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# Quick Installation Guide

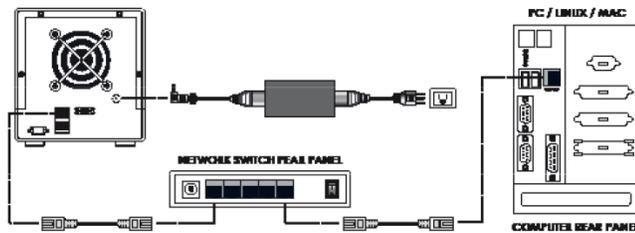
## Package Contents

MobileNAS NAS Servers.....	1
Power Cord .....	1
Manual / CD .....	1
Removable Tray Modules (Screws Included) .....	16

## Default Settings

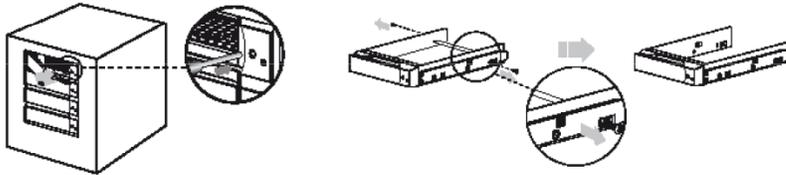
**LAN Port#1 IP address: DHCP**  
**Administrator Username: root**  
**Password: 0000** (4 zeros)

## HAREWARE CONNECTION DIAGRAM



## HARD DRIVE INSTALLATION

**Step-1:** Press the key into the lock hole (located on front of the unit). Pull the tray handle to remove the tray. Dismount the metal tray protector by removing the screws in the illustration below.



**Step-2:** Fasten the hard drive with screws in the corresponding locations. Place the tray with the mounted hard drive back into the case. (If the screws are not properly fastened the hard disk may be pushed towards the back of the unit and the tray handle will not open properly.)

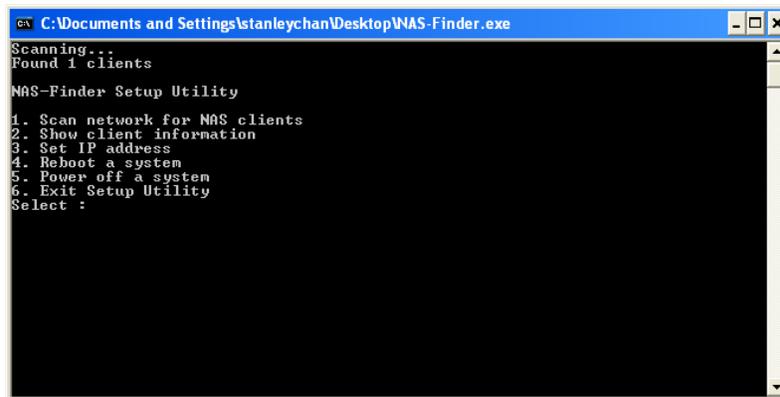


## Initial Set up – Assign IP to the MobileNAS

- 1) Connect the NAS unit to your network (connect the RJ45 network cable to the LAN port 1 as shown in the diagram below), power the unit on and allow it approximately two (2) minutes to boot up.



- 2) Go to a computer that connected to the same network as the NAS unit. Insert the included MN4LA+B CD into the CD-ROM drive of the computer. Copy the "NAS-Finder.exe" to the computer and run "NAS-Finder.exe" to locate the NAS unit. This software will allow you to assign an IP address to the NAS unit.
- 3) After executing the NAS-FINDER program, a DOS dialog box will appear with the main menu.



```
C:\Documents and Settings\stanleychan\Desktop\NAS-Finder.exe
Scanning...
Found 1 clients
NAS-Finder Setup Utility
1. Scan network for NAS clients
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select :
```

- 4) To view client (NAS unit) information, typing '2' within the main menu and press 'enter'. The dialog box will display each detected NAS unit along with their network settings. A number is assigned to each detected unit, starting from #1. In the example below, Client #1, MN4LA+B is detected, with IP address 192.168.0.93.

```

C:\Documents and Settings\stanleychan\Desktop\NAS-Finder.exe
NAS-Finder Setup Utility
1. Scan network for NAS clients
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select : 2

Client #1 : AccuNAS <00:16:36:c5:a1:8a>
IPADDRESS : 192.168.0.93
NETMASK : 255.255.255.0
GATEWAY : 0.0.0.0

NAS-Finder Setup Utility
1. Scan network for NAS clients
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select :

```

**NOTE:** Information, such as MAC address, IP address, NETMASK and etc, may be different from system to system.

- 5) To setup the TCP/IP, type '3' and press 'enter'.

```

C:\Documents and Settings\stanleychan\Desktop\NAS-Finder.exe
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select : 2

Client #1 : AccuNAS <00:16:36:c5:a1:8a>
IPADDRESS : 192.168.0.93
NETMASK : 255.255.255.0
GATEWAY : 0.0.0.0

NAS-Finder Setup Utility
1. Scan network for NAS clients
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select : 3

Client #1 : AccuNAS
Select client [0-1] (<0=cancel):

```

Enter '1' to select Client #1: MN4LA+B or '0' to cancel. Once selected, enter the default password for the NAS unit: 0000 (4 zeros).

```

C:\Documents and Settings\stanleychan\Desktop\NAS-Finder.exe
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select : 2

Client #1 : AccuNAS <00:16:36:c5:a1:8a>
IPADDRESS : 192.168.0.93
NETMASK : 255.255.255.0
GATEWAY : 0.0.0.0

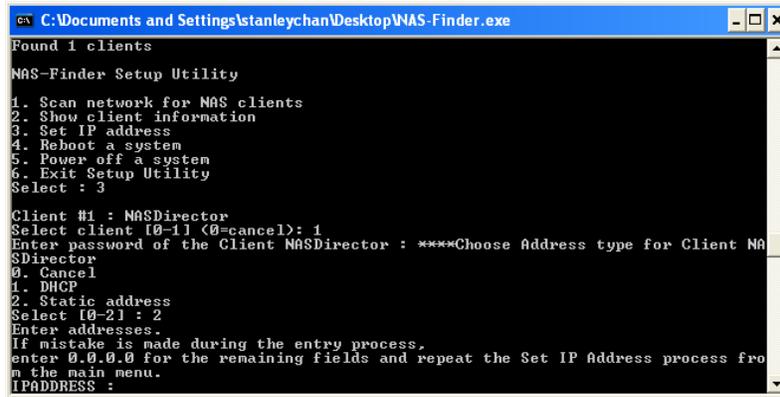
NAS-Finder Setup Utility
1. Scan network for NAS clients
2. Show client information
3. Set IP address
4. Reboot a system
5. Power off a system
6. Exit Setup Utility
Select : 3

Client #1 : AccuNAS
Select client [0-1] (<0=cancel): 1
Enter password of the Client AccuNAS :

```

**NOTE:** NOTE: DHCP is pre-defined for LAN port-1. DHCP is used to quickly assign a local IP to the NAS unit. Changing the IP address to a static IP address is strongly recommended for daily operations.

Enter '2' to change the IP address to a static IP address.



Enter an IP address, a Subnet Mask and a Gateway. When finished, the setup software will return to the main menu. Select '4' to reboot the unit.

**NOTE:** The unit must reboot in order for the new IP address to become effective.

- 6) The NAS-Finder Utility could also be used to reboot or power down a MobileNAS unit within the network. From the main menu, selecting '4' and '5' respectively will perform these actions. For security reasons, administrator password for each NAS unit must be entered to execute the command. An incorrect password will result in "Reboot failed" or "Power Down Failed" errors and the Utility will return to the main menu.
- 7) To exit from the NAS-Finder Utility, select '6' from the main menu.

## Console Login – Assign IP to the NAS from Console

If the NAS unit could not be detected via the NAS-Finder Utility, console login could be used for detection by connecting a keyboard and monitor to the NAS unit. Power on the NAS unit and a DOS dialog box will prompt the user to enter a username and a password. The default settings are as below:

**Username: root**  
**Password: 0000**

- 1) Assign IP to the LAN Port-0. Please type the following:

```
#ifdown eth0  
#ifconfig eth0 10.1.1.100  
#ifconfig eth0 netmask 255.255.255.0  
#ifup eth0
```

The above command will assign the LAN Port IP to: 10.1.1.100 and assign Netmask to: 255.255.255.0. Change the IP address and network mask (numbers in bold) to your personal network settings.

- 2) Assign Gateway to the LAN Port-0. Please type the following:

```
#route
```

The above command will display current gateway setting

```
#route add default gw 10.1.1.1
```

The above command will assign the Gateway address to 10.1.1.1. Please change the Gateway address to your network setting.

## SSH & Telnet Login

By default, SSH and Telnet logins are enabled. SSH and Telnet logins are used to replace local console login using monitor and keyboard. In order to enable or disable these features, login using a local console and type the following:

To Disable Telnet:

```
#mv /etc/xinetd.d/telnet /root  
#service xinetd restart
```

To Disable SSH:

```
# service stop sshd
# chkconfig --level 345 sshd off
```

To Enable SSH:

```
# chkconfig --level 345 sshd on
# service start sshd
```

### **[Web Login \(http/https login\)](#)**

Once the IP address has been set, you could now access the Administrator GUI remotely. In a web browser, type in the assigned IP address (or simply type: 'MobileNAS') and enter the following username and password.

**User ID: root**  
**Password: 0000**

# Volume Management

## Before Getting Started

- 1) **Assign IP to the MobileNAS unit**, please follow the quick start guide and setup using NAS-Finder utility.
- 2) **Connect the NAS from Web GUI**, if you have problem to connect, make sure the **Java Runtime** is installed. It allows the managing station (such as your laptop) to communicate with the NAS during NAS reboot, and gives the accurate countdown to auto-reconnect with the Web GUI. Java Runtime can be found in the manual CD.
- 3) From your managing station, open up the Web Browser, and type in the IP address which you defined from the **NAS-Finder** in "**Quick Start Guide-1**" such as: **192.168.1.128** or simply type: **MobileNAS**

**Login ID: root**  
**Password: 0000**

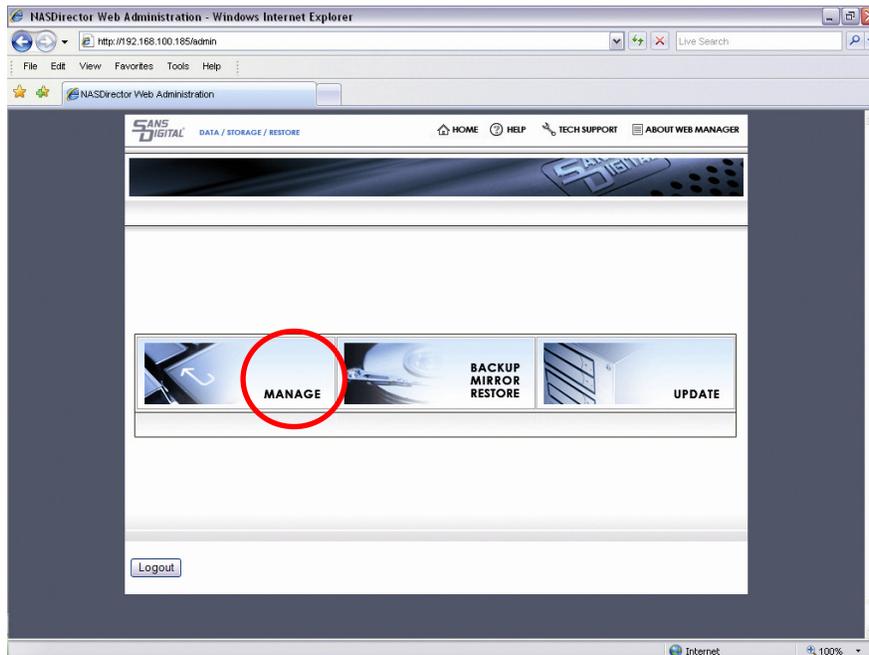
- 4) References on the CD :

\Manual\Detail User Manual  
\Manual\Detail SFM - NAS to NAS Mirroring User Guide  
\Manual\Detail Snapshot User Guide  
\Manual\Detail NAS-to-NAS Folder Replication User Guide  
\Manual\NAS Hardware User Guide  
\Manual\PCIe RAID User Guide

Administrator User Guide for the NAS  
User Guide for Server Failover & Mirroring Function  
User Guide for Snapshot Function  
User Guide for NAS to NAS Folder Replication Function  
Hardware Chassis manual and motherboard manual  
Guide for the PCI-e based RAID configuration

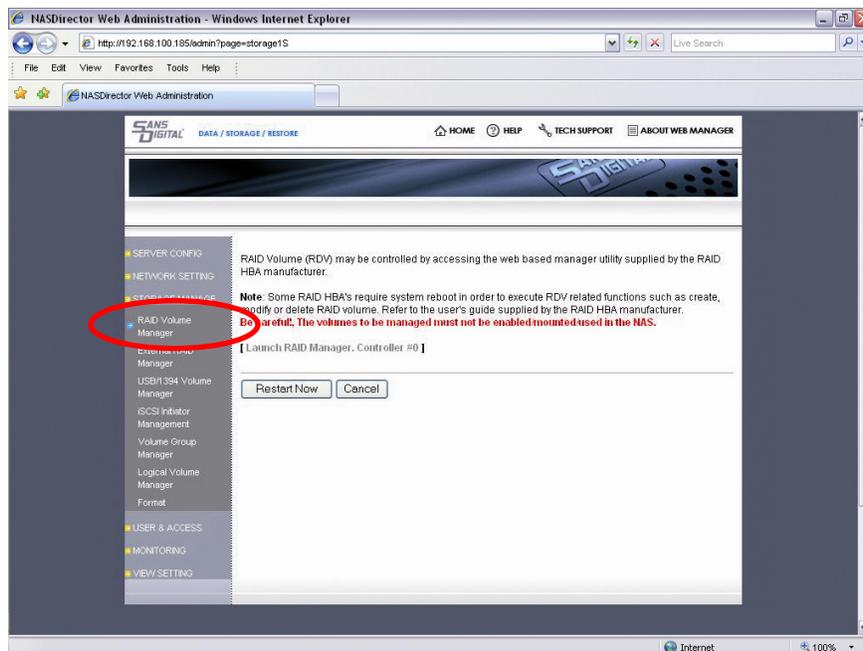
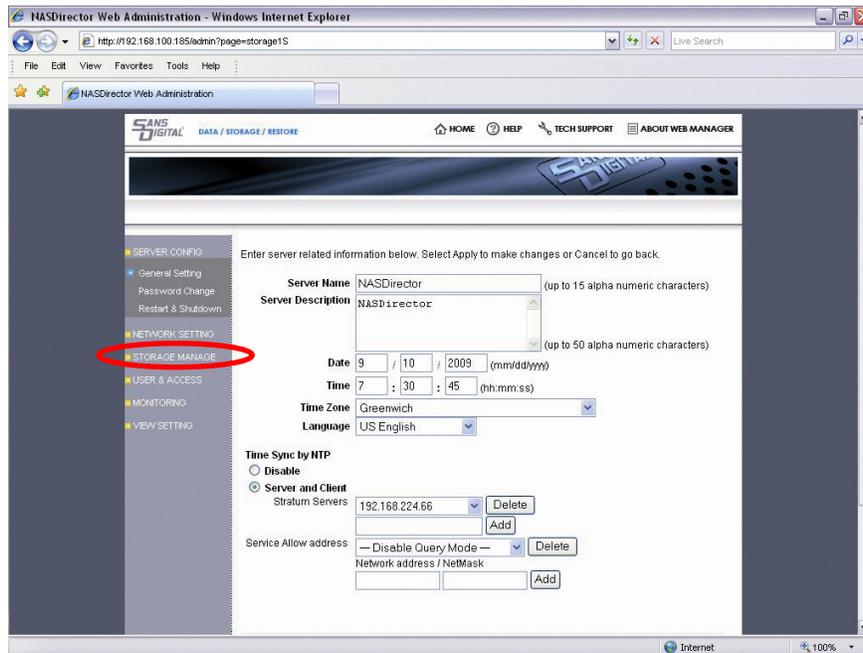
## Setup Volume Sharing

**Step-1: Select "Manage"**



**Step-2: Select “Storage Manager” → “RAID Volume Manager”**

 Note: For more details on the RAID controller, please refer to the **MANUAL\RAID\_User-Guide** on the CD.



For External RAID, such as additional RAID Subsystem, use “External RAID Manager” to add the IP address of the RAID Subsystem. (Storage Manage -> External RAID Manager -> Add IP).

This will bring up the RAID controller GUI.  
Default RAID Web GUI Login:

**User ID:** admin  
**Password:** 0000



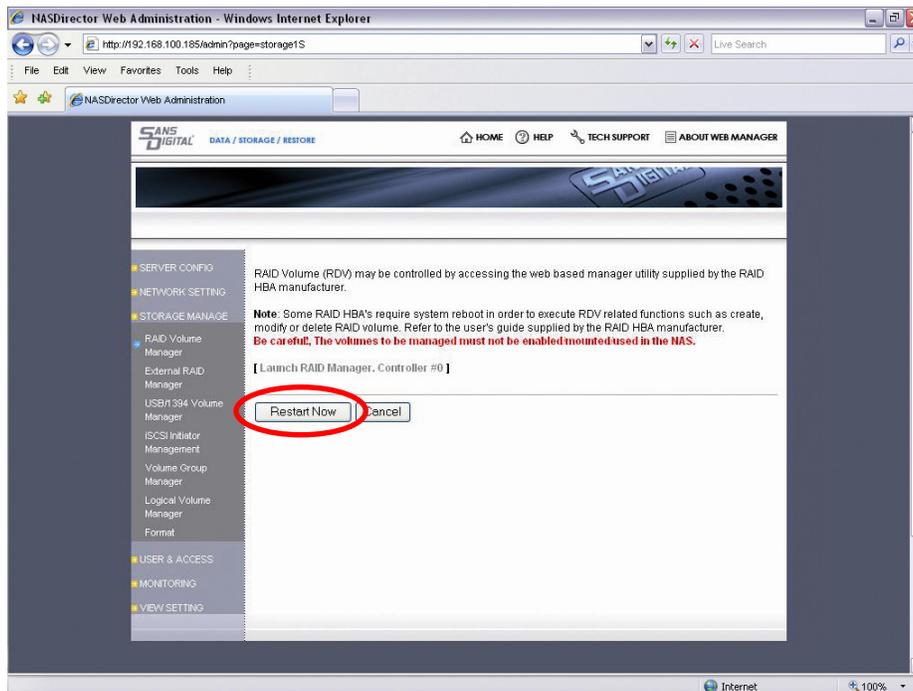
The RAID controller card setup interface will open a new window. Please create the volume by the following:

- A. Create RAIDset Group by select “RaidSet Functions” -> “Create Raid Set”
- B. Create Volume(s) set by select “VolumeSet Functions” -> “Create VolumeSet”

**! Note:** If the volume size is Greater Than 2TB, please select “64bit LBA” option.

- C. Volume Initialization will start now. The process will take hours before it finish. Alternative, you can use background initialization, which allow you to use the volume while initialization.

After Volume created, please close the RAID controller windows and click “**Restart Now**” for the volume(s) to take effect.

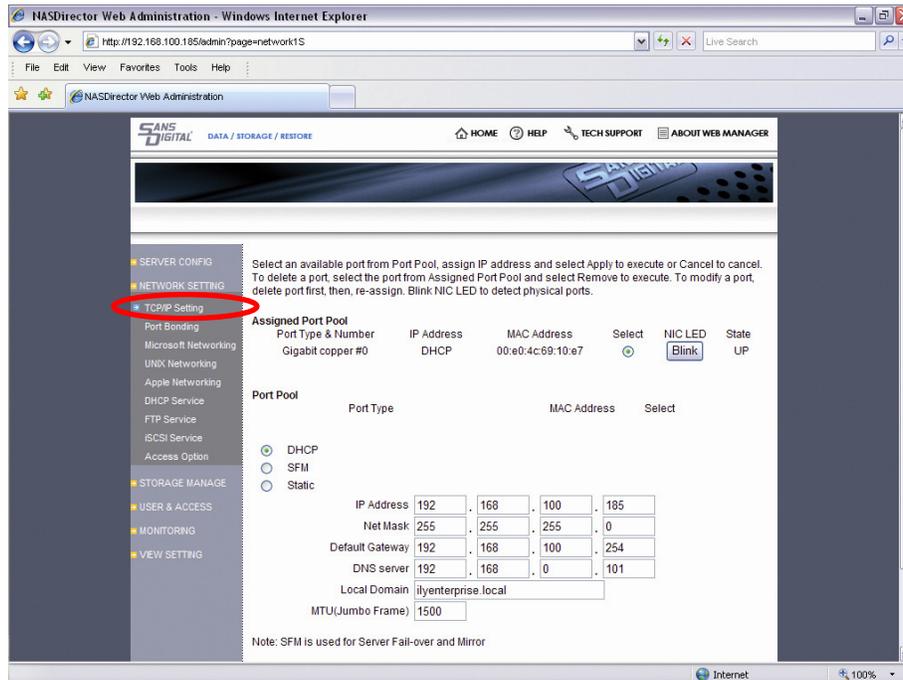


**! Note:** For more details on the RAID controller, please refer to the **MANUAL\RAID\_User-Guide** on the CD.

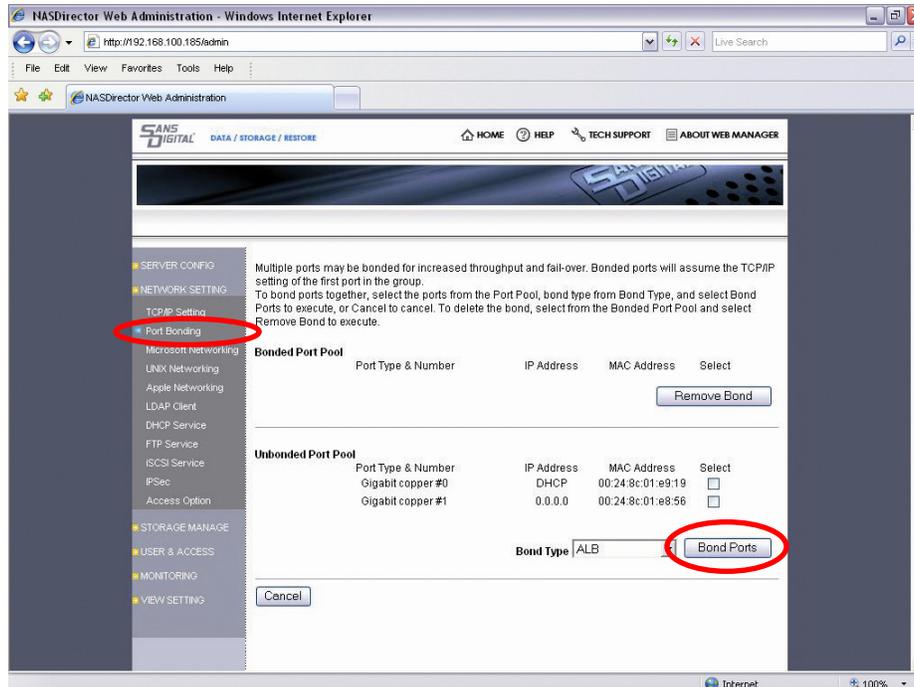
### Step-3: Setup Dual Network Interface bonding and Network Services

After the MobileNAS restarted, Select “Manage” --> “Network Setting”

(1) Assign IP to NIC ports 2



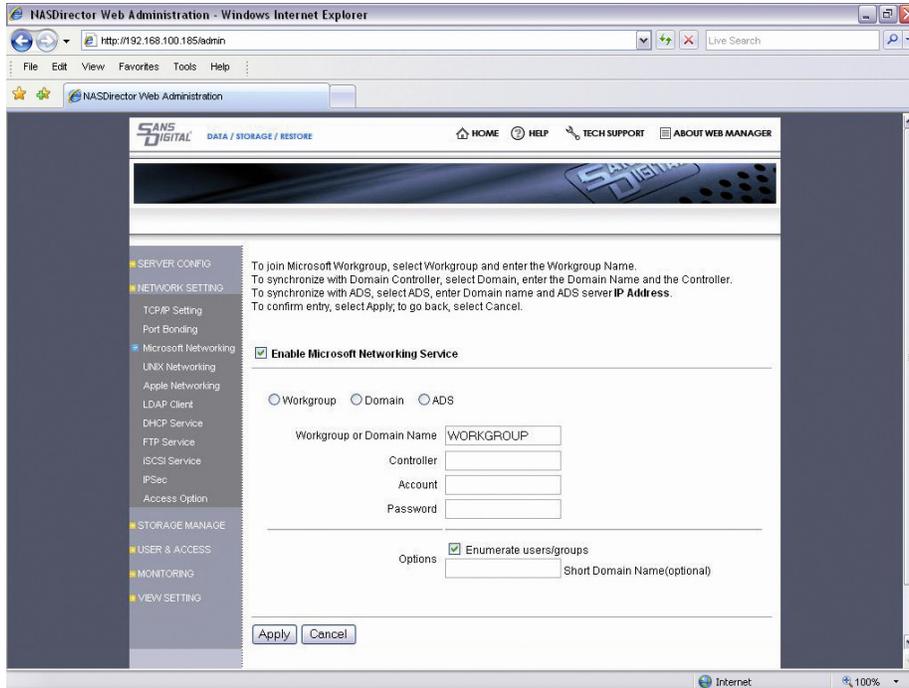
(2) Configure NIC ports Bonding (teaming) Mode under “Port Bonding”. After select the “Bond Type” and NIC cards, select “Bond Ports”



(3) Enable/Disable Network services/protocols under their Networking Section. You can choose from the following:

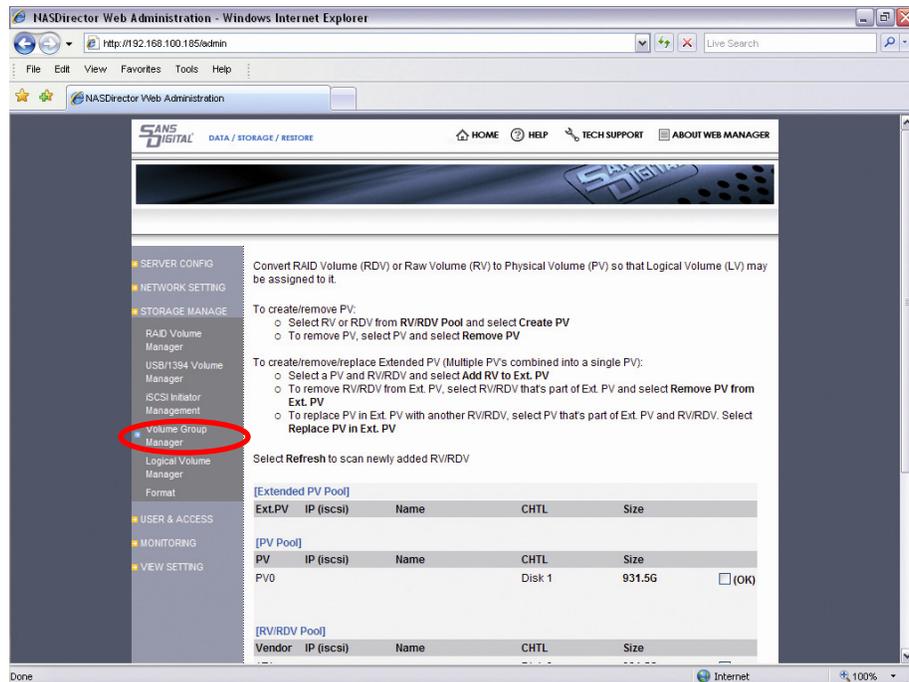
- Microsoft Networking - Workgroup/Domain/ADS service for Windows clients
- Unix Networking – NFS service and NIS Service
- Apple Networking – AFP Service
- LDAP Client – LDAP Service
- DHCP Service – Enable DHCP services
- FTP Service – Enable FTP Services
- iSCSI Service – Enable iSCSI initiator or iSCSI target
- IPsec services – Enable IPsec Services

By default, CIFS service is enabled, if you want to disable it, please refer to the NAS-Administrator Guide for detail.



#### Step-4: Convert Raw Volume (RV) to Physical Volume (PV) and Logical Volume (LV)

Select "Storage Manager" → "Volume Group Manager"

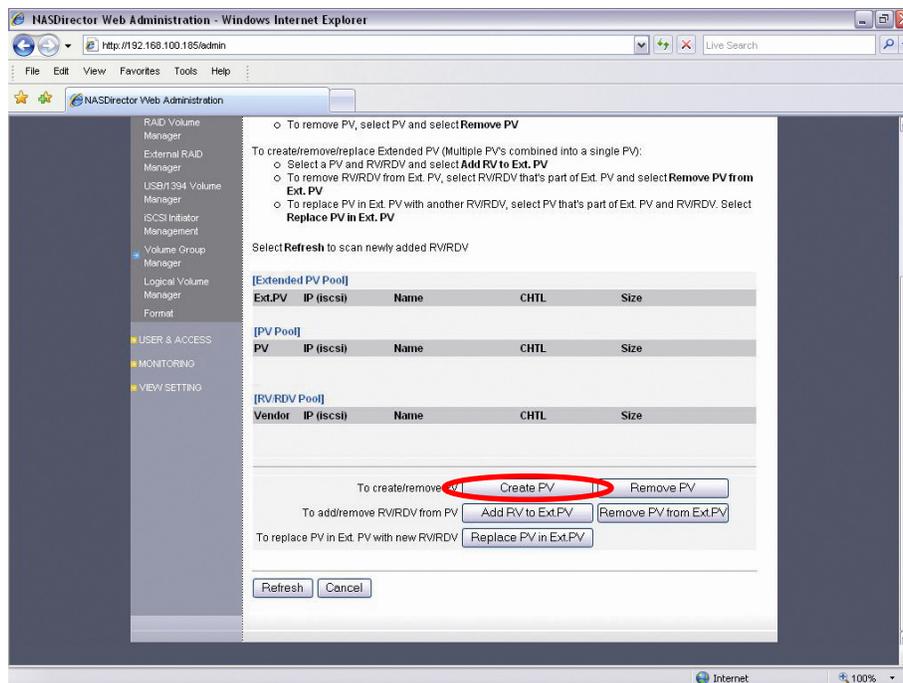


**RV** – Raw volume; it is the LUN/Volume presented to the NAS by the RAID controller.

**PV** – Physical volume; It is the Volume that MobileNAS writes the signature on and allow to create Logical Volume.

**LV** – Logical volume; Network Shares or iSCSI Target Volumes will be built on top of it.

After you created the RAID Volume from step 2, there will be a **RV Pool** available. Put a check mark on the "OK", and click "Create PV". Select "OK" to confirm and the NAS will write the signature to the RV and turns it into a PV.



### Step-5: Setup Logical Volume (LV)

Select “Storage Manager” → “Logical Volume Manager”

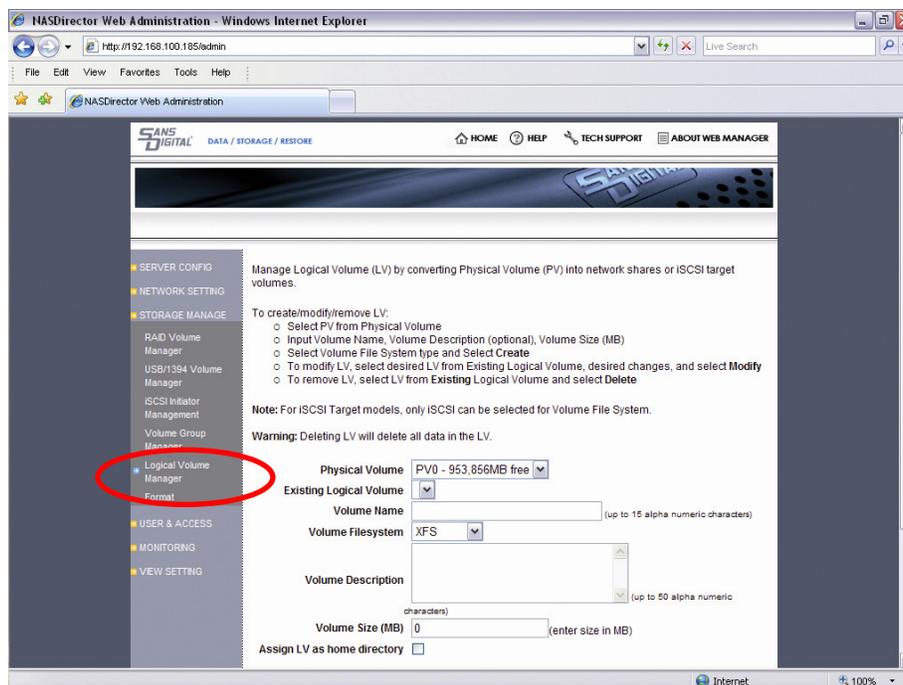
**Note:** the **Volume-Name** (LV name) will be your network share name. The **Volume size** (LV size) will be your network share size.

By default, the “Logical Volume Manager” automatically turns the **entire PV** into a **single LV** with **XFS** file system pre-selected.

If different setting is desired, “Delete” the default LV and re-create the volume to fit your environment.

After deleted the existing default LV, you are free to select any available size to create your own new LV with different file systems: **XFS**, **ReiserFS**, or **iSCSI Target**

**Note:** If **SFM – NAS-to-NAS Failover & Mirror** is intended, select **ReiserFS** for better resistance to sudden system shutdown

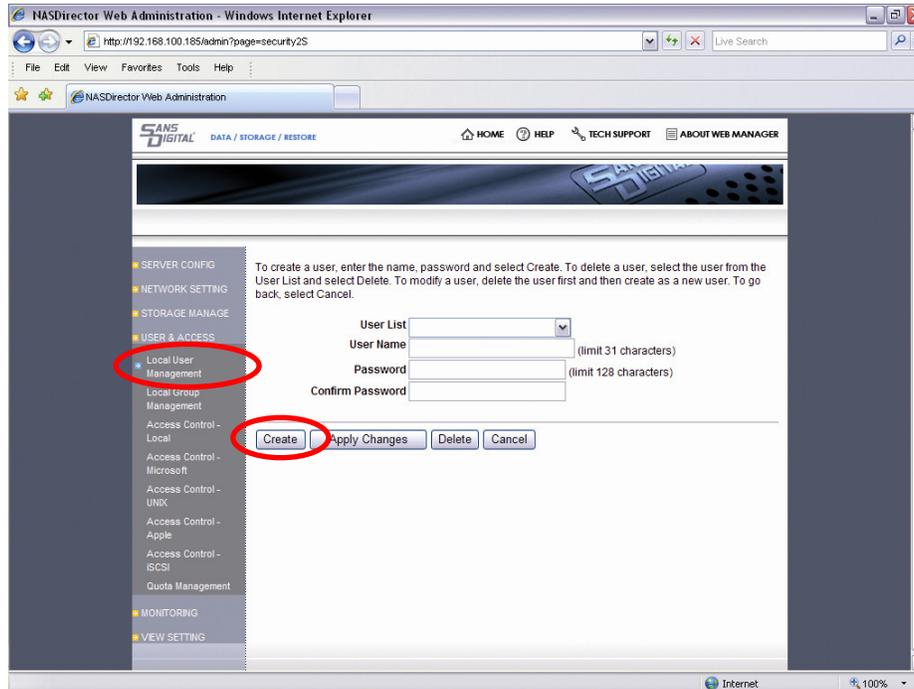


After the Logical Volume setup, the unit is ready to start sharing. The following example will allow administrator to create and share under Microsoft Windows Workgroup and Mac (AFP) Clients environment. More information on different environments can be found **MANUAL\NAS\_ADMIN\_Guide**.

## 1) Windows Workgroup Client and Mac Clients User Setup

Select “User & Access” → “Local User Management” → Create Users

**Note:** This is for Windows Workgroup clients (who is not a Domain user or ADS user), and also for Mac clients only.

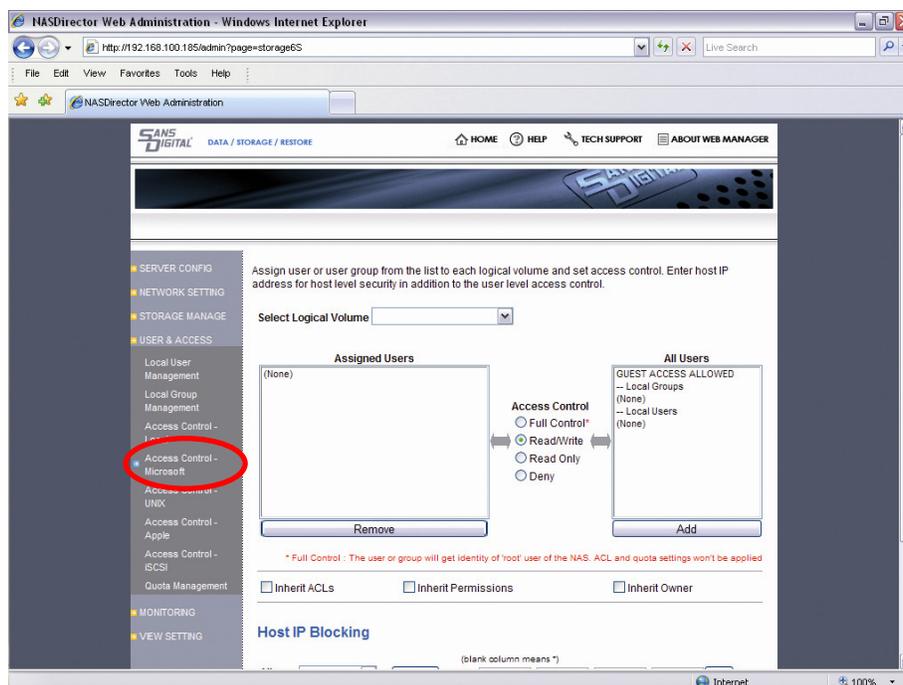


## 2) Select “User & Access” → “Access Control – Microsoft”

- A, Pick a Volume (Network Share)
- B, By default, Every One who has account on the NAS has full access to the volume.
- C, Assign the desired user to the “Assigned User List”.

**Note:** By assigning a user specifically to the “Assigned User List”, it will deny all other users who are not on the “Assigned User List”.

**Note:** “Read/Write”  $\neq$  “Full control”. User with “Read/Write” privilege can read and write files in the volume/share, but the user can not delete the file(s).



### 3) Access the Share/Volume on the NAS from Windows Client

From a Windows Client, launch the **Windows Explorer**

AT the Address Bar, type: \\IP\vol\_I (such as: \\192.168.1.128\vol\_I) or \\ MobileNAS \vol\_I

Where IP (192.168.1.128) is what you assigned to the NIC on the NAS, and "vol\_I" is the volume/share name you created during **Step-5, Setup Logical Volume (LV)**.

The unit is sharing a Logical Volume to client. If more sharing is required, please repeat **Step-5, Setup Logical Volume (LV)**.