

XL-NAS-500SA NAS System

Installation and Configuration Manual

Table of Contents

Preface	5
Before You Begin	6
Safety Guidelines	6
Packaging, Shipment and Delivery	б
Chapter 1 Introduction	7
1.1 Key Features	8
1.2 Technical Specifications	9
Chapter 2 Installation	
2.1 Packaging, Shipment and Delivery	
2.2 Unpacking the NAS System	
2.3 Identifying Parts of the NAS System	
2.3.1 Front View	11
2.3.2 Rear View	
2.3.3 HDD Status LEDs	
2.3.4 Environmental Status LEDs	
2.3.5 Lock Indicator	13
2.3.6 Front Panel	
2.3.7 LCD Menu Diagram	
2.4 Getting Started with the NAS System	
2.4.1 NAS Hardware Setup	
2.4.2 Installing Hard Drives	
2.4.3 Connecting to NAS Management GUI	
2.4.4 Quick Setup	
2.5 Overview of the NAS Setup Phases	
Chapter 3 proNAS Manager	
3.1 Storage/Share	
3.1.1 RAID	
3.1.1.1 Create New RAID and Join Disk to Storage Pool	
3.1.1.2 Set a Spare Disk	

3.1.2 Vo	lume	
3.1.2.1	Join a Disk to Storage Pool	33
3.1.2.2	Create a Volume	
3.1.2.3	Delete a Volume	
3.1.2.4	Extend a Volume Capacity	35
3.1.2.5	Setup Volume as iSCSI Target	
3.1.2.6	Disable iSCSI Configuration in a Volume	
3.1.2.7	Remove iSCSI Configuration and Restore to NAS Volume	40
3.1.3 Sha	are/Security	42
3.1.3.1	Create New Share Folder	
3.1.3.2	Assign Permission to Share	47
3.1.3.3	Edit Share Folder	49
3.1.3.4	Delete Share Folder	50
3.2 Netwo	ork	
3.2.1 Dev	vice Configuration	51
3.2.1.1	Configure Network Trunking	53
3.2.1.2	Cancel Network Trunking	
3.2.2 AD	S/NIS	
3.2.2.1	Join NAS to Windows AD Domain	57
3.2.2.2	Join NAS to NIS Domain	59
3.2.3 DH	CP (Internet Gateway)	60
3.2.4 P2P		61
3.2.4.1	Status	61
3.2.4.2	Server	
3.2.4.3	Options	63
3.2.4.4	Example of Download from Link and Torrent	64
3.3 System	n	67
3.3.1 Sys	tem Information	67
3.3.2 Ser	vice	
3.3.2.1	Photo	
	scellaneous (Time and Serial Port)	
	ot/Shutdown	
3.3.5 Up	grade	
3.3.5.1	Remote Upgrade	
3.3.5.2	Local Upgrade	
•		
3.3.7 No	tification	86

Installation Configuration Manual

3.3.7.1	Event Option	
3.3.7.2	Email Setting	87
3.3.8 Sys	stem Tools	
3.4 Account	t	
3.4.1 Ac	count	
3.4.1.1	Create Account	
3.4.1.2	Delete Account	
3.4.1.3	Edit Account	
3.4.1.4	Import Account	
3.4.2 Gro	oup	
3.4.2.1	Create Group	
3.4.2.2	Delete Group	
3.4.2.3	Edit Group	
3.5 Data I	Backup	
3.5.1 Bac	kup List	
3.5.1.1	Create Backup Plan	
3.5.1.2	Create Immediate Backup	106
3.5.1.3	Delete Backup Plan	107
3.5.1.4	Edit Backup Plan	107
3.5.1.5	Delete a Backup Log	107
3.5.1.6	Restore a Backup	
3.5.2 Sch	nedule	
3.5.2.1	Setup Scheduled Backup Task	109
3.5.2.2	Edit Scheduled Backup Task	110

Preface

About this manual

This manual provides information regarding the quick installation and hardware features of the **NAS** system. This document also describes how to use the storage management software. Information contained in the manual has been reviewed for accuracy, but not for product warranty because of the various environment/OS/settings. Information and specifications will be changed without further notice.

This manual uses section numbering for every topics being discussed for easy and convenient way of finding information in accordance with the user's needs. The following icons are being used for some details and information to be considered in going through with this manual:



NOTES:

These are notes that contain useful information and tips that the user must give attention to in going through with the subsystem operation.



IMPORTANT!

These are the important information that the user must remember.



WARNING!

These are the warnings that the user must follow to avoid unnecessary errors and bodily injury during hardware and software operation of the subsystem.



CAUTION:

These are the cautions that user must be aware to prevent damage to the equipment and its components.

Copyright

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written consent.

Trademarks

All products and trade names used in this document are trademarks or registered trademarks of their respective owners.

Changes

The material in this document is for information only and is subject to change without notice.

NOTE: Some screen shots may differ from actual NAS system model.

5

Before You Begin

Before going through with this manual, you should read and focus to the following safety guidelines. Notes about the subsystem product packaging and delivery are also included.

Safety Guidelines

To provide reasonable protection against any harm on the part of the user and to obtain maximum performance, user is advised to be aware of the following safety guidelines particularly in handling hardware components:

Upon receiving of the product:

- [™] Place the product in its proper location.
- [™] To avoid unnecessary dropping out, make sure that somebody is around for immediate assistance.
- [™] It should be handled with care to avoid dropping that may cause damage to the product. Always use the correct lifting procedures.

Upon installing of the product:

- M Ambient temperature is very important for the installation site. It must not exceed 30°C. Due to seasonal climate changes; regulate the installation site temperature making it not to exceed the allowed ambient temperature.
- [™] Before plugging-in any power cords, cables and connectors, make sure that the power switches are turned off. Disconnect first any power connection if the power supply module is being removed from the enclosure.
- [™] Outlets must be accessible to the equipment.
- [™] All external connections should be made using shielded cables and as much as possible should not be performed by bare hand. Using anti-static hand gloves is recommended.
- [™] In installing components, secure all the mounting screws and locks. Make sure that all screws are fully tightened. Follow correctly all the listed procedures in this manual for reliable performance.

Packaging, Shipment and Delivery

- [™] Before removing the subsystem from the shipping carton, you should visually inspect the physical condition of the shipping carton.
- [™] Unpack the subsystem and verify that the contents of the shipping carton are all there and in good condition.
- [™] Exterior damage to the shipping carton may indicate that the contents of the carton are damaged.
- [™] If any damage is found, do not remove the components; contact the dealer where you purchased the subsystem for further instructions.

Chapter 1 Introduction



The NAS System

Storage networks become more and more complex. If you need to easily expand storage capacity while providing uninterrupted high-performance data access across your LAN, you may want to consider a NAS (Network Attached Storage) appliance. When budgets are tight and a quick fix is required, a NAS appliance is a low-cost, efficient solution to dodge that network-to-storage logjam. That's why more and more users select NAS architecture as their storage networking.

The NAS system is a reliable, cost-effective way to add storage to the network. It comes with 5 drive trays accommodating 3.5" SATA II drives while SCA-II single connector architecture enables true hot swap capability. Built-in Intel Celeron 1.6GHz CPU (or above), up to 2GB DDR2-667MHz SDRAM and two Gigabit Ethernet ports offers high performance NAS platform. With Linux-based embedded OS design, it can boot without HDD, FDD or CD-ROM to guarantee reliability and quick boot. The NAS system is managed and configured by Flex/Ruby browser-based software, and some features include pre-configure disk capacity, users setting, volume management, quick installation on popular network platform, and multi-protocol support. It is equipped with software RAID to offer fault tolerant data protection. It offers full featured data protection supporting RAID levels 0, 1, 5, 6, 10, Linear.

System reliability is ensured by an environmental monitoring unit, which tracks the enclosure temperature as well as individual disk temperatures. If any irregularity in the system occurs, the monitoring unit alerts the administrator.

1.1 Key Features

- f Supports up to five hot-swappable SATA II hard drives
- f Equipped with software RAID function and supports RAID levels 0, 1, 5, 6, 10, Linear
- f Linux-based embedded OS design
- *f* Provides file access services to multiple users over the LAN, the intranet and / or the internet
- *f* Multi-protocol support (TCP/IP, DHCP, AppleTalk, Mac Zone, SMB, NFS, CIFS, AFP over TCP/IP, HTTP)

1.2 Technical Specifications

Hardware Platform f Intel Celeron 1.6G CPU (or above) f Cache memory: 1GB ~ 2GB DDR2-667MHz f Supports 5 SATA II hard drives f Two Gigabit Ethernet port f Environmental monitoring unit f 270W power supply with PFC	Macintosh Support f AFP over AppleTalk f AFP over TCP/IP f Mac Zone f iTunes service
<pre>Storage f Equipped with software RAID function to offer fault tolerant data protection f Supports RAID levels 0, 1, 5, 6, 10, Linear f Volume Management f Disk usage statistics f Hot spare capability</pre>	Connectivity f SMB over TCP / IP f NFS over UDP / IP f CIFS over TCP / IP f NAT f DHCP f FTP f Internet Server f Unit acts as a DHCP server f Unit act as a master browser f Share level security f User ID security for NFS
General f Supports Volume as iSCSI Target f File Server Independent f Peer-to-peer operation f Localized language support f With Quick Setup function f Supports trunking / load balance / fail over / LACP(802.3ad) f Support UPS monitoring	System Management f Automatic IP address configuration f Self-contained unit; no extras needed f Management through Web browser f Flash upgradeable unit f Supports Microsoft ADS/PDC and Unix NIS accounts import f Fail-free online firmware upgrade f Unicode support

Chapter 2 Installation

2.1 Packaging, Shipment and Delivery

- [™] Before removing the system from the shipping carton, you should visually inspect the physical condition of the shipping carton.
- [™] Unpack the system and verify that the contents of the shipping carton are all there and in good condition.
- [™] Exterior damage to the shipping carton may indicate that the contents of the carton are damaged.
- [™] If any damage is found, do not remove the components; contact the dealer where you purchased the system for further instructions.

2.2 Unpacking the NAS System

The package contains the following items:

- System unit
- One power cord
- Two Ethernet LAN cables
- Installation Reference Guide

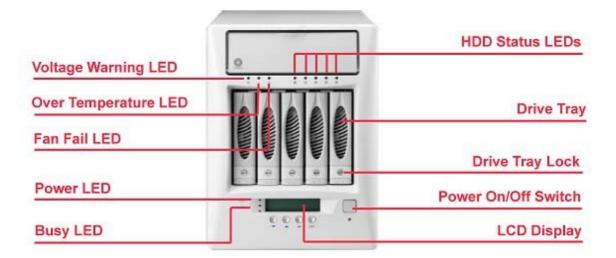


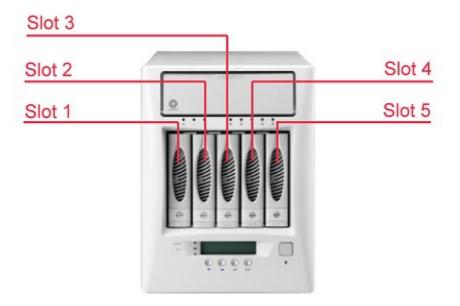
If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

2.3 Identifying Parts of the NAS System

The illustrations below identify the various parts of the NAS system.

2.3.1 Front View





2.3.2 Rear View

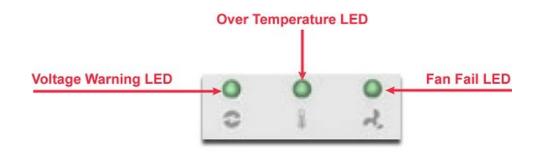


2.3.3 HDD Status LEDs



Green LED indicates power is on and the hard disk drive status is good for this slot. Blinking Orange and Green LED indicates the hard disk drive is in rebuilding state.

2.3.4 Environmental Status LEDs



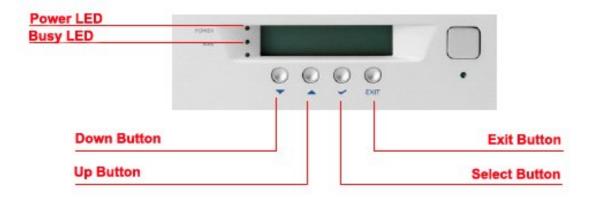
Parts	Function
Voltage Warning LED 🗢	An alarm will sound warning of a voltage abnormality and this LED will turn red.
Fan Fail LED 🕹	When fan fails, this LED will turn red and an alarm will sound.
Over Temperature LED	If temperature irregularities in the system occurs (HDD slot temperature over 55°C), this LED will turn RED and alarm will sound.

2.3.5 Lock Indicator

Every Drive Carrier is lockable and is fitted with a lock indicator to indicate whether or not the carrier is locked into the chassis. Each carrier is also fitted with an ergonomic handle for easy carrier removal.

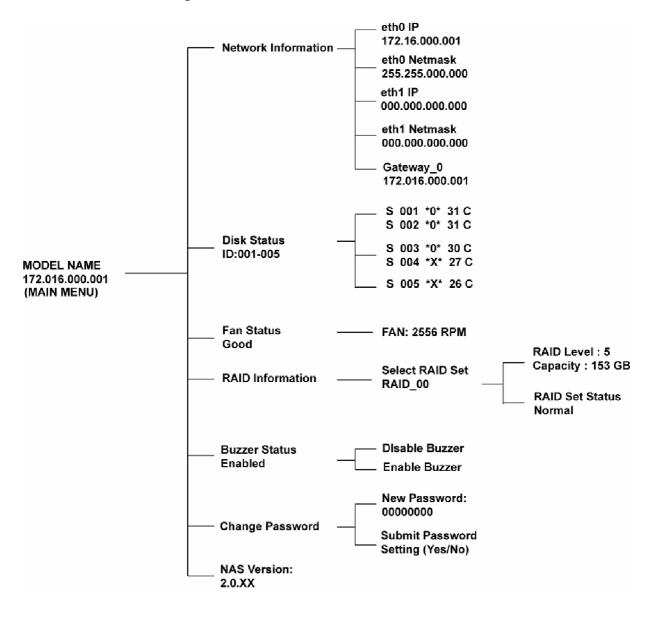


2.3.6 Front Panel



PARTS	FUNCTION
Power LED	Green LED indicates power is on.
Busy LED	Orange blinking indicates system is busy or data is being accessed.
Up and Down Arrow buttons	Use the Up or Down arrow keys to go through the information on the LCD screen. This is also used to move between each menu when you configure the subsystem.
Select button	This is used to enter the option you have selected.
Exit button EXIT	Press this button to return to the previous menu.

2.3.7 LCD Menu Diagram



Disk Status Information:

- S 001 means slot number 1
- *O* means disk drive in slot is Online or detected
- *X* $\$ means no disk drive in slot or disk drive not detected

2.4 Getting Started with the NAS System

2.4.1 NAS Hardware Setup

- 1. Attach network cable to LANO Ethernet port. Connect the other end of network cable to your network hub or switch. You may also connect the other Ethernet ports if needed.
- 2. Plug in the power cord into the AC Power Input Socket located at the rear of the subsystem.
- 3. To turn on the NAS, press the Power On/Off Switch.
- 4. The Power LED on the front panel will turn green.

2.4.2 Installing Hard Drives

This section describes the location of the hard drives in the NAS system and gives instructions on installing a hard drive. The system supports hot-swapping allowing you to install or replace a hard drive while the system is running.

a. Make sure the lock indicator is in unlocked position. To pull out a disk tray, press the Lock Indicator Button. Pull the handle outwards to remove the disk tray from the enclosure.



b. Place the hard drive in the disk tray.



c. Make sure the holes of the disk tray align with the holes of the hard drive. Install the mounting screws on the bottom part to secure the drive in the disk tray.



d. Slide the tray into a slot and push the Lock Indicator Button.

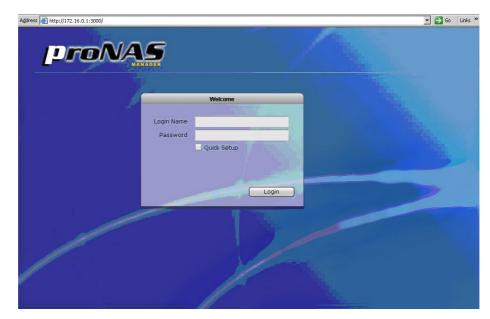


e. Press the handle until you hear the latch click into place. The HDD status LED will turn green if subsystem is on.



2.4.3 Connecting to NAS Management GUI

- 1. Setup network setting of your host system (computer that will be used to manage the NAS) to enable connection to NAS default IP 172.16.0.1. Refer to Table below.
- 2. Open web browser and type in the address bar <u>http://172.16.0.1:3000</u>.
- 3. The proNAS Login Page will be displayed.



4. Enter the Login Name account and Password. Refer to the default settings in the table below.

Entity	Default Value
LANO (eth0) IP address	172.16.0.1
TCP port	3000
Net Mask	255.255.0.0
Hostname	NAS
Login Name	admin
Password	0000000

NAS Default Settings



NOTE: To use the Quick Setup function, check the "Quick Setup" box in the login page. Refer to the Quick Setup information in the next section.

5. A message will be displayed.



6. The proNAS Manager GUI will be displayed.



NOTE: Enable Timeout is enabled by default. When there is no activity in the proNAS Manager GUI, admin will be automatically logged out after 15 minutes. To disable timeout, remove check mark in Enable Timeout.

prof		Retwork System	Storage/Share	Account Data Backup
Information System Information	Service Misc, Bool	t/Shutdown Upgrade	Log Noti	fication System Tools
Host Name	NAS	Device	Status	
Domain/WorkGroup	Workgroup	Slot1	36 C	нор 📀
Version	2.0.01-rc2-pre5	Slot2	40 C	HDD
Time	11/20/2008, Asia/Taipei	Slot3	37 C	HDD ©
Model	NAS-Model-Name	Slot4	37 C	HDD 📀
CPU	Intel Pentium Dual E2180 @ 2	Slot5	36 C	HDD
Memory(KB)	1024920	Fan	2556 RPM	
Kernel Ver.	2.6.26.7	CPU Fan	4470 RPM	
Languages Skin	English • Please select a style •	CPU Temp	+57.0 C	
Enable Timeout		M/B Temp	+38.0 C	·····

2.4.4 Quick Setup

The Quick Setup provides quick and easy setup of the basic NAS configuration.

The Quick Setup options are listed below:

- 1. **RAID**
 - This is used for selecting the Storage Mode (RAID Level).
- 2. Storage/Share

This shows the default Home share capacity which can be changed. It also shows default share named "share" which can be renamed and whose size can be changed.

- 3. Network Adapter This is for configuring the primary Ethernet interface LANO (eth0) network settings. After changing the settings, admin need to login using the new IP address.
- 4. Service

This is for enabling the basic Services provided by proNAS. Windows (Samba) service is enabled by default.

The Quick Setup Steps:

1. Configure the software RAID by selecting the Storage Mode.

The Storage Mode options are:

- (a) Max. Capacity (RAID0)
- (b) Clone Data (RAID1)
- (c) Max. Security (RAID5)

		RAID	
The software R automatically.	AID o	levice will join the Stor	age
Disk Number :	3	Avaliable Size(MB):	952320
Storage Mode	Ma	ax. Security(RAID5)	[.

- 2. Configure the Storage/Share.
 - a. Change the "home" size default capacity if needed.
 - b. Rename the default share if necessary. NOTE: The share folder name does not allow space in-between characters.
 - c. Change the size of the default share if needed.

	Storage/Share	
Home Size (MB)	20000	
Share Name	sharefolder	
Share Size (MB)	30000	

3. Configure the Network Adaptor settings.

- a. Enter the new NAS Host Name in the Host Name box.
- b. Enter the new IP address.
- c. Edit the Subnet Mask and Gateway.

Network Adaptor			
Host Name	proNAS	The section is for setting up the primary ethernet.	
IP	192.168.220.73	After quicksetup, you will need	
Subnet Mask	255.255.255.0	to use this IP to connect to NAS.	
Gateway	192.168.220.254		

The configuration options in Network Adaptor:

Host Name

The Host Name is the NetBIOS name of NAS system. This name should be unique.

IP

This is the IP address of primary Ethernet port LANO (eth0) used for NAS management or share folder access. If not set, it will use the default IP 172.16.0.1.

Subnet Mask

The Subnet Mask used. If not set, it will use the default Subnet Mask 255.255.0.0.

Gateway

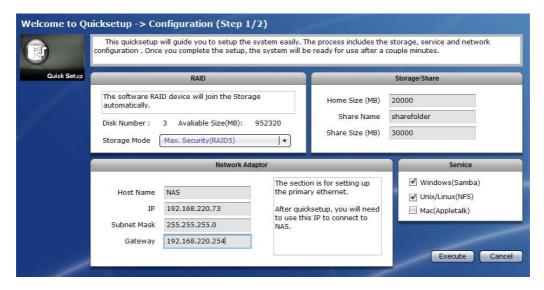
The Gateway used. If not set, it will use the default Gateway 172.16.0.1.

4. Configure the Service options.

a. Enable the Services provided by proNAS as needed.



5. Click the "Execute" button.



6. The configurations will be set.

Welcome to Quid	ksetup -> Configuration -> Execute (Step 2/2)
Quiek Setup	ne execution will take a few minutes, please wait
CI	irrentProgress 40%
	•

7. A warning message will be displayed. Select "Yes" to reboot the NAS and free some memory used by the system.

8. A message will be displayed. Click "OK".

The syste	em will reboot after 10 sec.
The syste	en win reboot after 10 set.

9. The NAS will restart. If IP address was changed in Network Adapter settings, re-login to proNAS administration page using the new IP address.

2.5 Overview of the NAS Setup Phases

The Setup Phases include configuring proNAS components with proNAS Manager. The basic steps are:

- z Create RAID Disk from Hard Disk Drives
- z Join RAID Disk to Volume Group's Storage Pool
- z Setup the Network Environment
- z Enable Services for Windows clients, Linux/UNIX clients, and MAC clients
- z Create and Setup Logical Volume and Share Folder.
- z Create Accounts or Groups or Join ADS/NIS Domain and assign Share Folder Permission

Chapter 3 proNAS Manager

There are five management functions used to configure or manage the NAS.

- Network
- System
- □ Storage/Share
- Account
- Data Backup

3.1 Storage/Share

3.1.1 RAID

Click the Storage/Share icon then select RAID tab. The RAID Configuration and Disk Information window will be displayed.

	Share/Security				
_		RAID Co	nfiguration	_	
Name	LEVEL	Disk Used	Total Size(GB)		Status
				Create New	RAID Edit RAID
		Disk In	formation		
Slot	Disk	Size(GB)	M	odel	Status
1	/dev/sda	465.762	HDS7250	50KLA360	UN_USED
2	/dev/sdb	931.513	WDCWD1	000FYPS-0	UN_USED
3	/dev/sdc	931.513	WDCWD1	000FYPS-0	UN_USED
4	/dev/sdd	931.513	WDCWD1	000FYPS-0	UN_USED

RAID Configuration Screen:

Name – The RAID disk name. This defaults to "RAID_00" if this is the first RAID disk created.

LEVEL – The RAID level used by the RAID disk.

Disk Used – The hard disk drives (slots) joined to the RAID disk.

Total Size (GB) – The capacity size of the RAID disk.

Status – The current status of the RAID disk. Status can be active, degraded, rebuilding, or failed.

RAID Configuration Options:

Create New RAID – Use to create a RAID disk using the hard disk drives. Edit RAID – Used to edit an existing RAID disk.

Disk Information Screen:

Slot – The hard disk drive slot number.
Disk – The hard disk drive device name. The first disk drive is named "/dev/sda".
Size (GB) – The capacity size of the hard disk drive.
Model – The hard disk drive model name.
Status – The current status of the hard disk drive. Status can be "RAID_MEMBER", "UN_USED", or "SPARE".

Disk Information Options:

Set Spare – Used to set a selected hard disk drive as a Spare Disk. Delete Spare – Used to remove a Spare Disk setting on a hard disk drive.

3.1.1.1 Create New RAID and Join Disk to Storage Pool

Steps to Create a New RAID and Join Disk to Storage Pool:

- 1. Click "Create New RAID".
- 2. Set the RAID Level and Stripe size, and select the hard disk drives to be included in the RAID disk.

Status
UN_USED
UN_USED
UN_USED
UN_USED

RAID Configuration Options:

RAID Level – Select the RAID Level you want for the RAID configuration. Available options, depending on number of disk drives, are: JBOD, 0, 1, 5, 6, and 10.
Stripe Size – Set the size of the stripe (block size or chunk size) written to each disk drive. Default is 64KB. Other options are: 128KB, 256KB, 512KB and 1024KB.



NOTE: A large stripe size produces better read performance if the NAS does mostly sequential reads. If the NAS will do mostly random reads, small stripe size is recommended.

Create Cancel

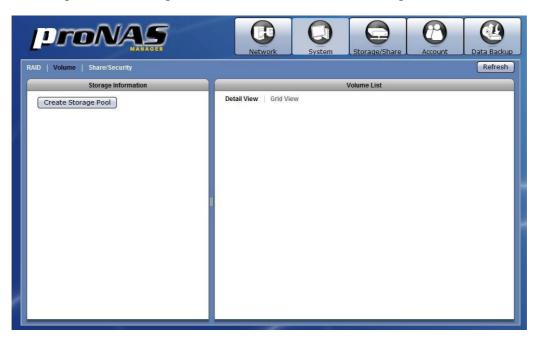
3. A message will be displayed.

Message	
Creating RAIDPlease wait	

4. The RAID disk will be initialized. Verify in the Status information the current initialization process.

	Share/Security				Refr
		RAID Cont	figuration		
Name	LEVEL	Disk Used	Total Size(GB)		Status
RAID_00	5	sda(Slot1),sdb(Slot2),sdc(Slot3)	931.365	active,0.4%,finish	=363.2min,speed=22300K/s
				Create New R	AID Edit RAID
		Disk Info	rmation		
Slot	Disk	Size(GB)	M	lodel	Status
1	/dev/sda	465.762	HDS725	050KLA360	RAID_MEMBER
2	/dev/sdt	931.513	WDCWD	1000FYPS-0	RAID_MEMBER
3	/dev/sd	931.513	WDCWD	1000FYPS-0	RAID_MEMBER
4	/dev/sde	931.513	WDCWD	1000FYPS-0	UN_USED
	RAID_00	931.365			UN_USED

5. While the RAID disk in initializing, the status will show active and the Disk Information will show "UN_USED". The RAID disk can be joined to NASVG in Volume tab using "Create Storage Pool" button. Click "Create Storage Pool".



Select the disk (must be RAID disk) that will be added to storage pool. Click "OK" when done.

Select	Slot	Name	Status	Size
	1	/dev/sda	RAID_MEMBE	465.762
	2	/dev/sdb	RAID_MEMBE	931.513
	3	/dev/sdc	RAID_MEMBE	931.513
	4	/dev/sdd	UN_USED	931.513
		RAID_00	UN_USED	931.365
Home Si	ze(MB)	Anorto-		



NOTE: NASVG, which is a Volume Group that holds the NAS configurations, will be created when at least one disk (RAID disk) is joined to Storage Pool. At the same time, the default Home volume is also created. The Home volume holds the individual share folders of all user accounts. The default Home volume size is 512MB. If necessary, change the Home size to a larger size.

- Add Disk into Storage Pool Slot Name Select Size 1 /dev/sda RAID_MEMBE 465.762 Warning Join disk operation will erase all of the data on the disk, continue? V 65 Yes No Home Size(MB) 512 OK Cancel
- 7. A warning message will be displayed. Select "Yes" to proceed.

8. A message will be displayed.

C	Message	
Creating Storage Pool	Please wait	

9. When warning message is displayed, select "Yes" to free some memory used by the system. The NAS system will reboot.



10. Re-login to the system then select Storage/Share. The NASVG and the default Home volume are created.

	Image: Network Image: System Image: Storage/Share Image: Storage/Share Image: Storage/Share
RAID Volume Share/Security	Refresh
Storage Information	Volume List
Name NASVG Size(GB) 931.000 Disk RAID_00	Detail View Grid View Name home Size(MB) 512.00 Used(MB) 4.2 Delete Extend
Free Size: 924.5GB 99.30%	
Join Disk Create Volume	



NOTE: After NASVG is initialized, the Storage Information screen will show a pie chart with amount of Free Size and Used Size. Volumes can be created from the NASVG.

11. After the RAID disk is joined to NASVG, the RAID status in Disk Information will show "IN_USED".

					Refre	
		RAID Cor	nfiguration			
Name	LEVEL	Disk Used	Total Size(GB)		Status	
RAID_00	5	5 sdb(Slot2),sdc(Slot3),sda(Slot1) 931.365 active,11.5%,finish=344.1mi				
				Create New R	AID Edit RAID	
_		Disk Inf	ormation	_		
Slot	Disl	size(GB)	P	Iodel	Status	
1	/dev/s	da 465.762	HDS725	050KLA360	RAID_MEMBER	
2	/dev/s	db 931.513	WDCWD	1000FYPS-0	RAID_MEMBER	
3	/dev/s	dc 931.513	WDCWD	1000FYPS-0	RAID_MEMBER	
4	/dev/s	dd 931.513	WDCWD	1000FYPS-0	UN_USED	
	RAID_(931.365			IN_USED	

3.1.1.2 Set a Spare Disk

Steps to Set a Spare Disk:

1. Select the hard disk drive to be made a spare disk and click "Set Spare".

							Refr
			RAID Co	Ifiguration		_	
Name	LEVEL	I	Disk Used	Total Size(GB)		Status	
RAID_00	5	sdb(Slot2),	sdc(Slot3),sda(Slot1)	931.365	active,29.0%,finis	=279.9min,sp	eed=20622K/
			Disk Inf	ormation			
clas		D.L.					
Slot	i.	Disk	Size(GB)	M	todel	1.12.200	atus
1		dev/sda	Size(GB) 465.762	HDS725	050KLA360	RAID_	MEMBER
	/0		Size(GB)	HDS725 WDCWD	and the second	RAID_ RAID_	
1 2	/e /e	dev/sda dev/sdb	Size(GB) 465.762 931.513	HDS725 WDCWD WDCWD	050KLA360 1000FYPS-0	RAID_ RAID_ RAID_	MEMBER MEMBER

2. The selected hard disk drive will become a Spare Disk. The Status in Disk Information will show "SPARE".

RAID Configuration LEVEL Disk Used Total Size(GB) Status 5 sdb(Slot2),sdc(Slot3),sda(Slot1),sdd(Slot4) 931,365 active,35.6%,finish=260,6min,speed=21	
5 sdb(Slot2) sdc(Slot3) sda(Slot1) sdd(Slot4) 931 365 sctive 35.6% finish=260.6min speed=20	
	d=20088K/
Create New RAID Edit R	dit RAID
Disk Information	_
Disk Size(GB) Model Status	15
/dev/sda 465.762 HDS725050KLA360 RAID_MEMBE	MBER
/dev/sdb 931.513 WDCWD1000FYPS-0 RAID_MEMBE	MBER
/dev/sdc 931.513 WDCWD1000FYPS-0 RAID_MEMBE	MBER
	E
/dev/sdd 931.513 WDCWD1000FYPS-0 SPARE	
/dev/sdd 931.513 WDCWD1000FYPS-0 SPARE RAID_00 931.365 IN_USED	ED
	ED
/dev/sdb 931.513 WDCWD1000FYPS-0 RAID_MEM	M

3.1.2 Volume

Click the Volume tab. The Volume Configuration screen will be displayed.

pr		Network	system	Storage/Share	Account	Data Backup
RAID Volume						Refresh
	Storage Information	Detail View G	irid View	Volume List		
Name Size(GB) Disk	NASVG 931.000 RAID 00	Name Size(MB)	home 512.00	Used Size:	0.78%	
Free Size: 924.5GB 99.30%	Used Size: - 6.500GB 0.698% Disk Create Volume	Used(MB)	4.2			Extend

Storage Information Screen:

Name – The NAS Volume Group default name "NASVG". Size (GB) – The total capacity of the NASVG Disk – The list of RAID disk(s) joined to the NASVG.

Storage Information Options:

Join Disk – Used to join a RAID disk to the NASVG.

Create Volume – Used to create a new Volume. A Volume is storage space which is shared by several Share Folders (several Share Folders can be created under a single Volume).

Volume List Screen:

There are two types of view provided to display the Volume information: Detail View and Grid View.

Detail View: has Delete, Extend, and iSCSI buttons

Name – The Volume name.

Size (MB) – The total Volume capacity in MB.

Used (MB) - The Volume used capacity in MB.

Used Size – The Volume used capacity as a percentage of the total Volume capacity.

Grid View: displays Volume List in table format

Name – The Volume name.

Size (MB) – The total Volume capacity in MB.

Used Size (MB) - The Volume used capacity in MB.

Volume List Options:

Delete – Used to erase the Volume. Extend – Used to extend the total Volume capacity. iSCSI – Used to setup the Volume as iSCSI target.

3.1.2.1 Join a Disk to Storage Pool

Steps to Join a Disk to Storage Pool:

- 1. Click "Join Disk".
- 2. A dialog box will be displayed. Select a RAID disk to be joined to the Storage Pool of NASVG. Click "OK" when done.

	Storage Information				Volume List	<u>.</u>	
Name	NASVG		Cold M	Add Disk into	Storage Pool		
ize(GB)	931.000	Select	Slot	Name	Status	Size	
Disk	RAID_00		1	/dev/sda	RAID_MEMBE	465.762	
arrente la			2	/dev/sdb	RAID_MEMBE	931.513	ete Extend
			3	/dev/sdc	RAID_MEMBE	931.513	
			4	/dev/sdd	SPARE	931.513	
				RAID_00	IN_USED	931.365	
ee Size: 4.5G8 9.30%	Used Size: -6.500G8 0.698%				ОК	Cancel	
Join	Disk Create Volume						

3. The RAID disk will be joined to the NASVG.



NOTE: An un-used physical disk drive can be used to join to the Storage Pool of NASVG but it is not recommended because the physical disk drive does not have RAID Level nor provide data redundancy. Select only a RAID disk to add into the Storage Pool for better data security.

3.1.2.2 Create a Volume

Steps to Create a Volume:

- 1. Click "Create Volume".
- 2. In the Create New Volume dialog box, enter the Volume Name and Size in MB. The Free NASVG capacity will show the available capacity that can be used. Click "OK" when done.

NOTE: The volume name does not allow space in-between characters.
Create New Volume

Name	vol1
Size(MB)	50000
Free(MB)	946176

3. A message will be displayed.

	Mess	age	_	_
Please wait				

4. The new Volume will be created.

Volume	Share/Security		L
	Storage Information		Volume List
		Detail View Grid View	
Name Size(GB)	NASVG 931.000		
000000000000000000000000000000000000000		Name home	
Disk	RAID_00	Size(MB) 512.00 Used(MB) 4.2	Used Size: 0.78% Delete Exter
Free Size: 875.5GB	Used Size:	Name vol1 Size(MB) 50176.00 Used(MB) 4.2	Used Size: 0.01% iSCSI Delete Exter
94.03%	-55.500GB 5.961%		

Installation and Configuration Manual

3.1.2.3 Delete a Volume

Steps to Delete a Volume:



WARNING! Be careful when using this function. Make sure the data in the volume and all its share folders are no longer needed or a backup has been made before deleting the volume.

- 1. Click the "Delete" button of the Volume to be deleted.
- 2. A warning message will be displayed. Click "Yes" to proceed with deletion.

Warning
Confirm option, All the share folders which belongs to the volume will be delete as well!!
Yes No

3. A message window will be displayed.

÷.	Message	
Please wait		

4. The Volume will be deleted.

3.1.2.4 Extend a Volume Capacity

Steps to Extend a Volume:

- 1. Click the "Extend" button of the Volume to be extended.
- 2. A dialog box will be displayed. Enter the additional capacity that will be added to the Volume in the "Size(MB)" box. Click "OK" when done.

	Extend Volume
Name	vol1
Size(MB)	60000
Free(MB)	99328
OK Car	icel

3. A message will be displayed.

Message		
	-	~ ~ ~ ~ ~ ~

4. The total Volume capacity will be increased.

3.1.2.5 Setup Volume as iSCSI Target

Steps to Setup Volume as iSCSI Target:

- 1. Click the "iSCSI" button of the Volume to be setup.
- 2. A dialog box will be displayed. Tick the "iSCSI Enable" option to enable iSCSI function. Enter the Target name. To enable authentication, tick the "Enable" box in Authentication then enter an Account name. Enter the password in Password box and Password Confirm box. Click "OK" when done.

	iSCSIConfiguration
	☑ iSCSI Enable
Name	test
Size(MB)	100352.00
Target Name	data1
IQN	ign.2008-11.nas.iscsi.test:data1
CHAP Authentication Account	Enable
Password	
Password Confirm	



NOTE: When Authentication is used, the same Account and Password must also be used in iSCSI initiator to successfully connect to the NAS iSCSI device. Password length must be 12 to 16 characters.

3. A warning message will be displayed. Select "Yes" to proceed.



4. Another warning message will be displayed. Select "Yes" to proceed.



5. A message will be displayed.

_	_	Messa	age	_	_
Please wait					

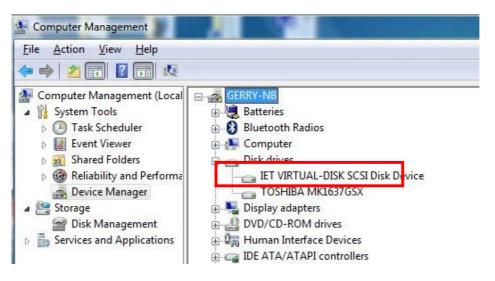
6. The Volume iSCSI function is ready.

	Storage Information			Volume List
Name Size(GB)	NASVG 931.000	Detail View Grid	/iew home	
Disk	/dev/sda(Slot1)	Size(MB) Used Size(MB)	512.00 4.3	Used Size: 0.78%
ree Size: '28.5GB 78.24%	Used Size:	Name Size(MB)	test 100352.00	ISCSI Enable true Target Name data1 CHAP Authentication false iSCSI Delete Extend
Join	202.500GB 21.75%			

7. Connect to iSCSI Target Volume from host computer with iSCSI Initiator. Log on to target device. Use the account and password if set in iSCSI Configuration.

Favorite Targets	Volumes and Devices	RADIUS
General	Discovery	Targets
og on.	for a target, select the target	
argets: Name		atus
iqn.2008-11.nas.iscsi:da	ta1 In	active

8. After successful connection, the iSCSI device will be shown in Disk Drives list.



3.1.2.6 Disable iSCSI Configuration in a Volume

Steps to Disable the iSCSI Configuration in a Volume:

1. Select the Volume with iSCSI Configuration and click the "iSCSI" button. Remove the check mark on the "iSCSI Enable" box. Click "OK" when done.

C	iSCSIConfiguration
	iscsi Enable
Name	test
Size(MB)	100352.00
Target Name	data1
IQN	iqn.2008-11.nas.iscsi.test:data1
CHAP Authentication Account	Enable
Password	
Password Confirm	
	Restore to Volume OK Cancel

2. A warning message will be displayed. Select "Yes" to proceed.

	Warning
Confin	m option, Disalbe iSCSI?
ſ	Yes No

3. A message will be displayed.

	Mess	age		_
Please wait			~ ~	~ ~

4. The iSCSI function of the Volume will be disabled.

3.1.2.7 Remove iSCSI Configuration and Restore to NAS Volume

Steps to Remove iSCSI Configuration and Restore to NAS Volume:



WARNING: When iSCSI Configuration is removed and volume is restored as basic NAS volume, all the data in the volume previously configured as iSCSI Target are deleted.

1. Select the Volume with iSCSI Configuration and click the "iSCSI" button. Click the "Restore to Volume" button.

	iSCSIConfiguration
	iSCSI Enable
Name	test
Size(MB)	100352.00
Target Name	data1
IQN	iqn.2008-11.nas.iscsi.test:data1
CHAP Authentication	Enable
Account	
Password	
Password Confirm	
	Restore to Volume OK Cancel

2. A warning message will be displayed.

	Warning	
	Confirm option, All the data will be lost!!	
ηti	Yes No	

3. A message will be displayed.

ř.	Mess	age	_	
Please wait				

Installation and Configuration Manual 40

4. The iSCSI Configuration will be removed and the volume is restored as basic NAS volume.

	Storage Information		Volume List
Name	NASVG	Detail View Grid View	
Size(GB)	931.000	Name home	
Disk	/dev/sda(Slot1)	Size(MB) 512.00	Used Size: 0.78%
		Used Size(MB) 4.3	Delete Extend
		Name test	
		Size(MB) 100352.	00 Used Size: 0.00%
ree Size: 28.5GB		Used Size(MB) 4.2	iSCSI Delete Extend
78.24%	Used Size: 202.500GB 21.75%		
Join	Disk Create Volume		

3.1.3 Share/Security

Click the Share/Security tab. The Share and Security Configuration window will be displayed.

RAID Volume Share/Security	Refresh
Share Folder Volume Windows(Samba) Unix/Linux(NFS) Mac(Apple	talk) Rsync
Create Share Folder Edit Share Folder	

Share/Security Information Screen:

Share Folder – Displays the share folder name.

Volume – Shows the volume name where the share was created.

- Windows (Samba) Shows the status if Samba / CIFS protocol is enabled (Yes) or not (No) in the share folder.
- UNIX/Linux (NFS) Shows the status if NFS protocol is enabled (Yes) or not (No) in the share folder.
- Mac (AppleTalk) Shows the status if AppleTalk protocol is enabled (Yes) or not (No) in the share folder.
- Rsync Shows the status if Rsync is enabled (Yes) or not (No) in the share folder.

Share/Security Options:

Create Share Folder – Used to create a new share folder. Edit Share Folder – Used to edit settings of an existing share folder. Refresh – Used to update the information displayed in the screen.

3.1.3.1 Create New Share Folder

Steps to Create New Share Folder:

- 1. Click "Create Share Folder".
- 2. The Share Folder Basic Configuration screen will be displayed. Configure the necessary options.

D Volume Shar	e/Security		Refresh
Basic	Privilege	Share Info	
Volume	nare1 rol1 (v) idmin (v)	Protocol Setting Windows(Samba) ✓ Enable Samba Sharing Case Sensitive Files Begin with Dots Max. connection 0 Unix/Linux(NFS) Mac(Appletalk) Rsync	

Share Configuration Options:

Share Name – Enter the share folder name.



NOTE: The share folder name does not allow space in-between characters.

Volume - Select the Volume where the share folder will be created.

Owner - Set the owner of the share folder. By default, admin owns all share folders.

Public – When enabled (checked), the share folder is accessible to all users.

3. In the Protocol Setting window, setup the Windows (Samba) protocol options.

Windows (Samba) Configuration Options:

- Enable Samba Sharing Used to enable Samba protocol. When checked, the share folder can be accessed via Samba protocol.
- Case Sensitive This controls whether filenames are case sensitive or not. Default is disabled.
- Files Begin with Dots This controls whether files that begin with a dot will become hidden files. Default is disabled.
- Max connection This option limits the number of simultaneous connections at a certain time. A value of zero (default) means an unlimited number of connections will be possible in this share.

43

 Select "Unix/Linux(NFS)" option in Protocol Setting window. The NFS protocol configuration screen is displayed. If share will be accessed by UNIX/Linux clients, setup the necessary options.

Volume S	ihare/Security		Ref
			Share Info
Basic	Privilege		
Share Name	share1		Protocol Setting Windows(Samba)
Volume	vol1	 ▼]	Unix/Linux(NFS)
Owner	admin	•	Enable NFS Sharing
			Synchronize Write Operation
			Allow Root Access Insecure
Public			Subtree Check
			1.000000000000000000000000000000000000
			Mac(Appletalk)
			Rsync

Unix/Linux (NFS) Configuration Options:

Enable NFS Sharing – Used to enable or disable NFS protocol. When enabled (checked), the share folder can be accessed via NFS protocol.

- Synchronize Write Operation Use this option to enable or disable write caching.
- Allow Root Access Use this option to allow or disallow access by root super-user account.
- Insecure This option provides higher security. If this option is enabled, only the ports under 1024 are allowed access to the share folder.

Subtree Check - Use this option to enable or disable subtree checking. A subtree check happens if a subdirectory of a filesystem is exported but the whole filesystem isn't, then whenever a NFS request arrives the server must check not only that the accessed file is in the appropriate filesystem (which is easy) but also that it is in the exported tree (which is harder).

5. Select "Mac(Appletalk)" option in Protocol Setting window. The AppleTalk protocol configuration screen is displayed. If share will be accessed by Mac clients, setup the necessary options.

Volume S	hare/Security					Refr
			Share Info			
Basic	Privilege					
Share Name Volume	share1 vol1	• •	Windows(S Unix/Linux(I Mac(Applet:	NFS)	Protocol Setting	
Owner				a Appletalk Sh	aring	

Mac (AppleTalk) Configuration Options:

Enable AppleTalk Sharing – Used to enable or disable AppleTalk protocol. When enabled, the share folder can be accessed via AppleTalk protocol.

6. Select "Rsync" option in Protocol Setting window. The Rsync configuration screen is displayed. If share will be used for Rsync, setup the necessary options.

) Volume Share/Security	Refr
Basic Privilege	Share Info
Share Name share1	Protocol Setting Windows(Samba)
Volume vol1	Unix/Linux(NFS) Mac(Appletalk) Reync
Owner admin +	Enable Rsync Read Only Anonymous Maximium connections 10
Public	#username:password admin:00000000

Rsync Configuration Options:

- Enable Rsync Used to enable or disable Rsync Server function on this share folder. When enabled (checked), an Rsync client can connect to this share folder and upload or download files via Rsync.
- Read Only When checked, all files within this share will be read only to any Rsync client.

Anonymous – When checked, anonymous connections will be accepted. Maximum connections - This specifies the maximum number of Rsync client that can connect to this share at a certain time.

- **#username:password Use this option to edit Rsync account and password list. These accounts are the accounts that will be supplied by the Rsync client when connecting to this server.**
- 7. Click "Save" when done. Then Share Folder will be created.

roN	MANAGER	Net	work System	Storage/Share	Account	ata Backt
Volume Share/Secu	urity					Refres
Share Folder	Volume	Windows(Samba)	Unix/Linux(NFS)	Mac(Appletalk)	Rsync	
share1	vol1	Yes	No	No	No	
						_
						- 1
						- 1
						_
						_
	Crushe Shar					
	Create Shar	e Folder Edi	t Share Folder			

3.1.3.2 Assign Permission to Share

Steps to Assign User or Group Account Permission to the Share Folder:



NOTE: User or Group Accounts must have been created or NAS must have been joined to Windows AD or NIS domain.

- 1. Select (highlight) the share folder then click "Edit Share Folder", or double-click the share folder name.
- 2. Select the Privilege tab. In the Account option, select the user accounts that will be given access permission to the share folder, then click ">>".The accounts will appear on the right screen. Set the Write and Quota(MB) options as needed.



NOTE: Use the "<<" to remove an account from share folder privilege. Select the account then click "<<". The account will be removed from the right column.

	Share Info			-	
		Name	Type	Write	Quota(MB)
Full Name		admin	Account		0
Administrator		users	Group		0
user1		****	IP	~	0
	>>				
	<<				
	Administrator	Administrator user1	Administrator users	Full Name admin Account Administrator users Group user1 >> IP	Full Name admin Account Image: Constraint of the second of

Account Privilege Options:

- Write By default, this option is checked and the account is given Read and Write permission to the share folder. To assign Read-Only permission, remove the check mark.
- Quota(MB) This option is used to assign user account quota to the share folder. Default is zero and no quota.
- Click the Group option. Select the groups that will be given access permission to the share folder, then click ">>".The groups will appear on the right screen. Set the Write and Quota(MB) options as needed.



NOTE: Use the "<<" to remove a group from share folder privilege. Select the group then click "<<". The group will be removed from the right column.

	Share Info				
Basic Privilege					
Account		Name	Туре	Write	Quota(MB)
Group		admin	Account		0
Name		users	Group	~	0
users		*,*,*,*	IP	~	0
admin			#5-1		
group1					
P					

Group Privilege Options:

Write - By default, this option is checked and the group is given Read and Write permission to the share folder. To assign Read-Only permission, remove the check mark.

4. Click the IP option. Set up the IP address or addresses that will be allowed connections to the share folder, then click ">>".The IP address will appear on the right screen.

Volume Share/Security					Ref
Basic Privilege	Share Info			_	
Account		Name	Туре	Write	Quota(MB)
Group IP		admin	Account	~	0
IP 172.16.*		users	Group	v	0
Read Write	>> <<	****	IP		0





NOTE: This option allows setting certain range of hosts to have an access to the NAS. By default, NAS will accept connections from any host (*.*.*.*). To allow connections only from certain IP address, remove *.*.* then add the IP address/range. For example, add 192.168.100.*. This will only allow connections from your private network 192.168.100 and all other connection will be refused.



Note: To remove an IP address from share folder privilege, select the IP address then click "<<".

- IP Privilege Setup Options:
 - Read This option allows Read access from the specified IP address or address range.
 - Write –This option allows Write access from the specified IP address or address range.

IP Privilege Edit Option:

- Write By default, this option is checked and the IP address or range of IP address is given Read and Write permission to the share folder. To assign Read-Only permission, remove the check mark.
- 5. Click "Save" when done. The permissions will be set in the share folder.

3.1.3.3 Edit Share Folder

Steps to Edit Share Folder:

- 1. Select the share folder name then click "Edit Share Folder".
- 2. Change the necessary options. Click "Save" when done.



NOTE: The Share Name cannot be modified.

3.1.3.4 Delete Share Folder

Steps to Delete Share Folder:

1. Select the share folder name then click "Edit Share Folder".

pro			Image: Network System System Storage/Share Image: Account Data Back
ID Volume S	hare/Security		Refres
Basic	Privilege		Share Info
Share Name Volume Owner	share1 (testsh (admin	¥ ¥	Protocol Setting Windows(Samba) ✓ Enable Samba Sharing Case Sensitive Files Begin with Dots Max. connection 0
			Unix/Linux(NFS) Mac(Appletalk) Rsync
		Delete	Save Cancel

2. Click "Delete". A warning message will be displayed. Select "Yes" to proceed. The share folder will be deleted.

Warning
All data will be deleted, are you sure to do delete this Share
Yes No



WARNING! Be careful when using the "Delete" button. Make sure your data in the share is no longer needed or a backup has been made before deleting the share folder.

3.2 Network

3.2.1 Device Configuration

Click the Network icon to display the Network Device Configuration screen.

	ternet Gateway) P2P		
ame NAS		Network Ada	ptor
	Device	eth0	Enable on Boot
ain Workgroup	IP	10.21.23.89	Dynamic IP(BOOTP/DHCP) Ø Default Gateway
r	Gateway	10.21.23.1	
Edit Hosts Table	Subnet Mask	255.255.255.0	
Edit LmHost Table	мти	1500	Reset
	MAC address	00:03:1D:05:44:08	Apply
	Device	eth1	Enable on Boot
Reset Apply	IP		Dynamic IP(BOOTP/DHCP)
	Gateway		Default Gateway
	Subnet Mask		
	мти	1500	Reset
	MAC address	00:03:1D:05:44:09	Apply

Device Configuration Options:

Host Name – The NetBIOS name of NAS. It should be unique.

- **Domain** Enter the Windows domain name or workgroup name. For example: MYDOMAIN. Default is "Workgroup".
- DNS Suffix The DNS suffix is the name appended to server name to complete the server's FQDN. For example: MYDOMAIN.LOCAL
- **DNS Server** Enter the DNS Server IP address. DNS server is responsible for mapping the machine name and IP address.
- WINS Server Enter the WINS Server IP address. WINS Server is responsible for the setting NetBIOS name resolution.
- Edit Hosts Table Use this button to edit machine name and IP address mapping in the Hosts table. This is optional.
- Edit LmHost Table Use this button to define the resolution of NetBIOS in the Lmhosts table. This is optional.
- Reset Use this button to undo or clear any changes made.
- Apply Use this button to save the changes made.

Network Adaptor Configuration Options:

- Device Shows the network device name. eth0 is the device name for LAN0 gigabit port.
- IP Shows the current IP address of the network device. Configure the IP address as necessary.
- Gateway Show the current IP address of the Gateway. To edit, enter the Gateway IP address.
- Subnet Mask Shows the current subnet mask setting. To edit, type in the new subnet mask number.
- MTU The MTU size (Maximum Transmission Unit) in bytes. To modify the MTU size for this interface, enter the new MTU size.
- MAC address Shows the MAC address of network device.
- Enable on Boot If enabled, this adapter will be active when proNAS starts up.
- Dynamic IP (BOOTP/DHCP) If checked, this specifies that this network device will dynamically obtain an IP address from a Dynamic Host Configuration Protocol (DHCP) server or from a Bootstrap Protocol (BOOTP) server.
- Default Gateway If checked, the default gateway will be enabled in this adapter. A default gateway is a local IP router that is used to forward packets to destination beyond the local network. Only one default gateway can be enabled in a certain time.
- Reset Use this button to undo or clear any changes made.
- Apply Use this button to save the changes made.
- Create Trunking Use this button to configure network trunking.

3.2.1.1 Configure Network Trunking

Steps to Configure Trunking Function:



NOTE: It is necessary that the network switch supports the type of trunking mode that will be used. Otherwise, the network connections may become unstable.

- 1. In Network Æ Device Configuration screen, click "Create Trunking".
- 2. The Create Trunking Dialog window will be displayed. Configure the necessary options.

	Create Trunking Dialog
Dynamic IP(B	OOTP/DHCP)
Enable on Bo	ot
Default Gate	way
Target Device	eth0
	eth1
IP	10.21.23.90
Gateway	10.21.23.1
Subnet Mask	255.255.255.0
MTU	1500
Mode	Fault Tolerance

Create Trunking Configuration Options:

- Target Device Shows the network device names that can be included in Trunking. To select, press the "Ctrl" key and at the same time click the network device names.
- Mode Select the Trunking Mode that will be used.

Trunking Mode Options:

- □ Fault Tolerance Active-Backup policy: If the active Ethernet port fails, the standby Ethernet port will become active. This enhances the availability of access to the NAS.
- □ Load Balance / Fault Tolerance XOR policy: Transmit based on source MAC address XOR with destination MAC address. This selects the same slave for each destination MAC address. This mode provides load balance and fault tolerance.
- Dynamic Link Aggregation 802.3ad policy: Combines multiple physical network links into a single logical link for increased performance. Transmits and receives on all slaves in the active aggregator. Pre-requisite: the network switch must support IEEE 802.3ad.
- Load Balance ALB (Adaptive Load Balancing) policy: The receive load balancing is achieved by ARP negotiation and does not require special switch support.

3. Click "OK" when done. A warning message will be displayed. Click "Yes" to proceed.



4. The Trunking function is configured. The member network devices will be shown as deactivated and cannot be configured. A new network device name "bond0", which is the Trunking device, will be shown.

	Network Ada	ptor
Device	eth0	🗹 Enable on Boot
IP		Dynamic IP(BOOTP/DHCP)
Gateway		Default Gateway
Subnet Mask		
MTU	1500	Reset
MAC address	00:03:1D:05:44:08	Apply
Device	eth1	🗹 Enable on Boot
IP		Dynamic IP(BOOTP/DHCP) Default Gateway
Gateway		
Subnet Mask		
MTU	1500	Reset
MAC address	00:03:1D:05:44:08	Apply
Device	bond0	Enable on Boot
Th I	10 01 00 00	Dynamic IP(BOOTP/DHCP)

Device	bond0	Enable on Boot
IP	10.21.23.90	 Dynamic IP(BOOTP/DHCP) Default Gateway
Gateway	10.21.23.1	
Subnet Mask	255.255.255.0	Cancel Trunking
MTU	1500	Reset
MAC address	Fault Tolerance	Apply

3.2.1.2 Cancel Network Trunking

Steps to Cancel Trunking Function:

1. Find the device name "bond0" then click "Cancel Trunking".

Device	bond0	Enable on Boot
IP	10.21.23.90	 Dynamic IP(BOOTP/DHCP) Default Gateway
Gateway	10.21.23.1	
Subnet Mask	255.255.255.0	Cancel Trunking
MTU	1500	Reset
MAC address	Fault Tolerance	Apply

2. A warning message will be displayed. Click "Yes" to proceed.



3. The Trunking function will be cancelled. The network device eth0 will be automatically configured and get the IP address previously assigned to the Trunking device.

	Network Ada	aptor
Device	eth0	Enable on Boot
ир Ір	10.21.23.90	Dynamic IP(BOOTP/DHCP) Default Gateway
Gateway	10.21.23.1	
Subnet Mask	255.255.255.0	
MTU	1500	Reset
MAC address	00:03:1D:05:44:08	Apply
Device	eth1	Enable on Boot
IP		Dynamic IP(BOOTP/DHCP) Default Gateway
Gateway	2	
Subnet Mask		
MTU	1500	Reset
MAC address	00:03:1D:05:44:09	Apply
		-135 Li
		Create Trunki

NAS SYSTEM

3.2.2 ADS/NIS

Windows ADS/PDC or NIS domain accounts can be imported and integrated into the NAS.



NOTE: Some network settings required in configuring the Windows Domain Authentication option must have been configured in Network Î Device Configuration, such as Domain/Workgroup name, DNS Suffix, and DNS Server.

vice Configuration ADS	SNIS DHCP(Internet Gateway)	
	Windows	NIS
Host Name Domain/WorkGroup	Enable Domain Authentication NAS Workgroup	Enable NIS Authentication NIS Domain NIS Server
DNS Suffix Domain Server IP	✓ Auto Detect Domain IP	
Logon Administrator Password	administrator	
PDC/ADS Mode	ADS (Windows 2000/2003 Server) ↓ Enable NTLMv2 Authentication Enable Client Channel	

3.2.2.1 Join NAS to Windows AD Domain

Steps to Join NAS in the Windows AD Domain:

1. Select Network Æ Device Configuration. Enter the Domain Name and DNS Suffix. A DNS Server IP can also be entered if necessary. Refer to Section 3.2.1 for the Device Configuration options.

		Network Ada	iptor
ame NAS89	Device	eth0	Enable on Boot
nain MYDOMAIN	и пр	10.21.23.90	Dynamic IP(BOOTP/DHCP)
Iffix MYDOMAIN.LOCAL	Gateway	10.21.23.1	Default Gateway
ver 168.95.1.1			
Edit Hosts Table	Subnet Mask	255.255.255.0	1944 - 1944
Edit LmHost Table) MTU	1500	Reset
ver	MAC address	00:03:1D:05:44:08	Apply
	Device	eth1	Enable on Boot
Reset Apply	IP		Dynamic IP(BOOTP/DHCP)
Apply	Gateway		Default Gateway
	Subnet Mask		
	MTU	1500	Reset
	MAC address	00:03:1D:05:44:09	Apply

2. A warning message will be displayed. Select "Yes" to apply new settings.



3. Select Network Æ ADS/NIS tab.

- 4. In Windows screen, check the "Enable Domain Authentication" option. Configure the necessary options.
 - a. If Domain Server IP is automatically detected, the Domain Server IP will be displayed. If you want to join NAS to a specific Domain Server IP, remove the check mark in "Auto Detect Domain IP" and manually enter the Domain Server IP address.
 - b. Enter the Domain Administrator account.
 - c. Enter the Domain Administrator's password.
 - d. Select the PDC/ADS mode.

Device Configuration ADS	NIS DHCP(Internet Gateway) P2P	
	Windows	NIS
Host Name Domain/WorkGroup DNS Suffix Domain Server IP Logon Administrator Password PDC/ADS Mode	Enable Domain Authentication NAS89 MYDOMAIN MYDOMAIN.LOCAL Auto Detect Domain IP 10.21.23.50 administrator ADS (Windows 2000/2003 Server) Enable NTLMv2 Authentication Enable Client Channel	Enable NIS Authentication NIS Domain NIS Server
	Reset Save	(Reset) Save

Windows Domain Authentication Options:

- Enable Domain Authentication Use this option to enable or disable Windows Domain Authentication.
- Host Name Indicates the NetBIOS name of NAS as configured in Network Æ Device Configuration tab.
- **Domain/Workgroup** Shows the domain/workgroup name as configured in Network *Æ* Device Configuration tab.
- DNS Suffix Shows the DNS Suffix as configured in Network Æ Device Configuration tab.
- Domain Server IP Shows the IP address of the domain server which is automatically detected when "Auto Detect Domain IP" option is enabled. If "Auto Detect Domain IP" option is disabled, manually type the domain server IP address.
- Logon Administrator Enter the administrator's logon account in the domain server.
- Password Enter the password of administrator's logon account in the domain server.
- PDC/ADS Mode Select the mode type of the domain server. This can be "ADS Windows 2000/2003 Server)" or "PDC (Windows NT Server)".

Enable NTLMv2 Authentication – This parameter determines whether or not smbclient will attempt to authenticate itself using the NTLMv2 encrypted password. If enabled, NAS will only sent NTLMv2 and LMv2 responses. NTLMv2 authentication protocol is available only on WindowsNT4 with SP4 and Windows 2000 or later. Default is disabled.
Enable Client Channel - This controls whether the client offers or even demands the use of the netlogon schannel. Default is auto, means it offers the schannel but does not enforce it.
Reset – Use this button to undo or clear any changes made.
Save – Use this button to save the changes made.

5. Click "Save" when done.



NOTE: When NAS is successfully joined to the Windows domain, the domain user accounts will appear in Account list. NOTE: The NAS cannot be joined to the Windows domain if NASVG does not exist (NASVG is not yet initialized).

3.2.2.2 Join NAS to NIS Domain

Steps to Join NAS in the NIS Domain:

- 1. Select Network Æ ADS/NIS tab.
- 2. In NIS screen, check the "Enable NIS Authentication" option. Configure the necessary options.
 - a. Enter the NIS Domain name.
 - b. Enter the NIS Server IP address.
- 3. Click "Save" when done.

NIS Authentication Options:

Enable NIS Authentication – Use this option to enable or disable NIS Domain Authentication.

NIS Domain – Enter the NIS domain name.

NIS Server - Enter the IP Address of NIS server.

Reset – Use this button to undo or clear any changes made.

Save – Use this button to save the changes made.



NOTE: When NAS is successfully joined to the NIS domain, the domain user accounts will appear in Account list. NOTE: The NAS cannot be joined to the NIS domain if NASVG does not exist (NASVG is not yet initialized).

3.2.3 DHCP (Internet Gateway)

NAS provides Internet gateway function for administrator to easily enable and disable the Internet access for users. This function integrates with DHCP service, routing and NAT.

DHCP (Internet Gateway) Options:

- IP range starting from Means the starting address of range of private IP addresses for DHCP.
- IP range ending with Means the ending address of range of private IP address for DHCP.

Private Net – The network device connected to the private network. WAN – The network device connected to the Internet / WAN.



NOTE: This function must be configured in System $\widehat{\mathbf{I}}$ Service tab. Select DHCP service.

re Account Data Backup

3.2.4 P2P

The NAS system supports P2P (peer-to-peer) file sharing protocol.



NOTE: Enable the P2P Service (System Î Service). Also setup the P2P Service 'Download file location' (System Î P2P Î Edit Î Quick Setup). Refer to Section 3.3.2 Service.

NOTE: DNS settings must be configured first before starting P2P service.

3.2.4.1 Status

This screen will show current download or upload connections.

ownlo	ad New dov	wnload Remove Pause	Resume		C	Refresh
ID	File Name		Downloaded	Size	Active	Status(kb/s)
Jpload	14					
ID	User	File Name	Uploade	d Down	loaded IP AD	DRESS Port

Options:

New download – Use this button to add download item. Then select either download link or torrent file.

Emulk Download lit	ĸ
Link	
Please input link	
	ОК
O Torrent	
select torrent file	
	Cancel

Installation Configuration Manual

Remove – Use this button to remove a selected download item. Pause – Use this to pause the downloading of selected item. Resume – Use this to resume downloading of selected item. Refresh – use this to refresh current download status.

3.2.4.2 Server

This screen allows connection to and disconnection from server.

Conr	nnect Disconnect Refresh						
ID	Name	IP ADDRESS	Port	Total Users	Total Files	Status	
1	Sharing Kingdom 2	89.248.172.50	4500	63552	10186603	IP blocked	
2	TVU DonkeyServer No1 - Now On New Hardware	89.248.174.84	6543	145537	12865502	Connected	
3	Sharing Kingdom 3	89.248.172.86	4500	76279	11289366	IP blocked	
4	eDonkeyServer No1	77.247.178.244	4242	643283	93346168	Connected	
5	Sharing Kingdom 1	89.248.172.54	4500	58944	10166785	IP blocked	
6	Il Saugstube !!	81.171.125.8	4242	40921	4123419	N/A	
7	Sharing Kingdom 4	89.248.172.90	4500	55711	8955159	IP blocked	
8	no1.eserver.emule.org.cn	222.73.207.86	8080	69954	219940	IP blocked	
9	eDonkeyServer No2	77.247.178.245	4242	283823	44038604	Connected	
10	DonkeyServer NoX	91.121.1.37	4242	9447	3739197	IP blocked	
11	www.UseNeXT.to	87.230.83.44	4661	185854	3067843	Connected	
12	PEERATES.NET	88.191.81.111	1111	48484	9404	N/A	
13	??P2P???	61.174.18.254	8080	324046	11385116	N/A	
14	# eMule Serverlist Nr.3 # Russian	92.241.164.21	4242	25090	4700308	N/A	
15	# eMule Serverlist Nr.1 #	81.171.35.10	4242	52348	7579383	N/A	

Options:

Connect – Use this button to connect to a selected server. Disconnect – Use this button to disconnect to a selected server. Refresh – Use this to refresh current connection status.

3.2.4.3 Options

Use this screen to configure download options.

Device Configuration ADS/NIS DHCP(Internet Gateway) Status Server Option	P2P
	Option
Maximun download number Maximun download rate(Kbytes/s) Maximun upload number Maximun upload rate(Kbytes/s)	
	Reset Apply

Options:

- Maximum download number Use this option to set the maximum number of download connections.
- Maximum download rate Use this option to set the maximum download transfer rate.
- Maximum upload number Use this option to set the maximum number of upload connections.
- Maximum upload rate Use this option to set the maximum upload transfer rate.
- Reset Use this button undo any changes made and load previously saved setting.
- Apply Use this button to save changes made.

3.2.4.4 Example of Download from Link and Torrent

1. Click "New download".

own	load New dow	nload Remove Pause	Resume			Refresh	
ID	File Name		Downloaded	Size	Activ	e Stat	us(kb/s)
Uploa	d						
ID	User	File Name	Uploade	d Down	loaded	IP ADDRESS	Port

2. To download using link, enter the download link or paste the link in the box provided. Click "OK".

Emulk Download link	
• Link	
Please input link ed2k:// file [2008-08-22][192Kbps VBR][Ác¤¤] §õ¨h-õ -im¤£iA§	1011.rar 49291087 44FCFE578B56BBB53950F
	ОК
select torrent file	
	Cancel

3. To download from another link, enter the link or paste the link in the box then click "OK".

nix).mp3 4296062 A002B12AC2366365D8
ОК
Cancel

4. Two items will be displayed under Download.

Downloa	d New dowr	nload Remove Pause	Resume		(Refresh
ID	File Name		Downloaded	Size	Active	Status(kb/s)
2	(HIP HOP) U	sher - You make me wanna - (Timmp3	180.0KB	4.1MB	47/51	2.7
1	[2008-08-22]	[192Kbps VBR][Ác××] §õ"h-õ -im×£iAÂrar	240.0KB	47.0MB	9/71	2.1
Upload	User	File Name	Uploade	d Downl	loaded IP AD	DRESS Port

5. To download using torrent, click "New download" then select "Torrent" option. Click "select torrent file".

Emulk Downloa	id link
O Link	
Please input link	
	OK
(e) Torrent	
select torrent file	
	Cancel

Installation Configuration Manual

6. Select the torrent file. Click "Open".



7. The download item will be added in the Download list.

Downl	oad New dov	vnload Remove Pause	Resume			Refre	sh
ID	File Name		Downloaded	Size	Activ	e St	tatus(kb/s)
2	(HIP HOP)	Usher - You make me wanna - (Timmp3	180.0KB	4.1MB	47/5	1 2.	7
1	[2008-08-2	2][192Kbps VBR][Ác¤¤] §õ¨h-õ -im¤£iAÂrar	240.0KB	47.0MB	9/71	2.	1
3	NBA_Live_C	NBA_Live_08-HATRED		3.5GB	0/0	2	
Uploa	4						
-							
ID	User	File Name	Upload	led Down	loaded	IP ADDRES	S Port

- 8. To remove an item, select the item and click "Remove".
- 9. To pause downloading, select an item and click "Pause".
- 10. To resume downloading, select a paused item then click "Resume".

3.3 System

The System function is used to configure different NAS system settings and services, such as: Service configurations, Date and Time Zone setting, Serial Port setting, NAS Firmware Upgrade, Reboot and Shutdown functions, Log Information, Event Notification via email, and various System Tools.

3.3.1 System Information

prof		Network System	Storage/Share	Account Data Backup
Information	Service Misc. Boot/S	Shutdown Upgrade	Log Not	ification System Tools
System Information				
Host Name	NAS	Device	Status	
Domain/WorkGroup	Workgroup	Slot1	36 C	ноо 📀
Version	2.0.01-rc2-pre5	Slot2	40 C	HDD 💿
Time	11/20/2008, Asia/Taipei	Slot3	37 C	нор 💿
Model	NAS-Model-Name	Slot4	37 C	ноо 📀
CPU	Intel Pentium Dual E2180 @ 2	Slot5	36 C	нор
Memory(KB)	1024920	Fan	2556 RPM	
Kernel Ver.	2.6.26.7	CPU Fan	4470 RPM	
Languages	English •	CPU Temp	+57.0 C	
Skin	Please select a style	M/B Temp	+38.0 C	
Enable Timeout		Hyb remp	+50.0 C	

The System Information screen shows the following:

- Host Name Indicates the NetBIOS name of NAS as configured in Network Æ Device Configuration.
- **Domain/Workgroup** Shows the domain/workgroup name as configured in Network Æ Device Configuration.

Version – Shows the NAS firmware version.

Time – Shows the NAS system time and time zone.

Model - Shows the NAS system model.

CPU - Shows the NAS system processor type.

Memory (KB) - Shows the amount of NAS system memory (RAM) in KB.

Kernel Ver. - Shows the NAS kernel version.

- Languages Shows the language options available. Currently, only English and Chinese are supported.
- Skin Shows the color schemes available as skin color. Current options are: Black, Blue (default), and Green.
- Enable Timeout This is enabled by default. When there is no activity in the proNAS Manager GUI, admin will be automatically logged out after 15 minutes. To disable timeout, remove check mark in Enable Timeout.

Installation Configuration Manual

- Device Shows the device information such as Slot number, system fan, CPU fan, CPU temperature, and motherboard temperature.
- Status Shows the current status of each device, such as slot temperature, system fan and CPU fan speed in RPM, and CPU and motherboard temperature reading.
- The System Information screen also shows the number of disk drives detected by the NAS system.

3.3.2 Service

The administrator can manage and enable/disable the various NAS system services. At the same time, some service can be configured in the Service tab.

Information	Service Misc.	Boot/Shutdown Upgrade Log	Notification System Tools
Enable	Name	Start on Boot	Configuration
	Samba	M	Edit
	NFS		Edit
	Appletalk		Edit
	FTP		Edit
	Telnet		Edit
	rsync		Edit
	SSH		Edit
	iTunes		Edit
	P2P		Edit
	WEB		Edit
	DHCP		Edit
	DLNA		Edit
	Photo		Edit
	Printer		Edit
Samba!!!			

Service Name:

- Samba Provides CIFS file sharing. MS Windows users need this service to access the NAS share folders.
- NFS Provides NFS file sharing. UNIX/Linux users need this to access the NAS share folders.
- AppleTalk Provides AppleTalk sharing, Mac OS users need this to access the NAS share folders.
- FTP Provides users with access to NAS using FTP.
- Telnet Provides users with access to NAS using Telnet.
- **Rsync** Provides Rsync Server process to which Rsync client connects. **SSH** Provides remote management connection with more secure level. **iTunes** –

Provides iTunes service to clients by setting a share folder as iTunes library.

P2P – Provides service for P2P (peer-to-peer) file sharing protocol. WEB – Provides Web service with SSL option.

- DHCP Provides DHCP and Internet Gateway service to client computers in the network. A range of private IP address can access the internet or WAN.
- DLNA Provides DLNA service to DLNA-capable clients such as Sony PS3. When share folder is set as DLNA library, the share folder is accessible from the DLNA client. Note: Currently only MPEG and AVI files and VOD services are

supported.

- Photo Provides service for photo/image archive/album/gallery.
- Printer NAS supports HP Deskjet F4280 printer. Enable this service. Connect USB cable from printer to USB port of NAS.

Service Options:

Enable – Allows you to enable/disable the selected service. NOTE: You cannot enable a selected service if VG does not exist (NASVG is not yet initialized).

Name – Shows the service name.

Start on Boot – Allows the service to auto-start when the NAS starts.

Configuration – This contains basic configuration options which can be set by clicking the "Edit" button.

Edit – Click this button to configure the service.

Configuration:

AppleTalk Option: Languages – Select the AppleTalk Language option.

Quick Setup			
Languages	UTF8	•	
	UTF8	-	
	MAC_CENTRALEUROPE	=	
	MAC_CHINESE_TRAD		
	MAC_CHINESE_SIMP		
	MAC_CYRILLIC	•	
		لقد	

FTP Option:

 $\ensuremath{\text{Port}}$ – Use this option to set the FTP port number. Default FTP port used by the NAS is 21.

			FTP			
Quick	Setup					
Port	21					

Telnet Option:

Port – Use this option to set the Telnet port number. Default Telnet port used by the NAS is 23.

		Telnet	to .		
Quick	Setup				
Port	23				
			ОК	Canc	

SSH Option:

Enable sftp – Use this option to enable or disable SFTP in SSH. SFTP (Secure FTP) provides secure file transfer.

	SSH	
Quick Setup		
🗹 Enable sftp		

iTunes Option:

Set Share as iTunes Library – Select the share folder name that will be used as iTunes library from the list.

OK

Cancel

iTunes
Quick Setup
Set Share as iTunes Library share1 💌

P2P Option:

Target Share – Select the share folder name that will be used as download location.

P2P	
Quick Setup	
Target Share test 🛛	
	OK Cancel

WEB Options:

Target Share – Select the share folder name that will be used as target location.

Enable SSL – Tick the box to enable SSL option.

WEB		
Quick Setup		
Target Share Enable SSL	testsh ▼ ▼	
		OK Cancel

DHCP Options:

- IP range starting from Means the starting address of range of private IP addresses for DHCP.
- IP range ending with Means the ending address of range of private IP addresses for DHCP.
- Private Net The network device connected to the private network. For example: eth0
- WAN The network device connected to the Internet / WAN. For example: eth1

^o range starting from	192.168.110.100
IP range ending with	192.168.110.150
Private Net	etho •
WAN	eth1 -

(ок ј	Cancel
--------	--------

72

DLNA Options:

Target Share – Select the share folder where DLNA service will be enabled.

Please select LAN device – Select the network device for use with DLNA service.

DLNA	
Quick Setup Target Share test	
please select lan device eth0 •	
	OK Cancel

Photo Options:

Target Share – Select the share folder that will be used as target location of photo/images.

Photo
Quick Setup
Target Share testsh •
OK Cancel

3.3.2.1 Photo

To use the Photo service:

- Enable the Photo Service, if not yet enabled, by selecting Photo service in System Æ Service tab. Click "Edit" and select the target share. Enable the Photo service by selecting the "Enable" check box on the left of the service name.
- 2. Open web browser and type http://xxx.xxx.xxx/photo/ where xxx.xxx.xxx.xxx is the NAS IP address. The LinPHA Photo Archive page will be displayed.

The Photo Archive - LinPHA - Win	dows Internet Explorer		= 0 ×
G . + ttp://192.168.100	125/photo/index.php	• +, ×	Live Search
🚖 🔗 😽 🍎 http://192.16	8.100.125:3000/ 🍎 The Photo Archive - Li 🗴	Q •	🖾 🔹 🖶 🔹 🔂 Bage 🕶 🎯 Tgols 🔹
* Linpha	The Photo Archive		2 visits, 1 users online Welcome guest <u>(login)</u>
My Photo Archive	Nome search Welcome H6, this is the home of "The Photo Archive".		photos: calculating
			2002-2008 -
Done		🍙 😌 Internet Protected	

3. Click the "login" link in the upper right side then login as admin and enter admin's password.



4. The Photo Archive home page will be displayed.



5. To view photos and images, select the folder links under "My Photo Archive".





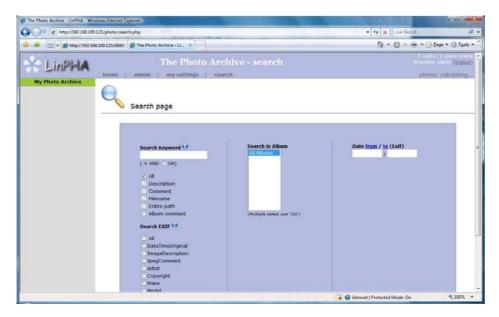
NOTE: The picture files must be saved in the NAS share designated as target location of Photo service and must be inside a subfolder. For example: share1\Photo\Samples, where share1 is the share name, Photo is the folder created by Photo service, and Samples is the subfolder containing photos or images.

- The Photo Archive LinPHA Windows Internet Expl • 4 🗙 Live Search G . http://192.168.100.125/ph 8. 1 - 1 - - - - - - Page - - Tgols -🎪 🚸 🖂 • 🍘 http://192.168.100.125-3000/ 🏀 The Photo Archive - Li... 🗴 (logout) LINPHA home | admin | my settings | search LinPHA admin General Configuration: Layout settings Category Management General Configuration: Title of photo album <-Leave blank to use the default name ngs Change the theme Thumbnall View: aqua . <-- set default theme to use 🕕 4 Number of columns to display: <-i.e. columns of thumbnails to display Number of rows to display: Tools: <.i.e. rows of thumbnails to display 👀 <-- set max thumbnail size in px 😯 Change thumbnail size 120 pixel ٠ File Management Thumbnail border size in px Thumbnail border color Permission: #000000 <-- see info for details 🛈 <-- set order of thumbs by filename or date 🚺 Filename † • on • off O Order thumbnails by Permission Folder Management Enable/disable filenames <-- enable to show filename under thumb Active Plugins: Enable/disable navigation bar on O off @ <-- activate the navigation bar on the thumbnails pages $\overline{\mathbb{G}}$ Enable/disable album comments in subfolder on @ off O <-- show album comments in subfolder preview 🕡 Plugins Image View: Size of detailed photo view (width): 512 <- 512 (default size) 🕡 <- 384 (default size) 🕡 <-- set off if many users have low bandwidth 😨 Size of detailed photo view (height): 384 Next/previous button image status/size • Exil/Iptc: medium . Enable/disable ALL EXIF support <-- enable/disable use of EXIF feature 🕕 on e off Show EXIF information by default <-- enable to show EXIF info by default 🕡 on 🖸 off 🧶
- 6. Select the "admin" tab to configure settings and options.

7. Select "my settings" to configure account details.

He Photo Archive - LinPHA - Wind	kws Internet Explorer			3000
() · E http://192.168.100.1	25/photo/admin.php?page=mysettings		- 4 🛪 Live Search 🖉	•
🎪 🚸 🙁 + 🍘 http://192.168	100.125:3000/ 🖉 The Photo Archive - Li., 🕱		🖓 • 🔝 • 🖶 • 🔂 Bage • 🕲 Tgols •	35
* Linpha	The Photo Archive		2 visits, 1 users online Welcome aution (<u>Depaut)</u> photos: calculating	*
LinPHA admin				
General Configuration:				
Be Layout settings Be Feature settings Be Performance settings User Management Group Management Category Management				
Tools:				
File Management	User name:	admin		
Thumbnails EXIF/IPTC	Full name:			
Permission:	Email:	admin@proware.com tx		
Permission Folder Management	New Password >>	In the second se		
		Update Account		
Active Plugins:		Delete Account	1	
De Plugins				
			2002-2008	+
			🕞 🚱 Internet Protected Mode: On 🗮 100% 💌	-

8. Select "search" tab for search options.



9. Click the "logout" link to logout.

3.3.3 Miscellaneous (Time and Serial Port)

The system time, date, time zone, NTP option, and Serial ports can be configured here.

Time Serial Port Time 5 • : 57 • UPS Date 11/19/2008 Image: Serial Port Time Zone Asia/Taipei • NTP Option Enable	Information Service Misc. Boot/Shutdown	Upgrade Lo	og Notification System	Tools
time.nist.gov Auto Update Update Now Add Remove 192.43.244.18 time.nist.gov Shutdown Delay(Min) Reset Apply	Time 5 ÷ : 57 ÷ Date 11/19/2008	Serial Port Service UPS Vendor Cable Model	Enable com1	

Time

To set Time, press up/down arrow in the hour and seconds boxes. To set Date, click the calendar icon on the right side and select the preferred date. To set Time Zone, click the down arrow and select the preferred time zone.

NTP Option

To select the NTP server, click the down arrow and select the preferred NTP server.

To immediately synchronize the system time from NTP server, press the "Update Now" button. To enable automatic update of system time from NTP server, check the "Auto Update" option.

- Update Now Use this button to manually update the system time and synchronize from NTP server.
- Auto Update Check this option to enable automatic update of system time from NTP server.
- Add Use this button to add an NTP server. Enter the NTP server IP address in the box provided then click this button.
- **Remove** Use this button to remove an NTP server. Select the NTP server from the list then click this button.
- Reset Use this button to undo or clear any changes made. (Reset button is located in Serial Port screen)
- Apply Use this button to save the changes made. (Apply button is located in Serial Port screen)

Serial Port

UPS

Enable – Use the option to enable or disable UPS support for serial port.

Serial Port – Use this option to select serial port option (com1 or USB). Note: In NAS models with com2 serial port, com2 is reserved for SES use.

- Service Use this option to select the type of UPS, whether UPS (smart) or Dumb UPS.
- UPS Vendor Use this option to select the UPS vendor. Currently, only APC and Beam-Tech UPS models are supported.
- Cable Model Use this option to select the UPS cable type. Options are: simple, smart, ether, and usb.
- Shutdown Delay (Min) Use this option to set the delay time in minutes before UPS shutdown.
- Reset Use this button to undo or clear any changes made.
- Apply Use this button to save the changes made.

3.3.4 Boot/Shutdown

The NAS can be restarted or shutdown manually or based on schedule.

Information Service Misc. Boo	t/Shutdown Up	ograde	Log	Notification System Tools
Reboot			Schedule	
Reboot Shutdown	□ Wed	Mon Thu	Shutdown	Schedule Reboot
Reboot to Default Reboot to Default	☐ Sat			Reset Apply

Reboot:

Reboot – Use the button to immediately reboot the NAS. If needed, you can also enable "Do Filesystem Check" option to perform filesystem check after reboot.

R	eboot
Confirm option, rebo	ot the system ?
Do Filesystem Check	OK Cancel

Shutdown – Use this button to immediately shutdown the NAS. When a warning message is displayed, select "Yes" to shutdown the system.

	Warning
Confir	m option, shutdown the system?
	Yes

Reboot to Default:

Reboot to Default – Use this button to reboot the NAS and restore to default configuration.

	Reboot to Default	
Confirm option, re	boot to default?	
All data will b	oe lost!!!	
	OK Cancel	



WARNING! Use the "Reboot to Default" function with care. Resetting the NAS to default configuration will delete the current NAS settings and erase all existing data.

Schedule:

Use the options here to boot, shutdown, or reboot the NAS based on schedule.

Boot

Boot – Use the button to enable or disable scheduled boot of NAS. Set the time (hour and minutes) in the up/down arrow boxes. Select the day or days when the scheduled boot will happen.

		Schedule		
Boot		Shutdown	Schedule Reboot	
♥ Boot 0 ↓ Sun Wed Sat	0 v Mon Thu			
			Reset A	ply

Shutdown

Shutdown – Use the button to enable or disable scheduled shutdown of NAS. Set the time (hour and minutes) in the up/down arrow boxes. Select the day or days when the scheduled shutdown will happen.

		Schedule	
Boot		Shutdown	Schedule Reboot
Shutdown			
0	0		
Sun Sun	Mon	Tue	
Wed	🗌 Thu	📃 Fri	
Sat			
			Reset

Schedule Reboot

Schedule Reboot – Use the button to enable or disable scheduled reboot of NAS.

Set the time (hour and minutes) in the up/down arrow boxes. Select the day or days when the scheduled reboot will happen.

		Schedule	
Boot		Shutdown	Schedule Reboot
✓ Schedule F	Reboot		
0	0		
Sun	Mon	📃 Tue	
Wed	📃 Thu	📃 Fri	
Sat			
			Reset Apply

Reset – Use this button to undo or clear any changes made. **Apply** – Use this button to save the changes made.

3.3.5 Upgrade

The NAS firmware can be upgraded remotely from FTP server or manually from local directory.

3.3.5.1 Remote Upgrade

Remote

To upgrade remotely, press the "Check Updates" button. The available NAS firmware version will be listed. Select the firmware version then click the "Upgrade" button. The NAS firmware version will be updated. NAS will restart to load the updates.

		Upgra	ohe			
		opyre	aue			
Version	2.0.00					
Released Date	2008/11/18 16:31					
Released Date	2008/11/18 10:31					
	No. of Contract of					
Remote	Local					
Upgrade Site	ftp://					7
opgrade site	10.77					
	Version			Deless	sed Date	
-	Version		-	Releas	seu Date	
				24		_
				ſ	Check Updates	Upgrade
				-		

3.3.5.2 Local Upgrade

Local

To upgrade locally, the NAS firmware must have been downloaded from vendor's FTP site and saved into local directory. Click the "Upgrade" button, select the NAS upgrade file (tar file), and click Open. The NAS firmware version will be updated. NAS will restart to load the updates.

	2.0.00	Upgra	de	
Page 1				
	2008/11/18 16:31			
Remote	Local			
	Upgrade			

3.3.6 Log

NAS logs can be viewed in this tab.

Date	Туре	Level	Message
2008/09/23 18:56:56	Storage	INFO	Create software RAID device: /dev/md0
2008/09/23 18:58:20	Storage	INFO	Create Disk successfully
2008/09/23 18:58:20	Storage	DEBUG	initialising rootfs
2008/09/23 18:58:45	Storage	INFO	Create Volume Successfully: home
2008/09/23 18:58:45	Storage	DEBUG	Storage initialized
2008/09/23 18:58:46	System	INFO	Starting SMB services: [OK]
2008/09/23 19:00:23	System	INFO	Reboot system
2008/09/23 19:05:22	System	INFO	Start Printer service: [OK]
2008/09/23 19:05:26	System	INFO	Stop Printer service: [OK]
2008/09/23 19:05:27	System	INFO	Start Printer service: [OK]
2008/09/23 19:05:30	System	INFO	Stop Printer service: [OK]
2008/09/23 19:12:54	Storage	INFO	Create Volume Successfully: vol1
2008/09/23 19:13:09	Share	INFO	Share Created: share1
2008/09/23 19:14:19	System	INFO	Start Photo service: Starting LinPHA:
ate Today 🕞	Type All	Level	All Export Refresh

Log Options:

Date – Shows the date and time when the particular log happened. Use the down arrow to select the day or days that will be used to display the log. Options are: Today, Past 7 Days, Past 14 Days, Past 30 Days, and All. Type – Shows the type of log. Use the down arrow to select the type of log to display. Options are: All, System, Storage, Share, and Account. Level – Shows the log level. Use the down arrow to select the level of log to display. Options are: All, DEBUG, INFO, WARN, and ERROR. Message – Shows information about the log. Export – Use this button to save the log file to local directory. The log file

must be given ".zip" or ".tar" extension name.

 $\ensuremath{\text{Refresh}}$ – Use this button to update the log information displayed.

3.3.7 Notification

3.3.7.1 Event Option

Use this function to enable event notification via email.

Information	Service Mi	sc. Boot/Shu	tdown Upgrade	Log	Notification	System Tools
	Event Option			E-Mail Set	ting	
Enable	Event		E-Mail Setting Re	cipients		
	Volume Full					
			SMTP Server			
			Port	25		
			Account	admin		
			Password			
			Sender Address	admin@nas.com		
					Apply	Reset
			~		(APPI)	

Event Option

Enable - Check the event that will be included in list of events that will be monitored. Once the selected event happened, the email recipient(s) will receive a notification mail.

3.3.7.2 Email Setting

Email Setting Options:

- SMTP Server Use this option to enter the SMTP server IP address.
 Port Use this option to set the SMTP port number. Default is port 25.
 Account Use this option to enter a valid email account in the SMTP server.
- Password Use this option to enter the password of the email account.
- Sender Address Use this option to specify the sender's email address.

Recipients Options:

Add – Use this button to add a recipient email address in the list of recipients. Type in the text box the recipient email address.
 Remove – Use this button to remove an email address from the list of recipients. Select first the email address then click "Remove".

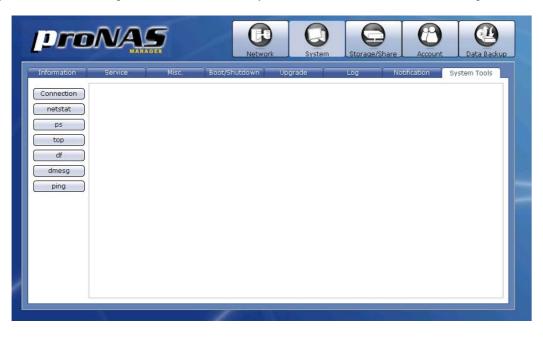
Apply – Use this button to save the changes made.

Reset – Use this button to undo or clear any changes made.

Information Service	Misc.	Boot/Shutdown	Upgrade	Log	Notification	System Tools
Event	nt Option			E-Mail Set	tting	
Image: select	Event Volume Full		Add [1]	Remove	Apply	Reset

3.3.8 System Tools

NAS provides various system tools which help the administrator monitor the system.



Connection – Use this button to display information about client active connections.

formation	Service Misc.	Boot/Shutdo	own Upgrade	Log Not	ification Sy	stem Tools
onnection netstat	proNAS Connections List: Wed May 28 10:24:04 CST 20 FTP Connections:	008				
ps	PID UID Username		Logintime IP			
top df) Telnet Connections:					
dmesg) PID UID Username		Logintime IP			
ping	AppleTalk Connections:					
		Fullname				
	SSH Connections:					
	PID VID Username	Fullname	Logintime IP			
	Samba Connections:					

netstat - Use this button to display network connections and statistics information.

pro	Network System Storage/Share Account Data Backup
Information Connection netstat ps top df dmesg ping	Service Misc. Boot/Shutdown Upgrade Log Notification System Tools Active Internet connections (w/o servers) Proto Recv-Q Send-Q Local Address Foreign Address State Exp 0 0 172.16.0.110:3000 172.16.0.211:1112 ESTABLISHED top 0 0 172.16.0.110:3000 172.16.0.221:610 ESTABLISHED Active UNIX domain sockets (w/o servers) Proto RefCnt Flags Type Proto RefCnt Flags Type State ESTABLISHED Unix 5 [] DGRAM 340455/dev/log Unix 2 [] DGRAM 343412 Unix 2 [] DGRAM 341080

ps – Use this button to display current running processes.

						em <u>Stora</u>			
Information	Servi	68	Misc. E	Boot/Shutdown	Upgrade	Log	Netifi	ation	System Tools
Connection	PID TTY		AT TIME COMMAND						
Connection	1?	Ss	0:01 init [2]						
netstat	2 ?	S<	0:00 [kthreadd]						
	3?	S<	0:03 [migration/0]						
ps	4 ?	S<	0:05 [ksoftirqd/0]						
	5?	S<	0:11 [migration/1]						8
top	6 ?	S<	0:07 [ksoftirqd/1]						
	7?		0:01 [events/0]						
df]	87	S<	0:02 [events/1]						- 1
1	9?	S<	0:00 [khelper]						
dmesg	79 ?	S<	0:00 [kblockd/0]						
ping	80 ? 82 ?	S< S<	0:00 [kblockd/1]						
ping	82 7		0:00 [kacpid] 0:00 [kacpi_notify]						
	171 ?	S< S<	0:00 [cqueue/0]						
	172 ?	S<	0:00 [cqueue/0]						
	176 ?	S<	0:00 [ata/0]						
	177 ?	S<	0:00 [ata/1]						
	178 ?	S<	0:00 [ata_aux]						
	179 ?	SC	0:00 [ksuspend_us]	bd]					
	185 ?	S<	0:00 [khubd]	001					
	188 ?	S<	0:00 [kseriod]						
	230 ?	S	0:00 [pdflush]						
	231 ?	s	0:02 [pdflush]						
	232 ?	S<							
	233 ?	S<	0:00 [aio/0]						
	234 ?	S<	0:00 [aio/1]						
	235 ?	S<	0:00 [cifsoplockd]						

top – Use this button to display current running processes and system usage information.

סתי	Network State	orage/Share	Data Backu
Information	Service Misc. Boot/Shutdown Upgrade Log) Notification	System Tools
Connection	top - 10:29:07 up 17:31, 0 users, load average: 0.26, 0.28, 0.32		A
Connection	Tasks: 77 total, 2 running, 75 sleeping, 0 stopped, 0 zombie		
netstat	Cpu(s): 3.7%us, 7.1%sy, 0.0%ni, 87.9%id, 1.2%wa, 0.0%hi, 0.0%si, 0.0%st Mem: 1024680k total, 531132k used, 493548k free, 158996k buffers		
	Swap: 1048568k total, 0k used, 1048568k free, 260600k cached		
ps			=
top	PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND		
	1 root 20 0 1732 604 536 S 0 0.1 0:01.54 init		
df)	2 root 15 -5 0 0 0 S 0 0.0 0:00.00 kthreadd		
	3 root RT -5 0 0 0 S 0 0.0 0:03.66 migration/0		_
dmesg	4 root 15 -5 0 0 0 S 0 0.0 0:05.38 ksoftirqd/0 5 root RT -5 0 0 0 S 0 0.0 0:11.66 migration/1		
ping	5 root RT -5 0 0 0 S 0 0.0 0:11.66 migration/1 6 root 15 -5 0 0 0 S 0 0.0 0:07.12 ksoftirgd/1		
ping	7 root 15 -5 0 0 0 S 0 0.0 0:01.58 events/0		
	8 root 15 -5 0 0 0 S 0 0.0 0:02.42 events/1		
	9 root 15 -5 0 0 0 S 0 0.0 0:00.00 khelper		
	79 root 15 -5 0 0 0 S 0 0.0 0:00.10 kblockd/0		
	80 root 15 -5 0 0 0 S 0 0.0 0:00.08 kblockd/1		
	82 root 15 -5 0 0 0 S 0 0.0 0:00.00 kacpid		
	83 root 15 -5 0 0 0 S 0 0.0 0:00.00 kacpi_notify 171 root 15 -5 0 0 0 S 0 0.0 0:00.00 caueue/0		
	172 root 15 -5 0 0 0 S 0 0.0 0:00.00 cqueue/1		
	172 root 15 -5 0 0 0 S 0 0.0 0:00.00 equeue/1		
	177 root 15 -5 0 0 0 S 0 0.0 0:00.00 ata/1		
	178 root 15 -5 0 0 0 S 0 0.0 0:00.00 ata_aux		
	179 root 15 -5 0 0 0 S 0 0.0 0:00.00 ksuspend_usbd		
	185 root 15 -5 0 0 0 S 0 0.0 0:00.00 khubd		
	188 root 15 -5 0 0 0 S 0 0.0 0:00.00 kseriod		

df – Use this button to display disk free information or the amount of available disk space in mounted file systems.

nformation	Service Misc. Boot/Shutdown Upgrade Log Notification System Too	ls
Connection	Filesystem 1K-blocks Used Available Use% Mounted on /dev/ram1 121947 60059 55638 52% /	
netstat	/dev/hda2 91347 48372 38259 56% /DOM /dev/ram2 131703 2432 122471 2% /tmp	
ps	/dev/mapper/NASVG-NASROOT 5160576 308544 4589888 7% /nasroot	
top	/dev/mapper/NASVG-home 519488 4360 515128 1% /mnt/NAS/home	
df	/dev/mapper/NASVG-vol1 51355136 4356 51350780 1% /mnt/NAS/vol1	
dmesg		
ping		

pue	DNASS Network System Storage/Share Account Data Backu
Information	Service Misc. Boot/Shutdown Upgrade Log Notification <mark>System Tools</mark>
Connection	Attached SCSI disk
A Farmer Trans	sd 2:0:0:0: Attached scsi generic sg2 type 0 scsi 3:0:0:0: Direct-Access ATA Maxtor 6Y120M0 YAR5 PO: 0 ANSI: 5
netstat	sd 3:0:0:0: [sdd] 240121728 512-byte hardware sectors (122942 MB)
ps	sd 3:0:0:0: [sdd] Write Protect is off
top	sd 3:0:0:0: [sdd] Mode Sense: 00 3a 00 00 sd 3:0:0:0: [sdd] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
top	sd 30:0:0: [sdd] 240121728 512-byte hardware sectors (122942 MB)
df	sd 3:0:0:0: [sdd] Write Protect is off
dmesq	sd 3:0:0:0: [sdd] Mode Sense: 00 3a 00 00 sd 3:0:0:0: [sdd] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
Second Second	sdd: unknown partition table
ping	sd 3:0:0:0: [sdd] Attached SCSI disk
	sd 3:0:0:0: Attached sosi generic sg3 type 0 ata piix 0000:00:1f.1: version 2.12
	ACPI: PCI Interrupt 0000:00:1f.1[A] -> GSI 16 (level, low) -> IRQ 16
	PCI: Unable to reserve I/O region #1:8@1f0 for device 0000:00:1f.1
	ata_piix 0000:00:1f.1: failed to request/iomap BARs for port 0 (errno=-16) PCI: Setting latency timer of device 0000:00:1f.1 to 64
	scsi4: ata_piix
	scsi5 ; ata_piix
	ata5: DUMMY ata6: PATA max UDMA/100 cmd 0x170 ctl 0x376 bmdma 0xfa08 irg 15
	ata6: port disabled, ignoring.
	Fusion MPT base driver 3.04.06
	Copyright (c) 1999-2007 LSI Corporation Fusion MPT FC Host driver 3.04.06
	Fusion MPT AS Host driver 3.04.06

dmesg – Use this button to display NAS boot up messages.

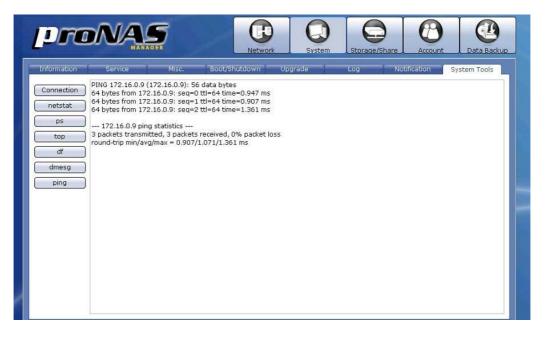
ping – Use this option to test whether a particular host is reachable or to check connectivity to a particular IP address.

IP	172.16.0.9
Counter	3 .

Options:

IP - Enter the host IP address

Counter - Enter the number of echo requests to send.



3.4 Account

Using the Account function, the administrator can create and administer local user and group accounts, as well as import large number of accounts.

3.4.1 Account

count Grou	p						
Delete	Account Name	UID	Full Name	Туре	Quota(MB)	Usage(MB)	Enable
	admin	500	Administrator	Local	0	0	1

Account Information and Options:

Delete – Used to option to delete the selected account. After checking this option, click the "Delete" button.

Account Name – Shows the user account name.

UID - Shows the user account ID number.

Full Name – Shows the user account full name.

Type – Shows the type of account, which can be local, Windows or NIS.

Quota (MB) – Shows the quota of user account's home folder.

Usage (MB) – Shows the user account's current usage of home folder.

Enable – Use this option to enable or disable an account. When an account is disabled, the account is prohibited to access the NAS.

Create Account – Use this button to create a user account.

Create Group – Use this button to create a group account.

Delete – Use this button to delete the selected user account or group account.

- Import Use this option to import large number of accounts instead of adding an account one by one. The administrator can type multiple user accounts in the Import Account input box.
- Refresh Use this button to update the information displayed in the Account and Group list.

3.4.1.1 Create Account

Steps to Create Account:

- 1. Click "Create Account" button.
- 2. A dialog box will be displayed. Enter the necessary information.

Name	user3
Туре	Account
Full Name	nas user 3
UID	0
Quota(MB)	20
Password	*****
assword Confirm	*****

Create/Edit Account Options:

Name – Used this option to enter the user account name. It should be unique.



NOTE: The account name does not allow space in-between characters. Duplicate account name is also not allowed. Names used by the system, such as root, nobody, mail, adm, etc., are reserved names and cannot be used as account name.

Type – Displays the type. Shows Account for user account.

Full Name – Use this option to enter user account full name.

- UID Use this option to manually assign a UID for the account. Use a valid UID starting from 500. If this option is not set (UID is 0), the system will automatically assign UID starting from 500. Domain accounts will have UID from 10000 to 30000.
- Quota (MB) Use this option to assign quota to the user account's home folder. Default quota is 10 MB.

Password – Enter the user account's password.

Password Confirm – Enter again the user account's password.

3. Click "OK" when done. The new user account will added to the Account list.



NOTE: If you try to create an Account without an existing VG, a warning message will be displayed.



3.4.1.2 Delete Account

Steps to Delete Account:

1. In the Account list, check the "Delete" option for the account to be deleted.

Delete	Account Name	UID	Full Name	Туре	Quota(MB)	Usage(MB)	Enable
	admin	500	Administrator	Local	0	0	V
	user1	501	nas user1	Local	10	5	~
	user2	502	nas user2	Local	10	0	~
	user3	503	nas user 3	Local	20	0	~

2. Click the "Delete" button.

Create Account	Create Group	Delete	Import	Refresh

3. A warning message will be displayed. Select "Yes" to proceed. The account will be deleted.

	arning
Delete	confirm?
Yes	No

3.4.1.3 Edit Account

Steps to Edit Account:

- 1. Double-click the Account name in the Account List.
- 2. Edit the necessary options.

Crea	ate/Edit Account
Name	user3
Туре	Account
Full Name	uu3
UID	503
Quota(MB)	35
Password	****
Password Confirm	****

3. Click "OK" when done. The account will be updated with the changes made.

3.4.1.4 Import Account

Steps to Import Account:

- Click "Import" button.
 An input box will displayed. Type the account information using the following format: UID,Name,Password,FullName,Quota. Click "OK" when done.

Import from Input	
# example:uid,name,passwd,fullname,c 610,user10,proware,user account 10,2(611,user11,proware,user account 11,2)	0

3. The new accounts will appear in the Account list.

ount Grou	p						
Delete	Account Name	UID	Full Name	Туре	Quota(MB)	Usage(MB)	Enable
	admin	500	Administrator	Local	0	0	
	user1	501	nas user1	Local	10	5	
100	user2	502	nas user2	Local	10	0	~
	user3	503	user3	Local	50	0	~
	user4	504	nas user4	Local	10	0	~
	user10	610	user account 10	Local	20	0	V
100	user11	611	user account 11	Local	20	0	

3.4.2 Group

unt Group						
Delete	Group Name	GID	 	Members		
	users	100		admin;user1;user2	;user3	
	group3	501		user3		

Group Information and Options:

Delete – Used to option to delete the selected group. After checking this option, click the "Delete" button.

Group Name – Shows the group account name.

GID – Shows the group ID number.

Members – Shows the group's user account members.

Create Account – Use this button to create a user account.

Create Group – Use this button to create a group account.

Delete – Use this button to delete the selected user account or group account.

- Import Use this option to import large number of accounts instead of adding an account one by one. The administrator can type multiple user accounts in the Import Account input box.
- Refresh Use this button to update the information displayed in the Account and Group list.

3.4.2.1 Create Group

Steps to Create Group:

- 1. Click the "Create Group" button.
- 2. A dialog box will be displayed. Enter the necessary information.

		Cr	eate/Edit Group	8	
Name	group2				
Туре	Group				
GID	612				
	Accou	nt List		Group M	embers
Log	in Name	Full Name		Login Name	Full Name
a	admin	Administrator		user2	nas user2
	user1	nas user1			
l	user2	nas user2	>>		
t	user3	uu3	<<		

Create/Edit Group Options:

Name – Used this option to enter the group account name. It should be unique.



NOTE: The group name does not allow space in-between characters. Duplicate group name is not allowed. Names used by the system, such as root, nobody, mail, adm, etc., are reserved names and cannot be used as account name.

- Type Displays the account type; shows Group for group account.
- GID Use this option to manually assign a GID for the group. Use a valid GID starting from 500. If this option is not set (GID is 0), the system will automatically assign GID starting from 500.
- 3. Select the account that will become member of the group from the Account List. Then click the ">>" button. The selected account will be displayed in the Group Members list.
- 4. Click "OK" when done. The group will be created.



NOTE: If you try to create a Group without an existing VG, a warning	g
message will be displayed.	



3.4.2.2 Delete Group

Steps to Delete Group:

1. In the Group list, check the "Delete" option for the group to be deleted.

Delete	Group Name	GID	Members
	users	100	admin;user1;user2;user3
Ξ	group3	501	user3
	testgroup	502	user3

2. Click the "Delete" button.

Create Account Create Group Delete Import	Refresh

3. A warning message will be displayed. Select "Yes" to proceed. The group will be deleted.



3.4.2.3 Edit Group

Steps to Edit Group:

- 1. Double-click the Group name in the Group List.
- 2. Edit the necessary options.



NOTE: Only the Group Name and Group Members can be changed.

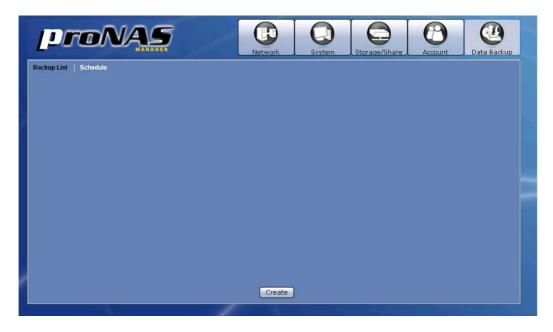
Name	qwerty			
Туре	Group			
GID	502			
	Accou	nt List	Group N	lembers
Log	in Name	Full Name	Login Name	Full Name
	admin	Administrator	user3	uu3
1	user1	nas user1	user2	nas user2
t	user2	nas user2 >:	»]	
l	user3	uu3		

3. Click "OK" when done. The group will be updated with the changes made.

3.5 Data Backup

The administrator can backup NAS data to remote destination or to local disk drive.

3.5.1 Backup List



3.5.1.1 Create Backup Plan

102

Steps to Create a Backup Plan:

1. Click the "Create" button. The screen below will be shown.

	ame Type 🚺 Share	-	Destination
Backup Me	thod <u>T</u> Tar	 •	
Select Share	es to backup		
Select	Name	Туре	
	abc	Share	
	share1	Share	
	test	Share	
			Save Cancel

2. Configure the necessary options.

Backup List	Schedule					
T Backup Met	ame testbak Type Share thod Tar es to backup	v v	Destination Protocol Path Account Password	Remote ▼ Samba ▼ //10.21.23.89/back1 admin		
Select	Name back1 share1 share2	Type Share Share Share				
					Save	Cancel

Create Backup Options:

Name – Used this option to enter the backup name.

NOTE: Duplicate backup name is not allowed.

Type – Select the type of backup source; for example: Share.

Backup Method – Select the backup method that will be used, such as Tar or Rsync.

Select Shares to backup – Select from the list the share folders that will be backed up.

Tar Options:

Destination – Select the destination option for the backup. Options can be: Local Disk or Remote. Local Disk is an un-used disk drive. Remote is a remote CIFS/Samba share or NFS file system.

	Destination	〔Local Disk │▼〕
Local Disk:	Disk	/dev/sdd ▼
	Destination	Remote 🛛 🔻
	Protocol	Samba 🔻
Remote:	Path	Samba
	Account	NFS
	Password	



NOTE: When a local disk is selected as backup destination, the disk status in Storage/Share \hat{I} RAID screen will be shown as "BACKUP".

Disk Informa		
Size(GB)	Model	Status
931.513	WDCWD1000FYPS-0	BACKUP

Installation Configuration Manual 103

Protocol - Select the type of protocol to be used for backup. Options are: Samba and NFS.



NOTE: For NFS, it will be assumed that the root account will be used. Please verify that root account can access the remote NFS file system.

Path – Type the path for the remote destination. Format for Samba:

//remote-IP/remote-share

Example:

//172.16.0.211/backupfolder Format for NFS: remote-IP:/Path-to-Remote-NFS-file-system Example:

172.16.0.9/mnt/proNAS/volume/share

Account – Type the account name with access to the remote share.
 Password – Type the password for the account with access to the remote share.

Rsync Options (Client Options):

IP – Type here the IP address of the remote Rsync server.
 Remote Path – Type here the share name on the remote Rsync server.

Account – Type here the account name that will be required by the Rsync server for authentication.

Password – Type here the password of the account.

Mode – Select the mode of file transfer, whether to upload to Rsync server or to download from Rsync server.

More Options – Specify here the Rsync options to be used. For more information about Rsync options, please visit http://samba.org/ftp/rsync/rsync.html.

	🕑 Clie	stic	
	Client Options		
IP	172.16.0.110		
Remote Path	share1		
Account	admin		
Password	******		
Mode	Download		
More Options	-rvlHpogDtprogress		

Delete – Use this button to delete the current backup plan. Save – Use this button to apply the changes made. Cancel – Use this button to undo or clear any changes made.

3. Click the "Save" button. The backup plan will be created and shown in the Backup List.

Name testbak	Na	me testbak					
	Type/Met	nod Share/Tar,	/Remote				
			are), share2(Sha	e)			
		lule Undefined					
		tus No activity					
	Select		Name		Status	Log	Confirm
							Delete

Backup List Options:

- Name Shows the list of backup plans. When a backup plan is selected, information about the backup plan will be displayed, such as name of backup plan, type/method of backup, backup items, schedule (Enabled or Undefined), and completed backups.
- Select Use this option to select a completed backup then delete or restore the backup.
- Name Show the backup name.
- Status Shows the status of the particular backup. Status can be: Incomplete or Complete.
- Log Use this option to view the detailed information about the completed backup. Click the "..." button.

Confirm... – Use this button to restore a selected backup.

Delete – Use this button to delete the selected backup.

Create – Use this button to create a new backup plan.

Edit – Use this to button edit or delete a selected backup plan.

Backup – Use this button to perform immediate backup.

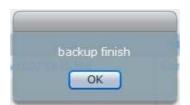
3.5.1.2 Create Immediate Backup

Steps to Create Immediate Backup:

1. Select the particular backup plan from the Backup List. Click the "Backup" button.

Name testbak	Name Type/Method Backup Items Schedule Status	testbak Share/Tar/Remote share1(Share), share2(Share) Undefined No activity			
	Select	Name	Status	Log	Confirm
		/tmp/tar_testbak_2008Nov18073846.log	Complete		Delete

2. A message will be displayed. The backup is completed and a backup name will be added to the log list.



3.5.1.3 Delete Backup Plan

Steps to Delete a Backup Plan:

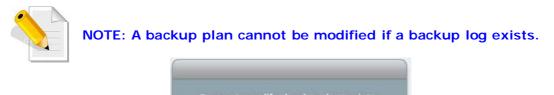
- 1. Select the particular backup plan from the Backup List.
- 2. Click the "Edit" button.
- 3. Click the "Delete" button.
- 4. A warning message will be displayed. Select "Yes" to delete the backup plan.



3.5.1.4 Edit Backup Plan

Steps to Edit a Backup Plan:

- 1. Select the particular backup plan from the Backup List.
- 2. Click the "Edit" button.
- 3. Change the necessary options. Click "Save" when done.



OK

3.5.1.5	Delete a	Backup	Log
---------	----------	--------	-----

Steps to Delete a Backup Log:

- 1. Select (check) the backup log to be deleted from the log List.
- 2. Click the "Delete" button. A warning message will be displayed.



3. The backup will be deleted from backup destination and removed from log list.

3.5.1.6 Restore a Backup

Steps to Restore a Backup:

- 1. Select (check) the particular backup from the log List.
- 2. Click the "Confirm..." button. A warning message will be displayed. Select "Yes" to restore backup.

Wa	irning
Confirm opt	tion, Restore?
Yes	No

3. The original data will be restored.

3.5.2 Schedule

A backup plan can be run based on schedule. Select the Schedule tab. This will show a graphical view of the scheduled backup tasks.

Each row shows the day of the week. Each column shows the time in very 30 minutes interval.

	12:00AM	12:30AM	1:00AM	1:30AM	2:00AM	2:30AM	3:00AM	3:30AN
Sun.								
Mon.								
rue.								
Wed.								
Thu.								
Fri.								
Sat.								

Schedule Options:

Now – Use this option to display available backup tasks on the current time. Selected - Use this button to edit a scheduled backup task. Select first the scheduled backup task then click this button.

New – Used this button to create a new scheduled backup task.



NOTE: It is not allowed to have duplicated or overlapping backup time. Only one backup process can be running at a time. A scheduled backup is set to run within 30 minutes time frame. Scheduling another backup within a scheduled time is not allowed.

3.5.2.1 Setup Scheduled Backup Task

Steps to Setup Scheduled Backup:

- 1. Select the "Schedule" tab then click the "New" button.
- 2. Edit the options in Schedule Setting.

	Scheduling Setting						
Backup List							
	(testbak/Tar	· · · · · ·					
16	15						
Sun	Mon	Tue					
✓ Wed	📃 Thu	🗹 Fri					
🗌 Sat							
		OK Cancel					

Schedule Setting Options:

Backup List – Select the backup plan from the list.

Time – Set the hour and minutes when the backup will be run.

Day – Select the day or days when the backup will be run.

OK – Use this button to save the backup settings. The backup schedule will be automatically enabled.

Cancel – Use this button to clear or undo any changes made.

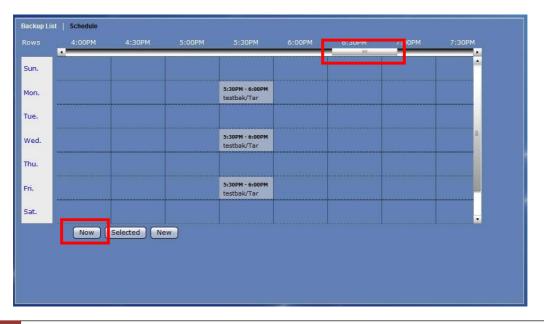
		4:30PM	5:00PM	5:30PM	6:00PM	6:30PM	7:00PM
					um		•
							-
Now Sele	acted New] 					
	Now Sele	4:15PM testbak 4:15PM testbak	4:15PM - 4:43PM testbak/Tar 4:15PM - 4:45PM testbak/Tar 4:15PM - 4:45PM testbak/Tar	4:15PM - 4:45PM testbak/Tar 4:15PM - 4:45PM testbak/Tar			

3. The backup task will appear in the schedule.

3.5.2.2 Edit Scheduled Backup Task

Steps to Edit Scheduled Backup Task:

1. Move the scroll bar then locate the scheduled backup task to be changed, or click "Now" to see current scheduled backup.



Backup List	Schedule							
	4:00PM	4:30PM	5:00PM	5:30PM	6:00PM	6:30PM	7:00PM	7:30PM
Sun.								i.
Mon.				5:30PM - 6:00PM testbak/Tar				
Tue.								
Wed.				5:30PM - 6:00PM testbak/Tar				100
Thu.								
Fri.				5:30PM - 6:00PM testbak/Tar				
Sat.								
	Now	Selected Ne	ew)	-k				

2. Select the backup task to edit. The backup task will be highlighted.

3. Click the "Selected" button. Edit the necessary options.

	Scheduling Setting						
Backup List							
	testbak/Ta	r (•)					
19	00						
Sun	Mon	🗌 Tue					
🗹 Wed	🔲 Thu	🗹 Fri					
📃 Sat							
		OK Cancel					



NOTE: It is not allowed to have duplicated or overlapping backup time. Only one backup process can be running at a time. A scheduled backup is set to run within 30 minutes time frame. Scheduling another backup within a scheduled time is not allowed.

4. Click "OK" to save the changes made.