QNAP Turbo NAS

(　　：4.1)

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.

1.

- 6
- 8
- 11
- 12

1.1

QNAP   .   Turbo NAS(   )

                    .   Turbo NAS

                  !

-         "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

F C C

QNAP NAS   FCC   .   .
                                                        .

FCC   A
                FCC   15   .   .
1.   .
2.   .

          :   FCC   15   A

                                          .

          ,
          .   ,
                          .

          : QNAP Systems, Inc.   FCC
                          .

FCC   B
                FCC   15   .   .
1.   .
2.   .

          :   FCC   15   B
                          .
                                          .

          ,
          .   .
                                                                                                      (
).

- •   .
- •   .
- •   .
- •   / TV   .

          : QNAP Systems, Inc.   FCC
                          .

C E

8

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

- *:* .
  .
- *:* ,
  .
- *:* .

1.4

1. NAS   0   - 40   0%- 95%   .
   .

2. NAS   (100W, 90- 264V)
   .

3.   NAS   .
   .

4.   .   NAS
      . NAS   .
5.   NAS   .
6.   NAS
   .

7. NAS   .
8.   NAS   .
9. NAS   .
   ,   .
10.   .
11.   NAS   .
   .   .

12.   (   ) NAS
      IT   .
   .

2.

NAS   NAS   . QNAP NAS
       QNAP NAS   NAS
   28   .

NAS   :

1.   14
2.   19
3.   23
4.   24
5.   NAS   27

NAS   :

-   NAS   28

2.1

NAS   :
  1.   .   (HDD)   NAS   .
                                                                      $\boxed{15}$.
  2. QNAP NAS   PC   .   LED
                    NAS   . $\boxed{16}$
                    .

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

14

2.1.1

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

<div style="background:#f5e79e;padding:1em;">

:   "Device not found(   )"   **:**
1. NAS   ,
2.   NAS   LAN   ,
3.   .

</div>

<div style="background:#f5e79e;padding:1em;">

: QNAP
/   /   .
:   **NAS**   (   )
,
.

</div>

2.1.2

L E D

L E D		L E D	
		0.5	1) NAS 2) NAS 3) 4) RAID 5)　　　　RAID 6)　　　　RAID
	/		1) 2) 3) 4)　　　　　　　　　　　　　　(TS- 119 　　　　　　　　　　　.) 5)　　　　　　　(　/ 　) 6) 7) NAS　　　　　　　　　　　　　(2 　　　　　　　　　　RAID 5　　　RAID 　6　　　　　　　. 　　　　　　　) 8) (　　　　　　　　　　　)
		0.5	NAS　　　　　　　　　　　(　　　　RAID 1, RAID 5　　　RAID 6 　　)
		0.5	1) NAS 2) NAS 3)
		2	NAS　S3　　　　　　.
			NAS
			NAS
1			NAS　　　　　　　.
			NAS　　　　　　.
LAN			.
			NAS

16

10 GbE*			10GbE
			10GbE
HDD	/		/
			/
USB		0.5	1) USB USB . 2) USB USB NAS . 3) NAS USB USB . 4) USB/eSATA ( ) .
			USB ( ).
			1) USB . 2) NAS USB USB ( ) .
eSATA **			eSATA
			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   .

[1]   LED   .

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

(0.5)	1	1) NAS 2) NAS ( ) 3) NAS 4)

17

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

2.2

NAS   .

            .

1.   [20]
2.   [21]
3. CD   [22]

    NAS   CD
    (CD   ).
                                    .
    (http://www.qnap.com/support).

2.2.1

NAS   .

1. http://start.qnap.com   "Start Now(   )"   .
2. HDD   NAS   "Next(   )"   .
3.   NAS   Turbo NAS   "Next(   )"   .
4.   .
5. "Get Qfinder(Qfinder   )"   QNAP Qfinder   . (Mac
                  19   .)
6.   QNAP Qfinder   "Next(   )"   .
7.   "I accept the terms of the License Agreement(
)"   "Next(   )"   .
8. "Next(   )"   .
9. "Install(   )"   .
10. "Finish(   )"   .
11.   QNAP Qfinder   .
12.   .   IP   Turbo
    NAS   . (QNAP Qfinder   MAC   IP
      .) "Yes(   )"   Turbo NAS   .
13. "Quick Setup(   )"   .
14.   Turbo NAS   "Detect Again(   )"
              .
15.   "Next(   )"   .
16.   .
17. "Finish(   )"   NAS   .
18. "Confirm the setup information(   )"   ID
              .
19. "Get Qfinder(Qfinder   )"   QNAP Qfinder   . (
    19 - 23   Mac   .)
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(
)"   .   QR
            .
2.   (QNAP NAS   )   "Enter"
            .   ,   myQNAPcloud   ,
           (myQNAP
).
   myQNAPcloud   225   .
3.   myQNAPcloud   myQNAPcloud
   . "I agree to myQNAPcloud Terms of Use and QNAP Privacy Policy(myQNAPcloud
      QNAP   )"   "Next Step(   )"   .
   myQNAPcloud   "Sign in myQNAPcloud account(myQNAPcloud
)"   .
4.   Turbo NAS   "Register( )"   .
5.   Turbo NAS   .
6. "Begin( )"   Turbo NAS   .
7. "Start( )"   .
8.   "Proceed( )"   .
9.   .
10. "Connect and Login QTS(QTS)"   .
11.   ID   Turbo NAS   .

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

2.2.3 CD

NAS   CD   .

1.   CD-ROM   QNAP Qfinder   .
2. QNAP Qfinder   . QNAP Qfinder
     .

3.   [20]   .

> **:**
> * TS-x12, TS-x20, TS-x21   NAS   CD
>   .
> * NAS   ID   admin   .

2.3

QNAP　　　NAS　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　. NAS
　　　　　　　　　　　　　　　　　　　　　　　　.

1: Q N A P

　　　http://www.qnap.com/　　　　　　　　　　> 　　(　　　　　　　"　　　")
.　　　　　　　　　　　　　　　　　　　　　　　　　. PC
　　　　　　　.

2: CD

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

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   .

:

- NAS   - Windows [25]
- Mac   Linux   NAS   [26]

2.4.1 Windows

Windows NAS

:

1: QNAP Qfinder   **NAS**   **.**

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

2.   NAS   "Map Network Drive( )"   .

3.   NAS   "OK( )"   .

4.   2   OS   "Finish( )"   .

5.   File Explorer( )

> **:**   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( )"   .

2: My Network Places( )   **Run( )**   **NAS**   **.**

1. My Network Places( )   NAS   . NAS   NAS   .   NAS   . \ \ NAS_name   \ \ NAS_IP   .

2. default administrator name( )   password( )   (default administrator name( ): admin; default password( ): admin).

3.   .

2.4.2 Mac   Linux

M a c

NAS   :

1: QNAP Qfinder
1. QNAP Qfinder   ,   NAS   "Connect(   )" > "Open in File
   Explorer(   )"   .
2.   ID   .
3.   .
4.   .

2:
1. "Go(   )" > "Connect to Server(   )"   .
2. NAS IP   .
3.   ID   .
4.   .
5.   .

L i n u x

Linux   .
    mount –t nfs <NAS IP>:/<Shared Folder Name> <Directory to Mount>

      , NAS   IP   192.168.0.1   / mnt/ pub   "
(public)"   ,   .
    mount –t nfs 192.168.0.1:/public /mnt/pub

              id   ,
    .

    :   "root(   )"   .

2.5 NAS

NAS   .

1.   http:// NAS IP:8080   .   QNAP Qfinder   NAS   ,
   NAS   NAS   .

<div style="background-color:#fdf3ce;padding:10px;">

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

</div>

2.   . "Secure login(   )"(   )
                 NAS   . NAS
                   .(default administrator name(   ): admin; default
   password(   ): admin).

<div style="background-color:#fdf3ce;padding:10px;">

   : NAS   NAT   NAS
   , NAT   443   NAS LAN IP   .

</div>

3. NAS   .

2.6 　　　 NAS

　　　　　　　(　　) NAS　　　　　(　　) NAS　　　　　　　　　　　QNAP NAS
　　　　　Turbo NAS　　　　　　　　　　NAS　　　　　　　　　　　　.

　　　　　　　　　　　NAS
　　　　　.　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　NAS
　　　.　　　　NAS　　　　　　　　　"System Administration(　　　　　)" > "Backup/
Restore Settings(　/　　　)"　　　　　　NAS　　　　　　　　　　.
　　　NAS　　　　　　　　.

　　　　　　　　　　　NAS　　　　　　　.

NAS	NAS	
TS-x10, HS-210, 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, HS-210, TS-x12, TS-x19, TS-x20, TS-x21, TS-x39, TS-509, TS-809, SS-x39	.
TS-x10, HS-210, 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-x59, TS-x69, TS-x70, TS-x79, SS-469 Pro	.

　　　　:
- 　　　NAS　　　　　NAS
　　　　　.
- 　　　　　　　　　　QNAP NAS　　　　　HDD　　　　　　　　　　　.
　　　　　　　　　　　　　　　　　.　　　　　　　http://www.qnap.com/
compatibility　　　　　　.
- SS-x39　　SS-469 Pro　　　　　2.5-　　HDD　　　　　.
- 　　　　　　　　　　　NAS　　　　　　　　　　　　　　NAS
　　　　　. TS-110, TS-119, TS-210, HS-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-421UU
　　　　　.
- 　- 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.

NAS   .

                                   .

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

> *:   ,   IT
>   .

.

NAS   .

- Windows AD

- .

3. QTS

QTS   NAS   Turbo NAS
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NAS   .   !
                                                   :
- QTS
- QTS

3.1 QTS

QTS Turbo NAS

, , , ,

. QTS GUI

Turbo NAS , ,

Turbo NAS App Center

.

QTS , iSCSI , ,

.

QTS

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* .

T u r b o N A S -

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, , , .

QNAP Turbo NAS

.

. QNAP Turbo

NAS .

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

T u r b o   N A S - IT .

TCO( ) IT .
QNAP Turbo NAS , , ,
, , IT ,
. QNAP Turbo NAS .

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

3.2 QTS

NAS   NAS   ,   .

                .

1	Main Menu ( )	. . 1) QNAP (APPLICATIONS): NAS QNAP . 2) (SYSTEMS): NAS . 3) : QNAP . NAS . .
2	Show Desktop( )	.
3	Background Task( )	(HDD SMART , ,)

4	External Device( )	USB SATA NAS USB . File Station . External Device( ) , "External Device( )" (File Station , File Station). ( ) .
5	Notification and Alert( )	. "Clear All( )" . , "Event Notifications( )" System Logs( ) . System Logs( ) System Logs 112( ) .
6	Admin Control( )	, NAS / . • Options( ): ○ Profile( ): . ○ Wallpaper( ): . ○ Change Password( ): . ○ Miscellaneous( ): ▪ Warn me when leaving QTS(QTS): QTS Desktop(QTS) ( ) . . ▪ Reopen windows when logging back into QTS(QTS): NAS ("windows opened before your logout( )") . ▪ : (No. 12) . ▪ "QNAP Utility(QNAP)" : "QNAP Mobile App(QNAP)", "QNAP Utility(QNAP)" "Feedback( )" (No. 14 ~ 16) . ▪ : (NO.13) . ▪ NAS : NAS . ▪ : / .

|		

		• : .
		• : NAS . NAS
		                                         . 1) ( )
		                 2) QNAP Qfinder Qmanager Wake-on-LAN
		(WOL) . WOL , "Control
		Panel( )" > "Power( )" > "Wake-on-LAN (WOL)"
		                                . 89
		      .
		
		     ○ : .
		• : NAS .
		• : NAS .
		• : .
		• : NAS , , HDD ( )
		        .

7		. QTS .

8		Quick Start Guide( ), QTS Help(QTS), Tutorials(
		   ), QNAP Wiki(QNAP) QNAP Forum(QNAP)
		                    , Customer Service(,)
		Feedback (, /)
		      .

9		UI .

10		. ,
		    , .
		                 NAS Desktop(NAS)
		                    , .
		     NAS
		     .

11		. .
12	/	.

13		HDD , , , ,
		     NAS .
		      .

14	QNAP Mobile App (QNAP)	QNAP .
15	QNAP	NAS .
16		.
17	myQNAPClo ud	myQNAPCloud 225 .

:
- .
- .
- .

: QTS 4.x   is 1024x768   .

4.

"Control Panel(　　　)" > "System Settings(　　　　　　)"　　　　　　　　　Turbo NAS
　　　.

　　　　　　　　　　　　　　　　　　　　　　　　　　　:
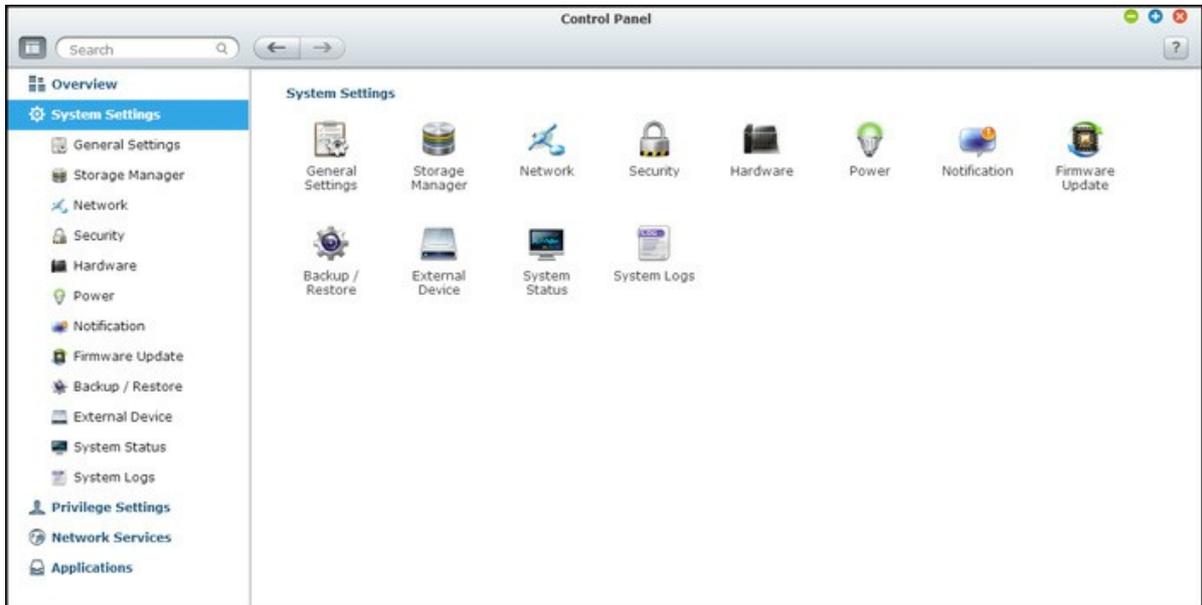
- 　　　　　39
- 　　　　_　　　41
- 　　　78
- 86
- 　　　87
- 89
- 91
- 　　　　93
- /　　95
- _　　96
- 　_　　110
- 　　　112

4.1

Control Panel(   )" > "System Settings(   )" > "General Settings("
NAS   .

- **   : NAS   . NAS   14   (a-z, A-Z),   (0-9)
  (-)   .   ( )   (.)
                    .   .   8080
  .   :   , File Station, Multimedia
  Station   Download Station.   .
- **   (SSL):**   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.
       .

- **   :**   ,   .
                         .
  o   ,
            .

○ .

- **:** "Update now(
)" .

- **:** NTP ( )
. time.nist.
gov, time.windows.com NTP IP .
. NAS .

(DST) "Adjust system clock automatically for
daylight saving time( )" . "Apply( )"
. "Time( )" DST . DST
. DST
, "Enable customized daylight
saving time table( )" . "Add Daylight Saving Time
Data( )" . "Apply( )"
.

NAS .

. ,
.

. "Preview( )"
"Apply( )" .
, NAS 100
100 . "Change Picture(
)" . "Preview( )"
"Apply( )" .
Sharing Album 233( ) .

4.2

QNAP   ,   Turbo NAS
                                       ,   RAID   ,
     ,   .
                                       .

QNAP

QNAP   4   . HDD   ,   ,
          4   :

4

.

- 43
- 44
- iSCSI 62
- 76

4.2.1

. ,   .
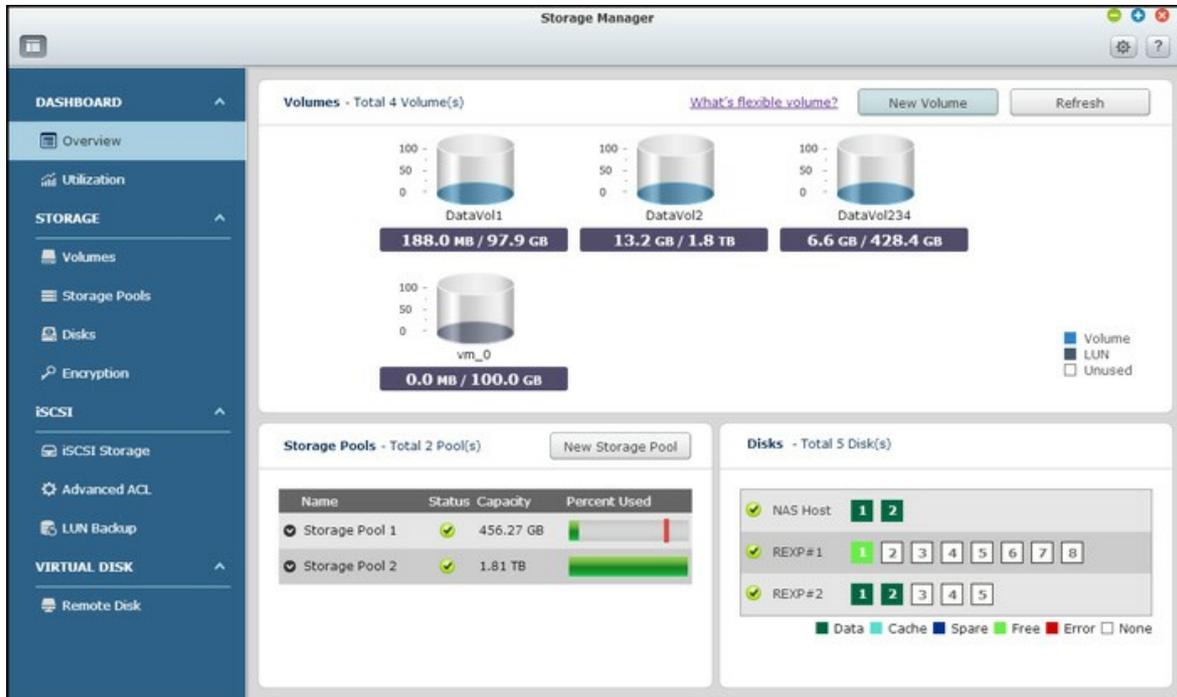
- :   (, LUN,)   .
  "New Volume( )"   ,   "Refresh(
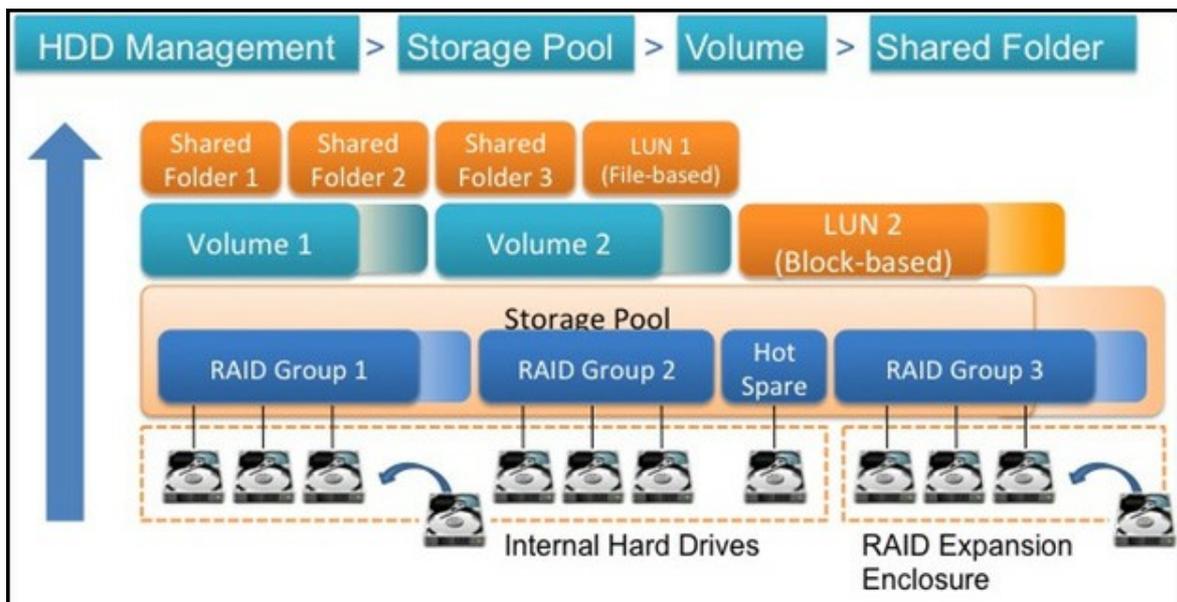)"   .   [45]   .
- :   .
  "New Storage Pool( )"   ,   [47]   .
- :   (NAS
)   .
              .   [53]   .

                                                                                    .
              RAID   " "   "   "
      ,   RAID   RAID
"Show members( )"   .

   S.M.A.R.T
                                        S.M.A.R.T.
      (RAID
).   RAID   RAID
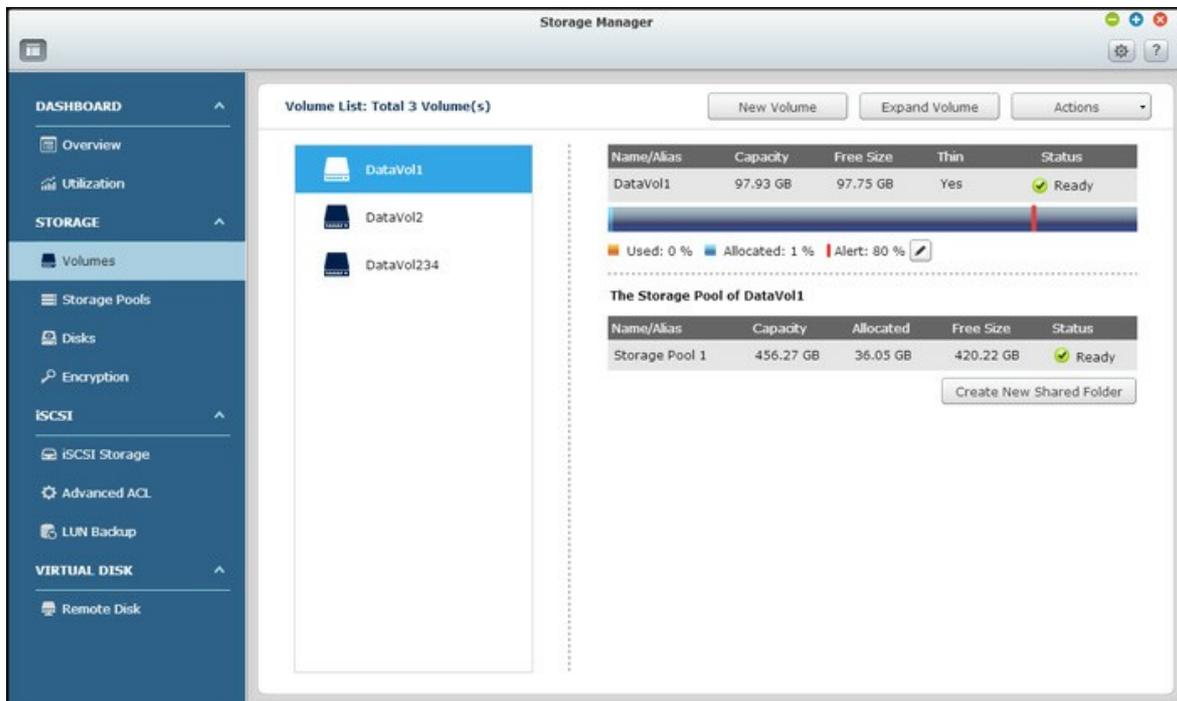   .   ,   (?
)   "   SMART   "   .

                              NAS   .
                                  ,
  (   )

                                                                                    .
              "Clear Record( )"   .

43

4.2.2

Storage Manager(   )   ,
                                         .

                                                            .

- 45
- 47
- 53
- 57
- 60

4.2.2.1

, , .

.

1. "New Volume(   )"   .
2. "Quick(   )"("Custom(   )"   )
   "Next(   )"   .
3.   ,   , RAID
       "Next(   )"   .
4. "Finish(   )"   .
5.   .
      "Yes( )"   .
6.   .

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

.

1. "Custom(   )"   .
              "Next(   )"   .
2.   ,   ,   ,   ,   "Next
   (   )"   .
3. "Finish(   )"   .
4.   .

> :
> ●   :
>   .
>   .
> ●   :   .
>   .
> ●   /   .
>
>   .

"Remove Volume(   )"   . "Apply(
)"   .

.

1.   "Expand Volume(   )"   .
2.   "Apply( )"   .
3.   .

"Actions( )"   ,   ,   ,
.

> **:**
> -   . "Format( )"
>   .
> -   (,   , ,   )   [57]
>   .
> -   2TB   EXT4   .
> -   RAID   , RAID
>   .

.   .
           "Set Threshold(   )"
    "Apply( )"   .   .

.

1. "Create New Shared Folder(   )"   .
2.   .
3.   2 "Configure access privileges for users(   )"
     "Edit( )"   .
4.   2 "Advanced settings(   )"   "Edit( )"
       ,   , Oplocks,   . "Create(   )"
   .
5.   .

4.2.2.2

RAID   .

               NAS   ,   ,   RAID   ,   iSCSI
LUN   .   ,   ,
      , RAID   .

> **:**   .   QNAP
>   .

                               .

1. "New Storage Pool(   )"   .
2.   ,   , RAID   "Create(
)"   .
3.   .
            "OK(   )"   .
4.   .

                             .

1.   "Remove Pool(   )"   .
2. "Apply(   )"   .
3.   .

                             .

1.   "Expand Pool(   )"   .
2.   RAID   ("Create a new RAID group(
   RAID   )"   ). "Adding new hard drive(s) to an
   existing RAID group(RAID   )"   ,
       RAID   "Next(   )"   . RAID 0, RAID 1, Single   JBOD
                     .
3.   "Next(   )"   .
4. "Expand(   )"   .
5.   .
            "OK(   )"   .
6.   .

RAID

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

2.　　　　　　　,　　　　　　　　　　　, RAID　　　　　　　　　　　　　　　　　　　"Next(　　)"
　　　　　.

3.　　　　RAID　　　　　　　　　　RAID
　　　　　　　　　　　　　.　　　　　　　　"OK(　　)"　　　　　　　.

4. "Expand(　　)"　　　　　　　.

5.　　　　　　　　　　　　　　　　　　　　　　　　　　　.
　　　"OK(　　)"　　　　　　.

6.　　　　　　　　　　　　　　　.

RAID

RAID　　　　　　　　　　　　　　　　.

	,　　RAID　　　NAS　　　　　　　　　　　　. 　　　,　　　　　　　　　　　　　　　.
RAID 0	RAID　　　2 　　　. 　　　　　　　　　　　　. 　　　. 　　　　　　　　　　　.　　　　　　　　　　RAID 0 　　　　.
RAID 1	. 　　　. 　　　　　　　　　　　　. RAID 1 　　　.
RAID 5	RAID 5 　　　　　　　　　　. RAID 5 　　3　　　　　　　. RAID 5 　　　　　(　　　　　　- 1) 　. 　　　　　　(　　). 　4　　　　　, 　RAID 5　　　3 　. 　　　　. RAID 5 　　. RAID 5 ,　　"degraded mode(　　　)"　　. 　　, 　.　　　　. 　. "rebuilding(　　　)"　　. 　.

48

	: , "degraded( )" . 2 .
RAID 6	RAID 6 . RAID 6 4 . RAID 6 (- 2) . ( ). RAID 6 2 . **:** , "degraded( )" . 2 .
RAID 10	RAID 10 , RAID 1( ) RAID 0( ) . RAID 10 . RAID 10 ( ) . RAID 10 . RAID 10 . RAID 10 2 2 . **:** , "degraded( )" . 2 .
JBOD	2 . . . , . JBOD . .

. .
"Set Threshold( )"
"Apply( )" . .

R A I D

RAID   ,   RAID   ,   RAID
              ,   RAID   ,
                     RAID   .

                  ,   RAID
                   .   RAID   . RAID 1, RAID 5, RAID 6   RAID 10.
      RAID   .
1. RAID   "Manage(   )"> "Expand Capacity(   )"   .
2.   . "Please remove this drive(
)"   NAS
              .
3. "You can replace this drive(   )"
                                                   .
                      . "Expand Capacity(   )"   .
4. "Yes(   )"   .
5.   RAID   .

                  ,   RAID   .
              . RAID 5   RAID 6.
                                        RAID   .
1. RAID   "Manage(   )" > "Add Hard Drive(   )"   .
2.   RAID   "Apply(   )"
          .
3.   .
        "Yes(   )"   .
4.   RAID   .

RAID

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

                        RAID   .
1. RAID   "Manage(   )"> "Migrate(   )"   .
2.   "Apply(   )"   .
3.   .
              "Yes(   )"   .
4.   RAID   .

                  ,   RAID 1, RAID, 5, RAID 6   RAID 10
        .   .
1. RAID   "Manage(   )" > "Configure Spare Drive(   )"
        .

50

2.   "Apply( )"   .

3.   .
        "Yes( )"   .

4.   .

/

                          /
      .   /   ,
    .   ,   , (
)   .
     , RAID   "Manage( )">"Enable Bitmap(   )"
"OK( )"   .   , RAID   "Manage(
)">"Disable Bitmap(   )"(   )
"OK( )"   .

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

R A I D

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

    RAID   NAS   RAID
       .   3   RAID 5
     NAS   2   RAID   .
  RAID   . RAID
     .

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

       RAID   .

1.   RAID   .
2. "Manage( )">"Recover( )"   .
3.   RAID   .

"New Volume(   )"

.   .

.

4.2.2.3

NAS

.

N A S

NAS   "System Component(   )"   NAS
          . NAS   .

	, , , BUS , CPU , , .
("Action( )")	NAS LED , .
RAID	RAID , RAID , RAID .
	. NAS, , (HDD SSD), BUS , , (, , , ,) . "Refresh( )" .

"System Component(   )"   NAS   "+"
                    . "System Component(   )"
                                   .

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

                                   .

:	, , , , , ATA ATA .

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	S.M.A.R.T . S.M.A.R.T .
("Action( )")	. "Status( )" . "bad blocks( )" .
("Action( )")	LED .
("Action( )")	. RAID 1, RAID 5, RAID 6 RAID 10 . RAID RAID . RAID .
RAID	RAID , RAID , RAID .
	. NAS, , (HDD SSD), BUS , , (, , , ,) . "Refresh( )" .

> : RAID , RAID .

H D D S . M . A . R . T

"Disk Health( )" Disk Health( ) .

S.M.A.R.T NAS
. .

	S.M.A.R.T .
	, , , , , ATA ATA .
SMART	S.M.A.R.T .
	S.M.A.R.T . .

	. 1) : . . 2) : . "Summary( )" . "APPLY to Selected HDD(HDD)" "APPLY to All HDDs( )" .

> **:** : 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) .
.

	, , , BUS , CPU , , , .
("Action( )")	LED , .
("Action ( )")	.
("Action( )")	.
RAID	RAID , RAID , RAID .
	. NAS, , (HDD SSD), BUS , , (, , , ,) . "Refresh( )" .

"Recover(　　)" 　　　　　　　 NAS 　　　　　　　　（　：
　　　SAS 　　　　　　　） 　　　　　　　　　　　　　 .
　　　　　　　　　　　　 . 　　　　　 "Error(　　)" ，
　　 RAID 　　 "Not active(　　　　　　)" 　　　　 .

　　　　　　　 .

1. "Recover(　　)" > "Recover Enclosure(　　　　　　)" 　　　 .
2. 　　　　　　　　　　 "OK(　　)" 　　　 .
3. "OK(　　)" 　　　　 .
4. 　　　　　　　　　　 .
5. 　　　　　　 RAID 　　　　 .

4.2.2.4

Turbo NAS   256   AES
        .   /
                                        .   NAS
                                        .

> **: AES**   QNAP NAS   .
>   .

QNAP Turbo NAS

                            NAS   .
                        .   .

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

- ●   :   NAS   .
                                        "Encryption(   )"
        .

Turbo NAS   .
- ● Turbo NAS   .   , JBOD   RAID
        .

- ●   NAS   .
                                                                    .
                                        .

- ●   .
                                        ,   .

- ●   .
                            .

- ●   .

> **:**   .

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

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2. "Custom(   )"   . "Next(
)"   .

3.   RAID   . "Next(   )"
   .

4.   ,   ,   ,   ,
                              . "Next(   )"   .

5.   "Finish(   )"   .

6.   !
                              .   "Yes(   )"   .

7. NAS   .

                                                  NAS   . "Storage Manager(
)" > "Volumes(   )"   .   "Status(   )"
                                                        .

                 . "Status(   )"

   .

                                                                        .   NAS

2   .

- DataVol1   "Save Encryption Key(   )"   .
- DataVol2   "Save Encryption Key(   )"   .

   ┌──┐
   │ : "Save Encryption Key(   )"   │
   │   .   │
   └──┘

NAS   . DataVol1   DataVol2
                              .   DataVol1
         DataVol1   . NAS
                                                        .   NAS   NAS
                                                              .   NAS
                  NAS   NAS   .
                                                                          .

                                  NAS   "Storage Manager(   )" >
"Encryption(   )"   .
                                                  .

                                      58

-           :   . (

  .   .)
-           :   .

  .

  ("

  "   ).   !
-        : NAS   NAS

  .

          NAS   . "Storage Manager(   )" > "Encryption(   )"   .   "Lock this Volume(   )" . "Yes( )"   .   NAS   "Storage Manager(   )" > "Encryption(   )"   "Unlock this volume(   )"   .   . "Apply( )"   .

.

4.2.2.5

SSD   Turbo NAS   .
          SSD   .

                       NAS   .
          SSD   .

	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   .

S S D

               SSD   .
1. "Create(   )"   .
2. SSD   SSD   . "Create(   )"
     .
3.   .
    "OK( )"   .
4. SSD   .

S S D

              SSD   .
1. "Remove( )"   .

2.   .
    "Yes( )"   .

3. SSD   .

S S D

               SSD   .

1. "Add SSD Drive(SSD   )"   .
2.   SSD   "Expand( )"   .
3.   .
    "Yes( )"   .
4. SSD   .

S S D

               SSD   .

1. "Cache Setting(   )"   .
2. SSD   /   "Finish(   )"
           .
3.   .

<table>
<tr><td>:   SSD   . SSD
                               .</td></tr>
</table>

4.2.3 iSCSI

iSCSI   , iSCSI   ACL   LUN   .

                                                                    .
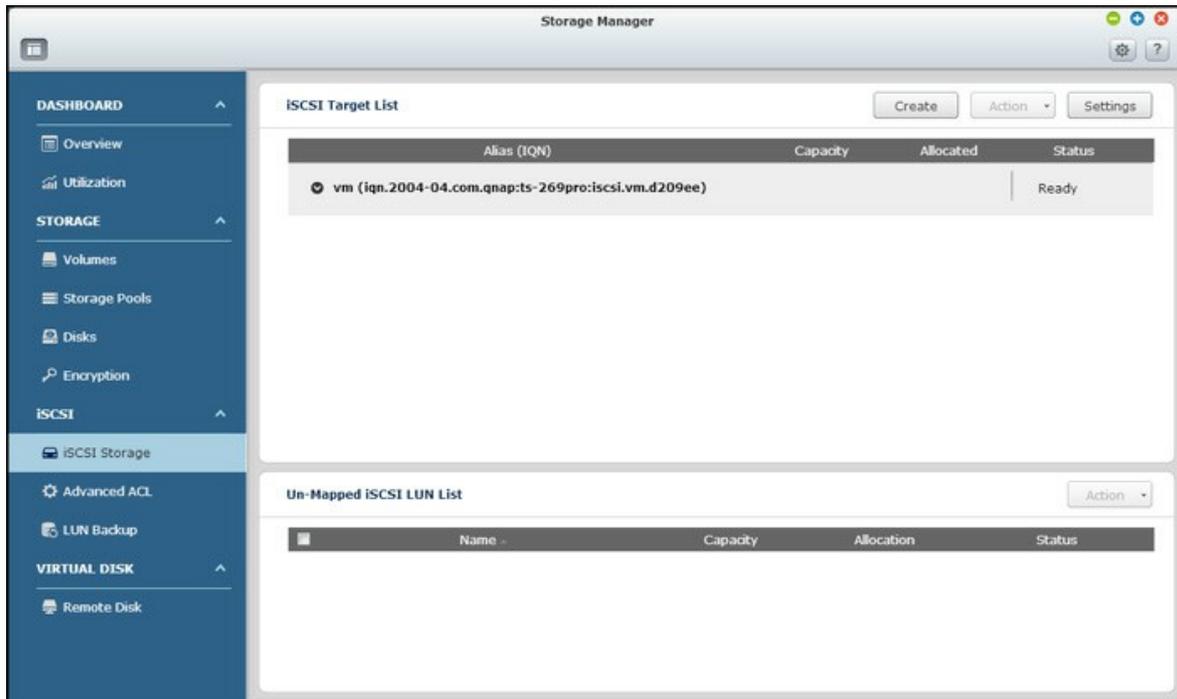
* iSCSI   [63]
*   ACL[72]
* LUN   [73]

4.2.3.1 iSCSI

NAS iSCSI(Internet Small Computer System Interface) .

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

iSCSI

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

, . iSCSI LUN (Logical Unit Number) iSCSI LUN . LUN LUN. LUN LUN , LUN NAS . .

LUN LUN .

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

LUN		
LUN		1

LUN   LUN
.

LUN   :
- :   . NAS
                                                        .   RAID
        NAS   .
- :   LUN   .   LUN
                        LUN   .

iSCSI   LUN   256   .   100   NAS
        LUN   156   .   NAS   iSCSI
                                                        .   NAS
                .

iSCSI

NAS   iSCSI   .
1. iSCSI   iSCSI   LUN
                        .

2. "iSCSI Target with a mapped LUN(LUN   iSCSI   )" (
    "iSCSI   "   "iSCSI LUN   "   )   "Next(   )"   .
3. "Next(   )"   .
4.   . "   " "   "
                iSCSI   iSCSI   .
    "Next(   )"   .
5. CHAP   "Next(   )"   . "Use CHAP authentication(CHAP
)"   iSCSI
                                                                        . iSCSI
                        "Mutual CHAP(CHAP)"   .
                                                        .   "Mutual CHAP(CHAP)"
                                        .

    ○ CHAP   :
        ▪   :   0-9, a-z, A-Z   256
            .

- ▪   **:**   0-9, a-z, A-Z   12-16   .
  - o   CHAP:
    - ▪   **:**   0-9, a-z, A-Z, : (   ), . (   ), - (   )
                        12-16   .
    - ▪   **:**   0-9, a-z, A-Z, : (   ), . (   ), - (   )
                        12-16   .

6. LUN   LUN   LUN   LUN   (NAS
    ),   LUN   . "Next(   )"   .
7.   "Next(   )"   .
8. "Finish(   )"   .
9.   LUN   .

iSCSI

iSCSI   .
1. "Create(   )"   .
2. "iSCSI Target only(iSCSI   )"   "Next(   )"   .
3.   "Data Digest(   )" /   "Header Digest(
)"   . "Next(   )"   .
4. "Use CHAP authentication(CHAP   )" /   "Mutual CHAP(CHAP)"
                      "Next(   )"   . "Use CHAP authentication
(CHAP   )"   iSCSI
                            . iSCSI
               "Mutual CHAP(CHAP)"   .
                     .   "Mutual CHAP(
CHAP)"   .
5. "Next(   )"   .
6. "Finish(   )"   .
7.   .

iSCSI LUN

iSCSI   LUN   .
1. "Create(   )"   .
2. "iSCSI LUN only(iSCSI LUN)"   "Next(   )"   .
3. LUN   LUN   LUN   LUN   (NAS
    ),   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 .
		iSCSI .
		iSCSI .
		iSCSI .
LUN		LUN .
		LUN .

iSCSI   LUN   ("Action(   )"   )
      .

	. .
	.

	. , CHAP
	      . LUN . LUN , ,
	            .

Delete( )	iSCSI . .
	LUN . .
	LUN .
	LUN . LUN . LUN iSCSI 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   .
5.   iSCSI LUN   .
6. "Action(   )" > "Map(   )"   LUN   .
7. LUN   "Apply(   )"   .
8. LUN   .

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

iSCSI LUN

NAS   iSCSI LUN   .   .
  1. iSCSI LUN   iSCSI   .
  2. "Action(   )" > "Modify(   )"   .
  3. LUN   . LUN
                    .   LUN   .

  4. "Apply(   )"   .

<div style="background:#f8e9a3; padding:10px">

  :
  - 　　　　　　iSCSI LUN   iSCSI   .
  - 　　　　LUN   ,   LUN   32TB   ,
           ,   LUN   .

</div>

iSCSI

                                                  iSCSI   NAS
              .

  - 　　　　　　: iSCSI LUN   "Instant Allocation(   )"   iSCSI
              .   .
  - 　　**LUN**   : NAS   LUN   .
    "System Status(   )" > "Resource Monitor(   )"   .
    NAS   , LUN   iSCSI
         .
  - 　　　　　　　　**LUN   :**   /
              LUN   .   LUN
                    , VM   NAS   LUN
         .

iSCSI   NAS   iSCSI   LUN   OS   iSCSI
         .

Windows   ISCSI   :
Microsoft iSCSI Software Initiator v2.07   Windows OS 2000, 2003, XP
                              iSCSI   . Windows Vista
       Windows Server 2008   Microsoft iSCSI   .
                                                       :
http://www.microsoft.com/downloads/details.aspx?familyid=12cb3c1a-15d6-4585-b385-
befd1319f825&displaylang=en

iSCSI   :
"Control Panel(   )" > "Administrative Tools(   )"   iSCSI   .
"Discovery(   )"   "Add Portal(   )"   . NAS IP   iSCSI
            .   iSCSI   "Targets(   )"   .
         "Connect(   )"   .   "Advanced(   )"
                  .   "OK(   )"   .
            "Connected(   )"   .

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

         PC   .   iSCSI   .

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

Xtend SAN iSCSI Initiator   :

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

:

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

Xtend SAN iSCSI   :

.
1. Xtend SAN iSCSI Initiator "Applications (   )" .
2. "Discover Targets(   )" "Discover by DNS/IP
   (DNS/IP   )" "Discover by iSNS(iSNS   )" . IP
   iSCSI .
3. , iSCSI (: 3260), CHAP (   )
   . "Finish(   )" .
4. NAS iSCSI . "Add(
)" .

"Setup(   )" iSCSI . "Status(   )"
. "Login(   )" . iSCSI
. "Initialize...(
...)" . "Disk Utilities(   )"
. iSCSI Mac .

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Ubuntu　　Linux Open-iSCSI Initiator　　　　iSCSI　　(QNAP NAS)
　　　　　　　　　　　　　. 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

<div style="background-color: #fde6a8; padding: 10px;">

　　:　　　LUN　Linux Open-iSCSI　　　　　　　　　　　　.

</div>

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

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

　　(　　　　　QNAP NAS),　　　　　　　　3260　10.8.12.31　　iSCSI
　　.
　　# iscsiadm –m discovery –t sendtargets –p 10.8.12.31:3260

　　　iSCSI　　　　　　.
　　# iscsiadm –m node

** 　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　:
　　# iscsiadm –m node --op delete --targetname THE_TARGET_IQN

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

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

dmesg　　　　　　　.
　　# dmesg | tail

　　　　　　　. /dev/sdb　　　　　　.
　　# fdisk /dev/sdb

70

.

```
# 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
　.　　　　　　　　　　　　　" 　"　　　　　　　　　　　　　　　.
　"Add a Policy(　　　　)"　　　　　　　.　　　　　　　　IQN　　　　NAS
LUN　　　　　　　　　　　　　"Apply(　)"　　　　　　　.

　　　　　　　　　　　　　　　　　　.

	LUN　　　　　　　　　　　.
/	LUN　　　　　　　　　　　　　.
	LUN　　　　　　.

　　iSCSI　　　　　　　LUN　　　　　　　　　　　　.
　　　　　　iSCSI　　　　　　　　　　.
"Edit(　　)"　　　　　　　　　　.　　　　　　　　　　"Delete(
　)"　　　　.

> ：　LUN　　　　　　　　　　　　LUN NAS　　　　　　　.

> ：　　**IQN**　　　　　**?**
> 　　iSCSI　　　　"General(　)"　　.　　IQN
> 　.

4.2.3.3 LUN

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

<div style="background-color:#FFF2CC">

:   .   QNAP
                                                    .

</div>

LUN

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

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
                                                    .
  4. LUN   . NAS   Linux   (NFS), Windows   (CIFS/ SMB)
      NAS   LUN   . "Test(   )"
                                      .   "Next(   )"   .
  5.   LUN   NAS   .
                                          .   *   . "Next(   )"   . (
              :   NAS   CPU   LUN
                              .   iSCSI LUN   .)
  6.   (,   ,   ,   )   "Next(   )"
                  .
  7.   .   NAS   . "Next(   )"
                  .
  8. "Finish(   )"   .
  9.   .

                                                    ("Action(   )"   )
            .

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

> **:** LUN , 3 .

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. "Next( )" .
6. . NAS . "Next( )"
   .
7. "Finish( )" .

.

("Action( )")
.

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

> **:** 5 :
> - LUN : iSCSI LUN NAS LUN . LUN
>   .
> - LUN : iSCSI LUN LUN NAS . LUN
>   .

iSCSI LUN

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LUN　　　　　　　　　　　NAS　　　iSCSI　　　　　　　　　　　　　　　　　　　　　　LUN

　　　　　　　　　　　　. LUN　　　　　　　　　　　　　　　LUN

　　　　　　. iSCSI LUN　　　　　　　　　　　NAS　　　　　　　　　iSCSI LUN　iSCSI

　　　　　. 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

4. LUN　　　　　　　　　　NAS　　　　　　　　　　　. LUN
   iSCSI　　　　　　　. "Next(　)"　　　　　. LUN　　　　　　　　　　　　iSCSI
   　　　　. "Next(　)"　　　　　.
5. 　　　　　　　　　　　　　　"Next(　)"　　　　　.

6. 　　　　　　　. 　　　　　　　NAS　　　　　　　　　　. "Next(　)"

7. "Finish(　)"　　　　.
8. 　　　　　　　　.　　　　　　　　　.
9. "Storage Manager(　　　　　　　)" > "iSCSI Storage(iSCSI　　　　)"　　　　　LUN
   iSCSI　　　　　　. iSCSI　　　　　　　　　iSCSI
   　　LUN　　　　　　　　　　　.

> **:** Windows 7　Windows 2008 R2　　　　　　　　　　　LUN　　　　LUN
> NAS　　　　　　. 　　LUN　NAS　　　　　.

**LUN　/　/　**

QNAP NAS　　　　　　　　　　NAS　　　iSCSI LUN　,　

1. 　iSCSI LUN　,　　　　　　　　"Storage Manager(　　　　　　　)" > "LUN
   Backup(LUN　　)"　NAS　　　　　　.
2. Pietty　　SSH　　　　　　NAS　　　.
3. 　　NAS　　　　.
4. "lunbackup"　　　.　　　.
5. lunbackup　　　NAS　　iSCSI LUN　,

> **:**　　　　　　　　　　　IT　　　　　　.

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4.2.4

iSCSI   (VD)   . VD
            turbo NAS   .
                                                                          ,
      .

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

<div style="background-color:#fdf3c0; border:1px solid #ccc; padding:10px;">

        :
- NAS   16TB   .
-             (iSCSI   )   UI   NAS   2
                              . 2
    "Disconnected(   )"   .
-   .
-   .   QNAP
                                                    .

</div>

NAS   .
1. iSCSI   . "Add Virtual Disk(   )"   .
2.   IP   (: 3260). "Get Remote Disk(   )"
                              .   .
    "Data Digest(   )"   /   "Header Digest(   )"   (
). iSCSI   iSCSI   .
          "Next(   )"   .
3.   .   LUN   ,   LUN
            .   NAS   LUN   . NAS   EXT3, EXT4, FAT32, NTFS, HFS+
                              . LUN   "Unknown(   )"   "Format
    virtual disk now(   )"   .
    EXT3, EXT4, FAT 32, NTFS   HFS+   . "Format virtual disk now(
)"   LUN   .   "Next(   )"
          .
4. "Finish(   )"   .
5. NAS   . "Privilege Settings(   )" > "Share
    Folders(   )"   .

                                        ("Action(   )"   )
          .

Edit( )	iSCSI .
Connect( )	iSCSI .

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Disconnect ( )	iSCSI .
Format( )	EXT3, EXT 4, FAT 32, NTFS HFS+ .
Delete( )	iSCSI .

4.3

"Control Panel(   )" > "System Settings(   )" > "Network(   )"   NAS
                        .
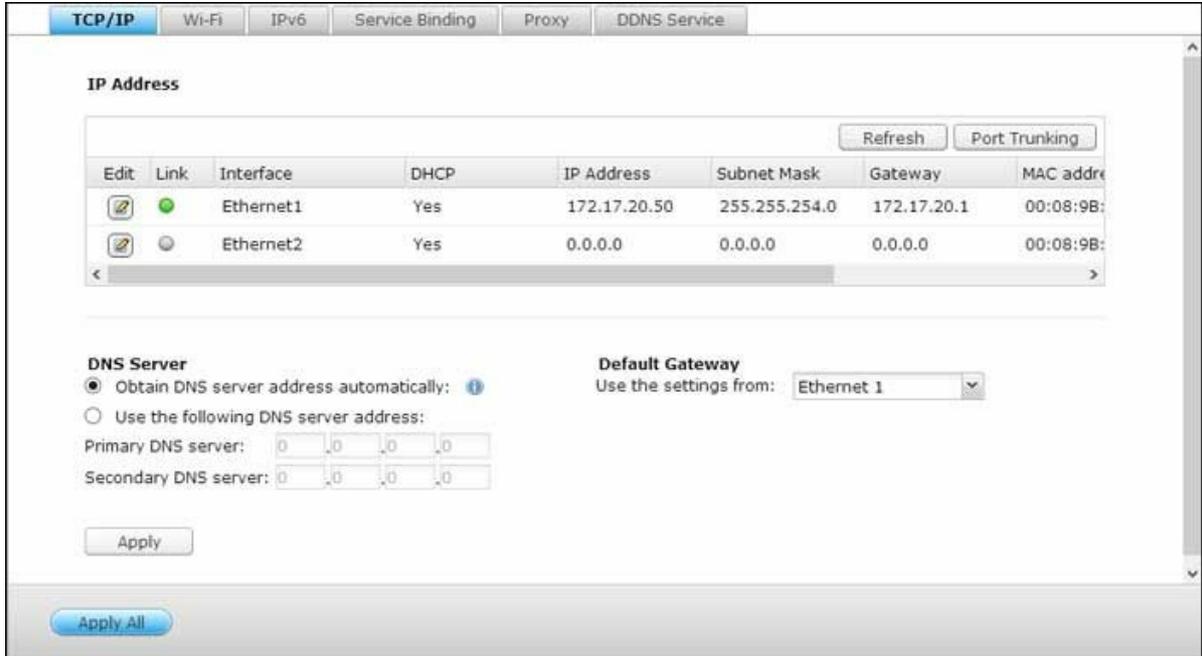
TCP/IP

(i) IP

                    NAS   TCP/IP   , DNS   .

"Edit(   )"   "Edit(   )"   ("Network Parameters(
)", "Advanced Options(   )"   "DHCP Server(DHCP   )"   )
                        .   LAN   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
    LAN   LAN   .

TCP/IP   :
- 　　　　　　　: NAS   .
              NAS   .
- **DHCP   IP   :**   DHCP   ,
          NAS   IP   .
- 　　**IP   　　:**   IP   IP   ,   ,
              .

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- **Jumbo Frame(   ):**   TS-509 Pro, TS-809 Pro   TS-809U-RP
                       . "Jumbo Frames(   )"   1,500
        .
                                        CPU   .   (MTU)
                                              (:   )   .
NAS   .   1,500   .
                                                       MTU   . NAS   MTU
    4,074, 7,418   9,000   .

<div style="background-color:#fbe79a">

    :   .
                                        MTU   .

</div>

Virtual LAN (VLAN)
                                . NAS   VLAN   NAS   VLAN
                        .

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

<div style="background-color:#fbe79a">

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

</div>

DHCP
DHCP (   )   IP   .
NAS   "Enable DHCP Server (DHCP   )"
      NAS   DHCP   .

<div style="background-color:#fbe79a">

      :
- ●   IP   DHCP
                            .
- ● DHCP   LAN NAS   LAN
      IP   Ethernet 1   .

</div>

- ●   IP,   IP,   : NAS   DHCP   IP
            .   IP   .
            IP   .   IP   .
- ● **WINS   (   )**: WINS (Windows Internet Naming Service)   Windows
        (NetBIOS names)   IP   ,   Windows
                              .   WINS   IP
        .

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- **DNS   (   )**: DNS
    .

- **TFTP   (   )**: NAS   PXE   . TFTP
                (TFTP   )   IP   .
    , TFTP   IP   .

(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   .
>   NAS   BT   ,
>   URL   1   DNS   IP   .   ,
>   .
> - DHCP   IP   , 1   2   DNS   .
>   "0.0.0.0"   .

(iii)

   LAN   (LAN NAS
).

(iv)

2   LAN   NAS   .

NAS
                (   )   .
                                                          .
    (   )   (
)   .

NAS   2   LAN   NAS   (i)   (ii)
                                          .

              NAS   :
1. "Port Trunking(   )"   .
2.   (1+2,   3+4,   5+6,
          7+8).   .   (
)   .
3.   . "Apply(   )"   .
4.   "here(   )"   .
5. "Control Panel(   )" > "System Settings(   )" > "Network(   )" > "TCP/
    IP"   .
6. "Edit(   )"   "Edit(   )"   .

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NAS   :

Balance-rr (Round-Robin) (-rr(-))	Round-Robin(-)
	
	    .
	
	        . Balance-rr(-rr) .
		.
		
		.

Active Backup ( )	Active Backup( )
	    .
	
	    . .
	MAC ( )
	                . Active Backup( ) .	

Balance XOR (XOR)	Balance XOR(XOR)
	
	    . .
	        MAC MAC
	            2
	    . xmit_hash_policy
	                . Balance XOR(XOR) .
		.
		
		.

Broadcast( )	Broadcast( )
	        .
	    .
		.
		
		.

IEEE 802.3ad (Dynamic Link Aggregation) ( )	.
	802.3ad
	        . Dynamic Link Aggregation( )
	    LACP IEEE 802.3ad .
		802.3ad LACP

| Balance-tlb (Adaptive Transmit Load Balancing)(-tlb( )) | Balance-tlb (-tlb) . ( ) . . MAC . Balance- tlb(-tlb) . | |
| Balance-alb (Adaptive Load Balancing)(-alb( )) | Balance-alb (-alb) Balance-tlb(- tlb) IPV4 ( ). . ARP , . Balance-alb(-alb) . | |

W i - F i

NAS Wi-Fi   NAS USB   . NAS
                    . NAS Wi-Fi   .

<div style="background-color:#FFF3C4;">

:
- , USB , .
                        .
- USB Wi-Fi .

</div>

1: Wi-Fi .
"Wi-Fi Network Connection(Wi-Fi)"   Wi-Fi
         .

		Wi-Fi .
🔒		Wi-Fi ; .
▶️		Wi-Fi . .
✏️		. Wi-Fi .

⬛		Wi-Fi .
❌		Wi-Fi .
		Wi-Fi . .

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

	NAS Wi-Fi .
	NAS Wi-Fi .
SSID	SSID .
IP	NAS Wi-Fi DHCP IP . .
	NAS Wi-Fi . .
	. .
	Wi-Fi . Wi-Fi SSID .

2:   Wi-Fi   .
SSID(   )   Wi-Fi   "CONNECT TO
A WIRELESS NETWORK(Wi-Fi   )"   .

                                              ad hoc   .
                              .

1.   (SSID)   security type(   )   .
   ○ No authentication (Open)((   )):   .
   ○ WEP(   ):   4 WEP   1   .
   ○ WPA-Personal (WPA-   ): AES   TKIP
                        .
   ○ WPA2-Personal (WPA2-   ):   .
2.   .
3. NAS   Wi-Fi   "FINISH(   )"   .
4. IP   , "Edit(   )"   . DHCP   IP
                        IP   .

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

IPv6

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

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

"IPv6   "   "Apply(   )"   . NAS
.   IPv6   . IPv6
. "Edit(   )"   .

- **IPv6   :**   IPv6   ,   NAS   IPv6
.

- **   IP   :**   IP   IP   (: 2001:bc 95:1234:5678),
(: 64), NAS   .   ISP
.

  ○   (radvd)   : NAS   IPv6   IPv6   IPv6
,   .

- **IPv6 DNS   :**   DNS   DNS
.   ISP   . IPv6
"..."   .

NAS   .
                    (   )   ,   . NAS
                                                                                    . NAS
                                            .
                            .   "Apply(   )"   .
                                                                        .
"Refresh(   )"   .

                                                                            NAS   ,
            ,   .

D D N S

                                    NAS   , DDNS   IP
            .
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

"Control Panel(   )" > "System Settings(   )" > "Security(   )   ,   NAS
                                .

                                                                        IP   .
                                                                                                                                    .
                        , "Apply(   )"   .
                                                .

                                                                                                                                            .
IP   , IP
                    .

            &

                        (SSL)
            .   ,
SSL   NAS
        . NAS   X.509   .
- ●   :   .
- ●   :   .
- ●   &   :   .
                                                .

86
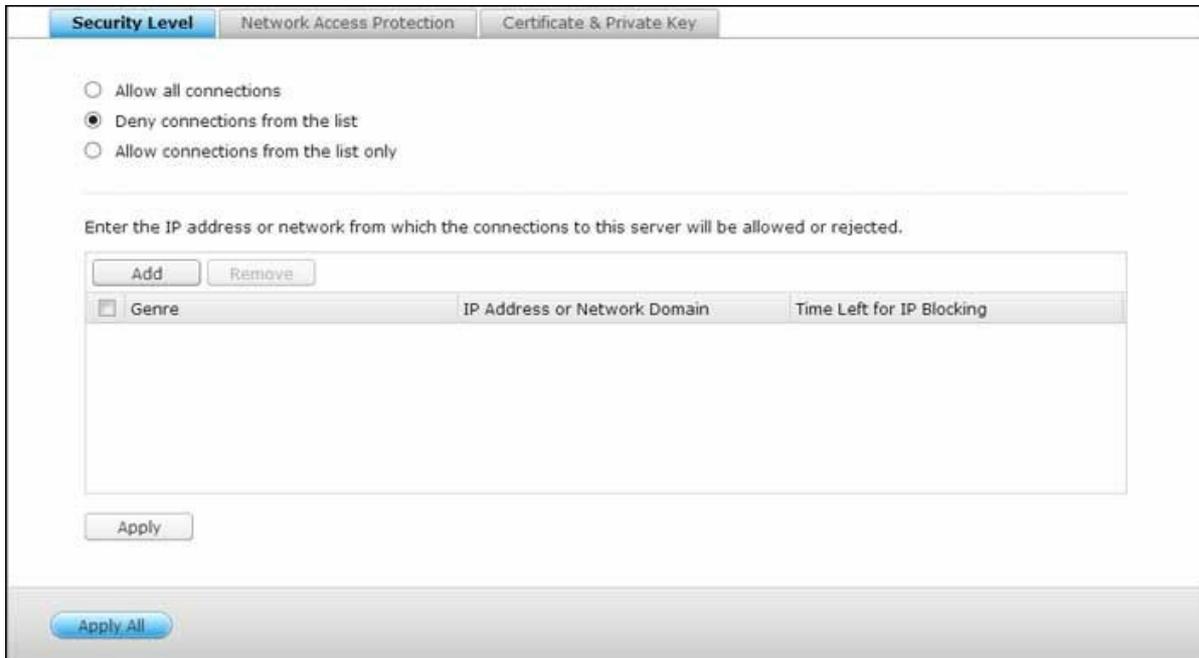
4.5

"Control Panel(   )" > "System Settings(   )" > "Hardware(   )"
NAS   .
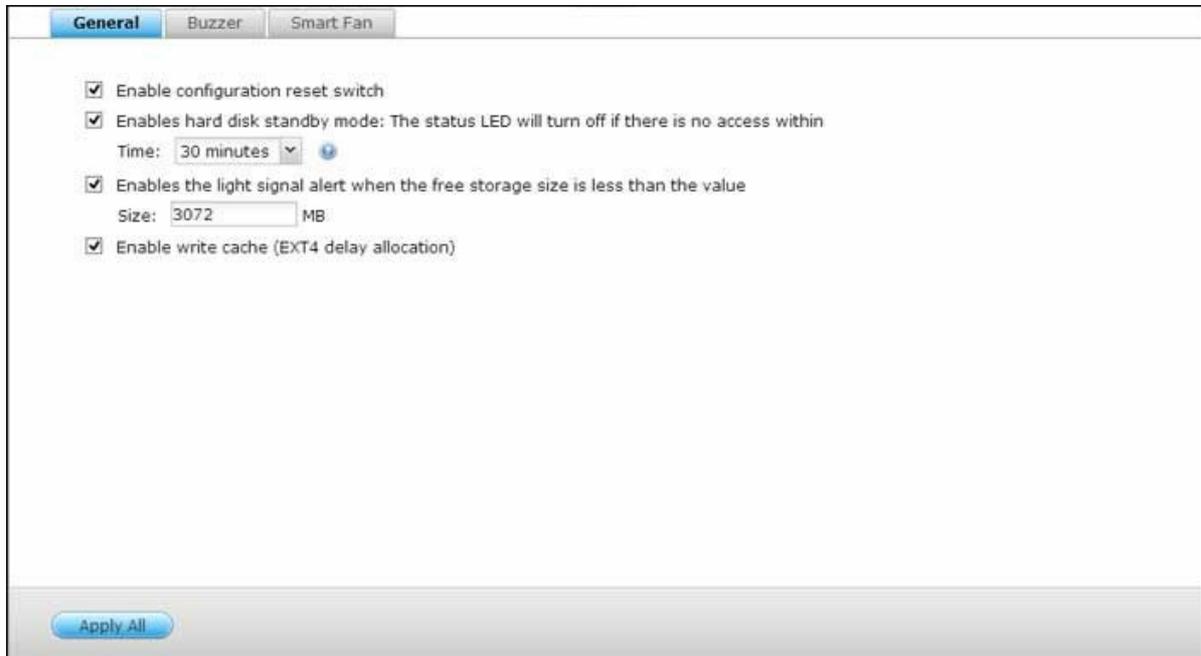
-                                :   3
                      (   ).
-                 **(3   ):**   3   .
                   :
  -                  : admin.
  - TCP/ IP   : DHCP   IP   .
  - TCP/ IP   :   .
  - TCP/ IP   :   (LAN   ),   "
          (   )"   .
  -        : 8080(   )
  -      :   (   ).
  - LCD   :(   );   LCD   NAS   .
         http:// www.qnap.com   .
  - VLAN
  -           :   NAS   .
-                **(10   ):**   10   3   10
                       . NAS   "Administration(   )" > "Restore to Factory
  Default(   )"
                      .   .   ,
     ,   .
       , NAS   .

- **●**   **:**   ,

- **● SATA**   **:**
  SATA   LED
  .   1-51,200 MB   .

- **●**   **(EXT4**   **):** NAS   EXT 4
  .

  : Download Station, MySQL   ,   , Surveillance Station. NAS

  .

- **●**   **:** NAS
  (PSU)   ,   PSU   NAS   (1U
  2U   ). "System Settings(   )" > "Hardware(   )"
  . PSU
         PSU   NAS   "System Logs(
)"   . NAS   PSU   ,
  .   .

               :   (   )   (   )
  .

  . Download Station   MySQL
  .

- **●**   **(**   **):**
  .   , CPU   ,
  .   .

- **●**   **:**   ,   .

4.6

,

, / / .

E u P
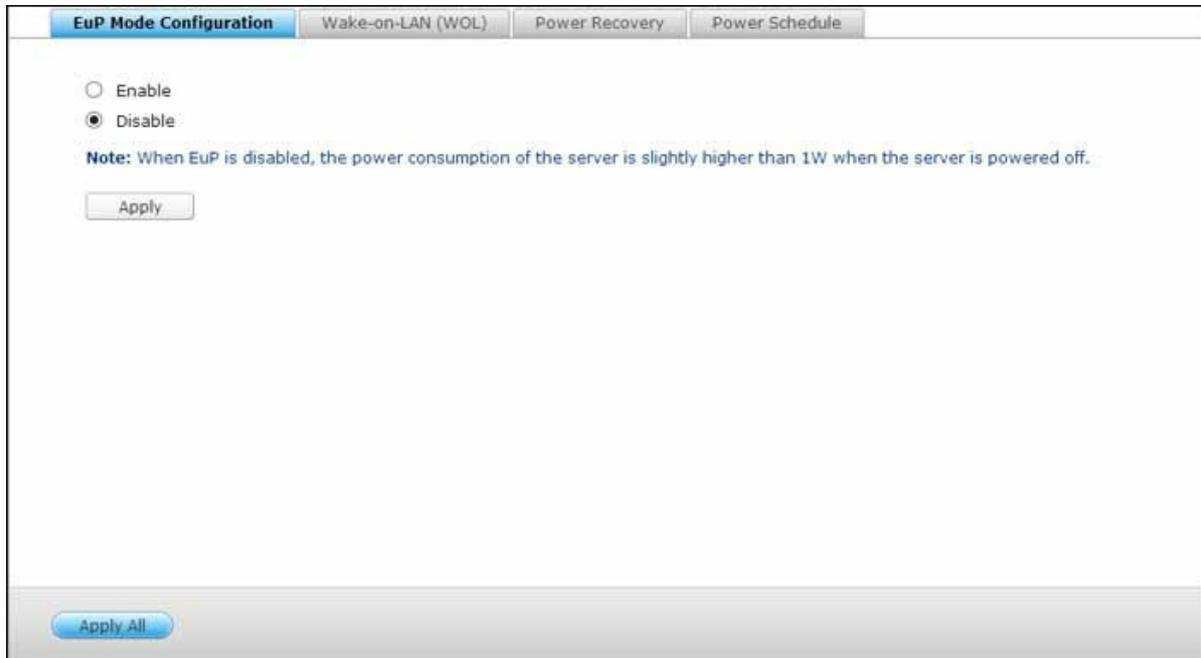
EuP ( ) , , ,
(EU) .

EuP (1W)
:
- Wake on LAN: .
- AC : .
- / / : .

EuP 1W . EuP
Wake on LAN, AC
.

http://www.qnap.com .

W a k e - o n - L A N ( )

(Wake on LAN) NAS .
NAS ,
(Wake on LAN) .

http://www.qnap.com .

AC   NAS   ,
                      .

                      ,   .

                                                              .   15

.

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

                                            .   ,

                                      .

4.7

"Control Panel(　　　)" > "System Settings(　　　　　)" > "Notification(　　)" 　　　　　NAS
　　　　　.

S M T P

NAS 　　　　　　　　　　　　　　　　　　　　　　　　　　　.
　SMTP 　　　　　　　　　.

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

S M S C

SMSC　　　　　　　　NAS　SMS　　　　　　　　　　　　　　.　　　　SMS
　　　　Clickatell　　.　　　　　　　　"Add SMS Provider(SMS 　　　　　)"
　　　　　　SMS 　　　　　　　　　　　　.

"Add SMS service provider(SMS 　　　　　　)"　　　　SMS　　　　URL
　　　　.

> **:** 　　URL　　　　　　　SMS　　　　　　　　　　　SMS
> 　　.

(/) NAS

.

- : NAS (2)

.

- **SMS** : NAS (2)

.

4.8

"Control Panel(   )" > "System Settings(   )" > "Firmware Update(
)"   NAS   .

Live Update | Firmware Update

Model: TS-559 Pro II
Current firmware version: 4.2.0
Date: 13-12-2013

Check for Update   Status:Last checked 2013/12/15 11:03:11

☑ Automatically check if a newer version is available when logging into the NAS web administration interface.

Apply

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

                                                                                      .

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

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QNAP Qfinder

QNAP Qfinder   NAS   .   :
1. NAS   "Update Firmware(   )"   .
2. NAS   .
3. NAS   . "Start(   )"   .

> **:**   NAS
>   .   .

4.9   /

"Control Panel(   )" > "System Settings(   )" > "Backup/Restore(/   )"
                    NAS   ,   , NAS   .

                    /
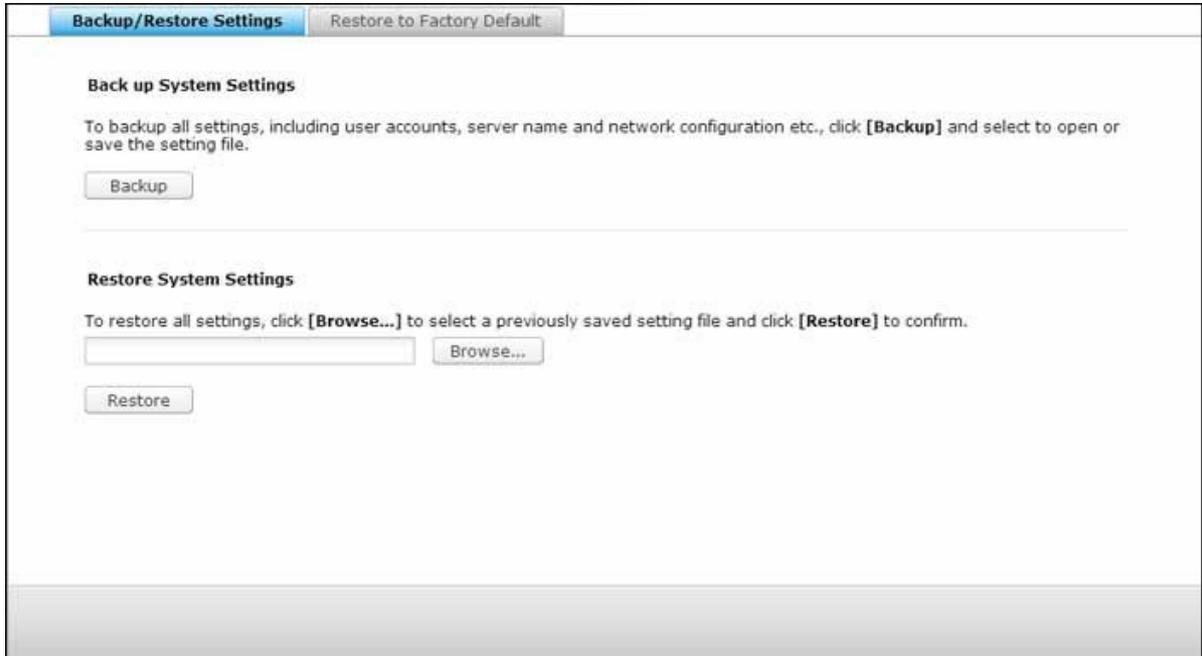
                              :   ,   ,
"Backup(   )"   .
                              :   "Browse(   )"
            "Restore(   )"   .

*   :
      .

*   :   .
* **NAS**   :   NAS   .

*: NAS   3
                              (   ).   </
b>   10   ,
                        (   ).
                  :   "   "   "   "
                                        (NAS   ).

4.10

"Control Panel(   )" > "System Settings(   )" > "External Storage(   )"

                , USB   UPS   .

                                                    .

-
-
-

4.10.1

NAS   USB   eSATA   *   .
USB   NAS   eSATA   .
    .

                .   USB
eSATA   .   http://www.qnap.com   .
NAS   USB   .   .

         EXT3, EXT4, FAT32, NTFS   HFS+ (Mac   )
. "Format( )"   .

<div style="background:#fdf6c8;">

: QTS 4.1   USB   .   USB
     EX3   EX4   "Storage Information( )"
      .   File Station   USB
(File Station   USB   ).   x69, x70 and x79
NAS   .

</div>

NAS   .   "Encryption( )"
    .   : AES 128- , 192-   256-   (8- 16)
    . "Save encryption key( )"   NAS
    . NAS
   .   . "OK( )"   .
"Ready( )"   .

<div style="background:#fdf6c8;">

:   2TB   EXT4, NTFS   HFS+
.

</div>

" "   ." "
          ." "
    .
"Eject( )"   .

<div style="background:#fdf6c8;">

:
        . (Windows PC   " "   ,
Mac   " "   , QTS   " "   .)

</div>
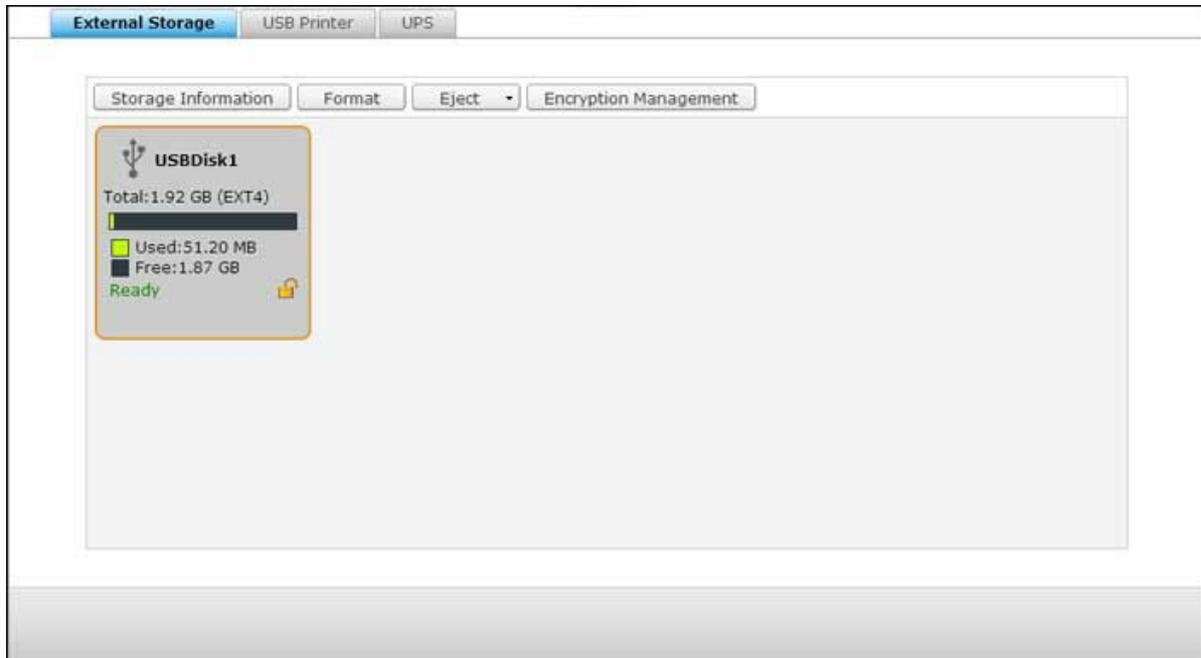
NAS 　　　　　　　　　 , "Encryption Management(　　　　　)"
　. 　　　　　　　　　　　　　 / , 　　　　　　　　 / 　　　　　　　　　　　.

1. 　　　　　　　　　　　　　　　　　, "Encryption Management(　　　　　)" 　　　　　　 .
2. "Lock this device(　　　　　　)" 　　　　　 "Next(　)" 　　　　　 .
3. "Next(　)" 　　　　　　　　　　 .

1. 　　　　　　　　　　　　　　　　　　　　, "Encryption Management(　　　　　)"
　　　.
2. "Unlock the device(　　　　　　　)" 　　　　　　. "　　" 　　　　　　.
3. 　　　　　　　　　　　　　　　　　　　. "Save encryption key(　　　　)"
　　　　　　 NAS 　　　　　　　　　　. NAS 　　　　　　
　　　. "　　" 　　　　　　.

1. 　　　　　　　　　　　　　　　　　　　　　"Encryption Management(
　　)" 　　　　　 .
2. "Manage encryption key(　　　　　)" 　　　　. "　　" 　　　　　.
3. 　　　　　　　　　　　　　　　　　　　　　. "　　"
　.

1- 　　　　　　　　　　 . 　　　　　　 NAS
　　　　　　　　　 :

- 　　　　: NAS 　　　　　　　　　　　　　　　 .
- Q-RAID 1: NAS 　　　　　　　　　　　 Q-RAID 1 　　　. Q-
  RAID 1 NAS 　　　　　　　　　　　　 RAID 　　
  　. **Q-RAID 1** 　.

  Q-RAID 1 　　　　　 NAS 　　　　 NAS
  .

4.10.2 USB

NAS   Windows, Mac   Linux (Ubuntu)
                              .   3   USB   .

NAS   USB   NAS   USB   .
                                        .

        USB   "Printer Info(   )"
      .

        USB   "Printer Info(   )"   .
                                                          ,
                                              .   "Clear(   )"   .

"Clean Up Spool Space(   )"   .

"Settings(   )"   .
    •   :
                    .   .

    • **Bonjour**   :   Bonjour   Mac
                              . Bonjour   .
      "a- z", "A- Z", "0- 9", dot (.),   (,)   (-)   .

    •   :   .
                    1,000   .

.

- **IP** : NAS
  IP , "Allow printing( )" "Deny
printing( )" IP . (*)
  . "No limit( )" . "Apply(
)" .

> : IPP Bonjour . Samba
> .

Windows 7   .

                              .

1.   .
2. "Add a printer(   )"   .
3.   "Add a network, wireless or Bluetooth printer(,   ,
)"   .
4. Windows   "The printer that I want isn't
   listed(   )"   .
5. "Select a shared printer by name(   )"
                    .   NAS_IP
                              http://NAS_IP:631/printers/ServernamePR.
        http://10.8.13.59:631/printers/NASPR3   .
6.   . Windows
                                                                    .

7.
        .

8.   . "Finish(
)"   .
9.   .

4.10.2.2 Windows XP

　　　　　　　　　　　　　　　　　　　.

　　1

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

　　2

　　　　　　　　　Windows XP　　　　　　　　　.
1. "　　　　　　　"　　　　.
2. 　　　　　　　　　　　　　　　　　.
3. 　　　　　　　　　　　　　　　　.　"　　　　"　　　　.
4. "　　"　　　　　　　　　　　　　　　　　　.
5. PC　　　　　　.
6. 　　　　　　　　　.
7. "　　　　　"　　　　　　"　　".
8. "　　　　　　　　　　"　　　　　　."　　　".
9. "　　　　　"　　　　　　　　　　　"　　　"　　.　"　　".
10. 　　　　　　　　.　　　　　　　, NAS IP= 192.168.1.1, NAS　　= myNAS　　　\ \
   NAS IP\ NAS namepr　　,　　　\ \ 192.168.1.1\ myNASpr　　.
11. 　　　　　　　　　　.
12. 　　　　　　　　.

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(   )"   "Print & Fax(   )"
        .

3.   +   .
4. USB   Bonjour   .
                                                  . "Add(   )"
        .

5.   . "Continue(   )"   .
6.   .

Mac OS X 10.5   NAS   .

            NAS   "USB Printer(USB   )"
            .

1. "Network Services(   )" > "Microsoft Networking(Microsoft   )"
      . NAS   .   .
2. Mac   "Print & Fax(   )"   .
3. +   .
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(   )   .
4.   "alt"   "More Printers(   )"   .
5.   , "Advanced(   )"*   "Windows Printer with SAMBA(SAMBA   )"
         ,   URI   (smb://NAS IP/printer name(
)   ).   "Device Configuration(   )" > "USB Printer page(USB
)"   ),   "Generic(   )"   "Add(   )"   .
6.   .   .

<table>
<tr><td>

    :

•   5   "Advanced(   )"*   , "alt"   "More Printers(
)"   .
                  .

•   NAS   Mac OS   .

</td></tr>
</table>

4.10.2.6 Linux (Ubuntu 10.10)

Linux (Ubuntu 10.10)   NAS   .

1. "System(   )"   "Administration(   )"   .   "Printing(
)"   .
2. "Add(   )"   .
3. "Network Printer(   )"   "Internet Printing Protocol (ipp)(
    (ipp))"   . "Host(   )"   NAS IP   . "/ printers"
                    . "Queue(   )"   "printers/"   .
4.   "Verify(   )"   .
5.   .
6.   .
7.   .
                    .
8.   . "Apply(   )"
    .
9.   .

4.10.3 UPS

UPS(   )   NAS
           .   NAS   UPS
                    .

- U S B

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

- S N M P

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

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

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

N A S　　U P S

　　　　　　　　　　　　　　　"System Event Logs(　　　　　　　　)"　　　　　　.

　　NAS　　　　　　 "UPS Settings(UPS　　)"
　　　　　　　　　　.
　　　　　　　　　　　, NAS
　　　　.

　　　　　　　:
- NAS　　　　　　　　,　　　　　　　.
- NAS　　　,　　　　　　.

	NAS .	UPS , NAS .
	NAS　　　.	NAS . .

NAS　　　　UPS　　　　　　　　　　　, WOL(Wake on LAN)*
　NAS　　　　　(NAS　UPS　　　WOL　　　WOL　NAS
). NAS　UPS　　　　　　, NAS　"System Settings(　　　　)" >
"Power Recovery(　　　)"　　　　　　　.

108

*   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
        .

4.11

"Control Panel(   )" > "System Settings(   )" > "System Status(   )"
        NAS   .

                      ,   ,   ,
    .

                                              ,
        .   ,
                      .

                  NAS   .

                  NAS   .
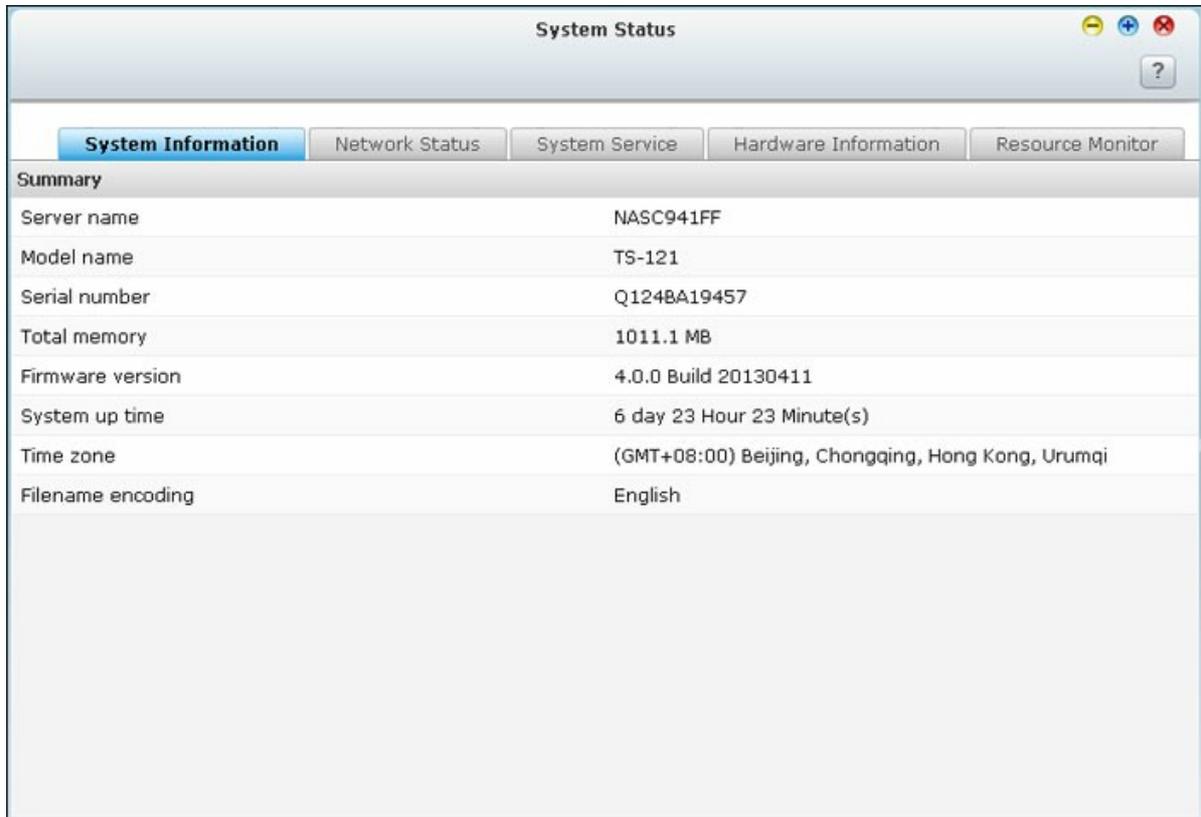
NAS CPU   ,   ,   .

- CPU Usage(CPU   ):   NAS   CPU   .
- Memory Usage(   ):   NAS
  .
- Disk Usage(   ):
  .
- Bandwidth Usage(   ):   NAS   LAN
  .
- Process(   ):   NAS   .

111

4.12

"Control Panel(   )" > "System Settings(   )" > "System Logs(   )"
     NAS   .

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.
ℹ	2013-05-03	17:40:41	admin	61.62.220.74	---	[VPN Service] PPTP started successfully.
ℹ	2013-04-30	22:52:30	System	127.0.0.1	localhost	LAN 1 link is Up.
ℹ	2013-04-30	22:44:18	System	127.0.0.1	localhost	[USBDisk3] Device removed.
ℹ	2013-04-30	22:43:43	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.
ℹ	2013-04-30	22:43:36	System	127.0.0.1	localhost	[USBDisk3] Device removed.
ℹ	2013-04-30	22:43:16	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.

Page 1 /1   Display item: 1-39, Total: 39 | Show 50 | Items

NAS   ,   10,000   .
                                                     .

> **:**   .
>   "Clear(   )"   .

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

> **:**   IP   IP
>   .   "Clear(   )"   .

                  :   . NAS   CSV
                                                         .
. NAS   "Options(   )"   ,   ,
      ,   ,   .   "Stop logging(
)"   .

                              NAS   .

S y s l o g

Syslog   IP   .
Syslog   .   CSV
                            .   .

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

                                                      ,
            .   ,   ,   ,   IP
       "Search(   )"
   .   IP   .

5.

"Control Panel(   )" > "Privilege Systems(   )"   NAS   ,
.

.
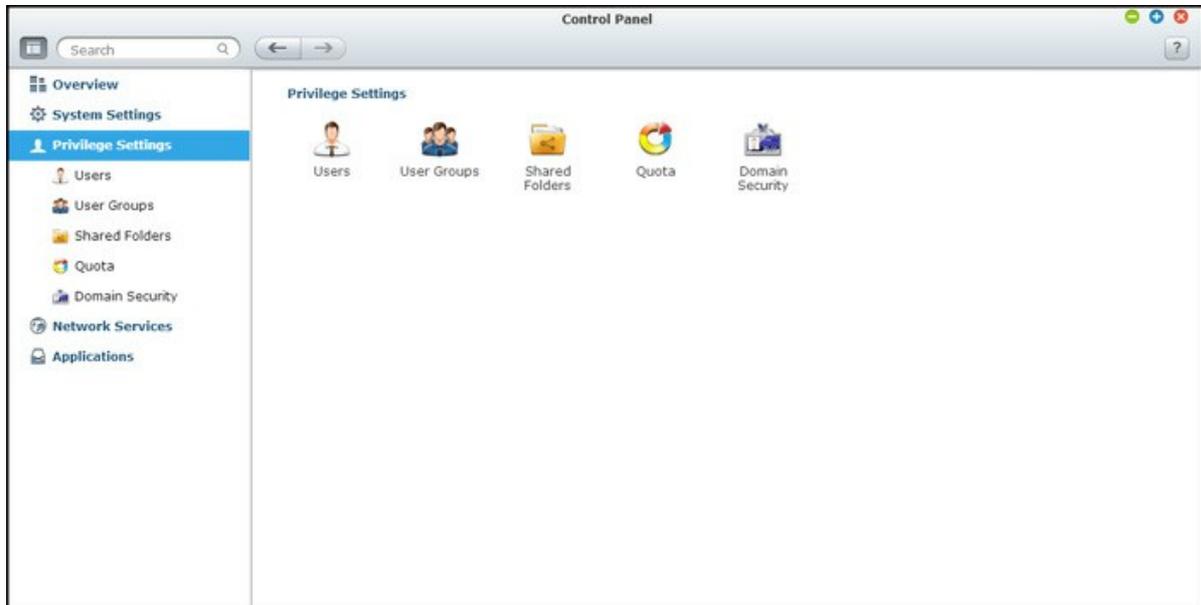
- [115]
- [118]
- [119]
- [126]
- [127]

5.1

NAS   .

- 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

                                        .

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

- :   16   .   6
                    .

NAS   .
1. "Control Panel(   )" > "Privilege Settings(   )" > "Users(   )"   .
2. "Create(   )"   .
3.   ."

NAS   .
1. "Control Panel(   )" > "Privilege Settings(   )" > "Users(   )"   .
2. "Create(   )" > "Create Multiple Users(   )"   .
3. "Next(   )"   .

4.　　　　　test　　　　　　　　　　　　. 0001　　　　　　　　　　　　　　　　　　　　　　　,
　　　　　10　　　　　　　　　　　　　. NAS　　　　　　　　　　, test0001,
　　test0002, test0003...test0010　　　　　　.
　　　　.
5.　　　　　　　　　　　　　　　　　　　　　.
　　　　　　　　　　　　.　　　　　　　　　　　　　NAS
　　　　.
6.　　　　　　　　　　　.
7.　　　　　　　　　　　　　　　　　　　　　. "Finish(　　)"
　　　.
8.　　　　　　　　　　　.
9.　　　　　　　　　　　　　　　　　.

　　　　　　　/

　　　　NAS　　　　　　　　/　　　　　　　　　.

　　　　　　　:
NAS　　　　　　　　　　　　　　　　　.
1. "Control Panel(　　　)" > "Privilege Settings(　　　　)" > "Users(　　　)"　　　　.
2. "Create(　　)" > "Import/Export Users(　　　　/　　　)"　　　　.
3. "Export user and user group settings(　　　　　　　　　　　)"
　　.
4. "NEXT(　　)"　　　　　　　　　　(*.bin)　　　　　　.
　　　　NAS　　　　　　　　.

　　　　　　　:
NAS　　　　　　　　　　　　　　　　　　　　.
NAS　　　　　　　　　　　　　　.
1. "Control Panel(　　　)" > "Privilege Settings(　　　　)" > "Users(　　　)"　　　.
2. "Create(　　)" > "Import/Export Users(　　　/　　)"　　　.
3. "Import user and user group settings(　　　　　　　　　)"　　.
　　"Overwrite duplicate users(　　　　　)"　　　　　　NAS
　　　. "Browse(　　)"　　　　　　　　(*.txt, *.csv, *.bin)
　　　"Next(　)"　　　　　　.
4.　　　　　"Finish(　)"　　　.
5.　　　　　　　　.

　　　:
●　　　　　　　, (　　　　　　　)
　　.
●　　""Privilege Settings(　　　)"" > ""Quota(　)""
　　　　　."

NAS   TXT, CSV   BIN   .

                                                                .

TXT
 1.   .
 2.   ","   :   ,   ,   (MB),
 3.   .
                                   .
 4.   UTF-8   .

                         .   ,   NAS   .

CSV (Excel)
 1. Excel   .
 2.   .
      ○ A   :
      ○ B   :
      ○ C   :   (MB)
      ○ D   :
 3.   .
                        .   CSV   .
 4.   CSV   UTF-8
                   .

BIN (NAS   )
QNAP NAS   BIN   .   ,   ,   ,
                                    .   "Privilege Settings(   )" > "Quota(   )"
                                                                    .

                                      NAS
            .   Microsoft Networking, FTP, AFP, File Station   "   "
              .   "Homes"   "admin"
        .

                              "Home Folders (   )"   . "Enable home folder for all
users (   )"   . "Apply(
)"   .

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

5.3

"Control Panel(   )" > "Privilege Settings(   )" > "Shared Folders(   )"
NAS   .

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

                                    ,   ,   (
)   .

                                                    .

1. "Create(   )" > "Shared Folder(   )"   .
2. "Next(   )"   .

3.　　　　　　　　　　　　　　　　　　　.
- 　　　　　　:　　　　　　　　　　　　　.　　　　　　　　　　"/ \ [ ] : ; | = , + * ? < > ` '
　　　　.

- 　　　　　:　　　　　　　　　　　　　.

- 　:　　　　　　　　　　　　.

- 　　　　　: Microsoft Networking　　　　　　　　　　　　　　　　　　　.
　　　　　　　　　　　　　　　　\\NAS_IP\share_name
　　　.

- 　　　　(oplocks):
　　　　　　　　　　　(oplock)　　　　　　　　　　　　Windows
.Oplocks　　　　　　　　　　　　　　.
　　　　　　　　　　　　　, oplocks
　　.

- 　　　:　　　　　　　　　　　　　　　　　."
　　　　"　　　　　　　,
　　　.

- :　　　　　　　NAS　　　　　　　.
4.　　　　　　　　　　　　　　　　　　　　　　.
5.　　　　　　　　　　　　　　　　　, 　/
　　　　.

6.　　　　"Next(　)"　　　.
7. "Finish(　)"　　　.

　　　　　　　"Remove(　)"　　　." 　　　(
ISO　　　　　　　)"
　　.　　　　　　　　NAS　　　　.
　　.

✎		.　　, oplock 　　, FTP 　　.
↩		.
↻		.

NAS　　　　　　　.　　　,"Privilege Settings(
　)" > "Shared Folders(　　)"　　　"Folder Permissions(　　)"
　.　　　,　　　　　.
　　"Add(　)"
　　."Add(　)"
　"Remove(　)"　　. Ctrl
　."Apply(　)"　　.

NAS   .

         ,   /   ,   .

                                 .

1. "Privilege Settings(   )" > "Shared Folders(   )" > "Advanced Permissions(   )"   . "Enable Advanced Folder Permissions(   )"   "Apply(   )"   .

2. "Privilege Settings(   )" > "Shared Folders(   )" > "Shared Folders(   )"   .   ,   Dept   , "Folder Permissions(   )"   .   .
                                 .
                          .   (Dept)   . "+ Add(   )"   ,   /   ,   .

3.   "Add(   )"   .

4.   .
      ○ Guest Access Right(   ):   ,   ,   .
      ○ Owner(   ):   .
        .

5.   ,   "Folder Property(   )"   .
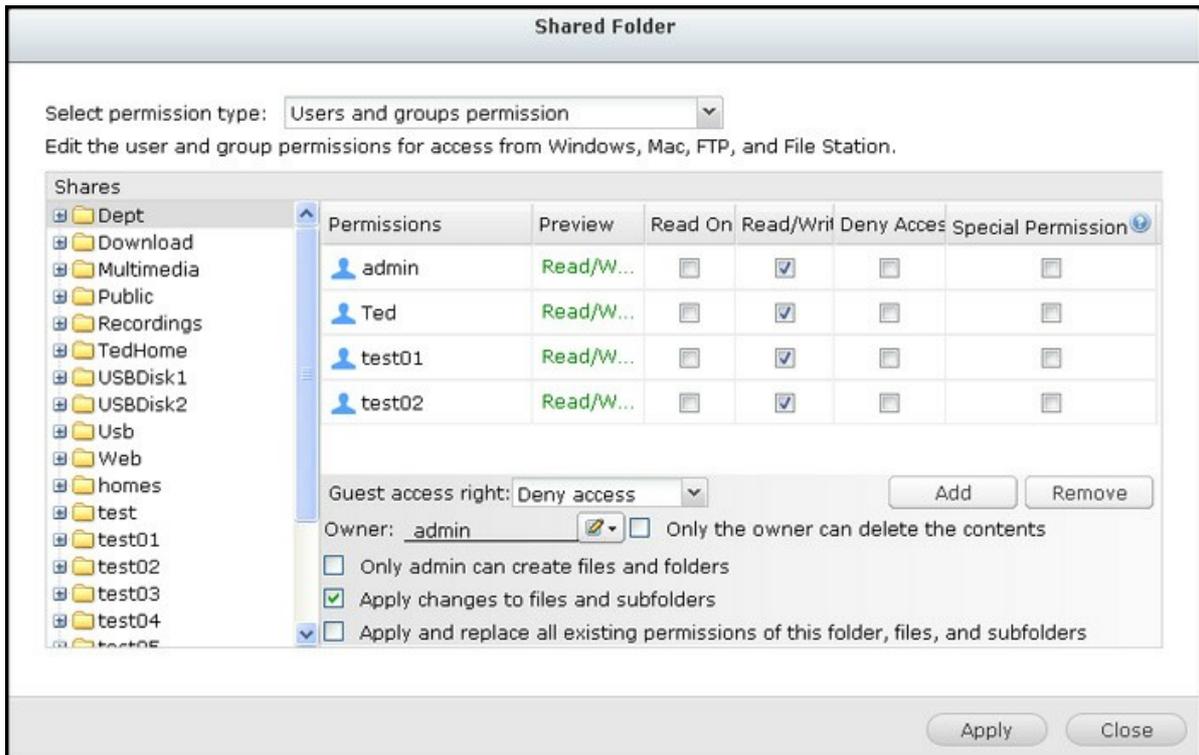
6.   .   "Set(   )"   .

○ Only the owner can delete the contents(   ):

, Dept ,

. /   , 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(   ):

.

. "Dept(   )"

, HR, , . /

Admin01, Admin02, HR1, HR2

.

○ Apply changes to files and subfolders(   ):

. , , , .
"Only the owner can delete the contents(   )" "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(   )" "Only
admin can create files and folders(   )"

.

○ Special Permission(   ):   .
"Read only(   )" "Read/Write
(/   )"   .
Microsoft "admin(   )" .
"Read/Write(/   )"
Windows .
"admin(   )" . "admin(   )" NAS

. .

7. , "Apply(   )" "YES(   )" .

- / , / "Only admin can create files and folders( )" ( ).
- " " > " > " > " " " " ID (500) , . , ID " " ID .

Microsoft

NAS Samba (Windows) . Microsoft NAS IP .

.

1. "Folder Permissions( )" .
2. "Microsoft Networking host access( )" .
3. IP . IP .

   - IP : 192.168.12.12 or 192.168.*.*
   - : dnsname.domain.local *.domain.local

4. "Add( )" IP "Apply( )" .

- **: IP** .

- **(*):** 0( ) (*) . *.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" .

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   .   .
4. NAS   .
       "Deny Access(   )"   "Read only(   )"   . "   "
          .
5.   "Next(   )"   .
6. "Finish(   )"   .
7.   "Action(   )"   SMB, AFP,
   NFS, WebDAV
       .

NAS   File Station   ISO   .   File Station
       .

Microsoft   NAS   NAS   NAS
                          .   10   .
                                 .

1.   .
2. "Create A Portal Folder(   )"   .
3.   .
                 .
4. "Action(   )"   "Link Configuration(   )"
          .   .
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
.   .
."Advanced Folder Permissions
( )" , "Shared Folders( )" "Folder
Permissions( )" .
   "Shared Folders( )" > "Folder Permission( ) .

Windows ACL
"Windows ACL" Windows .
   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

.

.   .
.

.

-
-

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

.

5.5

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

- •   :   NAS   .
- • **Active Directory   (   ):** NAS   Active Directory   .
        NAS   . 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
　　　. AD　　　　　　　　　　　　　　　　　　NAS　　　　　　　　　　　　　　.
Windows Server 2008 R2　　　　　　　　　　　　　　　NAS　　　　　V3.2.0
　　　　NAS　AD　　　　　　　　.

N A S　　A c t i v e　D i r e c t o r y (　　　　　　　　　　　)

　　　　　　　　QNAP NAS　Windows　　　　　　　　　　　　　　　　.
1. NAS　　　　　　　　　　　　. "System Settings(　　　　　　)" > "General Settings(
　　)" > "Time(　　)"　　　　. NAS　　　　　　　　　　　,　　AD
　　　　　　.　　　　　　　　5　　　.
2. "System Settings(　　　　)" > "Network(　　　)" > "TCP/IP"　　. 1　DNS　　　IP
　　DNS　　　　　　　　　　　　IP　　　.
　　　　DNS　　IP　　　. DNS
　　.
3. "Privilege Settings(　　　)" > "Domain Security(　　　　)"　　　　. "Active
Directory authentication (domain member) (Active Directory　(　　　　)"
　, AD　　　　　　　　.

<div style="background-color:#fdf4c5">

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

</div>

**Q u i c k　C o n f i g u r a t i o n　W i z a r d (　　　　　　)　　　NAS　Active
D i r e c t o r y (A D)**

　　　　NAS　AD　　　　　　　　　.
1. "Privilege Settings(　　　)" > "Domain Security(　　　　)"　　. "Active
Directory authentication (domain member) (Active Directory　(　　　)"
"Quick Configuration Wizard (　　　　)"　　.
2. 　　　　　." 　". 　　　.
3. 　(DNS)　　　. NetBIOS
　　　.　　DNS　IP　.IP　Active Directory
DNS　.""　　.
4. 　　　　　　　. NAS
　　　.
"Join(　)"　　.

128

5.   , NAS   . "Finish(   )"

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

Windows 2003

AD   AD   "System Properties(   )"
            .   2003   ,   "Full computer name
(   )"   "node1.qnap-test.com"   AD
"node1"   "node1.qnap-test.com"   .   qnap-test.com.
            .

Windows Server 2008

AD   AD   "Control Panel(   )" > "System(   )"
           .   AD
           .

<table>
<tr><td>

   :

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

</td></tr>
</table>

Windows 7

Active Directory   Windows 7 PC   NAS AD
                   v3.2.0   , PC   PC   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(   )"   .   "Domain
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   .

            /   :

- LDAP
-                                   LDAP
- LDAP

Q N A P   N A S   L D A P

QNAP NAS   LDAP   .
1. NAS   .
2. "Privilege Settings(   )" > "Domain Security(   )"   .
   "No domain security(   )"   .   NAS   NAS
                                  .

3. "LDAP authentication(LDAP   )"   .
   o LDAP   : LDAP   IP   .
   o LDAP   : NAS   LDAP   :
     ▪ ldap:// =   LDAP   (: 389).
     ▪ ldap:// (ldap + SSL) = SSL   (: 686).   LDAP
                                .
     ▪ Ldap:// (ldap + TLS) = TLS   (: 389).   LDAP
                                .

   o BASE DN: LDAP   .   : dc=mydomain,dc=local
   o   DN: LDAP   .   cn=admin, dc=mydomain,dc=local
   o   :   .
   o   DN: (OU).   : ou=people,dc=mydomain,
      dc=local
   o   DN: (OU).   ou=group,dc=mydomain,dc=local
4. "Apply (   )"   .   , NAS   LDAP
                .
5. LDAP   .
   o LDAP   Microsoft   (Network Services > Win/
      Mac/NFS > Microsoft Networking), Microsoft   (Samba)   NAS
                                  .
     ▪   :   NAS   Microsoft   NAS
                            .
     ▪ LDAP   : LDAP   Microsoft   NAS

.

- ○ NAS　LDAP　　　　　　　　　　　　　Microsoft　　　　　　　　　　　, Microsoft
  　　　　　　　　　　　　　.
  - ▪ Standalone　　:　　NAS　　　　　Microsoft　　　　　　　NAS
    　　.
  - ▪ LDAP　　　　　　: LDAP　　　Microsoft　　　　　　NAS
    　.

6. NAS　LDAP　　　　　　　　　　　　　　　　　　　　　　:
   - ○ "Privilege Settings(　　　　)" > "Users (　　　)"　　　,　　　　　　　　　　　　"Domain Users (　　　　　　)"　　　　　　. LDAP　　　　　　　　　　.
   - ○ "Privilege Settings(　　　　)" > "User Groups(　　　　　)"　　　, "Domain Groups(　　　　)"　　　　. LDAP　　　　.
   - ○ "Privilege Settings(　　　　)" > "Shared Folders(　　　)" >　　LDAP　　　　　　　　　　　,　　　　　"Access Permissions(　　　　)"　　.

: LDAP　　　　　　　NAS　　　　　　File Station, FTP,　AFP　　　　　NAS　.

L D A P

Microsoft　　　(Samba)　LDAP　　　　　　　　　　　　　:
1. LDAP　　　　　LDAP　Samba　　　　　　　　　　　　.
2. Samba　　　　LDAP　　　　　.

A. 　　　　　　:　　　　　　　　　　　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　　　　　　　　　LDAP　　FAQ　　.
samba.schema　　　　　Samba　　　　　examples/LDAP　. LDAP　　　　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　　　　)
:

131

```
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.

"Control Panel(   )" > "Network Services(   )"   NAS
          .

                                                                    .
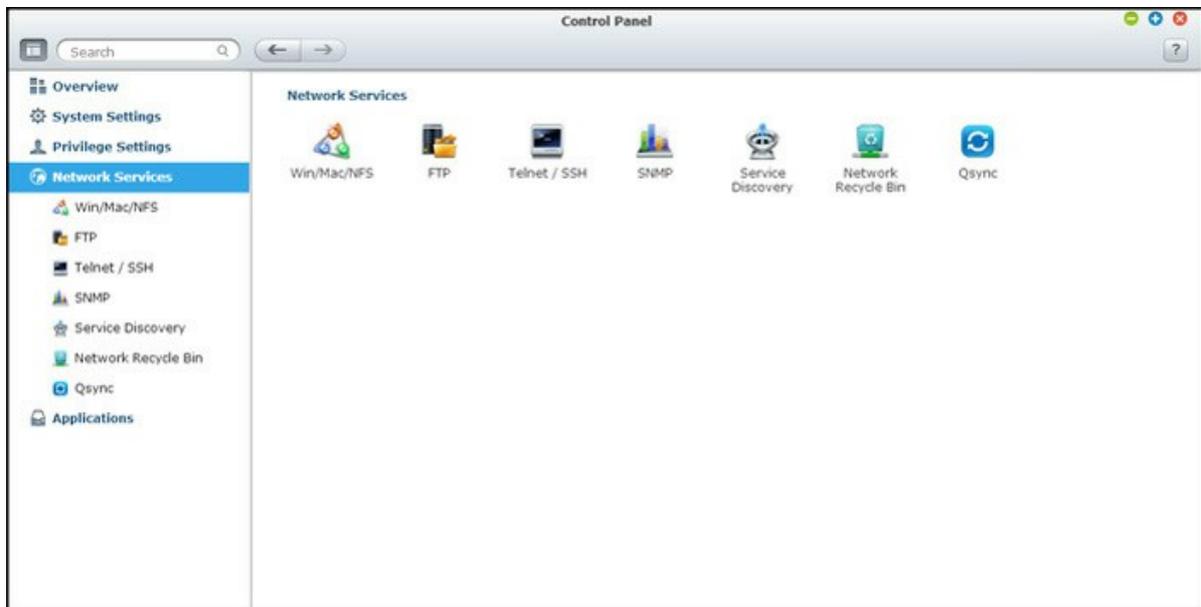
- Win/Mac/NFS [134]
- FTP [137]
- Telnet/SSH [139]
- SNMP   [140]
-                [141]
-                [142]
- Qsync [143]

6.1 Win/Mac/NFS

"Control Panel(   )" > "Network Services(   )" > "Win/Mac/NFS"
                       .
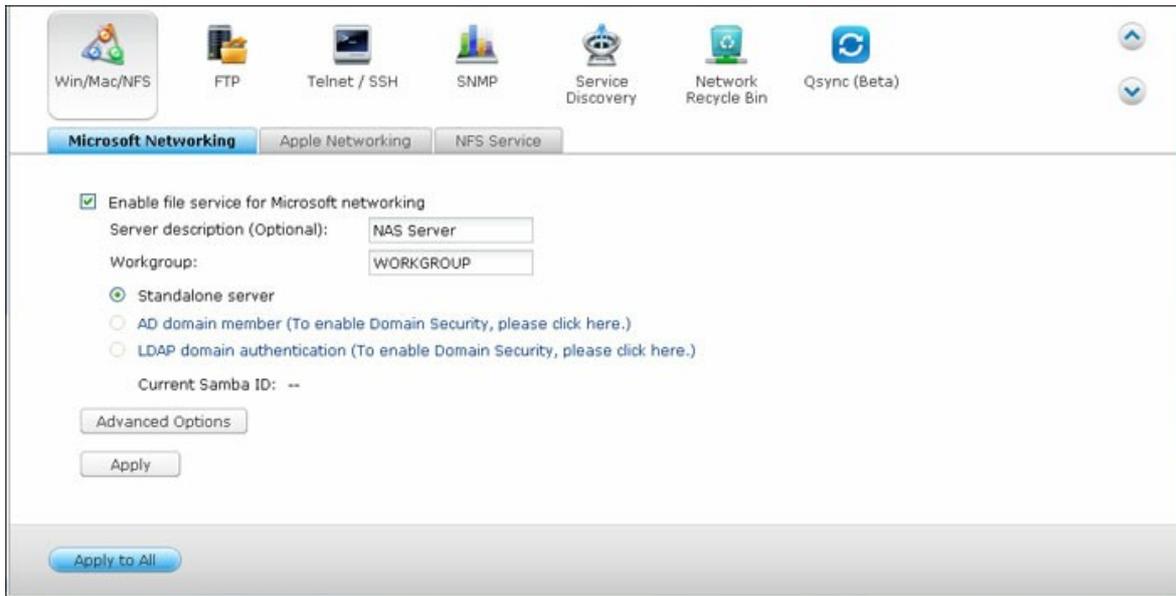
Microsoft

Microsoft Windows Network   NAS   Microsoft
                       .   .

                                          . NAS   "Privilege Settings(   )" > "Users(   )"
                                          NAS   .

- •   (   ):   Microsoft Network   NAS
             .

- •   : NAS   .   15
                       . " + = / \   : | * ? < > ; [ ] % , `

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

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

- **WINS** 　　: 　　　　　　　　WINS 　　　　　　　　　, IP 　　　　　　　　　. NAS
  WINS 　　　　IP 　　　　　　. 　　　　　　　　WINS
  　　　　　　, WINS 　IP 　　　　　　　.
  　　　　　　.

- 　　　　　　　　: 　　　　　　　　　Windows 　　　　　　　　　PC
  　　　　　　　　　.
  　　　　　, 　　　　　　　. "Domain Master(　　　　　　)
  NAS 　　　　　　　　.
  　　.

- **NTLMv2** 　　　　: NMLMv2 　NT LAN Manager 　　2 　　. 　　　　,
  Microsoft Networking 　　　　　　　　　　NTLMv2 　　　　.
  　　　NTLM(NT LAN Manager) 　　　NTLMv2
  　　. 　　　　　.

- 　　　　: IP 　　　　　　　　　　　　DNS 　　WINS
  　　　. NAS 　WINS 　　　　　　WINS
  　, 　　　DNS 　WINS 　　　　　　　　　.
  WINS 　　　　　　　"Try WINS then DNS(WINS 　　DNS 　)"
  　. 　　　　DNS 　　　　.

- 　　　: **FTP, AFP 　 File Manager 　　　+ 　**
  \ 　　　: Active Directory
  .

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

  (domain\ username) 　　　AFP, FTP
  File Manager 　　NAS 　　.

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

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

- **I/O 　:** 　　SAMBA 　　　UPS
  .

- **SMB 　　:** Microsoft 　　　SMB 　(
) 　. 　.

Apple

Mac   NAS   Apple Filing Protocol   . AppleTalk
                                                                           NAS   .
(*)   .
        . Mac OS X 10.7 Lion   NAS   "DHX2 Authentication Support(DHX2
)"   . "Apply(   )"   .
Mac   . "Go(   )" > "Connect to Server(   )"
          ,   "Command+k"   . "afp://
YOUR_NAS_IP_OR_HOSTNAME"   "Server Address(   )"   .
                   .

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

NFS

Linux   NAS   NFS   . NAS
NFS   "Privilege Settings(   )" > "Share Folders(   )"
        . "Action(   )"   Access Permission(   )   .
                  NFS   . "No limit(
)"   "Read only(   )"   NFS   IP
                   .

- No limit(   ):   ,   ,
                      .

- Read only(   ):
                                         .

- Deny access(   ):   .

NFS   NAS

Linux   .

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

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

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

             ID   ,   .

6.2 FTP

"Control Panel(   )" > "Network Services(   )" > "FTP"   FTP
          .

F T P
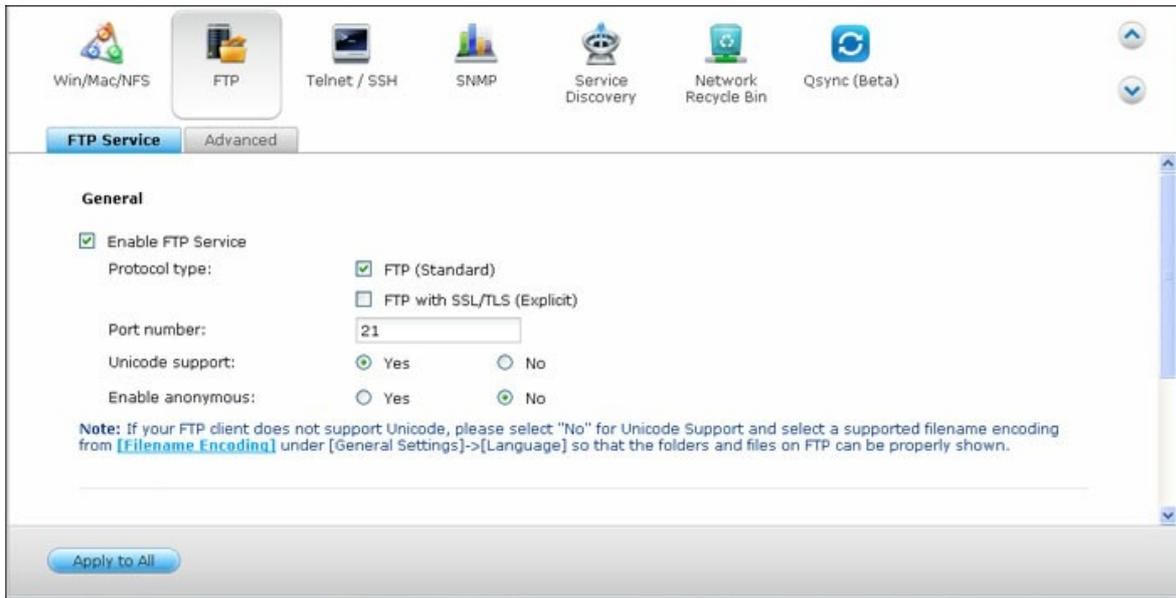
FTP   ,   FTP
                  . NAS   FTP   . IE
          ftp://NAS IP   .   FTP   .

- 　　　　　　　　:　　　FTP　　　　SSL/TLS　　　FTP　　　　　　　　　　　　.
　　　　　　　　　　　　FTP　　　　　　　　　　　　　　　　　　　　　.

- 　　　　　　　:　　　　　　　　　　/　　　　　　　　　　.　　　　　　　　　　.
　FTP　　　　　　　　　　　　　　　　　　　,
　　FTP　　　　　　　　　　　　　　　　"General Settings(   )" >
"Codepage(   )"　　OS　　　　　　　　　　　　　　　. FTP
　　　　　　　,　　　　　NAS
　　　.

- 　　　　　:　　　NAS　FTP
　　　　　.　　　　　　　　　　　　　　　.
　,　　　　　　　　　　　　　　　.

- 　:NAS　　　　　　FTP　　　　　　　　　　　　　"Enable FTP
transfer limitation(FTP   )"
　.

- **FTP**　　　　:　　　　(55536-56559)　　　　　1023
　　　　.　.

- **FTP**　　　　　　IP　　　:　FTP　　　　　FTP

, WAN FTP
. FTP IP
FTP

.

6.3 Telnet/SSH

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

                .

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

6.4 SNMP

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

                    .

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

6.5

"Control Panel(   )" > "Network Services(   )" > "Service Discovery(   )"
        UPnP   Bonjour   .
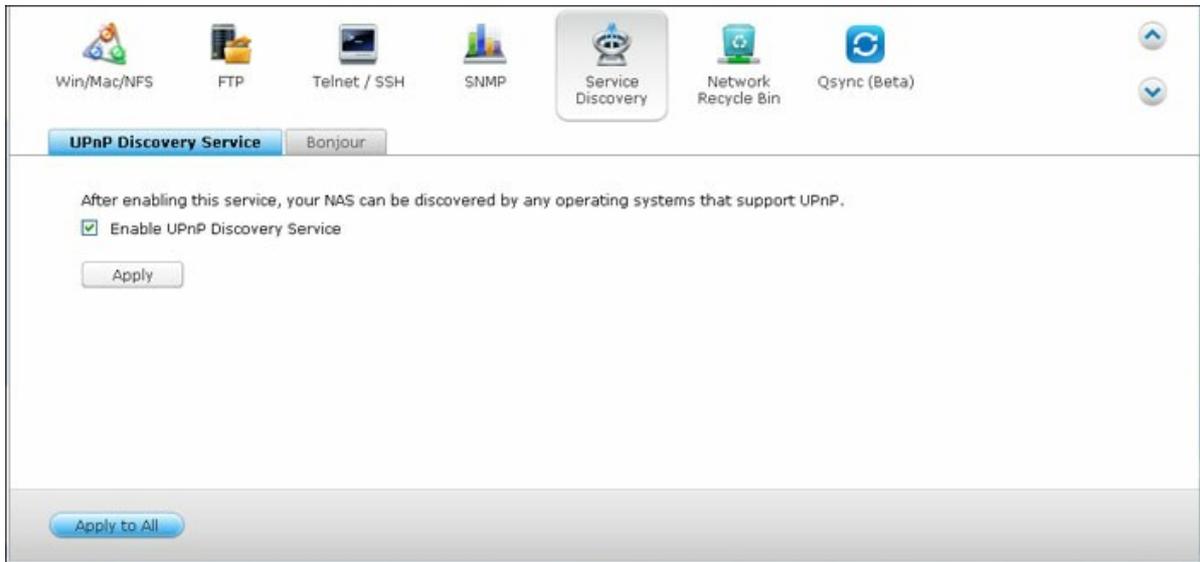
U P n P

UPnP   , UPnP
                                    . UPnP   UPnP
        NAS   .

B o n j o u r

Bonjour   ,   Mac   IP   DNS
              NAS   (FTP)   .

    :   NAS
  Bonjour   .

6.6

NAS   .   QTS

@Recycle   .   (1- 180)

.

.   Samba, AFP   QNAP File Station

.
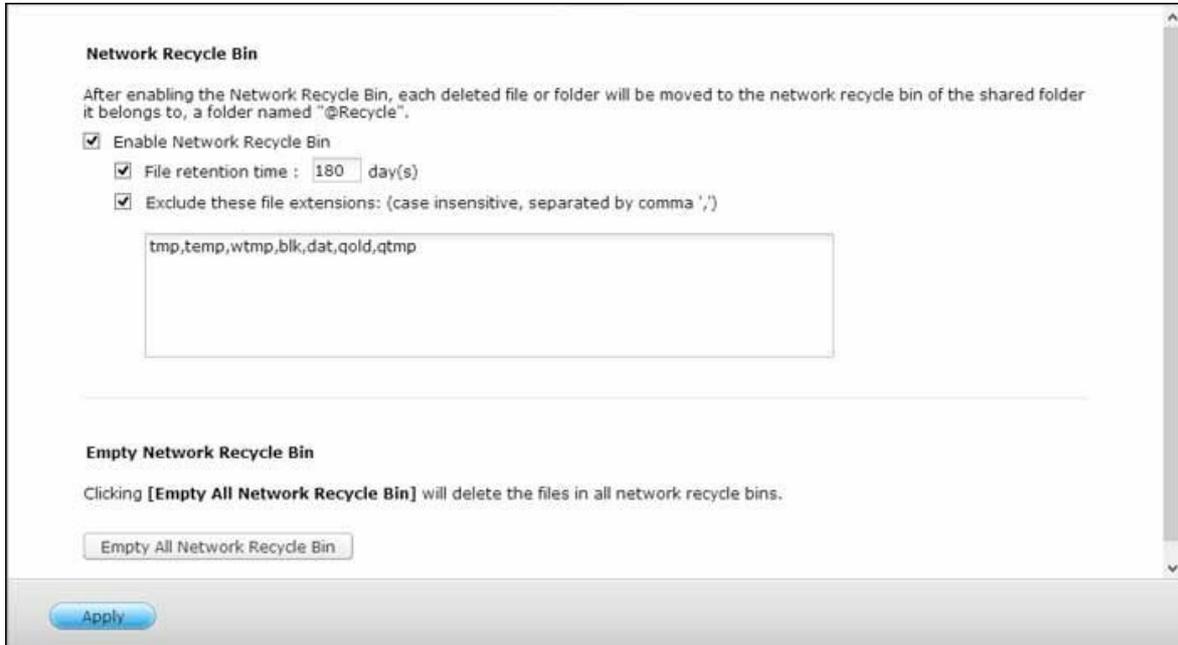
-                                 "Empty All Network Recycle Bin( )"   .

-                            @Recycle "RECOVER( )"   .

-                            @Recycle "Del (from recycle)"   .

-                                 "Empty Recycle Bin( )"   .

.   , "Control Panel( )" > "Privilege Settings( )" > "Shared Folders( )"   ,
"Action( )"   "Property( )"   "Restrict the access of Recycle Bin to administrators only for now( )"   .

> **:**   **"@Recycle"**   **"**
> **"**   .   USB/
> eSATA   .

6.7 Qsync

Qsync   QNAP Turbo NAS   .
      Qsync   Turbo NAS
            .

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

 1. **NAS**   .
Qsync   .
NAS   : "   " > "   " > "   " >   "   "   .
NAS   :   .

 2. **Qsync**
Qsync   .
                  "   "   (NAS   > NAS
        Qsync   > "   "   ) QNAP
            . "   " > "   " > "   ".
 •   Qsync   (Windows   )   .
 •   Qfile (iOS   Android   )   .

143

3. **NAS**

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

> **:**   NAS   IP   .
> IP   (: 8080)

Q s y n c

Windows   Qsync   Qsync   .
     Qsync   .
  Qsync   ,   (Qsync   NAS
)   .   PC   .

             . Qsync   Qsync
          NAS   Qsync   .
1. PC   Qsync   .
2.   (Qfile),   Qsync   .
3. NAS   File Station   Qsync   (   ).

> **:**
> -   Qsync   " "   Qsync   , Qsync
>   .   Windows   File
>   Explore   .
> - Qsync   LAN   50G   .
> - Qsync SAMBA, FTP   AFP   . File Station
>   Qsync   .
> - Qfile   .
>   .

                         Qsync
            .

Qsync   Qsync
.

Windows   :
1.   Qsync   "   "   .
2.   .
3. SSL   ,   "
     "   .

NAS   , File Station   Qsync   " "
   .

             , Qfile   Qsync
        " "   .

     .

                           .

             .

   :
1.   NAS   .
2.   Qsync   .
3.   Qsync   "
     "   .
4.   .

             .

   .

:
-                                       .
-                             .

N A S

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

:
-        NAS   LAN   .
-     NAS   LAN   ,
   myQNAPcloud   LAN   .

Qsync   Qsync   Qsync
                    .

          :
1. NAS   Qsync   Qfile
         APP Store   Qfile   .
2. Qfile   .
3.   "   "   .
4.   "   "   "   "   .
5. NAS   .
6.   .
7. "   "(/ Qsync/   )   "   "   .
8.   .
9. "WiFi   "   Wifi   3G
                                      .
10.   Qsync   Qsync
          .

              Qsync   .

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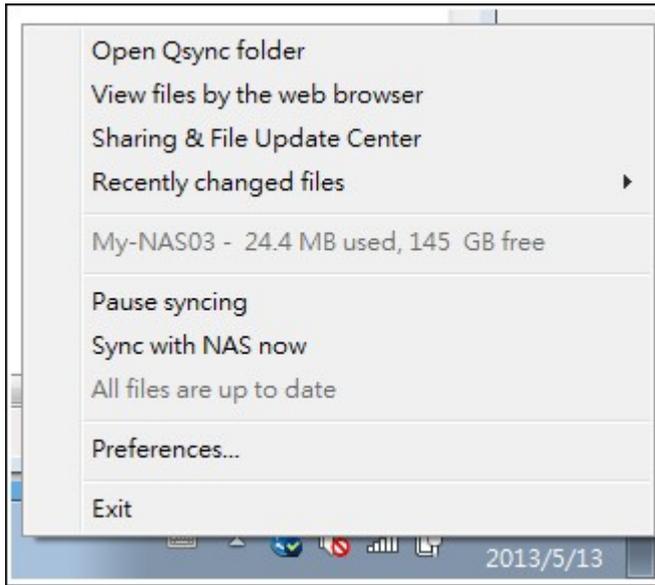
1.   NAs   :
   a. Qsync   : Qsync   .
   b.   : File Station(   )   NAS   Qsync
            .

2.   :
   a.   /   :   .
   b. NAS   : Qsync   .

3.   :
   a.
      i.   :   .
      ii.   :   .
               .
            .
   b.   :   .

4.   :
   a.   :
      i.   :   ."   "   .
      ii.   : Qsync   .
   b.   :
      i.   :   .
      ii.   NAS   . Qsync
             ,   NAS   . NAS
              .
   c.   :
      i.   :   Qsync (NAS)
               :
         1).   .
         2). NAS   .
         3).   NAS   .
         4). NAS   .
      ii.   : Qsync   :

1).   .

2).

3).   .

iii.   :   Qsync

.

d.   :

i.   :   . NAS SMTP
(NAS   )   SMTP   .

e.   :

i.   : USB   .
USB   DCIM
.

.

.   .

File Station   . File Station   Qsync
"Previous Versions(   )"   .   "More
Action(   )" > "Previous Versions(   )"   .
"Show Right Panel(   )" > "Version( )"
.   Qsync   . Qsync
"Previous Versions(   )"   .

"Restore( )"

.

- "Download(   )"   .
- "Delete All(   )"   .
- "Refresh(   )"   .

.   ,

.

Qsync   "More
Action(   )" > "Show Deleted Files(   )"   .
Qsync   "Previous Versions(   )"   .
"More Action(   )" > "Previous Versions(   )"
.   "Show Right Panel(   )" > "Version( )"
.

"Restore(   )"

- "Download(   )"   .
- "Delete All(   )"   .
- "Refresh(   )"   .

<div style="background:#fef9c3">

: "Delete All(   )"   "Refresh(
)"   ,   .

</div>

"Hide Deleted Files(
)"   .   "More Action(   )" > "Hide Deleted Files(
)"   .

, NAS   Qsync
"Version Control(   )"   .

"Enable version control(   )"   .
,
. "Enable version for my Qsync folder(Qsync
)"   .

Qsync   .
"Assign specific subfolder under the Qsync folder(Qsync   )"
"Add(   )"   .   5   .
"Delete(   )"   .   "Apply(   )"
"Apply All(   )"   .

:   .
.   .
"Disk Used for Version Control(   )"
"Check(   )"   .

<div style="background:#fef9c3">

:
-
.   .
- "Apply(   )"   "Apply All(   )"   .

</div>

Qsync

NAS   Qsync   .

1.   :   File Station   ,
            .   Qsync   (   ).

2.   :   Qsync   (
).

3.   :

          .

   a. PC   .

   b. Qfile   "Qfile-Android"   "Qfile-iPhone"   .

   c. File Station   Qsync   Qsync-File
   Station   .

4.   :   .

5.   :
       .

6.   :   .

7.

NAS   .

.

7.1

.

Antivirus
Overview | Scan Jobs | Reports | Quarantine

Antivirus
☑ Enable antivirus   Legacy ▾
Virus definitions: 2013/11/25 18:47
Last virus scan: 2013/12/09 00:00:01
Last infected file found: --
Status: --

Update
☐ Check and update automatically. Frequency in days: 1
Online update: [Update now]
Manual update (*.cvd): [   ] [Browse...]
[Import]
Update file available at: http://www.clamav.net

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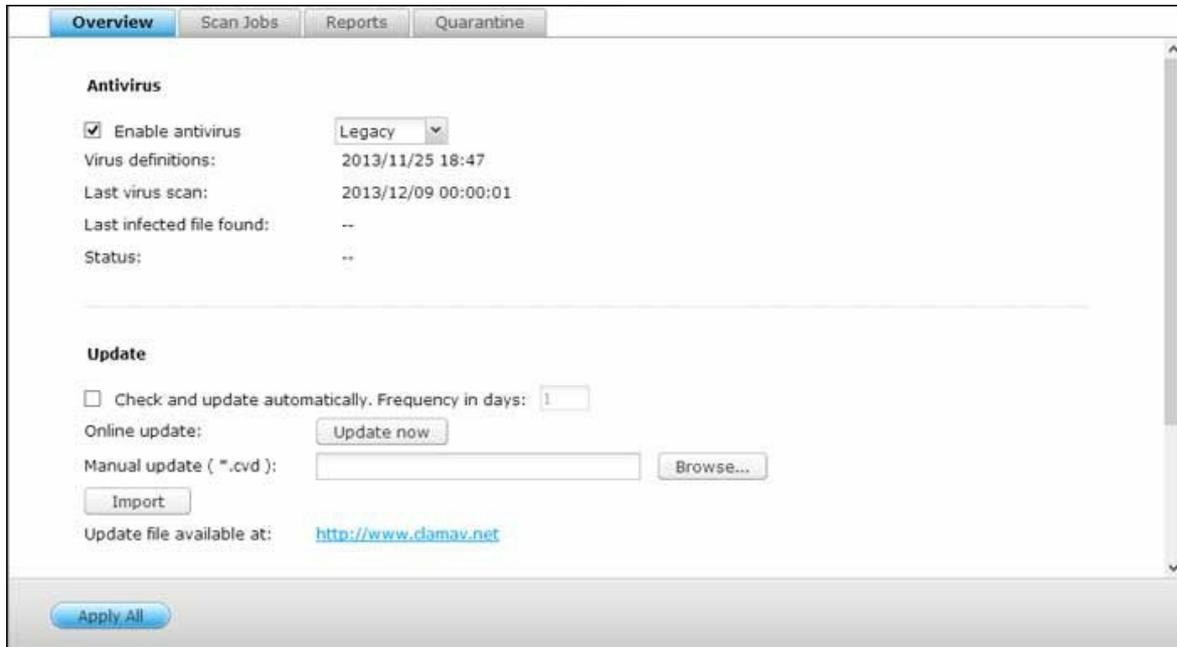
- **:** NAS , ,
  , ,
  . "Enable antivirus( )" "Apply( )"
  .
- **:** "Check and update automatically( )"
  .
  "Update Now( )" .
  http://www.clamav.net
  . NAS .
- **: NAS** . "Application Servers(
)" > "Antivirus( )" > "Quarantine( )" .

: : "Enable antivirus( )"
App Center 197 QTS .

NAS . 64 5
. .

1. "Application Servers(   )" > "Antivirus(   )" > "Scan Jobs(
)"   . "Add a Scan Job(   )"   .
2.   ,
        "Add(   )"   .
3.   .   "Delete (X)"
                          "Next(   )"   .   "Next(
)"   .   ." "   .
4.
        . "Exclude files or folders(   )"   ,
                                          .   ,
                                          .   :

   ○ /Public/testfile.txt

   ○ /Download

   ○ *.log

   ○ *.exe *.com

   ○ *.txt; "Next(   )"   .
5.   "Next(   )"   .
   ○   (1-4096 MB)   .
   ○   , "Scan compressed files(   )"
              .   (1-4096 MB)   .
   ○ MS Office   Mac Office   , RTF, PDF,   HTML   , "Deep scan for
      document files(   )"   .
6.   "Finish("
      .
   ○   :   "Reports(   )"   .
                                  .

   ○   :   .
         "Reports(   )"   "Quarantine(
)"   /   .
   ○   :   .
   ○   , "System
      Settings(   )"> "Notification(   )" > "SMTP Server(SMTP   )"   SMTP
                    .   "Finish(   )"   .
7.   .

▶		.
■		.
✎		.
🔍		. WordPad
		.
✖		.

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NAS   .

⬇️		. WordPad .
❎		.
		.

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

NAS   .
                                .

❎		. .
↩️		.
↩️🔍		( ).
		.
		. .
		. .

7.2

NAS   ,   ,   Backup Station   .

.

7.2.1

R s y n c

Rsync   NAS   Rsync   NAS
                    . Rsync   873   .
                                        . 0   .

- **Enable backup from a remote server to the local host(**
          ):   (NAS)   (NAS)
          .

- **Allow remote Rsync server to back up data to the NAS(Rsync**
  NAS   ):   Rsync   (NAS)
                    .   Rsync
  NAS   .

R T R R

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

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

IP   IP   IP   . "Read Only(
)"   "Read/Write(/   )"   . "Read/Write(/   )"
                    NAS   . "Finish (   )"
        .   "APPLY(   )"   NAS
        .

Tim e M a c h i n e

OS X   NAS   Mac
            .   .

NAS   :
1.   .
2.   .   .
3. NAS   .

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4.   . 4095GB   .
              0(   )   .
5. "Apply(   )"   .

                                                              .

Mac   :
1. Mac   "Select Backup Disk(   )"   .
2.   NAS   TMBackup   "Use for Backup(   )"   .
3. QNAP NAS   .   "Connect(   )"
         .
    ○   : TimeMachine
    ○   : NAS   .   .
4.   "ON(   )"   .
          ,   120   .

          Mac   .   Mac OS
  , http://www.apple.com   .

                                          .

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

7.2.2

N A S   N A S   R s y n c

Rsync   NAS   NAS   Rsync   .
NAS   "Main Menu(   )" > "Backup Station(   )" > "Rsync Server(Rsync
)"   NAS   Rsync   .

1.   "Create a Replication Job(   )"   .
2.   NAS   Rsync   .   ."   "
            .

3. IP   ,   ,   .
        873   .   /
                     . "Test(   )"   . "Apply(   )"
            .

4.   .

5.   .
                                              .   "Add(   )"
         .

6. "Backup frequency(   )"   .

7. "Options(   )"
   "Apply(   )"   .
   ○   :   . "Allow SSH
        connection" in "Network Services(SSH   )" > "Telnet/SSH(
          /SSH)"   SSH   .
   ○ Activate file compression(   ):
                                              .   WAN
                    .
   ○ Perform incremental replication(   ):
                                              NAS   .   ,   ,
                          .

   ○ Delete extra files on remote destination(   ):
                                              (   ).
                    .   .
   ○ Handle sparse files efficiently(   ):
                                              .

8. "Apply(   )"   .   .
                                  .   .

   NAS   .

> **: 5**   .
>   .

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▶		.
■		.
🔍		Rsync ( ).
✏		.
🚫		.
🔄		.

"Options( )" .

- Timeout (second)(( )): .
  .

- Number of retries( ): NAS
  .

- Retry intervals (second)(( )): .

, 600 , 3 , 60 , 600
. NAS 60
. NAS 60 .

R T R R

(RTRR)
(NAS NAS, NAS FTP , NAS
,). ,
.

, .

.

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 a Replication Job(   )"   .
2.   "NEXT(   )"   .
3.   "Next(   )"   .
             .   .
   -           ,   .
     -           (NAS   FTP   )
     -      (NAS   FTP   )
     -
   -          ,   .
     -
4. IP   .   (FTP   RTRR   NAS   ;   NAS   ).
   - **FTP   ** :   SSL/TLS(   )   FTP   . FTP   ,   .   /   . "   "   .
   - **RTRR   NAS   ** : RTRR   IP   .   . RTRR   8899   . RTRR   . "   "   .
5.   .
6.   5   .   "Add(   )"   . "   "   .
7.   .   ,   ,   .   :
   - Replicate Now(   ):   .
   - Periodically(   ):   .   5   .
   - Hourly(   ):   .   1   , 1:01, 2:01, 3:01...   .

- Daily( ):   .   ,   2   2   02:02
  .
- Weekly( ):   .
- Monthly( ):   .
- 1   :   1   1
  .

> **:**
> -
>   ,   .
> -   .
>   .
> - QTS 4.1   , RTRR   FTP   . FTP
>   (/)   .   FTP
>   .
> -   .
> - 7   "   " "1   "   .
> - RTRR   Rsync   Bandwidth Control(   )   (   )
>   NAS   QNAP NAS   3.6
>   .

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

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(　　　　　　　　)"

　　　　　　　　　　　.

　　　　　　　　. SMTP　　　　　　　NAS ("System Settings(　　　　　　)" > "Notification(

　)")　　　　　　　　　　　　.

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

　　　　　.

　　　　　　　　　　"Action(　)"　　　"View(　)"　　　　　　　　　.

　　　　　　　　. "Download Logs(　　　　　　)"

　　　　　.　　　　　Microsoft Excel

　　　. 　　"Options(　)" > "Event Logs(　　　　)"　　　"Download Detailed

Logs(　　　　　　　　)"

.

7.2.3

Amazon S3

Amazon S3 (Simple Storage Service)   AWS(Amazon Web Services)
                .
                        . Amazon S3   ,   NAS   Amazon S3
            Amazon S3   NAS   . http://aws.amazon.com
AWS   .   , Amazon S3
                    Amazon S3   (   )   .
Mozilla Firefox   "S3Fox"   .

Amazon S3   NAS   Amazon S3
                    .
1. "   "   .
2.   .
3.   "Upload(   )"   "Download(   )"
            .   Amazon S3   . "Test(   )"
                    .   .
4.   NAS   .
5.   .
6. "Finish(   )"   .   .

ElephantDrive

ElephantDrive   "Enable ElephantDrive Service(ElephantDrive   )"
            . ElephantDrive   .
                    "Create(   )"   . "OK(   )"   . "OK(
)"   .   "APPLY(   )"   . NAS
ElephantDrive   . NAS   ElephantDrive
    ElephantDrive   (http://www.elephantdrive.com/qnap)   .
ElephantDrive   .   (
https://www.elephantdrive.com/qnap).

Symform

Symform   , "Backup Station > Cloud Backup(   ) >
Symform"   . "Get Started Now(   )"   Symform
    . NAS   ,   ,   . "Configure(   )"
    .   "Sign-In(   )"   NAS   Symform   .
                                                .   .
                Symform   .

                    ,   Symform   . Symform
            ,   . "Cloud Dashboard(   )"
Symform   Symform
                    .

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Symform   :

- TCP   : 59234
- TCP   : Symform

  .

- TCP   .
- Symform   ,
  NAS   .
- Symform   .
  , NAS   Symform   .
                              .

7.2.4

NAS NAS   USB/eSATA
         .   .

1.   NAS   USB   eSATA (   )
        .

2. "Create a new job(   )"   .

3.   ,   "NEXT(   )"   .

4.   .

   a.   *   . NAS   EXT3, EXT4, FAT, NTFS,
      HFS+   .   .

   b. "Map this backup job to the volume ID only(ID   )"
                                              . NAS   USB/eSATA
                      NAS   .

   c.   .

   d. "Next(   )"   .

5.   . "ADD(   )"   .   5
            . "   "   .

6.   .
                        ,   ,   .
                                          .   :

   ○ Replicate Now(   ):   .

   ○ Periodically(   ):   .
      5   .

   ○ Hourly(   ):   ,   01   01
                                    , 1:01, 2:01, 3:01...

   ○ Daily(   ):   .   ,   2   2   02:02
            .

   ○ Weekly(   ):   .

   ○ Monthly(   ):   .

   ○   :   NAS   .

7.   , "Configure policy and filter(   )"
      "Next(   )"   . "   "   .   :

- Delete extra files(   ):   .

                                                                                  .

                        .

- Detect sparse files(   ):   .

○   .

- Check file contents(   ): 2   ,   ,   ,

                                      .   .

- Ignore symbolic links(   ):

                        .

8.   :
   - File size(   ):   .
   - File date/time(/   ):   .
   - Include file types(   ):   .
   - Exclude file types(   ):   .

9.   .   63

                  ."   "   .

10.   "Next(   )"   .

11. "Finish(   )"   .

12.   .

▶		.
■		.
✎		.
🔍	/	. .
✖		. .

                                  , "Edit(   )"   "Settings(   )" >
"Schedule Type(   )"   "Disabled(   )"   "OK(   )"   .

1.   , "Options(   )"   .

2. "Event Logs(   )"   "Download Detailed Logs(   )"

                                      .

            . SMTP   "System Settings(   )" > "Notification(   )"

                  .

3. "Policy(   )"   "Filter(   )"   .

            .

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

   Detailed Logs(   )"   .

2.　　　　"Action(　　)"　　　"View / Download(　　/　　　　)"　　　　　　　.

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

U S B

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

(　　)
　　　　　　USB　　　　　"Copy(　　)"
　　　　　　NAS　　　　　.
　.　　　　　　　　　　　　　　　　　　　.
　"USB One Touch Copy(USB　　　　　)"　　　　.

USB

　　　　　　"USB　　　　　"　　　　.

- 　　　 : 　USB　　　　NAS ,　　　　　　　.
- 　　 :
  - 　　　　　 :　　　　　　　　　　　　　　.
    　　　　　(YYYYMMDD)　　　.
    YYYYMMDD-1, YYYYMMDD-2...　　　.
  - Copy(　　):　　　　　　　　.
    　　.
  - Synchronize(　　　):　　　　　　　　.
    　　.

- Handle sparse files efficiently(　　　　　　　　　):
  　　.　　　　　　　　　　　　.

- 　　　　 :　　　　　　"Add (　　)"　　　.　9
  　　.

- 　 : "Options (　)"　　　　, SMS,　　　　(IM)
  　.

- USB　　　 :　　　USB LED　　　NAS　　USB
  　　8-10　　　　　　.

- 　　 :
  - 　　　　 :　　　　.
  - 　　　　 :　USB　　　　.

USB

NAS　　　USB　　　　　　　　　　USB　　　NAS
　　　　　　　　　　　.　　　　　　　　　　　.

1. 　　　　　NAS　　　　　　　　　　　　　.　　　　　Qusb/ Usb
　　.

2. NAS　　　.
3. "Backup Station > USB One Touch Copy(USB　　　　　　)"
　　　.

4. 　　　　　　　　　　　　USB　　NAS　USB　　　　　　.
5. 　　　　　　　. NAS　　　　　　　　　　　.

　　　USB　　　　　,
.

7.3 File Station

File Station   . File Station   NAS
                              ,   ,
              NAS   .
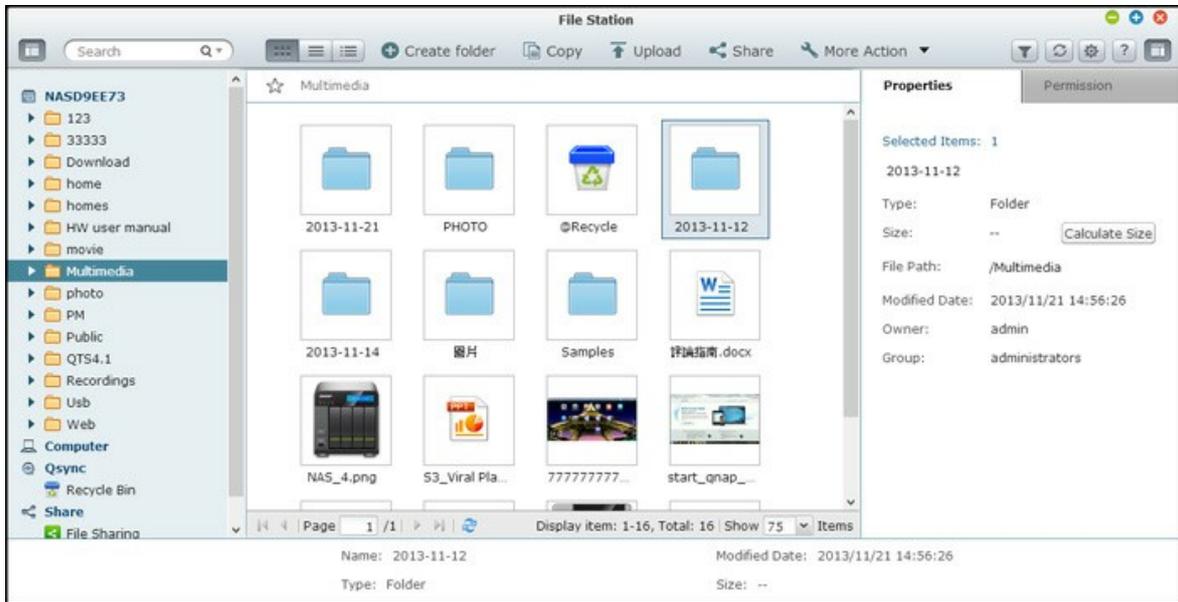
File Station

              File Station   File Station   File Station
          (http://NAS_Name_or_IP/cgi-bin/filemanager.html   ).

File Station

1		, (, ,) , .
2		(: / /).
3		.

4	/	/ / .
5		.
6		/ , / / .
7		• ("Favorites( )"). • . • (, NAS).
8		.
9		.
10		• PC / . • / .

- NAS . NAS , "Download( )", "home( )", "Multimedia( )", "Public( )", "USB" "Web( )" .
- : PC . Java JRE .
- Qsync: Qsync .
- .
- : .
- : .
- : "Calculate Size( )" .
- : . "Set file/folder level permission(/)" .

F i l e   S t a t i o n

, NAS( ) "+" , , , , "Create( )" .

	, , .
/	.
	• . • . • .
	.
	.
	.
	NAS .
	.
/	.
( )	.
/	/ .
	.
	"Favorites( )" .
(Zip)	.
	.

	, , .
/	.
	• . • . • .
	PC . .
VLC	(VLC).
	. . .
	.
	NAS .
	.
/	.
( )	.
/	/
	.
	.
(Zip)	.
ISO	iso . iso . iso iso "Unmount( )" .
	.

:

File Station　　　　　　　　　　　　, File Station　　　　　　(　 ,　　　　　　　　　)
　　. Media Viewer(NAS　　　　　　　　　　)　　　　　　　　　　.
　　　　　　　　　　　.

1	/	/
2		90　　　　　　　　/ (　　　　　　).
3		.
4		.
5		.
6		.
7		/ .
8	/	/ .
9		.
10		.
11		.

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/
File Station NAS ,   .
,   (,   )   (, AVI, MP3.)
.   . 1)
2)   .

- "Advanced Search(
)"   . (,   ,   ,   /   )
  "Search(   )"   .
  .

- "Smart File Filter(   )"
  . (,   ,   ,   /   )
  "OK(   )"   .   .
  .

/
File Station NAS   .
"Properties(   )"   .

"Privilege Settings(   )" > "Shared Folder(   )" > "Advanced Permissions(   )"
"Advanced Folder Permissions(   )"
.   ,   ,   .

- :
- :
- :   (   )   .

"Apply changes to folder(s), subfolder(s) and file(s)(,
)"   . "OK
(   )"   .
"Privilege Settings(   )" > "Shared Folder(   )" > "Advanced Permissions(   )"
"Enable Advanced Folder Permissions(   )"   ,
. +   .
"Add(   )"   .
" "   .
.
"Set(   )"   .

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

- •   :   1
                     .

- •   :
        .

- •   :
                        . "Only the owner can delete the contents(   )"
                 .

- •   ,   :
                                                                                          .

    "Only the owner can delete the contents(   )"
           .

File Station   NAS   .
1.   /   "Share(   )"   .
2. "Settings(   )"   .
    ○   .
    ○ NAS   IP   .
    ○ "Allow file upload to this folder(   )"
                                             (
).
    ○ SSL(   )   (
).
    ○ "Include the password in the email if the link is sent via email(
)"
              .
3.   "Send(   )"
           .   "Send(   )"   .

    WAN IP   .
4.   "Publish(   )"
                      .   .

7.4 LDAP

NAS   LDAP   NAS
.

L D A P

LDAP   .
1. LDAP   :NAS "admin"   . "Applications(   )" > "LDAP
   Server(LDAP   )"   LDAP   . LDAP   LDAP
                            , "Apply(   )"   .
2. LDAP   :"Users(   )"   , "Create a User(   )"
   "Create Multiple Users(   )"   "Batch Import Users(
)"   .   LDAP   . LDAP
    , NAS   . LDAP   NAS
                      .
3. LDAP   NAS   LDAP   NAS   , NAS   LDAP
        . "Privilege Settings(   )" > "Domain Security(   )"   . "LDAP
   authentication(LDAP   )"   "LDAP server of local NAS(NAS   LDAP   )"
                            .   "Apply(   )"   .   NAS   LDAP
                      .   , "Privilege Settings(   )" >
   "Users(   )"   "User Groups(   )"   "Domain Users(
)"   "Domain Groups(   )"   .
                      .

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

L D A P   /

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

:
- LDAP   ,   NAS

  .
- , LDAP   NAS

       .

---

4. LDAP   2   NAS   :

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7.5 MySQL

MySQL   .

- **TCP/IP   :**   NAS   MySQL
                                        .
  MySQL   NAS   .
          , MySQL   .
  3306   . NAS   Qweb/ Web   phpMyAdmin
          .   http://NAS IP/phpMyAdmin/   phpMyAdmin
    MySQL   .
- **   :**
  - ○   :   MySQL   "admin"   .
  - ○   :   MySQL

    :
- **   TS-x39/509/809   CD**
                                                        (http://www.qnap.
  com).
- **phpMyAdmin   .   MySQL Server**
                                        .
  http://NAS IP/   .
- **   phpMyAdmin   .**
                  .

7.6 RADIUS

NAS   ,   ,   RADIUS (Remote
Authentication Dial In User Service)   .
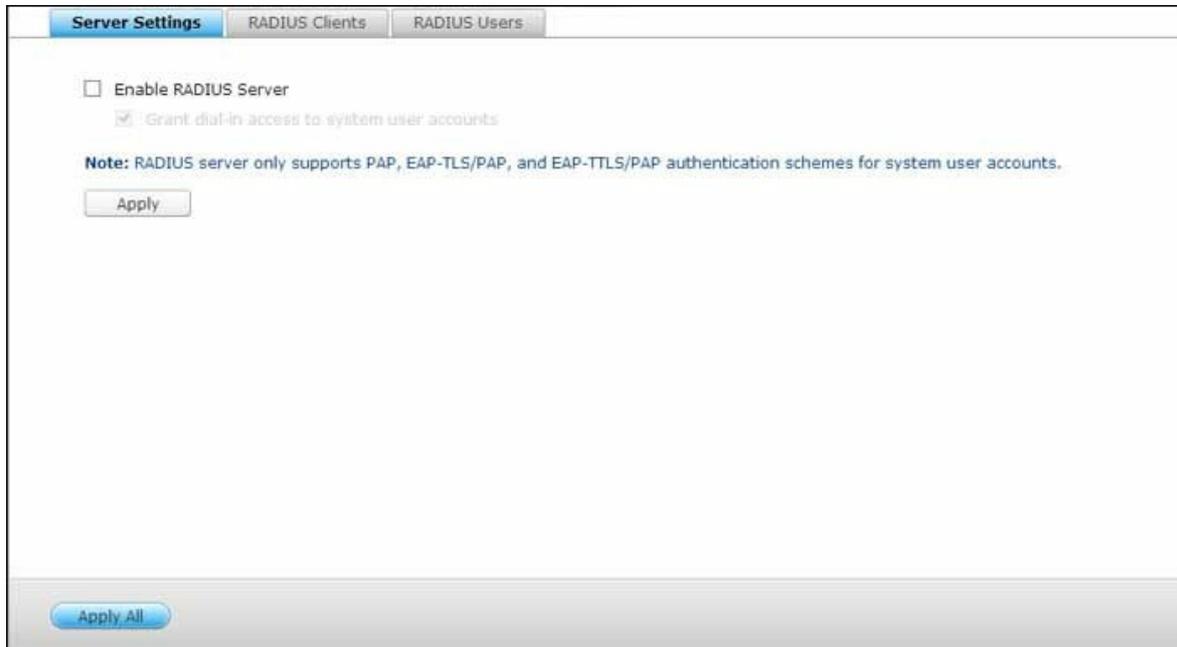
                                    .
1. "RADIUS Server (RADIUS   )" > "Server Settings (   )"   NAS   RADIUS
             . "Apply(   )"   .
2. "RADIUS Server (RADIUS   )" > "RADIUS Clients (RADIUS   )"   NAS   Wi-
   Fi   VPN   RADIUS   . RADIUS   10
                ."Create a New Client(   )"   .
3.   "Apply(   )"   .
4.   .
5. "RADIUS Server(RADIUS   )" > "RADIUS Users(RADIUS   )"   RADIUS
                        .   RADIUS
       . NAS   RADIUS   NAS
             .   Users 115(   )   . "   "   .
6.   .   (a-z   A-Z)   (0-9)
       .   8-32   (a-z, A-Z,   0-9   )   . "Apply(   )"   .
7.   NAS   .   NAS   NAS
                                    RADIUS
             . "Apply(   )"   .

: RADIUS   NAS   PAP, EAP-TLS/PAP,   EAP-TTLS/PAP
             .

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7.7 Syslog

NAS   Syslog   , Syslog   Syslog   .

- **   :** NAS   Syslog   syslog
  Syslog   . NAS   (TCP   /   UDP)
  syslog   .   514
        . "Apply(   )"   . NAS   syslog   ,
  syslog   NAS IP   syslog server IP   syslog
             .
- **   :** Syslog   (1- 100 MB),   (NAS   ),
                .   ,   MyLogFile_yyyy_mm_dd,
        MyLogFile_2011_12_31   .   ,
            MyLogFile_yyyy- mm- dd,   MyLogFile_2011- 12- 31
      .   MyLogFile_yyyy_mm_dd.[   ]
      .   , MyLogFile_2011_12_31.1, MyLogFile_2011_12_31.2,   . "Apply(   )"
             .

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

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

         syslog   .
           syslog   NAS   syslog
.

1. "Add a New Filter(   )"   .
2.   "Add (   )"   .   ,
   "Manual Edit(   )"   . "Apply ( )"
        .
3.   . NAS   syslog   .

▶		
⏸		
✎		

Syslog

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

7.8 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   (opentftpd.log)
                                        . Windows   Microsoft Excel, WordPad   Mac
              TextEdit   .
5.   .
6. IP   TFTP   "Anywhere(
)"   TFTP   .
7. "Apply(   )"   .

<div style="background:yellow">

      :   NAS   PXE   ,   NAS   IP   , DHCP
           , "Control Panel" > "Network" >   TFTP   IP   , LAN
       > "DHCP server(DHCP   "   "Edit(   )"   .   DHCP
Server(DHCP   )   .

</div>

7.9

QNAP　　　　　　Turbo NAS
　　　　. VMware vSphere, Microsoft Hyper- V, Citrix XenServer
　　　　iSCSI　VAAI, NAS　VAAI　ODX(　　　　　　　　　　　)
　　　　　　　　　　　,
　　　　　　　　　　　.　　　　　　　　　　　　　　　　QNAP　10Gbe
SSD　　　　　　　　　SSD　　　　　　　　　　　　　　　　　　　　　　.
　　　QNAP vSphere　　　　　　　　QNAP SMI- S
　　　.

> **:**　　　　　　　　　　　　　　　　　　　　　　　　　　　.
> 　　　.

Turbo NAS　　　　3　　　　　　　　　　　　　　　　　　　. VMware vSphere,
Microsoft Hyper- V　Citrix XenServer.　　　　　　　　　　　　　　　　.

iSCSI　VAAI　NAS　VAAI

Turbo NAS　VMware VAAI(　　　　　　　vStorage API)
　　. VAAI　　　　　　　　　　　　　　Turbo NAS
　　　　　　　　ESXi CPU,　　　　,　　　　　　　　　　　　　　　　.
VAAI　　　2　　　　　　　　　　　. 1) iSCSI　VAAI　2) NAS　VAAI.

iSCSI　VAAI　　　4　　　　　　　　　.
- 　　　　(　　　　　　　　　　　): EXSi　　　　　　　　　　　Turbo
  NAS　　　　　　　　　　　. 　　　ESXi
  　　　　　　.
- 　　　　(　　　　　　　　　): Turbo NAS
  　　　　. 　　　ESXi
  　　　　　.
- 　　　　　　: SCSI　　　LUN
  　　. 　　　VMware vSphere　　　　　　　　　　　ESXi
  　　　　ESXi
  　　　.
- 　　　　　　: 　　　　　　　　　　LUN
  　　.
　　NAS　　　　　　IT　　　　　.

NAS　VAAI　　　3　　　　　　　.

- : EXSi　　　　　　　　　　　　　　　　　　　　　　　　Turbo NAS　　　NAS
　　　　　　　　　　　　.　　　　　　ESXi
　　　　　　　　　　　.
- : vSphere
　　QNAP NFS
　　.　　　　　　　　　　　　　　　　　　　　　　　　NAS　　　　　　　　　IT
　　　.
- : QNAP NFS　　　　　　　　　　　(　　　　　　　　　　　　　　　)
　　　　　　　.　　　　　　　　　　/　　　　　　　　　(
　　　).

Turbo NAS　iSCSI　VAAI　NAS　VAAI　　　　　　　　　　　　(120　　　　　)
　　　　　　　　　　　　　. iSCSI　VAAI　NAS　VAAI
　　　.

ODX(　　　　　　　　)

Turbo NAS　Microsoft Windows Server 2012　　Hyper- V　　　　　　　　iSCSI
　　　　　　　(ODX)　　　. ODX　　　　　Windows
　　　　Turbo NAS　　　　　　.　　　Windows
　QNAP iSCSI　　　　　　　Windows 2012
　　. ODX　　　　　　　.

10 Gbe

10GbE(10　　　　　)
　　　　. QNAP　10GbE Turbo NAS　　　10GbE
　　　　. 10Gbe　,
　,　(　　　),
　.

SSD

SSD　　　　SSD　　　Turbo NAS　　　　　　　　　.
SSD　　　　　　　　　SSD　　　　　　. Turbo
NAS　SSD　　　　　,　　　.

vSphere

QNAP Turbo NAS　vSphere　　　ESXi　Turbo NAS　　　　.
　　vSphere　　　　　Client QNAP Turbo NAS
VMware　　　　QNAP Turbo NAS　　　. vSphere
　　.

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QNAP SMI-S

QNAP SMI-S   (SCVMM 2012)
.   Turbo NAS   SCVMM 2012   ,
                                      . QNAP SMI- S
.

7.10 VPN

NAS   NAS
(VPN)   .

NAS   VPN   .
1.   .
2. PPTP   OpenVPN   .
3.   .
4. myQNAPcloud   .
5. VPN   .
6. VPN   .

V P N

1.   ."admin"   NAS   "Applications(
)" > "VPN Service(VPN   )" > "VPN Server Settings(VPN   )"
        . "General Settings(   )"   , NAS
                                       .
2. PPTP   OpenVPN   :NAS   VPN   PPTP   OpenVPN

○ PPTP: (PPTP)   VPN

.   Windows, Mac, Linux, Android   iPhone   .
○ OpenVPN: OpenVPN   SSL   VPN

. OpenVPN   , PC   OpenVPN   .

"Download Configuration File(   )"   NAS   VPN

,   /   OpenVPN

.

3.   :NAS   UPnP(

)   . "myQNAPcloud" > "Auto Router

Configuration(   )"   UPnP

PPTP   OpenVPN   .

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   )"   .   NAS

. VPN   (PPTP, OpenVPN   )

. "Add(   )"   .

○ VPN   :   VPN   VPN

NAS   .

:

●   NAS IP   PPTP VPN   10.0.0.1   .

●   OpenVPN   , myQNAPcloud

OpenVPN   .

●   PPTP   ,   PPTP

. PPTP   TCP-1723   .   UPnP

.

V P N

W i n d o w s 7   P P T P

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   . "Connect(   )"

.

Mac OS X 10.7   P P T P

1. "Apple menu(Apple   )" > "System Preferences(   )"   "Network(

)"   .

2.   "Add(   ) (+)"   "VPN"   .

3.   NAS   VPN   .   .

4. "Server Address(   )"   myQNAPcloud   NAS   WAN IP   .
     "Account Name(   )"   , NAS   .

5. "Authentication Settings(   )"   ,
      .

6.   "OK(   )"   , "Connect(   )"   .

iOS 5   PPTP

1. "Settings(   )" > "General(   )" > "Network(   )"   "VPN"   .
2. "Add VPN Configuration(VPN   )"   .
3. "PPTP"   ,   ,   ,   .
4. "Settings(   )" > "General(   )" > "Network(   )" > "VPN"   "VPN"
     .

Windows   OpenVPN

1. http://openvpn.net   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**   Windows 7   , OpenVPN
>   .

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

"Control Panel(　　　)" > "Applications(　　　　　)" > "Web Server(　　　)"
　　　　　.
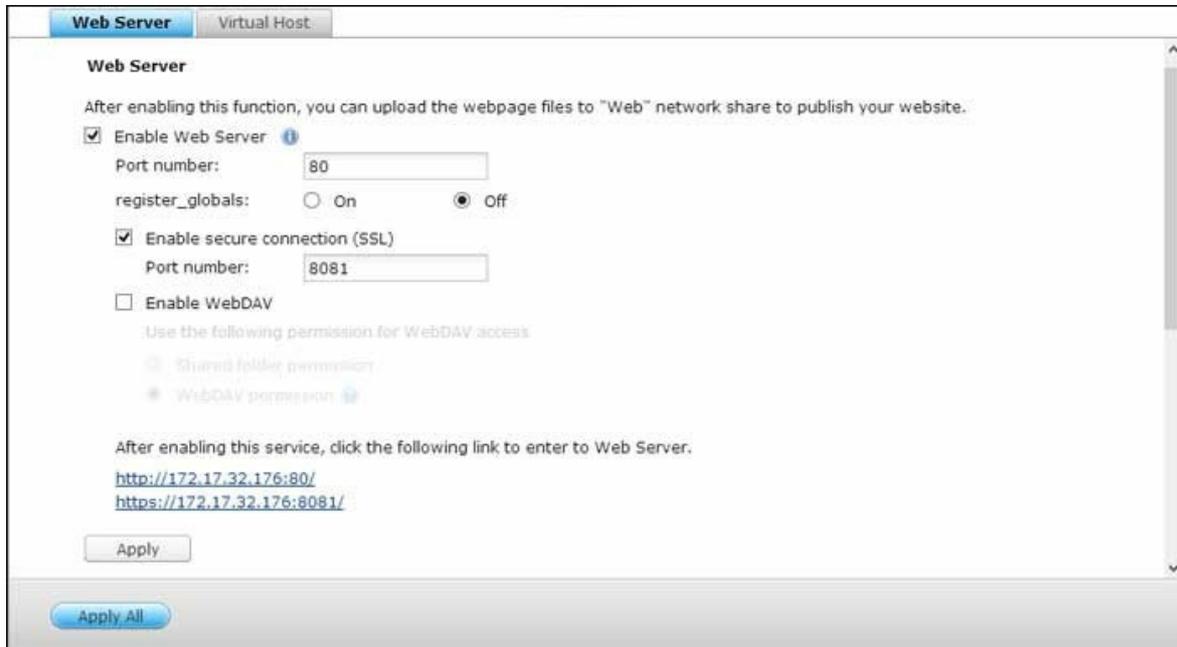
NAS 　　　　　　　　　　　　　　　　　　　　　　　　　　. NAS
　　　　　　　Joomla!, PHP　　MySQL　　　　　　　　.
　　　.
1. 　　　　　　　　　　　　　　　　　　　　　　　. 　　　　　　80　　　.
2. 　　　　　　　:
   a. register_globals　　　: register_globals 　　　　　　　　　.
      　　　　　　. 　　　　　　php register_globals
      　　　　　　　. 　　　　　　　　　　　　　　　　　.
   b. 　　　　: "Restore(　　)" 　　　　　　　　　　　　　　　.
   c. php.ini 　　　　: "php.ini Maintenance(php.ini 　　　)" 　　　　　php.ini
      　, 　　, 　　　　　　.
3. 　　　(SSL): SSL 　　　　　　　　　　　　.
4. HTML　　NAS　　　　(Qweb/ Web)　　　　　. index.html, index.htm
   index.php 　　　　　　　　　　　.
5. 　　　　　http:// NAS IP/ 　　　　　　　　　　　　　.
   　　　　　http:// NAS IP:8080　　　　　　　NAS
   　　.

> **　:**
> * 　　　　　　　　　　Music Station, Photo Station, Happy Get, QAirplay
>   　　　　.

Ｗ ｅ ｂ Ｄ Ａ Ｖ

WebDAV(Web-based Distributed Authoring and Versioning)　　HTTP(S)　　　　　　　　　　　　　　　　　　　　　　　　.

　　　　　　　　　NAS　　　　　　　　　　　　　　　　PC　　　　　　　　　　　　　.　　　　　　　"Privilege Settings(　　　)" > "Shared Folders(　)"　　　　　　　　.

NAS　　　　　　　PC　　　　　　　　　　　　　　　, WebDAV　　　　　　.

1. "Privilege Settings(　　　)" > "Shared Folders(　　)" >　　　. "Action(　　)"　　　　　"Access Permissions(　　　)"　　　　　.
2. 　　　　　　　　　　　　　"WebDAV access(WebDAV　　)"　　　　　　　　.　"Apply(　)"　　　　　　　　　　　.
3. 　　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. 　　　　　　.
8. 　WebDAV　　　.　"　"　　　.

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.   .

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   ,   .

MySQL

phpMyAdmin   NAS   MySQL
      .   URL   .

<div style="background-color: #fff4a3; padding: 10px; border: 1px solid #e0c000;">

   : MySQL   "root"   .   "admin"   . phpMyAdmin
                                              .

</div>

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

( )

, .

(32) NAS .

.

	WAN/ LAN IP		
site1.mysite.com	WAN IP: 111.222.333.444 LAN IP: 10.8.12.45 (NAS) : 80 (NAS)	/ Qweb/ site1_mysite	Joomla!
site2.mysite.com		/ Qweb/ site2_mysite	WordPress
www.mysite2.com		/ Qweb/ www_mysite2	phpBB3

.

- : "Applications( )" > "Web Server( )"

  .

- DNS : NAS WAN IP DNS

  ..

- " 80 , 80 NAS LAN IP (10.8.12.45)

  .

- SSL : SSL SSL

  , "System Settings( )" > "Security( )" > "Certificate & Private Key( )"

  .

.

1. "Enable Virtual Host( )" "Apply( )" .
2. "Create Virtual Host( )" .
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) .

http://NAS_host_name
https://NAS_host_name   .   URL
       .
http://site1.mysite.com
http://site2.mysite.com
http://www.mysite2.com
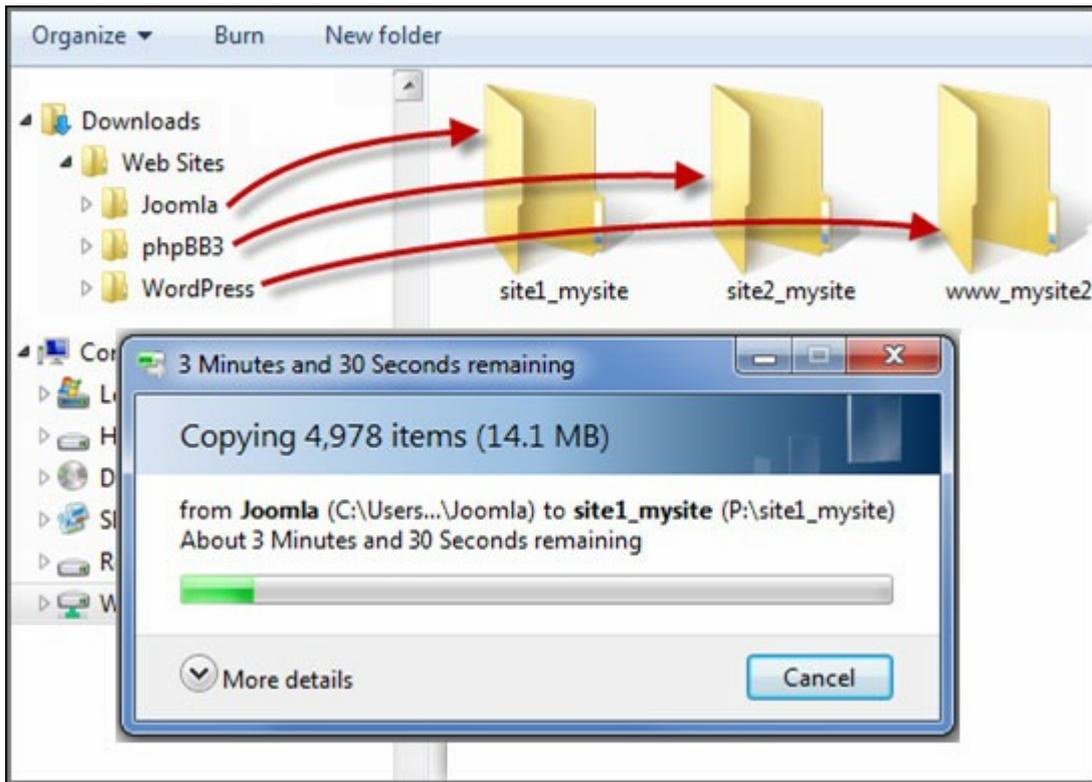
Joomla!, phpBB3   WordPress   .

195

8.

QNAP   .

                                          .

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8.1 App Center

App Center   NAS   .   QNAP
3   App Center   ,   ,   NAS
                                 .
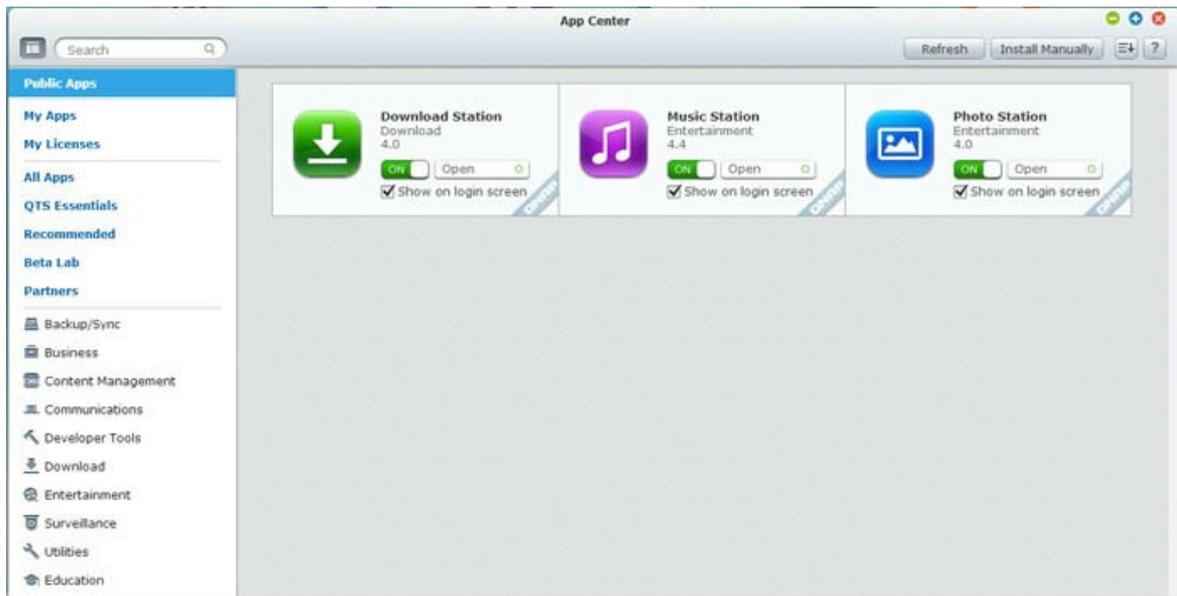
A p p C e n t e r

App Center   NAS   App Center   .

A p p C e n t e r

1		NAS .
2		NAS .
3		.

4		QPKG	.
5		,	.

- : .
  "My Apps( )" , "Show on login screen(
)" .
  .

  .

- : NAS .
- : NAS .
- : NAS

  .

- : NAS .
- QNAP : QNAP .
- : QNAP (QNAP
  3).
- : .
- : QNAP .
- : "Backup/ Sync(/)" "Education( )" ,
  .

App Center

.

,
"Add to QTS+(QTS+)" . .
"Add to QTS+(QTS+)" "Open( )"
. "My Apps( )"
.

"Update(   )"   "OK(   )"   .
              "Update All(   )"   "Refresh
(   )"   .   "Open(   )"
                                          .   ,
              .   "Remove(   )"   NAS   "OK(   )"
          .

NAS   QNAP App
                    QNAP   (http://www.qnap.com/go/qpkg.html)
        (http://forum.qnap.com/)   (*.qpkg)   .
              "Install Manually(   )"   .

8.2 DLNA

QNAP Turbo NAS   DLNA   : QNAP
      Twonky   DLNA   .
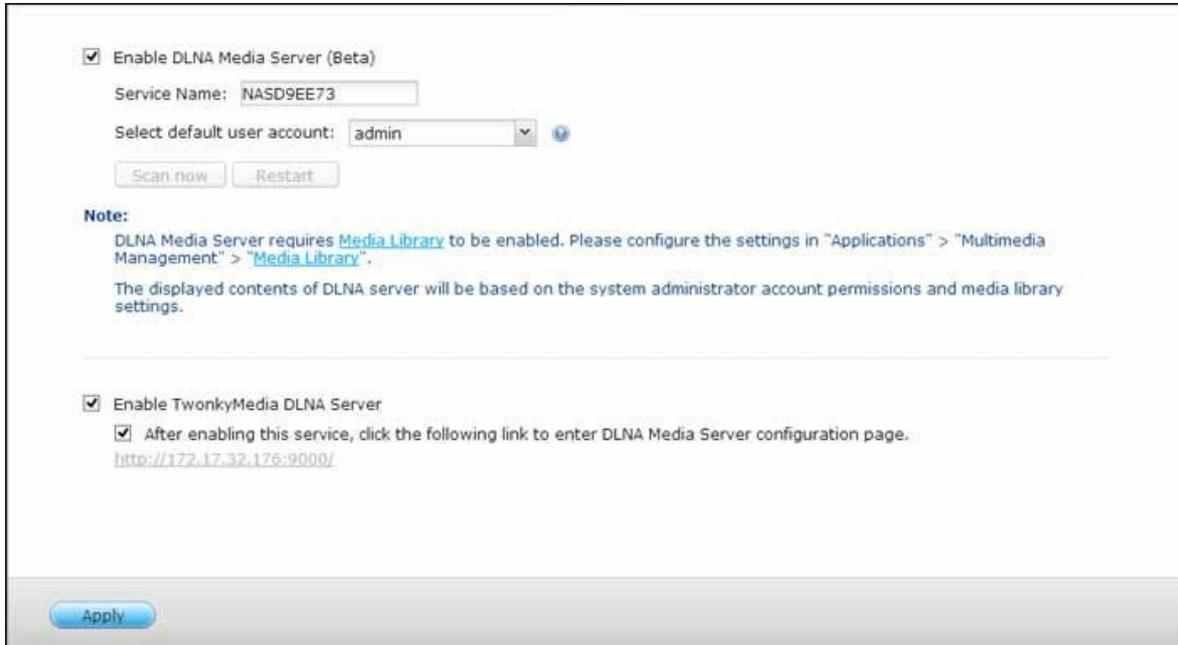
QNAP DLNA Media Server   QNAP   , Twonky Media DLNA Server   3
           . DLNA   QNAP DLNA Media Server   NAS
                                             , QNAP DLNA Media Server
Media Library   .

<table>
<tr><td>

:   :

                                       .   ,
                                                   .   Multimedia
    Management(   )   .   Shared Folder [119](
)   .

</td></tr>
</table>
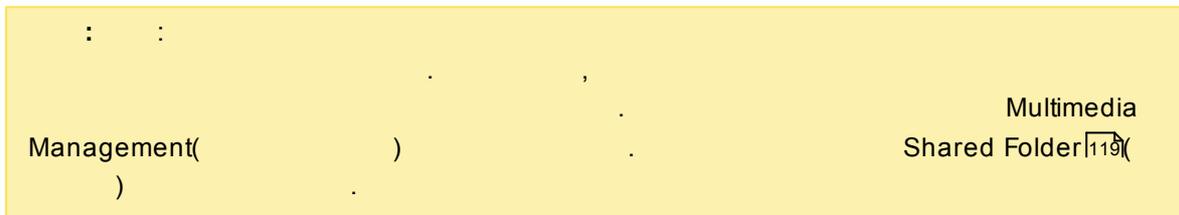
DLNA   Twonky   DLNA   NAS
                                 (http://NAS IP:9000/)   TwonkyMedia DLNA
                  .   http://NAS IP:9000/   . "TwonkyMedia Settings
(TwonkyMedia   )" > "Basic Setup(   )"   . NAS
Qmultimedia   Multimedia
                    . "Basic Setup(   )" > "Sharing(   )" > "Content Locations(
)"   .
mp3,   NAS   .

<table>
<tr><td>

:

         ,   "Rescan content directories(   )"
    "Restart server(   )"   .

</td></tr>
</table>
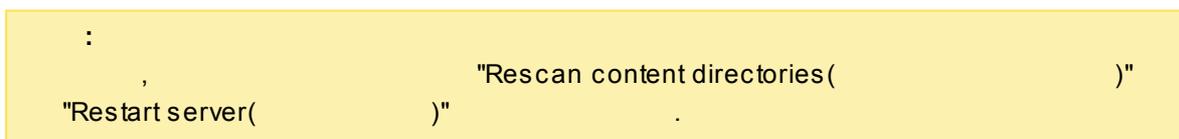
8.3 Download Station

Download Station   BT, PT, Magnet Link, HTTP/HTTPS, FTP/FTPS
            RSS   . BT
BT   NAS
    .
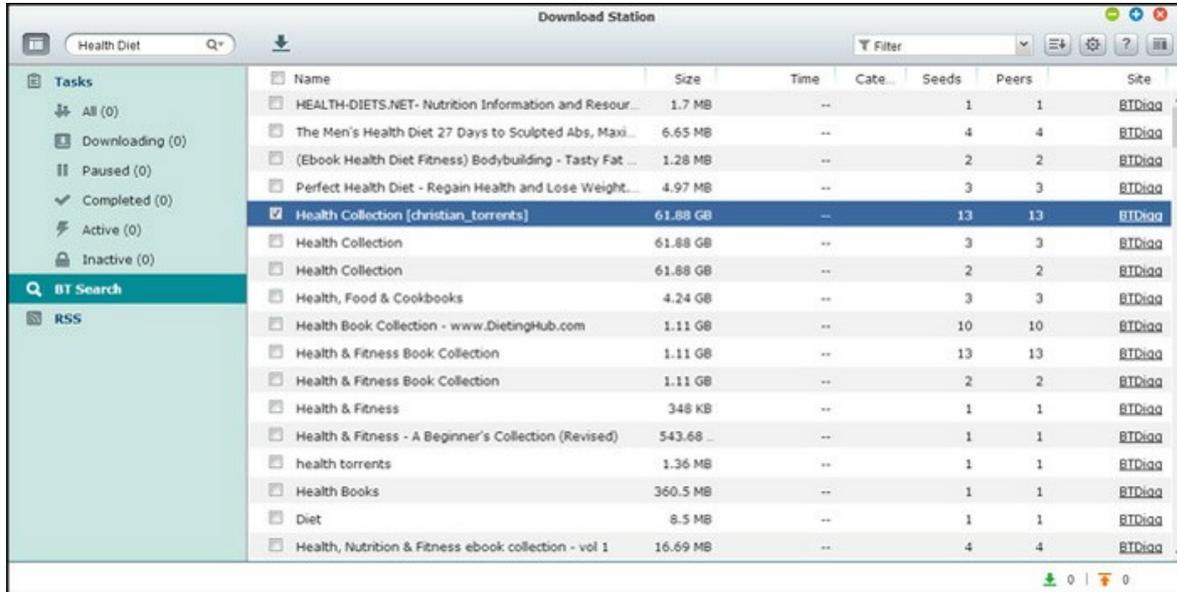
Download Station

NAS   Download Station
            .   App Center   , Download Station
            (QTS 4.1   )   .
Download Station   Download Station   Download Station
        (http://NAS_Name_or_IP/cgi- bin/Qdownload/qdownloadindex.cgi
).

Download Station
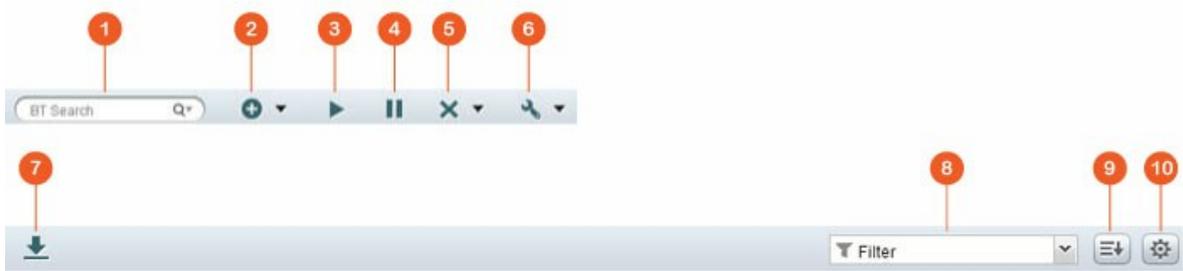
1		. BT . BT > "BT" > "BT Search( )" "Settings( )" .
2		URL PC BT .
3		BT
4		BT
5		BT BT
6		, , , .
7		BT , .
8		BT .
9		.
10		BT RSS (Download Station .

- : BT (, , ,
  ,). , , , BT
  ( ) .
- BT : BT BT . BT
  ( ) , URL
  .
- RSS: RSS , , .

Download Station

202

"Settings(   )"   Download Station   .

- •   :   .
     "Full speed(   )"   (   )
               . "Limited(   )"
  .
- •   : NAS   .
- •   :   . SMTP
  "System Administration(   )" > "Notification(   )"   .

H T T P
- •   :   HTTP   .
- •   : HTTP   . 0
    (Intel   NAS   HTTP   FTP   30   (Intel
) ARM   NAS   10   ).

F T P
- •   :   FTP   .
- •   : FTP   . 0
    (Intel   NAS   HTTP   FTP   30   (Intel
) ARM   NAS   10   ).

B T
- •
    ○ BT   .   6881- 6889   .
    ○ UPnP   : UPnP   .
    ○ DHT   :   NAS
      DHT(   )   DHT   UDP
            .
    ○   :   .
- •   : BT   . 0   .
    ○   : BT   (Intel   NAS
                          30   (Intel   ) ARM   NAS   10
).
    ○   (KB/ s): BT   . 0
            .
    ○   (KB/ s): BT   . 0
            .
    ○   (KB/ s):   . 0
            .
    ○   :   .

○　　　　　　　　　　　　　　：　　　　　　　　　　　　　　　　　　　　　.

　　●　　　　　：　　　　　　　　　　　　　　　　　　　　　　　　　　.
　　　　　　　　　　　　　　　　　　　　　.

　　●　　　： BT　　　　　　　　　　　　　.　　　　　　　　　　　　　IP,　　　,
　　　　　　　　　　　　　　　　　　.

　　● BT　　： BT　　　　　　　　Download Station　　BT　　　　　.

　　64　　 HTTP　 FTP　　　　　　　　　　　　　.　　　　　　　　　　　　"Add
Account(　　　　)"　　　　　.　　　　　　　IP,　　　　,　　　　　　　　.
HTTP,　　 FTP
　　　　　"Enabled(　)"　　　　　. "Apply(　)"　　　　　　　　"Cancel(　)"
　　　.　　　　　　　　　　　　　　　"Edit Account(　　　)"
　)"　　　　.　　　　　　　　　　　"Delete Account(　　　　)"
　　.

R S S
　　： RSS　　　　　　　NAS　RSS
　　　　　.

D o w n l o a d   S t a t i o n

　　　　　　　　　　　　.

1.　　　　　PC　　Download Station　　BT/PT　　　　　　　　"+"
　 BT/PT　　　　　URL (HTTP/FTP/Magnet　)　　　　.
2. BT　　　　　　　　　　　　BT　　　　　　　　.
3.　　　　　"RSS"　 RSS　　　　　. Download Station
　　　RSS　　　　.

<div style="background-color:#ffffcc">

　　：
● Intel　 NAS　　　　　　60　 (BT/PT　　30, HTTP+FTP
　 30).
● ARM　 NAS　　　　　　20　 (BT/PT　　10, HTTP+FTP
　 10).
●　　 PC　 Download Station　 BT/PT　　　　　 Chrome　 Firefox
　　　.

</div>

H T T P ,   F T P ,　　M a g n e t
HTTP, FTP,　 Magnet　　　　　,　　　"Start(　)"　　.
　　　URL　　 (　　　　).　　　　　. HTTP/FTP
Magnet　.　　　　　"Use credentials(
　)"　　　　(　 > 　)
. "OK(　)"　　. NAS　　　　.

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B T

"Edit Downloads( )" BT
.

/
Download Station "Settings( )" > "HTTP", "FTP" "BT" >
"Bandwidth Limit( )"

"Settings( )" > "Global( )" > "Download Schedule(
)" . "Full speed( )", "Turn off
( )" "Limited( )"

"Settings( )" > "Global( )"> "Notification( )" "Email( )"
.

R S S
Download Station RSS .
1. "RSS" "+" RSS .
2. URL .
3. RSS ,
, "Download( )" .
4. NAS .
.

RSS RSS . RSS
RSS , , .

R S S
RSS BT
.

- , RSS , "Add( )"
.

- .
- RSS .
- (
"All( )").
- : .
TV 1 1- 26 1x1- 26 .
1 1 1x1 .

- RSS   . NAS   RSS

                                                 .

- "Apply(   )"   "Cancel(   )"   .
- •   "Delete(   )"   .

B T

"Settings(   )" > "BT" > "Bandwidth Limit(   )">"Seeding Preferences(
)"   .

                             "Share Ratio(   )"   "Share Time(   )"
BT   .

<div style="background:#bfe3f0;">

B T   "Settings(   )" > "BT" > "Bandwidth Limit(
)">"Seeding Preferences(   )"   .
"Share Ratio(   )"   "Share Time(   )"   BT
                        .

     B T   **B T**
                                                                             .

1.
                           .
2. NAS   IP   DNS   DNS
                                         .
3.   3- 5   .
4. NAS   NAT   .   BT
                                                    .   .
   a. BT   NAT   .   NAS   LAN IP   .
   b.   NAS   UPnP NAT   .   NAT
      UPnP   , NAT   .
      NAS   UPnP NAT   . BT
                           .

</div>

8.4 HD Station

HD Station   XBMC   Chrome   NAS
                 HDMI   TV

.

H D   S t a t i o n

.

1. **HD Station**   **. HDMI**   **NAS   HDMI TV**

   .

   ○   : HD Station   4   .
     ▪ QNAP
     ▪ MCE
     ▪ USB
     ▪ Qremote: HD Station   QNAP   .

2. **HD Station**　　　　　　　**:**
　　○ "Applications(　　　　　　)" > "HD Station"　　　　 "Get Started Now(　　　　　　)"
　　　　　　　　　　　. 　　　　　　　　　　HD Station　　　　　　　　.

3. 　　　　　　　　　　　　　　**.**
　　○ HD Station: TV　　　　　　　　　　　　　　　　　　HD Station　　　　　.
　　○ XBMC: TV　　　　　　　　　　　　　　　　　　　　　　　.
　　○ Chrome: Chrome　　QNAP Turbe NAS　HDTV　　　　　　　　.
　　　　　　　　　　　　　　.
　　○ YouTube:　　　　　　　　　　　　　　YouTube　　　　TV
　　　　.
　　○ My NAS:　　NAS　　　　　　　　　　NAS
　　　　.

　　TV　　　　　　　　　　.　　　　　　　　　　HD Station
　　.

4. **HD Station**   . **HD Station**

                                   .

XBMC   TV   ,   ,

     .

T V

                 Qfile   .

a. Qfile   NAS   .

b.   .

c.   .

d.   NAS   .

       TV   HD Station   .

e. TV   XBMC   .

f. "Pictures( )"   .

g. "Multimedia( )"   .

h.   .

U S B

     :

a. USB   NAS   USB   .

b. "Pictures( )"   .

c. "USBDisk"   .

d.   .

        N A S   .

(Samba, AFP, FTP, NFS)   "Multimedia(
)"   "Qmultimedia"   USB   eSATA
                                        .

    "Multimedia(   )"
                            .

1. "Videos(   )"   "Files(   )"   .
2. "Add Videos(   )"   .
3. "Browse(   )"   .
4. "Root filesystem(   )"   .
5. "share(   )"   .
6.   "Download(   )"   "Download(   )"
                .   .
7. "OK(   )"   .
8.   "Download(   )"   .

Chrome
          HD Station   Chrome   .   PC
                                        .

YouTube
HD Station   YouTube   .

MyNAS
    NAS   NAS   .

H D S t a t i o n

HD Station   "Settings(   )"   HD Station   .
●   :   .
●   :
                    .
●   :   .
    HDMI   . USB   NAS
        .

210

:
- QNAP   MCE   .   TS-x69
  TS-x70   MCE   .
-     TS-x69   HDMI Audio Passthrough   .

POWER — 1
MUTE — 2
3
@:/ ABC DEF — VOL —
1 2 3 — 4
GHI JKL MNO
4 5 6
PQRS TUV WXYZ LIST/ICON
7 8 9 — 5
SEARCH -,?! TV OUT SETTINGS
6 — 0 — 7
8
9 — 11
10 — 12
BOOKMARK REPEAT GUIDE RECORD
13 — 15
14 — 16
CH— CH+ GO TO INFO
17 — 19
18 — 20
HOME RESUME
21 — 22
23
24 — OK — 27
25
26
RETURN OPTIONS — 29
28
FR PLAY FF
30 — 31
SLOW PAUSE STOP
32
33 — 35
34
AUDIO TOP MENU SUBTITLE
36 — 38
37
ZOOM POP UP ANGLE
39 — 40
41

QNAP

	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					
	- ( )	9		- ( )	3		
	( )	10		( )	4		
	( )	11		( )	22		
	( )	12		( )	23		
		13					
		14					
		16					
		15					
	CH-	17			32		
	CH+	18			33		
		20					
		19			10		
		21					
		22					
		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　　iTunes　　　　　　　　　　NAS　　　　　　　　　,　　　 ,
　　　.

iTunes　　　　　　　　,　　　　　iTunes(www.apple.com/ itunes/)　　　　　 .
　　　　NAS　Qmultimedia/ Multimedia　　　　　　　　　　　　 .
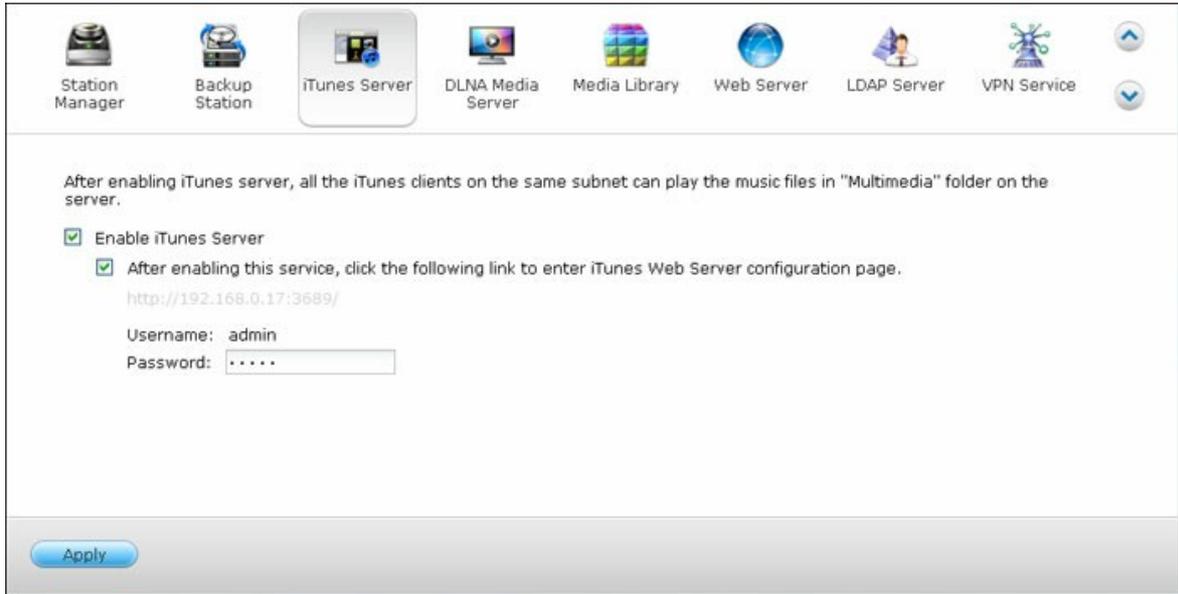
<table>
<tr><td>　　 :　　　　　　　　　　　　iTunes　　　　　　　　　　　　　　　 : x70U, x79
Pro　x79U. iTunes　　　　　　　　　　　　39　　　"System Administration(
　　)"　　　　　　　 .</td></tr>
</table>

iTunes　　　　　　　　　　　　　　　　　　,　　iTunes
　　　.
http://NAS-IP:3689/index.html. PC　NAS　　　　　LAN　　　　　PC　　iTunes
. "SHARED(　　)"　　NAS　　　　　　　　　　　　　　　　　　 .

216

8.6

,   ,

.   ,

.

- **   :**   .
  - ○   :   .
  - ○   :   .
  - ○   : "Scan now(   )"   .
- **   :**   - UTF
.   .
- **   :**   NAS
.

.
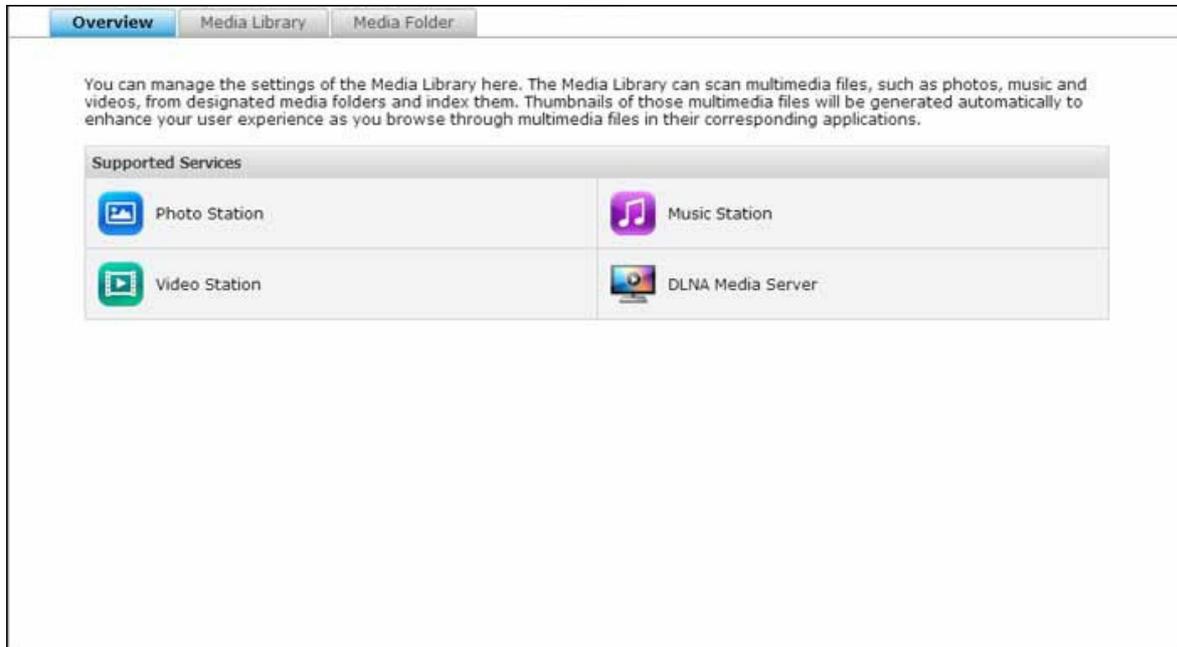
(, NAS   ).
, "Deactivate Media Library(   )"
.   Photo Station, Video Station,   Music Station
, DLNA Media Server   .
, "Activate Media Library(   )"   (
"Deactivate Media Library(   )"   "Activate
Media Library(   )"   ).

> **:**
> - x70U, x79 Pro   x79U   iTunes Server
>   . iTunes   ,   39   "   "
>   .
> -   Photo Station   Music Station
>   DLNA Media Server   .
> - :   400
>   .

                    ,   ,   NAS   . "/
Multimedia(   )"   "/Home(   )"   NAS   (QTS 4.1
          NAS
).   ,   "Add(   )"   ,
    , "Add(   )"   .   ,
                         "Apply(   )"   .   ,
                  "Delete(   )"   "Apply(   )"   .

8.7 Music Station

Music Station 4.0   .
          NAS
                                                          . Turbo NAS
                                        .

M u s i c   S t a t i o n

NAS   Music Station
                    .   App Center   , Music Station
              (QTS 4.1   )   .   Music Station
          .
 1. NAS   . NAS
              . 1)   PC   Mac   Qfinder
                                        .
    Connecting to NAS   24   ; 2)
    "Songs(   )"   "Private Collection(   )"   (   )
      (   )   PC   .
                                        Turbo NAS
                  ("Songs(   )"   ,   "Multimedia(
)"   "Private Collection(   )"   "/home(   )"
).   "Recently Added(   )"
                  . 3)
              .   NAS
                                        .

:

2.   Music Station   Music Station   Music
    Station   (http://NAS_Name_or_IP/musicstation/
).

M u s i c   S t a t i o n

1		, , .
2		(: / / /), .
3		.
4		.
5		, NAS , .
6		.

1		.

2	/	/	
3		.	
4		/ .	
5		.	
6		, , .	
7		.	
8		.	

- , , :   ,
         , ,   . Songs( )
         PC   .   /
Multimedia   .
- : "Now Playing(   )"
                              .

- : "/home"   .
                              .

- Qsync: Qsync   .
- :   ,   .   200
                              600   .
"Playlist(   )"   "+"   .
                    .   "Now Playing(
)"   .
- :   1   .
         .
      "Rating(   )"   .
- :   .
- :   .
- :   URL   TuneIn Radio
                              .   1,024   .
      URL   MP3   .
- TuneIn: TuneIn   .
- :   .
         .

:
- "Playlist(   )"   . / | \ : ? < > * " ' $.
- "Recently Added(   )"
         .

1		.
2		.
3		"Songs( )" (, .)
4		. "Send( )" . . , "Control Panel( )" > "System Settings( )" > "Notification( )" > "SMTP Server( )" .
5		. .

6		.
		
		                            "Link Code( )" ,
		       , LAN IP WAN IP (myQNPcloud.
		com myQNAPcloud
		                 . myQNAPcloud
		                 ). "Save( )" .
		                                                   .

M u s i c   S t a t i o n

Music Station   .

, "Playlist( )"

"OK( )" . "Now Playing(

)" , , , , ,

(, "Playlist Settings

( )" "Share with the public( )").

:

NAS (NAS

/

), (

) .

, "Email( )" ,

, "Link Code( )" ,

.

.

, .

, "Sharing( )" "Songs( )"

"Email( )", "Social Sharing(

)", "Link( )" . ,

, "Playlist( )" .

, .

.

- / /

.

- , "Info( )"

.

- ,

Ctrl

.

, ,

"My Favorites( )" .

Music Station ( )
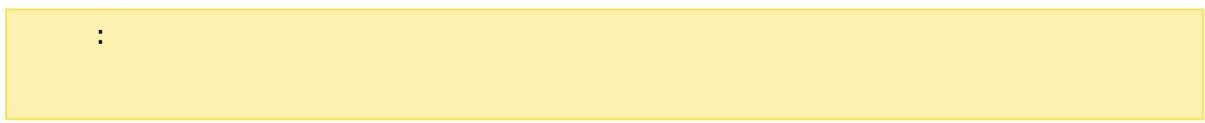
. ,

Music Station . /

, .

:

223

　　　　　　.

　　　, "Control Panel(　　　)" > "Multimedia Management(　　　　　　)" > "Media Library(　　　　　　)"　　　.　　　　　　　　　　　　　Multimedia Management(　　　　　　)　　　　　　.

8.8 myQNAPcloud

myQNAPcloud   ,   NAS IP   ,
UPnP   . myQNAPcloud   NAS
                              UPnP
            NAS   .
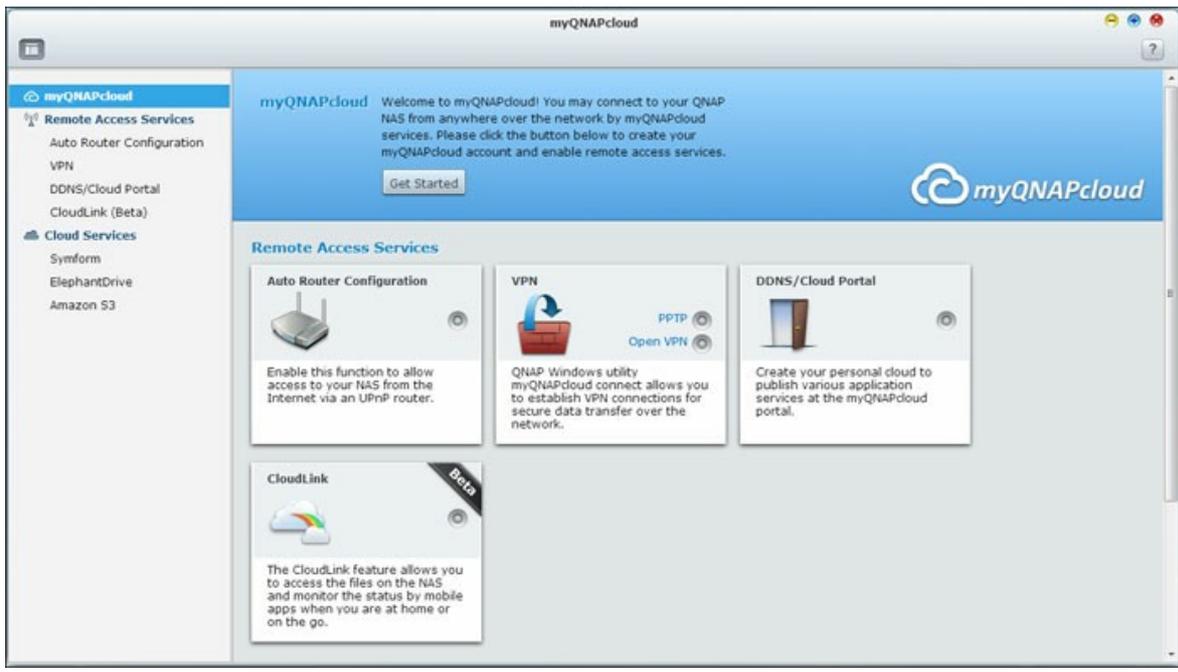
MyCloudNAS   NAS   UPnP   .

m y Q N A P c l o u d

myQNAPcloud   myQNAPcloud
              .   :
1. "Get Started(   )"   .
2. "Start(   )"   .
3.   "Next(   )"   myQNAPcloud
            .("Sign in myQNAPcloud account(myQNAPcloud
)"   myQNAPcloud   .)
4.   QNAP NAS   "Next(   )"   .
5.   .
6.   "Finish(   )"   .
7.   .
                                                            "Confirm Registration(   )"
              .

m y Q N A P c l o u d

myQNAPcloud   "Manage myQNAPcloud Account(myQNAPcloud   )"

      http://www.myqnapcloud.com   . "Enter device name(
)"   ID   "My Devices(   )"

   , DDNS   , LAN   WAN IP   .   "My Account(   )"

                                                                                  .

m y Q N A P c l o u d   N A S

myQNAPcloud   NAS   NAS   "Go(
)!"   .   NAS   .

           .

<table>
<tr><td>:   NAS   DDNS/</td></tr>
<tr><td>   .</td></tr>
</table>

"Remote Access Services(   )" > "Auto Router Configuration (
)"   UPnP   /   .   UPnP

                NAS   .

<table>
<tr><td>:   2   NAS</td></tr>
<tr><td>   .</td></tr>
</table>

                    UPnP   "Rescan(   )"
         "Diagnostics(   )"   . UPnP   NAS
                   ,   (!)   "UPnP Router Compatibility Feedback..(UPnP
            ..)"   .   (http://www.qnap.com/go/
compatibility_router.html)   .   NAS   .
"Apply to Router(   )"   . NAS   UPnP
         .   NAS   .

<table>
<tr><td>:</td></tr>
<tr><td>• 3   NAS   UPnP   NAS   .</td></tr>
<tr><td>   UPnP</td></tr>
<tr><td>   .   :</td></tr>
<tr><td>•   : http://www.qnap.com/go/notes.html</td></tr>
<tr><td>•   : http://www.qnap.com/faq</td></tr>
<tr><td>• UPnP   : http://www.qnap.com/UPnP_Router_Compatibility_List</td></tr>
</table>

D D N S / C l o u d P o r t a l

                        ,   ,   , File Station   NAS
http://www.myqnapcloud.com   .

NAS

. "Remote Access Service(   )"   My DDNS   NAS
WAN IP   NAS   myQNAPcloud   . myQNAPcloud
                NAS   UPnP   .

                    .

1. "Remote Access Services(   )" > "DDNS/Cloud Portal(   )" >
   "Cloud Portal(   )"   NAS   . "Publish(   )"
   NAS   myQNAPcloud   . "Private(   )"   NAS
                                . myQNAPcloud
   myQNAPcloud   .   NAS
                    myQNAPcloud   (http://www.myQNAPcloud.com)
                    .

2. myQNAPcloud   : 6-16   (a-z, A-Z,   0-9   )   .
                NAS   myQNAPCloud   NAS
                    .

3. "Add Users(   )"   myQNAPcloud   NAS
                    9   NAS   .
4.   . myQNAPcloud   (VPN)   /
   myQNAPcloud   . "Apply(   )"   . "Apply(   )"   .
5.   myQNAPcloud   ,   "Send
   Invitation(   )"   .
6.   . "Send(   )"   .

CloudLink(   )

CloudLink   UPnP
QNAP NAS   QNAP   .
        "Enable CloudLink (Beta) service("CloudLink(   )   )"   .

8.9 Photo Station

Photo Station(4.0)   Turbo NAS   (   )

                                                              .

            Photo Station   ,

                                                                      , NAS

                                                    .

      .

P h o t o S t a t i o n

NAS   Photo Station

                  .   App Center   , Photo Station

            (QTS 4.1   )   .   Photo Station

            .

1. NAS   . NAS

                  . 1)   PC   Mac   Qfinder

                                          .

            Connecting to NAS   24   ; 2)

      "Shared Photos(   )"   "Private Collection(   )"   ,

    "Import(   )"   PC   .

                                          Turbo NAS

                ("Shared Photos(   )"   ,

      "Multimedia(   )"   "Private Collection(   )"

      "/home(   )"   ). "Album(   )"   .

        3)   .

                                                                  NAS

                  .

Photo Station   .

228

bmp (Intel NAS), jpg, jpeg, gif, png, tif tiff	
MP4 (H.264). (avi, m2ts, mpg, mp4, wmv, ts, tp, asf, m2t, mov, mod, m2v, mpeg, 3gp, mkv, mts, tod, trp, m1v, m4v, rmp4, divx, flv, rmvb rm) MP4 .	

> **:**
> -   2GB   .
> -   2GB   .

2.   Photo Station   Photo Station   Photo Station   (http://NAS_Name_or_IP/photo/
).

> **: Photo Station   NAS   .**

P h o t o   S t a t i o n

1		, , , .
2		(: / / /), .

3	/	, .
4		.
5		.
6		.
7		.
8		. • : Photo Station . ( ) . • : "Bind with Facebook( )" . Photo Station (http://NAS_Name_or_IP/photo/) . • : "Always ask me to enter my password when accessing Private Collection and Qsync(Qsync)" .
9		.
10		.
11		.
12		.
13		. GPS ; GPS Geotagging ( ) GPS .
14		.
15		.

- : Turbo NAS ("/home( )" "Qsync") .

- : "/home(   )"
  .

- Qsync: Qsync   .

- 　 :   .
  　　　　　　　　　　　　　　　.
  　　　　　　　　　　　　　　　NAS   .
  　　　　　　　　　　Photo Station   .

- 　　　　　 :   .   ,   ,
  　　　　　　　　　　　　　　　　　.

  Photo Station   .

- 　　　　 :   (   )
  　　　　　　　　　　　　　　.

- 　　　 :
  　　　　　　　　　　　　　　　　　. (   )
  　　　　　　　　　　　　.

<table>
<tr><td>

　 :
- "/home(   )"   NAS   .
  "/home(   )"   .
- 　　　　　　　　　　　　　　　Multimedia Management(   )
  　　.   Privilege Settings(   )   "User(   )"
  　　　　　　.
- 　　　　　　　　　　Photo Station
  　　　　　　　　　　.   Multimedia
  Management(   )   .

</td></tr>
</table>

1	EXIF	/ EXIF .
2		/ , .

3		(,).
4		. , "Send( )" . , "Control Panel( )" > "System Settings ( )" > "Notifications( )" > "SMTP Server( )" .
5		. .
6		. "Select Link Format"( )" , DDNS , LAN IP WAN IP (myQNPcloud.com myQNAPcloud . myQNAPcloud Service) HTML (URL , HTML , vB Forum Alt Forum) . "Create Link( )" , . URL .

> **:** .
> , EXIF Date( )
> .

Photo Station

.

1. . "Create New Album( )" .

2. "Album( )" .

, , , , , , (, "Album Settings( )" "Share with the public( )").

, "Smart Album( )" "+" , , (, ,) .

, , , , , , (, "Album Settings( )" "Share with the public( )").

NAS (NAS

),

(QTS

) (

) .

, , "Email( )"

, "Publish( )" "Sharing

Links( )" ,

.

.

, . ,

"Sharing( )" "Select

Photos( )" "Email( )", "Social Sharing( )", "Link(

)" . ,

, "Album( )" .

, .

"Settings( )" Photo

Station .

Photo Station (http://NAS_Name or IP/photo/)

. ,

.

.

( )	.
	90 / ( ).
	.

233

VLC	(VLC).
	("Album Settings( )") (URL, HTML, vB Forum , Alt Forum) .
	.
	.
	.
	. 240P, 360P, 480P SD, 720P HD 1080P Full HD( ).
	.
(Pixlr Editor)	( ).
	.
	GPS ( ).
	.
	.
	.

, .
, .
, .
, "Multi- select( )"
, Ctrl ,
. ,
, .

.

1		.
2		/ .

3		90 / ( ).
4		.
5		.
6		.
7		. "X" . .
8	/	/ .
9		.

.

, "Slideshow( )" .

.

1		Music Station ("Playlist ( )" ,). Music Station .
2		.
3		.
4	/	/ .
5		.

6		.
7		.
8		.
9		.

, EXIF "Large Map( )"
. "Set
Coordinates( )" . ,
"Photo Map( )" . GPS .
GPS GPS .

Photo Station Media Library [217](
) . ,
Photo Station .
/ ,
.

.
, "Control Panel( )" > "Multimedia Management( )" >
"Media Library( )" .
Multimedia Management( ) .

236

DLNA Media Server

8.10

QNAP

.
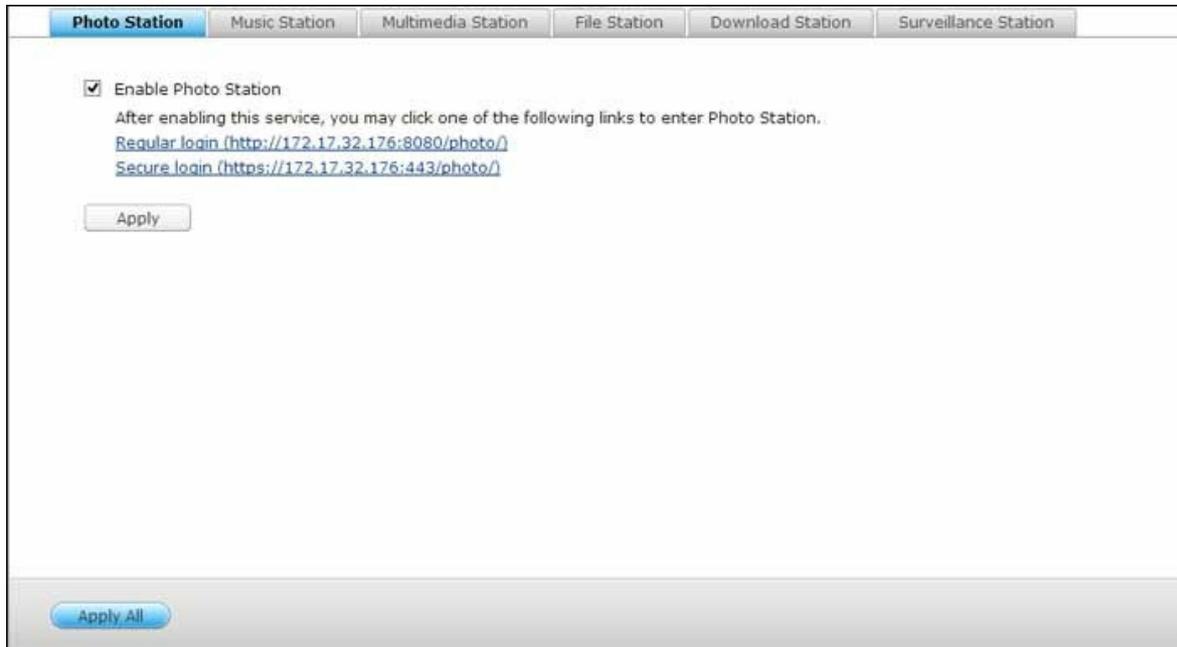
"Enable Photo Station(   )"

. "Show the photos of
Sharing Management on the login screen(   )"

.

.

.

228   .

: NAS   QTS 4.0   2   .

"Enable Music Station(   )"

.

.

219   .

238

"Enable Multimedia Station(   )"

                                    , "Rescan Media Library(   )"
                                .
                                            .

"Enable File Station(   )"
                                            .
                                                            .
                                [169]   .

"Enable Download Station(   )"
                                                .
            .   [201]   .

Surveillance Station

"Enable Surveillance Station (Surveillance Station   )"
                                                    .

Surveillance Station   .   QNAP
        (http://license.qnap.com)   .

        :
•   NAS   .   NAS
            QNAP License Store (http://license.qnap.com/)
            .

•   .   NAS   IP   ,
        ,   ,   ,   .
                                            .

•   QNAP   (>   >
        "Surveillance Station Pro   ?").
• 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(   )"
        .

239

8.11 Surveillance Station

Surveillance Station(5.0)   &   ,   ,
    IP   .
                                              .   ,

        . Surveillance Station   IP   .
    http://www.qnap.com/en/index.php?sn=4056   .
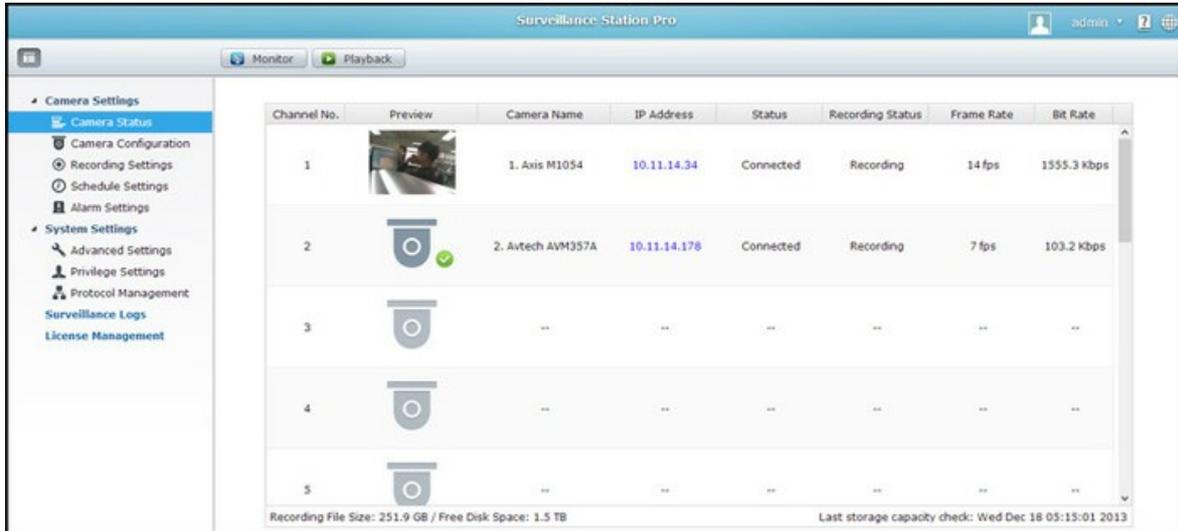
                                        .
1.
2. IP
3. QNAP NAS   Surveillance Station

                              /   .
         .

- NAS   IP

-          IP

-                SSID   IP

    , NAS, IP   LAN   . NAS   IP
    IP   .   :
-         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   .

1.   IP   .
   IP   LAN   IP   .   IP   (
        192.168.1.100)   LAN   .
2. IP   .   .
3.   IP   .
4.   .

       :
   •   IP   IP   .
   •   IP   /   .

QNAP NAS   Surveillance Station

1. "Control Panel(   )" > "System Settings(   )" >"Network(   )" > "TCP/
   IP"   "Edit(   )"   NAS   IP   : 192.168.1.60
                    LAN IP   ,   192.168.1.100   .
2. "Control Panel(   )" > "Applications(   )" > "Station Manager(
)" > "Surveillance Station(   )"   "Enable Surveillance Station (
)"   "Apply(   )"   .
                "Enable Surveillance Station (   )"
         .
3. Surveillance Station   "Settings(   )"   "Camera 1(1)"   "+"
                              ,   ,   , IP   ,   ,   .

       :   "Test(   )"   IP
          .

                                                                . "Next(   )"
                      .   "Schedule Settings(   )"   .
0~ 23   .   , 0   00:00~ 01:00, 1   01:00~ 02:00   .
                              .
                "Confirm Settings(   )"   .
NAS   , "Monitor(   )"   .
          ActiveX control (QMon.cab)   1   2
    .

       :
   • Chrome, Firefox   IE   Surveillance Station   .
                                    "ActiveX control" (QMon.cab)
              .   .
   •   IP   ID   .

241

. , , .

QNAP NAS

Surveillance Station . Surveillance
Station "Camera Settings( )" > "Alarm Settings( )" .
"Traditional Mode( )" "Advanced Mode( )"
.

- : "Apply( )"
.

- : "Add( )"
.

.

"Motion Detection( )" "Recording( )" .

Surveillance Station

"Play( )" "Playback( )"
Surveillance Station .
1. / .
2. . IP
. , .
.
3. "Play( )" .
.
4. .
.
5. "Play( )" .
(, , , / , / ,)
.

8.12

(240p, 360p, 480p, 720p and 1080p)   . NAS   File Station, Photo Station,   Video Station
        H.264   (MP4   )   .

                                    .

Transcode Task	Folder Monitoring				

Transcode function provides video conversion for you to play videos smoothly from different devices. You can convert a video through File Station, Photo Station, or Video Station.

File name	Resolution	Status	Action	Finish Time ▲
/movie/TEST/The Hobbit.mp4	240p, 360p, 720p	Succeeded		2013/10/30 14:25
/movie/TEST/The Dark Knight Rises.mp4	240p, 360p, 720p	Succeeded		2013/10/30 14:37
/movie/TEST/Sucker Punch.mp4	240p, 360p, 720p	Succeeded		2013/10/30 14:46
/movie/TEST/Star Trek Into Darkness, 2...	240p, 360p, 720p	Succeeded		2013/10/30 14:53
/movie/TEST/hddvd_demo_1080p.mkv	240p, 360p, 720p	Succeeded		2013/10/30 15:09
/movie/TEST/big_buck_bunny_1080p_h...	240p, 360p, 720p	Succeeded		2013/10/30 16:12
/movie/TEST/Gi Joe 2 Retaliation Trailer ...	240p, 360p, 720p	Succeeded		2013/10/30 16:28
/Download/1/John Carter.mp4	240p, 360p, 720p	Succeeded		2013/10/30 18:10
/Download/1/Jack the Giant Killer.mp4	240p, 360p, 720p	Succeeded		2013/10/30 18:21
/Download/1/Inception.mp4	240p, 360p, 720p	Succeeded		2013/10/30 18:33
/Download/1/Iron Man 3.mp4	240p, 360p, 720p	Succeeded		2013/10/30 18:53
/movie/Jack the Giant Killer.mp4	240p, 360p, 480p, ...	Succeeded		2013/11/18 16:23

Stop Transcoding	Remove All Incomplete Tasks	Remove All Complete Tasks	Refresh

                                                            :
- Stop Transcoding(   ):   .
- Remove All Incomplete Tasks(   ):
                    .
- Remove All Complete Tasks(   ):   .
- Refresh(   ):   .

                                        .

⬇⬆	Priority( )	.
✖	Remove( )	.

: File Station, Photo Station   Video Station
    .

243

. "Add(   )"

(   )   .

244

8.13 Video Station

Video Station(2.0)   Turbo NAS   (   )
                                                      . Video Station   ,
                              ,   , TV   .

                    .
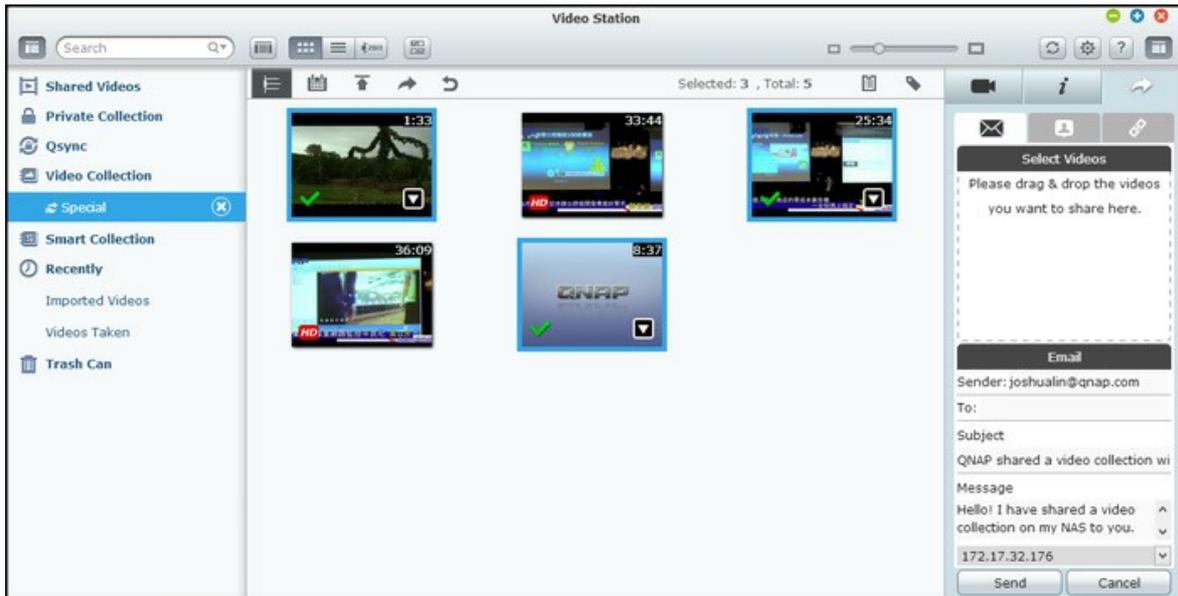
V i d e o   S t a t i o n

App Center   , Video Station   (QTS 4.1
)   Video Station   .
 1. NAS   . NAS
              . 1)   PC   Mac
                    .   NAS   24
                        ; 2)   "Shared Videos(   )"   "Private
    Collection(   )"   ,   "Import(   )"(   )
                    PC   .
                    Turbo NAS   ("Shared
    Videos(   )"   ,   "/multimedia(   )"
                ; "Private Collection(   )"   "/home(   )"
). "Video Collection(   )"   .   3)
                                        .
                                NAS   .

:
•   2GB   .

| • | | 2GB | . |

2.   Video Station   Video Station   Video Station (http://NAS_Name_or_IP/video/   ).

> **:**
> - Video Station   NAS   .
> - Video Station   : MP4(H.264)(mt2s, avi, mpg, wmv, ts, asf, mtd, mov, m2v, mpeg, 3gp, mkv, mts, tod, mod, trp, m1v, m4v, divx, flv, rmvb, rm   MP4   )

V i d e o   S t a t i o n

1		, , , .
2		(: / / /), .
3		.
4		.
5		.
6		. • : , Home Videos( ), Movies( ), TV Shows(TV), Music Videos( ) . .

		• Video Station . ( ) . • : "Always ask me to enter my password when accessing Private Collection and Qsync (Qsync)" .
7		.
8		.
9		
10		.
11		.
12		.

- : Turbo NAS ("/ home( )" "Qsync") .
- : "/home( )"
  .
- Qsync: Qsync .
- : .
  .
  NAS
  . Video Station .
- : . Home Videos( ), Movies( ), TV Shows(TV) Music Videos( )
  .
  Video Station .
- : ( )
  .
- :
  . ( )
  .
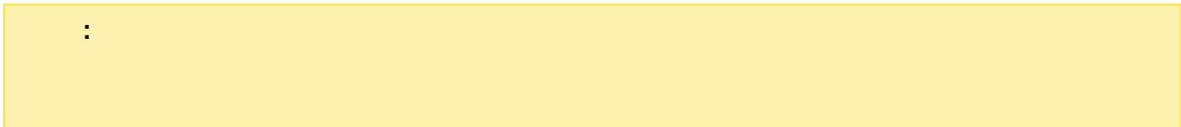
- "/home( )" NAS .
  "/home( )" .
- Multimedia Management( )
  . Privilege Settings( ) "User( )"
  .
- Video Station
  . Multimedia Management
( ) .

1		.
2		.
3		(,).
4		. , "Send( )" . . , "Control Panel( )" > "System Settings( )" > "Notifications( )" > "SMTP Server(SMTP)" .
5		. .

| 6 | | . "Select Videos(   )" , "Select Link Format"(   )" , , LAN IP WAN IP (myQNPcloud.com myQNAPcloud . myQNAPcloud Service) HTML (URL , HTML , vB Forum Alt Forum) . "Create ( )" , . URL . |

Video Station

.

1. . "Create New Collection( )" .
2. "Video Collection( )" .

, , , , , , (, "Collection Settings( )" "Share with the public( )").

, "Smart Collection( )" "+" , , (Home Videos( ), Movies( ), TV Shows(TV) Music Videos( )) ( ) . , , , , . , , , , , , "Collection Settings( )" "Share with the public( )").

NAS   (NAS
                    /   ),
                         (   )
                                      .   ,
    , "Email(   )"   , "Publish(   )"
                    "Sharing Links(   )"
                   ,   .

    .

         ,   ,   .   ,
"Sharing(   )"   "Select
Videos(   )"   "Email(   )", "Social Sharing(   )",   "Link(
)"   .   Video
Station   .
    ,   "Sharing History(   )"   .

                                                                    .

Play( )	.
VLC	VLC (VLC).
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	.
	. 240P, 360P, 480P SD, 720P HD 1080P Full HD.
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250

- "Movies( )" .

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, "Multi- select( )"

, Ctrl ,

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1	/	/
2		.
3	/	.
4		.
5		.

Video Station Media LibraryMedia Library( )

. ,

Video Station .

/ ,

.

:
- x86 NAS , "/recording( )" "/web( )"

. ARM NAS ,

"/multimedia( )" "/homes( )" .

.

                  .

    , "Control Panel( )" > "Multimedia Management( )" > "Media Library( )"   .   Multimedia Management( )   .

9. LCD

LCD   NAS   .   http://www.qnap.com
    .

NAS   LCD   .

NAS   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   .
        .

		*
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   NAS   LCD   .

C	o	n	f	i	g	.		D	i	s	k	s	?		
'	R	A	I	D	5										

"Select(   )"   RAID 6   .
"Enter"   . "Select"(   )   " "
        .

C	h	o	o	s	e		R	A	I	D	5	?			
'	Y	e	s			N	o								

RAID 1, RAID 5 및 RAID 6   ,   , RAID
, RAID   NAS   .   LCD   . 100%
RAID   NAS
.   ,   RAID   NAS
RAID   ,   "Storage Manager(   )" > "Volume
Management(   )"   .   30-60 MB/s   (
,   ).

*   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   . NAS
.

| 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
.

.

L C D

LCD   NAS   IP   "Enter"   .
.

1. TCP/IP
2.
3.
4.
5.
6.
7.
8.

TCP/IP
TCP/IP   .

254

1. LAN IP
2. LAN
3. LAN
4. LAN PRI. DNS
5. LAN SEC. DNS
6.
   - DHCP
   - IP*
   -
7.
*   IP   IP   ,   ,   ,   LAN 1   LAN 2
   DNS   .

.

1.
2.

.

| 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 5

.

C	P	U		T	e	m	p	:		5	0	°	C		
S	y	s		T	e	m	p	:		5	5	°	C		

S	y	s		F	a	n	:	8	6	5	R	P	M		

NAS   . "Select(   )"   "Yes(   )"   .
   "Enter"   .

NAS   . "Select(   )"   "Yes(   )"
           .   "Enter"   .

LCD   .   LCD   .
"Yes(   )"   .

C	h	a	n	g	e		P	a	s	s	w	o	r	d	
				Y	e	s	'	N	o						

      8   (0   9   )   .   "OK(   )"   "Enter"
            .   .

N	e	w		P	a	s	s	w	o	r	d	:			
														O	K

                              .

NAS   LCD   .   "Enter(   )"
            . "   "   .

S	y	s	t	e	m		E	r	r	o	r	!			
P	l	s	.		C	h	e	c	k		L	o	g	s	

Sys. Fan Failed	.
Sys. Overheat	.
HDD Overheat	.
CPU Overheat	CPU .

256

Network Lost	LAN 1, LAN 2 .
LAN1 Lost	LAN 1 .
LAN2 Lost	LAN 2 .
HDD Failure	.
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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