



4-Bay Tower SATA NAS w/ 2-Port Gigabit Ethernet

User Manual

Ver1.00-0603

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- 1 Back up your system periodically to avoid any potential data loss. LevelOne disclaims any responsibility of all sorts of data loss or recovery.
- 2 Should you return any components of FNS-7000B Turbo Server package for refund or maintenance, make sure they are carefully packed for shipping. Any form of damages due to improper packaging will not be compensated.

Table of Contents

Chapter 1 Overview.....6

1.1 Introduction.....6

1.2 Package Contents6

1.3 System Overview.....7

Chapter 2 Installation8

2.1 Install Hard Disk.....8

2.2 Hard Disk Recommendation List 12

2.3 Connect FNS-7000B to Office Network 13

Chapter 3 LCD Panel Control15

Chapter 4 Quick Install Wizard.....19




Chapter 5 Use Services.....27

5.1 File Server.....27

5.2 FTP Server..... 27

5.3 Backup Server..... 28

5.4 Network Printer Service..... 28

Chapter 6 Administer	29
6.1 Access Administration Page.....	30
6.2 Server Administration	32
6.3 Quick Configuration 	33
6.4 System Settings 	39
6.4.1 Server Name.....	39
6.4.2 Date & Time.....	40
6.4.3 Language Setting	42
6.4.4 View System Settings	42
6.5 Network Settings 	43
6.5.1 TCP/ IP Configuration.....	43
6.5.2 Microsoft Networking	49
6.5.3 Apple Network.....	51
6.5.4 Linux (NFS) Service	51
6.5.5 Web Service.....	52

6.5.6 FTP Service.....	52
6.5.7 Network Printer Service.....	53
6.5.8 View Network Settings	56

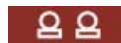
6.6 Disk Configuration



58

6.6.1 Create Disk Volume	58
6.6.2 Delete Disk Volume.....	60
6.6.3 Examine Disk Volume.....	61
6.6.4 Format Disk Volume.....	62
6.6.5 View Disk & Volume Status.....	62

6.7 User Management



63

6.7.1 Users	63
6.7.2 User Groups.....	65
6.7.3 Quota	70

6.8 Network Share Management

6.8.1 Create.....	73
6.8.2 Property.....	74
6.8.3 Access Control	74

6.8.4 Delete..... 75

6.9 System Tools



.76

6.9.1 SNMP Settings 76

6.9.2 Alert Notification..... 77

6.9.3 Restart/ Shutdown..... 77

6.9.4 Hardware Settings.....78

6.9.5 UPS 79

6.9.6 System Update..... 81

6.9.7 Change Logo..... 83

6.9.8 Remote Replication.....84

6.9.10 Backup/ Restore/ Reset Settings 91

6.9.11 USB CD/ DVD Backup/ Restore..... 92

6.10 Statistics & Logs



....96

6.10.1 Active Users..... 96

6.10.2 Event Logs..... 96

6.10.3 DHCP Logs..... 96

Chapter 7 Access FNS-7000B.....97

7.1 By Microsoft Windows 97

7.2 By Apple MAC OS 99

7.3 By Linux OS.....	105
7.4 By Web Browser.....	105
7.5 By File Transfer Protocol (FTP).....	106
Chapter 8 Maintenance.....	109
9.1 Restart/ Shut down Server.....	109
9.2 Reset Administrator Password and Network Settings.....	110
5.1 Disk Failure or Malfunction.....	111
5.2 Power Outage or Abnormal Shutdown	
111Appendix A Web File	
Manager.....112Appendix B Configuring AD	
Authentication.....117Appendix C Disk Configuration	
Status.....127	

Chapter 1 Overview

1.1 Introduction

Thank you for choosing FNS-7000B Turbo Server. This product has the following key features:

- Simple installation, 5-min configuration and user-friendly management interface for SMB users.
- High speed SATA HDD, supports hotswap, maximum capacity up to 1.6TB.
- Dual Gigabit ports for load balance, fail over and standalone settings.
- Double USB 2.0 ports for network printer sharing & UPS.
- LCD panel for instant display of IP address and important system info; IP settings can be configured directly without access to PC.
- Supports hot redundant power supply to increase system reliability (optional).
- Provides various practical backup mechanisms.
 - ☞Professional remote replication to remote NAS
 - ☞USB 2.0 interface for CD/DVD data burning
 - ☞Provides backup software for Windows users, instant/scheduled backup

can be performed without IT professional

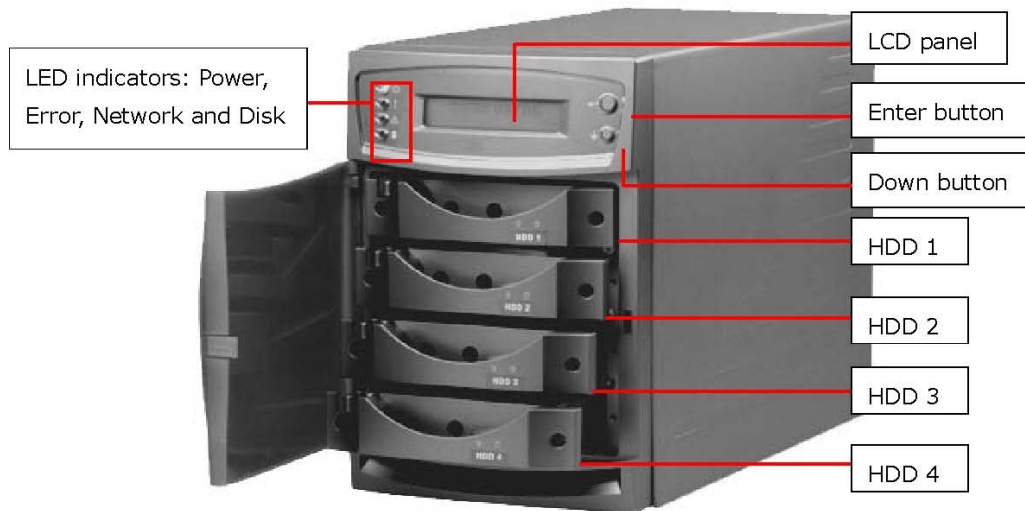
1.2 Package Contents

Your FNS-7000B package contains: ☞FNS-7000B Turbo Server ☞Power cord ☞CD-ROM (user manual, Quick Install Wizard and software inclusive) ☞Quick Installation Guide ☞Ethernet cable x 2 ☞Flat head screws x 16

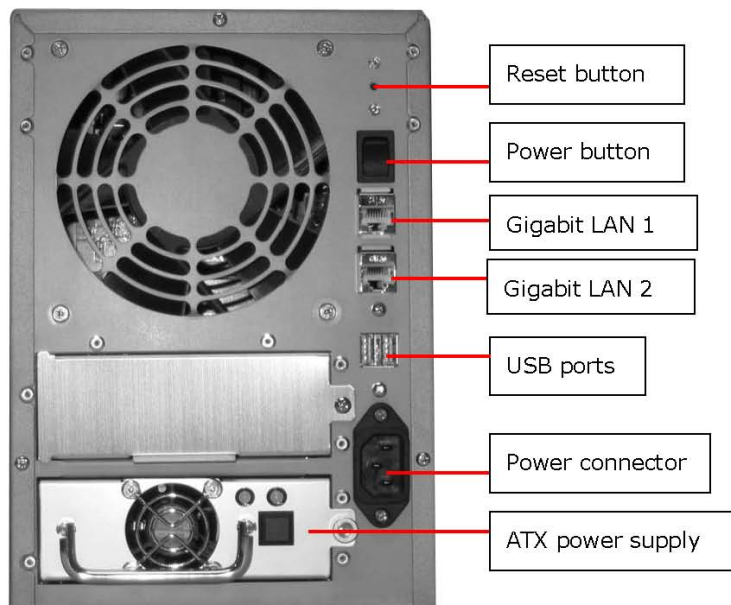


Important Notice: Please back up your disk data periodically to avoid data loss due to improper operation or disk failure of FNS-7000B. LevelOne is not responsible for any data loss or recovery.

1.3 System Overview Front View



Rear View

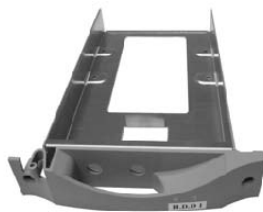


Chapter 2 Installation

2.1 Install Hard Disk Components:



■ FNS-7000B



☐ HDD tray x 4

(included in FNS-7000B) ☐ 3.5" SATA hard disk (optional)



④ Flat head screw

(included in FNS-7000B)



☐ Screw driver (not included)

Hard Disk Installation Procedure

- 1 Unfasten the round head screws and take out the disk trays from FNS-7000B.
- 2 Place a hard disk in a hard disk tray.

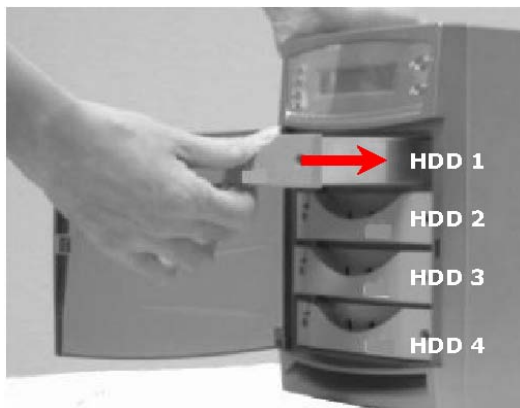
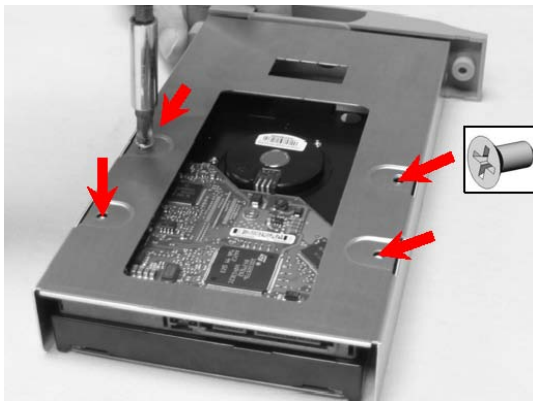


Tray front

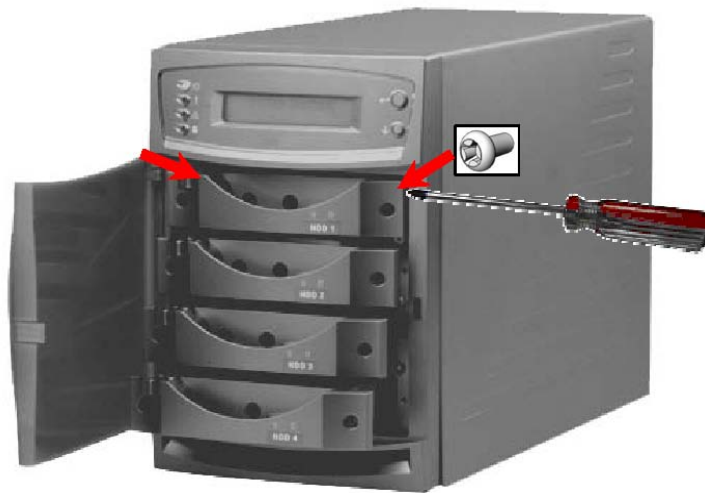


It is highly recommended that you install disks of the same brand and same size on FNS-7000B. The server may function improperly if disks of different brands and size are installed. Please refer to Chapter 2.2 for hard disk recommendation list.

- 1 Turn around the disk tray. Make sure the hard disk screw holes match the holes of the disk tray. Fasten the flat head screws to lock the disk as indicated below.
- 2 When finished, open the tray cover of FNS-7000B and insert the disk to the server. Push the disk towards the end until it is locked. Note that all disks should be inserted in order from top to bottom (HDD1~HDD4).



5. Fasten the tray with round head screws.



Note: You can install 1~4 hard disks depending on the type of disk configuration you select for FNS-7000B. If less than 4 disks are installed and the server is turned on, the system will beep continuously. In such case, please go to Hardware Settings in System Tools (refer to Chapter 6.9.4) and disable the buzzer. You can then continue to use FNS-7000B.

2.2 Hard Disk Recommendation List

The following HDD models are verified by LevelOne that are compatible with FNS7000B. It is recommended to use the same brand and same size listed here for FNS-7000B if more than one hard disk is installed. Other HDD brands that are not tested by LevelOne may or may not work properly with FNS-7000B. For more updated compatible hard disk information, please visit LevelOne website at <http://www.level1.com>



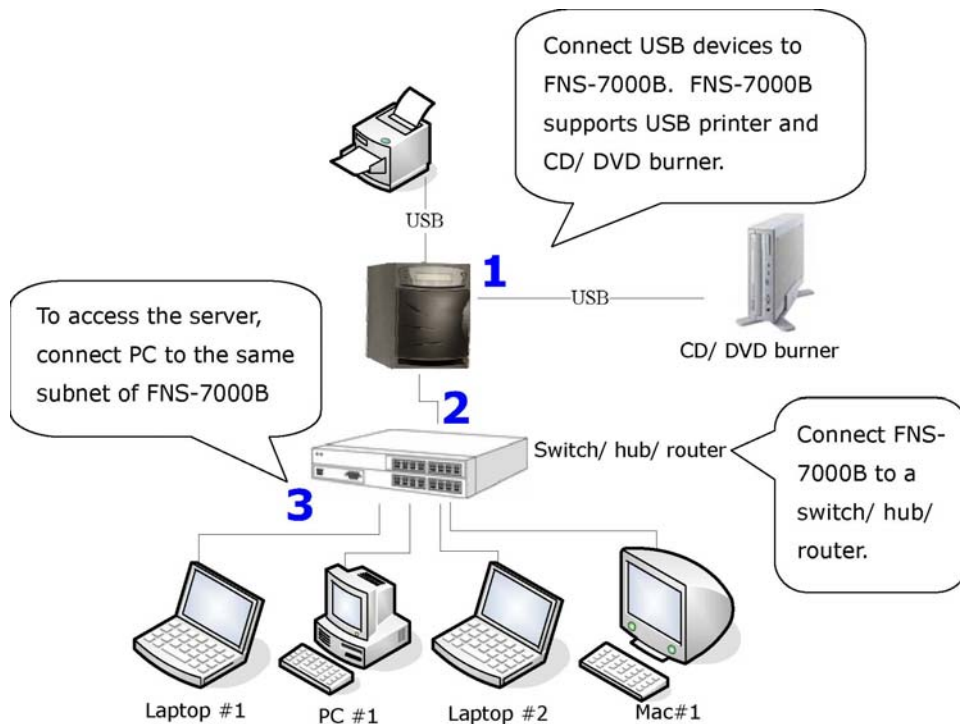
LevelOne disclaims any responsibility for product damage/ malfunction or data loss/ recovery due to misuse or improper installation of hard disks in any occasions for any reasons.

Brand	Model Name	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)
	Barracuda 7200.8 SATA NCQ	SATA 1.5Gb/s	400	7200	8

Seagate	Barracuda 7200.8 SATA NCQ	SATA 1.5Gb/s	300	7200	8
	Barracuda 7200.8 SATA NCQ	SATA 1.5Gb/s	250	7200	8
	Barracuda 7200.7 SATA NCQ	SATA 1.5Gb/s	160	7200	8
	Barracuda 7200.7 SATA NCQ	SATA 1.5Gb/s	120	7200	8
Maxtor	DiamondMax 10	SATAII 150Mb/s	300	7200	16
	MaXLine Plus II	SATA 150Mb/s	250	7200	8
	DiamondMax 10	SATAII 150Mb/s	200	7200	8
	DiamondMax 10	SATA 150Mb/s	120	7200	8
Hitachi	Deskstar 7K250	SATA 1.5Gb/s	250	7200	8
Western Digital	WD Caviar® SE Serial ATA	SATA 1.5Gb/s	160	7200	8

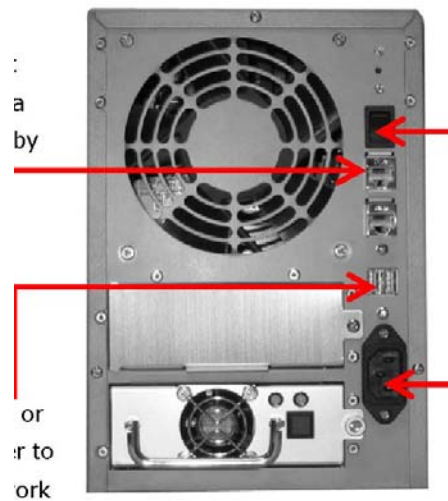
2.3 Connect FNS-7000B to Office Network

When connecting FNS-7000B to office network, it is recommended to install FNS7000B in LAN with DHCP server. You can use any PC in the same subnet to connect the server by IE browser. FNS-7000B supports printer sharing which allows users in the local network to use printing service. You may also connect FNS-7000B to a CD/DVD burner for data backup and restore.



To install FNS-7000B in office network, please follow the steps below.

- a.** Connect Gigabit port LAN 1 or LAN 2[#] to a switch/ hub/ router by a network cable.
- b.** Connect USB printer or USB CD/ DVD burner to FNS-7000B for network printer service^{*} or CD/DVD backup/ restore service^{*}.



- d. Turn on the server.
- c. Connect the power cord to power supply.

[#] To use fail over or load balance function, please connect both LAN 1 and LAN 2 to switch/ hub/ router. For further details, please refer to Chapter 6.5.1.

^{*} Network printer service is supported in Windows OS only.

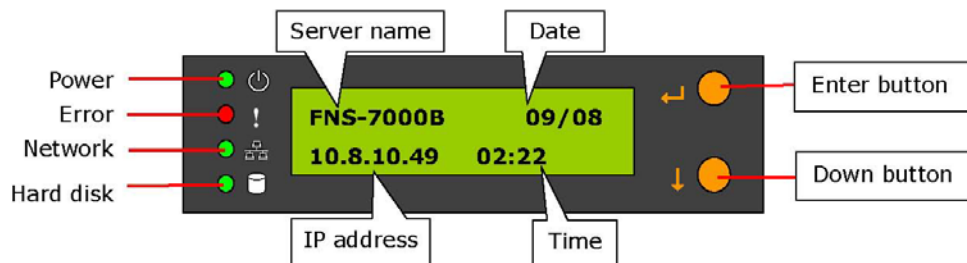
^{*} Optional step. You can skip this step if you are not using printer and CD/DVD backup/restore service.



Note: To connect FNS-7000B to a PC, please use a network cable to connect the PC to LAN 1 or LAN 2 of FNS-7000B. Connect the power supply and turn on the server. For further details about accessing FNS 7000B, please refer to Chapter 6.

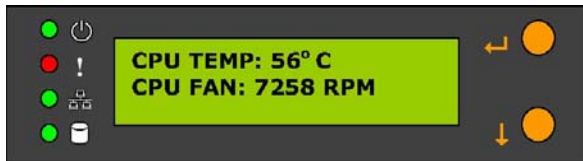
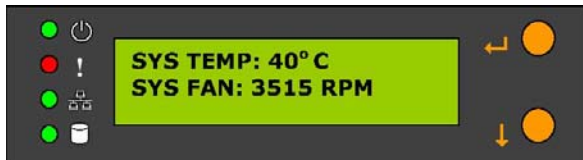
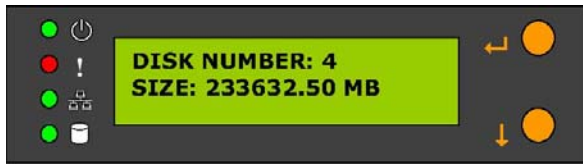
Chapter 3 LCD Panel Control

When FNS-7000B is turned on, the server name, IP address, date, and time will be shown.



Check System Information

- 1 Press Down button to view disk information, i.e. number of disks and disk size.
Note that the disk size displayed is the total size of all installed disks but may not be the actual disk size you can use. If you configure the disks as RAID 1 disk volume, your actual disk size you can use is smaller than the displayed disk size on the panel.
- 2 Press Down button again to view system temperature and system fan speed.
- 3 Press Down button again to view CPU temperature and CPU fan speed.



4. Press Down button again to view model number and version information.



System Setting Function

- 1 Press Enter button for two seconds to enter configuration page.
- 2 Press Down button to select an item: NETWORK SETTINGS, POWER DOWN, REBOOT SYSTEM, and EXIT.





Network Settings

Enter NETWORK SETTINGS configuration page and press Down button to select one of the following options. The one marked with * means it is being used for connection.

DHCP DHCP will obtain IP address automatically.

STATIC IP Press Enter button to select STATIC IP. Then configure the IP address.

SET STATIC IP Press Down button to enter 0~255 and press Enter button to set the next number for the IP address.

- ii. SET NETMASK Follow the above procedure to set the netmask address.
- iii. SET GATEWAY Follow the above procedure to set the gateway address.
- iv. SELECT STATIC IP Press Down button to select YES or NO. When YES is selected, you will be asked to restart the system.
- EXIT To return to the previous menu.

POWER DOWN

Press Down button to select POWER DOWN and press Enter button to confirm shutting down FNS-7000B.



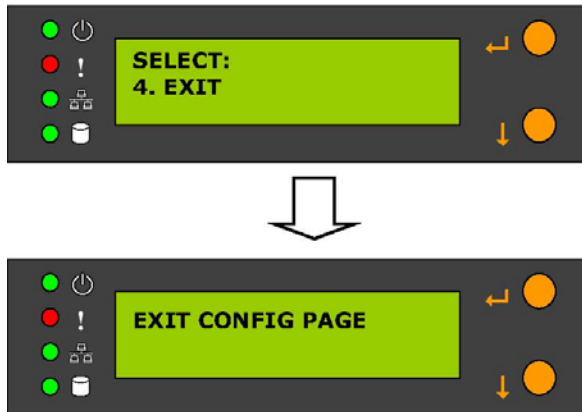
REBOOT SYSTEM

Press Down button to select REBOOT SYSTEM and press Enter button to confirm restarting the system.



Exit Configuration Page (EXIT)

Press Enter button and select EXIT, then press the button again to confirm exiting the configuration page.



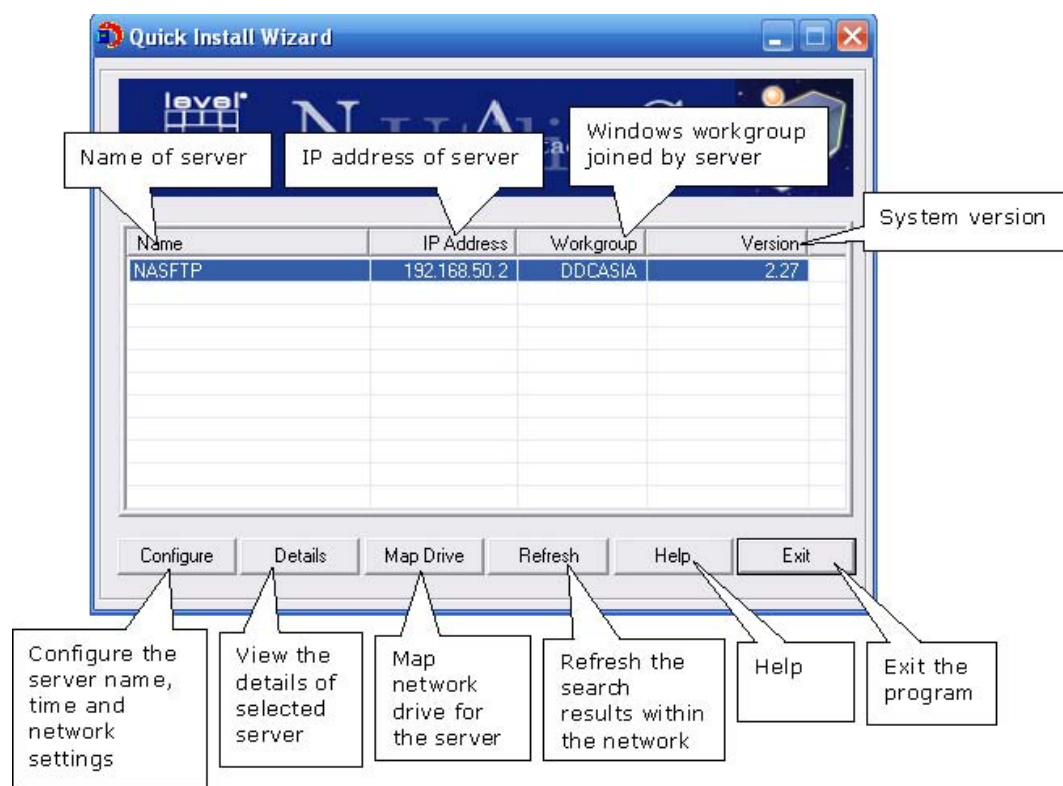
Chapter 4 Quick Install Wizard

Quick Install Wizard enables you to search for all available FNS-7000B within the local network, and view the server name, IP address, and workgroup etc. You can also configure the disk name, date and time, etc. via Quick Install Wizard.

To use Quick Install Wizard, run FNS-7000B CD-ROM in your PC and install the program.

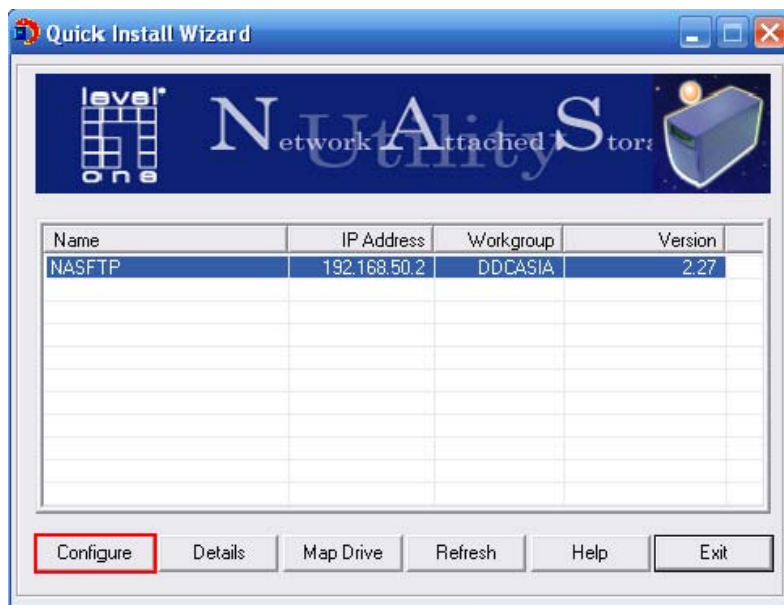
Run Quick Install shortcut on the desktop, the following screen will be shown.

Comment [k1]:



Operation

1. Configure FNS-7000B Select a FNS-7000B displayed on Quick Install Wizard and click **Configure**. Enter the administrator password.



Upon successful login, the following screen will appear. Enter the configuration values and click OK.

Basic Configuration

System

Name:

Date (mm/dd/yyyy): / /

Time (hh:mm:ss): : :

TCP/IP

☒ Obtain the IP address automatically (DHCP)

☐ Use Fixed IP Address

IP Address: . . .

Subnet Mask: . . .

Gateway: . . .

OK Cancel

Set the name, date and time for FNS-7000B. The length cannot exceed 14 characters.

The system will obtain IP address automatically.

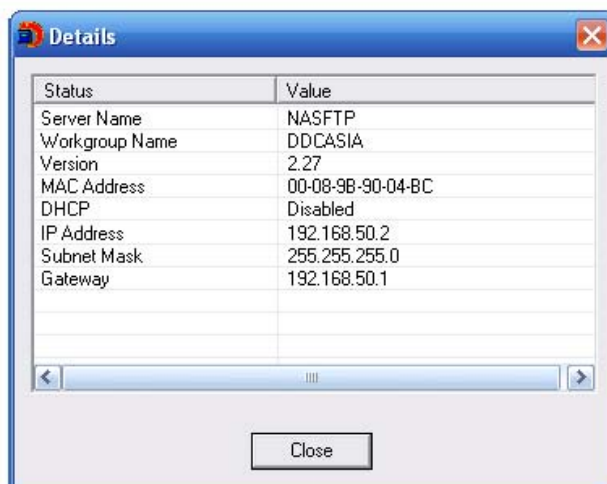
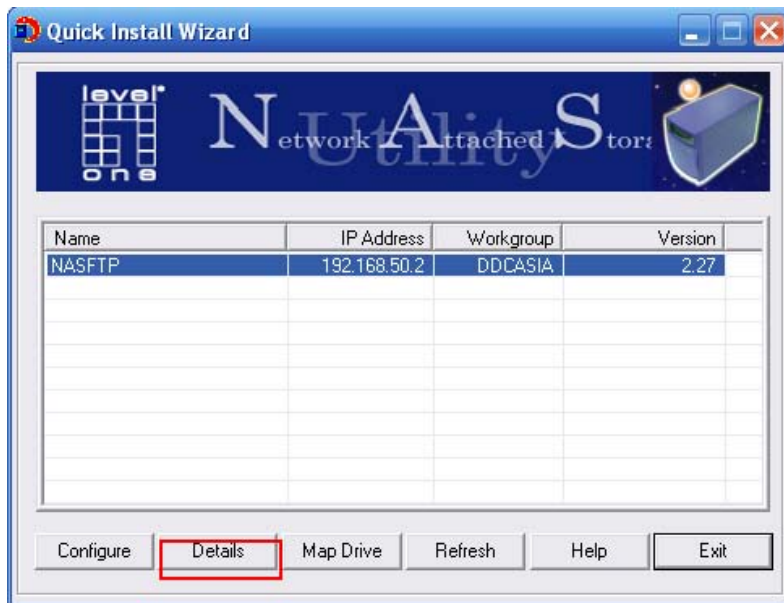
To use fixed IP address for connection, enter the IP address, subnet mask and gateway for the server.

For further configuration of the system, please login the administration page of FNS-7000B via web browser.

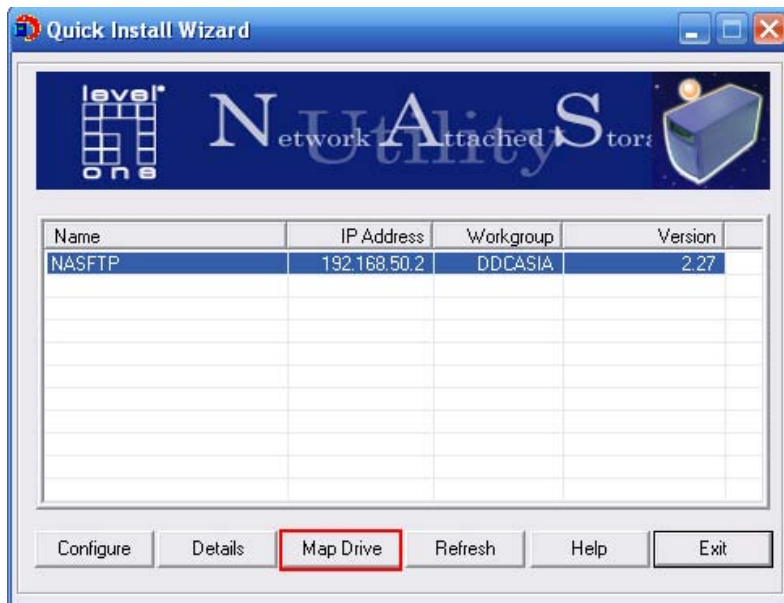


Note: You may have to restart FNS-7000B after changing the network configuration.

- 1 View FNS-7000B details Select a FNS-7000B available on Quick Install Wizard and click **Details**. The following screen will be shown:
- 2 Map drive

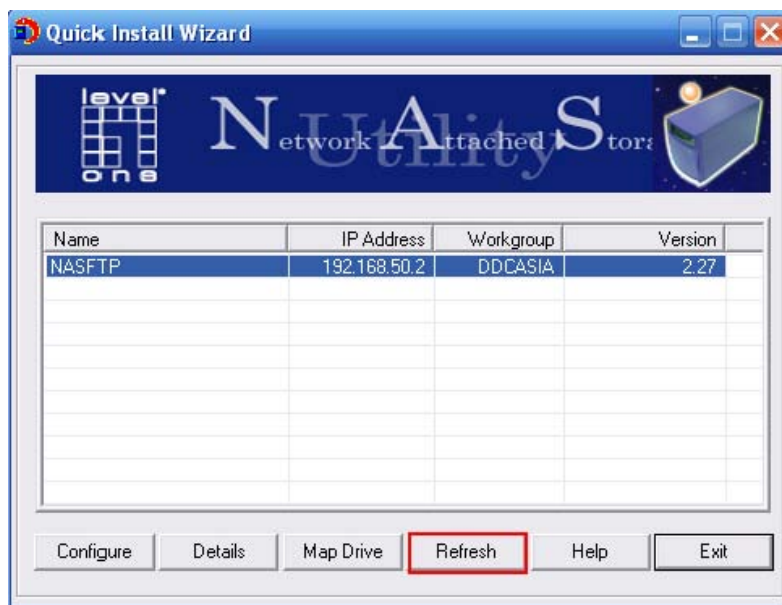


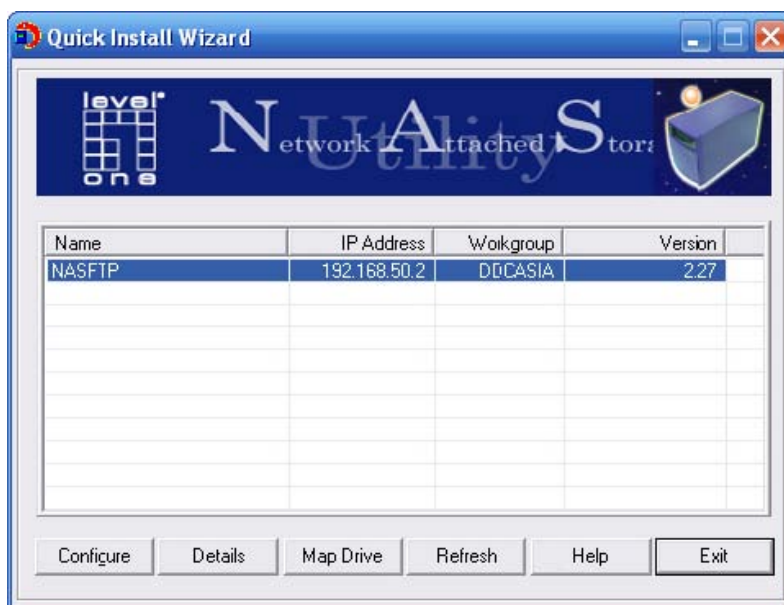
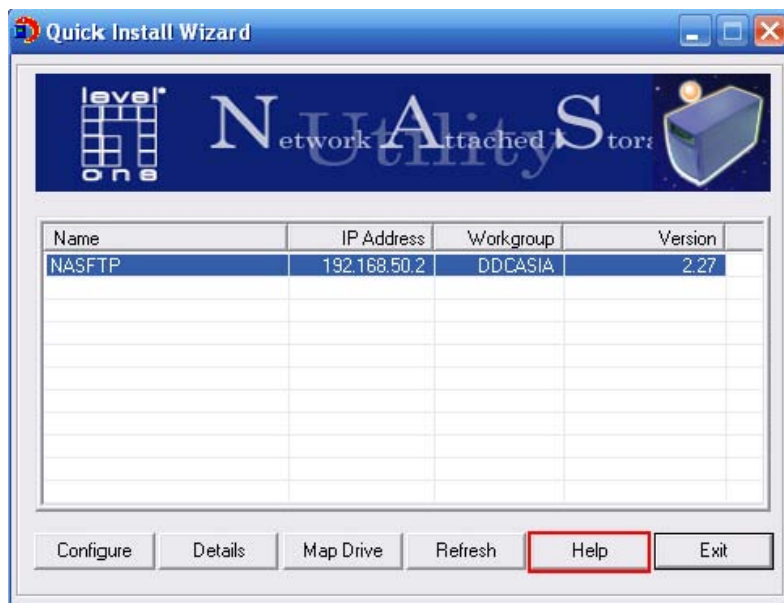
- Select a FNS-7000B and click **Map Drive**.
- Select the correct network share and click **Map Network Drive**. Then select the drive letter for the connection.
- Enter the user name and password for the network drive.





- 1 Search for all available FNS-7000B again. To refresh the search results, click **Refresh** to display all available servers within the network.
- 2 Help If you have any enquiries about Quick Install Wizard when using the program, you can click the **Help** button to view the help text.
- 3 Enter the homepage of FNS-7000B Double click on FNS-7000B to enter the administration page.





Chapter 5 Use Services

FNS-7000B provides the following powerful services and applications

5.1 File Server

You can make use of the following means to access and share the folders of FNS7000B easily:

- a. By Quick Install Wizard: By the Map Drive function of Quick Install Wizard, you can configure the share folders on FNS-7000B as a drive of your PC quickly. For further information, please refer to Chapter 4.
- b. By samba: FNS-7000B supports Microsoft®, MAC and Linux(NFS) OS for data sharing to enable you to share data across different platforms, please refer to Chapter 7.1-7.3.
- c. By Web File Manager: FNS-7000B provides a simple-to-use web administration interface for you to access share folders, upload and download files from FNS-7000B, please refer to Chapter Appendix A.

5.2 FTP Server

FNS-7000B supports FTP file transfer. You can use the following methods to access share files by FTP:

- a. By IE browser or
- b. By Web File Manager For further information, please refer to Chapter 7.5.

5.3 Backup Server

FNS-7000B provides versatile backup mechanisms to help you back up or restore disk data completely to enhance more efficient and secure system management. The backup/restore applications are listed below:

- a. Remote Replication
Remote replication is a built-in backup feature of FNS-7000B. You can set up instant or scheduled backup to replicate the data of FNS-7000B to another NAS server. Please refer to Chapter 6.9.8.
- b. Virus Scan
Virus scanning agent helps protect your system from being infected by viruses. You need to operate Windows NT or Windows 2000 server with virus-scanning software installed to perform real-time virus scanning. To enable virus scan support, specify the IP address of network share, the administrator ID and password.
- c. USB CD/DVD Restore/ Backup
You can connect USB CD/DVD burner to the high speed USB 2.0 transfer interface of FNS-7000B and enjoy data backup and restore functions to and fro FNS-7000B and CD/DVD. Please refer to Chapter 6.9.11.

5.4 Network Printer Service

FNS-7000B provides Windows® users with the exclusive network printer service. You can connect USB printer to FNS-7000B and enable network printer sharing function. Please refer to Chapter 5.4.

Chapter 6 Administer

When you have installed FNS-7000B and connected it to the network or PC, you can manage the server via web browser. It is recommended to use Microsoft Internet Explorer 6.0 or above to access FNS-7000B.



FNS-7000B Network Configuration for the First Time of Use

By factory default, FNS-7000B will search the network via DHCP (Dynamic Host Configuration Protocol) to detect IP address settings automatically. If your network does not support DHCP protocol, FNS-7000B will use the default settings as below:

IP Address: **192.168.0.1**

Subnet Mask: **255.255.255.0**

When FNS-7000B boots up, the LCD panel will display current IP address settings. If your network does not support DHCP protocol, you must configure your FNS7000B to proper LAN settings before using it for the first time. If you are not sure about the LAN settings, please contact your network administrator.

You can change the network settings of FNS-7000B by the following ways:

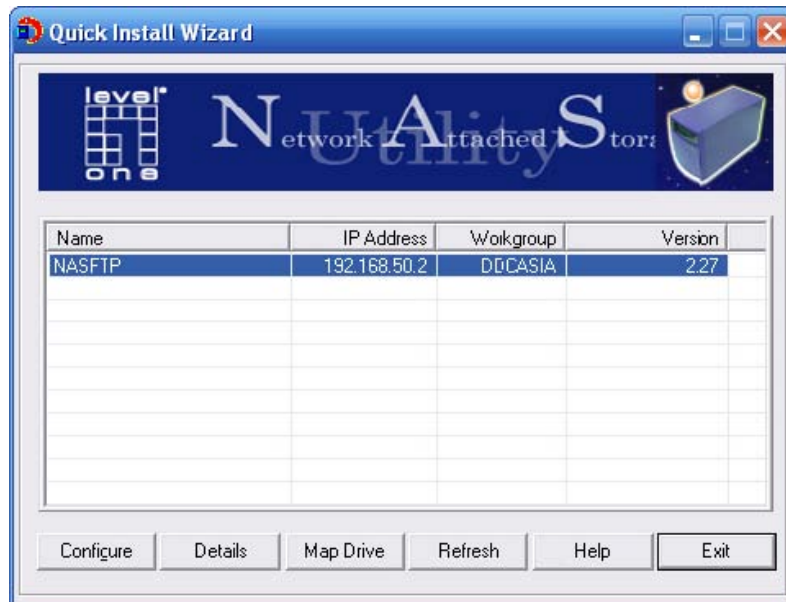
- 1 Use the LCD panel to change the network settings. For more information, please refer to Chapter 3. OR
- 2 Use Quick Install Wizard in the CD-ROM to change the network settings. For more information, please refer to Chapter 4.

6.1 Access Administration Page

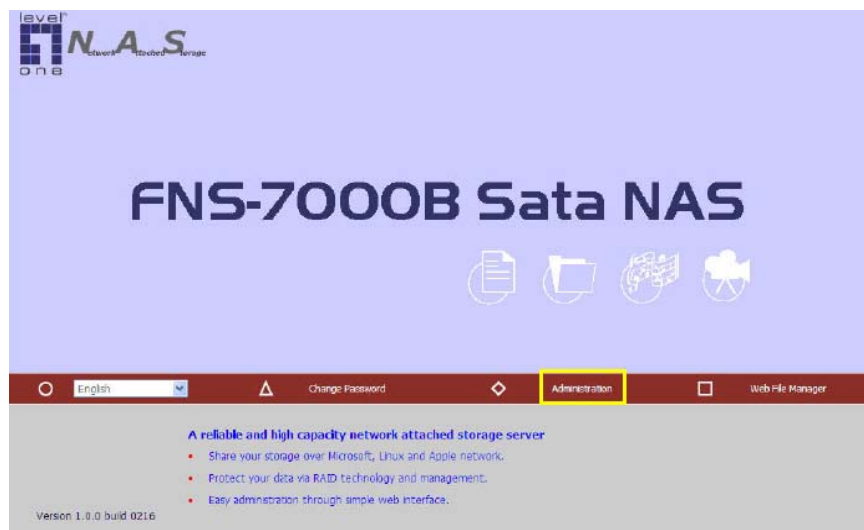
You can access FNS-7000B administration page by the following means:

- 1 Launch the web browser. Enter the IP address of FNS-7000B to access the administration page. You can check the IP address of FNS-7000B on the LCD panel (see Chapter 3). OR
- 2 Install and Quick Installation Wizard (see Chapter 4). Search for FNS-7000B in

the network and double click the server name on the list.



5. When the administration page is shown, click **Administration**.



6. Enter the user name and password to login.

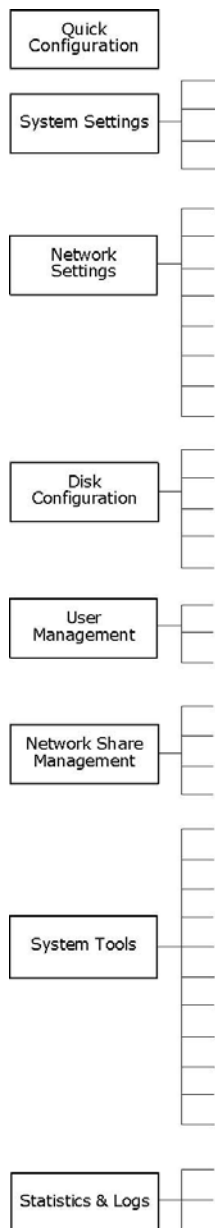
Default user name: **administrator**
Password: **admin**

The first time you login FNS-7000B, Quick Configuration page will be shown. Please refer to 6.3 Quick Configuration for more details.

To connect FNS-7000B by MAC, open a web browser in MAC and enter the IP address of FNS-7000B. Login the server and continue the software configuration. Please use the built-in browser in MAC-Safari for browsing.

6.2 Server Administration

There are eight main sections in server administration:



Server Name Date & Time Language Setting View System Settings

TCP/IP Configuration Microsoft Networking Apple Networking Linux (NFS) Service Web Service FTP Service Printer Service View Network Settings

Create Disk Volume Delete Disk Volume Examine Disk Volume Format Disk Volume View Disk & Volume Status

Users User Groups Quota

Create
Create Private Network Share
Assign Users
Delete

Create Property Access Control Delete

SNMP Settings Alert Notification Restart / Shutdown Hardware Settings UPS System Update Change Logo Remote
Replication Anti-virus Configuration Backup/ Restore/ Reset Settings USB CD/ DVD Restore/ Backup

Active Users Event Logs DHCP Logs
Create Create Multiple Users Change Password Create Private Network Share Assign User Groups Quota Settings
Delete

6.3 Quick Configuration



Please follow the step-by-step guide in Quick Configuration to complete the settings of FNS-7000B. If you have any questions during web administration, please click the help button

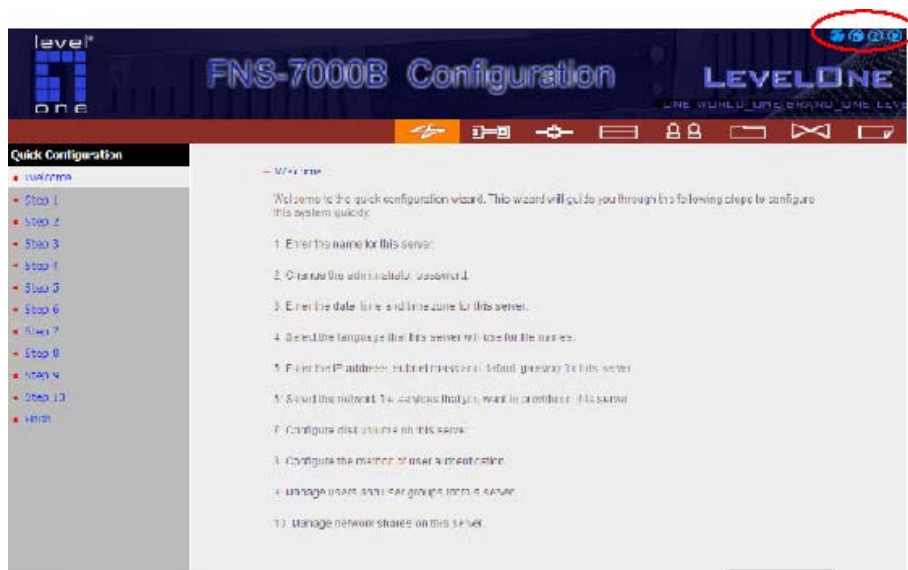


on the top right hand corner of the page. Other buttons are described as below:



: Return to previous page : Return to home page : Logout system





Step 1. Enter the server name. Step 2. Change the administrator password or select to use the original password.

1. Enter the name for this server.

Server Name :

2. Change the administrator password.

Password :

Verify Password :

☐ Use the original password

Note: If you select "Use the original password", the administrator password will not be changed.

Step 3. Enter the date, time and select the time zone for the server.

- 3. Enter the date, time and time zone for this server.

Time Zone : (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London

Current date and time: 2004 / 9 / 9 AM 10 : 04 : 12

☐ Change the server's time and date as below:

Date: January , (mm dd, yyyy)

Time: : : AM (hh:mm:ss)

Back Next

Step 4. Select the language the server uses to display files and directories. The default setting is **English**.

- 4. Select the language that this server will use for file names.

Language: English

Chinese-Simplified
Chinese-Traditional
Cyrillic
Greek
Icelandic
Japanese
Korean
Slavic/Latin 2
English
Western Europe/Latin 1

Back Next

Step 5. Enter the IP address, subnet mask and default gateway for the server. Select network interface configuration: fail over or load balance.

- 5. Enter the IP address, subnet mask and default gateway for this server.

☐ Obtain TCP/IP settings automatically via DHCP

☒ Use the following settings

IP Address: 10 . 8 . 10 . 49

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 10 . 8 . 10 . 1

Configuration of Network Interfaces ☒ Fail Over ☐ Load Balance

Note: If you don't need a default gateway for this server, please enter "0.0.0.0".

Back Next

Step 6. Select the network file services to provide on the server. Step 7. Configure disk

volume on the server.

6. Select the network file services you want to provide on this server.

☒ Enable File Service for Microsoft Networking

☐ Enable AppleTalk File Service for Apple Networking

☐ Enable Linux (NFS) Service

☒ Enable Web File Manager


☒ Enable FTP Service

BackNext


7. Configure disk volume on this server.

You can click on the disk volume you want to configure on the **New Disk Volume Configuration** list. The **Current Disk Volume Configuration** list shows the current disk volume configuration of this server.


New Disk Volume Configuration




Single Disk Volume
Create single disk volume(s).



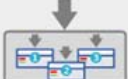
RAID 1 Mirroring Disk Volume
Create mirroring disk volume(s).



RAID 0 Striping Disk Volume
Create one striping disk volume.



Linear Disk Volume
Create one linear disk volume.



RAID 5 Disk Volume
Create one RAID 5 disk volume.

Current Disk Volume Configuration

Volume	Total Size	Free Size	Status
Striping Disk Volume: Drive 1 2	304685.00 MB	296874.00 MB	Ready

BackNext

Step 8. Configure the method of user authentication. Please refer to Chapter 6.5.2 for further information.

8. Configure the method of user authentication.

☒ Enable file service for Microsoft networking

☒ Standalone Server
☐ NT Domain Member
☐ AD Domain Member

Server Description

Workgroup

AD Server Name

Domain Name

Domain Username

Password

Step 9. Manage users and user groups of this server. Step 10. Manage network shares on this server.

- 9. Manage users of this server.

To add a user, enter the user information in the following fields, then click Add. To remove an existing user, click on the user name on the left list and click Remove. You can remove multiple users at a time.

<div>Andrew Bella Cynthia Derek administrator</div>	<div>← Add</div>	User Name <input type="text"/>
	<div>Remove →</div>	Password <input type="text"/>
		Verify Password <input type="text"/>

Note: For increased security, password should be at least 6 characters.

← Back

→ Next

- 9.1 Set user groups of this server.

To add a user group, enter the group name in the box below. Select the user(s) to add to the group from the list on the right, then click Add. To remove a user group, select the group name on the left list, and click Remove. You can remove multiple user groups at a time.

<div>administrators everyone</div>		User Group Name <input type="text"/>
	<div>← Add</div>	<div>Andrew Bella Cynthia Derek administrator</div>
	<div>Remove →</div>	

You can choose one or more users to add into the user group from the above field.

← Back

→ Next

- 10. Manage network shares on this server.

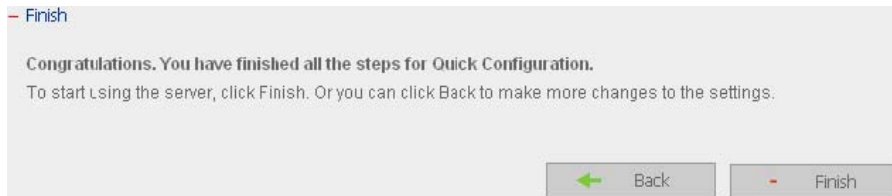
To add a network share, enter the network share information in the fields on the right below, then click Add. To remove an existing network share, select the network share on the left list, and click Remove.

<div>NAS0E0036PR public</div>	<div>← Add</div>	Network Share Name <input type="text"/>
	<div>Remove →</div>	Volume <input type="text" value="Striping Disk Volume: Drive12"/>
		Comment <input type="text"/>

← Back

→ Next

Step 11. Finish. It may take several to tens of minutes to complete Quick Configuration, depending on your system settings.



6.4 System Settings



Basic system settings include the server name, date, time, and view system settings.



6.4.1 Server Name

Enter the name of FNS-7000B. The server name can be 14 characters long at maximum, which can contain alphabets, numbers and hyphen (-). The server does not accept names with space, period (.), or names in pure numbers.



6.4.2 Date & Time

Set the date, time, and time zone according to your location. If the settings are incorrect, the following problems may occur:

- 9 When using a web browser to access or save a file, the display time of the action will be incorrect.
- 9 The system event log time will be incorrect compared to the actual time when an action occurs.

– Adjust the date, time and time zone of this server

Time Zone: (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London ▼

Current date and time: 2006 / 3 / 1 PM 05 : 35 : 18

☐ Change date and time manually

Date: January ▼, (mm dd, yyyy)

Time: : : AM ▼ (hh:mm:ss)

☐ Configure NTP server or client setting

☒ Use the specified NTP server

IP Address of NTP Server: Test (Status: --)

Time Interval: 1 minute(s) ▼

☐ Enable NTP server

NTP Server #1: Test (Status: --)

NTP Server #2: Test (Status: --)

NTP Server #3: Test (Status: --)

Apply

NTP Server You can enable or use specified NTP (Network Time Protocol) server to update the date and time of the system automatically. To enable NTP server, please enable **Configure NTP server or client setting** and enter the IP address or domain name of the NTP server, e.g. time.nist.gov, time.windows.com in **Use the specified NTP server** field. Then enter the time interval for adjusting the time (minimum value is 1 minute and maximum value is 99 days).

☒ Configure NTP server or client setting


☒ Use the specified NTP server

IP Address of NTP Server: Test (Status: --)


Time Interval: 1 minute(s) ▼

minute(s)
hour(s)
day(s)

To enable multiple NTP servers, you can select **Enable NTP server** and enter the IP address or domain name of the servers. You can enter 3 NTP servers at maximum. If the system fails to connect to the first NTP server, it will try to connect the second one automatically, so on so forth. You can click **Test** to try to connect to the NTP server. If there is no specified IP address for the NTP server, the system will refer to internal clock for date and time settings.

 Enable NTP server

NTP Server #1	<input type="text"/>	<input type="button" value="Test"/>	(Status: --)
NTP Server #2	<input type="text"/>	<input type="button" value="Test"/>	(Status: --)
NTP Server #3	<input type="text"/>	<input type="button" value="Test"/>	(Status: --)





Note: The first time you enable NTP server, it may take several minutes for time synchronization before the time is correctly adjusted.

6.4.3 Language Setting

Select the language FNS-7000B uses to display files and directories.




Note: All files and directories on FNS-7000B will be created using Unicode encoding. If your FTP clients or PC does not support Unicode, e.g. Windows® 95, 98, ME OS is used, select the language your PC supports here in order to view the files and directories on the server properly.

— Language Setting

Language: English ▼

Chinese-Simplified
 Chinese-Traditional
 Cyrillic
English
 Greek
 Icelandic
 Japanese
 Korean
 Slavic/Latin 2
 Western Europe/Latin 1



6.4.4 View System Settings

You can view all current system settings, e.g. server name, on this page.

— View System Settings

Server Name	
Server Name	NASB03698
Date & Time	
Date	March 1, 2006
Time	5:35:33 PM
Time Zone	(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London
Language	
Code Page	English (437)
System Information	
Version	1.0.0 Build 1003

OK

6.5 Network Settings



6.5.1 TCP/ IP Configuration

Network Settings

- TCP/IP Configuration
- Microsoft Networking
- Apple Networking
- NFS Service
- NetWare Service
- Web Service
- FTP Service
- Network Printer Service
- View Network Settings

— TCP/IP Configuration

Configuration of Network Interfaces ☒ Fail Over ☐ Load Balance ☐ Standalone

Network Speed

Fail Over

☒ Obtain IP address settings automatically via DHCP

☐ Use static IP address

Fixed IP Address

Subnet Mask

Default Gateway

Primary DNS Server

Secondary DNS Server

☐ Enable DHCP Server

Start IP Address

End IP Address


Lease Time Day(s) Hour(s)

Primary DNS Server

Secondary DNS Server

Apply

Configuration of Network Interfaces

 **Fail Over (Default)** The system supports the configuration of multiple network interfaces, which enables you to perform Fail Over or Load Balance functions. Fail over ensures server availability to the network. If the primary port is disconnected due to a hardware or cable problem, the secondary port will replace its network identity. If the failed port resumes the network connection, it will also resume the role as the primary interface.

Fail Over

☒ Obtain IP address settings automatically via DHCP
 ☐ Use static IP address

Fixed IP Address

172

17

28

126

Subnet Mask

255

255

254

0

Default Gateway

0

0

0

0

Primary DNS Server

10

8

2

11

Secondary DNS Server

0

0

0

0

☐ Enable DHCP Server

Start IP Address

172

17

10

100

End IP Address

172

17

10

200

Lease Time

1

Day(s)

0

Hour(s)

Primary DNS Server

0

0

0

0


Secondary DNS Server

0

0

0

0

 **Load Balance** In load balance* mode, the transmission load is distributed among aggregated network ports.

Load Balance

☒ Obtain IP address settings automatically via DHCP

☐ Use static IP address

Fixed IP Address 172 . 17 . 28 . 126

 Subnet Mask 255 . 255 . 254 . 0

 Default Gateway 0 . 0 . 0 . 0

Primary DNS Server 10 . 8 . 2 . 11

 Secondary DNS Server 0 . 0 . 0 . 0

☐ Enable DHCP Server

 Start IP Address 172 . 17 . 10 . 100


 End IP Address 172 . 17 . 10 . 200

 Lease Time 1 Day(s) 0 Hour(s)

 Primary DNS Server 0 . 0 . 0 . 0

 Secondary DNS Server 0 . 0 . 0 . 0

* An intelligent software adaptive agent will repeatedly analyze the traffic flow from the server and distribute the packets based on the destination address. Load balance can only occur on Layer 3 routing protocols (IP or NCP IPX). Multicast/Broadcast and non-routing protocols, such as NetBEUI and Microsoft IPX, are transmitted over the primary port.

 **Standalone** Standalone settings enable each port to have a unique IP, which allows users on different network areas to share one FNS-7000B and maintain their independence from one another in the network. When using this mode, fail over cannot be used and only LAN 1 can be configured as DHCP server.

LAN Configuration

Configuration of Network Interfaces

☐ Fail Over
☐ Load Balance
☒ Standalone

Network Speed

auto-negotiat

LAN1

LAN2

☒ Obtain IP address settings automatically via DHCP
☐ Use static IP address

Fixed IP Address

192 . 168 . 0 . 1

Subnet Mask

255 . 255 . 255 . 0

Default Gateway

0 . 0 . 0 . 0

Primary DNS Server

0 . 0 . 0 . 0

Secondary DNS Server

0 . 0 . 0 . 0

☐ Enable DHCP Server

Start IP Address

192 . 168 . 0 . 100

End IP Address

192 . 168 . 0 . 200

Lease Time

1 Day(s) 0 Hour(s)

Primary DNS Server

0 . 0 . 0 . 0

Secondary DNS Server

0 . 0 . 0 . 0

LAN1

LAN2

☒ Obtain IP address settings automatically via DHCP
☐ Use static IP address

Fixed IP Address

192 . 168 . 0 . 1

Subnet Mask

255 . 255 . 255 . 0

Default Gateway

0 . 0 . 0 . 0

Network Speed

Network speed settings provide an advanced option for configuring network speed. You can select auto-negotiation (default), 10 Mbps, 100 Mbps, or 1000 Mbps. It is recommended to use the default setting that the server will determine network speed automatically.

Network Speed

auto-negotiation

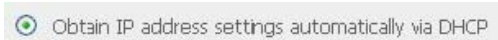
auto-negotiation

10

100

1000

•**Obtain IP address settings automatically via DHCP** If your network supports DHCP, FNS-7000B will automatically use DHCP protocol to retrieve the IP address and related information.



•**Use static IP address** To use fixed IP address for network connection, enter fixed IP address, subnet mask and default gateway.



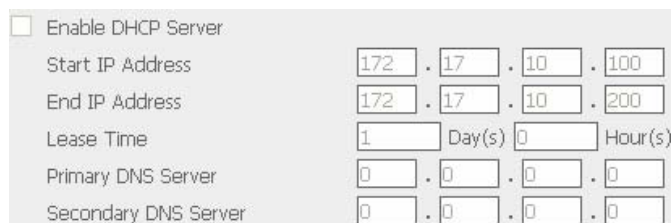
Primary DNS Server: Enter the IP address of primary DNS server that provides DNS service for FNS-7000B in external network. **Secondary DNS Server:** Enter the IP address of secondary DNS server that provides DNS service for FNS-7000B in external network.



You can also configure the following settings:

9 Enable DHCP server

If there is no DHCP server on your network, you can enable this option to provide IP address settings to the clients. Start IP address The first IP address to be dynamically allocated for DHCP service. End IP address The last IP address to be dynamically allocated for DHCP service. Lease time Define the lease time for the dynamic IP address. Primary DNS server When the system allocates an IP address to your computer, the primary DNS server address is also specified to it. Secondary DNS Server When the system allocates an IP address to your computer, the secondary DNS server address is also specified to it.



6.5.2 Microsoft Networking

Microsoft Networking

☒ Enable file service for Microsoft networking

☒ Standalone Server
☐ NT Domain Member
☐ AD Domain Member

Server Description:

Workgroup:

AD Server Name:

Domain Name:

Domain Username:

Password:

☐ Enable WINS server
☐ Use the specified WINS server
 WINS server IP address: . . .
☐ Domain Master

Enable file service for Microsoft networking: If you are using Microsoft Windows, enable this service to access the files on network share folders. Assign a workgroup name.

9 Standalone Server

Use local users for user authentication.

9 NT Domain Member

Use Microsoft NT domain for user authentication.

9 AD Domain Member

FNS-7000B supports Windows 2003 AD (Active Directory) to provide quick and direct import of user accounts to the existing AD server available in your network. This function helps you to save time and effort on creating user accounts and passwords and lowers IT maintenance cost by automatic configuration procedure.


⌚Server Description: Describe FNS-7000B for users to identify the server.

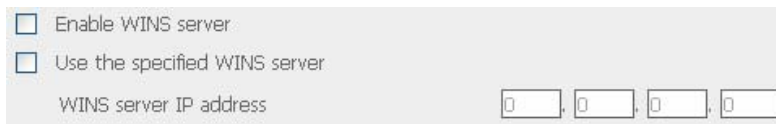
To use FNS-7000B on the Microsoft Windows OS, you must enable Microsoft Network Services.

¾ Workgroup: Specify the workgroup FNS-7000B belongs to. The workgroup is a computer group unit in Microsoft Windows network for network sharing.


⌚AD Server Name: Enter the name of the AD server when AD domain is selected for authentication. ⌚Domain Name:

Microsoft domain name. Enter the domain name when you select NT domain or AD domain.

 **WINS server** If the local network has a WINS server installed, specify the IP address. FNS7000B will automatically register its name and IP address with WINS service. If you do not want to enable WINS server support, or you do not have a WINS server on your network, enter **0.0.0.0** in the field for WINS server IP address.



The screenshot shows a configuration window for WINS server. It contains two checkboxes: "Enable WINS server" and "Use the specified WINS server". Below these is a label "WINS server IP address" followed by four input fields for the IP address, each containing a single digit.

 **Domain Master** There is a unique Domain Master Browser for collecting and recording resources and services available for each PC in the network or workgroup of Windows. When a domain master browser (Windows NT/ 200x/ XP PC) exists already in the network, there is no need to configure FNS-7000B as the domain master. When you find the waiting time for accessing Network Neighborhood too long, it may due to failure of an existing master browser, or there is no master browser available. If the reason is the latter one, you can check the box Domain Master in this section to configure FNS-7000B as the master browser to enhance the speed of accessing information on Network Neighborhood.



A checkbox labeled "Domain Master" is shown, which is currently unchecked.

6.5.3 Apple Network

To use FNS-7000B on Apple MAC operating system, enable AppleTalk network support.

If your AppleTalk network uses extended networks, and is assigned with multiple zones, assign a zone name to FNS-7000B. If you do not want to assign a network zone, enter an asterisk (*) to use the default setting. **This setting is disabled by default.**

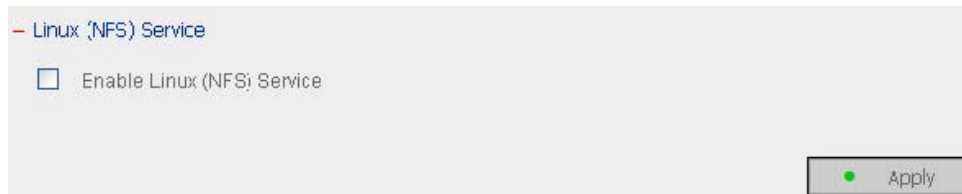


The screenshot shows a configuration window titled "Apple Networking". It contains a checkbox labeled "Enable AppleTalk file service for Apple networking". Below this is a label "Zone" followed by a text input field. At the bottom right, there is a green "Apply" button.

6.5.4 Linux (NFS) Service

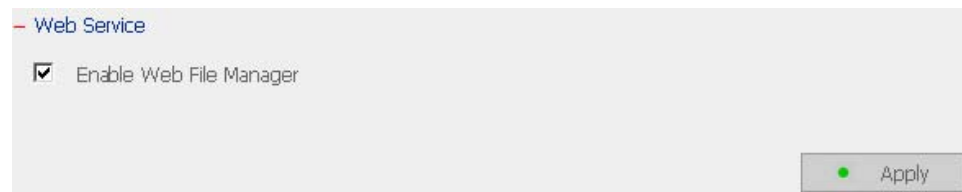
To use FNS-7000B on Linux OS computer or server, enable Linux (NFS) service.

FNS-7000B supports NFS version 2.0 and 3.0. **This setting is disabled by default.**



6.5.5 Web Service

To access files on FNS-7000B via web browser, enable Web File Manager. If FNS7000B is connected to the Internet and uses a valid IP address, you can access files on the server by web browser from anywhere.



6.5.6 FTP Service

Select whether to enable/disable Unicode Support. The default setting is No. If your FTP client does not support Unicode, e.g. Windows® 95, 98, ME OS is used, select a supported language setting in "System Settings—Language Setting" page so that the folders and files on FTP can be properly shown (please refer to Chapter 6.4.3).



Note: The language of file names on share folder should match the language setting here for proper display.


FTP Service

☒ Enable FTP Service

Port Number

Maximum Connections

Unicode Support ☐ Yes ☒ No

 Apply

6.5.7 Network Printer Service

FNS-7000B provides network printer service. You can configure a USB printer as the network printer via FNS-7000B. **Make sure at least one hard disk of FNS-7000B is formatted before enabling this function.** The system will use HDD 1 for printer sharing service by default. If the HDD 1 fails, HDD 2 will be in use, so on so forth. To use this function, connect the server to a USB printer, and then click "Enable network printer service". Enter the printer name and description (optional) and click **Apply**.

Network Printer Service

☒ Enable network printer service

Network Printer Name

Comment

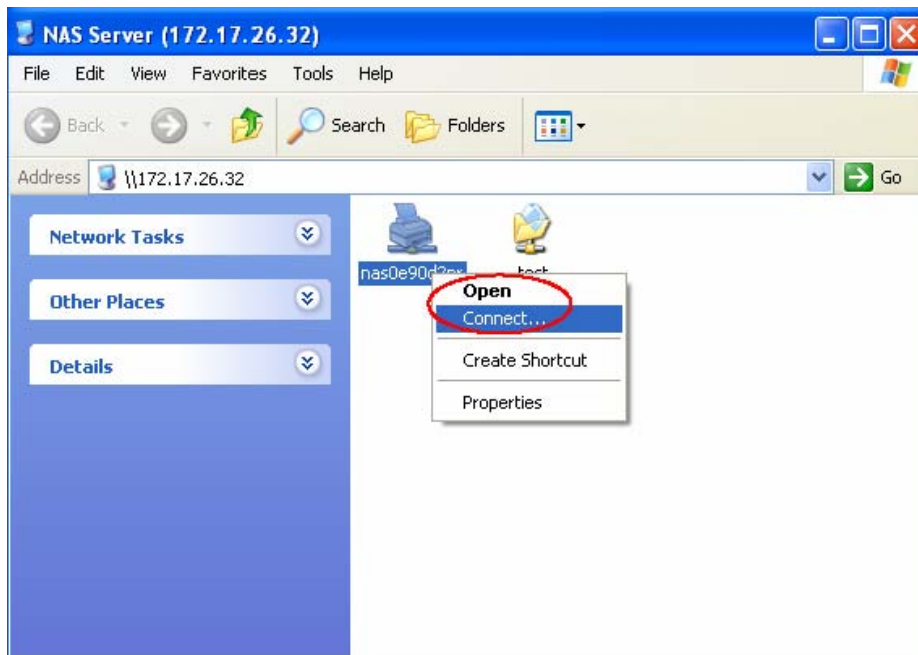
 Apply



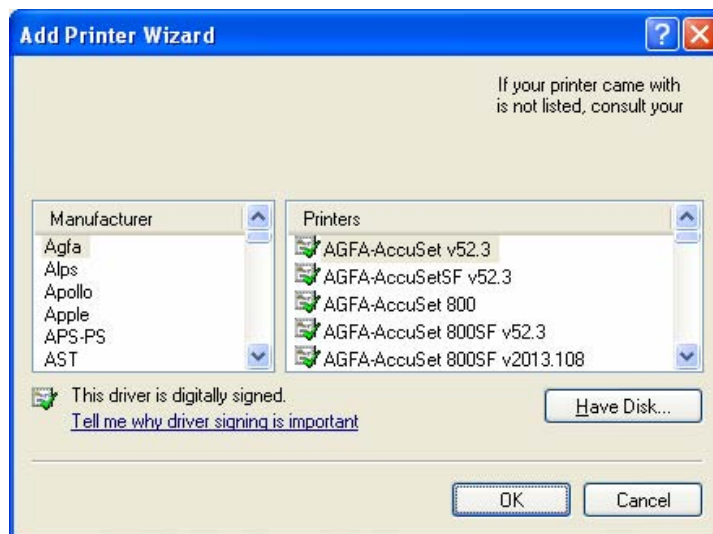
Note: Network printer service is supported in Windows OS only.

Printer Settings on Client Side

- 1 Connect a USB printer to FNS-7000B.
- 2 After correctly enabling a USB printer on FNS-7000B, a printer icon should be shown in the share folder of the server. Right click the printer icon and click **Open** or **Connect**.



3. Install the printer driver.



4. When finished, you can start to use network printer service.

6.5.8 View Network Settings

You can view current network settings and status in this section.

— View Network Settings

Network	Network File Services	Miscellaneous
---------	-----------------------	---------------

Connection Type

Connection Type	DHCP
IP Address	10.8.10.126
Subnet Mask	255.255.255.0
Default Gateway	10.8.10.1
MAC Address	00:30:02:0E:00:30
Connection Status	Ready
Configuration of Network Interfaces	Fail Over

DHCP Service

Enabled	No
Address Range	172.17.10.100 - 172.17.10.200
Lease Time	1 Day(s) 0 Hour(s)

— Close

– View Network Settings

Network	Network File Services	Miscellaneous
Microsoft Networking		
Enabled	Yes	
Server Type	Standalone Server	
Workgroup	NAS	
WINS server Enabled	No	
Domain Master Enabled	No	
Apple Networking		
Enabled	No	
Apple Zone Name	*	
Linux (NFS) Service		
Enabled	No	
Web File Manager		
Enabled	Yes	
FTP Service		
Enabled	Yes	
Port Number	21	
Max Connections	30	
Unicode Support	Yes	

– Close

– View Network Settings

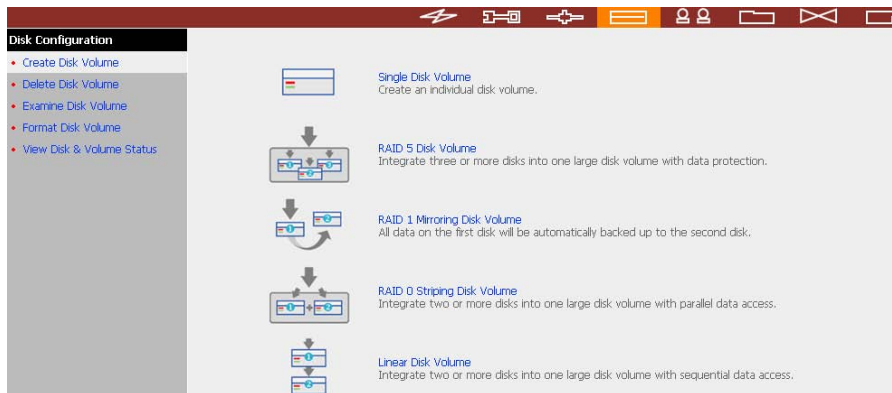
Network	Network File Services	Miscellaneous
Printer Service		
Enabled	Yes	
Printer Name	NAS0E0036PR	
Printer Comment	USB port on NAS	

– Close

6.6 Disk Configuration



In the section, you can create, delete, examine and format disk volume, as well as view disk and volume status of FNS-7000B.



6.6.1 Create Disk Volume

FNS-7000B can accommodate four disks at maximum. You can set the disk volume to the following configurations by clicking on the icons on Create Disk Volume page:

- a. **Single Disk Volume** You can create an individual disk volume. In case of disk crash, all data will be lost.
- b. **RAID 5 Disk Volume** Three or more hard disks can be integrated to form RAID 5 disk volume. Data will be distributed and stored among the disks. If a disk fails, you can replace a new disk with the damaged one, and the system will restore the data to the new disk. You can also use three disks for RAID 5 and a fourth disk as a backup disk. If a disk of RAID 5 volume is damaged, the spare disk can replace that damaged disk, which enhances server stability and efficiency.



Note: When configuring RAID 5 disk volume, at least 3 disks are required.

- c. **RAID 1 Mirroring Disk Volume** Mirroring Disk protects your data by automatically backing up the contents of one disk onto the second disk of a mirrored pair. This protects your data if one of the disks fails. However, the storing capacity is equal to a single disk, as the second disk is used to automatically back up the first one.
- d. **RAID 0 Striping Disk Volume** Striping disk combines two or more disks into one larger disk. It offers the fastest disk access but does not have any protection of your data if the striped array fails. The disk capacity equals the number of disks in the array times the size of the smallest disk.
- e. **Linear Disk Volume** You can combine two or more disks into one larger disk. Files will be saved on physical disks sequentially but does not have a disk failure

file protection function. The overall capacity of linear disk is the sum of all disks.



6.6.2 Delete Disk Volume

To delete a disk volume, select the disk volume to remove and click OK.

Delete Disk Volume

Please select the disk volume you want to remove and click OK.
Warning: All data and network shares on the disk volume you select will be deleted. The connection of all active users on this volume will be terminated.
Note: To view all shares and active users on the volume you have selected, click Show Shares.

Volume	Total Size	Free Size	Status
<input checked="" type="radio"/> RAID 5 Disk Volume: Drive 1 2 3 4	233632.50 MB	224784.51 MB	Ready

OK

Cancel

Show Shares

6.6.3 Examine Disk Volume

To examine a disk volume, select the disk volume to examine and click OK. You can check the **Fix errors** box and the server will fix errors automatically during disk checking.

Examine Disk Volume

Please select the disk volume you want to examine and click OK. You can check the Fix errors option to resolve errors automatically.
Warning: All active users on this disk volume will be terminated.
Note: To view all shares and active users on the volume you have selected, click Show Shares.

Volume	Total Size	Free Size	Status
<input checked="" type="radio"/> RAID 5 Disk Volume: Drive 1 2 3 4	233632.50 MB	224784.51 MB	Ready

☒ Fix errors

OK

Cancel

Show Shares

- 9 Disk Volume Operation Report After click OK on Examine Disk Volume page, a page like below will display to show the current status and information of disk volume operation.

– Disk Volume Operation Report

Operation Type	Format Disk Volume
Source Disk Volume	Mirroring Disk Volume: Drive 1 2
Target Disk Volume	--
Snapshot Settings	Disabled
Status	Formatting...
Result	--
Comment	This operation may take several minutes to hours, depending on the disk capacity.

Note: This page will automatically refresh every 5 seconds. Click Close to exit this page. You can choose to view the operation result later on the View Disk & Volume Status page.

Close

6.6.4 Format Disk Volume


To format disk volume, select the disk volume to format and click OK.


– Format Disk Volume


Please select the disk volume you want to format and click OK.

Warning: All data and network shares on the disk volume you select will be deleted. The connection of all active users on this volume will be terminated.

Note: To view all shares and active users on the volume you have selected, click Show Shares.

Volume	Total Size	Free Size	Status
 RAID 5 Disk Volume: Drive 1 2 3 4	233632.50 MB	224784.51 MB	Ready

 OK

 Cancel

Show Shares

6.6.5 View Disk & Volume Status

You can view details of physical disks and logical volumes in the section.

Physical Disks			
Disk	Model	Capacity	Status
Drive 1	Maxtor 6Y120L0	117246.94MB	Ready
Drive 2	Maxtor 6Y120L0	117246.94MB	Ready
Drive 3	Maxtor 6Y120L0	117246.94MB	Ready
Drive 4	Maxtor 6Y120L0	117246.94MB	Ready

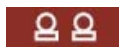
Logical Volumes			
Volume	Total Size	Free Size	Status
Striping Disk Volume: Drive 1 2 3 4	467878.12 MB	460403.27 MB	Ready

Refresh
Close

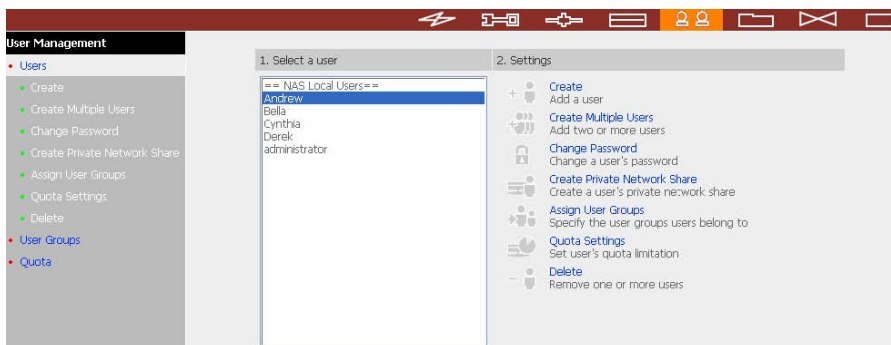


Note: When configuring disk volume, make sure there are no active users. **Note:** When configuring disk volume, make sure there are no active users connecting to FNS-7000B to avoid any potential damage to the disks. You can check all currently active users in Statistics & Logs—Active Users (refer to Chapter 6.10.1) and inform those users to logout before configuring disk volume.

6.7 User Management



The files on FNS-7000B can be shared among multiple users. For easier management and better control of users' access right, you have to organize users, user groups and their access right control.



6.7.1 Users

The system has created the following users by default:

n Administrator

By default, administrator has access to system administration and cannot be deleted.

o Guest

This is a built-in user and will not be displayed on User Management page. When you use a non-registered user name to login, the server will recognize the user as a guest and will allow limited access. A guest does not belong to any user group.

□ Anonymous This is a built-in user and will not be displayed on User Management page. When you connect to the server by FTP service, you can use this name to login as a guest.

512 users can be created at maximum (including system default users). You can create a new user according to your needs. The following information is required to create a new user:

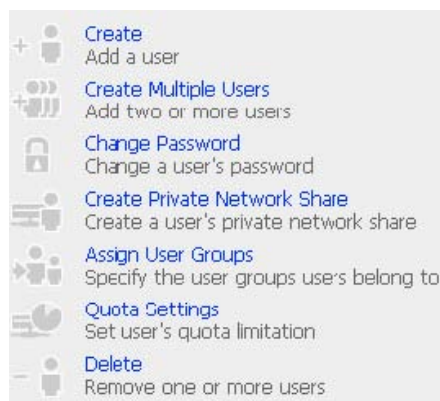
9 User name

The user name must not exceed 32 characters. It is case-insensitive and can contain double-byte characters, such as Chinese, Japanese, and Korean except:
" / \ [] : ; | = , + * ? < > ` ' "

9 Password

The password is case-sensitive and can be 16 characters long at maximum. It is recommended to use a password of at least 6 characters.

You can perform the following settings for users:



6.7.2 User Groups

User group is a collection of users with the same access right to files or folders.

FNS-7000B has created the following user groups by default:

■ Administrators

All members in this group have administration right. You cannot delete this group.

□ Everyone

All registered users belong to everyone group. You cannot delete this group.



You can manage user groups with the following options:



User groups name must not exceed 256 characters. It is case-insensitive and can contain double-byte characters, such as Chinese, Japanese, and Korean, except the following ones:

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

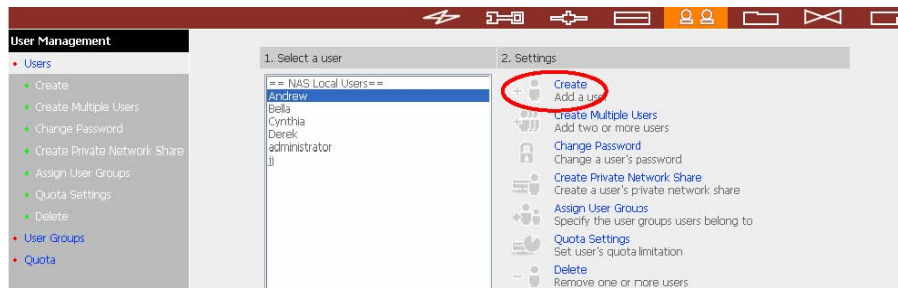
To properly manage security, it is very important to manage users and user groups. You may set the share access parameters of each user or user group accordingly.

Create Users and Assign Users to User Group

The following example demonstrates how to create new users and assign users to a user group.

ABC Co. has recently recruited two employees Mr. Jones Lee for Administration Department and Ms. Jane Wu for Sales Department. The IT Department therefore needs to create two user accounts for them to access company data on FNS-7000B.

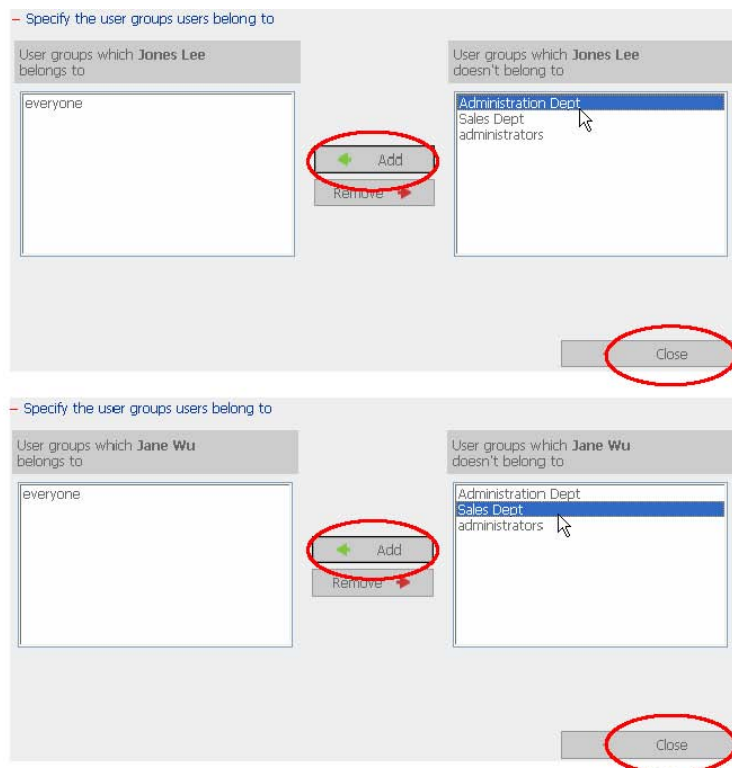
- i. To create a user account, go to User Management-Users. Click **Create**.



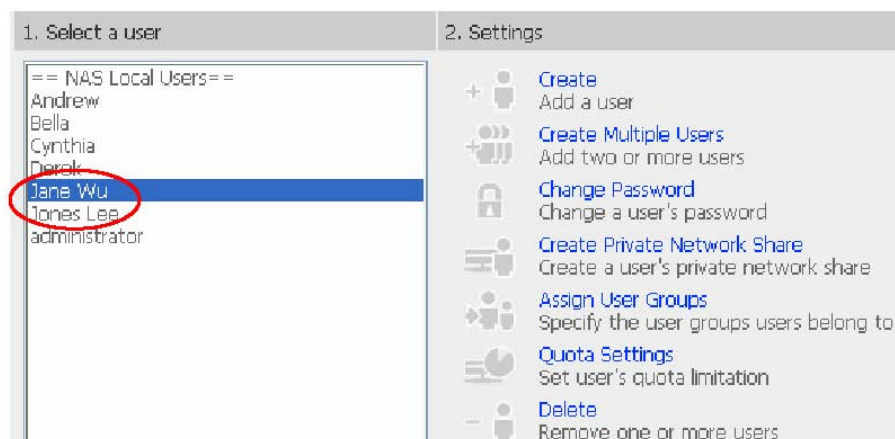
- ii. Enter the user name (Jones Lee/ Jane Wu) and password. Check the box "Continue to set the user groups to which this user belongs" and click **OK**.

Two screenshots of the 'Add a user' form. The first screenshot shows the form with 'Jones Lee' entered in the 'User Name' field. The 'Password' and 'Verify Password' fields are masked with dots. A note states: 'Note: For increased security, password should be at least 6 characters.' Below the note, the checkbox 'Continue to set the user groups to which this user belongs' is checked and circled in red. At the bottom right, the 'OK' button is circled in red. The second screenshot shows the same form but with 'Jane Wu' entered in the 'User Name' field. The 'Continue to set the user groups' checkbox is also checked and circled in red, and the 'OK' button is circled in red.

- iii. Select the user groups the users belong to on the right list, i.e. Mr. Jones Lee for Administration Dept and Ms. Jane Wu for Sales Dept, and click **Add**. Then click **Close**.



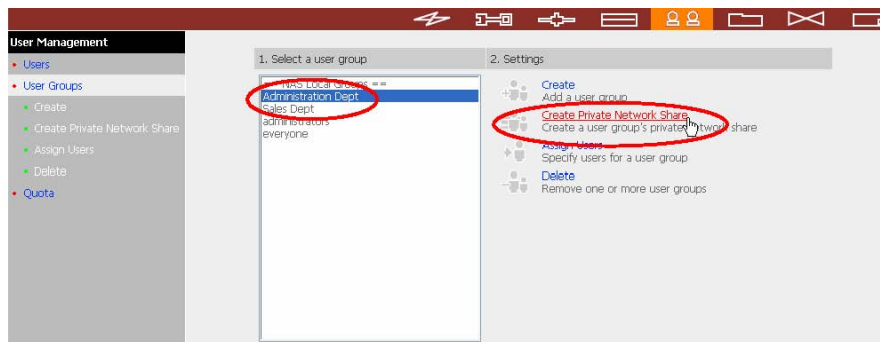
iv. After creating the users, the users will appear on the list on Create User Page.



Create Private Network Share for User Groups

You can create particular network share for each user group. The procedure is described as below:

- 1 To create a network share called **media** accessible by Administration Department only, please go to "User Management—User Groups" page. Select the user group Administration Dept and click **Create Private Network Share** on the right.
- 2 Enter the network share name **media**. Select to disk volume that the share will be created in and specify the path automatically or manually. Enter the comment for the network share, e.g. media folder for Admin Dept and click **Apply**.



2. Enter the network share name **media**. Select to disk volume that the share will be created in and specify the path automatically or manually. Enter the comment for the network share, e.g. media folder for Admin Dept and click **Apply**.

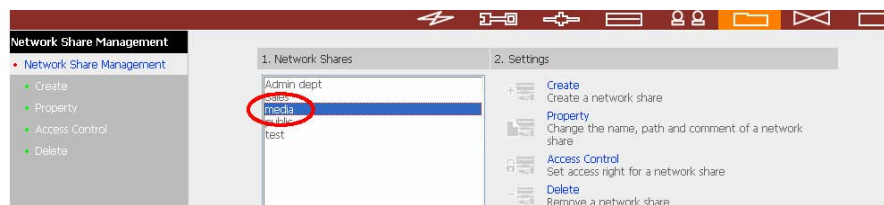
— Enter new network share's name, volume and path. Only users that are the members of Administration Dept user group can access this network share.

Network Share Name	<input type="text" value="media"/>
Disk Volume	<input type="text" value="Striping Disk Volume: Drive13"/>
Path	<input checked="" type="radio"/> Specify path automatically <input type="radio"/> Enter path manually
Comment	<input type="text" value="media folder for Admin Dept"/>

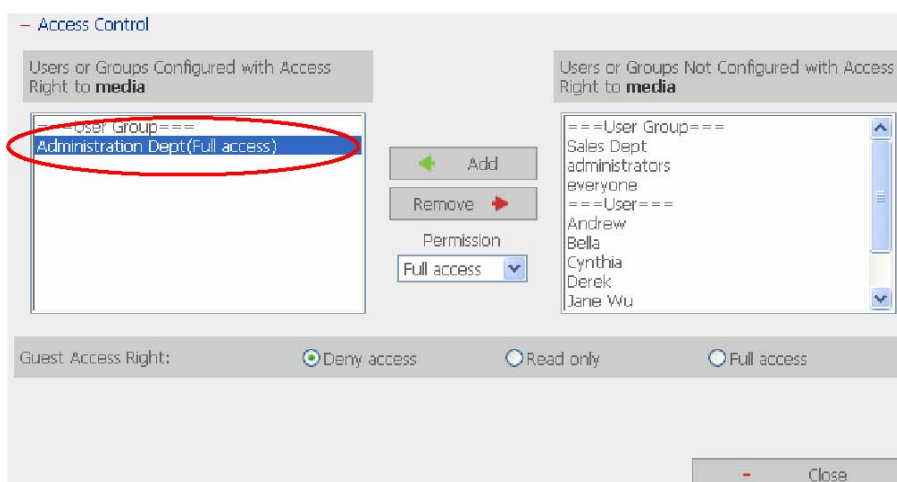
3. You can see the folder **media** in **Network Share Management** page.

4. Enter Access Control. You can see that only Administration Dept has full access right

to the folder.



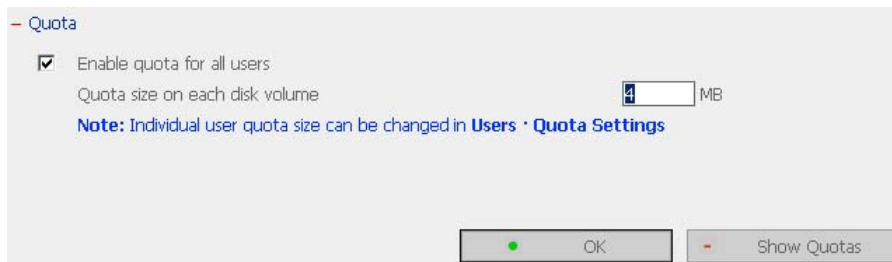
4. Enter Access Control. You can see that only Administration Dept has full access right to the folder.



6.7.3 Quota

To allocate disk volume efficiently, you can specify the quota that can be used by each user. When this function is enabled and a user has reached his/her disk quota, he/she cannot upload data to the server anymore. By default, no limitations are set for users. You can modify the following two options:

- i. Enable quota for all users
- ii. Quota size on each disk volume



The screenshot shows a dialog box titled "Quota". It contains a checked checkbox labeled "Enable quota for all users". Below this is a text input field for "Quota size on each disk volume" with the value "1" and the unit "MB". A blue note states: "Note: Individual user quota size can be changed in Users > Quota Settings". At the bottom, there are two buttons: "OK" and "Show Quotas".

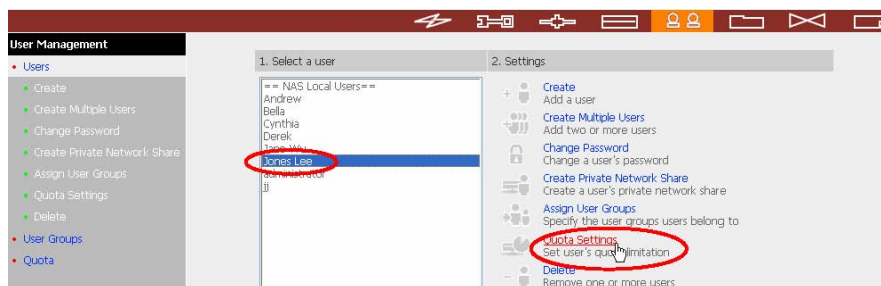
Please refer to the following example to configure the quota setting of users: The IT department is planning to set the disk quota of Mr. Jones Lee from Administration Department and Ms. Jane Wu from Sales Department on FNS7000B. The disk quota is 2000MB for Mr. Jones Lee and 4000MB for Ms. Jane Wu.

1. Please go to **Quota** page in **User Management** to enable quota for all users. Enter the quota size on each disk volume, e.g. 1000MB. The quota for individual user can be modified later.



The screenshot shows the "User Management" interface. On the left is a sidebar with "Users", "User Groups", and "Quota". The "Quota" page is active, showing the same settings as the previous screenshot. The "Enable quota for all users" checkbox is circled in red. The "Quota size on each disk volume" is set to "1000" MB. The "OK" and "Show Quotas" buttons are at the bottom.

2. Select Jones Lee on User page and click **Quota Settings** on the right.



- 1 Enter the quota size 200MB and click **OK**.
- 2 Follow the same steps and enter the quota size 4000MB for Jane Wu and click **OK**.
The quota setting is successfully applied.

Quota status for user **Jones Lee**

Volume	Quota Size	Used Size	Status
Striping Disk Volume: Drive 1 3 (Free Size: 464621.86 MB)	2000 MB	0.00 MB	Available 2003.00 MB

Set the quota size of **Jones Lee** on each disk volume

☐ No limit
 ☒ Quota size: MB

OK Cancel

Quota status for user **Jane Wu**

Volume	Quota Size	Used Size	Status
Striping Disk Volume: Drive 1 3 (Free Size: 464621.86 MB)	1000 MB	0.00 MB	Available 1000.00 MB

Set the quota size of **Jane Wu** on each disk volume

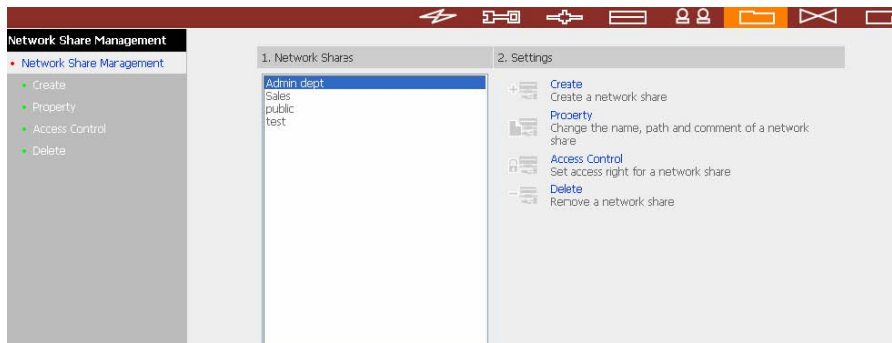
☐ No limit
 ☒ Quota size: MB

OK Cancel

6.8 Network Share Management



The primary purpose of network storage is file sharing. In a standard operation environment, you can create different network share folders for various types of files, or provide different file access rights to users or user groups.



There are four options in Network Share Management:



6.8.1 Create

To create a network share, enter the following information:

- 9 Network share name The share name must not exceed 12 characters and cannot contain the following characters:

" . + = / \ : | * ? < > ; [] %

- 9 Disk volume This area shows the disk volume status.
 - 9 Path All data are stored under the assigned path onto the disk volume. You can select "Specify path automatically" or assign a path manually. The path cannot exceed 256 characters and cannot contain the characters below:
- " . + = / \ : | * ? < > ; [] %
- 9 Comment Enter a brief description for the share folder. The comment cannot exceed 128 characters.

Create

Network Share Name:

Disk Volume:

Path: ☒ Specify path automatically
☐ Enter path manually

Comment:

☒ Grant full access right for everyone
☐ Grant read access right for guest
☒ Continue to set access right for this network share

6.8.2 Property

To edit the property of an existing network share, select a share and click **Property**. You can then edit the content of that share.

Property

Network Share Name:

Disk Volume:

Path:

Comment:

Note: If you change the share's volume or path of the share, all data that has already existed in the original volume or path will not be moved.

6.8.3 Access Control

Once the network share is created, you can assign access rights to users or user groups:

🔒 Deny access

Access to the network share will be denied when this option is selected.

- 9 Read only Users can read the files only on the network share when read only is assigned.
- 9 Full access Users with full access are allowed to read, write, create, or delete files and folders on the network share.

Access Control

Users or Groups Configured with Access Right to **ddd**

===User Group===

everyone(Full access)

Add

Remove

Permission

Full access

Users or Groups Not Configured with Access Right to **ddd**

===User Group===

administrators

group 2

group 4

group1

group3

===User===

aaa

aaa'sd

aaaa

Guest Access Right: ☒ Deny access ☐ Read only ☐ Full access

Close

6.8.4 DeleteSelect a share and click delete. Click **OK** to confirm.

Please make sure you want to delete network share **ddd**.

Note: All active users who are currently using this network share will be disconnected.

OK Cancel

6.9 System Tools



System Tools enable you to optimize the maintenance and management of FNS7000B.

System Tools

- SNMP Settings
- Alert Notification
- Restart/ Shutdown
- Hardware Settings
- UPS
- System Update
- Change Logo
- Remote Replication
- Anti-virus Configuration
- Backup/ Restore/ Reset Settings
- USB CD/DVD Backup/ Restore

SNMP Service Setting

☐ Enable SNMP Service

Community Name

System Contact

System Location

SNMP Trap Setting

☐ Enable SNMP Trap Notification

Community Name

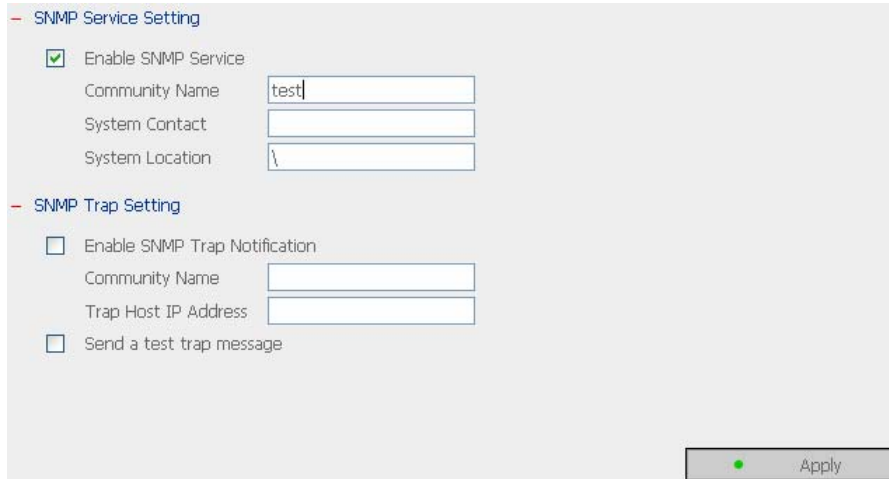
Trap Host IP Address

☐ Send a test trap message

Apply

6.9.1 SNMP Settings

Enable SNMP (Simple Network Management Protocol) service and complete all necessary settings to manage network components of the server by SNMP. When enabling SNMP Trap Notification, a message will be sent to a specified trap host when an error occurs.



The image shows a configuration window titled "SNMP Service Setting" and "SNMP Trap Setting". Under "SNMP Service Setting", there is a checked checkbox for "Enable SNMP Service". Below it are three text input fields: "Community Name" (containing "test"), "System Contact", and "System Location". Under "SNMP Trap Setting", there is an unchecked checkbox for "Enable SNMP Trap Notification". Below it are two text input fields: "Community Name" and "Trap Host IP Address". At the bottom left of the "SNMP Trap Setting" section is an unchecked checkbox for "Send a test trap message". At the bottom right of the window is a green "Apply" button.

6.9.2 Alert Notification

Enter the e-mail address of administrator and SMTP server IP address. In case of warning or malfunction, e.g. CPU fan fails, a disk drive fails or is unplugged, an email will be sent to the administrator automatically. You can refer to Event Logs section in Statistics & Logs (refer to Chapter 6.10.2) to check all happened errors and warnings.

If your mailbox requires SMTP authentication, enter the user name and password.

Note: It is recommended to send a test e-mail to make sure you can receive the alert mails.

Alert Notification

Alert level:

☐ High: Send e-mails on any errors or warning events
☐ Medium: Send e-mails only on critical errors
☒ Low: No alert e-mails will be sent


E-mail (SMTP) server IP address: . . .

☐ Enable SMTP Authentication
 User Name :
 Password :

E-mail address 1:

E-mail address 2:

☐ Send a test e-mail

 **Apply**

6.9.3 Restart/ Shutdown

Select to restart or shut down FNS-7000B.

Restart ; Shutdown

To restart the server, click Restart.
To shut down the server, click Shut Down.

 **Restart**
 **Shut Down**

6.9.4 Hardware Settings

You can enable or disable the hardware functions of FNS-7000B.

Hardware Settings

☒ Enable LCD panel setting function
☒ Enable configuration reset switch
☐ Enable hard disk standby mode (if no access within)
☐ Enable buzzer

Power Supply Type:

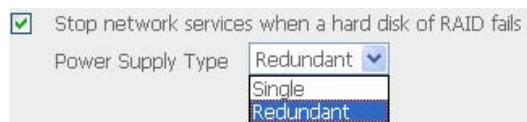
 **Apply**

- i. Enable LCD panel setting function To enable users to configure TCP/IP settings via the LCD panel.

- ii. Enable configuration reset switch By enabling this option, you can press the reset button for a few seconds to reset the administrator password and system settings to default.
- iii. Enable hard disk standby mode When this function is enabled, hard disk will go to standby mode if there is no access within the specified period.
 - iv. Enable buzzer When buzzer is enabled, an alert sound will be played in case of system error.
 - v. Power Supply Type Select power supply type. There is one power supply by default. **Do NOT change the position of default power supply.** To use a second power supply, you can purchase from the distributor.

To use two power supplies, follow the steps below:

- 1 Set power supply type as Redundant.
- 2 Shut down the system properly.
- 3 Insert the second power supply and turn on the system. If a power supply fails, the system will send an alert notification to the administrator.



6.9.5 UPS

If your UPS device provides USB interface, you can enable UPS (uninterruptible power supply) support to protect your system from abnormal system shutdown caused by power outage. In case of utility power failure, the system will shut down automatically by probing the power status of the connected UPS unit.

 A screenshot of the 'UPS' configuration window. It features a checkbox for 'Enable UPS Support'. Below it, a text field shows '5' for the shutdown timer in minutes. The 'UPS Model' dropdown is set to 'APC UPS with SNMP Management'. The 'IP Address of UPS' is shown as '0.0.0.0'. There is a 'Test' button and status indicators for 'AC Power Status' and 'Battery Power Status', both showing '--'. At the bottom, there are 'Refresh' and 'Apply' buttons.

Enable UPS support To activate the UPS support, you can select this option. You can set the shutdown timer to turn off the system automatically after the system detects the AC power is abnormal. In general, the UPS can keep supplying the power for the system

for about 5~10 minutes, depending on the maximum load of the UPS and the number of the loads connected to it.

UPS Model

Select the UPS model from the list. If the UPS model you are using is not available on the list, please contact our technical support.

IP Address of UPS

If you have selected APC UPS with SNMP for UPS model, enter the IP address of the UPS.

UPS

☒ Enable UPS Support

The system will be shut down in minute(s) when the AC power status is abnormal.

UPS Model:

IP Address of UPS: . . .

UPS Model: AC Power Status: -- Battery Power Status: --

After selecting the UPS model, click Test to make sure selection is correct.



Note: When UPS support is not enabled, the **Test** button will not function.

6.9.6 System Update



Note: If the system is running properly, you do not need to update the

Before updating system firmware, please make sure the product model and firmware version are correct. Follow the steps below to update firmware:

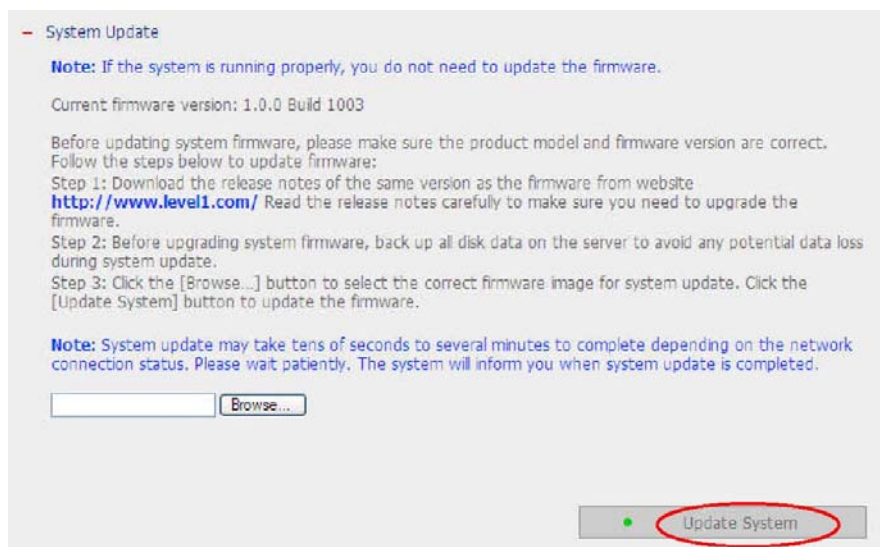
Step 1: Download the release notes of the same version as the firmware from LevelOne website <http://www.level1.com.tw/>. Read the release notes carefully to make sure you

need to upgrade the firmware.

Step 2: Before upgrading system firmware, back up all disk data on the server to avoid any potential data loss during system update.

Step 3: Click the [Browse...] button to select the correct firmware image for system update. Click **Update System** to update the firmware.

Note: System update may take tens of seconds to several minutes to complete depending on the network connection status. Please wait patiently. The system will inform you when system update is completed.



— System Update

Note: If the system is running properly, you do not need to update the firmware.

Current firmware version: 1.0.0 Build 1003

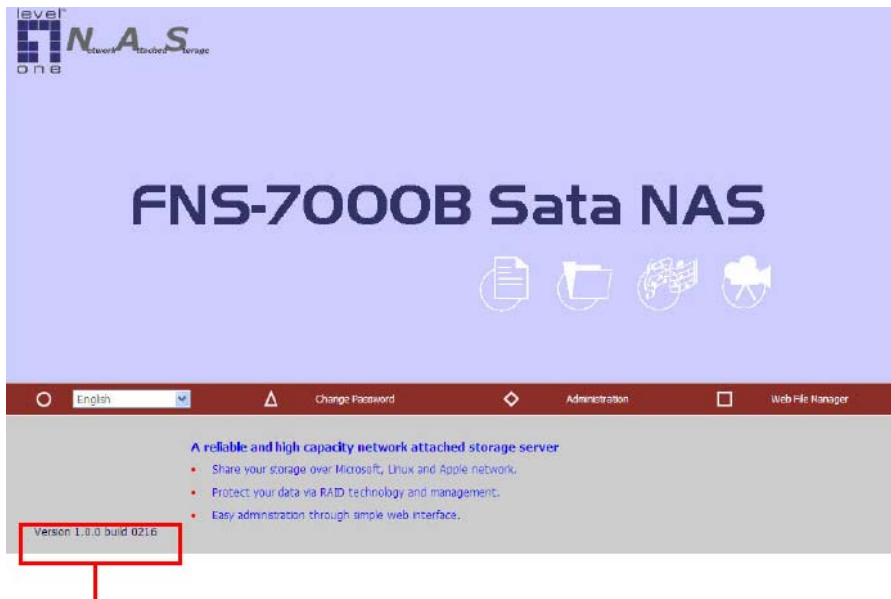
Before updating system firmware, please make sure the product model and firmware version are correct. Follow the steps below to update firmware:

Step 1: Download the release notes of the same version as the firmware from website <http://www.level1.com/>. Read the release notes carefully to make sure you need to upgrade the firmware.

Step 2: Before upgrading system firmware, back up all disk data on the server to avoid any potential data loss during system update.

Step 3: Click the [Browse...] button to select the correct firmware image for system update. Click the [Update System] button to update the firmware.

Note: System update may take tens of seconds to several minutes to complete depending on the network connection status. Please wait patiently. The system will inform you when system update is completed.



Version 1.0.0 build 0216 (FNS-7000B firmware version)

6.9.7 Change Logo

You can choose a personal picture to display on the login page of FNS-7000B. The size of the picture cannot exceed 20K bytes.

Change Logo

Please select an image from the **To be displayed** pull-down menu. Then click **Apply** to confirm the change.

To upload your own image, click **Browse** to select the image. Then click **Upload** to upload the image.

To replace an image, select an appropriate image from the **To be replaced to** pull-down menu and click **Apply**.

Uploaded image: **Browse...** **Upload**
 To be replaced to: **Not replace** **Replace**
 To be displayed: **Image 1**




Image 1





Image 2



Uploaded Image




Image 3


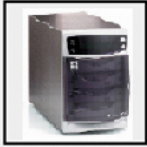


Image 4



Current Logo Image

Note: For the best image effect, the recommended size for the image is 100 x 100 pixels.

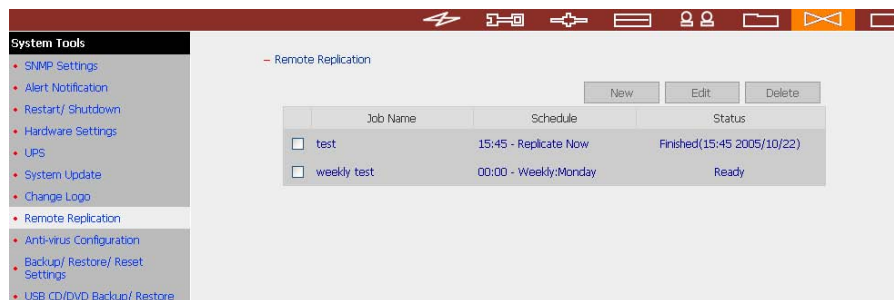
Full Screen **Close Full Screen** **Apply**

6.9.8 Remote Replication

Remote Replication enables you to replicate local files to remote folders on another server. The files will be compressed before the replication process in order to save time for data transfer. **Make sure a network share is created before creating a remote replication job.**

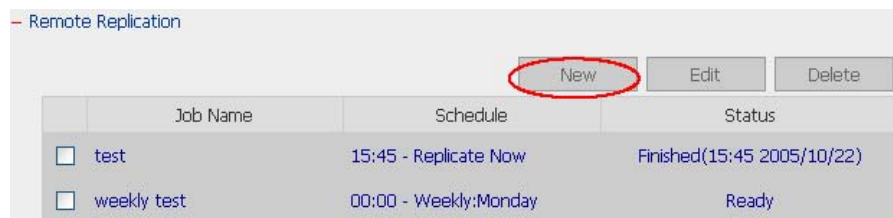
Using Remote Replication

Login FNS-7000B, go to Remote Replication in System Tools.



i. **New**

- Click **New** to enter the following page.
- Complete all settings and click OK to save or Cancel to quit.



Add a remote replication job

Job Name

Remote Destination

Remote Host Name / IP Address

Destination Path (Network Share/Directory)

/

User Name

Password

Remote Host Testing

Test

(Status: --)

Local Source

Source Path (Network Share/Directory)

{UU}

/

☒ Replicate Now

Replication Schedule

00

Hour :

00

Minute

☐ Daily

☐ Weekly

Monday

☐ Monthly

01

Day

☐ Activate file compression

☐ Stop network file services while replicating

☐ Perform incremental replication

☐ Delete extra files on remote destination



Note: To use remote replication, enable Microsoft Networking service.
Note: To use remote replication, enable Microsoft Networking service, make sure the destination network share and directory have been created, and the user name and password are valid to login the destination folder.

ii. Edit

- Select the job to be edited.
- Click **Edit**.
- Modify the settings.
- Click OK to save or **Cancel** to quit.

Remote Replication

New Edit Delete

	Job Name	Schedule	Status
<input type="checkbox"/>	test	15:45 - Replicate Now	Finished(15:45 2005/10/22)
<input type="checkbox"/>	weekly test	00:00 - Weekly:Monday	Ready

iii. Delete

- Select the job to be deleted.
- Click **Delete**.

Remote Replication

New Edit Delete

	Job Name	Schedule	Status
<input type="checkbox"/>	test	15:45 - Replicate Now	Finished(15:45 2005/10/22)
<input type="checkbox"/>	weekly test	00:00 - Weekly:Monday	Ready

6.9.9 Virus Scan

Virus scanning agent helps protect your system from being infected by viruses. You need to operate Windows NT or Windows 2000 server with virus-scanning software installed to perform real-time virus scanning. To enable virus scan support, specify the IP address of network share, the administrator ID and password.

Virus Scan

☐ Enable Virus Scan Support

IP Address of Virus Scan Server . . .

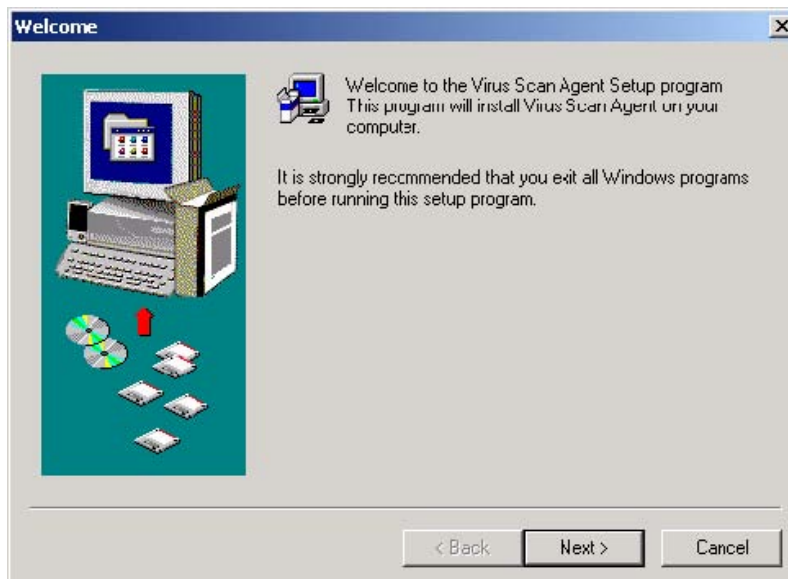
Apply

Installing Virus Scan Agent

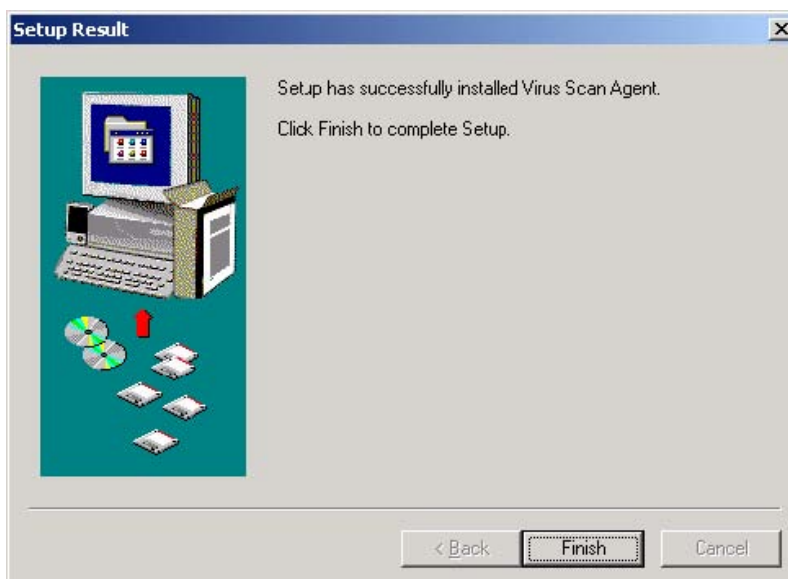
Make sure virus scan agent and software are installed on the same computer which performs virus scanning before activating the agent. Follow the steps below to install Virus Scan Agent:

Virus Scan Agent:

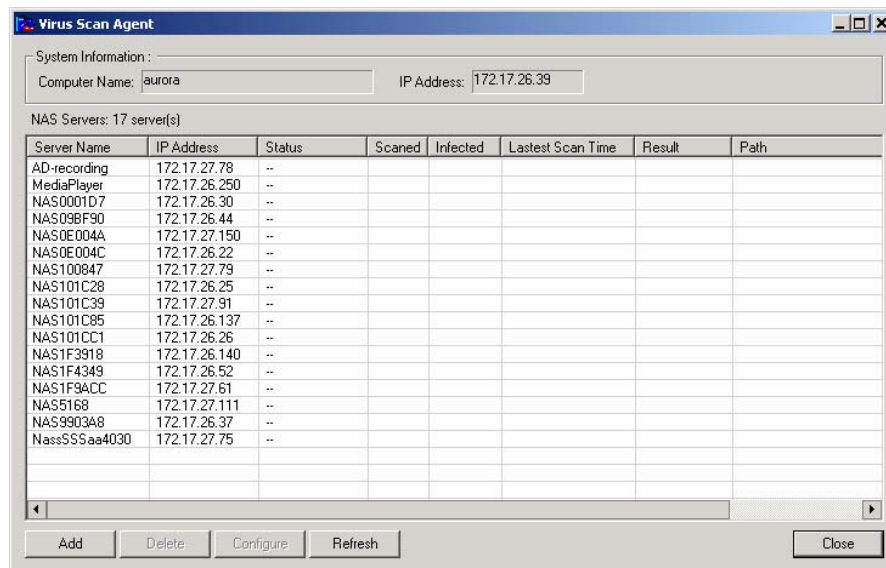
- Run Install Virus Scan Agent in FNS-7000B companion CD.
- Click **Next** to continue Virus Scan Agent Setup.



3. Click **Finish** to complete.



4. A screen will pop up to show the system information the first time you have successfully installed the virus scan agent.



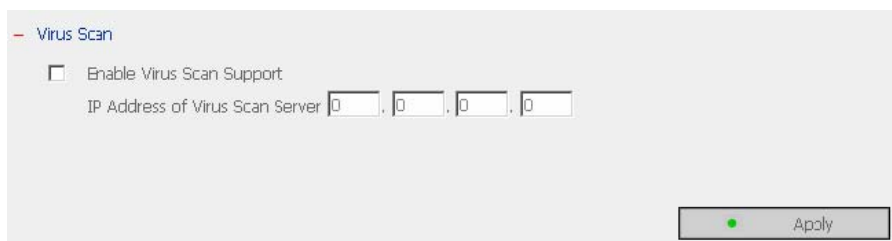
The description of the fields is as below:

Fields	Description
Server Name	Name of the network share under the protection of virus scan agent
IP Address	The IP address of the network share
Status	Connection status of the host network share with the virus scan agent: • <i>Disconnect</i> : Not connected to the network • <i>Idle</i> : Connection has been enabled but there is no file transfer for three minutes or more. • <i>Ready</i> : Connection has been enabled and ready to be scanned • <i>--</i> : User name and password have not been set up
Infected	Number of infected files
Last Scan Time	Date and time of the most recent virus scanning job

Result	Scanning result: OK: No files are infected • <i>Virus Found</i> : Virus is found. The name of the infected file(s) may not be displayed due to the scanning of other files. Go to administration page to view the name and location of the infected file(s). • <i>Access Denied</i> : Access to the server is denied. • <i>Authentication Failed</i> : The login user ID is not authorized to access the folder of the network share.
Path	The file location on the network share

Enabling Virus Scan Support

Go to Virus Scan of System Tools. To enable virus scan support, check the box Enable Virus Scan Support. Enter the IP address of the virus scan server and click **Apply**.



Virus Scan


☐ Enable Virus Scan Support

IP Address of Virus Scan Server . . .

Apply

Viewing Details of Infected Files

To view the details of infected files of the network share, go to Event Logs of Statistics & Logs. A warning message will be shown in the table.



Statistics & Logs

- Active Users
- Event Logs
- DHCP Logs

Display: All events There are 2 events.


Type	Content	Date	Time
Error	Virus found in the file: /public/virus	05/15/2003	17:03:02
Information	Connection to Virus Scan Agent is successful. Virus Scan protection is activated	05/15/2003	17:02:52

Refresh Clear

6.9.10 Backup/ Restore/ Reset Settings

To backup the setting(s), select the appropriate option(s) and click

Backup. To restore a backup settings file, click **Browse** to select the file and click **Restore**. To reset the setting(s) to factory default(s), select the appropriate option and click **Reset**.



The screenshot shows a window titled "Backup/Restore/Reset Settings". It contains three bullet points: "To restore a backup settings file, click Browse to choose the backup settings file. Then click Restore.", "To back up the setting(s), select the appropriate option(s) and click Backup.", and "To reset the setting(s) to factory default(s), select the appropriate option and click Reset." Below these are seven checkboxes: "User / User Group Settings", "Disk Configuration", "Share Volume Settings", "Hardware Settings", "System Settings", "Network Configuration", and "All Settings". A text input field with a "Browse..." button is located below the checkboxes. At the bottom, there are three buttons: "Restore" (with a red circular arrow icon), "Backup" (with a green circular arrow icon), and "Reset" (with a blue double-headed arrow icon).

6.9.11 USB CD/ DVD Backup/ Restore

USB Backup/Restore function enables you to back up local data to CD/DVD discs via USB CD/DVD burner, and CD/DVD data to local disk.

Using USB Backup/Restore

USB CD/DVD Backup/ Restore

Device: No device detect
Media Type: No media detect
Maximum Write Speed:
Status: **No Disc**

Re-detect
Eject Disc

Write Data
Volume Label:
Source Path (Network Share/ Directory): test /
Write Speed: 1x

Write to disc
Stop Writing
Erase Rewritable Disc

Status: Idling

Refresh

Load Data
CD Label
Destination Path (Network Share/ Directory): test /
☒ Overwrite existing files
☐ Skip existing files

Load
Stop Loading

Status: Idling

Refresh

- i. **USB CD/DVD Detection**
 - a. Connect USB burner to FNS-7000B. Turn on the burner and input a writable disc.
 - b. Click **Re-detect**. The system will display information of the detected burner.
 - c. Click **Eject Disc** to eject the disc from the burner.
 - d. Insert the disc again and click **Re-detect** and continue to use writing and loading functions.

USB Backup/ Restore

Device: [ATAPI][DVD DD 2X16X4X16][G7J9]
Media Type: DVD+RW
Maximum Write Speed: 4.0x
Status: Ready

Re-detect
Eject Disc

- ii. **Write data**
 - a. To write data from FNS-7000B to disc, enter the volume label name.

- b. In Source Path (Network Share/Directory), select a network share from the drop-down menu and enter a directory name. You can also use stroke to indicate multiple directories, e.g. sales/jenny.
- c. Select Write Speed.
- d. Click **Write to disc** to write data to the disc. To view updated writing status, click Refresh.
- e. The disc will be ejected after burning.

Write Data

Volume Label:

Source Path (Network Share/ Directory): /

Write Speed:

Status: Idling

Write Data

Volume Label:

Source Path (Network Share/ Directory): /

Write Speed:

Status: 11.32%

iii. Load data

- a. Insert the disc for loading data to FNS-7000B network share. The volume label is shown in CD Label.
- b. In Destination Path (Network Share/Directory), select a network share from the drop-down menu and enter a directory name. You can also use stroke to indicate multiple directories, e.g. sales/jenny.
- c. Select **Overwrite existing files** to overwrite existing files in the directory or **Skip existing files** to skip loading files that have existed in the directory during loading process.
- d. Click **Load** to load data to destination path.
- e. The disc will be ejected after loading.

Load Data

CD Label: Sales

Destination Path (Network Share/ Directory): /

☒ Overwrite existing files
☐ Skip existing files

Status: Idling

Load Data

CD Label: Sales

Destination Path (Network Share/ Directory): test / sales/jenny

☒ Overwrite existing files
☐ Skip existing files

Load Stop Loading

Status: Initialize Refresh

6.10 Statistics & Logs



You can view the event logs of all currently online users on FNS-7000B for system monitoring.

6.10.1 Active Users

This page shows all users that are currently logged on to Web File Manager.

Statistics & Logs				
• Active Users				
• Event Logs				
• DHCP Logs				

There is 1 user currently logged on to the system.				
Network Share	User	From	Login Time	Connection Type
--	administrator	10.8.12.49	22:02:46 Tue Aug 23 2005	Web File Manager

Refresh

6.10.2 Event Logs

FNS-7000B can store thousands of recent event logs, including warning, error and information messages. In case of system malfunction, event logs can be retrieved to analyze system problems.

Display	Errors only	There are 2 events.			1
Type		Date	Time		
Error	Disk drive 2 failed or unplugged. Please use a new hard disk to replace the old one.	09/08/2005	16:19:35		
Error		09/07/2005	17:45:34		

Refresh Clear

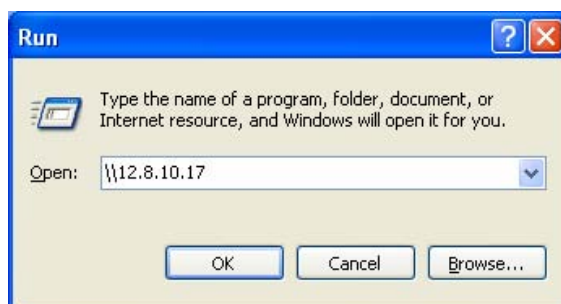
6.10.3 DHCP Logs

When DHCP service is enabled, you can refer to DHCP logs to monitor all assigned dynamic addresses, client MAC addresses and other information.

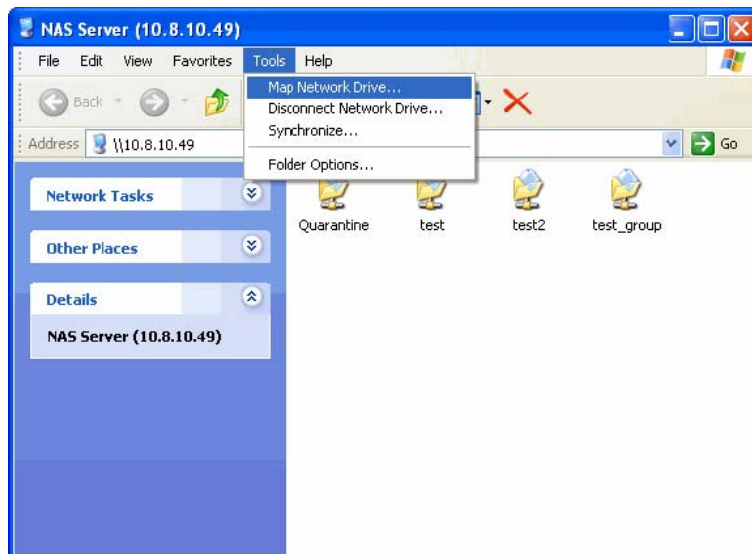
Chapter 7 Access FNS-7000B

7.1 By Microsoft Windows

1. You can access FNS-7000B in Windows OS by the following ways:
 - a. By Quick Install Wizard. For further information, please refer to Chapter 4.
 - b. You may also search for FNS-7000B within the Network Neighborhood. Locate the workgroup and find the name of your FNS-7000B. When the server is found, double-click on the server name to connect.
 - c. You may also use "Search for Computers" function to look for your FNS-7000B in Windows. Under Windows OS, please follow these steps:
 - i. Open "My Network Places".
 - ii. Under the tool bar, click **Search**.
 - iii. Enter the name of FNS-7000B in Computer Name field.
 - iv. Click **Search**. When FNS-7000B is found, double click the item to access the server.
 - d. Use Run function in Windows. Type \\[server name] or \\[server IP] to access share folder on FNS-7000B.



2. Once the connection to FNS-7000B is successful, all listing on your available network share will be displayed. Use the option **Map Network Drive** to map the folder(s) as your network drive.

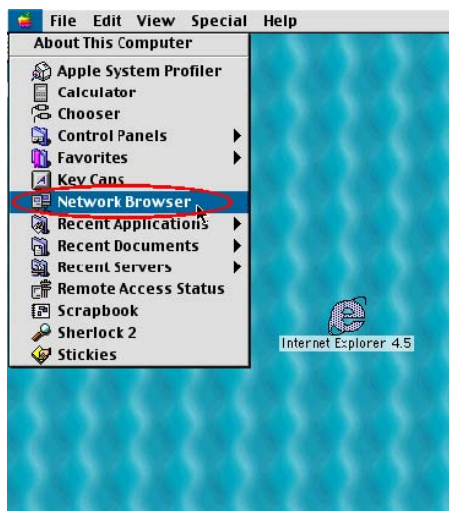


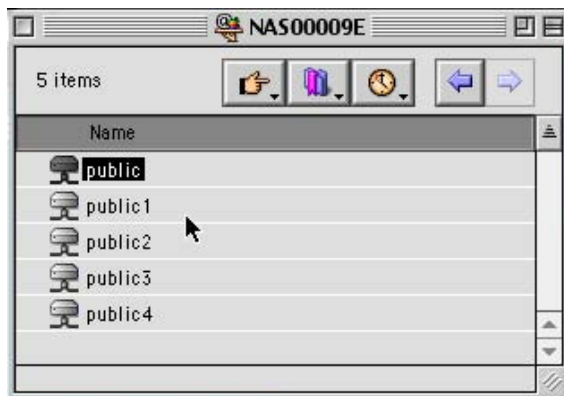
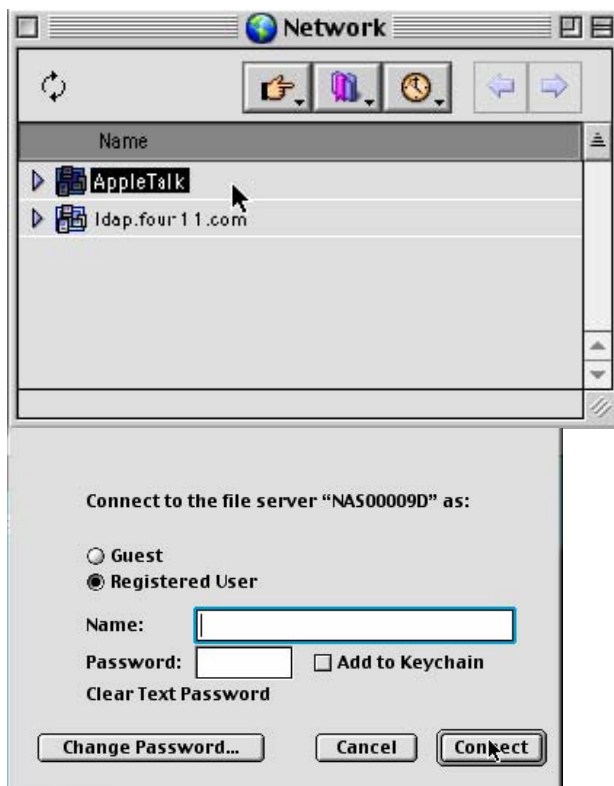
7.2 By Apple MAC OS

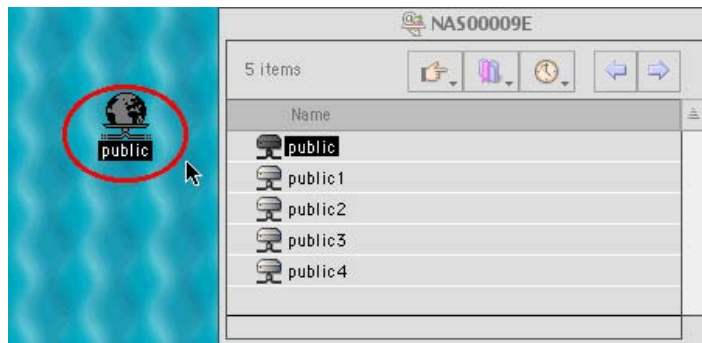
If you are an Apple MAC user, you can access FNS-7000B by the following ways:

1. Using Network Browser

- Choose "Network Browser" in Apple menu.
- In "Network Browser", choose AppleTalk. A list of computers on the AppleTalk network will appear. Select FNS-7000B.
- Enter the login name and password, or use "Guest" to enter. Click **Connect**.
- When FNS-7000B is connected, all network shares will be shown.
- Choose a network share to connect. The network share will appear on the desktop.

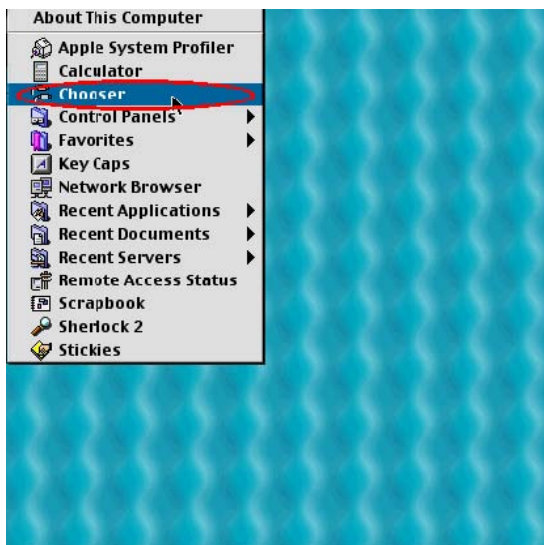


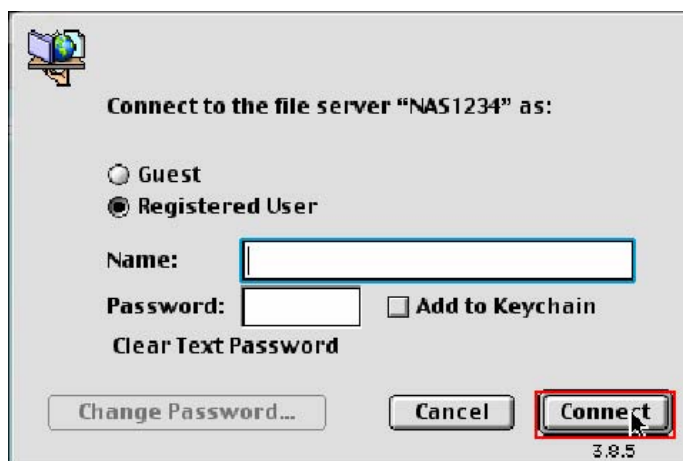
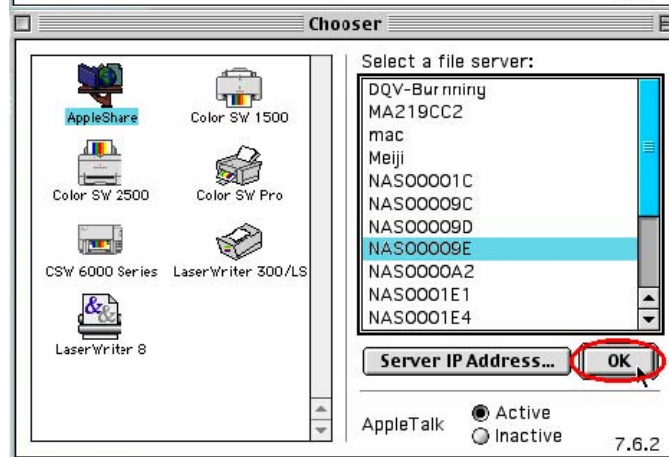
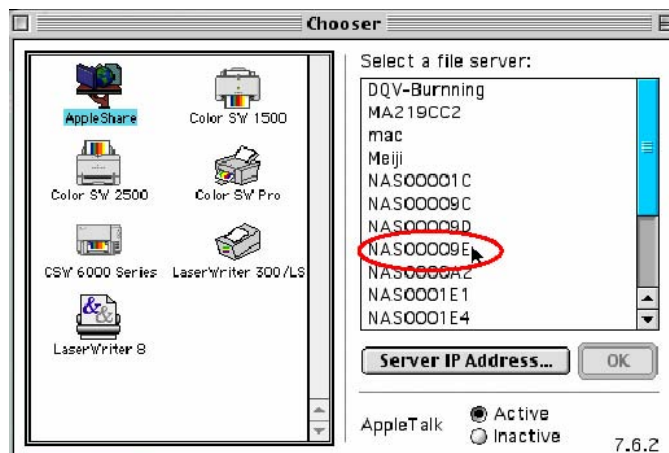


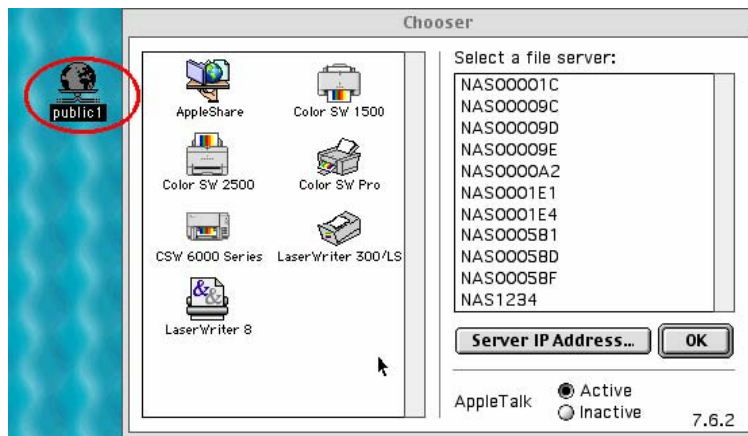
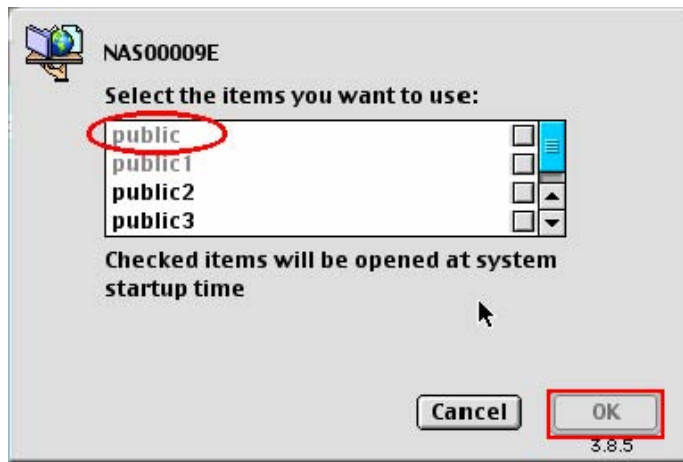


2. Using Chooser

- Select **Chooser** on Apple menu bar.
- Click on **AppleShare**. The name of FNS-7000B will appear on the right side of the window.
- Use the mouse to highlight FNS-7000B and click OK.
- Enter the correct login name and password or use "Guest" to login, and then click **Connect**.
- All available network shares will be listed. Select a network share and click OK.
- Close the Chooser program. Double click on the icon on the desktop to access the files.







7.3 By Linux OS

In addition to Microsoft and MAC OS, FNS-7000B also supports Linux systems through the NFS service:

1. On Linux, run the following command: **mount -t nfs <FNS-7000B IP address>:/<Network Share Name> <Directory to Mount>**

For example, if the IP address of your FNS-7000B is 192.168.0.1 and you want to link the network share folder "public" under the /mnt/pub directory, use the following command:

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



Note: You must login as “root” user to initiate the above command.

2. Login as the user id you define, you can use the mounted directory to access your network share files.

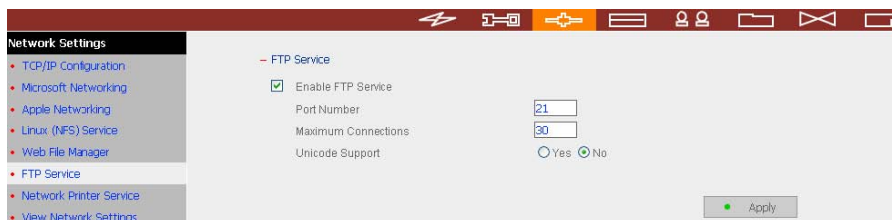
7.4 By Web Browser

Other than OS support, your FNS-7000B also provides a convenient web file management interface that allows using a standard web browser to access your data. If you link FNS-7000B to the Internet and use a public IP address, you can access the files on the server anywhere. For more information, please refer to Appendix A.

7.5 By File Transfer Protocol (FTP)

In addition to working with multiple operating systems, FNS-7000B also supports connection via FTP. Enter the correct user name and password to connect the server or access the public share folders as guest.

Please go to **Network Settings—FTP service** and enable FTP service before using FTP service.



Follow the steps below to use FTP service:

- 1 Open an IE browser and type ftp://[server IP] or ftp://[server name]. OR
- 2 By Web File Manager of FNS-7000B.
 - a. Go the FNS-7000B administration and click Web File Manager. Enter user name and password to login FNS-7000B.
 - b. Click the share folder in **FTP** section.
 - c. When the ftp folder is shown, enter user name and password.
 - d. The share folder will be shown. You can then manage the folder by dragging and dropping files to it, as well as rename or delete the files.



FNS-7000B Sata NAS



English

Change Password

Administration

Web File Manager

A reliable and high capacity network attached storage server

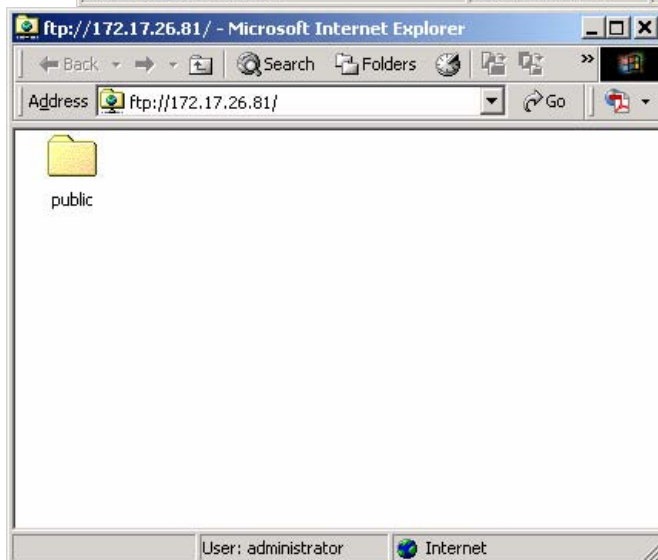
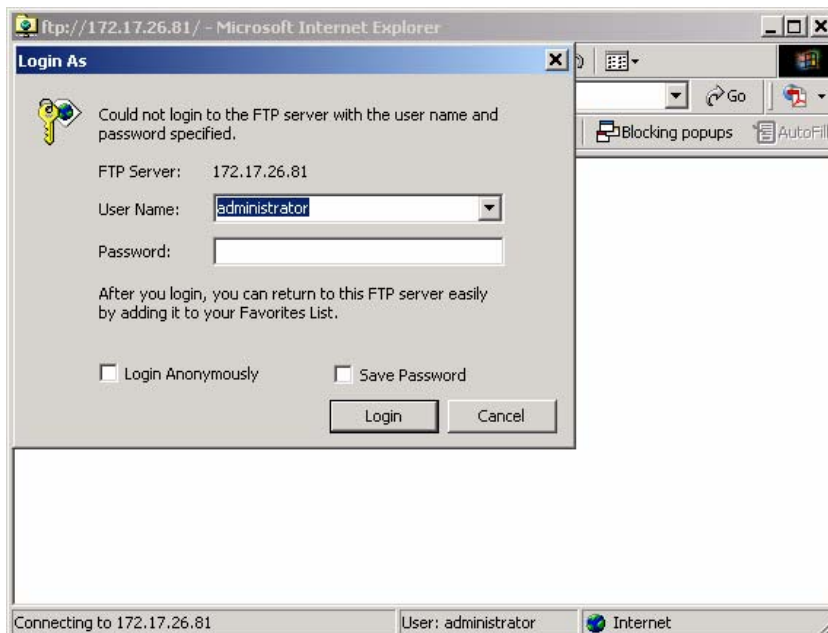
- Share your storage over Microsoft, Linux and Apple network.
- Protect your data via RAID technology and management.
- Easy administration through simple web interface.

Version 1.0.0 build 0216

FTP



Share Folder	Comment
 Admin dept	
 Quarantine	Virus Quarantine Folder
 Sales	
 test	



Chapter 8 Maintenance

FNS-7000B is specially designed to run 24x7 and be ready at all times against system crash caused by power outage. This section provides a general overview on system maintenance.

9.1 Restart/ Shut down Server

Follow the steps below to restart or shut down FNS-7000B.

- 1 Ask all active users of FNS-7000B to save their files and disconnect from the server.
- 2 Enter the administration page and select Restart/ Shutdown in System Tools.
- 3 Click **Restart** to reboot the server or **Shut Down** to turn off the server. You can perform these actions by the LCD panel.

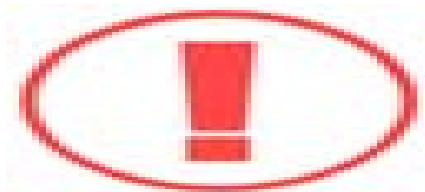


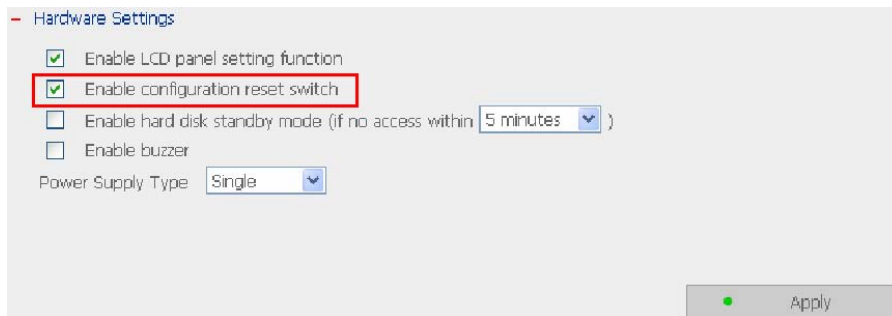
9.2 Reset Administrator Password and Network Settings

To reset the administrator password and network settings of FNS-7000B,

- 1 Press the reset button of FNS-7000B for a few seconds. A beep sound will be heard.
- 2 Login FNS-7000B with the default user name and password:

Note: To reset the system by the reset button, the option "Enable configuration reset switch" in Hardware Settings must be activated.





5.1 Disk Failure or Malfunction

When you encounter disk malfunction or failure, please do the following:

- 1 Record the malfunction status or error messages.
- 2 Stop using the failed FNS-7000B and turn off the server.
- 3 Contact customer service for technical support.

Note: Your FNS-7000B must be repaired by professional technicians, please do not try to repair the server yourself. Please back up any important files or folders to avoid potential data loss due to disk crash.

5.2 Power Outage or Abnormal Shutdown

In case of power outage or improper shutdown of FNS-7000B, the system will resume to the state before it is shut down. If your server does not function properly after restart, please do the following:

- 1 If the system configuration is lost, configure the system again.
- 2 In the event of abnormal operation of the server, contact customer service for technical support.

To avoid the above situations, please back up your data periodically and make sure you have done the following:

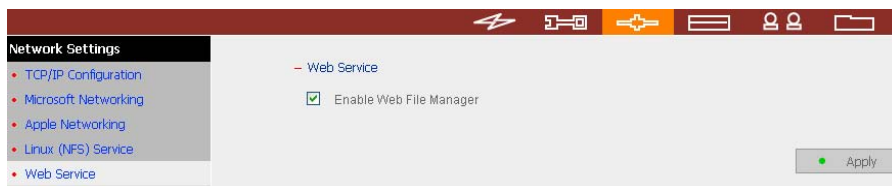
Follow the instructions described in Chapter 9.1 to restart or shut down the server.

If there is an anticipated power outage, back up all important data and turn off the server properly until power supply is resumed.

Appendix A Web File Manager

Using Web File Manager

To use Web File Manager, enable web service in Network Settings first.



Launch the web browser and go to FNS-7000B home page. Select **Web File Manager** and enter the correct login name and password. You may also enter "guest" in the login name field with no password to access the network shares on FNS-7000B as an anonymous guest.



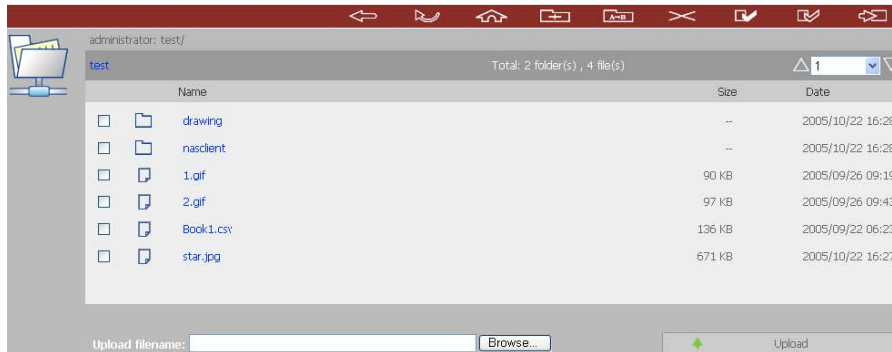
Note: Make sure a network share has been created before using Web File Manager.



Select an existing network share for management.



You can organize network share folders of FNS-7000B. With Web File Manager, you can upload, rename, or delete files and folders in the network shares.



View files online

Click on a file displayed on the web page. The information of the file will be displayed. If your browser does not support the file format, the download window pops up automatically. Once the file is downloaded, you can open it on your computer.

Create folder

i. Select a network share or folder in which you want to create a new folder.

ii. Click



(Create Folder) on the toolbar.

iii. Enter the name of the new folder and click OK.

Rename file or folder

i. Select a file or folder to rename.

ii. Click



(Rename) on the toolbar.

iii. Enter the new file or folder name and click OK.

Delete file or folder

i. Select a file or folder to delete.

ii. Click



(Delete) on the toolbar.

iii. Confirm to delete the file or folder.

To delete all files and folders, click



(Select All) and then



(Delete).

Upload file

- i. Open the folder to upload file to.
- ii. Click **Browse** to select the file.
- iii. Click **Upload**.

Download file

- i. Select a file to download.
- ii. Right click the mouse and select "Save Target As" to save the file.

Logout

To exit Web File Manager, click

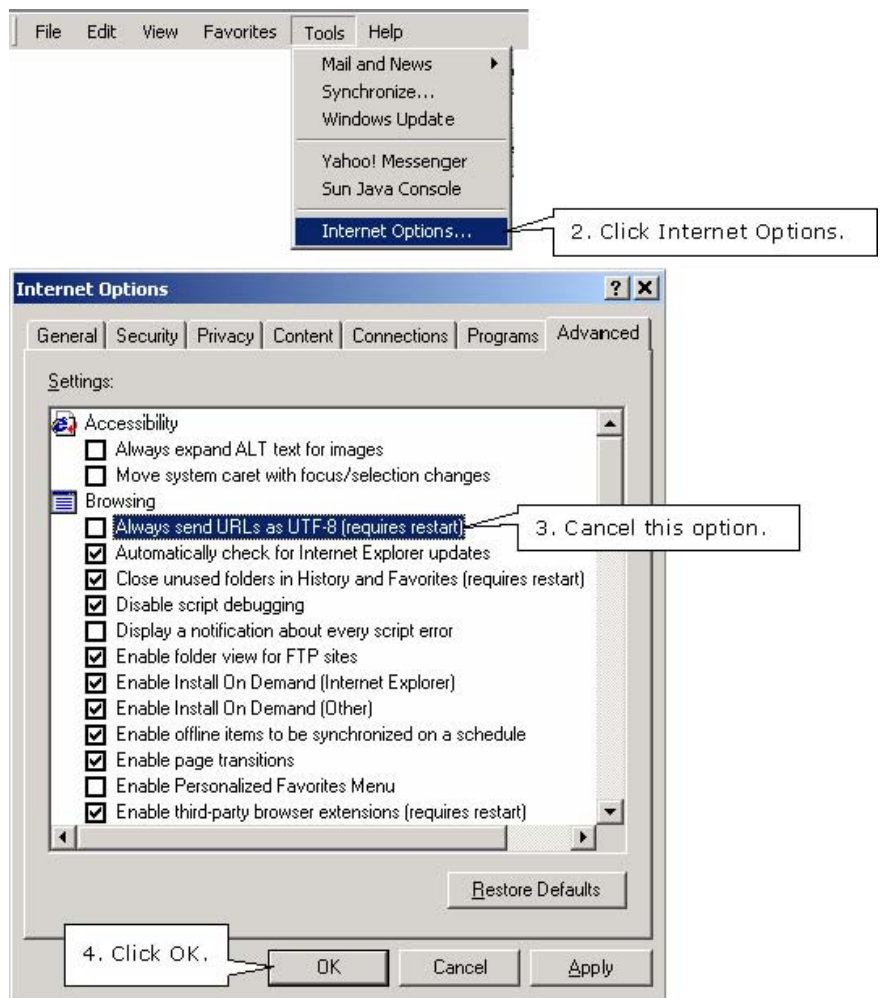


(Logout).




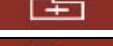


Viewing Files Named in Chinese







To view files named in Chinese, you may have to configure the browser settings. Take Internet Explorer as an example, follow the steps below to configure the settings.

1. Click on **Tools** in IE browser.



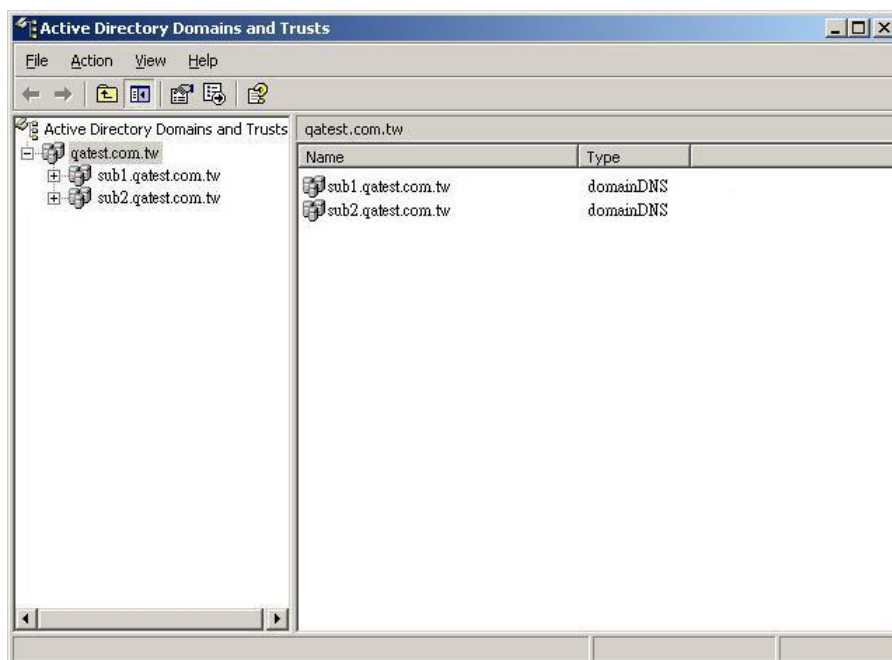
5. Restart the browser.
Web File Manager Icons

Icon	Description
	Up-return to the parent folder
	Refresh-reload the current page
	Home-return to network share list home page
	Create folder
	Rename file or folder
	Delete file or folder

	Select all
	Cancel selection
	Logout
	Full access network share folder
	Read-only network share folder
	Malfunction network share folder

Appendix B Configuring AD Authentication

AD environment mixed mode can be supported by FNS-7000B. For example, qatest.com.tw and sub2.qatest.com.tw are domains controlled by Windows 2003 server, and sub1.qatest.com.tw domain is controlled by Windows 2000 server.



Please make sure you have enabled the Active Directory Service on the Windows Server and check the following items:

- 1 DNS Server setting on FNS-7000B has to be directed to AD server.
- 2 FNS-7000B and AD server can synchronize only if their time difference is less than 5 minutes.
- 3 FNS-7000B and AD server will synchronize each 5 minute. To configure the settings manually, FNS-7000B has to be set as standalone mode and then added to AD

domain.

4 When adding FNS-7000B to AD domain, please login by domain_name\Username.
FNS-7000B local user cannot login AD domain.

5 Inter-network segments can be used.

6 If you are using NT Domain, please select standalone mode when you want to upgrade the system, then join AD domain.

7 It is suggested to use Windows 2000 Service Pack 4, or Windows 2003 Service Pack 1.

8 When FNS-7000B is added to AD domain, the authority of "everyone" will not work, "everyone" is the original account of FNS-7000B, but doesn't include AD. Therefore the authority has to be reset.

9 The DNS setting on Windows 2000 server should be added as "Active Directory DNS", the server should be rebooted after DNS setting is set.

10 You should use the full domain name on the AD setting of FNS-7000B. For example, if your FQDN name of AD server is "ad.test.com.tw", you should use "test.com.tw" as the ad domain setting on FNS-7000B.

11 The DNS setting on AD server should have the IP of AD server itself.

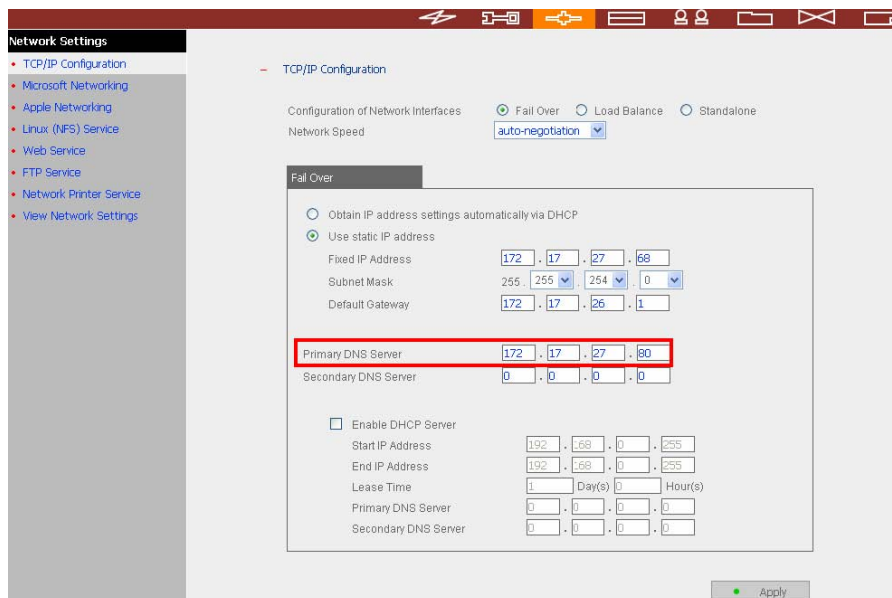
12 You must change the password of "administrator" after you create "Active Directory" service on AD server.

13 The DNS server on the AD Server should have two records on it. For example, AD Server Name: 2003tc.testad.com DNS record on DNS Server 2003tc.testad.com A 192.168.1.100 testad.com A 192.168.1.100 One is "A record" for AD server, and the other is the domain "A record" for DNS queries.

Adding FNS-7000B to Windows Server 2003 Active Directory Domain

1 Go to TCP/IP Configuration in Network Settings. Enter the IP address of primary DNS server. You can inquire AD domain via this DNS server.

2 Go to Microsoft Networking of Network Settings. Enable AD Domain Member, and enter the domain name and the user name with administrator access right to that domain.



Network Settings

- TCP/IP Configuration
- Microsoft Networking
- Apple Networking
- Linux (NFS) Service
- Web File Manager
- FTP Service
- Network Printer Service
- View Network Settings

Microsoft Networking

☒ Enable file service for Microsoft networking

☐ Standalone Server

☐ NT Domain Member

☒ AD Domain Member

Server Description: NAS Server

Workgroup: NAS

AD Server Name: AD server

Domain Name: gatest.com.tw

Domain Username: administrator

Password: [masked]

☐ Enable WINS server

☐ Use the specified WINS server

WINS server IP address: [] [] [] []

☐ Domain Master

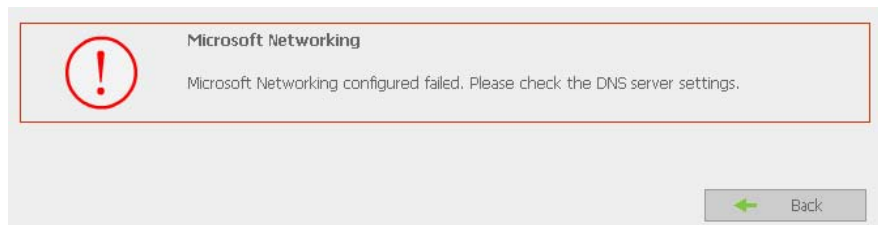
Apply



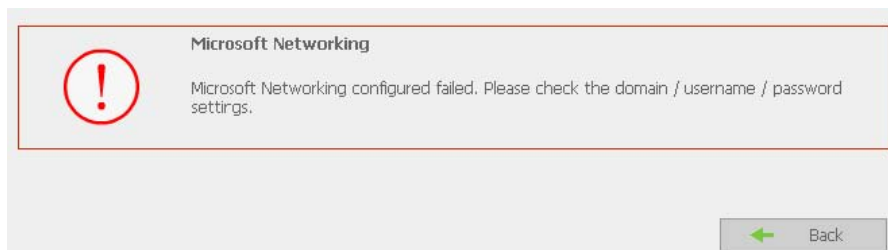
Note:

Note:

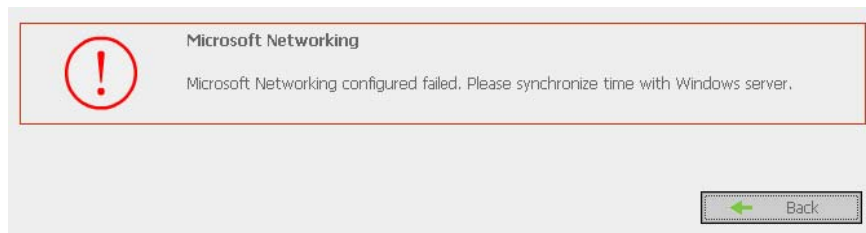
- Make sure that a fully qualified domain name such as gatest.com.tw has been filled in.
 - Make sure the user name with administrator access right to that domain.
3. When the following message appears after applying the settings in step 2, check the DNS IP.



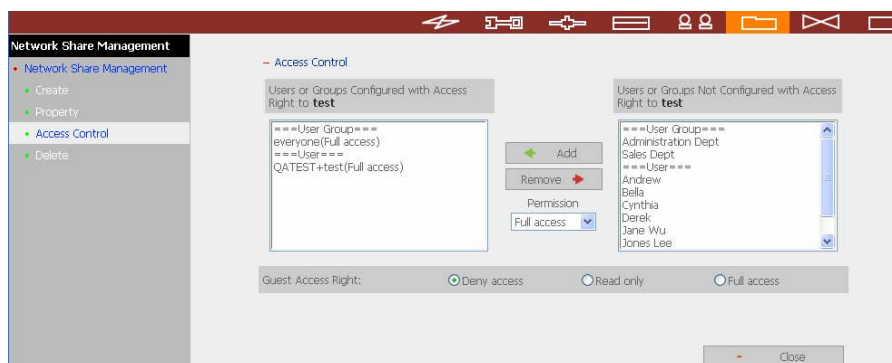
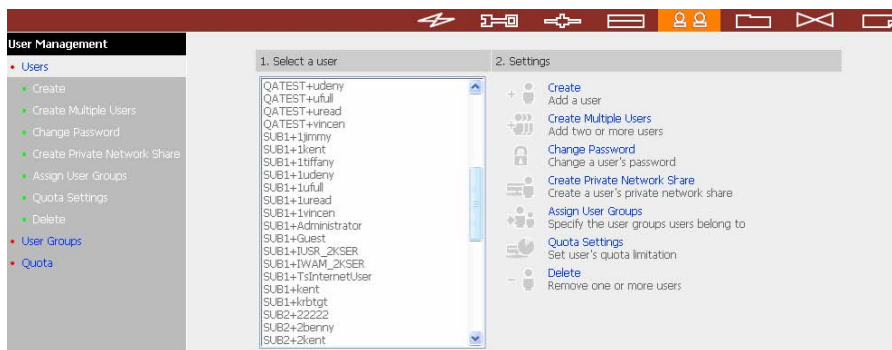
When the following message appears after applying the settings in step 2, domain name, domain user name, and the password.



When the following message appears after applying the settings in step 2, check the time zone settings. Make sure the difference of your time and that of AD server is less than 5 minutes. If the time difference is larger than 5 minutes, you will not be able to add the domain member.



- 1 Upon successful adding of domain member, you can view the list for domain users and local users in User Management.
- 2 Go to Access Control in Network Share Management to configure the access control right of AD users for all available network shares.



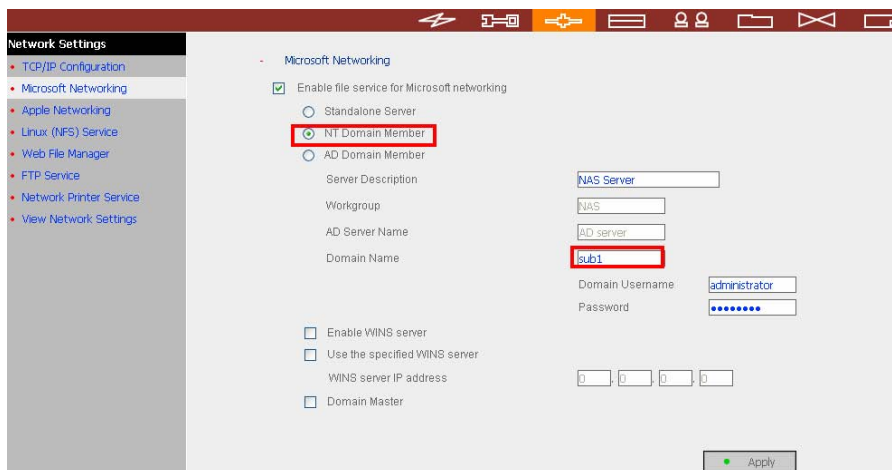
Using AD users to access services

To access services like FTP, Network Neighborhood, or Apple Talk with an AD user account, add **DomainName** before the user name when logging in.



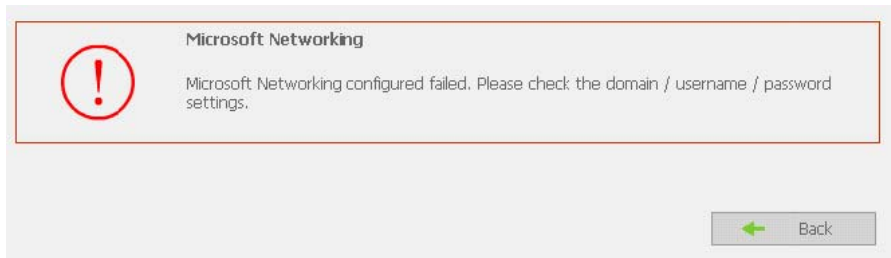
Adding FNS-7000B to Windows Server 2000 NT Domain

1. Go to Microsoft Networking to enable NT Domain member and then enter the domain name such as sub1 and the user who has administrator access right for identification.

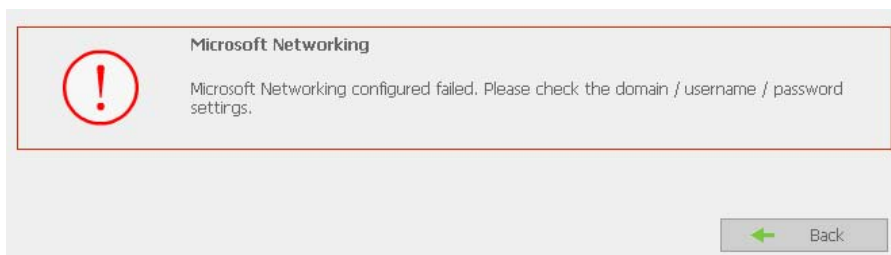


Note:

- a. Please notice that FNS-7000B and Windows 2000/2003 server must be in the same section or the system will show the following error message.
- b. Make sure that a domain name such as sub1 has been filled in.
- c. Make sure the user name with administrator access right to that domain.



2. When the following message appears after applying the settings in step 1, check the domain name, domain user name, and the password.



When the following message appears after applying the settings in step 2, check the time zone settings. Make sure the difference of your time and that of AD server is less than 5 minutes. If the time difference is larger than 5 minutes, you will not be able to add the domain member.



- 1 Upon successful adding of domain member, you can view the list for domain users and local users in User Management.
- 2 Go to Access Control in Network Share Management to configure the access control right of domain users for all available network shares.

Note: To join AD domain again, set FNS-7000B as standalone server in Microsoft Networking section. Make sure all domain users are removed in User Management before joining FNS-7000B to AD domain.

Appendix C Disk Configuration Status

Hard Disk	
English Display	Status Description
Ready	The hard disk status is normal
No disk	No disk currently ✓ Disk tray is not installed or there is main board error. Users can check disk tray. If there is main board error, please contact LevelOne customer service.
Invalid	Indicates the disk does not have a record on FNS-7000B ✓ The disk is used on FNS-7000B the first time, or the disk on the same FNS-7000B model is used. Users can re-configure disk volume.
R/W error	Disk fails ✓ When R/W error is shown, users should back up data immediately and replace the failed disk.

Disk Configuration/ RAID Configuration	
English Display	Status Description
Initializing	Initializing disk
Formatting	Formatting disk
Creating	Creating RAID configuration
Removing	Removing RAID configuration
Rebuilding	Rebuilding RAID configuration
Checking	Error checking on hard disk or disk configuration in process ✓ FNS-7000B will check disk automatically if it is shut down improperly

Disk Configuration/ RAID Configuration

English Display	Status Description
Ready	The status of current disk or disk configuration is normal
Unmounted	Hard disk is not installed or hard disk configuration is not configured
Not Active	RAID configuration is damaged and cannot be enabled ⚠ When this message is shown, users should back up disk data immediately and replace the failed disk.
Uninitialized	Initialization fails ⚠ Single disk does not support hot swap. If the hard disk is unplugged when FNS-7000B is turning on, disk configuration will be damaged and will lead to data loss.

In degraded mode	A disk of RAID 1 or RAID 5 configuration is unplugged or fails. RAID data protection mechanism fails. In this situation, users should back up disk data immediately and replace the failed disk to rebuild RAID configuration.
------------------	--



Note:

1 When R/W error is displayed for hard disk status, or “Not active” or “In degraded mode” is displayed for RAID configuration, please replace the hard disk immediately to ensure RAID data protection can work properly. LevelOne is not responsible for any data loss caused by delay in replacing failed disks in a RAID configuration by users intentionally or unintentionally.

2 Digital Data Communication Co., Ltd. guarantees that all FNS-7000B (FNS7000B) released have passed strict and complete QA test and can operate properly in normal condition. LevelOne offers conditional and limited maintenance for FNS-7000B within warranty period. However, LevelOne disclaims the responsibility for any data loss or damage, or business loss of users. In no event shall the liability of LevelOne exceed the price paid for the product from direct, indirect, special, incidental, or consequential software, or its documentation.

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