

Thecus N1200

User's Manual

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About This Manual

All information in this manual has been carefully verified to ensure its correctness. In case of an error, please provide us with your feedback. Thecus Technology Corporation reserves the right to modify the contents of this manual without notice.

Product name: Thecus N1200

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Limited Warranty

Thecus Technology Corporation guarantees all components of Thecus N1200 are thoroughly tested before they leave the factory and should function normally under general usage. In case of any system malfunctions, Thecus Technology Corporation and its local representatives and dealers are responsible for repair without cost to the customer if the product fails within the warranty period and under normal usage. Thecus Technology Corporation is not responsible for any damage or loss of data deemed to be caused by its products. It is highly recommended that users conduct necessary back-up practices.

Safety Warnings

For your safety, please read and follow the following safety warnings:

- Read this manual thoroughly before attempting to set up your N1200.
- Your N1200 is a complicated electronic device. DO NOT attempt to repair it under any circumstances. In the case of malfunction, turn off the power immediately and have it repaired at a qualified service center. Contact your vendor for details.
- DO NOT allow anything to rest on the power cord and DO NOT place the power cord in an area where it can be stepped on. Carefully place connecting cables to avoid stepping or tripping on them.
- Your N1200 can operate normally under temperatures between 5°C and 40°C, with relative humidity of 0% 80%. Using the N1200 under extreme environmental conditions could damage the unit.
- Ensure that the N1200 is provided with the correct supply voltage (AC 100V ~ 240V, 50/60 Hz, 3A). Plugging the N1200 to an incorrect power source could damage the unit.
- Do NOT expose the N1200 to dampness, dust, or corrosive liquids.
- Do NOT place the N1200 on any uneven surfaces.
- DO NOT place the N1200 in direct sunlight or expose it to other heat sources.
- ▲ DO NOT use chemicals or aerosols to clean the N1200. Unplug the power cord and all connected cables before cleaning.
- ▲ DO NOT place any objects on the N1200 or obstruct its ventilation slots to avoid overheating the unit.
- Keep packaging out of the reach of children.
- If disposing of the device, please follow your local regulations for the safe disposal of electronic products to protect the environment.

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Chapter 1: Introduction

Overview

Thank you for choosing the Thecus N1200. With rich built-in software applications, the N1200 enables simple and secure distribution of all types of digital files, such as music, photos, and data via an IP network. With Thecus' RouStor™ technology, the N1200 also comes with its own Gigabit Ethernet port and a 10/100 4-port switch, allowing you to expand your home network without the need to purchase separate networking components. Mediabolic's Embedded Media Server allows DLNA-certified hardware to directly access media stored on The N1200. With a user-friendly web management interface, multiple language support, and optional wireless capability, the N1200 is an ideal way to expand your network while increasing storage capacity. Take the time now to read through this user's manual and get the most out of your N1200.

Product Highlights

File Server

First and foremost, the N1200 allows you to store and share files over an IP network. With a Network Attached Storage (NAS) device, you can centralize your files and share them easily over your network. With the easy-to-use web-based interface, users on your network can access these files in a snap.

To learn about the Web User Interface, go to **Chapter 5: Using the N1200 > Web User Interface**.

Media Server

Mediabolic's Embedded Media Server resides on the N1200 and aggregates personal media so that it was can be accessed by a variety of players, such as network TVs, IP set-top boxes, and digital media adapters. This software is DLNA Certified, which means that increased interoperability with other DLNA certified devices. The software also enables advanced digital rights management, an auto setup wizard, and auto-generating video thumbnails. Mediabolic's Embedded Media Server makes accessing, sharing, and enjoying your media files a simple affair.

To set up the Media Server, refer to **Chapter 4: Additional Feature Setup > Media Server**.

FTP Server

With the built-in FTP Server, friends, clients, and customers can upload and download files to your N1200 over the Internet with their favorite FTP programs. You can create user accounts so that only authorized users have access.

To set up the FTP Server, refer to **Chapter 4: Additional Feature Setup > FTP Server**.

iTunes® Server

Digital music is one of the hottest trends, and with the built-in iTunes® server, you can share your digital music files with every iTunes-equipped PC on your network. The iTunes Server is also incredibly easy to set up!

To set up the iTunes Server, refer to **Chapter 4: Additional Feature Setup > iTunes Server**.

Photo Gallery

The Photo Gallery is a great way for friends and family to share precious memories of vacations, birthdays, and more. Users can upload pictures, and even create their own picture albums right on the N1200.

To set up the Photo Gallery, refer to **Chapter 5: Using the N1200 > Using Photo Gallery**.

Backup Server

Don't leave precious data to chance. With advanced backup capabilities, you can easily upload mission critical files to the N1200, and even automate your backup tasks for true peace-of-mind.

To find out how to backup your files with the N1200, refer to **Chapter 5: Using the N1200 > File Backup**.

Download Manager

Tired having downloads take up all of your bandwidth when you need it most? With the N1200's Download Manager, you can let the N1200 complete your BT, HTTP, and FTP during off-peak hours. With the N1200 lower power requirements, you can even save money off your monthly power bill.

To set up the Download Station, refer to **Chapter 4: Additional Feature Setup** > **Download Manager**.

Printer Server

With the N1200's Printer Server, you can easily share an IPP printer with other PCs connected to your network.

To set up the Printer Server, refer to **Chapter 4: Additional Feature Setup > Printer Server**.

Thecus RouStor™ Technology

Part of Thecus' RouStor™ line of products, the N1200 also has a 4-port 10/100 switch in addition to a Gigabit Ethernet port built right in. With the 4-port switch, you can upgrade your network and storage capacity with a single device.

Package Contents

Your N1200 package should contain the following items:

- Thecus N1200 NAS Device
- Accessory Pack:
 - o Power cord
 - o RJ-45 Ethernet cable
 - Hard disk screws
 - Desk stand
 - o Installation CD
 - o Quick Installation Guide
 - o Warranty card

Please check to see if your package is complete. If you find that some items are missing, contact your dealer.

Front Panel

The N1200's front panel displays the unit's array of status LEDs, and is also where you'll find the USB port, one-button copy button, and the power button. See the table below for a detailed explanation of each:

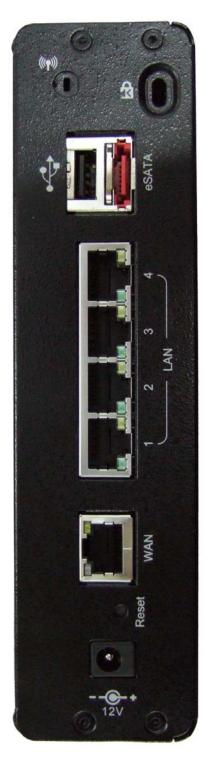
Item	Description
Power	Power on/off N1200
Button	To power off, press and hold for
	three seconds. The system will
	beep twice, and the power off
	process will begin.
Power LED	Solid blue: N1200 is powered on
System	Blinking orange: system startup
Status LED	Blinking red: system error
	Off: system startup complete;
	system operating normally
WAN LED	Solid green: network link
	Blinking orange: network activity
LAN LED	Solid green: network link
	Blinking orange: network activity
HDD LED	Solid blue: HDD detected
	Blinking blue: data transfer active
	Solid red: HDD error detected
	Blinking red: HDD capacity is
	nearly full (90% or more)
USB LED	When connecting USB devices:
	o Blinking blue (5 seconds):
	USB device connected
	successfully (USB card readers
	will activate the USB LED when
	one or more cards are mounted
	successfully)
	Blinking red (5 seconds): USB
	device connection failure
	When transferring data:
	o Blinking blue: data transfer
	active o Blinking red: USB device
	read/write error
One-Button	Push this button to copy the entire
USB Copy	USB volume to the N1200
	Files are stored in a folder named
	by the current time stamp
	(YearMonthDayHHMM)
	NOTE: Before pushing the USB
	Copy Button, make sure that the
	USB device is connected
	successfully. Please refer to the
	section on USB LED.
USB Port	USB 2.0 port for storage expansion
	NOTE: One-Button USB Copy will
	only copy from USB devices
	connected to this port



Rear Panel

The rear panel of the N1200 houses most of the USB and Ethernet connections, as well as the eSATA port, Wireless Antenna Slot, Kensington Security Slot, and power connector. See the table below for descriptions of each:

Item	Description
Wireless Antenna Slot ((p)) Kensington	 Use this to extend your wireless range by attaching an antenna to it Only available on N1200 with wireless capability Connect a locking device
Security Slot	here to secure your N1200
USB Port	 USB 2.0 port for storage expansion NOTE: One-Button USB Copy will only copy from USB devices connected to the front USB port
eSATA Port	eSATA port for high-speed storage expansion
4 Port Switch (LAN)	This 4 port switch can be used for connection sharing
WAN Port	WAN port for connecting to an Ethernet network through a switch or router
Reset Button	 Press this button during system boot to reset to factory default settings
Power Connector	Connect the included power cord to this connector



Chapter 2: Getting Started

Overview

Your N1200 is designed for complete ease-of-use. To help you get started, the following chapter will help you get your N1200 up and running in no time. Please read it carefully to prevent damaging your unit during installation.

Before You Begin

Before you begin, be sure to take the following precautions:

- 1. Read and understand the *Safety Warnings* outlined in the beginning of the manual.
- 2. If possible, wear an anti-static wrist strap during installation to prevent static discharge from damaging the sensitive electronic components on the N1200.
- 3. Be careful not to use magnetized screwdrivers around the N1200's electronic components.
- 4. The N1200 uses its chassis to dissipate heat. Please leave your N1200 in a well-ventilated area to prevent overheating.

Hard Disk Installation

The N1200 supports a standard 3.5" or 2.5" Serial ATA (SATA) hard disk. To install a hard disk into the N1200, follow the steps below:

- 1. Remove two screws from the sides of the unit with a Philips screwdriver.
- 2. Slide the top cover off, exposing the inside of the unit.
- 3. Remove the hard disk cage by unfastening four mounting screws.
- 4. Lift the hard disk cage out of the unit.
- 5. Carefully insert a standard 3.5" or 2.5" SATA hard disk into the cage, and secure it with the hard disk mounting screws from the included accessory pack.
- 6. Carefully lower the hard disk cage back into the N1200, making sure that the tray is properly in place and then connectors are aligned.
- 7. Secure the hard disk cage with screws.
- 8. Replace the top cover and refasten the screws on both sides of the unit.

Cable Connections

To connect the N1200 to your network, follow the steps below:

1. Connect the unit's WAN port to your network hub or router with the included RJ-45 Ethernet cable.

- 2. Connect the power cord, preferably to a surge protector, and power on the unit.
- 3. Make sure that the unit is operating properly by checking the front panel LEDs for any error indications. The system should beep for one second, indicating that the unit is ready for use.

Installation Wizard

The handy Thecus Setup Wizard makes configuring N1200 a snap. To configure the N1200 using the Setup Wizard, perform the following steps:

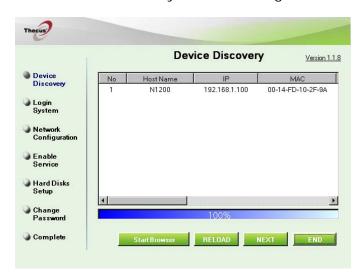
Windows XP / 2000

- 1. Insert the installation CD into your CD-ROM drive (the host PC must be connected to the network).
- 2. The Setup Wizard Welcome Screen should launch automatically. If not, please browse your CD-ROM drive and double click on **Setup.exe**.
- 3. Click N1200 Setup Wizard. On the confirmation prompt, click OK.
- 4. Click Next.
- 5. Enter or browse for the installation folder for the Setup Wizard. Click Next.
- 6. Confirm the installation information and click *Next*.
- 7. A prompt will appear once the installation is complete. Click **OK**.
- 8. The Setup Wizard is now installed on your PC. From the Desktop, click **Start > All Programs > Thecus > Thecus Setup Wizard > Setup Wizard** to begin the Setup Wizard.

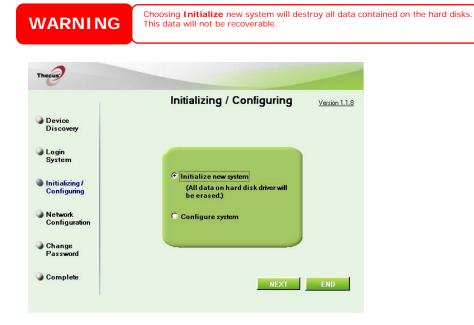


9. The Setup Wizard will start and automatically detect all N1200s on your network. If none are found, please check your connection and refer to **Chapter 7: Troubleshooting Guide** for assistance.

10. Select the N1200 that you like to configure. Click Next.



- 11. Login with the administrator account and password. The default account and password are both "admin".
- 12. If this is your first time setting up the N1200, select *Initialize new system* and click *Next* to continue. A prompt will appear confirming that hard disk data will be erased. Click *OK* to continue with the installation, or *Cancel* to go back.



If you are configuring a previous installation, select $\it Configure \ system$. Click $\it Next$.

13. Name your N1200 and configure the network IP address. If your router is configured as a DHCP Server, configuring the N1200 to automatically obtain an IP address is recommended. You may also use a static IP address and enter the DNS Server address manually. Click *Next*.

Make sure that your N1200 is on the same IP segment as your PC i.e. 192.168.0.XXX. If you choose to use a static IP address for the N1200 and it is not configured for your PC's IP segment, the installation will encounter an error.

- 14. Change the default administrator password if desired. Click Apply.
- 15. Finished! Access the N1200 Web Administrator Interface by pressing the **Start Browser** button. You can also configure another N1200 at this point by clicking **Setup Other Device**.

Mac OS

- 1. Insert the installation CD into your CD-ROM drive (the host computer must be connected to the network).
- 2. Browse your CD-ROM drive and navigate to the **Setup Wizard** > **Mac** folder. Double click on the .dmg file inside this folder.
- 3. A window will appear. Double click on the *Thecus Setup Wizard* icon.
- 4. The Setup Wizard will start and automatically detect all N1200s on your network. If none are found, please check your connection and refer to **Chapter 7: Troubleshooting Guide** for assistance.
- 5. Select the N1200 that you like to configure. Click *Next*.
- 6. Login with the administrator account and password. The default account and password are both "admin".
- 7. If this is your first time setting up the N1200, select *Initialize new system* and click *Next* to continue. A prompt will appear confirming that hard disk data will be erased. Click *OK* to continue with the installation, or *Cancel* to go back.

WARNING

Choosing Initialize new system will destroy all data contained on the hard disks. This data will not be recoverable.

If you are instead configuring a previous installation, select *Configure system*. Click *Next*.

8. Name your N1200 and configure the network IP address. If your router is configured as a DHCP Server, configuring the N1200 to automatically obtain an IP address is recommended. You may also use a static IP address and enter the DNS Server address manually. Click **Next**.

NOTE

Make sure that your N1200 is on the same IP segment as your computer i.e. 192.168.0.XXX. If you choose to use a static IP address for the N1200 and it is not configured for your computer's IP segment, the installation will encounter an error.

- 9. Change the default administrator password if desired. Click Apply.
- 10. Finished! Access the N1200 Web Administrator Interface by pressing the **Start Browser** button. You can also configure another N1200 at this point by clicking **Setup Other Device**.

NOTE

The N1200 is designed for installation on systems running Windows XP/2000 or Mac OSX or later. Users with older operating systems will need to install the N1200 on a host machine with a newer OS before using the N1200.

Typical Setup Procedure

From the Web Administration Interface, you can begin to setup your N1200 for use on your network. Setting up the N1200 typically follows the four steps outlined below.

Step 1: Network Setup

From the Web Administration Interface, you can configure the network settings of the N1200 for your network. You can access the **Network** menu from the menu bar.

For details on how to configure your network settings, refer to **Chapter 3:**System Management > Network Management.

Step 2: Create Local Users

Once the network is setup correctly, you can begin to create local users for the N1200.

For more on managing users, go to **Chapter 3: System Management > User and Group Management**.

Step 3: Create Folders and Set Up ACLs

Once users are introduced into your network, you can begin to create various folders on the N1200 and control user access to each using Folder Access Control Lists.

More information on managing folders, see **Chapter 4: System Management > Storage Management > Folder Management**.

To find out about configuring Folder Access Control Lists, see Chapter 4: System Management > Storage Management > Folder Management > Folder Access Control List (ACL).

Step 4: Start Services

Finally, you can start to setup the different services of the N1200 for the users on your network. You can find out more about each of these services by clicking below:

Windows Networking (SMB/CIFS)

Apple File Protocol (AFP)

FTP Server

iTunes® Server

Media Server

Download Manager

Printer Server

Photo Gallery

Chapter 3: System Management

Overview

The N1200 provides an easily accessible web management interface. With it, you can configure and monitor the N1200 anywhere on the network.

Web Administration Interface

Make sure your network is connected to the Internet. To access the N1200 **Login Page**:

1. Type the N1200's IP address into your browser. (Default IP address is http://192.168.1.100)



2. Login to the system using the administrator user name and password. The factory defaults are:

User Name: admin Password: admin

If you changed your password in the setup wizard, use the new password.

Once you are logged in as an administrator, you will see the **Web Administration Interface**. From here, you can configure and monitor virtually every aspect of the N1200 from anywhere on the network.

Menu Bar

The **Menu Bar** is where you will find all of the information screens and system settings of the N1200. The various settings are placed in the following groups on the menu bar:

Menu Bar	
Item	Description
Status	Current system status of the N1200.
Storage	Information and settings for storage devices installed into the N1200.
Network	Information and settings for network connections and services, as well as various services of the N1200.
Accounts	Allows configuration of users and groups.
System	Various N1200 system settings and information.
Language	Choose your preferred language here.

Moving your cursor over any of these items will display the dropdown menu selections for each group.

In the following sections, you will find detailed explanations of each function, and how to configure your N1200.

Language Selection

The N1200 supports multiple languages. On the menu bar, click *Language* and the **Change Language** screen appears. This screen allows you to select preferred language for the N1200. Press *Apply* to confirm your selection.



Status Menu

The **Status** Menu on the menu bar allows you to see various aspects of the N1200. From here, you can discover the status of the N1200, and even find out other details like firmware version and up time.

Product Information

Once you login, you will first see the basic **Product Information** screen providing **Manufacturer**, **Product No.**, **Firmware Version**, and **Up Time**information.

To access this screen again, navigate to **Status** > **About**.



System Status

From the **Status** menu, choose the **System** item, and the **System Status** screen appears. This screen provides basic system status information.



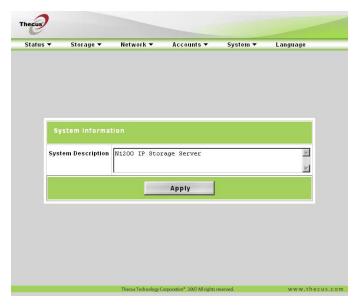
System Status	
Item	Description
CPU Loading (%)	Displays current CPU workload of the N1200.
Fan RPM	Shows cooling fan speed in revolutions per minute (RPM).
Fan Speed Control	Select to control the current fan speed.
	Auto: Default fan speed control.
	High: Fan will always running at full speed.
Up Time	Shows how long the system has been running.

NOTE

When the fan speed is set to high, N1200 will generate more noise than usual.

System Information

From **Status** menu, choose the *Info* item, and the **System Information** screen appears. You can change the system information that appears on uPnP devices screens (i.e. Network Neighborhood) on Windowsbased systems by entering the new information here and pressing *Apply* to confirm.



System Information	
Item	Description
System Description	Shows the system description that would also appear on the Login page.

Printer Status

From the **Status** menu, choose the *Printer* item, and the **Printer Information** screen appears. The Printer Information screen provides the following information about the USB printer connected to the USB port.



Printer Informati	on
Item	Description
Manufacturer	Displays the name of the USB printer manufacturer.
Model	Displays the model of the USB printer.
Status	Displays the status of the USB printer.
Printer Queue	Click to remove all documents from printer queue

If a corrupt print job is sent to a printer, printing may suddenly fail. If your print jobs seem to be locked up, press the *Remove All Documents* button to clear the print queue may resolve the issue.

For information on how to set up the Printer Server, refer to **Chapter 4:** Additional Feature Setup > Printer Server.

Storage Management

The **Storage Menu** displays the status of storage devices installed or connected to the N1200, including SATA, eSATA, and USB storage.

SATA Information

From the **Storage** menu, choose the **SATA** item and the **SATA** Information screen appears. From here, you can see various items about your SATA hard disk.



SATA Information	
Item	Description
Model	Displays the SATA hard disk model name.
Capacity	Shows the SATA hard disk capacity in megabytes (MB).
Used Percentage	Shows the capacity remaining on the SATA hard disk in percentage (%) and megabytes (MB).
Firmware	Shows the SATA hard disk firmware version.



eSATA Information

From the **Storage** menu, choose the **eSATA** item and the **eSATA Information** screen appears. From here, you can see various items about the eSATA hard disk.



eSATA Information	
Item	Description
Model	Displays the eSATA hard disk model name.
Capacity	Shows the eSATA hard disk capacity in megabytes (MB).
Used Percentage	Shows the capacity remaining on the eSATA hard disk in
	percentage (%) and megabytes (MB).
Firmware	Shows the eSATA hard disk firmware version.
Format	Press <i>Format</i> to format your eSATA hard disk.
Eject	Press <i>Eject</i> to unmount the eSATA hard disk.

WARNING

Formatting will destroy all data on your eSATA hard disk. This data is not recoverable.

USB Disk Information

From the **Storage** menu, choose the *USB* item and the **USB Information** screen appears. From here, you can see various items about USB disks connected to the N1200.



USB Information	
Item	Description
Disk No.	Number assigned to each USB disk.
Capacity (MB)	Shows the capacities of each USB disk in megabytes (MB).
Model	Displays the model names of each USB disk.
Firmware	Shows the firmware version of each USB disk.
Status	Shows the status of each USB disk. An <i>Eject</i> button appears
	beside each USB disk. Press this button before removing the
	USB disk.
Refresh	Press <i>Refresh</i> to rescan the status of the USB disks.

Folder Management

From the **Storage** menu, choose *Folder*, and the **Folder** screen appears. This screen allows you to create and configure folders on the N1200 volume.



Folder	
Item	Description
Folder name	Displays the name of the folder.
Description	Provides a description of the folder.
ACL	Press ACL (Access Control List) to configure which users have
	access to this folder.
Edit	Press <i>Edit</i> to enter the <i>Edit</i> screen and modify the folder's
	name and description.
Del	Press Del to delete the folder. A screen appears asking to
	confirm the deletion.
Add	Press <i>Add</i> to enter the Add Folder screen.

Adding Folders

On the **Folder** screen, press the *Add* button and the **Add Folder** screen appears. This screen allows you to add a folder. After entering the information, press *Apply* to create new folder. Press *Back* to return to the **Folder** screen.



Add Folder	
Item	Description
Folder Name	Enter the name of the folder.
Description	Provide a description the folder.
Browseable	Enable users to browse the folder content.
Public	Admit or deny public access to this folder.
Apply	Press <i>Apply</i> to create the folder.
Back	Press Back to return to the Folder screen.

Editing Folders

On the **Folder** screen, press the *Edit* button and the *Edit* **Folder** screen appears. This screen allows you to change folder information. After entering the information, press *Apply* to apply the changes. Press *Back* to return to the **Folder** screen.



Edit Folder	
Item	Description
Folder Name	Enter the name of the folder.
Description	Provide a description the folder.
Browseable	Enable users to browse the folder content.
Public	Admit or deny public access to this folder.
Apply	Press <i>Apply</i> to save your changes.
Back	Press Back to return to the Folder screen.

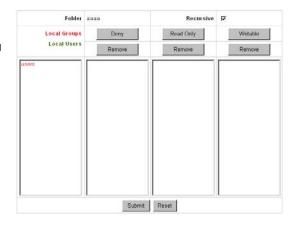
Deleting Folders

To delete a folder, press the **Del** button from the specified folder row. The system will confirm folder deletion. Press **OK** to delete the folder permanently or **Cancel** to go back to the folder list.



Folder Access Control List (ACL)

On the Folder screen, press the *ACL* button, and the **Access Control List** screen appears. This screen allows you to configure access to the specific folder for users and groups. Select a user or a group from the left hand column and then choose *Deny*, *Read Only*, or *Writable* to configure their access level. Press the *Submit* button to confirm your settings.



Access Control List	
Item	Description
Deny	Denies access to users or groups who are displayed in this column.
Read Only	Provides Read Only access to users or groups who are displayed in this column.
Writable	Provides Write access to users or groups who are displayed in this column.
Remove	Removes the selected user or group from the column in order to reset their access privileges.
Submit	Submits and confirms settings.

Service Folders

The N1200 automatically creates folders for its built-in applications.



Service Folders		
Service	Description	Folder Name
Photo Gallery	Photo album photos are stored here for sharing over the network.	Photos
iTunes Server	Music for the iTunes Server is located here. The iTunes server will share the music located in this directory.	Music
Media Server	Default directory for your video files.	Video
USB One-Button Copy	Files copied from the USB One-Button Copy function are stored here.	USBCopy
USB Hard Disks	Contents copied from USB hard disks are stored here.	USBHDD
eSATA Hard Disk	eSATA drive folder name	eSATAHDD

To manage these service folders, select **Service Folder** from the **Storage** menu. Press \pmb{Edit} to edit these folders. Press \pmb{ACL} to control access to these folders via the **Access Control List**.

Network Management

Use the Network menu to make network configuration settings as well as service support settings.

WAN Configuration

From the **Network** menu, choose WAN, and the WAN **Configuration** screen appears. This screen displays the network parameters of the WAN connection. You may change any of these items and press Apply to confirm your settings. You can see a description of each item in the following table:



WAN Configuration	
Item	Description
Host name	Host name that identifies the N1200 on the network.
Domain name	Specifies the domain name of the N1200.
MAC Address	MAC address of the network interface.
Jumbo Frame Support	Enable or disable Jumbo Frame Support of the WAN interface on your N1200.
WAN Port	The WAN IP can be set to a Static IP address or Dynamic IP address. Static: Administrator has to enter IP, Netmask, Gateway, DNS Server fields.
	Dynamic: If there is already a DHCP server on your network, you can let the DHCP server assign an IP address to your N1200.
IP	IP address of the WAN interface.
Netmask	Network mask, which is generally: 255.255.255.0
Gateway	Default Gateway IP address.
DNS Server	Domain Name Service (DNS) server IP address.
IP Sharing Mode	When enabled, traffic on the LAN will be directed to the WAN. Default is Enabled .

NOTE

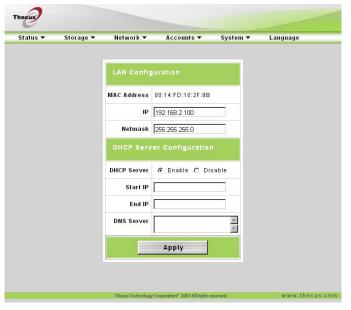
- Only use Jumbo Frame settings when operating in a Gigabit environment where all other clients have Jumbo Frame Setting enabled.
 Enabling DHCP automatically turns on UPnP See the Service Support Screen. If you are only using the WAN port, we suggest that you disable IP Sharing Mode. This will result in higher throughput.
 A correct DNS setting is vital to networks services, such as SMTP and NTP.

WARNING

Most Fast Ethernet (10/100) Switches/Routers do not support Jumbo Frame and you will not be able to connect to your N1200 after Jumbo Frame is turned on. If this happens, please reset N1200. This will reset your network settings, password, and turn off Jumbo Frame Support. For the procedure of resetting N1200, please refer to the trouble shooting guide

LAN Configuration

The N1200 supports a 4-port 10/100 switch for higher service availability. To configure these ports, choose *LAN* from the **Network** menu, and the **LAN Configuration** screen appears. Press *Apply* to save your changes.



LAN Configuration	
Item	Description
MAC Address	Displays the MAC address of the LAN interface.
IP	Specifies the IP address of the LAN interface.
Netmask	Specifies the Network Mask of the LAN interface.
Jumbo Frame Support	Enable or disable Jumbo Frame Support on the LAN interface.

NOTE

Before enabling Jumbo Frame Support, please make sure your network equipment supports Jumbo Frame. If your equipment is incompatible, you might not be able to connect to your N1200. In this case, you have to reset the system back to default. For the procedure of resetting N1200, please refer to the trouble shooting guide

DHCP Configuration

A DHCP server can be configured to assign IP addresses to devices connected to the LAN ports. To configure these ports, choose *LAN* from the **Network** menu.



DHCP Configuratio	n
Item	Description
DHCP Server	Enable or disable the DHCP server to automatically assign IP
	address to PCs connected to the LAN interface.
Start IP	Specifies the starting IP address of the DHCP range.
End IP	Specifies the ending IP address of the DHCP range.
DNS Server	Specifies the DNS server IP address.

NOTE The IP Segment of WAN and LAN should not overlap. The IP address of the LAN interface should not be in the range of the Start IP **WARNING** address and End IP address.

WLAN Configuration

When a compatible wireless USB dongle or miniPCI card is installed on the N1200, the N1200 will become an access point, and the Network dropdown menu will contain a WLAN menu item. From the Network menu, choose WLAN, and the WLAN **Configuration** screen appears. This screen displays the wireless network parameters of the system. You can to change any of these items and press Apply to confirm your settings.



NOTE

- Currently supported mini PCI wireless LAN cards are: MSI MS-6833B, CNet
- CWM-854 and Gentek WMIR-174G.

 Currently supported USB wireless dongles are: 3Com 3CRUSB10075, Zyxel G220USB, PCI GW-US54mini.
- USB dongles have to be connected before N1200 is powered up.

WLAN Configuration	
Item	Description
MAC Address	Displays the MAC Address of the USB wireless dongle.
IP	Specifies the IP address of the network connection.
Netmask	Specifies the network mask, which is generally: 255.255.255.0
ESSID	The ESSID (Extended Service Set Identification) is the
	identifying name of a wireless network.
ESSID Broadcast	Specifies whether the ESSID will be broadcasted by the N1200.
	This will prevent the Access Point from broadcasting the ESSID.
	The N1200 will still respond to a wireless device that wants to
	communicate if it sends a matching ESSID.

Channel	The channel that the N1200 uses to communicate with client devices.
Auth Mode	Authentication mode used by the N1200. Shared: Shared key authentication
	Open: Open key authentication
WEP Enable	Specifies whether to use encryption for transmission or not.
Key Length	Key length specifies the level of encryption used by the N1200. 64 bit: 10 characters from 0 ~ 9 and A ~ F. 128 bit: 26 characters from 0 ~ 9 and A ~ F.
WEP KEY 1	Input up to 4 WEP keys, and select the one you wish to use.
WEP KEY 2	When connecting, be sure to enter the same key and select the
WEP KEY 3	same index number on each client machine.
WEP KEY 4	

A DHCP server can be configured to assign IP addresses to devices connected to LAN ports.

WLAN DHCP Configuration	
Item	Description
DHCP Server	Select to enable or disable DHCP server.
Start IP	Specifies the starting IP address of the DHCP range.
End IP	Specifies the ending IP address of the DHCP range.
DNS Server	Specifies the DNS server IP address.



Web Services Configuration

From the **Network** menu, choose the **Service** item, and the **Web Service** screen appears. This screen displays the service support parameters of the system. You can change any of these items and press **Apply** to confirm your settings. A description of each item follows:



Web Service	
Item	Description
HTTP (WebDisk)	Enable or disable WebDisk support. Enter the port number if this
Support	option is enabled.
HTTPs (Secure	Enable or disable secure WebDisk support. Enter the port if this
WebDisk) Support	option is enabled.
UPnP	Enable or disable Universal Plug and Play protocol. UPnP helps to
	find the IP address of the N1200.

NOTE

Disable HTTP support and Enable Secure HTTP support to guarantee secure access.

Windows Network Configuration (SMB/CIFS)

The N1200 can act as a Samba server, enabling users to share files using the SMB/CIFS protocol. From the **Network** menu, choose the **SMB/CIFS** item, and the **SMB/CIFS** screen appears. You can change any of these items and press **Apply** to confirm your settings. A description of each item follows:



SMB/CIFS	
Item	Description
Sharing	If you are using Microsoft Windows®, enable this service to
	access the files on the N1200 by mapping a network drive.
WINS Server	Specify the WINS server IP address, if your network has a WINS
	server installed. The N1200 will automatically register its name
	and IP address with WINS service.
Work Group / Domain	Enable or disable SMB/CIFS protocol for Windows, Apple, Unix
Name	drive mapping.

NOTE

SMB/CIFS service also allows file sharing from Mac OSX and Linux platforms.
Once a Mac OS accesses a share folder, it will create a file named .DS_Store, and directories named Temporary Items, Network Trash Folder, .Apple Double, Apple Desktop and AppleDB in the share folder.

Apple Network Setup

From the **Network** menu, choose the **Apple Network** item, and the **Apple Network** on Screen appears. This screen displays the configuration items for the Apple Filing Protocol. You can change any of these items and press **Apply** to confirm your settings. A description of each item follows:



Apple Network Configuration	
Item	Description
Apple File Service	Enable Apple File Service to use the N1200 on MAC OS-based system.
MAC CHARSET	If your operating system does not support Unicode (e.g. MAC OS9/8), select the same language as your OS here in order to properly view the files and directories on the server.
Zone	Specifies Zone for Applet Talk service. If your AppleTalk network uses extended networks and is assigned with multiple zones, assign a zone name to the N1200. If you do not want to assign a network zone, enter an asterisk (*) to use the default setting.

User and Group Management

The N1200 has built-in user database that allows administrators to manage user access using different group policies. From the **Accounts** menu, you can create, modify, and delete users, and assign them to groups that you designate.

Local User Configuration

From the **Accounts** menu, choose the **Users** item, and the **Local User Configuration** screen appears. This screen allows you to **Add**, **Modify**, and **Delete** local users.



Local User Configuration	
Item	Description
Add	Press the <i>Add</i> button to add a user to the list of local users.
Modify	Press the <i>Modify</i> button to modify a local user.
Delete	Press the <i>Delete</i> button to delete a selected user from the
	system.

Storage -

Network ▼

Create default share folder for this user: O Yes @ No

Group Members

User Name : Password :

Accounts *

>

Apply

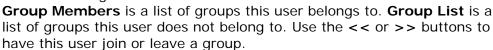
System ▼

Group List

Language

Adding Users

- Click on the Add button on Local User Configuration screen, and Local User Setting screen appears.
- On the Local User Setting screen, enter a name in the User Name box.
- 3. Enter a password in the **Password** box and re-enter the password in the **Confirm** box.
- 4. Select which group the user will belong to.



5. Press the *Apply* button and the user is created.



Modifying Users

- Select an existing user from the Local User Configuration screen.
- Click on the *Modify* button, and Local User Setting screen appears.
- From here, you can enter a new password and re-enter to confirm, or use the << or >> buttons to have this user join or leave a group. Click the *Apply* button to save your changes.



Deleting Users

- 1. Select an existing user from the **Local User Configuration** screen.
- 2. Click on *Delete* button and the user is deleted from the system.

Local Groups Configuration

From the **Accounts** menu, choose the **Groups** item, and the **Local Groups Configuration** screen appears. This screen allows you to **Add**, **Modify**, and **Delete** local groups.



Local Groups Configuration	
Item	Description
Add	Press the <i>Add</i> button to add a user to the list of local groups.
Modify	Press the <i>Modify</i> button to delete a selected group from the system.
Delete	Press the Delete button to delete a selected group from the system.

Adding Groups

- On the Local Group Configuration screen, click on the Add button.
- 2. The **Local Group Setting** screen appears.
- Enter a Group Name, and select users to be in this group from the Users List by adding them to the Members List using the << button.



4. Click the *Apply* button to save your changes.

Modifying Groups

- On the Local Group Configuration screen, select a group name from the list.
- 2. Press the *Modify* button to modify the members in a group.
- To add a user into a group, select the user from the Users List, and press the << button to move the user into the Members List.



- 4. To remove a user from a group, select the user from **Members List**, and press the >> button.
- 5. Click the *Apply* button to save your changes.

Deleting Groups

- 1. On the **Local Group Configuration** screen, select a group name from the list.
- 2. Press *Delete* to delete the group from the system.

System Management

The **System** menu gives you a wealth of settings that you can use to configure your N1200's system administration functions. You can set up system notifications, view system logs, and even upgrade firmware from this menu.

System Notifications

From the **System** menu, choose the *Notification* item, and the **Notification**Configuration screen appears. This screen lets you have the N1200 notify you in case of any system malfunction. Press *Apply* to confirm all settings. See following table for a detailed description of each item.



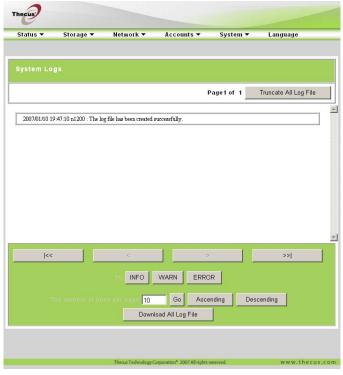
Notification Configuration	
Item	Description
Beep Notification	Enable or disable the system beeper that beeps when a problem
	occurs.
Email Notification	Enable or disable email notifications of system problems.
SMTP Server	Specifies the hostname/IP address of the SMTP server.
Port	Specifies the port to send outgoing notification emails.
Auth Type	Select the SMTP Server account authentication type.
SMTP Account ID	Set the SMTP Server Email account ID.
Account Password	Enter a new password.
Confirm Account	Confirm a new password.
Password	
Receiver's E-mail	Add one or more recipient's email addresses to receive email
Address	notifications.
Test E-Mail	Click to send out a test e-mail to make sure the settings are
	correct.

NOTE

Consult with your mail server administrator for email server information.

System Logs

From the **System** menu, choose the **Logs** item and the **System Logs** screen appears. This screen shows a history of system usage and important events such as disk status, network information, and system booting. See the following table for a detailed description of each item:



System Logs	
Item	Description
Truncate All Log File	Clear all log files.
<< < > >>	Use the forward (> >>) and backward (<< <) buttons
	to browse the log pages.
INFO	Provides all log information including warning messages and
	error messages.
WARN	Shows all warning messages and error messages.
ERROR	Shows only error messages.
GO	Specify the number of lines per page and press Go.
Ascending	Shows logs by date in ascending order.
Descending	Shows logs by date in descending order.
Download All Log File	Export all logs to an external file.

Time and Date Settings

From the **System** menu, choose the **Time** item and the **Time** screen appears. Set the desired **Date**, **Time**, and **Time Zone**. You can also elect to synchronize the system time on the N1200 with an **NTP (Network Time Protocol) Server**. You can change any of these items and press *Apply* to confirm your settings. See the following table for a detailed description of each item:



Time	
Item	Description
Date	Sets the system date.
Time	Sets the system time.
Time Zone	Sets the system time zone.
NTP Server	Select <i>Yes</i> to allow the N1200 to synchronize with the NTP server shown below. Select <i>No</i> to not have the N1200 to synchronize with an NTP server. Select <i>User Specified</i> to allow the N1200 to synchronize with an NTP server of your choice.

WARNING

If an NTP server is selected, please make sure your N1200's network has been setup to access the NTP server.

System Configuration Backup and Restore

From the **System** menu, choose the *Config Mgmt* item and the **System Configuration Download/Upload** screen appears. From here, you can download or upload stored system configurations. See the following table for a detailed description of each item.



System Configuration Download/Upload	
Item	Description
Download	Save and export the current system configuration.
Upload	Import a saved configuration file to overwrite current system configuration.

NOTE

Backing up your system configuration is a great way to ensure that you can revert to a working configuration when you are experimenting with new system settings.

Module Management

From the **System** menu, choose the *Module Mgmt* item and the **Module Management** screen appears. From here, you can install separate software modules to extend the functionality of your N1200.



Module Management	
Item	Description
Module File	Location of the module file.
Browser	Click to browse the folder of your PC to locate the module files.
Install	Click to install the listed module into your N1200.
Name	Displays the name of the module.
Version	Displays the module version.
Description	The description of the module.
Enable	Displays whether the module has been enabled or not.
Uninstall	Click to uninstall the module.
Enable	Click to enable a module.
Disable	Click to disable a module.
Browse	Click to browse the folder of your PC to find the module files.
Install	Click to install module into your N1200.

NOTE

As modules are written by third parties and not released by Thecus, Thecus assumes no responsibility for any damage or loss of data as a result of the use of modules. USE AT YOUR OWN RISK.

Reset to Factory Default Settings

From the **System** menu, choose the *Factory Default* item and the **Reset** to Factory Default screen appears. Press *Apply* to reset the N1200 to factory default settings. Press *Cancel* to go back to the main menu.

WARNING

Resetting to factory defaults will not erase the data stored in the hard disks, but WILL revert all the settings to the factory default values.



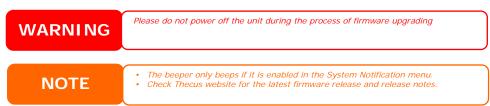
Upgrading System Firmware

From the **System** menu, choose the *Firmware Upgrade* item and the **Firmware Upgrade** screen appears.

Follow the steps below to upgrade your firmware:

- 1. Use the **Browse** button to find the firmware file.
- 2. Press Apply.
- 3. The beeper beeps and the Busy LED blinks until the upgrade is complete.





Change Administrator Password

From the **System** menu, choose the *Administrator Password* item and the **Change Administrator Password** screen appears. Enter a new password in the **New Password** box and confirm your new password in the **Confirm Password** box. Press *Apply* to confirm password changes. See the following table for a detailed description of each item.



Change Administrator Password		
Item	Description	
New Password	Type in a new administrator password.	
Confirm Password	Type the new password again to confirm.	
Apply	Press this to save your changes.	

Reboot and Shutdown System

From the **System** menu, choose **Reboot & Shutdown** item, and the **Shutdown/Reboot System** screen appears. Press **Reboot** to restart the system or **Shutdown** to turn the system off.



Logout

To logout of the Web Administration Interface, navigate to **System** > **Logout**.

Chapter 4: Additional Feature Setup

Overview

With a bevy of additional features and services, the N1200 is so much more than a mere external hard disk. The sections below show you how you can utilize your N1200 to serve files, music, movies, pictures, and more.

FTP Server

N1200 can act as a FTP server, enabling users to download and upload files with their favorite FTP programs. From the **Network** menu, choose the **FTP** item, and the **FTP** screen appears. You can change any of these items and press **Apply** to confirm your settings. A description of each item follows:



FTP	
Item	Description
FTP	Enable FTP Service on the N1200.
Port	Specifies the port number of an incoming connection on a non-standard port.
FTP ENCODE	If your FTP client or operating system does not support Unicode (e.g. Windows® 95/98/ME or MAC OS9/8), select the same encoding as your OS here in order to properly view the files and directories on the server. Available options are BIG5, HZ, GB2312, GB18030, ISO, EUC-JP, SHIFT-JIS and UTF-8.
Allow Anonymous FTP Access	Upload/Download: Allow anonymous FTP users to upload or download files to/from public folders. Download: Allow anonymous FTP users to download files from public folders. No access: Block anonymous FTP user access.

Anonymous users are not able to delete files on the N1200. To delete files, users must login and be granted write access on the Access Control List.

To access the share folder on the N1200, use the appropriate user login and password set up on the **Users** page (Accounts > Users). Access control to each share folder is set up on the **ACL** page (Storage > Folder > ACL).

When trying to access N1200 anonymously, just enter "anonymous" as the user name.

iTunes® Server

With the built-in iTunes server capability, the N1200 enables digital music to be shared and played anywhere on the network!

From the **Network** menu, choose the *iTunes* item, and the *iTunes* Configuration screen appears. You may enable or disable the iTunes Service from here. Once enabled, enter correct information for each field and press *Apply* to save your changes. See the following table for detailed descriptions of each field:

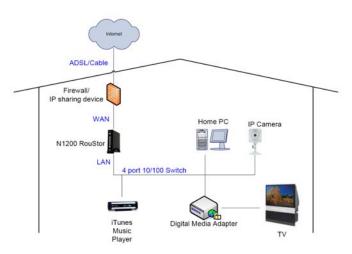


Description
Enable or disable iTunes Service.
Name used to identify the N1200 to iTunes clients.
Enter password to control access to your iTunes music.
Rescan interval in seconds.
Specify tag encoding for MP3 files stored in N1200. All ID3 tags will be send out in UTF-8 format.

Once the iTunes service is enabled, the N1200 will make all music located in the **Music** folder available for iTunes-equipped computers on the network.

Media Server

With the built-in Media Server capability, the N1200 provides media streaming service to stand-alone networked home media adapters that support the UPnP AV protocol or are Digital Living Network Alliance (DLNA) standard compliant.



With the N1200's built-in media server capability, you can share digital media such as music, pictures, and movies with any compatible device throughout your entire home.

Under **Network**, choose the *Media Server* item and the **Media Server Configuration** screen appears. See the following table for detailed descriptions of each field:



Media Server Configuration	
Item	Description
Media Server	Enable or disable the Media Server service.
Shared Media Folders	Select the folder(s) that contains media files to be shared.
Add	Click the <i>Add</i> button to designate the selected media folder as a Media Server sharing folder.
Rescan	Click the <i>Rescan</i> button to have the N1200 for new contents in the selected media folder.
Remove	Click the <i>Remove</i> button to delete the selected folder from the Media Server database. The content in this folder will not be accessible by the Media Server. This will not delete the contents of the folder.

Adding Media Share Folders

Once the Media Server software is installed, you can start adding folders that contain the media that you would like to share. To create a media share folder, follow the steps below:

- 1. Click on **Network** > **Media Server** in the menu bar.
- 2. Select the folder that contains your media files, and click the checkbox.

3. The contents in the folder will be scanned for the Media Server. The time required for scanning depends on the size of the folder.

Connecting DMAs to the Media Server

Next, it's time to connect your Digital Media Adapter (DMA) to the media server:

- 1. Connect your DMA to your Media Server
 - a. Configure your DMA to use a Dynamic IP address. The IP address will be assigned by the router.
 - b. Some DMAs are wireless enabled. You can connect the DMA to a wireless router. For instructions on how to connect your DMA to a wireless router, please refer to your DMA's user manual.
- 2. Connect your DMA's video output to video input of your TV set.
- 3. Turn on the TV and change the video signal input to DMA.
- 4. Setup the DMA (These steps will be different if you use a different DMA)
 - a. From the Server List screen, select "N1200:Mediabolic Server" as the server.
 - b. Go to My Media
 - c. Click on the Up/Down Arrow buttons to select Music Jukebox, Photo Albums, or Video Clips
 - d. Start enjoying the contents stored in your N1200.

Download Manager

With the built-in Download Manager, you can have the N1200 download HTTP, FTP, and BT files without having full PC powered on. What's more, you can even schedule your downloads for off-peak hours, ensuring efficient use of bandwidth. To access the Download Manager, go to Network, choose the Download Manager option, and the Download Tasks and Download Schedule windows appear.



Download Tasks	
Item	Description
	Click to start the specified task.
11	Click to pause the specified task.
×	Click to delete the specified task. A prompt will appear asking you if you would like to delete the task itself, or the task and all related downloaded files.
Task	Name of the task. Click to see more information about this task.
Rate	Transfer rate of the task in kilobytes per second (KB/s). DL: Download rate UL: Upload rate
Status	Status of the task. Complete: Percentage complete (%) Completed / Total download size
Task Type	Use this dropdown to select the type of transfer. HTTP , FTP , and BT are available.
Add Task	Click to add the kind of task specified beside "Task Type".
Enable Refresh	Click to refresh the task list.

Adding an HTTP Task

To add a new HTTP task to the Download Manager, follow these steps:

- 1. Using the **Task Type** dropdown, select *HTTP*.
- 2. Click Add Task.
- 3. Input the target URL in the Website URL box.
- 4. Select the destination folder from the **Destination Folder** dropdown.
- 5. Select the maximum download bandwidth from **Max. Download Bandwidth**.
- 6. Press Apply to add the task.

Adding an FTP Task

To add a new FTP task to the Download Manager, follow these steps:

- 1. Using the **Task Type** dropdown, select *FTP*.
- 2. Click Add Task.
- 3. Input the target FTP address in the **FTP File** box.
- 4. Select the destination folder from the **Destination Folder** dropdown.
- 5. Enter a username in the **Username** box. You may also use "anonymous" if the FTP server supports anonymous users.
- 6. Enter a password in the **Password** box. If you entered "anonymous" for a user name, enter an email address.
- 7. Select the maximum download bandwidth from **Max. Download Bandwidth**.
- 8. Press Apply to add the task.

Adding a BT Task

To add a new BT task to the Download Manager, follow these steps:

- 1. Using the Task Type dropdown, select BT.
- 2. Click Add Task.
- 3. Click **Browse** and locate the torrent file.
- 4. Select the destination folder from the **Destination Folder** dropdown. The default folder is **Music**. The administrator can select any other share folder.
- 5. Select the desired **Sharing Time After Completion**, **Max Peer Count**, **Min Peer Count** options from the corresponding dropdowns.
- 6. Select the **Max Download Bandwidth** and **Max Upload Bandwidth** from the corresponding dropdowns.
- 7. Press *Apply* to add the task.

Deleting Tasks

To delete a task, simply follow the steps below:

- 1. Click the delete icon (X) beside the task that you wish to delete. The **Delete Task** dialogue box will appear.
- 2. Select **Delete Task only** if you wish to remove only the torrent file and all transient files, leaving the unfinished download files intact.
- 3. Select *Delete Task and Files* if you wish to remove the torrent file and all transient files, and the unfinished download files.

4. Click **OK** to delete the task. Click **Cancel** to return to the **Download Manager**.

Scheduling Downloads

With the Download Manager, you can schedule your downloads to begin at different times of the day. This is useful if you wish to complete your downloads during off-peak hours, reserving your bandwidth for other applications. A table describing the Download Schedule window appears below:

Download Schedule		
Item	Description	
Scheduler	Enable or disable the Download Scheduler.	
Daily/Weekly	Choose to have the Download Scheduler activate on a daily or weekly basis.	
Start: Day/Hour /Minute	Specify the start day/hour/minute for the download task.	
End: Day/Hour/Minute	Specify the end day/hour/minute for the download task.	

To schedule downloads, follow these steps:

- 1. Under Download Schedule, set Scheduler to Enable.
- 2. To schedule a daily download period, select *Daily* and select a start time and end time.

To schedule a weekly download period, select *Weekly* and select a start day/time and end time/day.

3. Click Apply to save your changes.

NOTE

If the Download Scheduler is enabled, ALL download tasks will adhere to the designated schedule

Printer Server

You can configure the N1200 to act as a printer server. That way, all PCs connected to the network can utilize the same printer. To set up the Printer Server, follow the steps below:

Windows XP SP2

- 1. Connect the USB printer to one of the USB ports (preferably the rear USB ports; front USB ports can be used for external HDD enclosures).
- 2. Go to Start > Printers and Faxes.
- 3. Click on File > Add Printer.
- 4. The Add Printer Wizard appears on your screen. Click Next.
- 5. Select the "A network printer, or a printer attached to another computer" option.
- 6. Select "Connect to a printer on the Internet or on a home or office network", and enter "http://N1200_IP_ADDRESS:631/printers/usb-printer" into the URL field.
- 7. Your Windows system will ask you to install drivers for your printer. Select correct driver for your printer.
- 8. Your Windows system will ask you if you want to set this printer as "Default Printer". Select **Yes** and all your print jobs will be submitted to this printer by default. Click **Next**.
- 9. Click Finish.

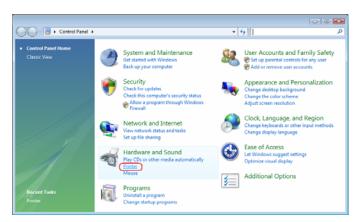


- Not all USB printers are supported. Please check Thecus website for a list of supported printers.
- Note that if a multi-function (all-in-one) printer is attached to the N1200 YES Box, usually only the printing and fax functions will work. Other features, such as scanning, probably will not function.

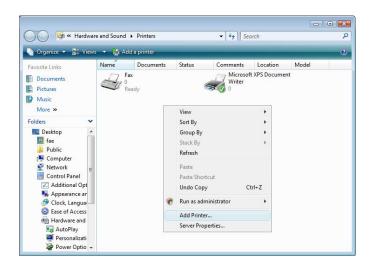
Windows Vista

To set up the Printer Server in Windows Vista, follow the steps below:

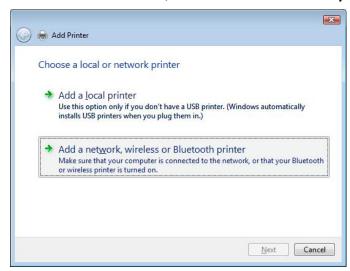
1. Open *Printer Folder* from the **Control Panel**.



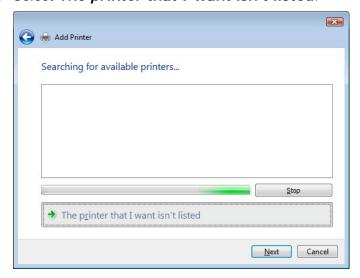
2. Click the right mouse button in anywhere on the **Printers** folder and then select *Add Printer*.



3. Select Add a network, wireless or Bluetooth printer.

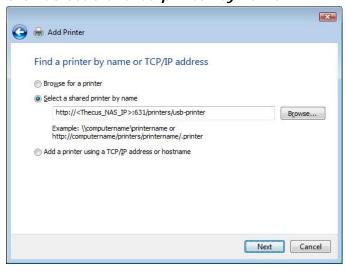


4. Select The printer that I want isn't listed.



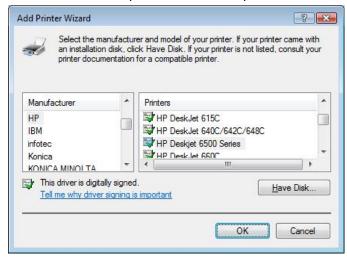
You can press *The printer that I want isn't listed* to go into next page without waiting for **Searching for available printers** to finish.

5. Click Select a shared printer by name.



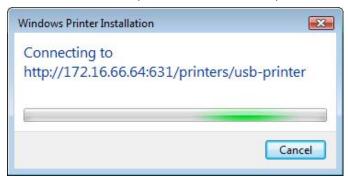
Type http://<Thecus_NAS>:631/printers/usb-printer in the box, where <Thecus_NAS_IP> is the IP address of the 1U4500. Click *Next*.

6. Select or install a printer and then press **OK**.

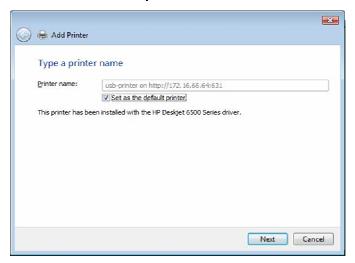


If your printer model is not listed, please contact your printer manufacturer for help.

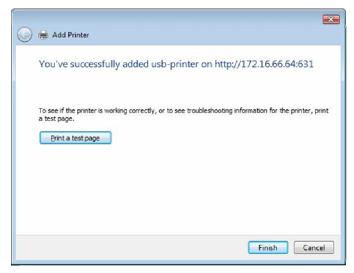
7. Windows will attempt to connect to the printer.



8. You can choose to set this printer as the default printer by checking the **Set as the default printer** box. Click **Next** to continue.



9. Done! Click Finish.



Chapter 5: Using the N1200

Overview

Once the N1200 is setup and operating, users on the network may manage all varieties of digital music, photos, or files by simply using their web browsers. To manage your personal files or access public files on the N1200, just enter its IP address into your browser, and you will be taken to the **N1200 Login** page.

Login Page

The buttons on the login page are WebDisk, Music, Photos, and Login icons.



To access files, music or photos on N1200, click on the *WebDisk*, *Music*, or *Photos* icons respectively. You will be taken to the **Web User Interface**.

To login to the system, click the *Login* icon, enter your user name and password, and click *Login* to log into the system. You will be taken to the **Web User Interface**.

Web User Interface

The Web User Interface is where users interact with the N1200, and manage all sorts of digital media. The simple layout makes it easy for anyone to enjoy the many features of the N1200.

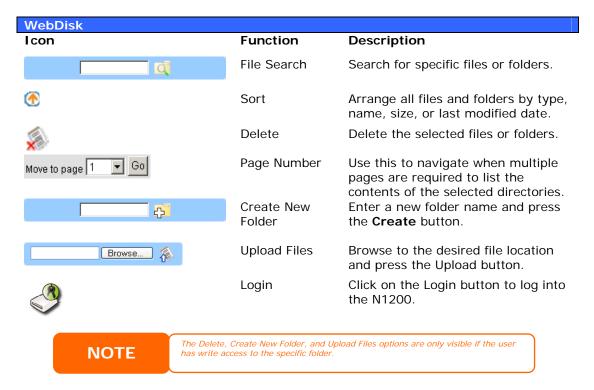
On the left of the interface is the **Main Menu**, where you can easy access the **WebDisk**, **Music**, and **Gallery** functions of the N1200. Along the top of the interface, you to choose to browse all storage devices connected to the N1200, including SATA and eSATA hard disks, USB disks, and contents stored from the USB One-Button Copy function.



Web User Inter	Web User Interface		
Item		Description	
WebDisk		Click to use the WebDisk function.	
Music		Click to use the Music function.	
Gallery		Click the Rescan button to have the N1200 for new contents in the selected media folder.	
Home		Click to return to the N1200 Login page.	
Login		Click to login to the N1200.	

Using WebDisk

- 1. When any user clicks on the **WebDisk** icon, they will see all available public folders.
- 2. When they click on the name of a public folder, they will see the files within that folder.
- 3. When user clicks on a file name, the file will be downloaded.

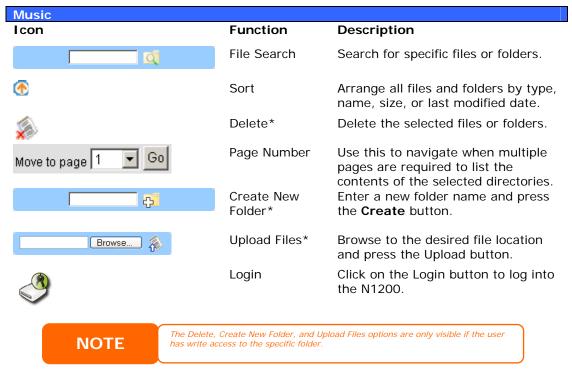


For more information on how to setup user rights to the folders, please check Chapter 3: Folder Management > Folder Access Control List (ACL)

To access folders with access control, you must first login with a local user account. To log in, please click on the **Login** icon on the lower left hand corner.

Using iTunes® Server

To manage your digital music and share it with iTunes clients on the network, click on the **Music** icon from the left panel.



You can use the WebDisk function to manage your digital music, or you can manage through SMB/CIFS (see SMB/CIFS Setup section).

Adding Music Files

You could add music files into iTunes Server through Web User Interface; however, if you have lots of folders and files to upload, there is a simpler way.

- 1. Open a Windows Explorer and type the N1200 IP address in the address bar (i.e. \\192.168.1.100).
- 2. Double click the *Music* folder to enter it. Then drag and drop music folders and files here.
- 3. The N1200 iTunes server will take some time to cache the ID3 tag of every file. Once the process is done, you will see all the music files from iTunes clients.

Playing Music Files

Once your music files are added to the N1200, playing them on any iTunes-equipped computer connected to the network is easy:

- 1. Open iTunes.
- 2. You should see **Thecus_N1200** under the **SHARED** heading in the left hand menu.
- 3. Click **Thecus_N1200** and all shared music will be displayed, ready to be enjoyed right from iTunes.

Using Photo Gallery

Using the Photo Gallery, users can view and share photos, and even create their own albums right on the N1200. To manage your photo gallery or see other photo albums, click on the *Photos* icon from the left panel.

You will see your own Photo Gallery and all public Photo Albums on the network. To manage any picture files,



you must first select the item by clicking its check box.

Managing Albums and Photos

Photo			
Icon	Function	Description	
Cover	Make Cover	Make selected photo your cover picture.	
<u> </u>	Add	Add a new album or photos.	
. <u></u>	Edit	Edit the name and description of the selected album or photo. Each name is limited to 20 characters and each description is limited to 255 characters.	
<u>.x.</u>	Delete	Delete the selected albums or photos.	
		ly logged in users will see these icons. prevent system errors, the N1200 sets the following limitations on photo is:	
		 Each file upload is limited to a size of 4MB. Files exceeding 4MB wlll NOT be uploaded and no error message will appear. Only these photo file types will be uploaded: *.jpg, *.gif, *.bmp, *.png, *.pcx, *.psd, *.bmp. If duplicate file names exist during upload process, system will add a number in front of the original file name (abc → 1abc). 	

Creating Albums

To create a photo album, follow the steps below:

- 1. Click the *Add* button to create a new album.
- 2. Enter a name for the album, and enter a description if you wish. Then, click on the *Create Album* button.

Password Protecting Albums

If you would like to put a password on a particular album, follow these steps:

1. Select the album to be protected, click on the *Edit* button, and the *Album Edit* screen will appear.

2. The owner of the album can enter an album password to protect the album, so that only people with the correct password can view the album.

Uploading Pictures to Albums

Uploading pictures to albums using the Web User Interface is easy:

- 1. When the album is created, click the album icon to enter the album. Initially the album is empty.
- 2. Click the *Add* button to upload pictures into the album. The **Upload Photos** screen will appear. Users can select and upload up to 8 pictures at a time.
- 3. Once the picture is uploaded, you can view it in the album.
- 4. The owner of the album can delete or modify the pictures with the **Delete** or **Modify** buttons on the top right hand corner.

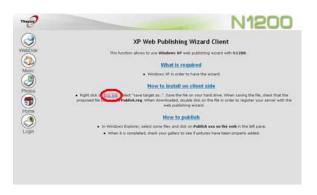
Windows XP Publishing Wizard

There are many ways for a local user to upload pictures into their photo album. Users of Windows XP can upload their pictures using the Windows XP Publishing Wizard.

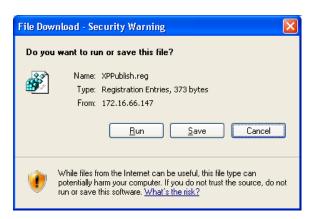
1. Click on the XP Publishing Wizard icon.



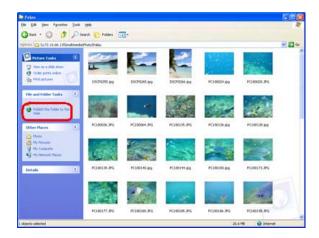
2. The **XP Web Publishing Wizard Client** screen appears. Click on the link to install the Publishing Wizard.



3. Windows XP will ask whether you want to run or save this file. Click *Run*.



4. Once the Wizard is installed, use the Windows file manager to browse the folder that contains the picture you want to publish. On the left pane, there will be an icon labeled "**Publish this folder to the Web**".



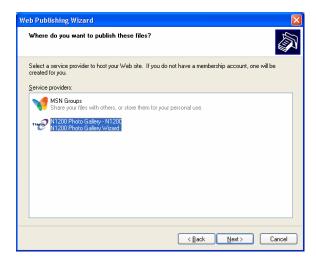
5. Click on this icon and Web Publishing Wizard will start.



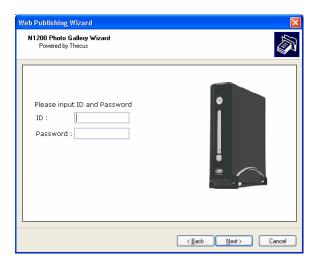
6. Select the pictures you want to publish to the Photo Web Server by placing a check mark on the top left hand corner of the picture. Click *Next*.



- 7. Your PC will start to connect to the Photo Web Server.
- 8. Select **N1200 Photo Gallery Wizard** to publish your pictures to the N1200.



9. Login into the N1200 with your local user name and password.



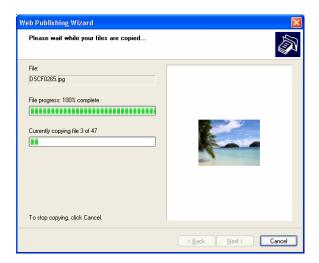
10. Create your album by entering an album name and clicking on the **Create Album** button.



- 11. Select the album you want to upload your pictures to.
- 12. Confirm the target album.



13. Windows will show you that the picture upload is in progress.



14. When the upload is finished, the Wizard will ask you whether if you want to go to the website. Click *Finish* to go to your Photo Web Server.



15. Click on the user's icon to go to that user's album.



16. You will see the user's album list. Click on **MyAlbum**.



17. Finished! You will see the pictures just selected in the album.



EXIF Information

While viewing pictures, you can also have the N1200 display the EXIF information for each photo.



Simply click the EXIF button to display EXIF information. To hide this information, click the EXIF button again.

Slide Shows

Slide shows are a great way to enjoy pictures stored on your N1200.

You can click on the *Start Slide Show* icon on the top right hand corner to start the slide show.



To stop the slide show, click on the *Stop Slide Show* icon on the top right hand corner.



File Backup

There are a number of ways to back up your data to your N1200.

Thecus Backup Utility

The Thecus Backup Utility is on your Installation CD. When you click on the CD, the Backup Utility will be installed under **Program Groups** > **Thecus** > **Thecus** Backup Utility. If it is not installed, you can copy the file (**Thecus Backup** Utility.exe) to a convenient location on your hard disk and double click to execute it.



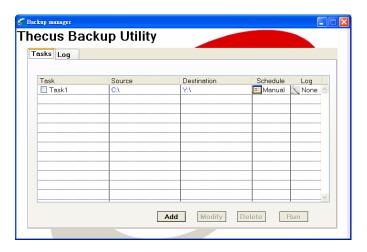
When you execute this utility for the first time, it will ask you whether to create a DB file. Click Yes.

1. Click *Add* to create a Backup task. The **Add New Task** dialog box appears.



Add New Task		
Item	Description	
Task	Specifies a name for the current task.	
Source	Click to specify the source folder/file location.	
Incremental	Click to specify whether the backup will be incremental.	
	If unchecked, the backup will be a full backup.	
Destination	Click to specify the destination folder/file location.	
Excluded extensions	Files with these file name extensions will be skipped and not	
	back up to the destination.	
Comments	If you wish, enter comments here for your records.	

2. To schedule the task to run at regular intervals, click on the *Schedule* icon for that task. You can schedule the task to run **Monthly** or **Weekly**.



3. To check the log for that task, click on the *Log* icon for that task.



Windows XP Data Backup

If you use Windows XP Professional, you can also use the Windows Backup Utility (Ntbackup.exe) to backup your files.

If you use Windows XP Home Edition, follow these steps to install the utility:

- 1. Insert the Windows XP CD into a drive and double-click the *CD* icon in **My** Computer.
- 2. When the Welcome to Microsoft Windows XP screen appears, click **Perform Additional Tasks**.
- 3. Click Browse this CD.
- 4. In Windows Explorer, navigate to *ValueAdd > Msft > Ntbackup*.
- 5. Double-click *Ntbackup.msi* to install the backup utility.

Once installed, you can use the Windows Backup Utility by following the steps below:

1. Click *Start*, and point to *All Programs* > *Accessories* > *System Tools* > *Backup* to start the wizard.



- 2. Click *Next* to skip past the opening page. Choose **Backup files and settings** from the second page, and then click *Next*.
- 3. Select which option you want to back up.
- 4. Click **Next** and in the Backup Type, Destination, and Name page, specify a back up location using the **Browse** button.
- 5. Find and select the drive that specifies your N1200 as your backup destination and click *Next*.
- 6. Click **Next** to display the wizard's final page and click **Finish** to start backing up.

Apple OS X Backup Utilities

Mac OS X does not include any backup software. However, there are a number of backup solutions available for the Mac OS X, including: iBackup, Psyncx, iMSafe, Rsyncx, Folder Synchronizer X, Tri-BACKUP, Impression, Intego Personal Backup, SilverKeeper, and Apple's dotMac Backup utility to name just a few. To find even more freeware and shareware backup utilities to choose from, go to VersionTracker or MacUpdate and search on "backup".

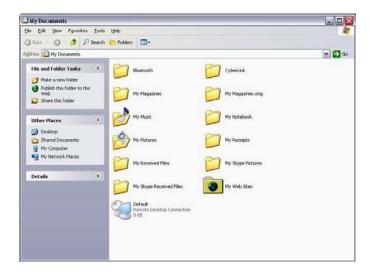
Chapter 6: Tips and Tricks

Mapping a Client PC to the N1200

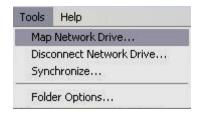
You can map share folders on the N1200 so that you can access them as if they were drives on your computer. You can connect to the shared network folders on the N1200 as follows:

Windows

1. Go to the **My Computer** folder in Windows.



2. In the menu bar, select Tools and then Map Network Drive...



3. The Map Network Drive window appears.

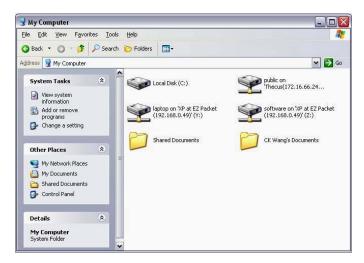


4. Assign a drive letter for the share folder.

- 5. Click the *Browse* button to find the folder over your network. Alternatively, you may enter the folder name you wish to connect to or enter its IP address. (i.e. \\192.168.1.100\share)
- 6. Click *Finish*. When the **Connect As...** window appears, enter a user name and password.



7. Click **OK**. The share folder appears as the drive you assigned. You can now access this folder as though it were a drive on your computer.



Apple OS X

On an Apple computer, you can connect to shared computers and servers using a network address.

1. Choose Go > Connect to Server...



2. Enter the network address for the server in the Server Address text box.



When connecting using SMB/CIFS protocol, type:

smb://192.168.1.100/Folder1

When connecting using AFP protocol, type:

afp://192.168.1.100/Folder1

Click Connect.

3. When MAC OS X is trying to connect N1200, it will ask for a User Name and Password which has access to the folder.



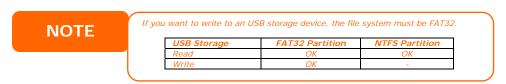
4. When MAC OS X has connected to the N1200 successfully, an icon representing the folder will appear on the MAC OS X desktop. You can access the folder by double clicking on the icon.



USB and eSATA Storage Expansion

The N1200 supports external USB hard disks through its two USB ports. Once a USB hard disk has been successfully mounted, users can access the files on the USB hard disk under the **USBHDD** folder. The N1200 supports up to 6 USB external storage devices. All file names on the USB disk volume are case sensitive.

Before attaching a USB disk drive to N1200, you have to partition and format it on a desktop computer or a notebook first. The attached device will be located at $\192.168.1.100\usbhdd\usb1\1$ where 192.168.1.100 means the IP address of N1200, usb1 stands for the first USB device, and 1 stands for the first partition on disk #1, the USB disk drive. If it is an NTFS partition, NAS users can open or copy files from $\192.168.1.100\usbhdd\usb1\1$ but cannot add new files or modify existing files.



The N1200 also supports eSATA hard disks with its eSATA port. To connect an eSATA hard disk, follow the steps below:

- 1. Power off the N1200 by holding down the power button for three seconds. The power off sequence will begin, and the N1200 will power off.
- 2. Plug the eSATA hard disk to the eSATA port on the N1200.
- 3. Power on the N1200 and login under the administrator account to enter the Web Administration Interface.
- 4. From the Web Administrator Interface, format the eSATA hard disk by navigating to **Storage** > **eSATA** and clicking the *Format* button.
- 5. Once formatted, the eSATA hard disk will be made available in a folder named eSATAHDD.



Remote Administration

You can set up your N1200 for remote administration. With remote administration, you can access your N1200 over the Internet, even if your N1200 is behind a router. This is especially useful if you are traveling and suddenly need a file from your N1200.

Setting up remote administration is a three-part process, and will require the following equipment:

- Thecus N1200 NAS device
- Cable/DSL Router with Dynamic DNS support
- Home PC
- Internet Connection

NOTE

Part I - Setup a DynDNS Account

- 1. Go to http://www.dyndns.org from your home PC.
- 2. Click on the **Sign Up Now** link.
- 3. Check the Check boxes, select a user name (i.e.: N1200), enter your email address (i.e.: xxx@example.com), check *Enable Wildcard*, and create a password (i.e.: xxxx).
- 4. Wait for an email from www.dyndns.org.
- 5. Open the email and click on the link to activate your account

Part II - Enable DDNS on the Router

- 1. Go to the router setup screen and select *IP Config > Miscellaneous DDNS Setting* from your Home PC.
- 2. Click on Yes for Enable the DDNS Client?
- 3. Select www.dyndns.org.
- 4. Go to router setup screen, and enter the following information:
 - a. User Name or E-mail Address: xxx@example.com
 - b. Password or DDNS Key: xxxx
 - c. Host Name: www.n1200.dyndns.org
 - d. Enable wildcard? Select Yes
 - e. Update Manually: Click Update

Part III - Setting up Virtual Servers (HTTPS)

- 1. Navigate to **NAT Setting** > **Virtual Server**.
- 2. For Enable Virtual Server?, select Yes
- 3. Setup the HTTPS Server
 - a. Well-Known Applications: Select User Defined
 - b. Local IP: Enter 192.168.1.100
 - c. **Port Range**: 443 (the default HTTPS port setting on the N1200)
 - d. Protocol: select TCP
 - e. Click Add.
 - f. Click Apply.
- 4. Test the HTTPS connection from another computer on the Internet
 - a. From a remote computer, open your browser and enter https://www.n1200.dyndns.org
 - b. You should see the login page of N1200.

Firewall Software Configuration

If you are using a software firewall (i.e. Norton Internet Security) and are having trouble connecting to the N1200, you can try the following steps:

- 1. Double click the **NIS** icon on system tray, and then configure the **Personal Firewall**.
- 2. On the **Programs** page, find the **SetupWizard.exe** and change its permission to "Permit All". If it's not in the program list, use the **Add** or **Program Scan** buttons to find it.
- 3. On the **Networking** page, manually add N1200 IP address (i.e. 192.168.1.100) to the **Trusted** list.

Chapter 7: Troubleshooting Guide

N1200 Won't Turn On

In the event that the N1200 won't turn on, check to see that the power cable is correctly plugged in to the N1200. Also check to see if the electrical outlet is functioning.

Resetting NAS IP Address and Admin Password (Forgot My Password)

To reset the N1200, first make sure that the unit is powered off. With the unit powered off, press and hold the reset button. With the reset button held down, power on the system by pressing the power button. You will hear the unit beep once when you turn it on, do not release the reset button until you hear the unit beep again. After that, the N1200's WAN IP address will be reset to 192.168.1.100 temporarily. Please note that all file services at this time will be stopped.

1. Point your browser to 192.168.1.100, you will see the following screen:



Make sure that your PC is on the same IP segment as your N1200, i.e. 192.168.1.XXX when you are accessing the N1200 after a reset to factory default.

2. If you select **Reset to Factory Default** option, the system will be reset. Below are the default system settings:

Admin password → admin
WAN IP address → 192.168.1.100
WAN IP Gateway → 192.168.1.1
WAN Jumbo Frame Support → Off
LAN IP → 192.168.2.254
LAN Jumbo Frame Support → Off
HTTP Port → 80
HTTPS port → 443

File System Check Utility

Powered off the unit first. With the unit powered off, press and hold the reset button. With the reset button held down, power on the system by pressing the power button. You will hear the unit beep once when you turn it on, do not release the reset button until you hear the unit beep again. After that, the N1200's WAN IP address will be reset to 192.168.1.100 temporarily. Please note that all file services at this time will be stopped.

1. Point your browser to 192.168.1.100, you will see the following screen:



- 2. If you select "Run file system check" option, the file system check utility will be started, and last 20 lines of the result will be displayed in your browser.
- 3. When the file system check is finished, the result will be displayed in your browser.

Forgot My Network IP Address

If you forget your network IP address and have no physical access to the system, you can use the setup wizard to retrieve the IP of your N1200.

- 1. Start the Setup Wizard, and it will automatically detect all Thecus IP storage products on your network.
- 2. You should be able to find the IP address of the N1200 which you have forgotten in the **Device Discovery** screen.

Can't Access N1200 from the LAN

If you cannot access the N1200 from the LAN, make sure that its network cable is correctly plugged in. Also, check to see if the N1200's WAN and LAN settings are configured correctly.

Can't Map a Network Drive in Windows XP

You may have problems mapping a network drive under the following conditions:

- 1. The network folder is currently mapped using a different user name and password. To connect using a different user name and password, first disconnect any existing mappings to this network share.
- 2. The mapped network drive could not be created because the following error has occurred: Multiple connections to a server or shared resource by the same user, using more than one user name, are not allowed. Disconnect all previous connections to the server or shared resource and try again.

To check out existing network connections, type net use under the DOS prompt.

N1200 Chassis Feels Hot

The N1200 uses its chassis to dissipate heat, and feeling warm to the touch is completely normal. As such, make sure that the N1200 is left in a well-ventilated area to avoid overheating the unit.

Restoring Factory Defaults

From the **System** menu, choose the *Factory Default* item and **the Reset to** Factory Default screen appears. Press *Apply* to reset the N1200 to factory default settings.

WARNING

Resetting to factory defaults will not erase the data stored in the hard disks, but WILL revert all the settings to the factory default values.

Problems with Time and Date Settings

The administrator is able to select an NTP Server to keep the N1200's time synchronized. However, if the N1200 can not access the Internet, you may encounter a problem when setting the Time and Time Zone. If this happens:

- 1. Login to the Web Administration Interface.
- 2. Navigate to **System** > **Time**.
- 3. Under NTP Server, select No.
- 4. Set the **Date**, **Time**, and **Time Zone**.
- 5. Click Apply.

In addition, if the N1200 is able to access the Internet and you want to keep the NTP Server clock.isc.org by default, please make sure the DNS Server is correctly, thereby allowing the NTP Server name to correctly resolve. (See **Network** > **WAN** > **DNS Server**)

Simple Problem Diagnosis Procedure

This procedure is meant to provide a simple and quick way to identify which part of the N1200 has failed.

1. Don't insert a hard disk into the N1200. Attach the power cord and then reset the IP address and admin password to the default settings by doing the following:

- a) Make sure that the unit is powered off. With the unit powered off, press and hold the reset button. With the reset button held down, power on the system by pressing the power button. You will hear the unit beep once when you turn it on, do not release the reset button until you hear the unit beep again.. (The Reset button is near the LAN connector)
- b) This resets the N1200 to its default IP address and password settings.

Default IP: 192.168.1.100Default admin password: admin

- 2. Attach the power cord and connect the LAN cable between the N1200 and a PC. Don't use a hub.
- 3. Turn on the N1200 and check the front panel. The **Power LED** should glow blue after power button is pressed. Then, the **Busy LED** starts blinking orange for around 60 seconds. After that, the **Busy LED** turns off. If the Busy LED keeps blinking orange for more than 3 minutes, the firmware may be corrupted during improper firmware upgrade procedures. It means that the motherboard has malfunctioned and needs to be repaired.
- 4. Set the IP address of the PC as 192.168.1.111, and then access the **Login** page. Make sure the N1200 and the PC is directly connected through a LAN cable, and not through a hub or a router.
- 5. Check if the Web Administration Interface shows up and works fine. Then, check if the system status is normal and the HDD Power LED works fine. If the results are positive, it means that the N1200 is functioning normally. Otherwise, the N1200 may be damaged.
- 6. Suppose that the N1200 has been damaged. If the **Power LED** glows blue and both system and power fans work fine after power button pressed, the motherboard needs to be checked and repaired. Otherwise, the power supply unit has problems.

Appendix A: Product Specifications

Hardware Specifications

Core Processors / Memory		
Processor	Freescale MPC 8347	
Memory	Onboard DDR SDRAM	
Network Interfaces		
WAN	1 x 10/100/1000 Mbps Ethernet Port	
LAN	4 x 10/100 Mbps Ethernet Switch	
Wireless (optional)	IEEE 802.11b/g (using approved mini PCI cards or USB Dongles)	
Storage		
HDD Bay	1 x 3.5" SATA HDD or 1 x 2.5" SATA HDD	
HDD Capacity	80/120/160/200/250/300/400/500/750GB	
·	(HDDs larger than 750GB will be verified upon availability)	
eSATA	1 x eSATA port for easy storage expansion	
IO Interfaces		
USB	2 x USB 2.0 port (1 front; 1 back)	
System Information		
LED Indicators	Power LED, Status LED, Network LED x 2, HDD LED, USB LED	
Buzzer	System warning	
Physical		
Width	45 mm	
Height	181 mm	
Depth	160 mm	
Security	Kensington Security Slot	
Power Supply		
External Adaptor	AC 100 ~ 240 Volt, 50/60 Hz, 3A	
Environment		
Temperature	5C to 40 C	
Humidity	0 ~ 80 % R.H. Non-condensing	

Software Specifications

Network	
Configuration	Fixed IP Address, Dynamic IP Address
Transport Protocol	TCP/IP, Apple Talk
Network File Protocols	SMB/CIFS, AFP, FTP, HTTP/HTTPS
Device Discovery	UPnP, Thecus Setup Wizard (for MS Windows, and MAC OS X)
DHCP Server	Assigning IP address on switch ports
Multimedia Support	
Media Server	Supports DLNA1.0 compatible digital media adapter. Supported File Types: MPEG, RMP, WPL, PLS, M3U, ASX, WAV, PNG, BMP, AVI, WMV, WMA, MP3, LPCM, JPEG
iTunes Server	Supported File Types: AAC, MP3, WAV
Photo Web Server	Supported File Types: GIF, JPG (JPEG), BMP, PNG
User Authentication	
Local User	Supports built-in user accounts
Local Group	Supports built-in user groups
File System	
File System Type	Journaling File System
File Size Supported	Support File Size over 20GB
Language Support	Unicode Support
Authorization	Read, Write or Deny options on individual users or groups
Administration	
Web-based	Multilingual Support
Administration	English, French, German, Italian, Traditional Chinese, Simplified Chinese, Japanese
Setup Wizard	MS Windows, MAC OS X Discovery utility program
Email notification	Send the system messages via Email to specified Email accounts

Backup		
	Thecus Backup Program	MS Windows, MAC OS file backup program
Miscellaneous		
	Print Server	Network printing through Internet Printing Protocol (IPP)
	Download Manager	Support BT, FTP, HTTP schedule download
	One-touch USB copy	Back up files from digital cameras, USB disks, pen drives

Appendix B: Mini PCI card installation

For the installation of mini PCI wireless cards, please follow the following procedure:

- 1. Remove the cover of N1200.
- 2. Remove five screws on the PCB.



3. Lift up the PCB from the LED side for abour 15 degrees.



4. Slide out the PCB



- 5. disconnect the fan
- 6. Install the mini PCI card



7. Connect the fan

8. Put the PCB back in with the same tilt



9. Lower the PCB



10. Put back the hard disk tray (with harddisk), secure the five screws

Appendix C: Customer Support

If your N1200 is not working properly, we encourage you to check out **Chapter 7: Troubleshooting Guide**, located in this manual. You can also try to ensure that you are using the latest firmware version for your N1200. Thecus is committed to providing free firmware upgrades to our customers. Our newest firmware is available on our Download Center:

http://www.thecus.com/download.php

If you are still experiencing problems with your N1200, or require a Return Merchandise Authorization (RMA), feel free to contact technical support via our Technical Support Website:

http://www.thecus.com/support_tech.php

Customers in the US should send all technical support enquiries to this email address:

support-us@thecus.com

If you would rather receive support over the phone, you can contact Thecus FAE Support at:

+886-2-26981788

Please note that our headquarters are in Taipei, Taiwan, and our office hours are Monday to Friday, 9:00 to 17:00.

For Sales Information you can e-mail us at:

sales@thecus.com

Thank you for choosing Thecus!



Appendix D: Licensing Information

Overview

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