pro+, TS-659 Pro II, TS-859 Pro+, TS-859U-RP, TS-859U-RP+, TS-809 Pro, TS-809U-RP, TS-879 Pro, TS-1079 Pro, TS-879U-RP, TS-EC879U-RP, TS-1279U-RP, TS-EC1279U-RP

가

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- 32 ."/ \
- [] ; | = , + * ? < > ` `

- 16 . 6

Users User Groups Shared Folders Quota Domain Security

Create Delete Home Folders Local Users

<input type="checkbox"/>	Username	Description	Quota	Action
<input type="checkbox"/>	admin	administrator	--	
<input checked="" type="checkbox"/>	Ted	User	--	

Page 1 / 1 Display item: 1-2, Total: 2 Show 10 Items

NAS

"Create a User()"

The screenshot displays a web-based management interface for a Network Attached Storage (NAS) device. At the top, there are navigation icons for 'Users', 'User Groups', 'Shared Folders', 'Quota', and 'Domain Security'. Below these is a toolbar with 'Create', 'Delete', and 'Home Folders' buttons. A dropdown menu is open under the 'Create' button, with 'Create a User' selected and highlighted by a red box. Other options in the menu are 'Create Multiple Users' and 'Import/Export Users'. The main area shows a table of 'Local Users' with columns for 'Description', 'Quota', and 'Action'. Two users are listed: 'administrator' and 'User'. The 'administrator' user has a quota of '--' and the 'User' user also has a quota of '--'. The 'Action' column contains icons for editing, deleting, and other user management functions. At the bottom, there is a pagination control showing 'Page 1 / 1' and a display count of 'Display item: 1-2, Total: 2 | Show 10 Items'.

	Description	Quota	Action
administrator	administrator	--	
User	User	--	

Create a User

Create a User

This wizard guides you through the following settings:

- Set User Information
- Assign User Group
- Personal Shared Folder
- Set Shared Folder Privilege
- Set Application Privilege

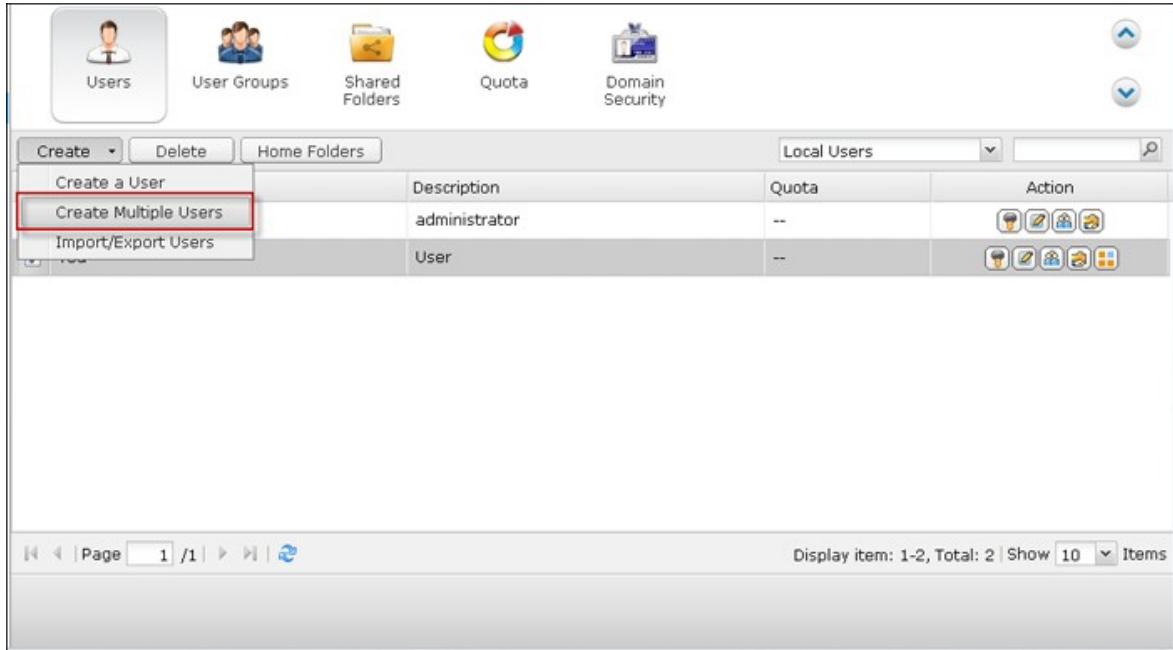
Step 1/9

Next

Cancel

1. NAS

"Create Multiple User()"



2. Next()"



3. test . 0001 ,
10 . NAS가 , test0001,
test0002, test0003...test0010

Multiple Users Creation Wizard

Create Multiple Users

User Name Prefix:

User Name Start No:

Number of Users:

Password:

Verify Password:

Note: The password should only contain 0-16 characters. For higher security, you are recommended to use a password of at least 6 characters.

Step 2/5 Back Next Cancel

4. 가 NAS 가

Multiple Users Creation Wizard

Create Private Network Share

Do you want to create a private network share for each user?

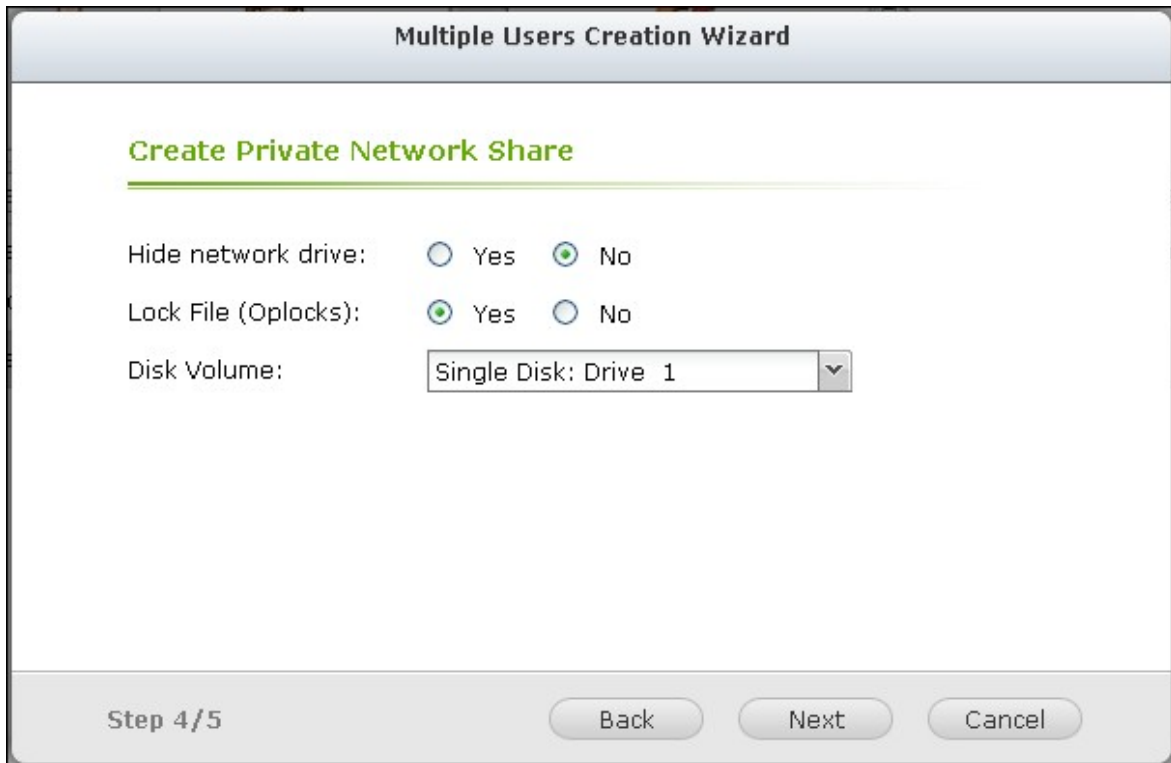
Yes

No

Note: If you select **No**, will direct the completion of the wizard, you can later modify permissions management.

Step 3/5 Back Next Cancel

5.



6.

. "Finish()"



7.

Users User Groups Shared Folders Quota Domain Security

Create Delete Home Folders Local Users

Username	Description	Quota	Action
<input type="checkbox"/> admin	administrator	--	
<input type="checkbox"/> Ted	User	--	
<input type="checkbox"/> test01		--	
<input type="checkbox"/> test02		--	
<input type="checkbox"/> test03		--	
<input type="checkbox"/> test04		--	
<input type="checkbox"/> test05		--	
<input type="checkbox"/> test06		--	
<input type="checkbox"/> test07		--	
<input type="checkbox"/> test08		--	
<input type="checkbox"/> test09		--	
<input type="checkbox"/> test10		--	

Page 1 / 1 Display item: 1-12, Total: 12 Show 20 Items

8.

Users
 User Groups
 Shared Folders
 Quota
 Domain Security

Shared Folder
 Advanced Permissions
 Folder Aggregation

Create Remove Restore Default Shared Folders

<input type="checkbox"/>	Folder Name	Size	Folders	Files	Hidden	Volume	Action
<input type="checkbox"/>	Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	
<input type="checkbox"/>	Public	250.87 MB	9	88	No	Single Disk: Drive 1	
<input type="checkbox"/>	Recordings	32 KB	6	1	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	TedHome	20 KB	3	1	No	Single Disk: Drive 1	
<input type="checkbox"/>	USBDisk1	694.02 GB	30959	338379	No	USB 1	
<input type="checkbox"/>	USBDisk2	70.04 GB	868	13879	No	USB 2	
<input type="checkbox"/>	Usb	12 KB	1	1	No	Single Disk: Drive 1	
<input type="checkbox"/>	Web	16.15 KB	1	7	No	Single Disk: Drive 1	
<input type="checkbox"/>	homes	836.03 KB	8	9	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test01	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test02	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test03	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test04	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test05	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test06	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test07	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test08	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test09	4 KB	0	0	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	test10	4 KB	0	0	No	Single Disk: Drive 1	

Page 1 / 1 Display item: 1-20, Total: 20 Show 100 Items

가 /

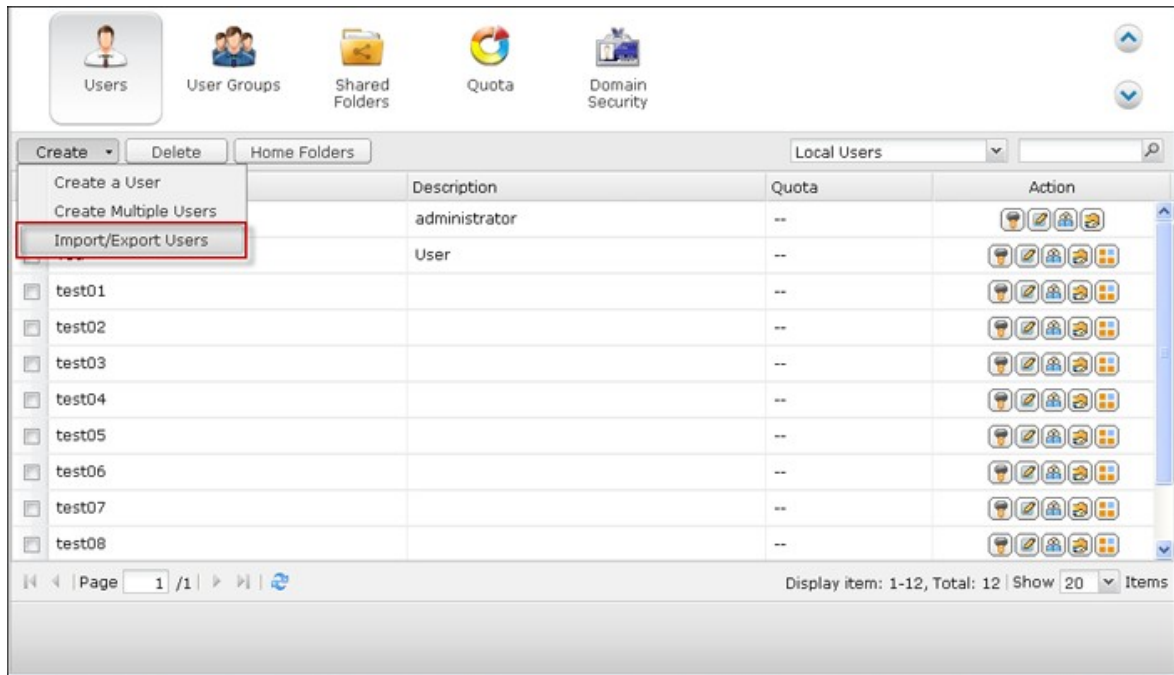
NAS 가 /

: () 가

:

NAS

1. "Import/ Export Users(가 /)"



2. "Export user and user group settings()"

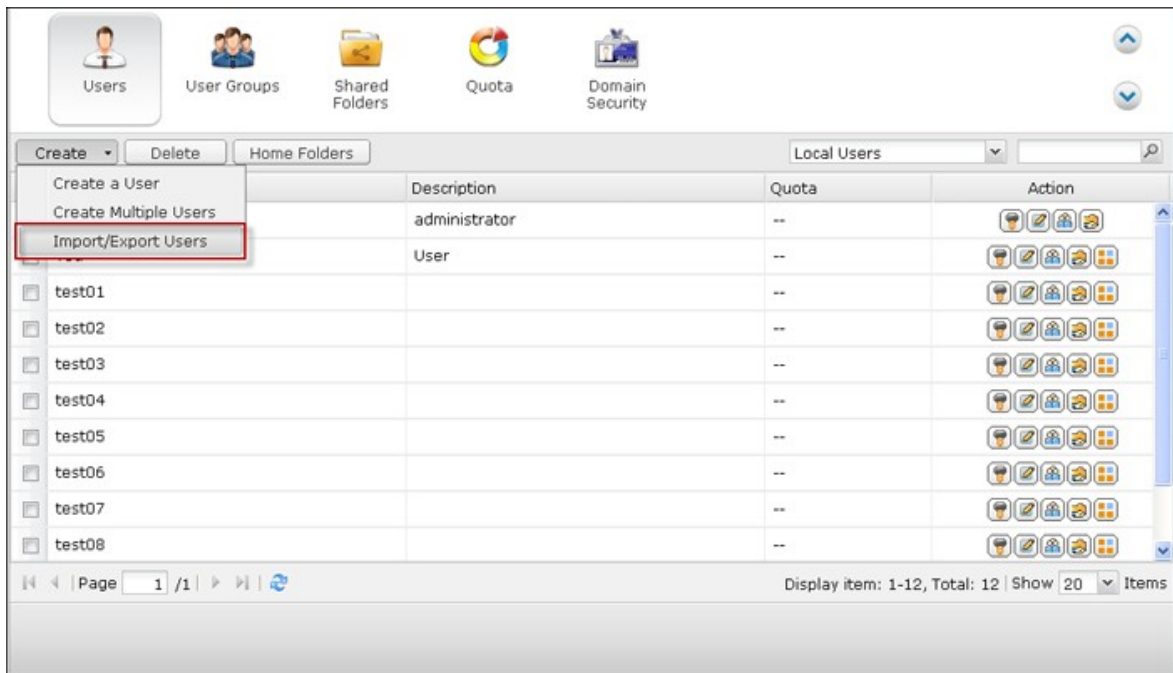
3. "NEXT()" (* .bin)
NAS 가



"Privilege Settings()" > "Quota()"

가 :
 NAS 가
 NAS 가

1. "Import/Export Users(가 /)"



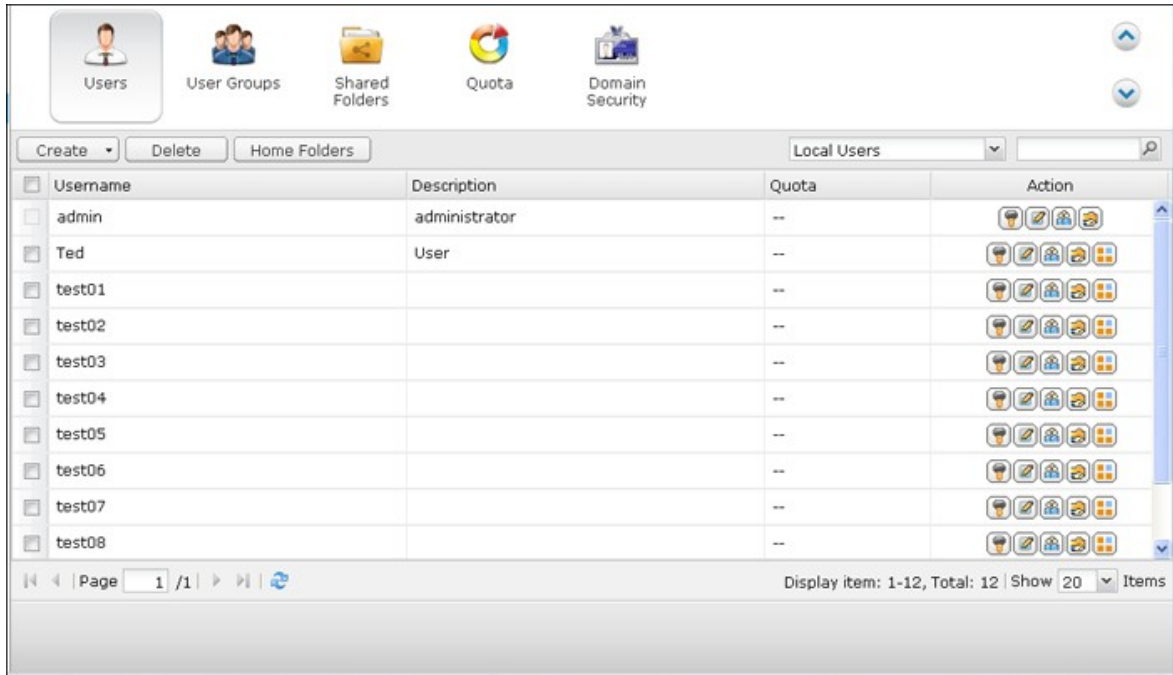
- Import user and user group settings (가)"
 "Overwrite duplicate users ()"
 "Browse()"
 bin) "Next()" 가 (*.txt, *.csv, *.bin) 가



- 가 "Finish()"



- 가



NAS TXT, CSV BIN 가

TXT

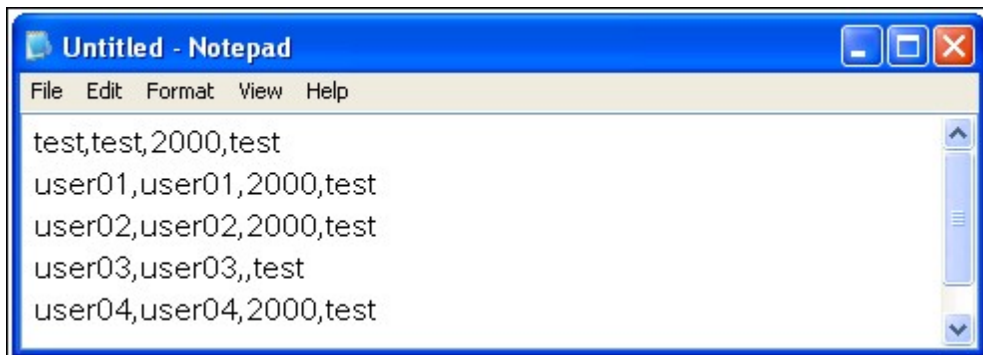
1.

2. " : , , (MB),

3. 가

4. 가 UTF-8

NAS



CSV (Excel)

1. Excel

2.

- A :
- B :
- C : (MB)
- D :

3.

가 CSV

4.

가 CSV UTF-8

	A	B	C	D
1	test	test	2000	test
2	user01	user01	2000	test
3	user02	user02	2000	test
4	user03	user03		test
5	user04	user04	2000	test
6	user05	user05	2000	test

BIN (NAS)

QNAP NAS BIN

가

"Privilege Settings()" > "Quota()"

NAS
Microsoft Networking, FTP, AFP, File Station
Homes ”

“ ”
‘admin ’

Home Folders () ”

The screenshot shows the 'Home Folders' management interface. At the top, there are navigation icons for Users, User Groups, Shared Folders, Quota, and Domain Security. Below these are buttons for 'Create', 'Delete', and 'Home Folders' (which is highlighted with a red box). A dropdown menu is set to 'Local Users'. The main area contains a table with the following columns: Username, Description, Quota, and Action.

Username	Description	Quota	Action
<input type="checkbox"/> admin	administrator	--	[Icons]
<input type="checkbox"/> Ted	User	--	[Icons]
<input type="checkbox"/> test01		--	[Icons]
<input type="checkbox"/> test02		--	[Icons]
<input type="checkbox"/> test03		--	[Icons]
<input type="checkbox"/> test04		--	[Icons]
<input type="checkbox"/> test05		--	[Icons]
<input type="checkbox"/> test06		--	[Icons]
<input type="checkbox"/> test07		--	[Icons]
<input type="checkbox"/> test08		--	[Icons]
<input type="checkbox"/> test09		--	[Icons]
<input type="checkbox"/> test10		--	[Icons]

At the bottom, there is a pagination bar showing 'Page 1 / 1' and 'Display item: 1-12, Total: 12 | Show 20 Items'.

Enable home folder for all users () ”
Apply()”

The screenshot shows the 'Home Folders' dialog box. The title bar reads 'Home Folders'. Inside the dialog, there is a checkbox labeled 'Enable home folder for all users' which is checked. Below this checkbox is a dropdown menu for 'Disk Volume' with the selected option 'Single Disk: Drive 1'. At the bottom right of the dialog, there are two buttons: 'Apply' and 'Cancel'.

5.2

. NAS

- : NAS
- :

NAS

NAS

NAS

<http://www.qnap.com>

	NAS
128	TS-110, TS-210
256	TS-112, TS-119, TS-119P+, TS-212, TS-219P+, TS-410, TS-239 Pro II+, TS-259 Pro+
512	TS-412, TS-419P+, TS-410U, TS-419U, TS-412U, TS-419U+, SS-439 Pro, SS-839 Pro, TS-439 Pro II+, TS-459U-RP/SP, TS-459U-RP+/SP+, TS-459 Pro+, TS-459 Pro II, TS-559 Pro+, TS-559 Pro II, TS-659 Pro+, TS-659 Pro II, TS-859 Pro+, TS-859U-RP, TS-859U-RP+, TS-809 Pro, TS-809U-RP, TS-879 Pro, TS-1079 Pro, TS-879U-RP, TS-EC879U-RP, TS-1279U-RP, TS-EC1279U-RP

256

"/ \ [] : ; | = , + * ? < > ` `

The screenshot shows the 'Local Groups' management interface. At the top, there are navigation icons for Users, User Groups, Shared Folders, Quota, and Domain Security. Below these are 'Create' and 'Delete' buttons, and a dropdown menu set to 'Local Groups'. The main content area is a table with the following data:

Group Name	Action
<input type="checkbox"/> administrators	[Icons]
<input type="checkbox"/> everyone	[Icons]
<input checked="" type="checkbox"/> User	[Icons]

At the bottom of the interface, there is a pagination bar with 'Page 1 / 1' and a footer that reads 'Display item: 1-3, Total: 3 | Show 10 Items'.

5.3

NAS

NAS

NAS

NAS

<http://www.qnap.com>

	NAS
256	TS-110, TS-210, TS-112, TS-119, TS-119P+, TS-212, TS-219P+, TS-x20, TS-x21, TS-410, TS-239 Pro II+, TS-259 Pro+
512	TS-412, TS-419P+, TS-410U, TS-419U, TS-412U, TS-419U+, SS-439 Pro, SS-839 Pro, TS-439 Pro II+, TS-459U-RP/SP, TS-459U-RP+/SP+, TS-459 Pro+, TS-459 Pro II, TS-559 Pro+, TS-559 Pro II, TS-659 Pro+, TS-659 Pro II, TS-859 Pro+, TS-859U-RP, TS-859U-RP+, TS-809 Pro, TS-809U-RP, TS-x70, TS-879 Pro, TS-1079 Pro, TS-879U-RP, TS-EC879U-RP, TS-1279U-RP, TS-EC1279U-RP

Folder Name	Size	Folders	Files	Hidden	Volume	Action
Download	53.29 GB	10	183	No	Single Disk: Drive 1	[Icons]
Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	[Icons]
Public	250.87 MB	9	88	No	Single Disk: Drive 1	[Icons]
Recordings	32 KB	6	1	No	Single Disk: Drive 1	[Icons]
TedHome	20 KB	3	1	No	Single Disk: Drive 1	[Icons]
USBDisk1	694.02 GB	30959	338379	No	USB 1	[Icons]
USBDisk2	70.04 GB	868	13879	No	USB 2	[Icons]
Usb	12 KB	1	1	No	Single Disk: Drive 1	[Icons]
Web	16.15 KB	1	7	No	Single Disk: Drive 1	[Icons]
homes	836.03 KB	8	9	No	Single Disk: Drive 1	[Icons]

1. Create() > Shared Folder()”

Users User Groups **Shared Folders** Quota Domain Security

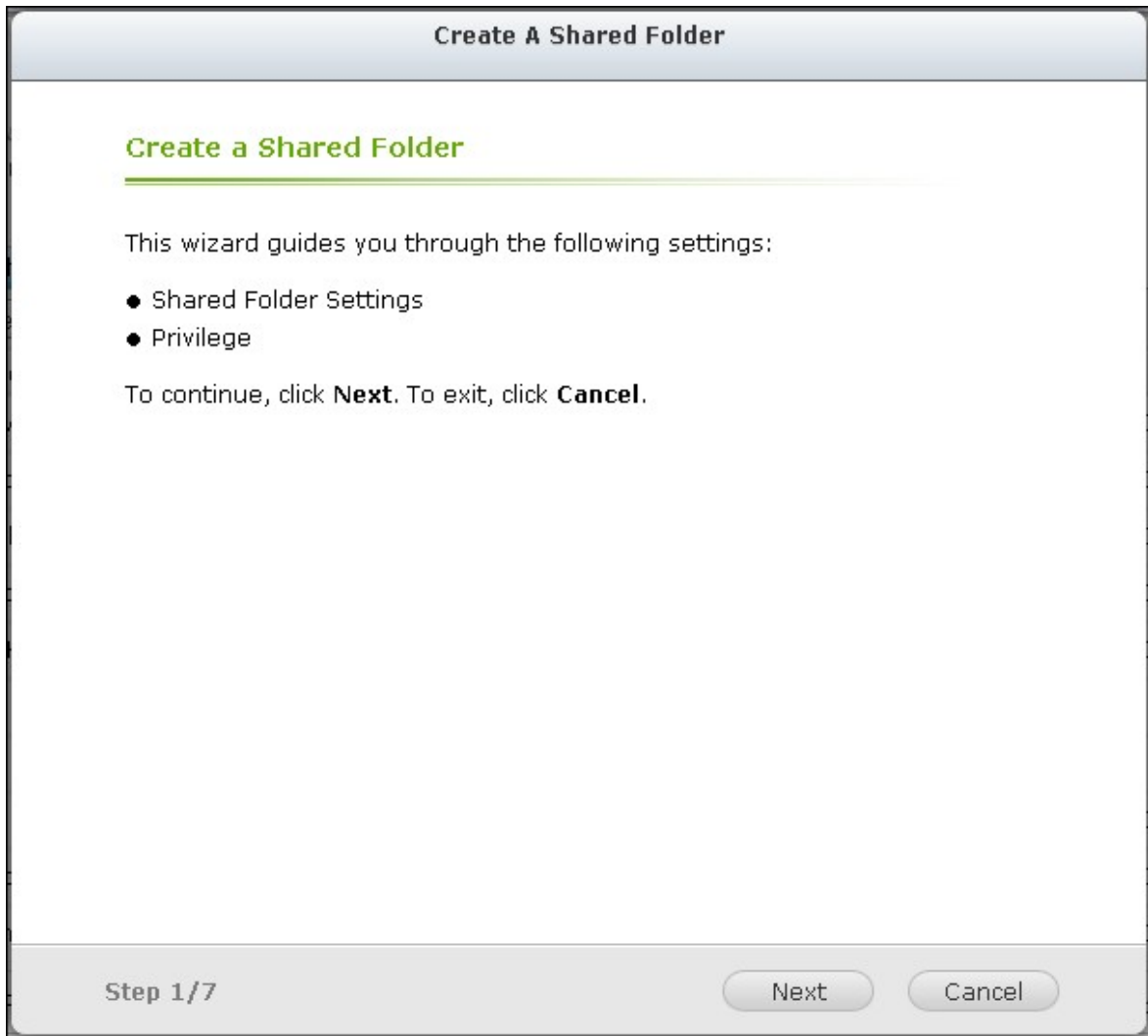
Shared Folder Advanced Permissions Folder Aggregation

Create Remove Restore Default Shared Folders

Shared Folder	Size	Folders	Files	Hidden	Volume	Action
<input type="checkbox"/> Create an ISO Share	53.29 GB	10	183	No	Single Disk: Drive 1	
<input type="checkbox"/> Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	
<input type="checkbox"/> Public	250.87 MB	9	88	No	Single Disk: Drive 1	
<input type="checkbox"/> Recordings	32 KB	6	1	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/> TedHome	20 KB	3	1	No	Single Disk: Drive 1	
<input type="checkbox"/> USBDisk1	694.02 GB	30959	338379	No	USB 1	
<input type="checkbox"/> USBDisk2	70.04 GB	868	13879	No	USB 2	
<input type="checkbox"/> Usb	12 KB	1	1	No	Single Disk: Drive 1	
<input type="checkbox"/> Web	16.15 KB	1	7	No	Single Disk: Drive 1	
<input type="checkbox"/> homes	836.03 KB	8	9	No	Single Disk: Drive 1	

Page 1 / 1 | Display item: 1-10, Total: 20 | Show 100 Items

2. Next()”



3.
 - : `"/\ [] : ; | = , + * ? < > `"`
 - :
 - :
 - : Microsoft Networking
`\\ NAS_IP\ share_name`
 - (oplocks): 가
 (oplock) Windows
 Oplocks , oplocks
 - :
 "
 - : NAS가

Create A Shared Folder


Shared Folder Settings

Folder Name:

Disk Volume:

Description:

[Advanced Settings](#)

Hidden Folder: Yes No 

Lock File (Oplocks): Yes No

Recycle Bin: Enable Disable

Restrict the access of Recycle Bin to administrators only for now.

Path: Specify path automatically
 Enter path manually

Step 2/7 Back Next Cancel

4.

Create A Shared Folder

Privilege

You can select one of the following methods to configure the user access right to the network shared folder:

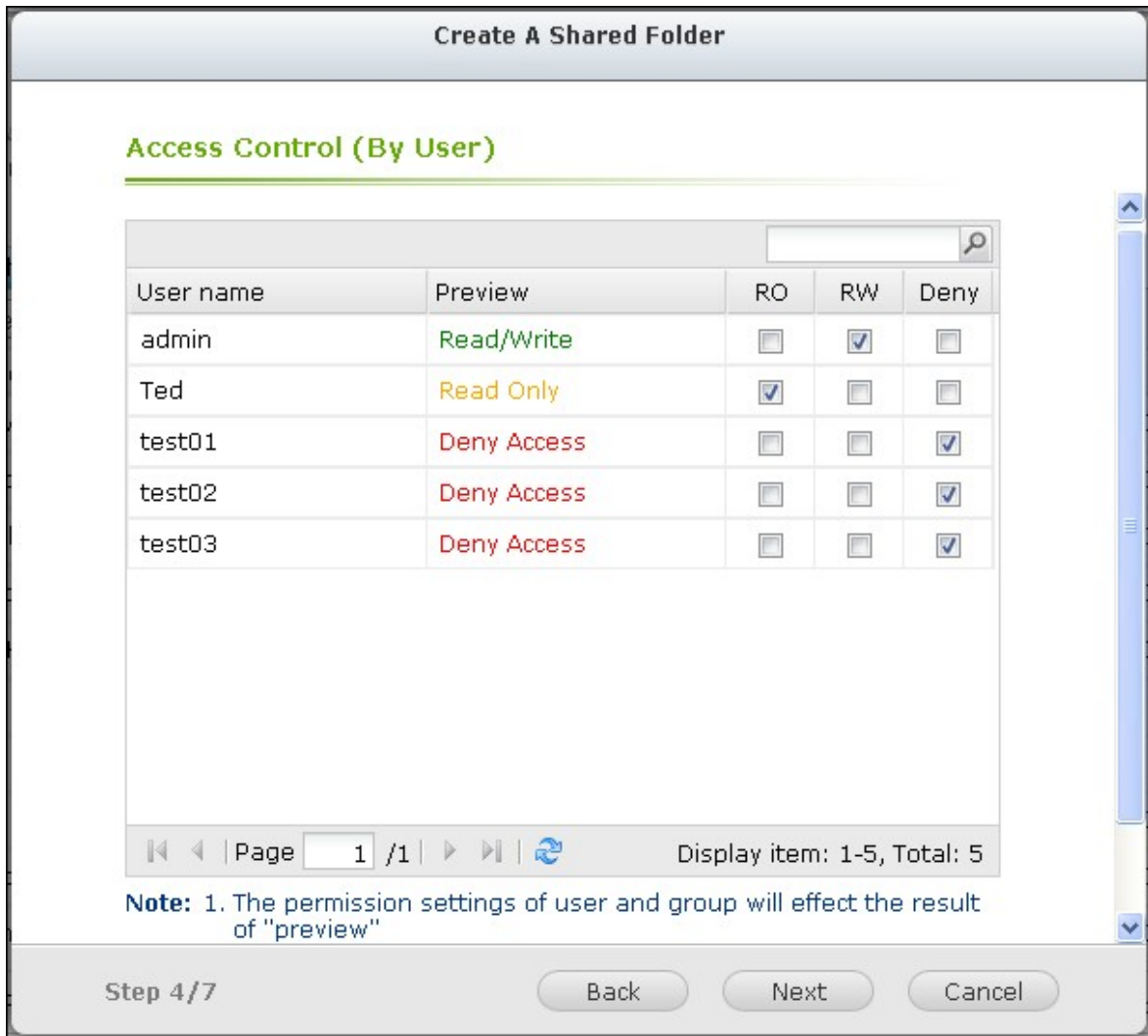
- Full access (Grant full access right for everyone)
- By User
- By User Group
- Only the system administrator (admin) has full access. General users have **Read Only** access.

Guest access right:

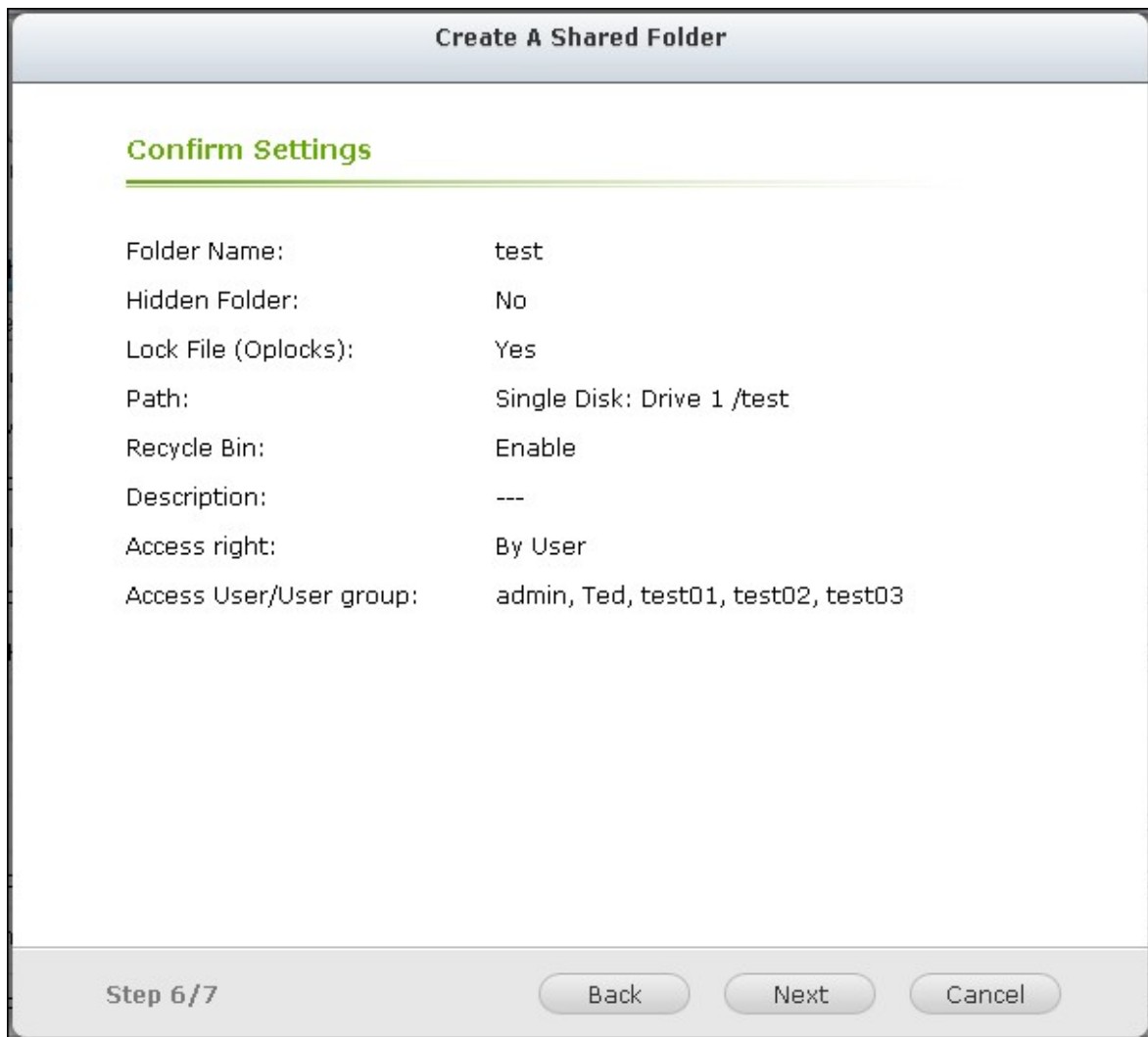
Deny Access Read only Read/Write

Step 3/7 Back Next Cancel

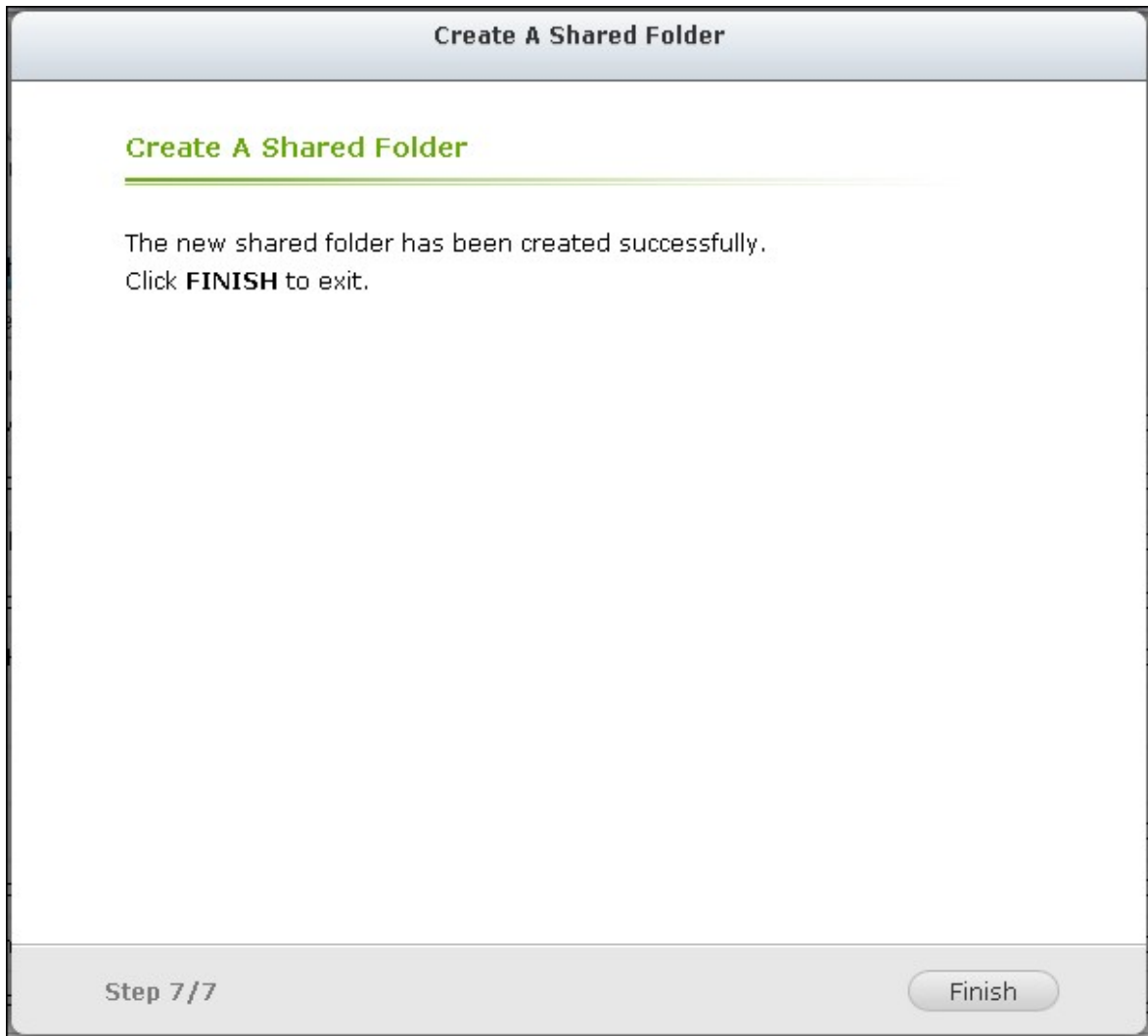
5.



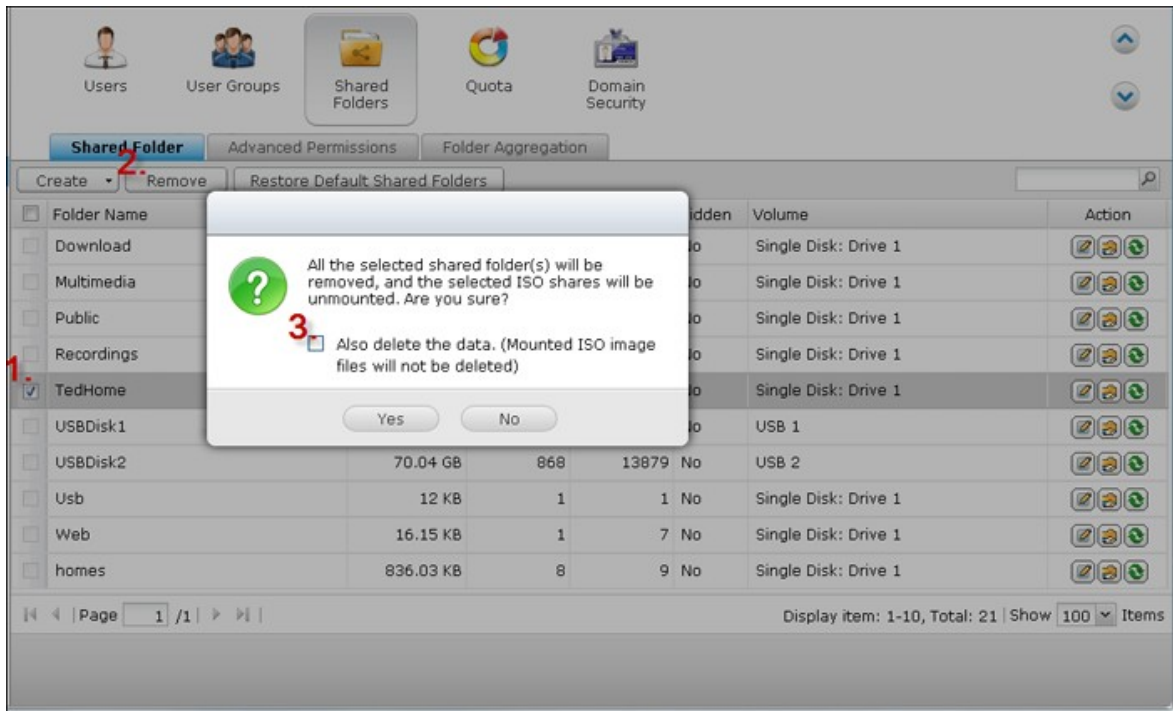
6. "Next()"






7. "Finish()"



ISO) "Remove()" . " ()" 가 NAS



 ()	oplock , FTP
 ()	.
 ()	.

NAS

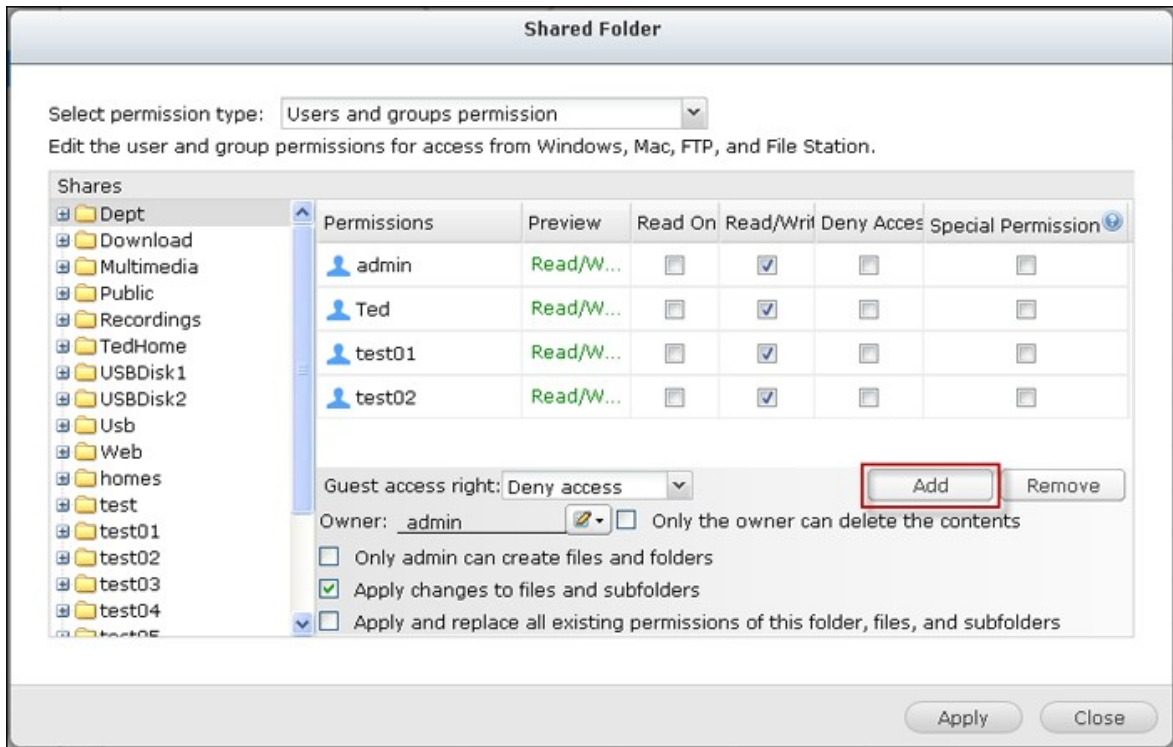
"Privilege

Settings () > "Share Folders ()"



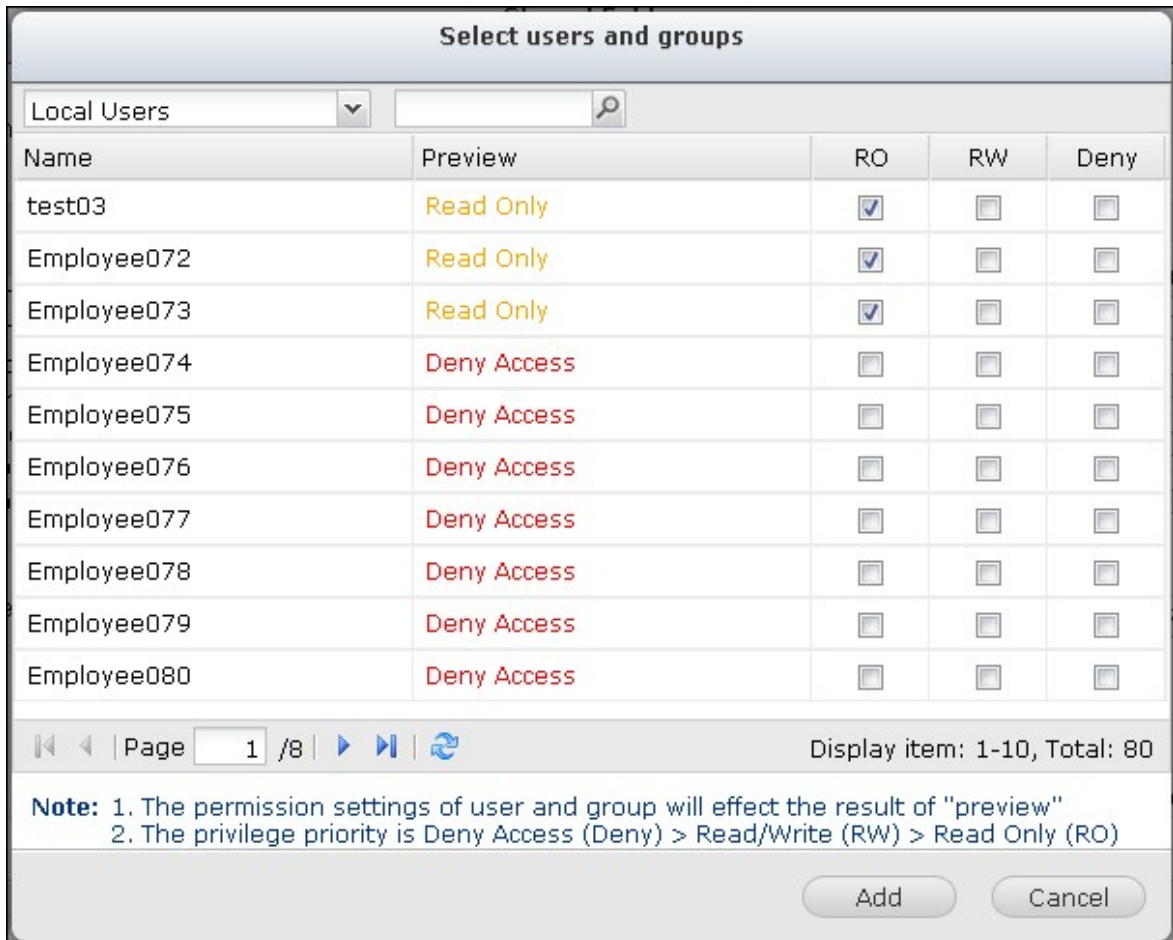
Folder Name	Size	Folders	Files	Hidden	Volume	Action
<input checked="" type="checkbox"/> Dept	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> Download	53.29 GB	10	183	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> Public	250.87 MB	9	88	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> Recordings	32 KB	6	1	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> TedHome	20 KB	3	1	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> USBDisk1	694.02 GB	30959	338379	No	USB 1	[edit] [share] [refresh]
<input type="checkbox"/> USBDisk2	70.04 GB	868	13879	No	USB 2	[edit] [share] [refresh]
<input type="checkbox"/> Usb	12 KB	1	1	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> Web	16.15 KB	1	7	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input type="checkbox"/> homes	836.03 KB	8	9	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test01	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test02	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test03	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test04	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]
<input checked="" type="checkbox"/> test05	4 KB	0	0	No	Single Disk: Drive 1	[edit] [share] [refresh]

가



"Add(가)"

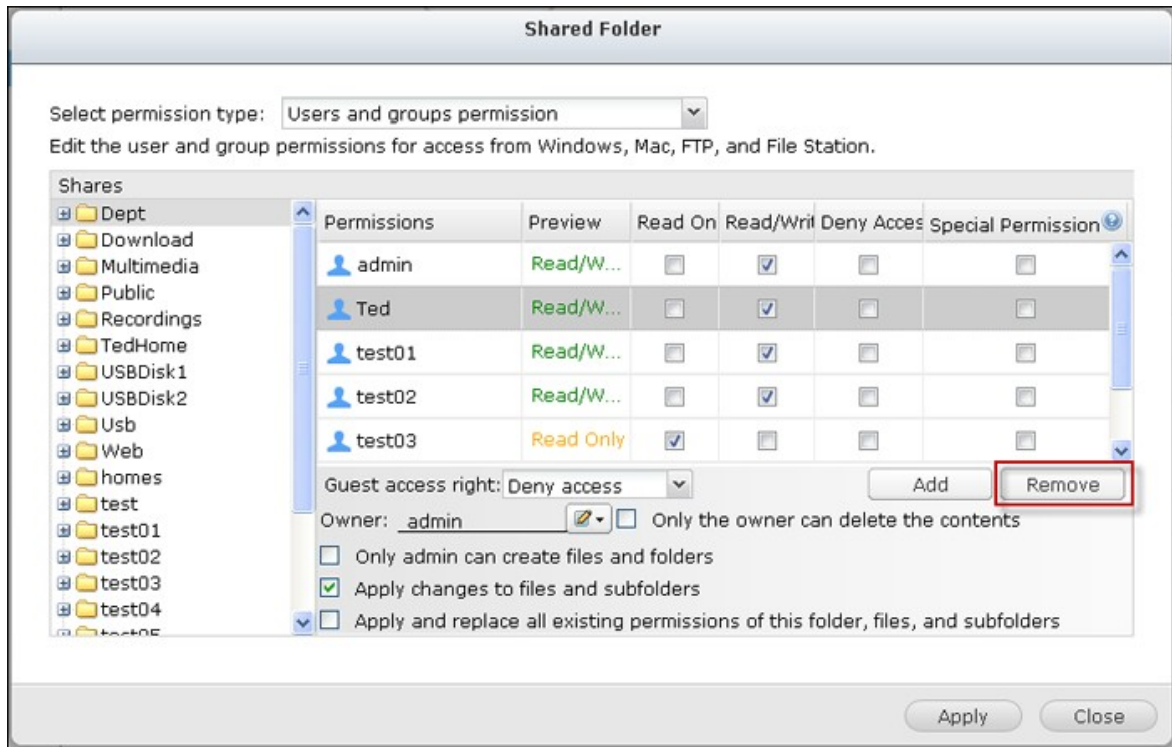
. "Add(가)"



"Remove()"

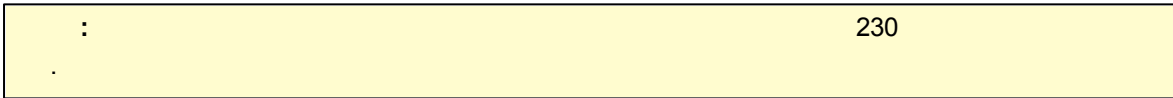
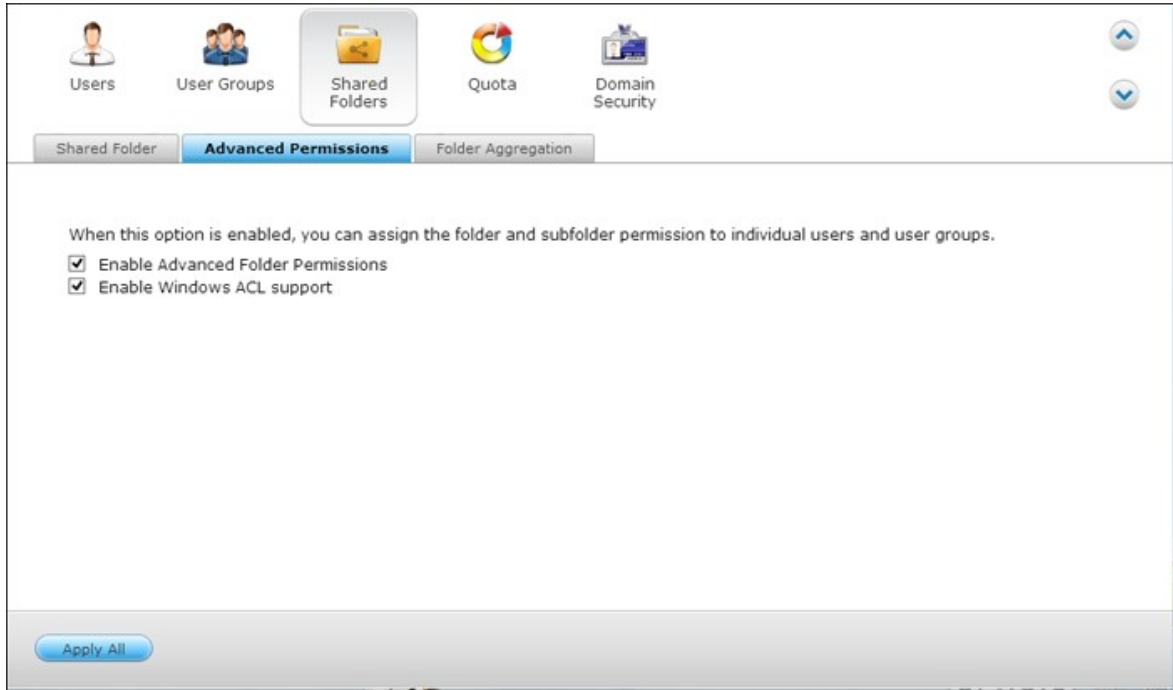
. Ctrl

. "Apply()"



NAS

Privilege Settings() "> Shared Folders() ">
'Advanced Permissions() "
Permissions()" "Apply()"



Privilege Settings() "> Shared Folders() "> Shared Folders() "































Dept



Users User Groups Shared Folders Quota Domain Security

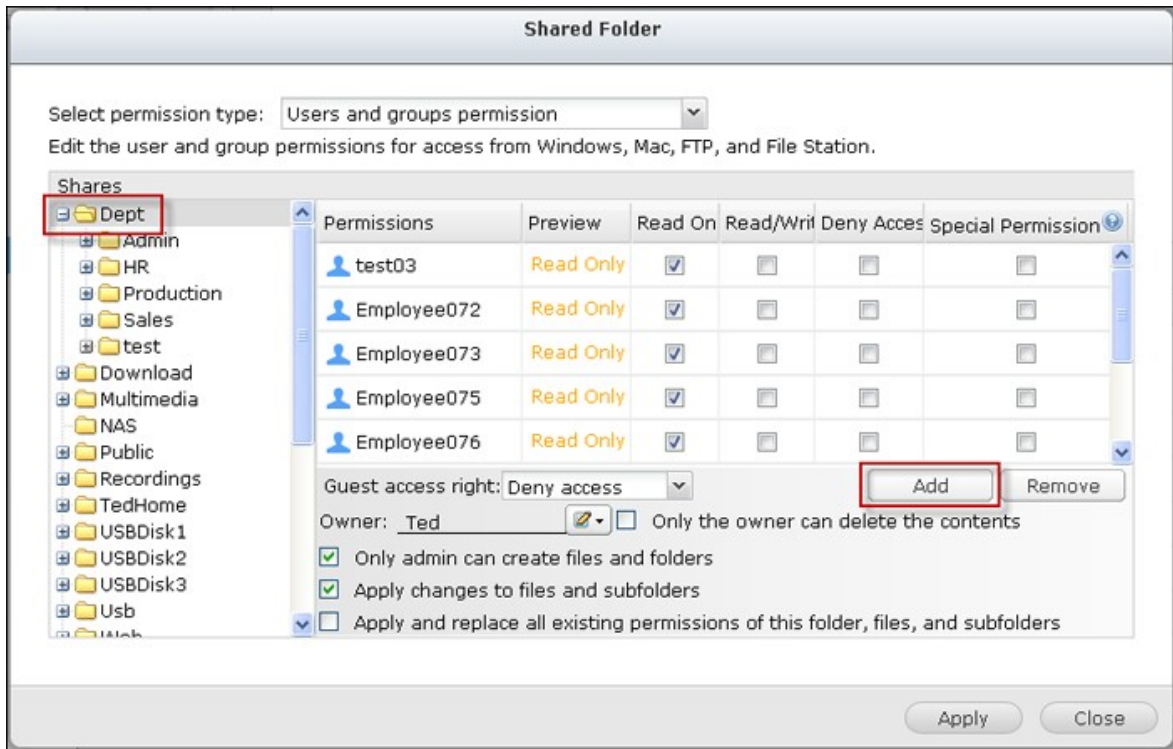
Shared Folder Advanced Permissions Folder Aggregation

Create Remove Restore Default Shared Folders

Folder Name	Size	Folders	Files	Hidden	Volume	Action
<input checked="" type="checkbox"/> Dept	4 KB	0	0	No	Single Disk: Drive 1	  
<input type="checkbox"/> Download	53.29 GB	10	183	No	Single Disk: Drive 1	  
<input type="checkbox"/> Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	  
<input type="checkbox"/> Public	250.87 MB	9	88	No	Single Disk: Drive 1	  
<input type="checkbox"/> Recordings	32 KB	6	1	No	Single Disk: Drive 1	  
<input checked="" type="checkbox"/> TedHome	20 KB	3	1	No	Single Disk: Drive 1	  
<input type="checkbox"/> USBDisk1	694.02 GB	30959	338379	No	USB 1	  
<input type="checkbox"/> USBDisk2	70.04 GB	868	13879	No	USB 2	  
<input type="checkbox"/> Usb	12 KB	1	1	No	Single Disk: Drive 1	  
<input type="checkbox"/> Web	16.15 KB	1	7	No	Single Disk: Drive 1	  

Page 1 / 1 | Display item: 1-10, Total: 22 | Show 50 Items

가 . 가
 가 . (Dept) "+ Add(가)" , /



:
 • "deny access()"
 • "read only access()"
 /
 • /
 / "Only admin can create files and folders(
)" ().

"Add(가)"

Select users and groups

Local Users

Name	Preview	RO	RW	Deny
Employee074	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee075	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee076	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee077	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee078	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee079	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee080	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee081	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee082	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee083	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 / 8 |

Display item: 1-10, Total: 77

Note: 1. The permission settings of user and group will effect the result of "preview"
 2. The privilege priority is Deny Access (Deny) > Read/Write (RW) > Read Only (RO)

Shared Folder

Select permission type: Users and groups permission

Edit the user and group permissions for access from Windows, Mac, FTP, and File Station.

Shares

- Dept
- Download
- Multimedia
- Public
- Recordings
- TedHome
- USBDisk1
- USBDisk2
- Usb
- Web
- homes
- test
- test01
- test02
- test03
- test04
- test05

Permissions	Preview	Read On	Read/Writ	Deny Acces	Special Permission
test03	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee072	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee073	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
admin	Read/W...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ted	Read/W...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Guest access right: Deny access

Owner: admin Only the owner can delete the contents

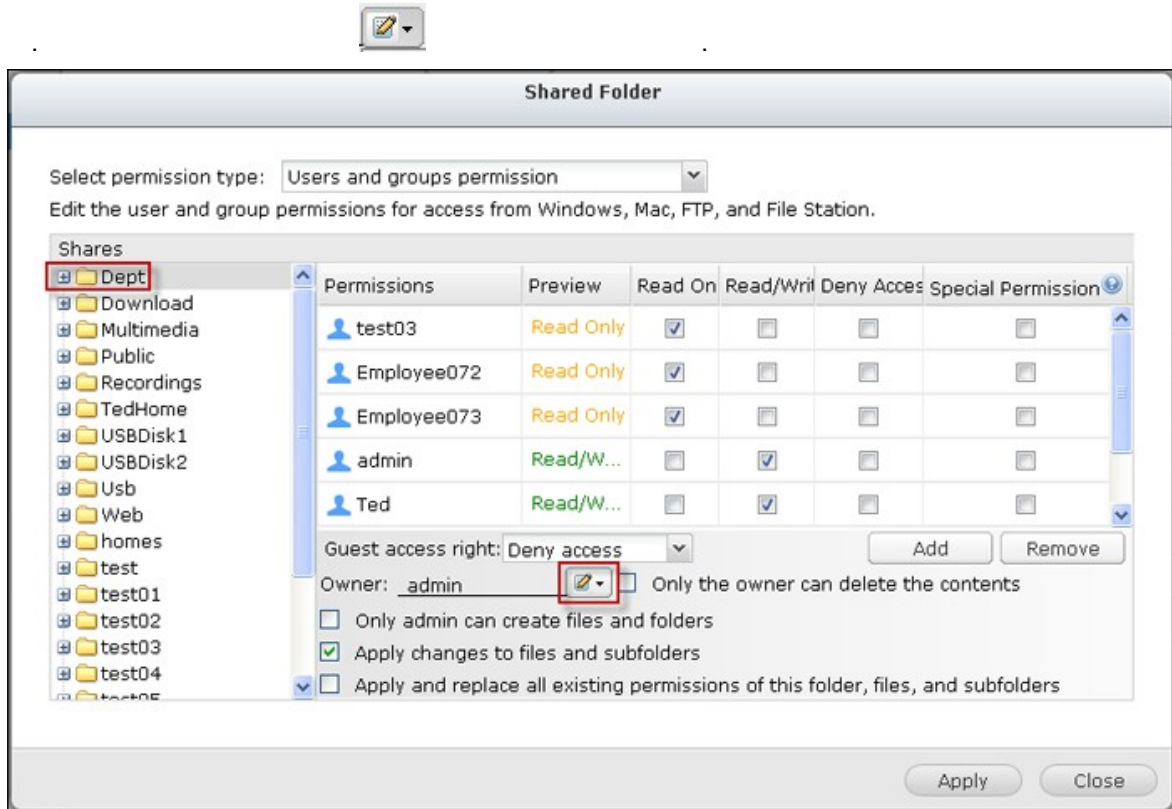
Only admin can create files and folders

Apply changes to files and subfolders

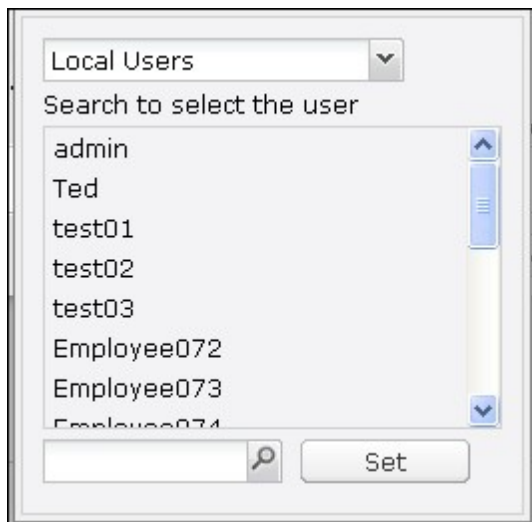
Apply and replace all existing permissions of this folder, files, and subfolders

Guest Access Right():

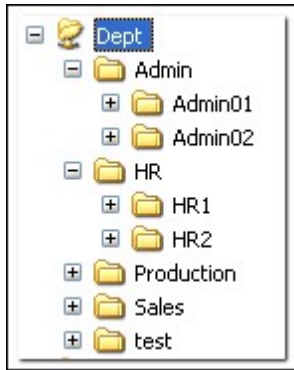
Owner():



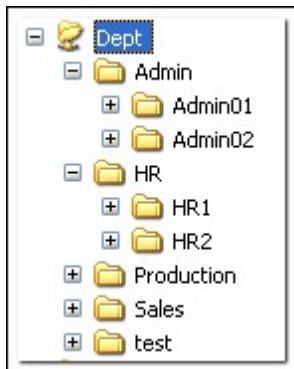
"Set()"



- Only the owner can delete the contents(): Dept / 가 , HR, "Apply changes to files and subfolders()" "Apply and replace all existing permissions of this folder, files, and subfolders()"



- Only admin can create files and folders():
 - 가
 - "Dept()" / 가
 - , HR,
 - Admin01, Admin02, HR1, HR2

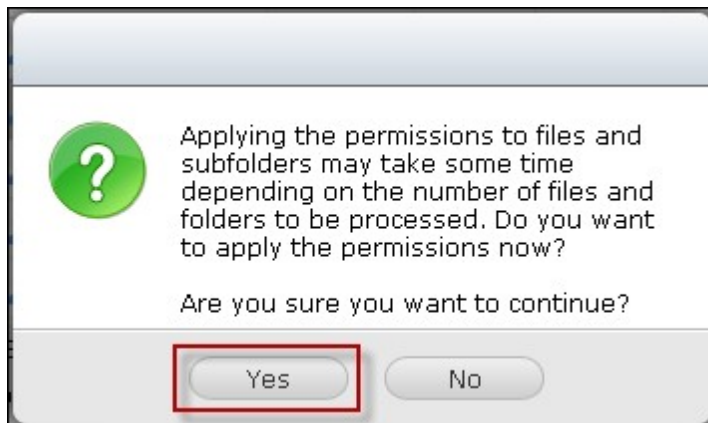
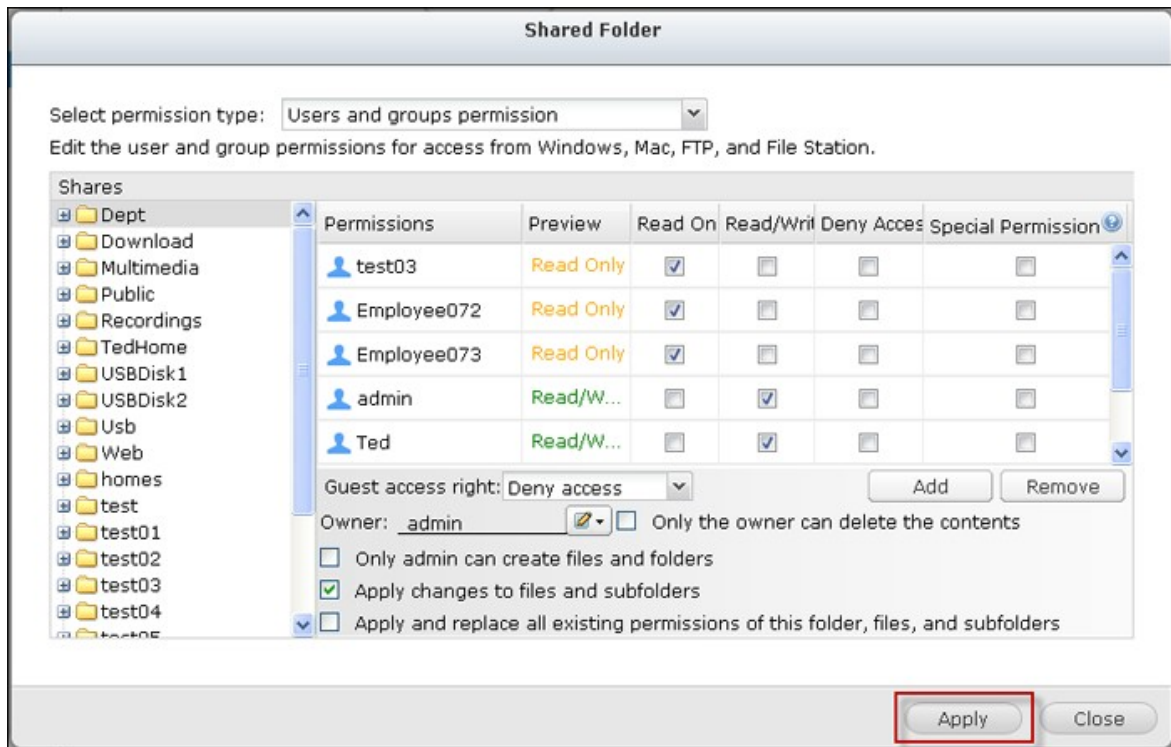


- Apply changes to files and subfolders():
 - 가 "Only the owner can delete the contents(가)" "Only admin can create files and folders()"
- Apply and replace all existing permissions of this folder, files, and subfolders(, ,):
 - "Only the owner can delete the contents(가)" "Only admin can create files and folders()"

- Special Permission():
 - 가 "Read only()" "Read/Write(/ 가
 - Microsoft "admin()" 가
 - "Read/Write(/)" 가
 - Windows "admin()" 가 "admin(가
 - 가

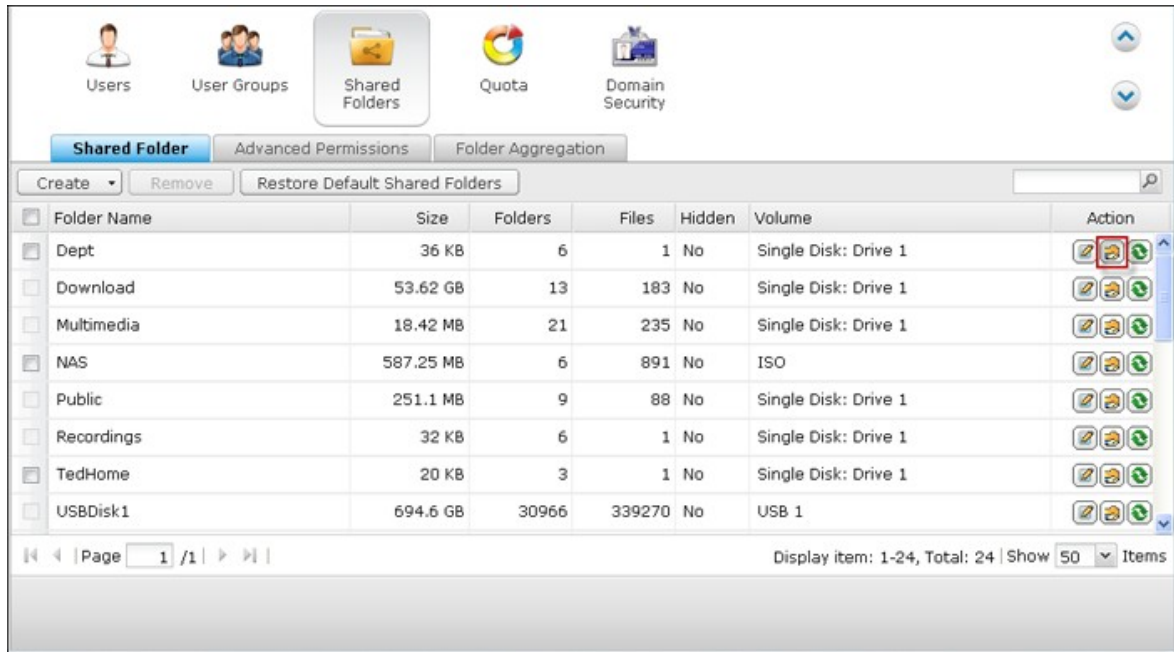
, "Apply()"

"YES()"



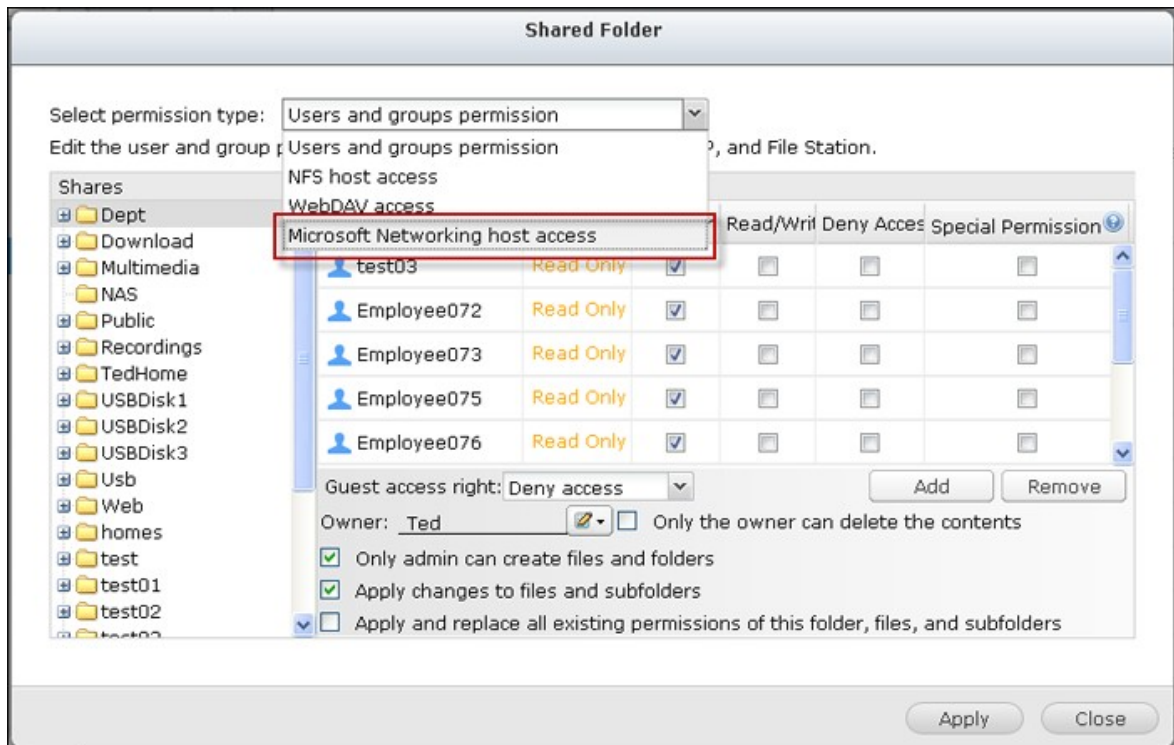
Microsoft

NAS Samba (Windows) . Microsoft
 NAS IP



Microsoft Networking host access(Microsoft

)”

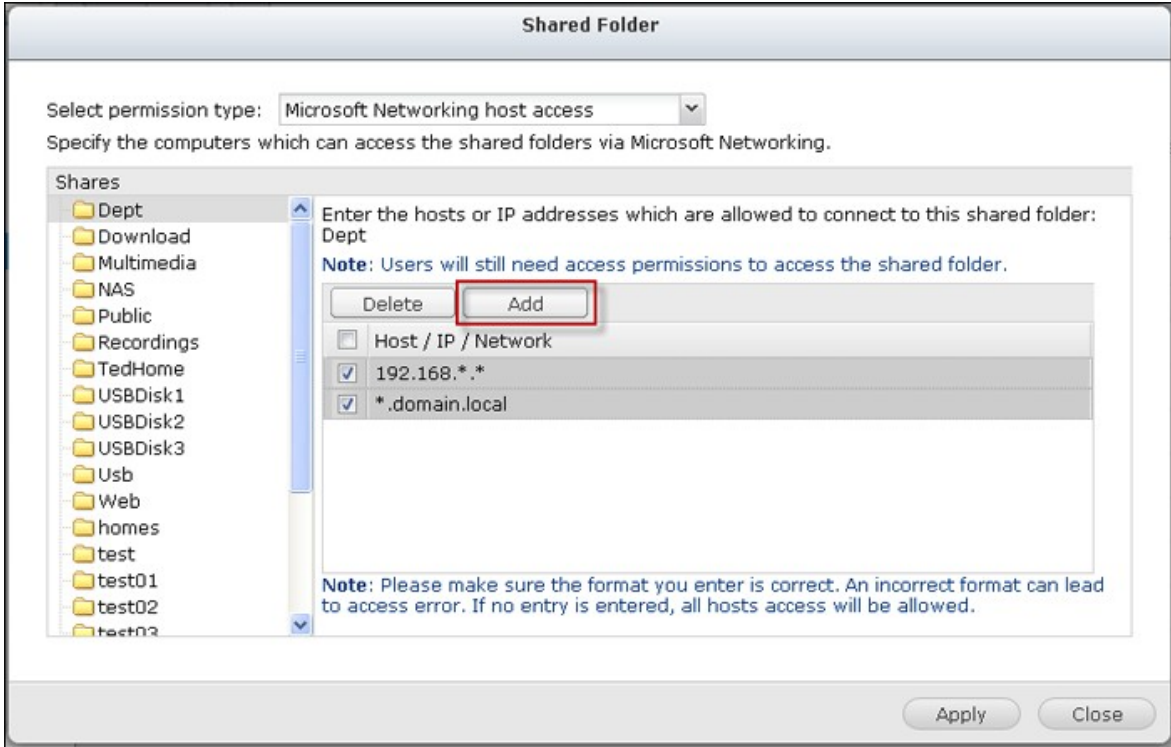


IP	IP
IP	192.168.12.12 192.168.*.*
	dnsname.domain.local *.domain.local

'Add(가)"

IP

'Apply()"



IP

(*)

(*)

*.domain.local

a.domain.local
cde.domain.local
test.domain.local

(?)

(?)

, test?.domain.local

test1.domain.local
test2.domain.local
testa.domain.local

, *.example.com

(.)
"one.example.com" "one.two.example.com" 가

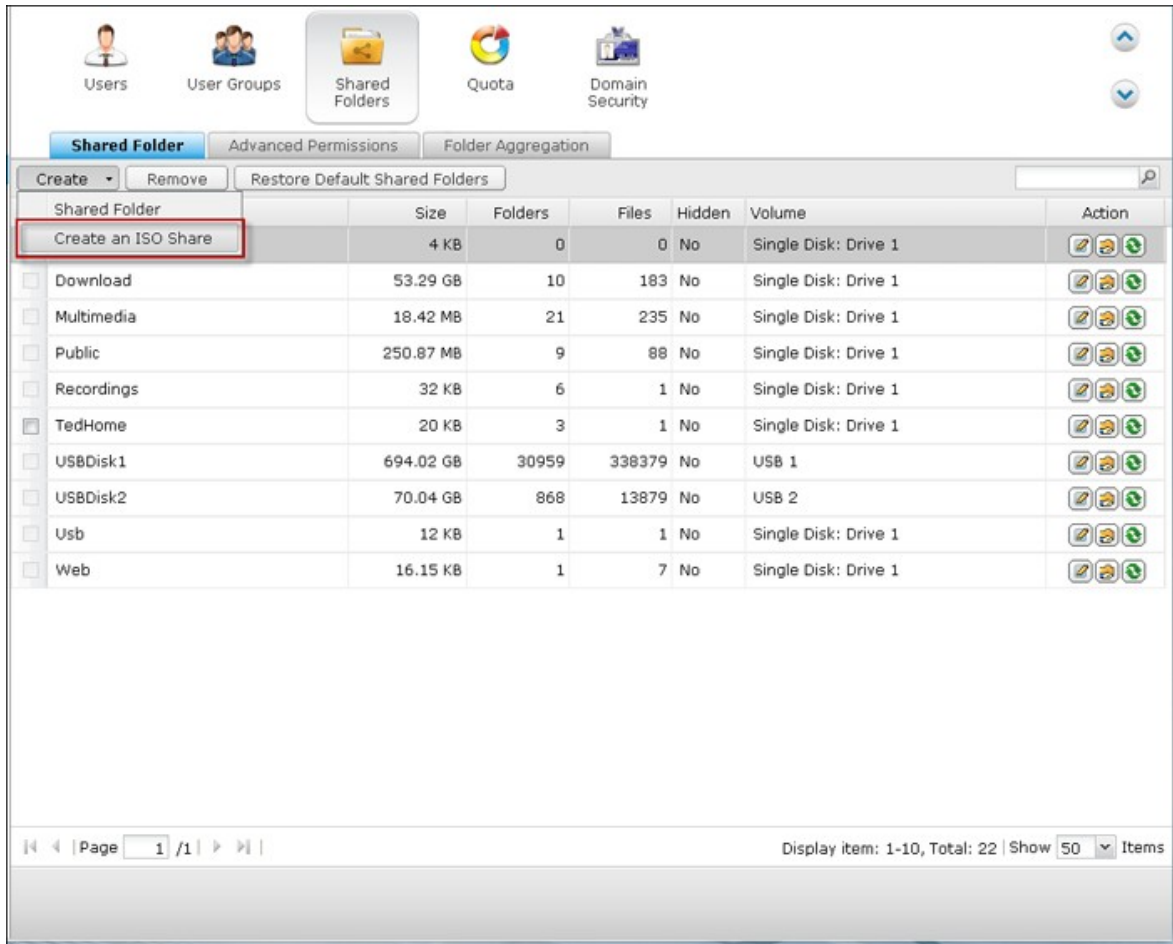
ISO

ISO NAS ISO
 . NAS 256 ISO

TS- 110, TS- 119, TS- 120, TS- 121, TS- 210, TS- 219, TS- 219P, TS- 220, TS- 221, TS- 410, , TS- 119P+, TS- 219P+, TS- 112, TS- 212 256 . (6). ISO 256 (256 6).

ISO NAS

1. NAS . "Share Folders()" > "Create()" . "Create an ISO Share(ISO)"



2. NAS IOS . " "



3. NAS

Create an ISO Share

ISO Shared Folder Settings

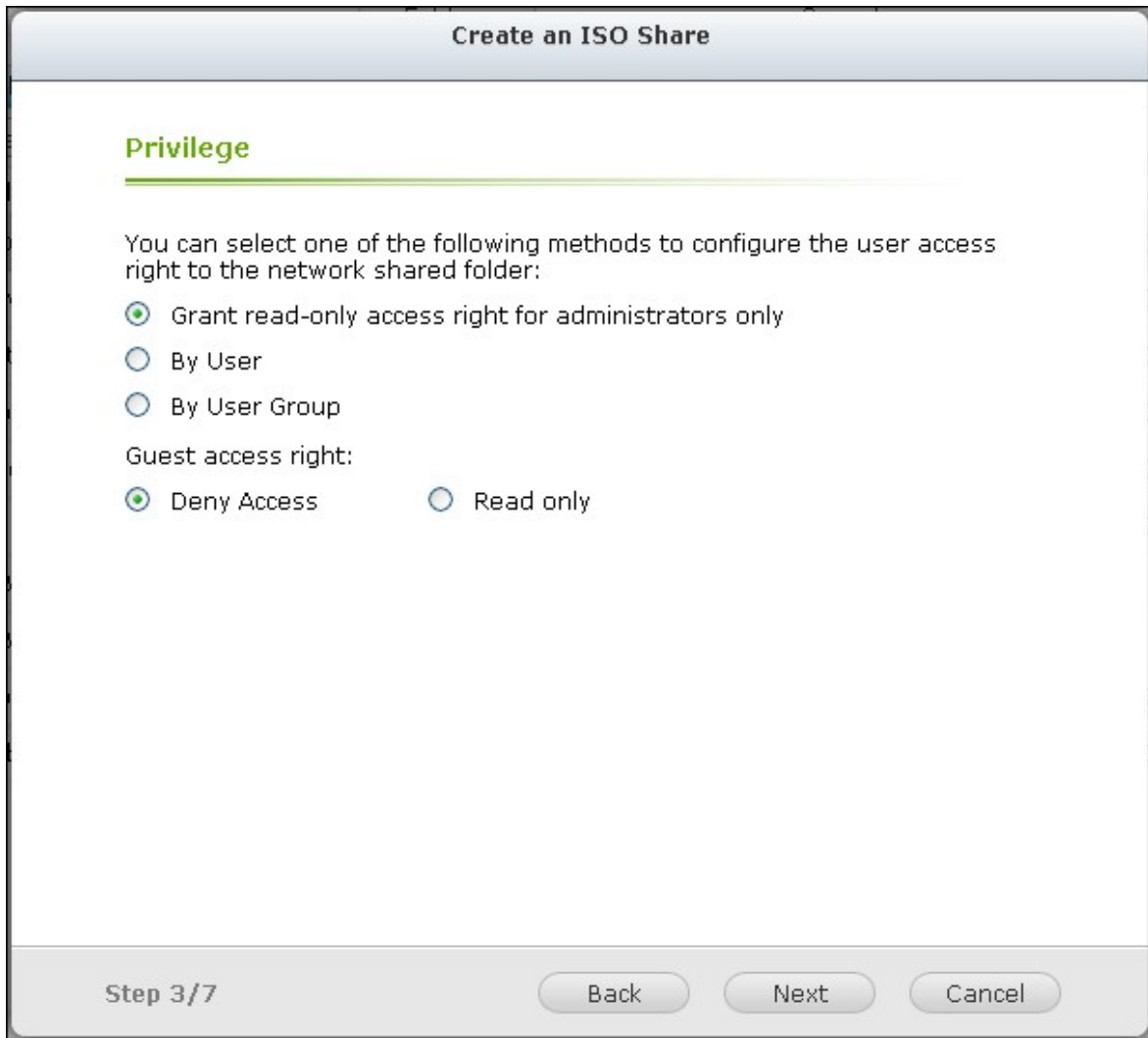
Folder Name:

Hidden Folder: Yes No [?](#)

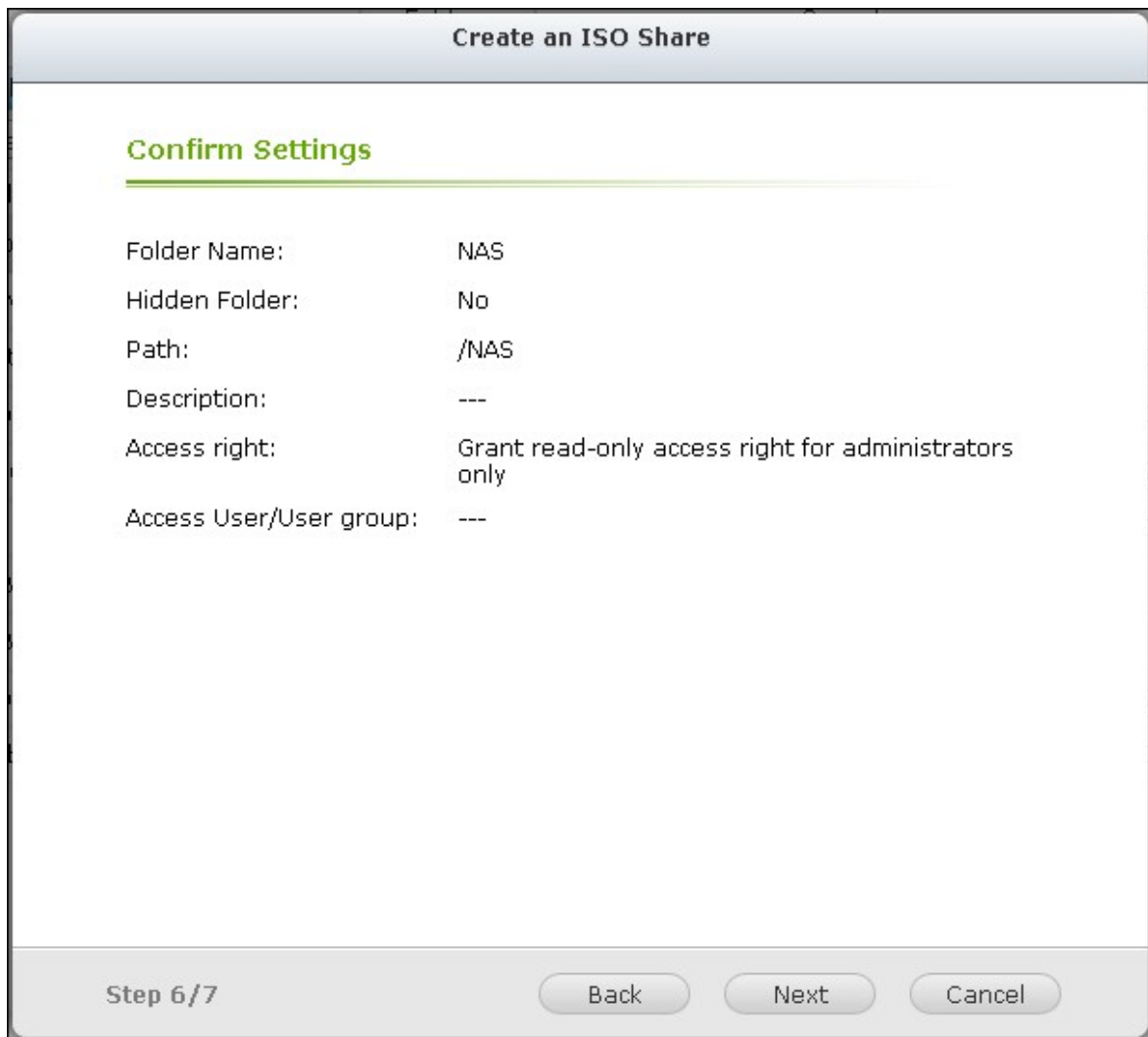
Description:

Step 2/7

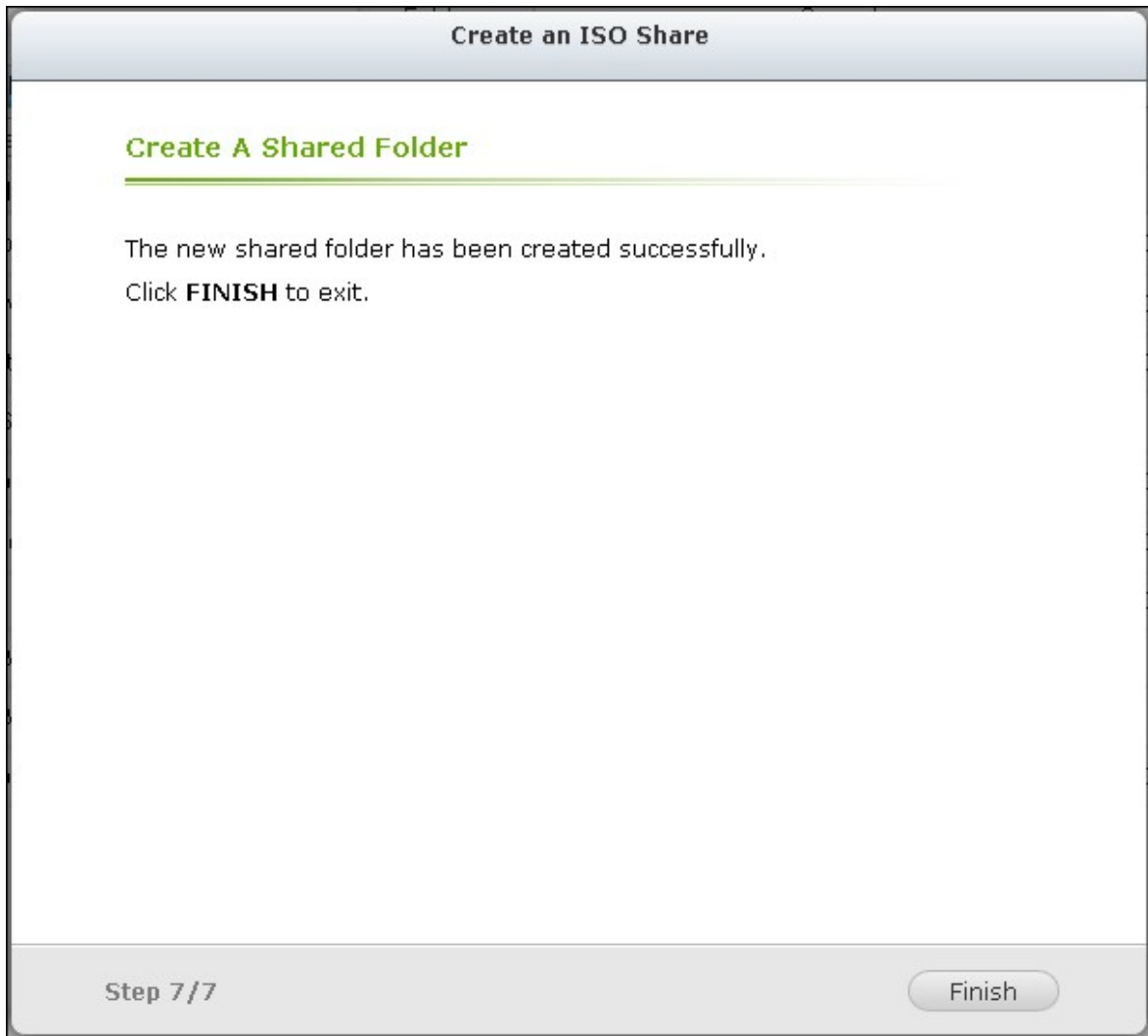
- NAS
"Deny Access()" "Read only()" . " "



5. "Next()"



6. Finish()”



7. NFS, WebDAV

"Action()"

SMB, AFP,

Users User Groups **Shared Folders** Quota Domain Security

Shared Folder Advanced Permissions Folder Aggregation

Create Remove Restore Default Shared Folders

<input type="checkbox"/>	Folder Name	Size	Folders	Files	Hidden	Volume	Action
<input checked="" type="checkbox"/>	Dept	4 KB	0	0	No	Single Disk: Drive 1	
<input type="checkbox"/>	Download	53.29 GB	10	183	No	Single Disk: Drive 1	
<input type="checkbox"/>	Multimedia	18.42 MB	21	235	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	NAS	587.25 MB	6	891	No	ISO	
<input type="checkbox"/>	Public	250.87 MB	9	88	No	Single Disk: Drive 1	
<input type="checkbox"/>	Recordings	32 KB	6	1	No	Single Disk: Drive 1	
<input checked="" type="checkbox"/>	TedHome	20 KB	3	1	No	Single Disk: Drive 1	
<input type="checkbox"/>	USBDisk1	694.02 GB	30959	338379	No	USB 1	
<input type="checkbox"/>	USBDisk2	70.04 GB	868	13879	No	USB 2	
<input type="checkbox"/>	Usb	12 KB	1	1	No	Single Disk: Drive 1	

Page 1 / 1 | Display item: 1-10, Total: 23 | Show 50 Items

NAS File Station

ISO

File Station

Microsoft

NAS

10

NAS

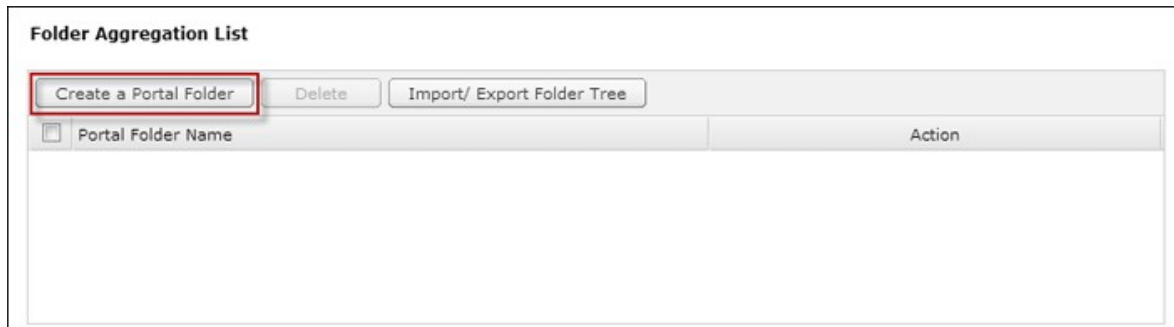
가 NAS



1.



2. "Create A Portal Folder()"



3.

Create a Portal Folder ✖

Folder Name:

Hidden Folder: Yes No

Comment:

4.  () . 가 가

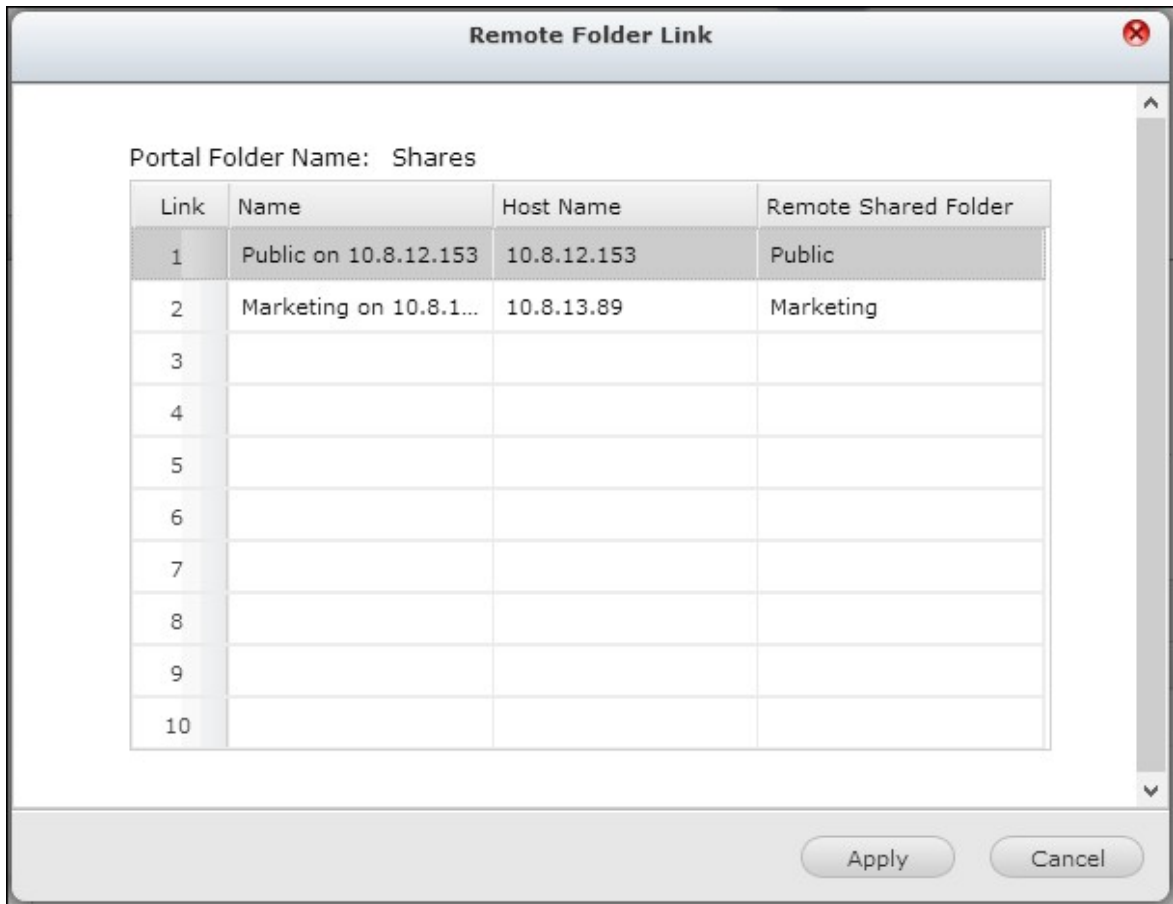
Users
User Groups
Shared Folders
Quota
Domain Security
↑
↓

Shared Folder
Advanced Permissions
Folder Aggregation

Enable Folder Aggregation
 Enable this function will allow you to aggregate all shared folders in local network into a "portal folder" in your NAS.
 Folder aggregation is for Microsoft Network / Samba service ONLY.

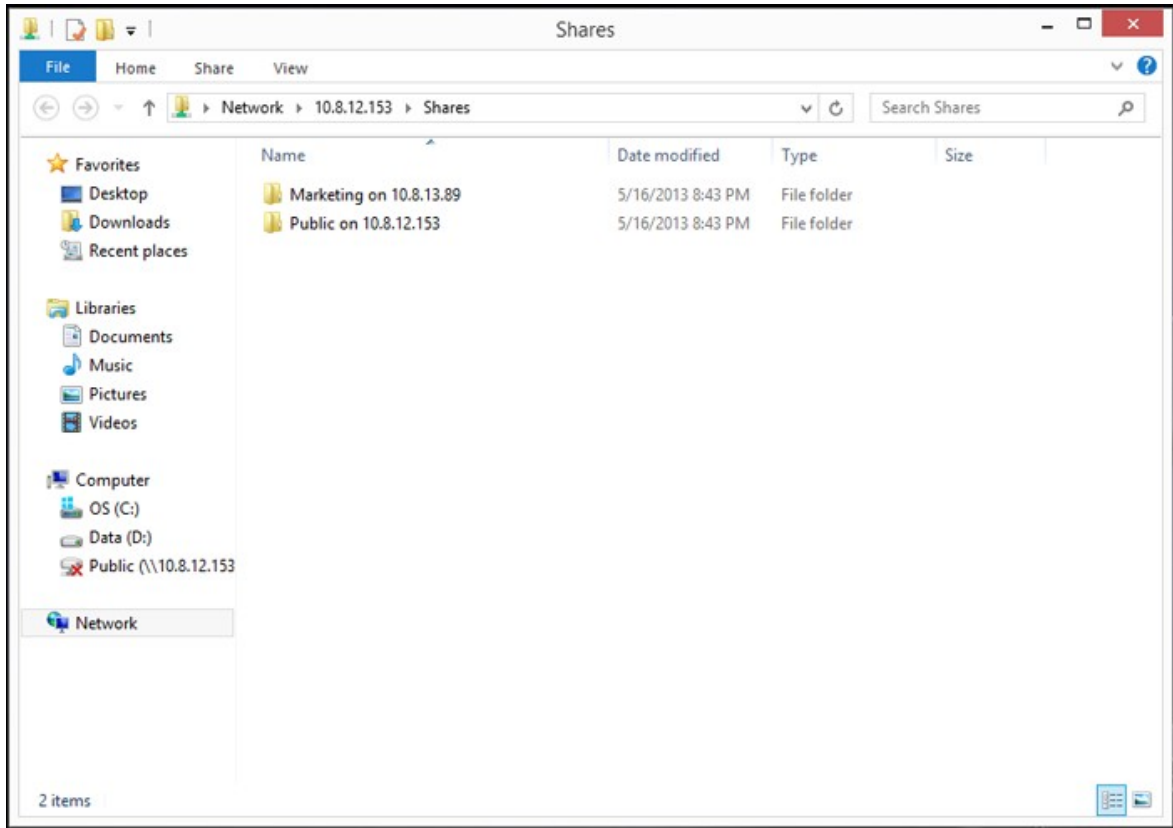
Folder Aggregation List

Portal Folder Name	Action
<input type="checkbox"/> Shares	<input type="button" value="Edit"/> <input checked="" type="button" value="Delete"/>

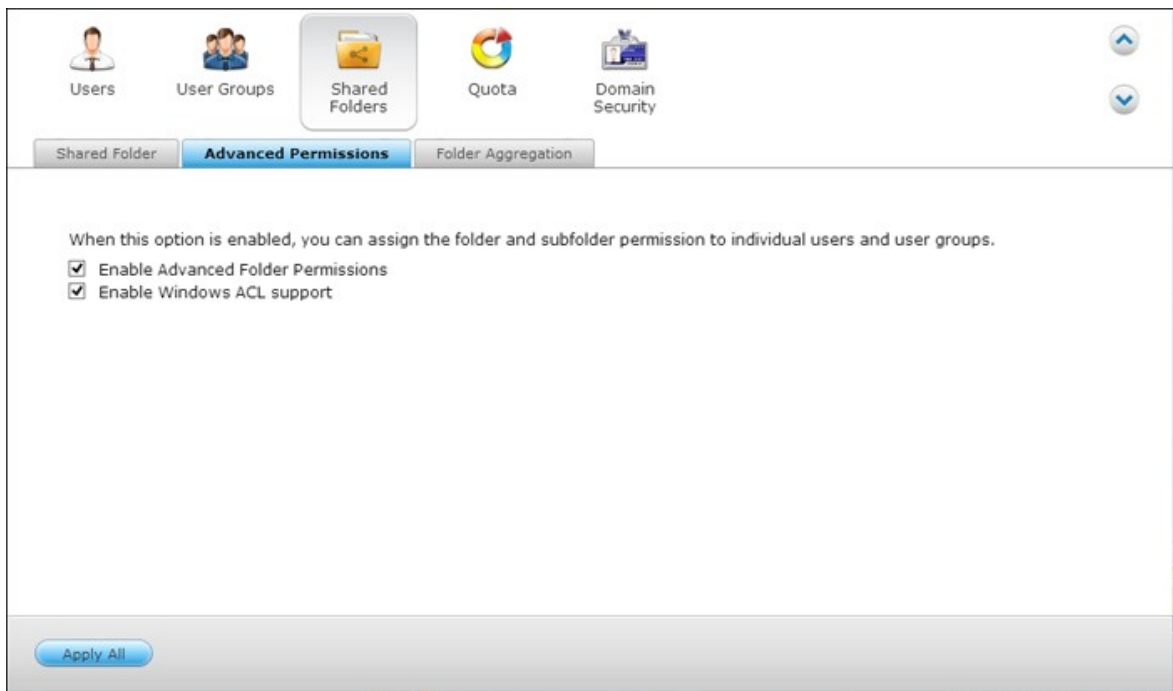


: 가 , NAS AD

5. NAS



Advanced Folder Permissions () ” Windows ACL ”




--	--	--	--

	FTP, AFP, File Station, Samba	3 (, / ,)	NAS UI
Windows ACL	Samba	13 (NTFS)	Windows
	FTP, AFP, File Station, Samba	(http://www.qnap.com/index.php?lang=en&sn=4686)	Windows

Advanced Folder Permissions ()” NAS UI

Permissions ()” Advanced Folder Share Folders ()”

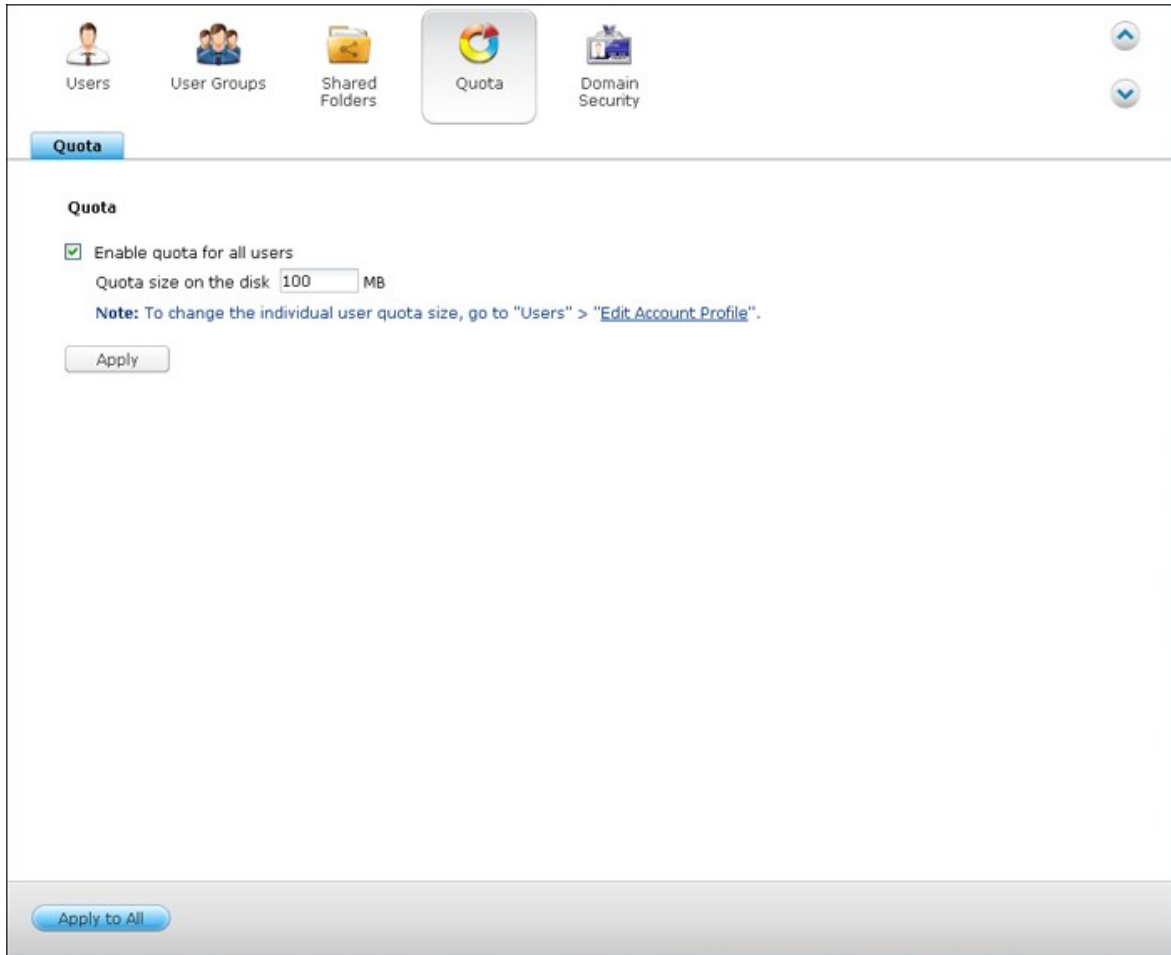
Folder Permissions ()”  Share Folders ()”> Folder Permission ()”

- Windows ACL
- Windows ACL ” Windows Windows ACL NTFS
- http://www.ntfs.com/#ntfs_permiss
- - Advanced Folder Permissions ()” Windows ACL
 - Windows NAS
 - FTP, AFP File Station NAS
 - Windows ACL NAS UI
 - AFP, File Station, FTP Windows ACL (, / ,)

5.4

가

-
-



. "Generate ()" CSV
"Download ()"

The screenshot shows a web-based interface for managing quotas. At the top, there is a navigation bar with icons for 'Users', 'User Groups', 'Shared Folders', 'Quota', and 'Domain Security'. The 'Quota' icon is highlighted. Below the navigation bar, the 'Quota' section is active. It contains a checkbox labeled 'Enable quota for all users' which is checked. Below this, there is a text input field for 'Quota size on the disk' with the value '100' and the unit 'MB'. A note below the input field reads: 'Note: To change the individual user quota size, go to "Users" > "Edit Account Profile"'. Below the note, there is a dropdown menu showing 'Single Disk: Drive 1'. At the bottom of the section, there are two buttons: 'Generate' and 'Download', which are highlighted with a red rectangular box. To the right of these buttons, there is a dropdown menu showing 'Local Users' and a search icon.

5.5

NAS, Microsoft Active Directory (Windows Server 2003/2008/2012)
 Lightweight Directory Access Protocol (LDAP)
 Active Directory LDAP, AD LDAP NAS 가

NAS

Active Directory ()

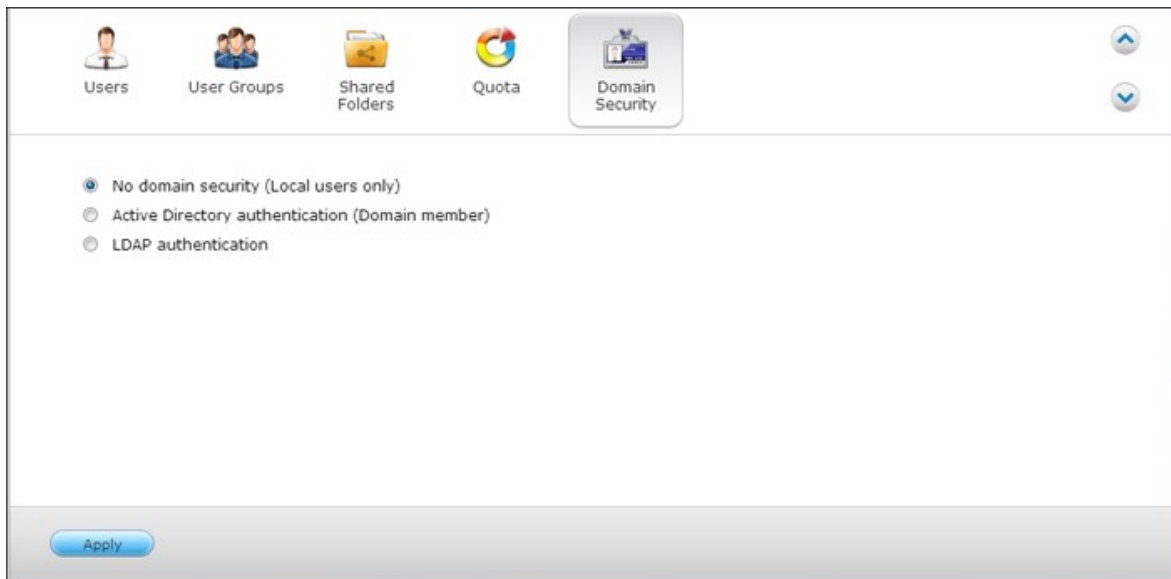
NAS Active Directory . NAS AD / . NAS AD
 , NAS AD / NAS
 :

- Samba (Microsoft)
- AFP
- FTP
-

LDAP

NAS LDAP . LDAP NAS . NAS LDAP
 , NAS LDAP Samba(Microsoft) NAS
 . NAS LDAP / NAS
 :

- AFP
- FTP
-



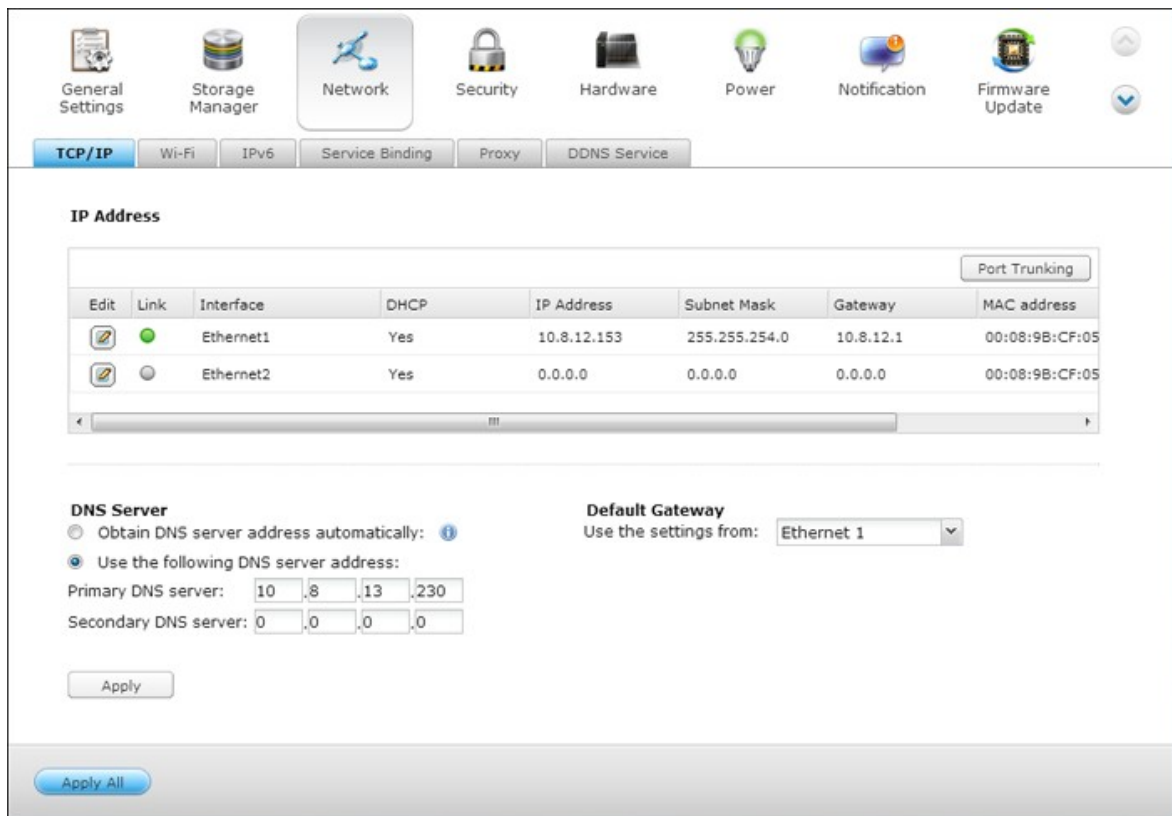
5.5.1 NAS Windows Server 2003/2008/2012 Active Directory

Active Directory Windows
Microsoft

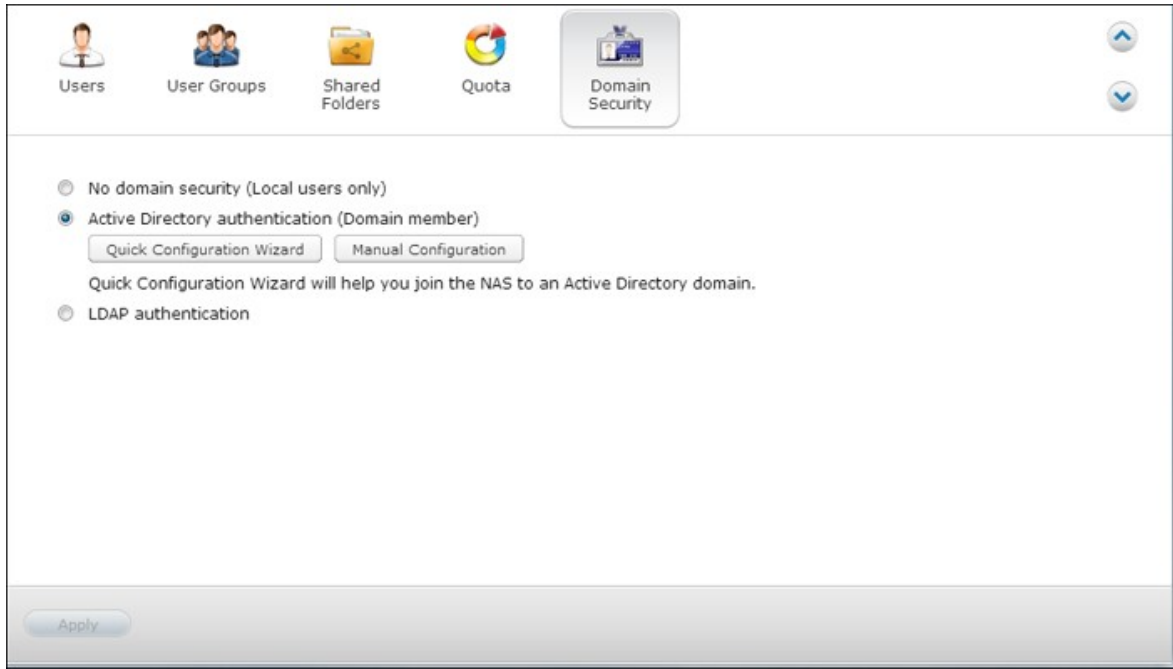
NAS AD (Active Directory) . NAS AD
NAS 가 . AD
NAS

Windows Server 2008 R2 NAS V3.2.0
NAS AD

1. NAS System Settings() "> General Settings() "> Time() " . NAS AD
5
2. System Settings() "> Network() "> TCP/IP " . 1 DNS
IP DNS 가 IP DNS
DNS IP . DNS



3. Privilege Settings() "> Domain Security() " . "Active Directory authentication (domain member) (Active Directory ())" , AD



```

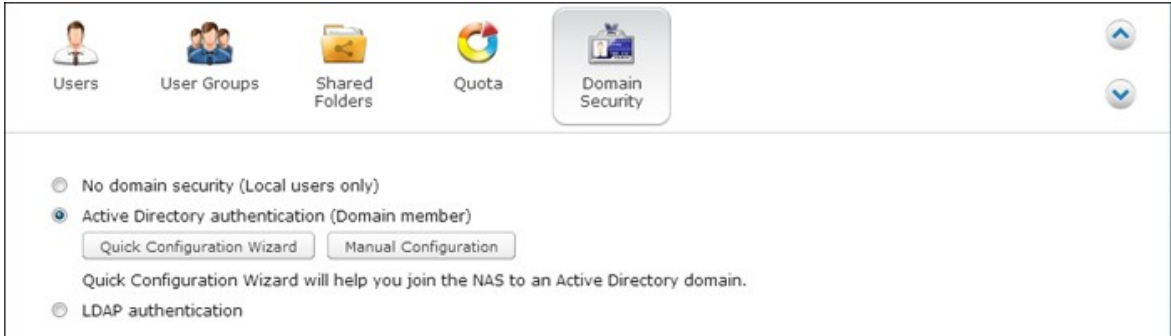
:
•      qnap-test.com      AD
•      AD      AD
• WINS :      WINS
      , NAS WINS IP      ( WINS
      ).

```

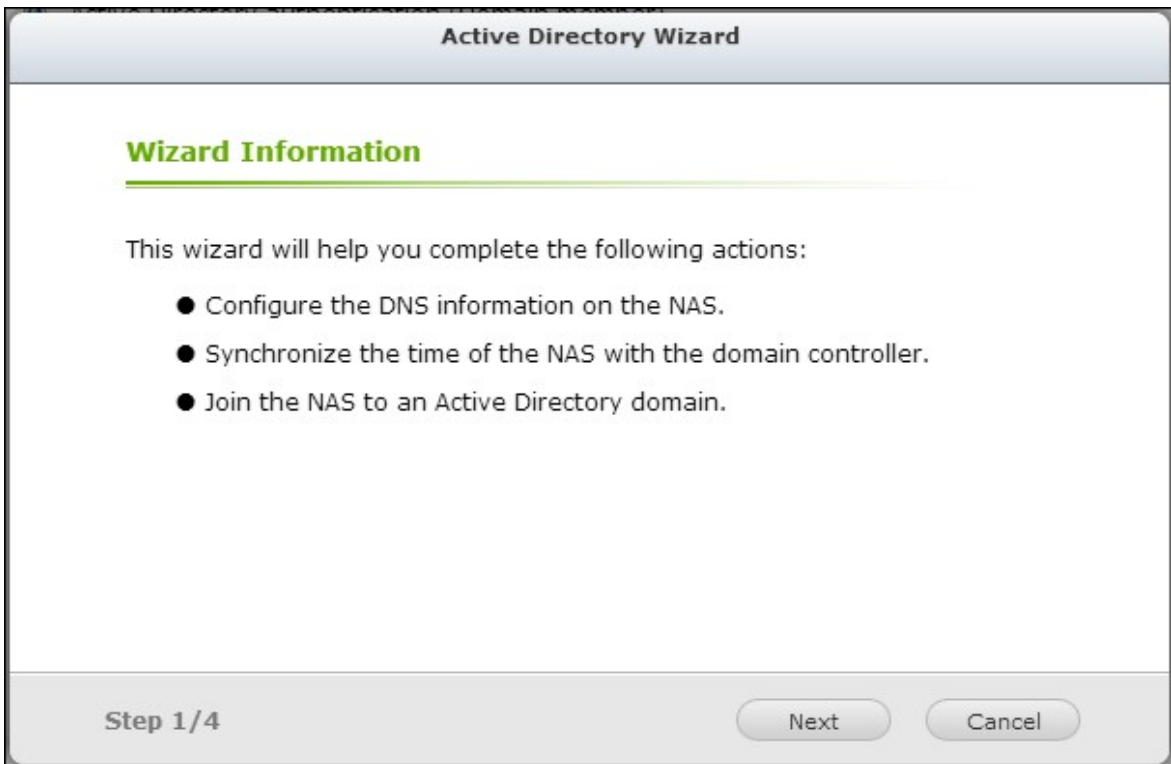

NAS (AD)

NAS AD

1. Privilege Settings() "> Domain Security()" . "Active Directory authentication (domain member) (Active Directory ())" "Quick Configuration Wizard ()"



2. " "



3. (DNS) DNS IP NetBIOS Active Directory DNS " " IP Active

Active Directory Wizard

Wizard Information

Full DNS domain name:
 Example: mydomain.local

NetBios domain name:
 Example: MYDOMAIN

Enter the DNS Server IP for the domain resolution. It must be the DNS server of your Active Directory.

Obtain DNS server address automatically by DHCP server.

Domain DNS Server: ...

Step 2/4

4.

NAS

“Join()”

Active Directory Wizard

Authentication Information

The selected Domain Controller will be used for the time synchronization and the user authentication.

Select the Domain Controller:

Domain Administrator Username:

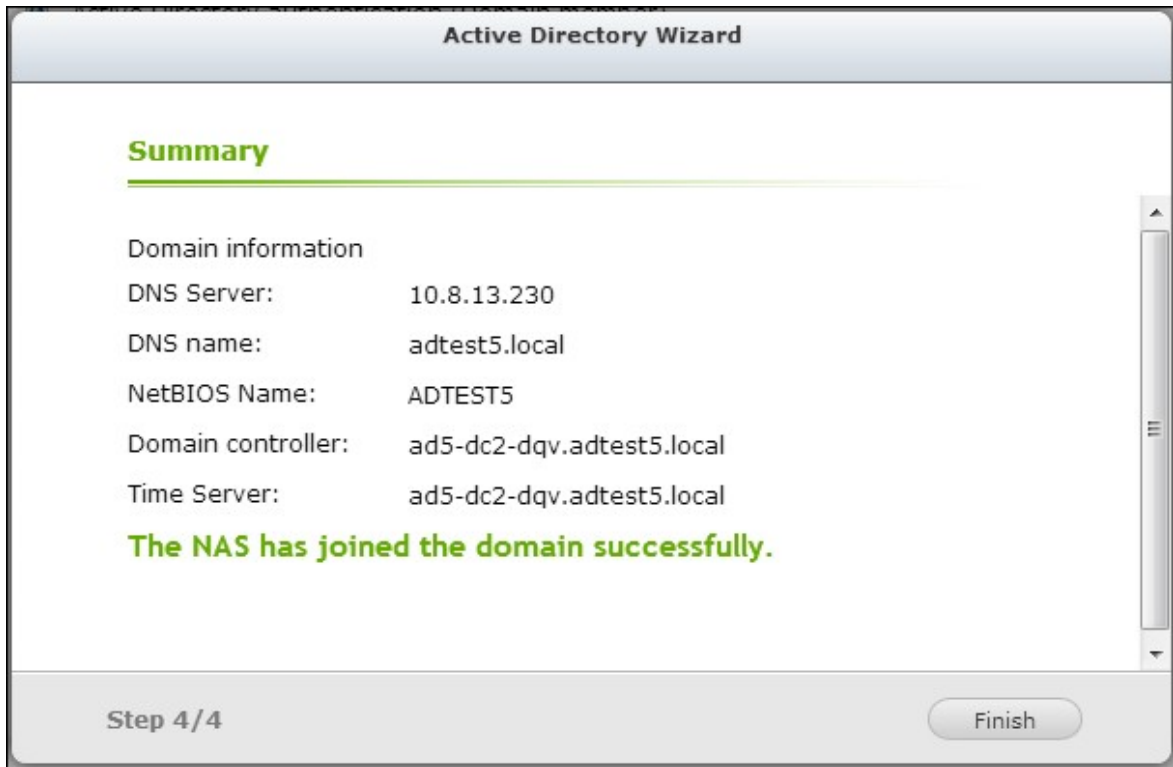
Domain Administrator Password:

Step 3/4

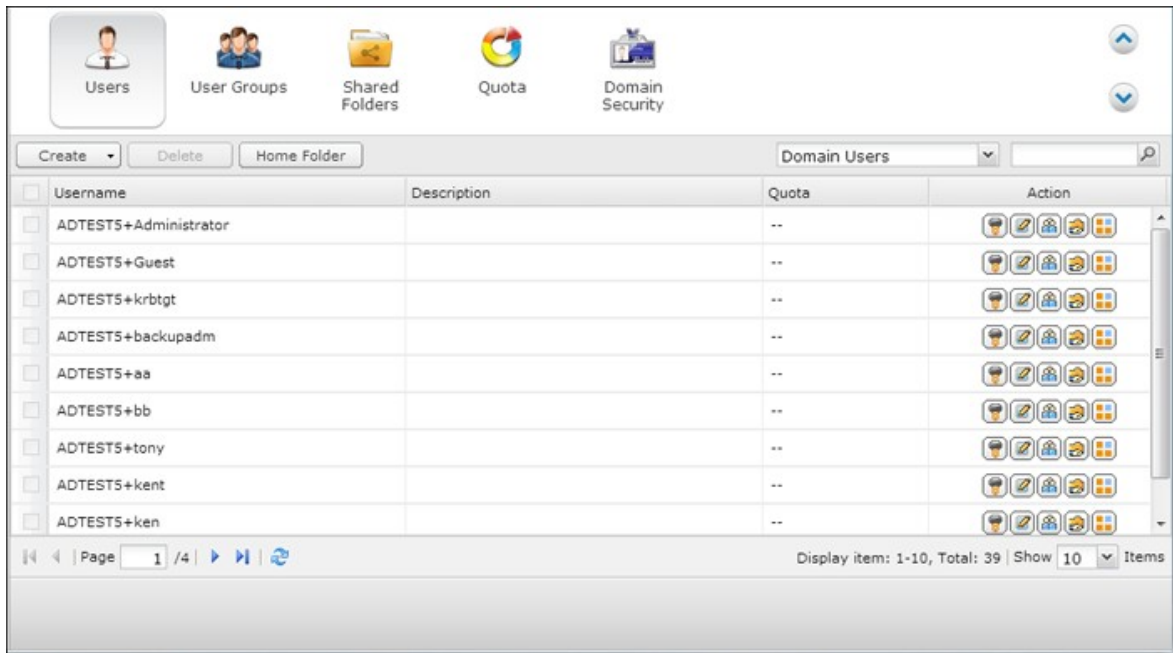
5.

, NAS가

. “Finish()”

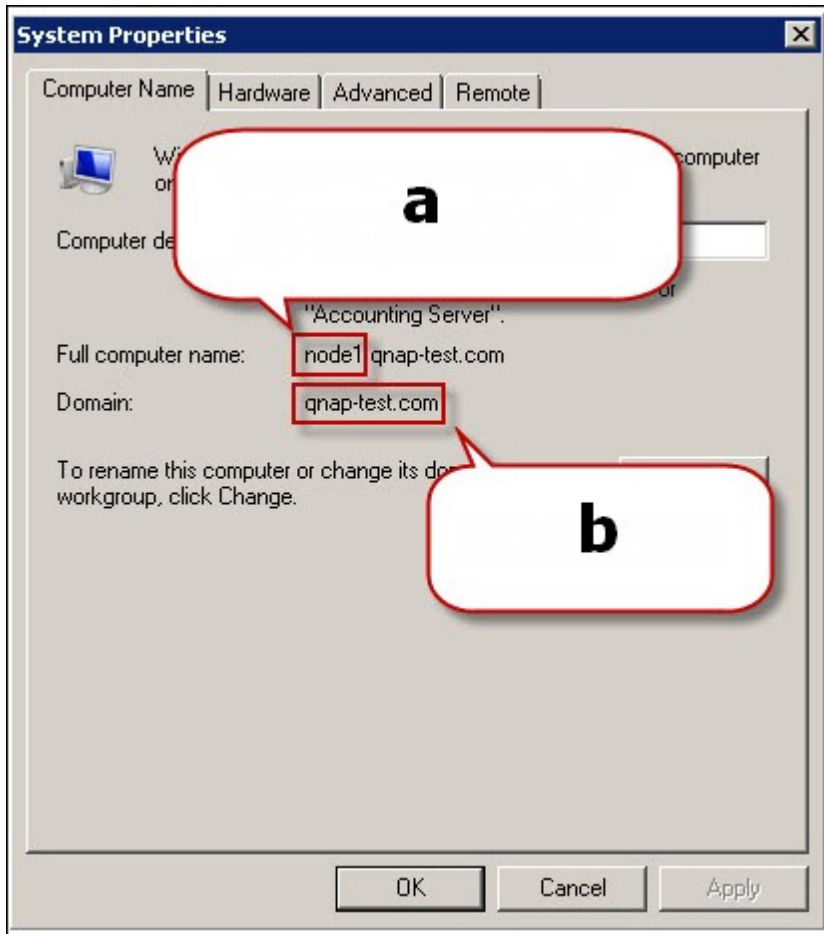


6. Privilege Settings() "> Users()" User Groups()" 가 NAS



Windows 2003

System Properties() " AD AD



a. Windows 2003

AD

"node1.qnap-test.com"

"node1"

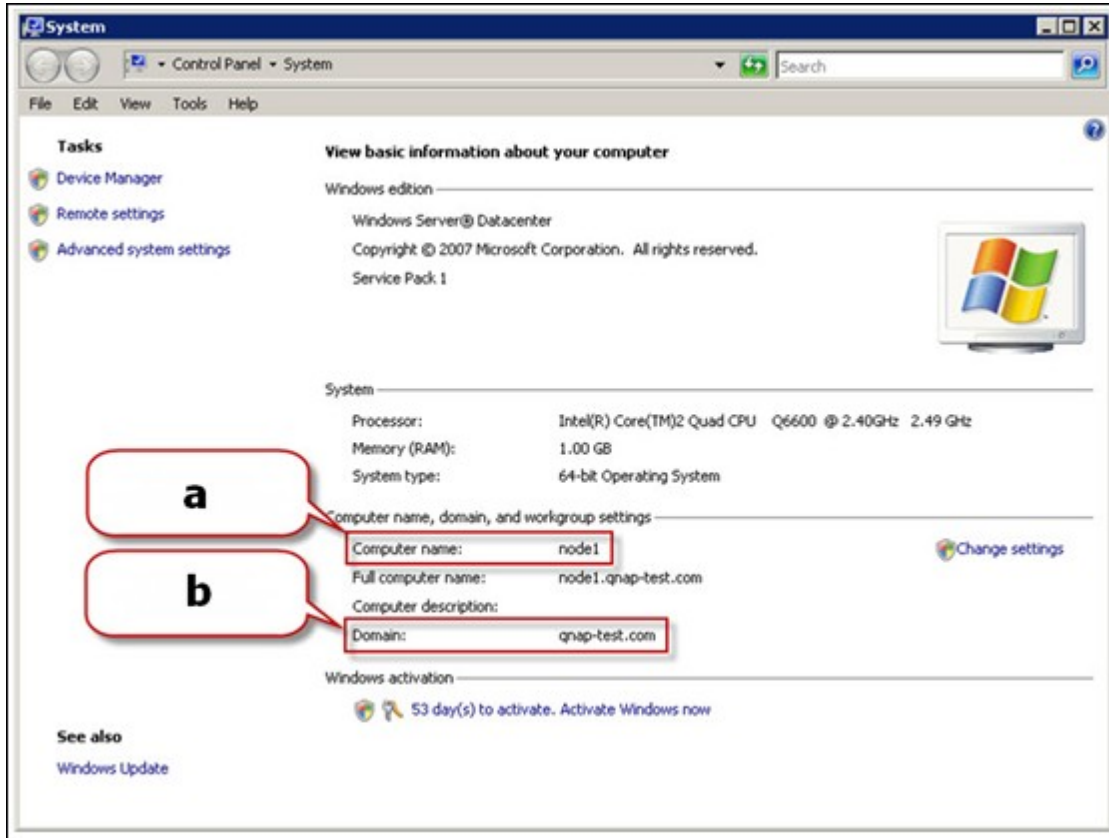
b.

Windows Server 2008

Control Panel()"> System()” AD

a. AD

b.

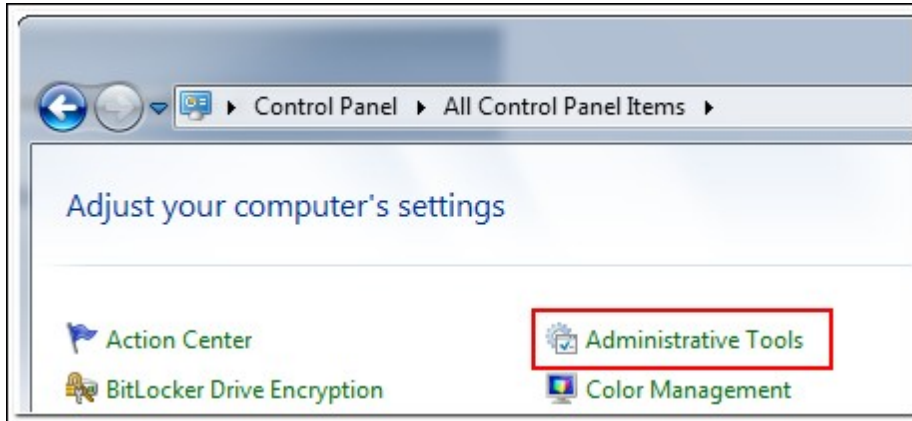


- NAS Active Directory , AD
"NASname\ username (NAS \)" . AD
AD
- TS- 109/ 209/ 409/ 509 NAS AD Windows 2008 NAS
2.1.2

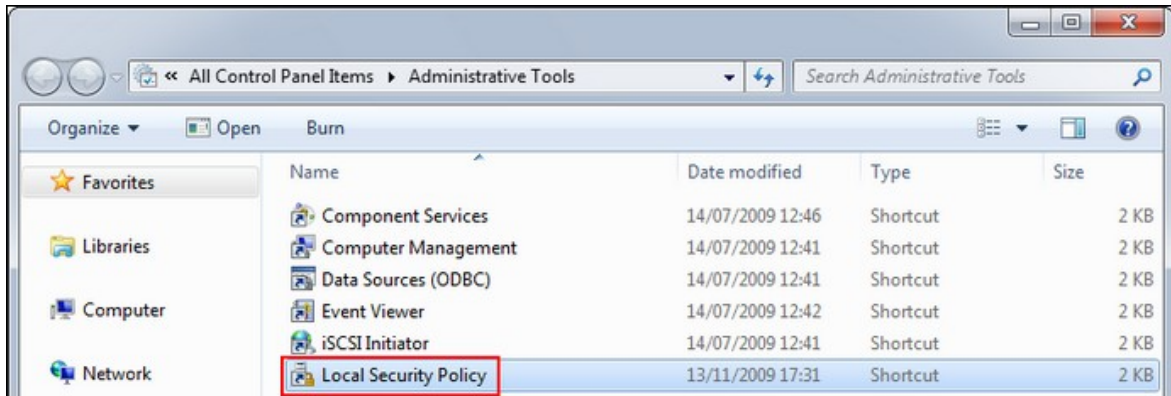
Windows 7

Active Directory 가 Windows 7 PC NAS가 AD 가
 v3.2.0 , PC PC가 NAS

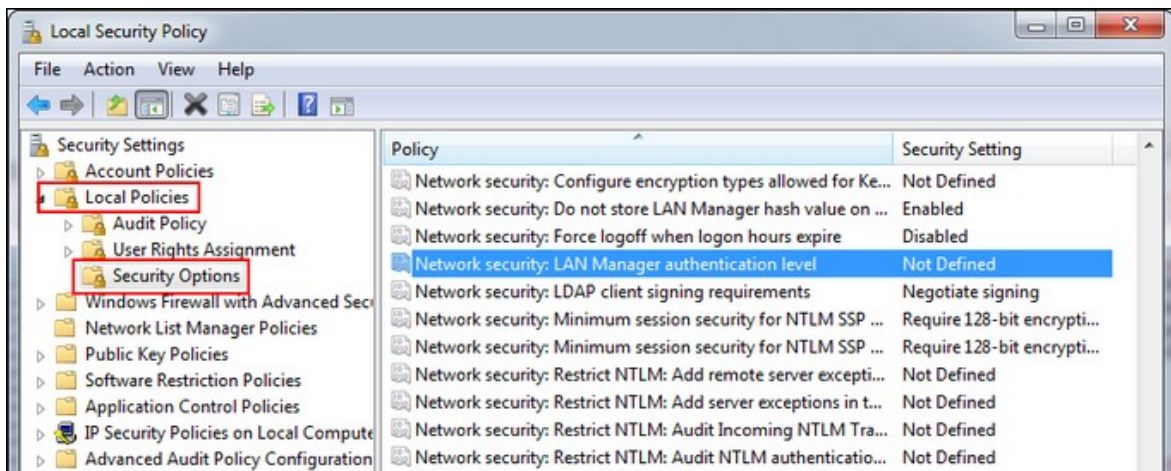
1. Control Panel()"> 'Administrative Tools()"



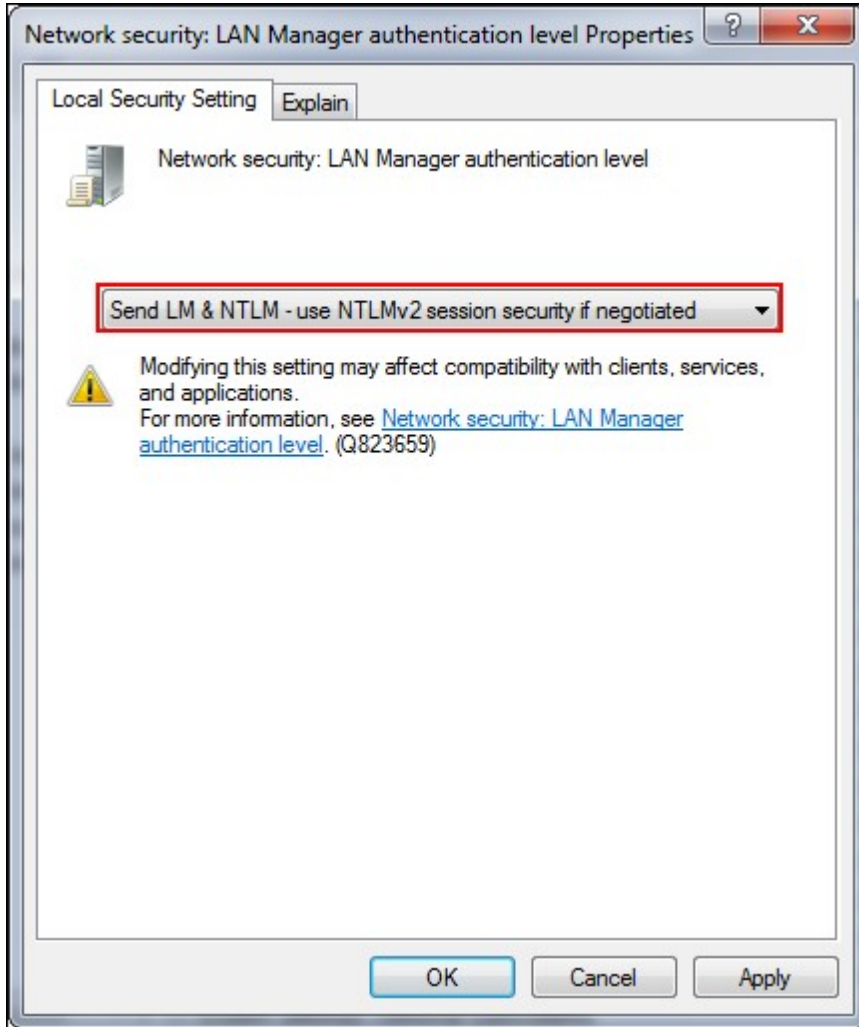
2. Local Security Policy()"



3. "Local Policies()" > "Security Options()" . Network security:
 LAN Manager authentication level(: LAN Manager)"

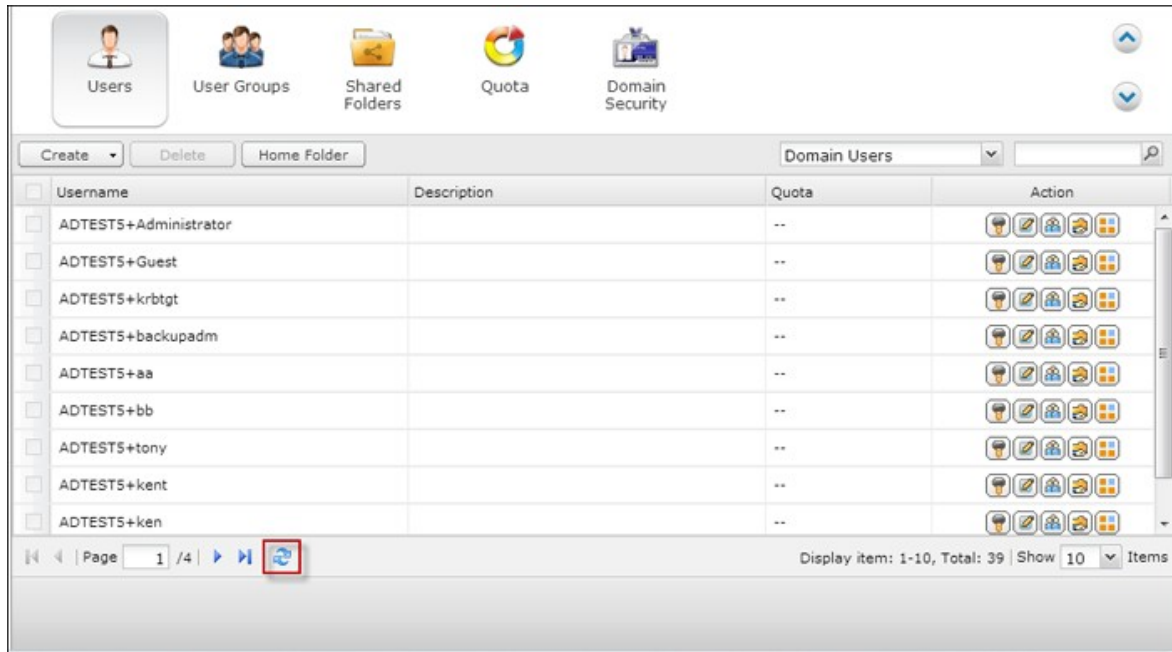


4. Local Security Setting()” Send LM & NTLMv2 use
NTLMv2 session security if negotiated(LM NTLMv2 - NTLMv2
)” . OK()”



NAS Active Directory Privilege Settings () ">
 Users()" User Groups()"
 Users ()" "Domain Groups ()"

Active Directory NAS



5.5.2 NAS LDAP Directory

LDAP Lightweight Directory Access Protocol

. LDAP

LDAP

NAS

Linux , LDAP

Samba

QNAP NAS LDAP

LDAP 가

/ :

- LDAP
- LDAP
- LDAP

QNAP NAS LDAP

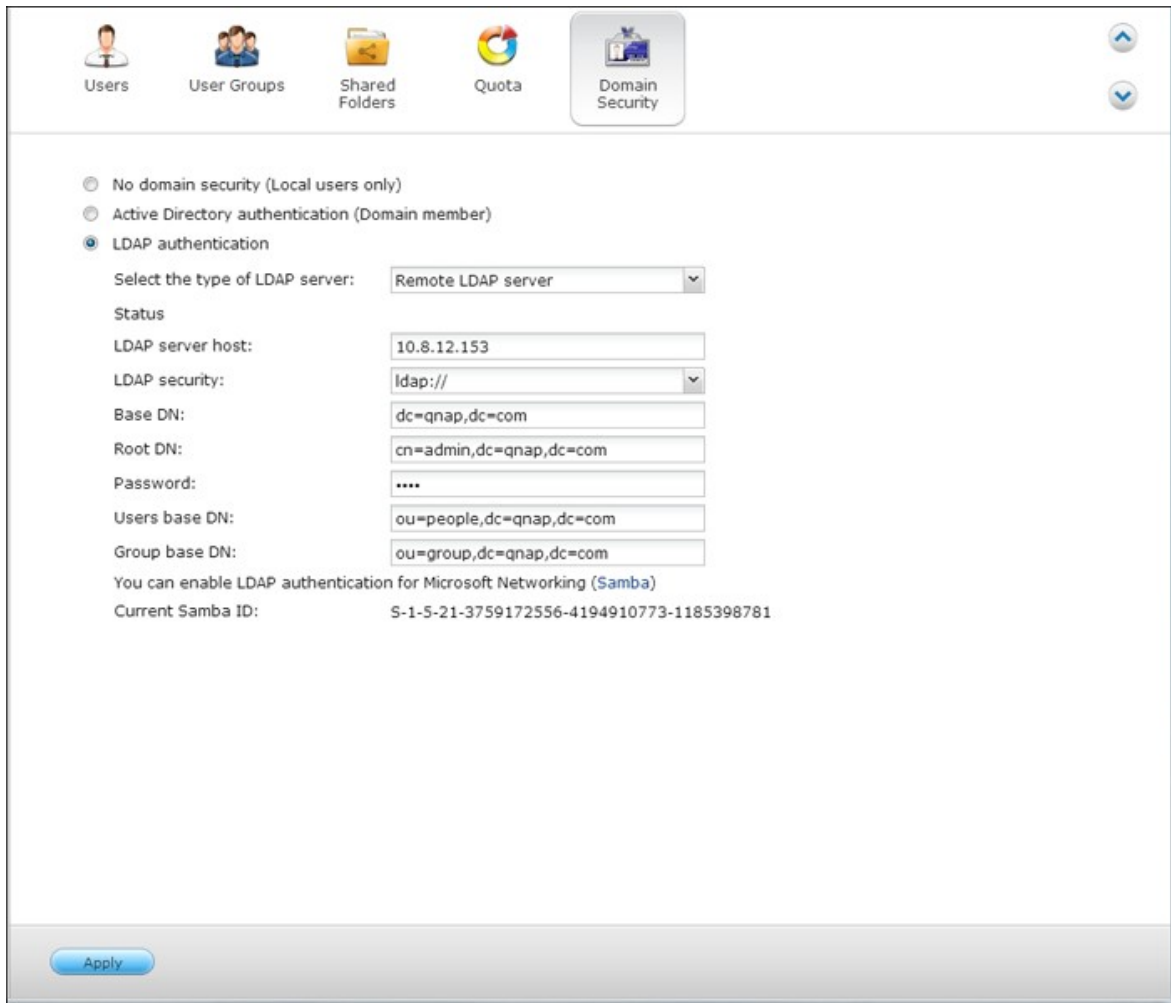
1. NAS

2. Privilege Settings()> Domain Security()”
 No domain security()”

NAS

NAS

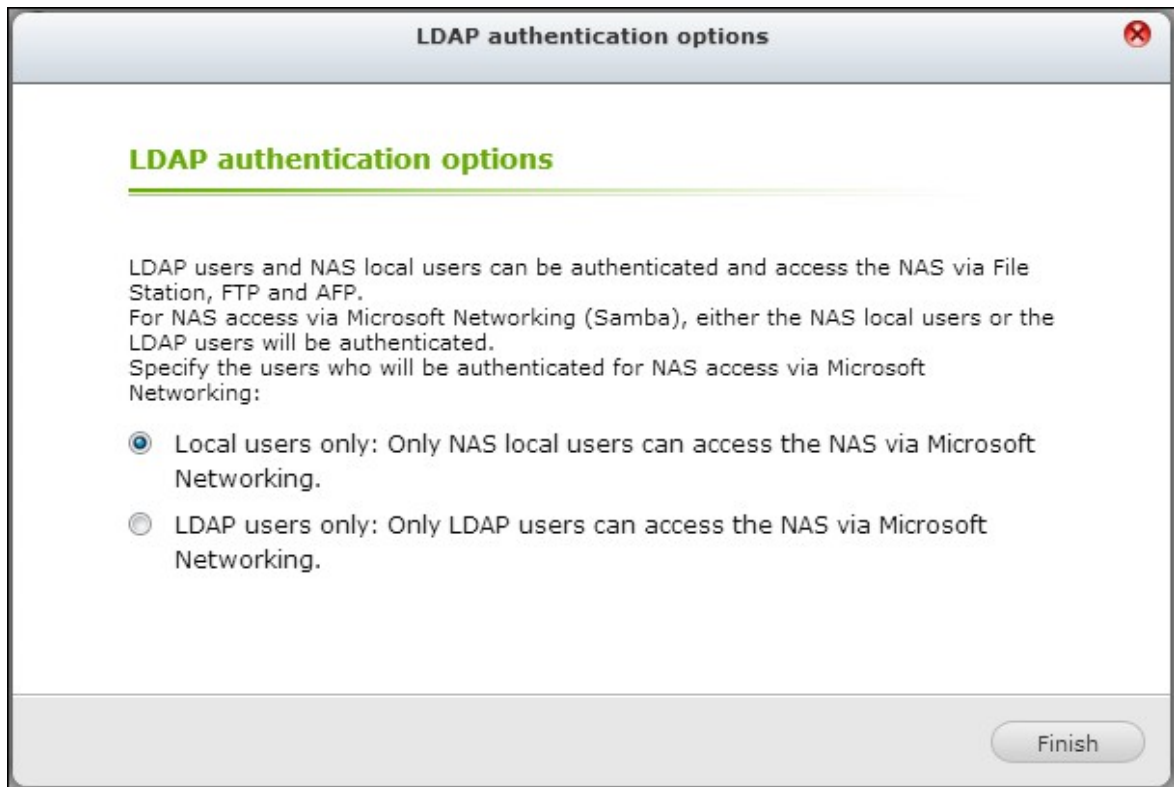
3. LDAP authentication(LDAP)”



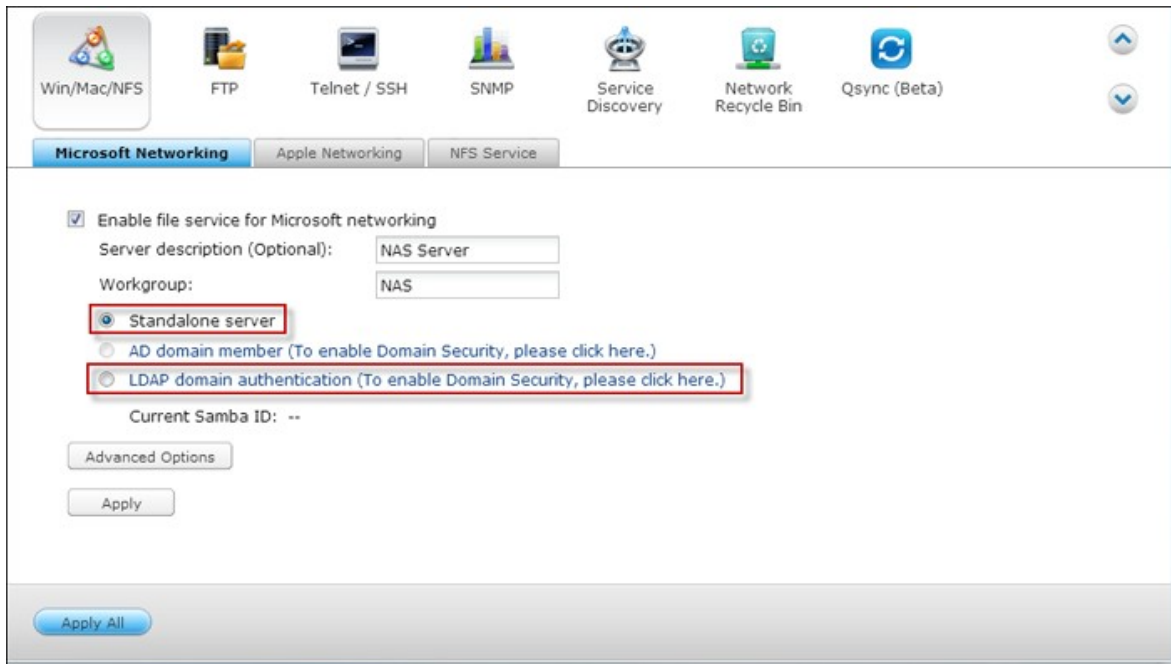
- LDAP : LDAP IP .
 - LDAP : NAS LDAP :
 - ldap:// = LDAP (: 389).
 - ldap:// (ldap + SSL) = SSL (: 686). LDAP
 - ldap:// (ldap + TLS) = TLS (: 389). LDAP
-
- BASE DN: LDAP : dc=mydomain,dc=local
 - DN: LDAP cn=admin, dc=mydomain,dc=local
 - :
 - DN: 가 (OU). : ou=people,dc=mydomain, dc=local
 - DN: (OU). ou=group,dc=mydomain,dc=local
4. "Apply ()" , NAS LDAP
5. LDAP

- LDAP : Microsoft (Network Services > Win/Mac/NFS > Microsoft Networking), Microsoft (Samba) NAS
 - : NAS Microsoft NAS
 - LDAP : LDAP Microsoft NAS

: LDAP NAS File Station, FTP, AFP NAS

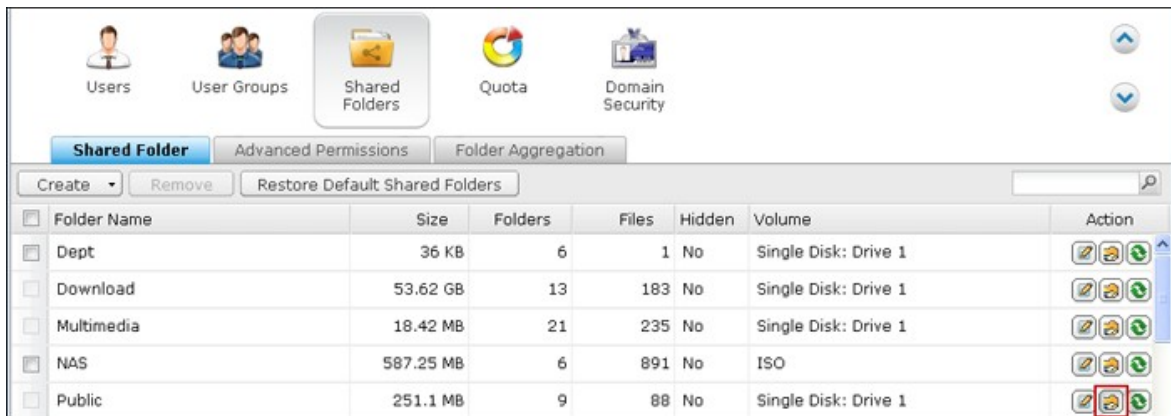


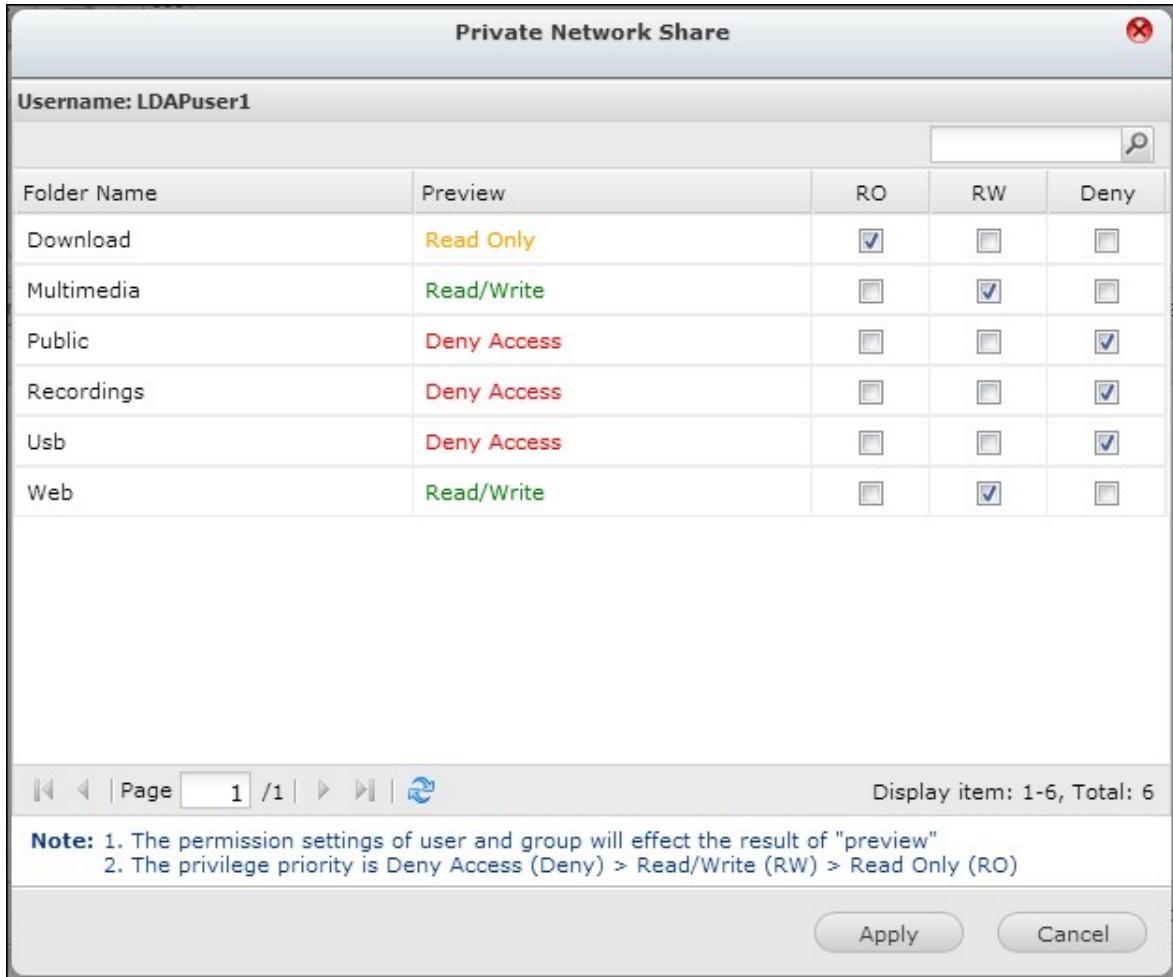
- NAS와 LDAP Microsoft , Microsoft
 - Standalone : NAS Microsoft NAS
 - LDAP : LDAP Microsoft NAS



6. NAS가 LDAP

- "Privilege Settings()" > "Users ()" 가 , "Domain Users ()" . LDAP
- "Privilege Settings()" > "User Groups()" 가 , "Domain Groups()" . LDAP
- "Privilege Settings()" > "Shared Folders ()" > "Access Permissions ()" LDAP





Microsoft

LDAP

Microsoft (Samba) LDAP

1. LDAP LDAP Samba
2. Samba LDAP 가 .

A. : 가 Samba LDAP

- LDAP Account Manager (LAM), : <http://www.ldap-account-manager.org/>
- smbldap-tools()
- webmin-ldap-useradmin - Webmin LDAP .

B. Samba schema:
 samba schema LDAP 가 LDAP FAQ .
 samba.schema Samba examples/LDAP

LDAP 가 Linux open-ldap (Linux):

samba schema :

```
zcat /usr/share/doc/samba-doc/examples/LDAP/samba.schema.gz > /etc/ldap/  
schema/samba.schema
```

/etc/ldap/slapd.conf (openldap)
:

```
include /etc/ldap/schema/samba.schema  
include /etc/ldap/schema/cosine.schema  
include /etc/ldap/schema/inetorgperson.schema  
include /etc/ldap/schema/nis.schema
```

:
:
: LDAP

1. Linux OpenLDAP

DN: dc=qnap,dc=com

DN: cn=admin,dc=qnap,dc=com

DN: ou=people,dc=qnap,dc=com

DN: ou=group,dc=qnap,dc=com

2. Mac Open Directory

DN: dc=macserver,dc=qnap,dc=com

DN: uid=root,cn=users,dc=macserver,dc=qnap,dc=com

DN: cn=users,dc=macserver,dc=qnap,dc=com

DN: cn=groups,dc=macserver,dc=qnap,dc=com

6.

Win/Mac/NFS [426](#)

FTP [435](#)

Telnet/SSH [437](#)

SNMP [438](#)

[439](#)

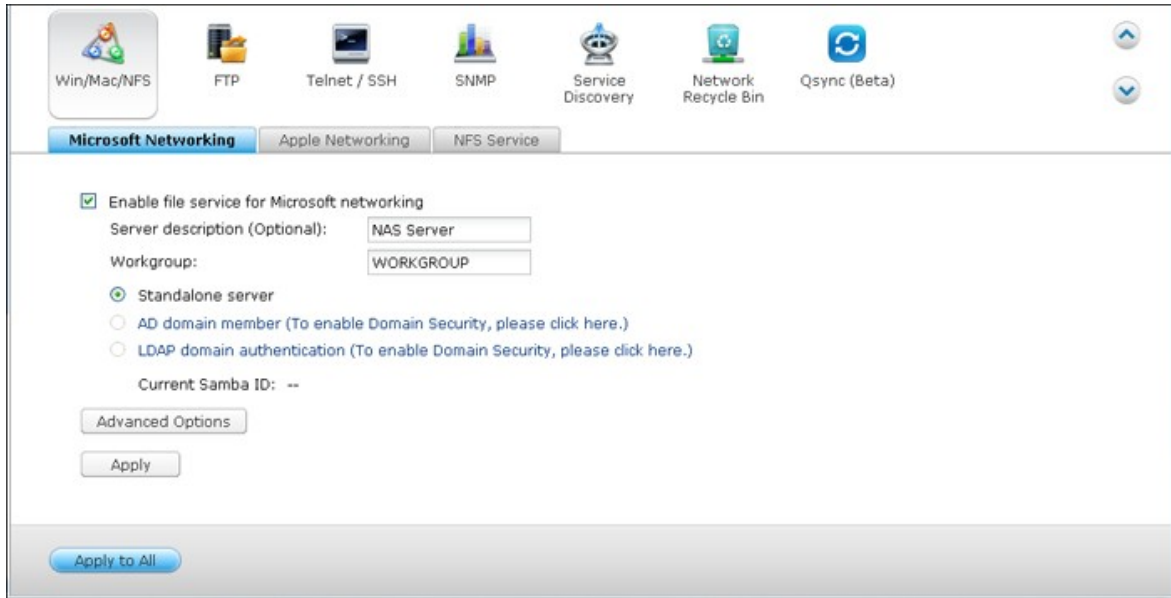
[441](#)

Qsync [443](#)

6.1 Win/Mac/NFS

Microsoft

Microsoft Windows Network NAS Microsoft



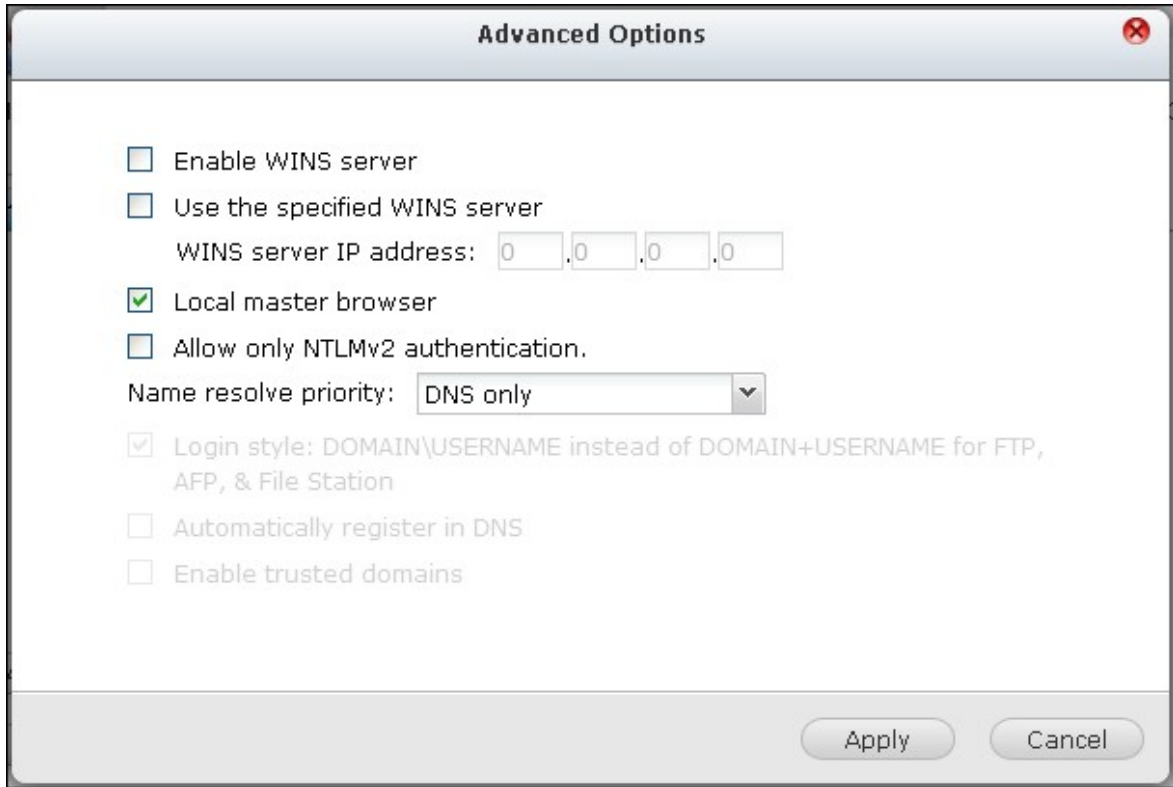
- NAS "Privilege Settings()" > "Users()"
- NAS
- (): 가 Microsoft Network NAS
- : NAS가 15
 . " + = / \ : | * ? < > ; [] % , `

AD

Microsoft Active Directory (AD) "Privilege
 Settings()" > "Domain Security()" Active Directory
 NAS Active Directory 가

LDAP

Lightweight Directory Access Protocol (LDAP)
 LDAP "Privilege Settings()" > "Domain Security(
)"
 NAS LDAP
 Microsoft NAS



WINS :

WINS , IP . NAS가 WINS
 IP . WINS 가

Windows PC 가
 가 가 가
 , "Domain Master() NAS

NTLMv2 :

NMLMv2 NT LAN Manager 2 , Microsoft Networking
 NTLMv2 NTLM(NT
 LAN Manager) NTLMv2

IP DNS WINS
 . NAS WINS WINS 가
 DNS WINS . WINS
 "Try WINS then DNS(WINS DNS)"가
 DNS가

: FTP, AFP File Manager + \

Active Directory

- Windows : \
- FTP: +
- File Station: +
- AFP: +

Manager NAS (domain\ username) AFP, FTP File

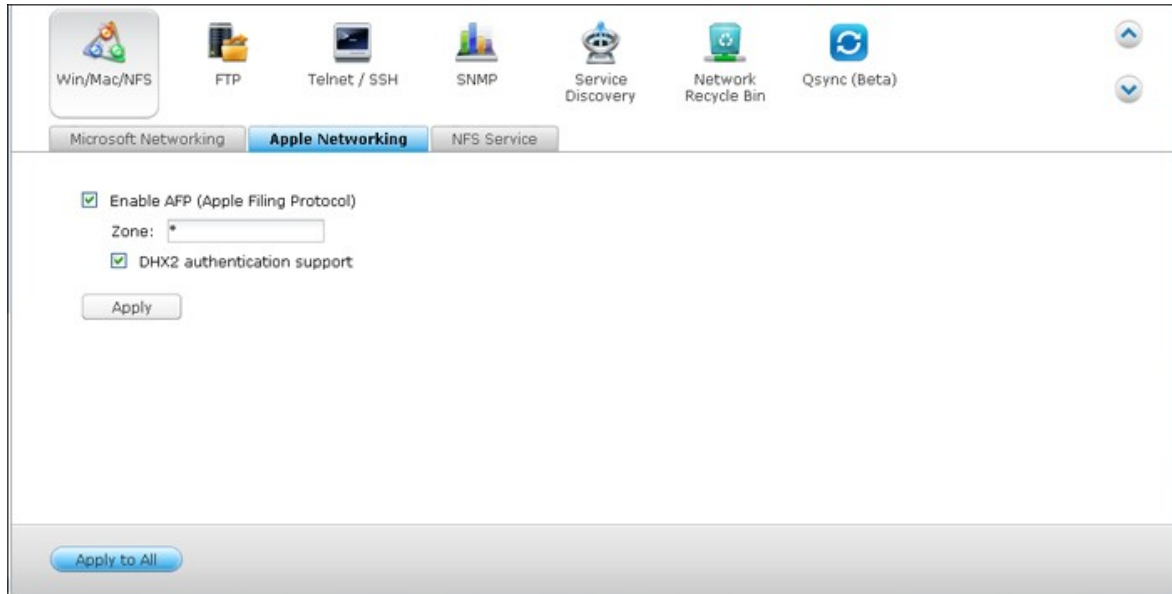
Automatically register in DNS(DNS): NAS Active
Directory , NAS가 DNS
DNS NAS DNS . NAS IP NAS가 DNS IP

Enable trusted domains():
Active Directory "Privilege Settings()" > "Share Folders
()" NAS . (Active Directory
. NAS .)

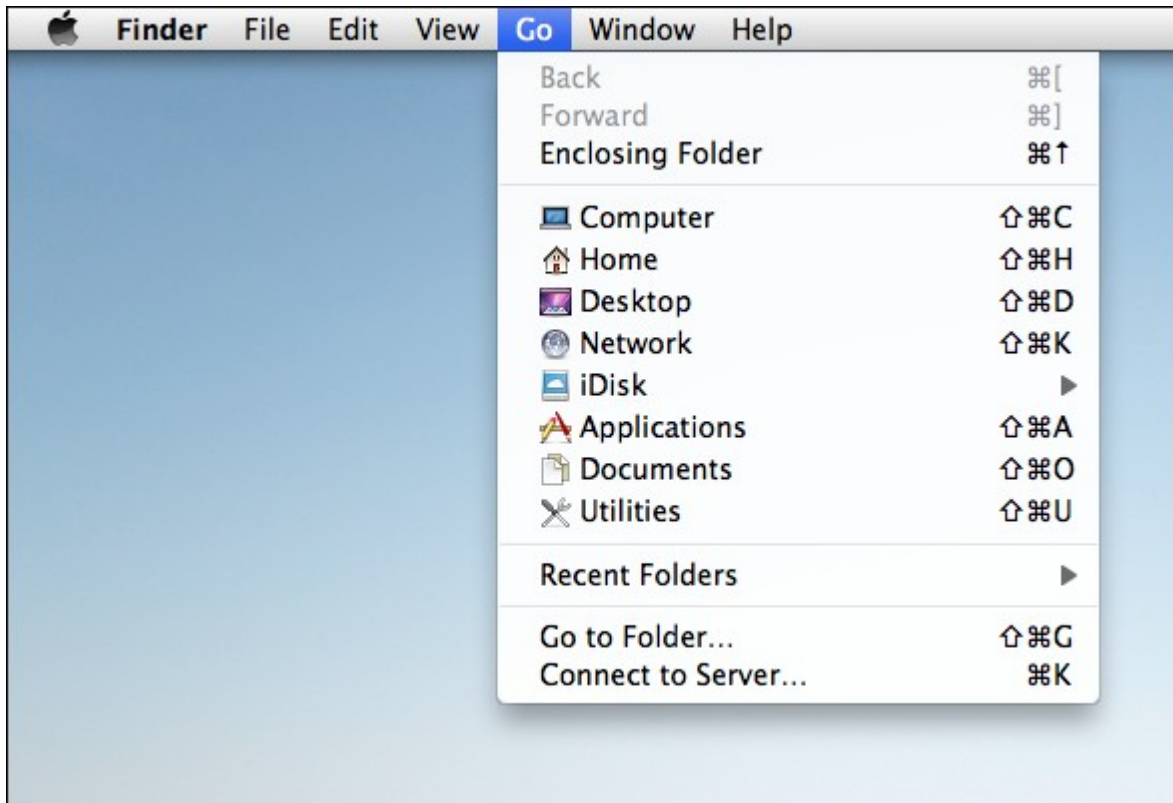
Apple

Mac OS X 10.7 Lion NAS Apple Filing Protocol . AppleTalk
가 NAS
(*).

Mac OS X 10.7 Lion NAS "DHX2 Authentication Support(DHX2
)"
"Apply()"

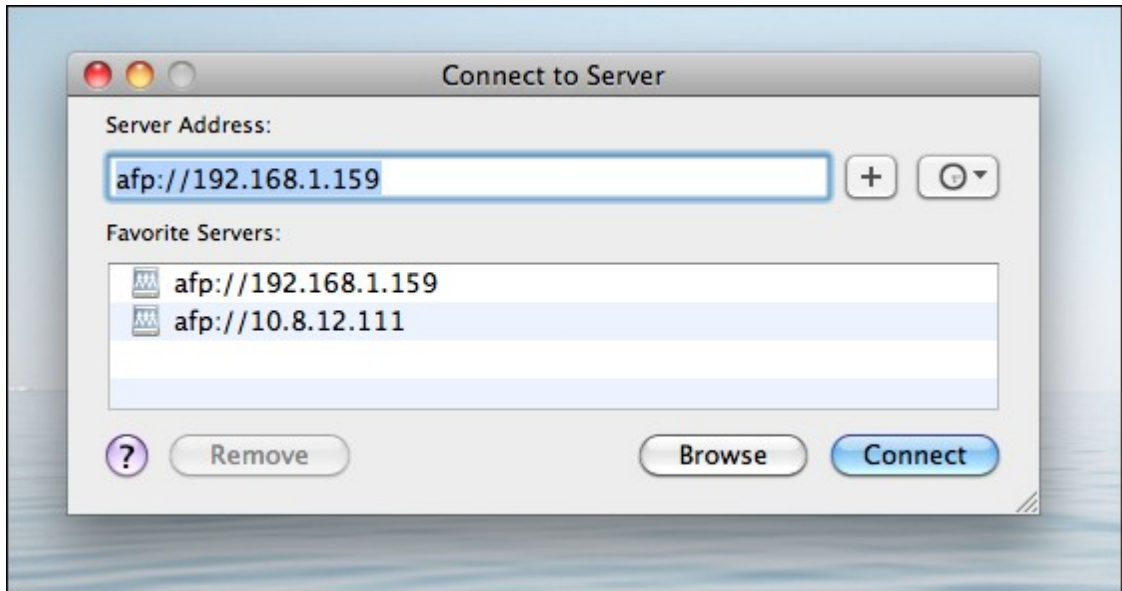


Mac OS X 10.7 Lion NAS . "Go()" > "Connect to Server(
)" , 가 "Command+k"



"afp://YOUR_NAS_IP_OR_HOSTNAME" "Server Address()"

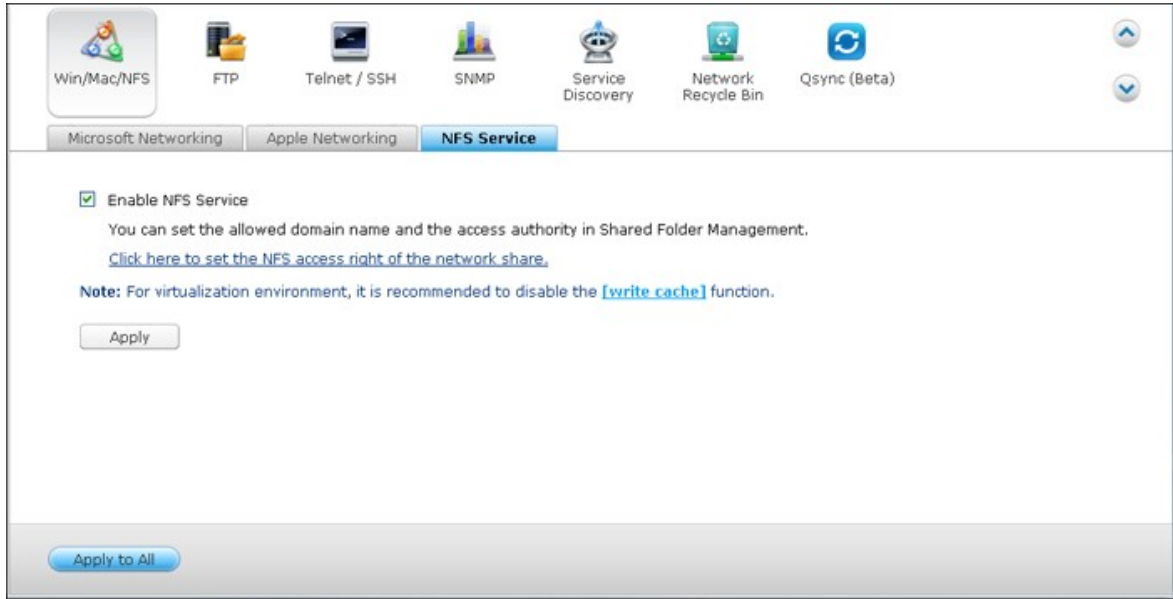
- 가
- afp://10.8.12.111
- afp://NAS-559
- smb://192.168.1.159



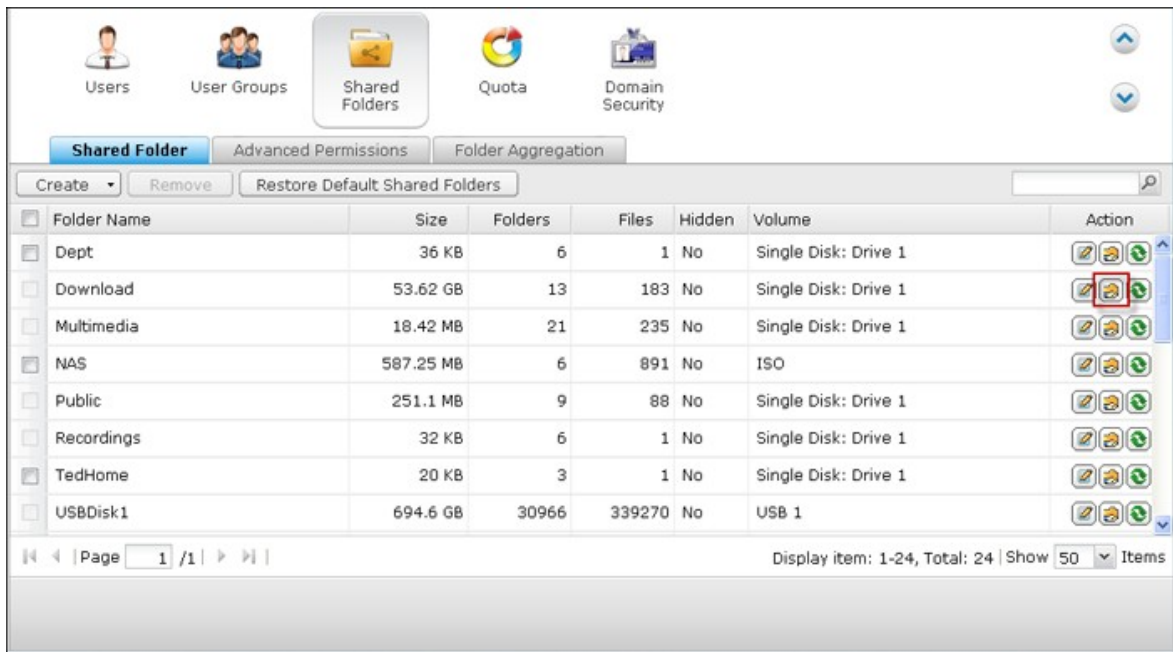
Mac OS X	Apple Filing Protocol	Microsoft Networking	Apple Filing
Protocol	NAS	"afp://"	Microsoft
Networking	NAS	"smb://"	

NFS

Linux NAS NFS



NAS NFS "Privilege Settings ()" > "Share
 Folders()" "Action()" Access Permission()



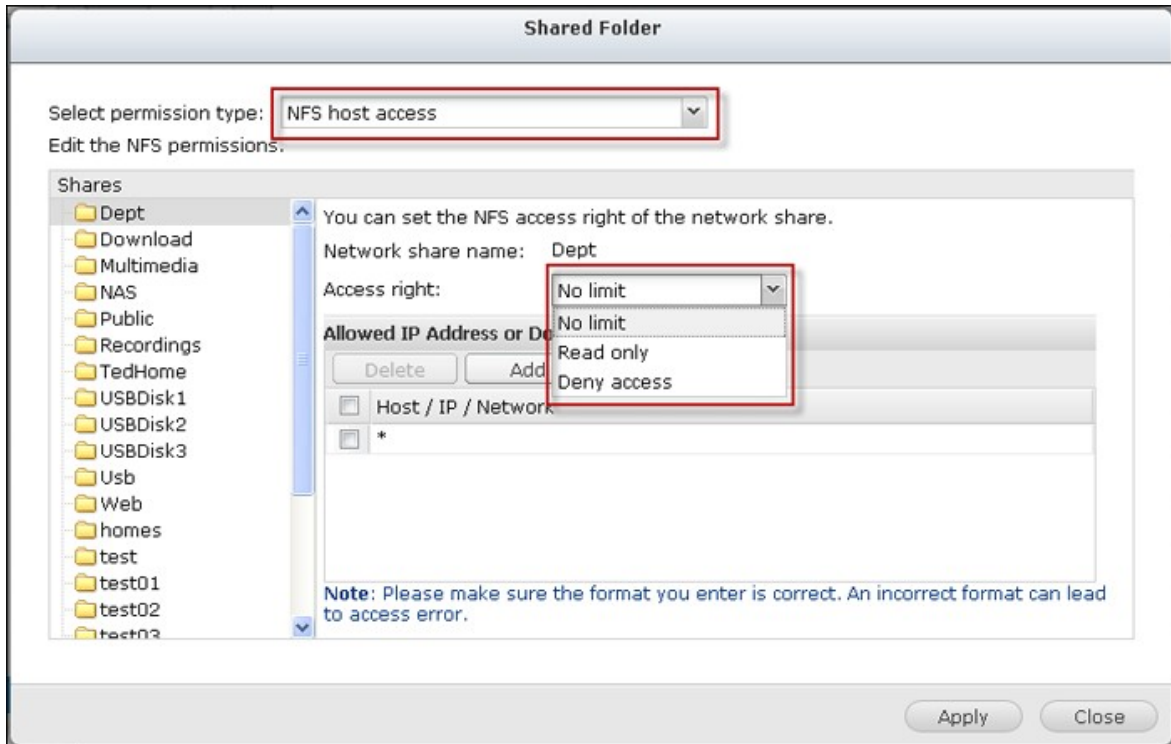
NFS

"No limit()" "Read only()" NFS

IP

- No limit(): 가

- Read only(): 가
- Deny access():



NFS NAS

Linux

```
mount -t nfs <NAS IP>:/<Shared Folder Name> <Directory to Mount>
```

```
, NAS IP 가 192.168.0.1 /mnt/pub "public( )"
```

```
mount -t nfs 192.168.0.1:/public /mnt/pub
```

:	"root()"
---	-----------

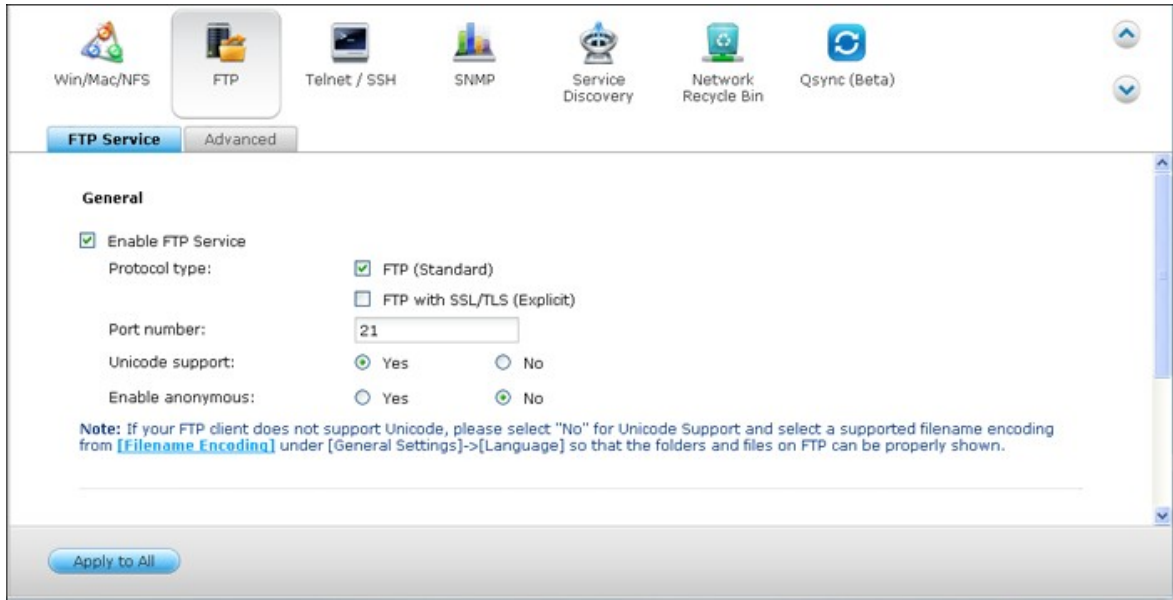
ID

6.2 FTP

FTP

FTP

FTP



NAS FTP

. IE

ftp://NAS IP

FTP

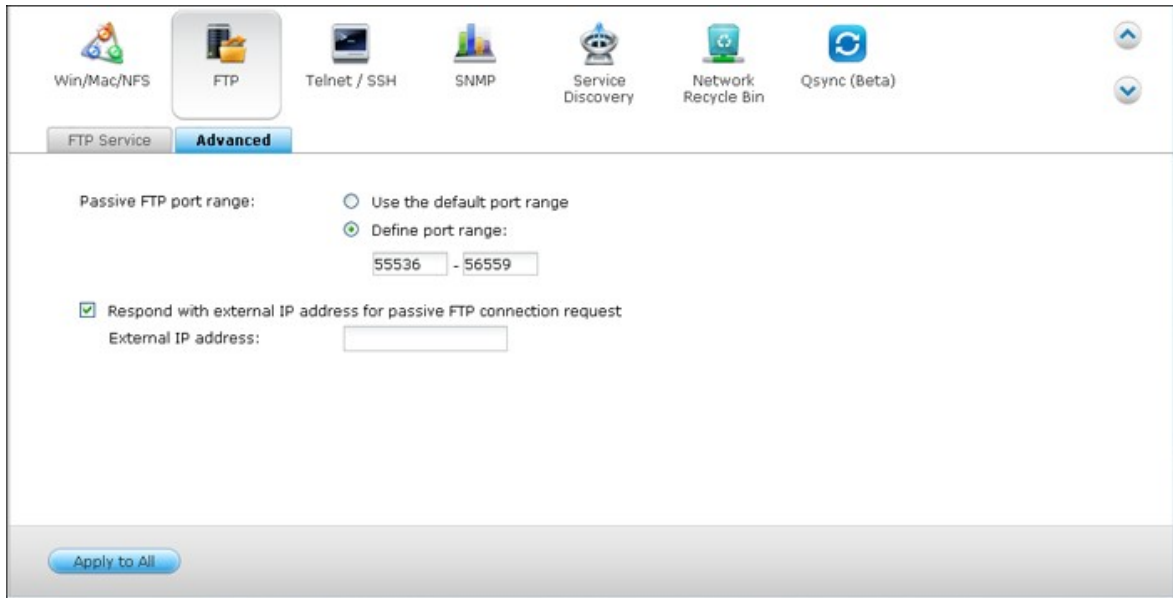
FTP :
FTP SSL/TLS FTP

/

General Settings() "> Codepage()" OS
. FTP 가

NAS

:
가 NAS FTP
가 가



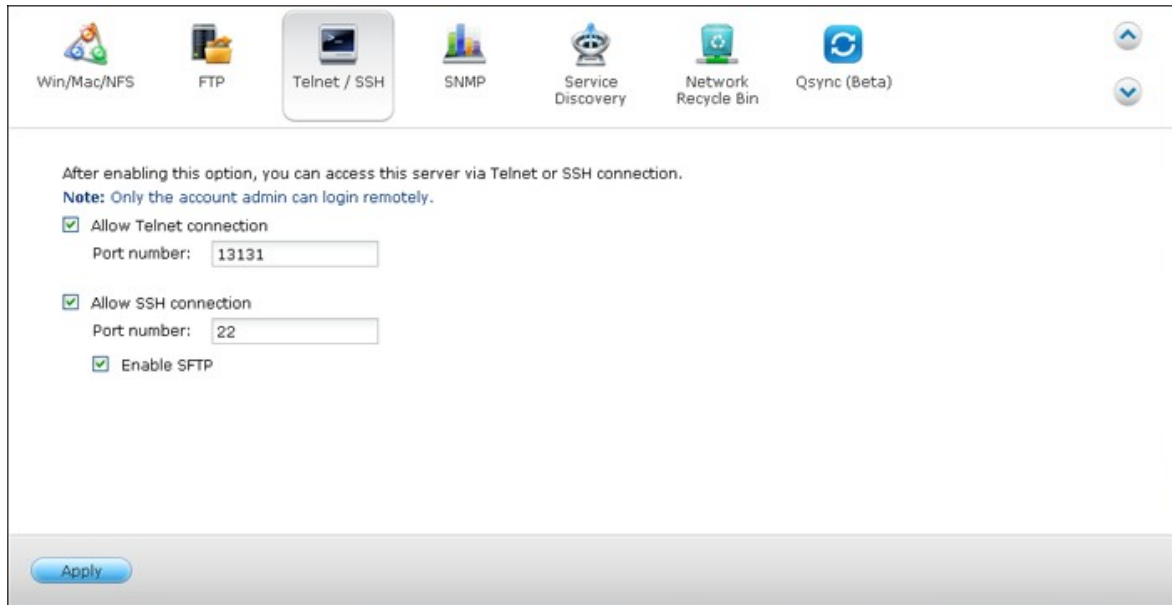
FTP :
(55536- 56559) 1023

FTP **IP** :
FTP 가 , 가 WAN FTP
가 IP FTP
가 FTP

6.3 Telnet/SSH

SSH
("admin"). SSH (: Putty)

SFTP(SSH File Transfer Protocol Secure File Transfer Protocol)
"Allow SSH connection(SSH)"



The screenshot shows a configuration window with a toolbar at the top containing icons for Win/Mac/NFS, FTP, Telnet / SSH (selected), SNMP, Service Discovery, Network Recycle Bin, and Qsync (Beta). Below the toolbar, the main content area contains the following text and controls:

After enabling this option, you can access this server via Telnet or SSH connection.
Note: Only the account admin can login remotely.

- Allow Telnet connection
Port number:
- Allow SSH connection
Port number:
- Enable SFTP

An "Apply" button is located at the bottom left of the window.

6.4 SNMP

SNMP (Simple Network Management Protocol) NAS SNMP
 가 PC SNMP (SNMP)
 . NAS , 가 NAS (SNMP) SNMP

SNMP	SNMP
	SNMP IP 3
SNMP MIB()	MIB SNMP NAS ASCII MIB (NAS)
(SNMP V1/V2)	SNMP NAS SNMP SNMP
SNMP V3	NAS SNMP 3 가

6.5

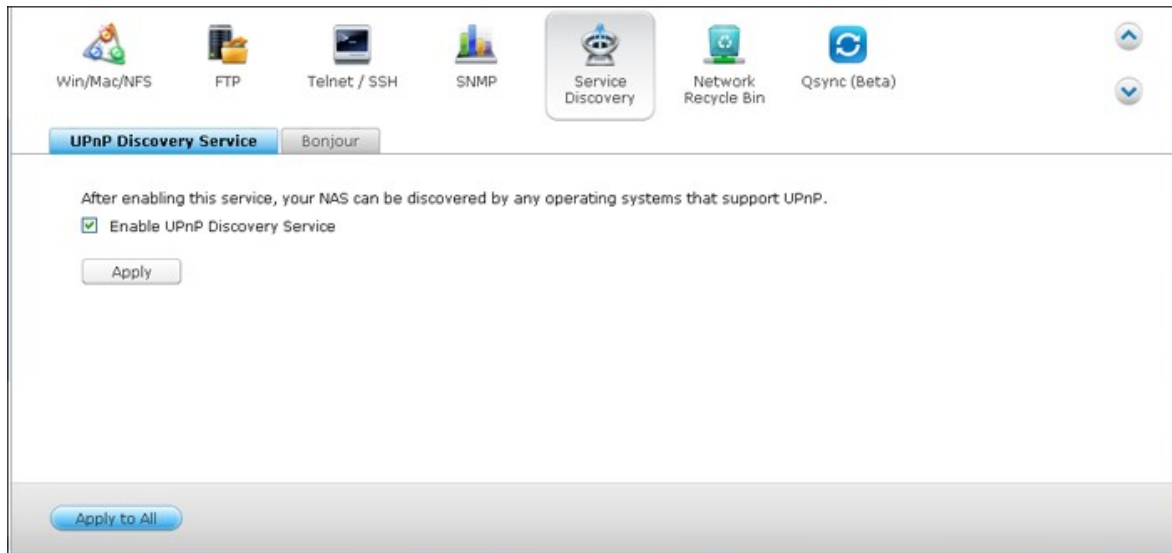
UPnP

UPnP 가 , UPnP 가

UPnP

UPnP

NAS



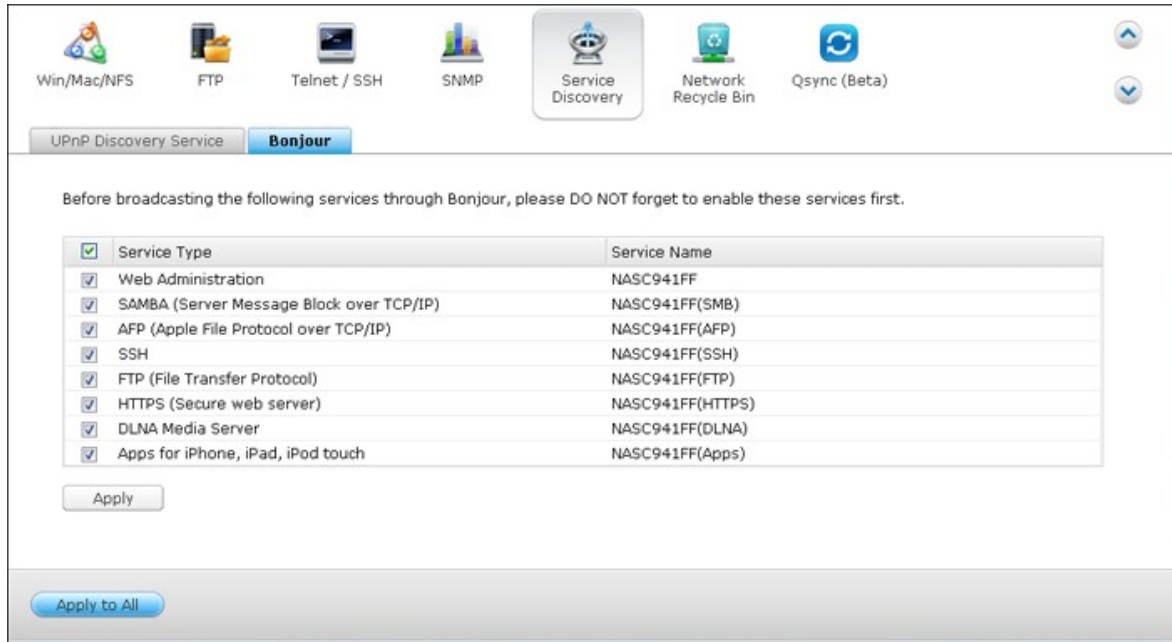
Bonjour

Bonjour

NAS

(Mac IP
FTP)

DNS

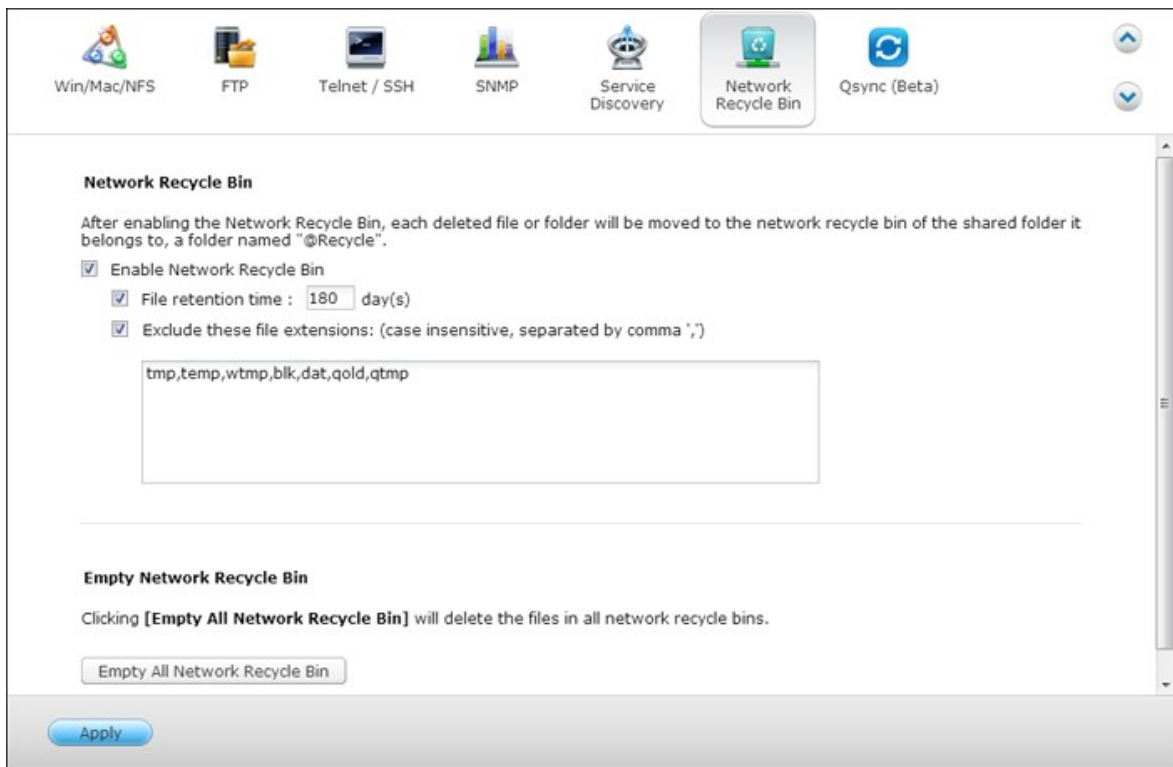


: Bonjour . NAS가

6.6

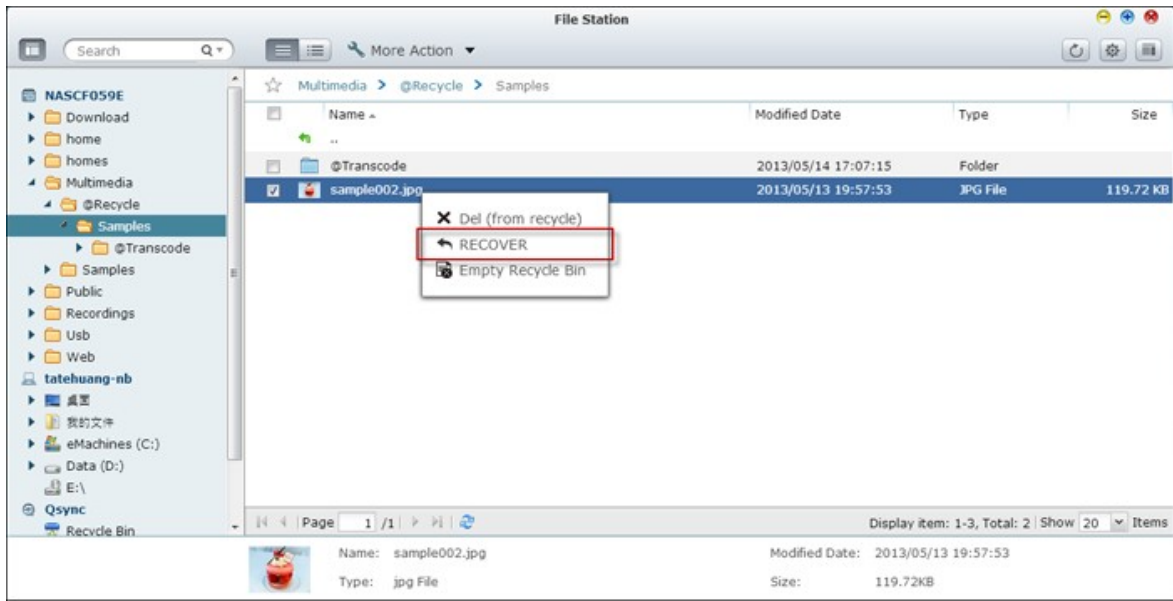
NAS
 @Recycle 가 (1- 180)
 'Apply()"' NAS Network Recycle Bin()"
 SAMBA, AFP QNAP File Station

)" , Empty All Network Recycle Bin()"



가 (USB NAS eSATA)

"RECOVER()" @Recycle



@Recycle

"Del(

)"



"Empty Recycle Bin(

)"



6.7 Qsync

Qsync QNAP Turbo NAS
Qsync 가 Turbo NAS

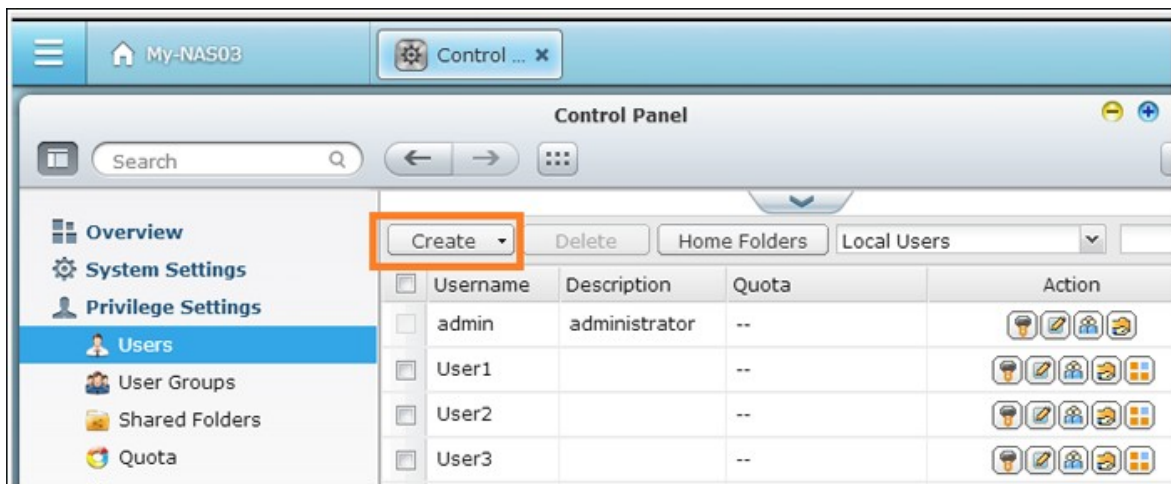
Qsync 3
1. NAS
2. Qsync , Qfile
3. NAS(Qsync) ("Qsync
").

1. NAS

Qsync

NAS : " "> " "> " "> " "

NAS :



2. Qsync

Qsync

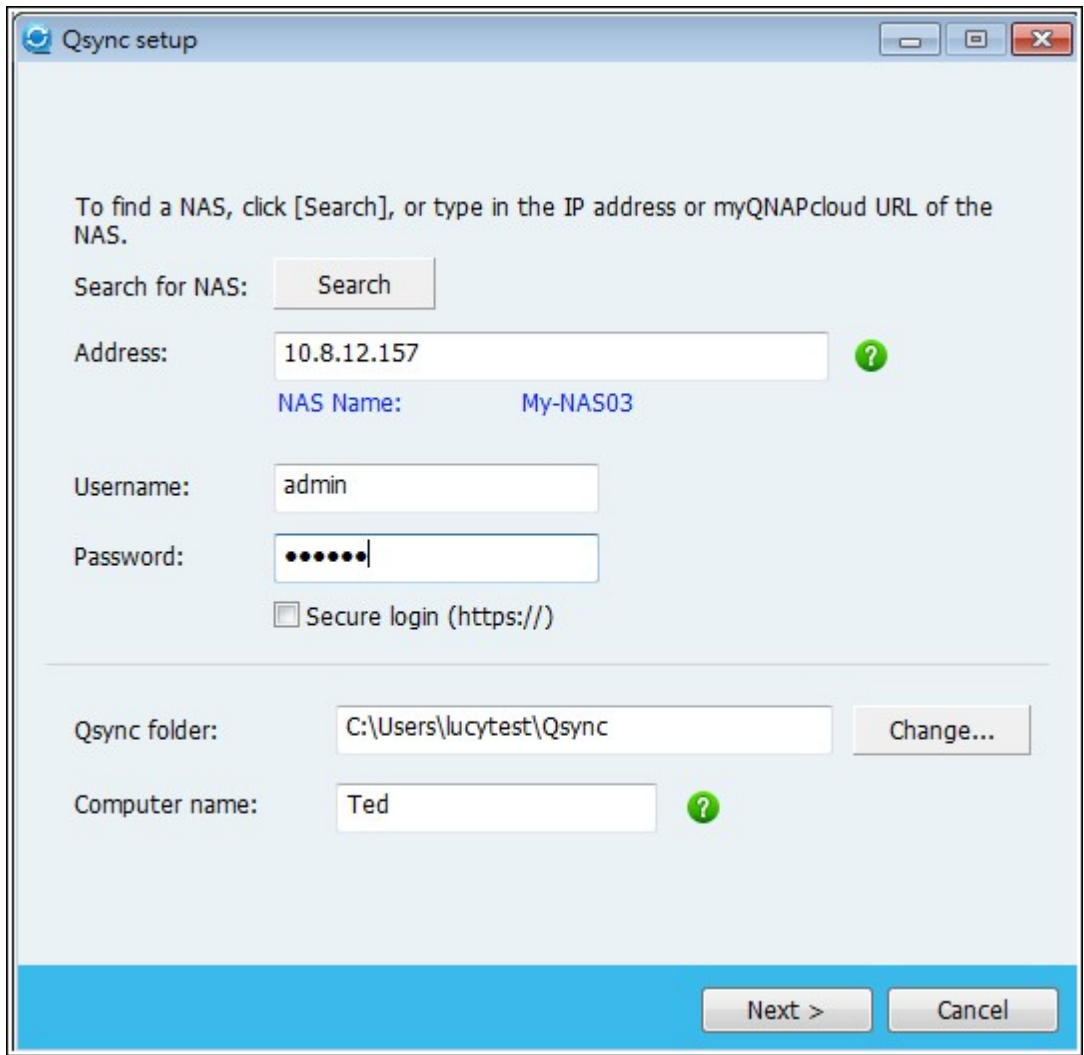
" " (NAS > NAS
Qsync 가 > " ") QNAP
" "> " "> " "

- Qsync (Windows)
- Qfile (iOS Android)



3. **NAS**

LAN NAS ID NAS Qsync
 192.168.1.100 " " IP (: IP : 10.8.1.20
 NAS () myQNAPCloud (:
 andy@myQNAPcloud.com).



IP : 가 NAS (: 8080) IP 가 .

Qsync

Windows

Qsync 가
Qsync

Qsync 가 .



(Qsync가
PC

NAS
가

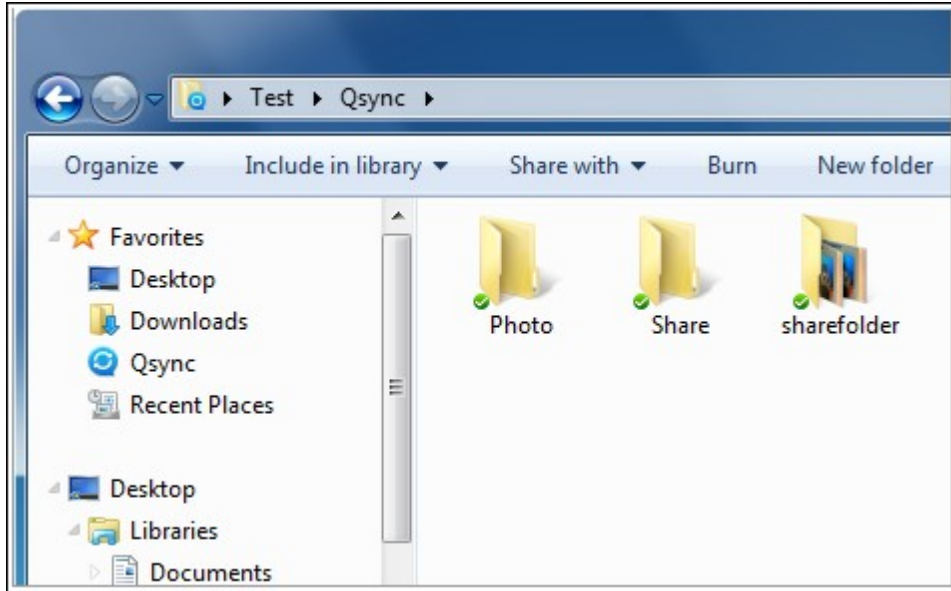
Qsync

)
가

가 가 . Qsync Qsync가
 NAS Qsync

1. PC

Qsync



2.

(Qfile),

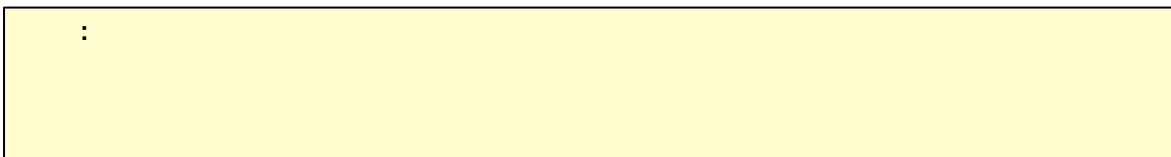
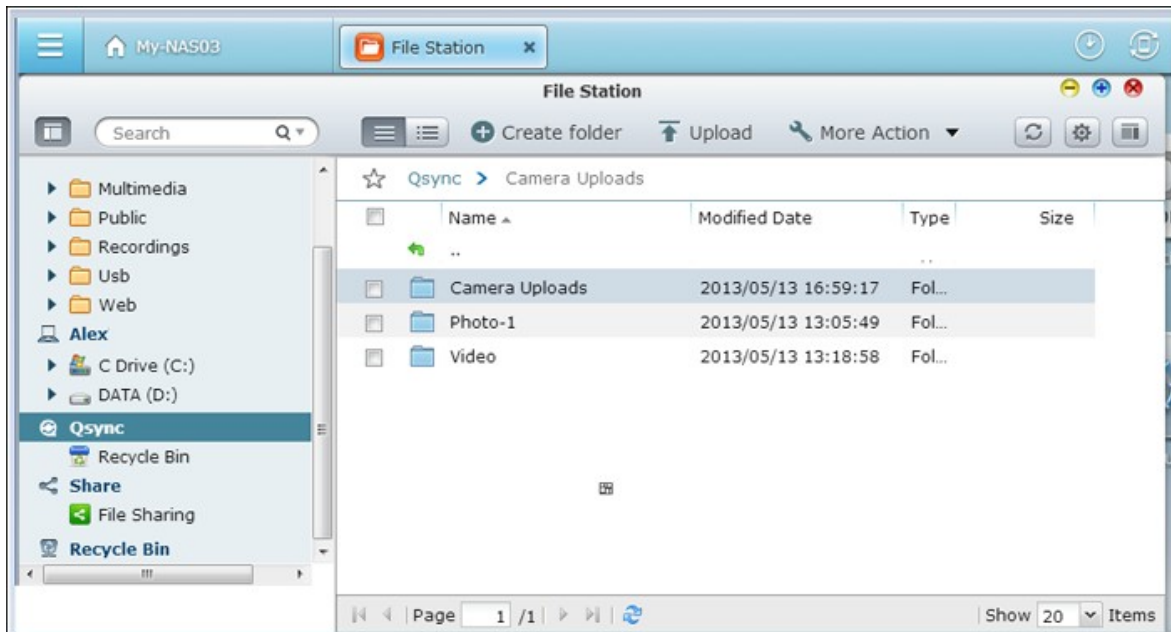
Qsync

3. NAS

File Station

Qsync

()



- Qsync “ ” Qsync , Qsync 가
Windows File
Explore
- Qsync가 LAN 50G
- Qsync SAMBA, FTP AFP File Station
- Qsync
- Qfile

가

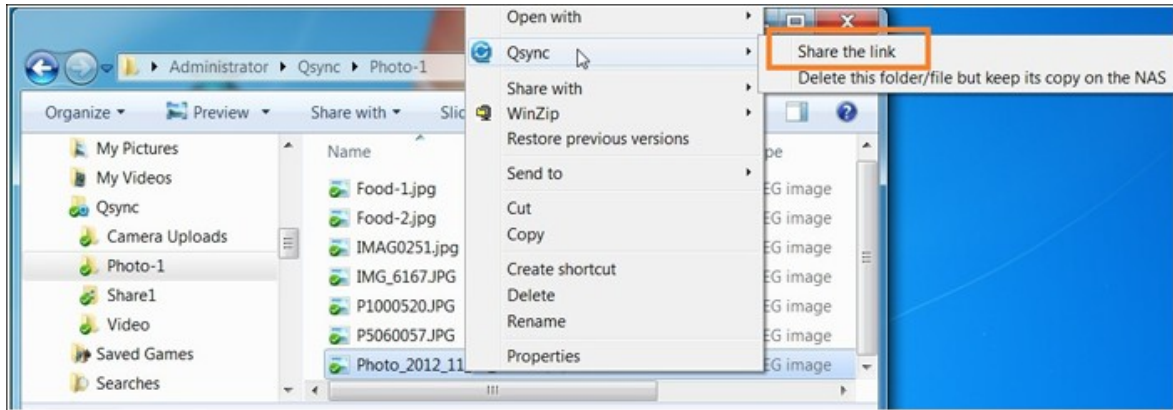
Qsync가

Qsync

Qsync

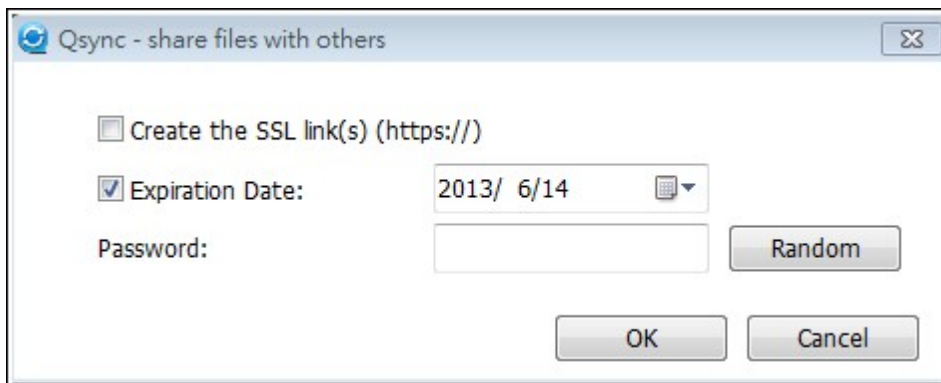
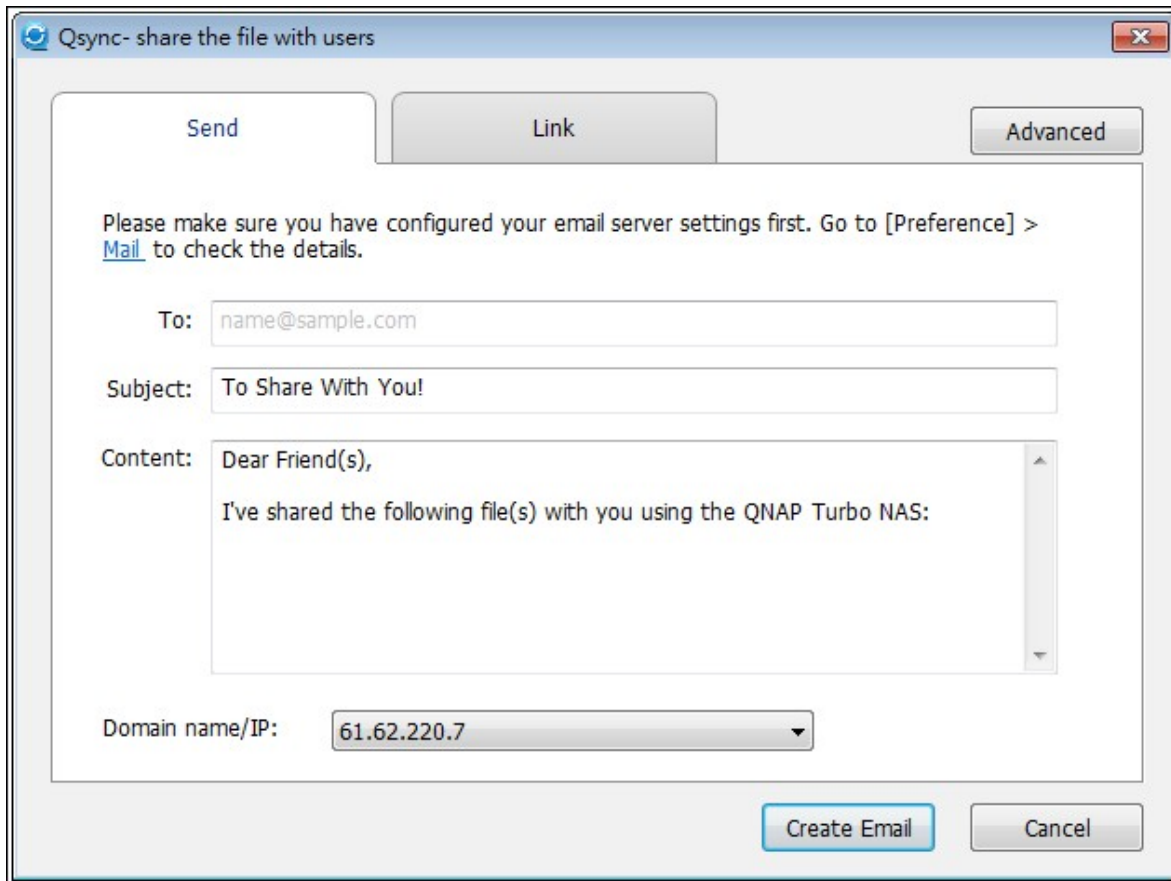
Windows :

1. Qsync



2.

3. SSL



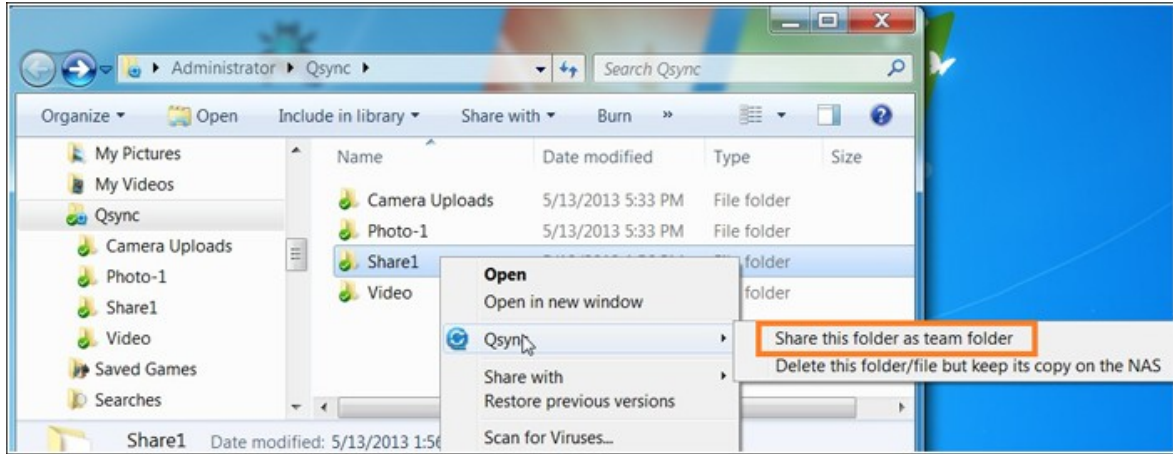
NAS , File Station Qsync “ ”
 , Qfile Qsync
 “ ”

가

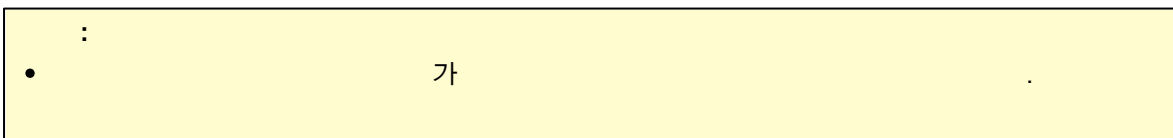
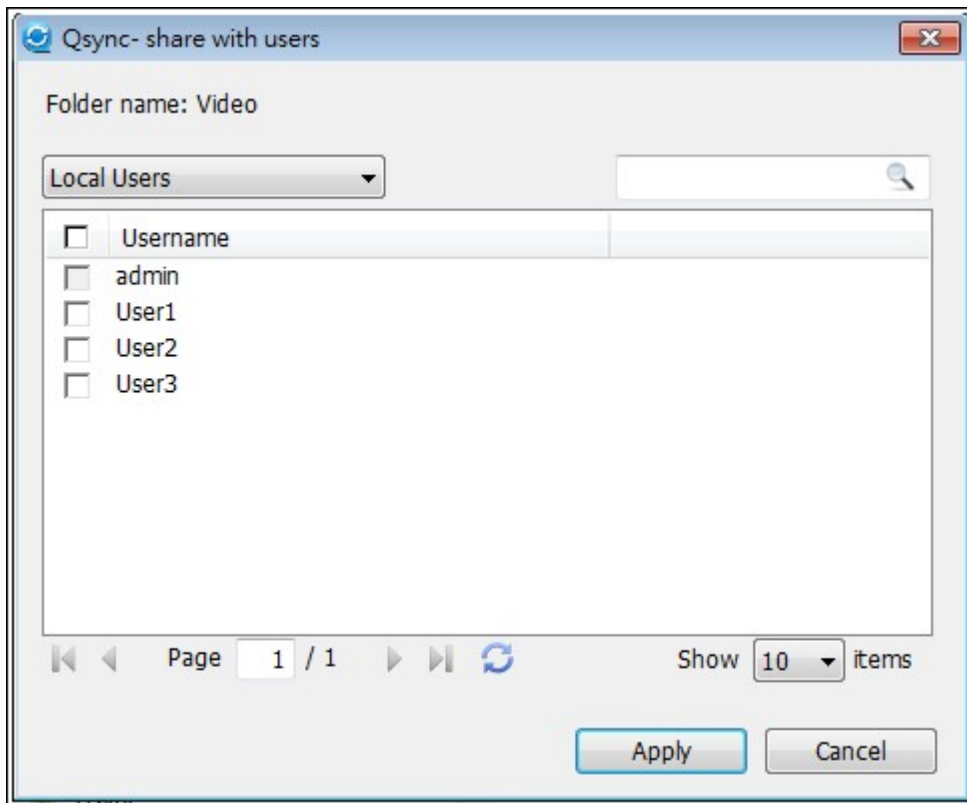
1. NAS

2. Qsync

3. Qsync



4.



• 가 가 .

() NAS "myQNAPcloud" NAS
 (NAS > NAS > myQNAPcloud 가).
 myQNAPcloud
 myQNAPcloud NAS (:
 andy@myQNAPcloud.com).



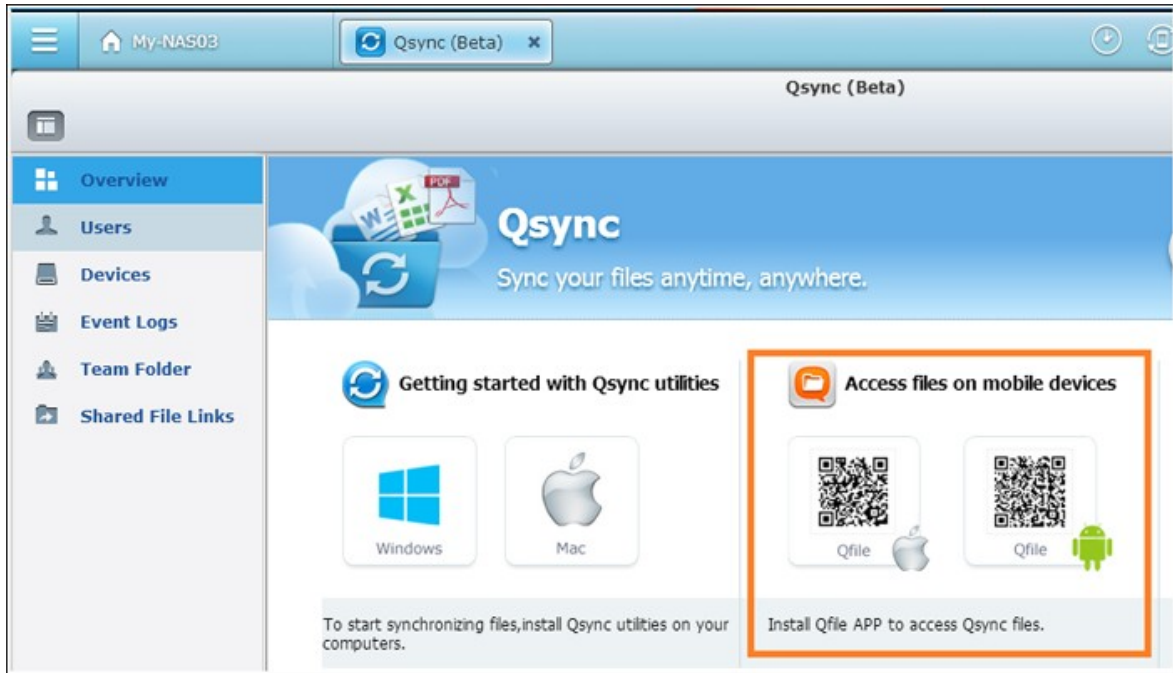
- NAS LAN
- NAS가 LAN ,
- myQNAPcloud LAN
- 가

Qsync

Qsync

Qsync

1. NAS Qsync APP Store Qfile



2. Qfile

3.

4.

5. NAS

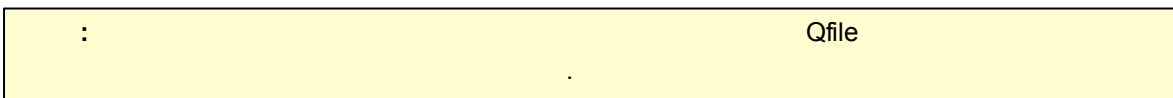
6.

7. “ (/Qsync/) “ ”

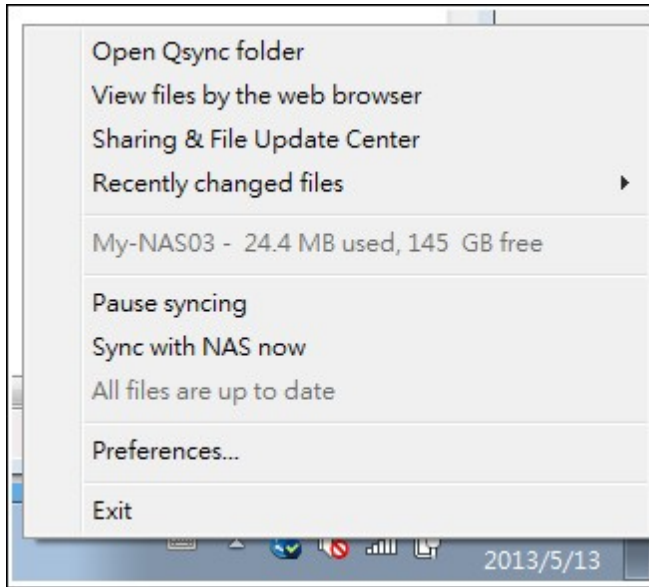
8.

9. WiFi ” Wifi 3G

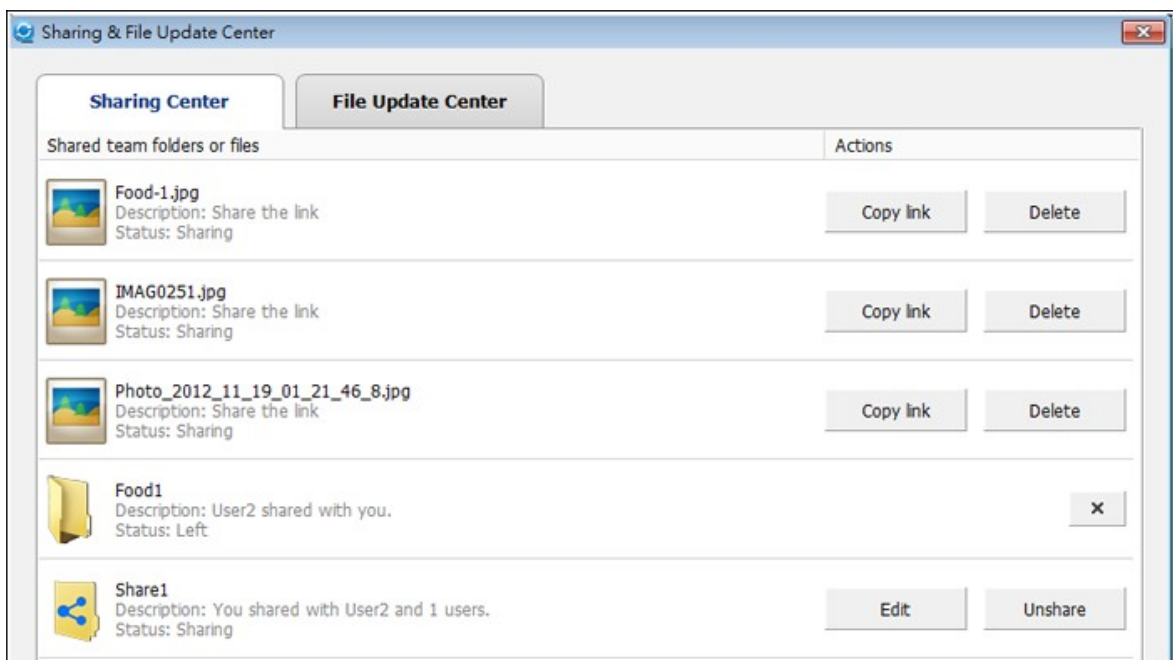
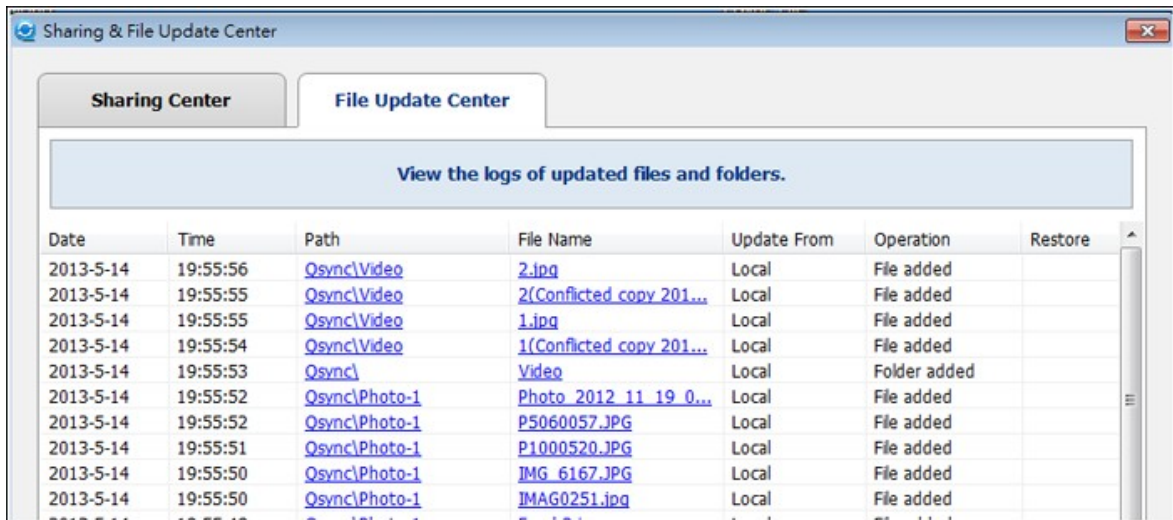
10. Qsync Qsync



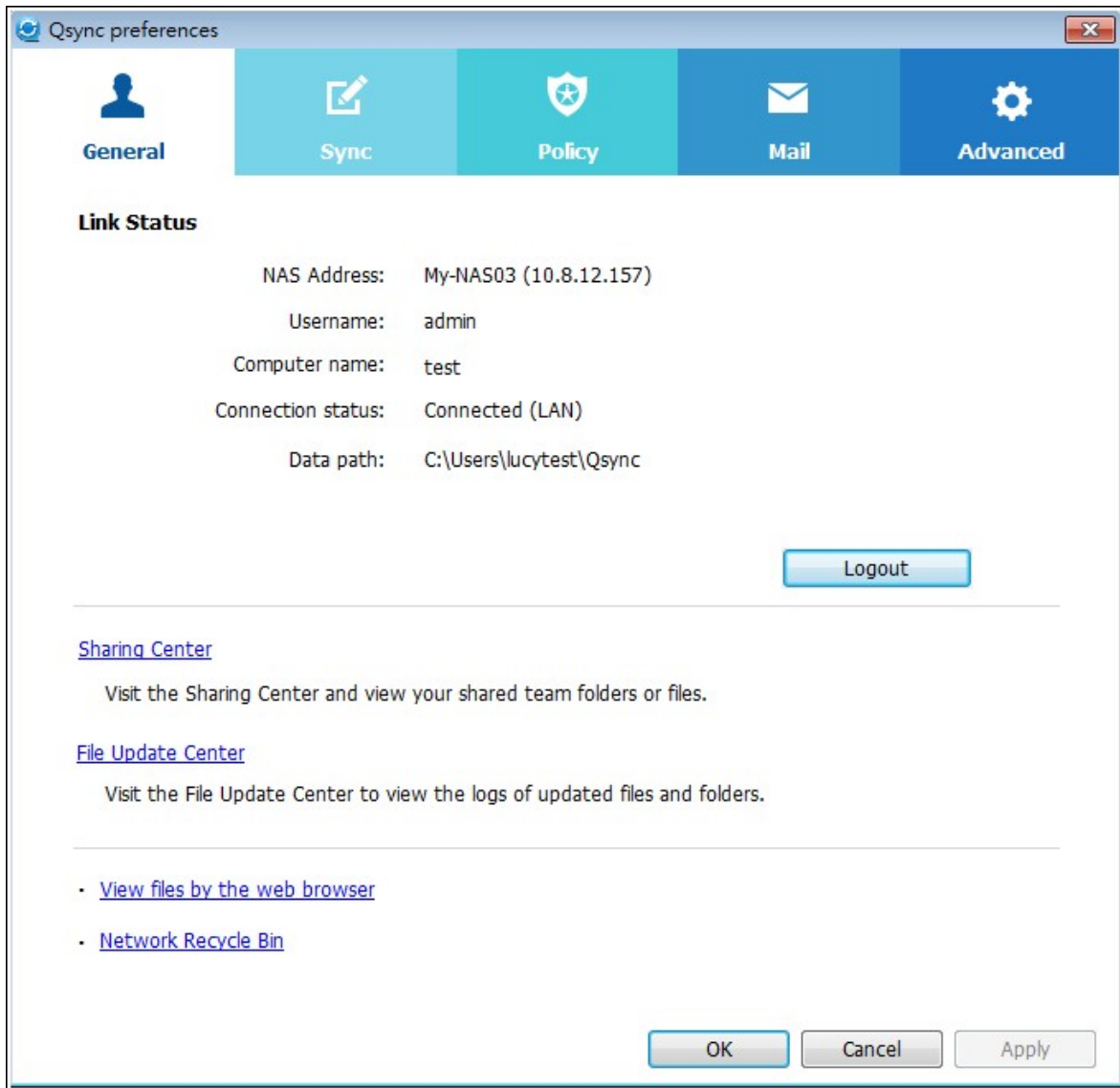
1. Qsync



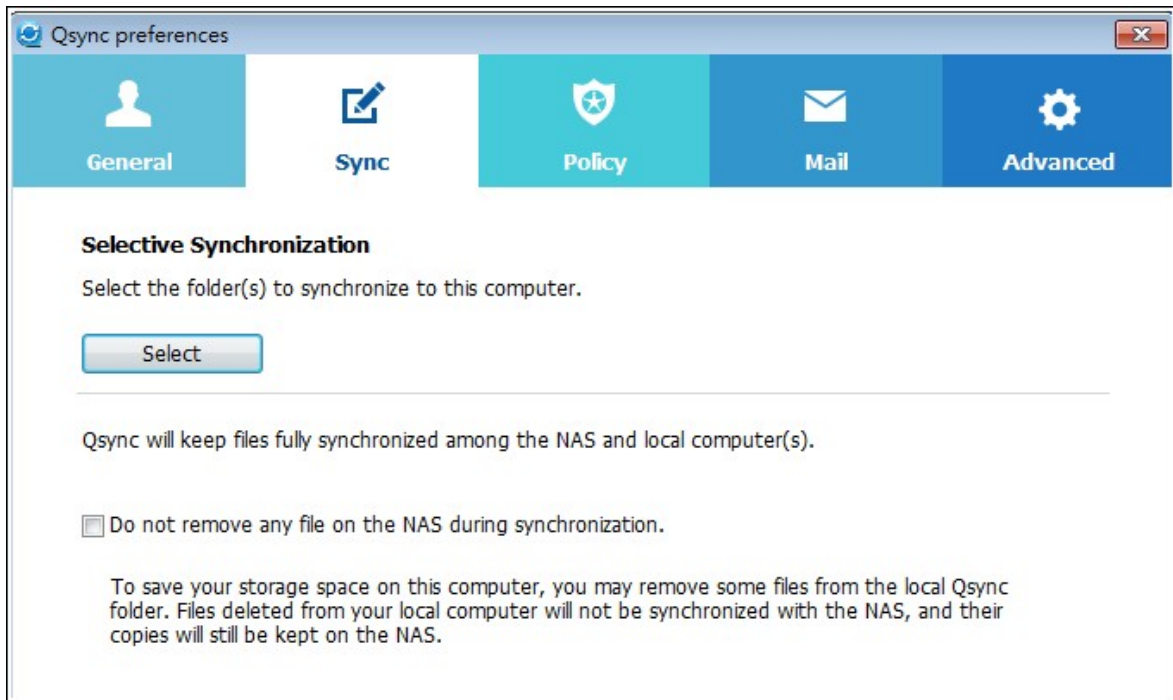
- i. 가 NAS :
 - a. Qsync : Qsync 가 . NAS Qsync
 - b. : File Station() NAS Qsync
- ii. :
 - a. / :
 - b. NAS : Qsync가
- iii. :
 - a.
 - 1). :
 - 2). :
 - b. :



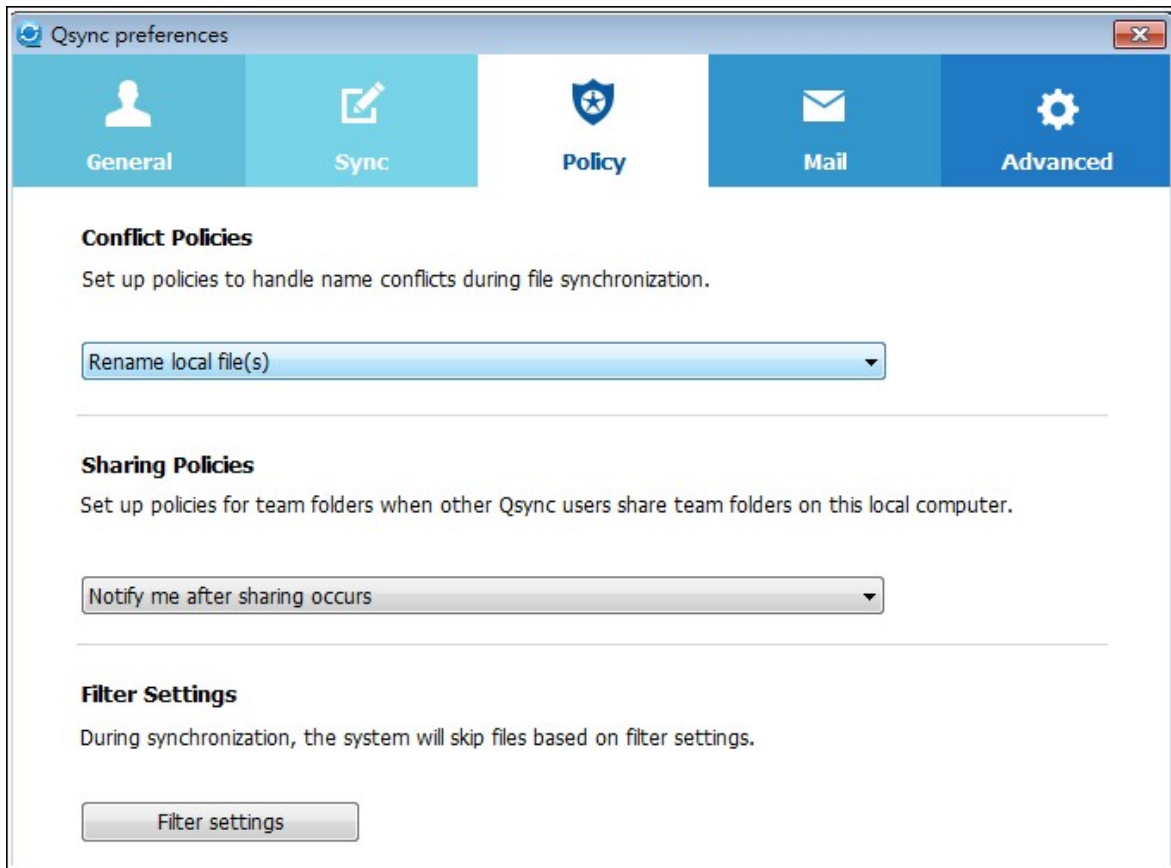
2. :
 - i. :
 - a. : “ ”
 - b. : Qsync



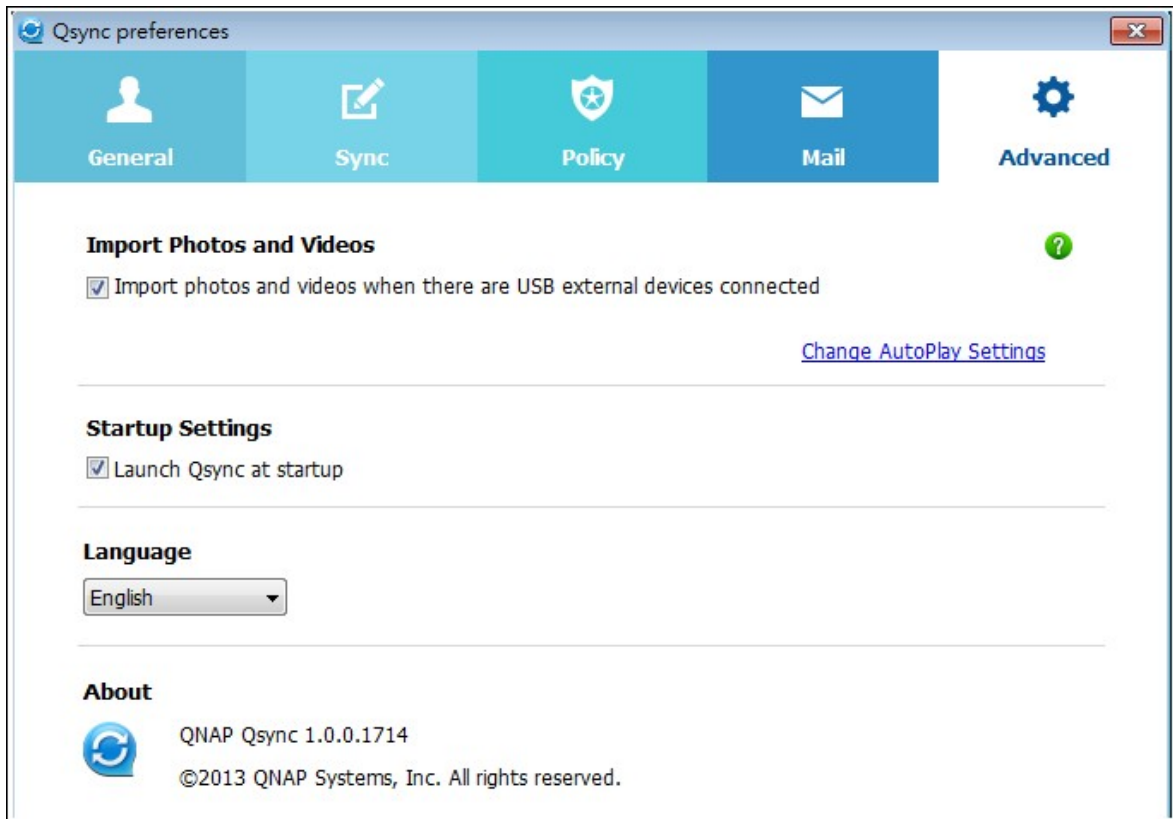
- ii. :
 - a. :
 - b. NAS , Qsync . NAS . NAS



- iii. :
- a. : 가 Qsync (NAS)
- 1).
- 2). NAS
- 3). NAS
- 4). NAS
- b. : Qsync 가
- :
- 1).
- 2).
- 3).
- c. : Qsync



- iv. :
 - a. : . NAS SMTP
(NAS) SMTP .



Qsync

NAS Qsync File Station

1. : Qsync ().

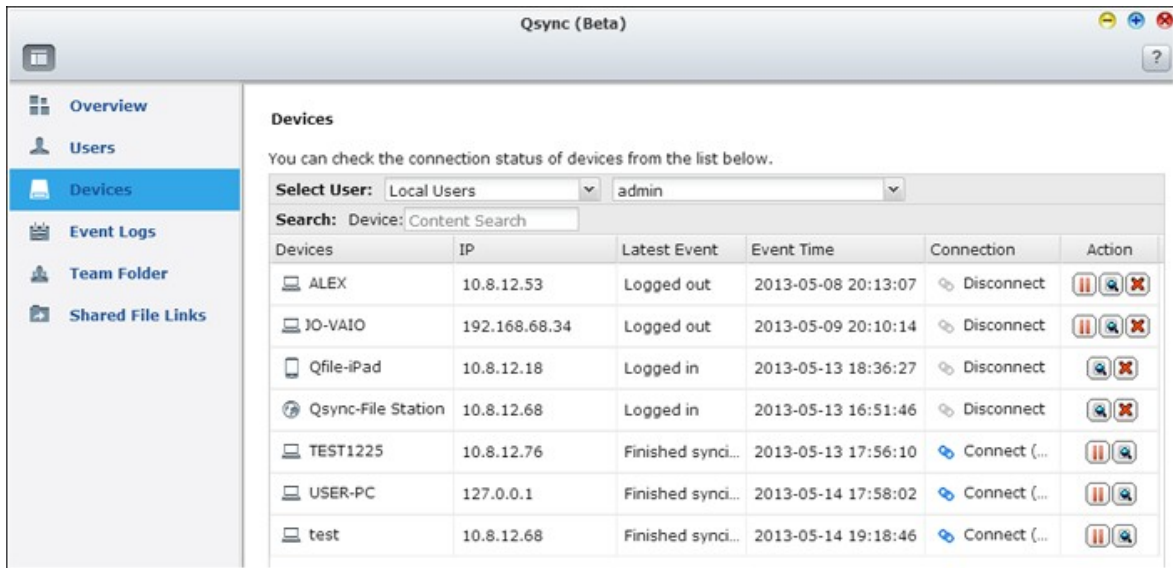


2. : Qsync ().

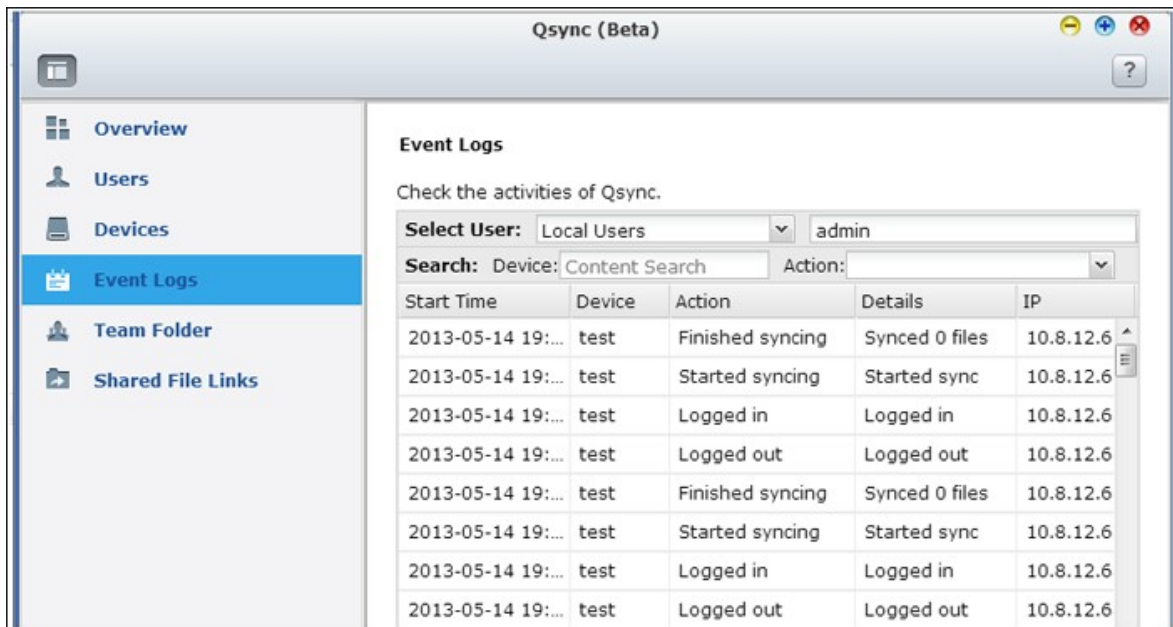


3. : 가

- i. PC
- ii. Qfile "Qfile- Android" "Qfile- iPhone"
- iii. File Station Qsync Qsync- File Station



4. : .



5. : 가 가



6.

Qsync (Beta)

Shared File Links

Check the status of shared file links.

Select User: Local Users

Search: File Name:

File Name	Path	Link	Start Time	Expiration
Food-1.jpg	Qsync/P...	http://61.62.220.7:8080/s...	2013-05...	2013-06...
IMAG0251.j...	Qsync/P...	http://61.62.220.7:8080/s...	2013-05...	2013-06...
Photo_201...	Qsync/P...	http://61.62.220.7:8080/s...	2013-05...	2013-06...

7.

	467
	478
	535
iSCSI	558
LDAP	595
MySQL	599
RADIUS	607
Syslog	605
TFTP	610
VPN	611
	626

7.1

```

NAS
, , , ,
"Enable antivirus( )" "Apply( )"
:
"Check and update automatically( )"
Update Now
( )" http://www.
clamav.net
NAS가
:
NAS "Application Servers( )"
> "Antivirus( )" > "Quarantine( )"

```

MySQL Server Syslog Server Antivirus RADIUS Server TFTP Server

Overview Scan Jobs Reports Quarantine

Antivirus

Enable antivirus

Virus definitions: 2013/05/20 10:17

Last virus scan: 2013/05/15 19:44:29

Last infected file found: --

Status: Scanning...

Update

Check and update automatically. Frequency in days:

Online update:

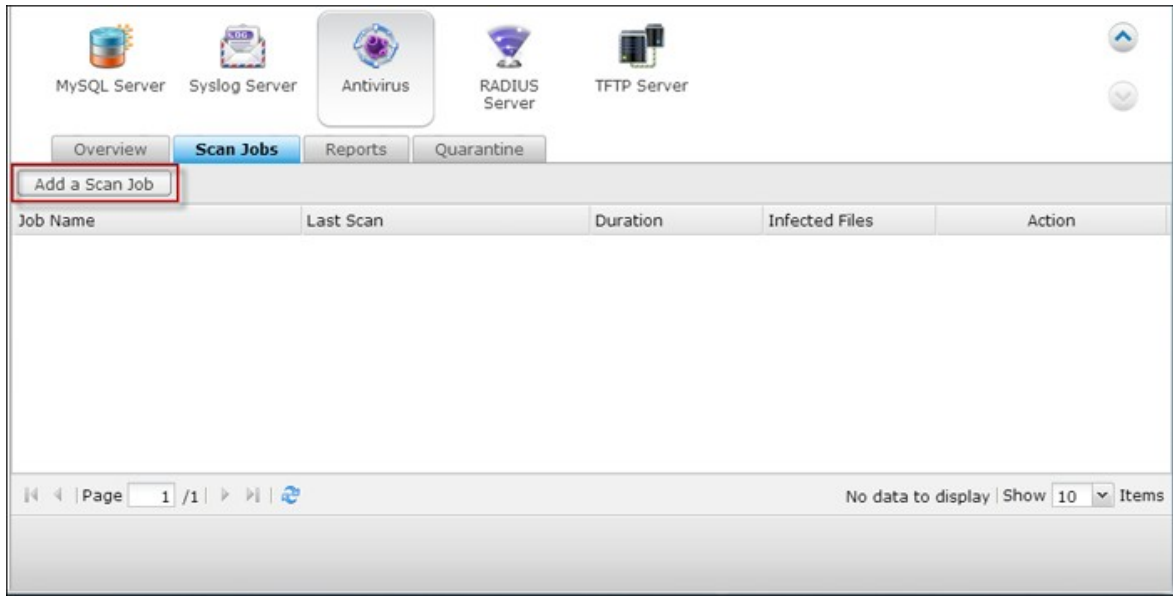
Manual update (*.cvd):

Update file available at: <http://www.clamav.net>

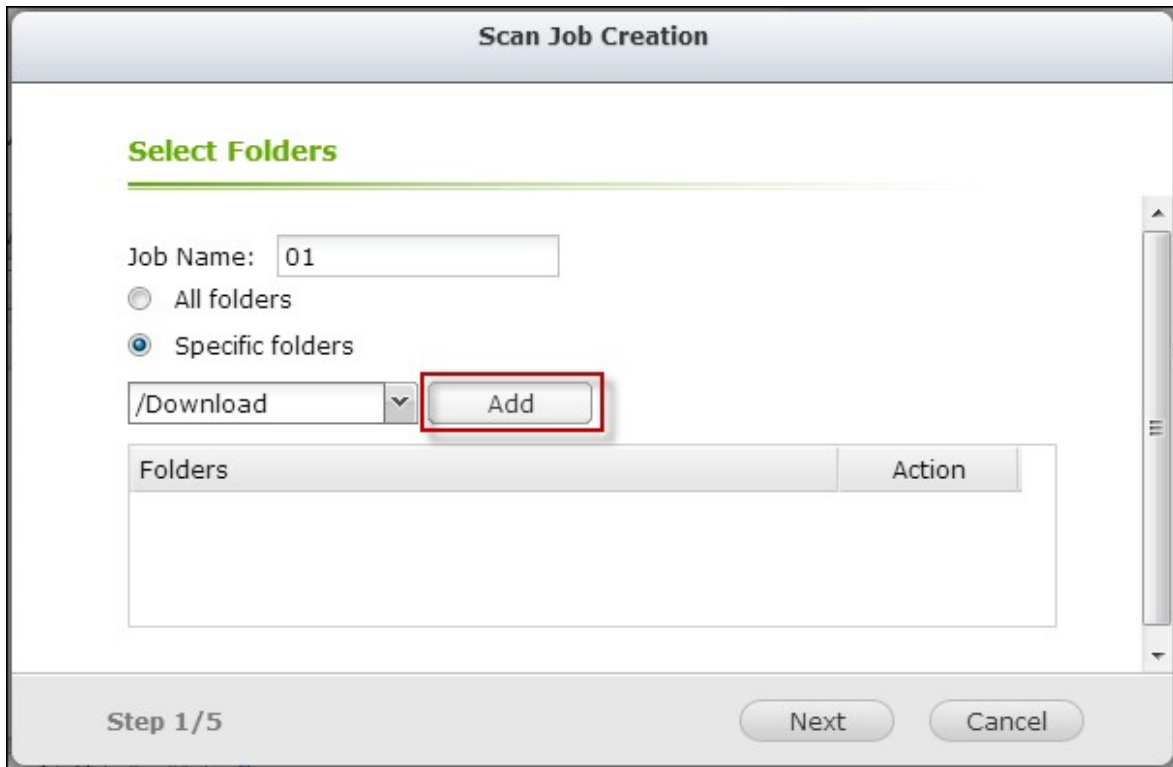
Quarantine

Single Disk: Drive 1 : --

1. "Application Servers()" > "Antivirus()" > "Scan Jobs()" > "Add a Scan Job(가) "



2. "Add(가)"



3.



Scan Job Creation

Select Folders

Job Name:

All folders
 Specific folders

Folders	Action
/Download	

Step 1/5

4.

Scan Job Creation

Schedule

Select the scan frequency for the previously selected folders:

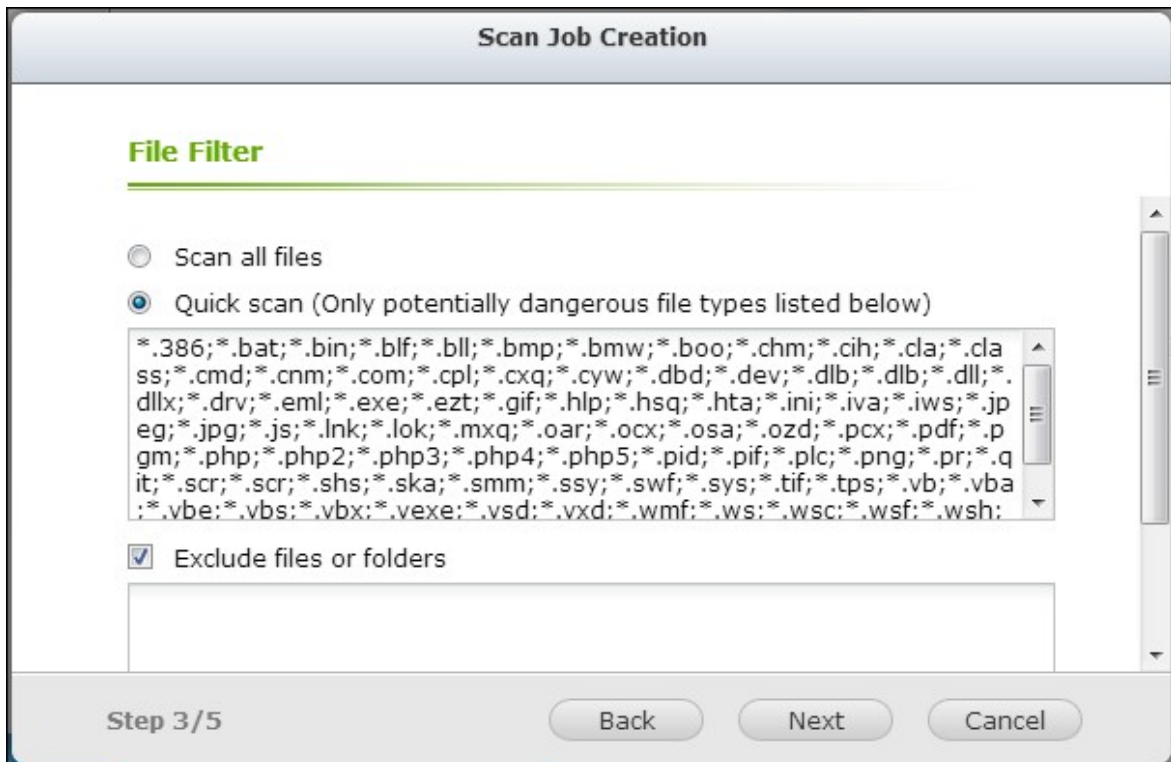
Scan now
 Scan frequency

Scan daily Start time: :

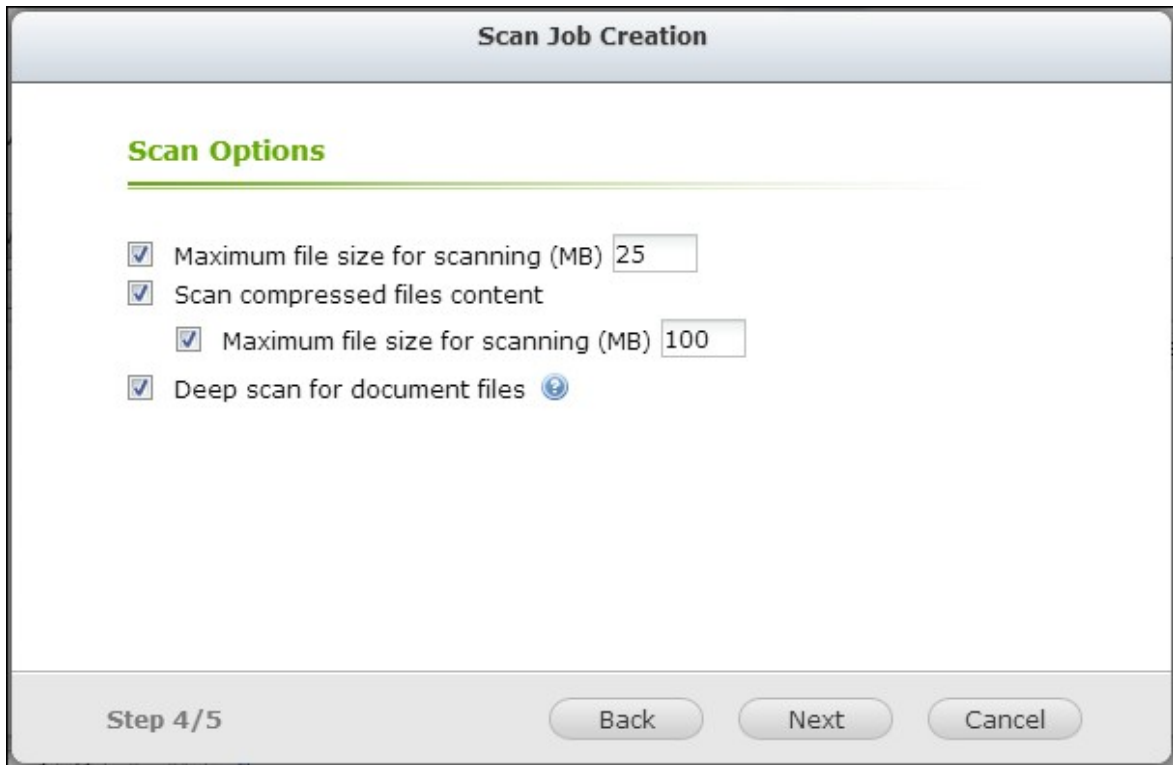
Scan weekly Start time: :
day:

Step 2/5

5.
 - Exclude files or folders()"
 - /Public/testfile.txt
 - /Download
 - *.log
 - *.exe *.com
 - *.txt
 - Next()"



6.
 - (1-4096 MB)
 - "Scan compressed files()"
 - (1-4096 MB)
 - MS Office Mac Office , RTF, PDF, HTML , Deep scan for document files()"
 - Next()"



7.

- : 가 Reports()"
- "Reports()" "Quarantine()"
- :
) > Notification()"> "SMTP Server(SMTP)" SMTP
 Finish()"

Scan Job Creation

Action to take when infected files are found


- Only report the virus
- Move infected files to quarantine
- Delete infected files automatically **Use with caution**
- Send an alert email if an infected file is found.
- Send an alert email after scanning


Note: The SMTP server and recipient must be configured first for alert mail delivery in "Control Panel" > "System Settings" > "Notification"


Step 5/5

Back
Finish

8.


 Antivirus






 RADIUS Server



 TFTP Server

↑
↓

Overview
Scan Jobs
Reports
Quarantine




Add a Scan Job

Job Name	Last Scan	Duration	Infected Files	Action
01	Proceeding	--	0	   

⏪ ⏩ | Page / 1 | ⏴ ⏵ | 

Display item: 1-1, Total: 1 | Show Items


--	--


	
	
	
	WordPad
	


NAS



	WordPad
	

- (1-999)
- "Archive logs after expiration()"
- "Apply All()"


Antivirus


RADIUS Server


TFTP Server













Overview
Scan Jobs
Reports
Quarantine

Number of days to keep the logs:

Archive logs after expiration.




Save the archive files in the folder:

Job N...	Last Scan	Duration	Infected Files	Action
01	2013/05/22 10:59:51	--	0	 
01	2013/05/22 10:58:28	stopped	0	 



 Page / 1
 


 Display item: 1-2, Total: 2 | Show Items

NAS

가

	
	
	가 ().

LDAP Server VPN Service MySQL Server Syslog Server **Antivirus** RADIUS Server

Overview Scan Jobs Reports **Quarantine**

Restore Selected Files Delete Selected Files Delete All Files

<input type="checkbox"/>	File Name	Path	Virus name	Job Name	Action

Page 1 / 1 No data to display Show 10 Items

7.2

_____ 479

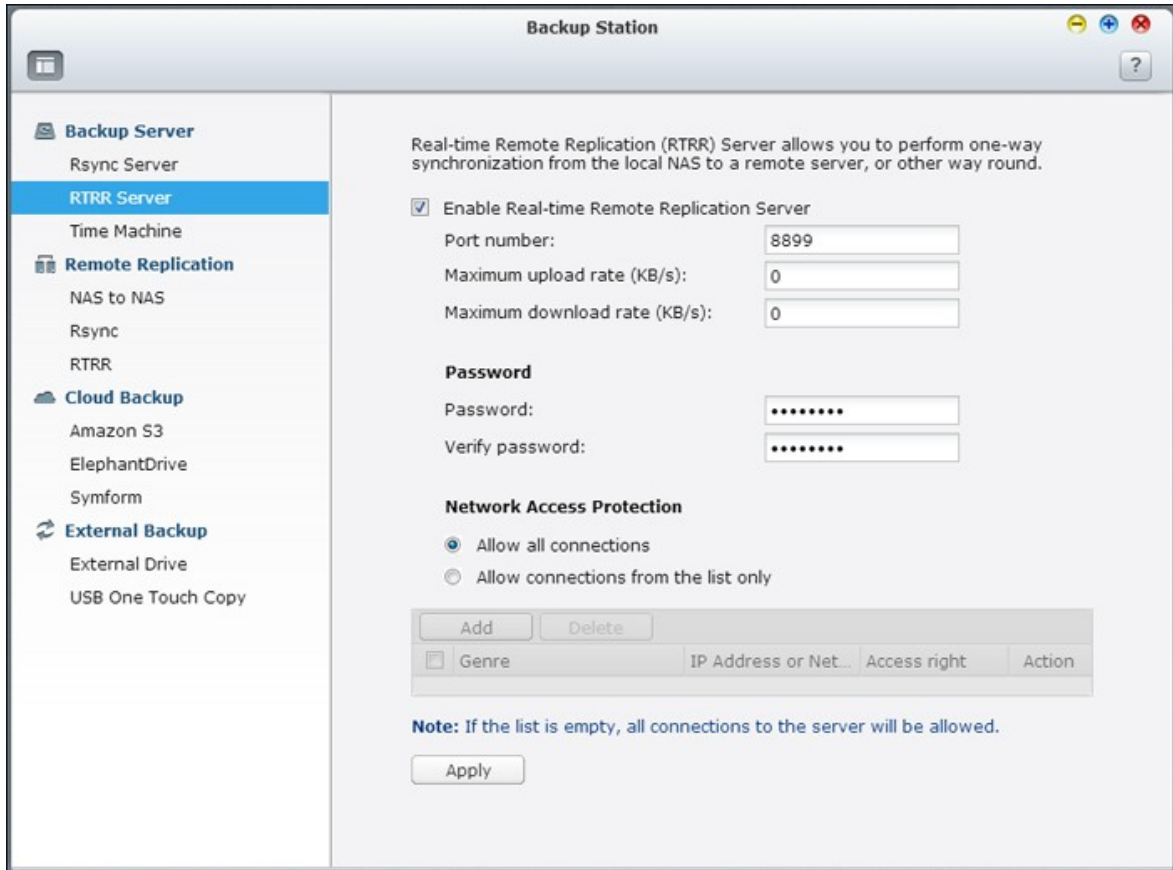
_____ 488

_____ 510

_____ 517

RTRR


NAS Replication Server("Enable Real-time Remote Replication Server")
 8899
 NAS
 RTRR NAS 가



NAS 가 IP . 10
 "Allow all connections(
)" "Allow connections from the list only(
 . IP
)" "Add(가)"

Network Access Protection

- Allow all connections
- Allow connections from the list only

<input type="button" value="Add"/>		<input type="button" value="Delete"/>		
<input type="checkbox"/>	Genre	IP Address or Net...	Access right	Action
<input type="checkbox"/>	Network	10.8.0.0/8	Read/Write	

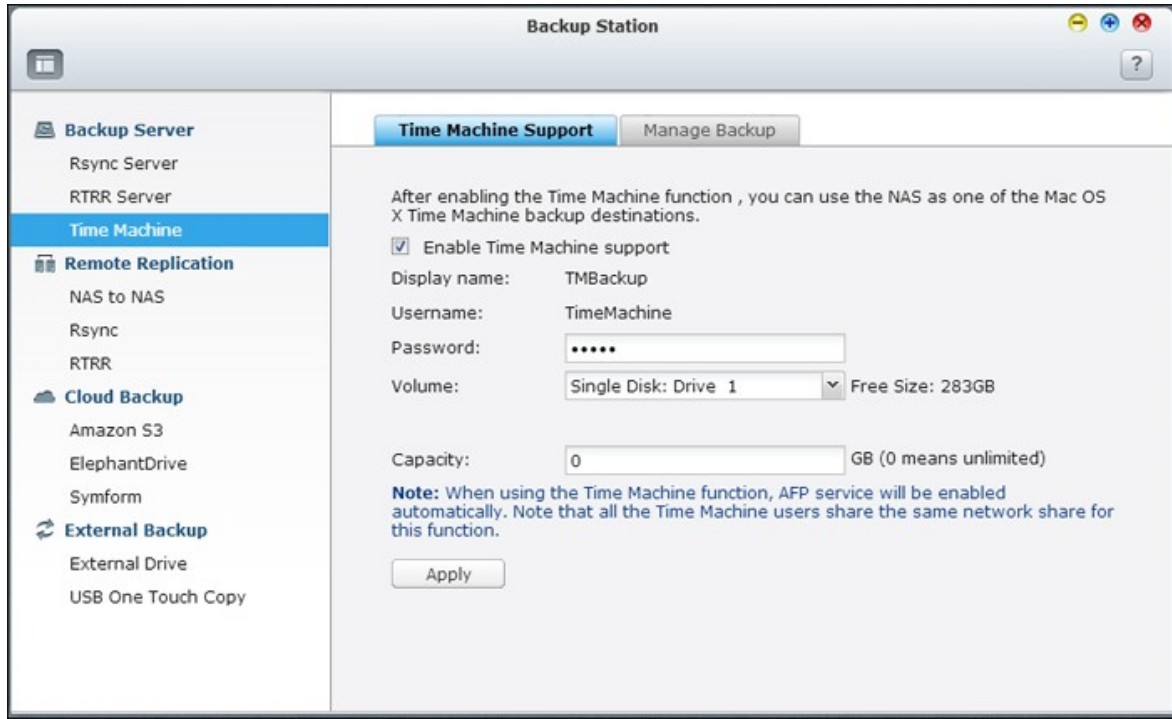
Note: If the list is empty, all connections to the server will be allowed.

Time Machine

OS X

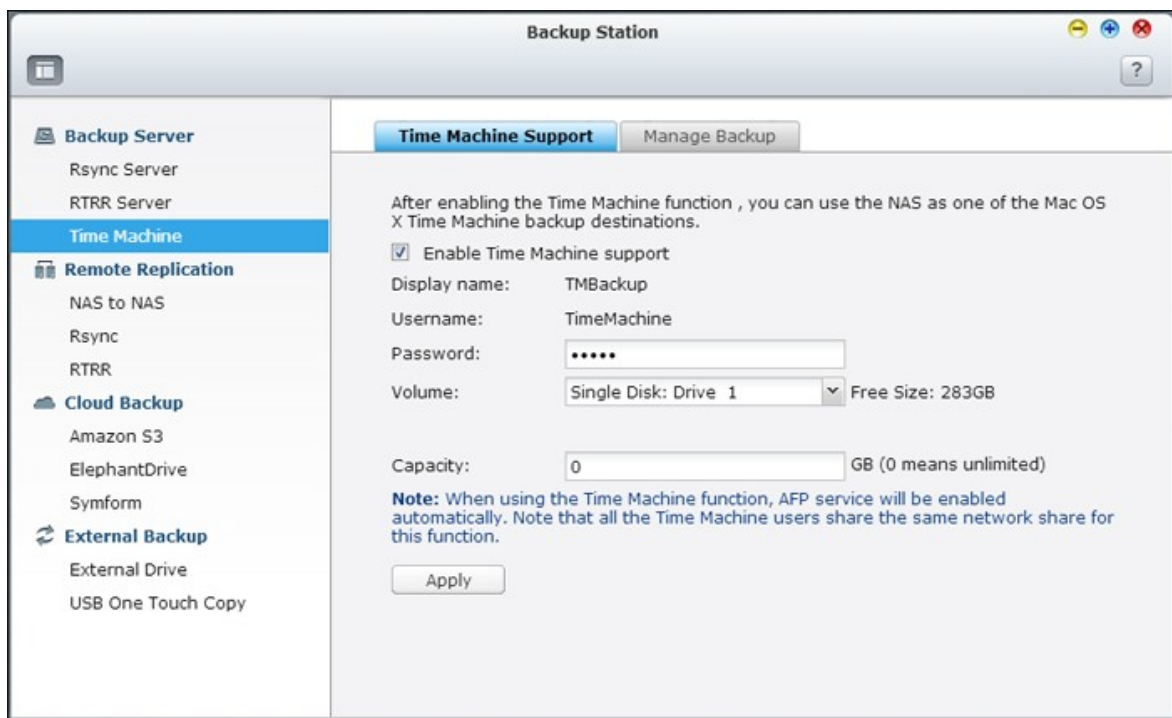
NAS

Mac



NAS

1.



2.

3. NAS

4.

0()

4095GB

5. 'Apply()'

가

Mac

1. Mac

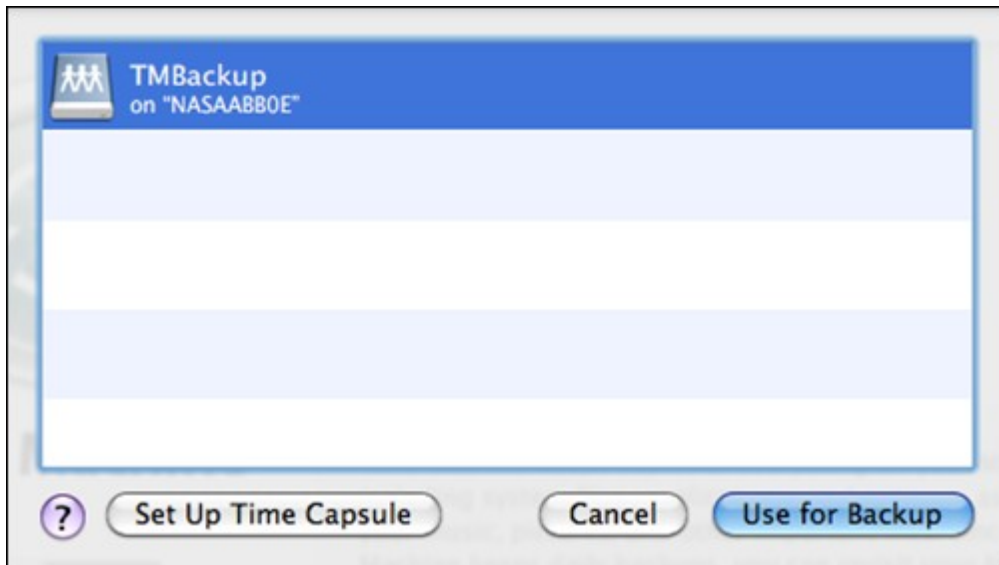
"Select Backup Disk()"



2.

NAS TMBBackup

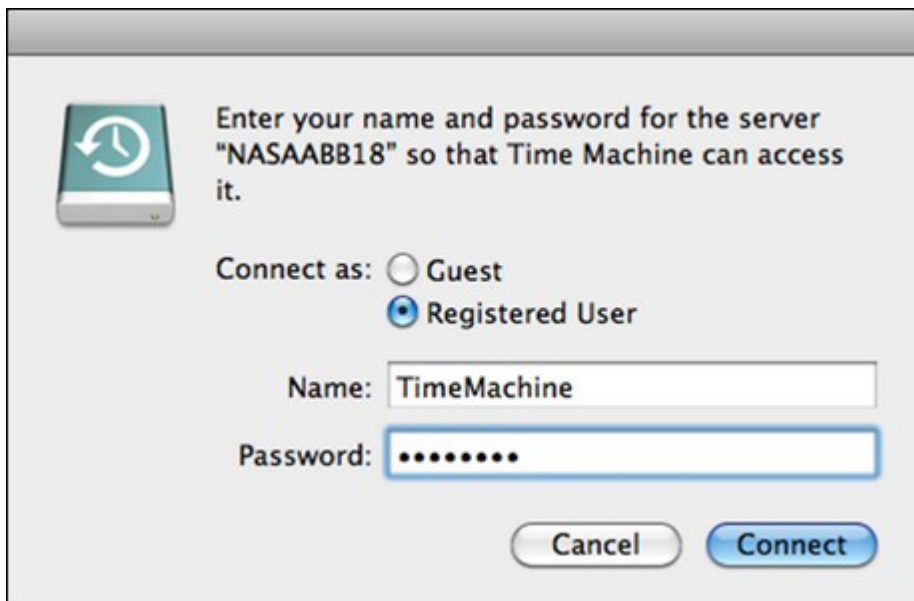
"Use for Backup()"



3. QNAP NAS

"Connect()"

- : TimeMachine
- : NAS



4.

"ON()"

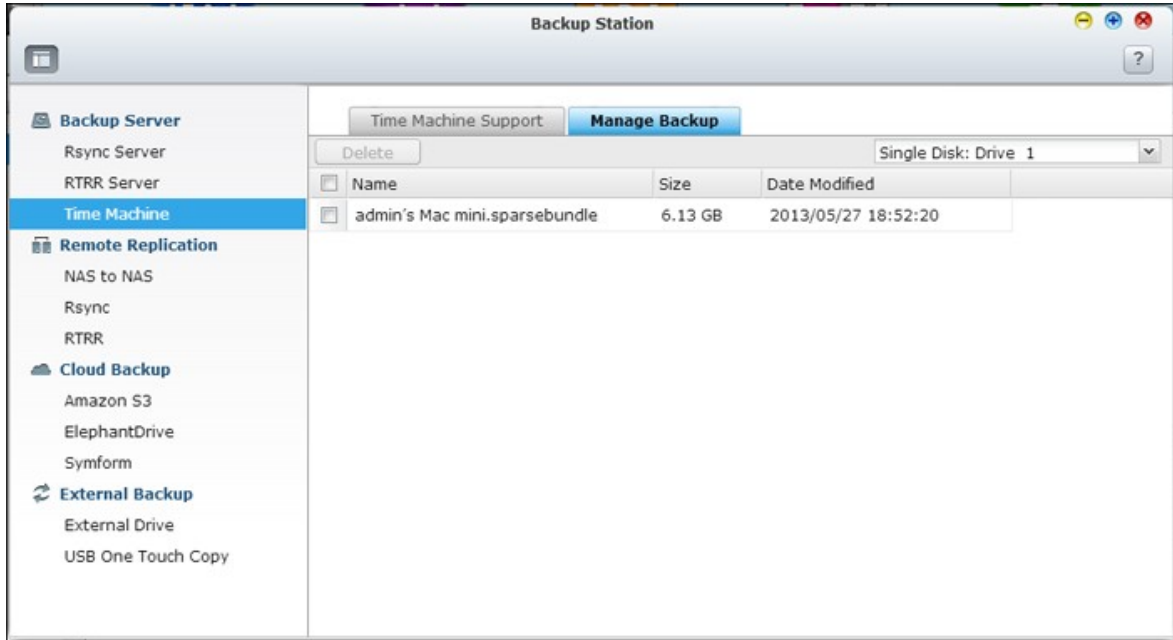
가

120

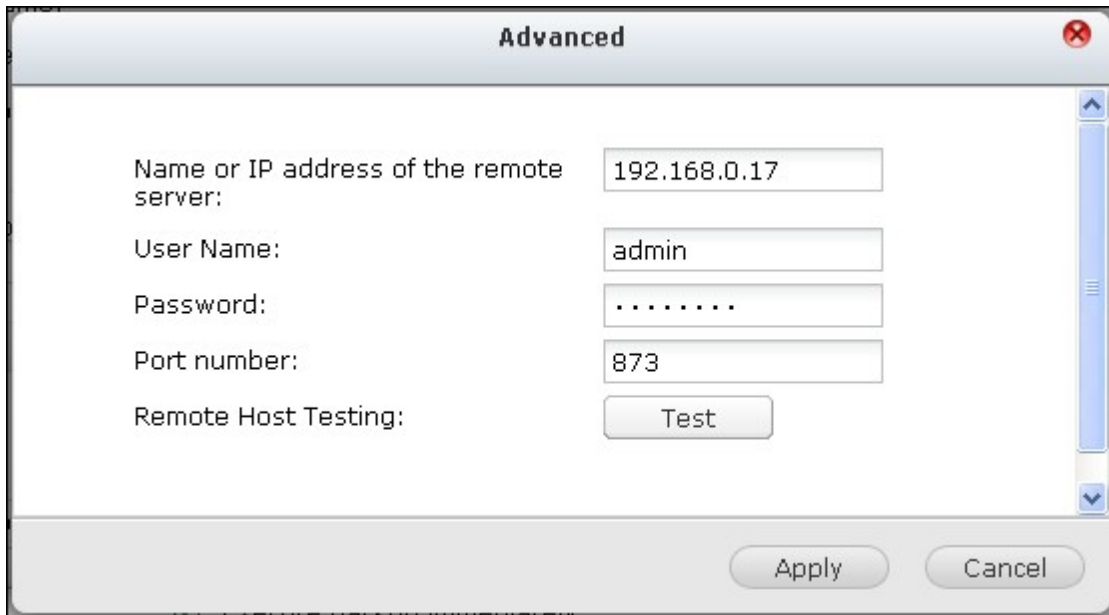


Mac
, <http://www.apple.com>

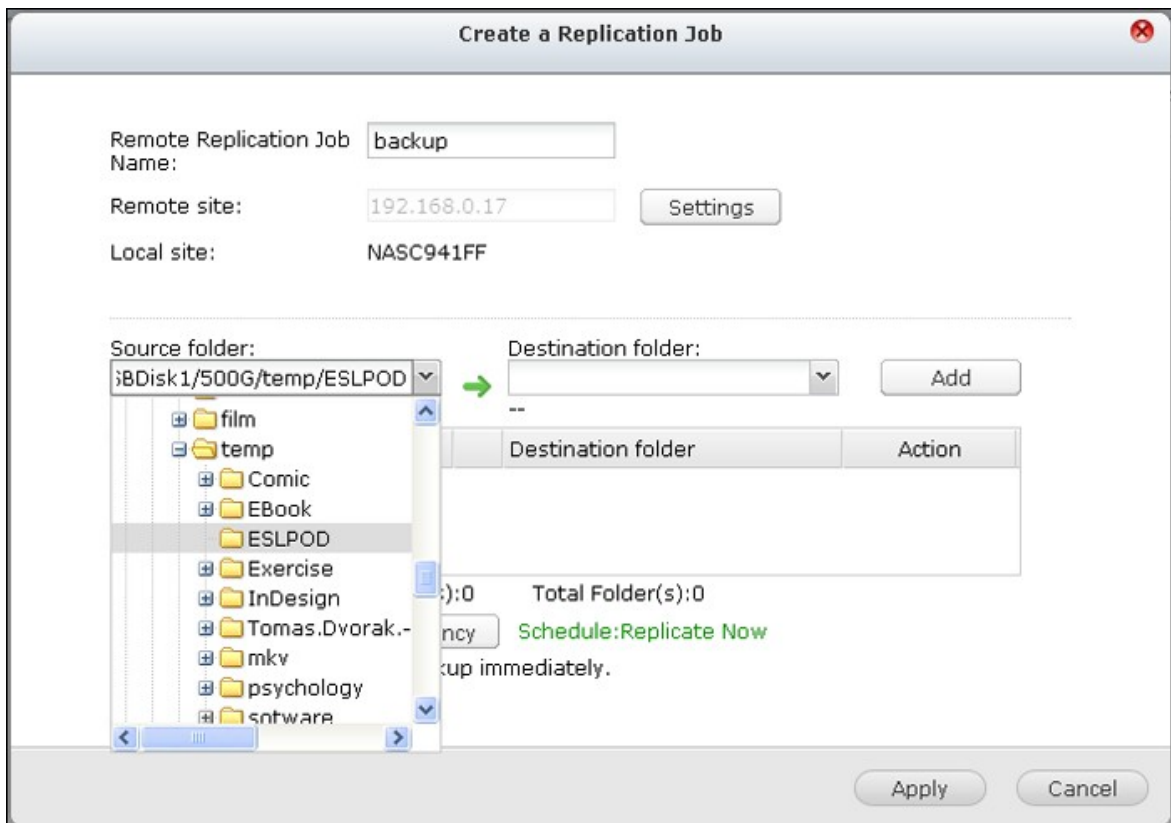
Mac OS



- (): Time Machine
- : Time Machine (Time Machine).
- Size(): Time Machine .
- Date Modified(): Time Machine .
- Delete(): Time Machine .



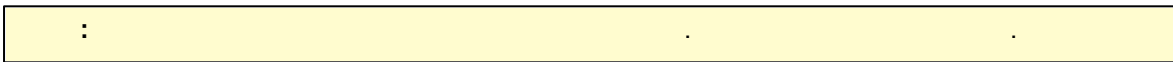
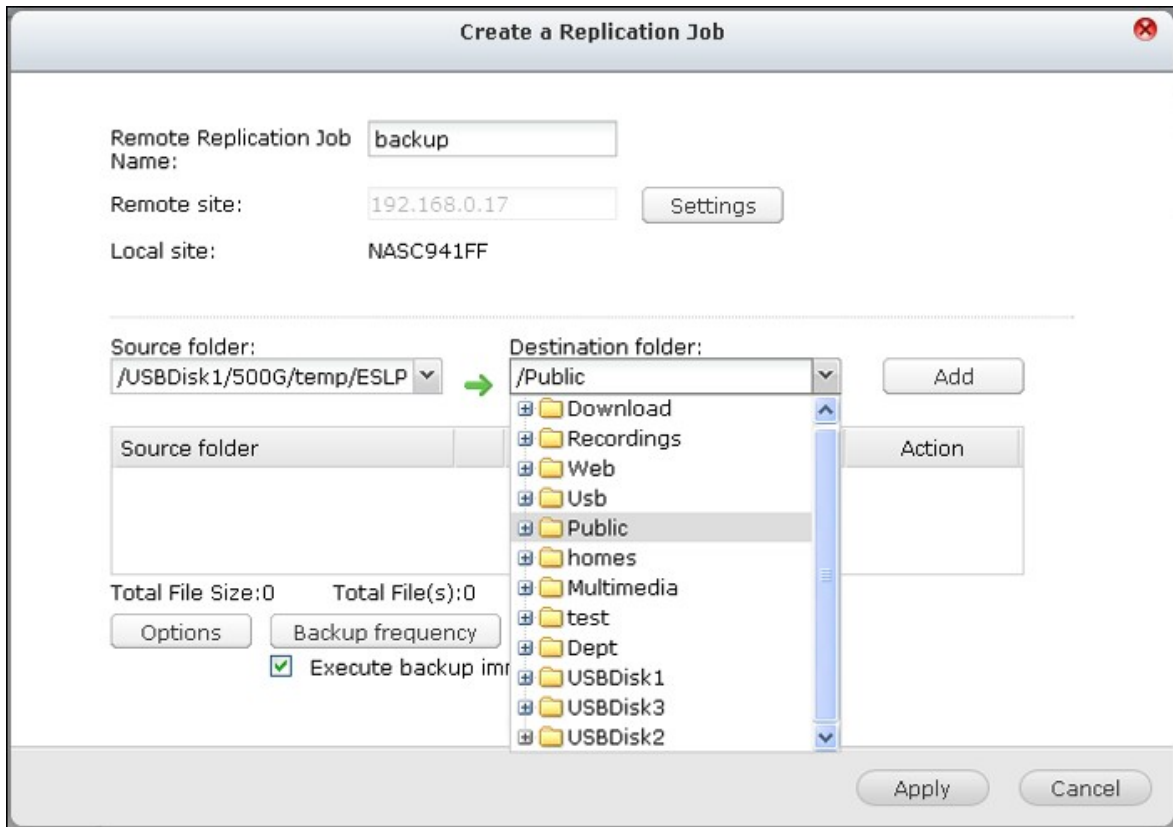
4.



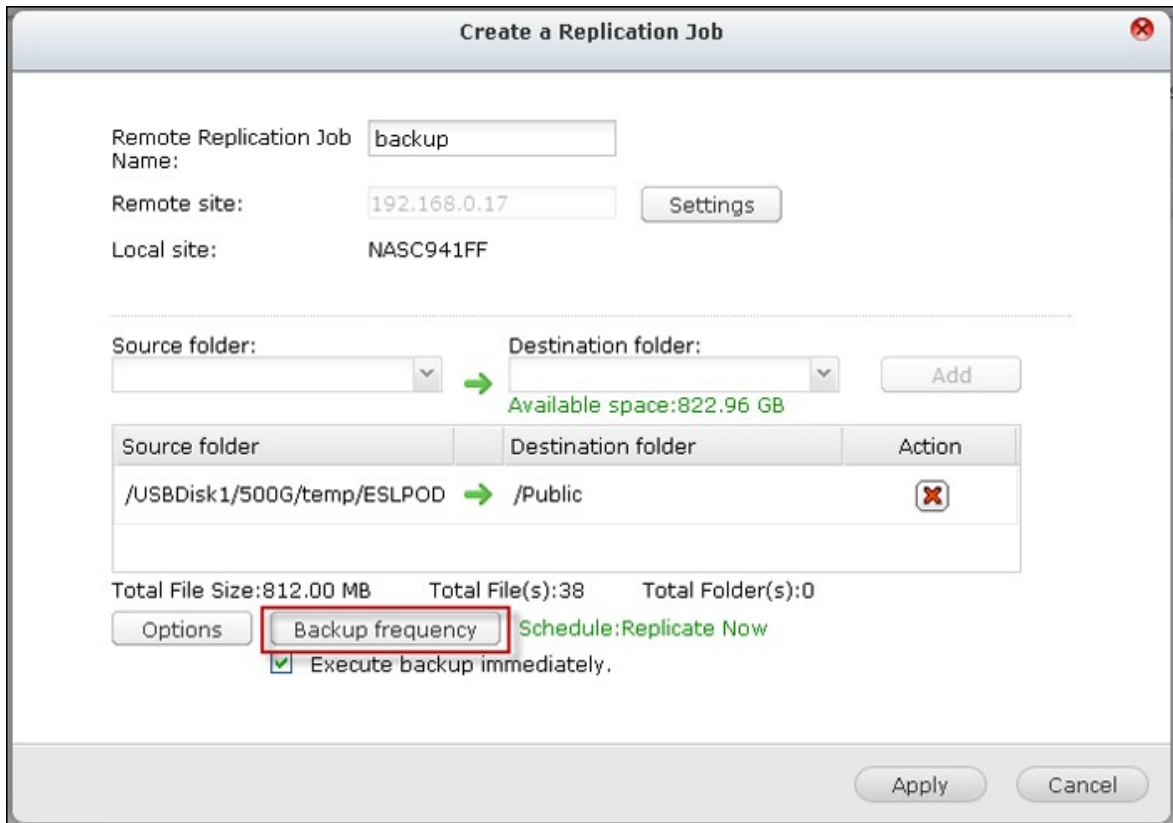
5.

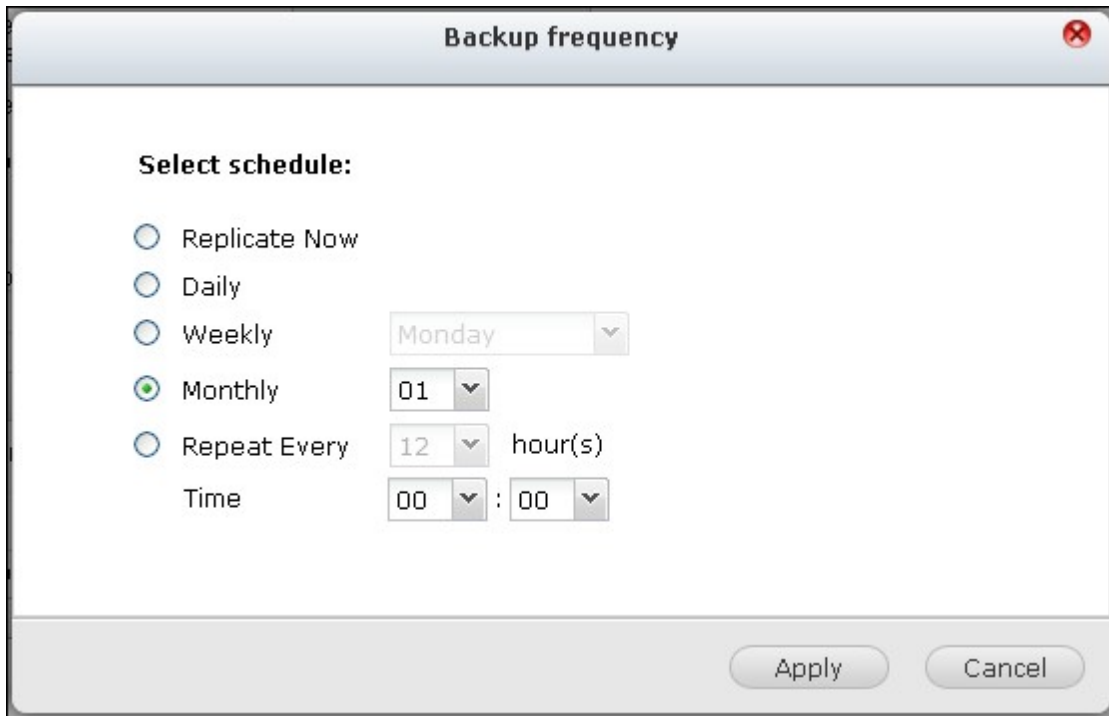
"Add(가)"

가



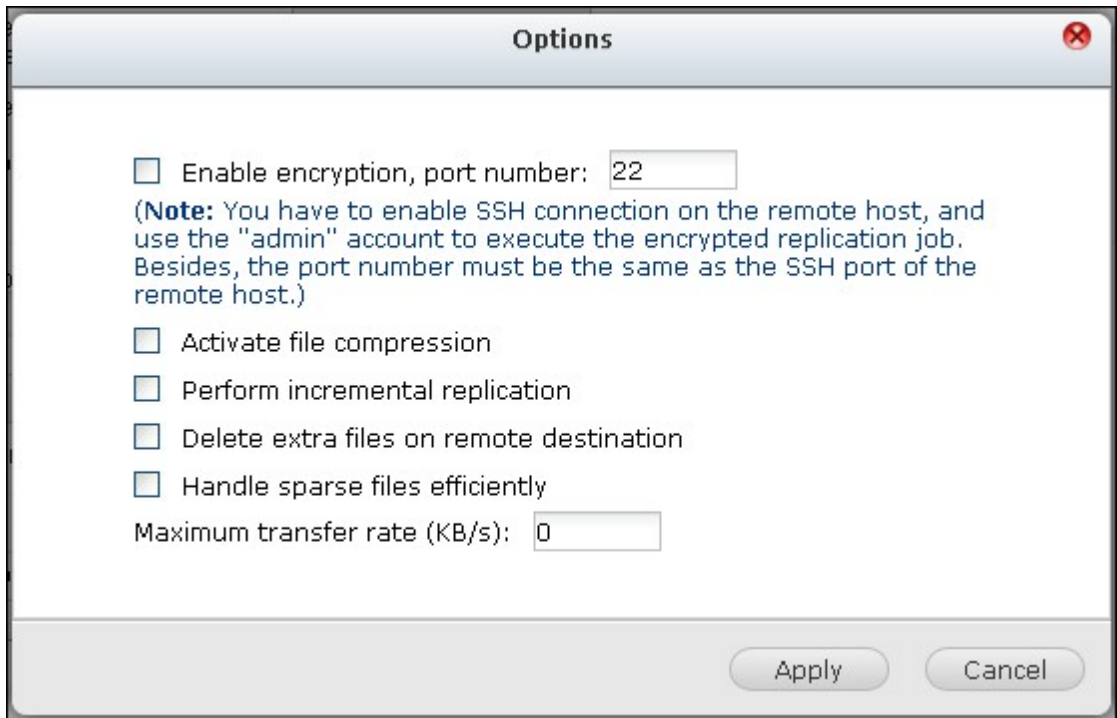
6. "Backup frequency()"





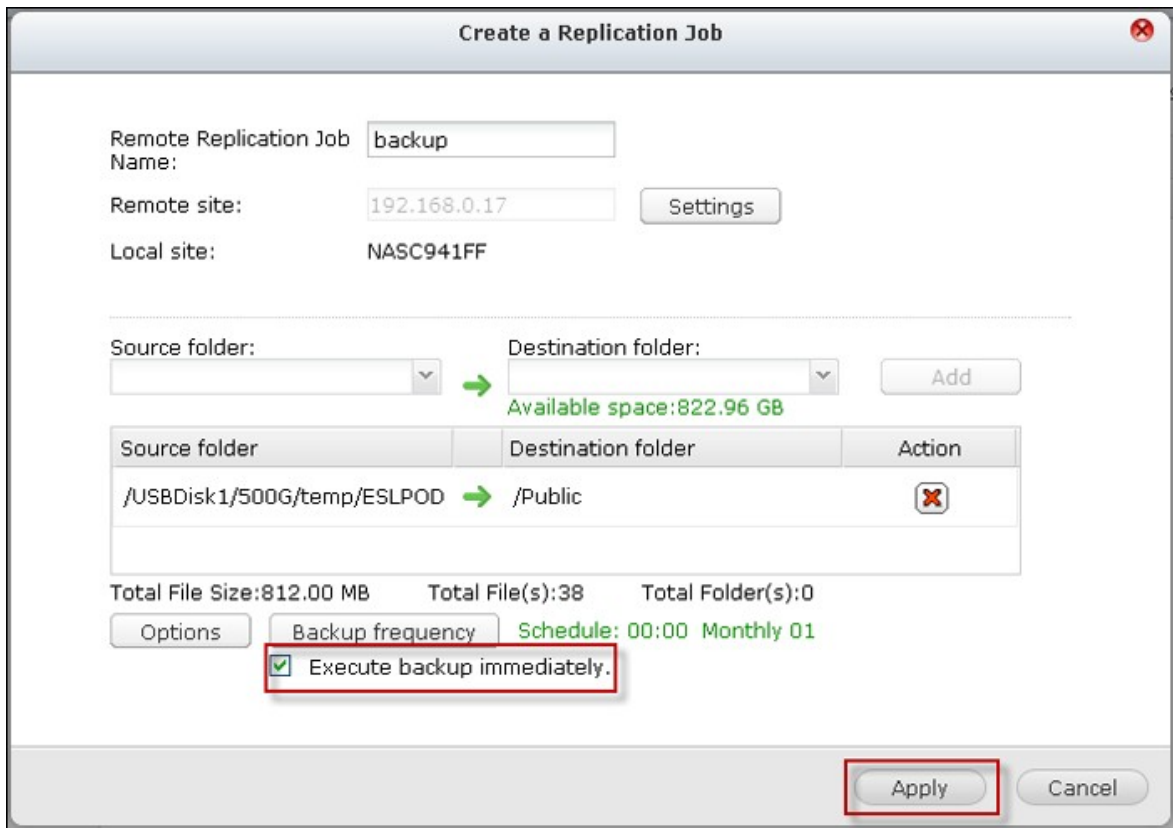
7. "Options()"
 "Apply()"

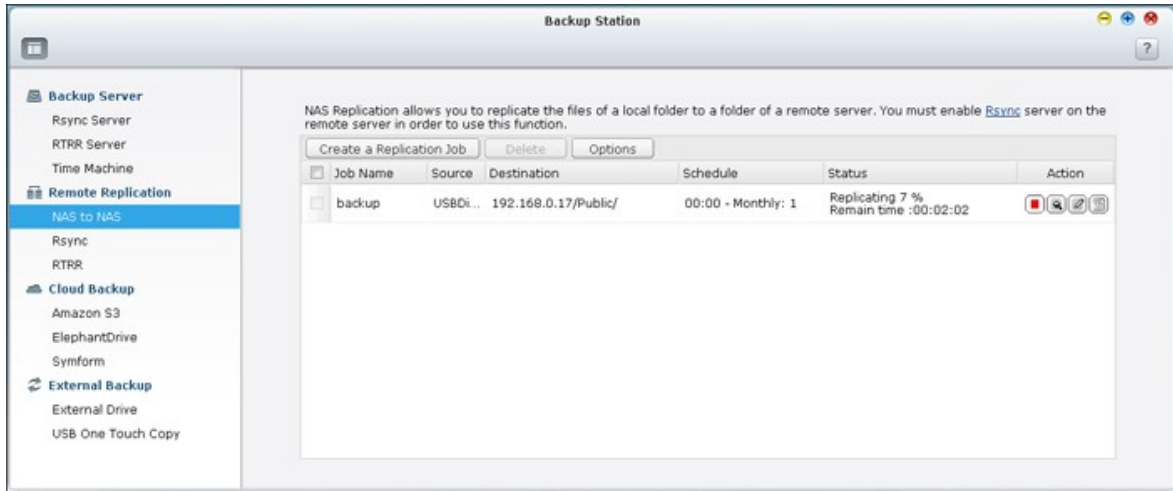
- : "Allow SSH connection" in "Network Services(SSH)" SSH)" > "Telnet/SSH(/
- Activate file compression(): WAN
- Perform incremental replication(): NAS
- Delete extra files on remote destination(가): (). 가
- Handle sparse files efficiently(): 가



8. 'Apply()'

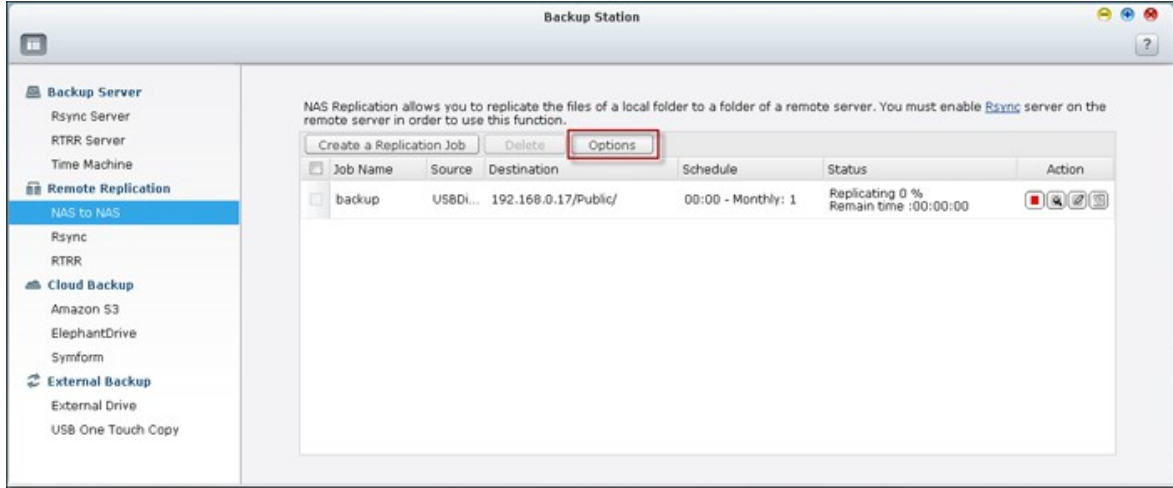
NAS





	Rsync ()

"Options()"



- Timeout(second)(): 가
- Number of retries(): NAS가
- Retry intervals (second)(): 가

RTRR

(RTRR) NAS NAS, FTP

가

NAS NAS RTRR (Main Menu() "> Backup Station "
 > RTRR Server(RTRR) } FTP (Main Menu() "> Control Panel() "
 > Network Services() "> FTP }

NAS		
Intel NAS	v3.5.0	64*
	v3.5.0	32*
ARM (Intel) NAS	v3.5.0	RTRR
	v3.5.0	8*

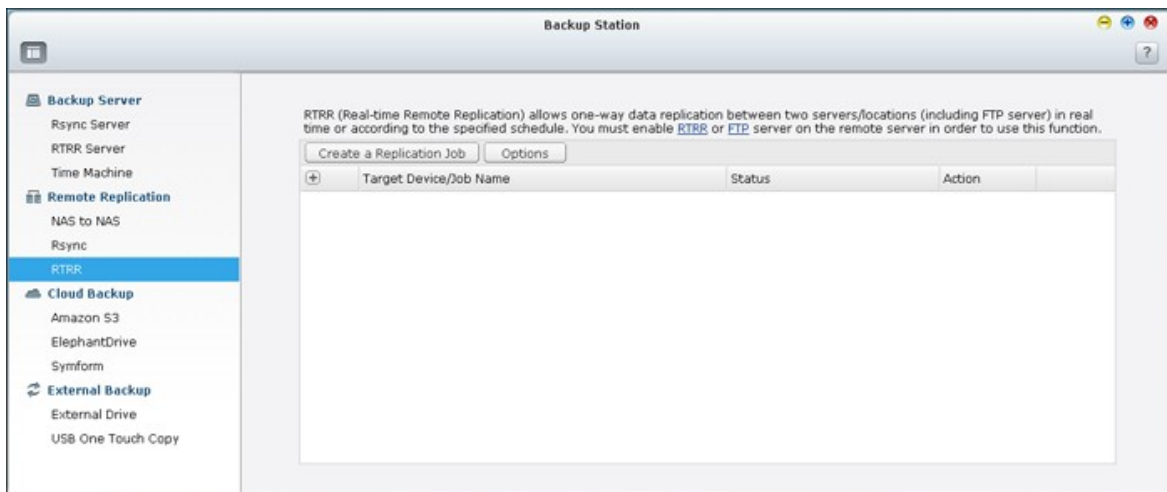
* 5

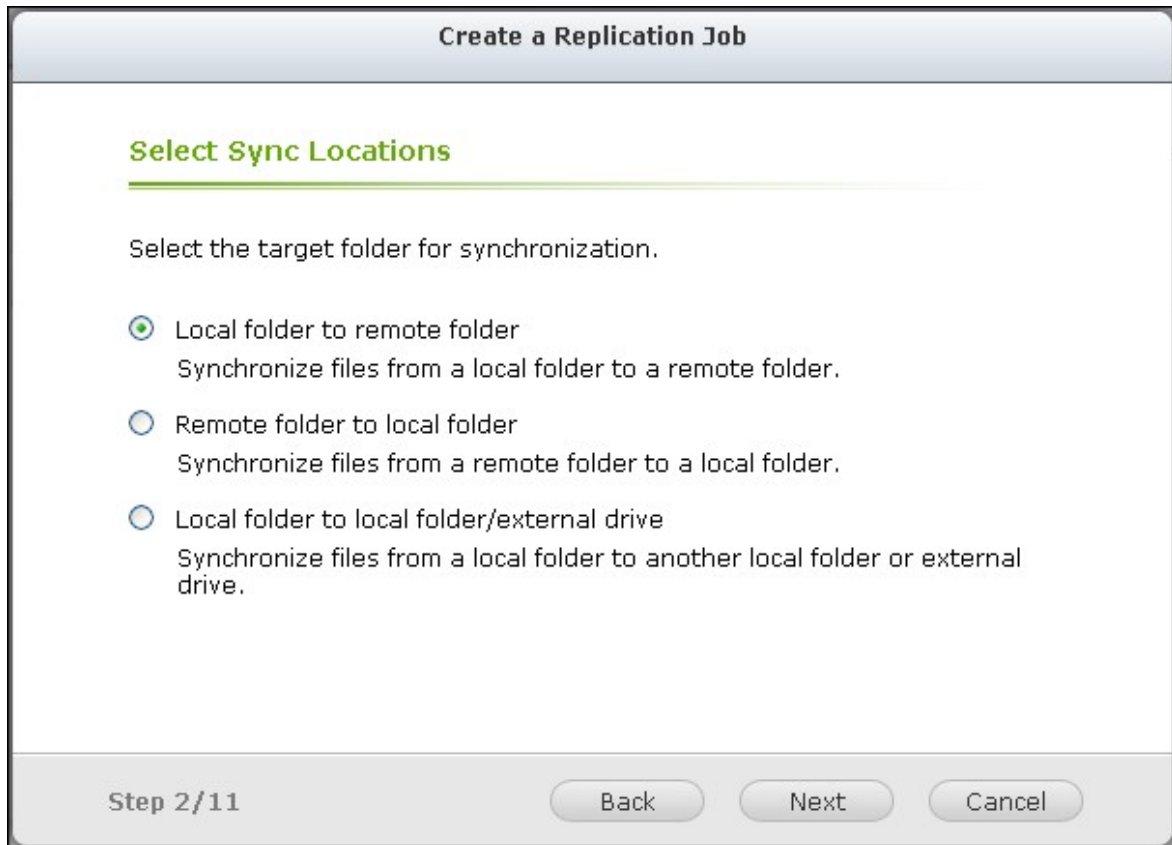
NAS

<http://www.qnap.com>

Intel NAS	TS- x39 , TS- x59 , TS- x69 , TS- 509, TS- 809, TS- 809 Pro, TS- 809U- RP, SS- 439 Pro, SS- 839 Pro, TS- x59 Pro+, TS- 879 Pro, TS- 1079 Pro, TS- 879U- RP, TS- EC879U- RP, TS- 1279U- RP, TS- EC1279U- RP
ARM (Intel) NAS	TS- x10, TS- x12, TS- x19

1. "Create New Replication Job()"





4. IP

NAS).

(RTRR

FTP

FTP

:

FTP 가 SSL/TLS() FTP / 가 “ ”

Create a Replication Job

Configure Remote Host Settings

IP Address/Host Name:

Server type : ⓘ

Port:

FTP with SSL/TLS (Explicit)

Passive Mode

Username:

Password:

Maximum transfer rate (KB/s):

Success 24.917 MB/s

Step 3/11

RTRR

NAS

RTRR 가 IP . RTRR 8899 . RTRR “ ”

Create a Replication Job

Configure Remote Host Settings

IP Address/Host Name:

Server type : ⓘ

Port:

Enable secure connection (SSL)

Password:

Maximum transfer rate (KB/s):

Success 30.591 MB/s

Step 3/11

5.

Create a Replication Job

Select Folder Pair

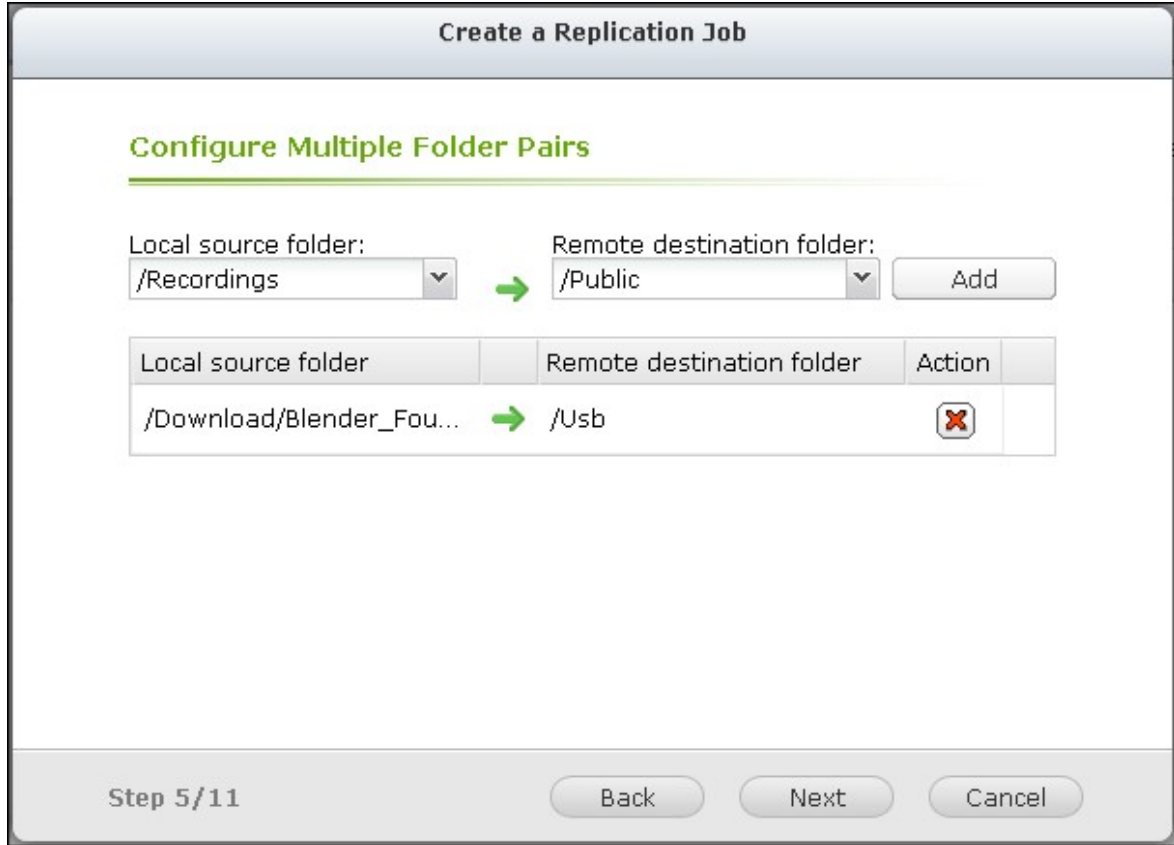
Local source folder → Remote destination folder

Add More Folder Pairs

Step 4/11

: 가

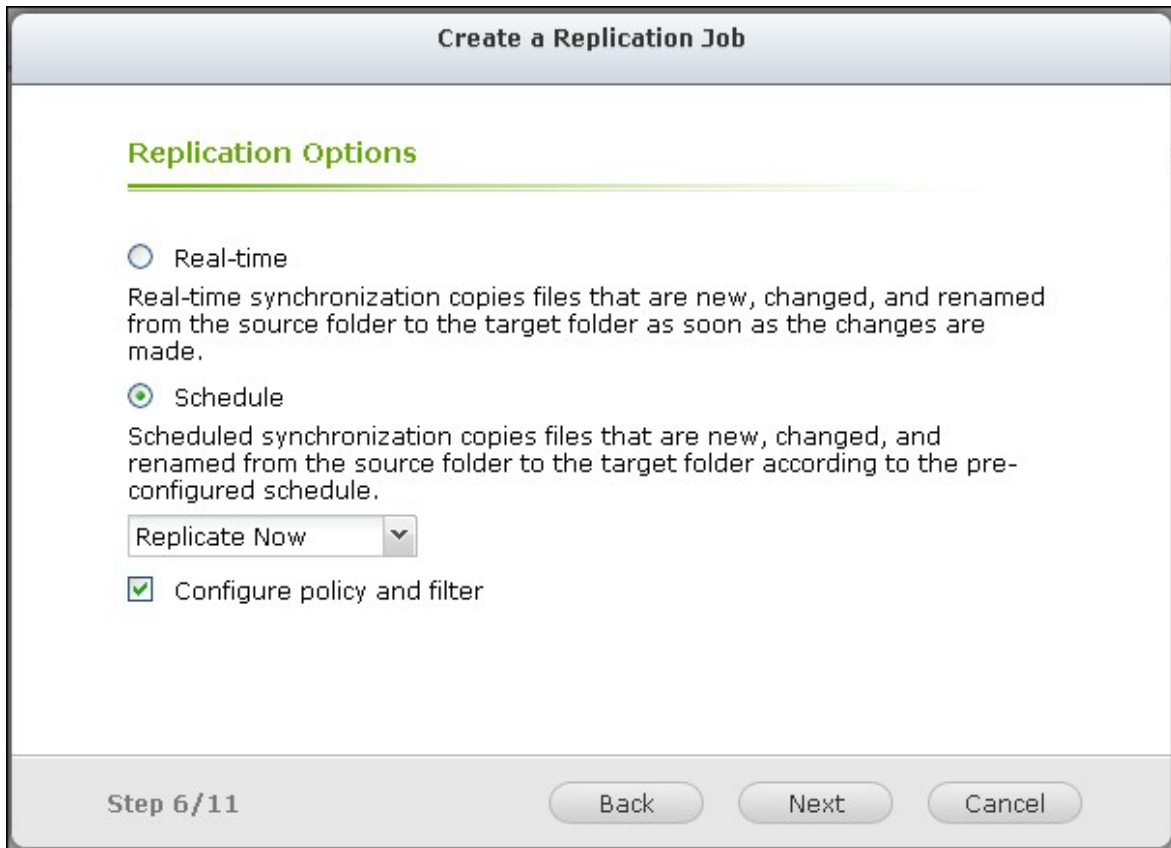
6. 5 가 "Add(가)"



7.

: RTRR . 2 NAS 2 NAS

- Replicate Now(): 5
- Periodically(): 1, 1:01, 2:01, 3:01...
- Hourly(): 2 2 02:02
- Daily():
- Weekly():
- Monthly():



Source:	RTRR NAS	Target:	QNAS	Bandwidth Control:	3.6	Unit:	MB/s
---------	----------	---------	------	--------------------	-----	-------	------

8. "Configure policy and filter()" "NEXT"
- Delete extra files(가): 가
 - Detect sparse files(): .
 - Check file contents(): , , , .
 - Compress files during transmissions(): . CPU
 - Ignore symbolic links():
 - Extended attributes():
 - Timeout and retry settings():

Create a Replication Job

Configure synchronization policy

Timeout and Retry Settings ?

Timeout (second):

Retry intervals (second):

Delete extra files ?

Check file contents ?

Ignore symbolic links ?

Detect sparse files ?

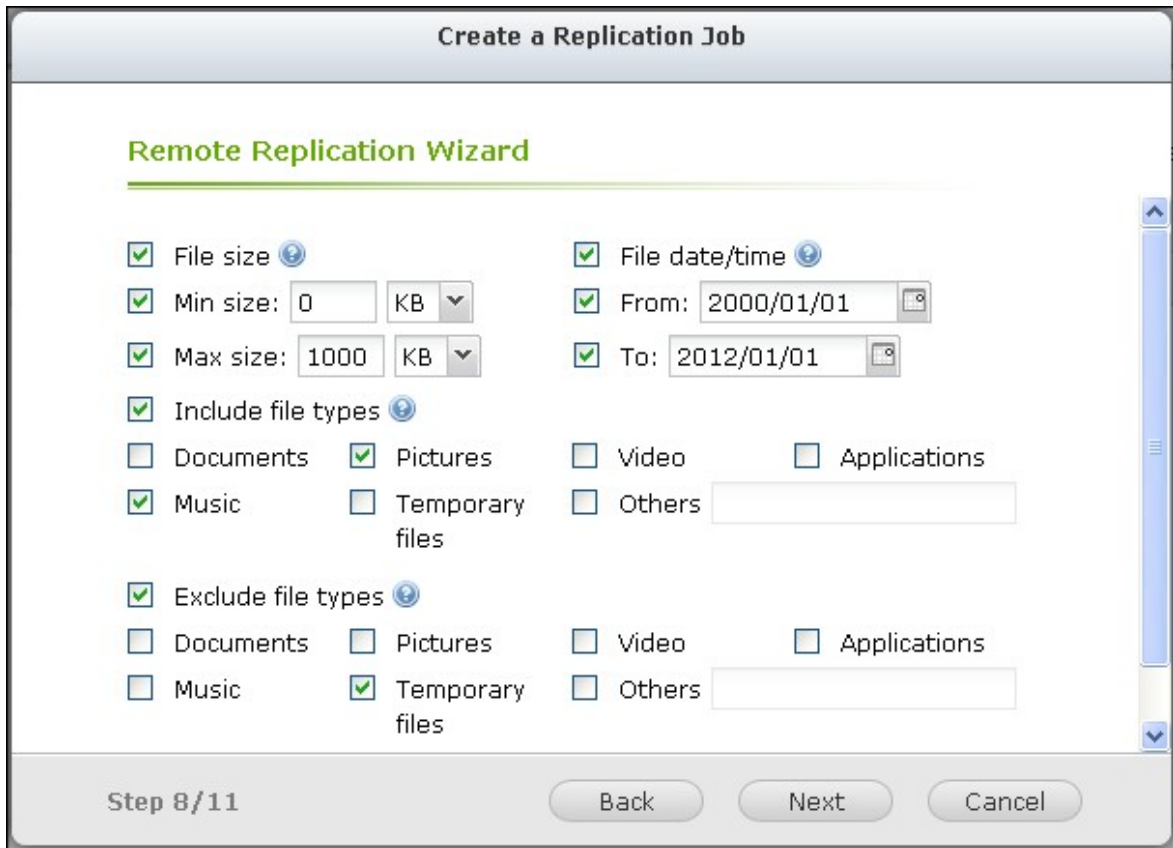
Compress files during transmission ?

Extended attributes ?

Step 7/11

Back
Next
Cancel

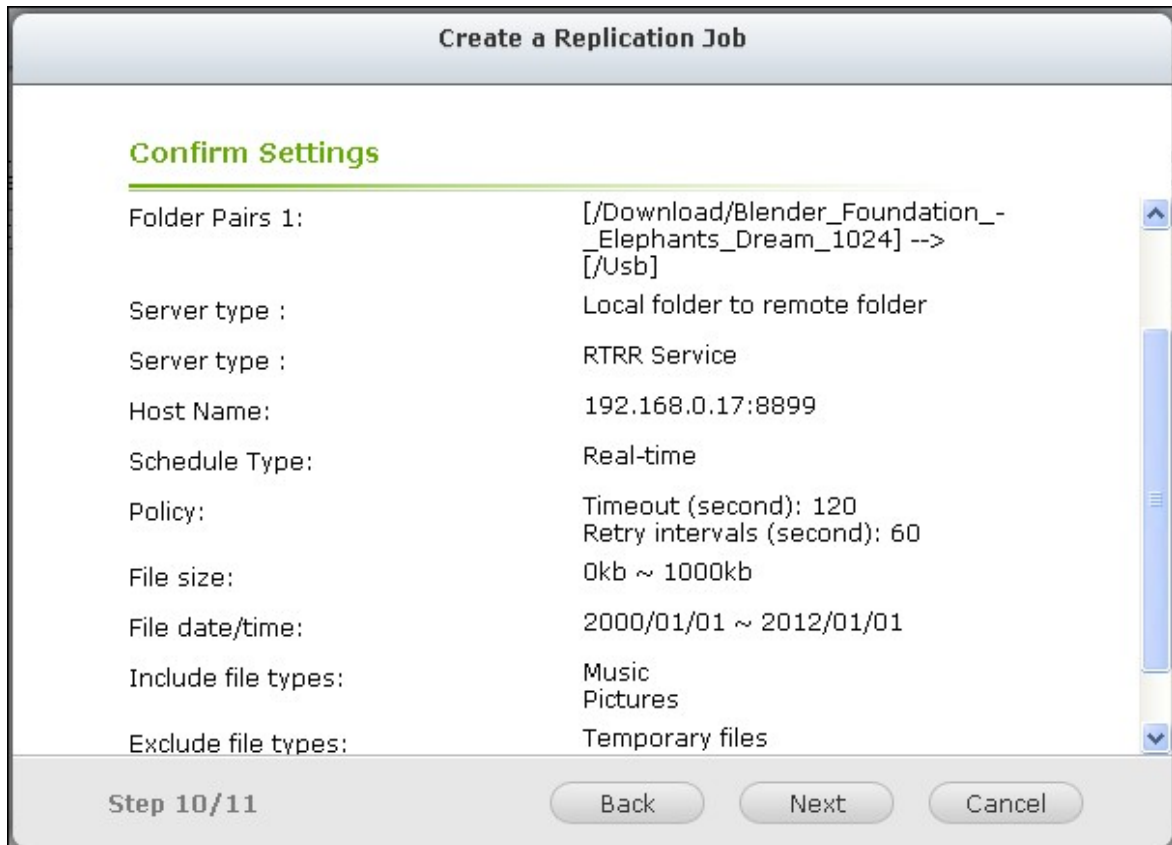
9. / , /
- File size(): /
 - Include file types():
 - Exclude file types():
 - File date/time(/):



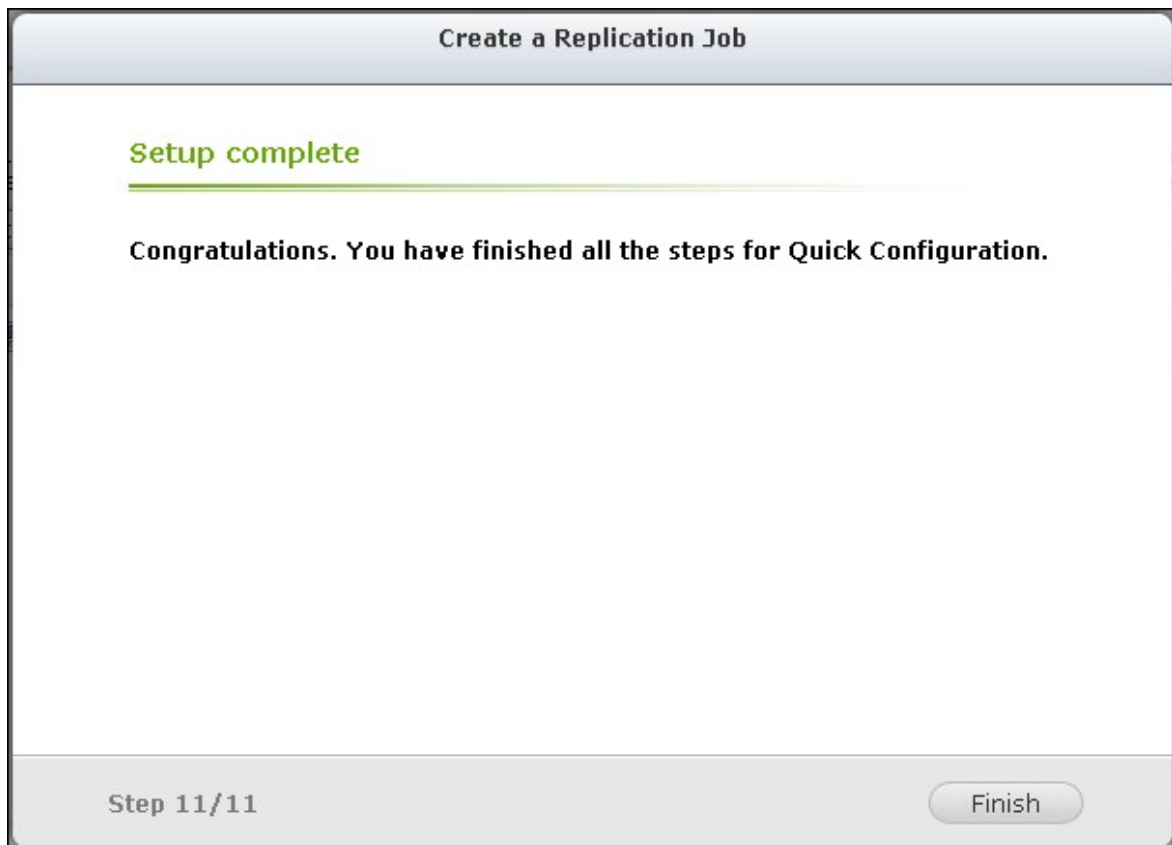
10.

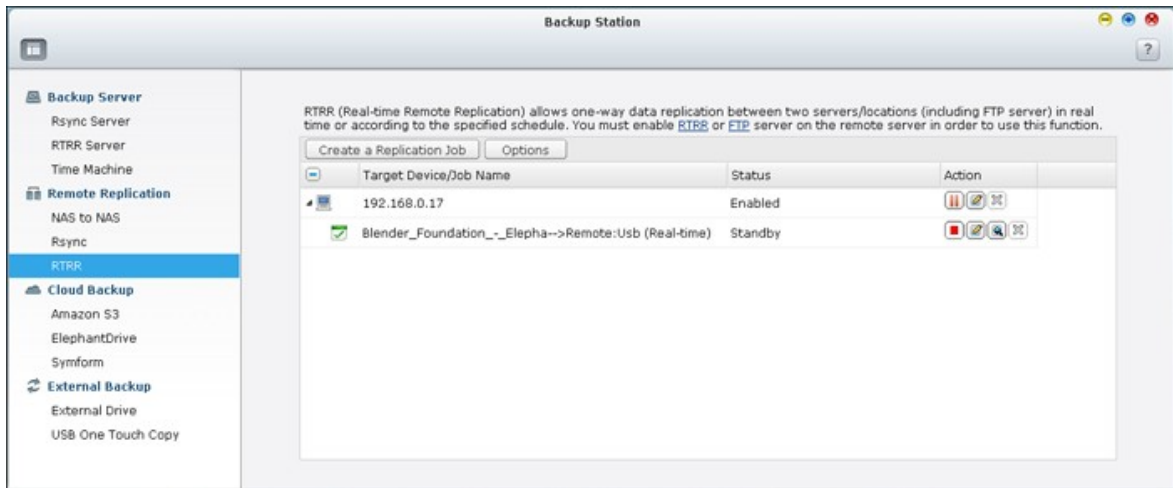


11. "Next()"



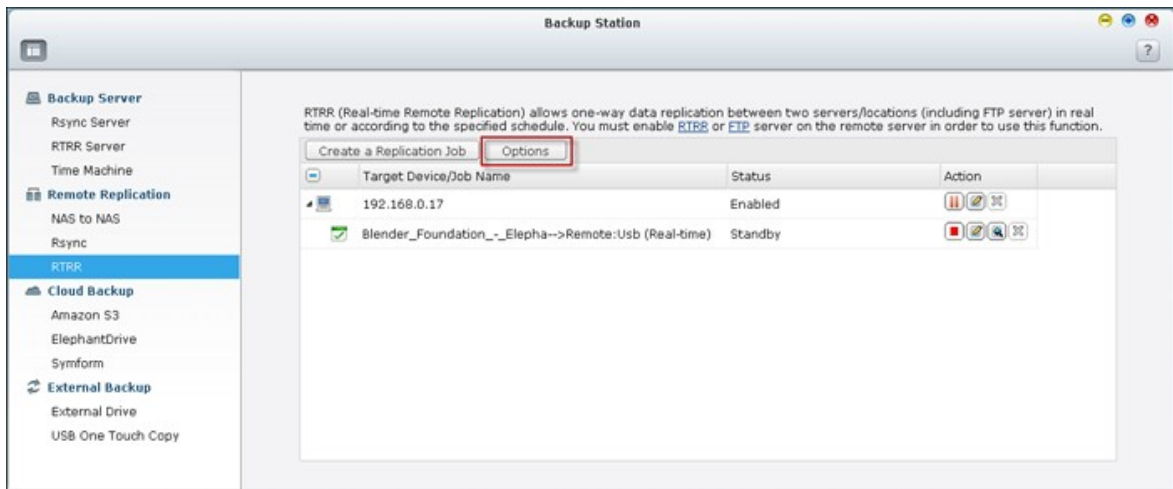
12. Finish()"





	; download logs ().

"Options()"



"Event Logs()" "Download Detailed Logs()"
 가
 SMTP NAS ("System Settings()" > "Notification()")

The screenshot shows a dialog box titled "Options" with three tabs: "Event Logs", "Policy", and "Filter". The "Event Logs" tab is selected. It contains the following settings:

- Download detailed logs
 - Maximum log size (MB): MB (Max 1GB)
 - Enable this option to include more information in the log file. You can also specify the maximum file size.
- Send an alert email in the following condition(s)
 - Synchronization failed
 - Synchronization has completed.

Note: The SMTP server must be configured first for alert mail delivery. [Click this to configure the SMTP server](#)

At the bottom right of the dialog box are "Apply" and "Cancel" buttons.

"Policy()" , "Filter()" . RTRR

Options

Event Logs **Policy** Filter

Timeout and Retry Settings ⓘ

Timeout (second):

Number of retries:

Retry intervals (second):

Delete extra files ⓘ

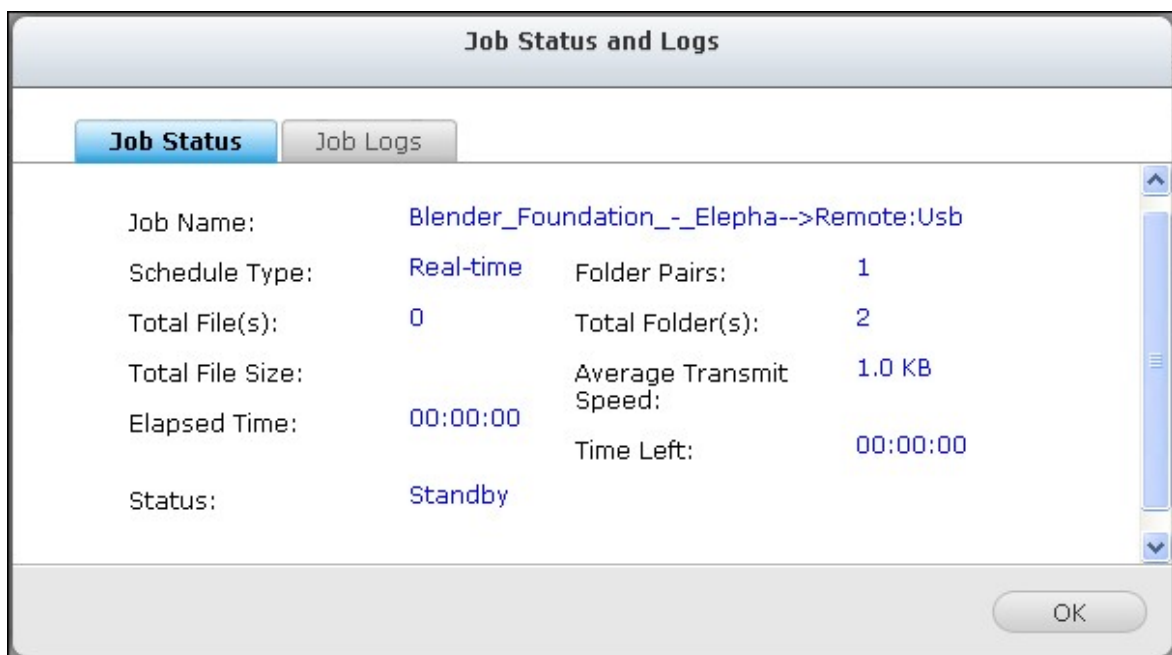
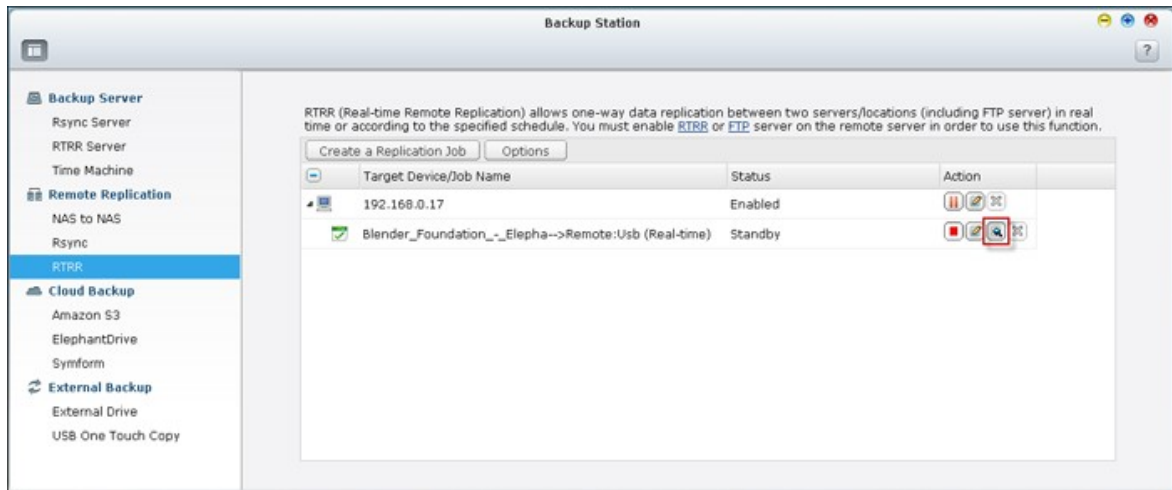
Compress files during transmission ⓘ

Extended attributes ⓘ

Detect sparse files ⓘ

Check file contents ⓘ

Ignore symbolic links ⓘ



"Download Logs()"

Microsoft Excel
() > "Event Logs()"

"Download Detailed Logs()" "Options)"

Job Status and Logs

Job Status **Job Logs**

Date	Time	Content
2013/05/28	16:19:27	Job [Web-->Remote:Download] started.
2013/05/28	16:19:27	Synchronize files between a local folder and an external drive.
2013/05/28	16:19:27	The number of folder pairs = 1.
2013/05/28	16:19:27	Pair1 = [Web, Download].
2013/05/28	16:19:27	Schedule type: Realtime.

Download Logs

OK

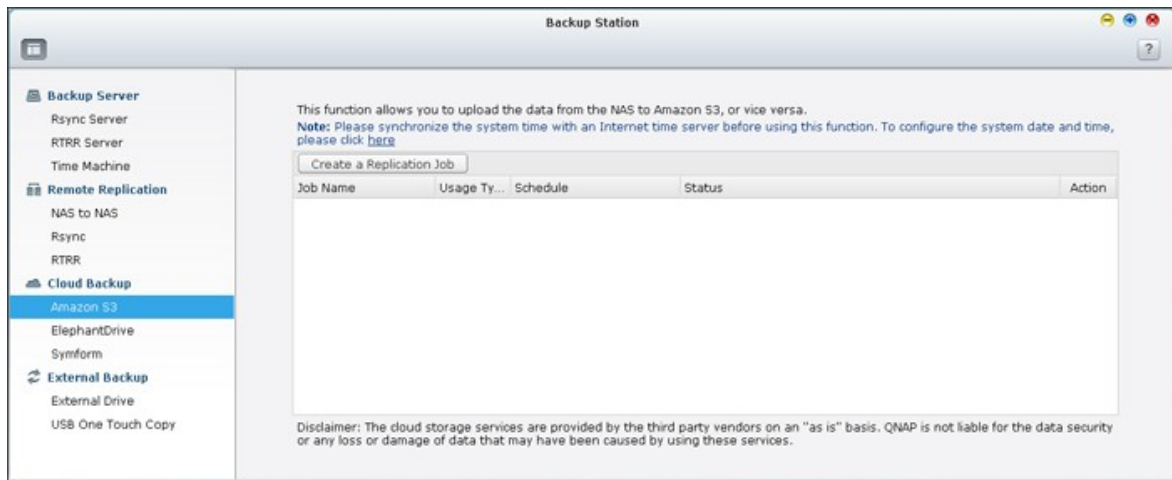
7.2.3

Amazon S3

Amazon S3 (Simple Storage Service) AWS(Amazon Web Services)가

Amazon S3 NAS Amazon S3
 Amazon S3 NAS

<http://aws.amazon.com> AWS 가
 , Amazon S3 Amazon S3 ()
 가 Mozilla Firefox 가 "S3Fox"



Amazon S3 NAS Amazon S3

1. " "
- 2.
3. "Upload()" "Download()"
 Amazon S3 "Test()"

Create a Replication Job

Amazon S3

Usage Type:

Access Key:

Secret Key:

Remote Path (Bucket/Directory): /


Remote Host Testing:


Maximum number of retries (0-99):

Maximum upload rate (KB/s):

Perform incremental replication

Delete extra files on remote destination

Enable Server Side Encryption 

Enable Reduced Redundancy Storage 

Step 2/5

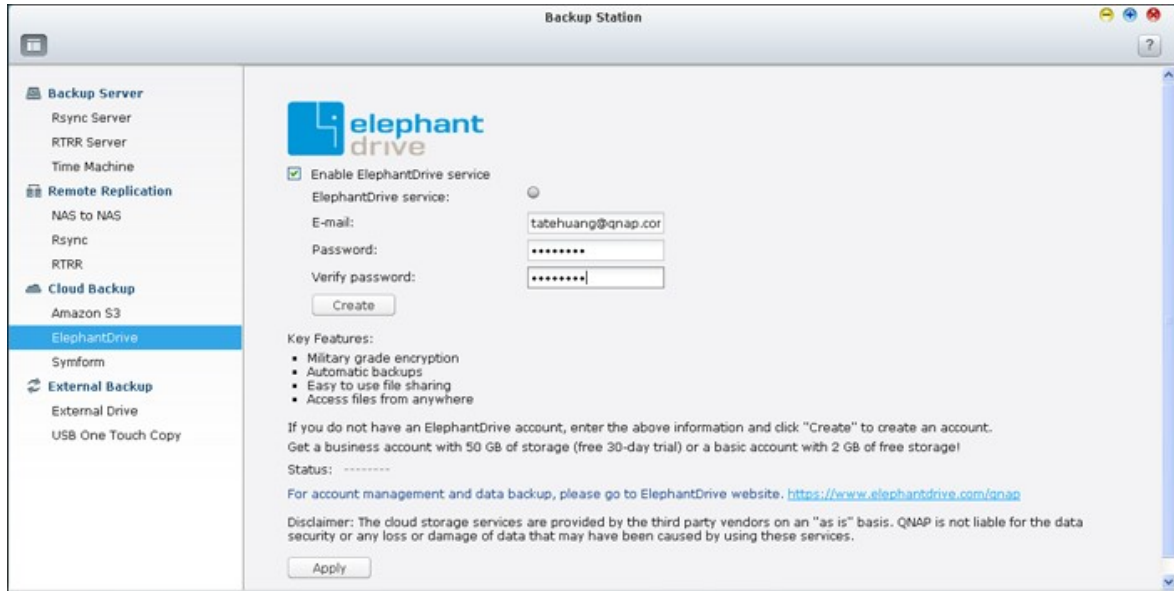
4. NAS

5.

6. "Finish()"

ElephantDrive

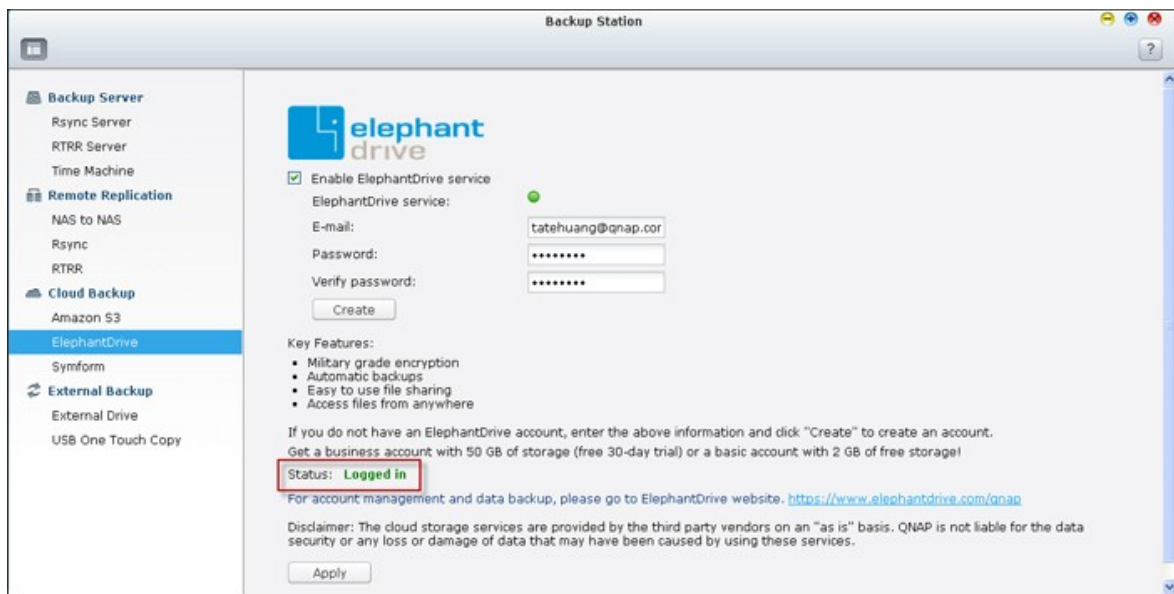
ElephantDrive "Enable ElephantDrive Service(ElephantDrive)"
 . ElephantDrive
 "Create()" . "OK()"




OK()"

"APPLY()" . NAS가 ElephantDrive

NAS ElephantDrive ElephantDrive 가 (<http://www.elephantdrive.com/qnap>)



ElephantDrive (<https://www.elephantdrive.com/qnap>).

Beyond Backup: Your files and folders Everywhere 



[Download ElephantDrive](#)

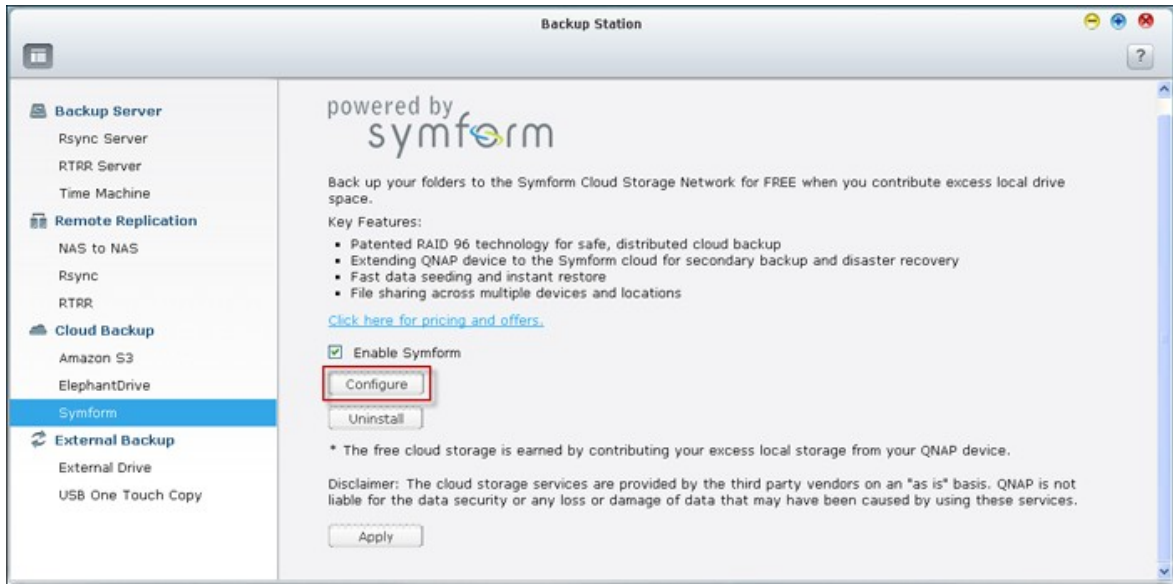
Supported Platforms:  Windows  Mac  Android Beta  NAS

Symform

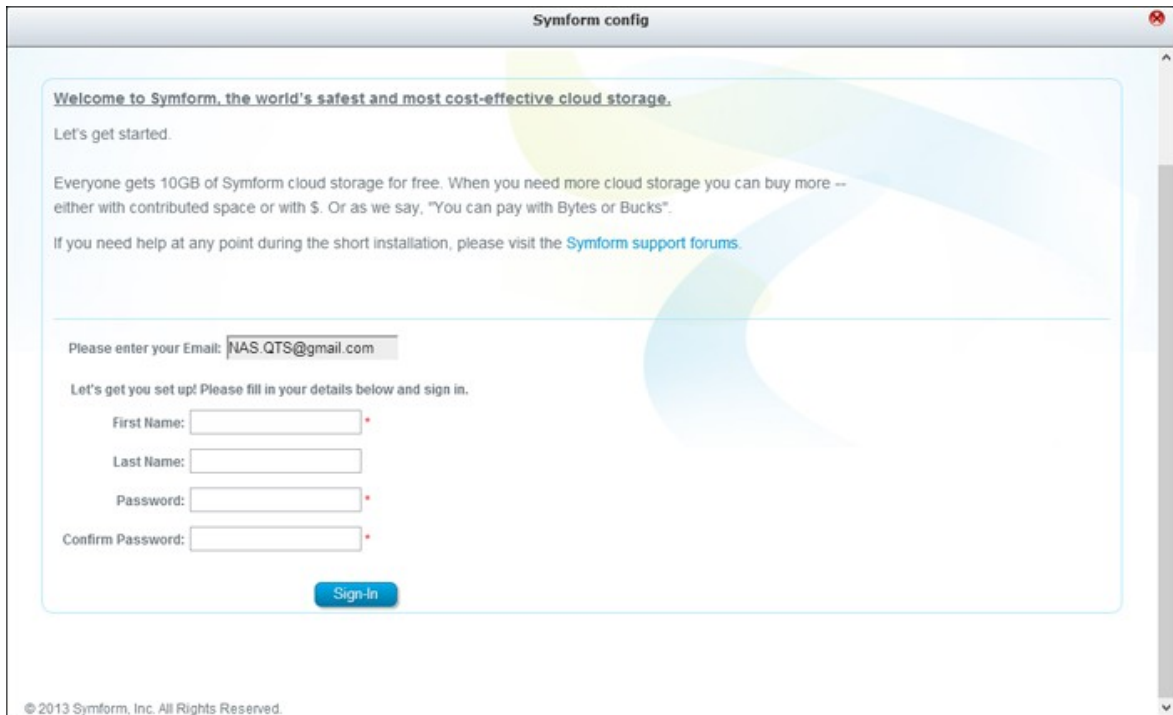
Symform , Backup Station > Cloud Backup() >
 Symform ” . Get Started Now() ” Symform
 . NAS가



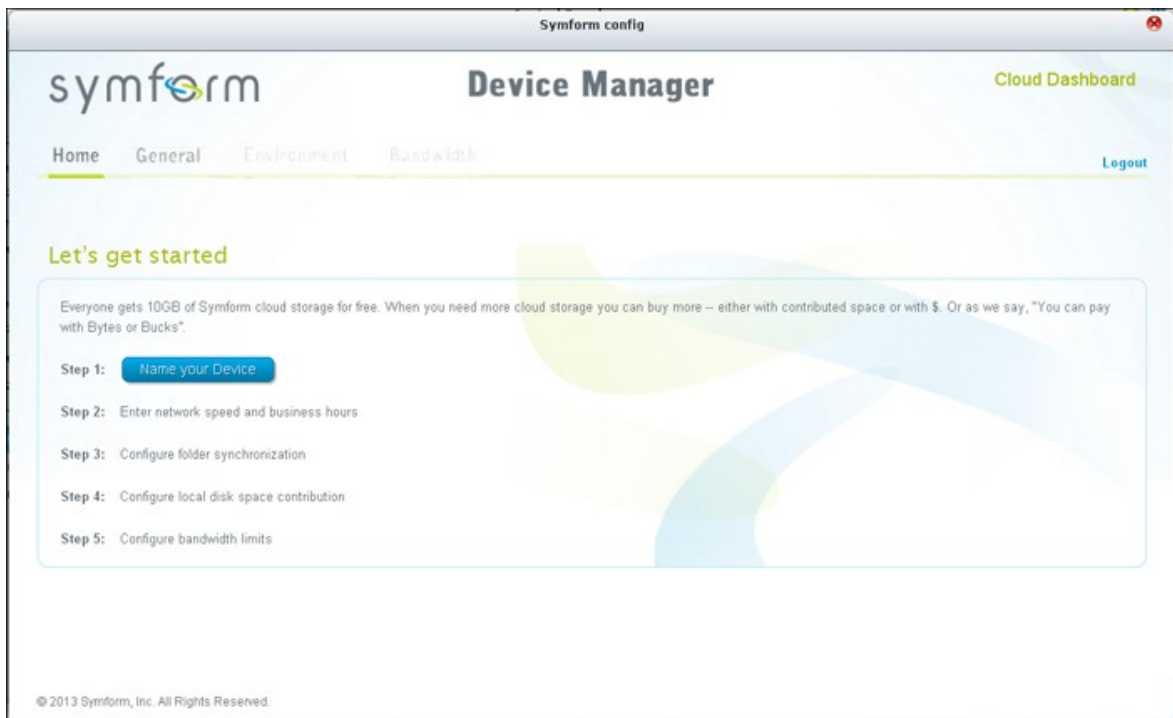
Configure() ”



가 Sign-In() ” NAS Symform



Symform



가 , 가 Symform

Symform , . Cloud Dashboard() ”
Symform Symform

Symform :

- TCP : 59234
- TCP : Symform
- TCP 가
- Symform ,
NAS
- Symform
, NAS Symform

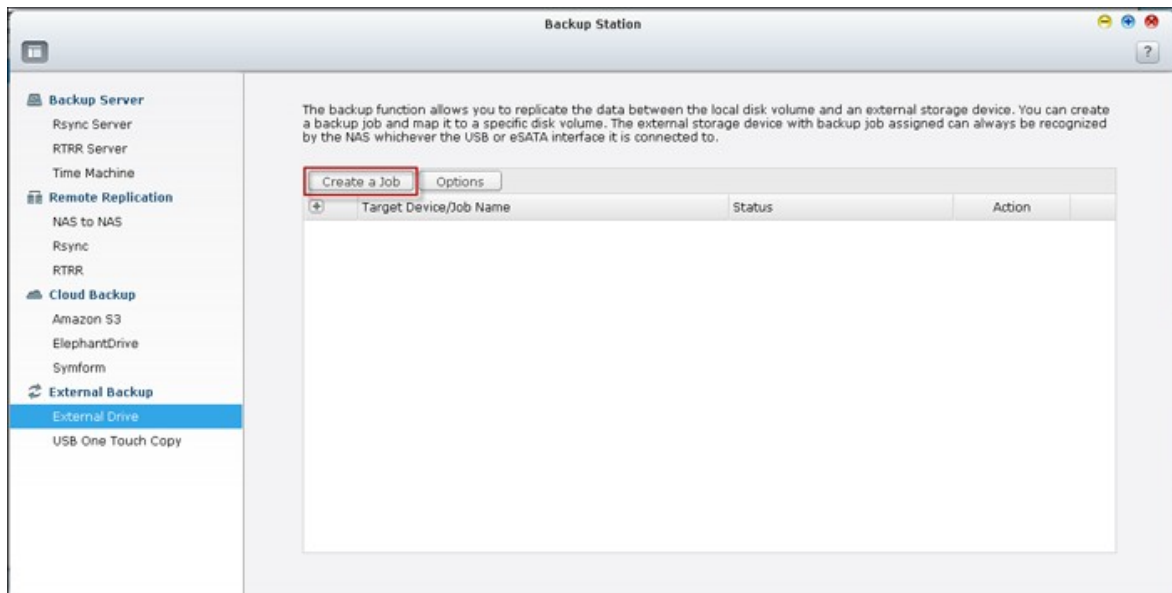
7.2.4

NAS NAS USB/eSATA

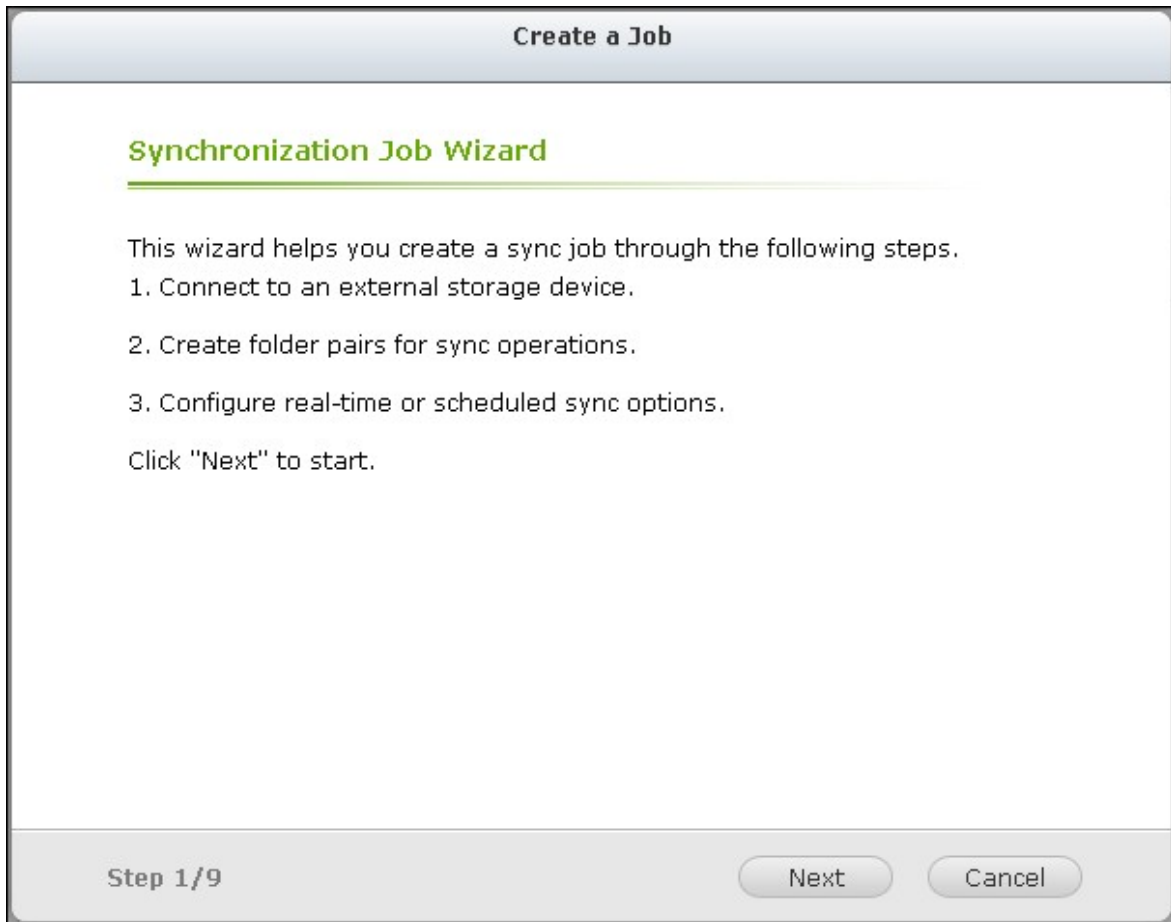
: NAS "External Device()" > "External Storage()"

1. NAS USB eSATA(가)

2. "Create a new job()"

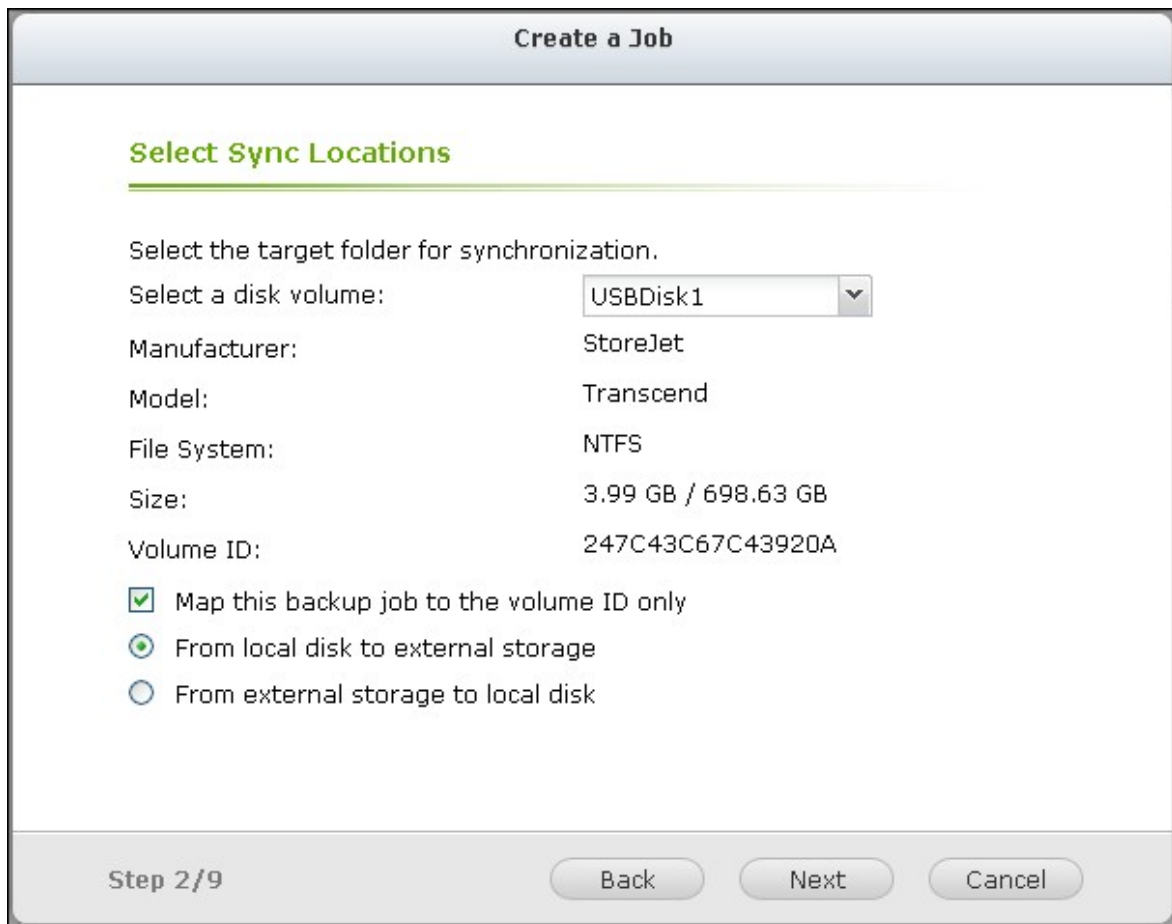


3. 가 , "NEXT()"

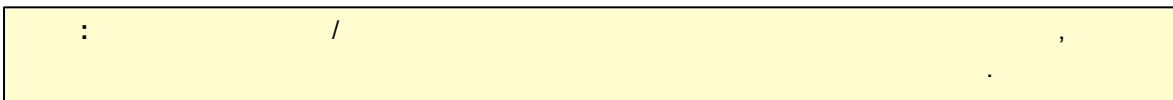
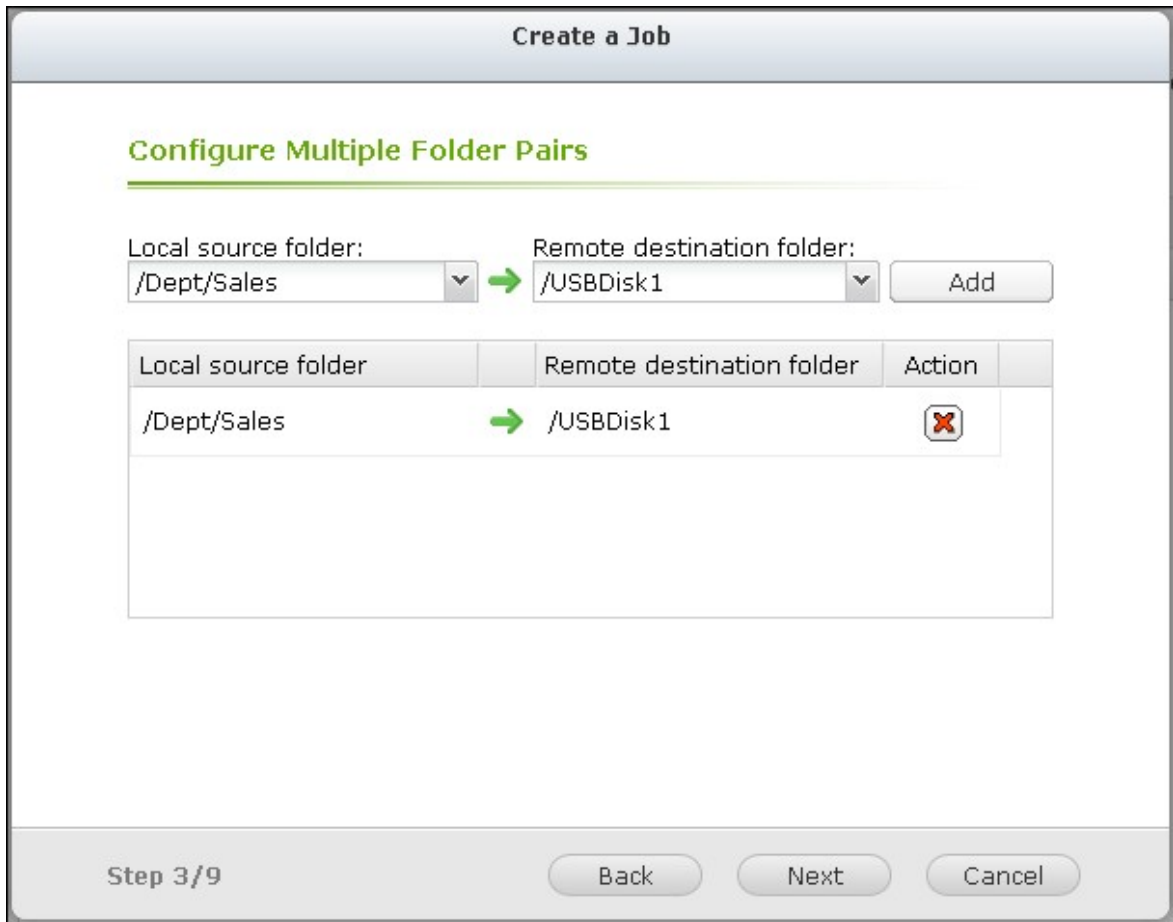


4.
 - a. * . NAS EXT3, EXT4, FAT, NTFS,
 - 가 .
 - b. "Map this backup job to the volume ID only(
 - . NAS가 ID)"
 - USB/
 - c. eSATA NAS
 - d. Next()"

*



5. "ADD(가)" 5

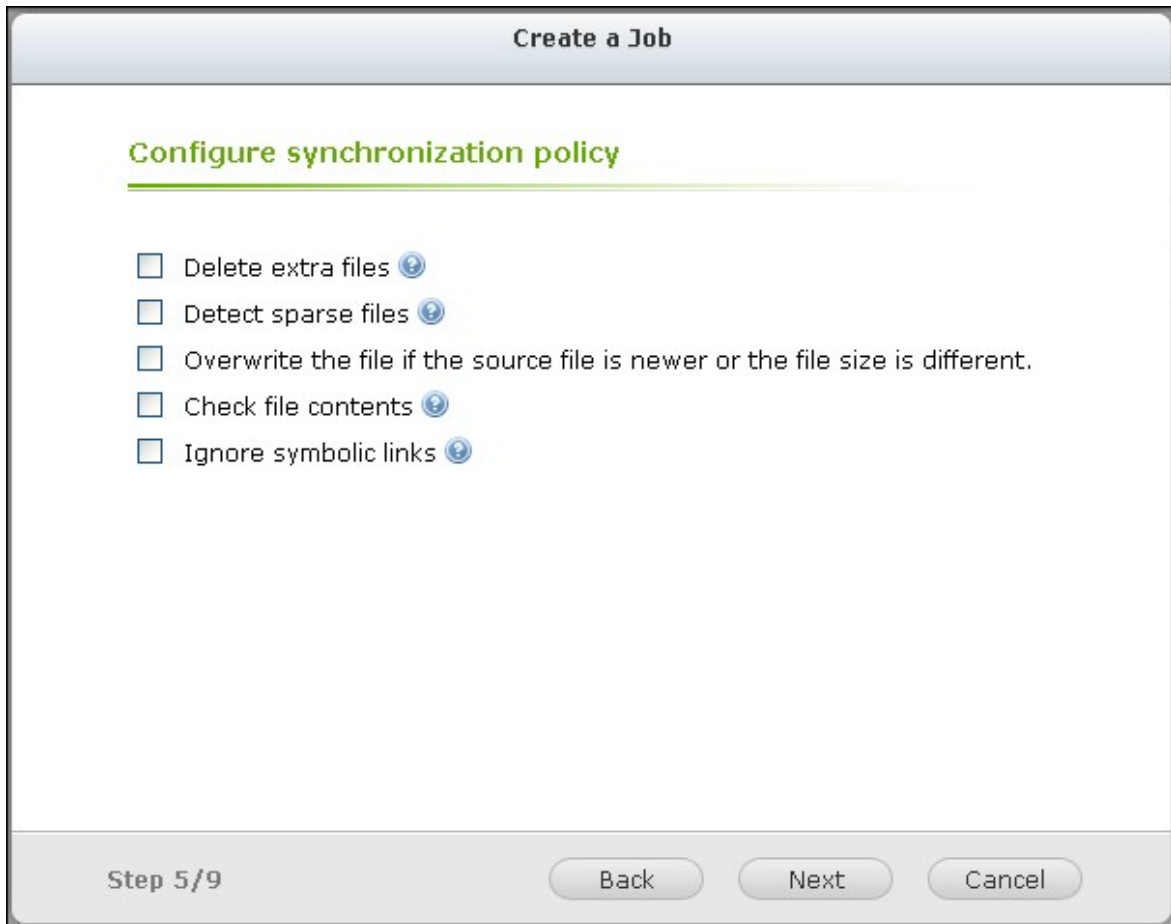


6.

- Replicate Now(): 5
- Periodically(): 5
- Hourly(): 01 01
, 1:01, 2:01, 3:01...
- Daily(): 2 2 02:02
- Weekly():
- Monthly():
- : NAS가

, "Configure policy and filter()"

“ ”



8. :

- File size():
- File date/time(/):
- Include file types():
- Exclude file types():

Create a Job

Configure synchronization filter

File size ⓘ

Min size: ▾

Max size: ▾

File date/time ⓘ

From: ⓘ

To: ⓘ

Include file types ⓘ

Documents Pictures Video Applications

Music Temporary files Others

Exclude file types ⓘ

Documents Pictures Video Applications

Music Temporary files Others

Step 6/9

9.

“ ”

63

Create a Job

Enter a sync job name

Specify a name for the sync job. It is a required field and cannot be empty.

Step 7/9 Back Next Cancel

10. "Next()" .

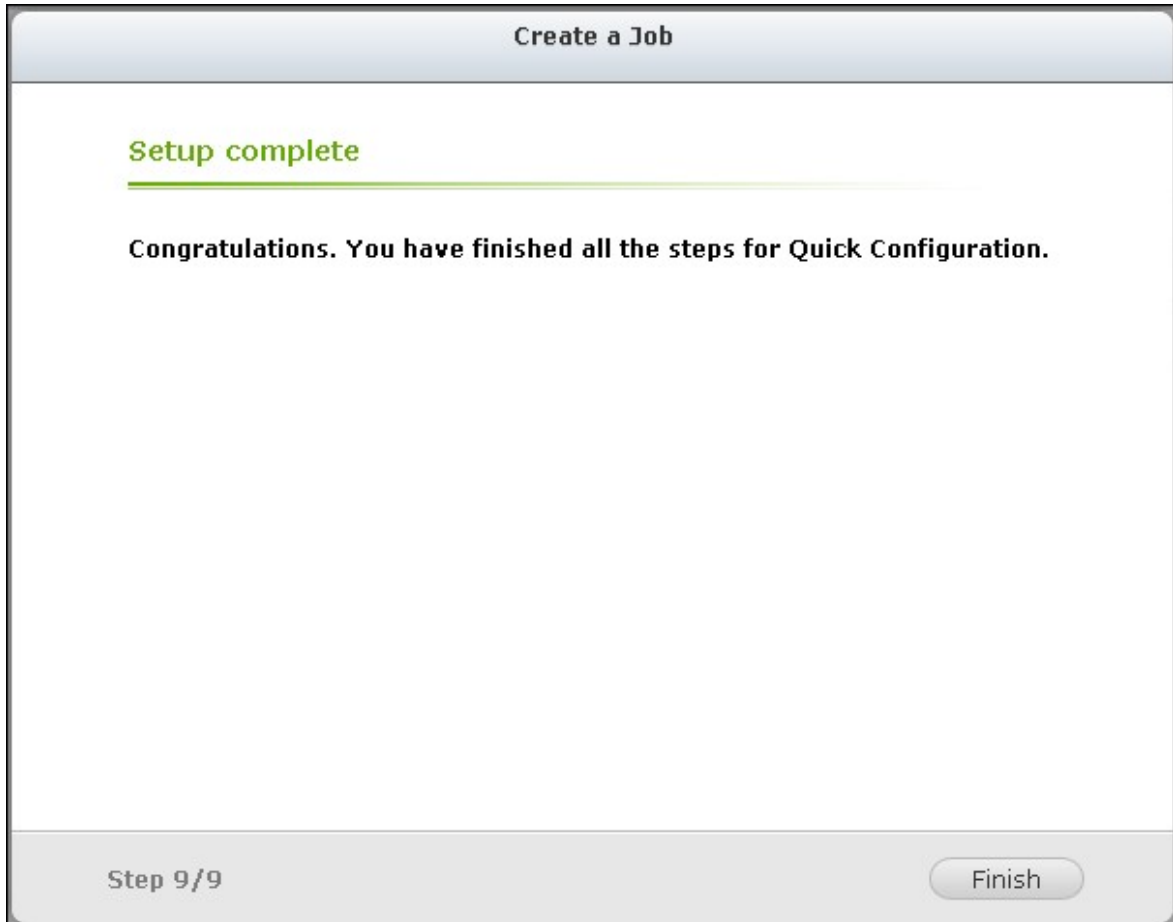
Create a Job

Confirm Settings

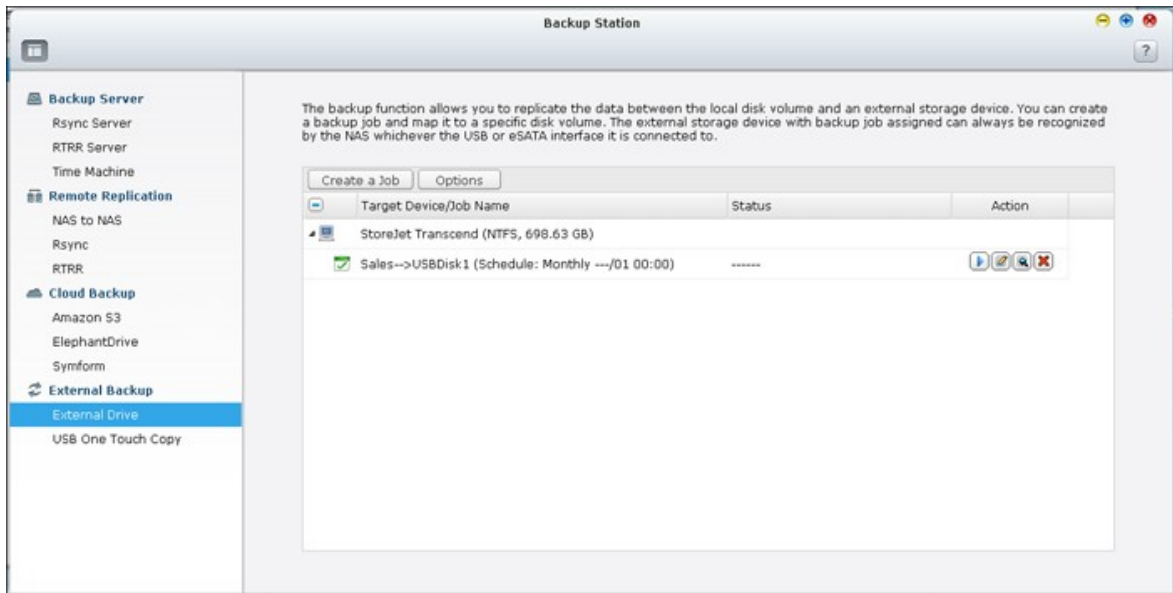
Job Name:	Sales-->USBDisk1
Folder Pair Number:	1
Folder Pairs 1:	[/Dept/Sales] --> [/USBDisk1]
Schedule Type:	Monthly ---/1 0:0
Policy:	
File size:	--- ~ 1000kb
File date/time:	2000/01/01 ~ 2012/01/01
Include file types:	Video
Exclude file types:	Temporary files

Step 8/9



11. Finish()”




12. 가 .



	.
	.

)" "Disabled(가)" ,  "Settings()" > "Schedule Type()" "OK()"

Synchronization Job Property

Settings
Folder Pairs
Policy
Filter

Backup destination: StoreJet Transcend (NTFS, 698.63 GB)

Volume ID: 247C43C67C43920A

Job Name:

Schedule Type: Disabled

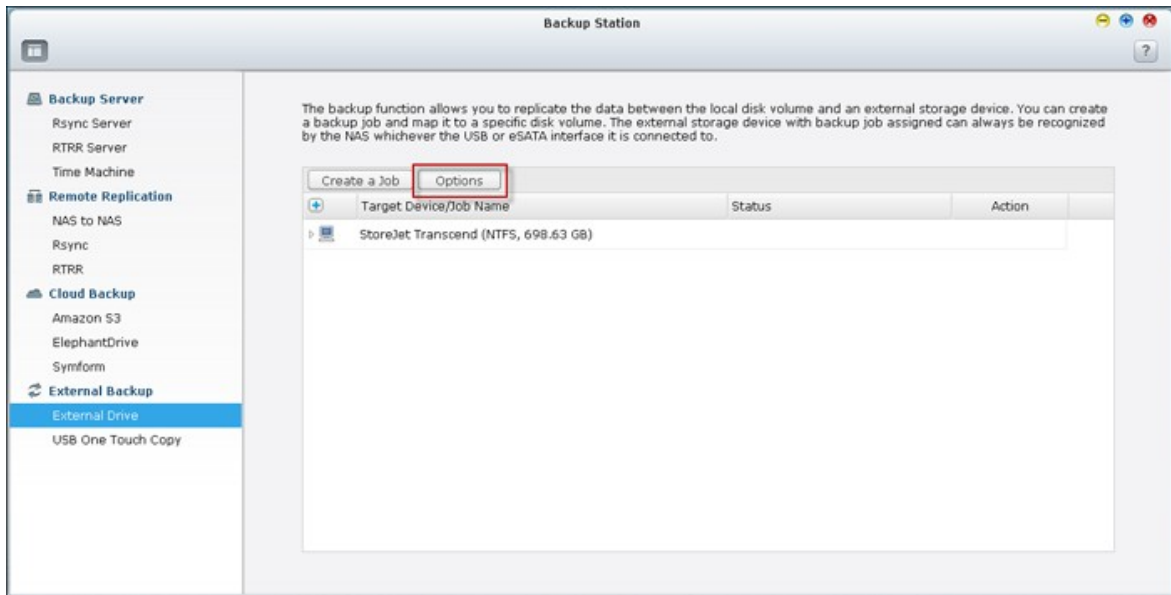
Real-time

Schedule

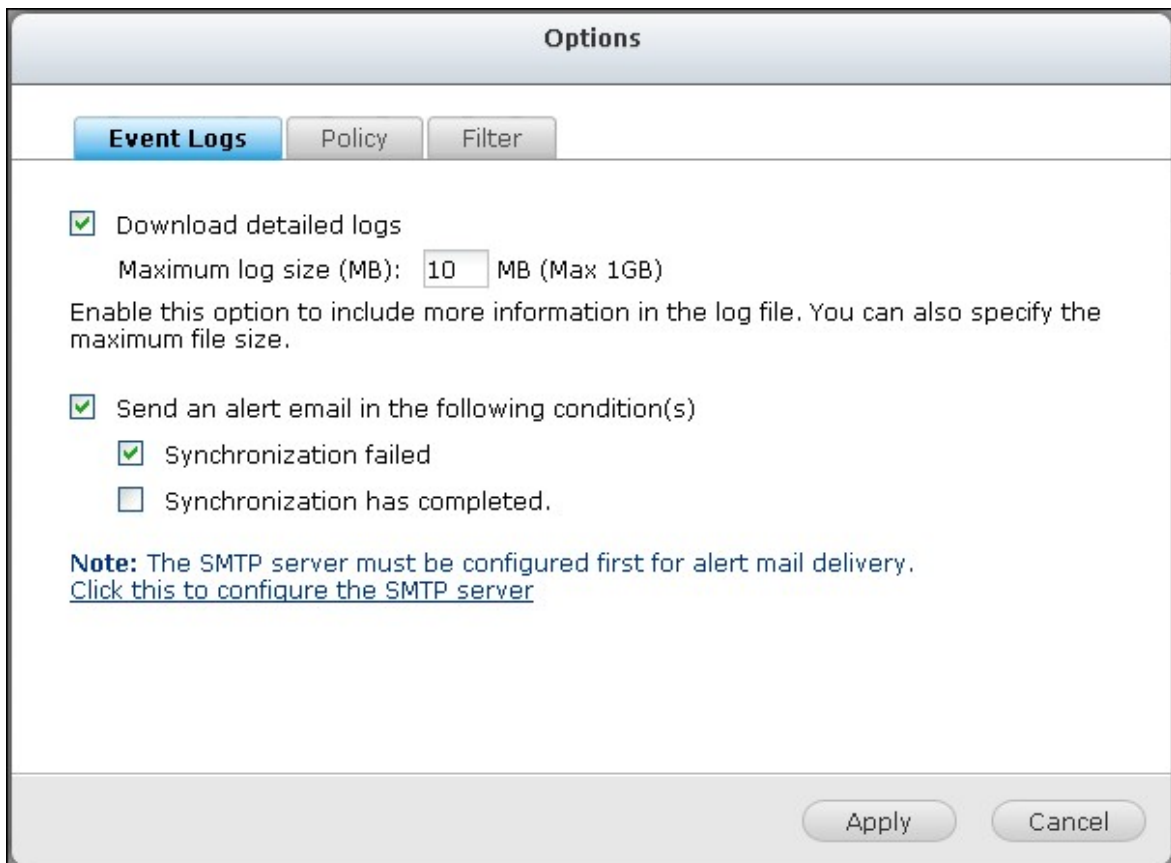
Monthly ▼ Time 00 ▼ : 00 ▼
Day 01 ▼

OK
Cancel

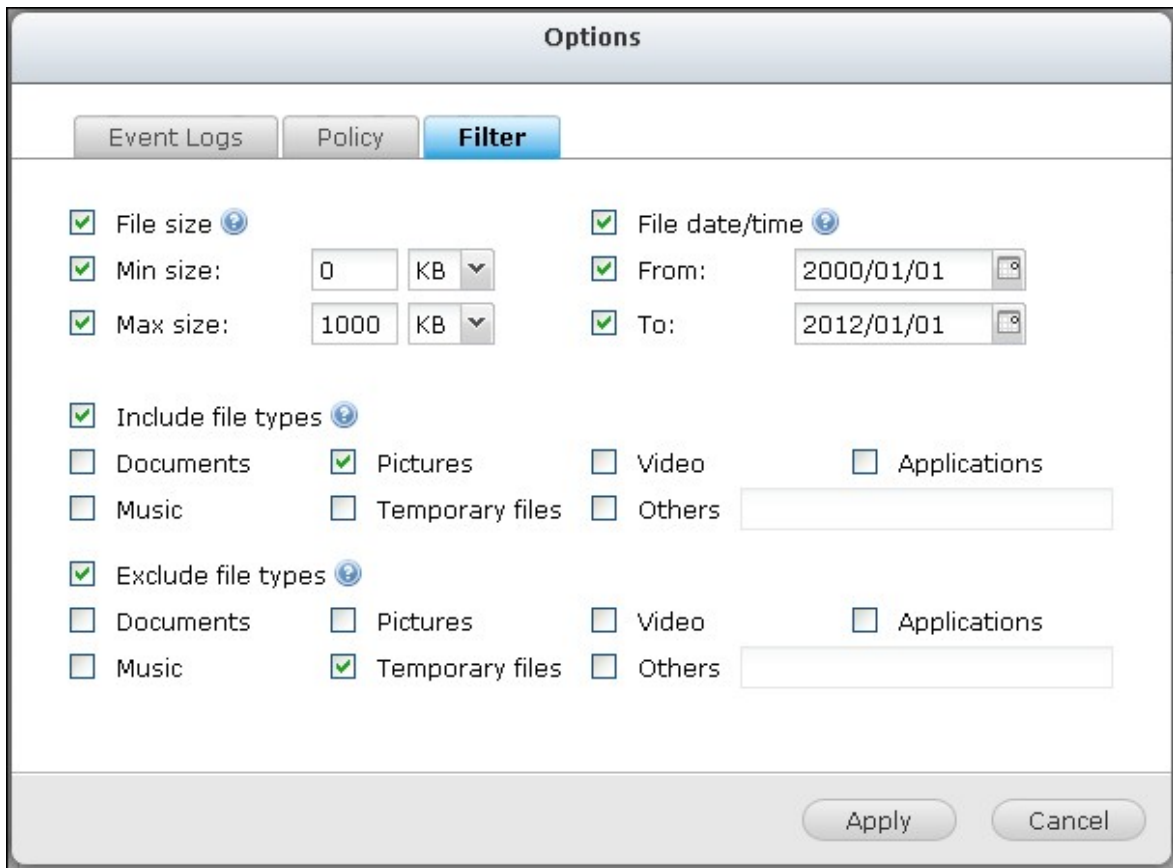
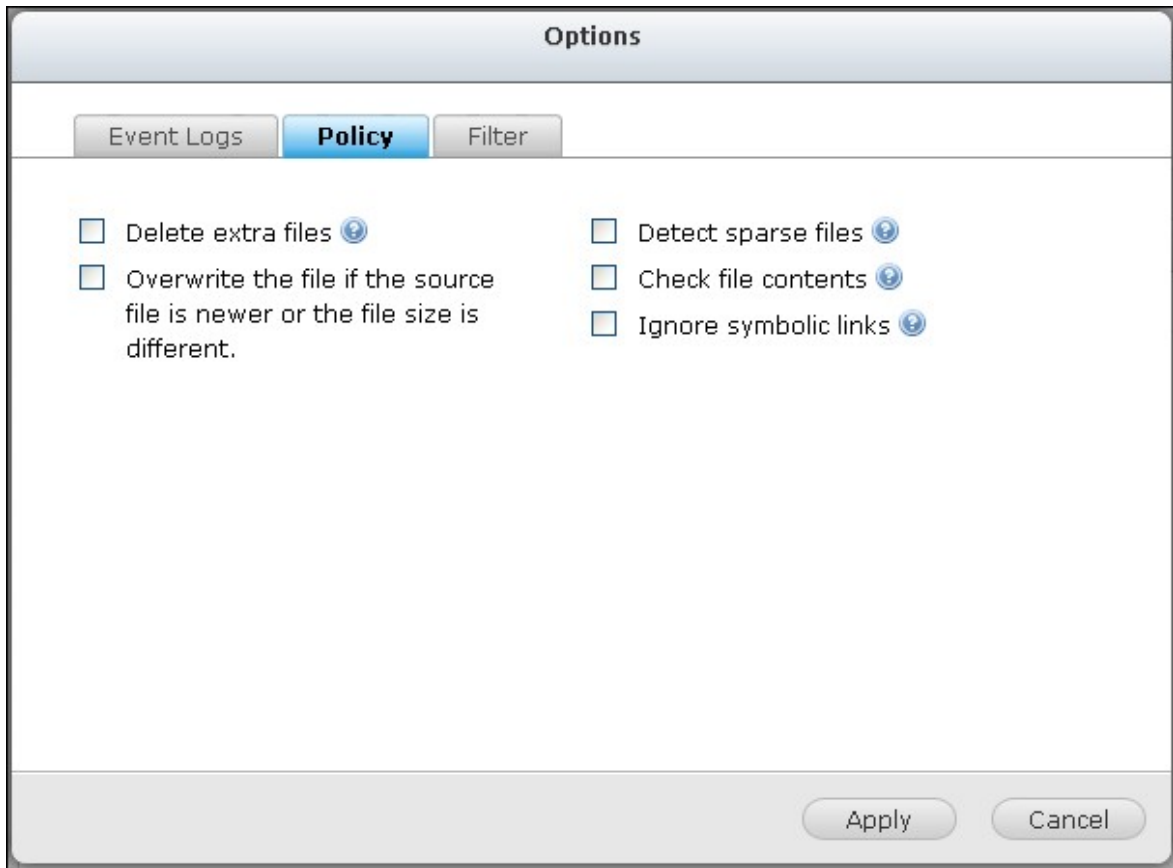
, Options()"



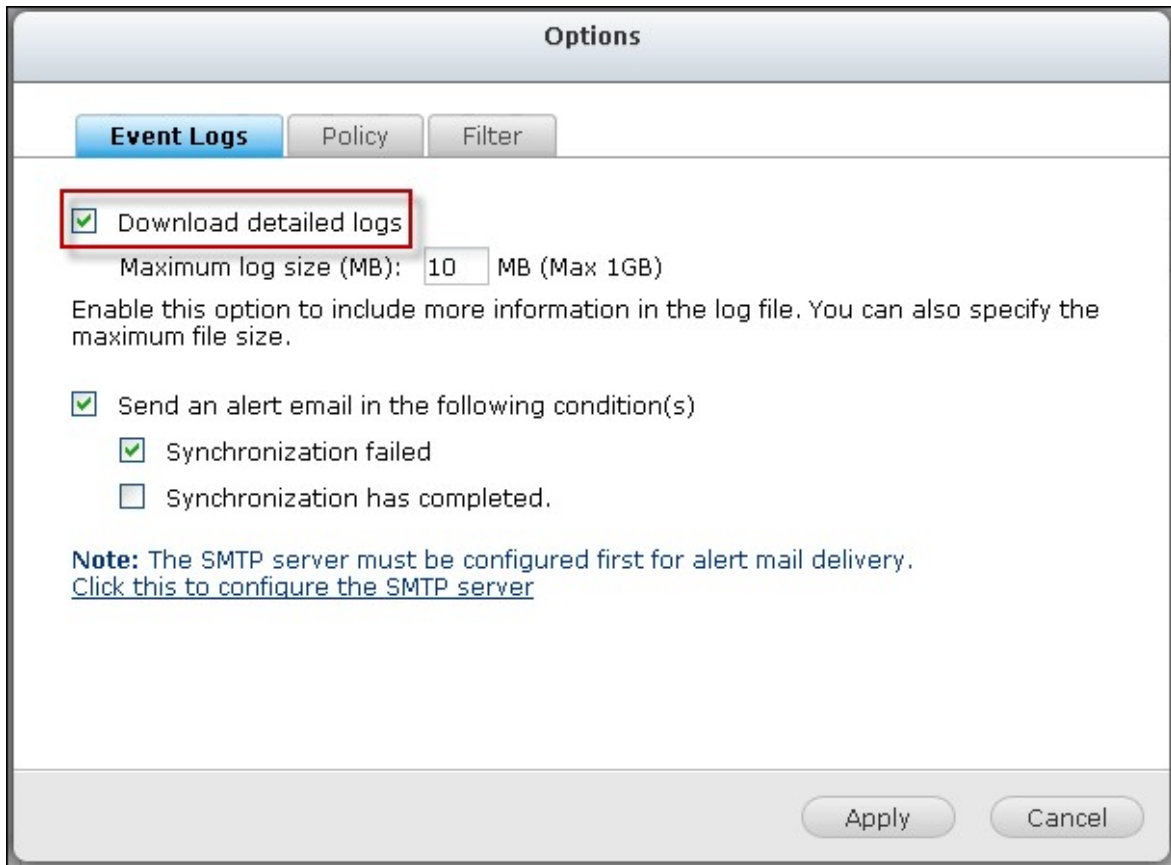
"Event Logs()" "Download Detailed Logs()"
 . SMTP "System Settings()"> Notification()"



"Policy()" "Filter()"



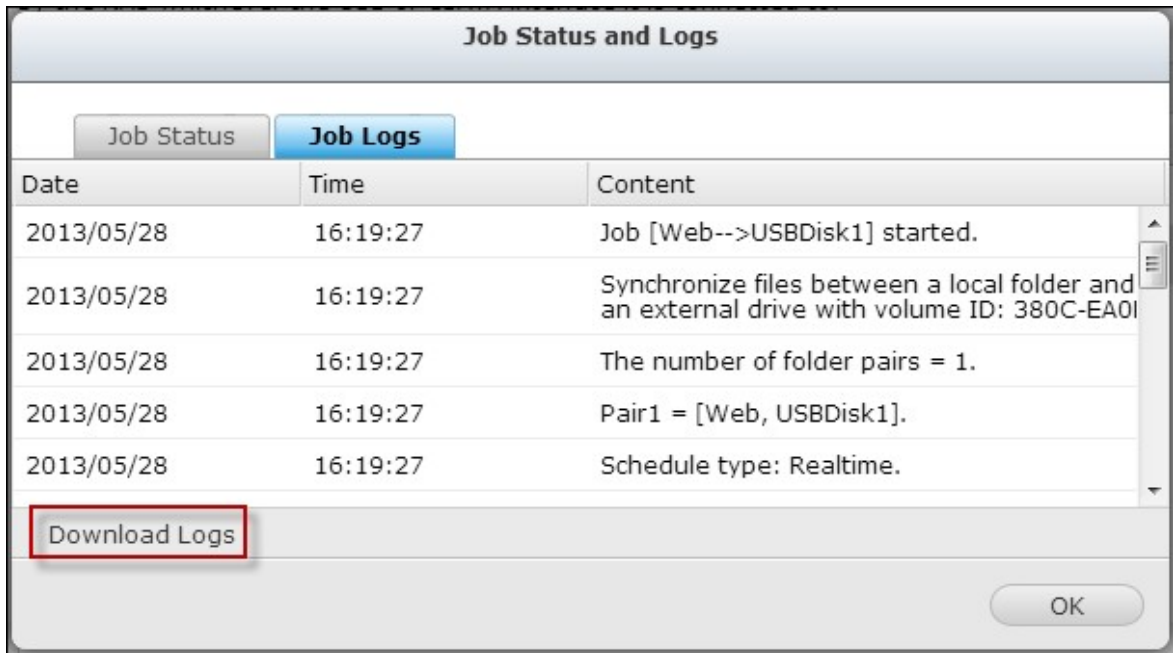
1. , 'Options()' > Event Logs()" Download Detailed Logs()



2. "Action()"



3. "Job Logs()" 가 "Download Logs()" . "Options()"
 Microsoft Excel
)" > "Event Logs()" "Download Detailed Logs()"



USB

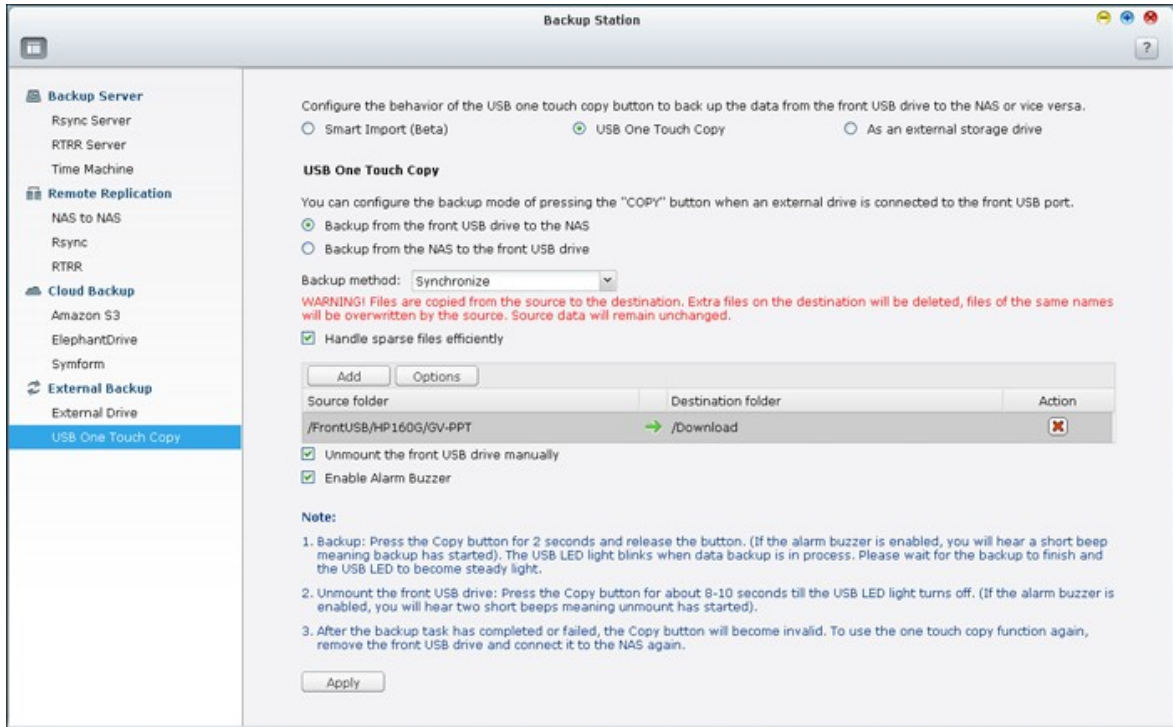
USB NAS , USB
 TS- 809U- RP, TS- 879U- RP, TS- EC879U- RP, TS- 1279U- RP, TS- EC1279U- RP

가 ()
 USB "Copy()"
 NAS 가 . 가
 가 가

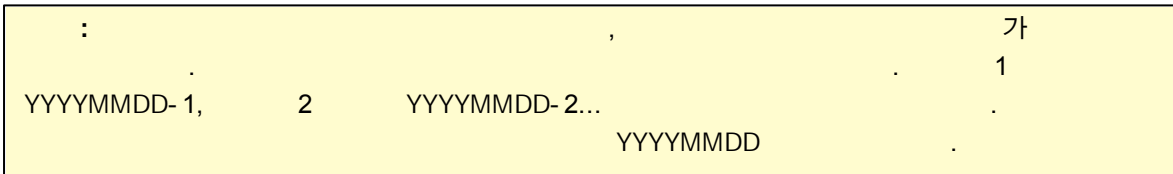


USB One Touch Copy(USB)”

USB



- : USB NAS ,
- :
- A. : 가 가
(YYYYMMDD)
YYYYMMDD- 1, YYYYMMDD- 2...
- B. Copy():
- C. Synchronize():



- Handle sparse files efficiently():
- : 'Add (가)' 9
가
- : Options ()" , SMS, (IM)
- USB : USB LED NAS USB
8- 10
- :
- 1. :
- 2. : USB 가

USB

NAS

USB

USB

NAS

1. 가 NAS Qusb/ Usb가
2. NAS
3. "Backup Station > USB One Touch Copy(USB)"
4. USB NAS USB
5. . NAS 가

: , NAS

! :

가 USB

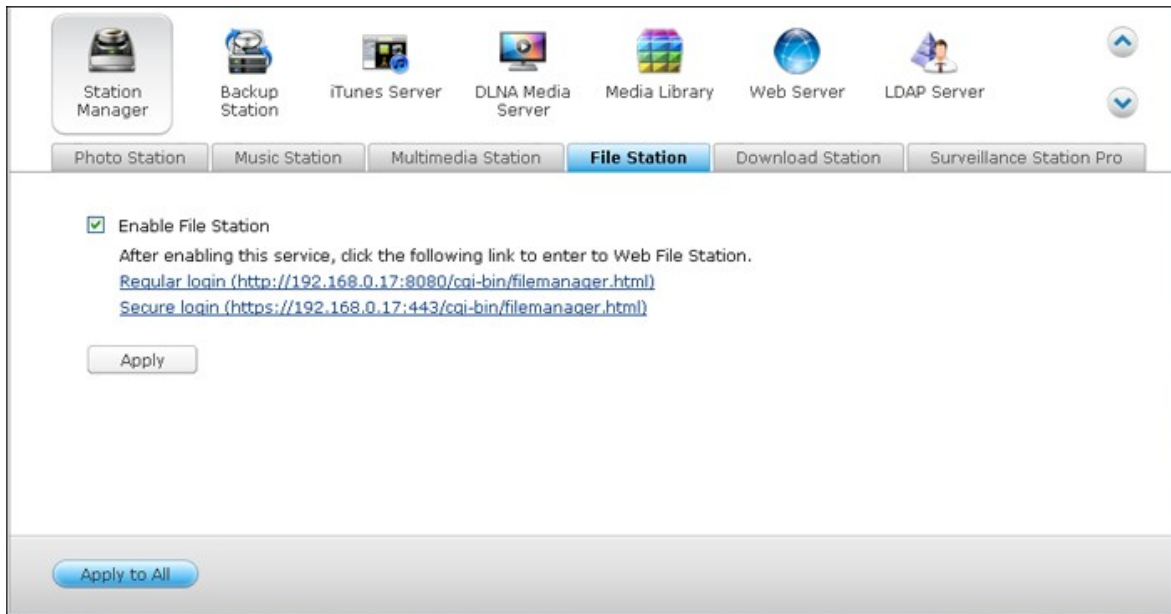


7.3

File Station

NAS

Control Panel()> Applications()> Station Manager()> File Station

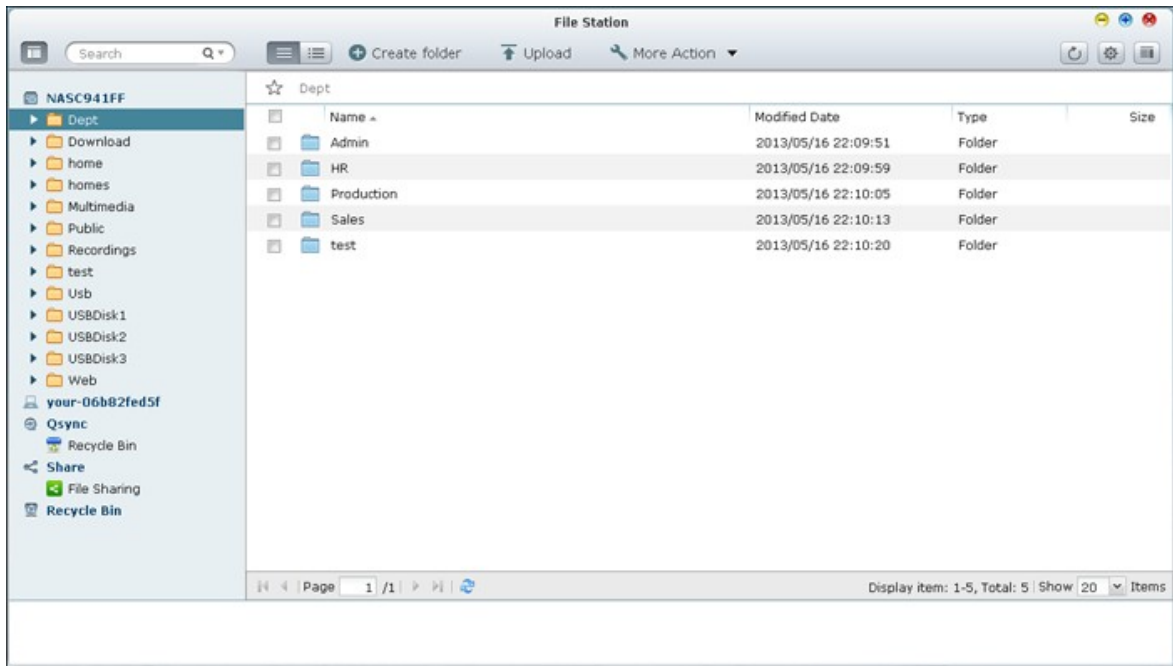


File Station

File Station



NAS

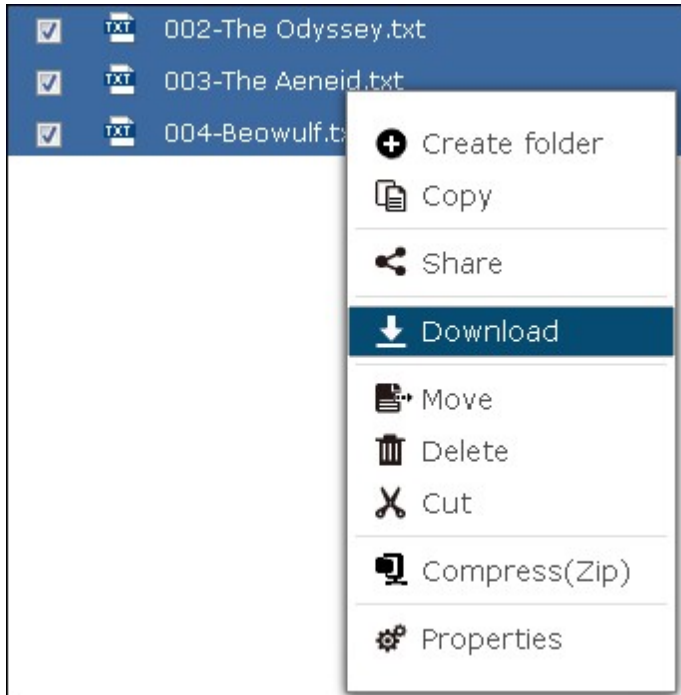


1.

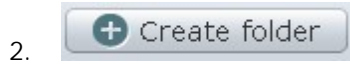
2.

" "

zip



1.

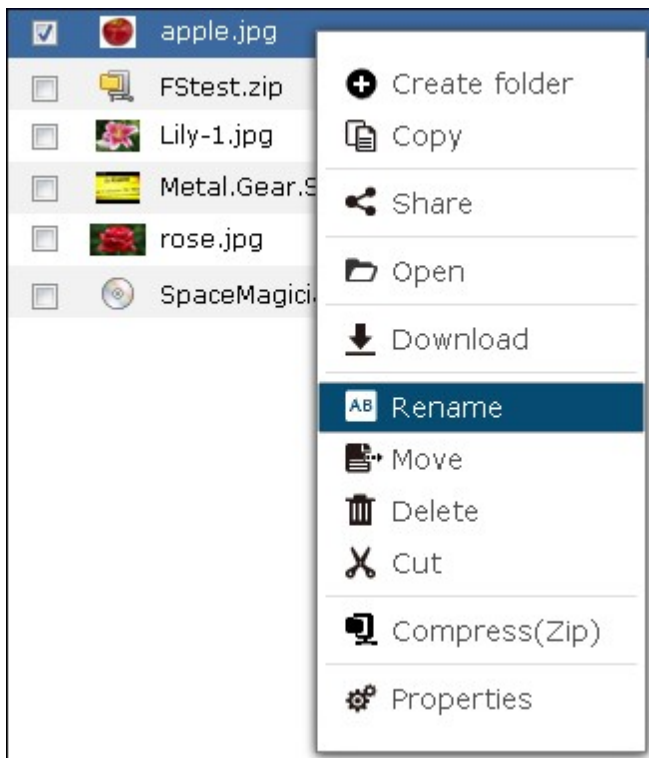


3. "OK()"

:

1.

2. "Rename()"



3. "OK()"

1.

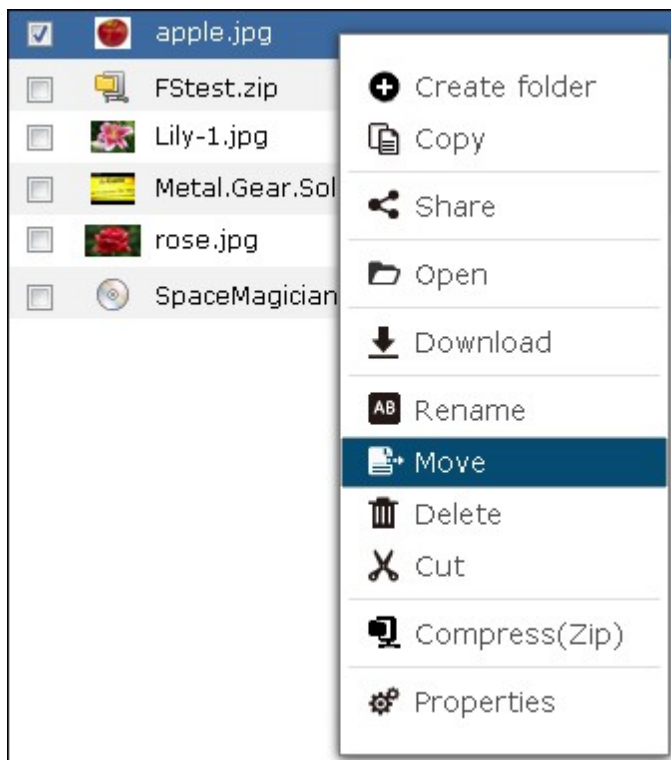


3.



1.

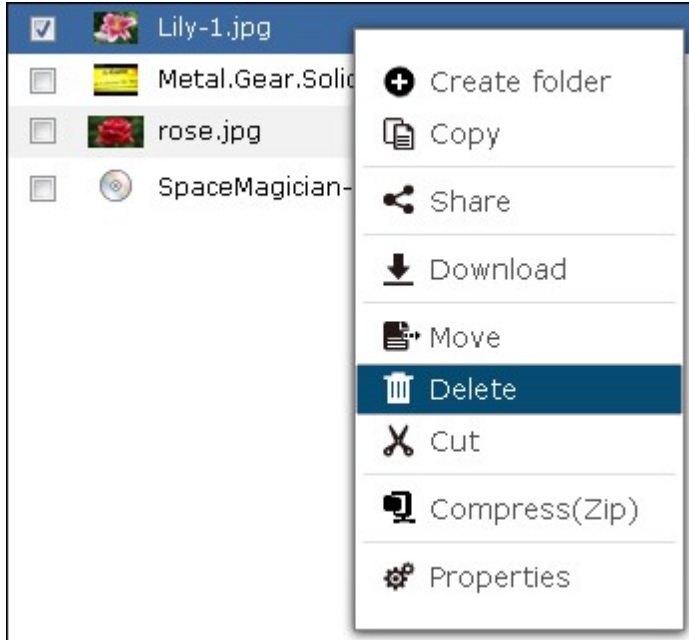
2. **Move()**



3. **OK()**

1.

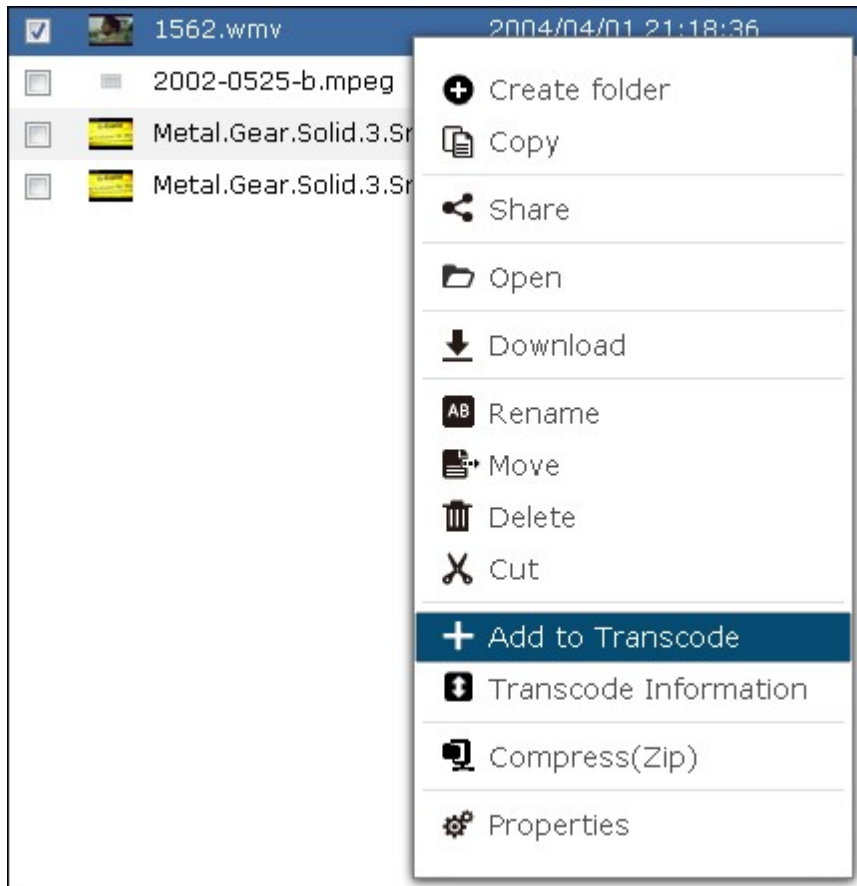
2. Delete()”



3.

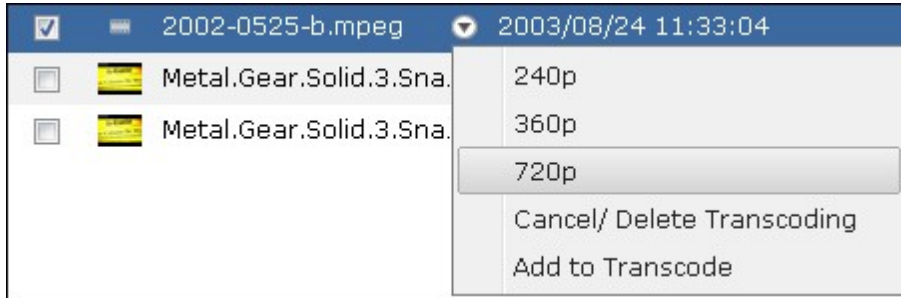
1.

2. Add to Transcode(가) ”



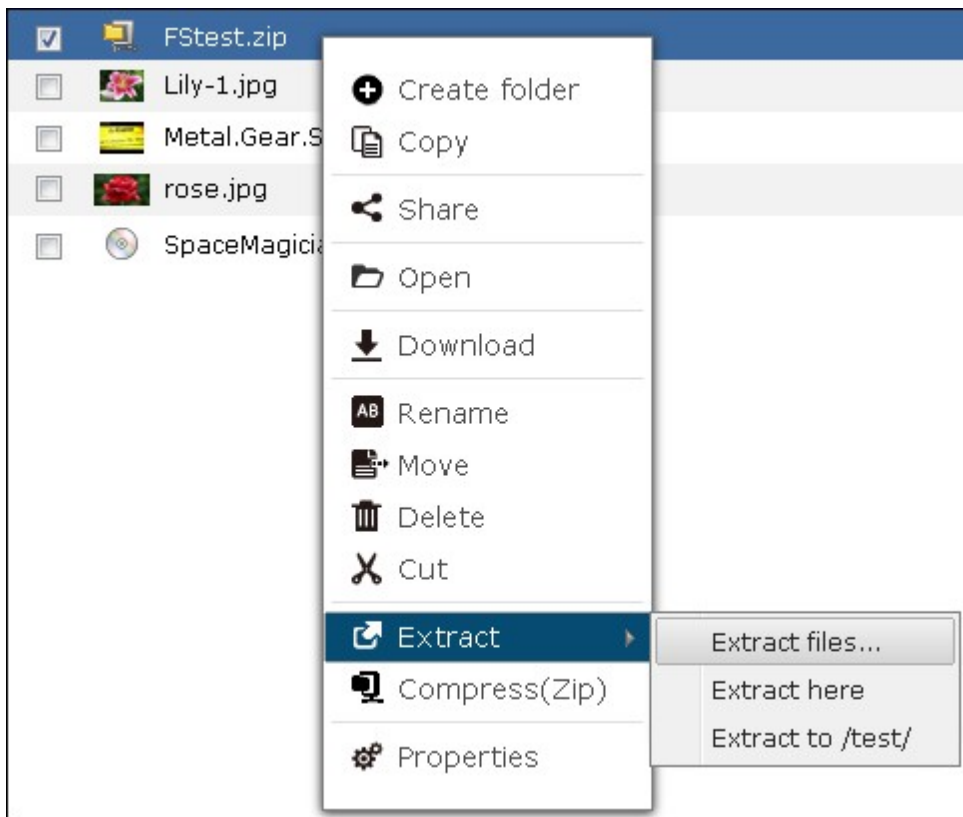
3.

1.

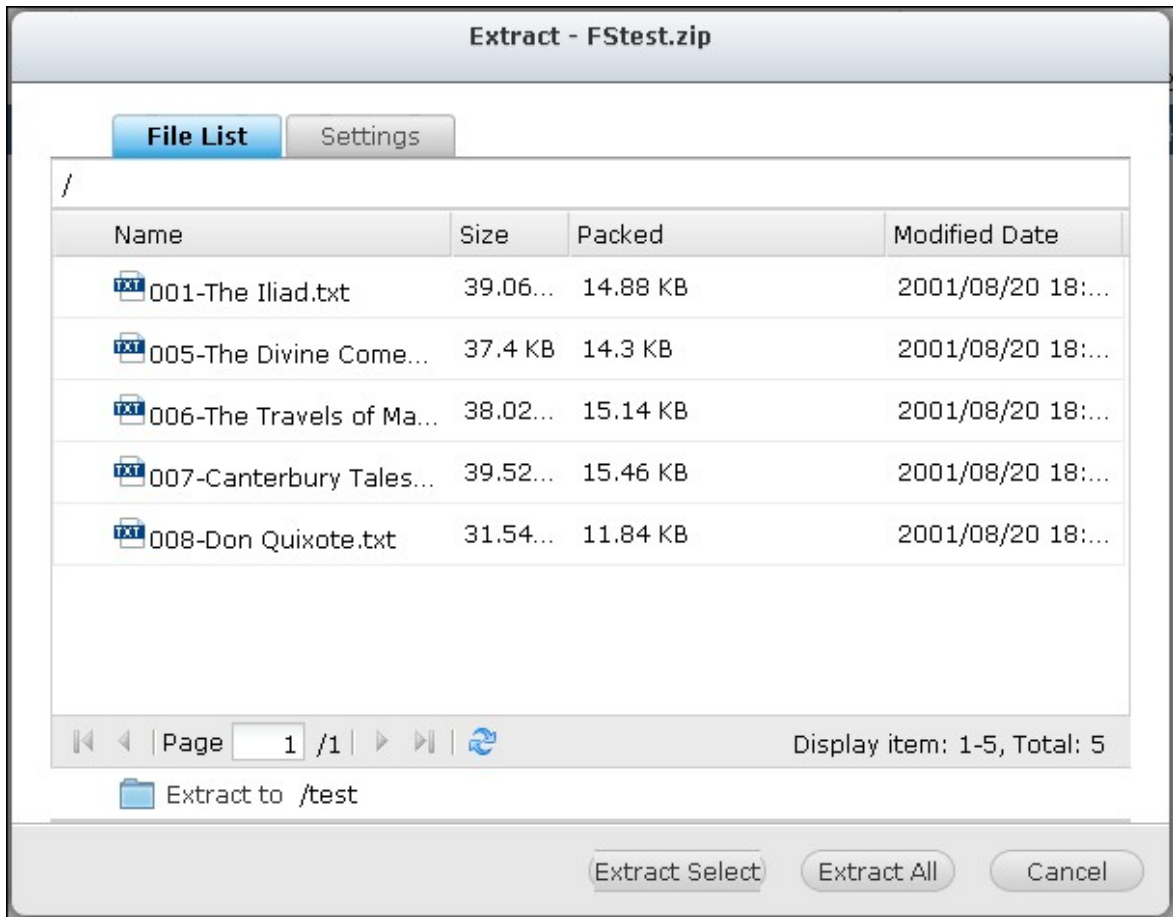


2. QNAP 가

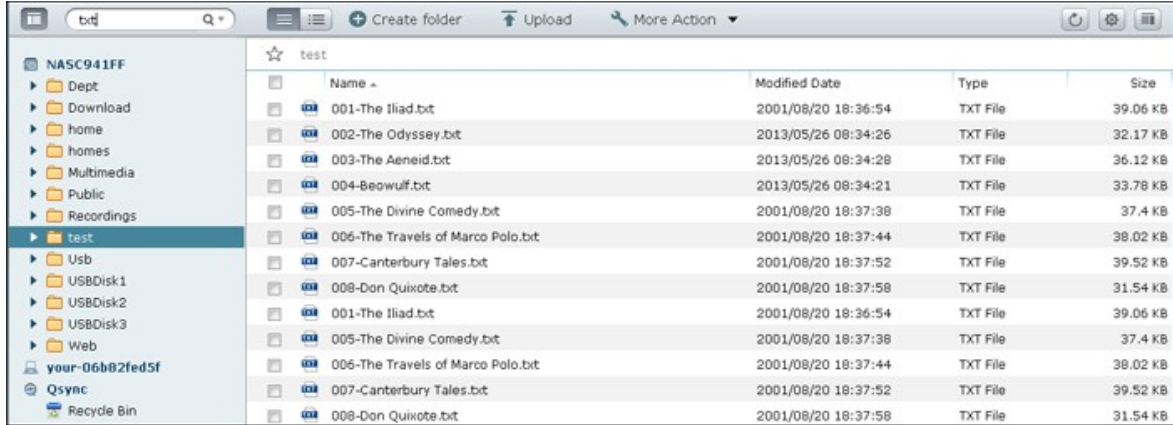
1. NAS , "Extract()"



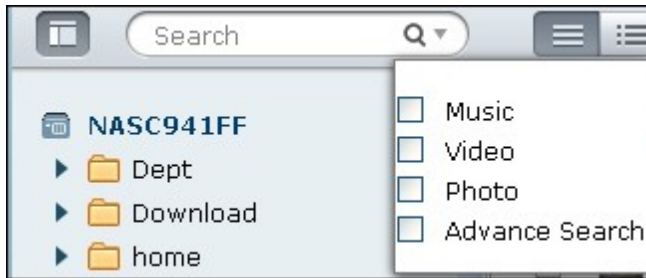
2.



Web File Manager , NAS
 AVI, MP3



가 . Music() ; Video() ;
 Photo() ;
 (:

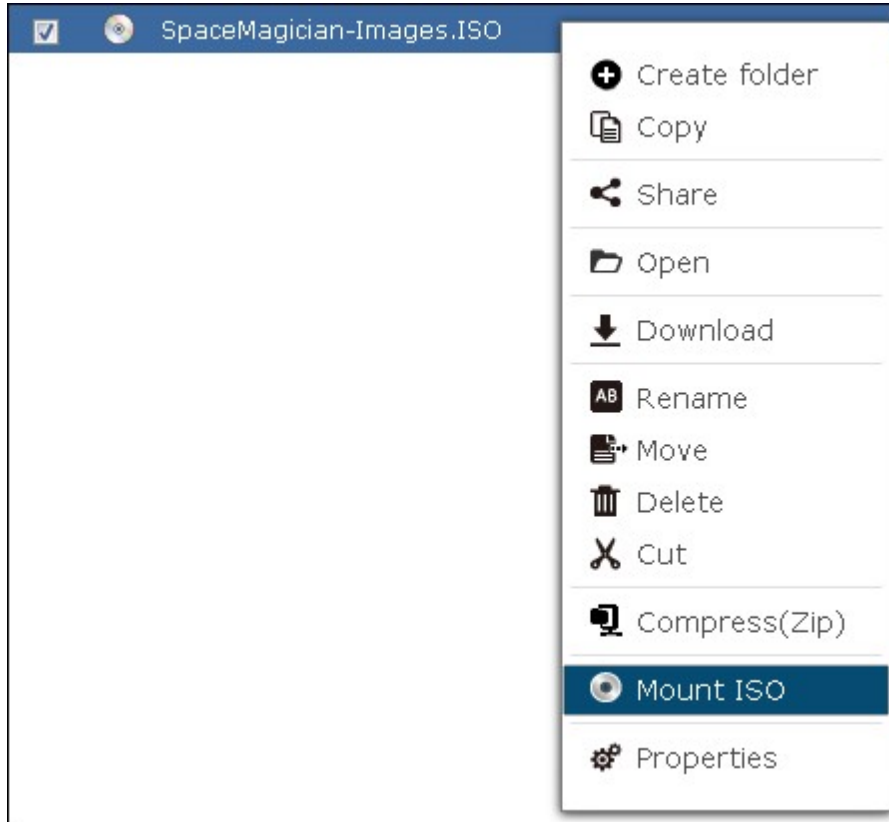


ISO

NAS ISO

NAS ISO

"Mount ISO(ISO)"



"OK()"



OK()"

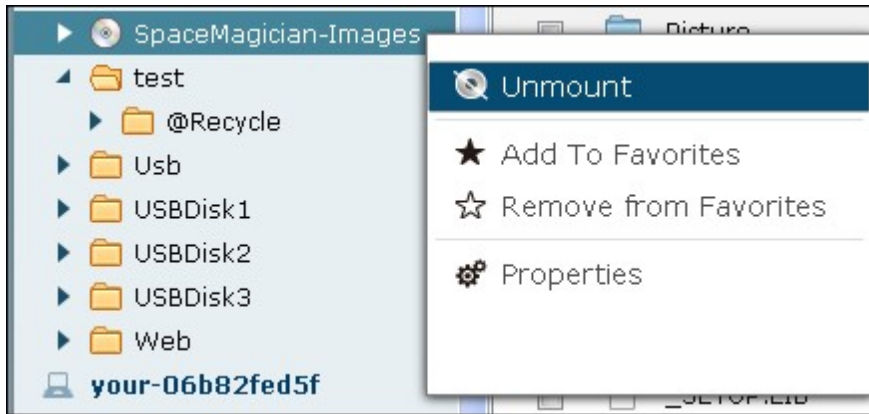


ISO 가 . ISO . NAS
 Privilege Settings()> Share Folders()”



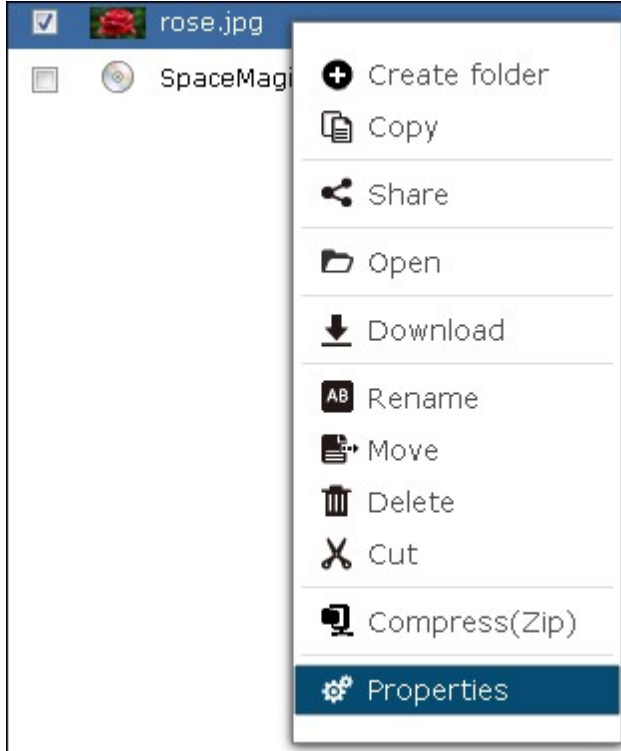
"Unmount()"

. "Yes()"



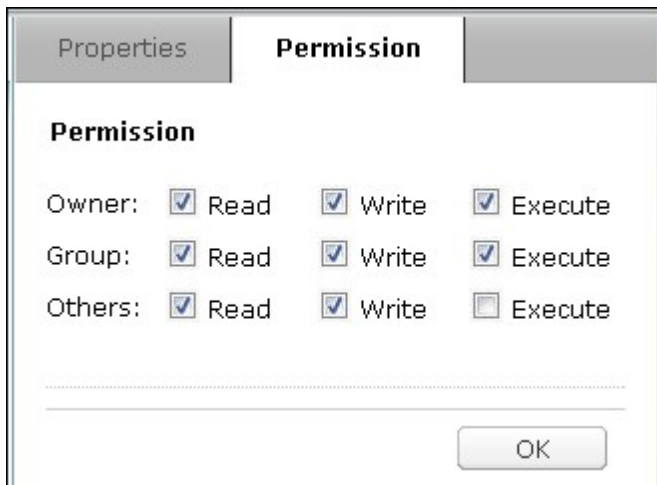
/

File Station NAS
"Properties()"



Privilege Settings()"> Shared Folder()"> Advanced Permissions()
Owner(), Group() Others()
Read(), Write() Execute()

- Owner(): 가 ()
- Group():
- Others():

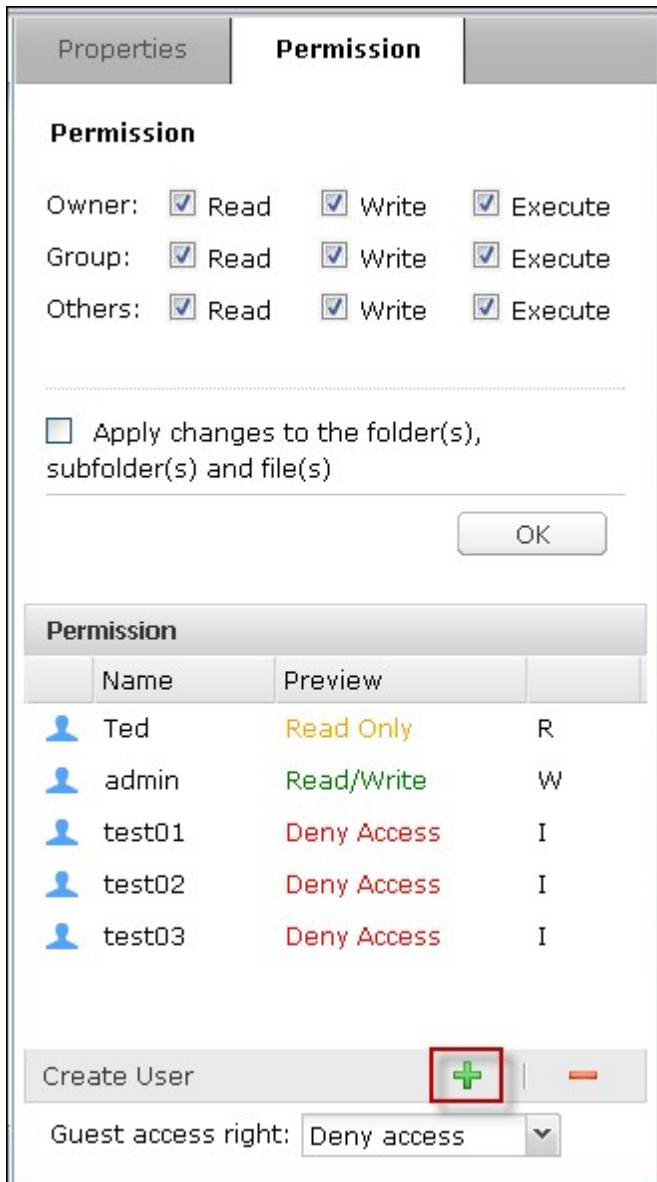


"Apply changes to folder(s), subfolder(s) and file(s) (, ,)" . "OK()"



"Enable Advanced Folder Permissions()")"> 'Shared Folder()"> 'Advanced Permissions(

'Privilege Settings()" . + .



Read() Write()

. 'Add(가)'

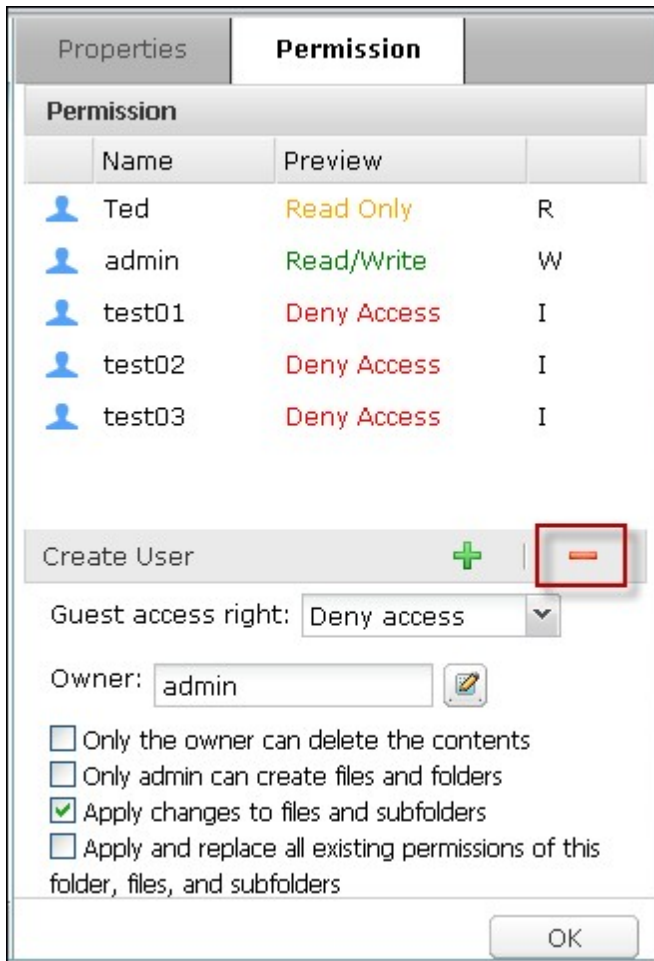
Select users and groups

Local Users

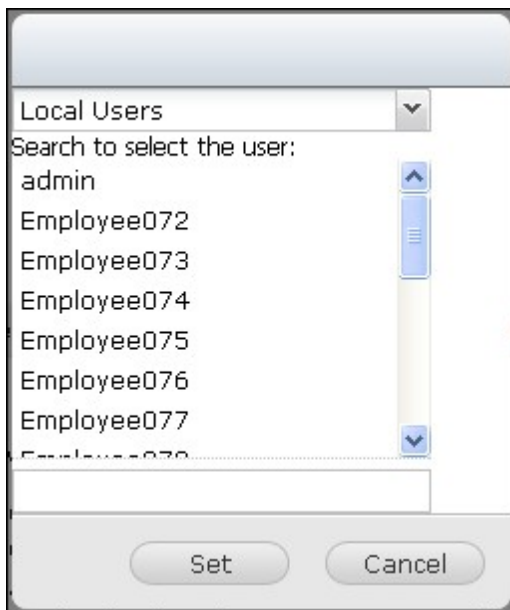
Name	Preview	RO	RW	Deny
Employee072	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee073	Read/Write	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Employee074	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee075	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee076	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee077	Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee078	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee079	Read/Write	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Employee080	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Employee081	Deny Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 / 4 | Display item: 1-79, Total: 79

Add Cancel

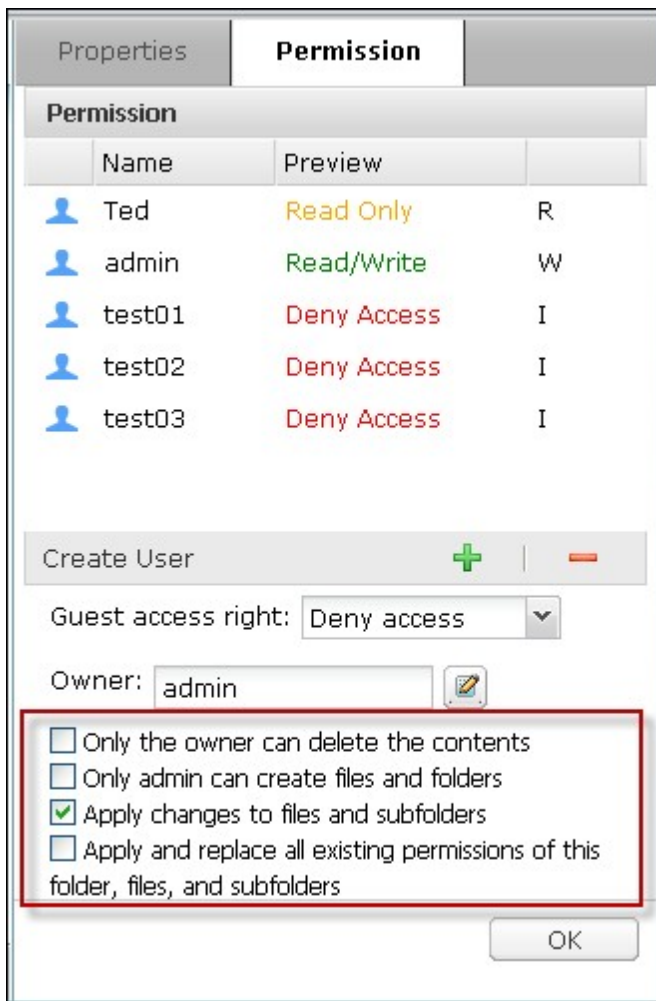


"Set()"



Privilege Settings() "> Shared Folders()"

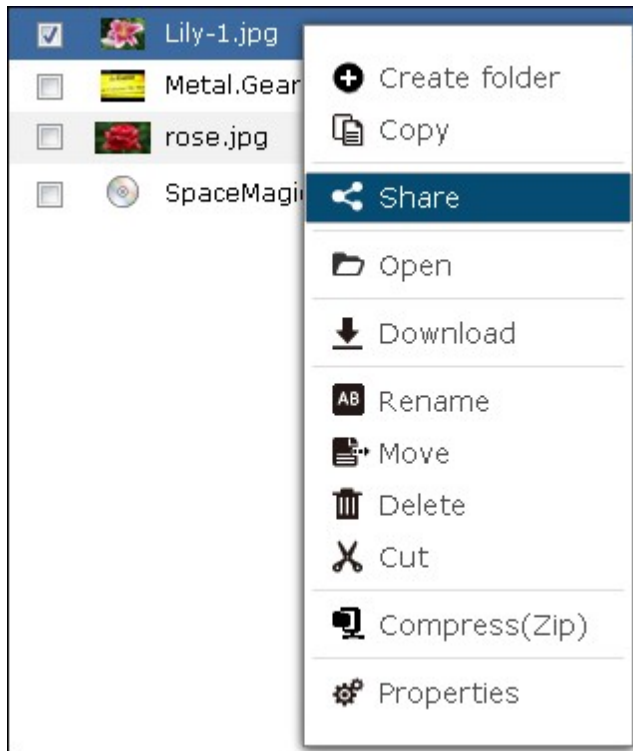
- Only the owner can delete the contents ():
- Only admin can create files and folders ():
- Apply changes to files and subfolders ():
 . "Only the owner can delete the contents ()"
- Apply and replace all existing permissions of this folder, files, and subfolders (, ,):
 . "Only the owner can delete the contents ()"



File Station

NAS

Share()”



: admin

NAS IP

. SSL

()

().

Create Download Links

Domain name/IP: ▾

Create the link(s) in SSL (https://)

Expiration:

Expire in: ▾ Day(s) ▾ Hour(s)

Valid until: 📅 ▾ : ▾

Always valid

Password protection (optional):

Share the download links through email:

) " , Share the download links through email(. Create() " .

Create Download Links

Domain name/IP:

Create the link(s) in SSL (https://)

Expiration: Expire in: Day(s) Hour(s)

Valid until: :

Always valid

Password protection (optional):

Share the download links through email:

To:

Subject:

Content:

Include the password

***Note:** Separate the email addresses by comma (,) or a semi-colon (;). Up to 5 email addresses can be sent.

: , 'System Settings()'> Notification()> 'SMTP Server(SMTP)' "

Start Sharing()"

Sharing Links

1. /Multimedia/Samples/sample007.jpg
http://10.8.12.148:8080/share.cgi?ssid=0bcgYoO

Period of validity: 09/18/2013 23:26

[Use local computer to mail the link\(s\).](#)

Start sharing

Cancel

: 1,000 .

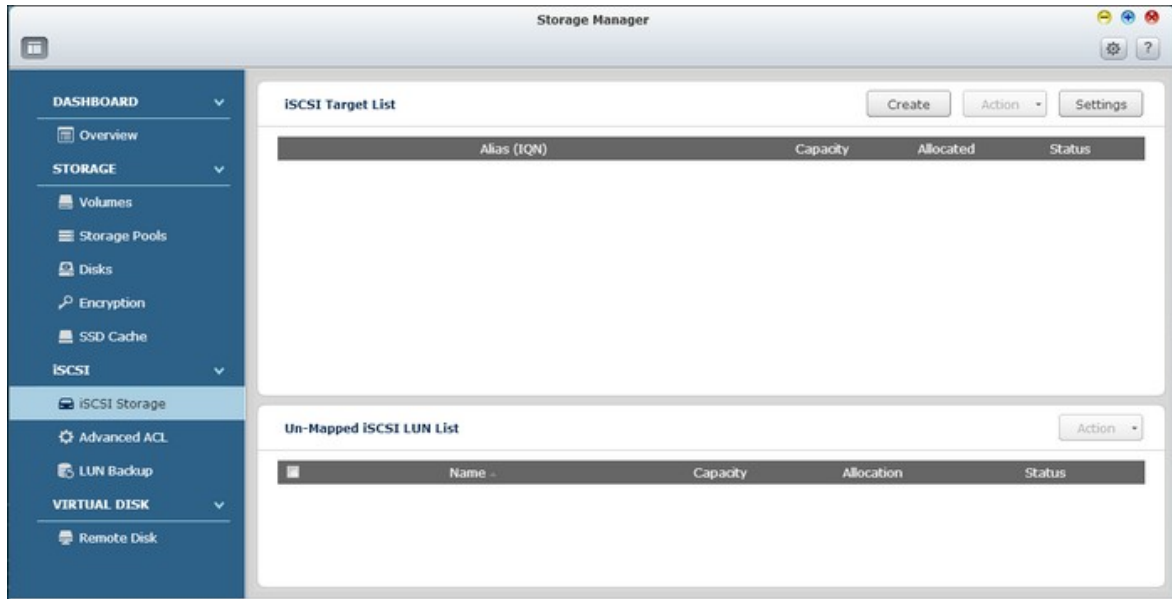
7.4 iSCSI

NAS Interface) 가 iSCSI(Internet Small Computer System Interface) .

iSCSI , iSCSI , iSNS

/ iSCSI LUN . iSCSI LUN . NAS

iSCSI LUN . iSCSI LUN



: 가 QNAP

iSCSI

NAS iSCSI

1. iSCSI (Windows PC, Mac Linux)
 2. NAS iSCSI
 3. iSCSI NAS iSCSI
 4. iSCSI () NAS
- 가

iSCSI LUN (Logical Unit Number) iSCSI LUN

가 LUN LUN.

LUN LUN , LUN NAS

Quick Configuration Wizard

Create New iSCSI Target

iSCSI Target Profile

Target Name:

iSCSI Target IQN: iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0

Target Alias:

CRC/Checksum (optional)

Data Digest

Header Digest

Step 3/10 Back **Next** Cancel

5. CHAP (CHAP)” Next()” . Use CHAP authentication iSCSI . iSCSI Mutual CHAP(CHAP) ” . Mutual CHAP(CHAP) ”

CHAP	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • : 256 	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • : 12- 16
CHAP	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • . (), . (), - () • : 12- 16 	<ul style="list-style-type: none"> • 0- 9, a- z, A- Z • . (), . (), - () • : 12- 16

Quick Configuration Wizard

CHAP Authentication Settings

Use CHAP authentication

Username:

Password:

Re-enter Password:

Mutual CHAP

Username:

Password:

Re-enter Password:

Step 4/10

6. LUN (NAS), LUN, LUN . Next()” .

Quick Configuration Wizard

Create an iSCSI LUN

LUN Type Block-based i File-based

LUN Allocation: Thin Provisioning i Instant Allocation

LUN Name:

LUN Location: ▾

Free Size: 1.78 TB

Capacity: GB ▾

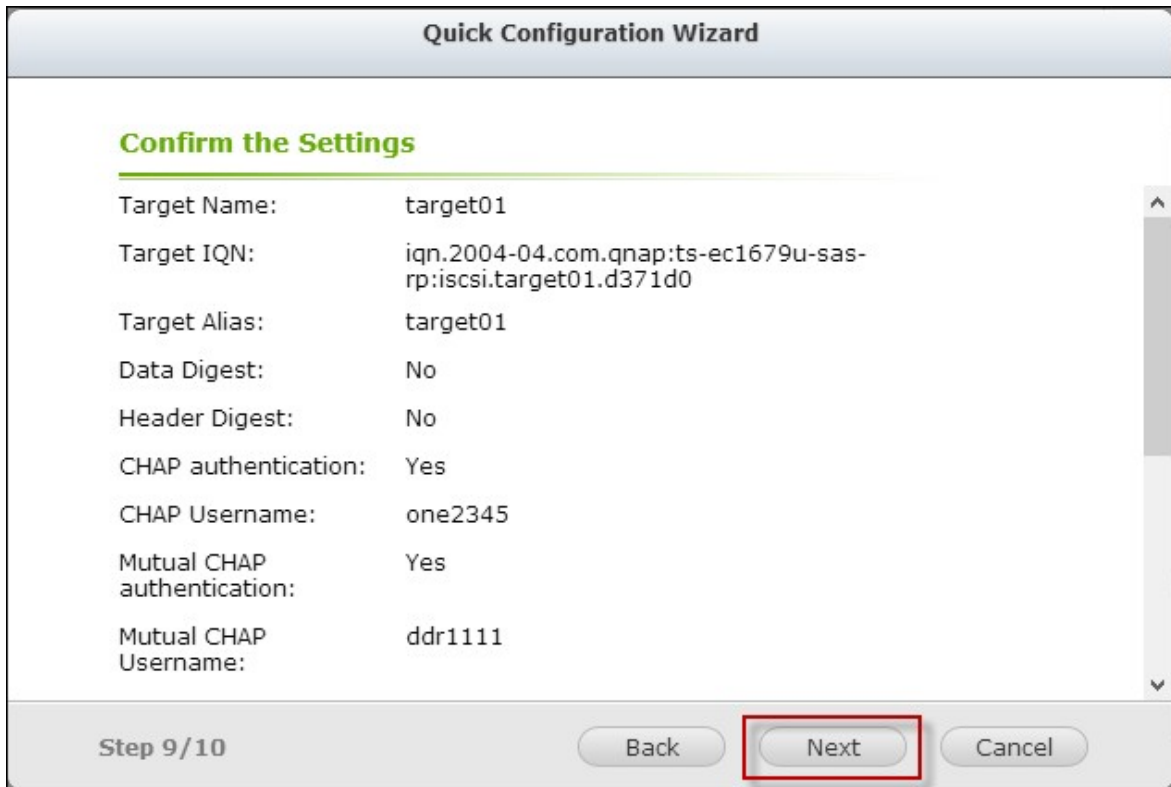
Alert threshold: 80 %

4K bytes Sector Size

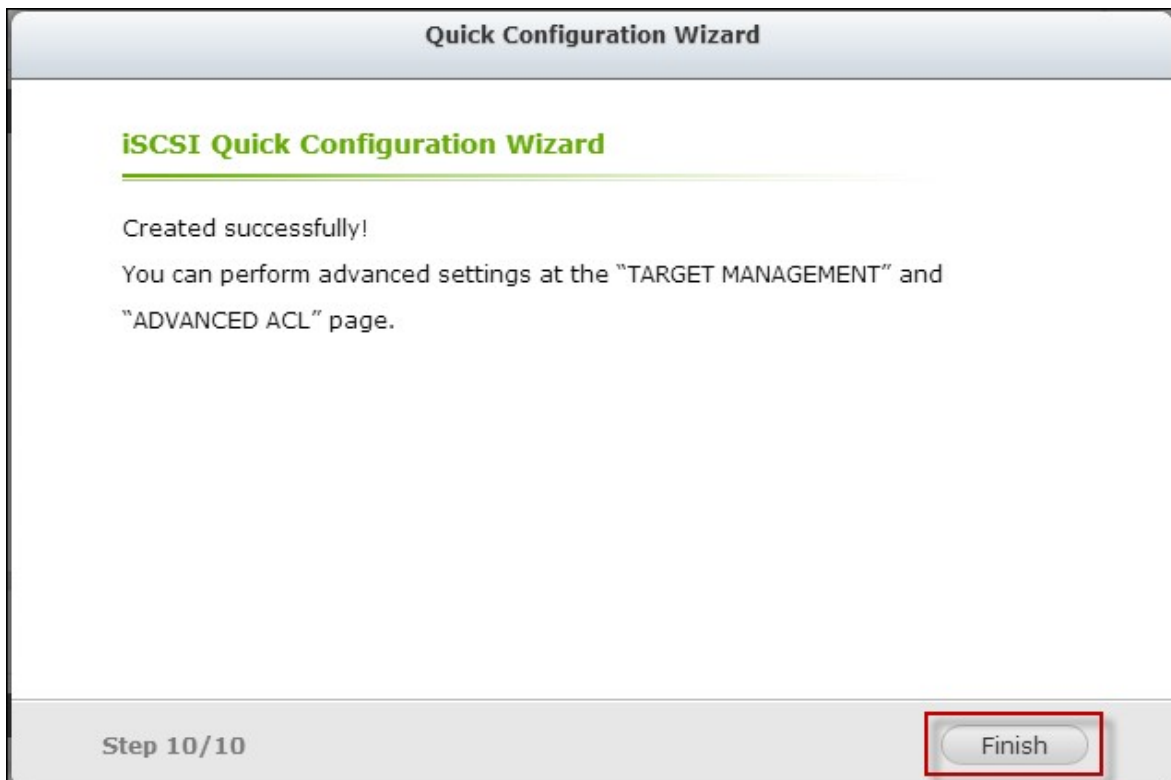
SSD Cache

Step 5/10

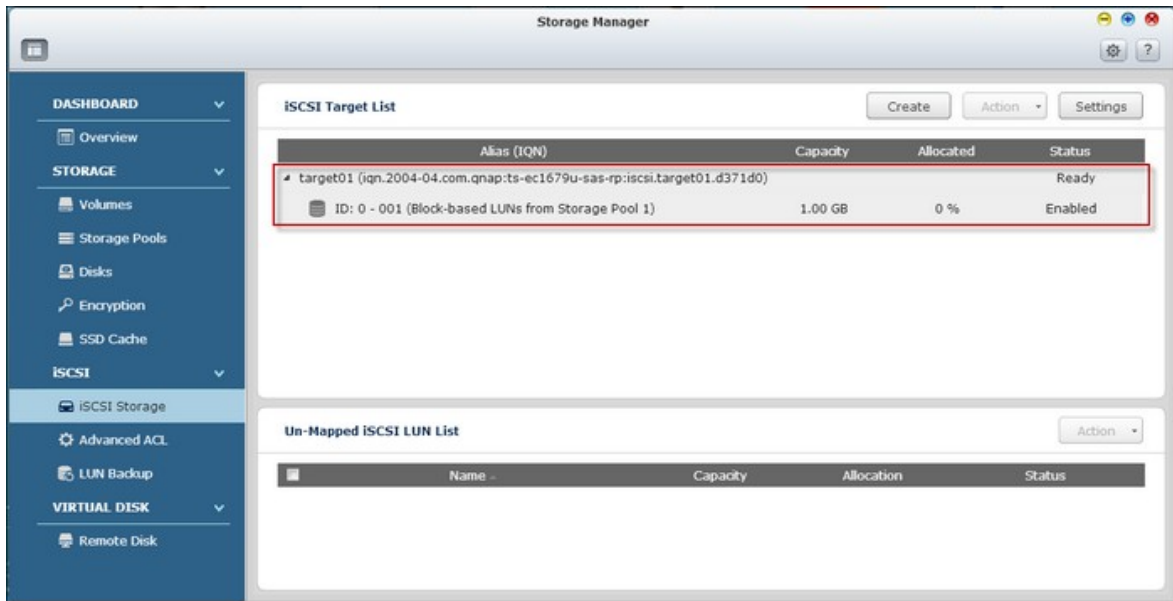
7. Next()” .



8. Finish()”



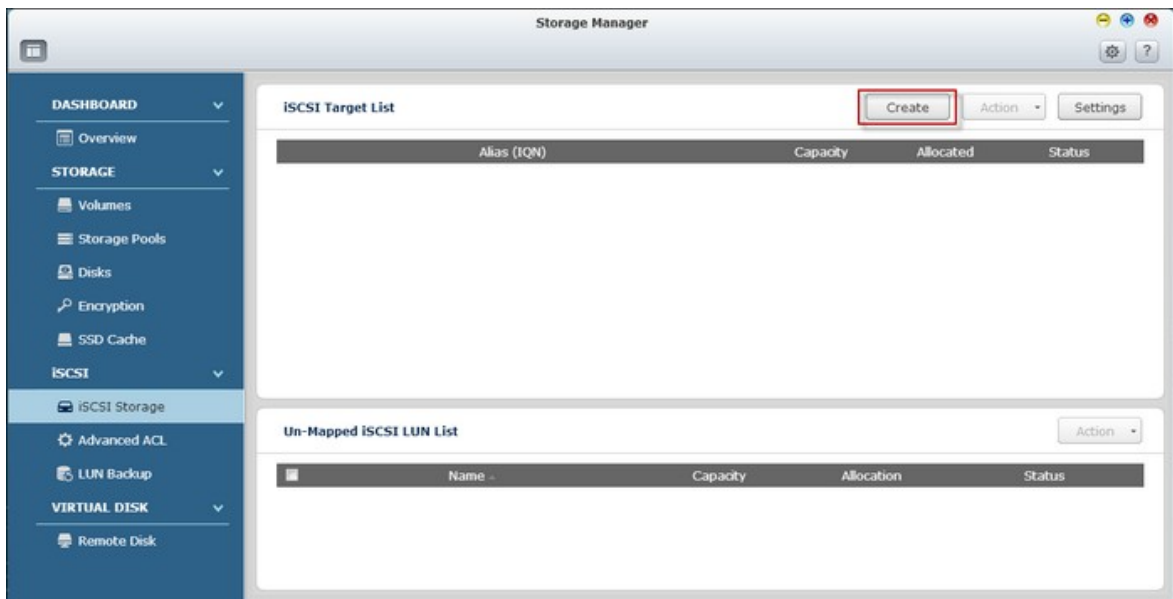
9. LUN



iSCSI

iSCSI

1. 'Create()' "



2. 'iSCSI Target only(iSCSI)' " Next()' "

- Use CHAP authentication(CHAP)” / Mutual CHAP(CHAP) ”
 Next()” . Use CHAP authentication
 (CHAP)” iSCSI . iSCSI
 Mutual CHAP(CHAP) ” . Mutual CHAP(
 CHAP) ”

Quick Configuration Wizard

CHAP Authentication Settings

Use CHAP authentication

Username:

Password:

Re-enter Password:

Mutual CHAP

Username:

Password:

Re-enter Password:

Step 4/10

- Next()”

Quick Configuration Wizard

Confirm the Settings

Target Name:	allen
Target IQN:	iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0
Target Alias:	allen
Data Digest:	Yes
Header Digest:	Yes
CHAP authentication:	Yes
CHAP Username:	one11111
Mutual CHAP authentication:	Yes
Mutual CHAP Username:	ddr1111

Step 7/10

6. Finish()”

Quick Configuration Wizard

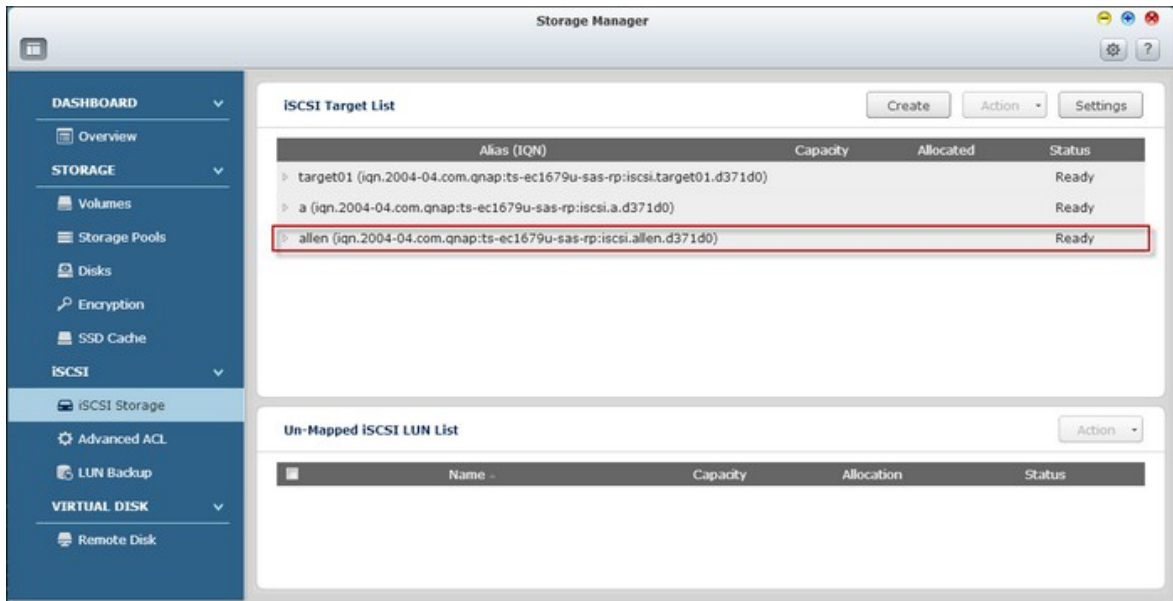
iSCSI Quick Configuration Wizard

Created successfully!

You can perform advanced settings at the "TARGET MANAGEMENT" and "ADVANCED ACL" page.

Step 10/10

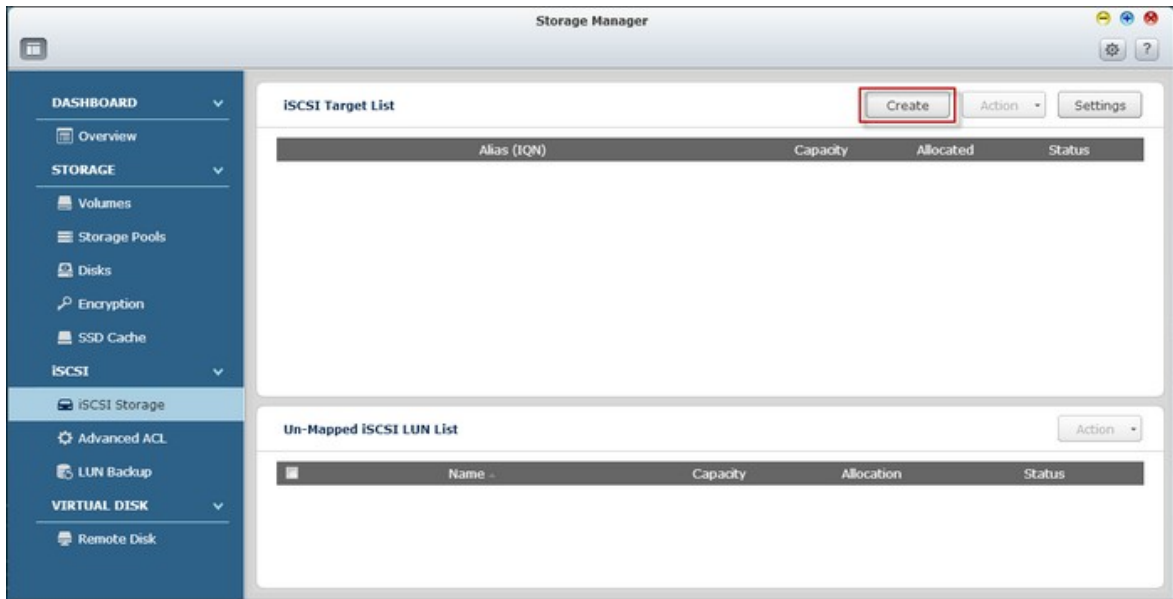
7.



iSCSI LUN

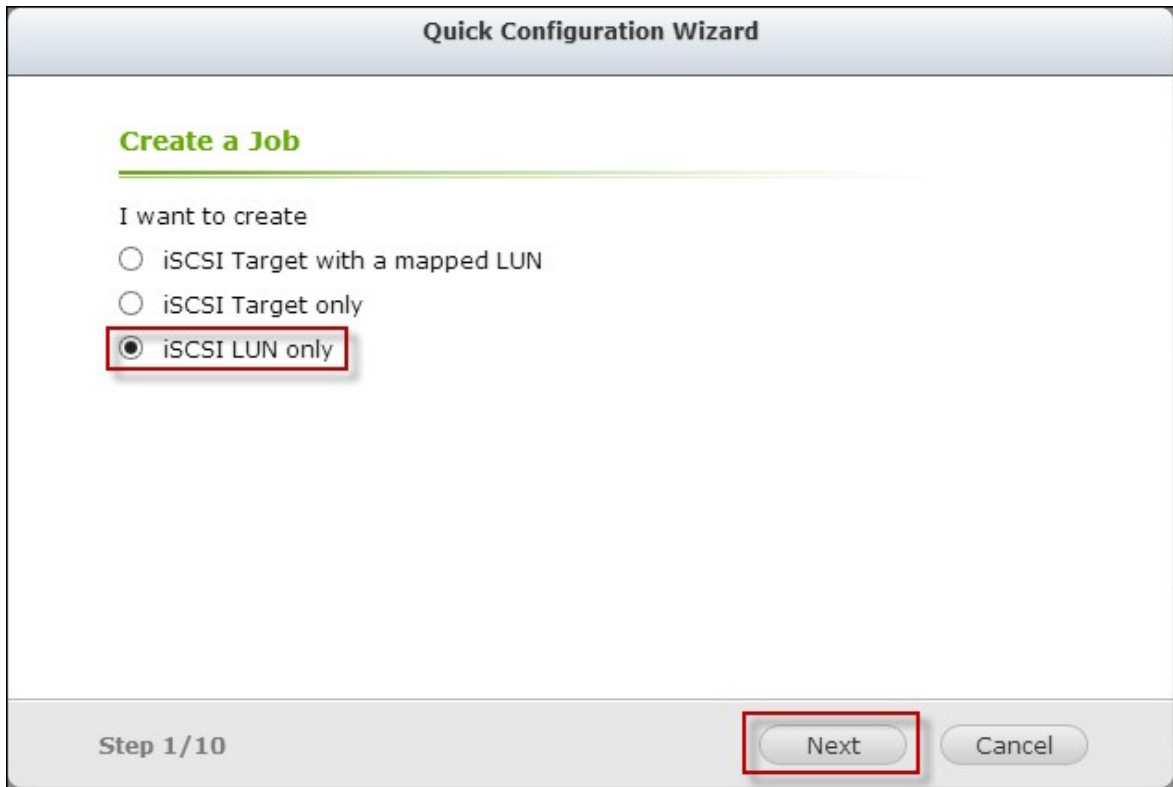
iSCSI LUN

1. Create()”

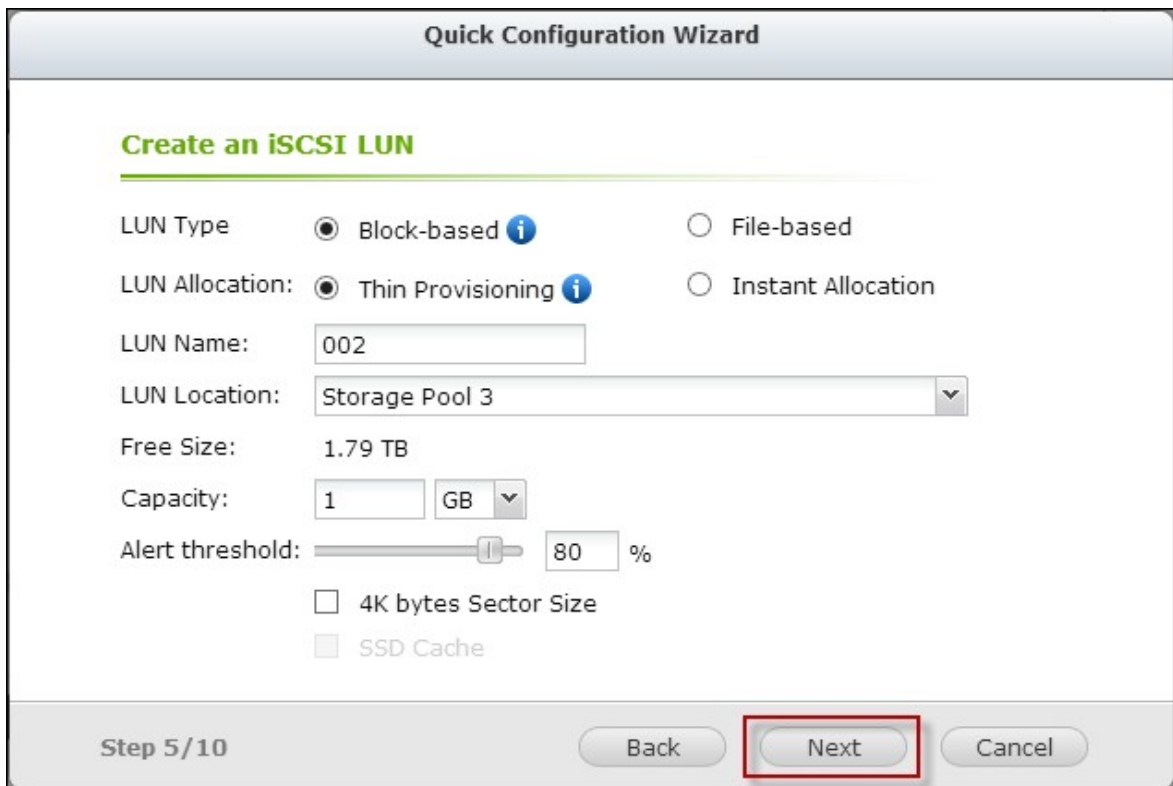


2. iSCSI LUN only(iSCSI LUN)”

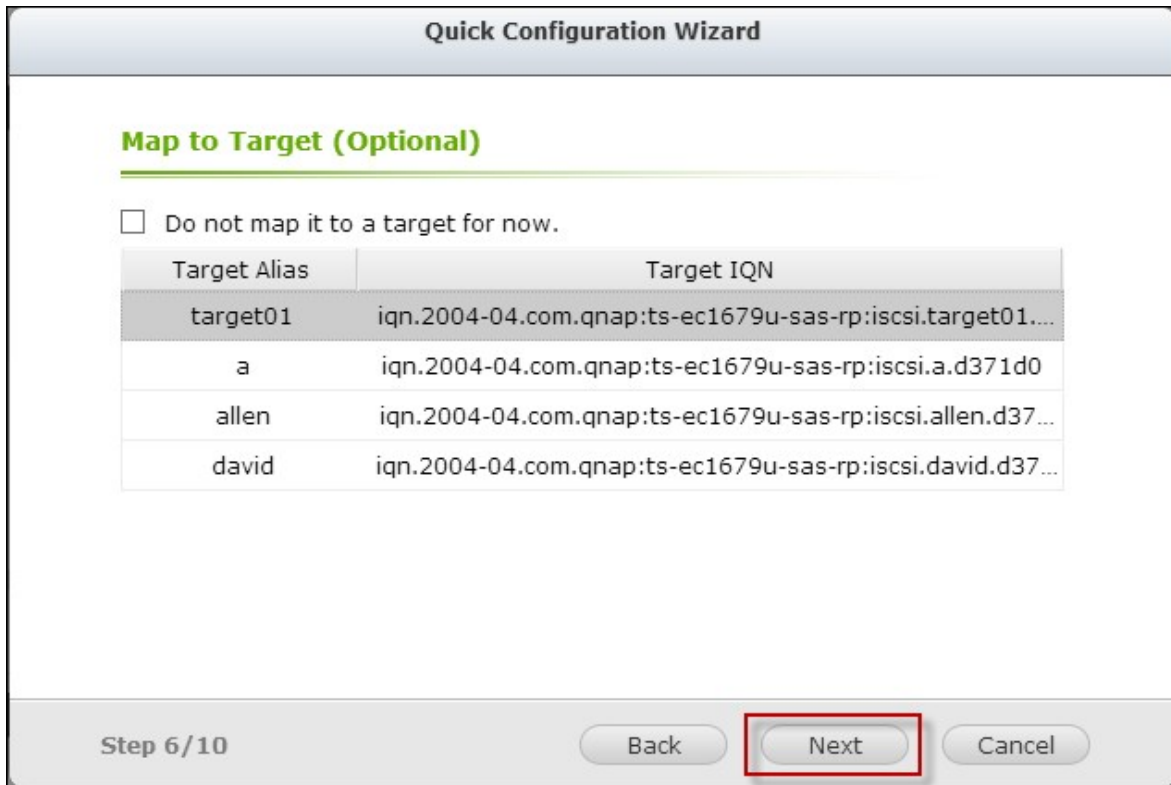
Next()”



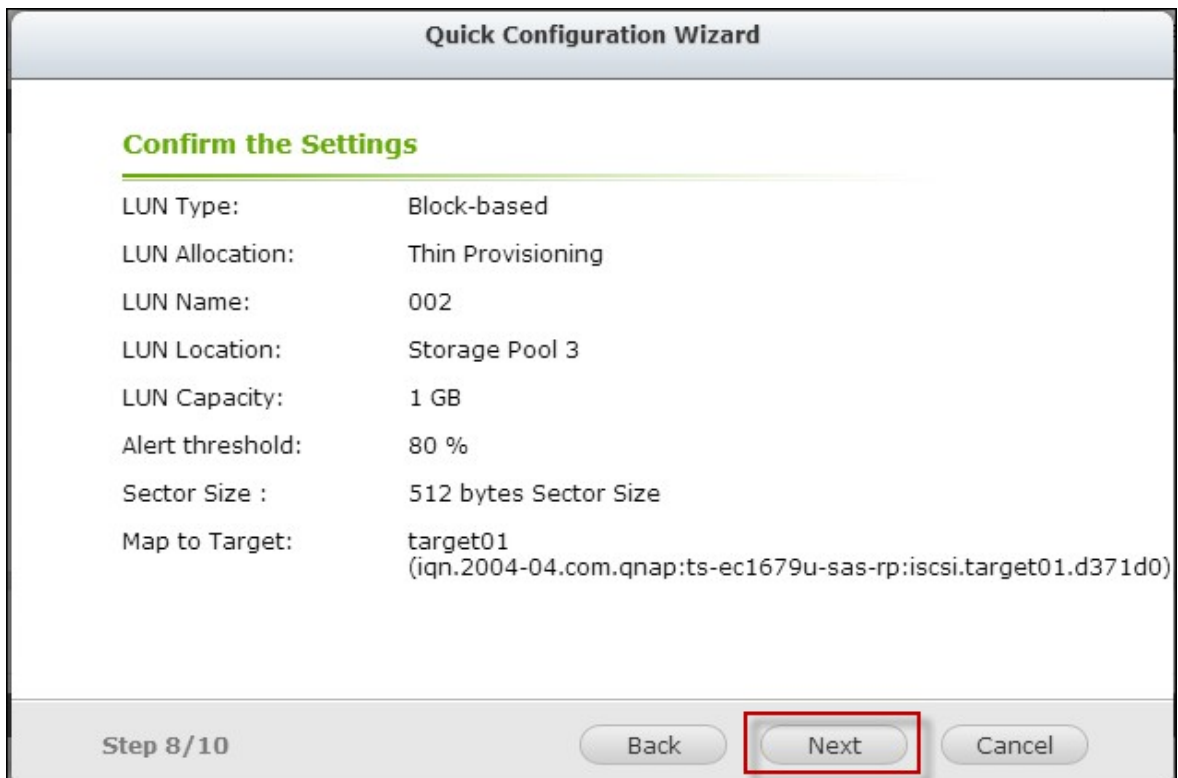
3. LUN (NAS), LUN, LUN . Next()” .



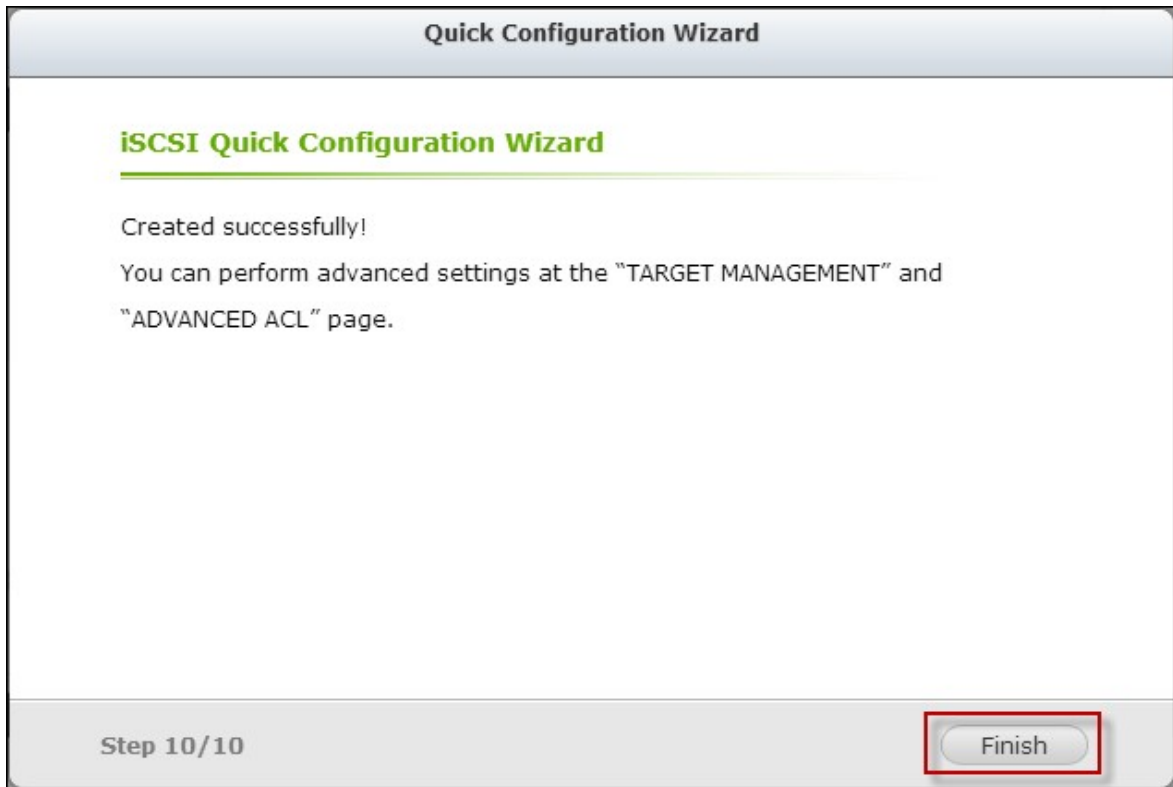
4. Next()” .



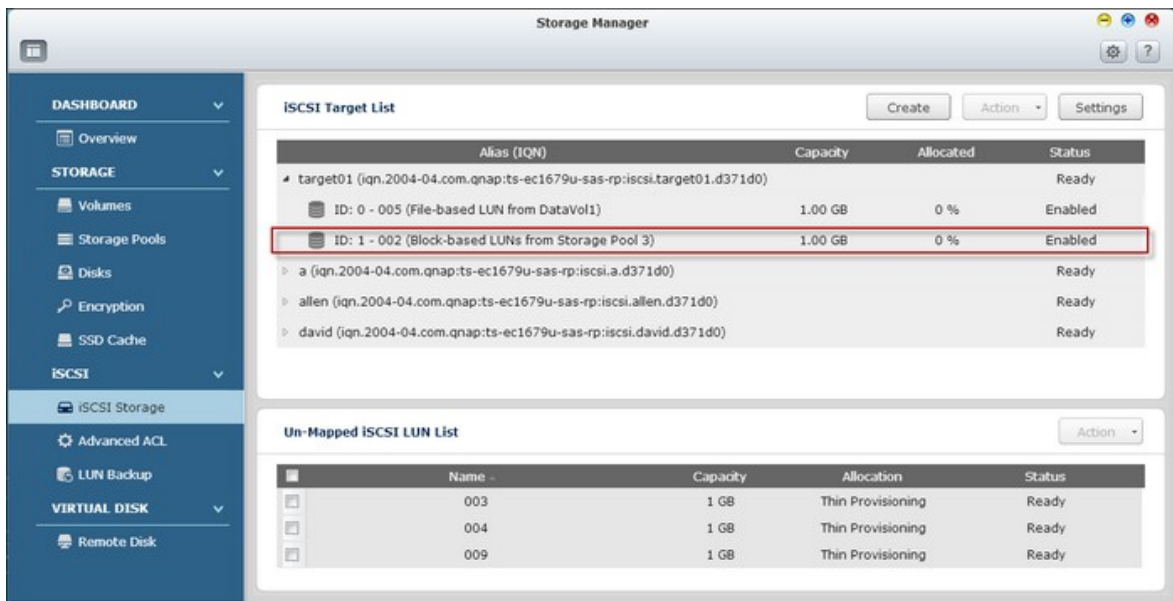
5. Next()”



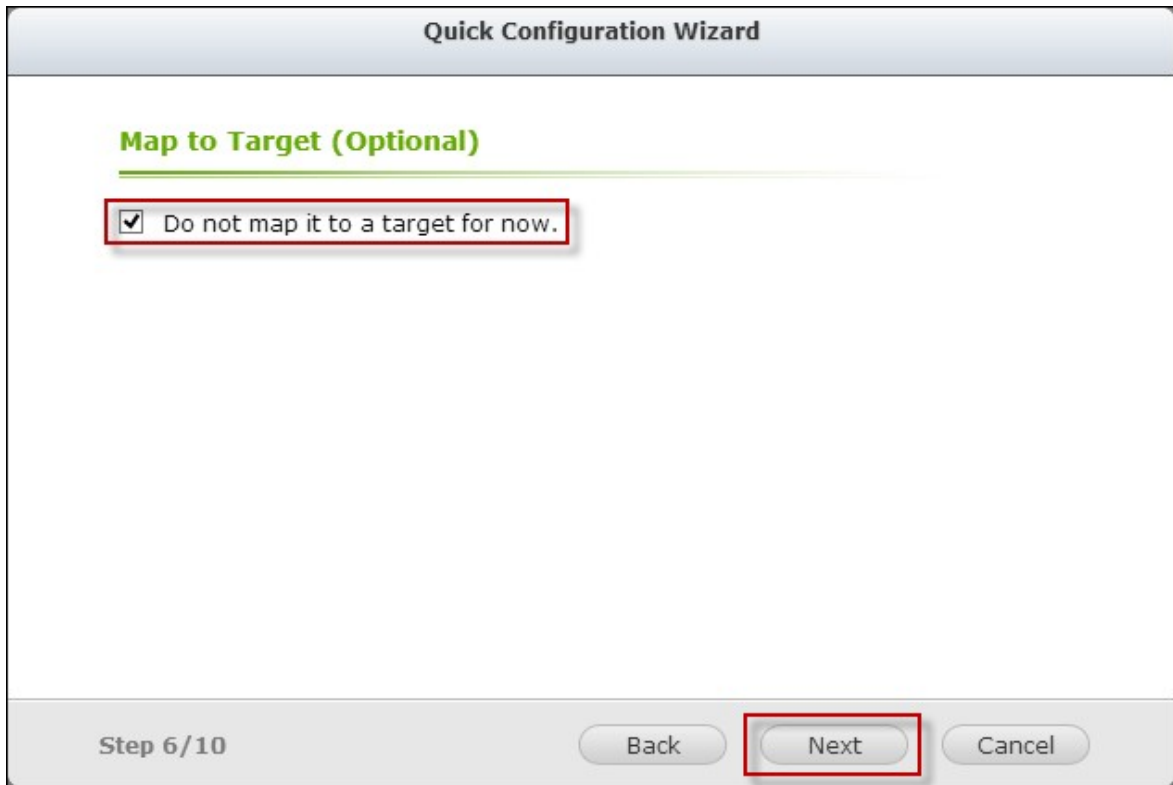
6. Finish()”



7. LUN 4

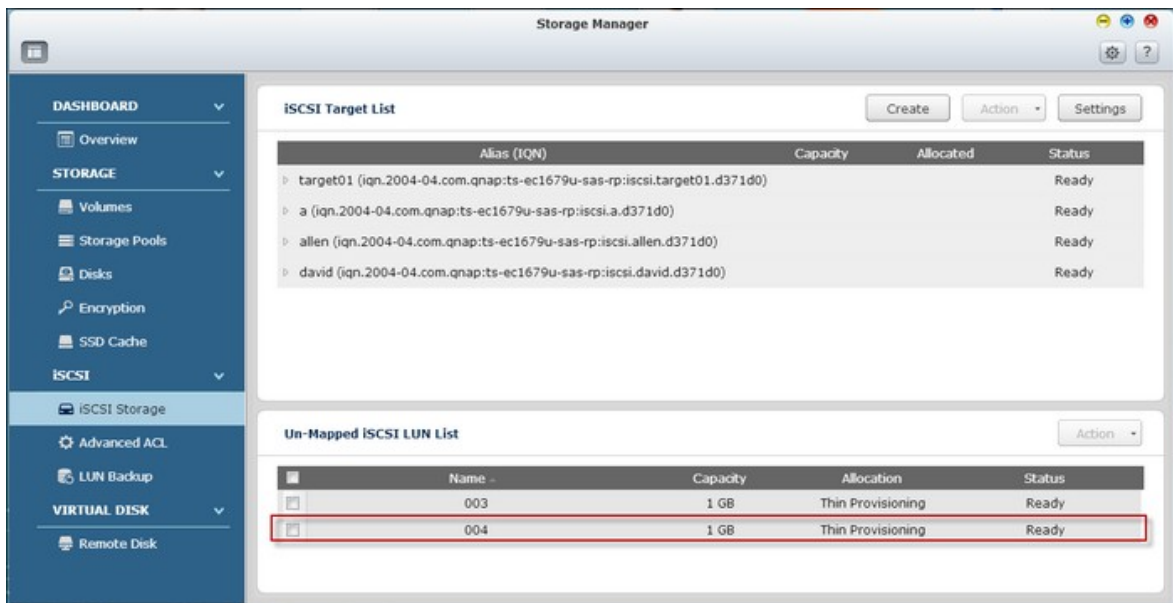


iSCSI LUN 4 Do not map it to a target for now()”



LUN

iSCSI LUN



iSCSI

LUN

iSCSI		iSCSI 가
		iSCSI

		iSCSI
		iSCSI
LUN		LUN
		LUN

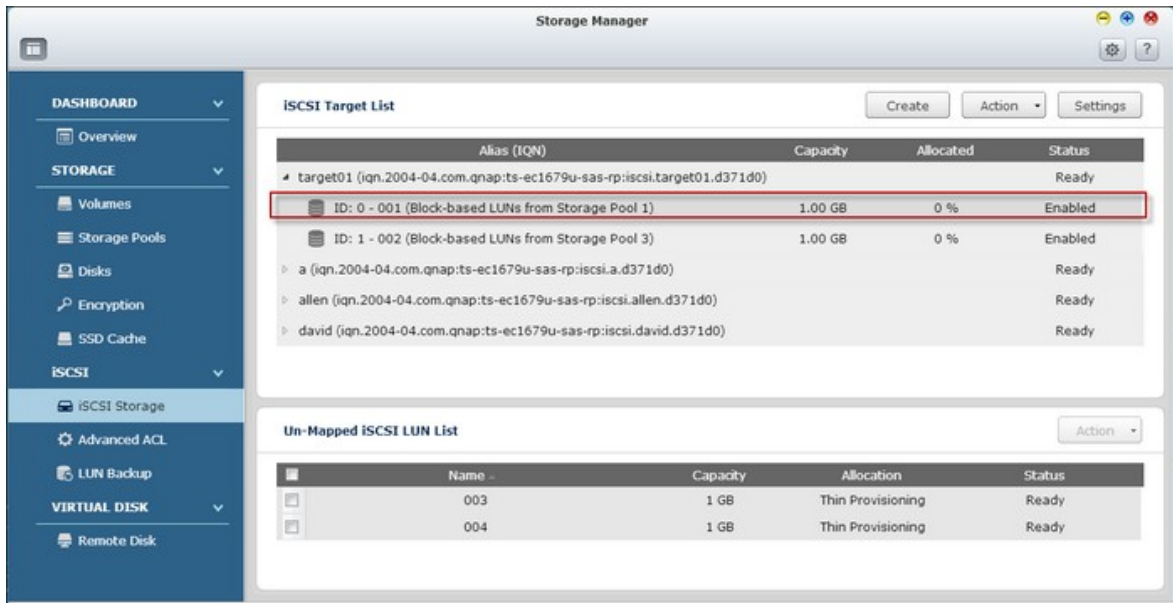
iSCSI LUN 가 ('Action()")

	, CHAP LUN LUN , ,
Delete()	iSCSI
	LUN
	LUN
	LUN LUN iSCSI LUN LUN
	LUN iSCSI iSCSI LUN
	iSCSI

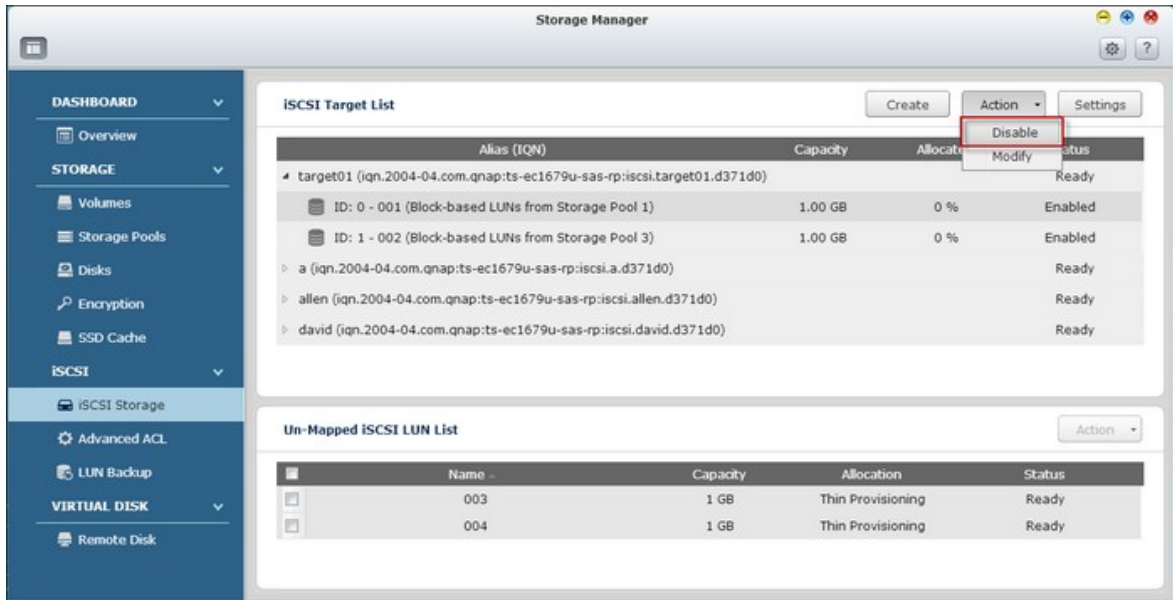
iSCSI LUN

iSCSI LUN

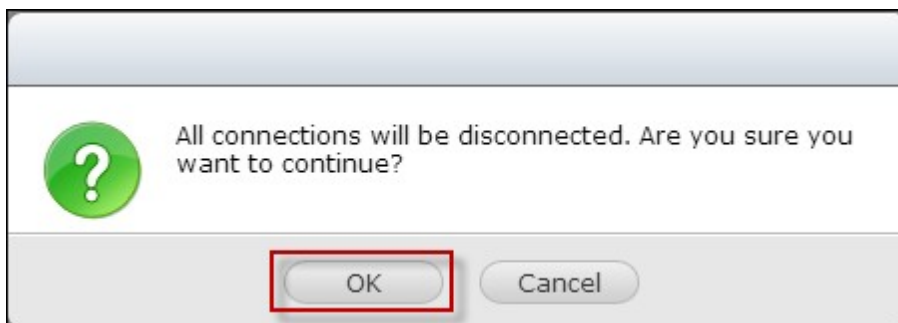
- 1. iSCSI iSCSI LUN



2. 'Action()' > 'Disable()'



3. 'OK()'



4. 'Action()' > 'Un-map()' LUN . LUN
iSCSI LUN .

Storage Manager

DASHBOARD Overview STORAGE VOLUMES Storage Pools DISKS Encryption SSD Cache ISCSI iSCSI Storage Advanced ACL LUN Backup VIRTUAL DISK Remote Disk

ISCSI Target List

Create Action Settings

Alias (IQN)	Capacity	Allocated	Status
target01 (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0)			Ready
<ul style="list-style-type: none"> ID: 0 - 001 (Block-based LUNs from Storage Pool 1) 	1.00 GB	0 %	Disabled
<ul style="list-style-type: none"> ID: 1 - 002 (Block-based LUNs from Storage Pool 3) 	1.00 GB	0 %	Enabled
<ul style="list-style-type: none"> a (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.a.d371d0) 			Ready
<ul style="list-style-type: none"> allen (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0) 			Ready
<ul style="list-style-type: none"> david (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.david.d371d0) 			Ready

Un-Mapped iSCSI LUN List

Action

Name	Capacity	Allocation	Status
003	1 GB	Thin Provisioning	Ready
004	1 GB	Thin Provisioning	Ready

Storage Manager

DASHBOARD Overview STORAGE VOLUMES Storage Pools DISKS Encryption SSD Cache ISCSI iSCSI Storage Advanced ACL LUN Backup VIRTUAL DISK Remote Disk

ISCSI Target List

Create Action Settings

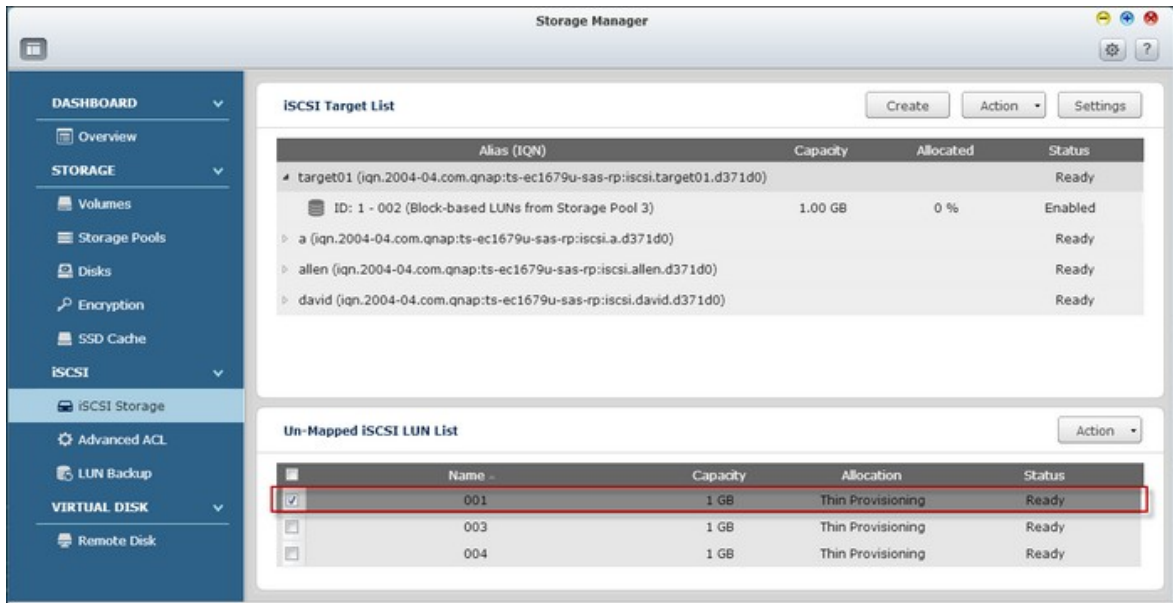
Alias (IQN)	Capacity	Allocated	Status
target01 (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.target01.d371d0)			Ready
<ul style="list-style-type: none"> ID: 1 - 002 (Block-based LUNs from Storage Pool 3) 	1.00 GB	0 %	Enabled
<ul style="list-style-type: none"> a (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.a.d371d0) 			Ready
<ul style="list-style-type: none"> allen (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.allen.d371d0) 			Ready
<ul style="list-style-type: none"> david (iqn.2004-04.com.qnap:ts-ec1679u-sas-rp:iscsi.david.d371d0) 			Ready

Un-Mapped iSCSI LUN List

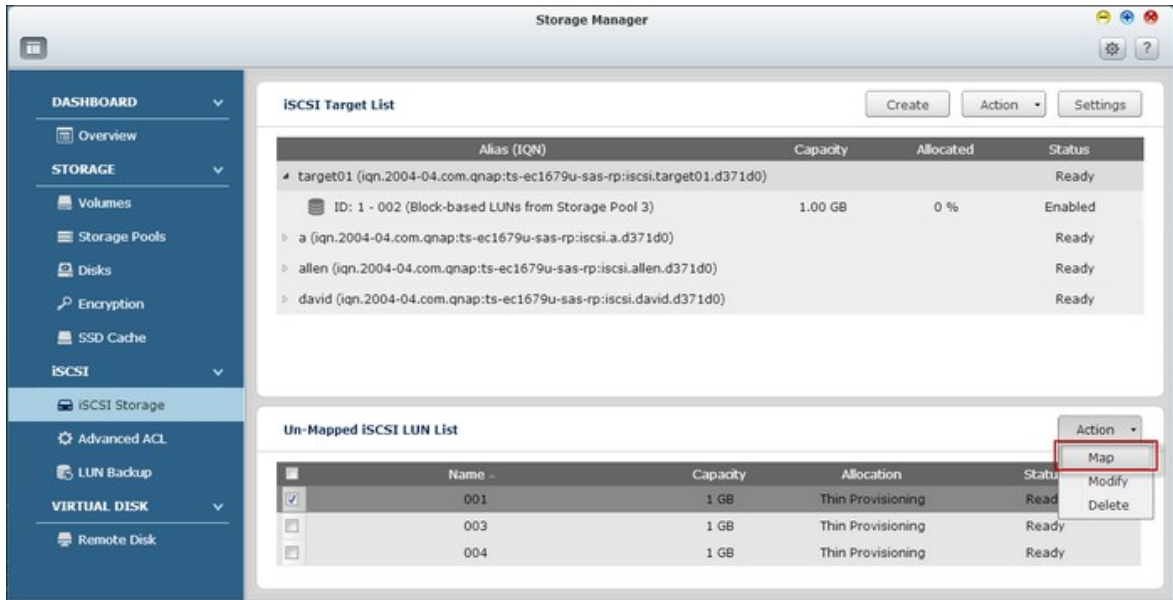
Action

Name	Capacity	Allocation	Status
001	1 GB	Thin Provisioning	Ready
003	1 GB	Thin Provisioning	Ready
004	1 GB	Thin Provisioning	Ready

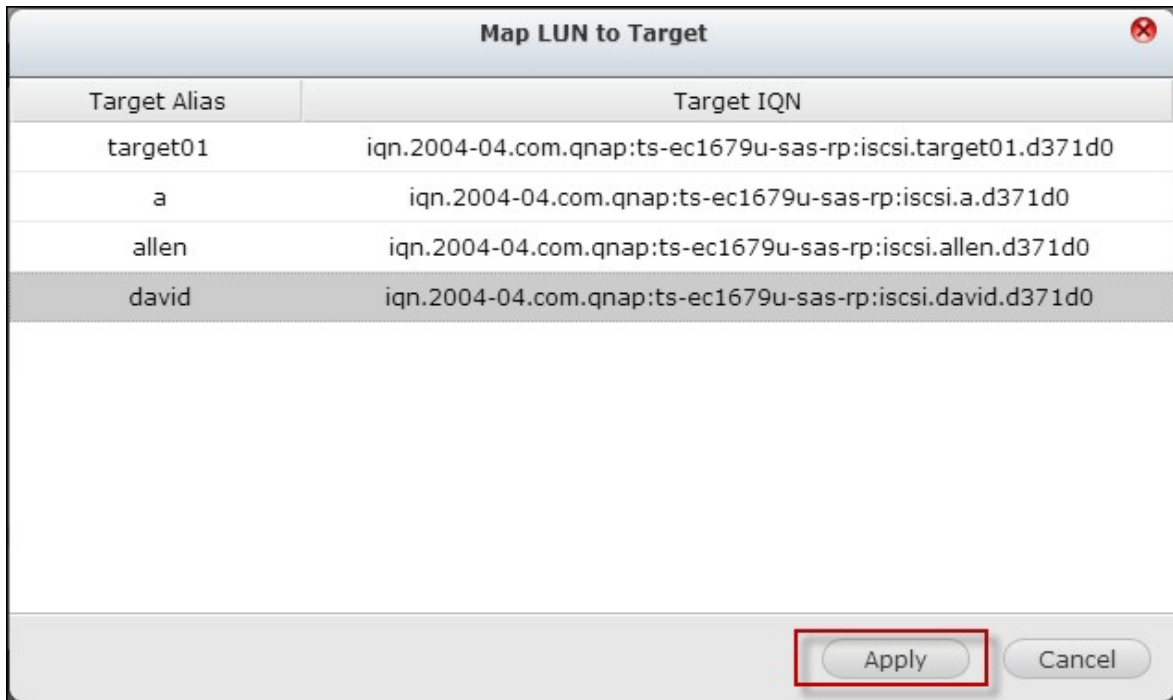
5. iSCSI LUN



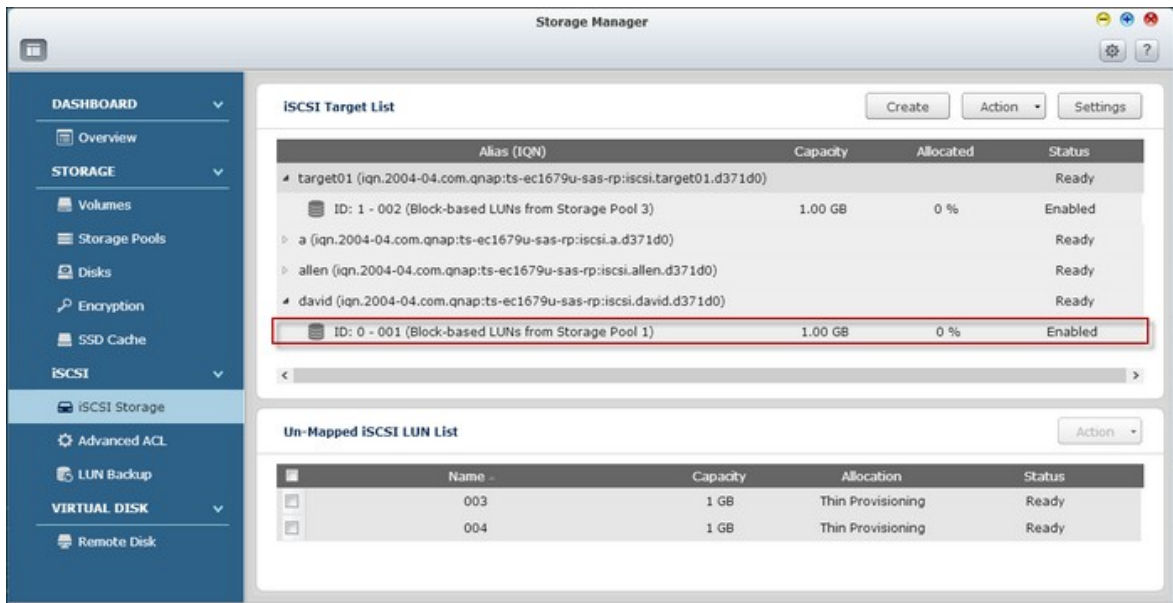
6. 'Action()'> Map()" LUN



7. LUN 'Apply()"



8. LUN

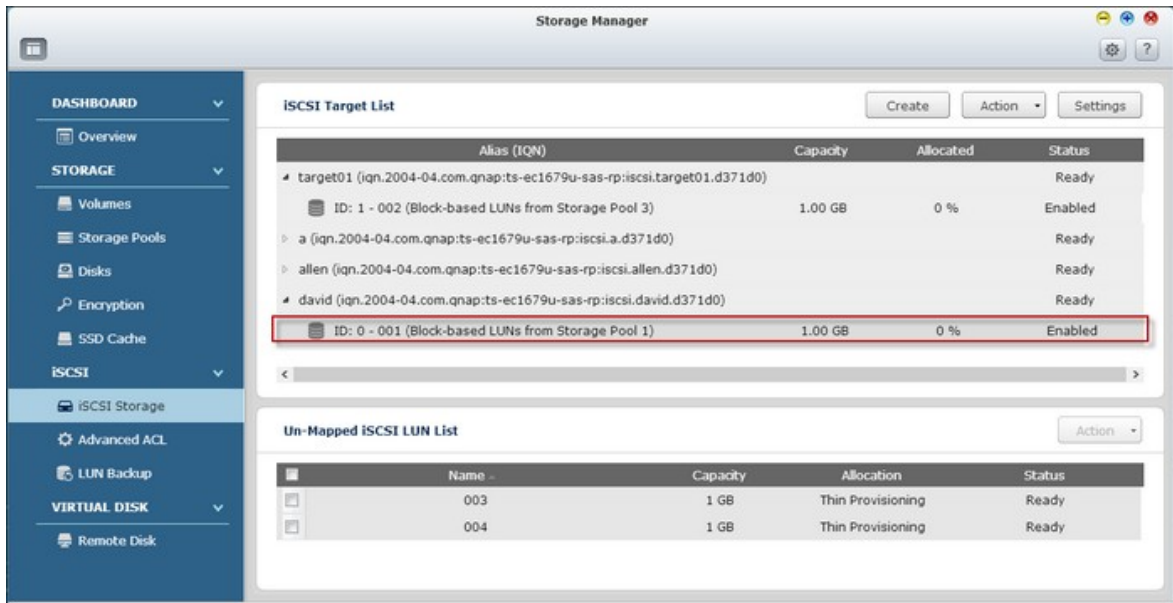


NAS iSCSI LUN (Windows PC, Mac Linux) 가 iSCSI LUN

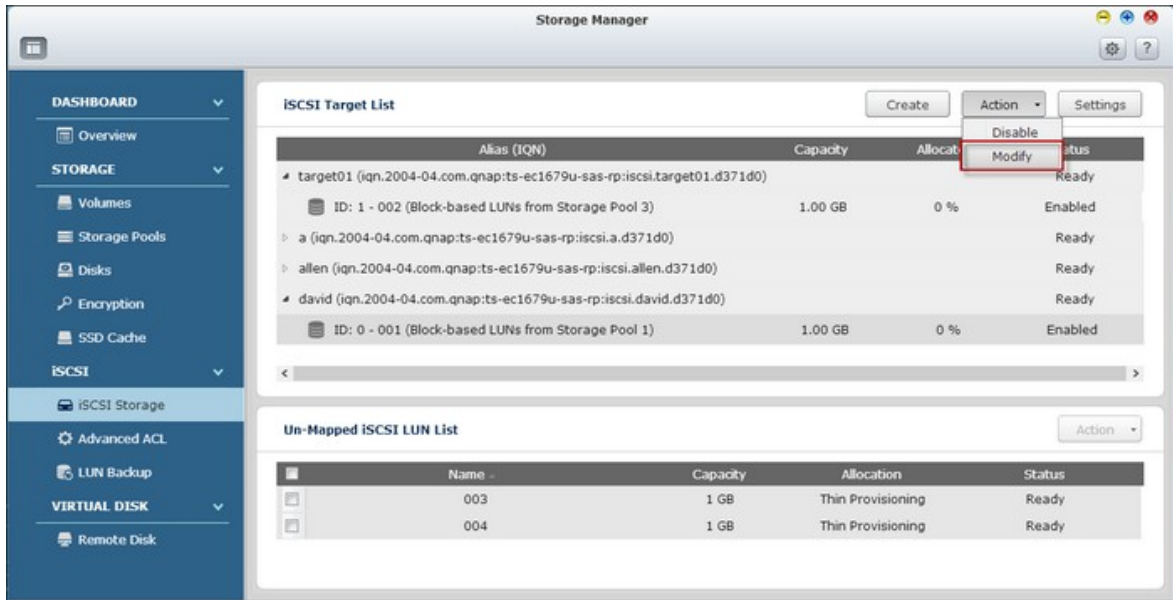
iSCSI LUN

NAS iSCSI LUN

1. iSCSI LUN iSCSI



2. 'Action()'> 'Modify()'



3. LUN . LUN
LUN

LUN	LUN
	32TB

4. 'Apply()'

Modify an iSCSI LUN ✕

LUN Type: Block-based

LUN Allocation: Thin Provisioning

LUN Name:

LUN Location: Storage Pool 1
[1.78 TB]

LUN serial number: 151169b3-28b7-48be-b857-9e93c2043ed3

Capacity: GB

Alert threshold: 80 %

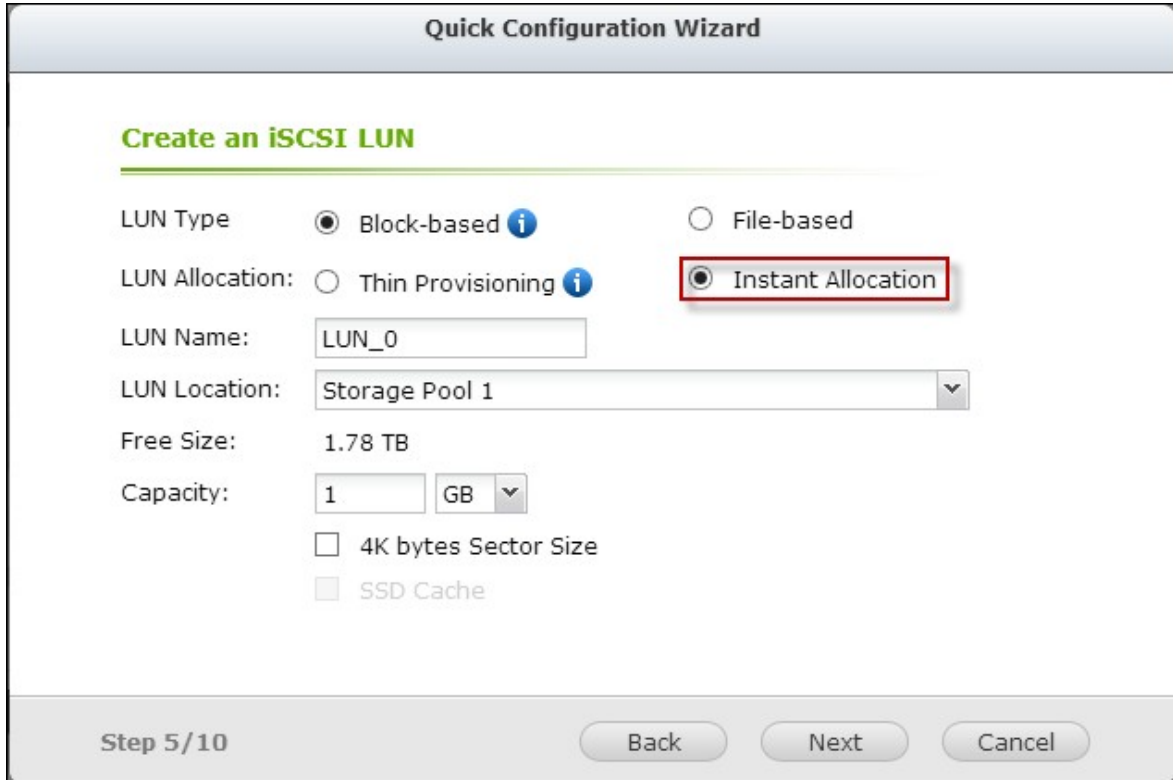
SSD cache

: iSCSI LUN iSCSI .

iSCSI

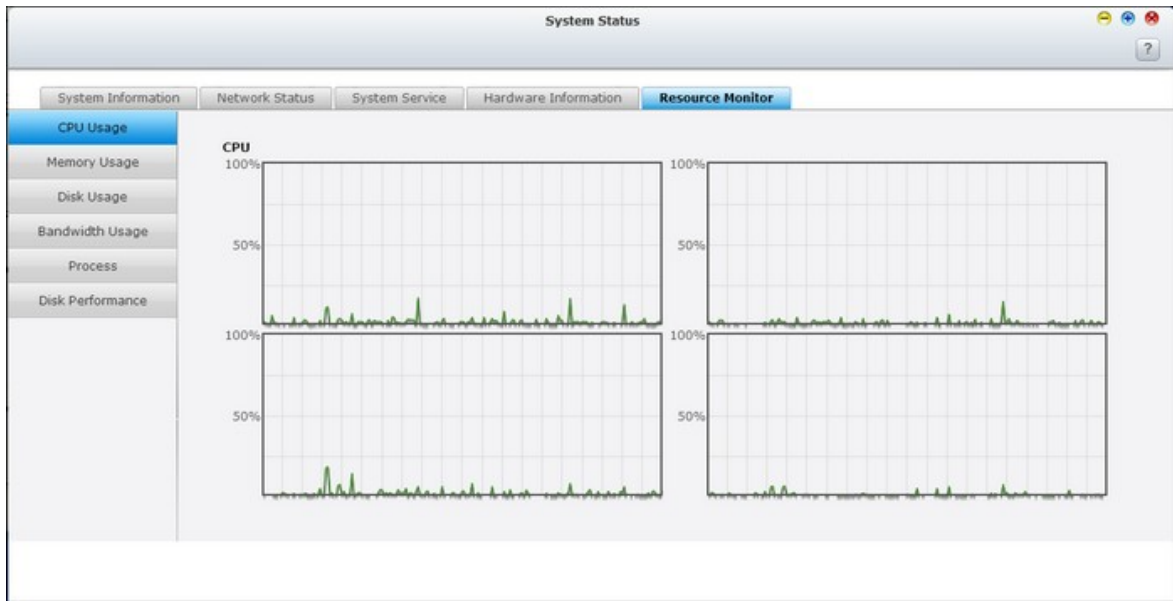
가 가 iSCSI NAS

- : iSCSI LUN Instant Allocation()” iSCSI



- LUN : NAS LUN
System Status()"> Resource Monitor()"
NAS 가 , LUN iSCSI

- LUN : / 가
LUN LUN
가 , VM NAS LUN



7.4.1 Windows Microsoft iSCSI Initiator iSCSI

iSCSI NAS iSCSI LUN OS iSCSI

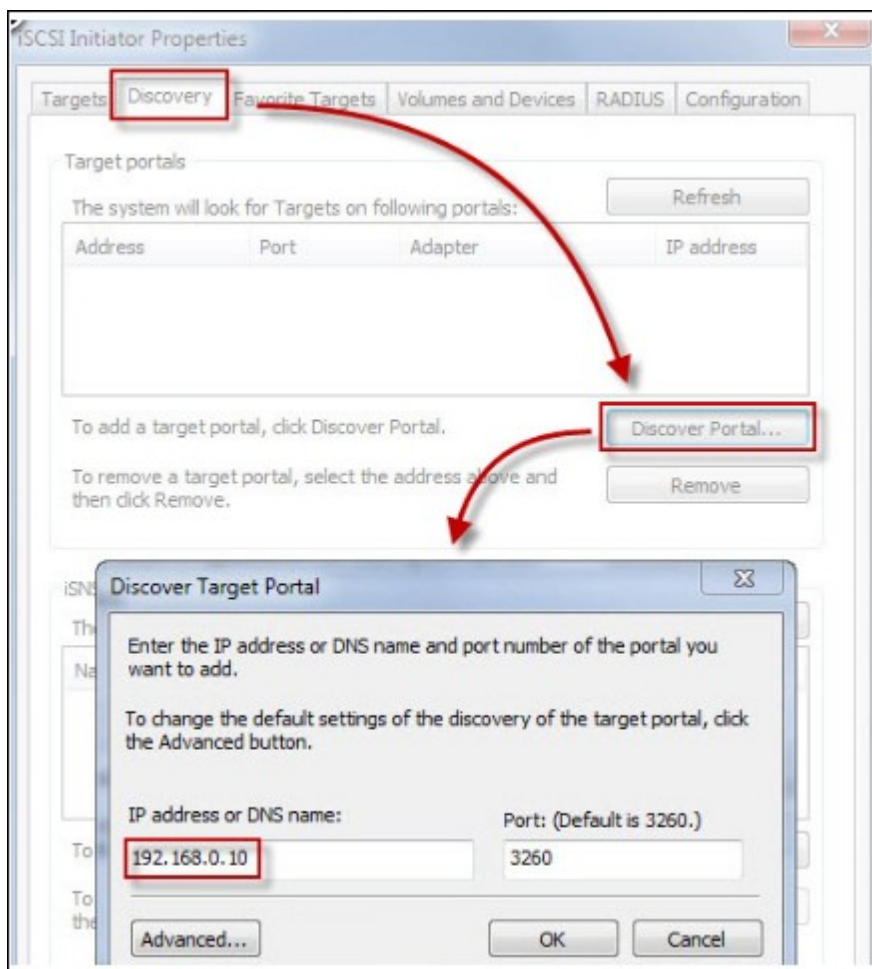
Windows iSCSI

Microsoft iSCSI Software Initiator v2.07 Windows OS 2000, 2003, XP

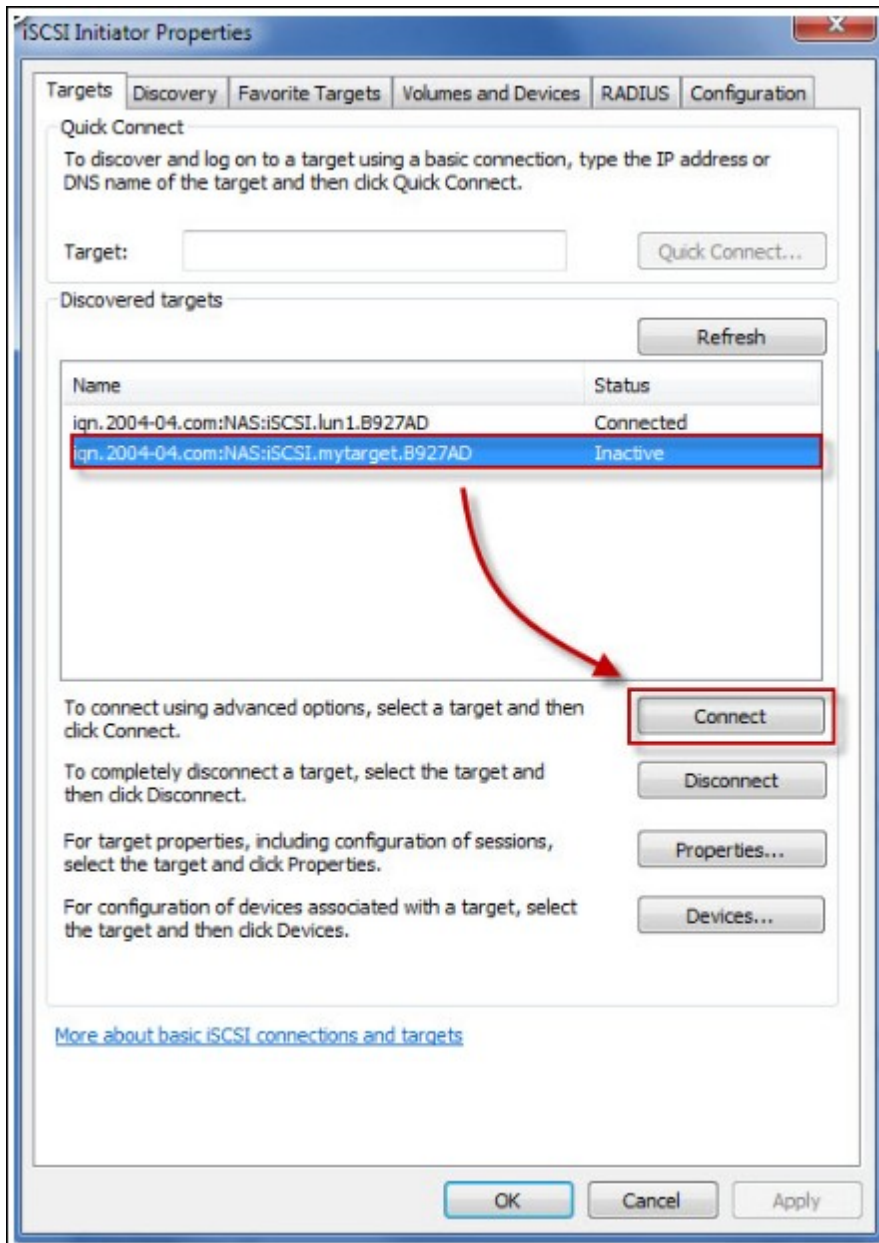
가 iSCSI . Windows Vista
Windows Server 2008 Microsoft iSCSI 가

<http://www.microsoft.com/downloads/details.aspx?familyid=12cb3c1a-15d6-4585-b385-befd1319f825&displaylang=en>

"Control Panel()" > "Administrative Tools()" iSCSI
"Discovery()" "Add Portal(가)" . NAS IP iSCSI

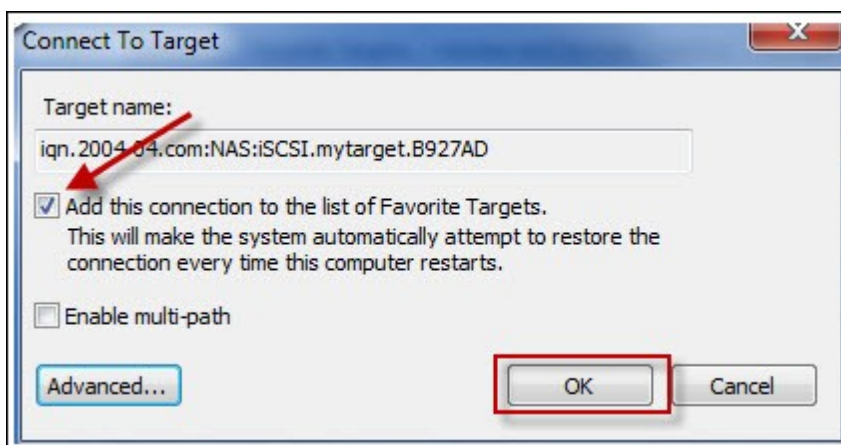


가 iSCSI 가 "Targets()"
"Connect()"



"Advanced()"

"OK()"

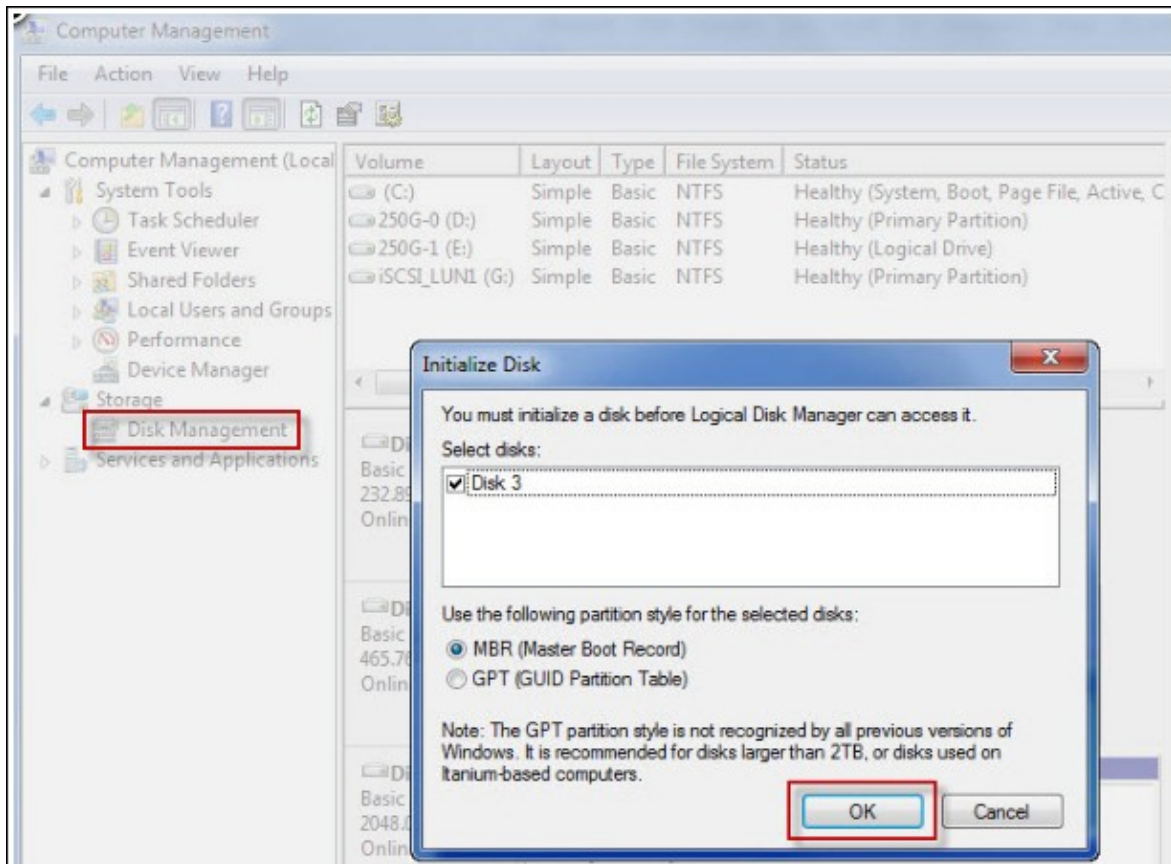


가 "Connected()"

Name	Status
iqn.2004-04.com:NAS:iSCSI.lun1.B927AD	Connected
iqn.2004-04.com:NAS:iSCSI.mytarget.B927AD	Connected

Windows

가 가 . "My Computer()" > "Manage()"
 "Computer Management()" "Disk Management()" 가
 . "OK()"
 가



가 PC

iSCSI

Computer Management

File Action View Help

Computer Management (Local)

- System Tools
 - Task Scheduler
 - Event Viewer
 - Shared Folders
 - Local Users and Groups
 - Performance
- Device Manager
- Storage
 - Disk Management
 - Services and Applications

Volume	Layout	Type	File System	Status
(C:)	Simple	Basic	NTFS	Healthy (System, Boot, Page File, Activ
250G-0 (D:)	Simple	Basic	NTFS	Healthy (Primary Partition)
250G-1 (E:)	Simple	Basic	NTFS	Healthy (Logical Drive)
iSCSI LUN1 (G:)	Simple	Basic	NTFS	Healthy (Primary Partition)
My iSCSI Target (F:)	Simple	Basic	NTFS	Healthy (Primary Partition)

Disk 0
Basic
232.89 GB
Online

250G-0 (D:) 50.00 GB NTFS Healthy (Primary Partition)	250G-1 (E:) 182.88 GB NTFS Healthy (Logical Drive)
---	--

Disk 1
Basic
465.76 GB
Online

(C:)
465.76 GB NTFS
Healthy (System, Boot, Page File, Active, Crash Dump, Primary)

Disk 2
Basic
2048.00 GB
Online

iSCSI_LUN1 (G:)
2048.00 GB NTFS
Healthy (Primary Partition)

Disk 3
Basic
10.00 GB
Online

My iSCSI Target (F:)
10.00 GB NTFS
Healthy (Primary Partition)

Unallocated Primary partition Extended partition Free space Logical drive

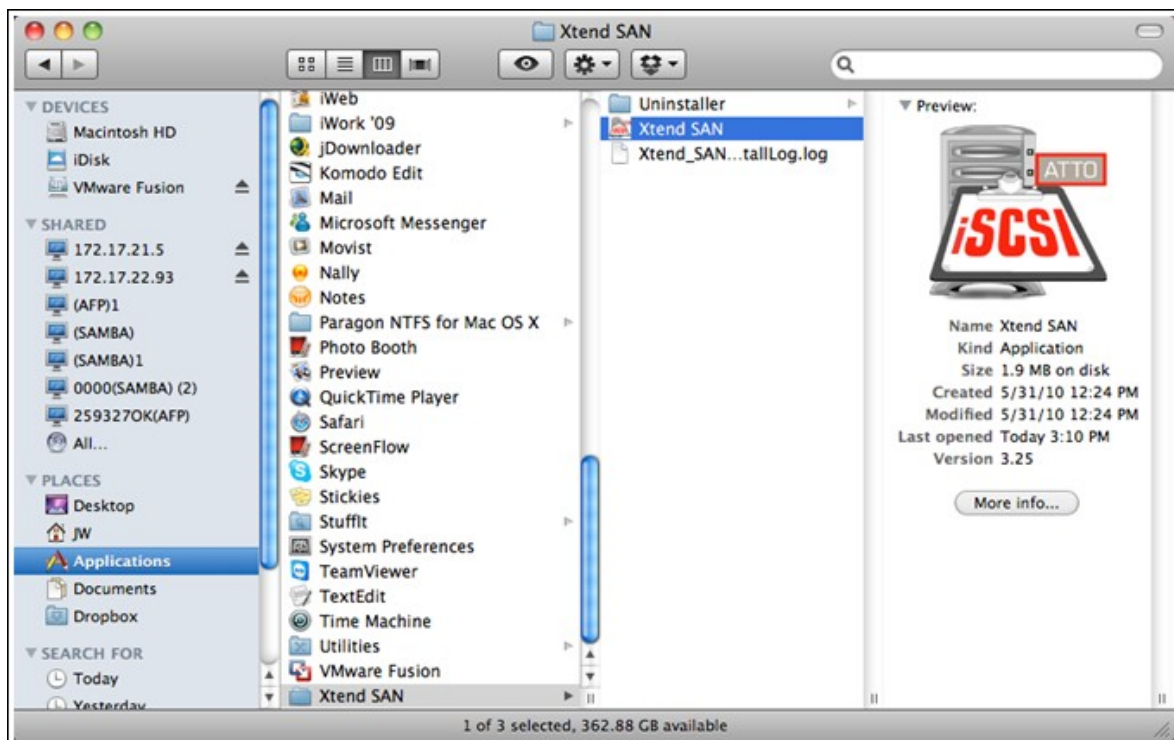
7.4.2 Mac OS Xtend SAN iSCSI Initiator iSCSI

Mac OS Xtend SAN iSCSI Initiator iSCSI (QNAP NAS) 가
 가 . iSCSI NAS iSCSI LUN
 OS iSCSI .

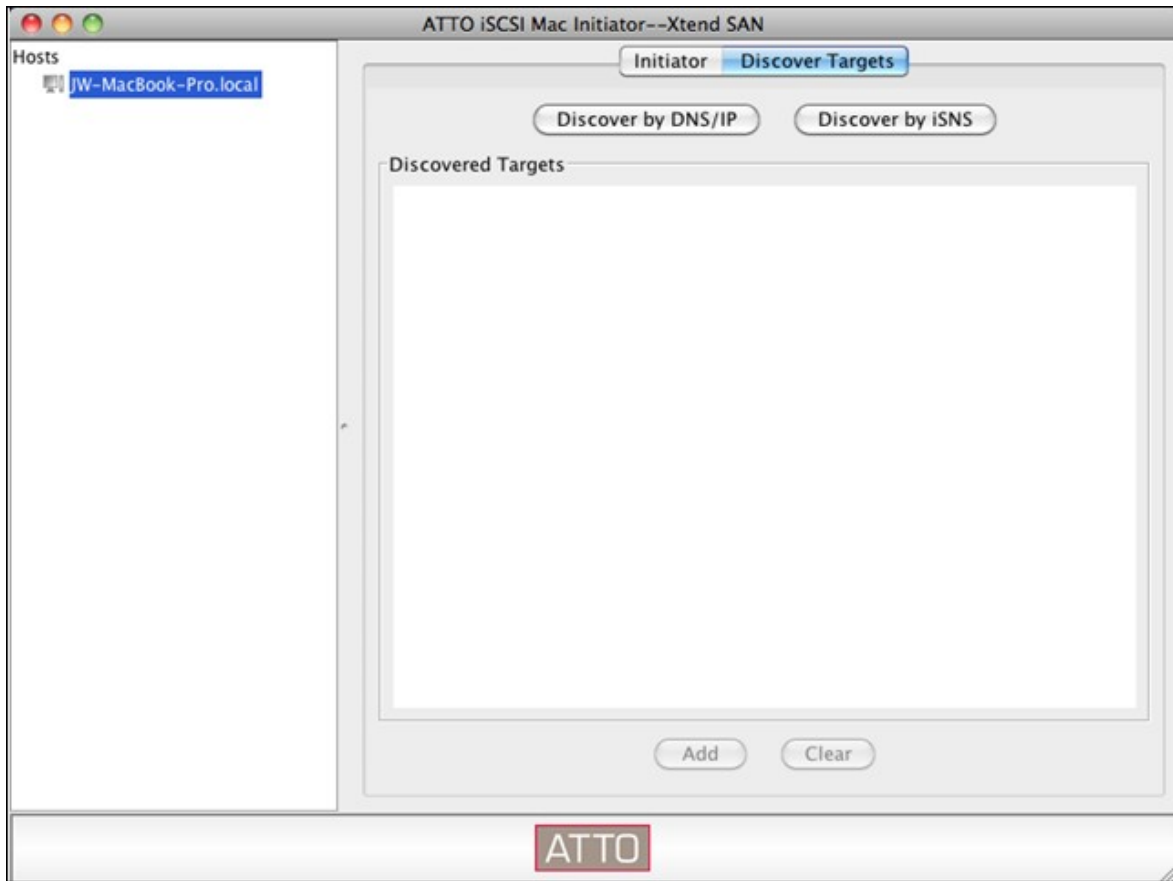
Xtend SAN iSCSI Initiator :
 ATTO Mac OS X Xtend SAN iSCSI Initiator Mac 가 iSCSI
 . Mac OS X 10.4.x - 10.6.x .

<http://www.attotech.com/products/product.php?sku=INIT-MAC0-001>

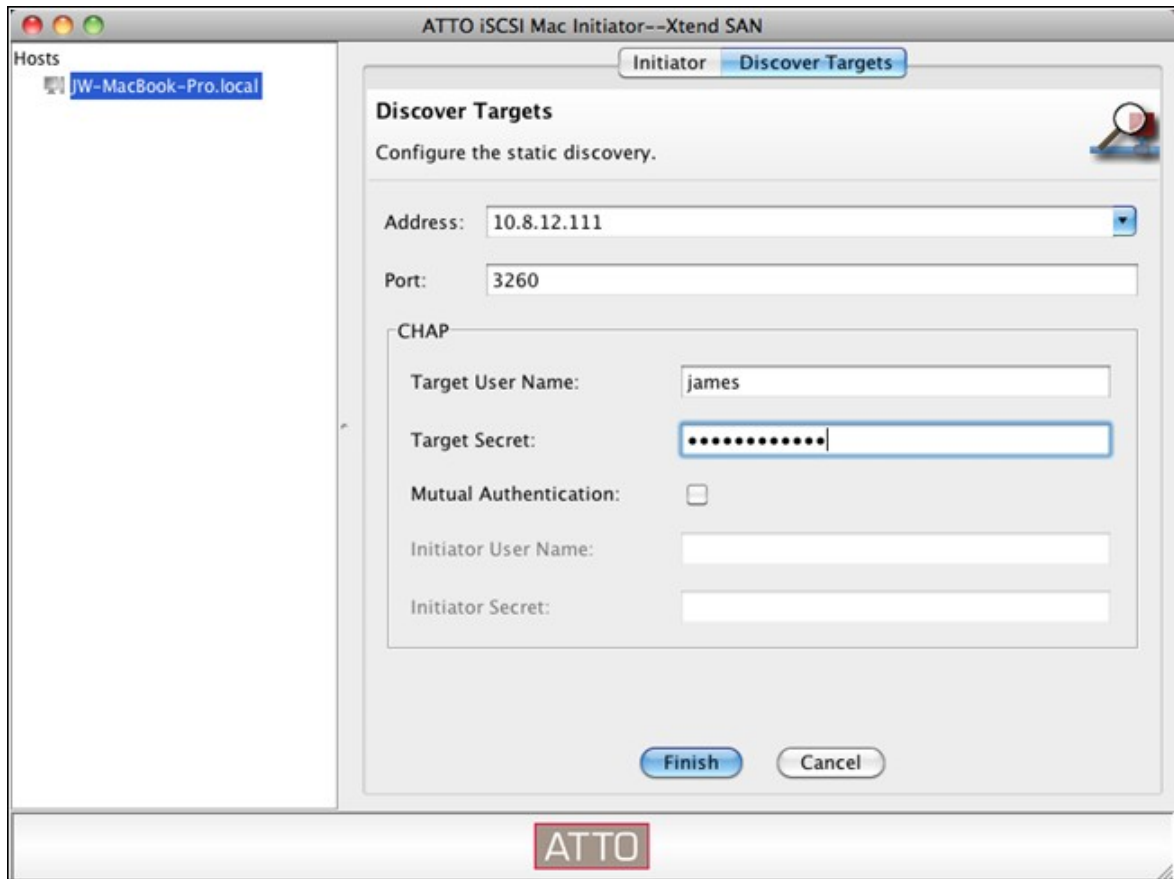
Xtend SAN iSCSI Initiator "Applications ()"



"Discover Targets()"
 (DNS/IP)" "Discover by iSNS(iSNS)"
 iSCSI . IP



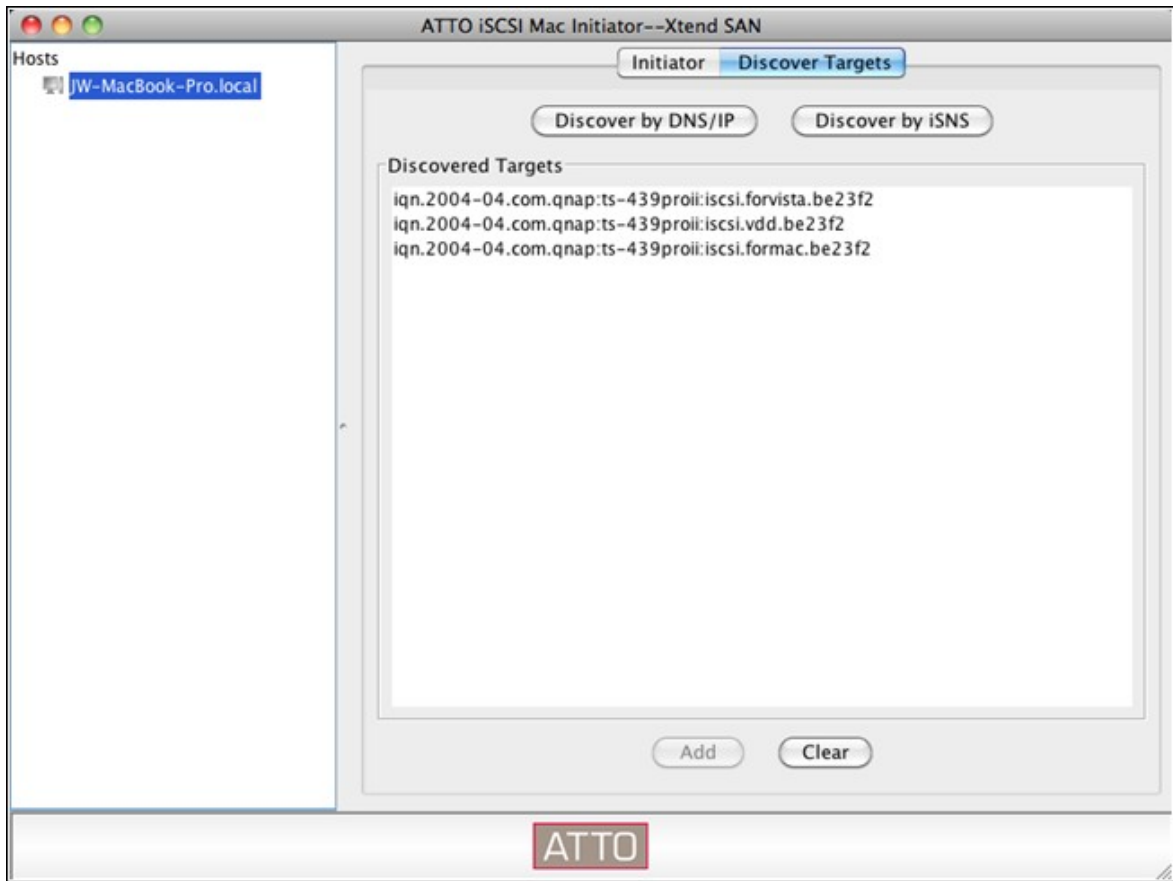
, iSCSI (: 3260), CHAP ()
"Finish()"



NAS

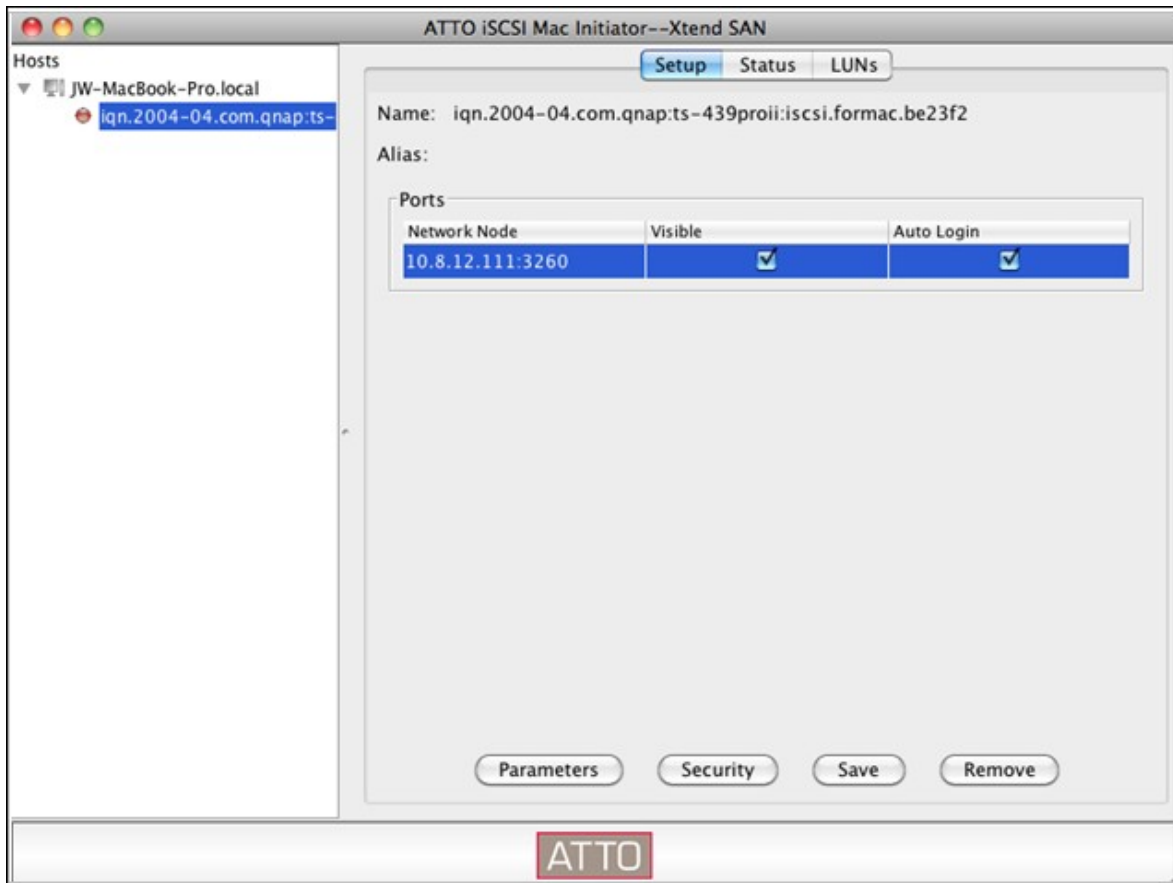
iSCSI

"Add(가)"



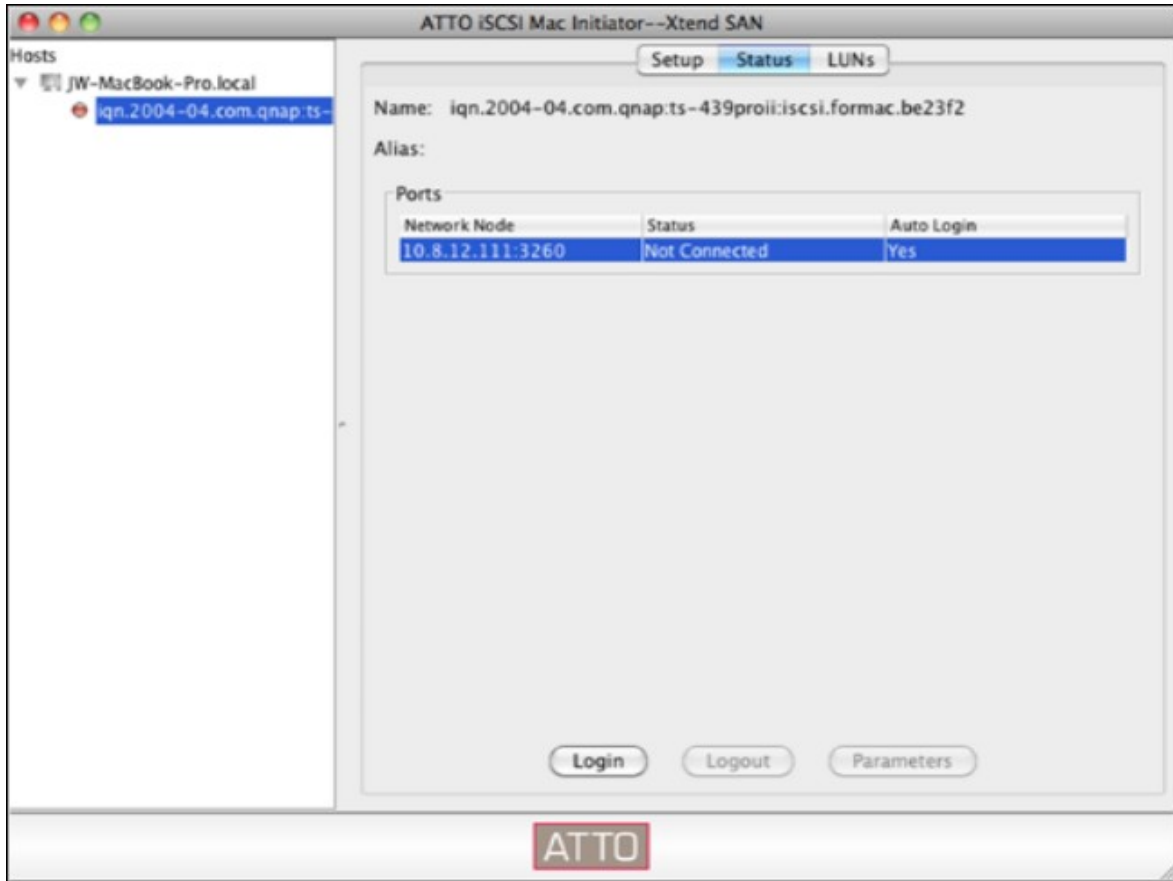
"Setup()"

iSCSI



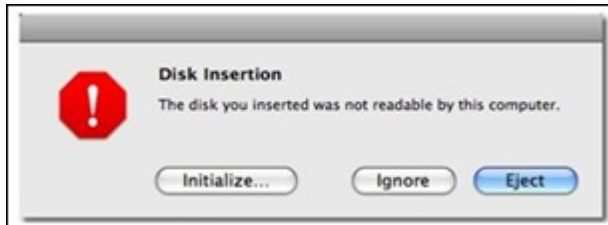
"Status()"

. "Login()"



iSCSI 가
"Initialize...()"

가
"Disk Utilities()"



iSCSI Mac



7.4.3 Ubuntu Linux Open- iSCSI Initiator iSCSI

Ubuntu Linux Open- iSCSI Initiator iSCSI (QNAP NAS) 가
 가 . iSCSI NAS iSCSI
 LUN OS iSCSI .

Linux Open- iSCSI Initiator

Linux Open- iSCSI Initiator Ubuntu 8.04 LTS()
 iSCSI . Ubuntu <http://www.ubuntu.com>
 Open- iSCSI
 : <http://www.open-iscsi.org>

: LUN Linux Open- iSCSI .

open-iscsi . Linux Open- iSCSI Initiator .

```
# sudo apt-get install open-iscsi
```

```
Linux Open- iSCSI Initiator iSCSI (QNAP NAS)
node.session.auth.username & node.session.auth.password CHAP
iscsid.conf 가
# vi /etc/iscsi/iscsid.conf
```

```
open-iscsi
# /etc/init.d/open-iscsi restart
```

```
( QNAP NAS), 가 3260 10.8.12.31 iSCSI
# iscsiadm -m discovery -t sendtargets -p 10.8.12.31:3260
```

```
iSCSI
# iscsiadm -m node
```

```
** 가 :
# iscsiadm -m node --op delete --targetname THE_TARGET_IQN
```

```
open-iscsi 가
# /etc/init.d/open-iscsi restart
```

```
가 :
[iface: , : iqn.2004-04.com:NAS:iSCSI.ForUbuntu.B9281B, :
10.8.12.31,3260] [ ]
```

```
dmesg
# dmesg | tail
```

./dev/sdb

```
# fdisk /dev/sdb
```

```
# mkfs.ext3 /dev/sdb1
```

```
# mkdir /mnt/iscsi
```

```
# mount /dev/sdb1 /mnt/iscsi/
```

I/O

```
# hdparm -tT /dev/sdb1
```

"iscsiadm"

:

```
# iscsiadm -m discovery --type sendtargets --portal HOST_IP
```

:

```
# iscsiadm -m node --targetname THE_TARGET_IQN --login
```

:

```
# iscsiadm -m node --targetname THE_TARGET_IQN --logout
```

:

```
# iscsiadm -m node --op delete --targetname THE_TARGET_IQN
```


7.5 LDAP

NAS LDAP

NAS

- LDAP :NAS "admin" Applications()> LDAP Server(LDAP)" LDAP , "Apply()"

Station Manager Backup Station iTunes Server DLNA Media Server Media Library Web Server LDAP Server VPN Service

LDAP Server Users Groups Backup/ Restore

Enable LDAP Server

Full domain name:

Password:

Verify password:

Root DN: cn=admin,dc=my-domain,dc=com

Group base DN: ou=people,dc=my-domain,dc=com

Users base DN: ou=group,dc=my-domain,dc=com

Initialize LDAP database: (Delete all users and groups from the LDAP server)

Enable this NAS to be the client of the LDAP service: [Domain Security](#)

- LDAP : Users()" , Create a User()" Create Multiple Users()" Batch Import Users(가)" LDAP

Station Manager Backup Station iTunes Server DLNA Media Server Media Library Web Server LDAP Server VPN Service

LDAP Server **Users** Groups Backup/ Restore

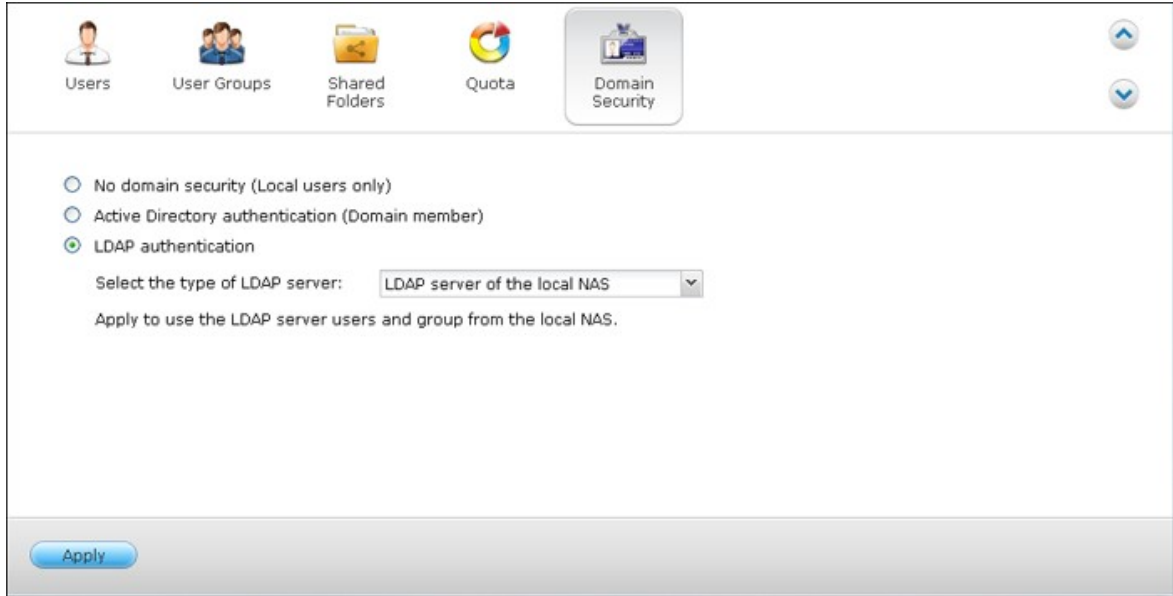
Create Delete

Description	Email	Status	Action
No data to display			

Page 1 / 1 | No data to display | Show 10 Items

LDAP , NAS 가 . LDAP NAS

3. LDAP NAS 가 LDAP NAS , NAS LDAP 가 . Privilege Settings()"> Domain Security()" LDAP authentication(LDAP)" LDAP server of local NAS(NAS LDAP)" Apply()"



NAS가 LDAP 가 , Privilege Settings()"> Users()" User Groups()" Domain Users()" Domain Groups()"

4. LDAP 2 NAS 가 : NAS LDAP 가 LDAP 가 NAS . Privilege Settings()"> Domain Security()" LDAP authentication(LDAP)" , LDAP server of a remote NAS(NAS LDAP)" NAS DNS IP , LDAP LDAP Apply()"

Users User Groups Shared Folders Quota Domain Security

No domain security (Local users only)

Active Directory authentication (Domain member)

LDAP authentication

Select the type of LDAP server: LDAP server of the remote NAS

Status:

IP address or NAS name: 10.8.13.59

LDAP domain: my-domain.local

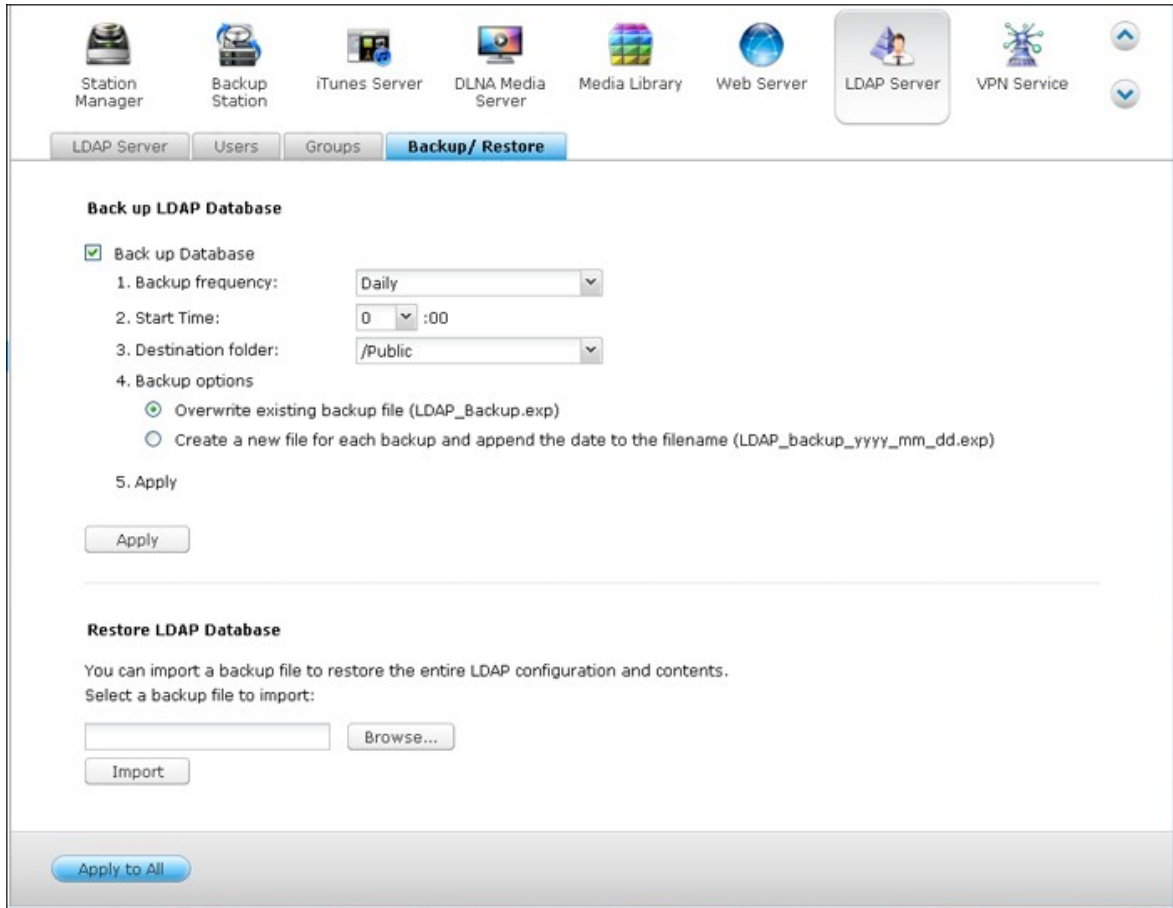
Example: mydomain.local

Password:

Apply

LDAP

NAS LDAP , Back up Database() ”
 , NAS . LDAP , *.
 exp Import(가) ” . Apply() ”




7.6 MySQL


TS- x39/ 509/ 809 CD
<http://www.qnap.com>


MySQL
TCP/IP
 NAS MySQL
 MySQL NAS
 , MySQL
 3306
 NAS Qweb/ Web phpMyAdmin 가
<http://NAS IP/phpMyAdmin/> phpMyAdmin 가 MySQL


• phpMyAdmin MySQL Server
<http://NAS IP/>
 • phpMyAdmin 가


• MySQL 가 "admin"
 • MySQL 가




MySQL Server


Syslog Server


Antivirus


RADIUS Server


TFTP Server

MySQL Server

You can enable MySQL server as the website database.

Enable MySQL Server
Enable this option to allow remote connection of MySQL server.

Enable TCP/IP networking
Port number:

Note: You can install the phpMyAdmin package to manage your MySQL server. To install the phpMyAdmin, please click [here](#).

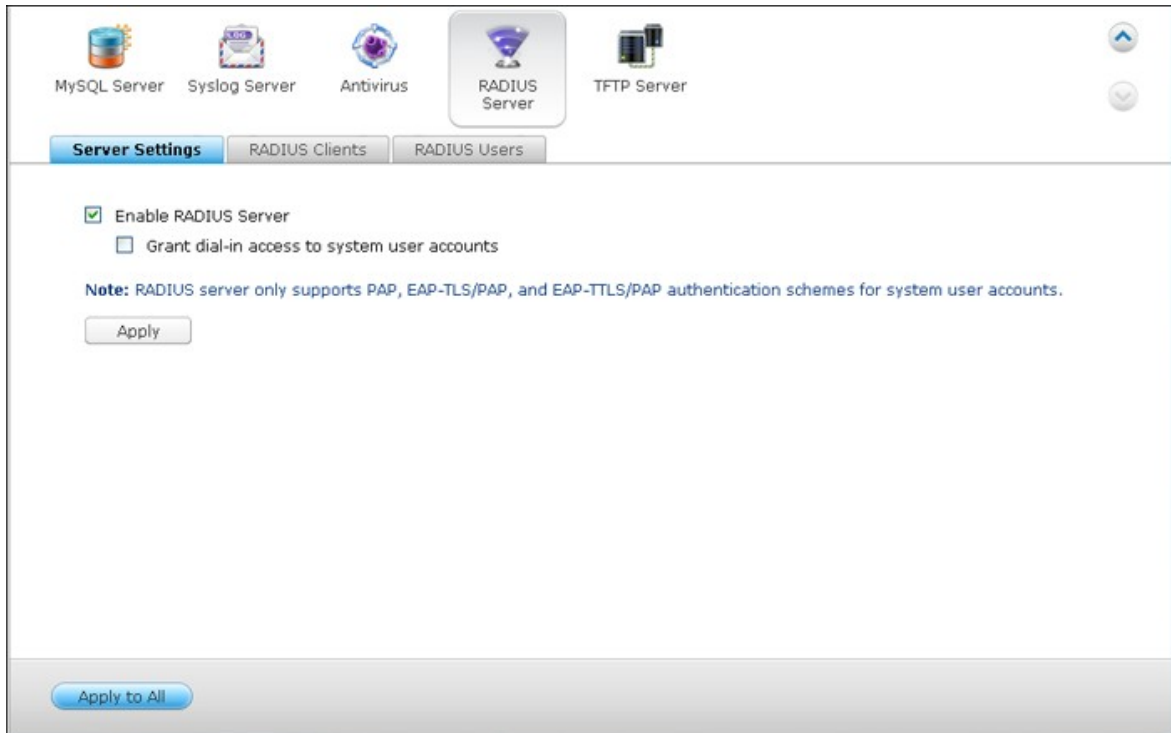
Database Maintenance

You can reset the database password or re-initialize the database.

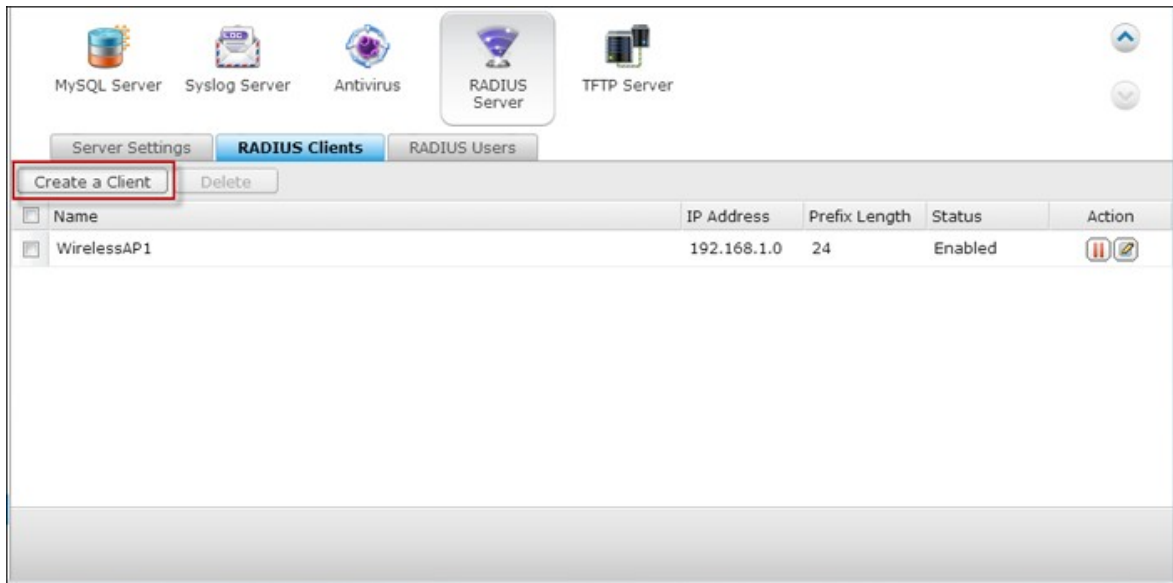
7.7 RADIUS

NAS (Network Access Server) is a device that provides RADIUS (Remote Authentication Dial In User Service) service.

1. "RADIUS Server (RADIUS)" > "Server Settings ()" NAS RADIUS . Apply()"



2. "RADIUS Server (RADIUS)" > "RADIUS Clients (RADIUS)" NAS Wi-Fi VPN RADIUS 가 . RADIUS 10 . "Create a New Client()"



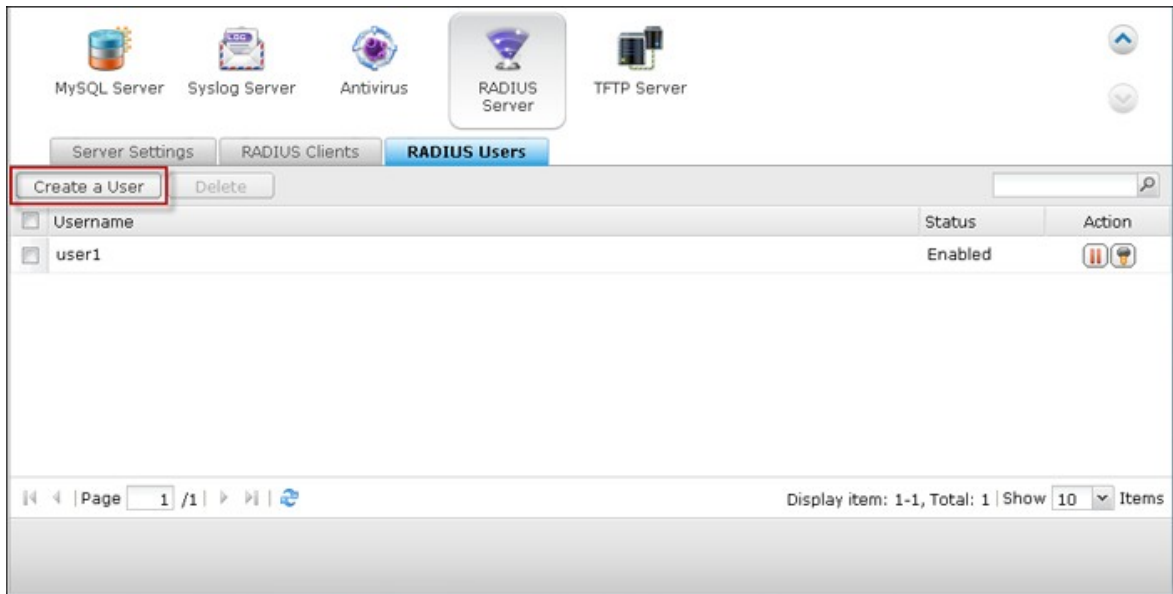
3. "Apply()"



4. 가



5. "RADIUS Server(RADIUS)" > "RADIUS Users(RADIUS)" RADIUS
 RADIUS
 . NAS가 RADIUS NAS
 . <http://docs.qnap.com/nas/en/index.html?users.htm>
 ."Create User()"



6. 8-32 (a-z, A-Z, 0-9 가) (a-z A-Z) (0-9)
 . 'Apply()"

7.8 Syslog

NAS Syslog (TCP / UDP) Syslog
 . NAS가 (TCP / UDP) syslog . "Apply()"
 514 , syslog NAS IP syslog
 server IP syslog

Syslog (1- 100 MB), (NAS),
 가 , MyLogFile_yyyy_mm_dd,
 MyLogFile_2011_12_31 가 ,
 MyLogFile_yyyy-mm-dd, MyLogFile_2011- 12- 31
 MyLogFile_yyyy_mm_dd.[]가
 MyLogFile_2011_12_31.1, MyLogFile_2011_12_31.2, . "Apply()"

Server Settings

Enable Syslog Server

Enable TCP
 TCP port:

Enable UDP
 UDP port:

Log Settings

Maximum log size (MB):

Log file: /

Email Notification

If the severity of a received log message is higher the selected severity level, the system will send an alert email automatically.

Enable the email notification

Severity level:

Note: The SMTP server must be configured first for alert mail delivery. [Click this to configure the SMTP server](#)

:

NAS syslog 가 (2
 , System Settings() "> Notification() "> Alert Notification())
 System Settings() ">
 Notification() "> SMTP Server(SMTP)" SMTP
 "Applications()" > "Syslog Server (Syslog)" > "Server Settings ()"
 "Apply()"

	(가 가)	
0	:	0-4 syslog
1	:	가 1-4 syslog
2	:	2-4 syslog
3	:	3-4 syslog
4	:	4 syslog

Email Notification

If the severity of a received log message is higher the selected severity level, the system will send an alert email automatically.

Enable the email notification

Severity level:

Note: The SMTP server must be configured first for alert mail delivery. [Click this to configure the SMTP server](#)

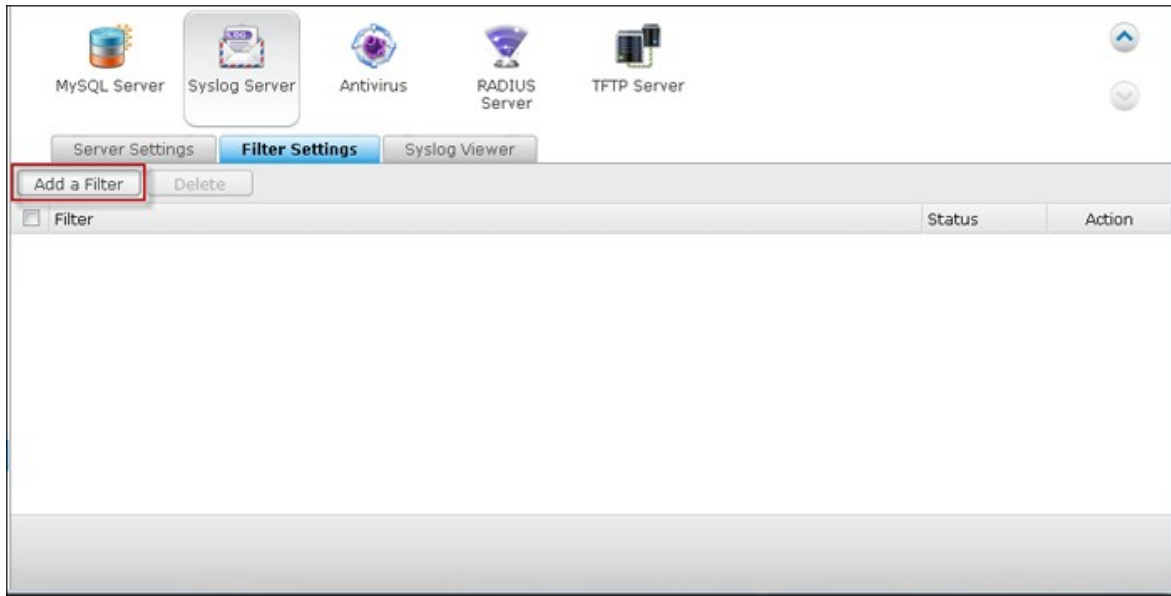
syslog

syslog

NAS

syslog

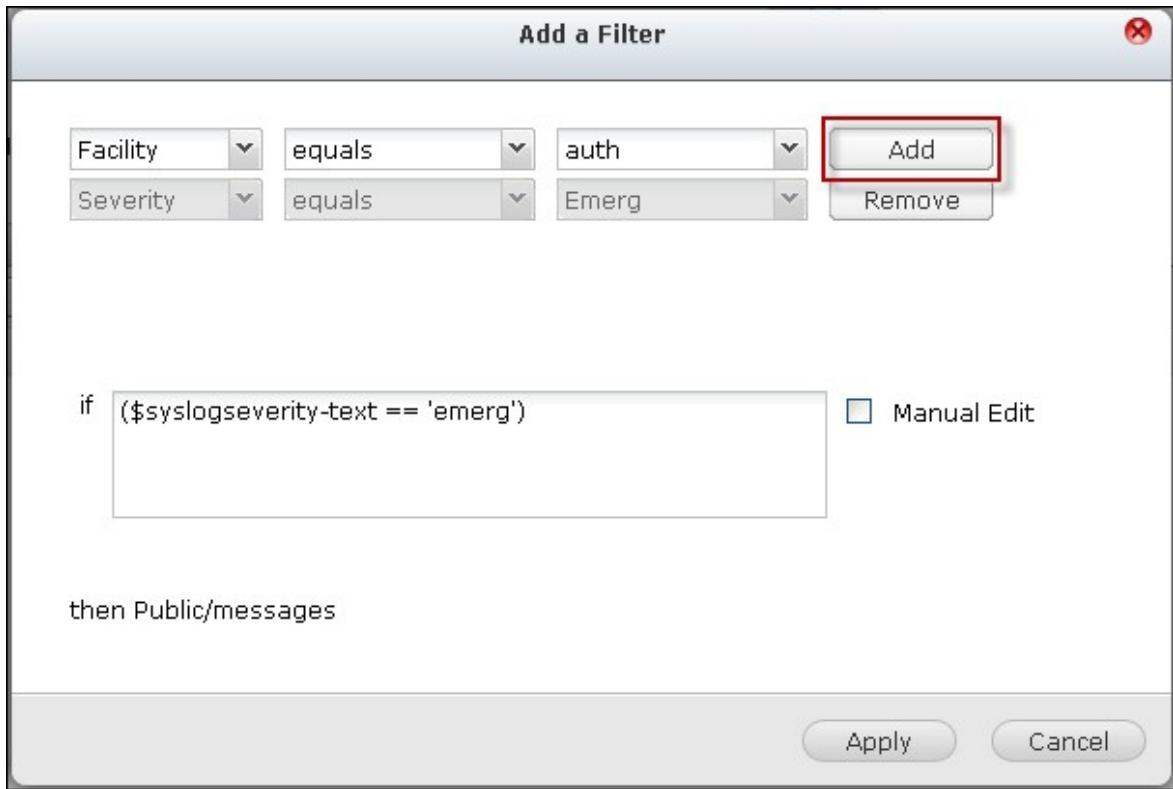
1. "Add a New Filter(가)"



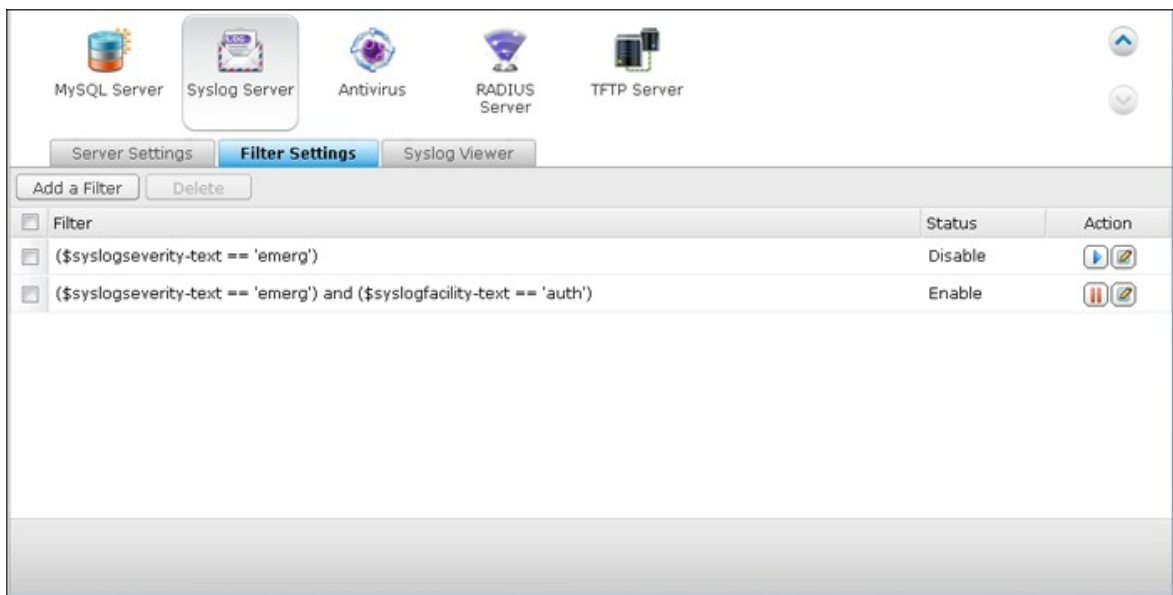
2. "Manual Edit(가)"

가

"Apply ()"



3. 가 . NAS syslog .



Syslog

NAS 가 syslog syslog "Syslog Server (Syslog)" >
"Server Settings ()" > "Log Settings ()"

The screenshot shows a web-based Syslog Viewer interface. At the top, there are icons for MySQL Server, Syslog Server (highlighted), Antivirus, RADIUS Server, and TFTP Server. Below these are tabs for Server Settings, Filter Settings, and Syslog Viewer (selected). A dropdown menu shows 'Latest Log'. The main area contains a table with the following data:

Date	Time	Facility	Severity	Hostname	Application	P.ID	M.ID	Message
2013-05-22	10:24:14 +0...	auth	Info	NASCF059E	qlogd	7531	-	qlogd[7531]...
2013-05-22	10:24:10 +0...	auth	Info	NASCF059E	qlogd	7531	-	qlogd[7531]...
2013-05-22	10:23:46 +0...	daemon	Info	NASCF059E	qlogd	7531	-	qlogd[7531]...

At the bottom, there is a pagination control showing 'Page 1 / 1' and a status bar indicating 'Display item: 1-3, Total: 3 | Show 10 Items'.

7.9 TFTP

NAS

TFTP (Trivial File Transfer Protocol)

TFTP

FTP

TFTP

FTP

TFTP

FTP

1. Enable TFTP Server(TFTP)"
2. UDP 69
3. NAS TFTP
4. TFTP : TFTP (opentftp.log)
Windows Microsoft Excel, WordPad
Mac TextEdit
- 5.
6. IP TFTP Anywhere()"
7. Apply()"

MySQL Server Syslog Server Antivirus RADIUS Server TFTP Server

Enable TFTP Server
 UDP port:
 You need to specify a root directory for the TFTP server.
 Root directory:

Enable TFTP logging
 The log file(s) will be saved in the selected folder. If the size of a log file exceeds 1MB, the file will be archived automatically.
 Save log files in:

Access right:

Allow TFTP access from:
 Anywhere
 Certain IP range only

Start IP address: . . .
 End IP address: . . .

Apply

7.10 VPN

NAS 가 NAS VPN 가

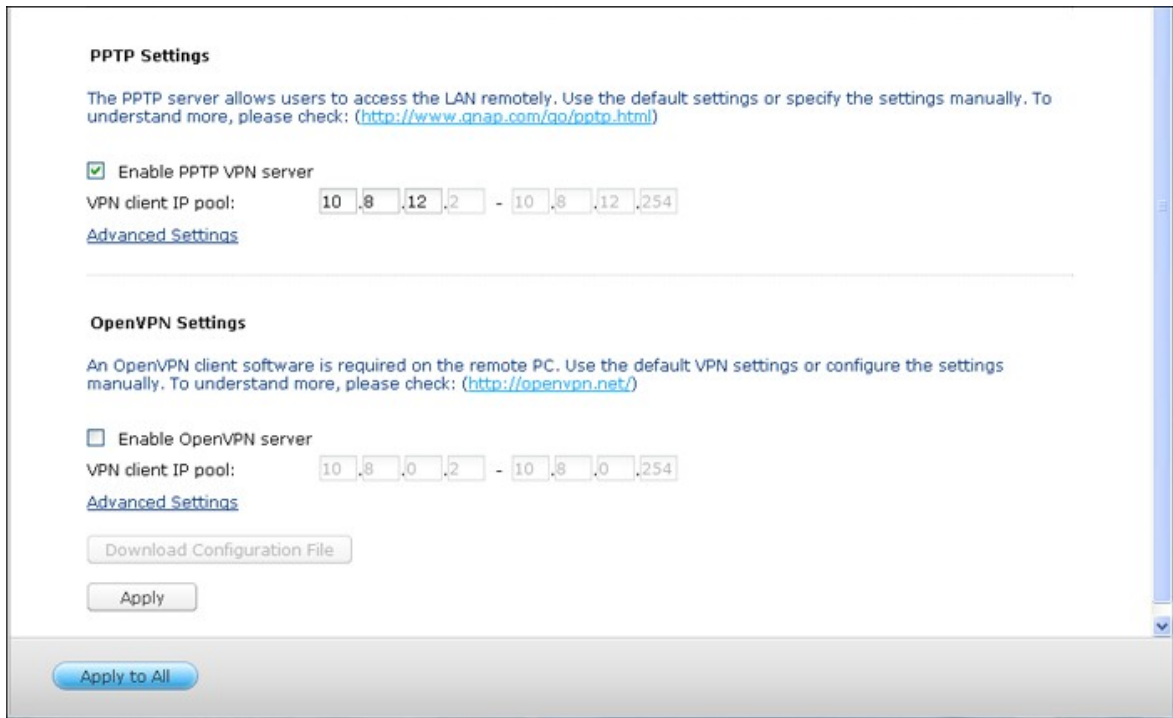
- 1.
2. PPTP OpenVPN
- 3.
4. myQNAPcloud
5. VPN 가
6. VPN

VPN

1. "admin" NAS Applications () "> VPN Service(VPN) "> VPN Server Settings(VPN) " General Settings() " , NAS가



2. PPTP OpenVPN :NAS VPN PPTP OpenVPN



PPTP: (PPTP) VPN 가
Windows, Mac, Linux, Android iPhone

: NAS IP PPTP VPN 10.0.0.1

OpenVPN: OpenVPN SSL VPN
OpenVPN , PC OpenVPN . Download
Configuration File()” NAS VPN , /
OpenVPN

: OpenVPN , myQNAPcloud
OpenVPN

3. :NAS UPnP(
) . myQNAPcloud "> 'Auto Router
Configuration()” UPnP
PPTP OpenVPN

: PPTP PPTP
. PPTP TCP- 1723 가 UPnP

4. myQNAPcloud :WAN IP myQNAPcloud NAS
. myQNAPcloud myQNAPcloud <https://www.myqnapcloud.com>

5. VPN : VPN Service(VPN) > VPN Client Management(VPN) > Add VPN Users(VPN) > Add()

The screenshot shows the 'VPN Client Management' section of a web interface. At the top, there are navigation tabs: 'VPN Server Settings', 'VPN Client Management' (selected), and 'Connection List'. Below the tabs, there are buttons for 'Add VPN Users' (highlighted with a red box) and 'Delete'. A table lists the current VPN users:

Username	Status	PPTP	OpenVPN
admin	Ready	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ted	Ready	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

At the bottom of the interface, there is a pagination control showing 'Page 1 / 1' and a 'Display item: 1-2, Total: 2 | Show 10 Items' option. An 'Apply to All' button is also present.

The screenshot shows the 'Add VPN Users' dialog box. It features a search bar at the top right. The main area contains a table with columns for 'Username', 'PPTP', and 'OpenVPN':

Username	PPTP	OpenVPN
test01	<input type="checkbox"/>	<input type="checkbox"/>
test02	<input type="checkbox"/>	<input type="checkbox"/>
test03	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Employee072	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Employee073	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Employee074	<input type="checkbox"/>	<input type="checkbox"/>
Employee075	<input type="checkbox"/>	<input type="checkbox"/>
Employee076	<input type="checkbox"/>	<input type="checkbox"/>
Employee077	<input type="checkbox"/>	<input type="checkbox"/>
Employee078	<input type="checkbox"/>	<input type="checkbox"/>

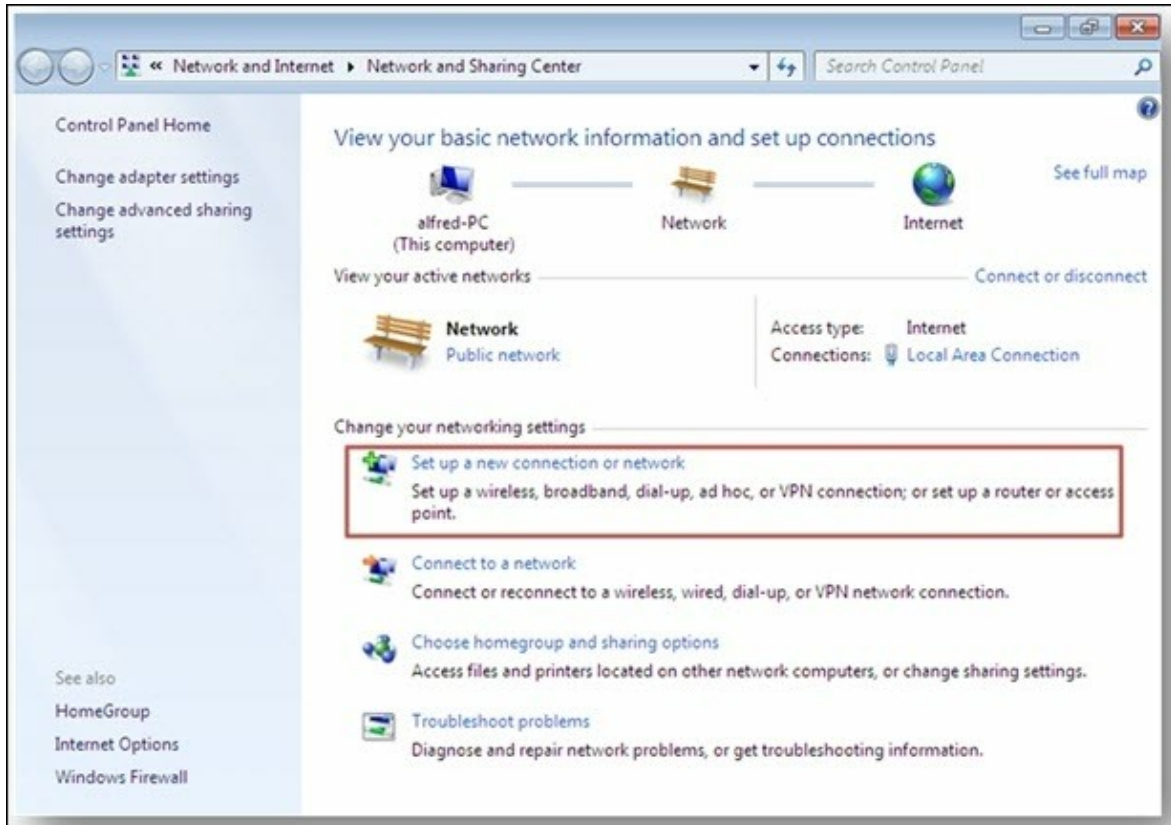
At the bottom, there is a pagination control showing 'Page 1 / 9' and a 'Display item: 1-10, Total: 82' option. 'Apply' and 'Cancel' buttons are located at the bottom right.

6. VPN : VPN

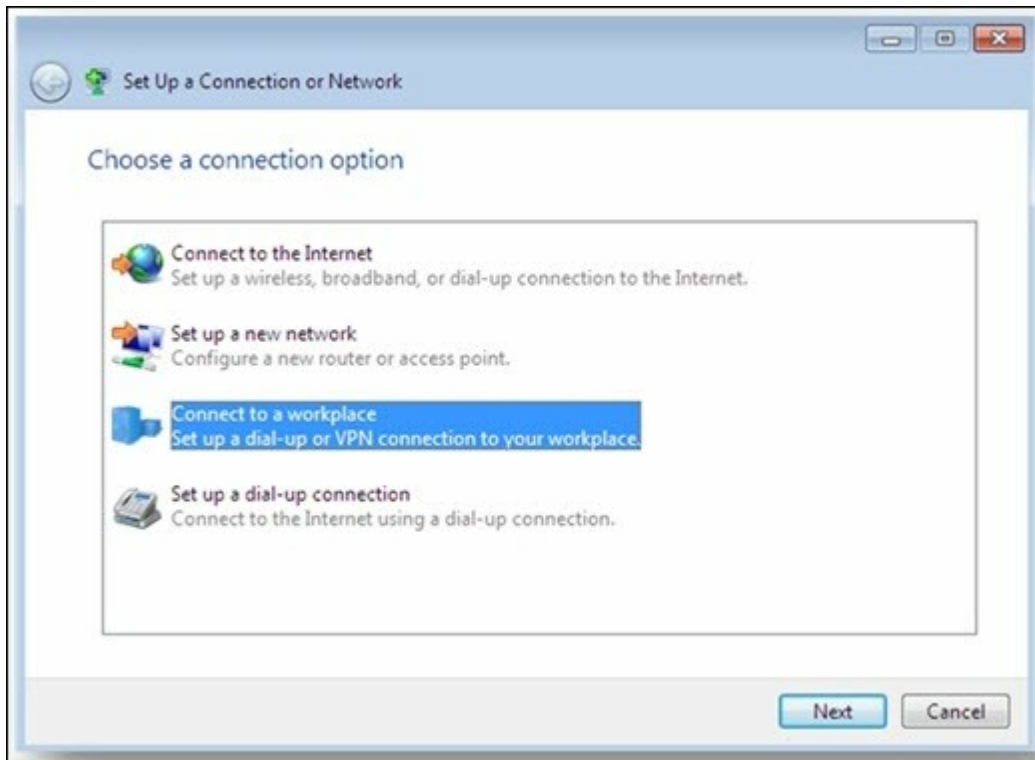
VPN

Windows 7 PPTP

1. Control Panel()> Network and Sharing Center()”
 . Set up a new connection or network()”



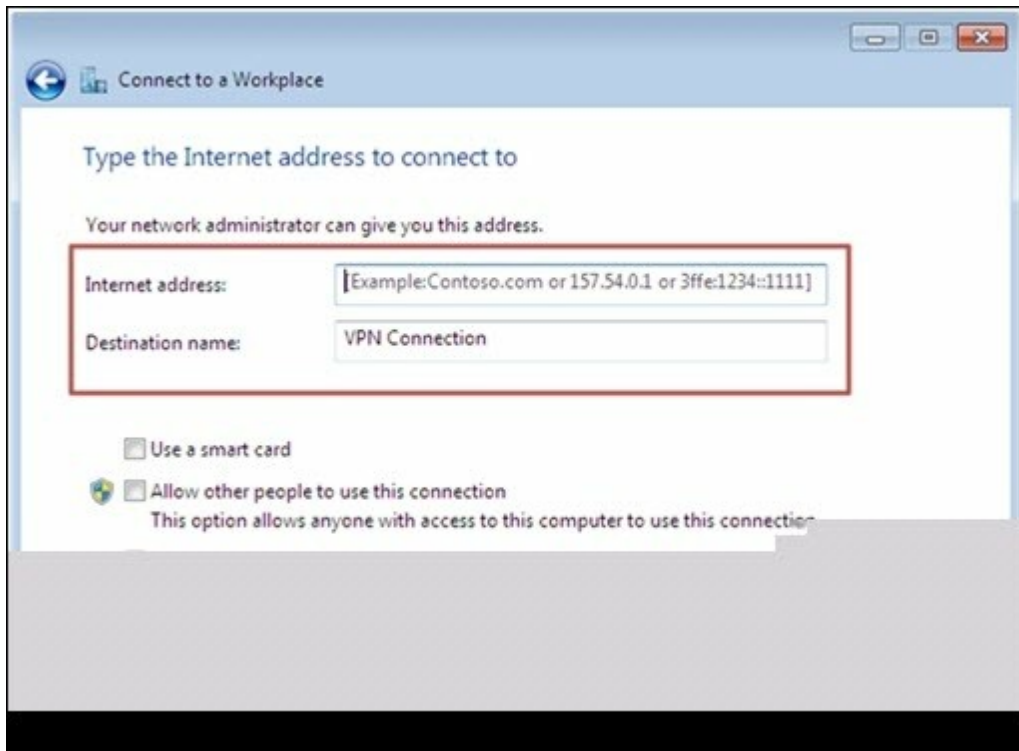
2. Connect to a workplace()” Next()”



3. Use my Internet connection() (VPN) ”



4. MyQNAPcloud NAS WAN IP
Next() ”



5. VPN NAS 가 . 'Connect()”



Mac OS X 10.7 PPTP

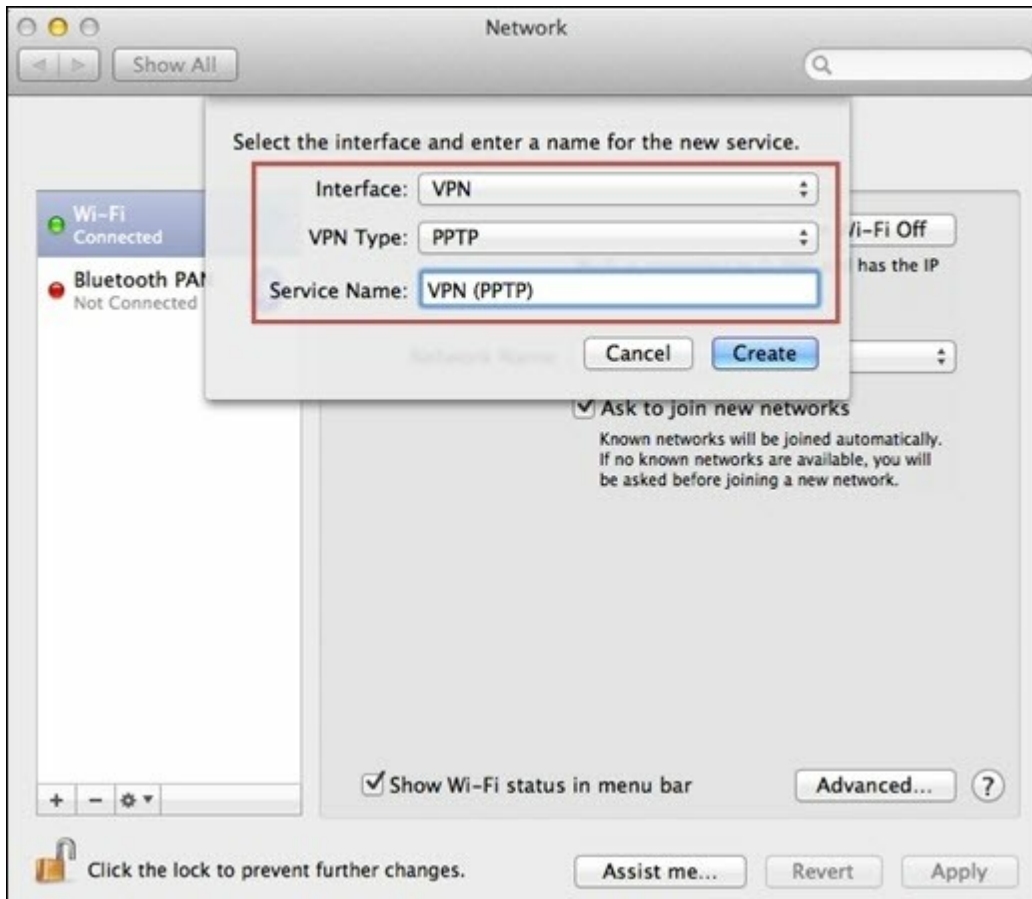
1. Apple menu(Apple)> System Preferences()> Network



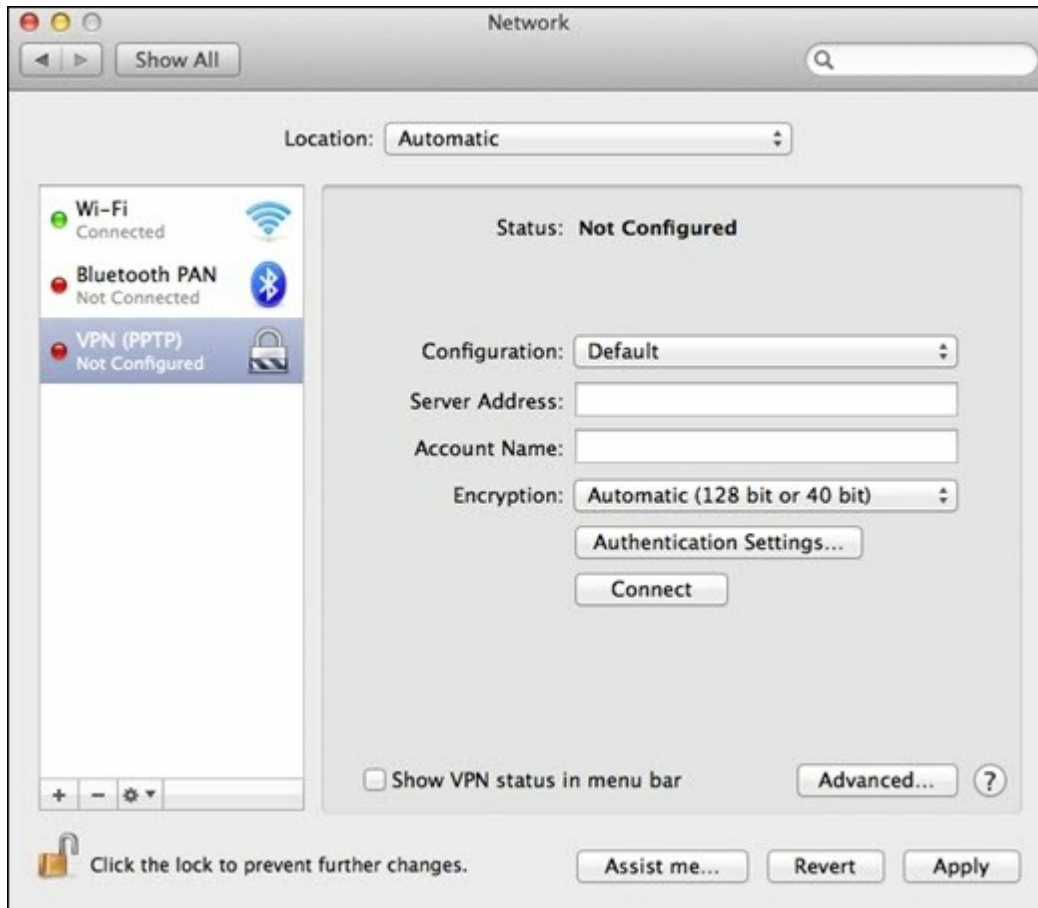
2. Add(가) (+) > VPN



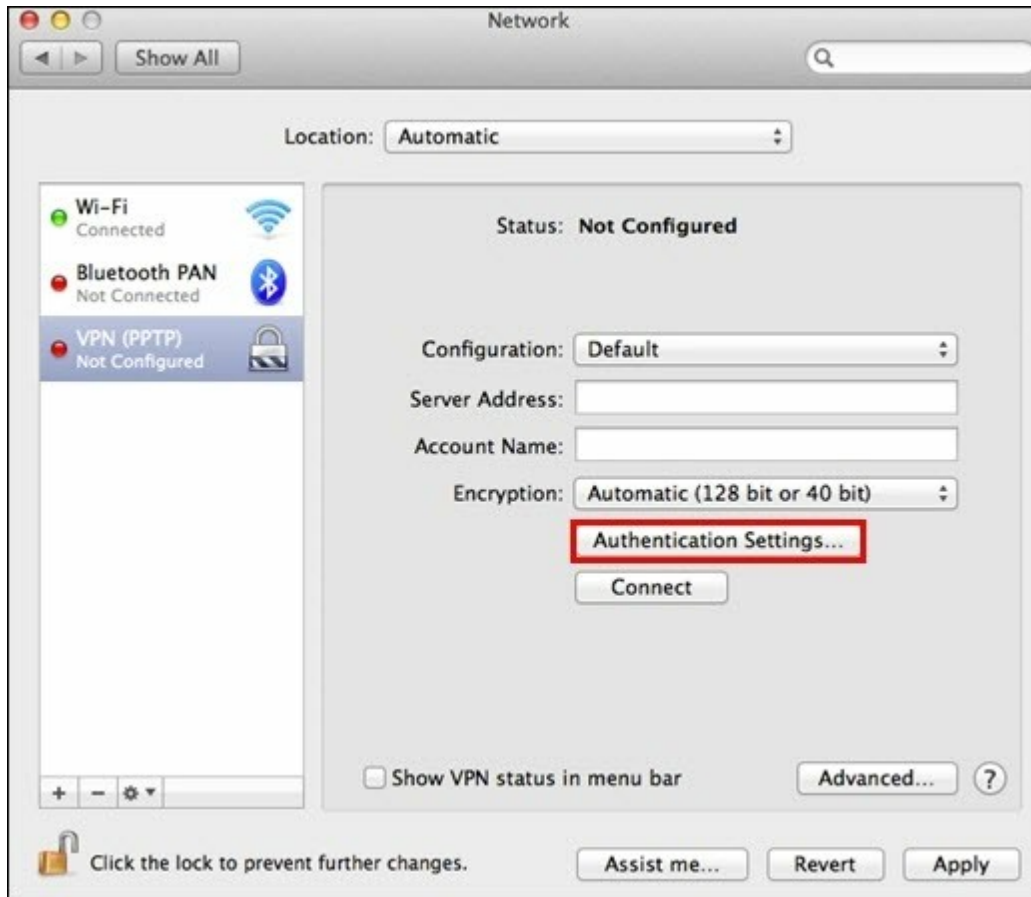
3. NAS VPN



4. 'Server Address()' myQNAPcloud NAS WAN IP
 'Account Name()' , NAS 가



5. 'Authentication Settings()' , 가



6. "OK()", "Connect()"

iOS 5 PPTP

1. 'Settings()' > 'General()' > 'Network()' > 'VPN'



2. 'Add VPN Configuration(VPN 가)'



3. PPTP



4. 'Settings()' > 'General()' > 'Network()' > 'VPN' 가 'VPN'



Windows OpenVPN

1. <http://openvpn.net/index.php/open-source/downloads.html> OpenVPN
2. Windows OpenVPN C:\ Program Files\ OpenVPN
3. OpenVPN GUI
4. NAS OpenVPN ('Application Servers() "> \VPN Service(VPN) "> \VPN Server Settings(VPN) "> \OpenVPN Settings(OpenVPN)).
5. openvpn.ovpn "OPENVPN_SERVER_IP " OpenVPN IP
6. "ca.crt " "openvpn.ovpn " OpenVPN (C:\ Program Files\ OpenVPN\ config).

: OpenVPN 가 Windows 7 , OpenVPN 가

Linux OpenVPN

1. <http://openvpn.net/index.php/open-source/downloads.html> OpenVPN
2. Linux OpenVPN
3. NAS OpenVPN (Application Servers) "> VPN Service(VPN) "> VPN Server Settings(VPN) "> OpenVPN Settings(OpenVPN) }.
4. `openvpn.ovpn` `OPENVPN_SERVER_IP` OpenVPN IP
5. `ca.crt` `openvpn.ovpn` OpenVPN
6. OpenVPN

Mac OpenVPN

1. <http://code.google.com/p/tunnelblick/> OpenVPN
- 2.
3. NAS OpenVPN (Application Servers) "> VPN Service(VPN) "> VPN Server Settings(VPN) "> OpenVPN Settings(OpenVPN) }.
4. `openvpn.ovpn` `OPENVPN_SERVER_IP(alfred.myqnapnas.com)` OpenVPN IP
5. `ca.crt` `openvpn.ovpn` OpenVPN
6. OpenVPN

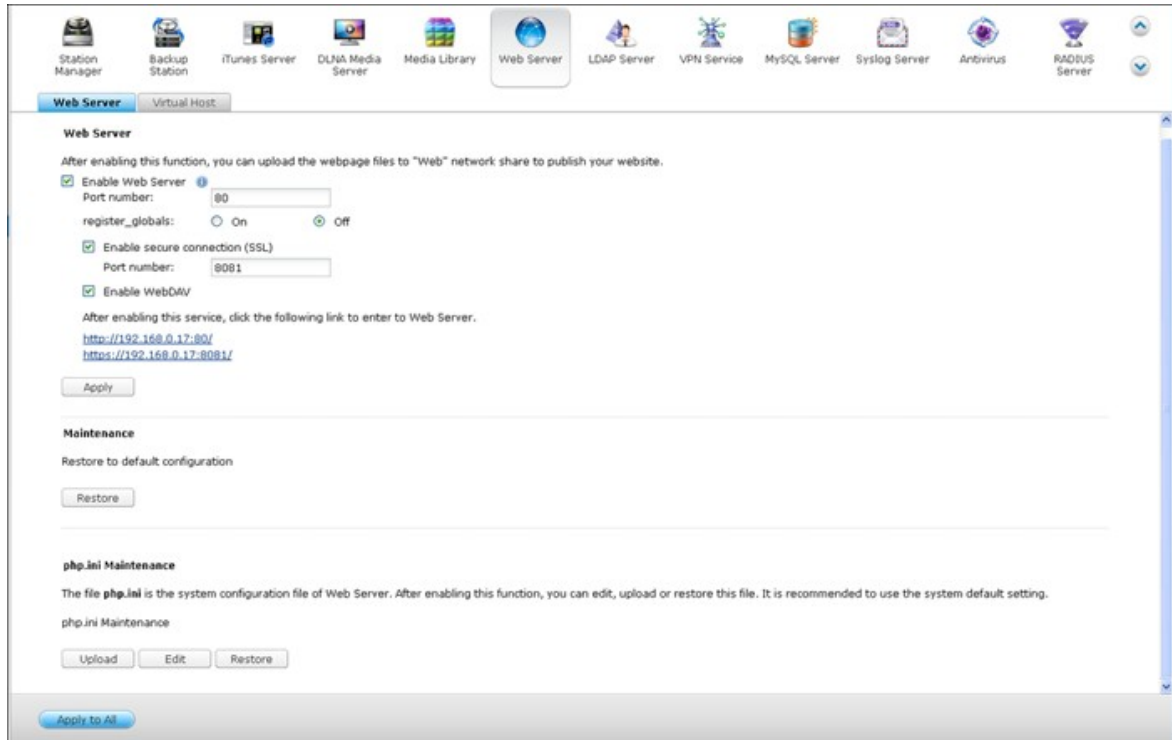
7.11

NAS

Joomla!, PHP MySQL

. NAS

가



1. 80
2.
 - i. register_globals : register_globals
php register_globals
 - ii. : Restore()”
 - iii. php.ini : php.ini Maintenance(php.ini)” php.ini
3. (SSL): SSL
4. HTML NAS (Qweb/ Web) . index.html, index.htm
index.php 가

5.

<http://NAS IP/>

<http://NAS IP:8080>

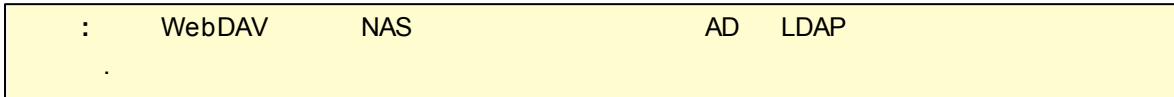
NAS

- [Music Station, Photo Station, Happy Get, QAirplay](#)
- PHP mail() "System Settings()"> Notification()"> SMTP Server(SMTP)" SMTP

WebDAV

WebDAV(Web-based Distributed Authoring and Versioning) HTTP(S)

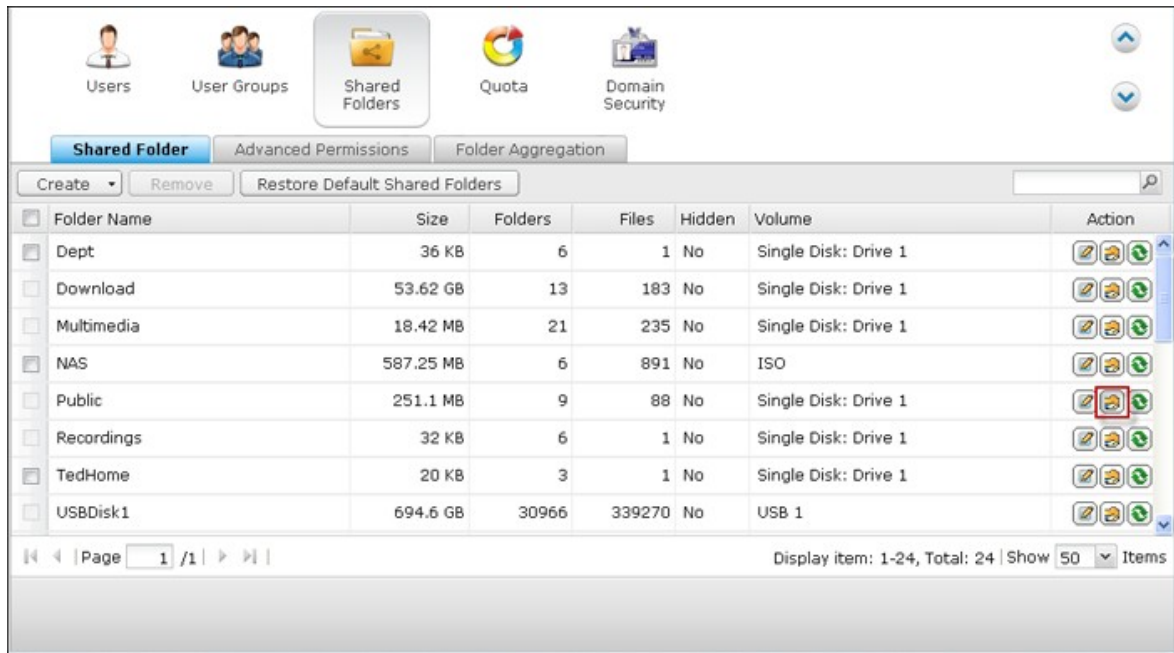
NAS PC
 Privilege Settings()> Shared Folders()”



NAS PC , WebDAV

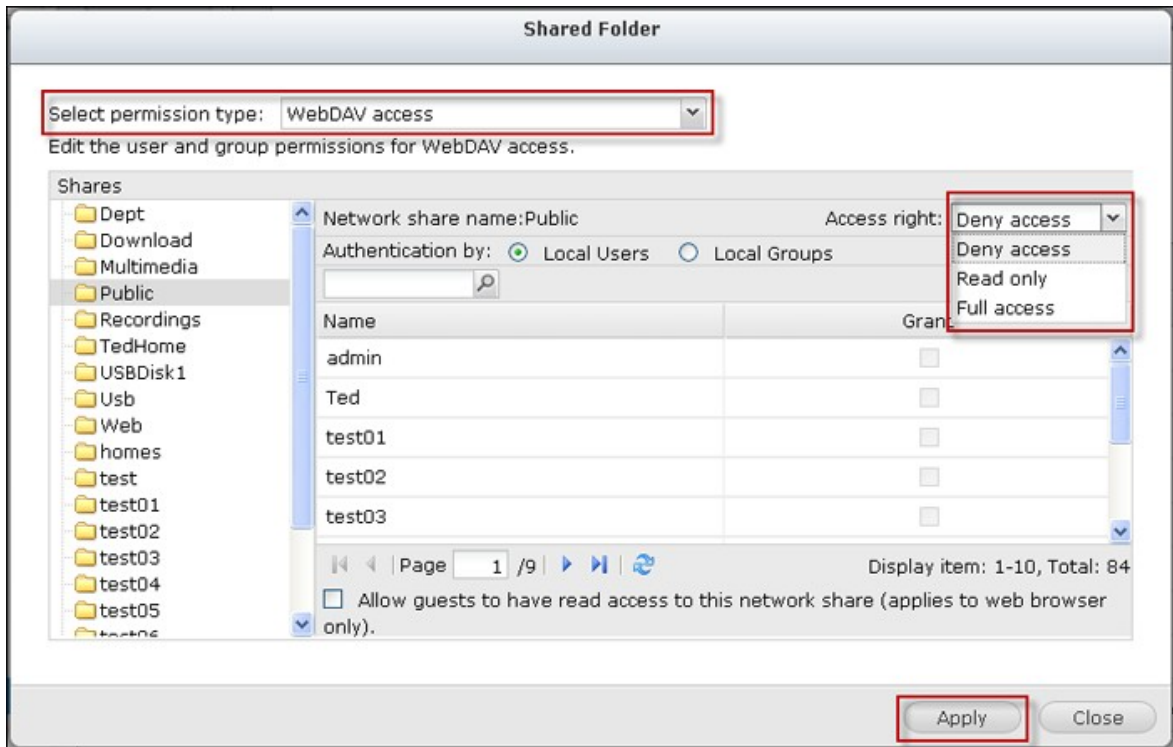
Privilege Settings()> Shared Folders()” . Action()”

Access Permission()”



WebDAV access(WebDAV)”

. Apply()”

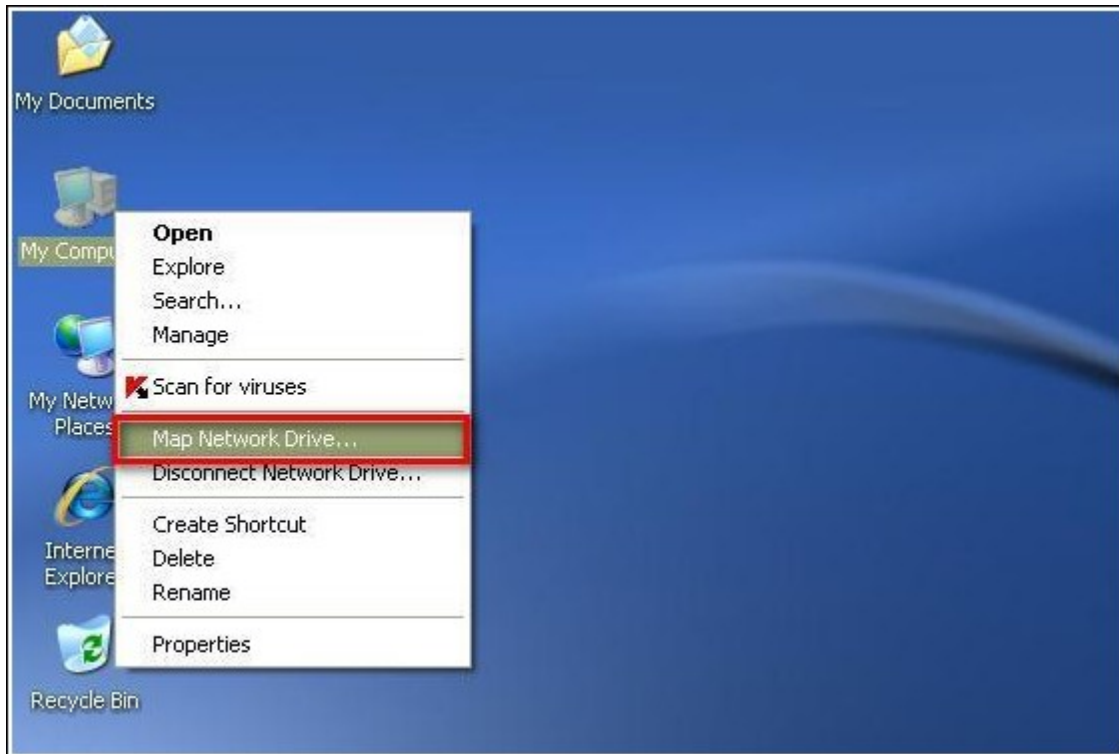


WebDAV

NAS

Windows XP:

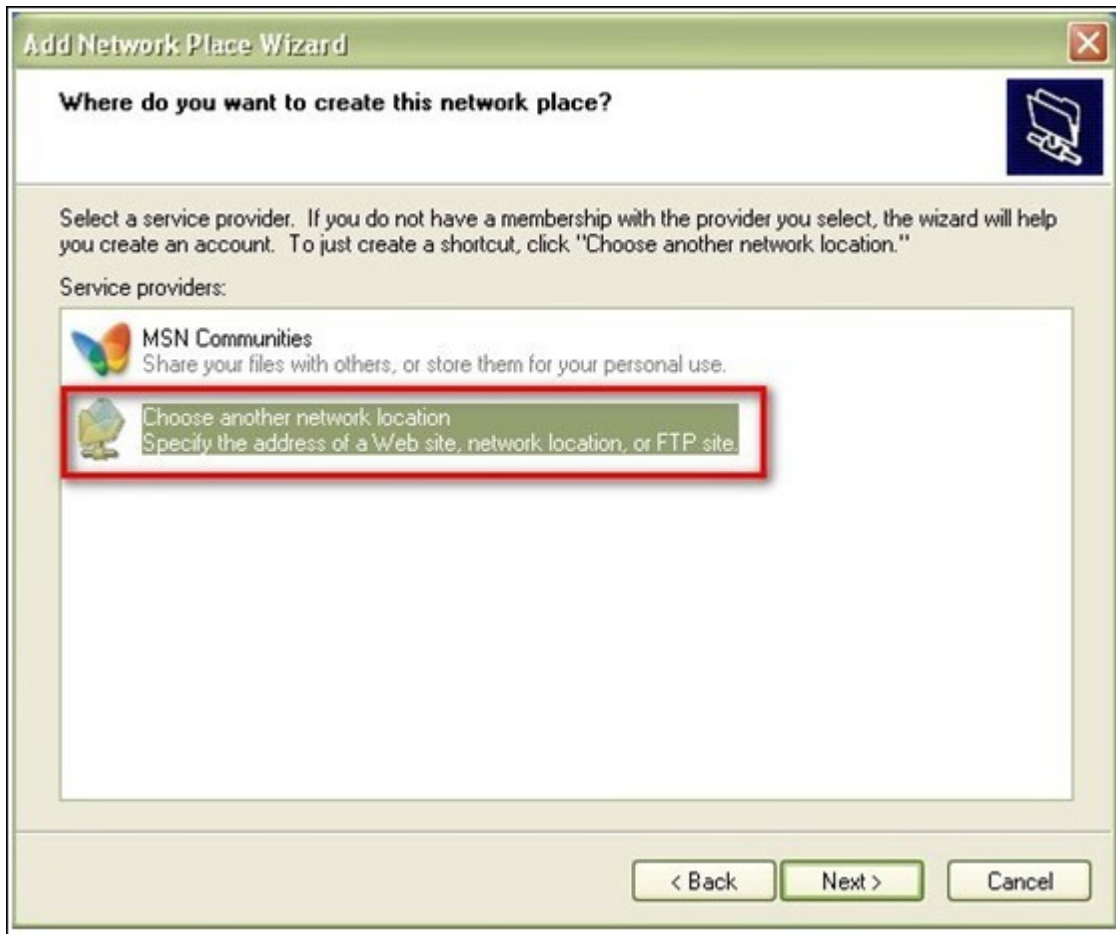
1. " " " ..."



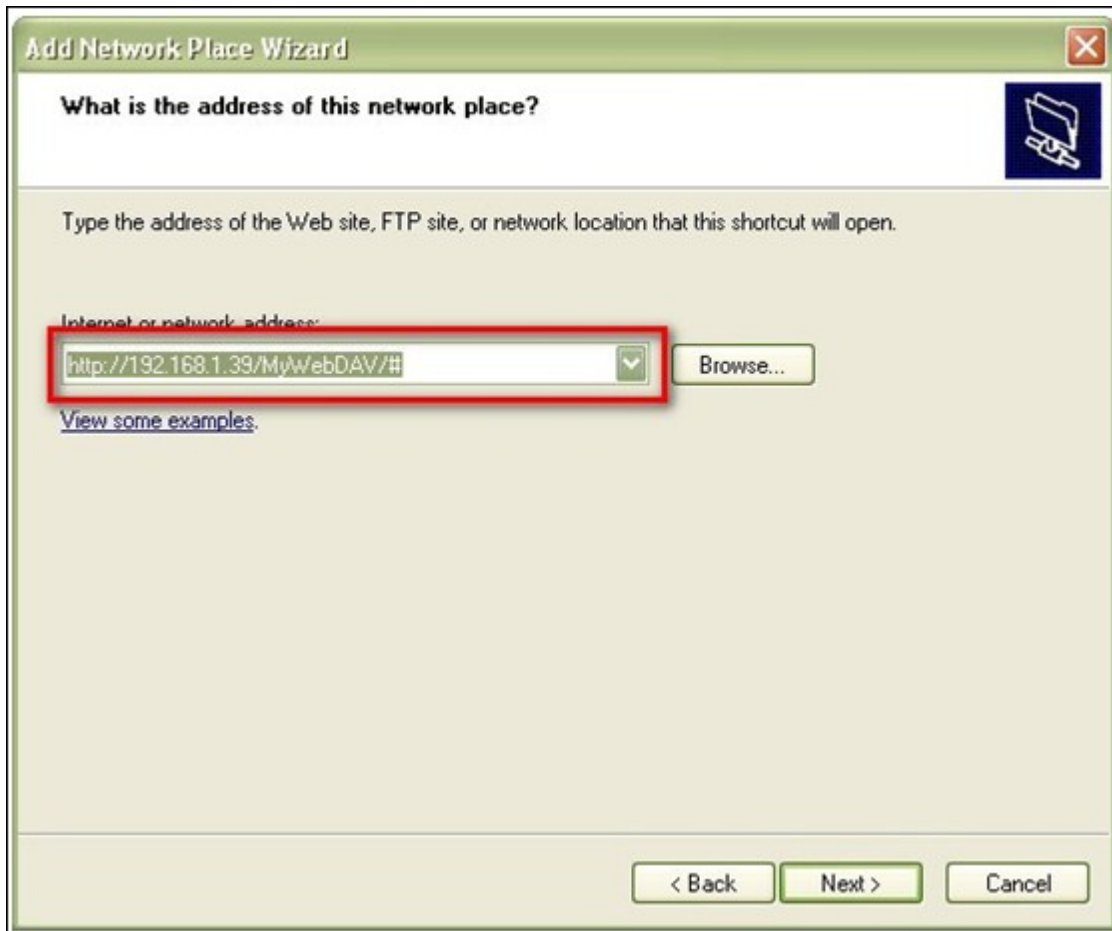
2. "Sign up for online storage or connect to a network server()"



3. "Choose another network location()"

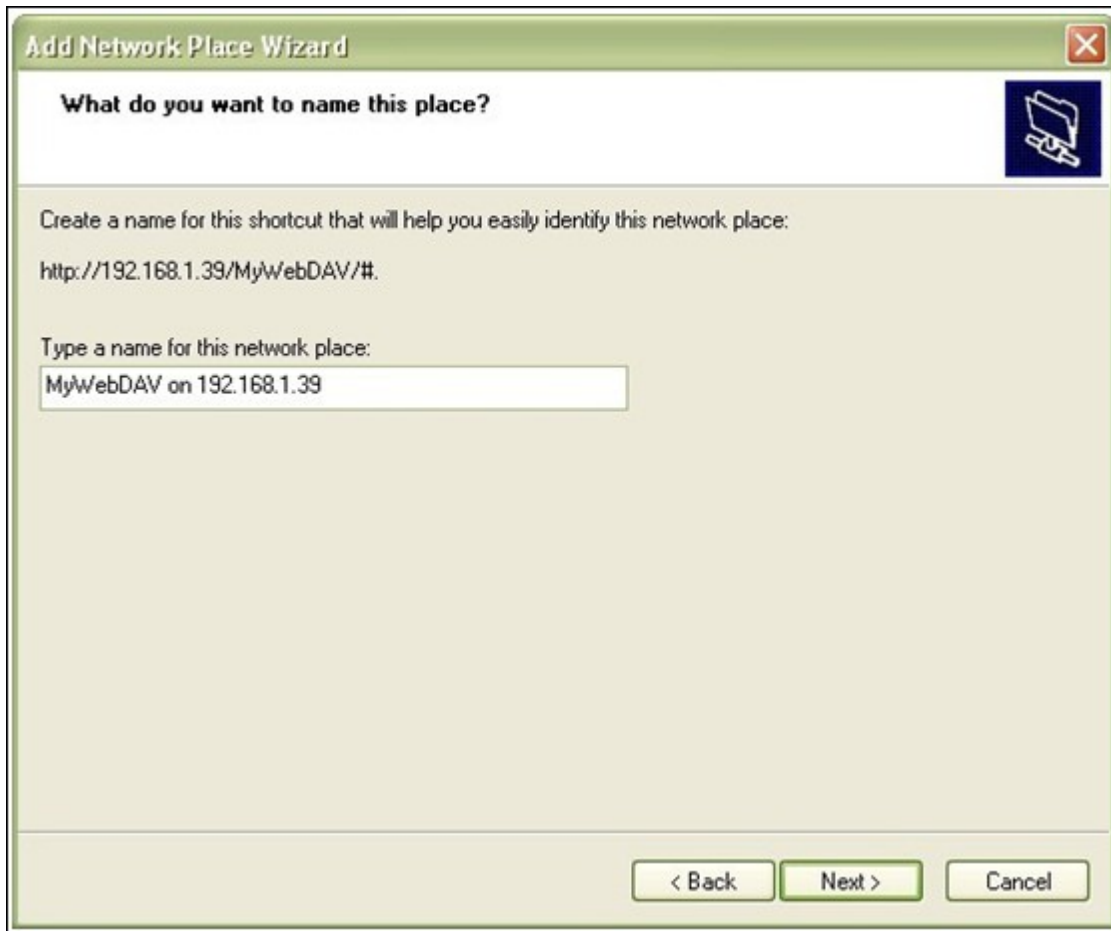


4. NAS URL . URL "#". Next()" : http://NAS_IP_or_HOST_NAME/SHARE_FOLDER_NAME/#



5. WebDAV

6.



7.

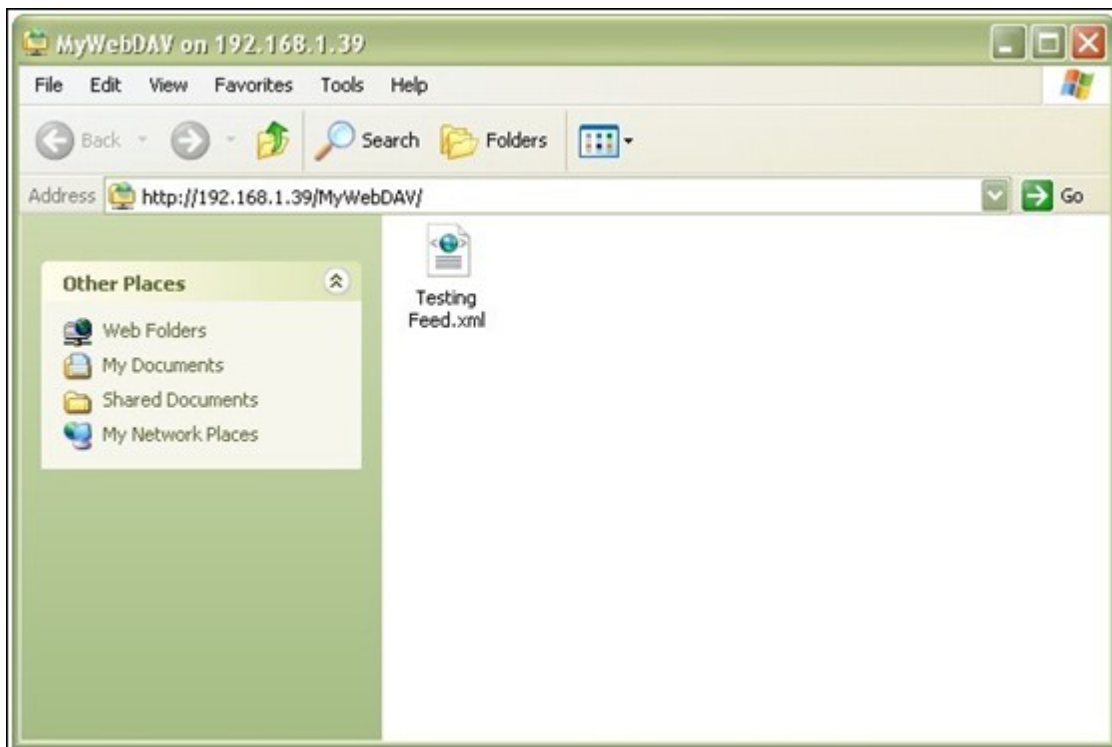
가

.



8. WebDAV

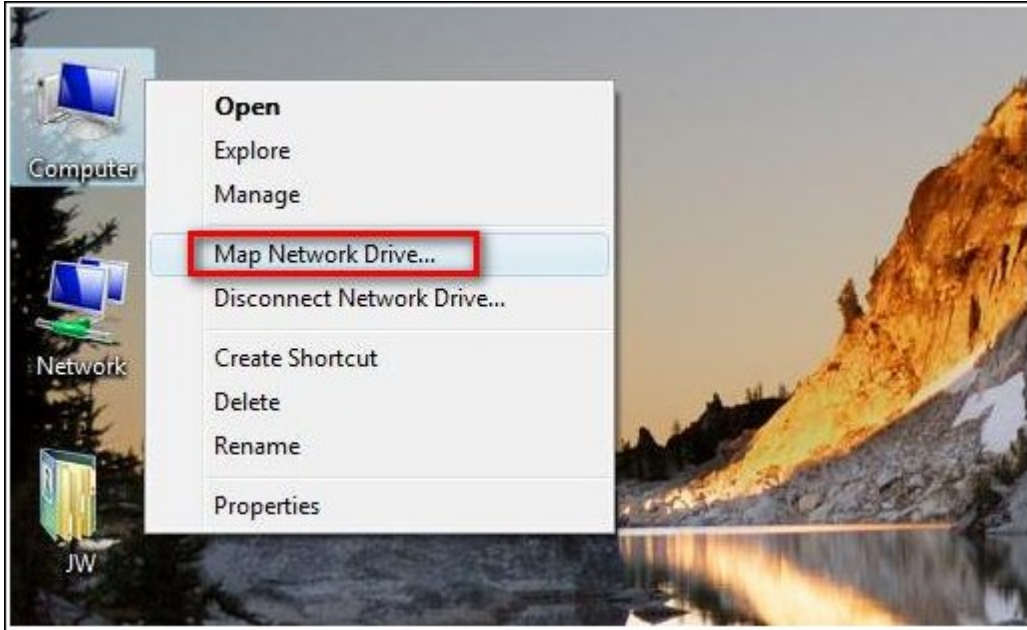
가 “



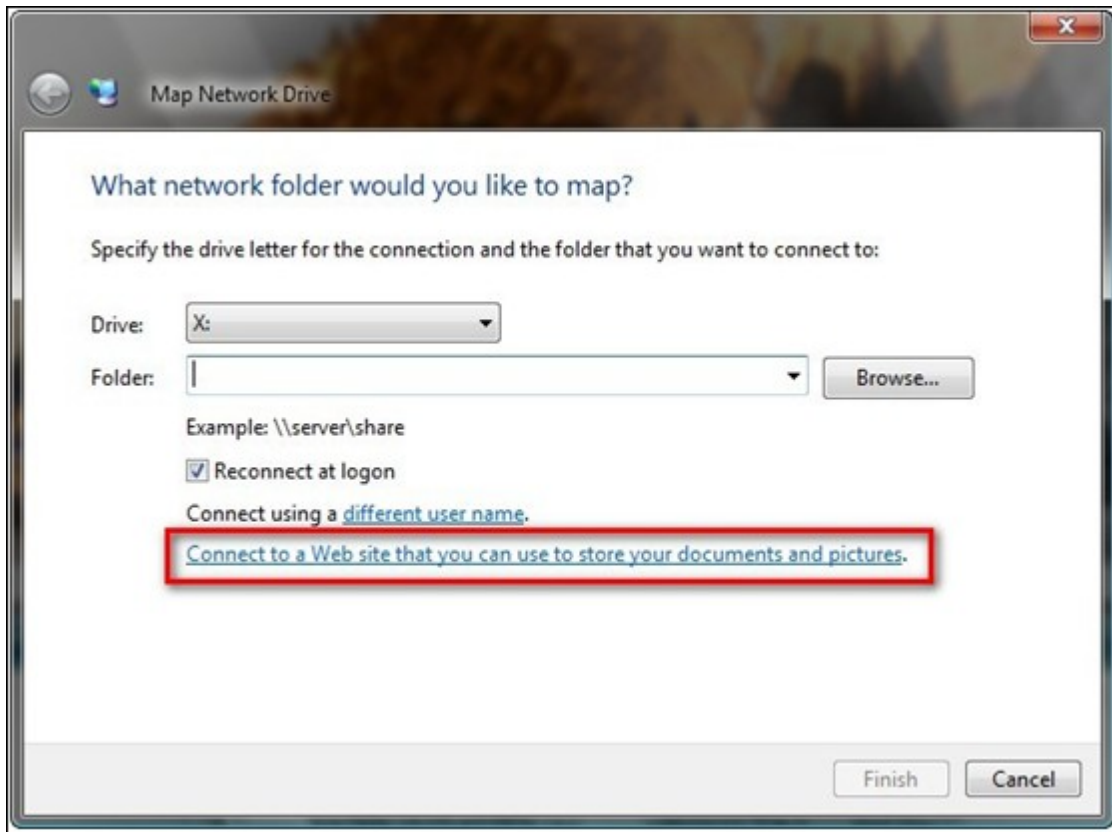
Windows Vista

Windows Vista , "Software Update for Web Folders (KB907306)"
32 Windows OS <http://www.microsoft.com/downloads/details.aspx?FamilyId=17c36612-632e-4c04-9382-987622ed1d64&displaylang=en>

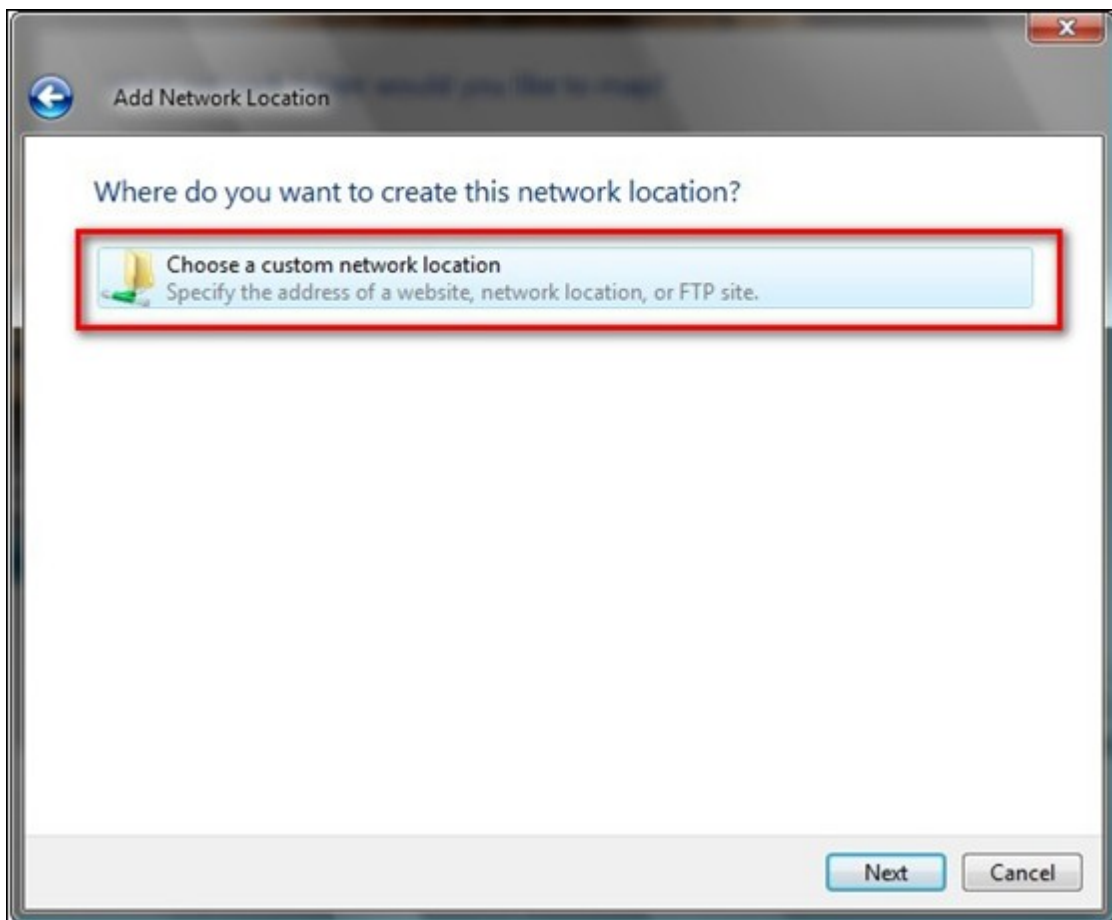
1. " " " ..."



2. "Connect to a Web site that you can use to store your documents and pictures ()"

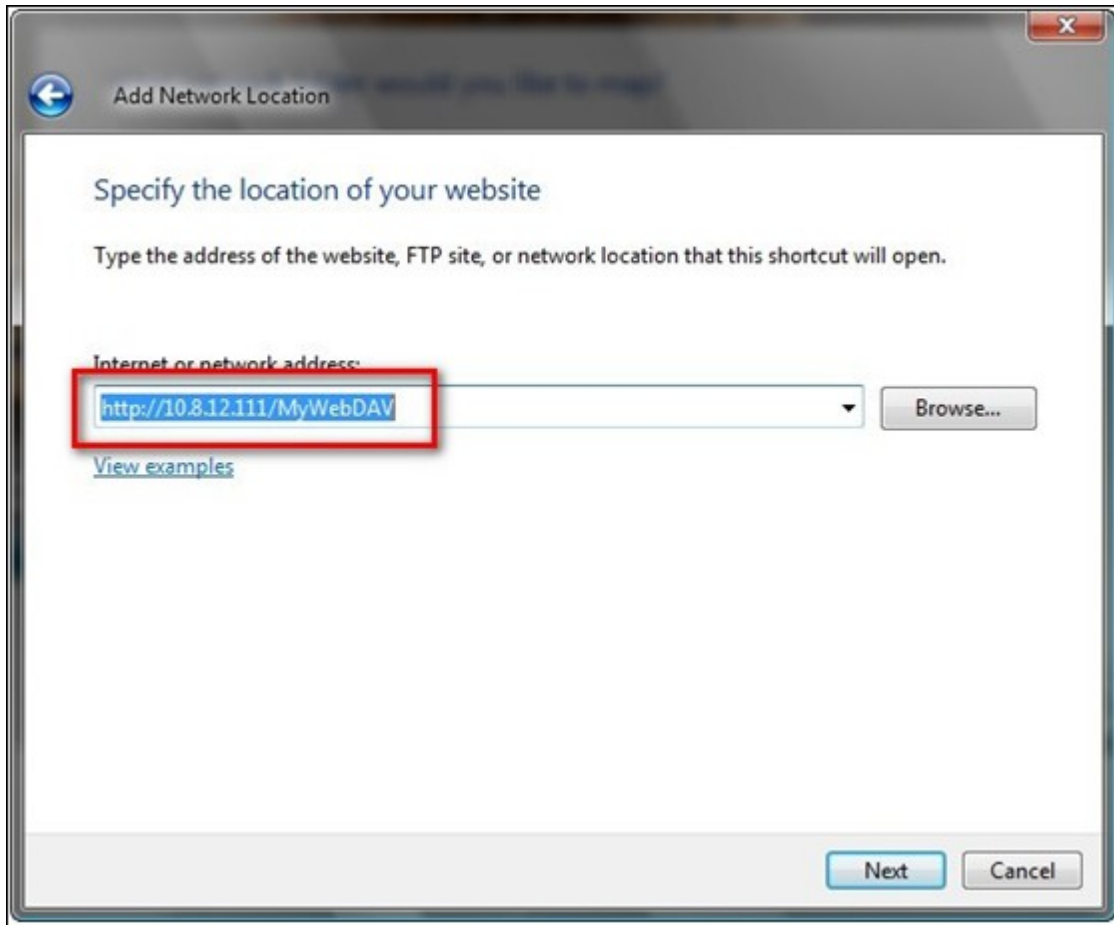


3. "Choose a custom network location()"



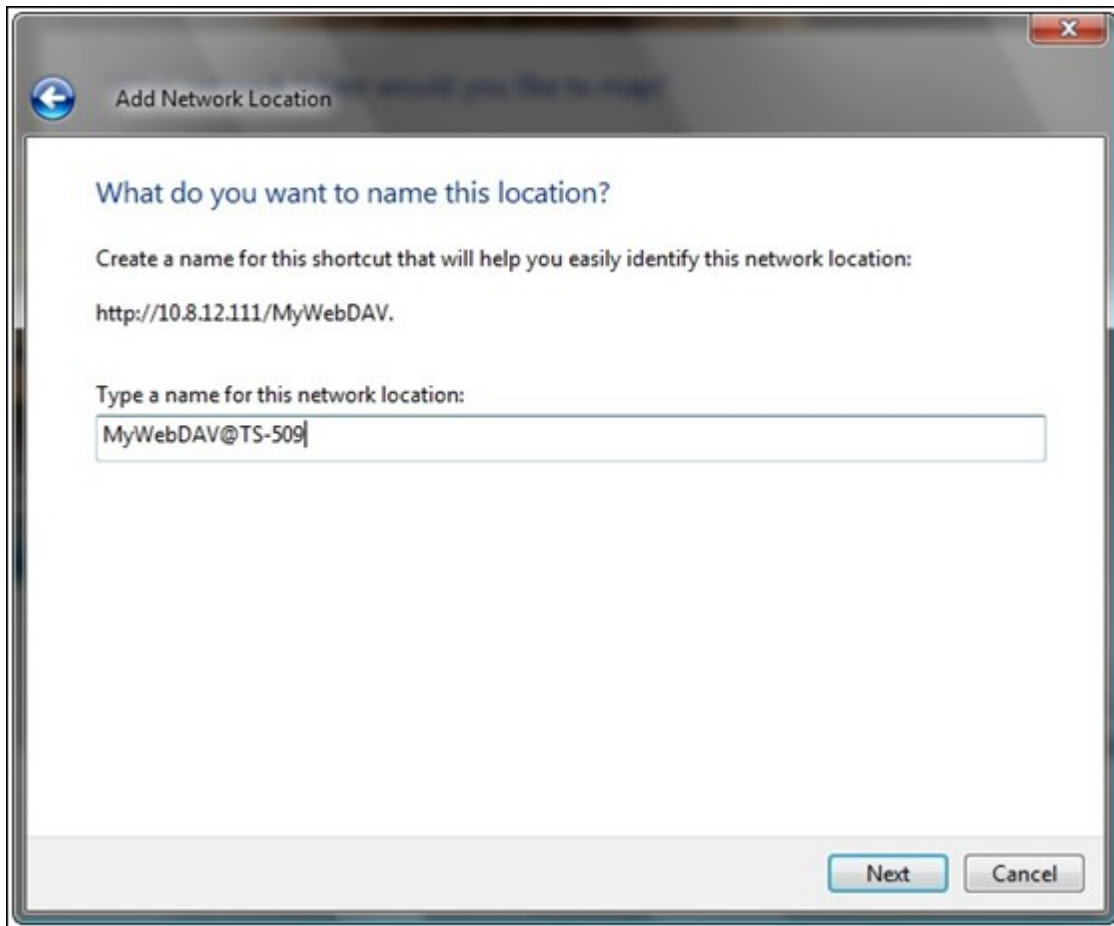
4. NAS URL

: `http://NAS_IP_or_HOST_NAME/SHARE_FOLDER_NAME`

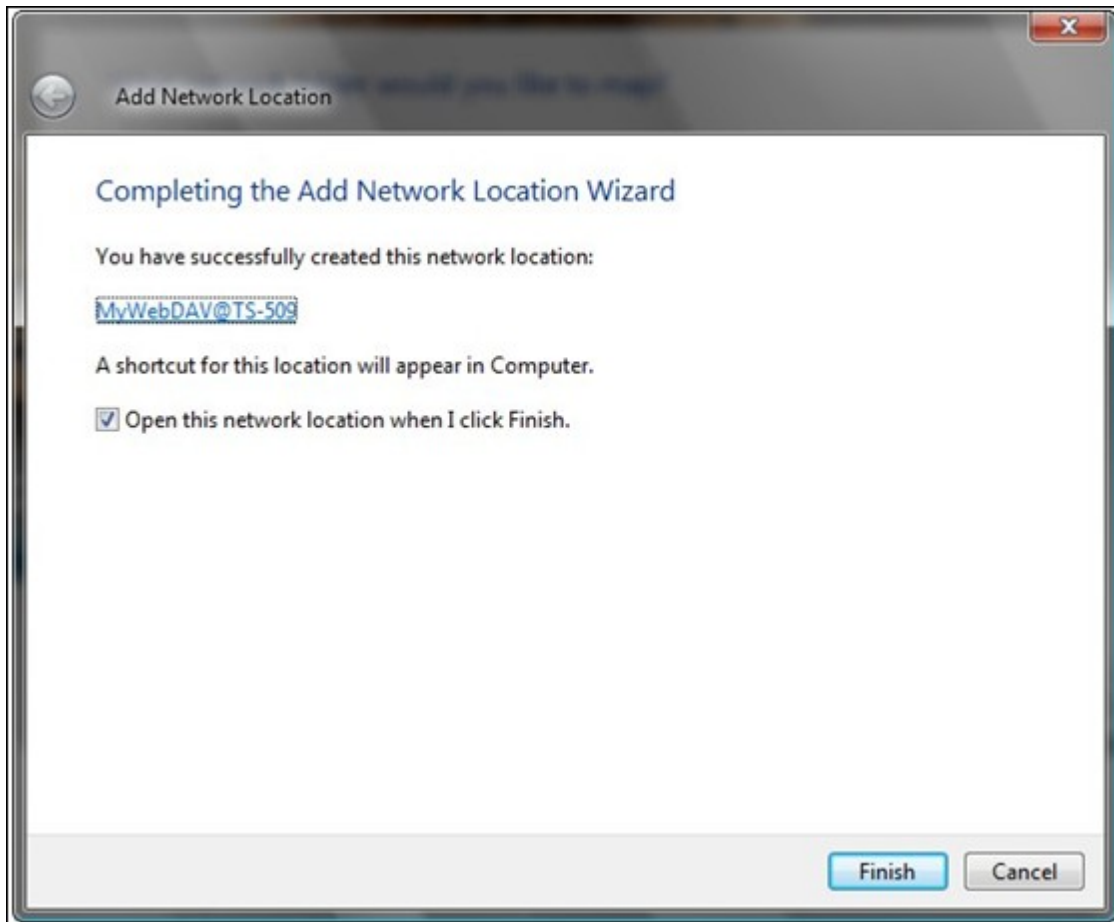


5. WebDAV

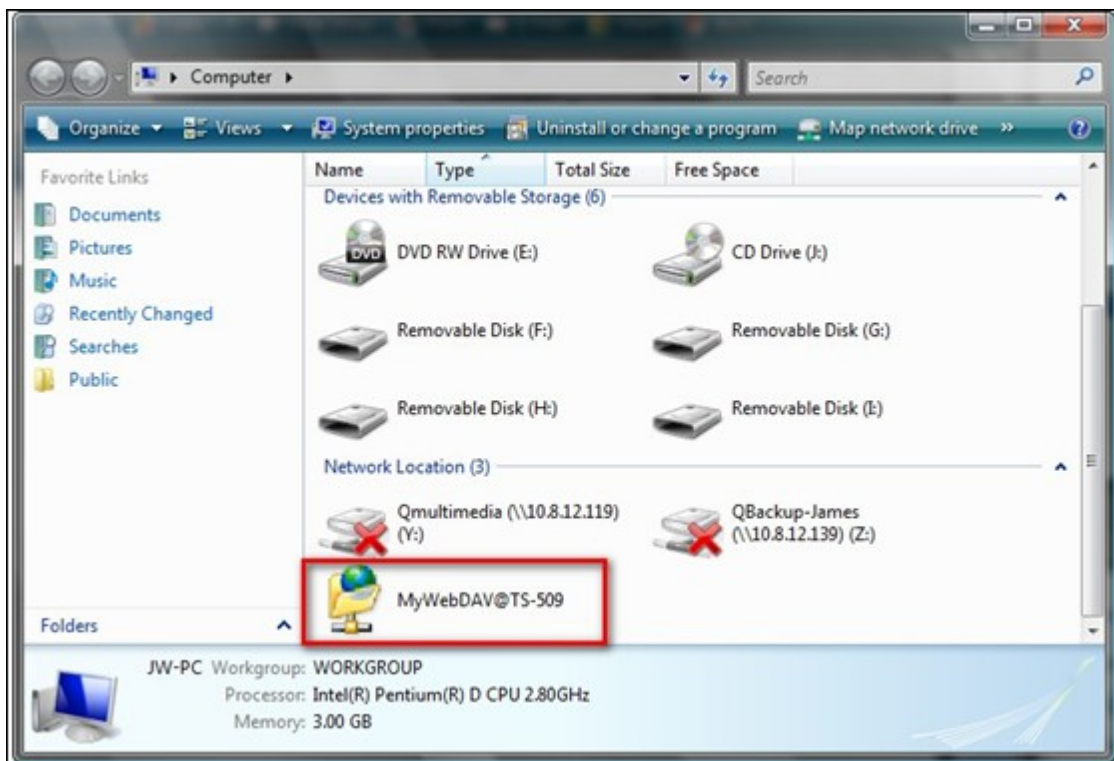
6.



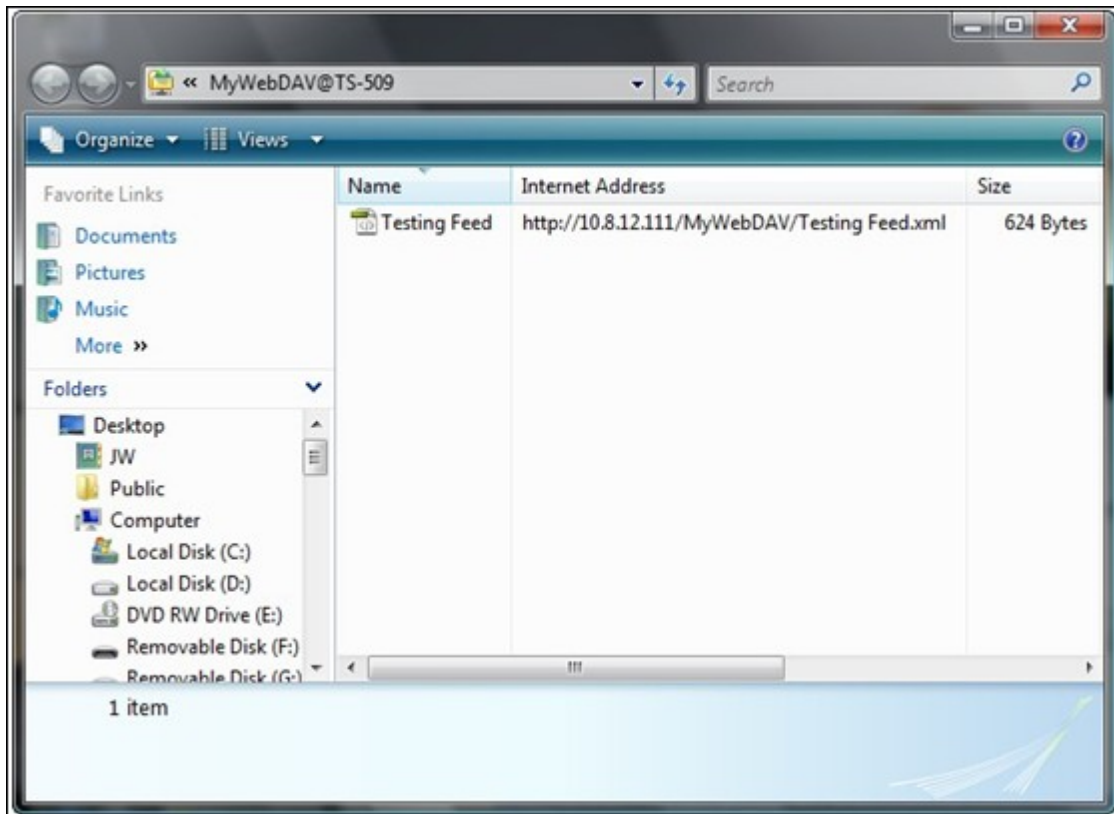
7. 가



8. " " " " "



9. HTTP/WebDAV



Mac OS X

Mac OS X WebDAV NAS

: Mac OS X Snow Leopard (10.6.1)

1. Finder() "> Connect to Server()"

URL

: http://NAS_IP_or_HOST_NAME/SHARE_FOLDER_NAME



2. WebDAV



3. HTTP/WebDAV



4. " "



Mac OS X 10.6

10.4

Ubuntu

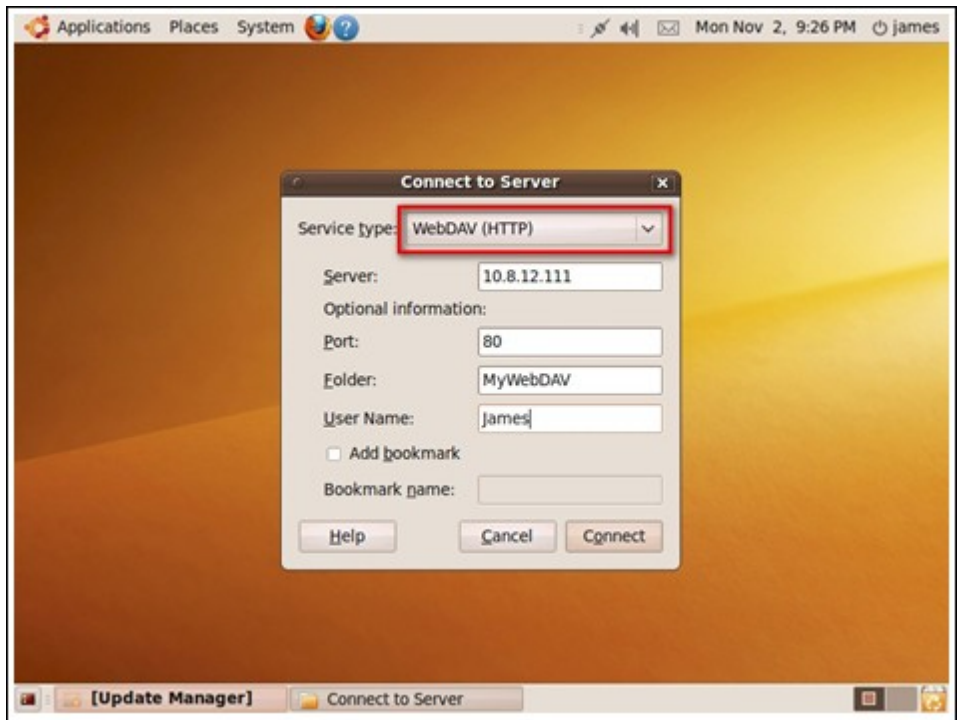
Ubuntu WebDAV NAS

: Ubuntu 9.10

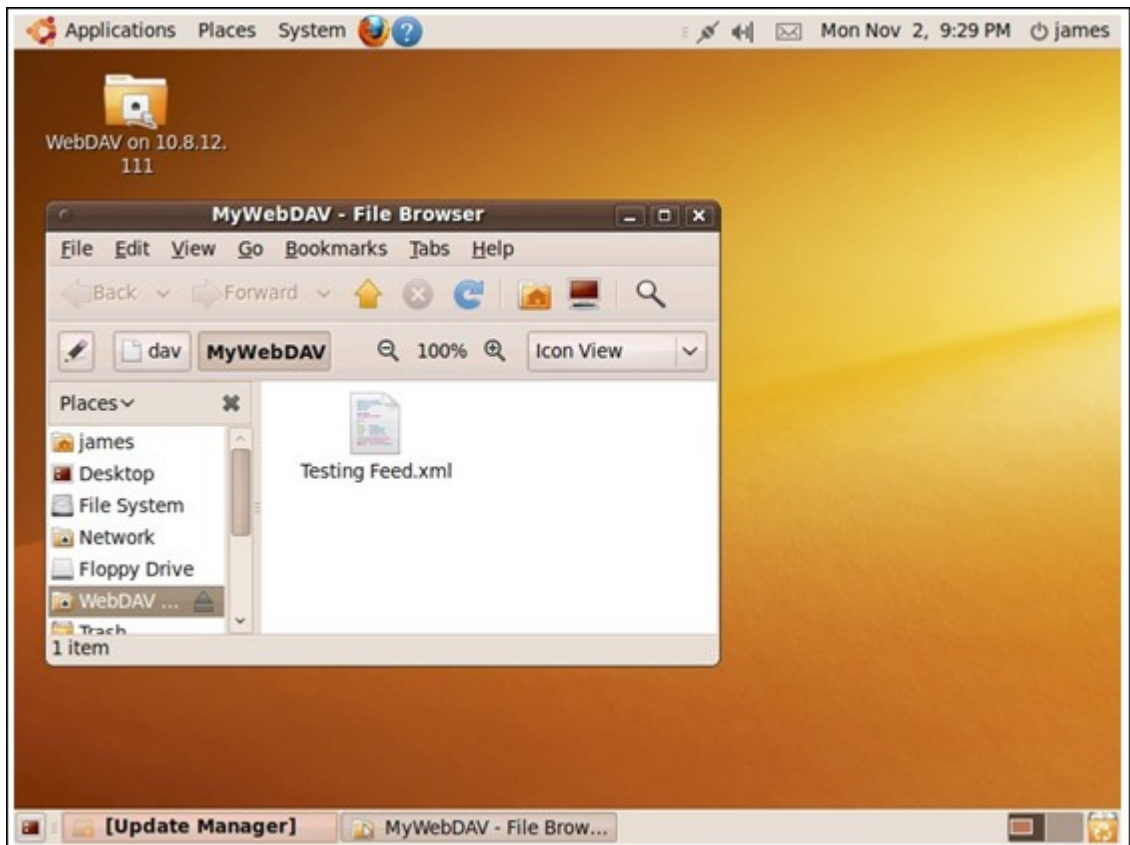
1. Places()"> Connect to Server...()"



2. NAS "WebDAV (HTTP)" "Secure WebDAV (HTTPS)"
WebDAV
"Connect()"



3. WebDAV , 가



MySQL

phpMyAdmin

NAS
URL

MySQL

: MySQL

"root"

"admin"

. phpMyAdmin

SQLite

SQLiteManager

SQLiteManager-*.tar.gz?

1. SQLiteManager-*.tar.gz

2. SQLiteManager-* \ \ NAS IP\ Web\ or \ \ NASIP\ Qweb

3. http://NAS IP/SQLiteManager-*/

?: "*" SQLiteManager

7.11.1 가

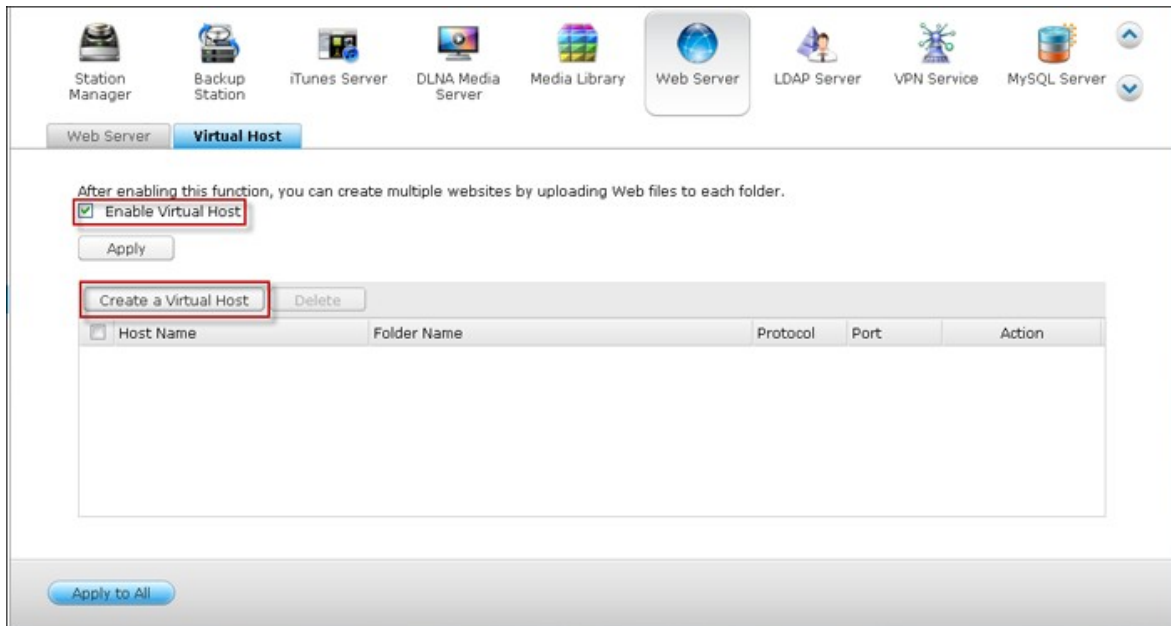
가 ()
 가
 (32) NAS

	WAN/ LAN IP		
site1.mysite.com	WAN IP: 111.222.333.444	/Qweb/site1_mysite	Joomla!
site2.mysite.com	LAN IP: 10.8.12.45 (NAS)	/Qweb/site2_mysite	WordPress
www.mysite2.com	: 80 (NAS)	/Qweb/www_mysite2	phpBB3

- : 'Applications()"> 'Web Server()"
- DNS : NAS WAN IP 가 DNS
- " 80 , 80 NAS LAN IP (10.8.12.45) 가
- SSL 가 : SSL SSL
 , 'System Settings()"> 'Security()"> 'Certificate &
 Private Key()" 가

가

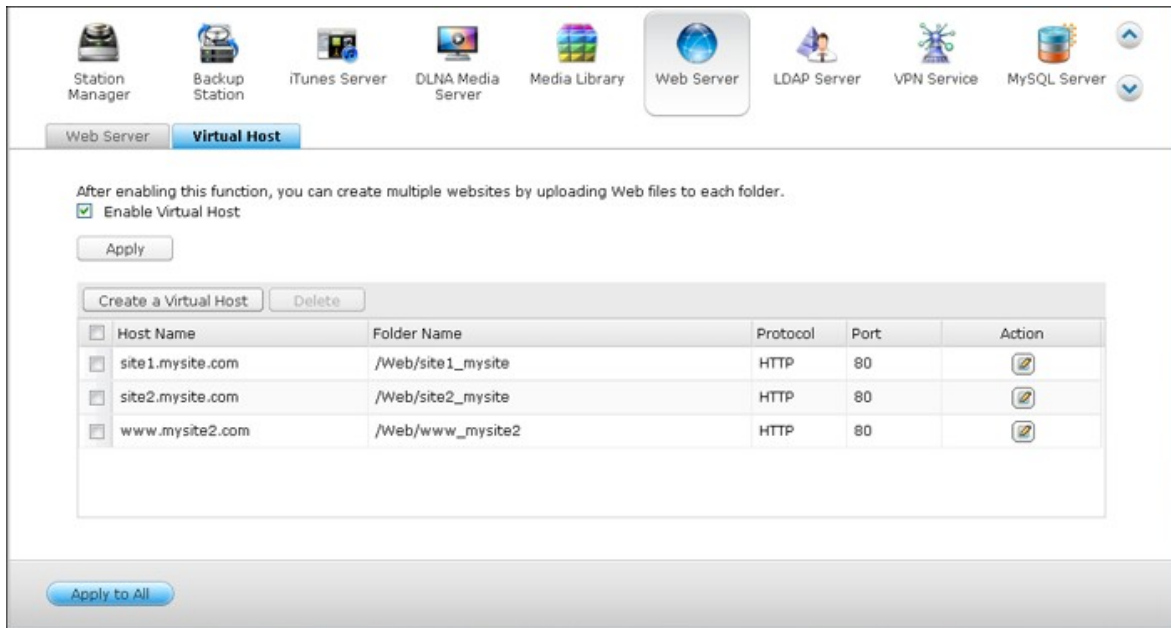
1. "Enable Virtual Host(가)" "Apply()"
2. "Create Virtual Host(가)"



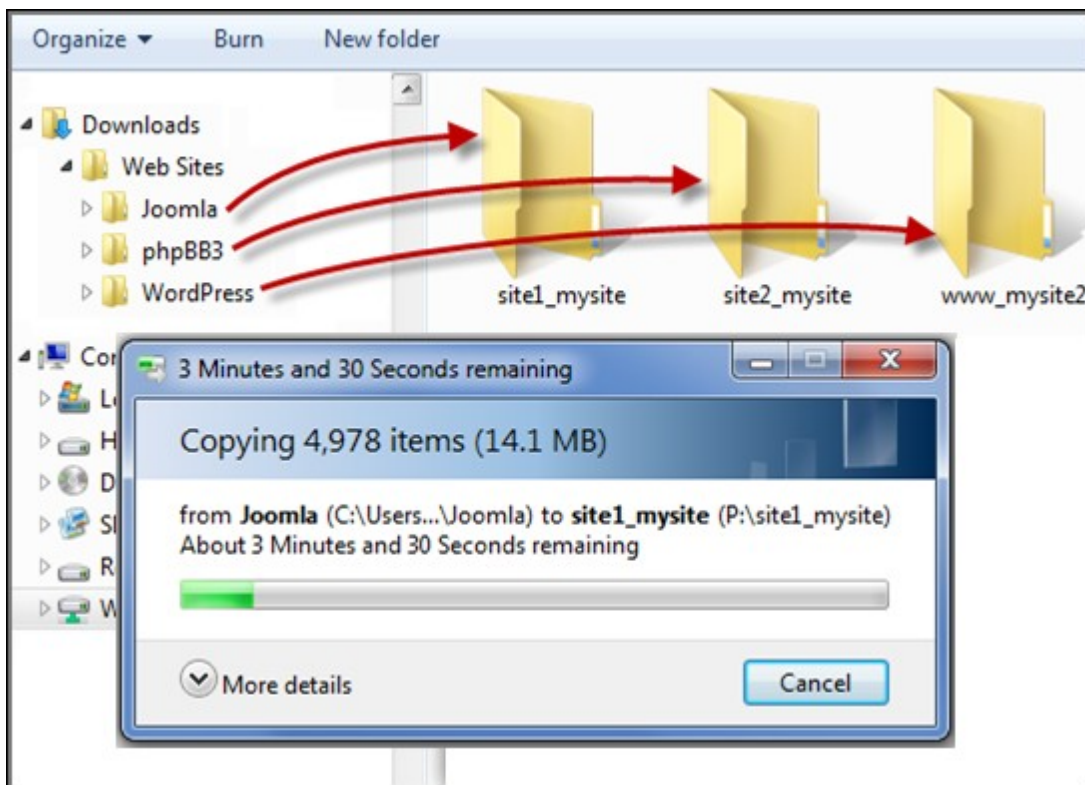
3. (Web Qweb)
4. (HTTP HTTPS) . HTTPS , Enable
Secure Connection (SSL)((SSL)) ”
- 5.
6. 'Apply()”



7. NAS



8. (site1_mysite, site2_mysite, and www_mysite2)



https://NAS_host_name 가 http://NAS_host_name URL

http://site1.mysite.com
 http://site2.mysite.com
 http://www.mysite2.com

Joomla!, phpBB3 WordPress .

8.

DLNA [652](#) [658](#) [659](#)

HD [676](#)

iTunes [699](#) [701](#) [706](#)

myQNAPcloud [732](#) [738](#)

[760](#)

[774](#)

Surveillance_Station [782](#)

8.1

App Center

NAS

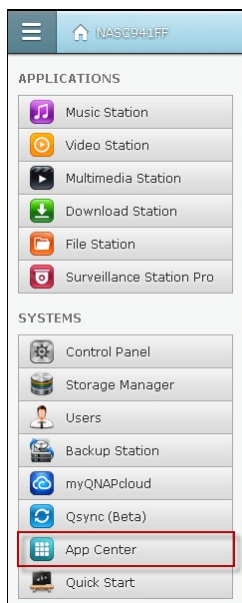
App Center

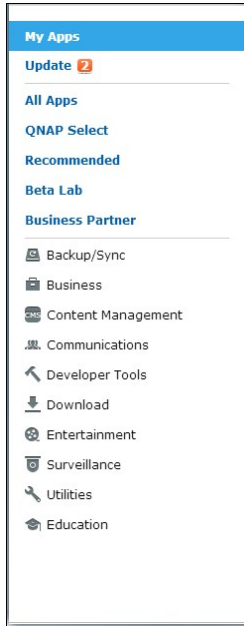


App Center

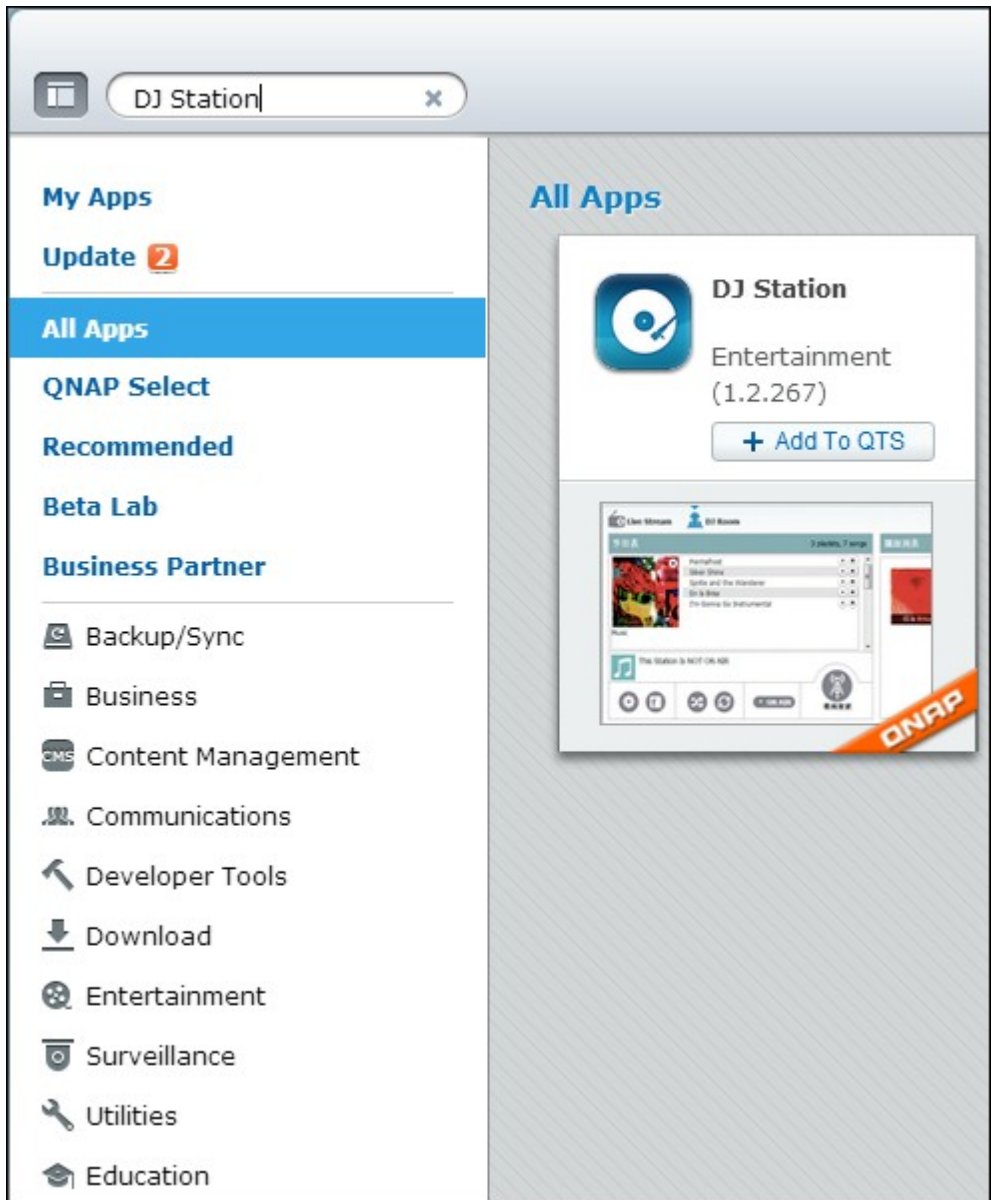
NAS

App Center





- My : NAS 가
- : NAS
- QNAP : QNAP
- : QNAP .(QNAP 가)
- : 가
- : /



“Add to QTS(QTS 가)”



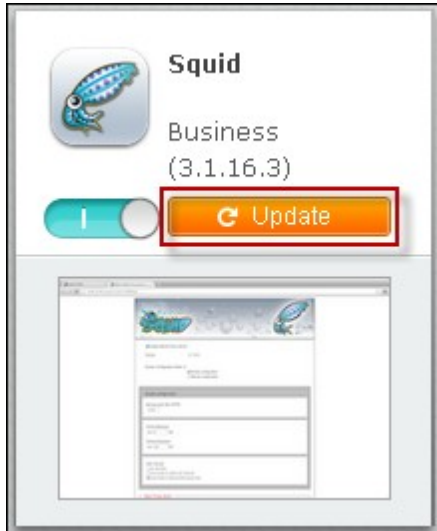
“Add to QTS(QTS 가)” Launch()”

“My Apps()”



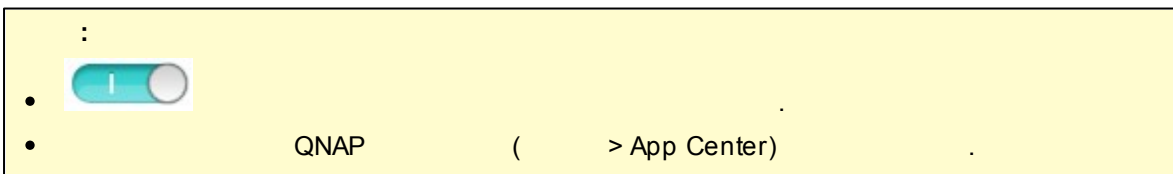
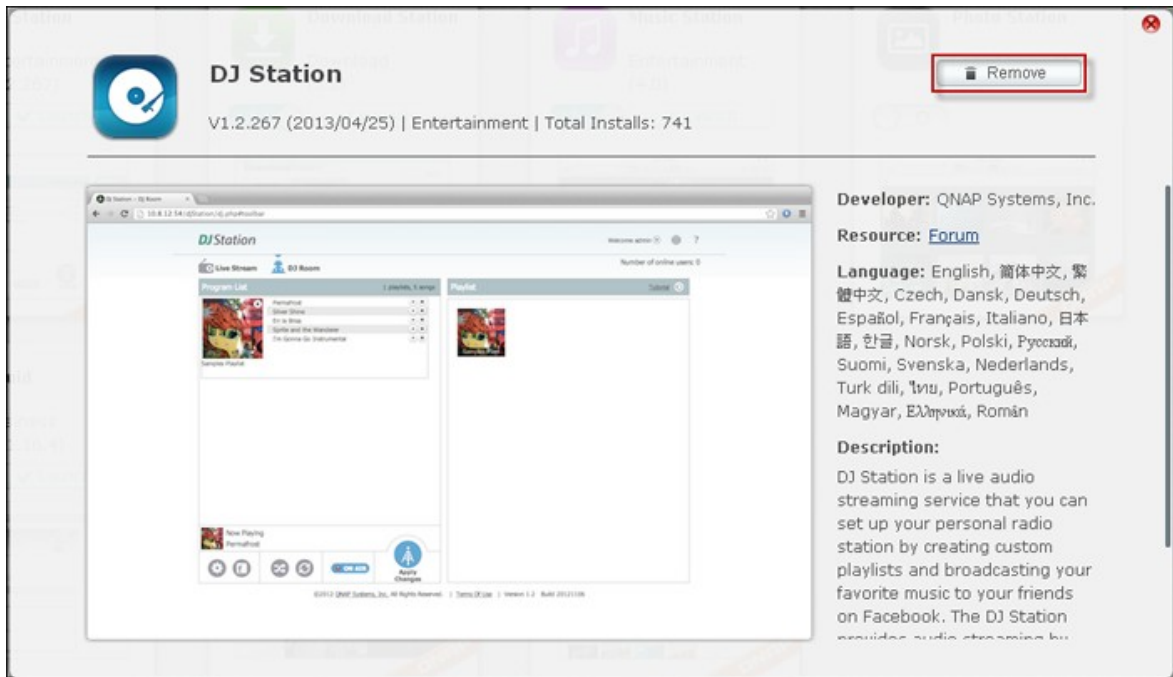
- NAS가
- QNAP /
- QNAP
- 가
- 가
- 가 App Center

Update()” OK()”



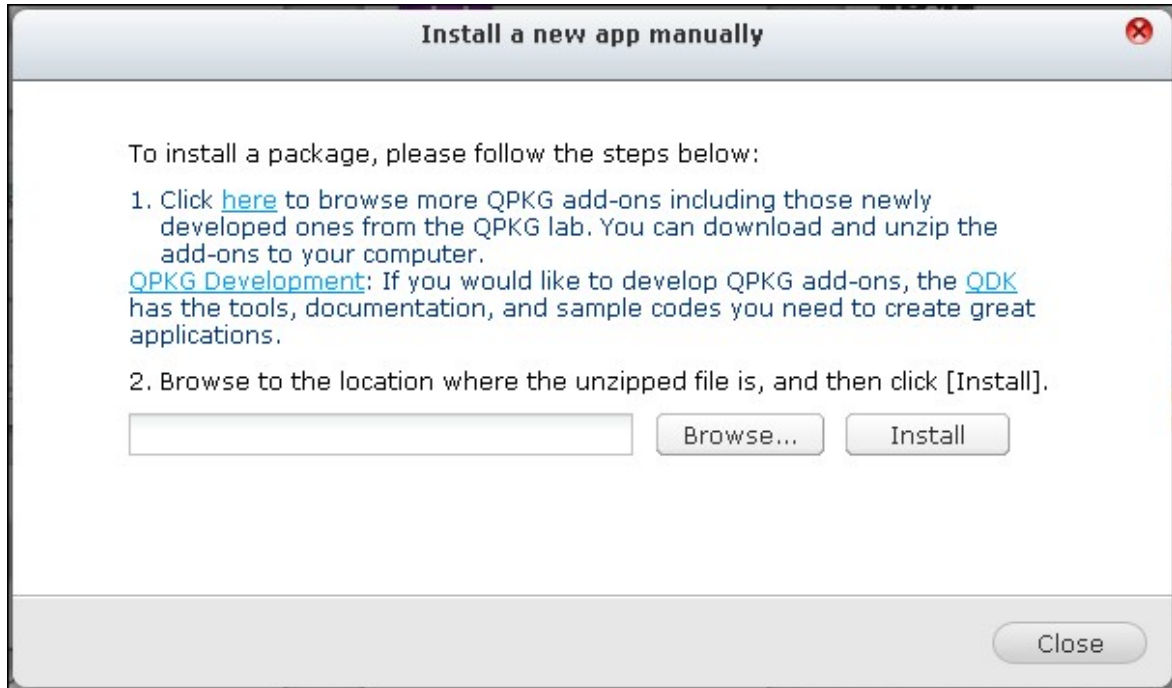
"Refresh()" "Update All()" Launch()"
가

NAS Remove()"
OK()”



NAS가
,
com/)
)"

QNAP (http://www.qnap.com/QPKG.asp) (http://forum.qnap.com/)
"Install Manually("



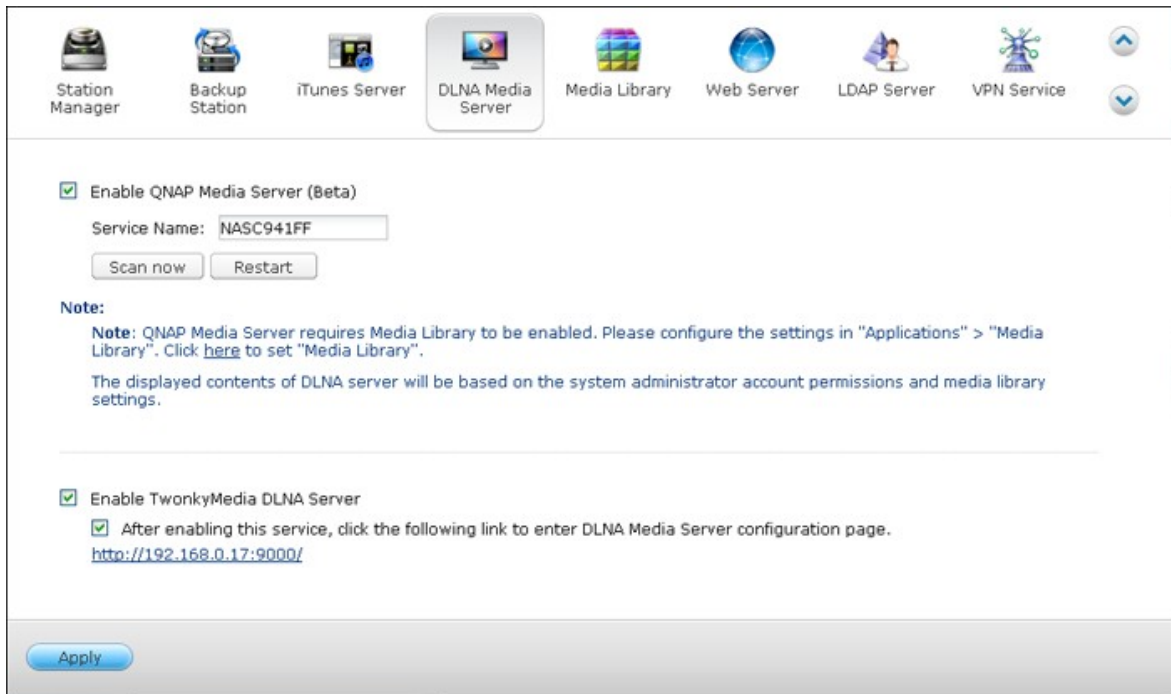
8.2 DLNA

QNAP Turbo NAS 가 DLNA : QNAP
 Twonky DLNA .

QNAP QNAP Twonky DLNA .

DLNA QNAP QNAP NAS

DLNA Twonky DLNA NAS
 (http://NAS IP:9000/) TwonkyMedia DLNA



http://NAS IP:9000/ TwonkyMedia Settings(TwonkyMedia)"> Basic Setup()" 가

NAS Qmultimedia Multimedia
 . "Basic Setup()" > "Sharing()" > "Content Locations()" 가 가

mp3, NAS

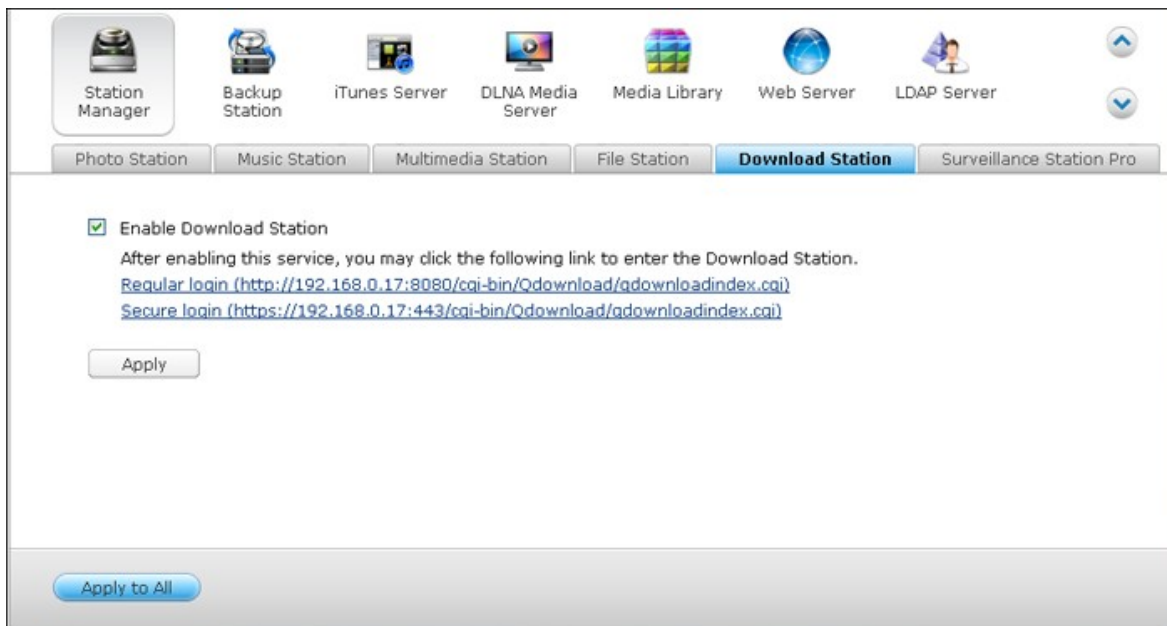
:
 , "Rescan content directories()"
 "Restart server()"

8.3

Download Station PC BT, HTTP, FTP, Magnet



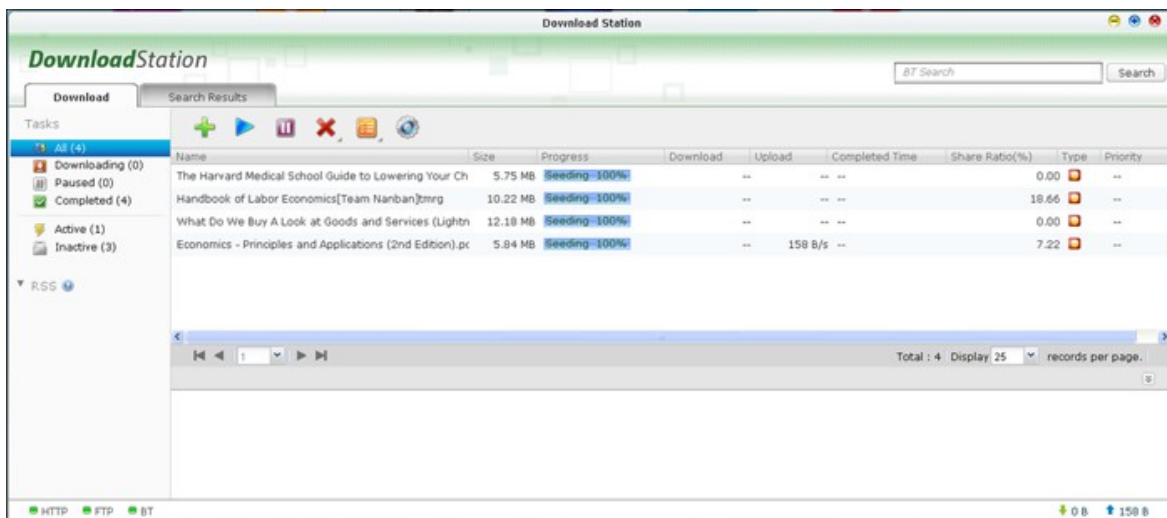
Control Panel()> Applications()> Station Manager > Download Station "



Download Station

NAS

Download Station





DownloadStation

Download Search Results

Tasks

- All (4)
- Downloading (0)

Name

+

▶

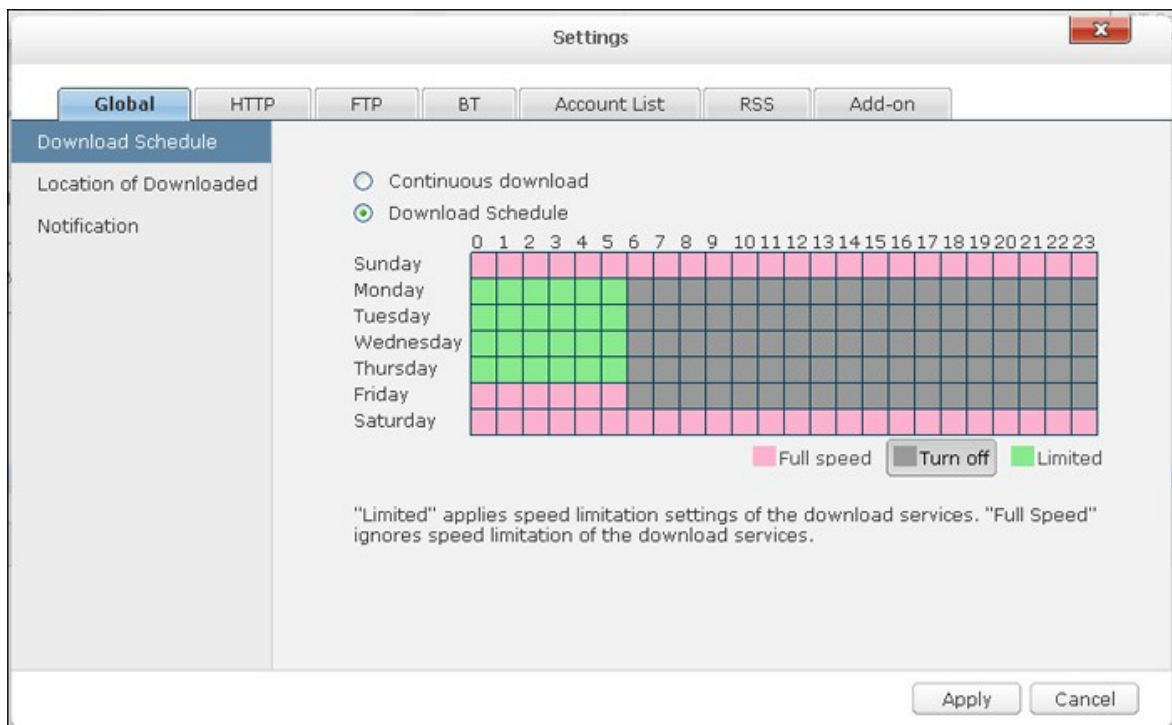
⏸

✖

☰

⚙️

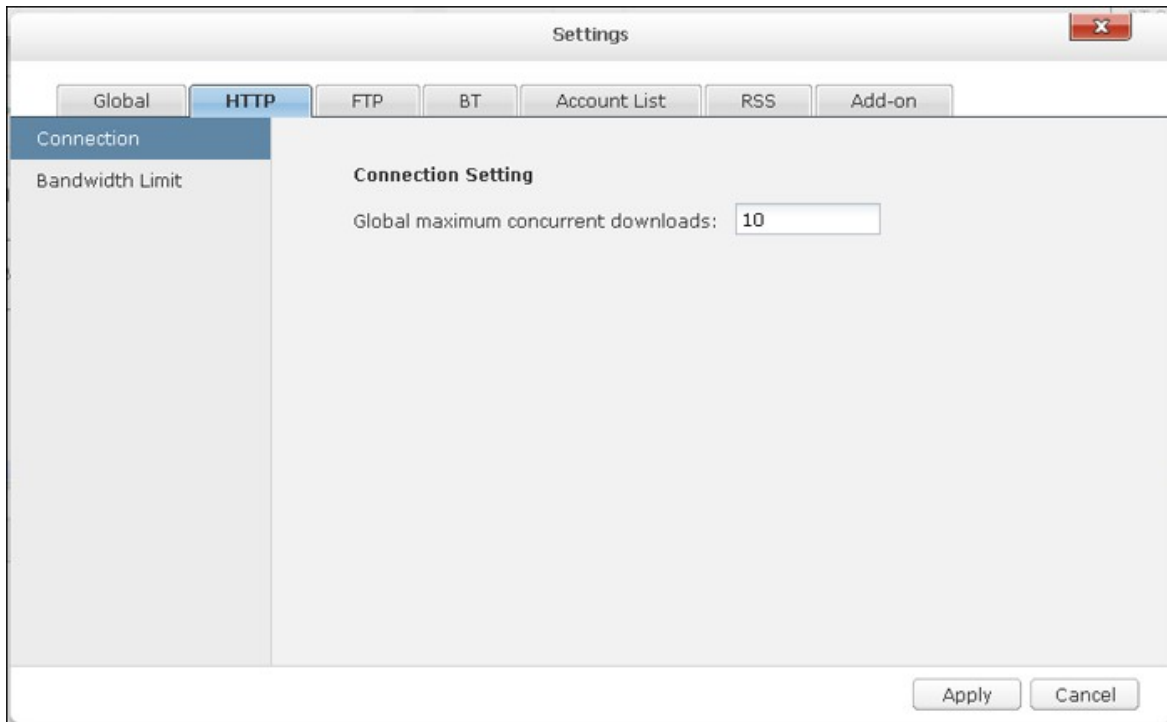
- Full speed()” ()
- Limited()”
- : NAS
- SMTP System Settings()> Notification()”



HTTP

- : HTTP
- : HTTP . 0

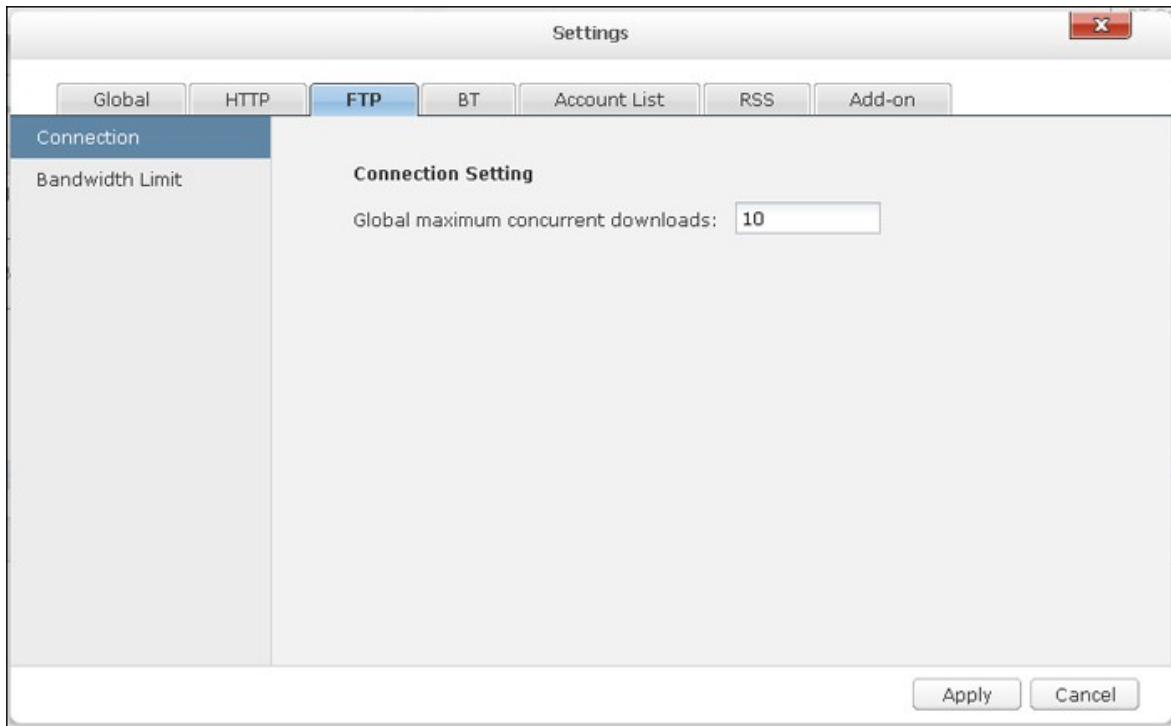
NAS	
Intel NAS	30
ARM (Intel) NAS	10



FTP

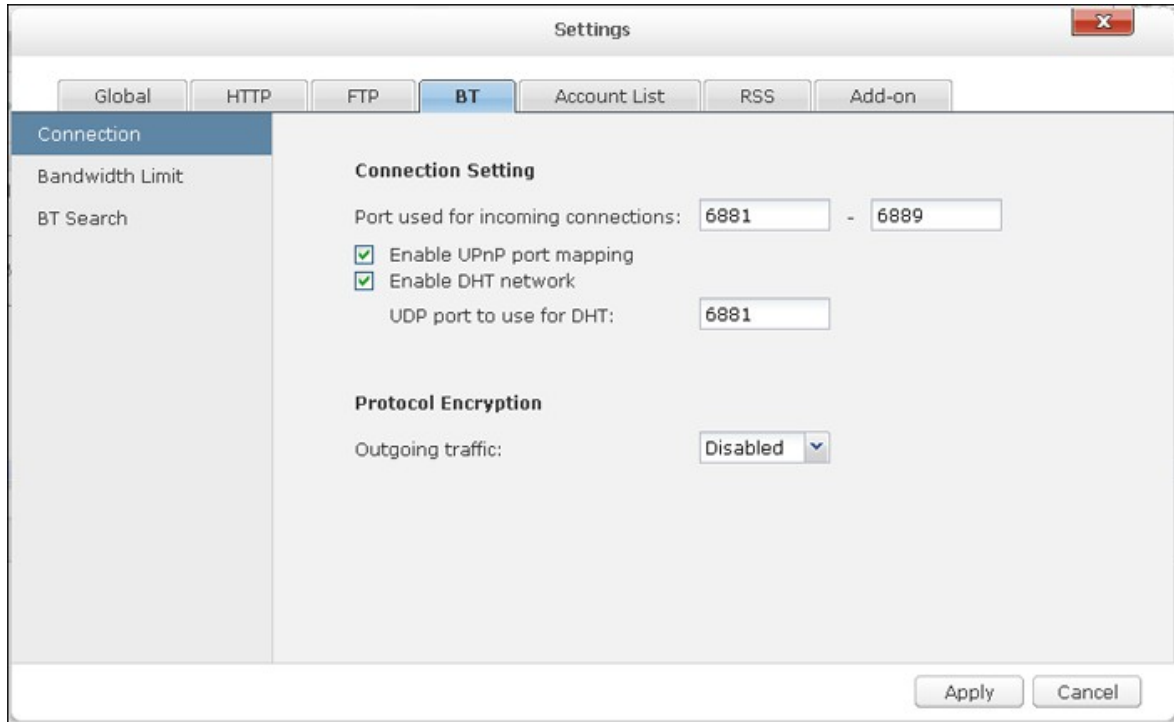
- : FTP
- : FTP .0

NAS	
Intel NAS	30
ARM (Intel) NAS	10



BT

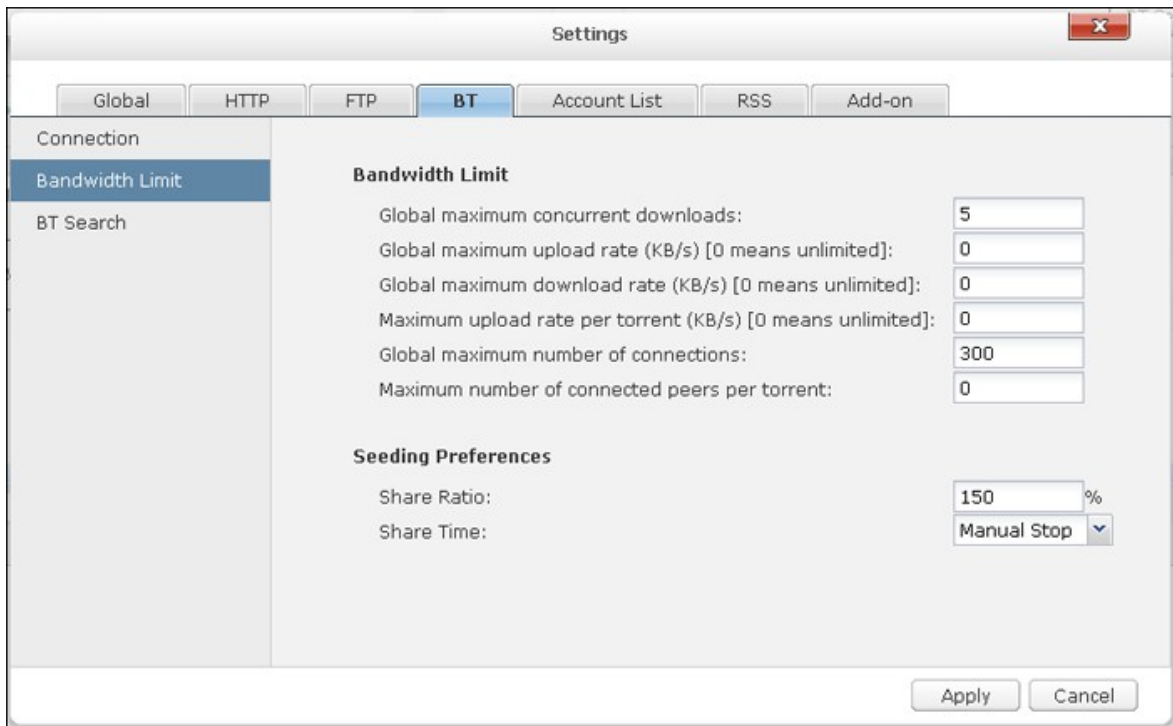
- :
 - BT 6881-6889
 - UPnP : UPnP
 - DHT : 가 NAS가
 - DHT() DHT UDP
 - :



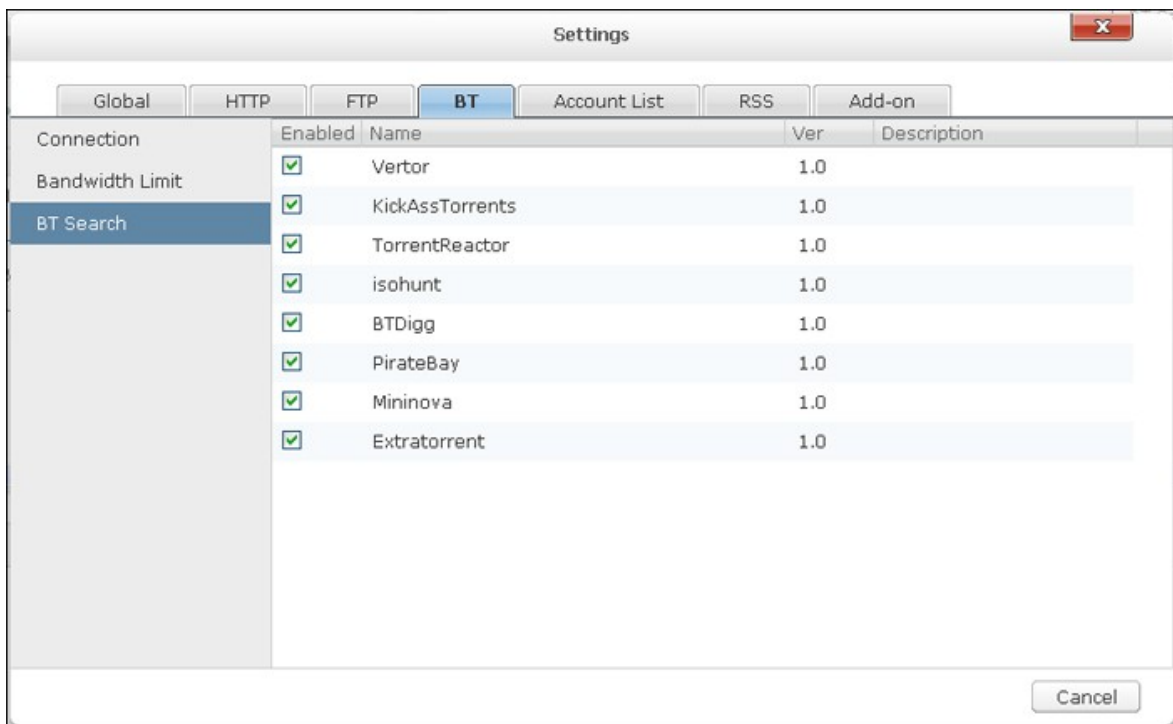
- : BT .0
- : BT

NAS	
Intel NAS	30
ARM (Intel) NAS	10

- (KB/s): BT .0
- (KB/s): BT .0
- (KB/s): .0
- :
- :

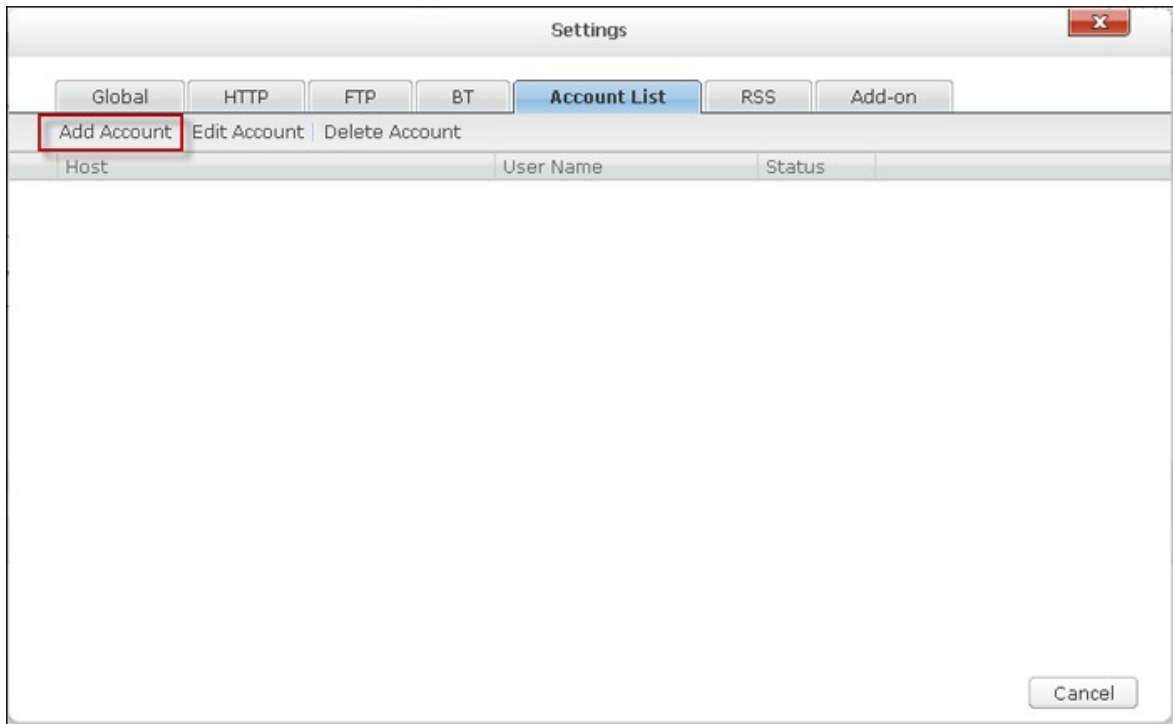


• BT : Download Station BT BT

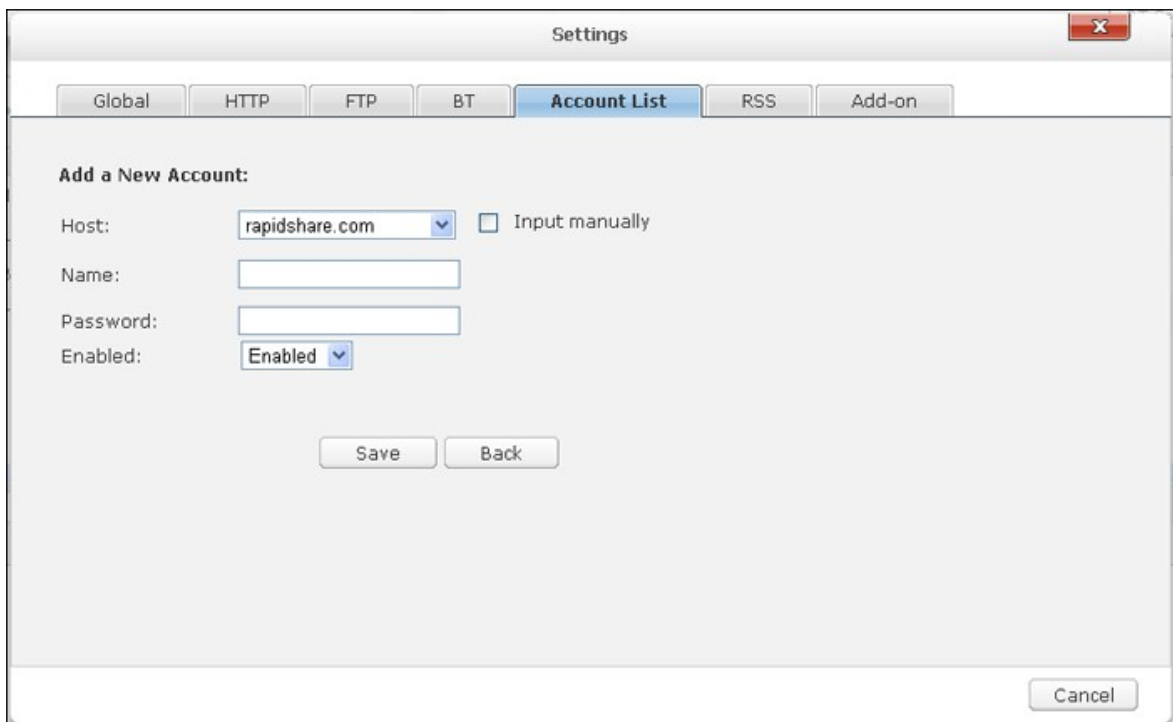


64 HTTP, FTP
Account(가) ”

가 Add



HTTP FTP Input manually()”



IP, , . HTTP FTP Enabled()”
 Save()” Back()”

Settings ✕

Global HTTP FTP BT Account List RSS Add-on

Add a New Account:

Host: Input manually

Name:

Password:

Enabled:

Edit Account()”
Delete Account()”

Settings ✕

Global HTTP FTP BT Account List RSS Add-on

Add Account | Edit Account | Delete Account

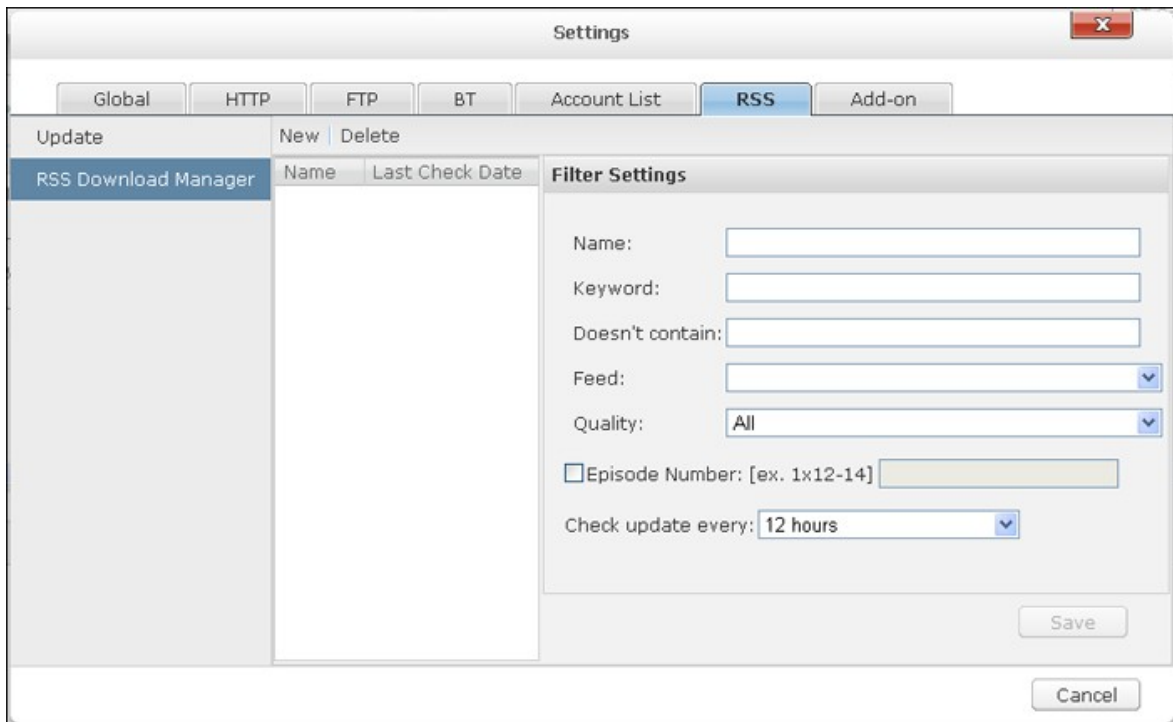
Host	User Name	Status
rapidshare.com	qqq123	Enabled
10.8.13.59	test	Enabled

RSS

: RSS
가 NAS가 RSS

RSS
RSS BT

- 가 'Add(가)'
-
- RSS
- .(
- 가 'All' .)
- : TV 1 1-26 1x1-26
- RSS 1 1 1x1 . NAS가 RSS
- 'Save()' 'Cancel()'
- 'Delete()'



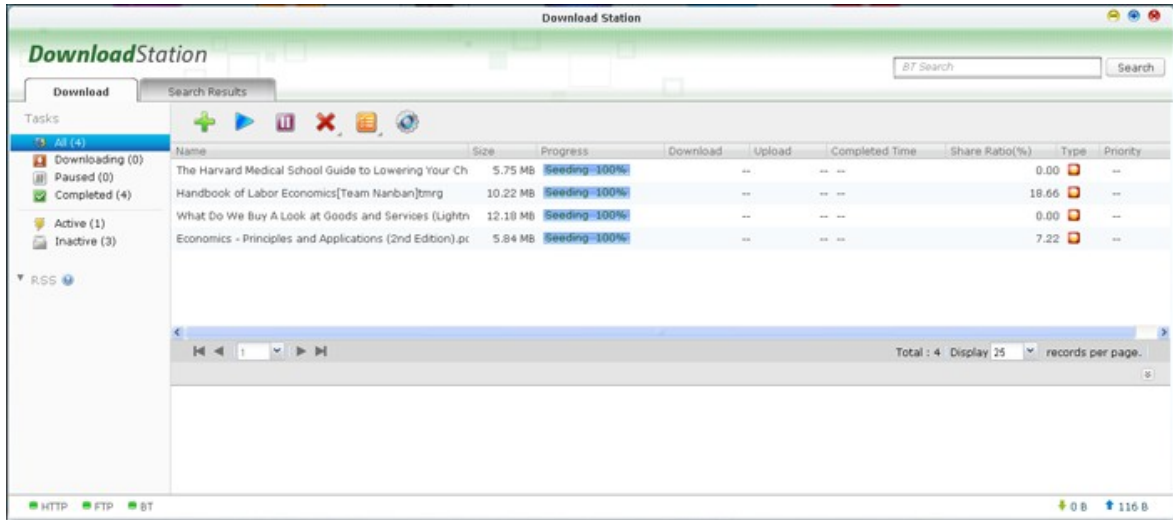
가
HappyGet 가 NAS YouTube
php?sn=5319&lang=en

가
: <http://www.qnap.com/en/index>.

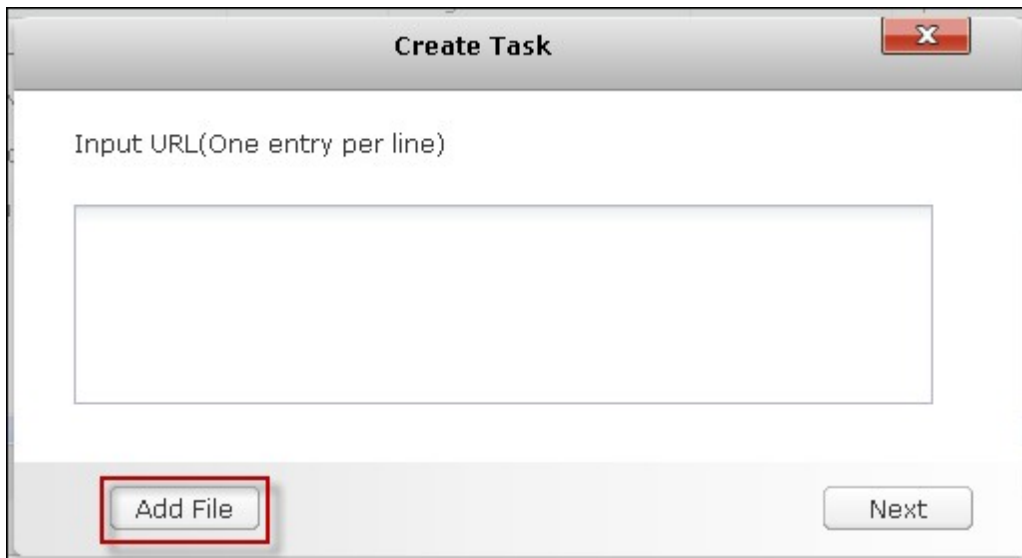
BT



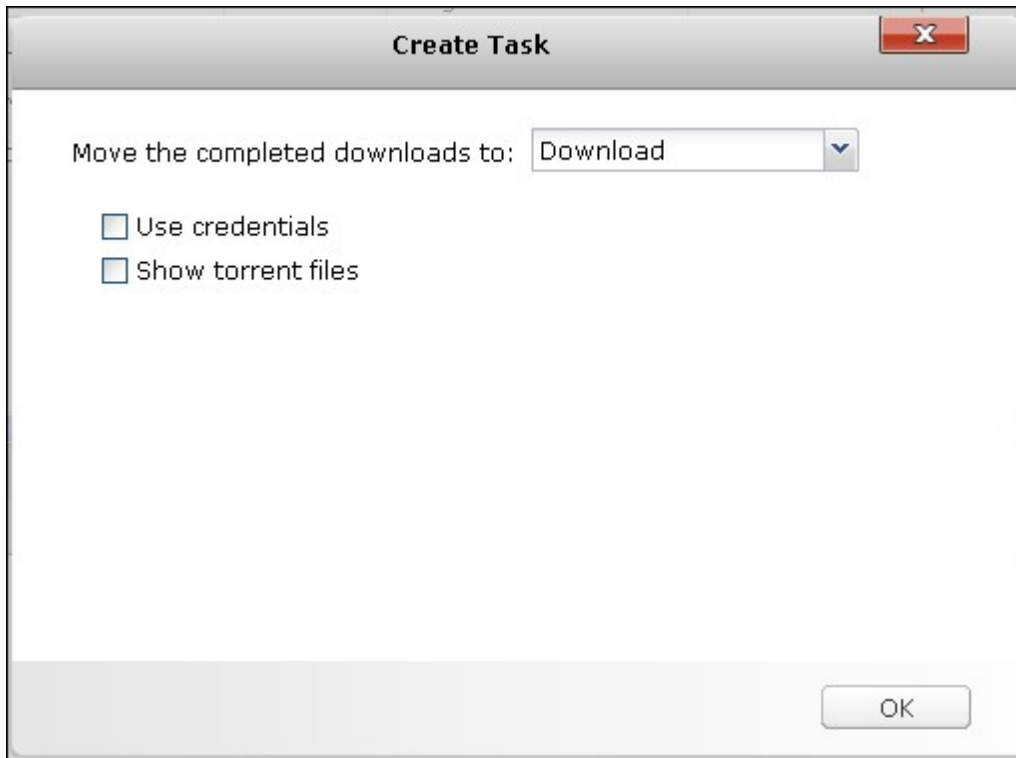
BT



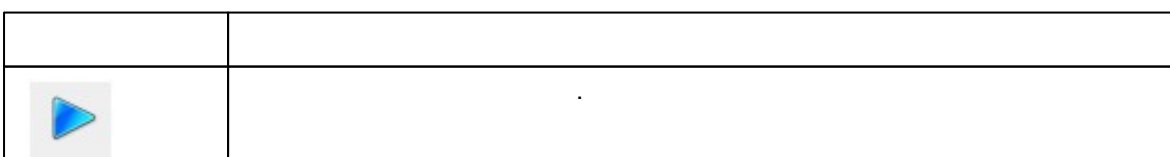
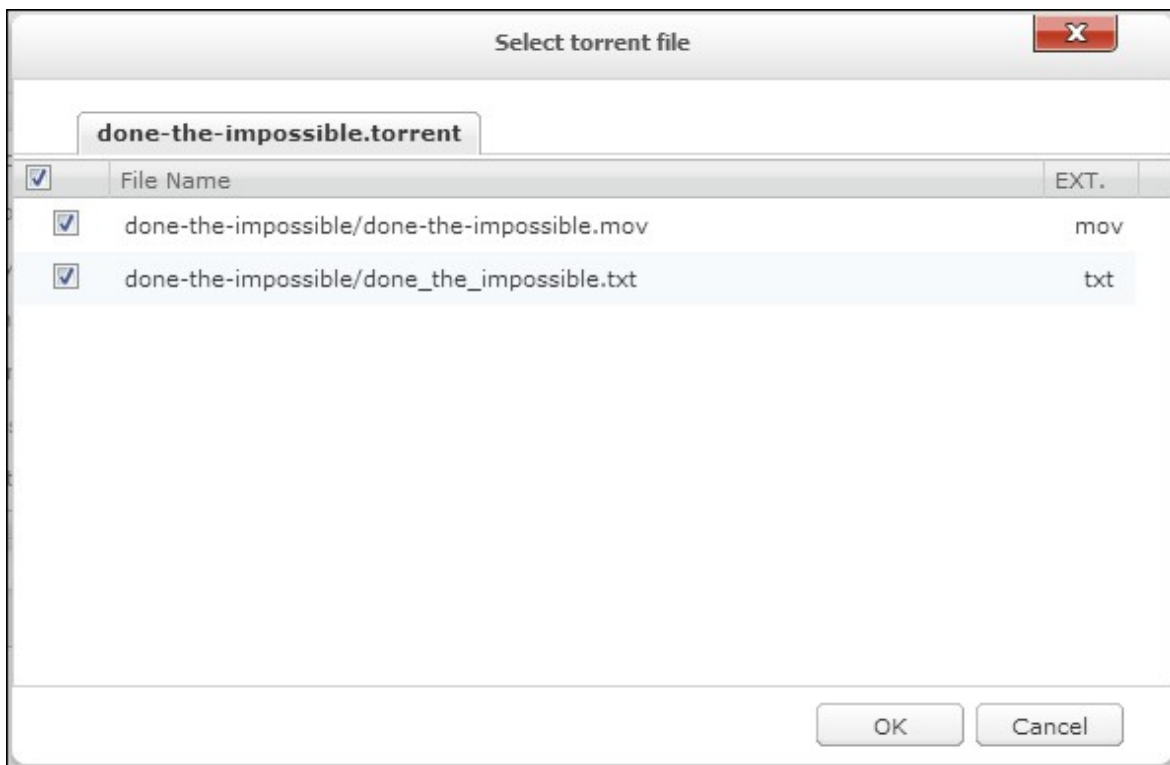
'Add File(가) ”



OK()”

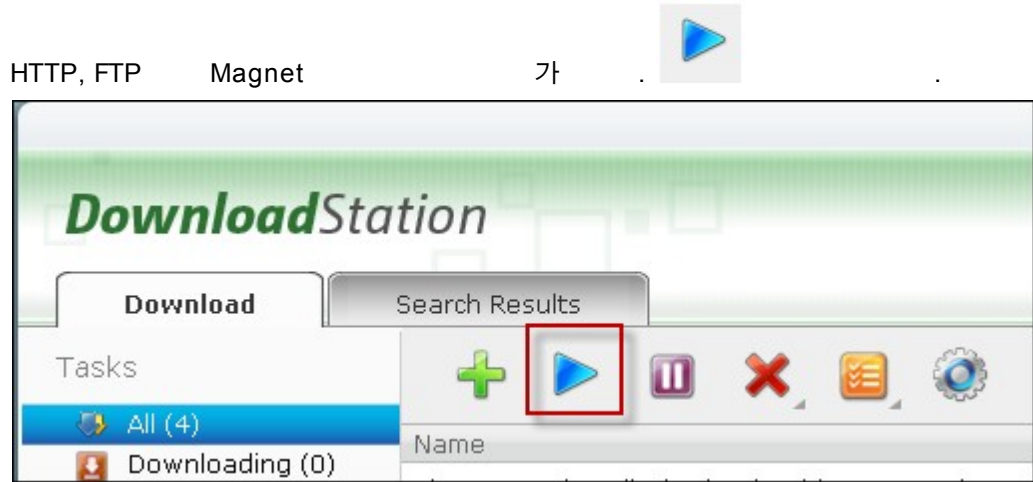


OK()”

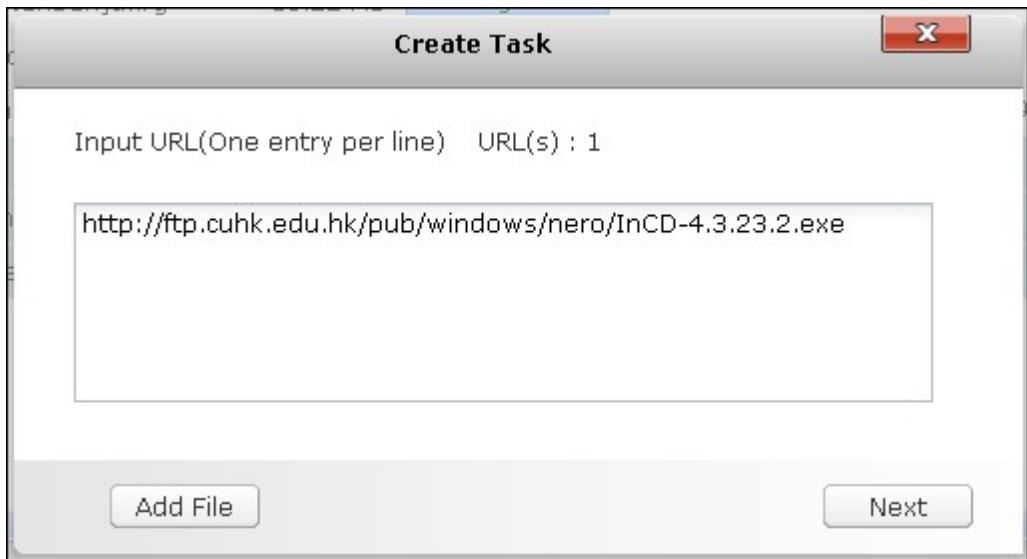


HTTP, FTP, Magnet



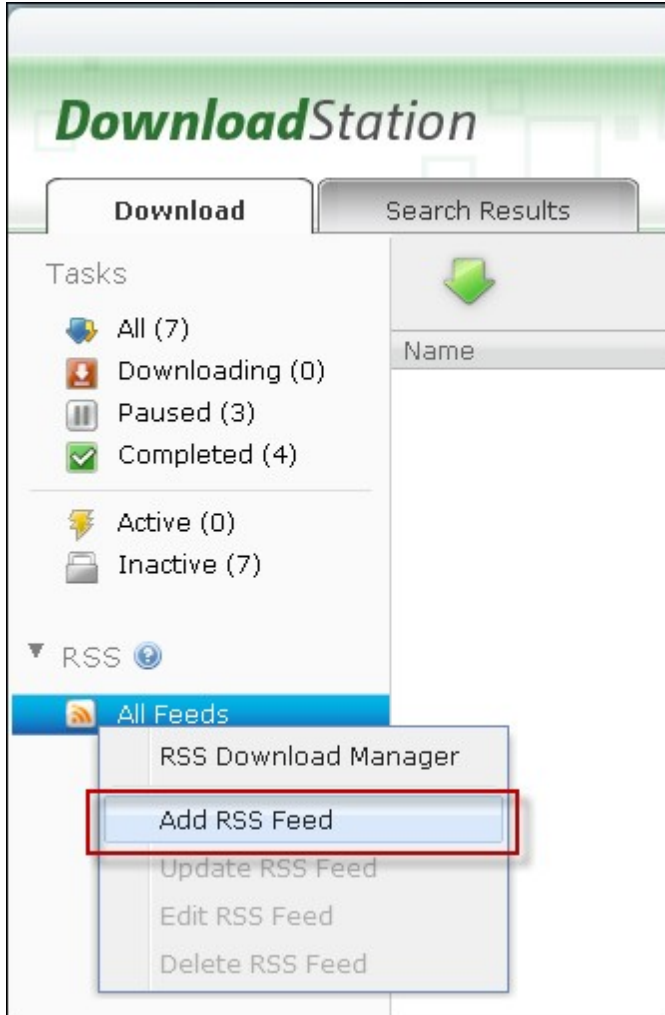
URL () : HTTP/FTP
 Magnet () : Use credentials()
)"
 (>)
 . OK()" . NAS가



: 30

RSS

Download Station RSS
RSS 가



URL



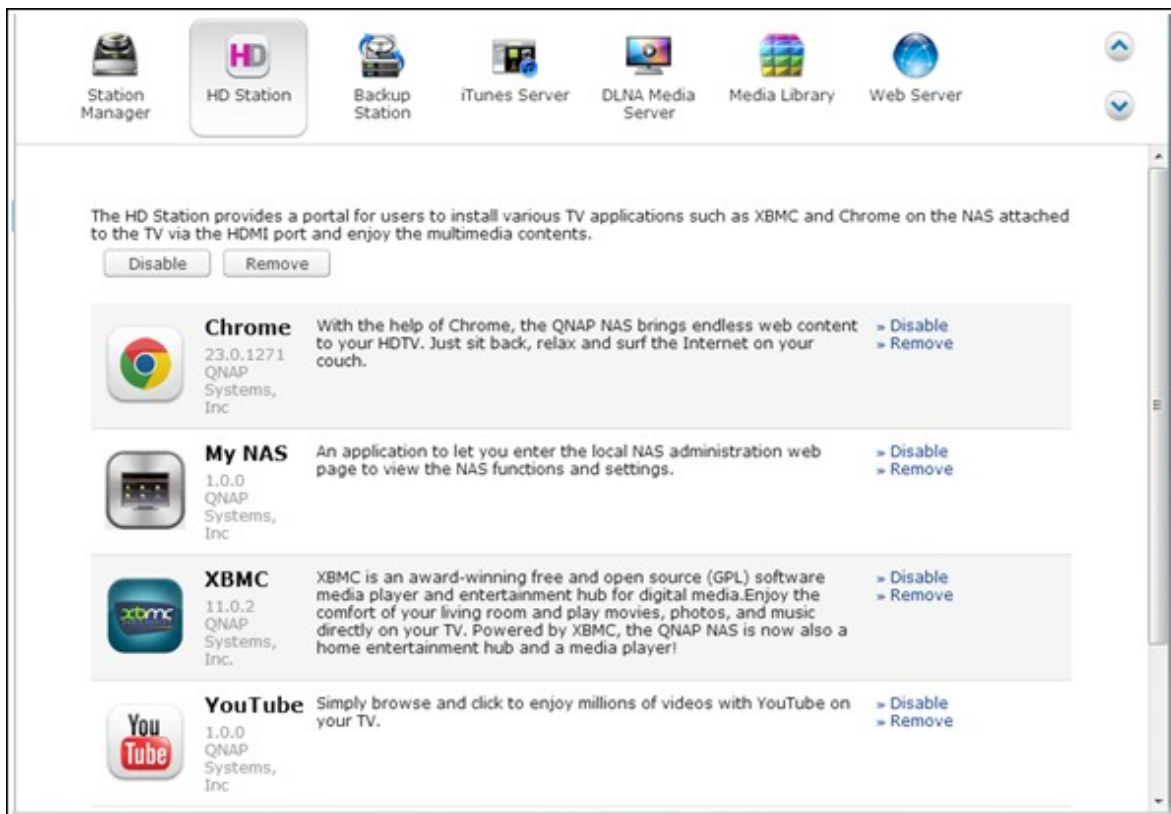
RSS
Download()”

ii. NAS UPNP NAT . NAT 가 UPNP
, NAT , NAS UPNP NAT
. BT 가 .



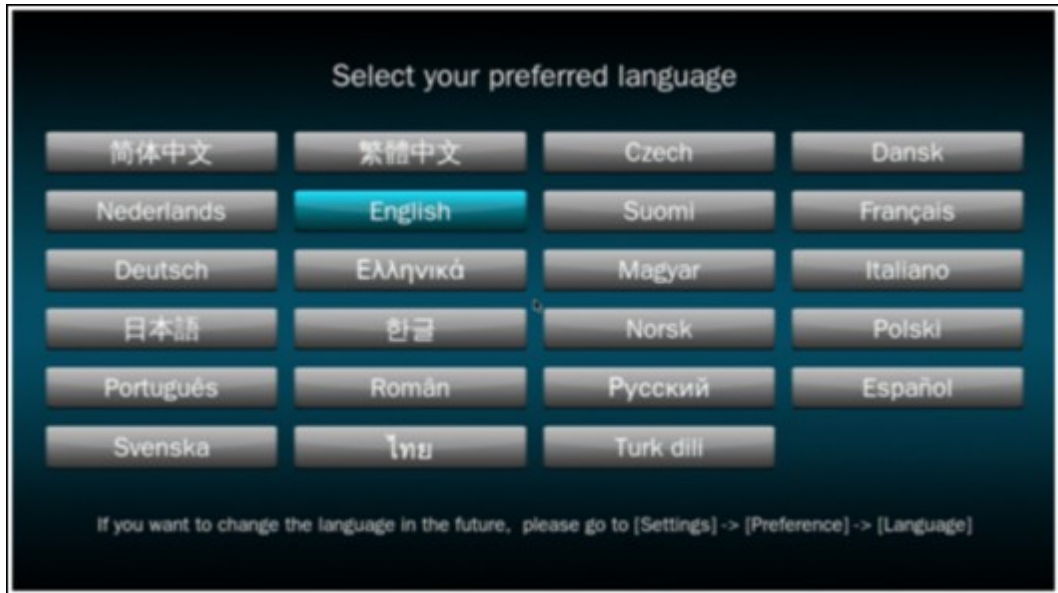
3.

- HD Station: TV HD Station
- XBMC: TV
- Chrome: Chrome QNAP Turbe NAS HDTV 가
- YouTube: YouTube TV
- My NAS: NAS 가 NAS



- XBMC , Chrome NAS HD Station 가
- 6
- NAS 6 HD Station
- HD Station QNAP Turbo NAS 2GB
- XBMC AirPlay Turbo NAS 2GB
- USB HD Station
- XBMC XBMC Multimedia()”

TV

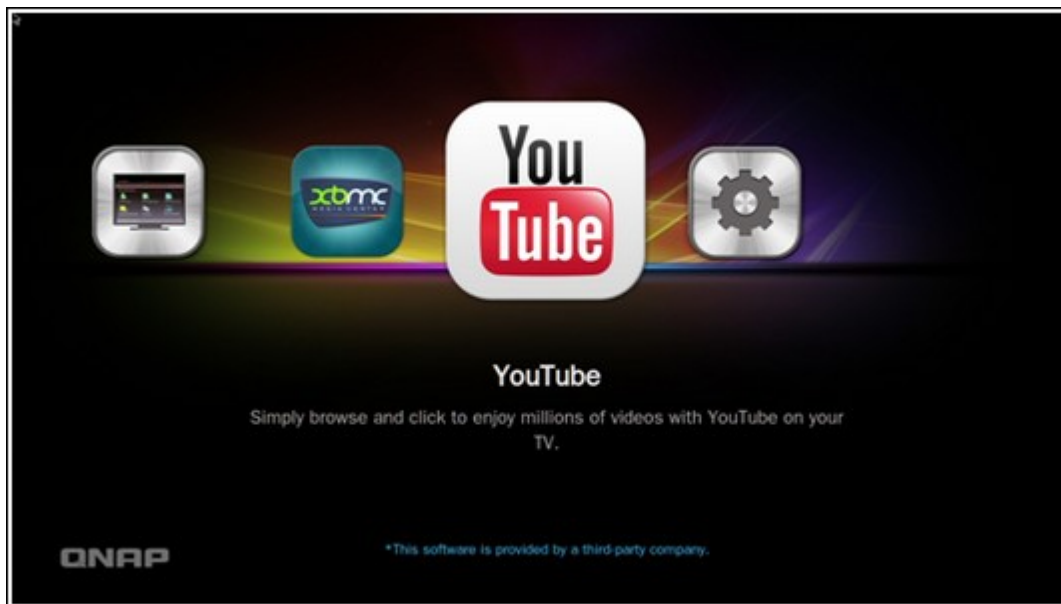


HD Station



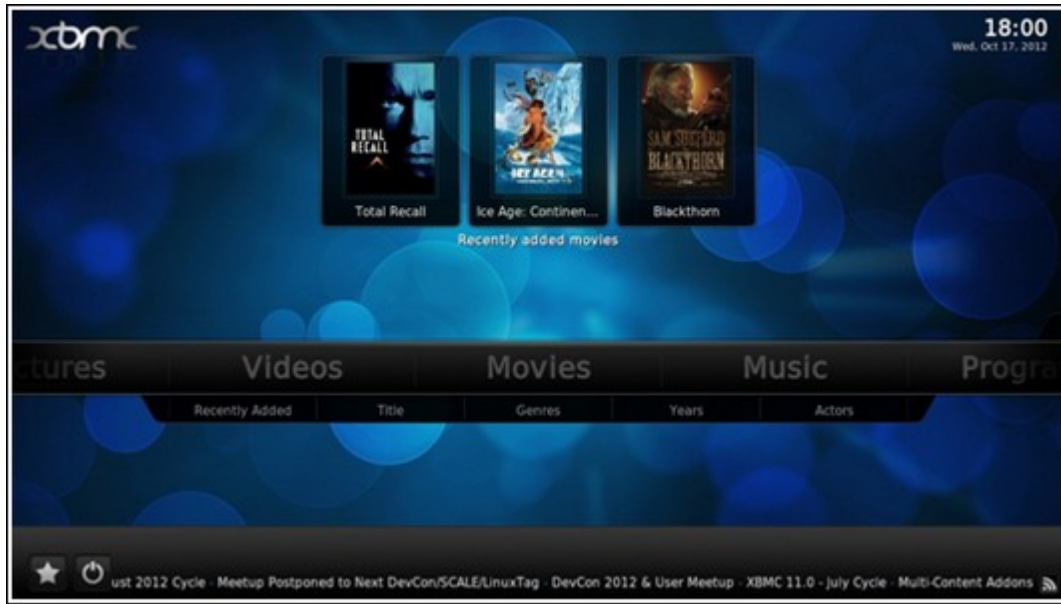
4. HD Station

. HD Station



XBMC

TV

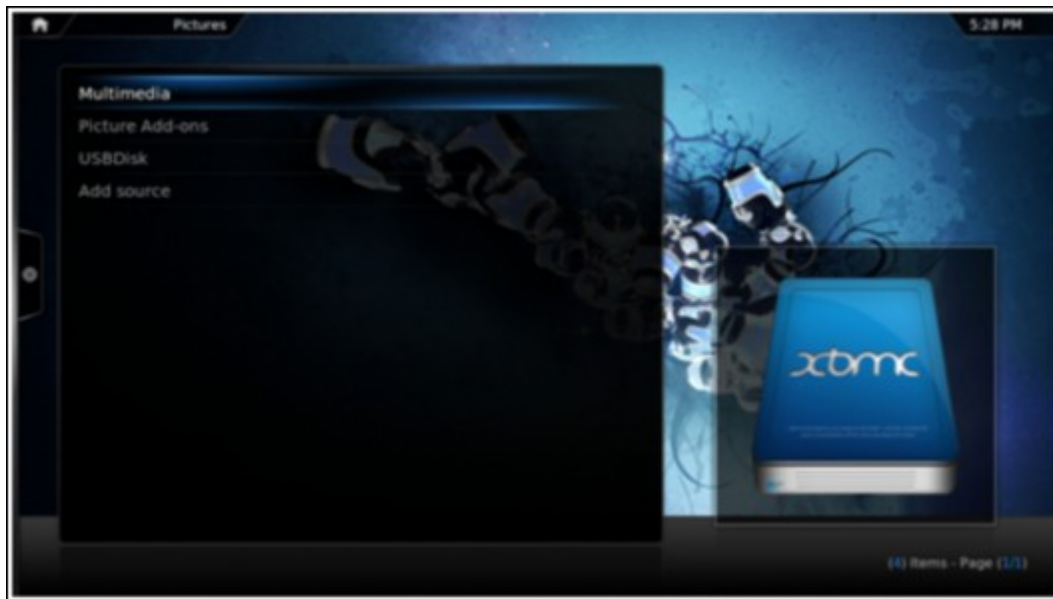


TV

- a. Qfile Qfile
 NAS
- b.
- c.
- d. NAS
- e. TV TV HD Station
 XBMC
- f. Pictures()”



- g. Multimedia()”



h.

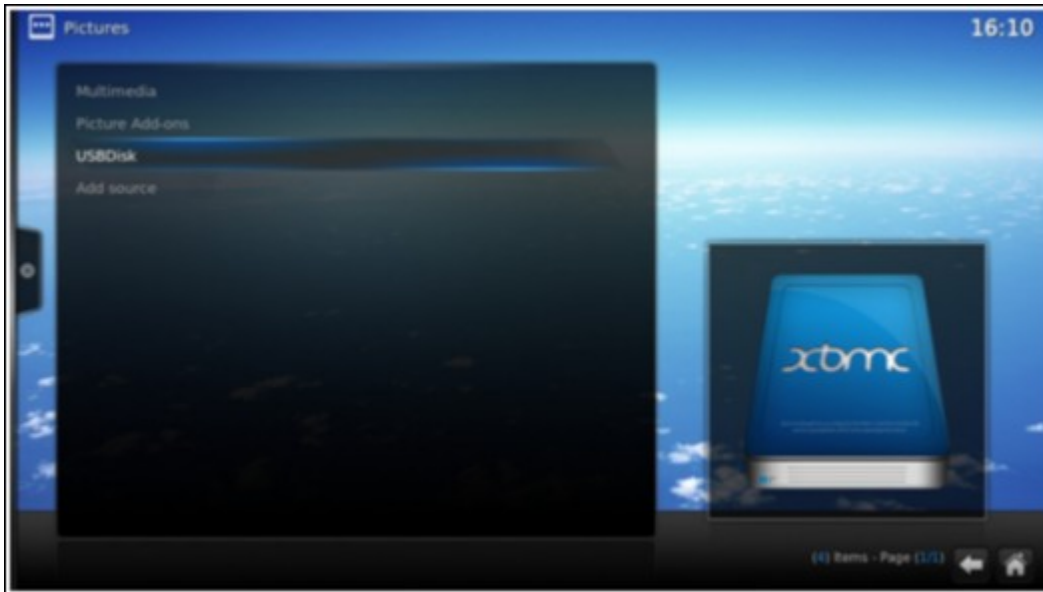


USB

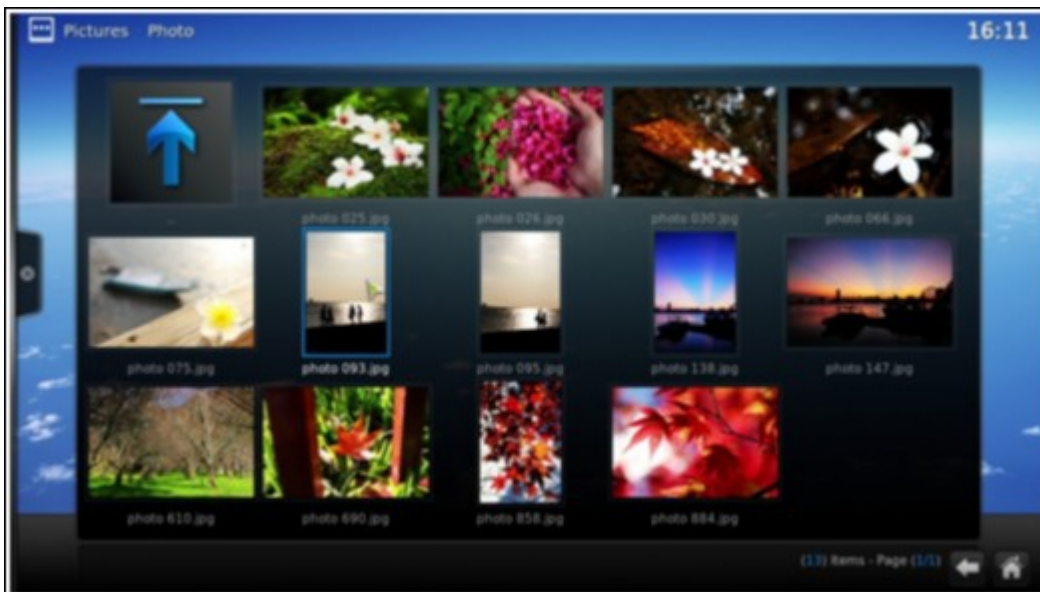
a. USB NAS USB

b. Pictures()”

c. “USB Disk”



d.

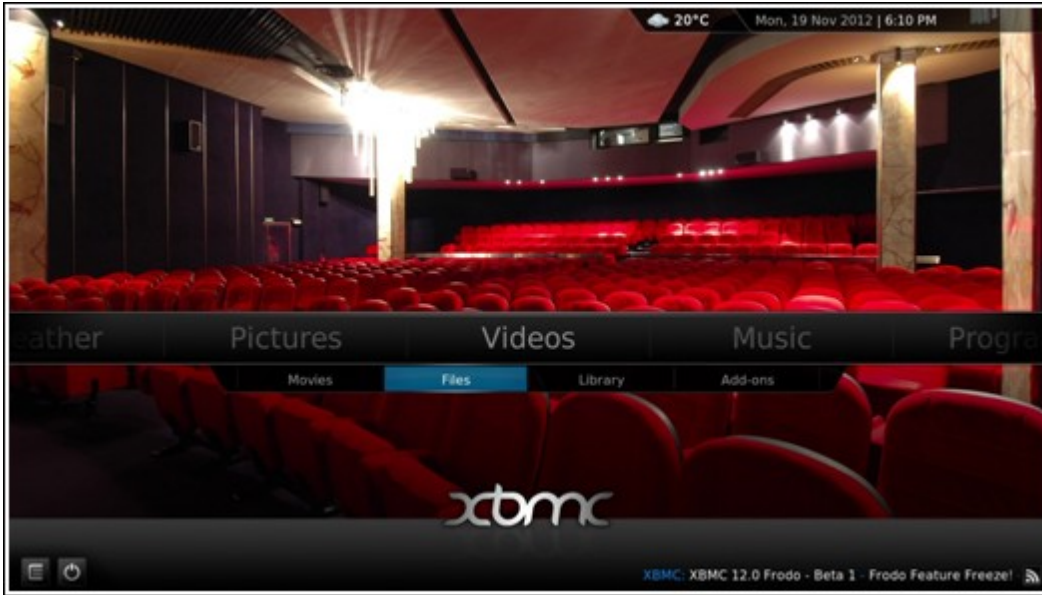


NAS 가 .

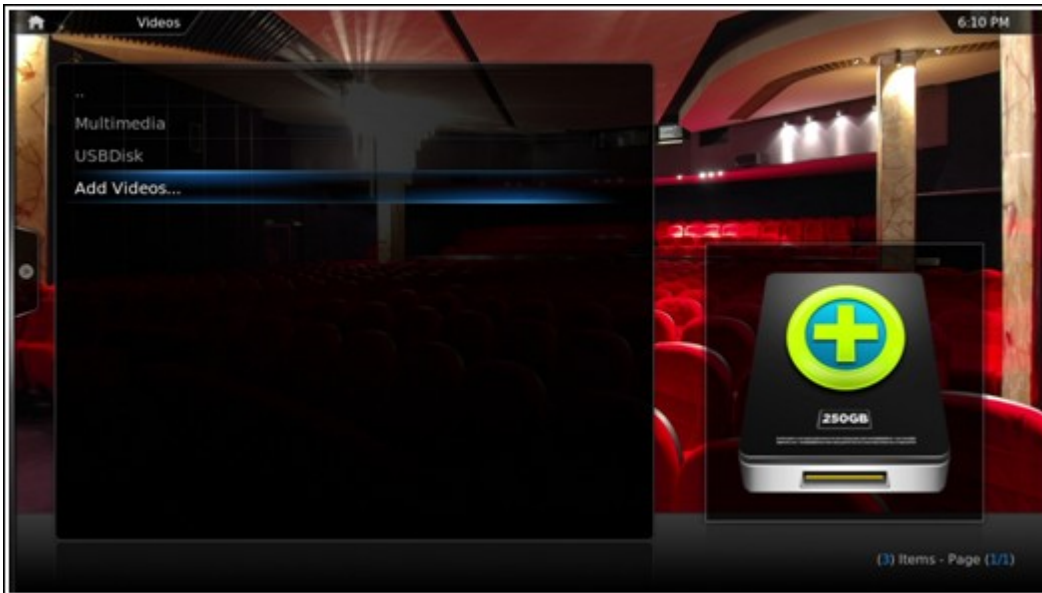
(Samba, AFP, FTP, NFS) 가 "Multimedia(USB eSATA)" "Qmultimedia"

Multimedia()" 가

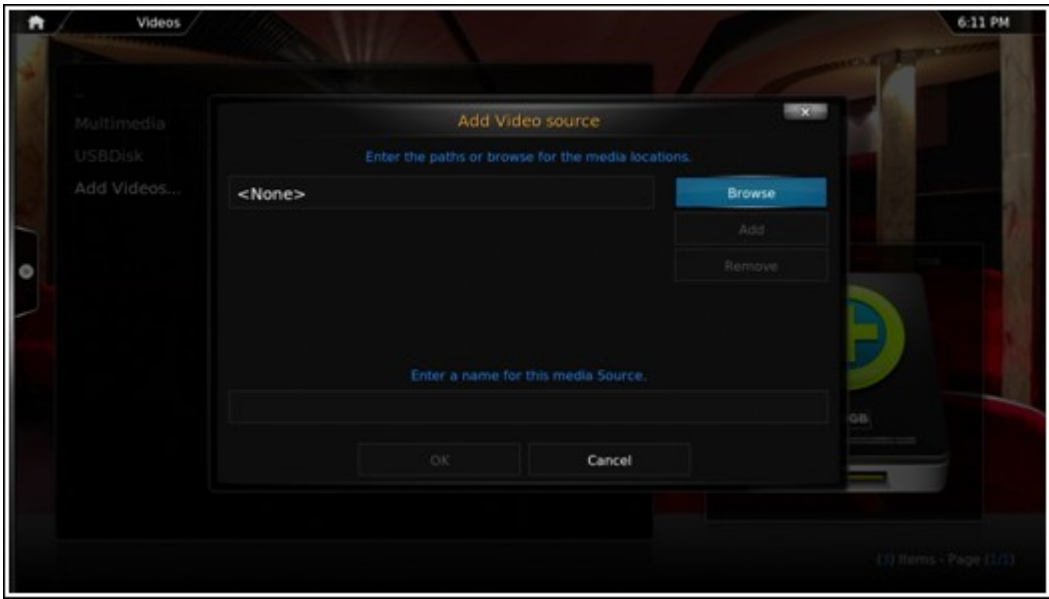
a. "Videos()" "Files()" .



b. "Add Videos(가)" .



c. "Browse()" .



d. "Root filesystem()"



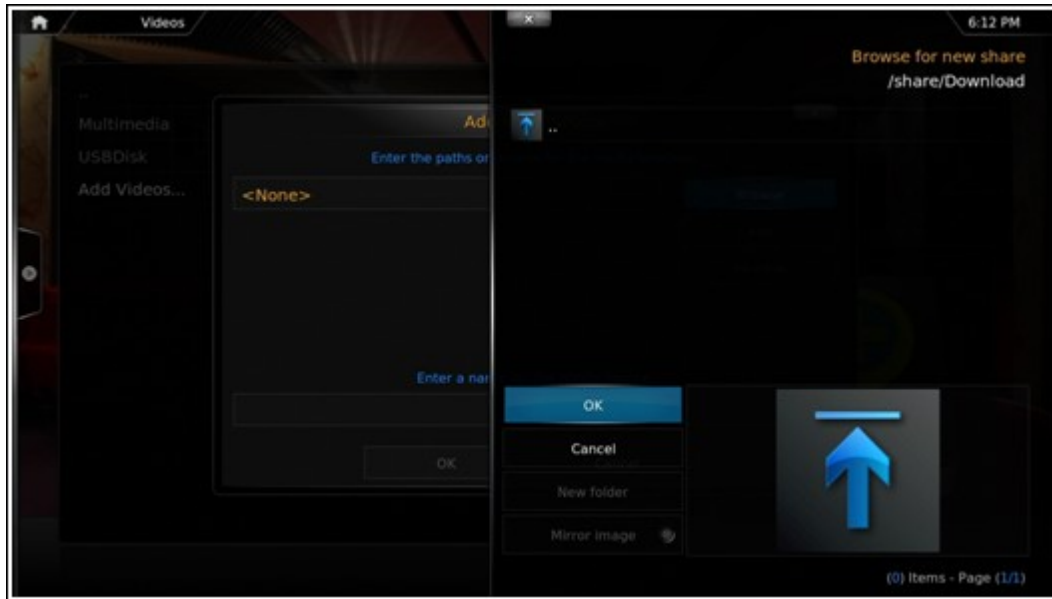
e. "share()"



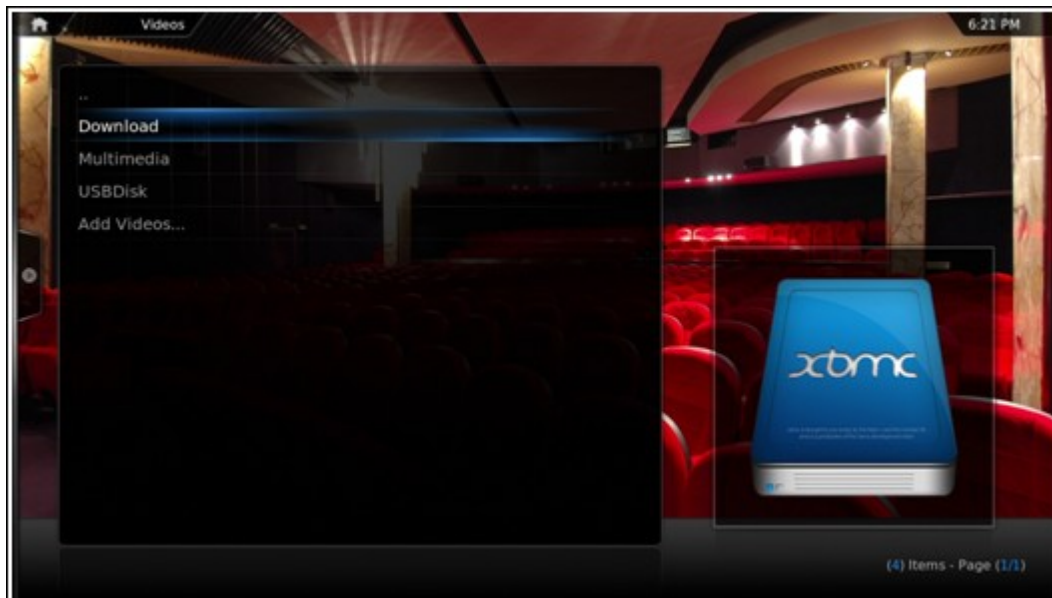
f. "Download()" 가 "Download()" 가



g. 'OK()' 가 .



h. "Download()" 가 .



- : Setting()"> Video()"> Playback()" 가 "Adjust display refresh rate to match video()" "Sync playback to display()"
-

Chrome

HD Station

Chrome



PC

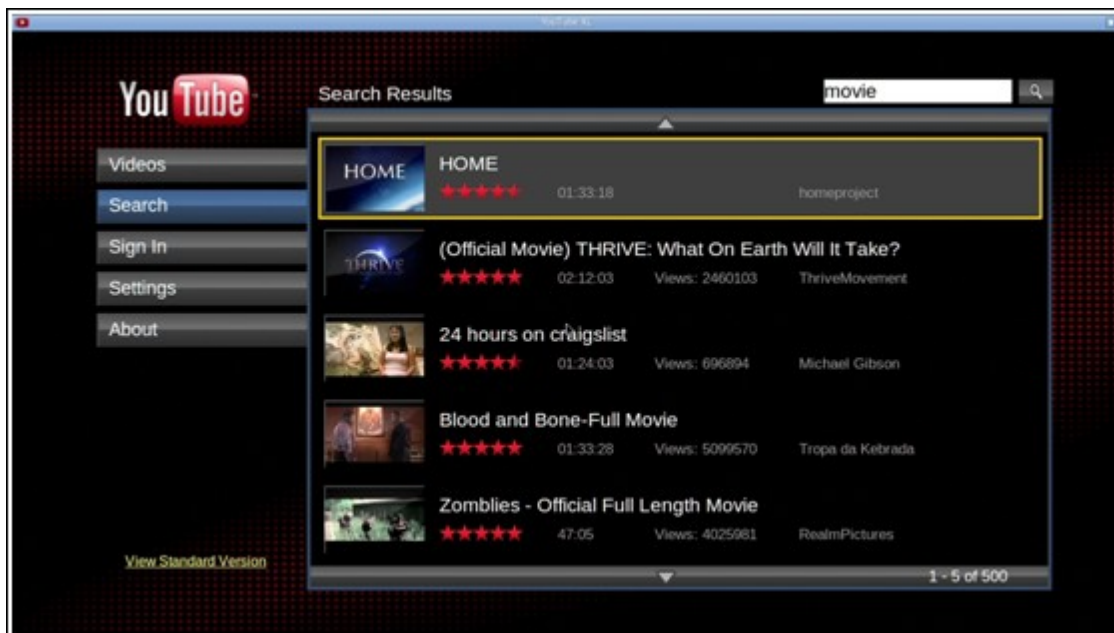
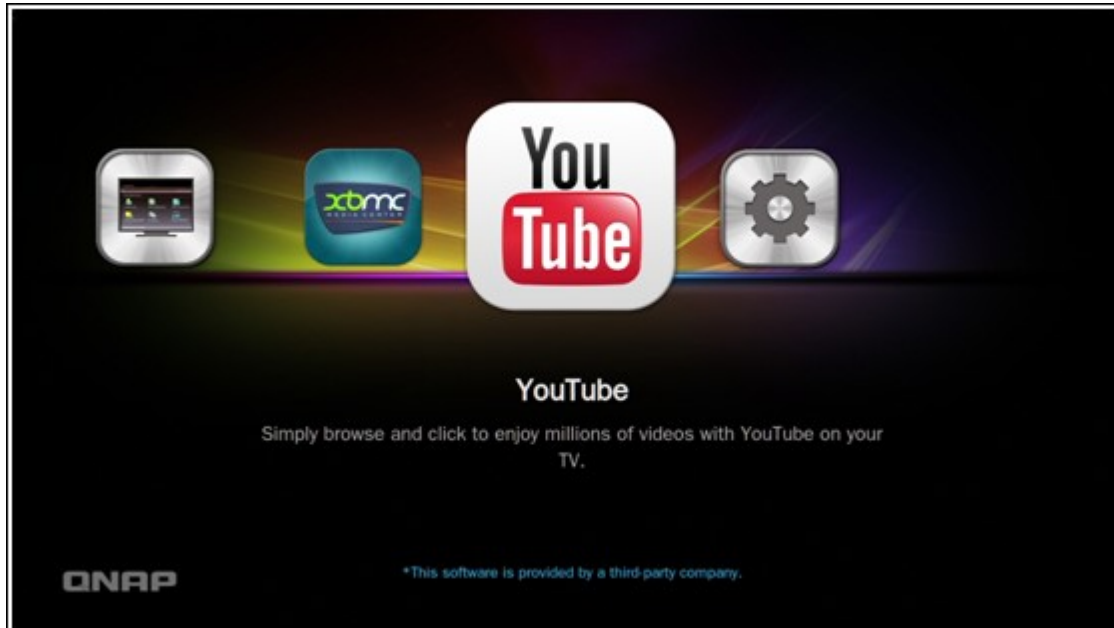


USB	:	Qremote	NAS
-----	---	---------	-----



YouTube

HD Station YouTube



MyNAS

NAS

가 NAS

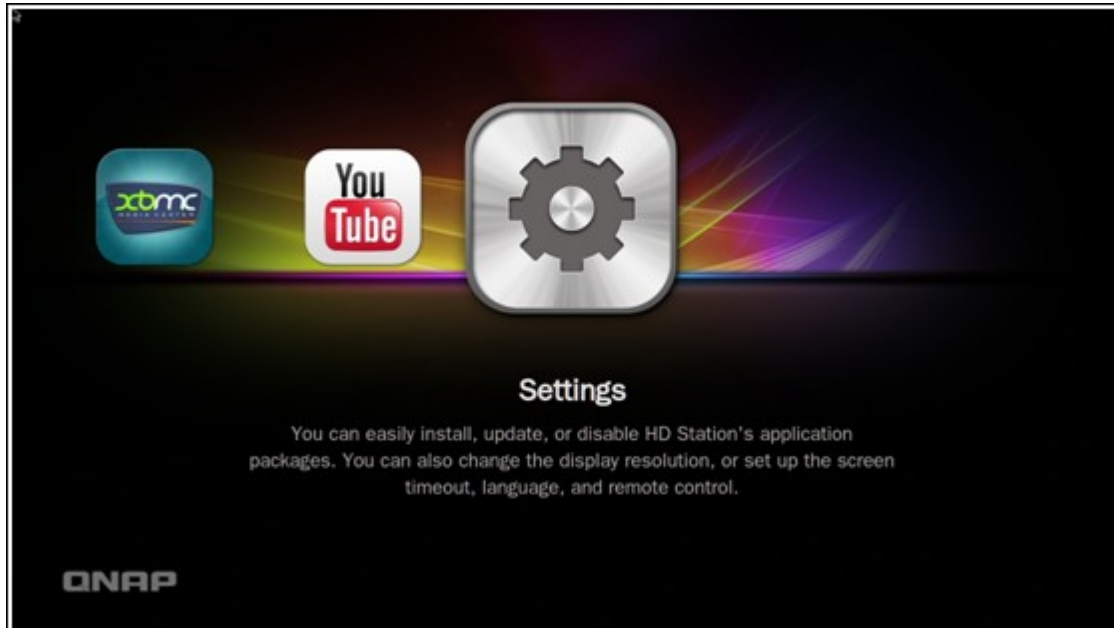


HD Station

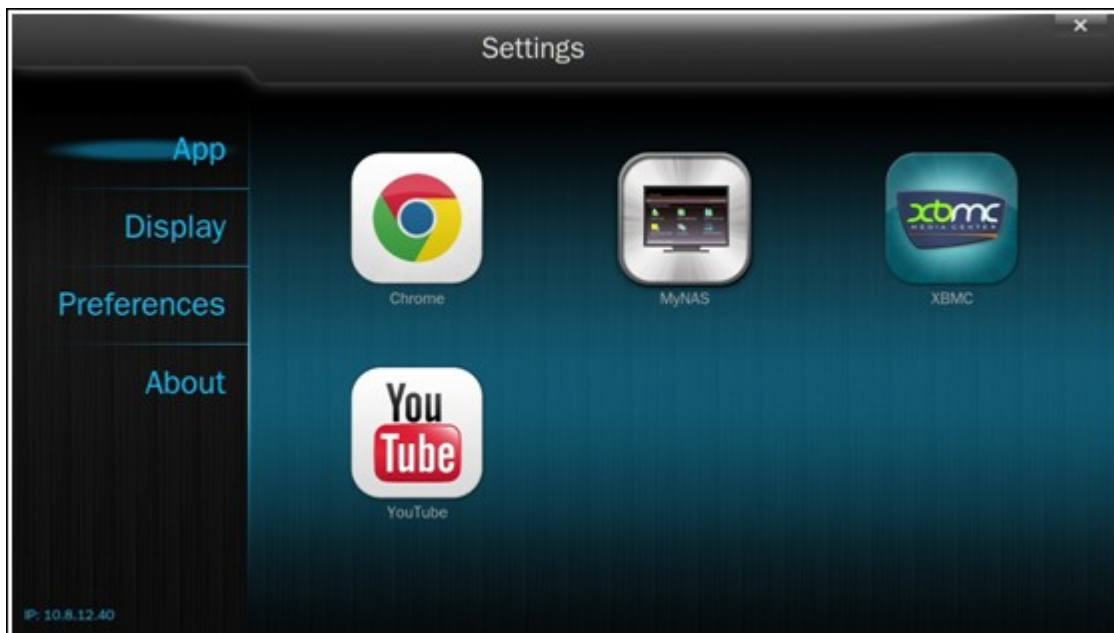
HD Station

"Settings()"

HD Station



i. :



ii. :



iii. :
HDMI . USB NAS



- QNAP MCE TS-x69
- TS-x70 MCE
- TS-x69 HDMI Audio Passthrough가





	RM-IR001			MCE		XBMC	HD
		1			1		
		2			13		
	0,1,2,3,4,5,6,7,8,9	3		0,1,2,3,4,5,6,7,8,9	18	0,1,2,3,4,5,6,7,8,9	
	Vol+, Vol-	4		Vol+, Vol-	12	Vol+, Vol-	
	/	5					
		6					

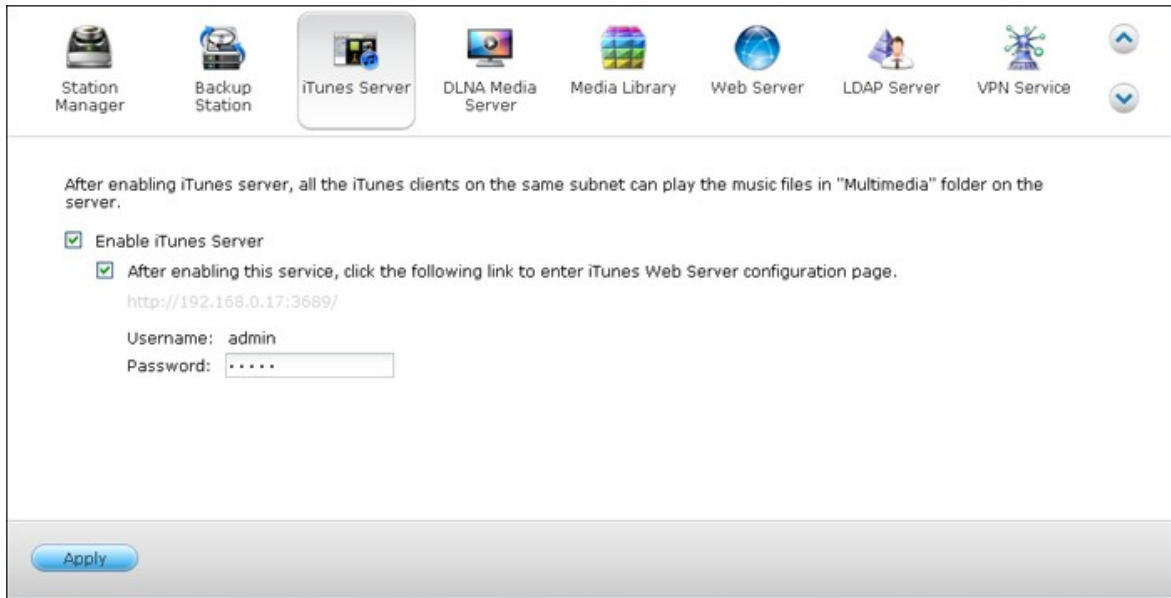
	TV	8				
		7				
가	- ()	9		- ()	3	
	()	10		()	4	
	()	11		()	22	
	()	12		()	23	
		13				
		14				
	가	16				
		15				
	CH-	17			32	
	CH+	18			33	
		20				
		19			10	
		21				
		22				
	가	28			7	
		29				
		25			7	
		23			7	
		26			7	
		27			7	
		24			7	

		30			16		
		31			31		
		32			15		
		33					
		34			30		
		35			33		
		36					
	/	37					
		38			2		
		39					
		40					
		41					
				()	19		
					34		
				16:9 / 4:3	27		

8.5 iTunes

NAS Qmultimedia/ Multimedia mp3 iTunes
 . LAN iTunes가 NAS , ,

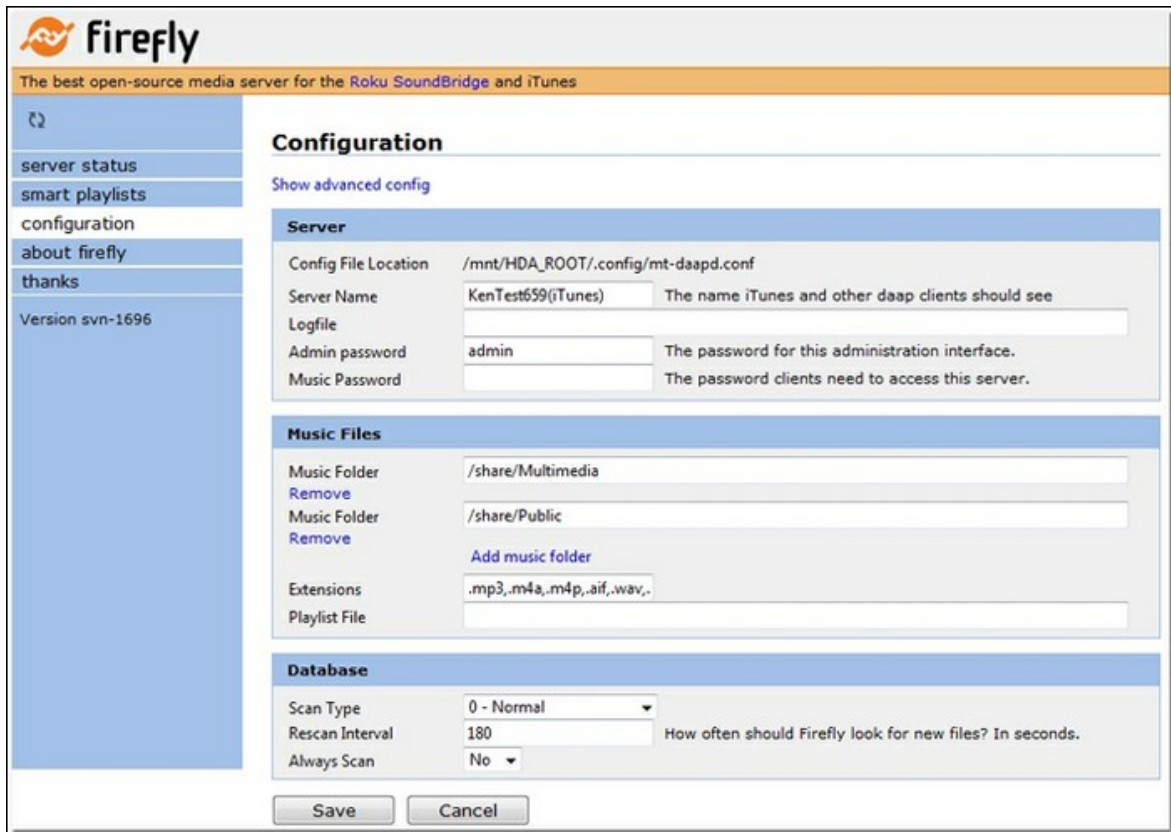
iTunes iTunes(www.apple.com/itunes/)
 NAS Qmultimedia/ Multimedia



: iTunes 가 : x70U, x79 Pro
 x79U. iTunes [75] "System Administration(
)" .

iTunes 가 , iTunes

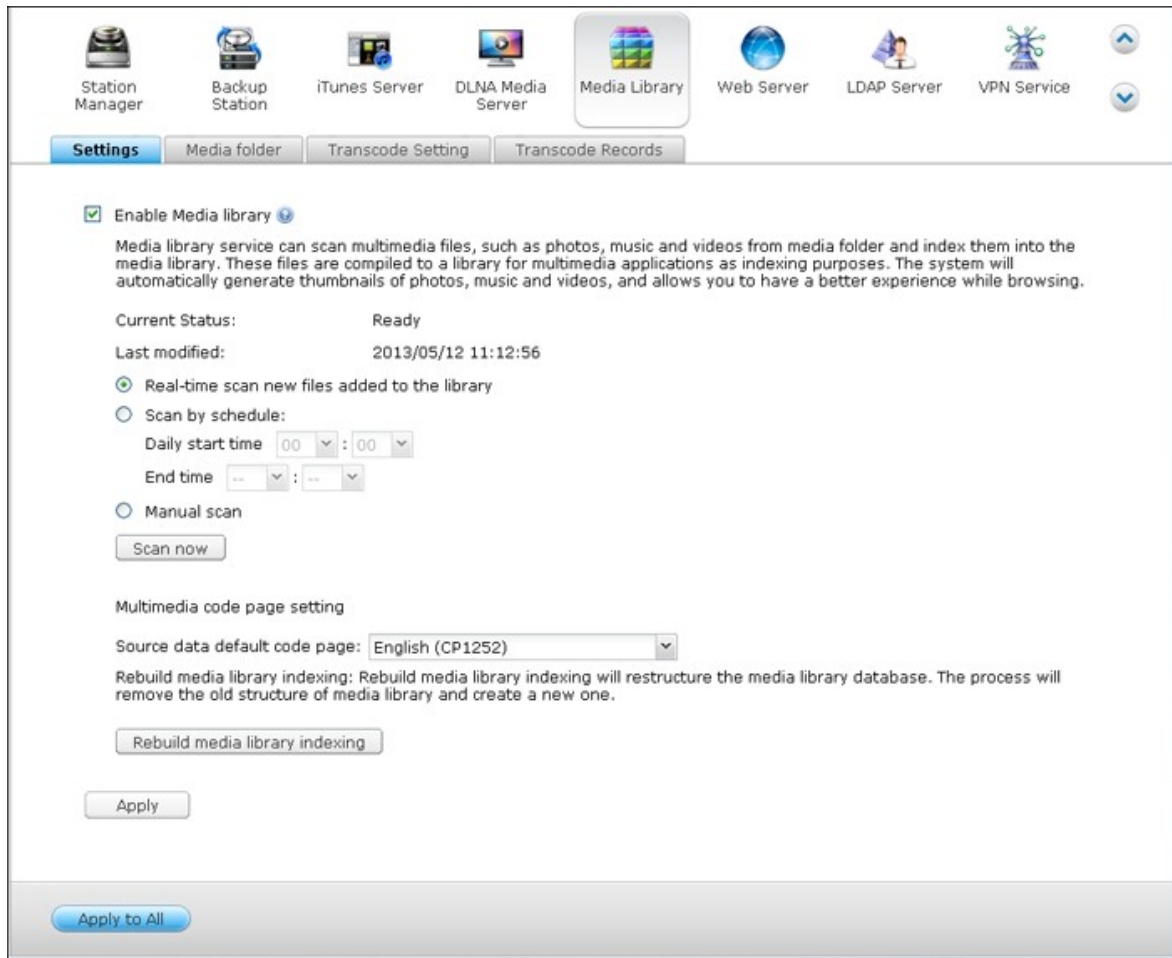
<http://NAS-IP:3689/index.html>



PC NAS LAN PC iTunes . SHARED()" NAS



8.6



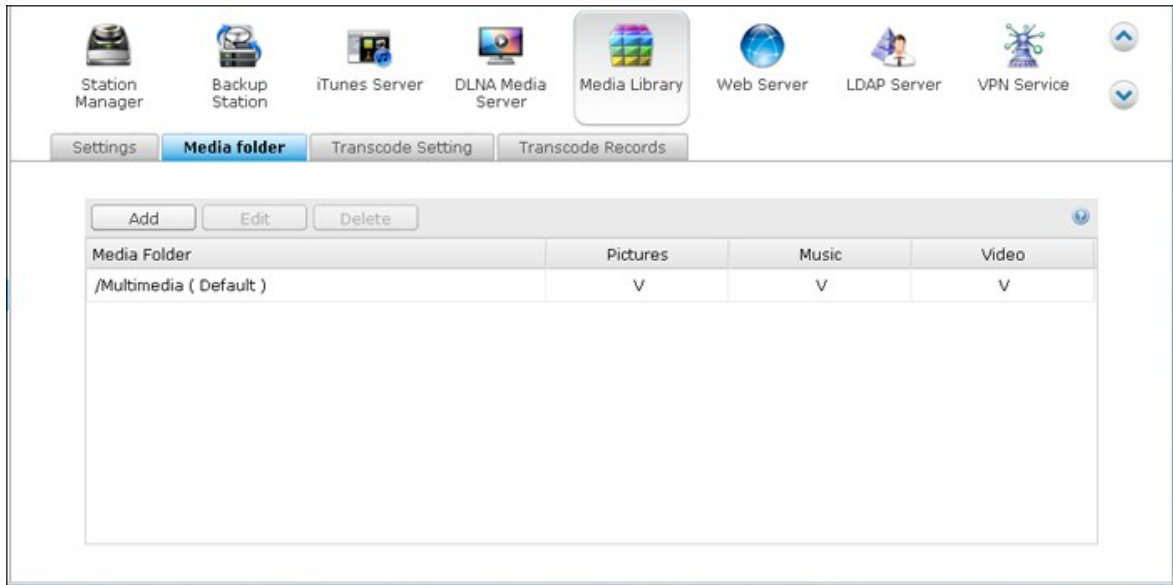
Enable Media Library()”

- iTunes 가 : x70U, x79 Pro
x79U. iTunes 75 "System Administration()"
- DLNA Photo Station Music Station

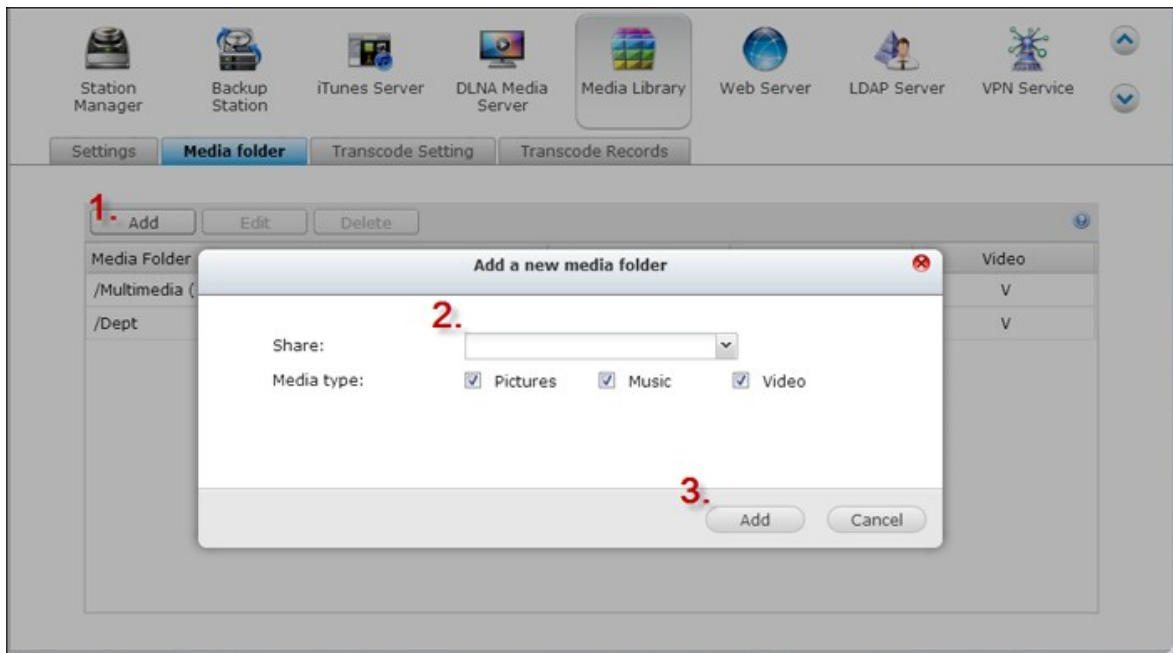
- : 가
- :
- : "Scan now()"

NAS가 : UTF

:
NAS가



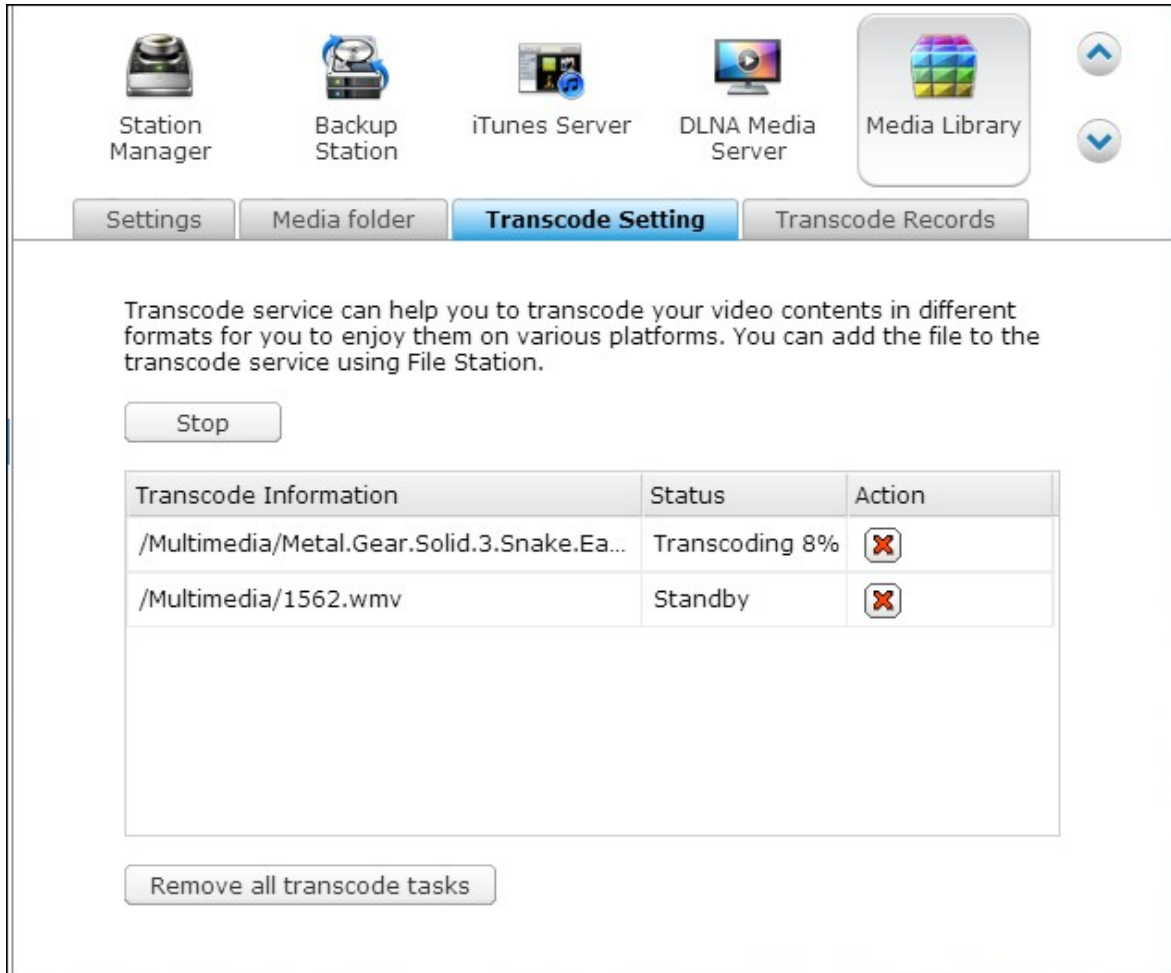
2 가 (Multimedia Home). "Add(가)"
가 .



, 가 . "ADD(가)"
Edit()” Delete()”

(MP4)
360p, 720p

H.264
240p,



Stop()”
transcode tasks()”

. Remove all



: File Station

가

가
)"

"Clear records()"

Refresh(

Station Manager Backup Station iTunes Server DLNA Media Server Media Library

Settings Media folder Transcode Setting **Transcode Records**

Transcode Information	Status	Finish Time ▾
/Multimedia/2002-0525-b.mp...	Succeeded	2013/05/23...

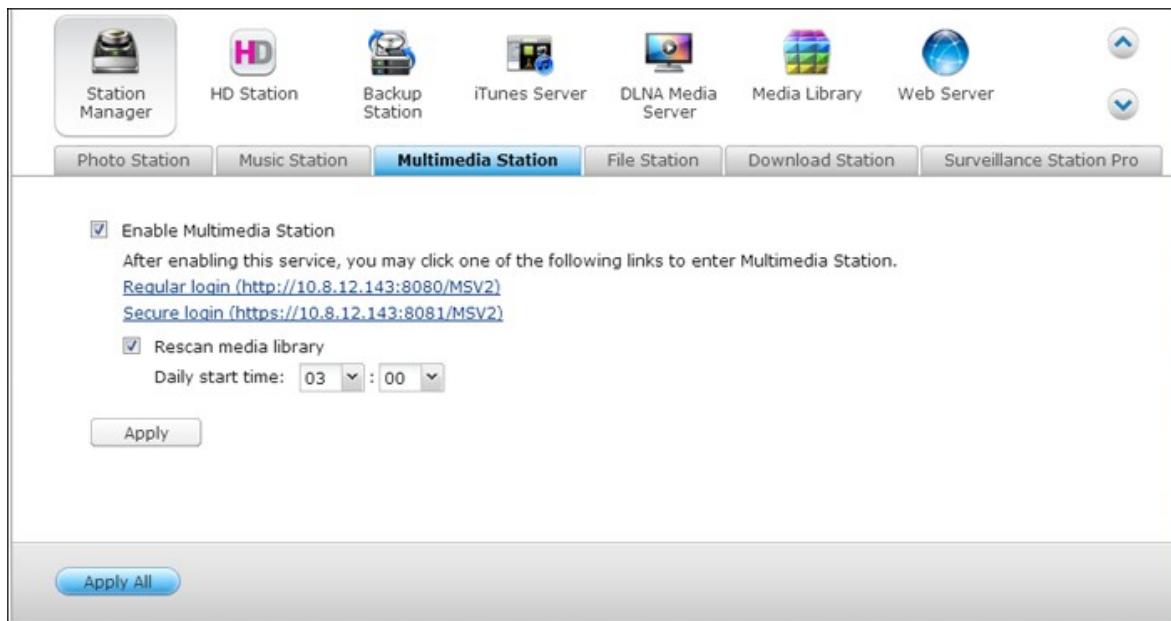
Clear records Refresh

8.7

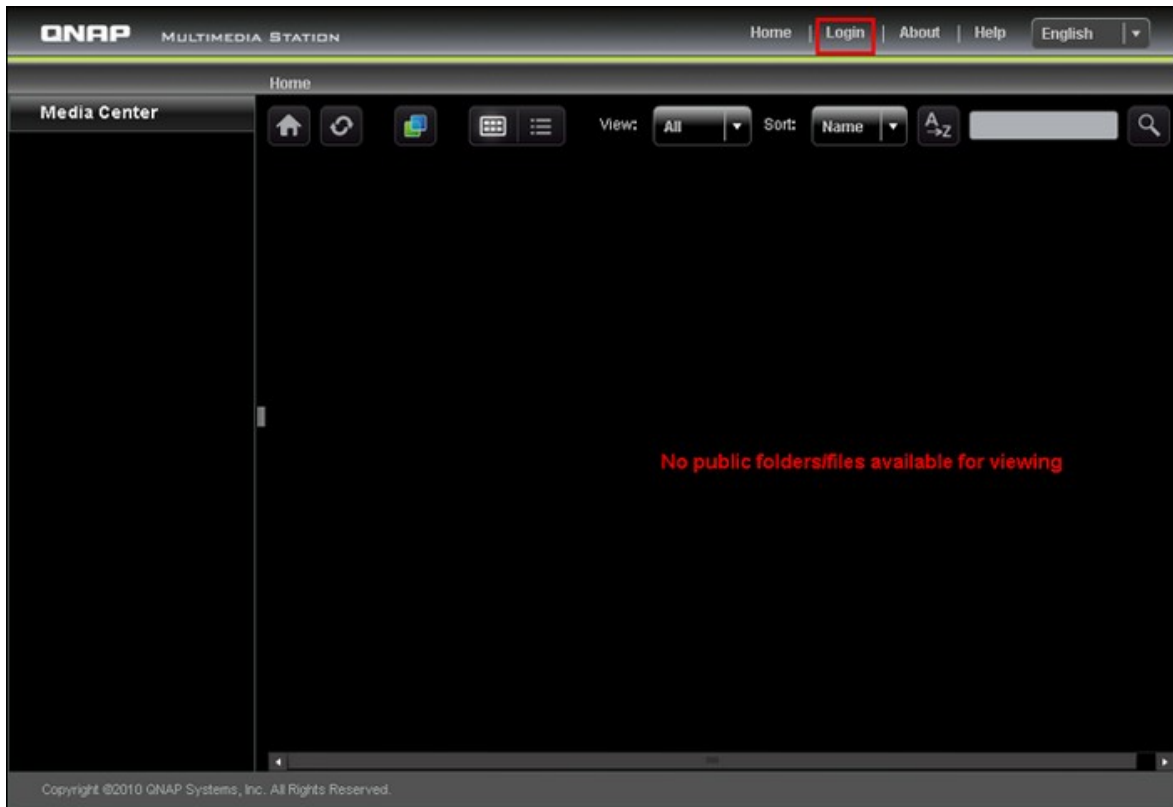
Multimedia Station NAS , Facebook, Plurk, Twitter, Blogger

Multimedia Station

1. Control Panel() "> Applications() "> Web Server() " . HTTPS Multimedia Station Enable Secure Connection(SSL)() "
2. Control Panel() "> Applications() "> Station Manager() "> Multimedia Station() "
3. Rescan media library() " NAS가 . NAS가 ,



4. NAS Multimedia Station , http://NAS_IP:80/MSV2/ https://NAS_IP:8081/MSV2/ () (admin)



: Multimedia Station admin NAS admin

Multimedia Station Media Center(), My Jukebox(), Control Panel()










Media Center

Multimedia Station (Multimedia/ Multimedia)
 Media Center() . NAS (, ,)
) LAN WAN .

	MP3
	JPG/JPEG, GIF, PNG (GIF)
	: FLV, MPEG-4 (H.264 + AAC) : AVI, MP4, M4V, MPG, MPEG, RM, RMVB, WMV (FLV)



	Multimedia Station .
	.
	* 1. 가 2.
	/* / /
	Cooliris Cooliris 3 Cooliris

	
	<p>* (5) Twitter, Facebook, MySpace, Plurk, Windows Live Blogger. (Control Panel() > Set Folder Public()) Multimedia Station . NAS DDNS</p>
	<p>* (5) NAS SMTP</p>
	<p>().</p>
	<p>: Open(), Rename(), Delete(), Download(), Full Image View().</p>
	
	

*

(MP3)

NAS가

"X"

The screenshot shows a music player window with a dark theme. At the top left, the title "01 Love of My Life.mp3" is displayed. On the left side, there is a large, stylized blue musical note icon. On the right side, a track list is shown with "01 Love of My Life.mp3" highlighted in green. Below the track list, the following metadata is displayed:

Title:	01 Love of My Life
Artist:	
Album:	
Year:	
Track:	0
Genre :	255

At the bottom, there is a playback control bar with buttons for previous, play/pause, stop, and next. A progress bar shows the current time as 02:04 / 04:50. To the right of the progress bar is a volume control slider with a minus sign on the left and a plus sign on the right. At the very bottom, a copyright notice reads: "Copyright ©2010 QNAP Systems, Inc. All Rights Reserved."

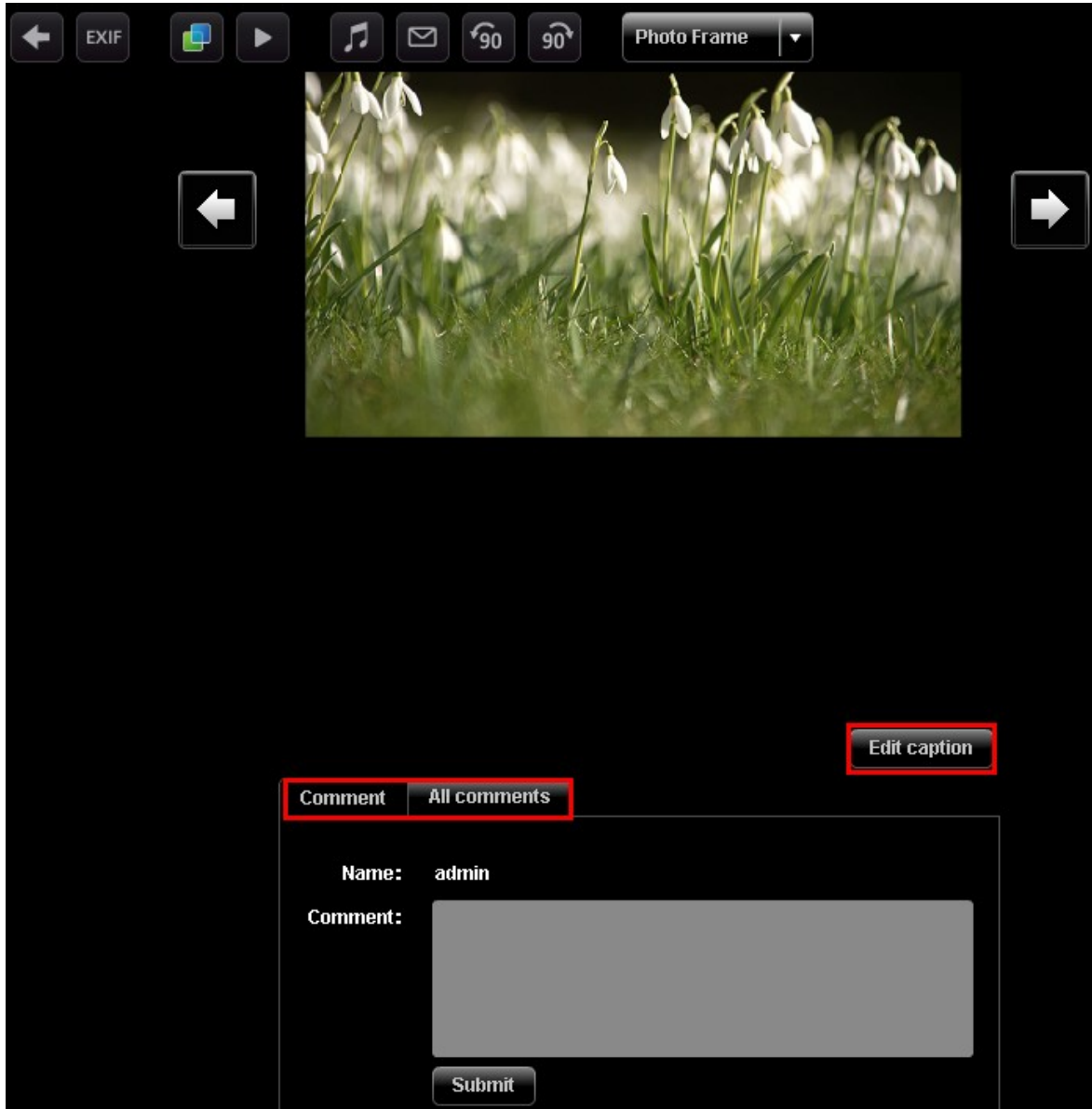
"EXIF"

가 , "Edit caption()"

512

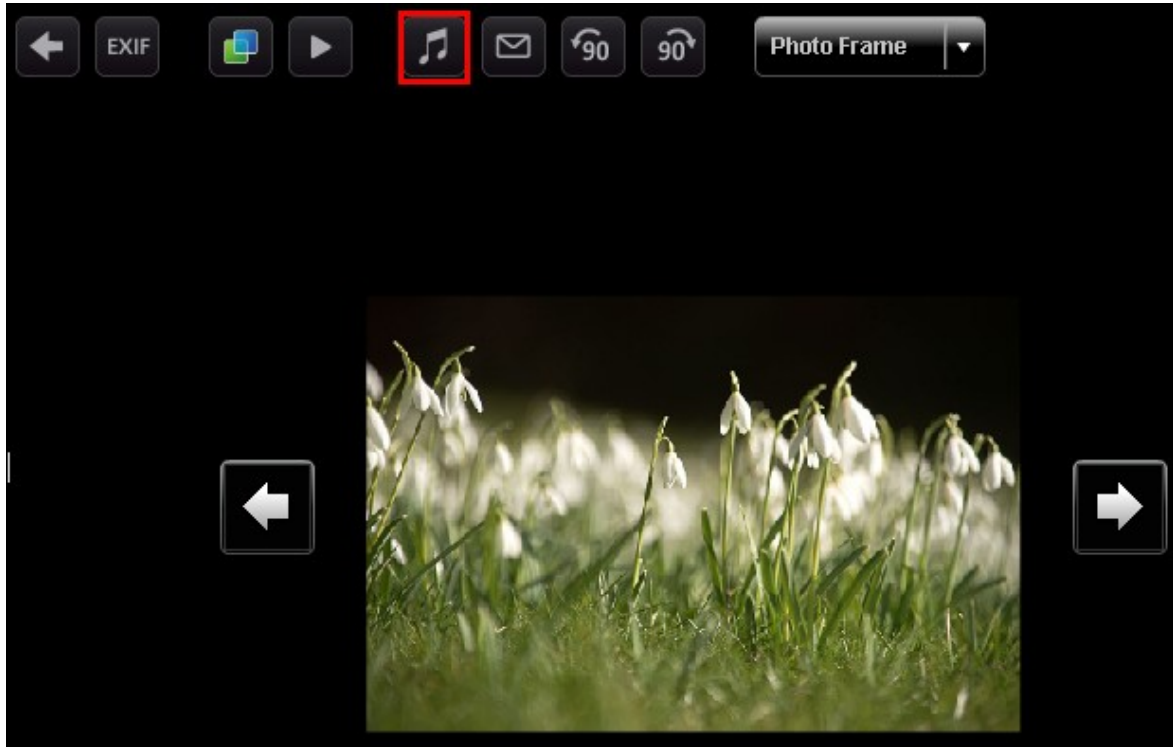
"All comments()"

128



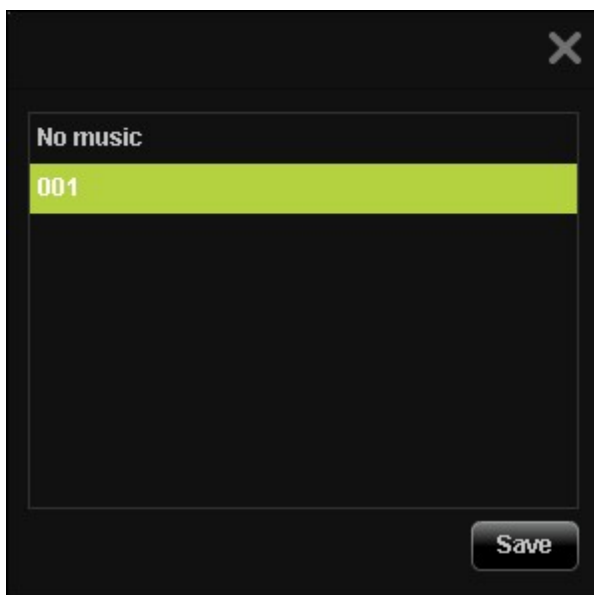
"Control Panel()" > "Playlist Editor()"()

Media Center()



"Save()"

"No music()"



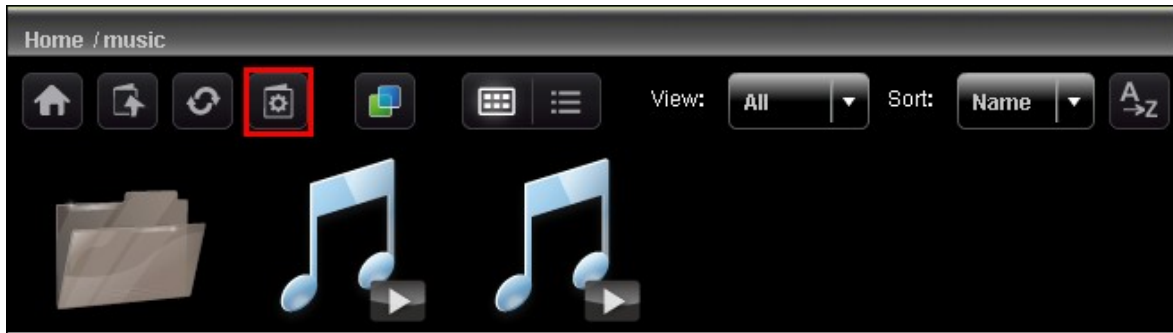
Multimedia Station

()

, Media Center()



()



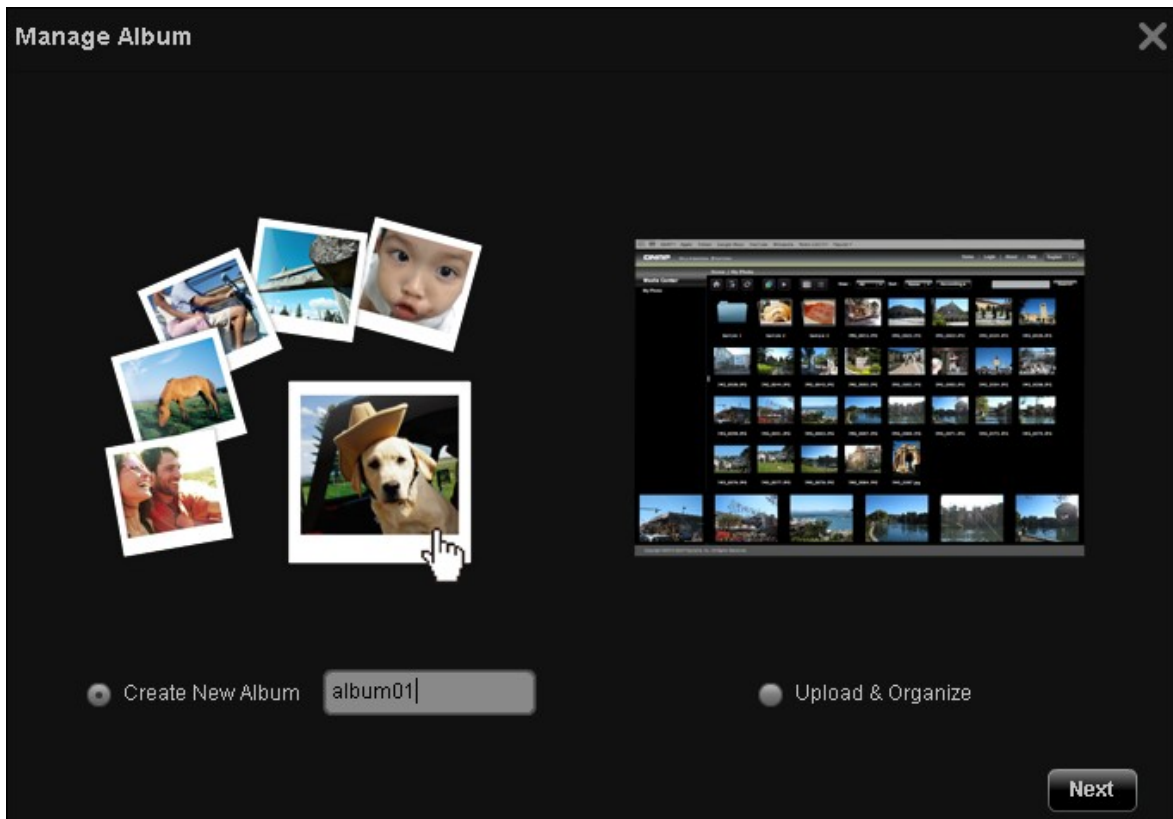
"Create New Album()"

1 - 64

)"

| \ : ? " < > *

" "

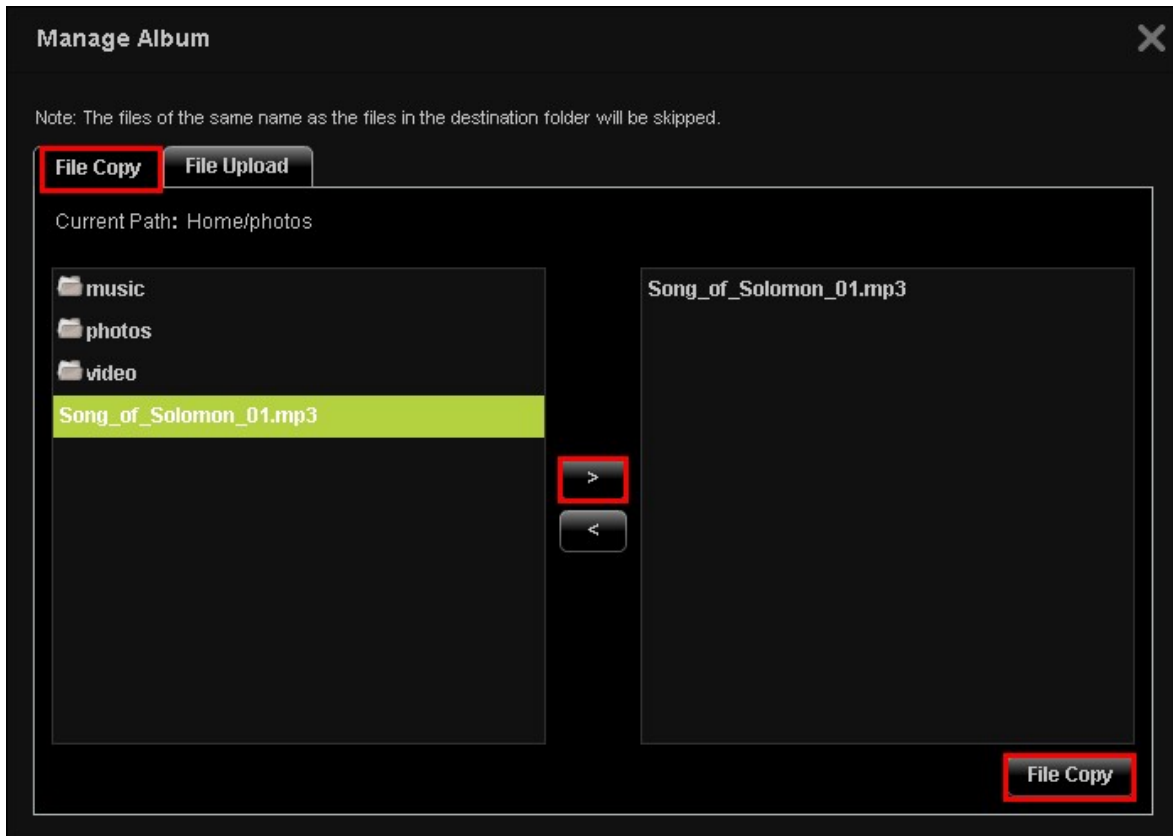


Media Center()

>

"File Copy()"

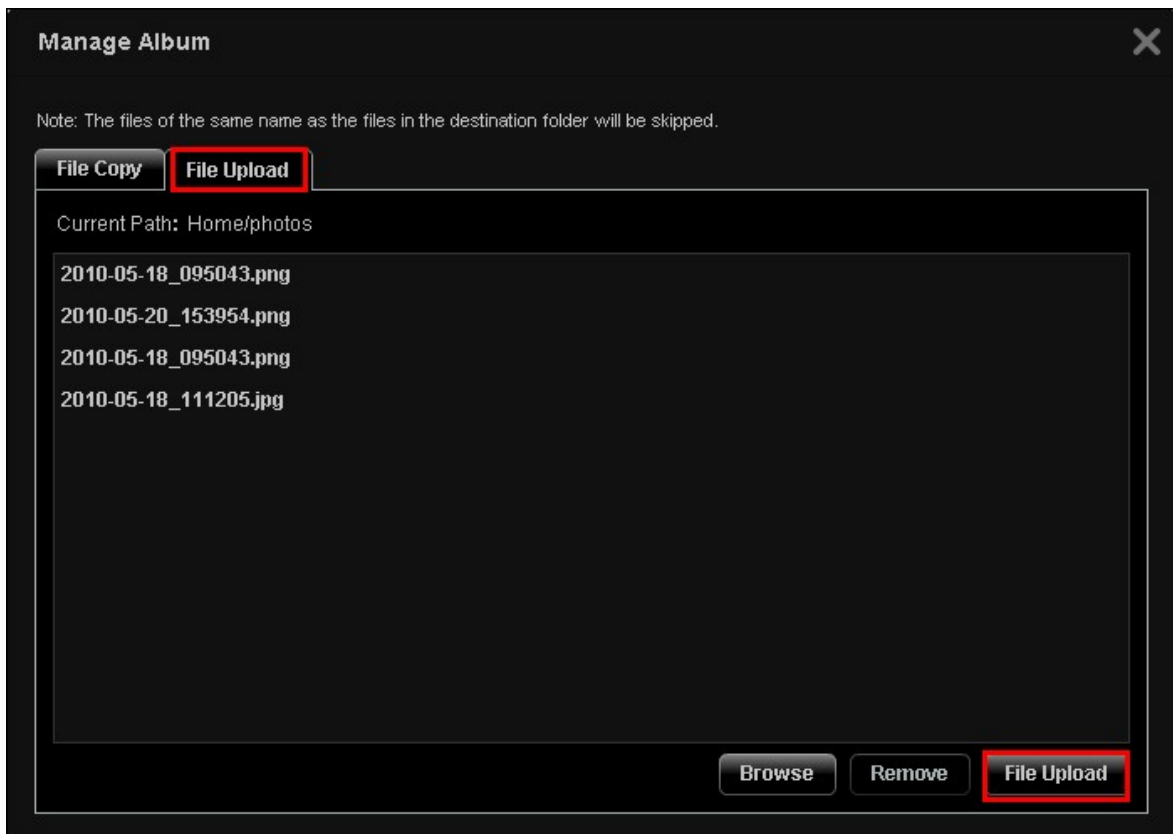
"File Copy()"



)"

"Browse()"

"File Upload(



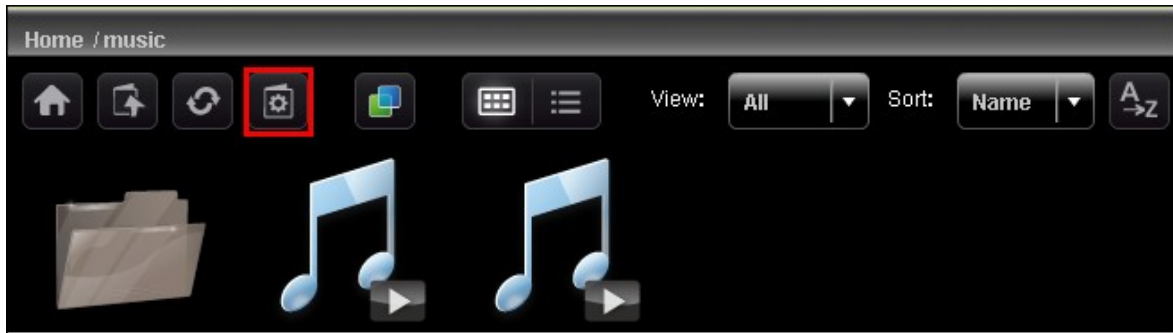
Multimedia Station

()

, Media Center()

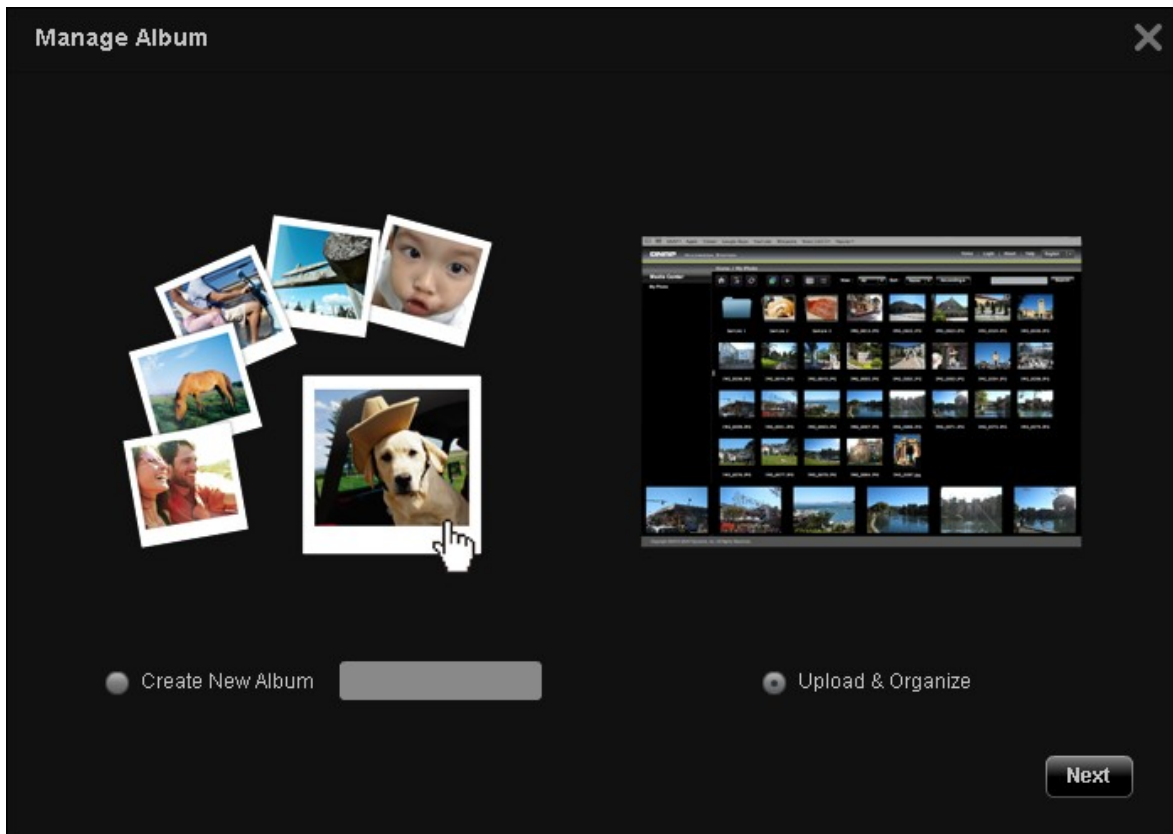


()



"Upload & Organize()"

"Next()"



Media Center()

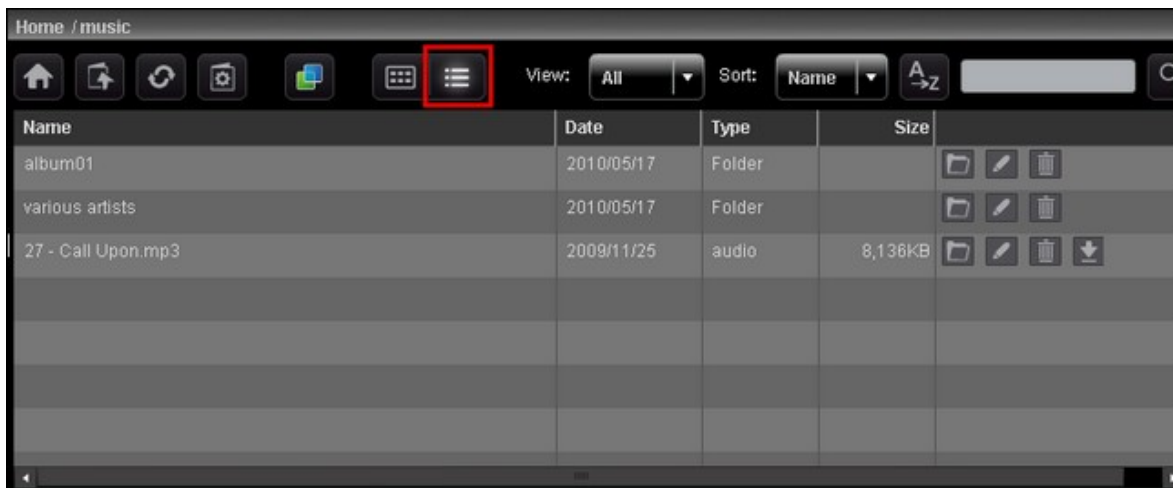
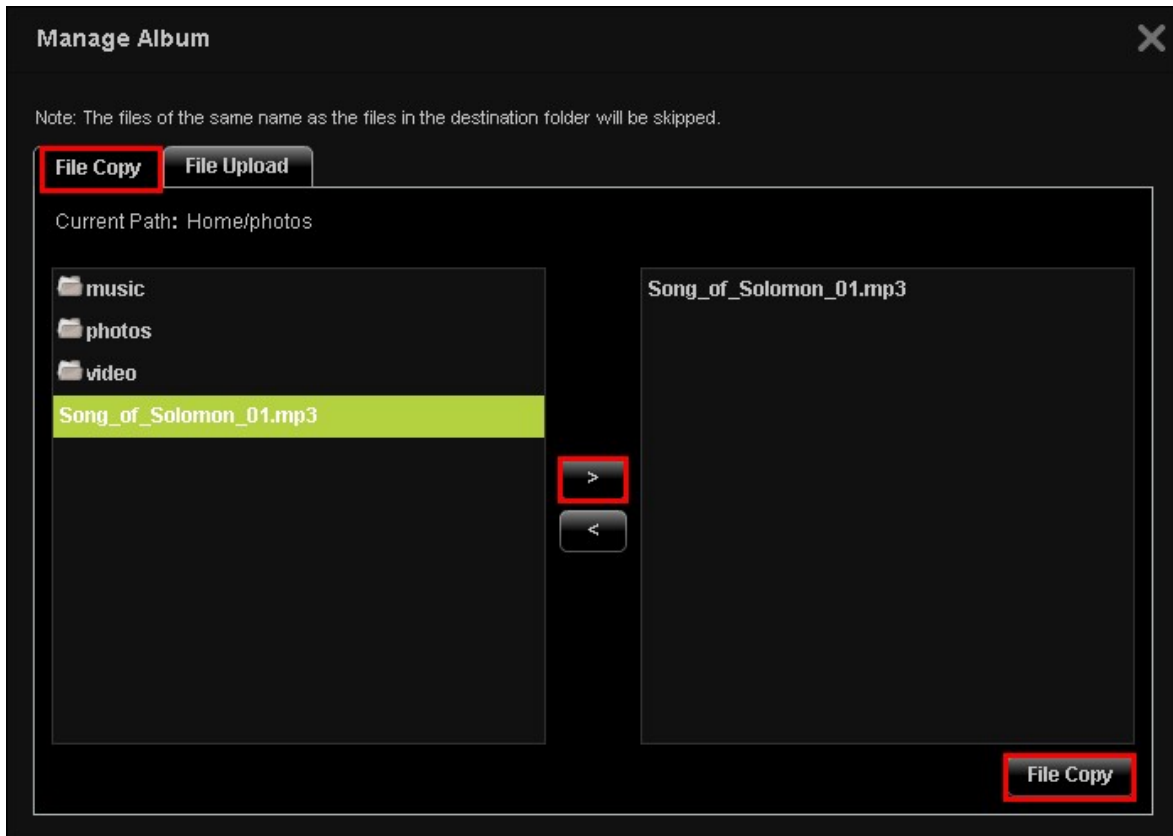
>

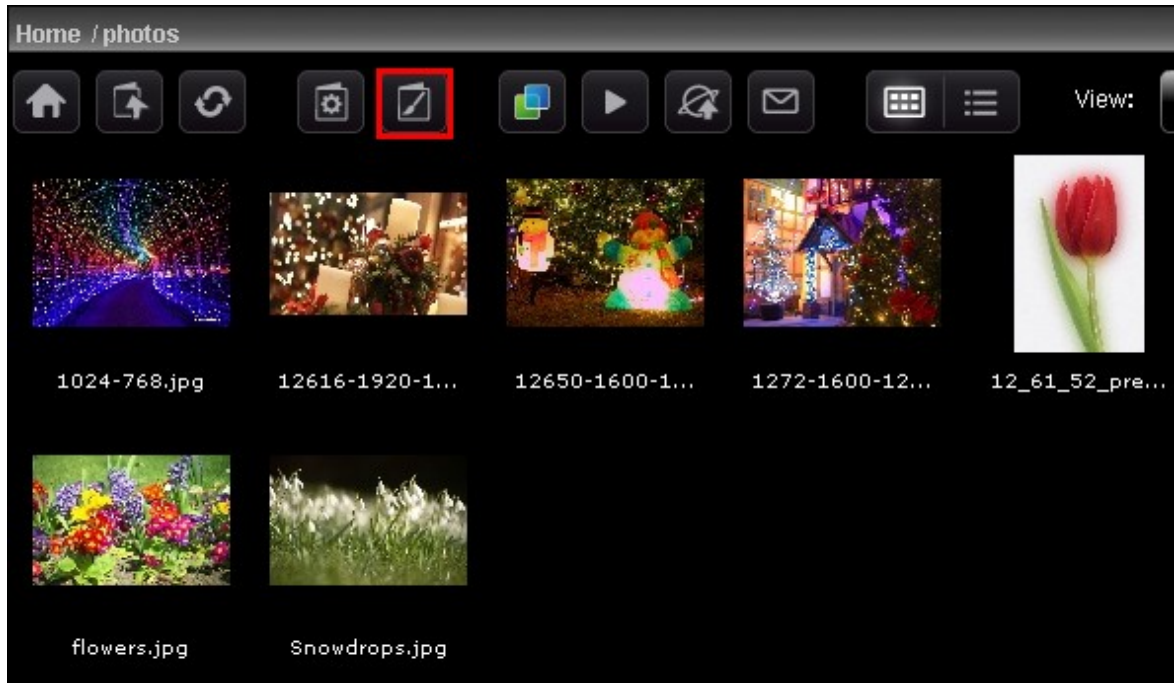
"File Copy()"

"File Copy()"

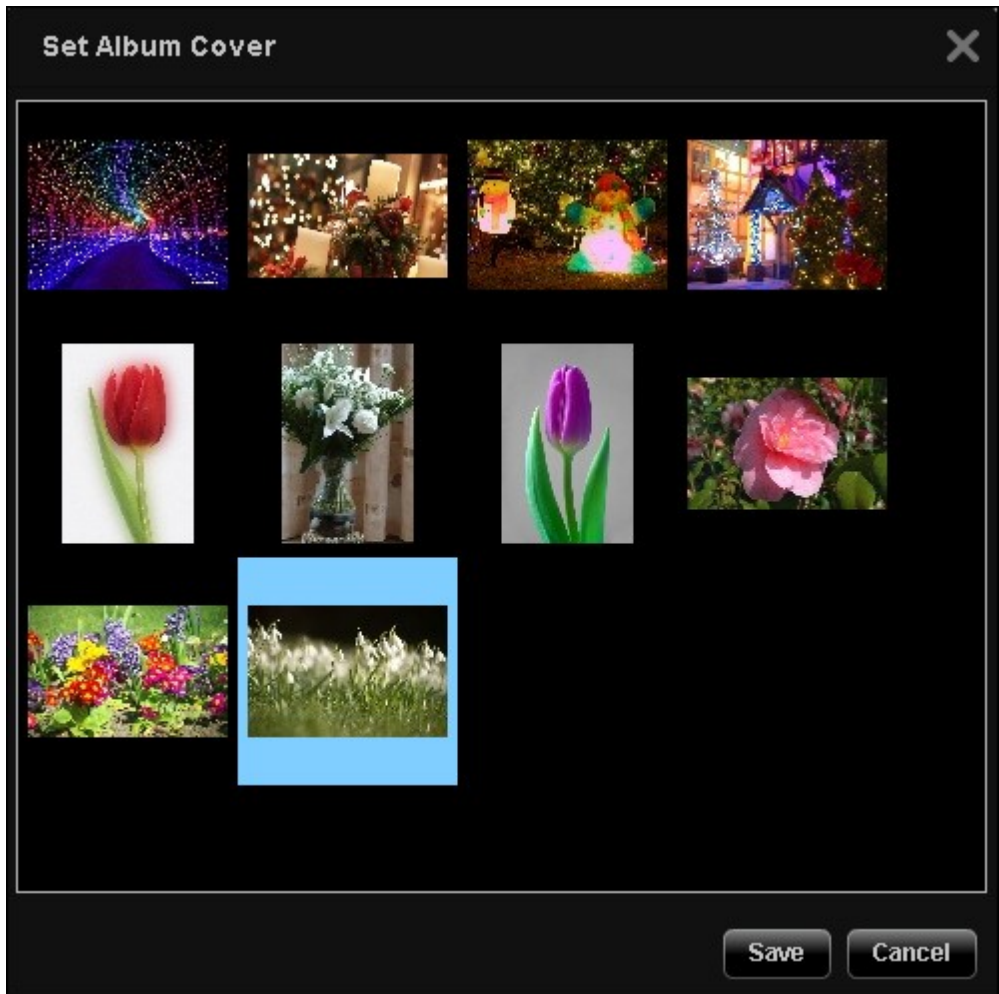
"Browse()"

"File Upload()"





"Save()"





(3 / 6 / 9 / 15)

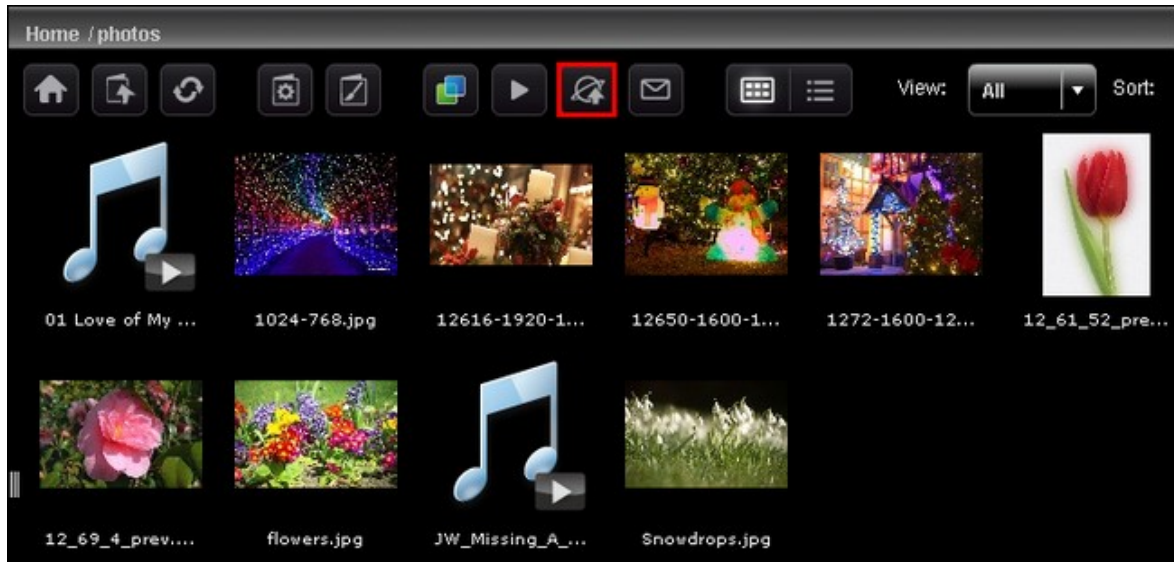
()

3 (3D)



Multimedia Station

Facebook Twitter



5

(Control Panel() > Set Folder Public())
Multimedia Station . NAS DDNS

	: 256
Link()(NAS IP)	, (.), (/) : 256
	: 1024



Title: photos

Link: 10.8.12.46 /MSV2/



|

B *I* U ABC | ↻ ↺ | ☰ ☷

Publish to




SMTP NAS



"Send()"

Subject()	: 128
My Name()	(A-Z, a-z), (0-9), (-), ()
My E-mail()	: 128
Friend's Name()	: 128
Friend's E-mail()	: 128
	: 1024

QNAP MULTIMEDIA STATION Clicking the images you want to publish



Selected Images

Subject:

My Name:

My Email:

Friend's Name:

Friend's Email:

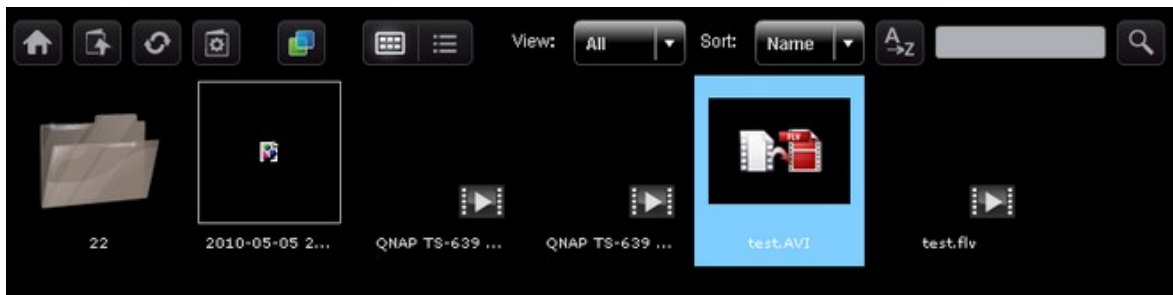
Message:

NAS
NAS가

가 "X"

The image shows a video player window titled "QNAP TS-639 Pro Turbo NAS.MP4". The video content features a blue background with the text "ALL-IN-ONE SERVER" at the top left. A central illustration shows a QNAP NAS device connected to a laptop and two printers. A green arrow points from the NAS to the laptop, and the text "Printer Sharing" is displayed in the center. The QNAP logo is in the bottom right corner of the video frame. The video player interface includes a progress bar at 00:01:19 / 00:07:27, a "seeking" status, and a volume control slider. A copyright notice at the bottom reads "Copyright ©2010 QNAP Systems, Inc. All Rights Reserved."

AVI, M4V, MPG/MPEG, RM/RMVB, WMV
Multimedia Station



FLV

QNAP
Station

NAS

Multimedia

Home /video

Name	Date	Type	Size	
22	2010/05/17	Folder		[Folder Icon] [Edit Icon] [Delete Icon]
2010-05-05 22-00-07~22-01-09.avi	2010/05/17	video	2,010KB	[Folder Icon] [Edit Icon] [Delete Icon] [Download Icon]
QNAP TS-639 Pro Turbo NAS.MP4	2010/05/13	video	27,849KB	[Folder Icon] [Edit Icon] [Delete Icon] [Download Icon]
QNAP TS-639 Pro Turbo NAS_2.MP4	2010/05/17	video	27,852KB	[Folder Icon] [Edit Icon] [Delete Icon] [Download Icon]
test.AVI	2010/05/17	video	129,870KB	[Folder Icon] [Edit Icon] [Delete Icon] [Download Icon]
test.flv	2010/05/17	video	40,477KB	[Folder Icon] [Edit Icon] [Delete Icon] [Download Icon]

My Jukebox()

My Jukebox() ID3

My Jukebox() "Control Panel()" >
 "Playlist Editor()" . My Jukebox
 () Multimedia Station

Multimedia Station NAS
 (Privilege Settings() > Users())
 "Add User(가)" . Multimedia Station
 "admin" 128



(A-Z, a-z), (0-9), (-), ()

32

가 , 가 . Save
 ()" 1 - 16 A-Z, a-z, 0-9, -, !,
 @, #, \$, %, _

Add User ✕

Username * test
Password * ****
Verify Password * ****
Description
 Is Admin
 Disabled

Inaccessible Folder

music

video

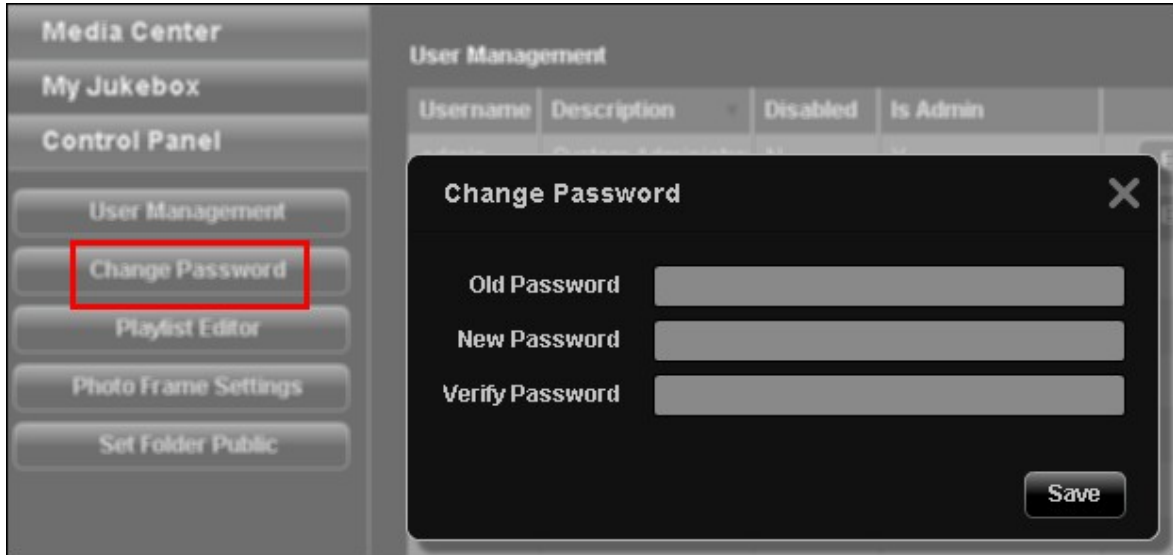
Accessible Folder

photos

가
"admin"

User Management						
Username	Description	Disabled	Is Admin			
admin	System Administra	N	Y	<input type="button" value="Edit User"/>		
test		N	N	<input type="button" value="Edit User"/>	<input type="button" value="Delete User"/>	<input type="button" value="Change Password"/>

A-Z, a-z, 0-9, -, !, @, #, \$, %, _



Playlist Editor()
 "Add(가)"
 (Multimedia Station) >
 가 . "Save()" "Close()" .
 My Jukebox()

	24
	512
	128



400 () x 300 ()

PNG

4:3

가 "Add(가)"

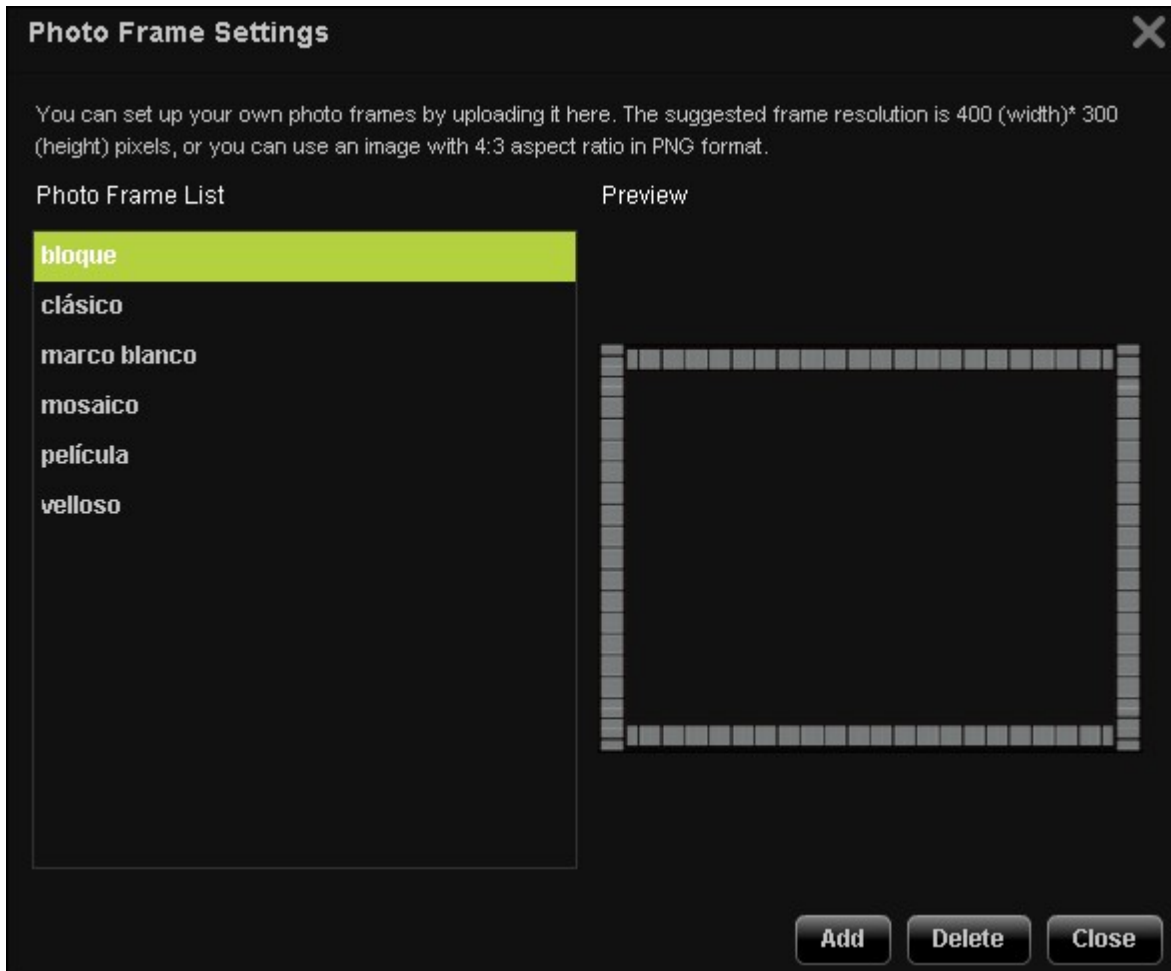


Photo Frame Settings



You can upload your own photo frames. The suggested frame resolution is 400 (width) x 300 (height) pixels, or you can use an image with 4:3 aspect ratio in PNG format.

Photo Frame List

Preview

- bloque
- clásico
- marco blanco
- mosaico
- película
- velloso

Name

Select File

Browse

Upload

Cancel

Add

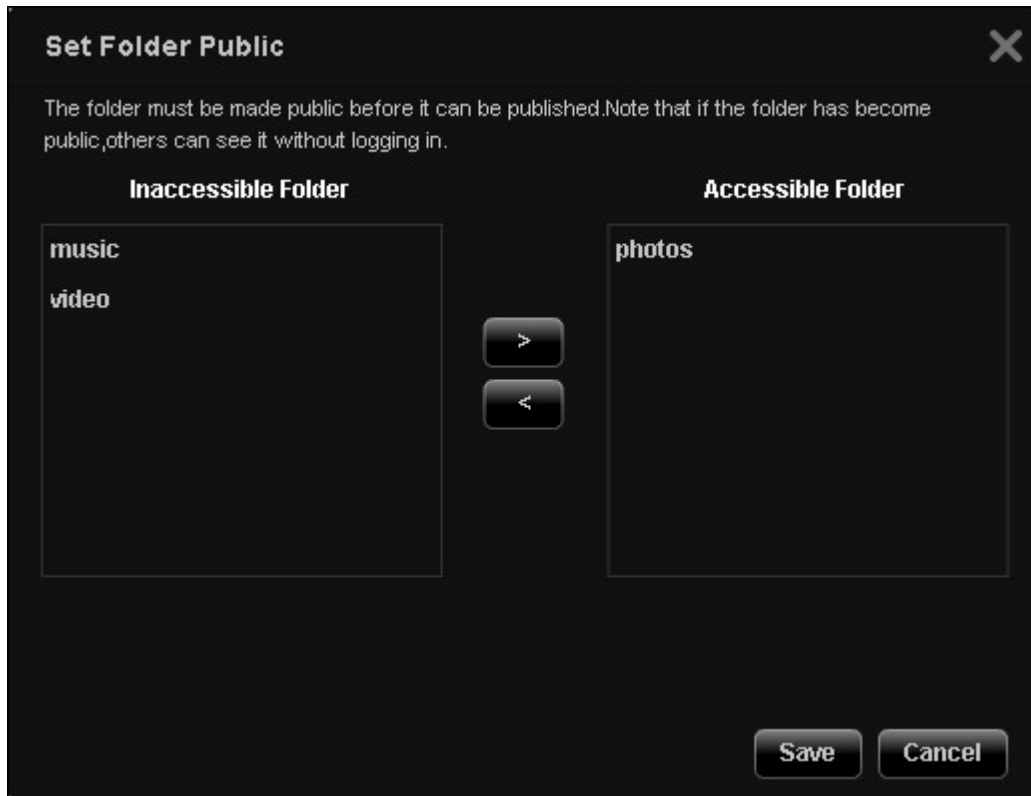
Delete

Close

>

"Save()"

Multimedia Station



8.8

Music Station

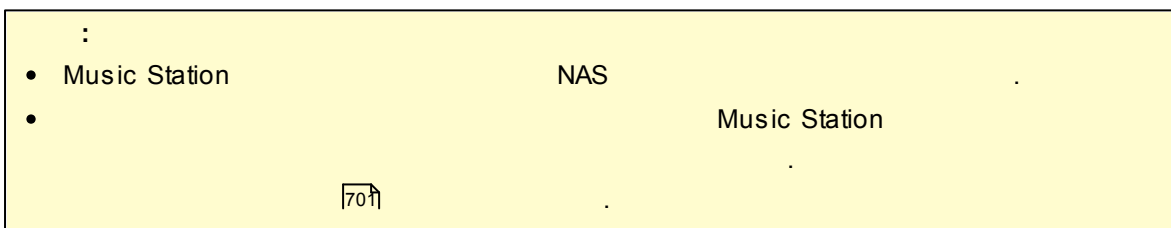
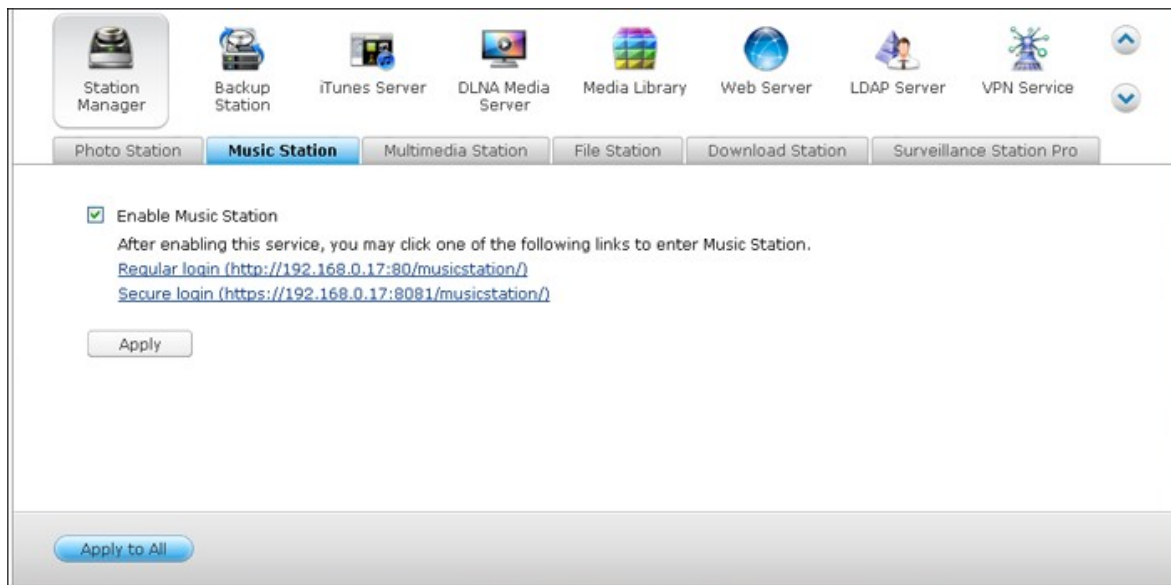
. Music Station NAS

가

. Turbo NAS

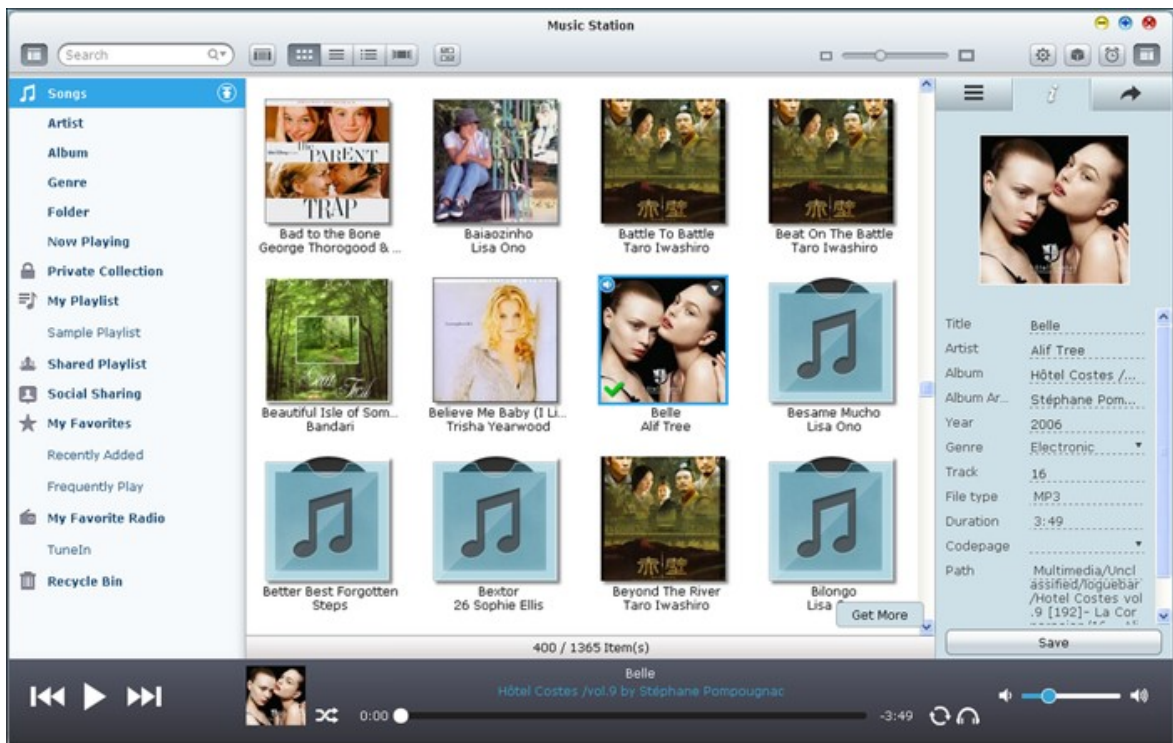
1. Control Panel() "> Applications() "> Station Manager() > Music Station() "













Music Station












2. Music Station

Music Station



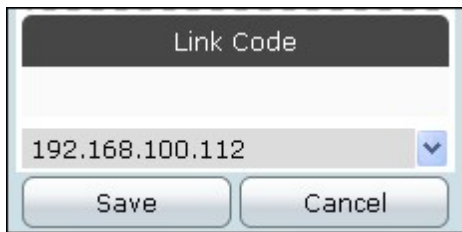
	
   	  ,  , ( , )
	, NAS Privilege Settings() "> Users() "
	Media Folder() "
	

	
	
	
	
	/
	,
	:
	

- , , , , :
 가 PC
 'Multimedia'
 Now Playing()"
- : 'home'
- : 200
 600
 가 Now Playing()" 가
-  : 200
 600
- : 1 가
- 가 : 가
- : URL TuneIn Radio
 가 1,024 URL 가
 MP3
- TuneIn: TuneIn
- :

:
 • My Playlist()" Public Playlist()"
 : / | \ : ? < > * " ' \$.
 • Recently Added(가)"
 • Music Station : MP3, OGG, WAV, AIFF, AU, FLAC, M4A
 APE.

- 가 (☰): 가 가
 - (i):
 - (↶): "Songs()"
1. (✉): "Send()"
 - Control Panel()"> System Settings()"> Notification()"> SMTP Server(SMTP)"
 2. (🔔):
 3. (🔗): "Link Code()"
- DDNS , LAN IP WAN IP
 (myQNAPcloud.com DDNS myQNAPcloud
 myQNAPcloud 738) Save()"
- URL



Music Station ()
 Read/Write(/)”
 Read Only()”
 /home ” 가
 [70]

- :
- 가
 Control Panel()”> Privilege Settings()”> Users()”
-
- Control Panel()”> Applications()”> Media Library()” 가
- [70]

8.9 myQNAPcloud

myQNAPcloud
UPnP

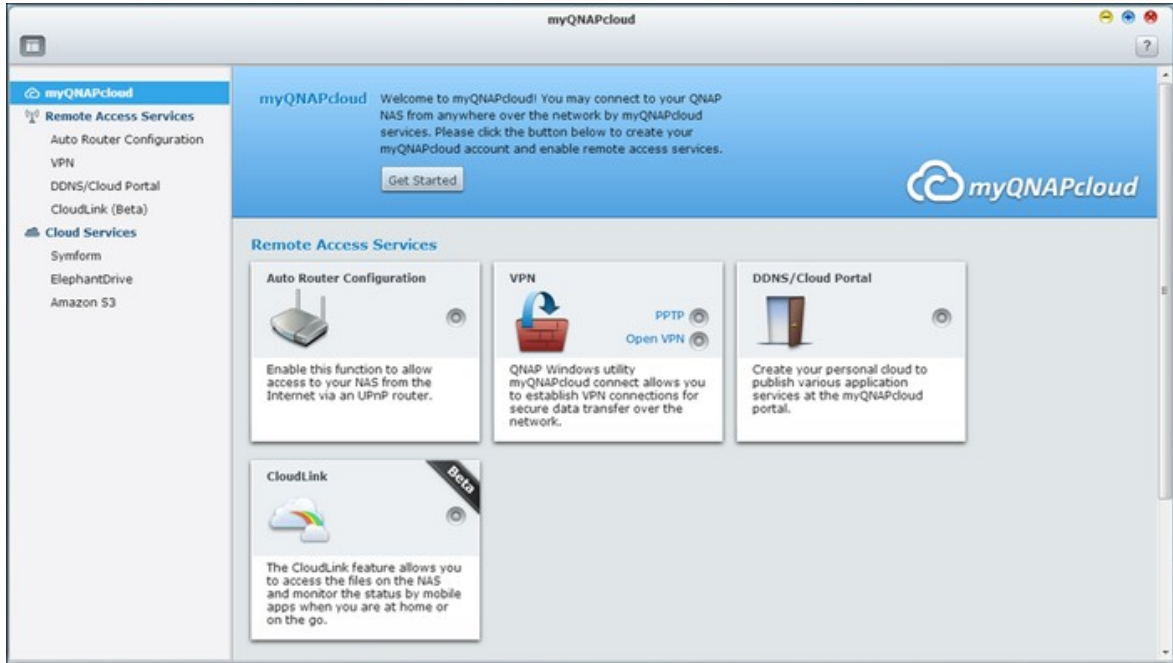
NAS IP

. myQNAPcloud

NAS

UPnP

NAS



MyCloudNAS

NAS가 UPnP

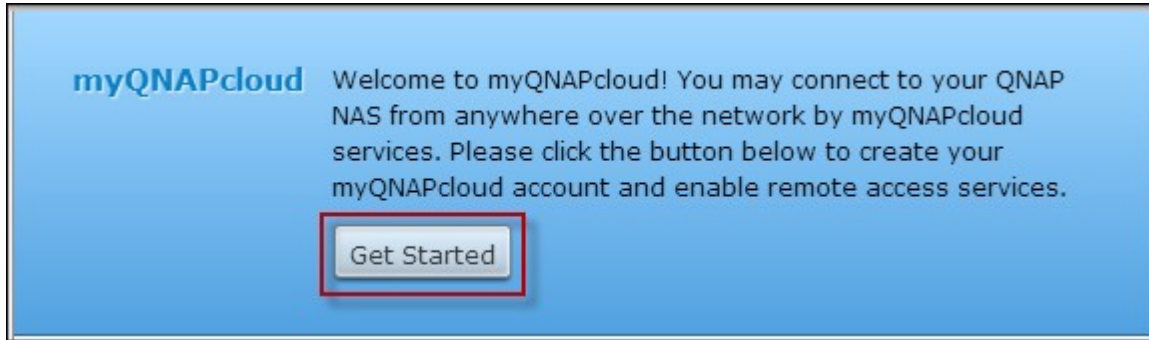


myQNAPcloud

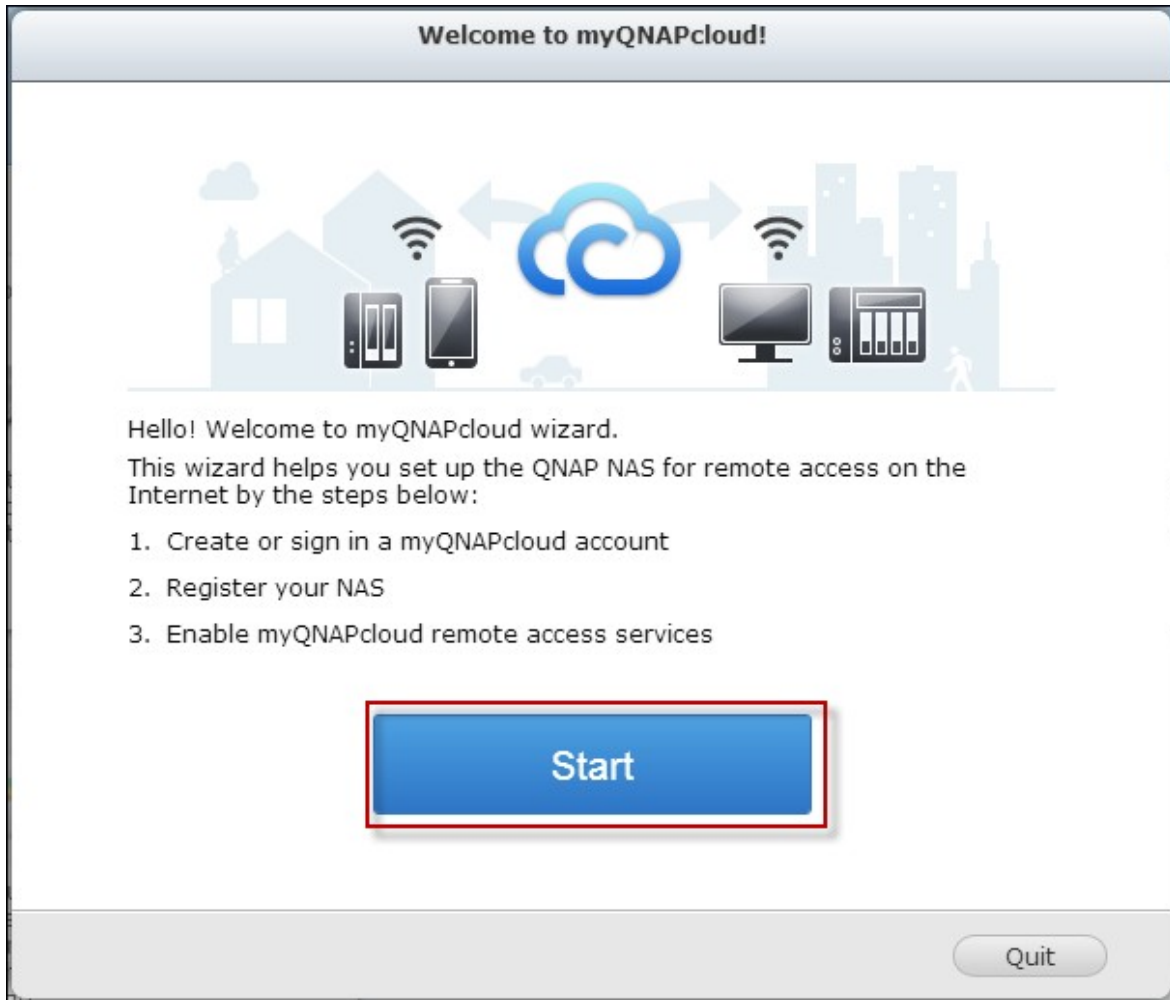
myQNAPcloud

myQNAPcloud

1. "Get Started()"



2. "Start()"



3. "Next()" myQNAPcloud
 "(myQNAPcloud Sign in myQNAPcloud account(myQNAPcloud)"
)" myQNAPcloud .)

Welcome to myQNAPcloud!

Create myQNAPcloud account

Please create a myQNAPcloud Account to proceed. (or [Sign in myQNAPcloud account](#))

myQNAPcloud ID (QID) :

Password :

Verify Password:

First name:

Last name:

Mobile number: (optional)

I agree to [myQNAPcloud Terms of Use](#) and [QNAP Privacy Policy](#)

I'd like to receive the latest E-news from QNAP.

Step 1/4

Next

Cancel

Welcome to myQNAPcloud!

Sign in myQNAPcloud account

Please sign in myQNAPcloud account to proceed (or [Create myQNAPcloud account](#))

myQNAPcloud ID (QID) :

Password :

[Forgot your password?](#)

Step 1/4

4. QNAP NAS Next()” .

Welcome to myQNAPcloud!

Register your myQNAPcloud device name

Please enter a name to register your QNAP NAS. This name will be used to access your NAS remotely.

After finishing the wizard, you can access your QNAP NAS remotely with the following Internet address:

NASQTS.myqnapcloud.com

Step 2/4

Back

Next

Cancel

5. 가 .

Welcome to myQNAPcloud!

Configuring your router...

Please wait patiently. The router configuration will be completed in a minute.



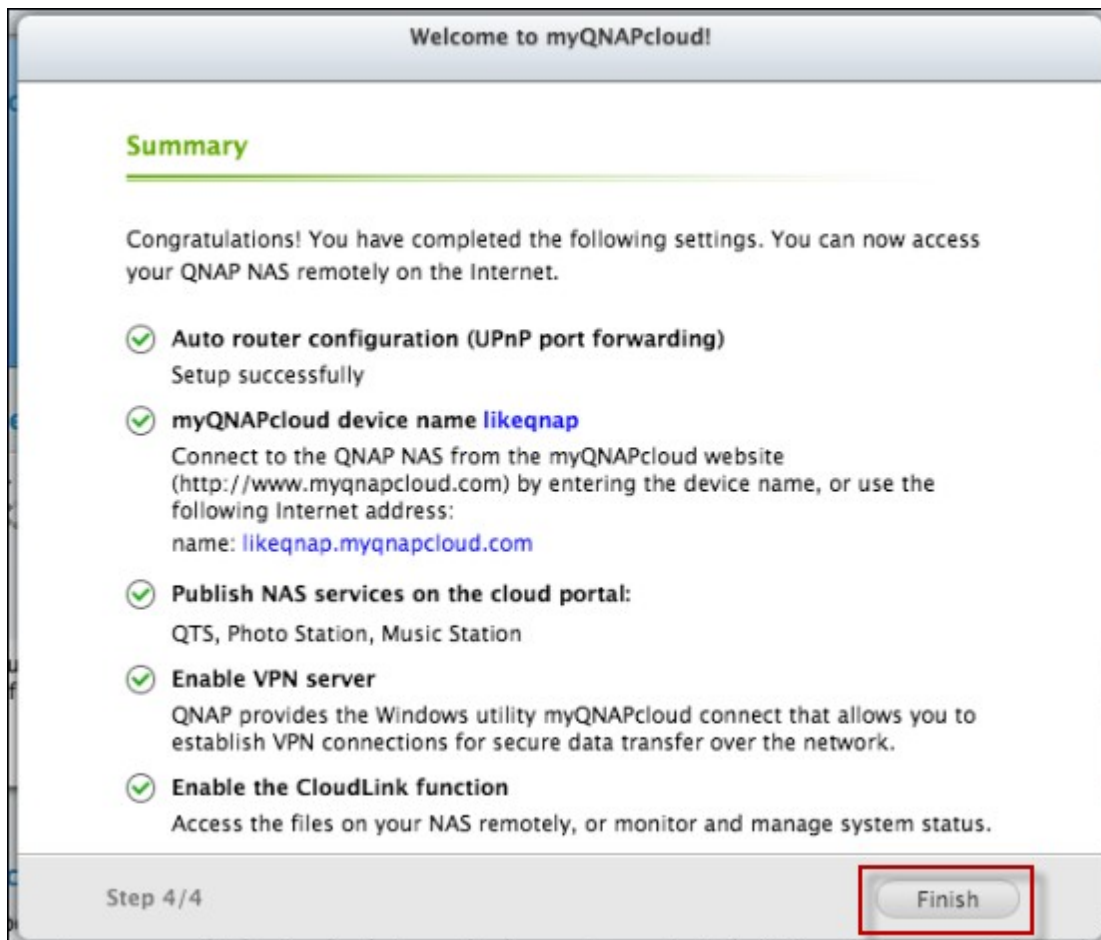
Configuring network environment and applying myQNAPcloud services...



Step 3/4

Next

6. Finish()”



7.

가

Confirm Registration(

)”



Dear Mr./Mrs.,

Thanks for registering myQNAPcloud account.

Your myQNAPcloud ID (QID) is NAS.QTS@gmail.com

Click the link below to confirm registration:

[Confirm Registration](#)

Notice: The link will automatically expire after 30 days.

When someone creates a QNAP User Account, this email will be sent automatically.

Your email address must be validated.

Then, you can start to access more services provided by QNAP with the QNAP User Account.

For more information, please refer to:

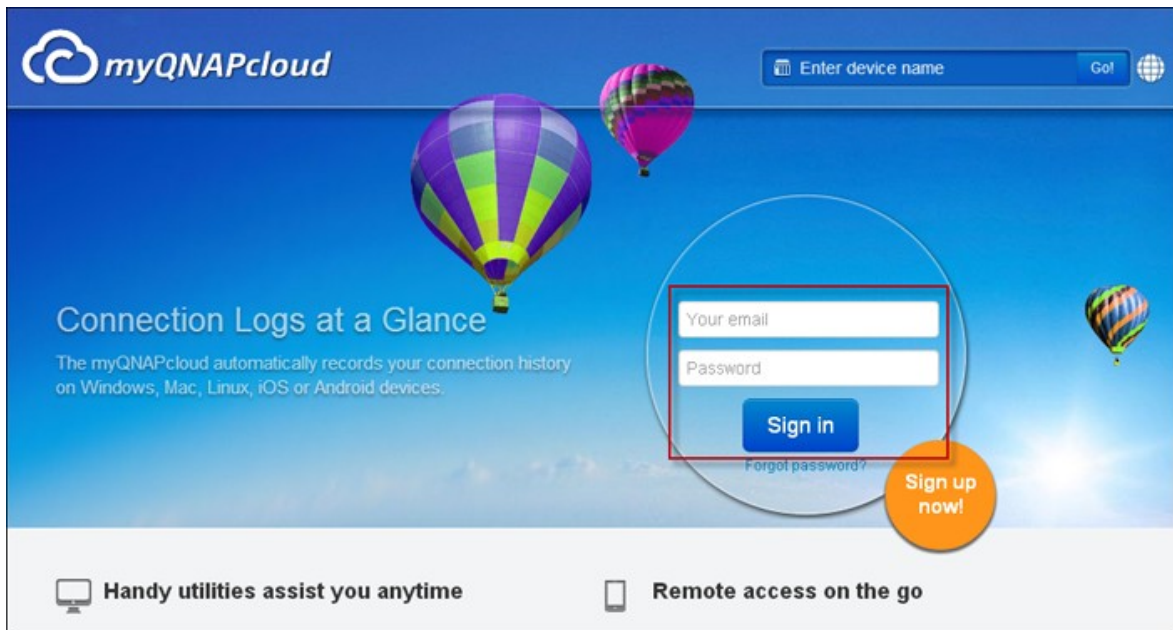
[What's myQNAPcloud](#)

Thank you,

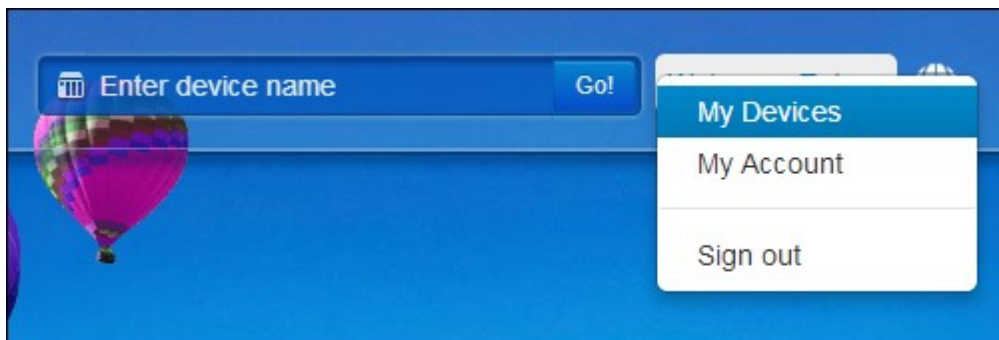
QNAP Customer Support

myQNAPcloud

myQNAPcloud Manage myQNAPcloud Account(myQNAPcloud)”
 http://www.myqnapcloud.com_____.



Enter device name()” ID My
 Devices()” , DDNS , LAN WAN IP .



myQNAPcloud

Enter device name Go! Welcome, NAS

- My Profile
- My Devices
- NASQTS**

NASQTS

TS-669 Pro

myQNAPcloud device name	NASQTS
myQNAPcloud internet address	NASQTS.myqnapcloud.com
LAN IP	10.8.12.148
WAN IP	61.62.220.74
Firmware version	4.0.2
Last update time	2013-09-11 15:52:16

My Account()”

Enter device name Go!

- My Devices
- My Account**
- Sign out

myQNAPcloud Welcome, NAS

My Profile

- Profile**
- Change Password
- Activities

My Devices

- NASQTS

Profile

Your myQNAPcloud ID (QID) nas.qts@gmail.com

First name	NAS
Last name	QTS
Gender	
Birthday	
Mobile number	
Get latest QNAP information from email	No
Preferred language	English

myQNAPcloud Welcome, NAS

My Profile

- Profile
- Change Password**
- Activities

My Devices

- NASQTS

Change Password

Old password	<input type="text" value="Your old password"/>
New password	<input type="text" value="Must be 6 characters long at least"/>
Confirm password	<input type="text" value="Must be 6 characters long at least"/>



My Profile

Profile

Change Password

Activities

My Devices

NASQTS

Activities

Source IP / Country	Device	APP name	Action	Time
61.62.220.74 Taiwan		Portal	Sign in	2013-09-11 15:44:42
61.62.220.74 Taiwan		Portal	Sign out	2013-09-11 15:44:39
61.62.220.74 Taiwan		Portal	Sign in	2013-09-11 15:42:20
61.62.220.74 Taiwan	 NASQTS	QNAP NAS CGI	Register device	2013-09-11 15:41:18
61.62.220.74 Taiwan		QNAP NAS CGI	Sign in	2013-09-11 15:41:18

← Next

Previous →

myQNAPcloud

NAS

myQNAPcloud
)"

NAS

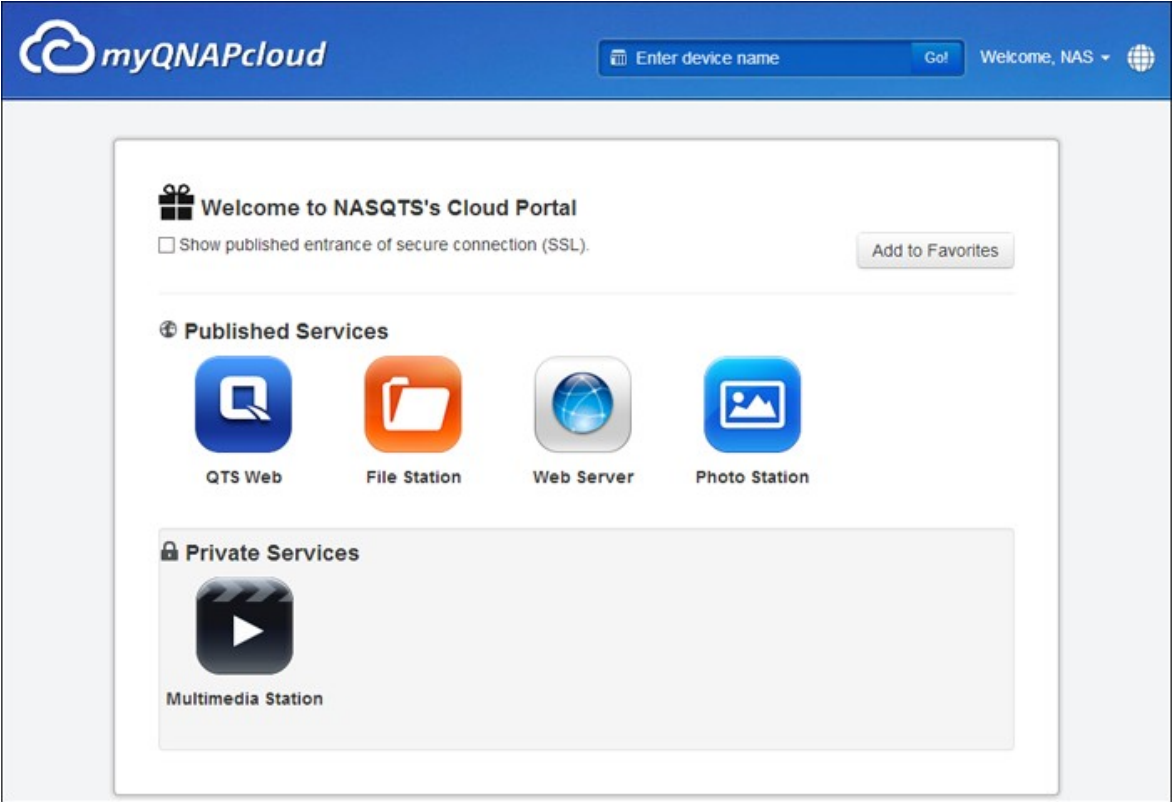
NAS

Go(

NAS 가

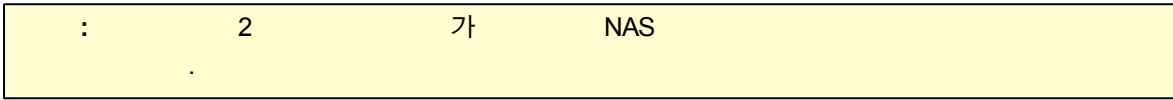
The screenshot shows the myQNAPcloud portal interface. At the top left is the myQNAPcloud logo. At the top right is a search bar with the text "Enter device name" and a "Go!" button. The main content area is titled "Welcome to NASQTS's Cloud Portal" and includes a checkbox for "Show published entrance of secure connection (SSL)". Below this is a section for "Published Services" with four icons: "QTS Web", "File Station", "Web Server", and "Photo Station". At the bottom is a "Private Services" section with a lock icon, a text prompt "Enter the Access Code to browse more private services.", and a form with "User name" and "Access code" input fields and a "Submit" button.

This is a close-up of the "Private Services" form. It features a lock icon, the title "Private Services", and the instruction "Enter the Access Code to browse more private services.". Below the instruction are two input fields: "User Name" and "Access code", followed by a "Submit" button.



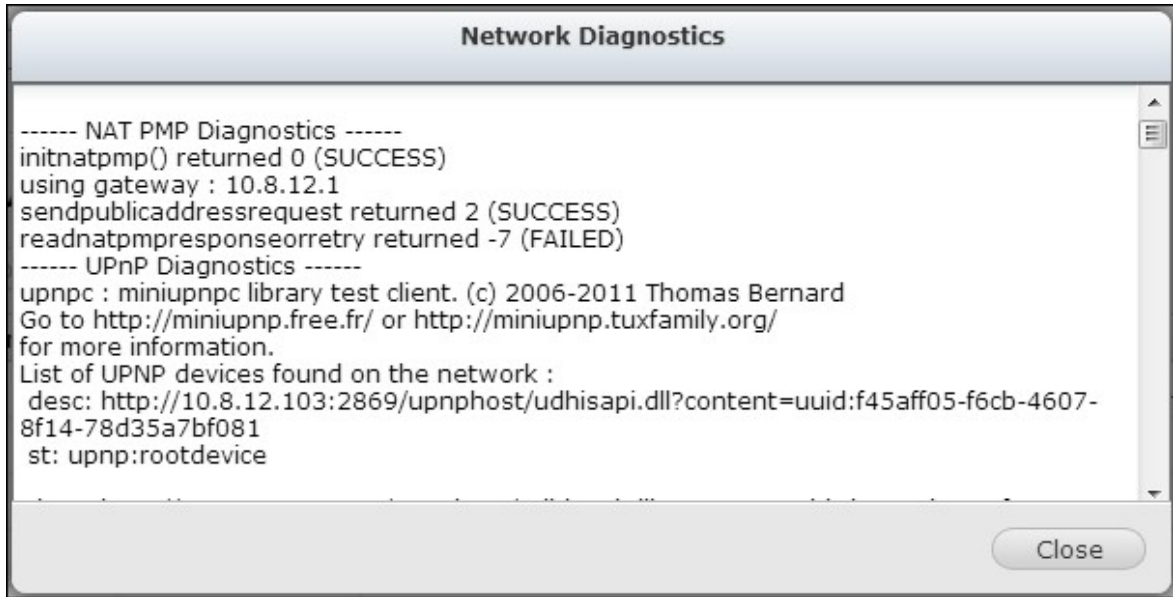
: NAS DDNS/

Remote Access Services () > "Auto Router Configuration ()"
 UPNP / UPNP
 NAS

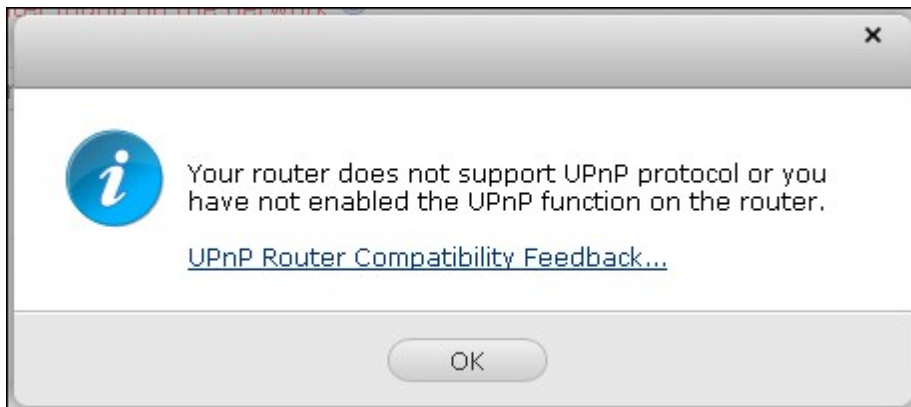


UPnP Rescan()" Diagnostics
 ()"





UPnP 가 NAS (UPnP) ... ”(http://www.qnap.com/go/compatibility_router.html) UPnP Router Compatibility Feedback



. NAS가 UPnP NAS . 'Apply to Router()' NAS

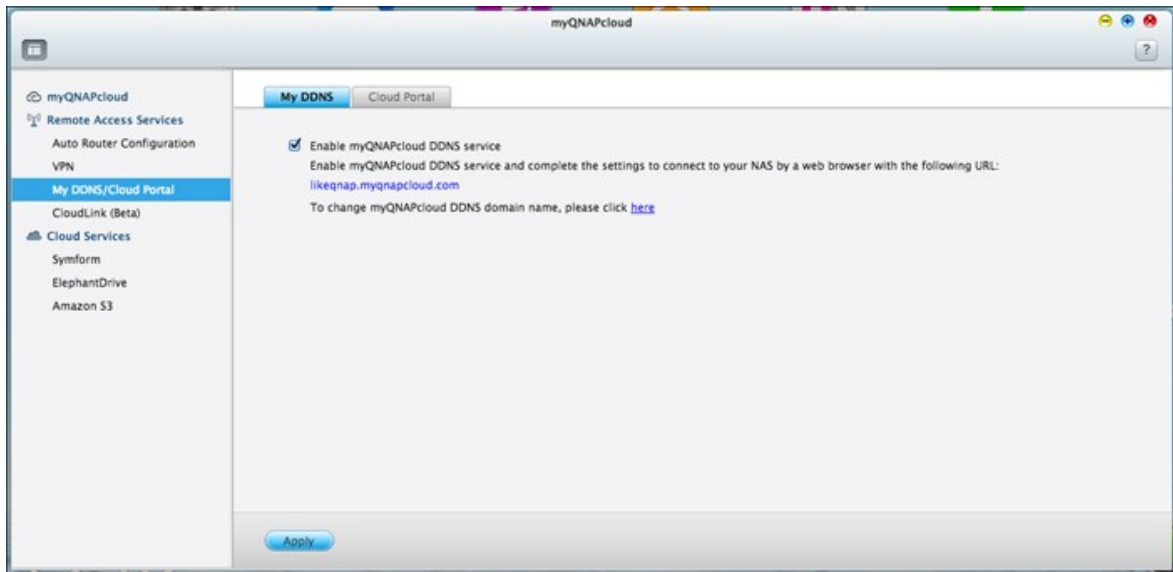
Service Name	Ports	Protocol
Web Administration (includes File Station, D...	8080	TCP
Secure Web Administration	443	TCP
FTP/FTPS with SSL/TLS Server	20,21	TCP
Telnet Server	13131	TCP
SSH server, SFTP server	22	TCP
Web Server, Multimedia Station	80	TCP
Secure Web Server	8081	TCP
Remote Replication	873,8899	TCP
VPN Server (PPTP)	1723	TCP
VPN Server (OpenVPN)	1194	UDP

- 3 NAS가 UPnP 가 NAS .
- : <http://www.qnap.com/go/notes.html>
- : <http://www.qnap.com/faq>
- UPnP : http://www.qnap.com/UPnP_Router_Compatibility_List

DDNS/Cloud Portal

File Station NAS
 http://www.myqnapcloud.com
 NAS 가

Remote Access Service()” My DDNS NAS WAN
 IP 가 NAS myQNAPcloud . myQNAPcloud
 NAS가 UPnP



- QNAP NAS myQNAPcloud . myQNAPcloud
 NAS
- myQNAPcloud NAS 120
 가

Remote Access Services()”> DDNS/Cloud Portal()”> Cloud
 Portal()” NAS 가 . Publish()” NAS
 myQNAPcloud . Private()” NAS
 . myQNAPcloud myQNAPcloud

NAS 가 myQNAPcloud (http://www.
 myQNAPcloud.com)

My DDNS **Cloud Portal**

Publish Services

You can publish NAS services to myQNAPcloud website. (<https://www.myqnapcloud.com>).
 Select "Publish" to publish the NAS services to myQNAPcloud website.
 Select "Private" to hide the published NAS services from public access. The private services on myQNAPcloud website are only visible to specified users with myQNAPcloud Access Code.

NAS Services	Status	Publish	Private
Web Administration	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
File Station	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Web Server	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Multimedia Station	Enabled	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Photo Station	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Music Station	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secure Web Administration	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secure File Station	Enabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secure Web Server	Disabled	<input type="checkbox"/>	<input type="checkbox"/>
Secure Multimedia Station	Disabled	<input type="checkbox"/>	<input type="checkbox"/>
Secure Photo Station	Disabled	<input type="checkbox"/>	<input type="checkbox"/>
Secure Music Station	Disabled	<input type="checkbox"/>	<input type="checkbox"/>

myQNAPcloud : 6-16 (a-z, A-Z, 0-9 가)
 NAS 가 myQNAPCloud NAS

myQNAPcloud Access Code

Set the myQNAPcloud Access Code:

Note: The code must be 6-16 characters (a-z, A-Z, 0-9 only).

'Add Users(가) " myQNAPcloud NAS
 가 9 NAS

User Management

Click "Add User" and specify the local NAS users who are allowed to view the private NAS services published on myQNAPcloud website. These users may also use the myQNAPcloud Connect at the same time for remote access. Maximum 9 users can be specified.
 Select the users and click "Send Invitation" to send an email with instruction to access the services.

Delete **Add Users** Send Invitation

<input type="checkbox"/>	Username	myQNAPcloud Connect (VPN)	myQNAPcloud Website

. myQNAPcloud (VPN) / myQNAPcloud
 . 'Apply()"

Select users and their privileges

Username	myQNAPcloud Connect (VPN)	myQNAPcloud Website
admin	<input type="checkbox"/>	<input type="checkbox"/>
test01	<input type="checkbox"/>	<input type="checkbox"/>
test02	<input type="checkbox"/>	<input type="checkbox"/>
test03	<input type="checkbox"/>	<input type="checkbox"/>
Employee072	<input type="checkbox"/>	<input type="checkbox"/>
Employee073	<input type="checkbox"/>	<input type="checkbox"/>
Employee074	<input type="checkbox"/>	<input type="checkbox"/>
Employee075	<input type="checkbox"/>	<input type="checkbox"/>
Employee076	<input type="checkbox"/>	<input type="checkbox"/>
Employee077	<input type="checkbox"/>	<input type="checkbox"/>

Page / 9 | ▶▶ | ↺ | ↻

Display item: 1-10, Total: 83

Apply()”

myQNAPcloud Access Code

Set the myQNAPcloud Access Code:

Note: The code must be 6-16 characters (a-z, A-Z, 0-9 only).

User Management

Click "Add User" and specify the local NAS users who are allowed to view the private NAS services published on myQNAPcloud website. These users may also use the myQNAPcloud Connect at the same time for remote access. Maximum 9 users can be specified. Select the users and click "Send Invitation" to send an email with instruction to access the services.

Username	myQNAPcloud Connect (VPN)	myQNAPcloud Website
<input checked="" type="checkbox"/> Ted	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Invitation()” myQNAPcloud , Send

: , System Settings()"> Notification()"> SMTP Server(SMTP)"

. Send()"

Invite users with email notification to access service		
Username	E-mail	Status
Ted	Ted.Christ@gmail.com	

CloudLink()

CloudLink UPnP가

QNAP NAS

QNAP

Enable CloudLink (Beta) service(CloudLink())”

Enable CloudLink (Beta) service

CloudLink is an innovative technology provided by QNAP for remote access to your QNAP NAS over the network without changing the settings of your routers. It may work even if your router does not support UPnP. You may enter your myQNAPcloud device name in QNAP applications to connect to your NAS. However, your NAS is required to have access to the Internet.

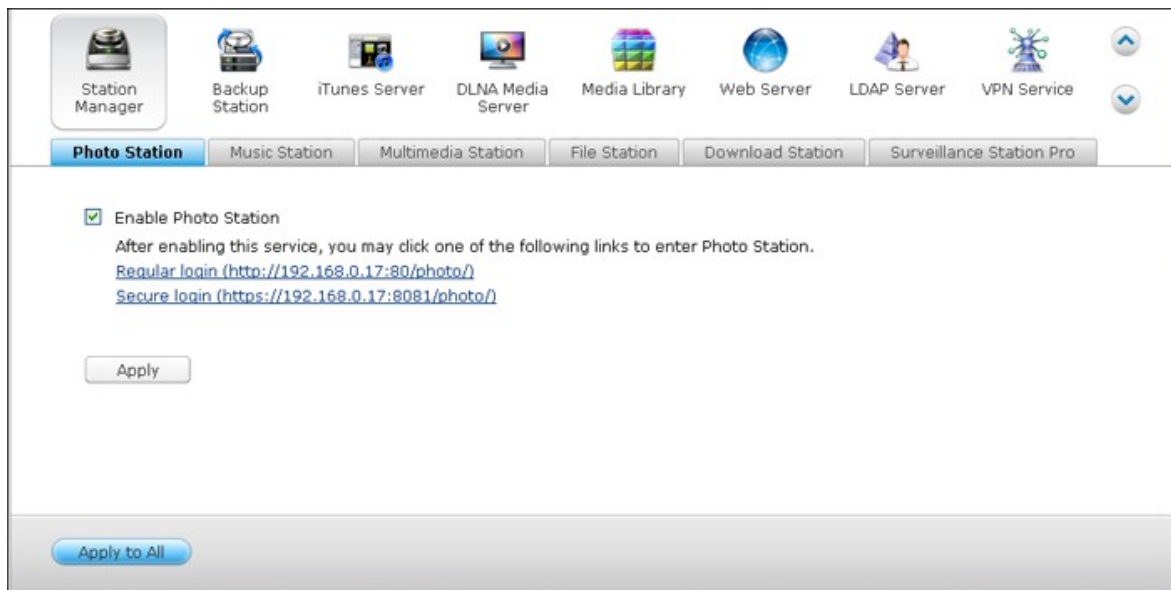
8.10

Photo Station , 가 ,
NAS

Facebook, Twitter, MySpace

1. Control Panel() "> Applications() "> Station Manager() > Photo Station() "

Photo Station



: Show the photos of Sharing Management on the login screen() "

NAS

Station Manager⁸⁴

2. Photo Station (Photo Station).
701

3. Photo Station

	BMP(Intel NAS), RAW, GIF, PNG, JPG JPEG
	FLV H.264(AAC)

- : 2GB

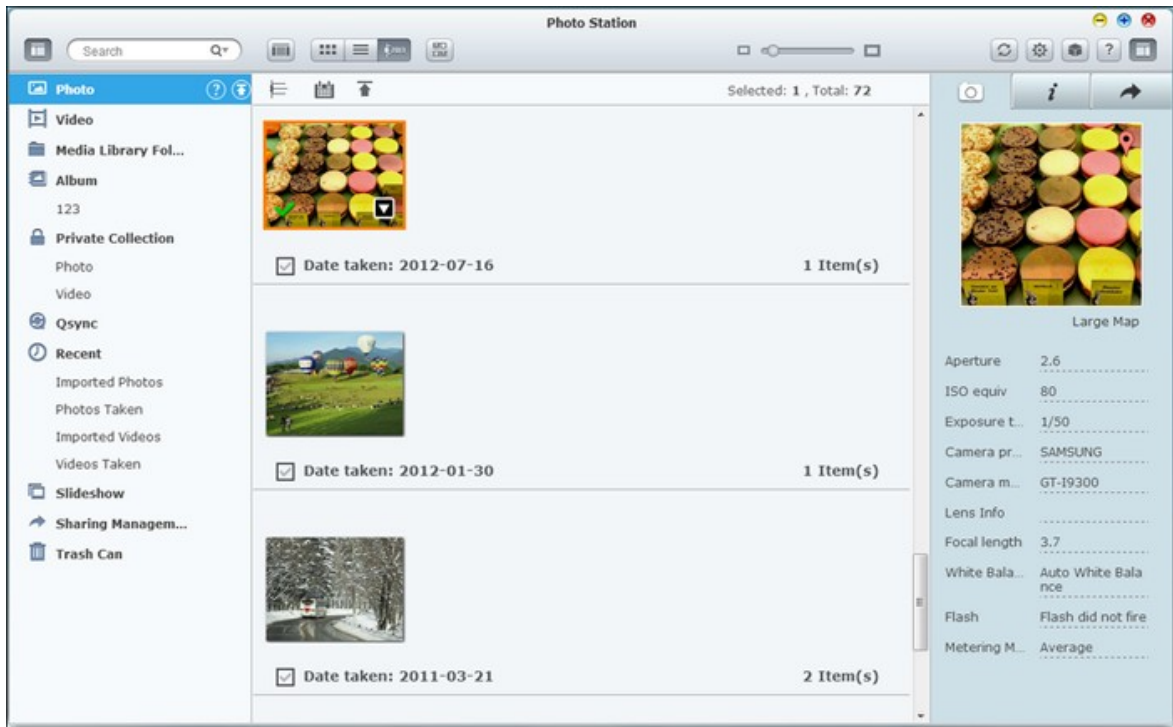
- 2GB











4. Photo Station 가 Photo Station Station
 Manager URL Photo Station
 ("Control Panel()" > "Applications()" > Station Manager()") > Photo Station()















- Photo Station NAS
- NAS Station Manager "Show the photos of sharing management on the login screen()"

("Control Panel()" > "Applications()" > Station Manager()") > Photo Station()



Search Q▼	
 	() ()
	 
	
	/
	







- PC
 가 "Multimedia(
 가
- PC
 "Multimedia(
)"
- 가

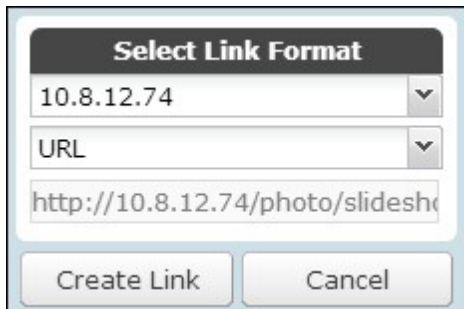
 Photo  Video  Media Library Fol... (?)  Album	  Media Library Folder / Multimedia /						
	<table border="1"> <thead> <tr> <th>Photo</th> <th>Title</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td></td> <td>1005JazzNumber Two E</td> <td>Fol... </td> </tr> </tbody> </table>	Photo	Title	Type		1005JazzNumber Two E	Fol... 
	Photo	Title	Type				
	1005JazzNumber Two E	Fol... 					

- Multimedia()” Home Folder()”가 , ,
- Multimedia()” Download()” 가 , Home Folder()” (Home()” 가) NAS Home Folder()”
- User()” Photo Station

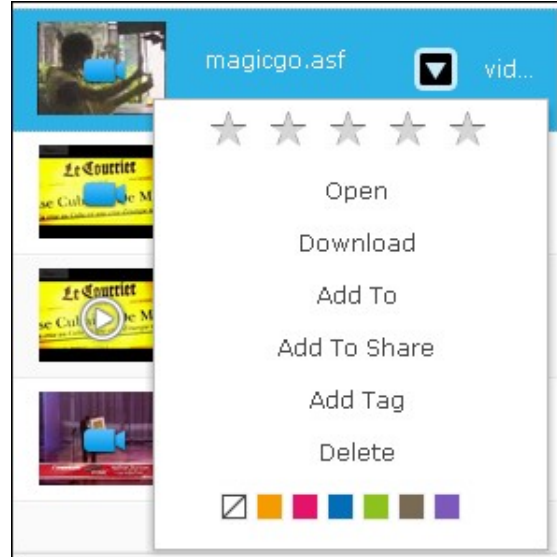
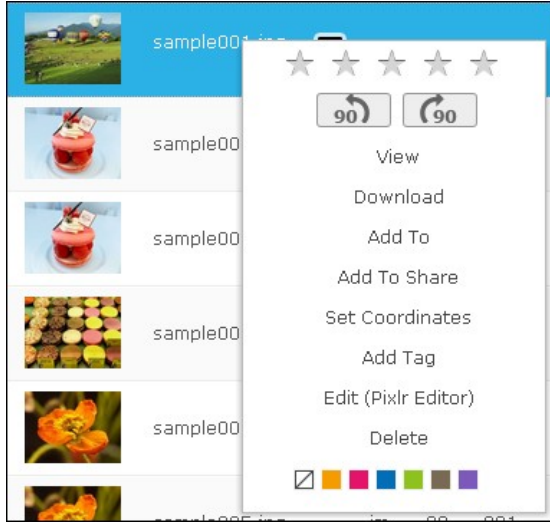
- : 가 + 가 NAS
- : Private Collection()” Photo()” Home()” , Video()” Home()” + 가 Private Collection()”
- : 가 (1)가 x
- : 가 + 가 x
- : 가 () x
- : 가 가

/

- EXIF (): / EXIF
 - (): / , ,
 - (): 가 가 :
1. (): Send()”
Control Panel()”> System Settings()”> Notification()”> SMTP Server(SMTP)”
 2. (): . Select Link
 3. (): Format()”
(myQNAPcloud.com DDNS myQNAPcloud , LAN IP WAN IP
myQNAPcloud ⁷³⁸) HTML (URL , HTML ,
vB Alt) . Create Link()”
URL



가





★ ★ ★ ★ ★	
90° 90°	
가	, Private Collection()"; Sharing Management ()" Slideshow()" 가 .
가	Sharing Management()" 가 .
	GPS
가	가 .
☑️ 🟡 🟠 🔴 🔵 🟢 🟡 🟣	











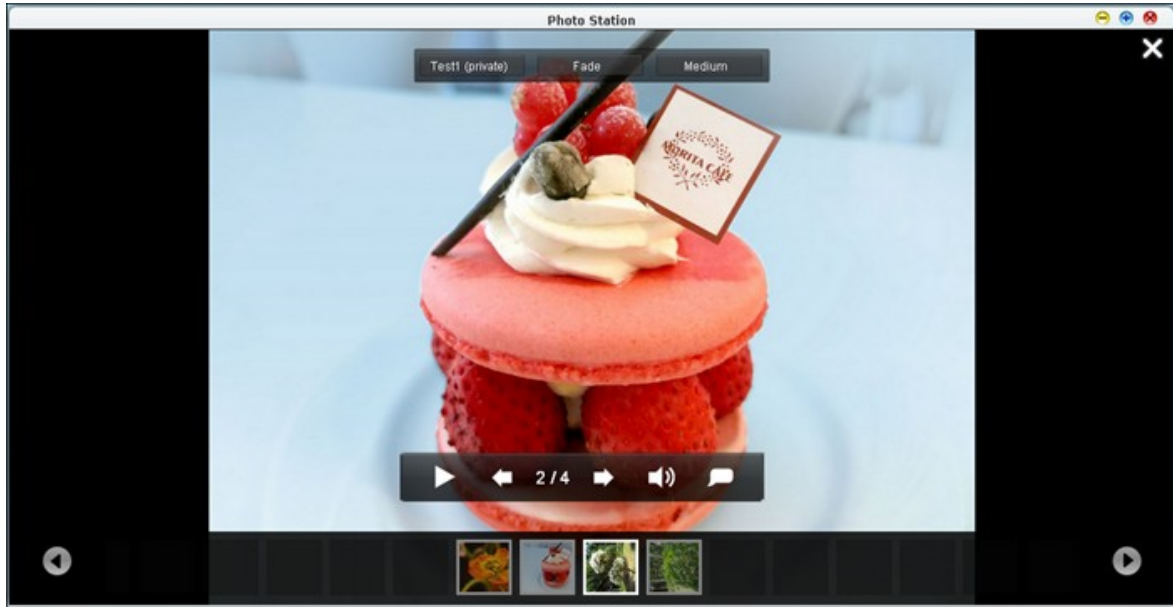
Ctrl





	
	90 ().

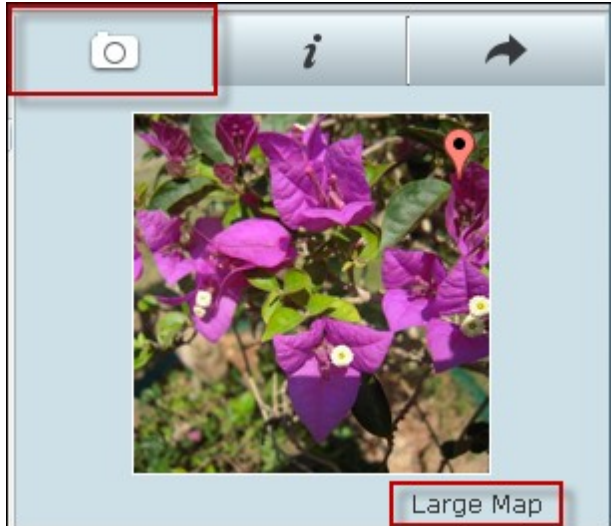
	90 ().
	
	
	
	✕가 () 
	



	(), ().
	Music Station Playlist()”). (Music Station 732) My

Medium	
--------	--

EXIF Large Map()”



Enter

Set Coordinates()”



Photo Station

()

/home

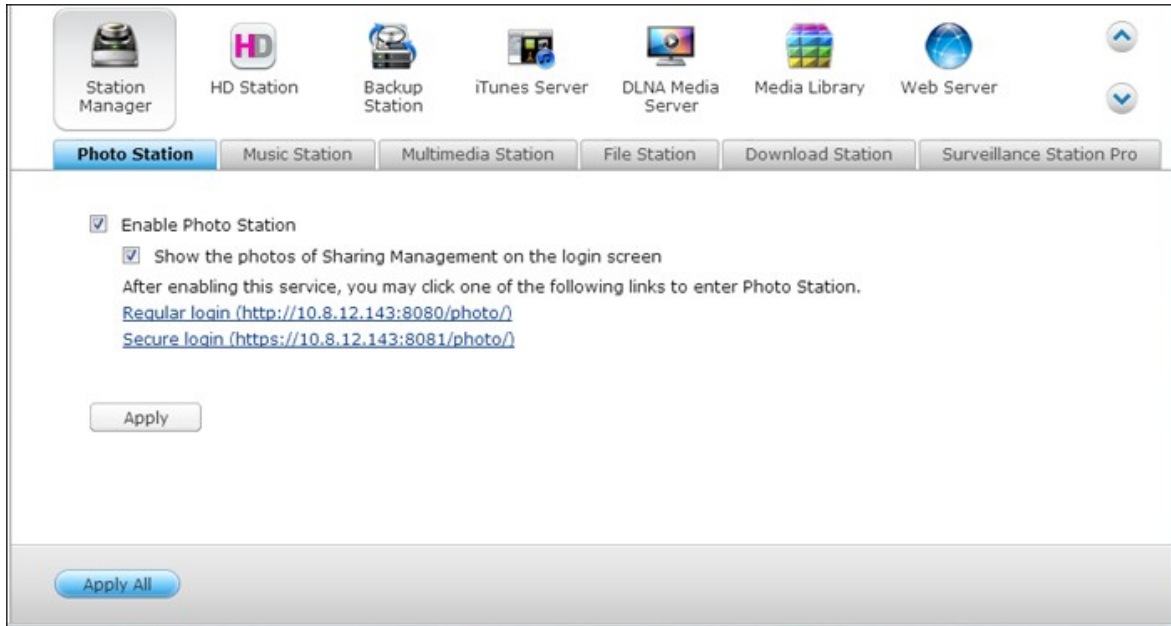
가



8.11

QNAP

Enable Photo Station()”



Show the photos of Sharing Management on the login screen()”

가

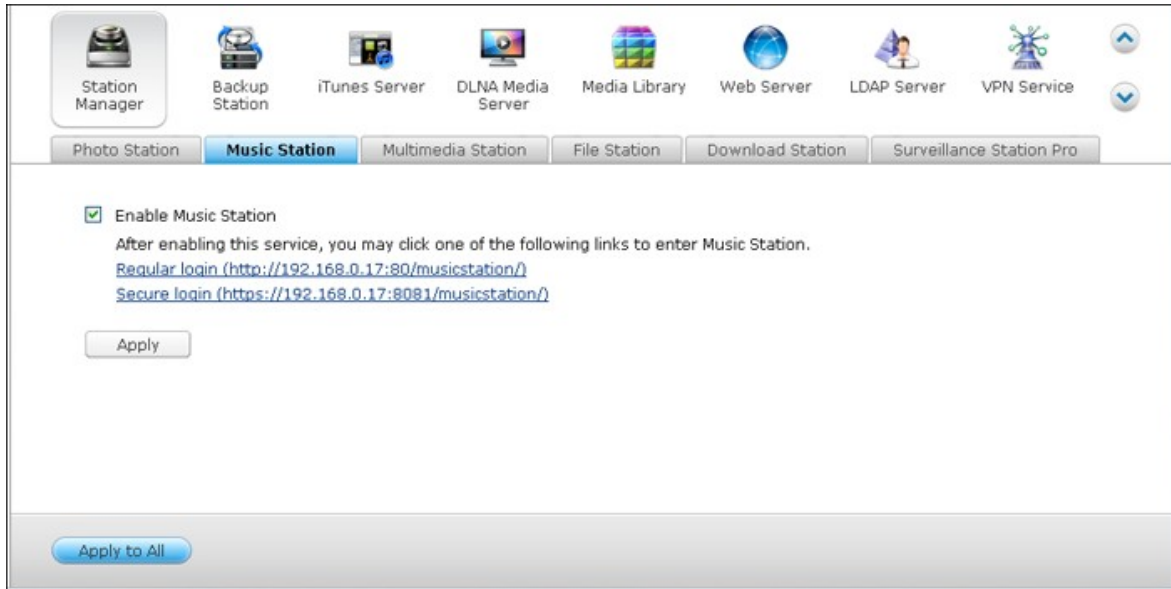




17601

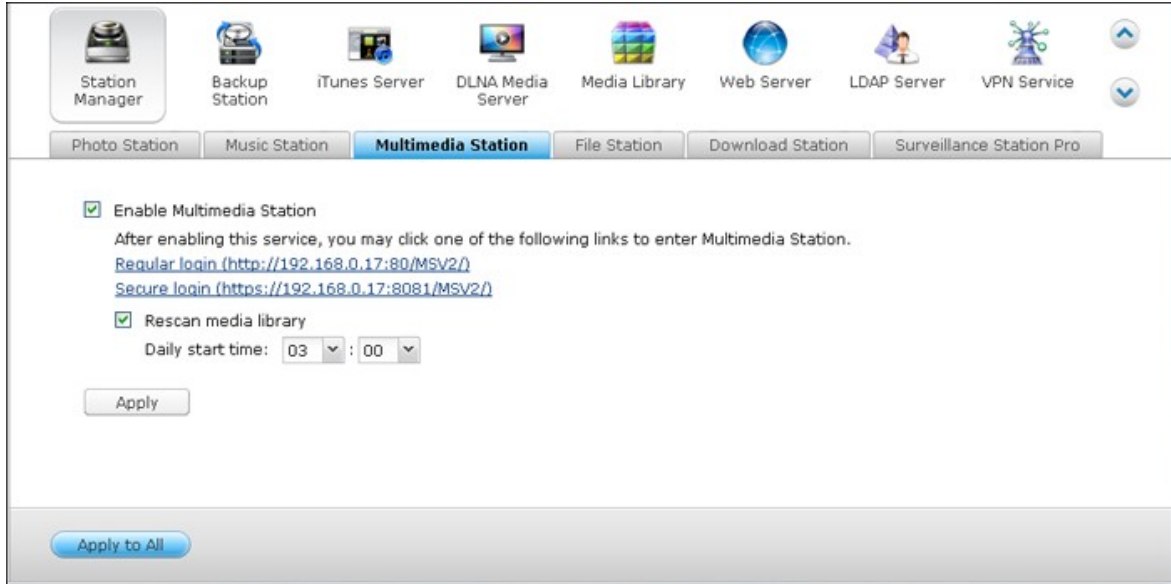
: NAS	QTS 4.0	2
-------	---------	---

Enable Music Station()”



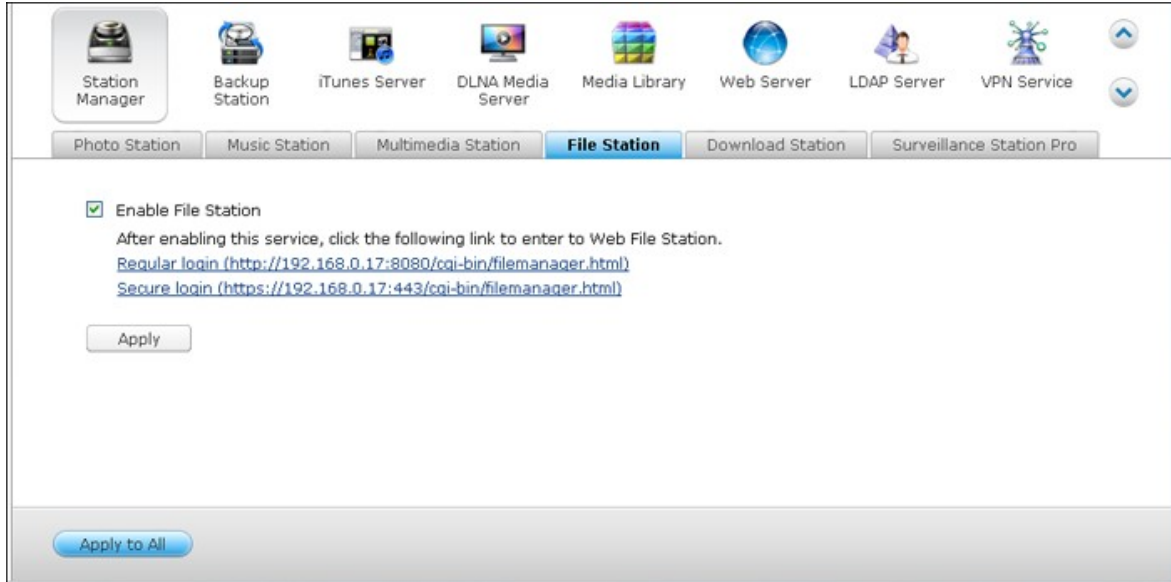
732

Enable Multimedia Station()”



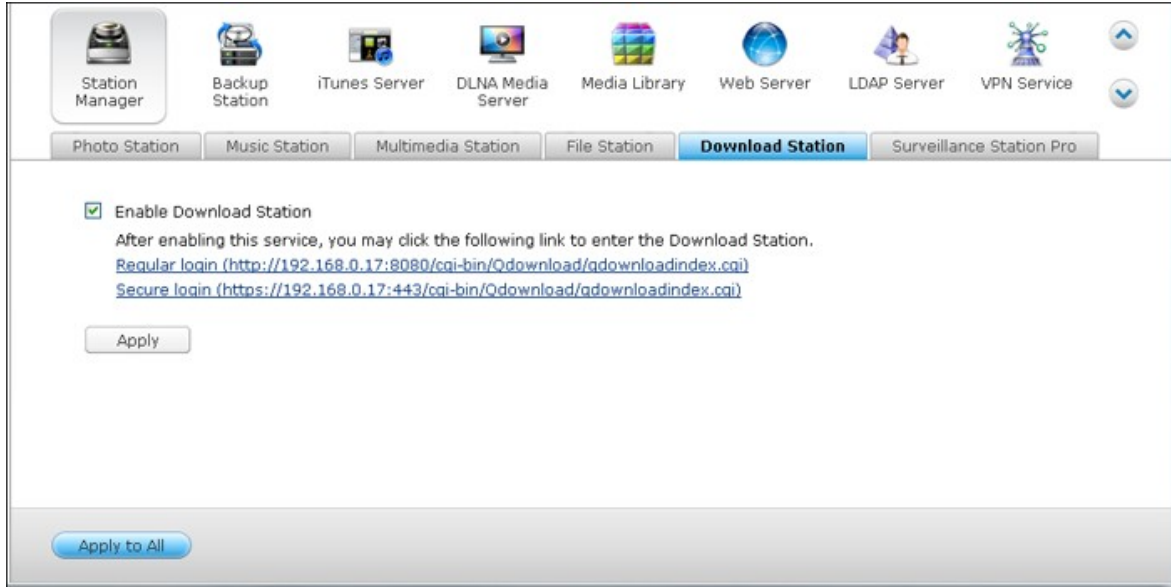
, Rescan Media Library()”

Enable File Station() ”



535

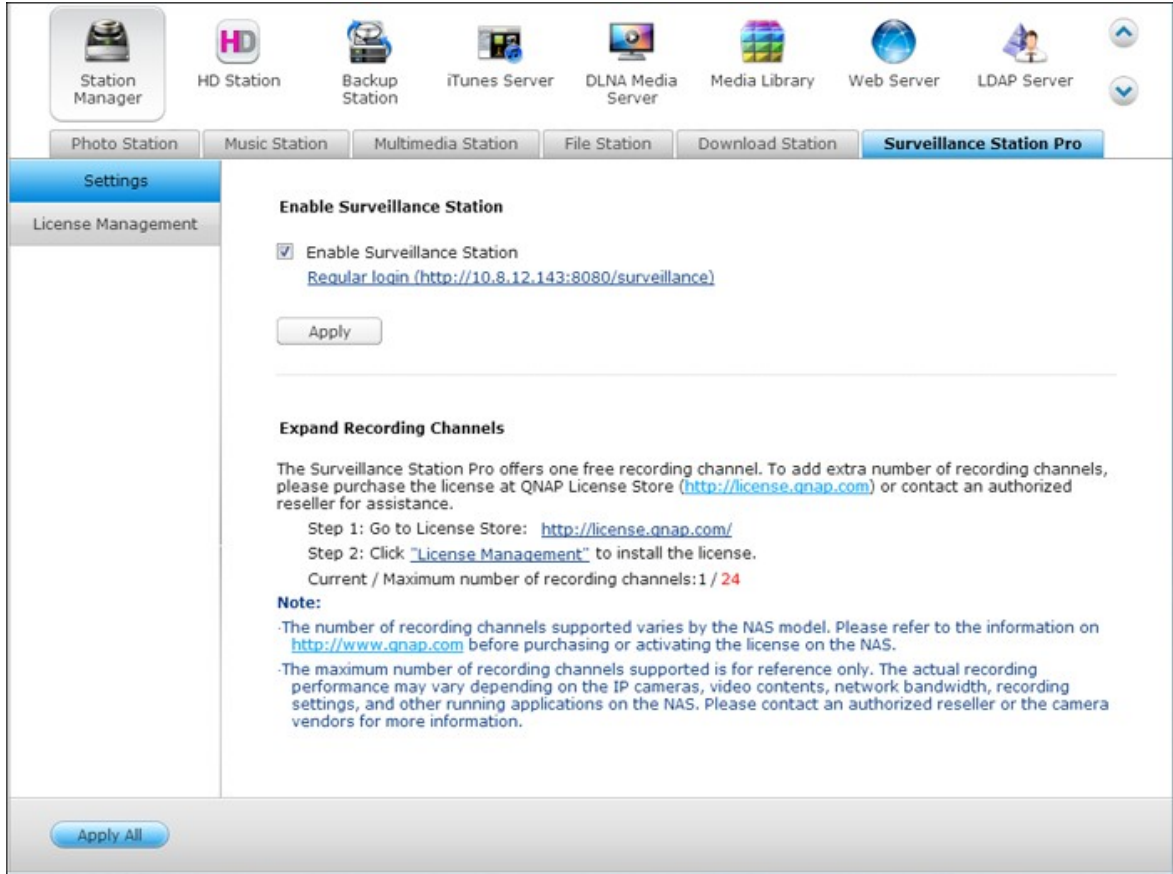
Enable Download Station()”



659

Surveillance Station

Enable Surveillance Station(Surveillance Station)”



Surveillance Station 가 QNAP (http://license.qnap.com)

- NAS NAS QNAP License Store (http://license.qnap.com/)
- NAS IP ,
- 가 QNAP (> > Surveillance Station 가 ?).
- Windows IE 10, Chrome Firefox

- Mac) QNAP Surveillance Client for Mac(Mac QNAP) . QNAP Surveillance Client for Mac(Mac QNAP) http://www.qnap.com/download

"License Management()"

Station Manager Backup Station iTunes Server DLNA Media Server Media Library Web Server LDAP Server VPN Service

Photo Station Music Station Multimedia Station File Station Download Station **Surveillance Station Pro**

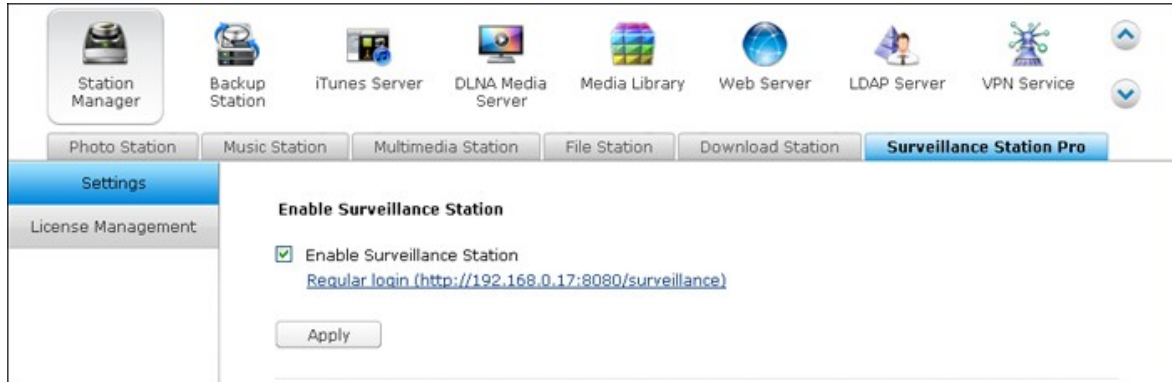
Settings System UDI: 1FF00NOC9489BQNAP0000

License Name	License ID	PAK	Channel N...	Expire Days	Status	Action
Surveillance Station Pro - 1 Channe...	TS-CAM-BS-01	--	1	--	Activat..	

Page 1 / 1 | Display item: 1-1, Total: 1 | Show 10 Items

8.12 Surveillance Station

Surveillance Station IP
 Control Panel()> Applications()> Station Manager()”



IP <http://www.qnap.com/en/index.php?lang=en&sn=4056>

1400 IP 가 ,
 Surveillance Station 1
 가 QNAP (http://license.qnap.com)

Turbo NAS Surveillance Station

NAS
TS-269 Pro, TS-469 Pro, TS-569 Pro, TS-669 Pro, TS-869 Pro, TS-469U-RP/SP, TS-869U-RP, TS-1269U-RP, TS-269L, TS-469L, TS-569L, TS-669L, TS-869L

"App Center ()" (NAS) 가
 Surveillance Station Turbo NAS

NAS	(Surveillance Station)
ARM (TS- x10, x12, x19, x20, x21)	8
x86 (TS- x39, x59, x69, x70 Pro, SS- x39, SS- 469 Pro)	16
TS- x70U, TS- x79	40

Surveillance Station

Control Panel() "> Applications() "> Station Manager() "> Surveillance Station "

- : Surveillance Station
- Windows PC: 32 Internet Explorer 9.0 , Google Chrome Mozilla Firefox
- Mac OS X: Mac QNAP (<http://www.qnap.com/utility>)

1. NAS
2. IP
3. NAS
4. NAT ()

i. NAS IP

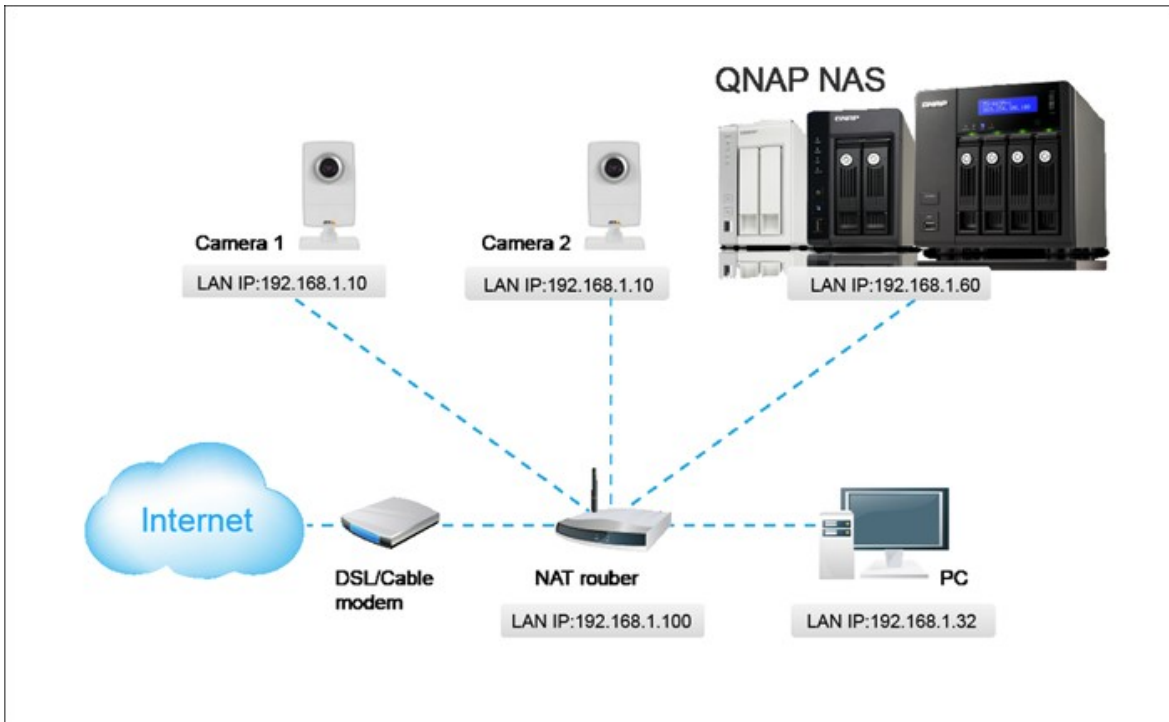
ii. IP IP

, NAS, IP LAN

IP NAS

IP

- LAN IP: 192.168.1.100
- 1 IP: 192.168.1.10 (IP)
- 2 IP: 192.168.1.20 (IP)
- NAS IP: 192.168.1.60 (IP)



IP

IP 가 IP
IP LAN 1
IP IP 192.168.1.10
LAN IP(192.168.1.100) IP
192.168.1.20
IP IP

The screenshot shows the 'Surveillance Station Pro' web interface. On the left is a navigation menu with options like 'Camera Settings', 'Recording Settings', and 'System Settings'. The main area displays a table of camera channels and a configuration form for 'Camera 2'.

Channel No.	Camera Name	Brand
1	Camera 1	Axis
2	Camera 2	Sony
3		
4		

Configuration form for Camera 2:

- Camera Brand: Sony
- Camera Model: Sony SNC-DF50
- Camera Name: Camera 2
- IP Address: [Empty]
- Port: 8099
- WAN IP Address: [Empty]
- Port: 80
- User Name: admin
- Password: [Masked]

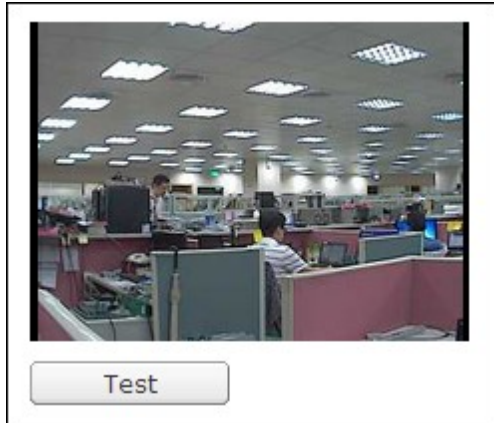
Enable recording on this camera

Test button

<http://www.qnap.com>

N A S

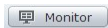
Surveillance Station IP
 Camera Settings() "> Camera Configuration()"
 , IP
 "Test()" IP 가

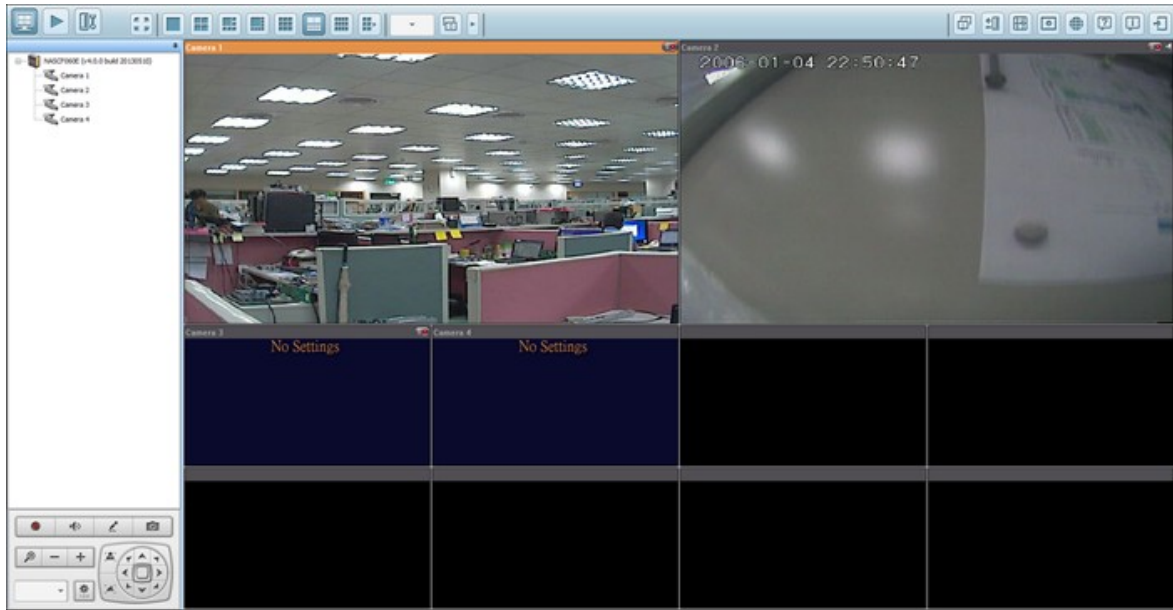


IP 가 "Recording Settings()"
 . "Apply()"

Video Compression:	Motion JPEG	▼
Resolution:	320x240(QVGA)	▼
Frame Rate:	10	▼
Quality:	Level 5	▼
<input checked="" type="checkbox"/> Enable audio recording on this camera		

IP 2

NAS 가  가
 Station 1 2 가 . Surveillance



Surveillance Station

NAT

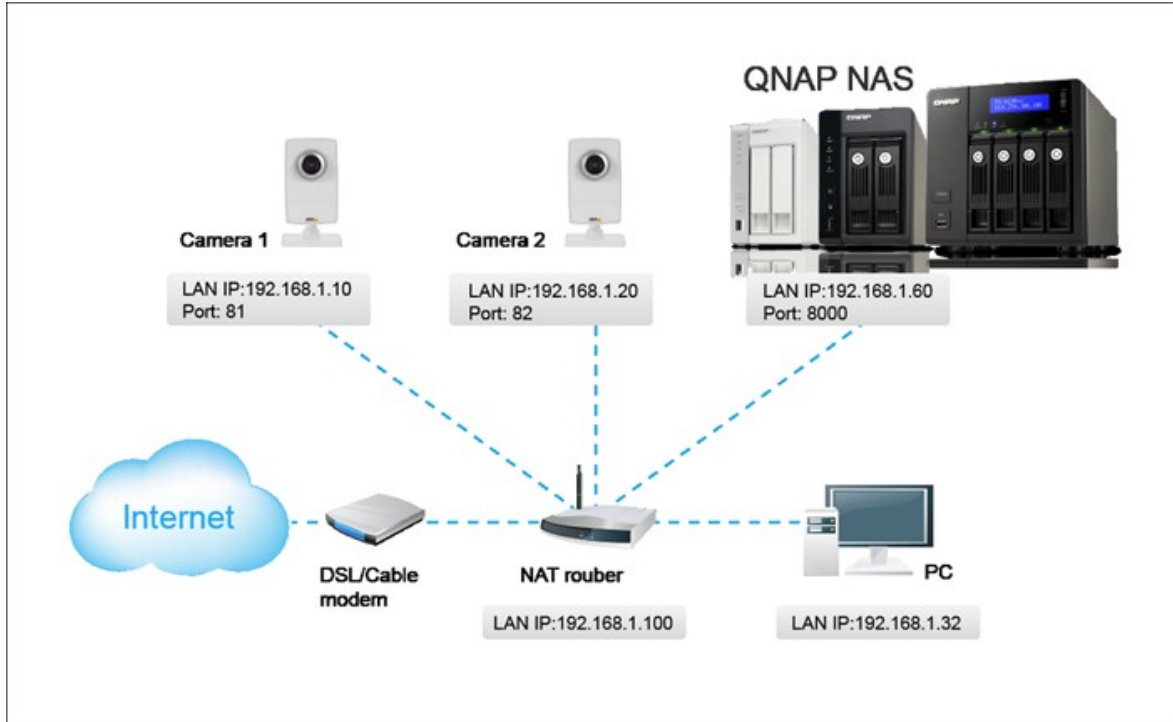
(

)

NAS

NAT

LAN IP



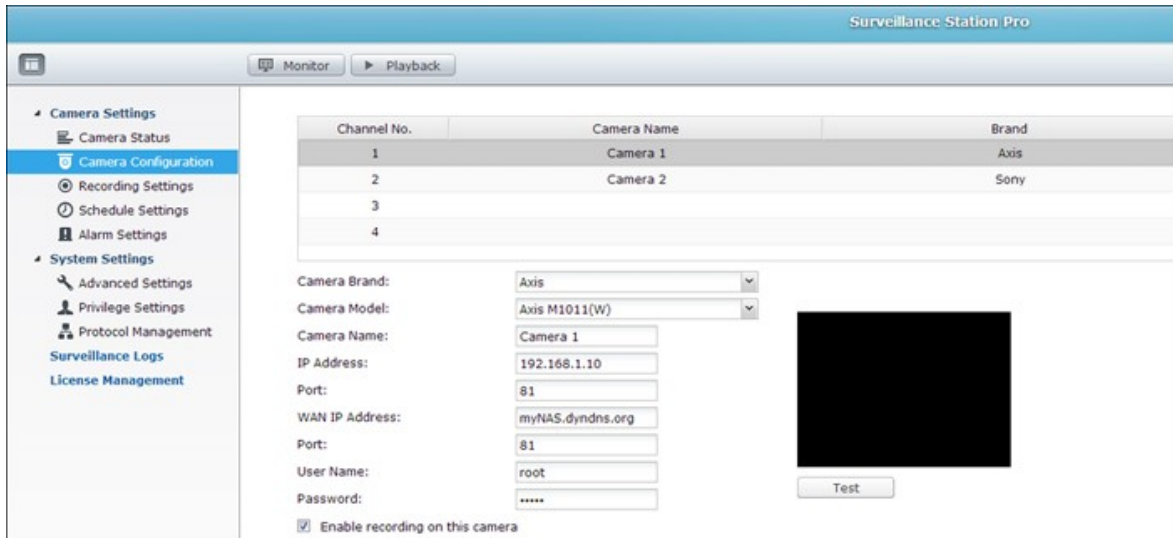
NAS IP

NAS HTTP 8080 8000
 http://NAS IP:8000 NAS

IP IP 1 HTTP 80 81
 IP 2 80 82

Surveillance Station Camera Settings()"> Camera
 Configuration()"
 192.168.1.10 81 192.168.1.20 82

WAN IP (MyNAS.dyndns.org
 WAN "Test()"



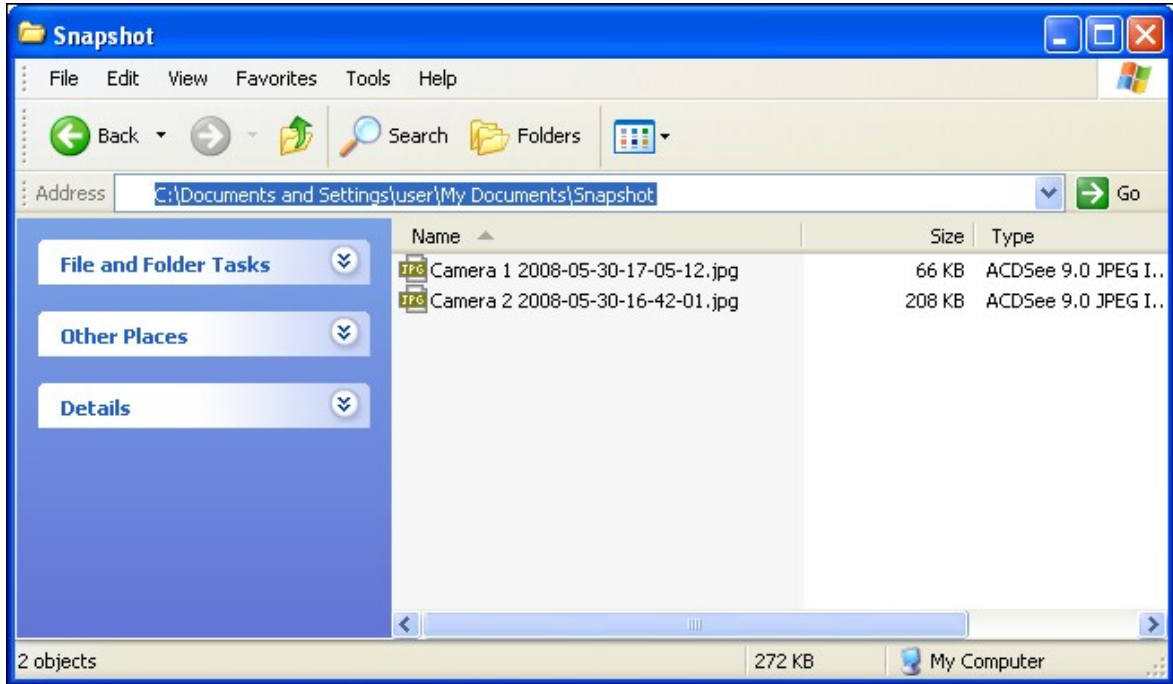
- 8000 NAS LAN IP : 192.168.1.60
- 81 IP 1 LAN IP : 192.168.1.10
- 82 IP 2 LAN IP : 192.168.1.20

: 가
 가 8000 NAS

, Surveillance Station

Surveillance Station :

Windows 7 "My Documents" () > "Snapshot" () (Windows XP)
 Vista "Documents" () > "Snapshot"
 ()



\\ NASIP\ Qrecordings \\ NASIP\ Recordings
 "record_nvr" "record_nvr_alarm"

9. LCD

LCD

NAS

<http://www.qnap.com>

NAS

LCD

NAS가

NAS

IP

N	A	S	5	F	4	D	E	3						
1	6	9	.	2	5	4	.	1	0	0	.	1	0	0

LCD

IP 가

		가 *
1		
2	RAID 1	-> JBOD -> RAID 0 -> RAID 1
3	RAID 5	-> JBOD -> RAID 0 -> RAID 5
4	RAID 5	->JBOD -> RAID 0 -> RAID 5 -> RAID 6

*"Select"()

"Enter"()

5

가

NAS

LCD

C	o	n	f	i	g	.		D	i	s	k	s	?		
'	R	A	I	D	5										

"Select()"

RAID 6

가

"Enter"

가

"Select"()

" "

C	h	o	o	s	e		R	A	I	D	5	?			
'	Y	e	s			N	o								

RAID 1, RAID 5

RAID 6

, RAID

, RAID

NAS

LCD

. 100%

RAID

NAS

RAID

NAS

RAID

"Storage Manager(

)" > "Volume

Management()"

30-60 MB/s (

).

:RAID 가 RAID 가 가 .
 "Volume Management()"

* LCD <Encrypt Volume?()> "Yes
 ()" "admin " NAS
 Storage Manager() "> Encrypted File System(
)" "

E	n	c	r	y	p	t		V	o	l	u	m	e	?	
'	Y	e	s			N	o								

IP 가 . NAS가
 가 .

C	r	e	a	t	i	n	g	.	.	.					
R	A	I	D	5		F	a	i	l	e	d				

* TS- 110, TS- 119, TS- 210, TS- 219, TS- 219P, TS- 410, TS- 419P, TS- 410U, TS- 419U,
 TS- 119P+, TS- 219P+, TS- 419P+, TS- 112, TS- 212, TS- 412, TS- 419U+, TS- 412U

가 .

LCD

LCD NAS IP 가 "Enter"

1. TCP/IP
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

TCP/IP

TCP/ IP

1. LAN IP
2. LAN
3. LAN
4. LAN PRI. DNS
5. LAN SEC. DNS
6.
 - i. DHCP
 - ii. IP*
 - iii.
7. 가

* IP IP , , , LAN 1 LAN 2
DNS

- 1.
2. 가

D	i	s	k	:	1		T	e	m	p	:	5	0	°	C
S	i	z	e	:		2	3	2		G	B				

NAS

RAID

R	A	I	D	5							7	5	0	G	B
D	r	i	v	e		1	2	3	4						

"Select()"

RAID 5

LCD

LCD	
RAID5+S	RAID5+
RAID5 (D)	RAID 5
RAID 5 (B)	RAID 5
RAID 5 (S)	RAID 5
RAID 5 (U)	RAID 5
RAID 5 (X)	RAID 5가

NAS 가 LCD "Enter()"

S	y	s	t	e	m	E	r	r	o	r	!			
P	I	s	.		C	h	e	c	k		L	o	g	s

Sys. Fan Failed	
Sys. Overheat	
HDD Overheat	가
CPU Overheat	CPU가
Network Lost	LAN 1, LAN 2
LAN1 Lost	LAN 1가
LAN2 Lost	LAN 2가
HDD Failure	가
Vol1 Full	(1)
HDD Ejected	
Vol1 Degraded	(1)
Vol1 Unmounted	(1)
Vol1 Nonactivate	(1)

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Version 3, 29 June 2007

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