



NAS

NETWORKING HARD DRIVE



User Manual
Ver 1.0
Quality Connection

Contents

Introduction.....	1
Getting Started.....	4
Searching NAS Device.....	9
System Configuration Thru Network	15
Setup NAS as File Server (LOCAL Network)	33
Troubleshooting.....	40
Appendix.....	41

Chapter 1 Introduction

Overview

We introduce an affordable SOHO NAS (Network Attached Storage) for home or small business users. This user-friendly network disk is ready to plug and play; no prior networking experience is required. It supports Windows, Mac, and Linux operation systems. It is easy to share data files through the Internet and easy to setup and operate. By using NAS, it adds great flexibility for the network. It extends the personal computing to a new powerful level.

Features

- User friendly, web-base user interface for easy configuration.
- Simple LED indicator, easy to identify status.
- The most economical choice IDE interface.
- The most cost-saving solution NAS solution.
- Data sharing over a network.
- Complied with TCP/IP, SMB, FTP, SNTTP protocol.
- Sharing data via a local area network through SMB protocol.
- High speed USB2.0 interface, backward compatible with USB1.1.
- Shared-level security through web-based network management tool.
- Thermal fan controller for hard disk protection.
- File sharing between Windows, Mac, and Linux clients.
- No drivers needed, no server required.

1

System Requirements

- File server for local network
Windows 98SE, ME, 2000, XP
Mac OS 10.2 or above
- FTP server for internet
Windows 98SE, ME, 2000, XP
Mac OS 9 or above
- USB Enclosure
Windows 98SE, ME, 2000, XP
Mac OS 9.X, 10.3 or above

Packing List

Please make sure the package includes the following items:

- NAS x1
- Network cable x1: RJ-45, Cat.5
- USB 2.0 cable x1: Type A to type B
- Power Adapter x1: Input AC100V-240V, Output DC12V 2A, peak 2.5A
- One User Manual
- One NAS Quick Installation Guide

2

Hardware Components

■ Ports and Buttons

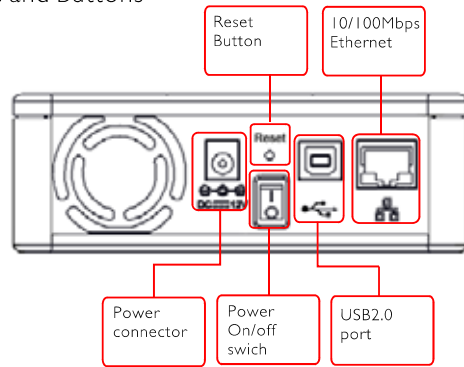


Diagram 1-1

■ Status Indicators



Diagram 1-2

- ▶ Blue Light: Light is steady on when NAS system is ready
- ▶ Green Light: Light is steady on when NAS connects to a network via RJ45 port; blinks when data transfer through RJ 45 port.
- ▶ Red Light: Blinks when data read and write from hard disk

Chapter 2 Getting Started

Hard disk installation

■ Step 1 : Open the NAS case

Flip the unit over to the bottom side. Loosen screws first, and lift up the bottom base by pressing the inner wedges with paper clip.

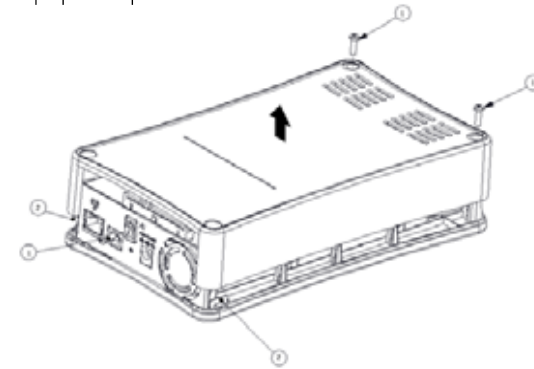


Diagram 1-3

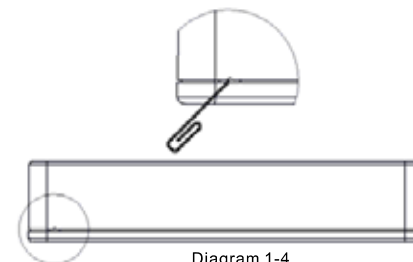


Diagram 1-4

- Step 2 : Placed hard disc into NAS bottom tray
 - A. Before the Hard Drive is placed into the enclosure, make sure the jumper sets to “MASTER” position. Please refer to the documentation from hard drive manufacturer.
 - B. Match the RED strip of the IDE flat cable to pin 1 on the hard drive connector slot and insert the flat cable into the slot firmly.
 - C. Connect the power connector on the NAS to hard drive by inserting the connector into the power slot of hard drive.

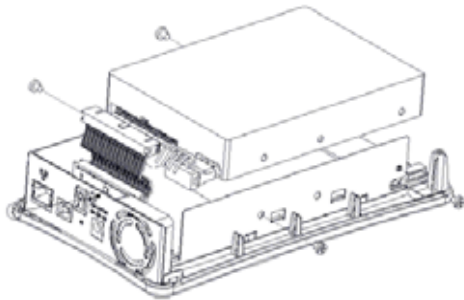


Diagram 1-6

- D. Affixed the hard drive by screws.

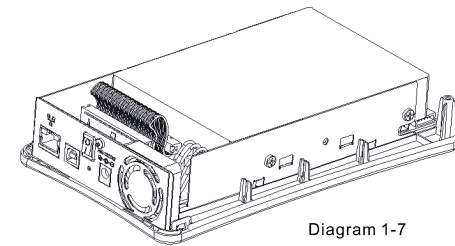


Diagram 1-7

- Step 3 : Assemble the NAS case
 - A. Assemble the bottom tray with the upper lid.
 - B. Screw the back panel and the bottom base.
 - C. Place the rubber pads at designated positions on the bottom base.

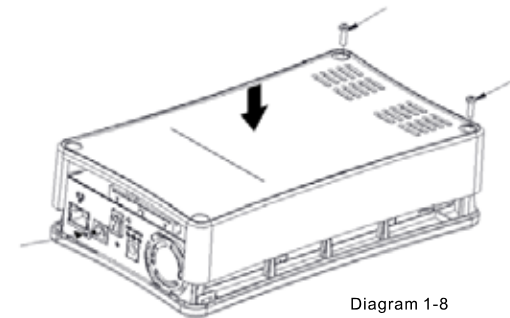


Diagram 1-8

- Step 4 : Assembly finished!

Connecting the NAS to Network



Diagram 3-1

Simply connect NAS to a 10/100Mbps switch, hub, or router with the provided Cat 5 straight through cable. The network connectivity will be established right after the power on process.

- Any connected USB cable should be detached before connecting the NAS device to the network via CAT 5 cable.

Link With Computer Directly

The NAS device can connect to computer directly with a USB 2.0 cable or Cat 5 cable for storage and configuration (Cat 5 only) purposes.



Diagram 3-2

Simply connect NAS to a computer via an included straight through Cat 5 cable or USB cable. NAS has its own built in DHCP server to assign an IP address for the connected computer.

- The default IP address for the NAS device is 169.254.0.1
- It is recommended to connect the NAS directly to PC at first time for easier configuration.

Power on the NAS

Use the power adapter supplied with the NAS only. Use different adapter may damage the product. After the power switch has been turned on, the System LED will be lit up shortly after flash. If the Link LED lights up or blinks as well, this indicates there is connectivity from the network.

Congratulation! Now you have finished the hardware installation. Please have the NAS device placed on a proper location with a good ventilation environment.

- The network cable should be disconnected if NAS connects to PC via the USB2.0 cable.
- If both USB and CAT 5 cables are connected to NAS, only the USB cable will be activated to transfer data!

Chapter 3 Searching NAS Device

How to find NAS from the network

Once the NAS attached to the network, it is accessible from any computer on the network. There will be several ways to locate the NAS device either from the IP address or host name.

- Static IP
Please consult the NAS IP address from the Network Administrator if a static IP address has been assigned to the NAS device.
- Dynamic assigned IP
Consult Network Administrator for the NAS IP address. you can also search the DHCP client table for assigned IP address if NAS is behind a **ROUTER**
- Host name
Check the host name “storage-xxxx” from the DHCP list on the network gateway or router
 - ▶ The xxxx should be the last 4 digit of the MAC address in Hex format.
 - ▶ The MAC address code can be find in button case.
- Search from start menu
Use “Search Results” from the Windows system to look for a computer named “storage” on the network.



Diagram 3-1

- ▶ Click on “start” menu→“Search”→“Computers or people”

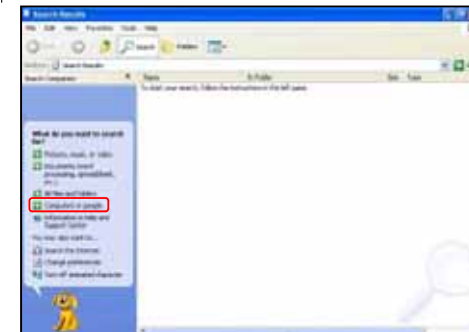


Diagram 3-2

- ▶ Next, click on “A computer on the network”



Diagram 3-3

- ▶ Key in “storage” at the computer name field and click on the “Search” button

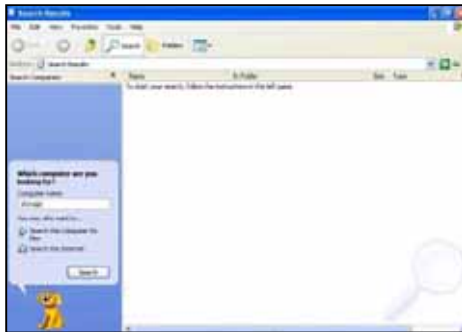


Diagram 3-4

- ▶ The device named “STORAGE-XXXX” should appear on the search results shortly.
 - *In this example, xxxx is 5568. Where xxxx is the last 4 digit of the MAC address in Hex format.
 - *The MAC address code can be find on the bottom side of NAS case.



Diagram 3-5

How to find NAS through direct PC connection

■ PC network card configuration

If NAS is attached directly to a PC through Cat 5 network cable, make sure the PC network card is configured properly. To configure the local area connection, right click on my network places, choose properties. Next right click on the connected network card and select “Properties”.



Diagram 3-6

Select Internet Protocol (TCP/IP), next click on the "Properties" button.

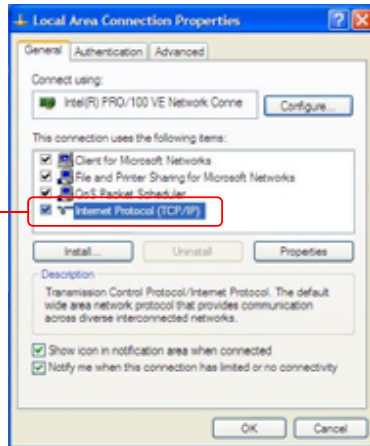
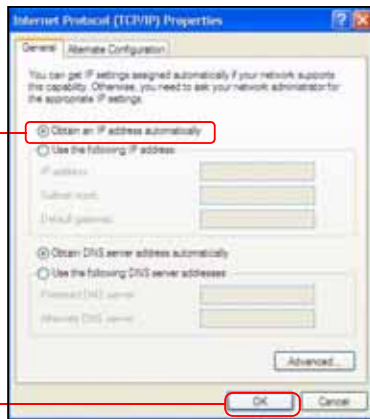


Diagram 3-7

Select "Obtain an IP address automatically"



Click on the "OK" Button.

Diagram 3-8

The connected PC should be able to obtain an IP address 169.254.0.X through NAS. Since both the PC and NAS are on the same subnet, you can follow Chapter 3 to locate the NAS.

* "X" value should be between 0~255

■ PC connects to NAS through USB cable

The NAS becomes an extra storage enclosure drive for the computer through USB connection. Windows will automatically detect the hard drive without installing any driver. Once the hard drive is recognized, an additional drive will appear on the My Computer window.



Diagram 3-9

Chapter 4 System configuration Thru Network

Entering the web set up page

Open a browser and input NAS's IP address (default IP: 169.254.0.1) or host name (storage or storage-xxxx) from the URL field and press "enter"

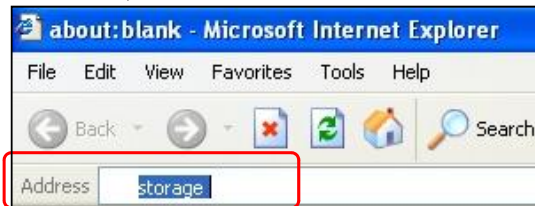


Diagram 4-1

Authentication

After the browser brings up the pop up window, input administrator account and password.

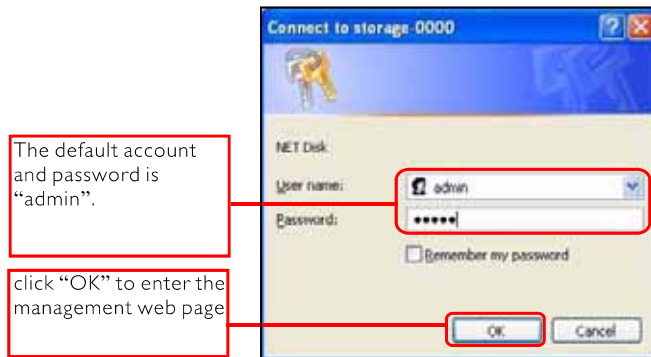


Diagram 4-2

Manu Bar

The first home page shows below. It has brief description for each configuration page.



Diagram 4-3

Network TCP/IP setting

This page enables you to configure your network environment. It also displays the network information as well.



Diagram 4-4

- Host name and group name
Click on the “Edit” button to change workgroup and host name if necessary.

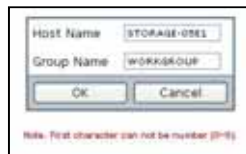


Diagram 4-5

- DHCP server
As there's no DHCP server detected by NAS within the LAN, NAS can either assign IP to all computers in this LAN, or any computers connected with NAS via Cat 5 cable.
The default value is ON. We recommend to turn it OFF if there's existing DHCP server, router, or gateway within this LAN!



Diagram 4-6

- IP Status
displays the current TCP/IP setting

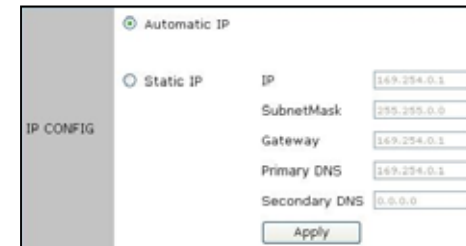


Diagram 4-7

- IP Status
displays the current TCP/IP setting

IMPORTANT

- IP CONFIG
This page allows you to configure Dynamic IP or Static IP address for the NAS.
 - ▶ Automatic IP: the NAS will obtain an IP address from any available DHCP server (Gateway or router). Through the automatic IP assignment, user can easily establish the network connection for the NAS.
 - ▶ Static IP: to manually setup an IP address for the NAS, simply input IP address, Subnet Mask, Gateway and DNS in the blank fields. User should make sure the IP address is on the same network domain and same subnet. Next click on Apply button to finish it.

Hard Disk

This page allows you to use the imbedded utilities for the hard drive as well as display the hard drive status. The NAS supports FAT32 file system for various operation systems.

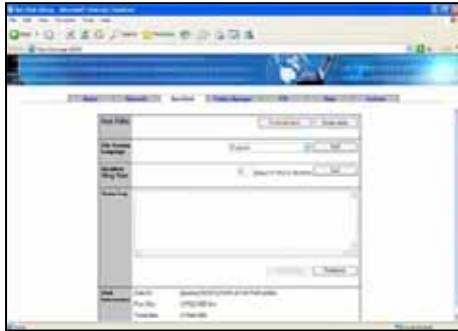


Diagram 4-8

■ Disk Utility:

▶ Format disk

You should format the hard disk from this page before you use it at the 1st time.

Click on the “Format disk” button and the warning page will prompt on the screen.

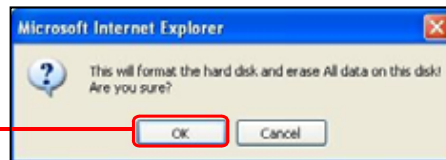


Diagram 4-9

Click “OK” to format the hard disk. The formatting process will take awhile depending on the hard drive capacity. Once the formatting process is done, the successfully information will pop up and indicate the initial disk successfully.



Diagram 4-10

▶ Scan disk:

Click on “Scan disk” button to start scanning the hard disk. The dialogue box will show below, click on “OK” to scan disk. It is particular useful to check if there is any error on the hard drive. The scanning process will take some time to complete. It depends on the capacity of the hard disk.

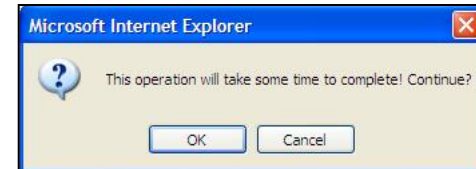


Diagram 4-11

Once the hard drive is ready, the PUBLIC fold will be created by default.

■ File System Language:

The system language will define file name in different languages that you can use it on NAS. Currently it supports 14 languages for localized operation systems. There are English, Central Europe, Cyrillic, Latin, Greek, Turkish, Hebrew, Arabic, Baltic, Vietnam, Thai, Japanese, Simplified Chinese and Traditional Chinese. Click on the drop down menu to select the desired language. Finally click on the Set button to take effect.



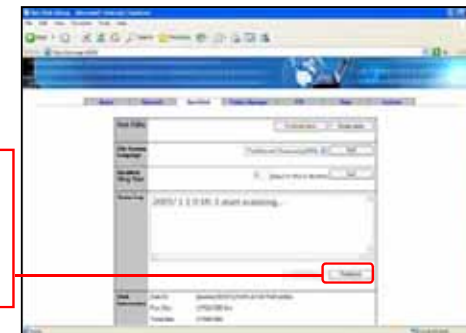
Diagram 4-12

■ Hard Disk Sleep Time

The disk will idle if hard disk is inactive after “xx” minutes. To setup the hard disk sleeping time, input the value in the field. The value should be “5” to “60”. The value “0” can disable the sleep function. The hard drive will standby all the time without idling. Click on the “Set” button if any change has been made.

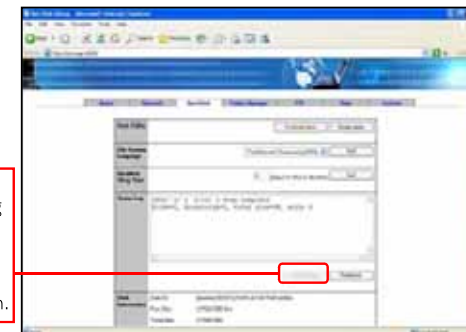
■ Status Log

Click “Refresh” to refresh the updated system log information. During the scan disk process, the status log will show the current scanning status and contains.



Click on the Refresh button to check the updated status.

Diagram 4-13



User can clear the log any time by clicking on the “Clear Msg” button.

Diagram 4-14

- Disk Information

Disk information reveals the hard disk ID, available disk space and the total disk capacity.

Folder Manager

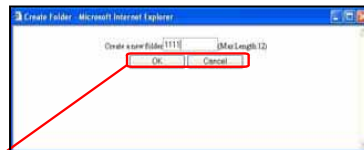
User can create a new folder, rename or delete an existing folder from the Folder List, make the folder to share on the local network and setup password for folder accessibility through Sharing List.

Click on the “Create” button and the pop up window will show below.



Diagram 4-15

- Create a new folder



Input folder name and click on “OK” to create a folder.

Diagram 4-16

Highlight the folder name to rename or delete the folder

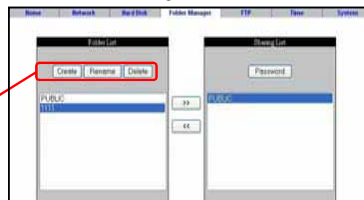


Diagram 4-17

- Share a folder



Select a folder name on Folder List table and click on , the folder will appear on the Sharing List table. Now the folder is available to everyone on the entire network! If the sharing folder needs to be removed, simply highlight the folder name and click on to  disable it.



Diagram 4-18

- Setup password for folder security

- ▶ Select a folder on the “Sharing List” and click on “Password” button, the pop up window will show below.
- ▶ Input the password and confirm password again then click on “OK” to setup password.
- ▶ The “*” appears after folder name. This indicates the folder now is password protected.



Diagram 4-19



Diagram 4-20

FTP

You can build a FTP server and manage FTP account from this page. The FTP server allows multiple users to access this files server simultaneously. With this easy to configure NAS device, user can bring the FTP to home or office for cost less and secure file access. It is easy to maintain. No extra loading for PC. No more peer-to-peer file sharing. It is always available form the network without specifically turning on a PC to access the shared files.



Diagram 4-21

■ FTP Server

First select from the drop down menu and choose “Enable” to activate the FTP (File Transfer Protocol) Server. Next assign a port for FTP access. The default is on port 21. Click on “Apply” to make changes.

Anonymous

The FTP server allows anonymous account access for various needs. When Anonymous account has been enabled, any one can connect to the FTP server from the network. NAS administrator will be able to restrict read/write access to this account. The default login in home directory is the PUBLIC folder. There will be more selections from the directory drop down menu according to the created folder from prior Folder Manager.

■ Account management

The account management allows you to add more users as well as grant different authorization for various privileges. To add new user, click on the Add button. The pop up page will show below.



Diagram 4-22

► Building an account

Input the desired user name and click on Add button. The user name will appear on the account table with current account status.



Diagram 4-23

► Modifying Account

By default, newly created user has right for read only. You can modify it by highlighting the user name and clicking on the "Modify" button. Next page should show below.

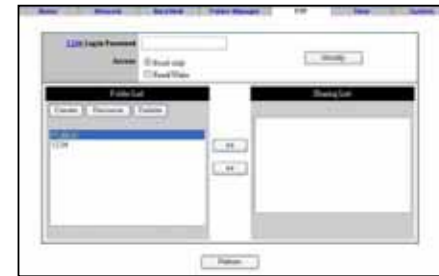


Diagram 4-24

Input the user login password for better security and select the appropriate read only or read/write access type. Next select the desired directory from the Folder List and move it >> to the Sharing List. Click on the "Modify" button first to make changes following by the "Return" button to get back to the previous page.



Diagram 4-25

You can temporarily enable or disable the user account through the “En/Disable” button. The change will immediately take effect right after the button is pressed. To delete a user, simply highlight the user and click on “Delete” button. The following warning page will pop up.



Diagram 4-26

Time

You can setup system time for the NAS and synchronize with the network time server.



Diagram 4-27

■ Setup the Date

Input the current date into the date field. The system date is on yyyy/mm/dd format.

■ Setup the Time

Input the current time into the time field. The system time is on hh:mm:ss with 24hr format.

■ SNTP

You can enable/disable the SNTP (simple network time protocol) from this section and set it up automatically synchronize with the network time server.

■ Time Server

Setup Internet time server form this section. Either check on one of the five pre-defined time servers from the internet or input the desired time server from the network.

■ Time Zone

Select the local time zone for your location from this section. Finally click on “OK” button to make changes.

SYSTEM

■ Administrator

You can change the system password for NAS's administrator from this page. Click on the Password button to change the password.



Diagram 4-28

Input the desired password twice in the fields. Click on the “OK” button to confirm the change.

A screenshot of a password change form. It contains three input fields: 'Administrator' with the value 'admin', 'Password' (with a '(Max 12 Bytes)' label), and 'Verify Password'. Below the fields are two buttons: 'OK' and 'Cancel'.

Diagram 4-29

■ Firmware

This section shows the running firmware version. If there is any updated firmware available, download the new firmware and upgrade the NAS.

Once the new firmware has been downloaded, click on the Browse button to locate the firmware file.

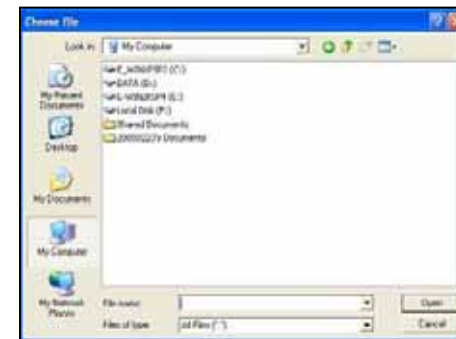


Diagram 4-30

Next, click on the “Upload” button to flash the firmware. It is important that during the upload process, make sure the power has to be on all the time and never unplug the Cat 5 network cable. **If any interruption takes place, the NAS may turn into serious unrecoverable state!**

Once the upload process is completed, click on the “Reboot” button to reload the updated firmware. If you need to set the NAS back to the factory default, click on the “Reset” button to clear all the configurations and bring up the original factory default settings.

Chapter 5 Setup NAS as File Server (LOCAL Network)

Setup file server under Windows environment

- Select “Search” from the start menu, search for computers and people. When search a computer on the network, input the computer name “storage” to find NAS device. Please consult Chapter 3 for detail description on how to find NAS from the network.



Diagram 5-1

- After you have found NAS from the search results, the result window will show up with the NAS host name. STORAGE-XXXX



Diagram 5-2

- Double click on the host name to discover the shared folder. There will be a list of shared directories appear in the result window.

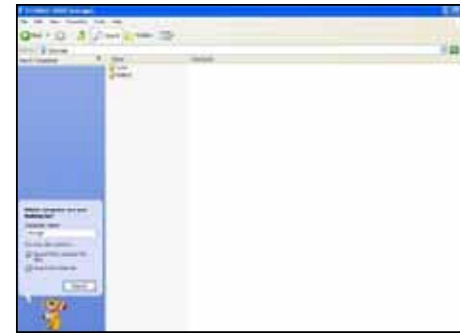


Diagram 5-3

- Double click the directory to connect to it. If the directory is password protected, the authentication window will prompt up for the password.



Diagram 5-4

- Now you are able to access the directory.

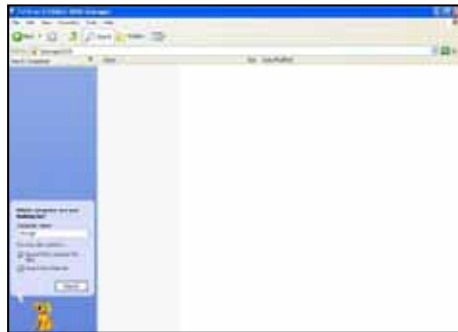


Diagram 5-5

- You can setup the attached directory as a shared file server from the network. Through the previous search results, right click on the directory and select “Map Network Drive”

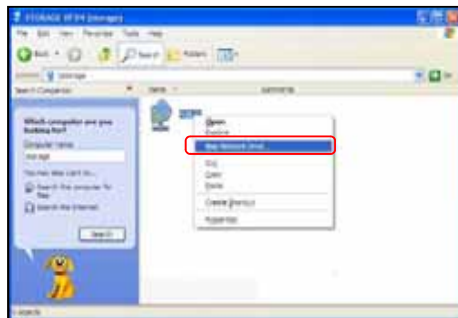


Diagram 5-6

- The Drive Mapping window will appear. Pick up the appropriate drive letter from the drop down menu and check “Reconnect at logon” to ensure the connection without inconsistency. Finally click on the “Finish” button”.

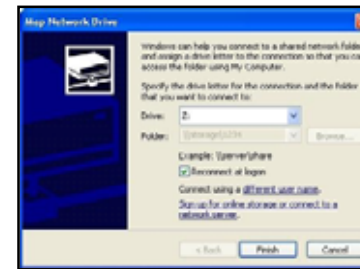


Diagram 5-7

- Now the network driver Z: is available to you all the time.

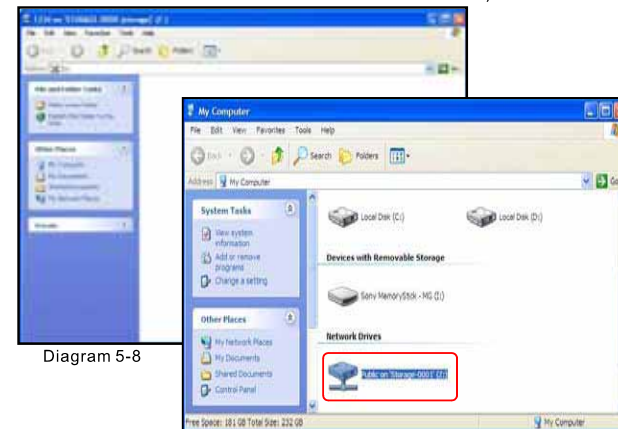


Diagram 5-8

Diagram 5-9

Setup file server under Mac OS X

- Click on “Go” from the menu bar and select “Connect to server” from the drop down menu.



Diagram 5-10

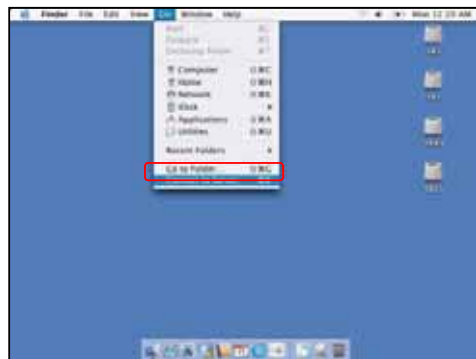


Diagram 5-11

- Input the NAS IP address or host name from the Server Address field. It should look like “smb://xxxx”. Please refer to the next page. Click on the “Connect” button and advance to next window.



Diagram 5-12

- Select the desired share volume name which will be mounted on the desktop. Then click on the “OK” Button to get system connect to NAS.



Diagram 5-13

- Enter the password when system prompts for the volume authentication to access NAS.



Diagram 5-14

- Once the mounted volume appears on the desktop, NAS is ready to use as a file server.



Diagram 5-15

Chapter 6 Troubleshooting

Refer to the following tips for solutions on problems during the installation and NAS operation. Please check with this section when encounter issues before contacting the tech support service.

The NAS does not power up

Check if the power adapter is connected properly and is plug into the power source. Use only the AC adapter that comes with NAS package.

There is no Link light after the Cat 5 cable is connected

Verify the Cat 5 network cable is securely plugged in on both ends. Make sure the cable is a straight through working cable. Alternatively try other cable.

NAS is not accessible

Please make sure you have followed the instruction on Chapter 3 for how to find the NAS. The default IP address for NAS is 169.254.0.1. The client PC should have TCP/IP network protocol installed and should be on the same network segment.

NAS is still not accessible and could be frozen

If you believe the NAS device is frozen, reset the NAS from the back of the device. Use a paper clip or needle pin to press the reset button for at least 5 seconds. This will allow the NAS to restore back the default setting.

** For more troubleshooting, please visit our website on solution center page.

Chapter 7 Appendix - Specifications

Interface

- RJ-45 x1: 10/100 BASE-TX, Auto MDI/MDI-X
- Half-duplex and full-duplex operation
- USB type B x 1: USB2.0 storage
- Power Switch x1: Rock switch
- Reset button x1
- Power Jack x1: 12V DC
- Storage interface x1: 40 pin ATA

File system

- FAT32

Storage media

- 3.5" Hard Disc

Management

- Web base user interface

Disc utility

- Disc format, Scan disc

Firmware Maintain

- Updateable by management website

Network IP configuration

- Auto sensing: Dynamic IP server (DHCP server)/
Dynamic IP client/ Static IP

Network protocol

- TCP/IP, SMB, FTP, HTTP, SNTTP

System time

- Simple Network Time Protocol (SNTTP) supported

LED indicator

- Blue Light: NAS system ready
- Green Light: Connect to a network, Blank-data transfer
- Red Light: Blank-data read and write from hard disc

Power request

- DC 12V/2A

Thermal Control

- System fan on when the temperature is up to 50°C
(122°F)
- System fan off when the temperature is down to 40°C
(104°F)