# **Network USB Storage Link**

**NUS1000** 

**Users Manual** 

V. 2.3

**∠**cirago

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#### **Forward**

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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. Cirago International Limited reserves the right to modify the contents of this manual without notice.

# **Limited Warranty**

Cirago International Limited guarantees all components of Cirago NUS1000 are thoroughly tested before they leave the factory and should function normally under general usage. In case of any system malfunctions, Cirago International Limited 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. Cirago International Limited 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.

# 1. Introduction

Thank you for purchasing the Cirago Network USB Storage Link NUS1000. This device enables sharing files with users in your network easily. Simply insert your USB storage into the NUS1000, connect the device to your network, configure some basic settings, and you are ready to share your files on your NUS1000.

The NUS1000 has a simple and clear web interface enabling easy setup and configuration.

#### **Main Features**

- Convert any USB storage device into a Network Attached Storage device
- Share music libraries using the built-in iTunes server
- Stream photos, music and movies to compatible entertainment devices using UPnP protocol
- Download directly to connected USB devices using the built-in BitTorrent client
- Access printers over a network connection using the built-in Print Server
- Setup and administration is easy though the web interface
- Supports multiple user accounts and permission levels
- Small size and low power consumption

#### **Package Contents**

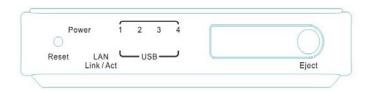
- NUS1000 Storage Link
- Users Manual
- Power Adaptor
- Ethernet Cable

#### **Quick Notes**

Default Login Information: Username: admin Password: 000000

# 2. Hardware & Installation

#### **The Front Panel**



Display

Power: Indicates the power is on

LAN: ON - network connected to switch / hub

Blink - indicates live network activity.

USB 1-4: On when a USB device plugged into the corresponding ports. They also

act as status indicators:

Power Up > USB 3 ON (12 sec) > USB 4 ON (10 sec) > OFF (15 sec) >

USB 1-4 Blink twice

**Buttons** 

Reset: Protected button to reset the system to default parameters in order to

recover the unit, activate only in the power up diagnostic stage for the 10 seconds the USB 4 LED is on. If the reset is accepted, all USB LEDs will flash for a second, then you can release the button and the system will

boot up with factory default settings.

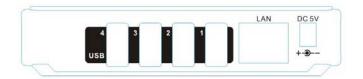
Eject: In order to safely unplug the USB storage, hold down the Eject button for

1 second and wait until all USB LEDs are off and then unplug the USB device. Alternatively, you can eject a connected USB storage through the web interface. In the TOOLS menu, select "Unplug" and then select

the device you wish to unplug.

After the USB device is removed, you can push this button again (1 sec) to resume the operation of the remaining connected USB devices.

## The Back Panel



DC Power Jack: Socket for DC Power Plug 5V, 2A

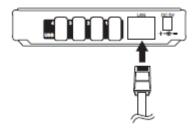
LAN Port : Standard RJ45 10/100 Ethernet socket

USB 1-4 Socket: USB type A connectors

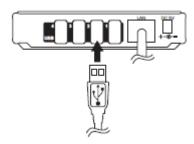
### Installation

Please follow the following steps to install your NUS1000.

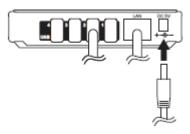
Step 1. Connect the Ethernet cable to the network switch and USB NAS



Step 2. Connect the USB device to the NUS1000



Step 3. Connect the power adaptor



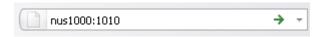
Step 4. The LED lights on the front panel will light up



# 3. Web Configuration

The NUS1000 has a built-in web interface for easy setup and configuration.

 In PC, use web browser such as IE, Firefox, Chrome or Safari, type in <a href="http://NUS1000:1010">http://NUS1000:1010</a>, where "NUS1000" is the factory default name. The name given to the NUS1000 can be changed from the setup menu. If the name is changed, please use the new name to access it.



2. If your computer's UPnP is enabled you can search your Network Neighborhood for the NUS1000.



Then click the UPnP device icon to enter the configuration page of the device.

- Using Apple Mac computer, with Safari, you just type <a href="http://nus1000.local:1010">http://nus1000.local:1010</a> to enter the admin page.
- If you still cannot connect, reset the unit to factory default settings and setup your PC on the same IP subnet, ie. 192.168.1.xxx, the default IP address for the NUS1000 is 192.168.1.66. Use a browser to go to <a href="http://192.168.1.66:1010">http://192.168.1.66:1010</a>.
- A window will pop up asking for login information. Please enter the default Username as "admin" and Password as "000000"



After entering the login information, the web interface for the NUS1000 will be displayed.



- Configuring the settings of the NUS1000 can be done from the Tools menu. Select Storage Tools to view and format any connected USB devices.
- 8. A partition information table will be displayed

#### Storage Tools This page shows the status of all valid partitions of attached storage. Any unformatted space of attached storage will not be displayed here. Partition Information Port Partition Access Size Free Format Format To Operation 1 1 54.0M 53.1M FAT32 fat32 🕶 Format rw 3 13.9G 12.8G EXT2 fat32 💌 Format 30.8G 26.3G FAT32 fat32 🗸 rw Format 45.5G NTFS fat32 💌 2 45.4G Format Refresh

- Format the partition the drives to FAT32 or EXT2 for read-write access or NTFS for read only access. If a partition has been formatted in a format other than FAT32, EXT2 or NTFS, it will be shown as "UNDEF".
- 10. Rebooting the system after you have formatted a new partition is recommended.

 Alternatively, you can access the Web Admin through your iPhone or iPad. Just start the Safari browser and type <a href="nus1000.local:1010">nus1000.local:1010</a>, you can enter the admin by entering the "admin" user and password



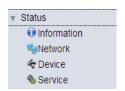


# 4. Detailed Functions

The Admin page has the left menu showing the selection. Clicking that row or the triangle in front of the menu item, the list will expand to have display the sub-menu.

### 4.1. Status

Select STATUS from menu on the left.





#### Information

This page displays the general information of the hardware setup and the specific server information as shown below.

#### Information



#### Network

This page displays network information, including gateway and DNS information.

#### **Network Information**

IP Address	192.168.0.145
Subnet Mask	255.255.255.0
Gateway	192.168.0.1
Primary DNS	208.67.220.220
Secondary DNS	156.154.70.1

#### **Device**

This page displays the USB devices that are connected to the NUS1000.

#### **Device Connected**



#### Service

This page shows the services that are currently enabled or disabled.

#### Services Status



## 4.2. Setup

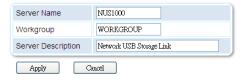
Select SETUP from the menu on the left to configure the settings of the NUS1000 and shows the submenu.



#### Server

This page shows the name of the NUS1000 so that you can access the unit in the Windows network by its name instead of using the IP address that may be changed if you are using DHCP (IP address distribution). The default name is "NUS1000". If there are multiple units attached to the same network, we recommend that you assign a different name to each unit so as to avoid confusion.

#### Server Settings

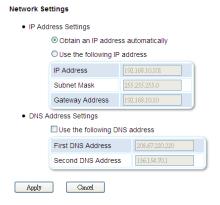


In order to be recognized by its name in the Windows network, the NUS1000 and PC must have the same workgroup name.

#### Network

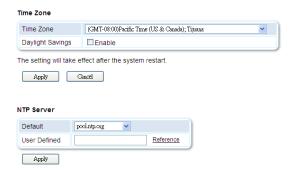
This page allows users to configure the network connection. The default is DHCP that requires a DHCP server to assign an IP to the device. Usually, your router is also the DHCP server that is responsible to allocate the IP address to attached network devices such as your PC or devices like the NUS1000.

There is an option to define a fixed IP address. This is recommended for experienced users. Two default DNS servers are provided but should be changed to the DNS servers that your ISP recommends.



#### **Time Zone**

The NUS1000 uses the network time server to synchronize its clock. Select time zone and daylight savings options and hit Apply to save settings.



NOTE: You can choose from the two NTP servers provided or you can enter your specific NTP server name

NOTE: Reboot the device to permanently activate any changes made.

#### **Password**

The default administrator password is "000000". Changing this to an alphanumeric password is recommended.



#### Users

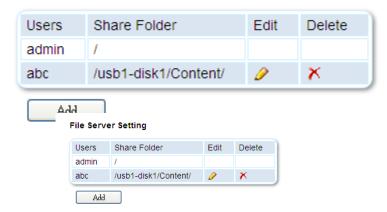
Add new users using this feature. Enter in a User Name and Password and click "Save" to continue. On the user list, click "edit" icon to modify the password or click "delete" icon to remove the user account from the list. Please note that the user list is applicable to the File Server and WebDAV server.



## 4.3. File Server

The NUS1000 is able to share connected USB storage devices as a File server for

### File Server Setting



Click "Add" to add existing user from user list and edit the corresponding path to have the access of the File Server



Each user allow to have the right to access single path, but it can be the "/" root path, the partitions "\usb1-disk1" or a folder.



#### Samba Access

You can access the File Server from your computer in 2 ways:

- . Enter Network Neighborhood
- . Click "Start" > "Run" > Open "\\nus1000" or "\\<ip address>"



#### WebDAV Access

WebDAV is based on the Http protocol. It requires special client to support the access but cannot use the general browser such as IE, Firefox or Safari to achieve this.

For example, Mac has the built-in client supporting WebDAV access. This is similar to access a website by typing the URL address such as <a href="http://<ipaddress">http://<ipaddress</a>

In Apple environment, you can make use of the bonjour to name the server on the LAN. You simply type

#### http://nus1000.local:9880

to connect to the NUS1000 WebDAV file server, you then enter the username and password according to the request. While the ".local" is the bonjour convention for the name of NUS1000 and the ":9880" is the tcp port number used for WebDAV.

#### 4.4. iTunes Server

This page allows you to setup a specific path that stores your music library that can be viewed and played by your iTunes program on your computer. By default, a directory path including all USB drives is selected. However it is recommended you setup the specific path to where you are storing your music files as this will improve the scanning time.



If the iTunes Server is running, the button on the left will show Rescan, otherwise it will show APPLY.

Open iTunes on your PC or Mac and the NUS1000 will be displayed under the SHARED tab. The music from storage devices attached to the NUS1000 will be displayed.



#### 4.5. Media Server

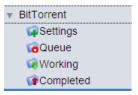
This page allows you to setup the path for the content directories for the Media Server. The Media Server services will scan the disk for the specific file types and associate to the category of Video, Music and Photo. Based on UPnP media streaming protocol, the Media Server can be found by other Digital Media Players on your local network.



By default, a directory path including all USB drives is selected. However, we recommend using the 3 directory paths to group the content in order to improve the performance of the NUS1000 while scanning media files.

### 4.6. BitTorrent Client

This page is used to configure the unit to use BitTorrent technology to download files from the Internet. After a file is downloaded, it can be transferred to a computer either by network file sharing or connecting the USB storage device to your computer. The seed will undergo different stage until the data is downloaded.



#### Settings

Select Enable for BT Download and then select the path for the download file. Click "Apply" to save your settings.



#### Queue

On the BitTorrent -> Queue page, BT seeds can be added. Browse to where the torrent files are located on your local computer, select it, and then click on "Add". The torrent seed will be queued up in the list. If there is a download slot available, the queued torrent will automatically download and be displayed on the "Working" list.



In the torrents queue list, you can click the "Top" or "Delete" icons to move up the torrent so as to prioritize the downloading sequence or to remove the torrents respectively.

#### Working

The list of current downloads are displayed in this page. The device allows up to a maximum of 4 active downloads at a time. For each torrent, you can see the information and status of the torrents. At the right side of each torrent row, there are round buttons for "pause/resume" and "delete". Click to highlight the desired torrent and then click on the button to carry out the function.

#### **Torrent Status**



After the content has been downloaded, the device will automatically move the content to the subdirectory "Finished" under the Download Directory and the torrent will automatically be removed. The finished downloaded list can be seen under the "Completed" page under BitTorrent submenu. You can manually clear the list or when you select a new Download directory, the list will reset.

#### Completed

The completed download torrents will list here as shown.

#### **Completed Downloads**



# 4.7. Tools

All the utilities are grouped under the TOOLS menu.



#### Unplug

This allows users to safely unplug a connected USB device. Unlike the physical Unplug / Resume button located on the front panel, the Unplug feature in the web interface can select which USB device to unplug.

#### 

We recommend using the web interface to unplug any USB devices. This will prevent loss of any data or processes that are in progress on storage devices that are still connected to the NUS1000.

#### **Storage Tools**

This tool allows you to view the partitions and format the storage devices in each USB port. The device supports read/write format for FAT32 or EXT2. The device can read NTFS but it cannot write or format a device to NTFS. To format an attached hard disk, select the desired format from the pull down menu and click on "Format".

Please note that formatting a connected hard drive will erase all the data that is on it. Please make sure to back up any important files before formatting your hard drive.

#### Storage Tools

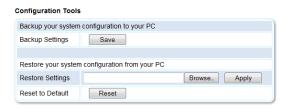
This page shows the status of all valid partitions of attached storage. Any unformatted space of attached storage will not be displayed here.

#### Partition Information Port Partition Access Free Size Format Format To Operation 1 54.0M 53.1M FAT32 Format 1 rw fat32 🕶 13.9G 12.8G EXT2 fat32 🕶 Format rw 30.8G 26.3G FAT32 fat32 💌 Format 2 45.5G 45.4G NTFS fat32 💌 Format Refresh

NOTE: The device can format an entire uninitialized hard disk. It cannot create multiple partitions. It can however format multiple partitions if they have already been allocated before connecting them to the NUS1000. Using EXT2 formatted disks on a Windows PC may need the installation of additional software on the PC, such as "EXT2FSD" (http://www.ext2fsd.com/)

#### **Configure Tools**

Click on the SAVE button to backup your NUS1000 settings. You can use this saved file to restore your configuration at a later time. The configuration can also be reset to the factory default setting by clicking the Reset button.



#### **Firmware**

This tool allows you to upgrade the firmware of the NUS1000. Click on Browse to select the firmware file to upload, and then click on Upgrade. The system will prompt you to confirm the upgrade. Please note that the system will reset to factory default settings after the upgrade, so it is advisable to backup your configuration and restore it after any firmware upgrades. However if there are new features in the new firmware, you can modify them and then re-save your configuration.

# 

#### 4.8. Shutdown

You can either shutdown or reboot the NUS1000 from this menu.

- a. Shutdown: Select the Shutdown button to turn off the NUS1000.
- b. Reboot: Select the Reboot button to restart the NUS1000.



## 5. Administration with iOS devices

The NUS1000 can also be managed via iPhone or iPad. In iPhone, Open the Safari, type : http://nus1000.local:1010

The management flow is similar to that of the Web UI, except some functions are not applicable with iPhone, such as file related function of the BT, the configuration save or restore and the image upgrade, those are recommended to handle with your desktop computer.



Information

00:13:3B:0C:2A:9E

System Time

Firmware Version

Work Group

#### 1. Status

Click the Status will go one level down



#### 2. Setup



Change server name and description







#### 3. Server

There are configuration page for services



File sharing, assign different folder path for different users, the default user "admin" has the "/" path that can access all drives attached.







ITunes and media Store setup page allow you to enter the folder path for those iTunes music or media directory. Once set, you player can access them.

#### 4. Tools





These section has most different with the Web UI, this only allow to unplug the USB drive and shows the detail of the storage information. Those configuration and firmware upgrade are omitted.

#### 5. Shutdown

Select either to shutdown (when you want to power-off the unit) or reboot the unit.



## 6. Printer Installation

The NUS1000 can act as USB Print Server. Following are instructions on how to install the printer on different operating systems.

#### 1. Windows XP

From the Start menu, go to Printer & Fax, then select Add Printer, the wizard will start. Select local printer and unselect the option of "automatically detect and install my Plug and Play printer". Click Next



Select "Create a new port" and select the port type "Standard TCP/IP Port". Click "Next".



In the "Add Standard TCP/IP Printer Wizard" window, enter the IP address of the printer port. Enter the name of the device as "NUS1000" or if the name of the device was changed during setup, enter the new name assigned to it. If you chose to enter a fixed IP address in the network setup, enter an IP address.

Click "Next" to continue.

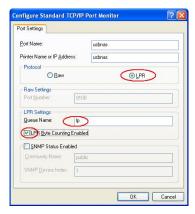


Select the "Custom" option and click on "Settings"



The wizard will lead you to the page "Configure Standard TCP/IP Port Monitor". Select the "LPR" in the "Protocol" box.

In the LRP Setting box, enter a name for Queue Name, such as "Ip" as an example and click to enable the "LPR byte counting".



Click "OK", then "Next" to complete the setup. Then the wizard will prompt you to select the printer driver to associate with this TCP printer port. Choose the printer model accordingly.



Print a test page to assure the setup is correct.

#### 2. Windows 7

The setup steps in Windows 7 are similar to Windows XP Control Panel -> Hardware and Sound. Further select "Devices and Printers". Click "Add a printer" in top menu bar.



In the Add Printer Box, select to "Add a local printer". Click "Next".



Then in the Add Printer Box, select "Create a new port" and choose the "type of port" as "Standard TCP/IP Port" as shown.

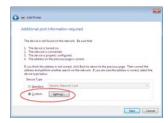


Click "Next" to continue. You will be prompted to enter the IP address for the device. Enter the name of the device "NUS1000" or if the name of the device was changed during setup, enter the new name assigned to it. If you chose to enter a fixed IP address in the network setup, enter an IP address.



Select the "Query the printer and automatically select the driver to use"

Click "Next" to continue. Under Device, choose "Custom" and click "Settings".



The system will then prompt you to setup the TCP/IP Port Monitor. In the "Protocol" box, choose "LPR", enter the queue name as "Ip" and enable "LRP byte counting".



Click "OK" to continue. You will be prompted to select your printer.

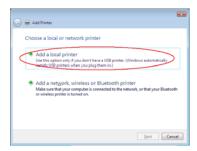


Enter a printer name and print a test page to ensure successful printer setup.

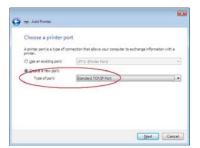
#### 3. Windows Vista

The setup steps in Windows Vista is similar to XP

Enter Control Panel -> Printer
Right click and select "Add Printer"
In the Add Printer Box, select to add "Local
Printer", click "Next"

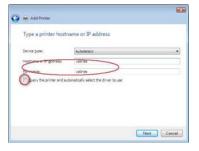


Then in the Add Printer Box, select "Create a new port" and choose the "type of port" as "Standard TCP/IP Port" as shown.



Click "Next" to continue. You will be prompted to enter the IP address for the device. Enter the name of the device "NUS1000" or if the name of the device was changed during setup, enter the new name assigned to it. If you chose to enter a fixed IP address in the network setup, enter an IP address.

Select the "Query the printer and automatically select the driver to use"



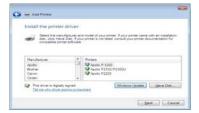
Click "Next" to continue. Under Device, choose "Custom" and click "Settings".



The system will then prompt you to setup the TCP/IP Port Monitor. In the "Protocol" box, choose "LPR", enter the queue name as "Ip" and enable "LRP byte counting".



Click "OK" to continue. You will be prompted to select your printer.



Enter a printer name and print a test page to ensure successful printer setup.

# 7. Usage Tips

#### 1 Hardware

- 1.1 We do not recommend connecting two units of a 2.5" USB Storage device subject to the limitation of the power adaptor and rating of the USB drives. You may need to insert the auxiliary USB power cord supplied with your USB drive.
- 1.2 Do not unplug the USB storage when the storage LEDs are flashing. Push the Eject button (for 1 sec at least) and wait until the USB LEDs are off. The more efficient way to unplug connected USB devices is to use the "Unplug" command in the Web Interface to select the individual USB port you wish to unplug.
- 1.3 Do not unplug the power. Use the "Shutdown" command in the web interface and wait until all USB LEDs are off. Alternatively, you can use the "Eject" button and unplug the power after all USB LED off.

#### 2 Web Interface

2.1 Remember to add the ":1010" after the name or IP address of the NUS1000 to enter the web interface. The default port 80 is reserved for the WebDAV server access.

### 3 Naming of NUS box,

The server name of NUS box is broadcast by NetBios in PC environment, so that you can connect to it by just using the server name NUS also support the Bonjour naming service used by Apple devices, the box can be access by using the server name, such as NUS1000.local They are more convenient than using the IP address.

#### 4 File Sharing

- 4.1 In specific user authorization mode, if you want a directory to be accessible by some users as read/write and other users as read only, create two folder names pointing to the same directory and assign different groups of users with different access rights.
- 4.2 The User list is stored in the device configuration, so it is saved when you save the system configuration under "Configure Tools".
- 4.3 Folder lists are associated with each drive, it only works with FAT32 disk not on NTFS

#### 5 iTunes Server

Though the default allows the scanning of all attached drives, it is recommended to limit the scope of the media files scanning by specifying the directory assignment.

#### 6 Media Server

6.1 Similar to iTunes Server, specifying the 3 directory entries to group the media files will improve the media file scanning performance.

#### 7 BT Download

- 7.1 Assign an existing directory destination to save your BT downloads. Make sure the drive is not removed from NUS1000 before the download is complete.
- 7.2 You can only have 5 torrent files on the list. Remember to remove the torrent file from the list. Otherwise, it cannot accept any new seed.
- 7.3 As the BT process has a characteristic of allocating file space, it will take time to finish before it can handle new seeding. It is recommended to add your torrent files from small to large in order to get the best response.

# 8. Specifications

### Hardware

Power	100 – 240 AC input, 5V, 2A DC output
	Typical 3W (not counting USB loads)
Weight	4.4 oz / 125 gm
Network	10 / 100M Fast Ethernet, RJ45
USB Ports	4 USB 2.0 host ports (type A connector)
USB Storage	Maximum capacity of 2 TB hard drive per USB port
LED Indicator	Power, LAN (Link & Activity), USB ports
Buttons	Reset & Eject

#### **Function**

File Storage	Samba
Storage Format	FAT32, EXT2 and NTFS (Read Only)
Print Server	LPR, supports one USB printer
Web Server	НТТР
iTunes	Auto-discovery
Media Server	UPnP, auto-discovery, DLNA compliant
BT Service	BitTorrent protocol, support DHT to enhance peer discovery

### Ports Used

Main Configuration	1010 TCP
WebDAV	80 TCP
BitTorrent	9091 TCP
iTunes	3689 TCP
Print Server	515 TCP

# 9. Contact Us

Please call or email us if you are having any trouble with the Cirago  $\,NUS\,1000.$ 

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