



User Manual

ShareCenter 2-Bay Network Storage Enclosure

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	August 28, 2012	• Initial release for Revision B1
1.10	September 17, 2014	• add power usage

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Power Usage

This device is an Energy Related Product (ErP) designed to be always on. It can be turned off through a power switch to save energy when it is not needed.

Switched Off: 0.37 watts

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Product Overview

SAFELY SHARE DIGITAL FILES LOCALLY AND OVER THE INTERNET

The D-Link DNS-320 2-Bay Network Storage, when used with internal SATA drives¹, enables you to share documents, files, and digital media such as music, photos, and video with everyone on the home or office network. Remotely accessing files through the Internet is also possible with the built-in FTP server. Whether you are allowing access locally or over the Internet, keep data safe by only giving rights to specific users or groups. When configuring the DNS-320, you can create users and groups and assign them to folders with either read or read/write permissions.

This is ideal for an office environment with employee-specific sensitive data or for the home where you can ensure your children will only have access to age appropriate material. The DNS-320 will be available to any computer (PC, MAC, or Linux-based) on your network, without the need to install any software on the computer.

STREAM DIGITAL MEDIA CONTENT TO UPnP AV COMPATIBLE MEDIA PLAYERS

Back up your music, photo, and video collections to the DNS-320 for safekeeping. Then, enjoy the benefits of the built-in UPnP AV media server as you stream digital content to compatible media players² (such as those found in D-Link's MediaLounge product line). This feature is highly convenient as it allows you to turn off a computer that would normally be needed for the same function.

PROTECTION, PERFORMANCE, AND FLEXIBILITY

The availability of four different hard drive modes (Standard, JBOD, RAID 0, RAID1) allows you to choose the configuration best suited to your needs. Standard mode creates two separately accessible hard drives. JBOD combines both drives in linear fashion for maximum space efficiency. RAID 0 combines both drives in a 'striped' configuration, which provides the highest performance when using a Gigabit Ethernet connection. RAID 1 causes the drives to mirror each other, providing maximum protection. If one drive fails while configured as RAID 1, the unaffected drive continues to function as a single drive until the failed drive is replaced. The new drive will then be re-mirrored, allowing the DNS-320 to return to its full protection.

¹ Hard Drive(s) not included.

² D-Link cannot guarantee full compatibility or proper playback with all codecs. Playback capability depends on the codec support of the UPnP™ AV media player.

Before you Begin

- Check box contents
- Check system requirements
- Ensure that you have the hardware you need for your ShareCenter device

System Requirements

For best results, the following minimum requirements are recommended on any system used to configure and use the ShareCenter:

- Computer with: 1Ghz processor / 512MB RAM / 200MB available space / CD-ROM drive
- Internet Explorer® version 7, Mozilla® Firefox® 3, Google® Chrome 3, or Apple® Safari® 4 and above
- Windows® XP (with Service Pack 2), Windows Vista®, Windows® 7
- Mac OS® X 10.5.6 or greater
- 3.5" SATA Hard Drive(s)

Package Contents

- D-Link ShareCenter® DNS-320
- CD-ROM with Manual and Software
- Quick Installation Guide
- 12V/3A Output Power Adapter
- CAT5E Ethernet Cable



Features

The ShareCenter® DNS-320 is an easy to install data storage platform used for remote access through a local network or from the Internet. This ShareCenter® supports up to 2 SATA hard drives and includes the product features listed below:

- Equipped one 10/100/1000 Mbps auto-MDIX Gigabit Ethernet LAN port, 1000BASE-T support Half duplex and Full duplex mode
- Embedded two SATA II 3.5" HDD interface, support 3TB HDD
- 2-bay Serial ATA with RAID 0/1 and JBOD supported
- Equipped Ultra Cooler (Plastic housing + FAN speed control)
- Support Green Ethernet
- Support Smart FAN
- Support Real time clock (RTC)
- Network Options
 - DHCP Client or Static IP
 - NTP Client
 - Windows 7/ Vista x32/64 PnP-X/ LLTD
 - Dynamic DNS
 - Bonjour
 - UPnP Port Forwarding
 - IPv6*
- Network File Services
 - Supports Windows XP/ Vista/ 7, Mac OSX 10.5+, Linux clients
 - CIFS/SMB for Windows and Mac OS X
 - NFSv3 for Linux and UNIX
 - AFP3.3 for Mac OS X
 - HTTP and HTTP/S for web browsers
- File System
 - EXT4 for internal HDD
 - FAT32, NTFS for USB external Storage
- File System Management
 - Unicode Support for both Samba and FTP server
 - File sharing: Windows/ Mac/ Linux
- FTP server
 - FTP over explicit SSL/ TLS mode (FTPES)
 - FTP bandwidth and connection control
 - FTP support FXP
 - IP Blocking
- Download Management
 - HTTP/FTP schedule download
 - Peer to peer (P2P) downloader
- Disk Management
 - RAID: Standard, JBOD, 0,1
 - Raid 1 Auto/manual Rebuild
 - RAID migration: Normal to RAID 1
 - Disk Status Monitoring (S.M.A.R.T.)
 - HDD S.M.A.R.T test
 - Scandisk
 - Support Advanced Format HDD
- Power Management
 - Power Saving (Disk idle spin-down)
 - Schedule power on/off
 - Auto Power Recovery
 - Smart Fan Control
- Folder Management
 - Share Folder Level Permission
 - Public Folder

- Supports ISO Mount
- Remote File Sharing
 - Web File Server (My Files)
 - Allows user(s) to access files on the NAS using a web browser.
 - FTP Server
 - WebDAV
- User/Group Management
 - User/group assignment for Network sharing and FTP server
 - Quota for user and group
 - Users can assign to multiple Groups
 - Batch User Creation/ Import Users
- Backup Management
 - Schedule Backup from PC to NAS (D-Link ShareCenter Sync)
 - Apple Time Machine support
 - Local Backup
 - USB Backups (External storage and digital camera)
 - Remote network backup (Rsync, Remote Snapshot)
 - Cloud Backup (Amazon S3)
 - USB Copy Button
- System Management
 - Support D-Link Storage Utility
 - OS support: Windows XP, Vista, 7, and Mac OS X
 - Two access modes supported: Open mode and Account mode,
 - Support Configuration file save/load
 - System status
 - Email/ SMS notifications
 - Network Recycle bin
 - System/FTP Log (Syslog Client)
 - Resource Monitor
- USB port support:
 - External Storage device
 - Print server
 - UPS monitoring
 - MTP/PTP
- Media Streaming
 - UPnP AV server:
 - Supports PS3/Xbox 360
 - Supports UPnP AV file > 4 GB
 - Complies with DLNA HNv1.5
 - D-Link new Media Player (including Boxee) compatible
 - iTunes Server
- Supports Multilingual GUI
- Web Browsers Supported
 - Internet Explorer 7+
 - Mozilla Firefox 3+
 - Apple Safari 4+
 - Google Chrome3+
 - Opera 10+

Checking the Hardware Requirements

To use your DNS-320, you will need at least one hard drive. If you plan to use RAID 1, which protects your data against one hard drive failure, you will need two hard drives.

This section will help you:

- Select the hard drives
- Determine hard disk space you will need
- Ensure your data is protected
- Understand the basic requirements for a router or switch

Selecting Hard Drives:

You can use hard drives from any manufacturer and with any capacity with your DNS-320. The D-Link ShareCenter supports standard 3.5" internal SATA drives. If you are unsure, ask your administrator or hard drive retailer/manufacturer to verify that your hard drives meet this standard

***Warning - Any pre-existing data on the drives will be erased during installation.**

Determining How Much Hard Drive Space you Need:

In order to protect your data from hard drive failure, your DNS-320 requires more space than what you will use for your data, sometimes more than double the amount of space required.

Using a Router or Switch:

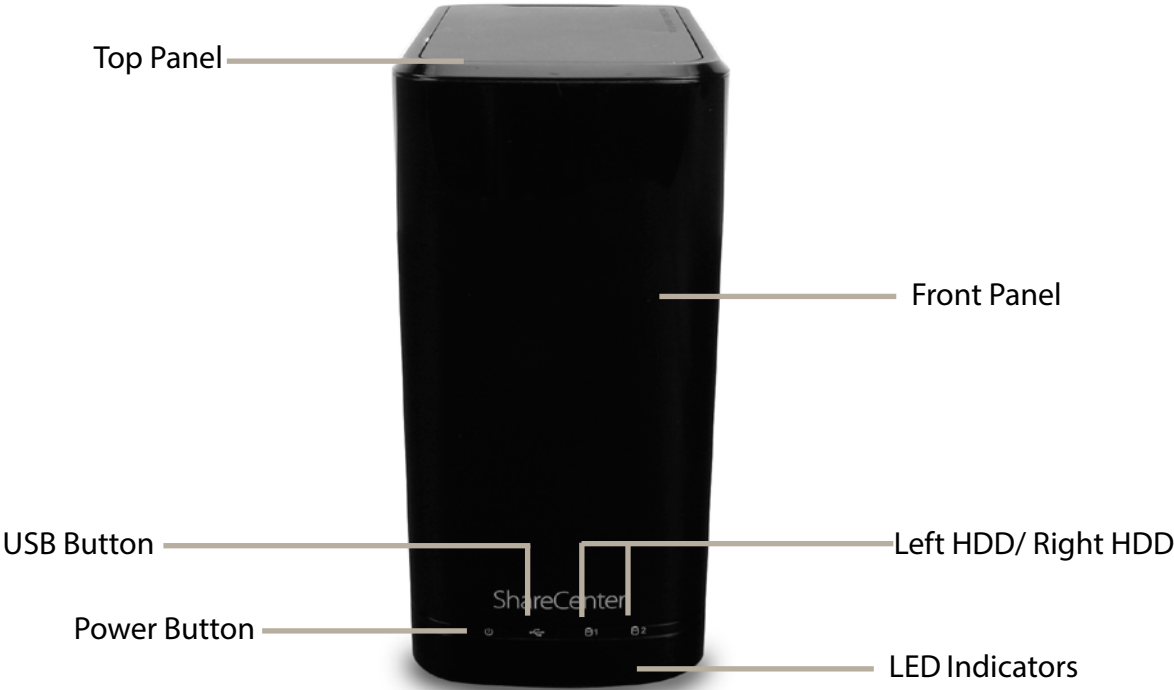
If you are connecting your ShareCenter to a router or switch, your router or switch needs to support Gigabit Ethernet (1000Mbit/s) for maximum performance. The ShareCenter will auto-negotiate the highest connection speed available to your router or switch. If you are using Port Bonding, use a managed switch.

Using an Uninterrupted Power Supply (UPS):

We highly recommend that you use your ShareCenter in conjunction with an uninterrupted power supply (UPS), which will protect against sudden loss in power and power surges.

Hardware Overview

Front Panel



COMPONENT	DESCRIPTION
Top Panel	This panel unlatches simply by pressing the lever at the back. Unhook and lift up to insert or remove your hard drive(s).
Front Panel	The casing of the entire NAS
Power Button	Press once to power on the ShareCenter. Press and hold the button to power it down.
USB Button	Press once to activate USB or press and hold to release USB activity.
Left HDD/ Right HDD	Indicates the position of the drive (Left or Right)
LED Indicators	Illuminates blue or red depending on activity (see the next page for details)

LED Description



Power On/Off:

Blue Light - the device is on
Blinking Blue - the device is booting or restarting
No Light - the device is off

USB On/Off:

Blue Light - the USB Storage is connected
Blinking Blue - transferring data, a USB device is being installed or unmounted
Orange Light - USB storage failed to mount
No Light - No USB Storage or the device is off

HDD On/Off:

Orange Light(s) - the hard drives are faulty
No Light(s) - the hard drives are inactive



HDD On/Off:

Blue Light(s) - the hard drives are working
Blinking Blue Light(s) - the HDD(s) is writing/reading

Rear Panel (Connections)



COMPONENT	DESCRIPTION
Cooling Fan	The cooling fan is used to cool the hard drives and features speed control. When the unit is first powered on, the fans rotate at a low speed and later rotate at a high speed when the temperature rises above 49 °C.
Gigabit Ethernet Ports	Use the Gigabit Ethernet port to connect the ShareCenter to the local network. The port is equipped with 2 LEDs. The LED on the right will illuminate solid green for a good connection and will blink during data transmission. If this LED is off, check the connection/cable to the device you are connecting to. The LED on the left will light solid for a Gigabit connection and will remain off when connected to a 10/100 device.
Power Receptacle	Connect the supplied power cord to the receptacle.
USB Port	A single USB 2.0 (Type A) connector. The USB Host port is for Print Servers, USB memory disks, or USB UPS monitoring.
Latch	Press the latch to release the Top Panel and insert or remove the hard drives
Security Lock	Prevent theft by tying a lock to the ShareCenter NAS and a desk

Bottom Panel



COMPONENT	DESCRIPTION
Product Details	Information about the product - DNS-320. Serial Number, Part Number, Manufacturer Number
Reset Button	Press and hold this button for more than 5 seconds to reset the unit to factory defaults.

Top Panel (Levers)



Pull the handles to disconnect the hard drive(s) from the SATA sockets.

Note: Remove the top cover before releasing the latches.

Getting Started

Hardware Setup

This User Guide will help you get your ShareCenter set up in just a few steps. To install the ShareCenter on your local network, refer to the steps below, or skip to page 16 to run the setup wizard which will show you how to install and configure your DNS-320.



Step 1 - Remove the top panel by firmly pressing the latch at the back.



Step 2 - Once the faceplate is unlatched, pull it off the device to expose the device's bays.

Note: Make sure to align the drive connector to the SATA connector at the back edge inside the drive bay of the ShareCenter. Gently push the drive in until it connects. When a drive is inserted properly, you will feel it “set” into the connector. Some hard drives that are thin or oddly shaped may need to be inserted carefully into position. If a drive is not properly set in place, the hard drive LED will not illuminate after powering on the device.



Step 3 - Attach the hard drive brackets to the sides of your hard drives with the included screws. Ensure the brackets are aligned so that when the hard drive is inserted, the arrow on the bracket points to the front of the ShareCenter.



Step 4 - Insert up to two 3.5" SATA hard drives into the drive bays.



Step 5 - Re-attach the top panel. Ensure the latch is inserted inside the panel.



Step 6 - Connect an Ethernet cable to the Ethernet port. This cable should connect the ShareCenter to your local network via a router, switch, or directly to a computer for configuration (cross-over cable required).



Step 7 - Connect the power adapter to the power receptacle.

D-Link Storage Utility

When first powered on, during the initial boot sequence, the ShareCenter will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, the ShareCenter will be automatically assigned a 169.254.xxx.xxx address. It is recommended that you use the included D-Link Storage Utility software when accessing and configuring the ShareCenter for the first time. If you want to change the IP address before logging in or you are having trouble connecting to the ShareCenter IP address, you can use the Storage Utility software included on the product CD to locate the device on your network and make any necessary changes.

Network Storage Device: The D-Link Storage Utility displays any ShareCenter devices it detects on the network here.

Refresh: Click **Refresh** to refresh the device list.

Configuration: Click **Configuration** to access the Web based configuration of the ShareCenter.

LAN: Configure the LAN Settings for the ShareCenter here.

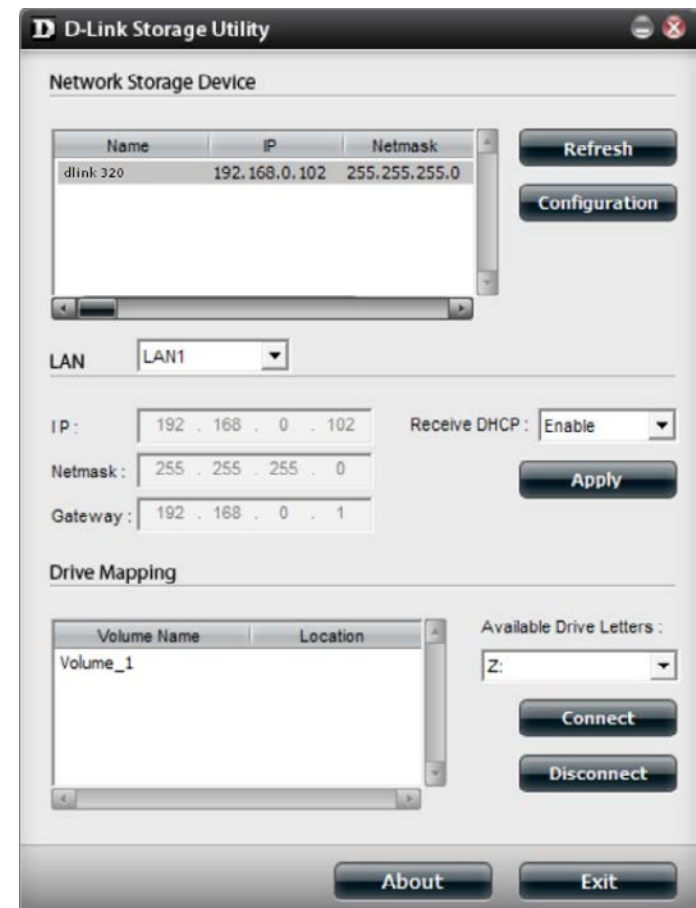
Apply: Click **Apply** to save changes to the LAN Settings.

Drive Mapping: Volumes available for mapping are displayed here.

Available Drive Letters: Choose an available drive letter. Click **Connect** to map the selected volume. Click **Disconnect** to disconnect the selected mapped volume.

About: Click **About** to view the software version of the Easy Search Utility.

Exit: Click **Exit** to close the utility.



Select the ShareCenter from the list and click the **Configuration** button. This will launch the computer's default web browser and direct it to the IP address listed for the device. Make sure the browser is not configured to use a proxy server.

Note: The computer used to access the ShareCenter web-based configuration manager must be on the same subnet as the ShareCenter. If your network is using a DHCP server and the computer receives IP settings from DHCP server, the ShareCenter will automatically be in the same subnet.



Installation Setup Wizard

To run the Setup Wizard, insert the ShareCenter CD into your CD-ROM drive.

Step 1 - When the autorun screen appears, click **Install**

Note: Windows Firewall presents you with a warning message to unblock the device. Click Unblock to give your computer access to the NAS.



Step 2 - Select the Language of your choice and then click the **Start** button.



Install the Hard Drives

Step 3 - Follow the instructions to remove the top cover of your ShareCenter.

Click **Next** to continue.



Step 4 - Attach the Hard Drives Bracket(s) to the side of the hard drives as indicated.

Click **Next** to continue.



Step 5 - Slide one, or two hard drive into an available hard drive bay of your ShareCenter.

Click **Next** to continue.



Connect to your Network

Step 6 - With the hard drives installed properly into each bay, close the chassis by re-attaching the top panel into place.

Click **Next** to continue.



Step 7 - Connect a CAT5 Ethernet cable to your ShareCenter and connect the other end to a switch or router (Local LAN).

Click **Next** to continue.



Power and Device Selection

Step 8 - Connect the power adapter connector to the power receptacle on the back of the ShareCenter. Then, power on the ShareCenter by pressing the power button located in the front panel.

Click **Next** to continue.



Step 9 - With the power on, press the **Next** button on the device and check and make sure the IP address of your ShareCenter matches what you see on the screen.

Note: Allow 1-2 minutes for the DNS-320 to be recognized.

Click **Next** to continue.



Admin Password

Step 10 - Enter the administrator password. If this is the first time you are doing the installation on this NAS, leave the password blank.

Click **Next** to continue.

The screenshot shows the 'D-Link ShareCenter Setup Wizard' window. On the left, a sidebar lists three steps: '1 Install NAS' (highlighted in blue), '2 Setup NAS', and '3 Complete'. The main area is titled 'Input The Admin Password' and contains the instruction: 'Enter your administrator account password in order to login to your NAS. For the first install, the password should be blank, but also the username should be "admin".' Below this, there are two input fields: 'Username:' with 'admin' entered, and 'Password:' which is empty. At the bottom, there are 'PREV' and 'NEXT' buttons. A copyright notice at the very bottom reads: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

Step 11 - In this step you can create a new password for the **Admin** username. It is recommended you set a password, however you may also leave the fields blank.

Click **Next** to continue.

The screenshot shows the 'D-Link ShareCenter Setup Wizard' window. On the left, a sidebar lists three steps: '1 Install NAS', '2 Setup NAS' (highlighted in blue), and '3 Complete'. The main area is titled 'Create A New Password For Your NAS' and contains the instruction: 'Create a new password to secure your NAS. You will need to use "admin" as the username and the new password you have created whenever you login to the GUI of your ShareCenter.' Below this, there are three input fields: 'Admin ID:' with 'admin' entered, 'Password:', and 'Confirm Password:'. A red note below the fields states: 'Note: Password must contain at least 5-16 characters.' At the bottom, there are 'PREV' and 'NEXT' buttons. A copyright notice at the very bottom reads: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

Networking Setup

Step 12 - You may either use Static IP or DHCP to configure the IP network settings of the ShareCenter. If you select Static IP, then enter the IP parameters as listed.

Click **Next** to continue.



The image shows a screenshot of the D-Link ShareCenter Setup Wizard. The window title is "D Setup Wizard". The D-Link logo is in the top left. The main title is "ShareCenter Setup Wizard". On the left, there is a vertical navigation bar with three steps: "1 Install NAS", "2 Setup NAS", and "3 Complete". Step 2 is highlighted. The main content area is titled "Configure Device LAN". Below the title, there is a note: "If you want to set an IP address for your ShareCenter please select 'Static IP' and enter the required information. Otherwise click NEXT." There are two radio buttons: "DHCP Client" (selected) and "Static IP". Below these, there are input fields for "IP Address:" (192.168.0.105), "Subnet Mask:" (255.255.255.0), "Gateway:" (192.168.0.1), "DNS1:" (empty), and "DNS2:" (172.19.10.100). At the bottom, there are "PREV" and "NEXT" buttons. A copyright notice at the very bottom reads: "Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved."

Device Information and Dynamic DNS

Step 13 - If you want your ShareCenter to be part of a Windows Workgroup network, enter the workgroup name, a name for the device, and a description. The name you entered will be used whenever you map one of the ShareCenter volumes as a Network Drive.

Click **Next** to continue.

The screenshot shows the 'ShareCenter Setup Wizard' window. On the left, a sidebar lists three steps: '1 Install NAS', '2 Setup NAS' (which is highlighted), and '3 Complete'. The main area is titled 'Configure Device Information'. It contains a paragraph explaining that users can customize the device name and description. Below this, there are three input fields: 'Workgroup:' with the value 'workgroup', 'Name:' with the value 'dlink-000002', and 'Description:' with the value 'DNS-320'. At the bottom, there are 'PREV' and 'NEXT' buttons. The footer contains the copyright notice: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

Step 14 - Click the **Yes** radio button if you already have a DDNS account to use for the ShareCenter DDNS. Click the **No** radio button and proceed to step 15 to obtain a new DDNS account.

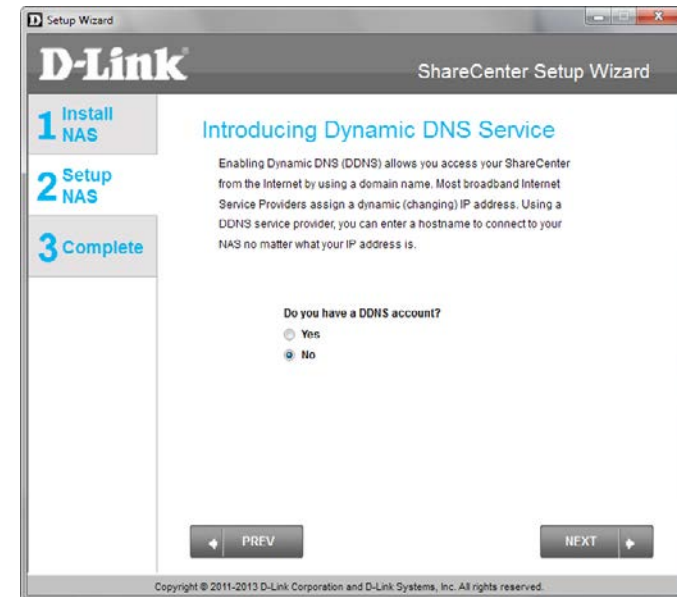
Click **Next** to continue.

The screenshot shows the 'ShareCenter Setup Wizard' window. On the left, a sidebar lists three steps: '1 Install NAS', '2 Setup NAS' (which is highlighted), and '3 Complete'. The main area is titled 'Introducing Dynamic DNS Service'. It contains a paragraph explaining that enabling Dynamic DNS (DDNS) allows access to the ShareCenter from the internet using a domain name. Below this, there is a question 'Do you have a DDNS account?' with two radio button options: 'Yes' (which is selected) and 'No'. At the bottom, there are 'PREV' and 'NEXT' buttons. The footer contains the copyright notice: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

Dynamic DNS Account Setup

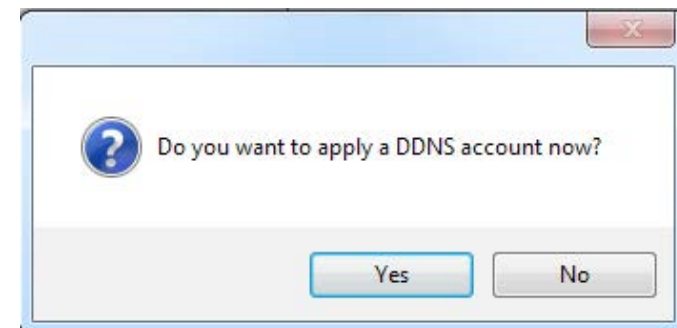
Step 15 - Enter the DDNS parameters requested in this window so that your ShareCenter can be accessed by a URL over the Internet.

Click **Next** to continue.



Step 16 - Click **Yes** to go to a Wizard with instructions and links on how to obtain a free DDNS account.

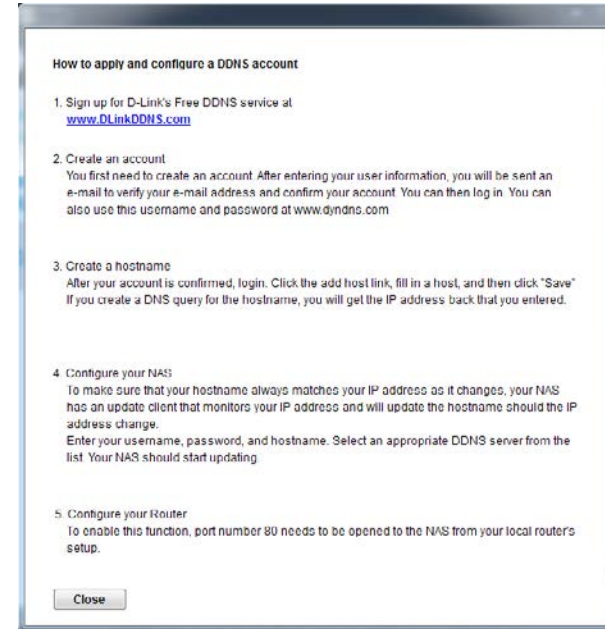
Click **No** skips the DDNS account setup wizard and transfers you back to the ShareCenter Setup Wizard.



DDNS Account and System Time

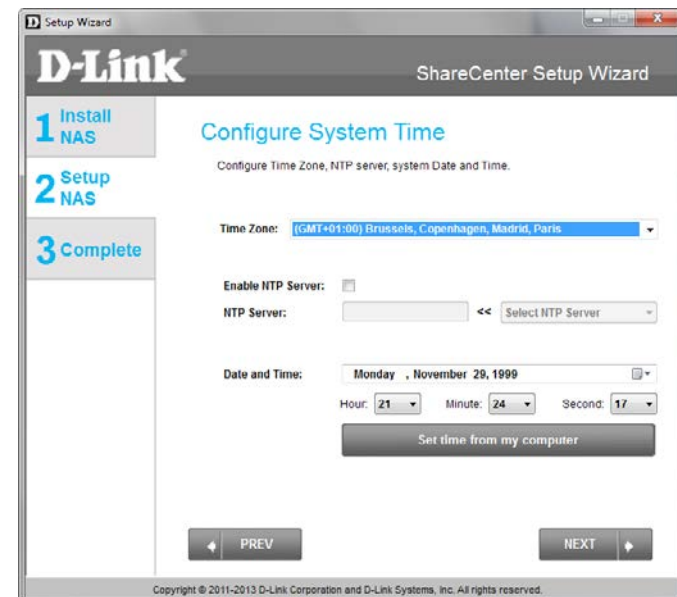
Step 17 - Follow the steps listed here in order to create a DDNS account and configure your LAN equipment and ShareCenter to work with the new settings.

Click **Close** to continue.



Step 18 - Select your time zone and then set the time and date. You can set the time and date manually, from an NTP server, or from your computer.

Click **Next** to continue.



Email Settings and Volume Information

Step 19 - You can configure messages to be sent alerting you to certain operational conditions and drive status conditions to your e-mail account. These alerts can prove helpful with the management and safeguarding of important data.

Enter your e-mail information and settings and then click **Next** to continue. If you do not want to configure your e-mail settings, click **Skip** to continue.

The screenshot shows the 'Configure E-mail Settings' window of the D-Link ShareCenter Setup Wizard. The left sidebar indicates the progress: 1 Install NAS, 2 Setup NAS, and 3 Complete. The main area contains the following fields and options:

- Login Method:** Radio buttons for 'Account' and 'Anonymous' (selected).
- Port:** A text box containing '25'.
- SMTP Server:** A text box.
- Sender E-mail:** A text box.
- Receiver E-mail:** A text box.
- Secure Connection:** A dropdown menu currently set to 'NONE'.

At the bottom right, there is a 'TEST E-MAIL' button. At the bottom left, there are navigation buttons: 'PREV' and 'NEXT' (with a right arrow), and a 'SKIP' button in the middle. The footer contains the copyright notice: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

Step 20 - This step is informational and shows any currently configured Volumes previously setup on the ShareCenter®.

Click **Next** to continue.

The screenshot shows the 'Disk Information' window of the D-Link ShareCenter Setup Wizard. The left sidebar shows the progress: 1 Install NAS, 2 Setup NAS, and 3 Complete. The main area displays:

- Current RAID Type:** A text box showing 'None'.

Below this, a note states: 'Note: If you would like to make advanced configuration changes to the Current RAID type shown above, login to the Share Center's Web UI using your browser (e.g. Internet Explorer); then click on the Disk Management icon located under the Management Tab to access the advanced disk settings.'

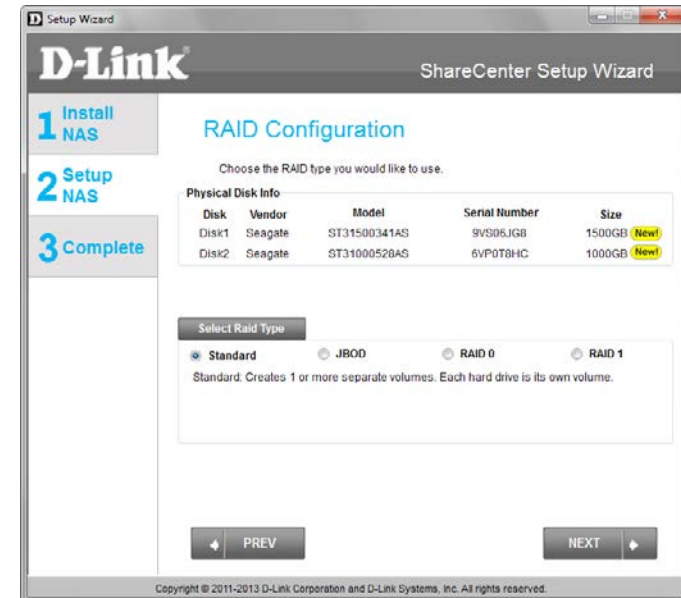
At the bottom, there are navigation buttons: 'PREV' and 'NEXT' (with a right arrow). The footer contains the copyright notice: 'Copyright © 2011-2013 D-Link Corporation and D-Link Systems, Inc. All rights reserved.'

RAID Configuration

Step 21 - Select one of the volume RAID types. Clicking on each RAID type radio button will display a description.

For more information concerning the different RAID Disk Formats please refer to the **Knowledge Base** section in this manual.

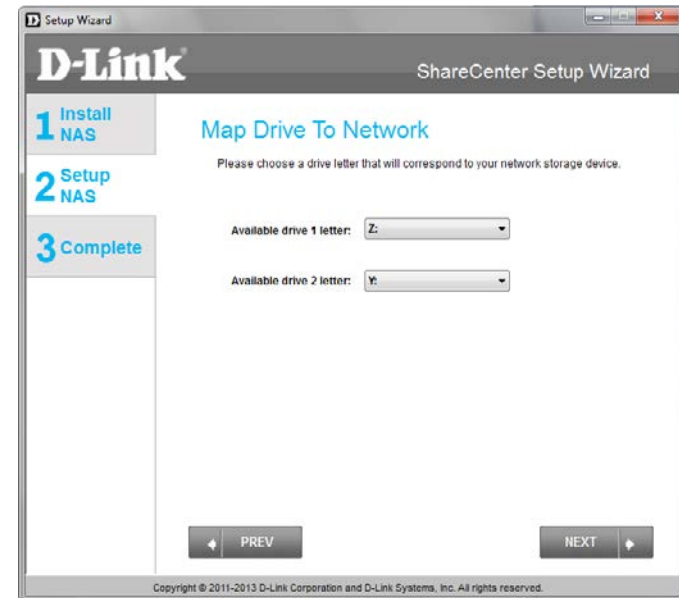
Click **Next** to continue.



Mapping a Drive and Checking Volume Summary

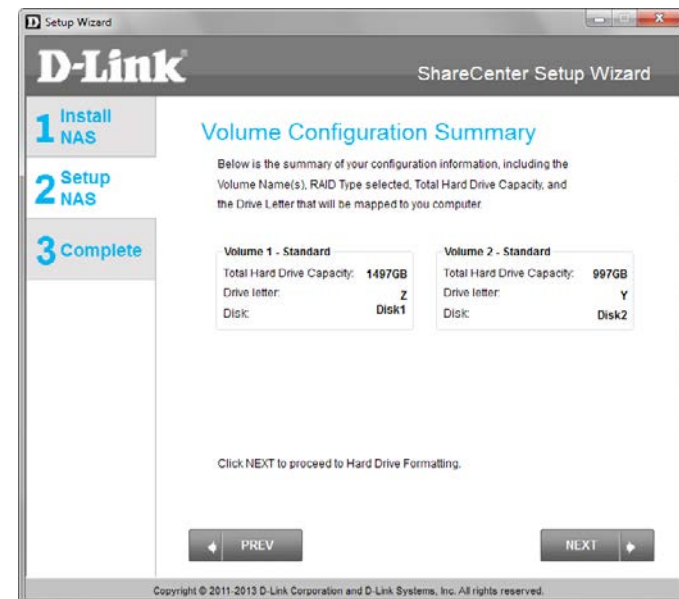
Step 22 - This step allows you to map the volume(s) created as network drive(s) on your computer.

Click **Next** to continue.



Step 23 - Review the detailed summary of your volume configuration here before clicking next and starting the drive format. If necessary use the **PREV** button to go back and reconfigure the RAID configuration of the volume(s).

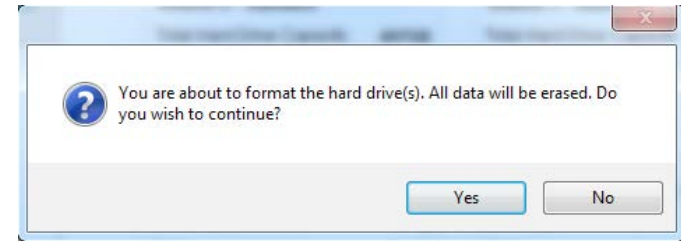
Click **Next** to continue.



Formatting Volumes

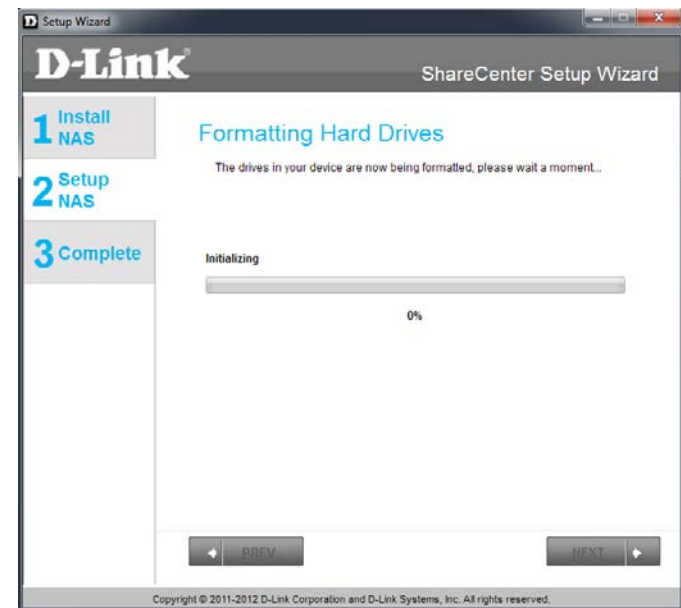
Step 24 - When you click **Next**, a warning message will appear to inform you that all data on the drive(s) will be lost. Click **Yes** to proceed or **No** to exit.

Click **Next** to continue.



Step 25 - During the formatting process the wizard displays a percentage complete bar for each hard drive.

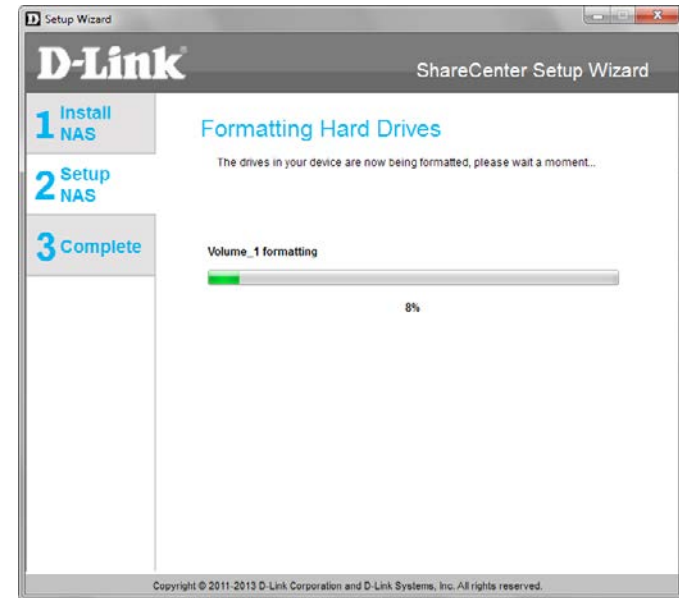
Click **Next** to continue.



Formatting Hard Drives

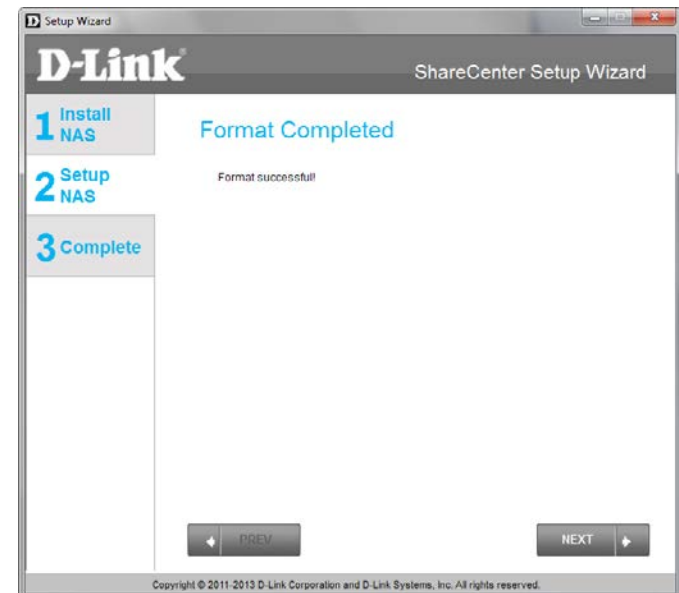
Step 26 - The wizard will notify you when formatting has completed successfully.

Click **Next** to continue.



Step 27 - The Format is complete.

Click **Next** to continue.

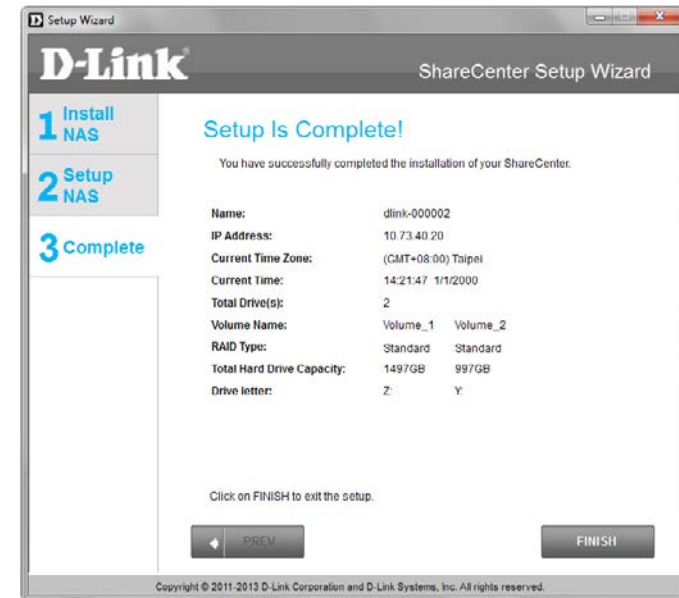


Wizard Complete

Step 28 - The ShareCenter Setup Wizard is complete. Click **Finish** to exit the wizard and start using your DNS-320.

Your ShareCenter is now installed and ready to use. If your drives are mapped using the wizard, you will be able to access them under your 'My Computer' icon.

If you did not use the wizard to map the drives, you can manually map or access the created volumes through your computers operating system. Detailed configurations using the Web UI is explained in the configuration section of this manual.

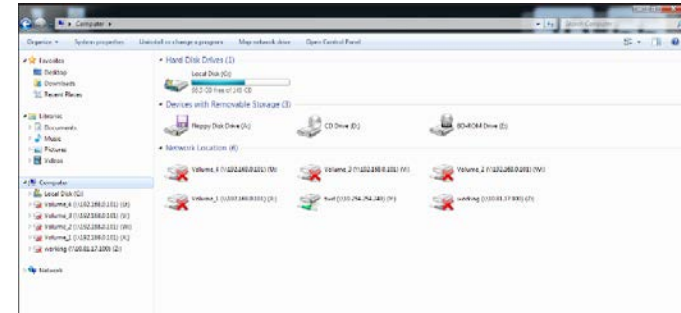


Mapping a Drive

Map a drive to your ShareCenter using Windows® 7 to access it through Windows® Explorer.

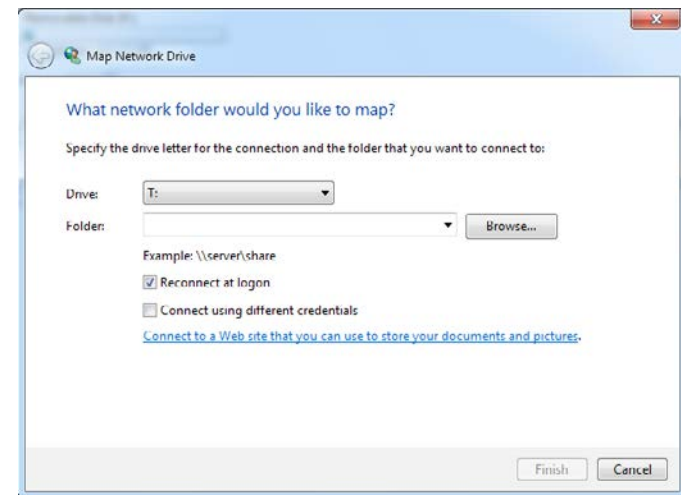
Step 1 - Click **Start**, then **Computer** (the name of your computer).

On the right-side panel is a list of your hard drives, removable storage, and network locations. If you do not have any network locations, this may be the first time you set up a network drive. Begin by clicking on **'Map network drive'**.

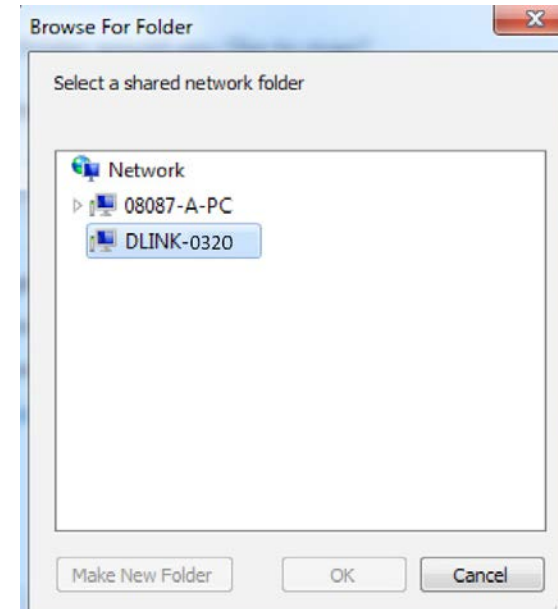


Step 2 - This screen shows some details on selecting a network drive.

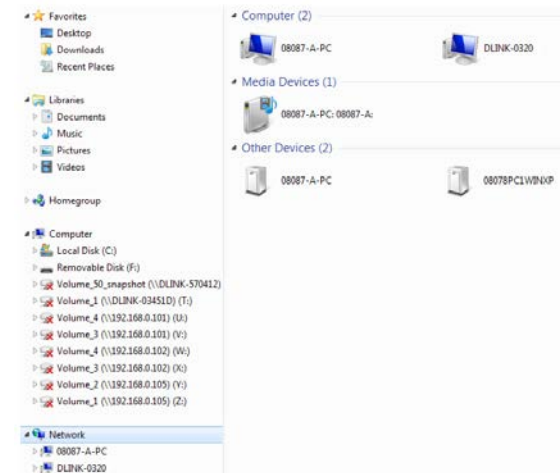
Click **Browse** to find your network.



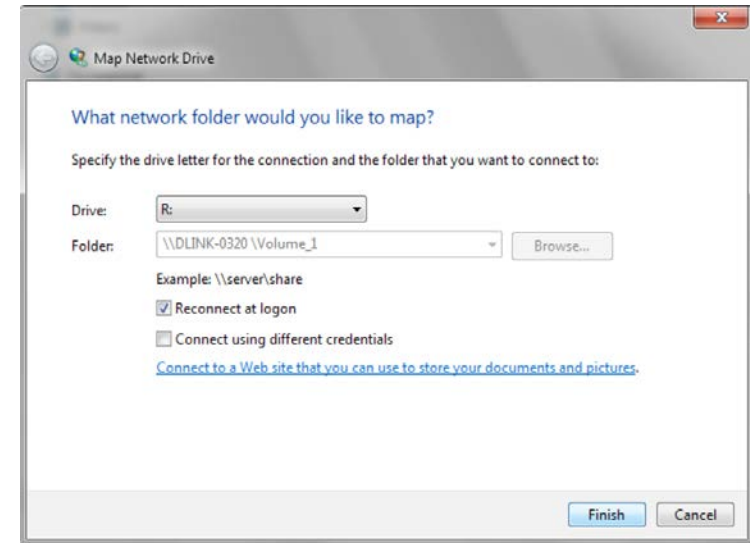
Step 3 - Windows will automatically detect all devices on your network including your ShareCenter.



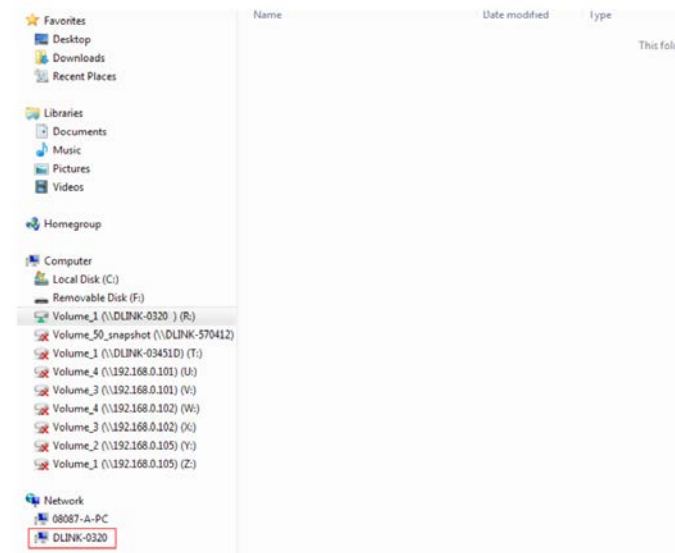
Step 4 - Click on your ShareCenter to see the volumes you created earlier. Then select the volume that you wish to access and click **OK**.



Step 5 - After selecting your volume, click **Finish** to proceed.



Step 6 - The drive will then appear in your Windows® Explorer under Network. This means the drive is active and ready for use.



Configuration

Managing your DNS-320

ShareCenter Web UI (User Interface) is a browser-based utility that allows you to manage and configure the different tools and services. The Web UI is divided into three main sections:

1. Home
2. Applications
3. Management

SECTION	OPTION	DESCRIPTION
Home - My Folder	My Files	Access files on your NAS via a web browser
	My Favorites Application	Add the favorite applications you use on a regular basis to the Home page

SECTION	OPTION	DESCRIPTION
Management	Setup Wizard	Step by step guide through password & time settings, connectivity, and device configuration
	Disk Management	Configures disk volumes, RAID, and performs disk diagnostics
	Account Management	Configures user and group management, network shares
	Network Management	Configures LAN, Dynamic DNS, and Port Forwarding
	Application Management	Configures FTP, UPnP, iTunes server configurations, AFP, and NFS services
	System Management	Configures language, time and date, device, and system settings. Also allows you to control power, notifications, view logs, do firmware upgrades, and manage USB devices.
	System Status	Displays system and hard drive information along with resource monitoring

SECTION	OPTION	DESCRIPTION
Applications	FTP/HTTP Downloads	Configure FTP and HTTP download settings
	Remote Backup	Configure remote backup services
	Local Backups	Configures local backups, Time Machine© settings, and USB backups
	P2P Downloads	Configure your P2P downloads and control your download schedules
	My Files	Access files on your NAS via a web browser
	Amazon S3	Create, modify, and delete your Amazon S3© settings

Web UI Login

To access the Web UI, open a web browser, type in the IP address of your ShareCenter, and log in. You can find the IP address of your NAS by pressing the **Next** button on the front of the DNS-320.

The following screen will appear:

Select **System Administrator** and enter the password created during the Setup Wizard. Click **Login**.

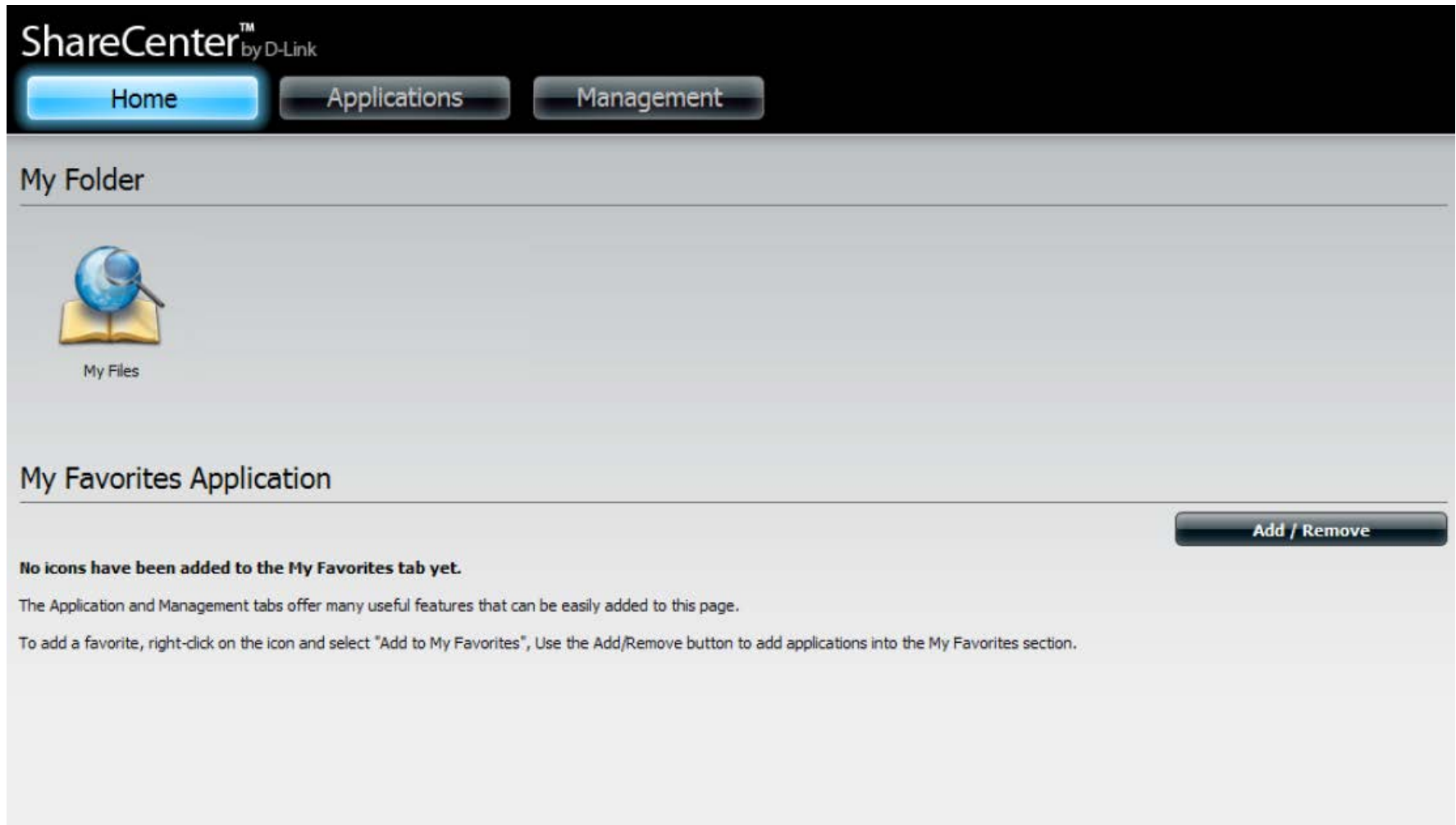
The image shows the ShareCenter web UI login page. At the top, there is a black header with the text "ShareCenter™ by D-Link" in white. Below the header, the word "Login" is displayed in a large, light gray font. In the center, there is a white login form with a gray border. The form has a title "Please Select Your Account:" followed by two radio button options: "System Administrator(Admin)" (which is selected) and "Others :". Below these options are two input fields for "Password:". At the bottom of the form, there are two checkboxes: "Remember Me" and "SSL Login". A dark gray "Login" button is located at the bottom right of the form.

Note: The computer used to access the ShareCenter web-based configuration manager must be on the same subnet as the ShareCenter. If your network is using a DHCP server and the computer receives IP settings from the DHCP, the ShareCenter® will automatically be in the same subnet.

Web UI General Layout

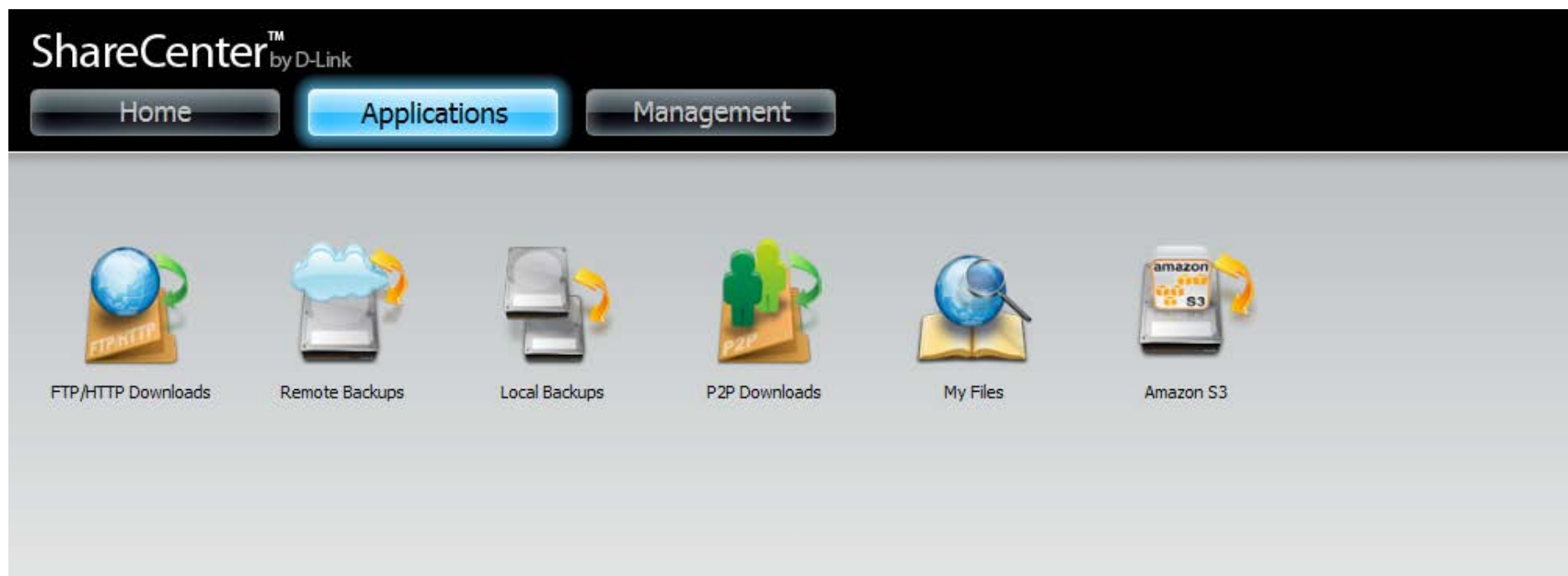
Home

After logging in, the ShareCenter 'Home' tab will appear. You will see the Applications and Management tabs alongside of it.



Applications

The Applications tab contains FTP/HTTP Downloads, Remote Backups, Local Backups, P2P Downloads, My Files, and Amazon S3 icons. Click on each icon to see the submenu.



Management

The Management tab contains the Setup Wizard, Disk Management, Account Management, Network Management, Application Management, System Management, and Status icons. Click on each icon to see the submenus.

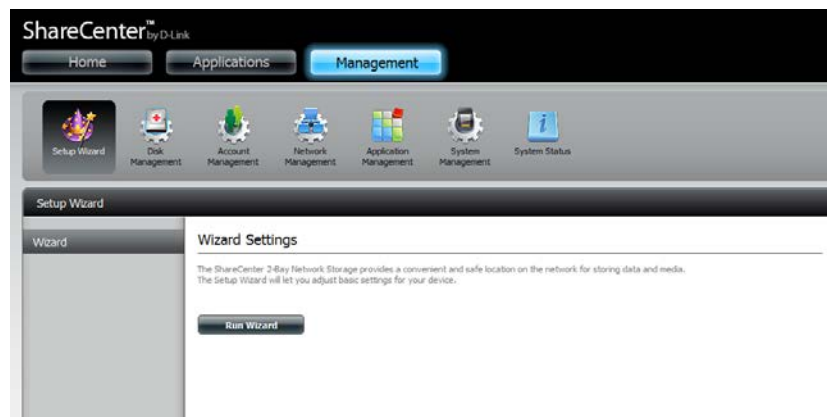


Management

Setup Wizard (Web UI)

The ShareCenter has a Setup Wizard that allows you to quickly configure some of the basic device settings. Click the **Setup Wizard** icon to start the Setup Wizard.

Step 1 - Click the **Run Wizard** button to start the setup wizard.




Step 2 - Click **Next** to continue.



Step 3 - Update the administrator account password here and confirm the password or leave it blank.

Click **Next** to continue.



Step 1: Set Password

You may change the admin account password by entering in a new password. Click **Next** to continue.

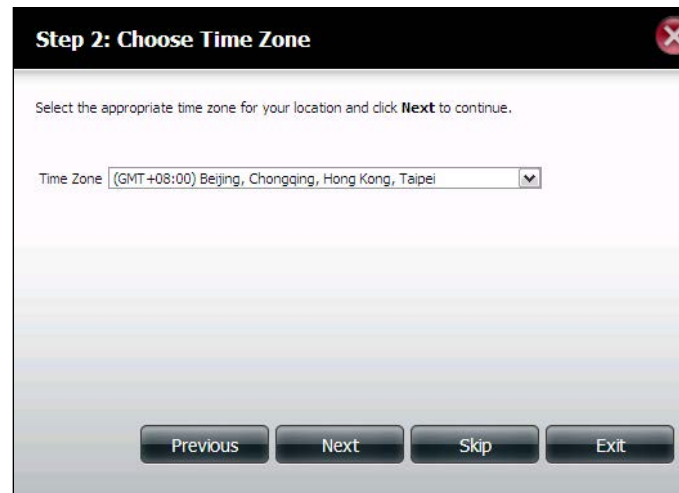
Password

Confirm Password

Previous Next Exit

Step 4 - Set the time zone from the drop-down menu to the appropriate geographical zone closest to your location.

Click **Next** to continue or click **Skip** to ignore these settings.



Step 2: Choose Time Zone

Select the appropriate time zone for your location and click **Next** to continue.

Time Zone

Previous Next Skip Exit

Step 5 - Select **DHCP** to obtain IP settings automatically from a DHCP server (router) or **Static** to assign the parameters below manually.

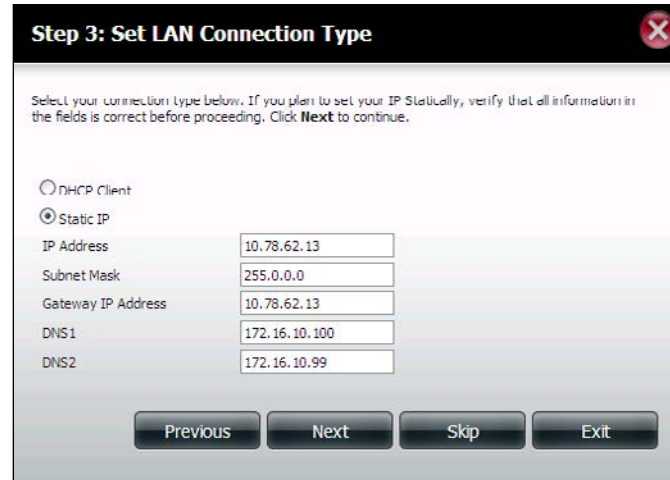
IP Address: Enter an IP address for the DNS-320.

Subnet Mask: Enter the subnet mask of your network.

Gateway IP Address: Enter the IP address of your gateway (usually the local IP of your router).

DNS Servers: Enter the IP address(es) of your DNS server(s). DNS1 is usually the IP address of your router.

Click **Next** to continue or click **Skip** to ignore these settings.



Step 3: Set LAN Connection Type

Select your connection type below. If you plan to set your IP statically, verify that all information in the fields is correct before proceeding. Click **Next** to continue.

☐ DHCP Client

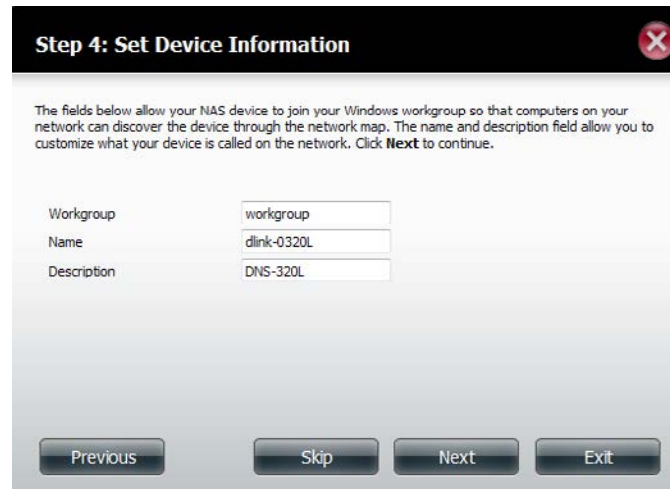
☒ Static IP

IP Address	10.78.62.13
Subnet Mask	255.0.0.0
Gateway IP Address	10.78.62.13
DNS1	172.16.10.100
DNS2	172.16.10.99

Previous Next Skip Exit

Step 6 - Here you can assign a workgroup and name to the ShareCenter with a short description.

Click **Next** to continue or click **Skip** to ignore these settings.



Step 4: Set Device Information

The fields below allow your NAS device to join your Windows workgroup so that computers on your network can discover the device through the network map. The name and description field allow you to customize what your device is called on the network. Click **Next** to continue.

Workgroup	workgroup
Name	dlink-0320L
Description	DNS-320L

Previous Skip Next Exit

Step 7 - Click **Account** and enter your e-mail information in the boxes provided to receive Event Alerts from the ShareCenter. Click **Anonymous** to create a random account with no specific settings.

Click **Next** to continue or click **Skip** to ignore these settings.



Step 5: Configure E-mail Settings

Enter your E-mail account information below. This information is used to E-mail yourself or others status information from the NAS device such as Space Remaining, Temperature, device logs etc. Once all the information is entered, you can click the **Test E-Mail** button to verify that your settings are correct. When finished, click **Next** to continue.

Login Method: ☒ Account ☐ Anonymous

User Name:

Password:

Port:

SMTP Server:

Sender E-mail:

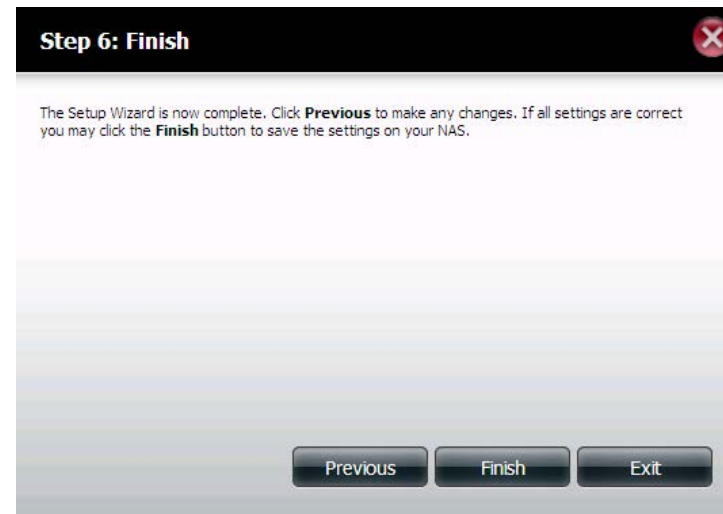
Receiver E-mail:

☐ SMTP Authentication

Test E-Mail

Previous **Next** **Skip** **Exit**

Step 8 - Click the **Previous** button to go back and check your settings. If you are satisfied with the settings, click the **Finish** button to save and complete the wizard. Click **Exit** to end the wizard without saving the settings.



Step 6: Finish

The Setup Wizard is now complete. Click **Previous** to make any changes. If all settings are correct you may click the **Finish** button to save the settings on your NAS.

Previous **Finish** **Exit**

Disk Management

Hard Drive Configuration

To setup the Hard Drive RAID configuration of your ShareCenter, click on the Management tab and then the **Disk Management** icon. Select the Hard Drive Configuration menu item on the left of the window. This menu will allow you to set the RAID type and format your hard drives.

Hard Drive Configuration: Your ShareCenter hard drives can be configured here and formatted in various RAID configurations.

Current Raid Type: If the drives are already formatted the RAID configuration will be displayed here.

Set RAID type and Reformat: Click on this button to launch a wizard that allows you to select the RAID configuration and format the drives.

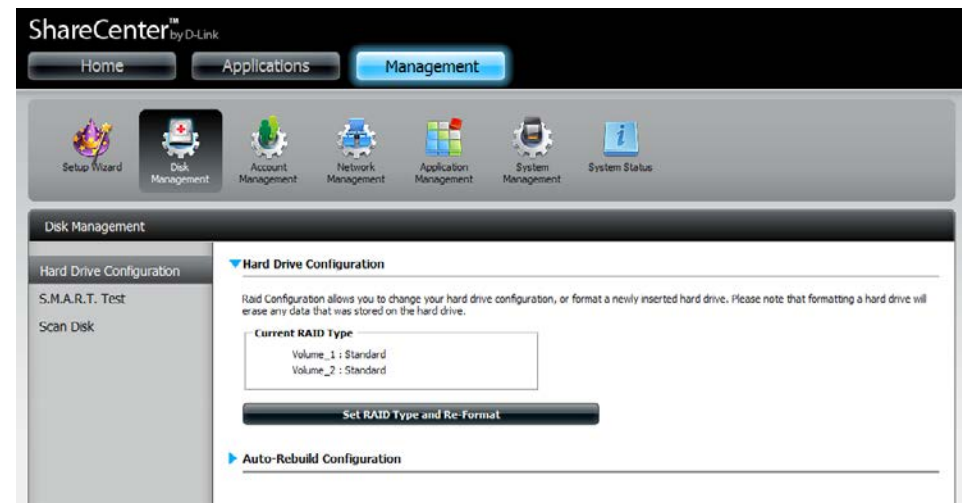
Auto-Rebuild Configuration: If you have chosen RAID 1 as the configuration option, then set the Auto-Rebuild function here using the radio buttons.

Enable Auto-Rebuild: Enabling Auto-Rebuild will rebuild a failed RAID 1 drive when a new drive has replaced the degraded one.

Disable Auto-Rebuild: If you do not want to automatically rebuild drives after a failure when using the RAID 1 functionality then you can check this option.

Note: You can still rebuild a drive using the RAID 1 functionality however you must initiate the rebuild manually.

Manual Rebuild Now: If Auto-Rebuild is disabled then you can use the Manual Rebuild option by clicking this button.



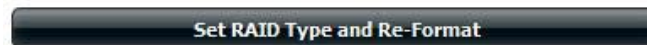
Hard Drive Configuration Wizard

When you click on the **Set RAID type and Re-Format** button in the Disk Management-Hard Drive Configuration menu a wizard will start, allowing you to format your drives and create the volume RAID format. The following is an example of a standard volume configuration:

The Hard Drive Configuration page displays the current RAID configuration under 'Current RAID Type'.



Click **Set RAID Type and Re-Format**.




The Setup Wizard begins.



The 'Physical Disk Information' page displays all of the hard drives on the DNS-320. It shows the array number, vendor, model, serial number, and drive capacity.

Click **Next** to continue.



Step 1 :Physical Disk Information

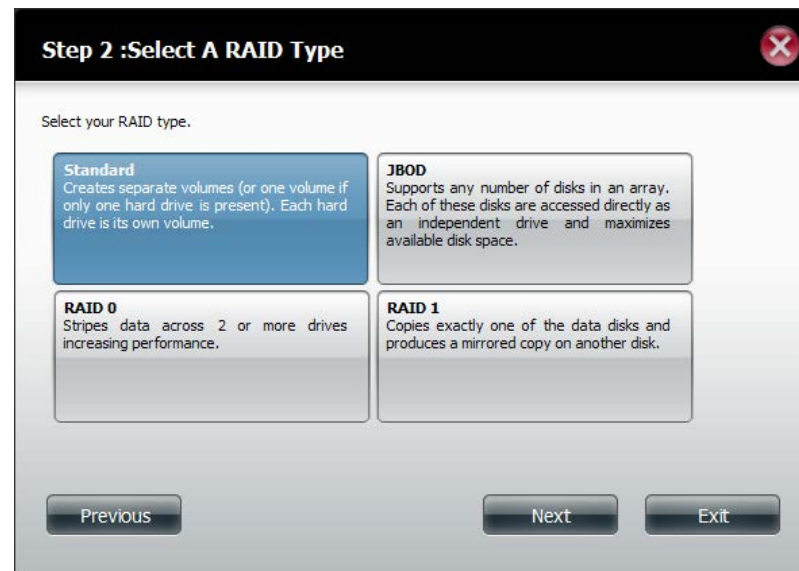
This section provides information on your hard drives. It shows the disk array sequence, the manufacturer, the model and serial number, and disk capacity.

Disk	Vendor	Model	Serial Number	Size
Disk1	Hitachi	HCS5C1010CLA382	JC0950HX02K7LA	931.5 GB
Disk2	Hitachi	HCS5C1010CLA382	JC0950HX02J38A	931.5 GB

Previous Next Exit

Select the format you want by clicking on the RAID type box (highlight in blue).

Click **Next** to continue.



Step 2 :Select A RAID Type

Select your RAID type.

Standard
Creates separate volumes (or one volume if only one hard drive is present). Each hard drive is its own volume.

JBOD
Supports any number of disks in an array. Each of these disks are accessed directly as an independent drive and maximizes available disk space.

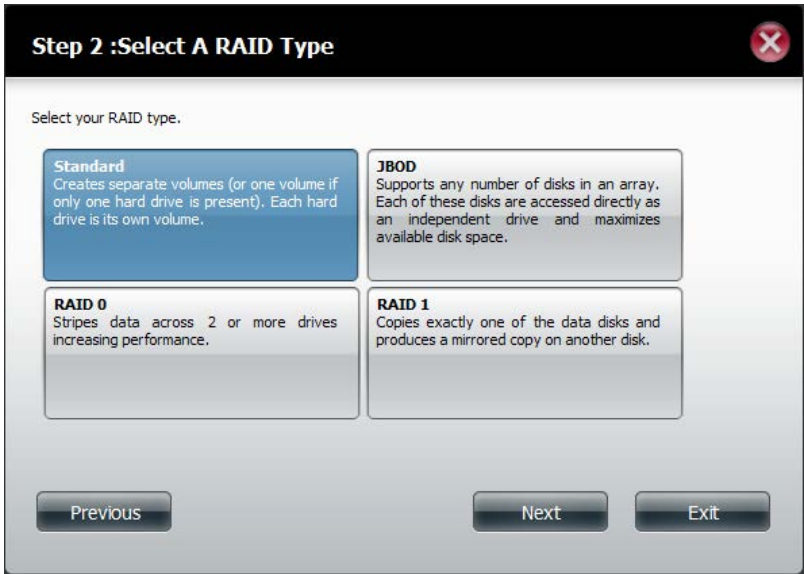
RAID 0
Stripes data across 2 or more drives increasing performance.

RAID 1
Copies exactly one of the data disks and produces a mirrored copy on another disk.

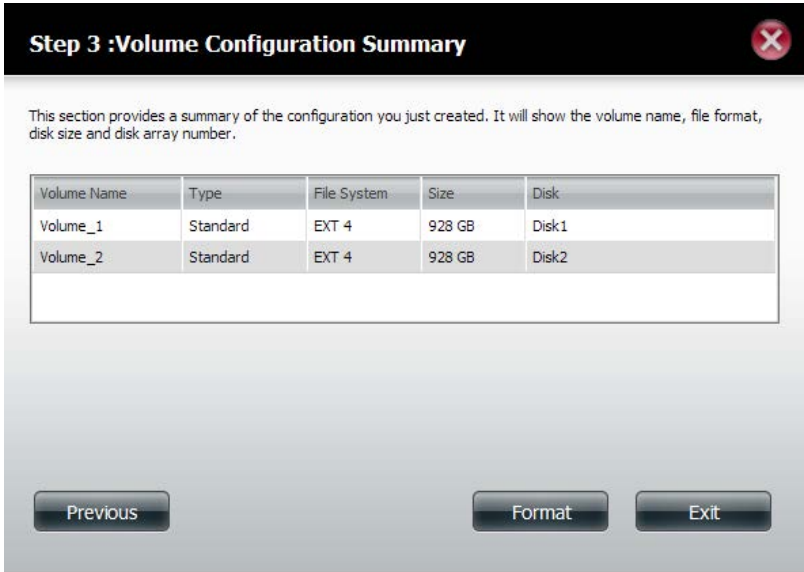
Previous Next Exit

Select **Standard** to create separate volumes for each individual drive.

Click **Next** to continue.

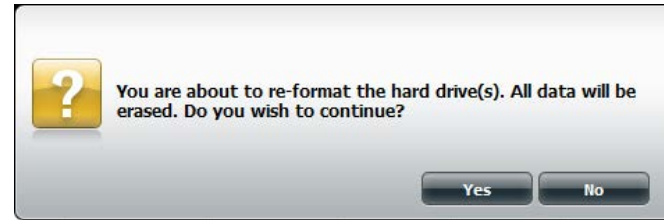


The 'Volume Configuration Summary' shows details on all of the configured drives. Check the details on the list and click **Format** to continue or click **Previous** to make changes.

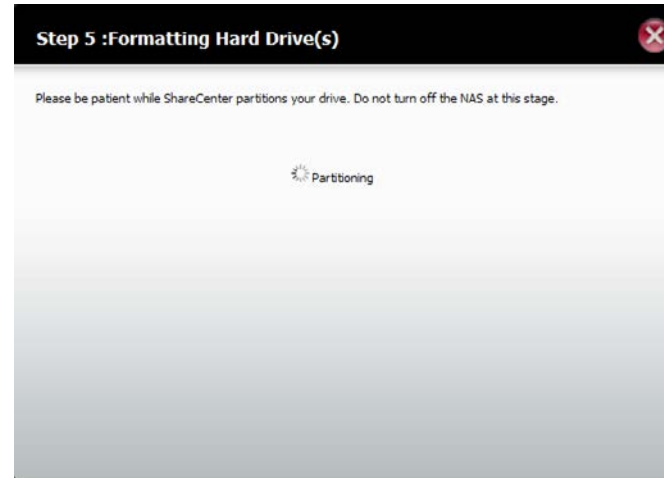


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

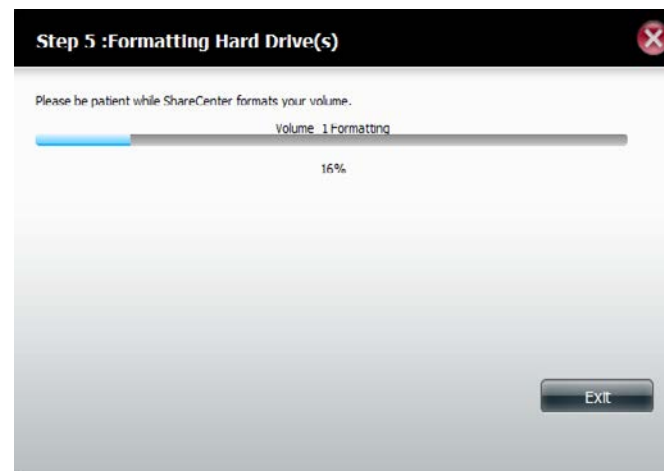


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



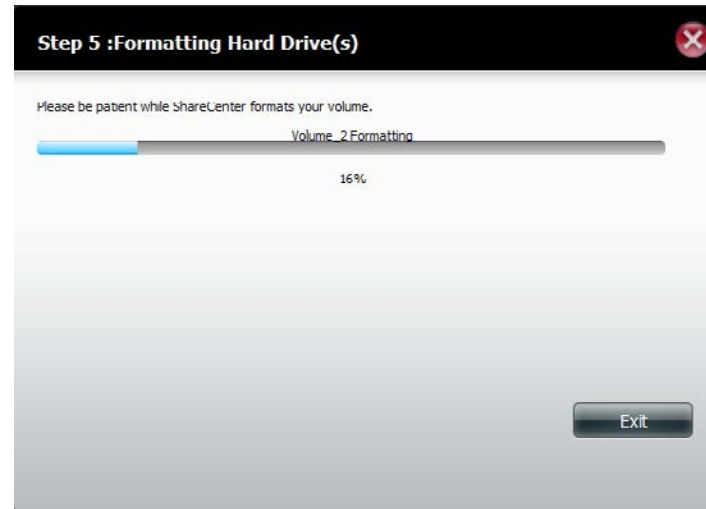
Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Do not turn off your NAS during this process.

If you would like to change your settings at this stage, click **Exit**.



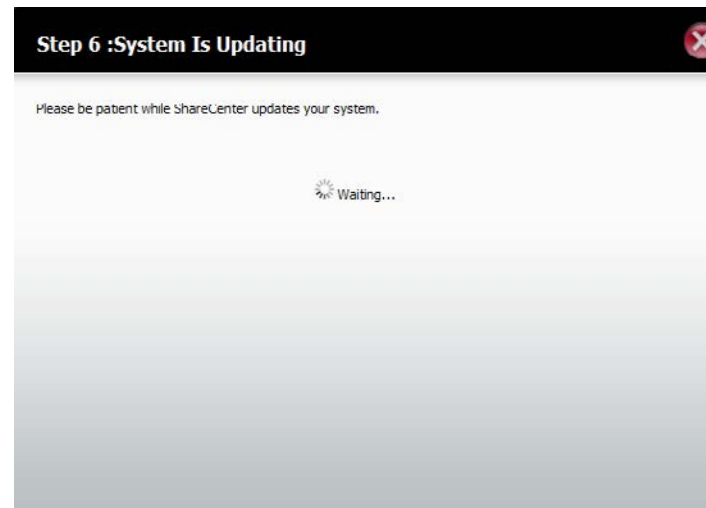
The Wizard starts to partition the second drive if you have installed it.

If you would like to change your settings at this stage, click **Exit**.



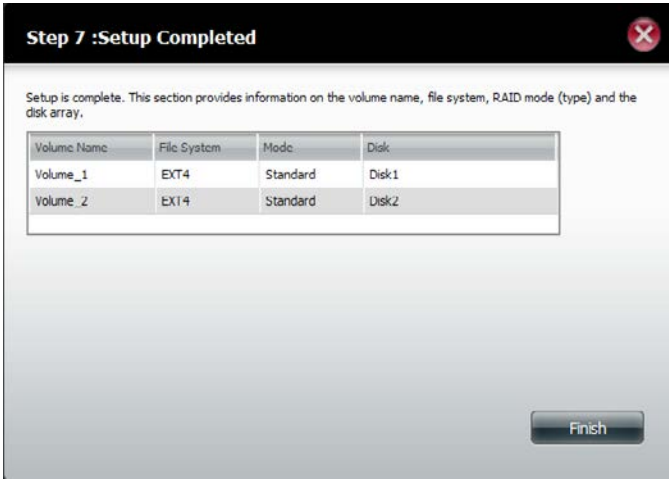
The system will now update all of the changes made.

Please be patient during this process. Do not turn off your NAS during this process.



The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to complete the process and start using your DNS-320.



JBOD

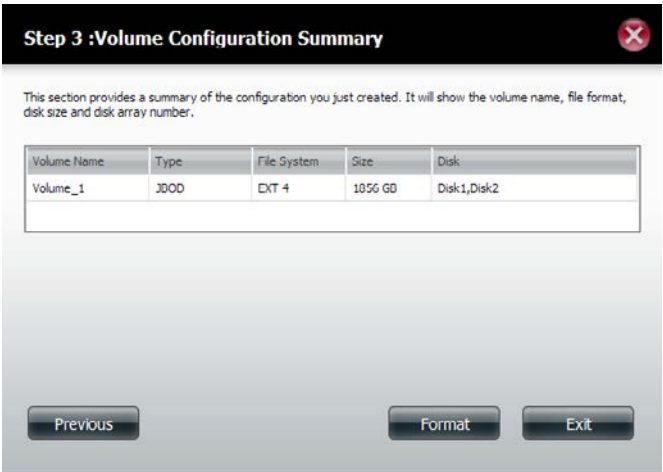
Select **JBOD** to create a single volume from all of the drives.

Click **Next** to continue.



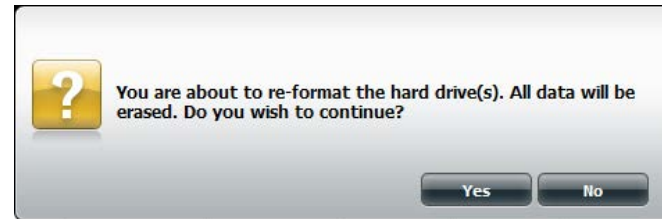
The wizard displays a Volume Configuration Summary of the drive you want to convert to JBOD.

Click **Format** to continue or **Previous** make changes.

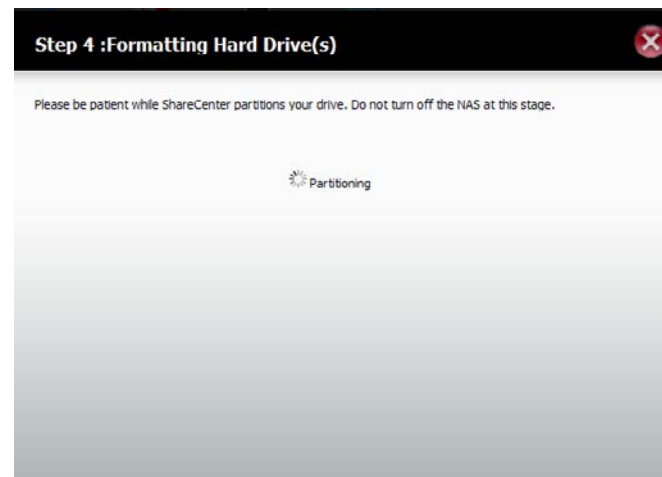


A warning message will appear to inform you that all volumes and data will be formatted and erased.

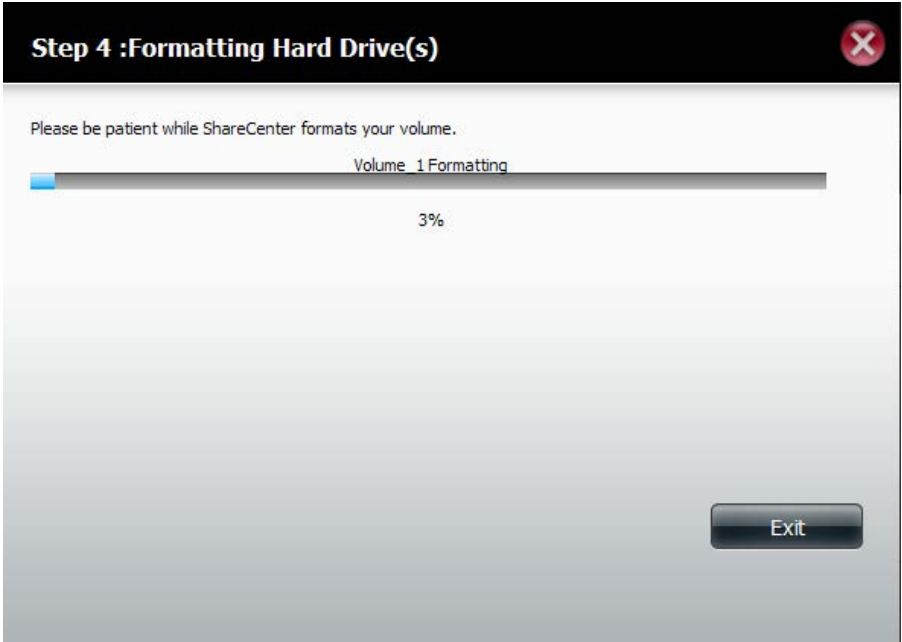
Click **Yes** to continue.



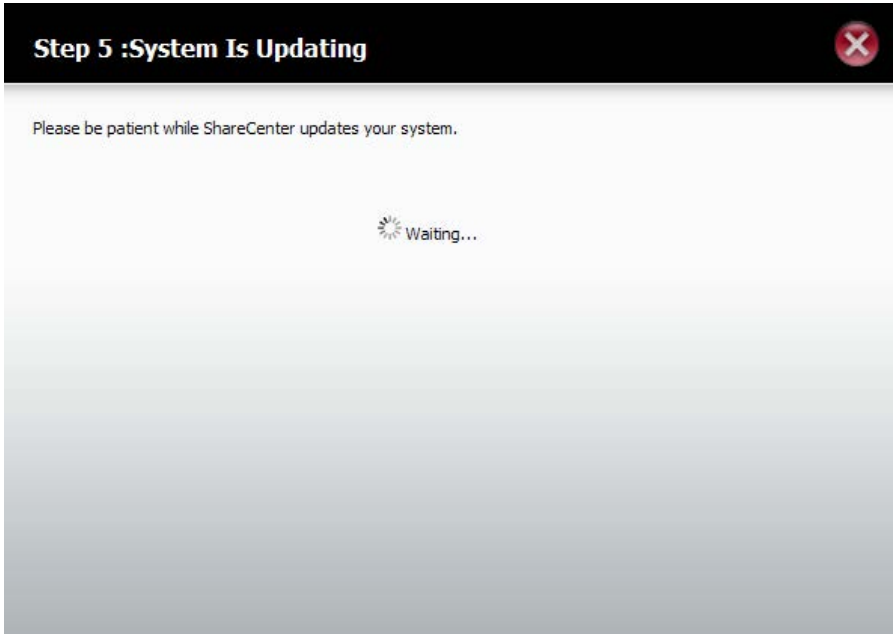
Wait for the Wizard to prepare the drive for configuration



The Format process begins

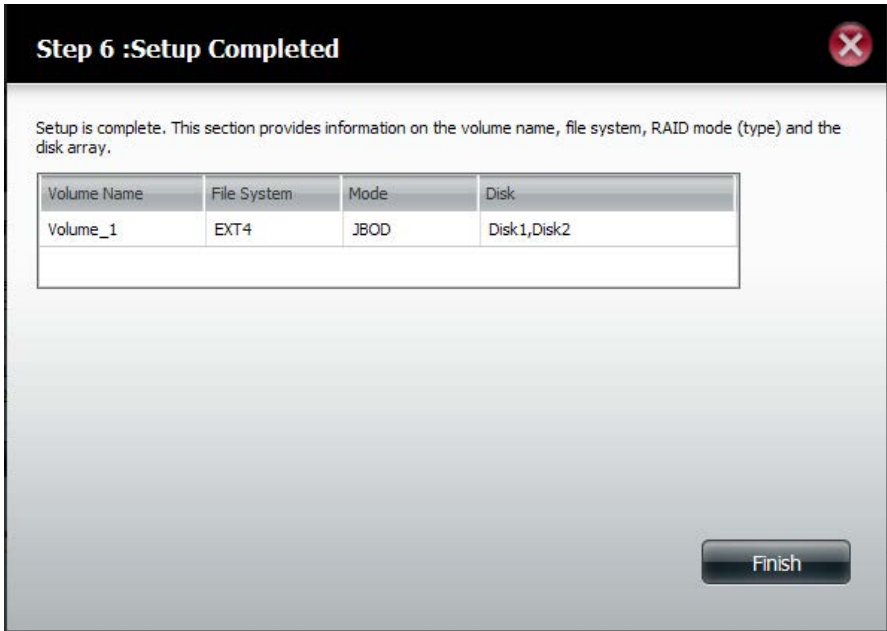


The System Updates

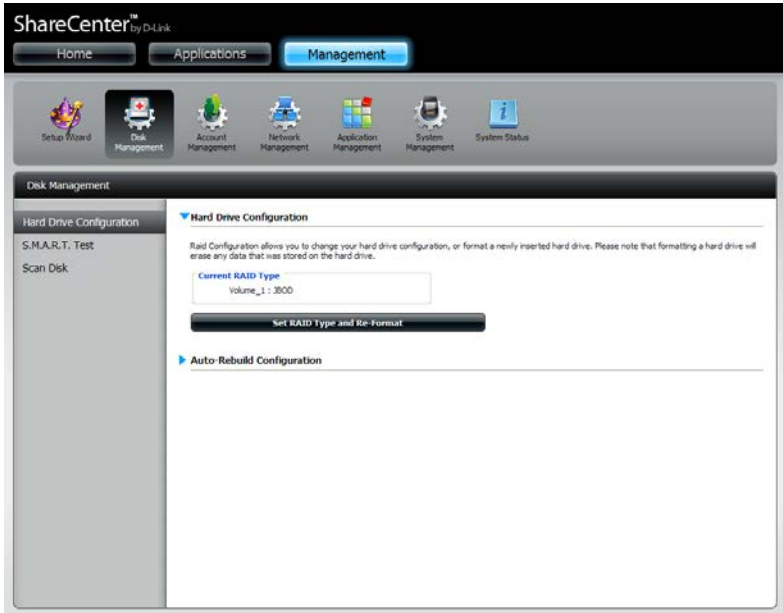


The wizard is now complete. It will show the volume name, file system, and Mode.

Click **Finish** to complete the process and start using your DNS-320.



The wizard returns you to the main screen. Here you can see the current RAID Type.



RAID 0

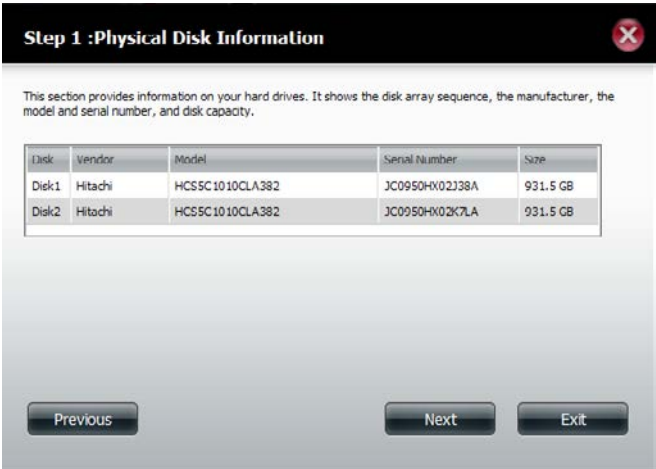
Select RAID 0 (stripes all of the drives).

Click **Next** to continue.



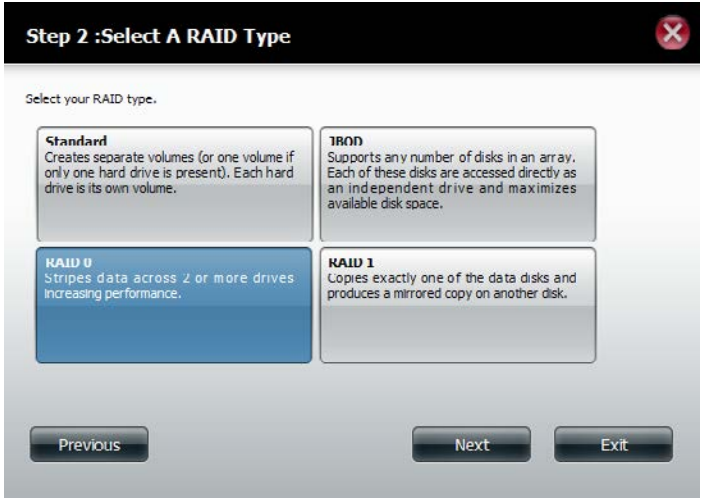
View the Physical Disk Information.

Click **Next** to continue.



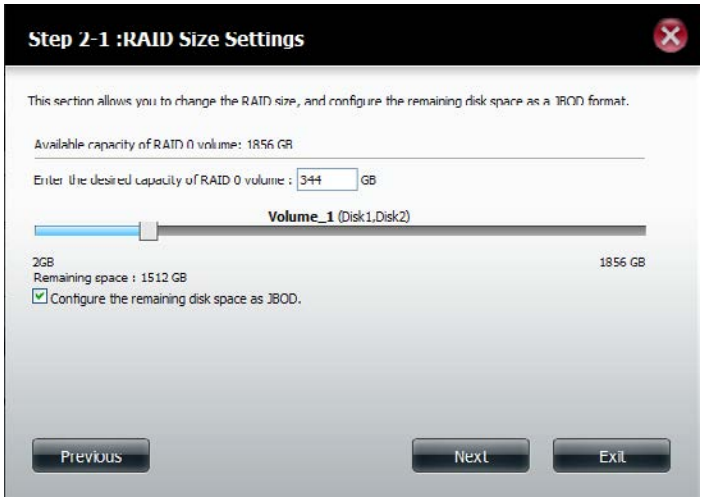
Select the RAID Type. In this example it's RAID 0

Click **Next** to continue.

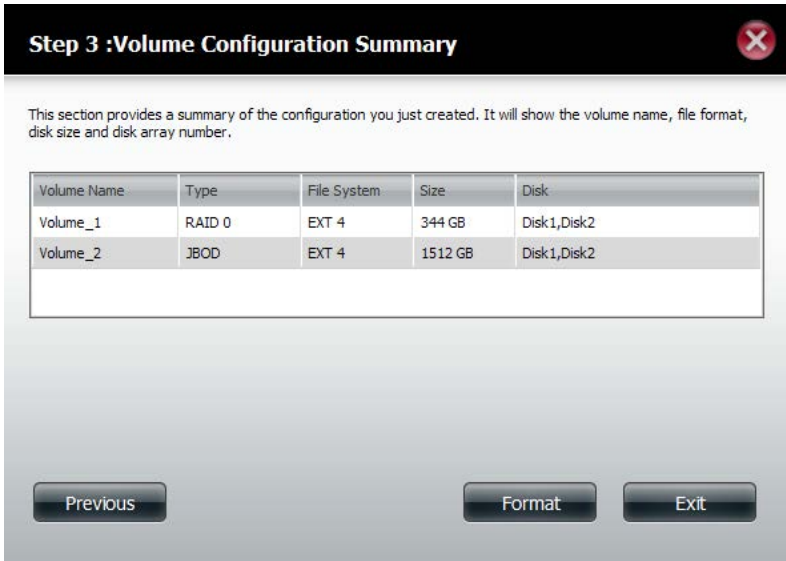


Select the size of your RAID 0 configuration.

Click **Next** to continue.

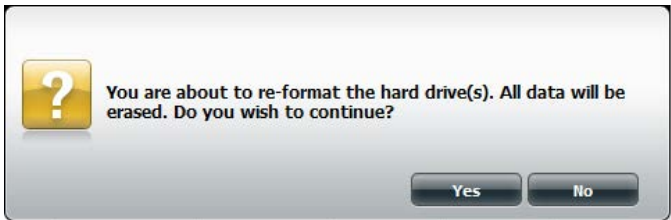


The 'Volume Configuration Summary' shows details on all of the configured drives. Check the details on the list and click **Format** to continue or click **Previous** to make changes.

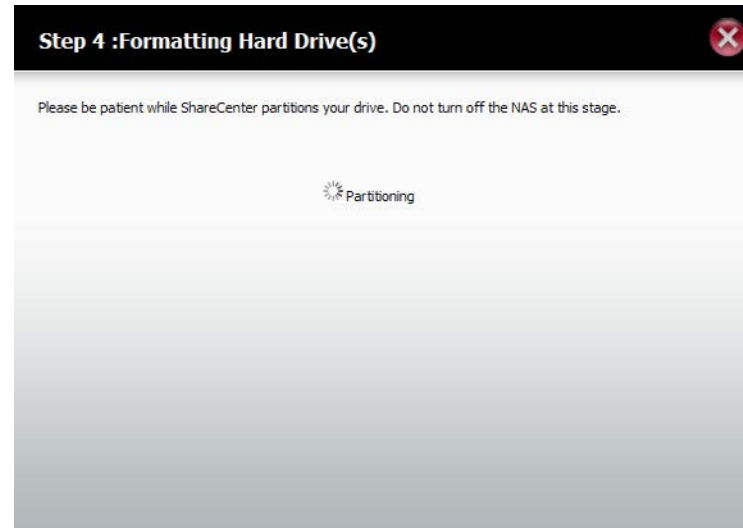


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

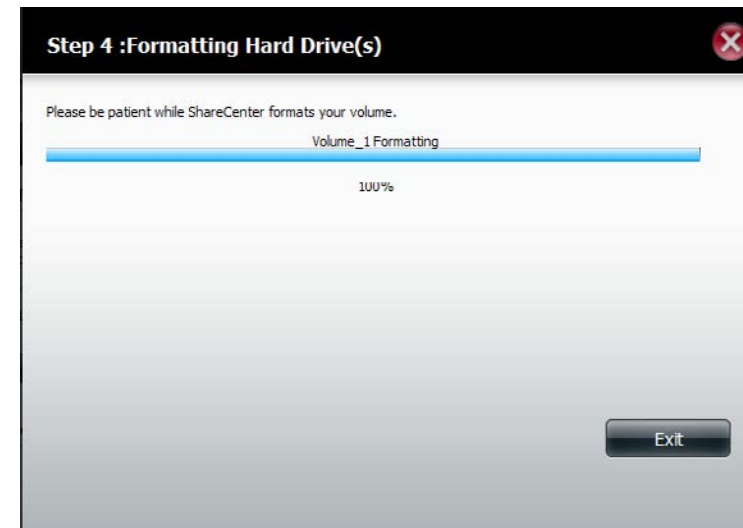


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



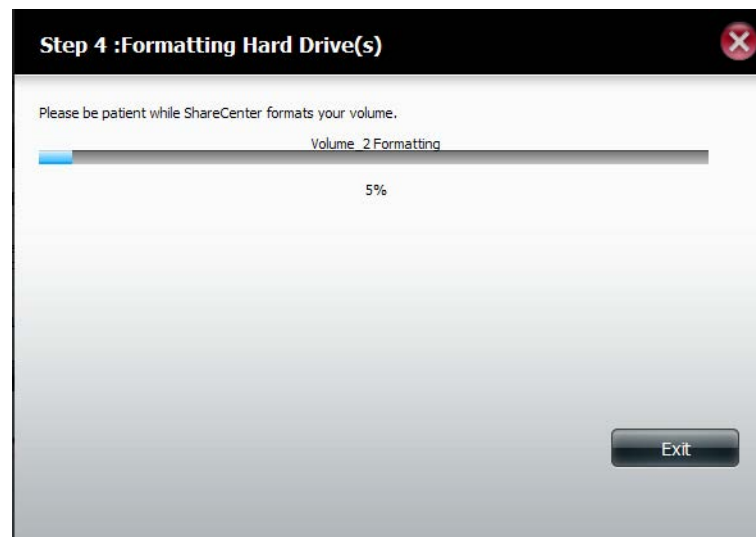
The system formats the First Volume.

If you would like to change your settings at this stage, click **Exit**.



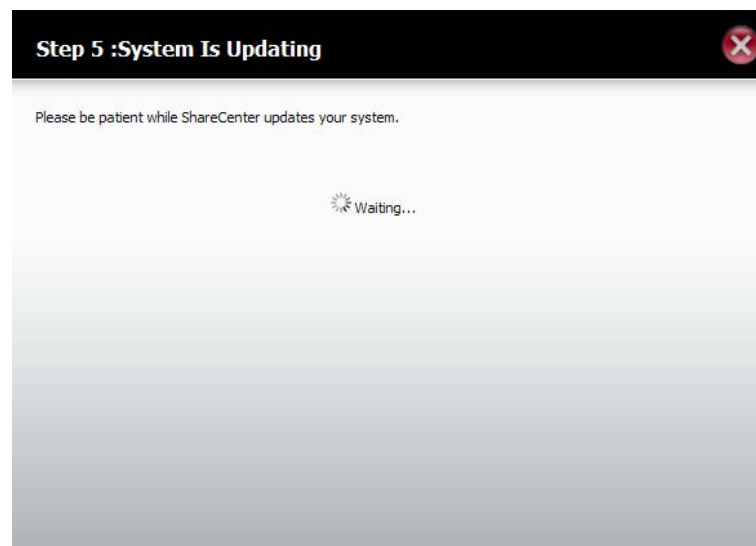
The system will now format the second Volume.

Please be patient during this process. Do not turn off your NAS during this process.



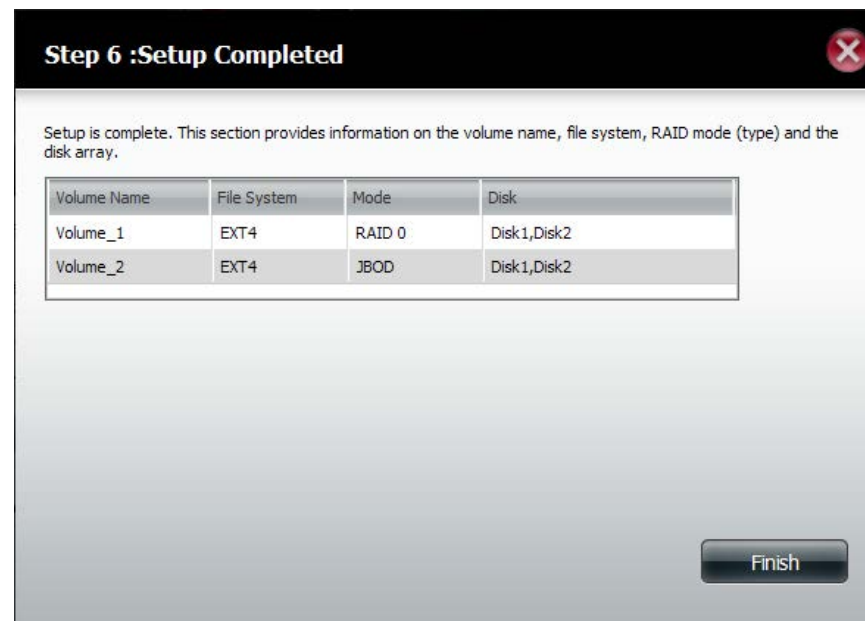
The system will now update all of the changes made.

Please be patient during this process. Do not turn off your NAS during this process.



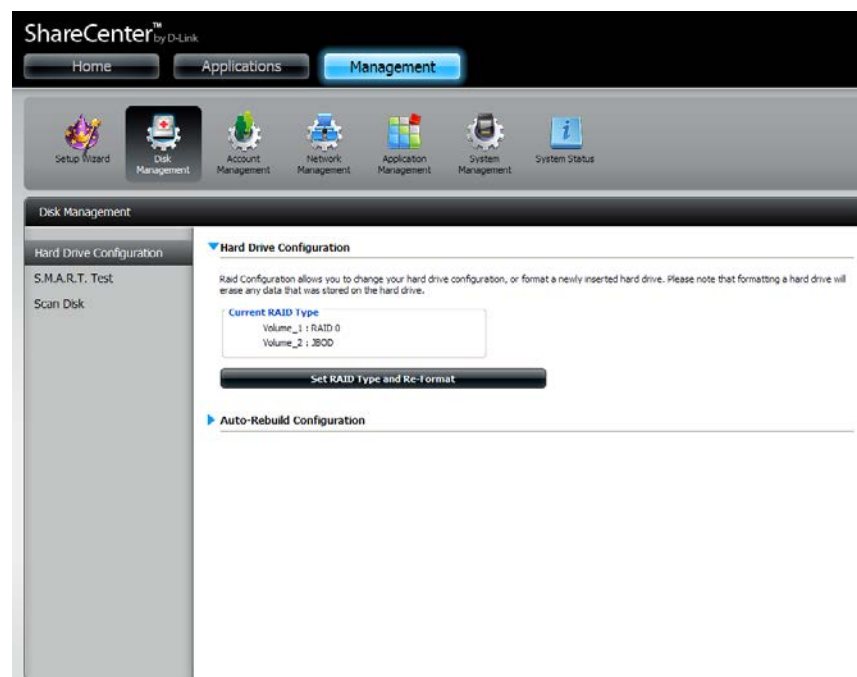
The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to complete the process and start using your DNS-320.



The wizard returns you to main Hardware Configuration page.

Under Current RAID Type, you can view your changes.



RAID 1

Select **RAID 1** to mirror all the hard drives.

Click **Next** to continue.



View the Physical Disk Information.

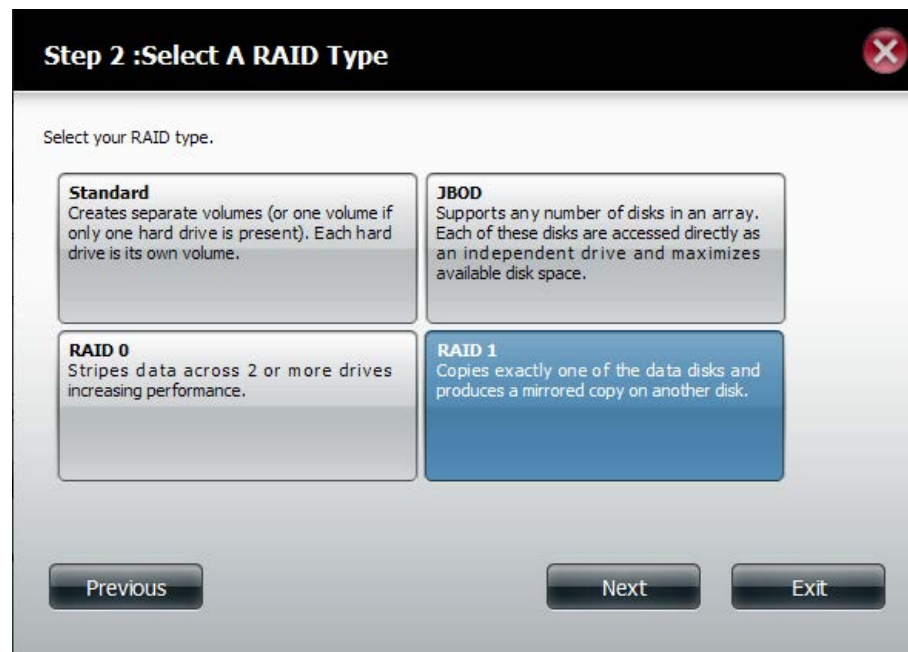
Click **Next** to continue.



Section 4 - Configuration

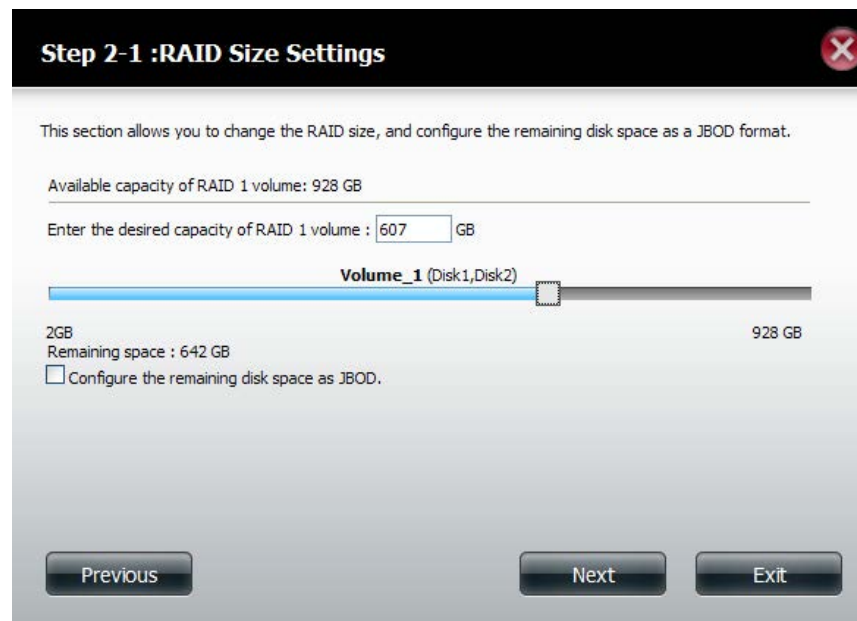
Select the RAID TYPE you want

Click **Next** to continue.



Enter the amount of disk space you would like to assign to the first volume for RAID 1.

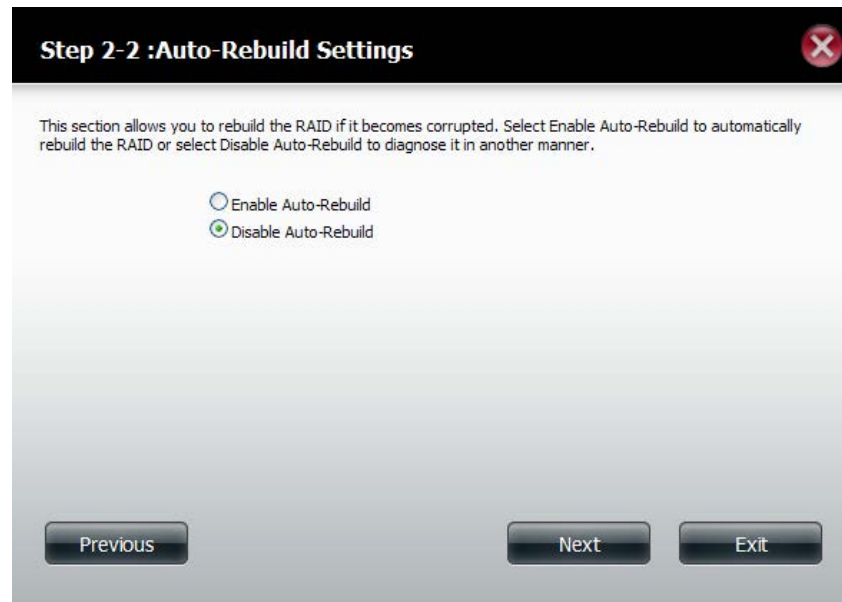
Click **Next** to continue.



Click **Enable Auto-Rebuild** to automatically rebuild a failed drive if it has been replaced with a new one.

Select **Disable Auto-Rebuild** if you want to start the rebuild process manually after replacing a failed drive.

Click **Next** to continue.



Step 2-2 :Auto-Rebuild Settings

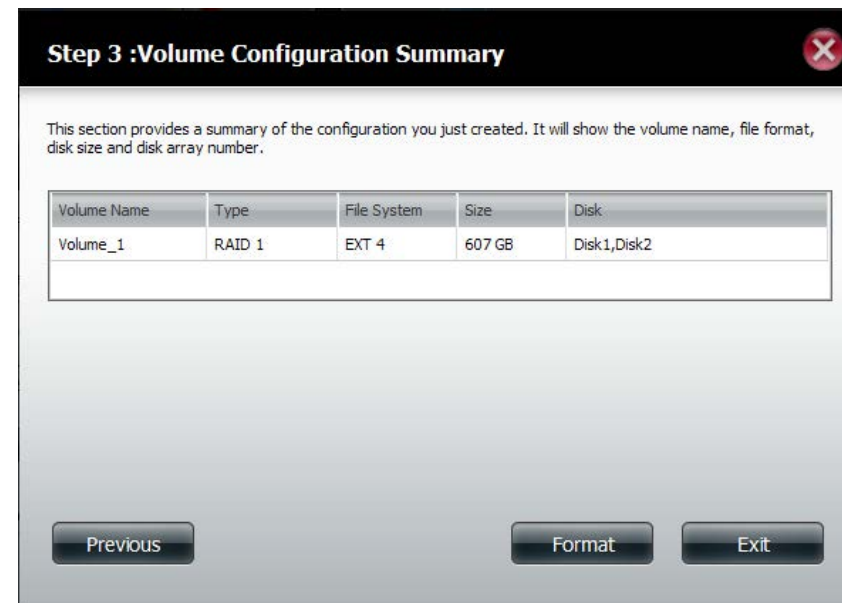
This section allows you to rebuild the RAID if it becomes corrupted. Select Enable Auto-Rebuild to automatically rebuild the RAID or select Disable Auto-Rebuild to diagnose it in another manner.

☐ Enable Auto-Rebuild
☒ Disable Auto-Rebuild

Previous Next Exit

The Volume Configuration Summary shows the Volume Name, Type, File System, and size of the RAID volume.

Click **Format** to continue.



Step 3 :Volume Configuration Summary

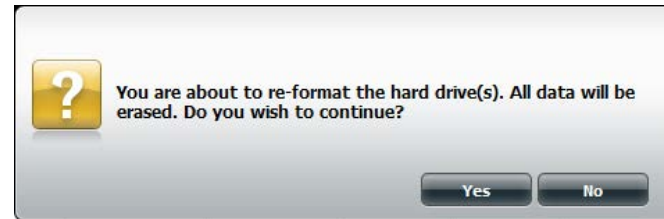
This section provides a summary of the configuration you just created. It will show the volume name, file format, disk size and disk array number.

Volume Name	Type	File System	Size	Disk
Volume_1	RAID 1	EXT 4	607 GB	Disk1,Disk2

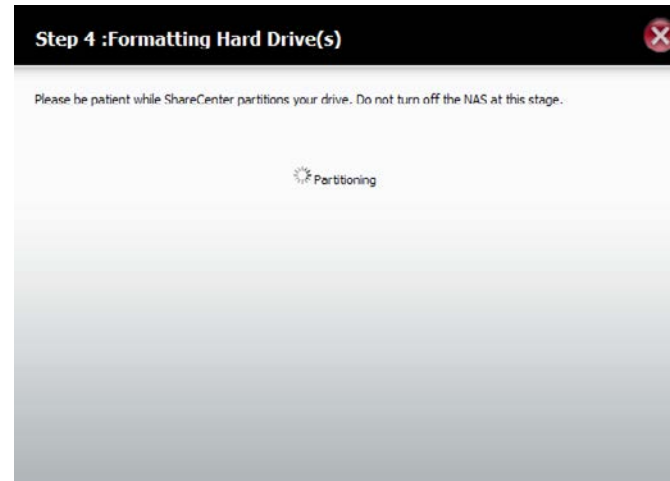
Previous Format Exit

A warning message will appear, stating that your device will have some latency.

Click **Yes** to continue.

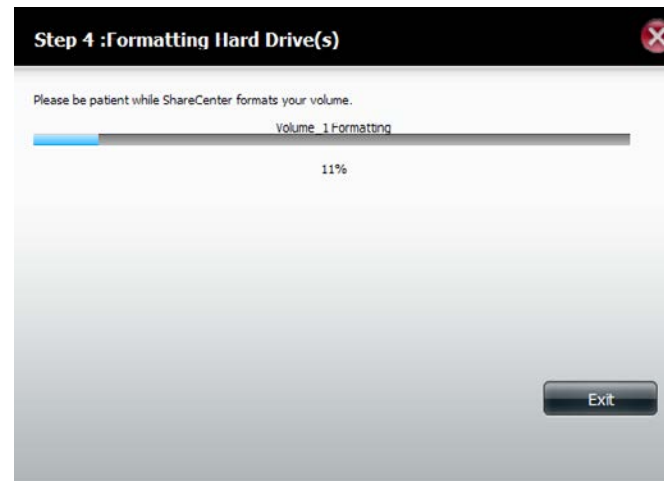


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



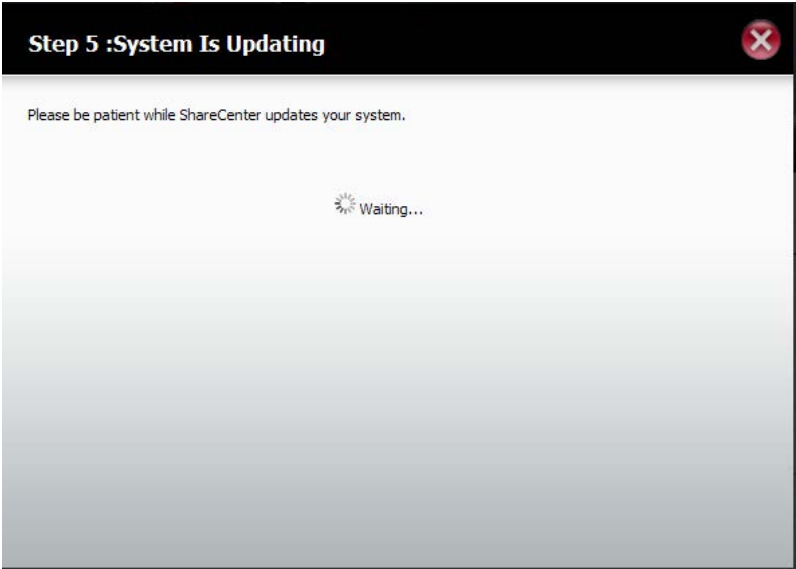
The system formats the First Volume.

If you would like to change your settings at this stage, click **Exit**.

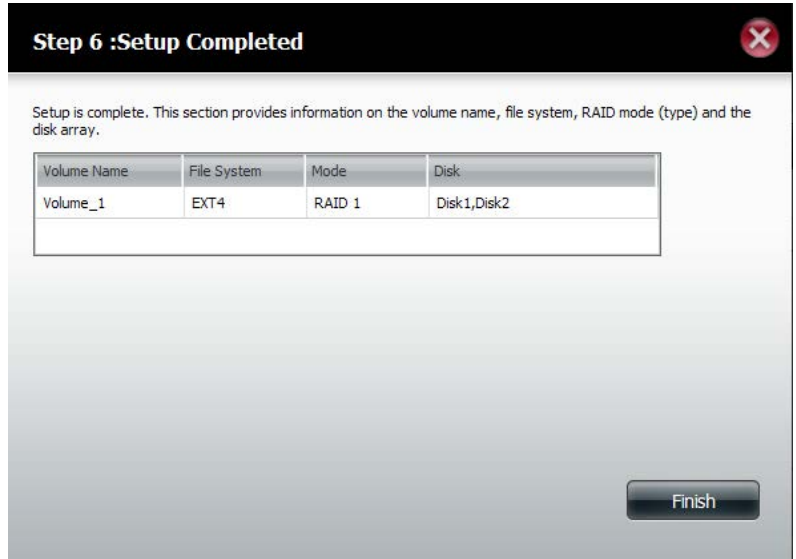


The system updates.

Click **Next** to continue.



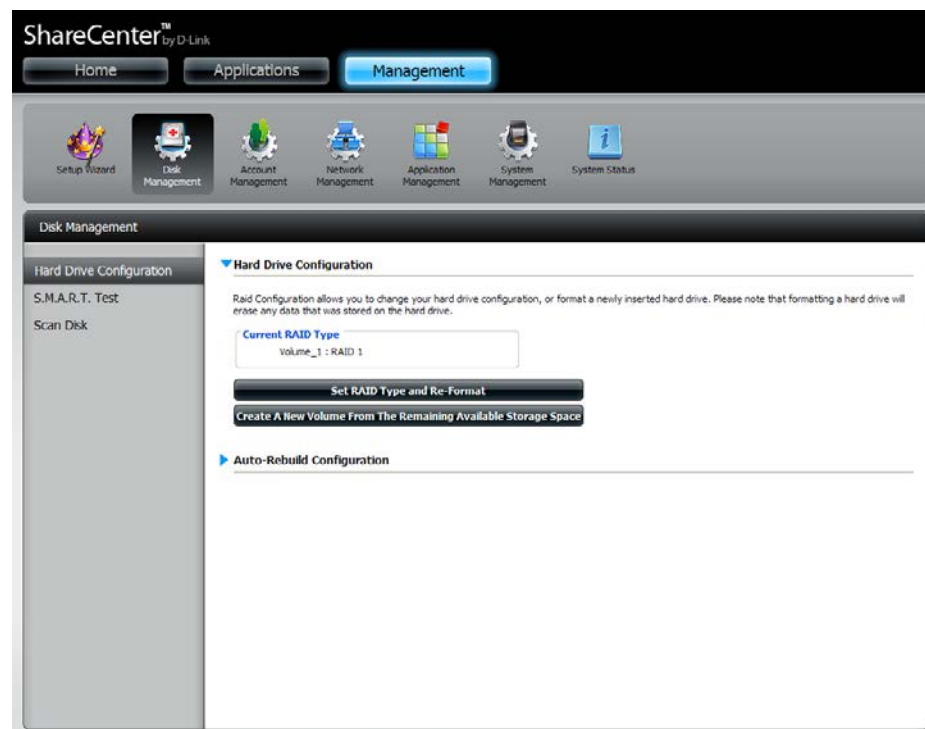
Setup is complete. Setup provides a Volume Name, File System, and Mode.



Section 4 - Configuration

Once you have completed the wizard, ShareCenter will return to the main screen.

The RAID 1 configuration you just set will be displayed.



Upgrade from Standard Mode to RAID 1

Standard Mode doesn't offer any redundancy and security of data. It is best then to migrate from Standard Mode to RAID 1. To do this follow these instructions:

Step 1 - Insert a second hard drive into the DNS-320.



Step 2 - Replace the top and restart the DNS-320.



Step 3 - Go to Management, Disk Management, Hard Drive Configuration. There are two options available: **Set RAID Type and Re-Format** or **Format the new drive as Standard type**. If you select the latter option your **Hard Drive Configuration Wizard** shows six procedures but if you select the **Set RAID Type and Re-Format**, the **Hard Drive Configuration Wizard** only has four procedures. Take a look at the two images below to compare.

Click **Next** to continue.



Format the new drive as Standard type.



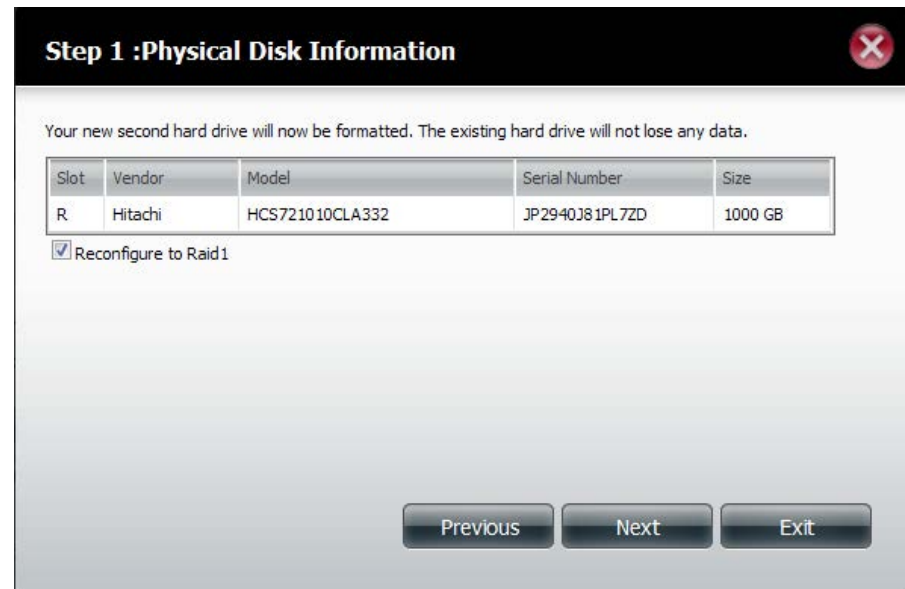
Set RAID Type and Re-Format.

Section 4 - Configuration

Step 4 - Under **Physical Disk Information**, you will be able to see the drive you just installed. It provides the **slot location**, **vendor**, **model number**, serial number, and **disk size**.

Just below this informational box is a **checkbox** that offers you the option to **Reconfigure** the drive to **RAID 1**. Click the checkbox to proceed.

Click **Next** to continue.



Step 1 :Physical Disk Information

Your new second hard drive will now be formatted. The existing hard drive will not lose any data.

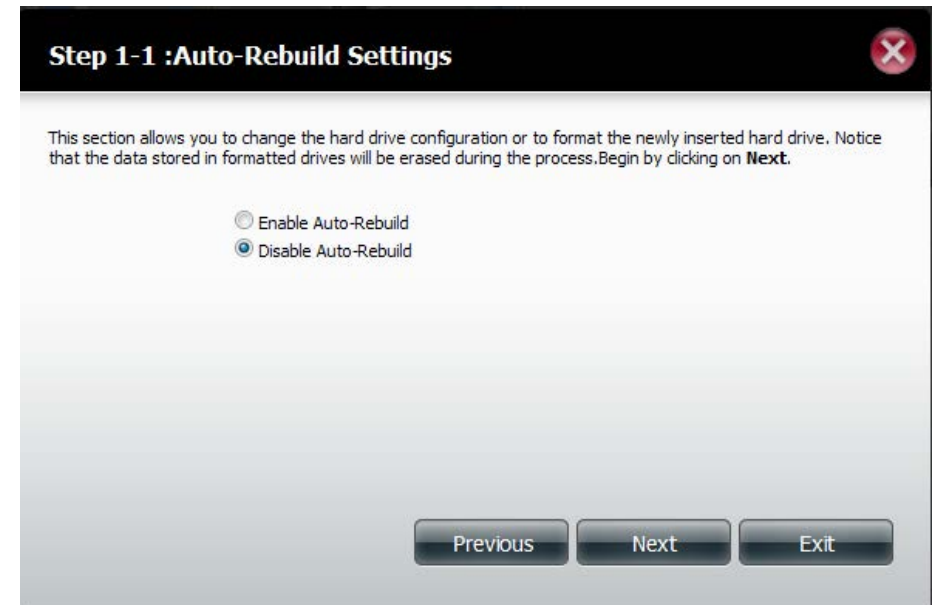
Slot	Vendor	Model	Serial Number	Size
R	Hitachi	HCS721010CLA332	JP2940J81PL7ZD	1000 GB

☒ Reconfigure to Raid1

Previous Next Exit

Step 5 - Under **Auto-Rebuild Settings**, select whether you want to **enable auto rebuild** or **disable auto rebuild**.

Click **Next** to continue.



Step 1-1 :Auto-Rebuild Settings

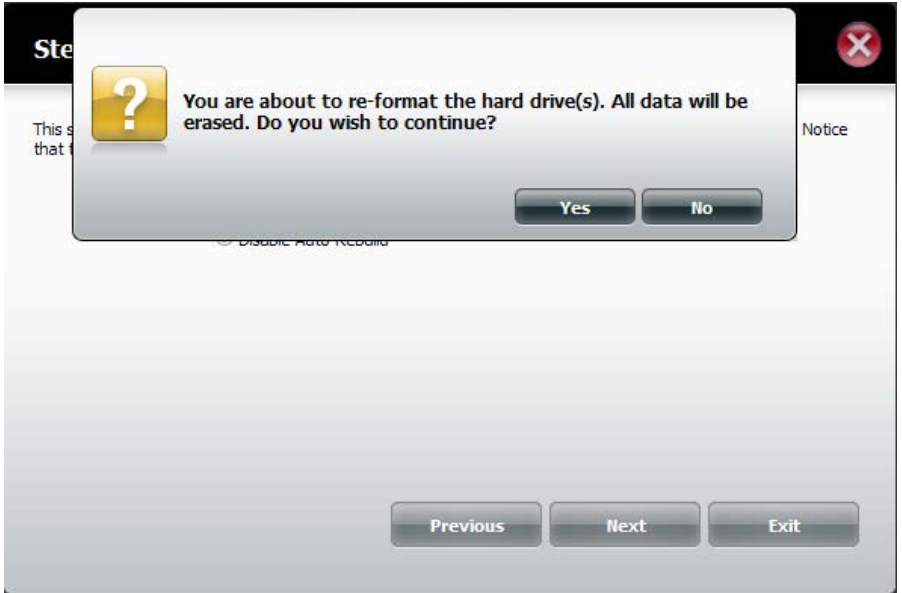
This section allows you to change the hard drive configuration or to format the newly inserted hard drive. Notice that the data stored in formatted drives will be erased during the process. Begin by clicking on **Next**.

☐ Enable Auto-Rebuild
☒ Disable Auto-Rebuild

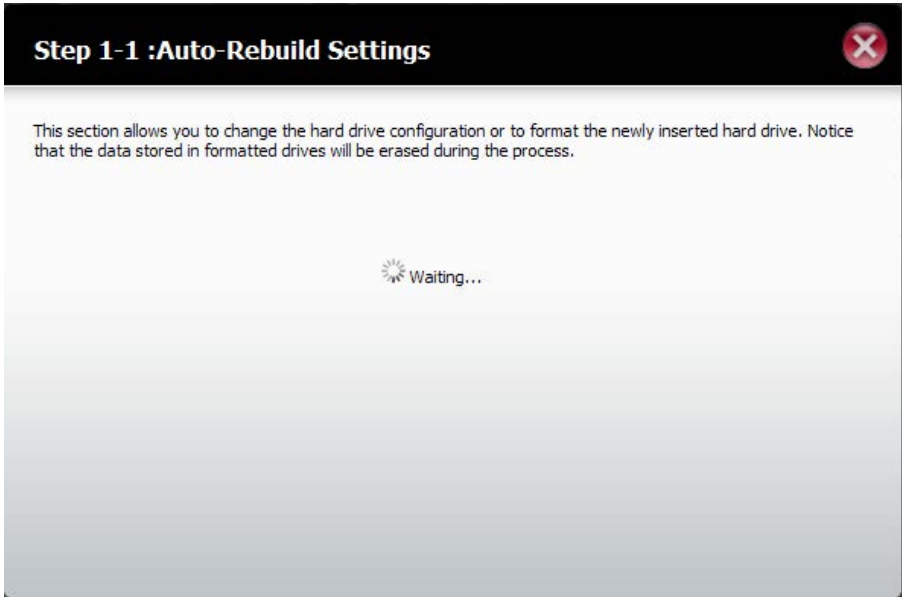
Previous Next Exit

Step 6 - A warning message will appear prompting you to confirm whether you want to format your hard drive. Click **Yes** to continue or **No** to exit.

Click **Next** to continue.

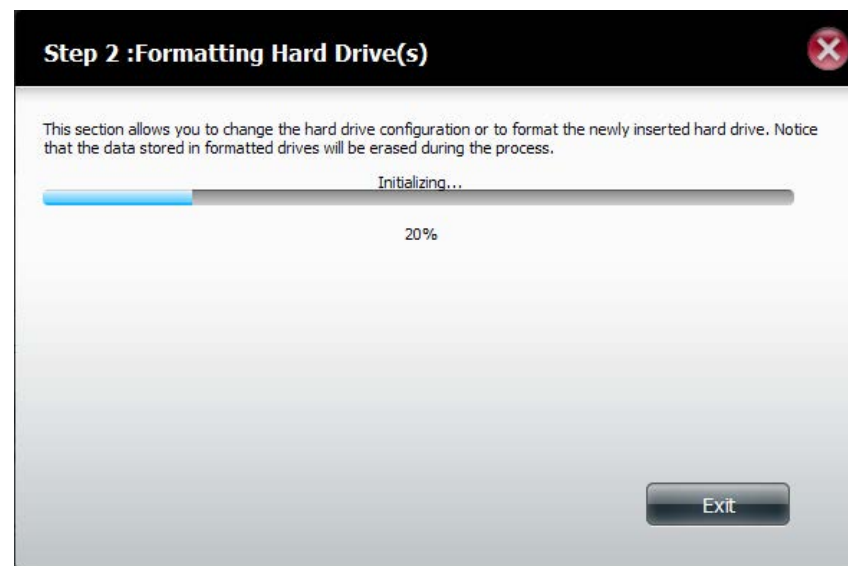


Step 7 - The software communicates with the hardware to build a list.



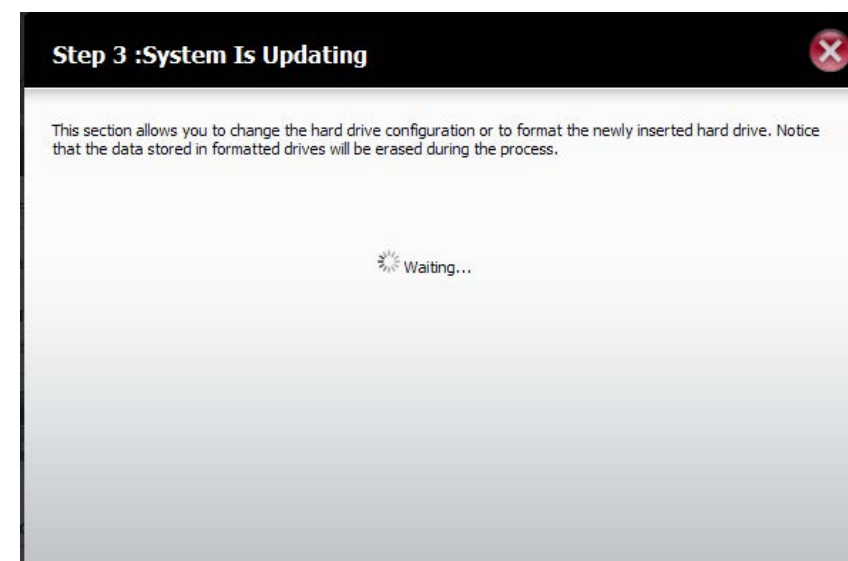
Step 6 - The Wizard formats the hard drive.

Click **Next** to continue.



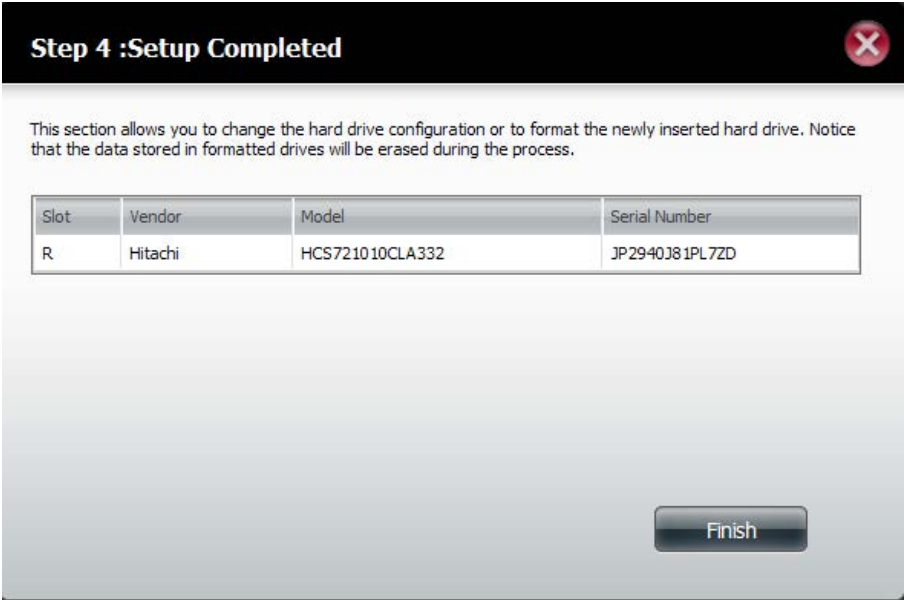
Step 7 - The System updates.

Click **Next** to continue.

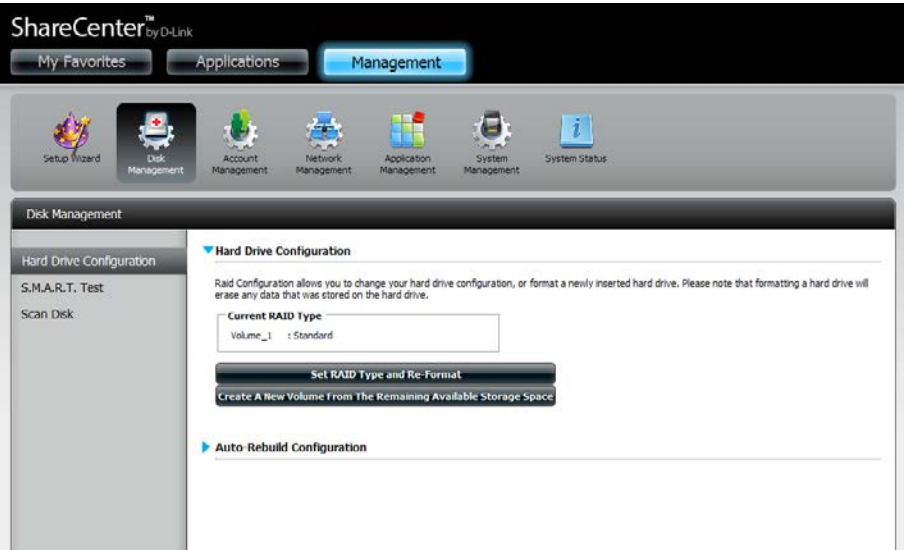


Step 8 - Setup is completed when it shows final information on the slot, vendor, model number, and serial number.

Click **Finish** to continue.



Step 9 - The wizard returns to the main Hard Drive Configuration



S.M.A.R.T. Test

S.M.A.R.T stands for “Self-Monitoring, Analysis, and Reporting Technology”. This is a system on a hard drive used to monitor and report on the health of the drive. If the HD is grayed out, then it does not support S.M.A.R.T.

To run the S.M.A.R.T test, select the hard drive you wish to perform the S.M.A.R.T test on. Select whether to run a Quick or Extended S.M.A.R.T test. Then click **Start** to run the test. Click the **Create Schedule** button to run the test at a pre-determined time and date.

The Quick Test usually takes less than 10 minutes. This test will check the electrical, mechanical, and read performance of the hard drive. The results are displayed as Passed/Failed on the web UI and can also be sent as an e-mail alert.

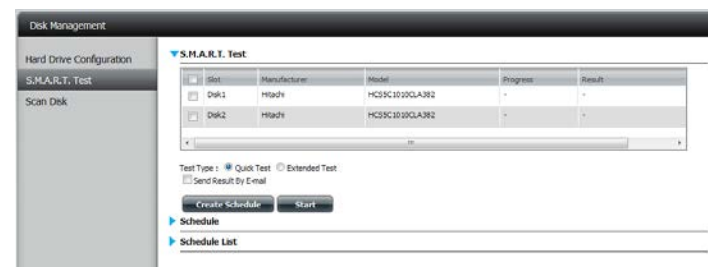
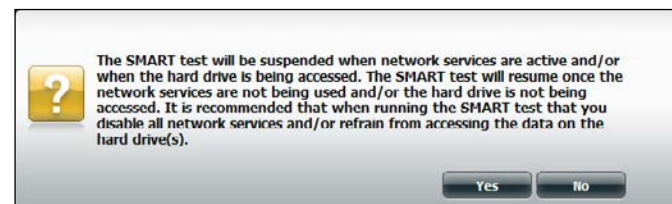
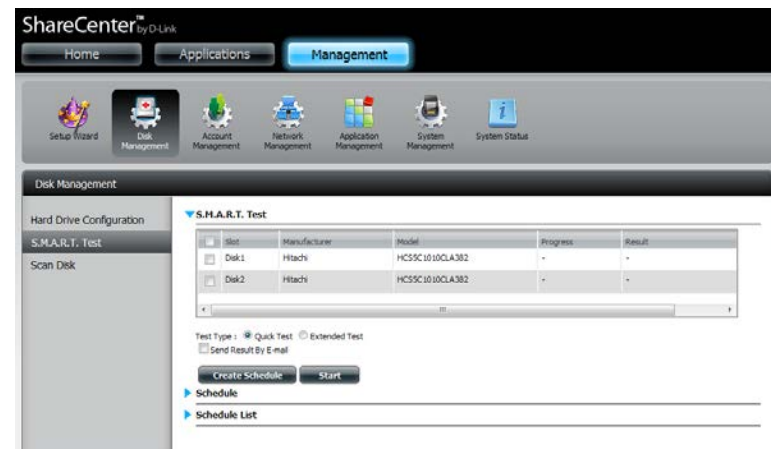
The Extended Test requires a lot more time to complete. However, it is a more thorough when compared to the Quick Test

A warning message will prompt you to stop all services and network activity.

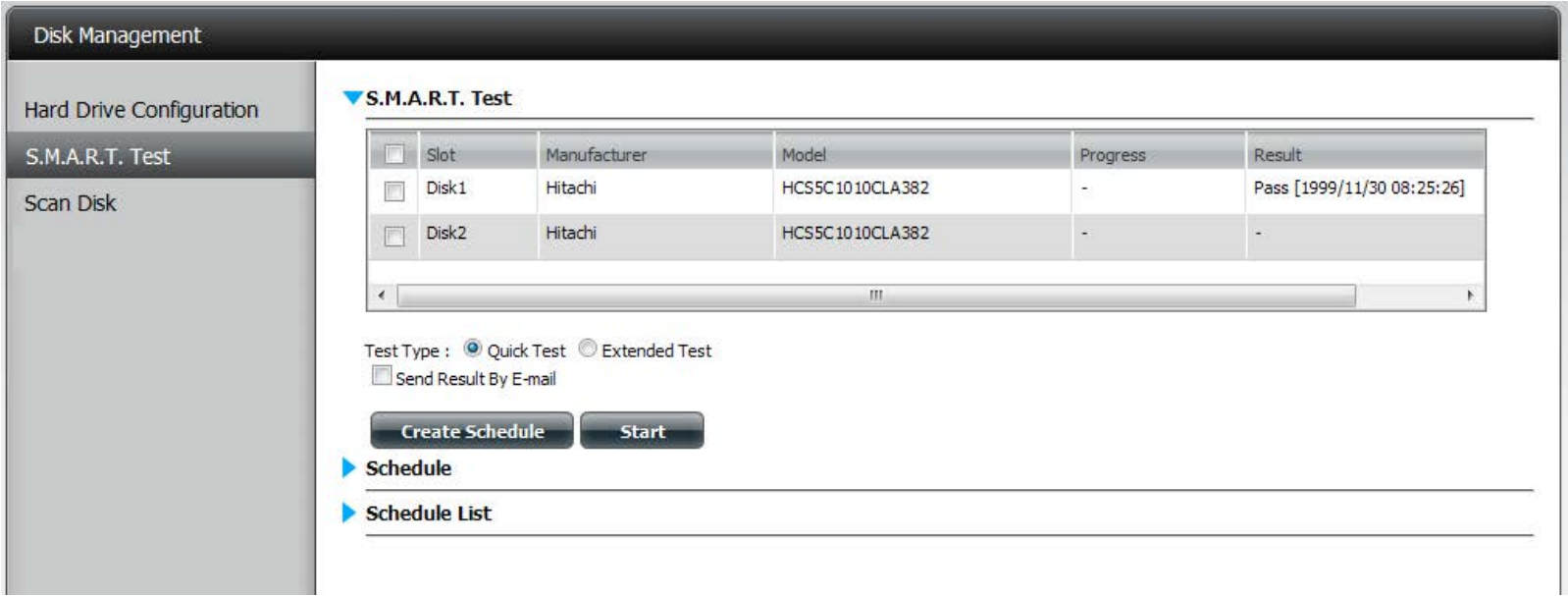
Click **Yes** to continue the **Quick S.M.A.R.T.** test.

The test will run and a percentage completed will display under the Progress Tab.

The Start button will change to a Stop button.



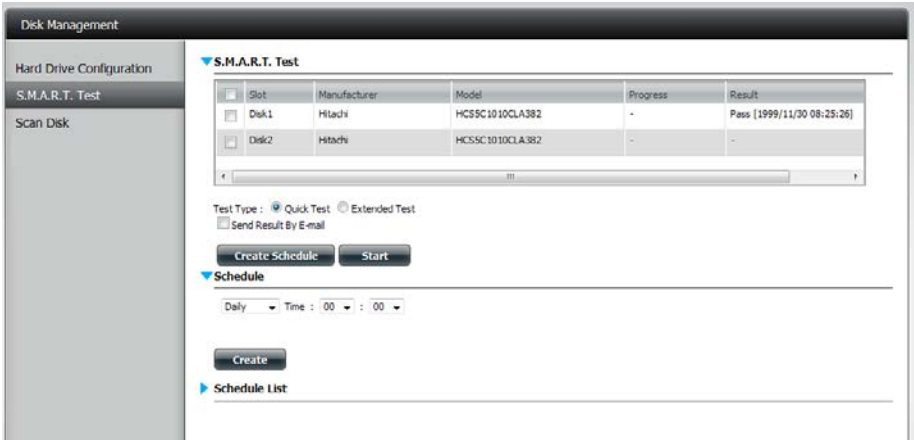
When the test is complete, the results will be displayed in the **Result** column.



Creating a Schedule

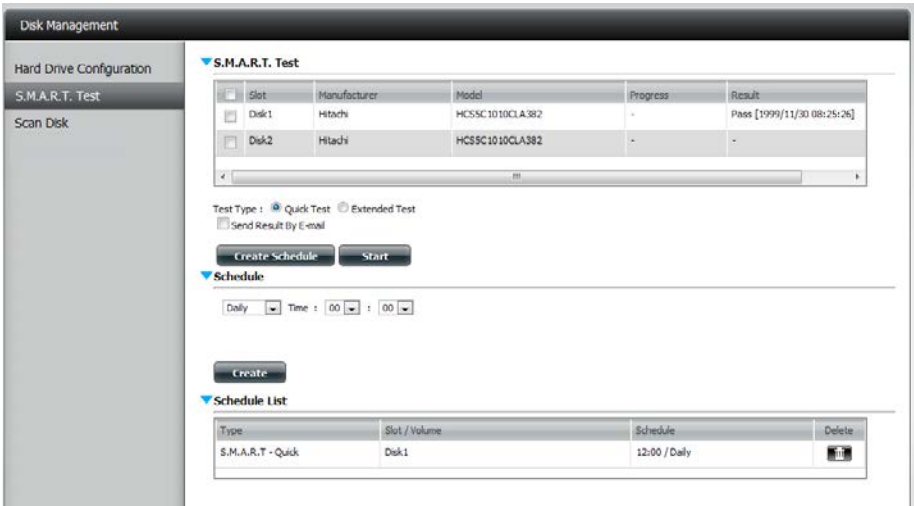
To create a schedule, select the disks/volumes to run the test on. Under Schedule, select the period (Daily/Weekly/Monthly) and then select the time from the drop-down menu.

Click **Create**



To view the Schedule List, click on the **Schedule List** arrow. A new table will appear showing details of the new schedule created.

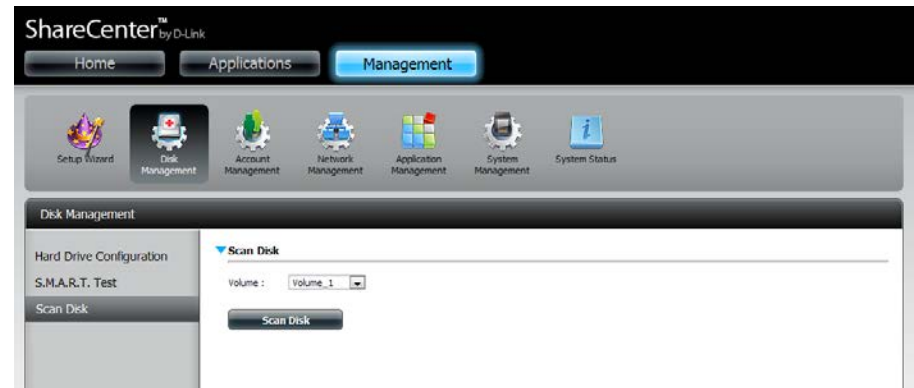
To delete a schedule, click on the **Trash Can**.



Scan Disk

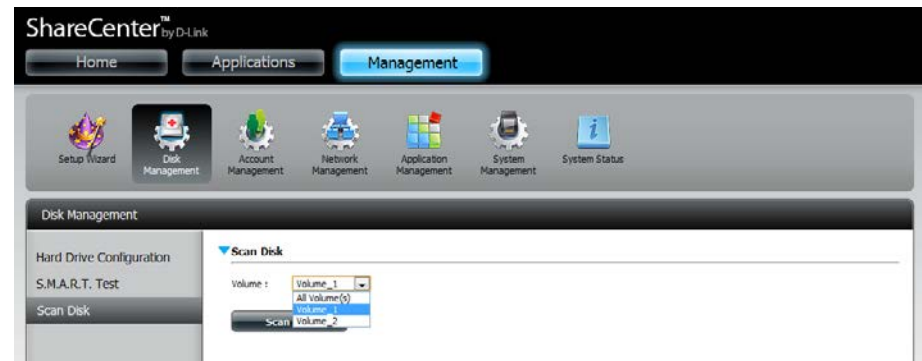
Scan Disk provides a method to test the disk's file system on your ShareCenter. Scan Disk scans your disks file system for errors and/or corruption.

Click **Management**, **Disk Management**, and then **Scan Disk**.



Select the volume from the drop-down list you wish to scan.

Click **Scan Disk**



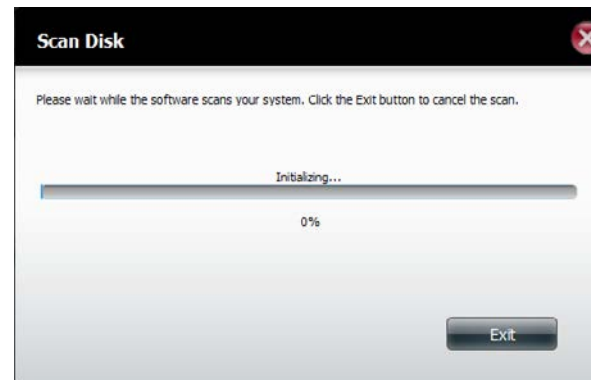
A warning message will prompt you to stop running all services (hard drive and network activity).

Click **Yes** to proceed or **No** to cancel.



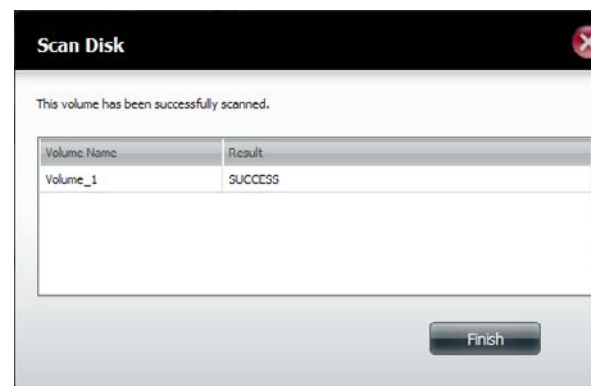
The DNS-320 will initialize the volume(s) and begin scanning.

Please wait while the software scans the volume(s) or click **Exit** to cancel the scan.



When the scan is complete, the table will either display **Success** or **Failure**.

Click **Finish** to exit.



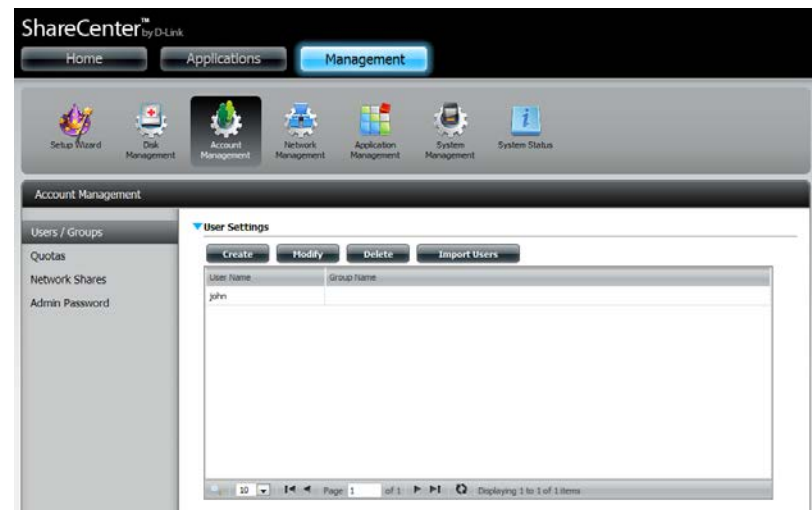
Account Management Users / Groups

Creating a Single User

The Users/Groups menu is used to create and manage user and group accounts. Up to 256 users and 32 groups can be created. By default, all users have read and write access to all folders. However access rules can be created and edited in the Network Shares menu.

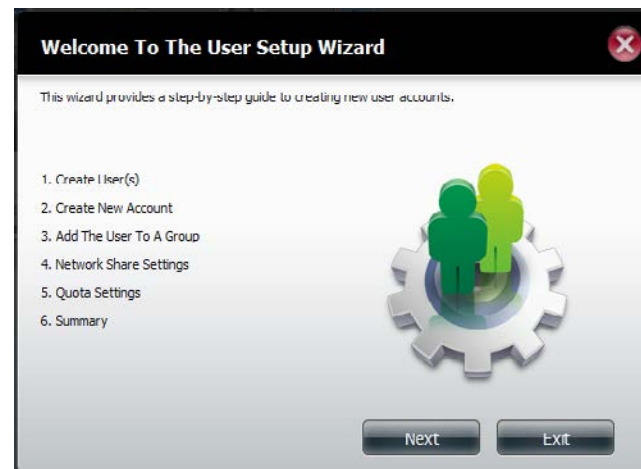
Click **Management > Account Management**.

Click **Users/Groups** on the left side and then click **Create**.

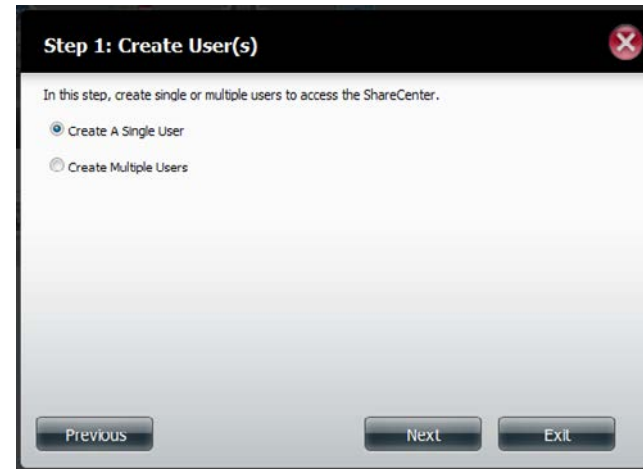


The User Setup Wizard will appear.

Click **Next** to continue.

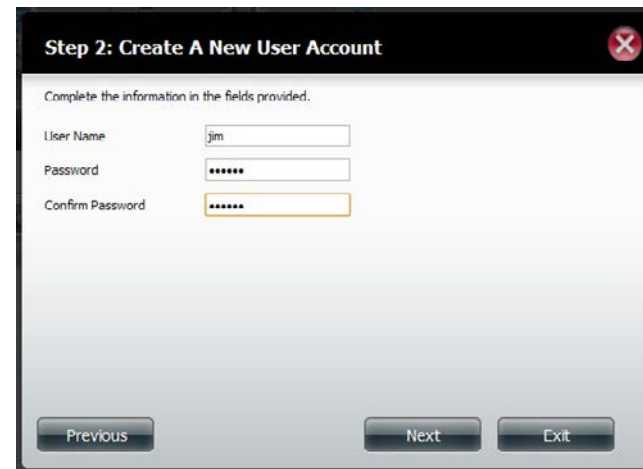


Step 1 - Select **Create a Single User** and then click **Next** to continue.



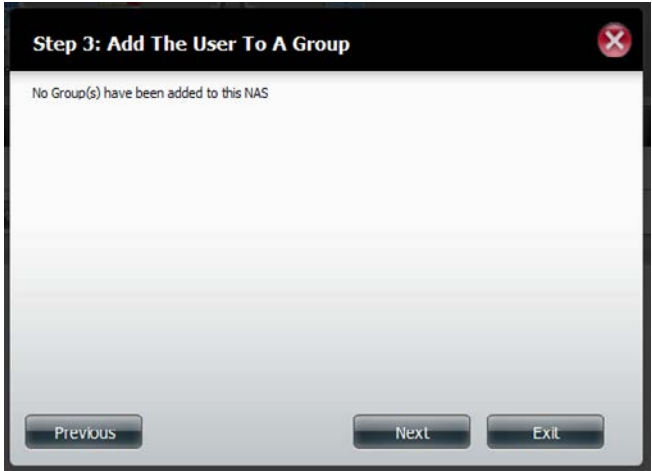
The dialog box titled "Step 1: Create User(s)" has a close button (X) in the top right corner. The main text reads: "In this step, create single or multiple users to access the ShareCenter." Below this, there are two radio button options: "Create A Single User" (which is selected) and "Create Multiple Users". At the bottom, there are three buttons: "Previous", "Next", and "Exit".

Step 2 - Enter the user name and password for the new user and then click **Next** to continue.

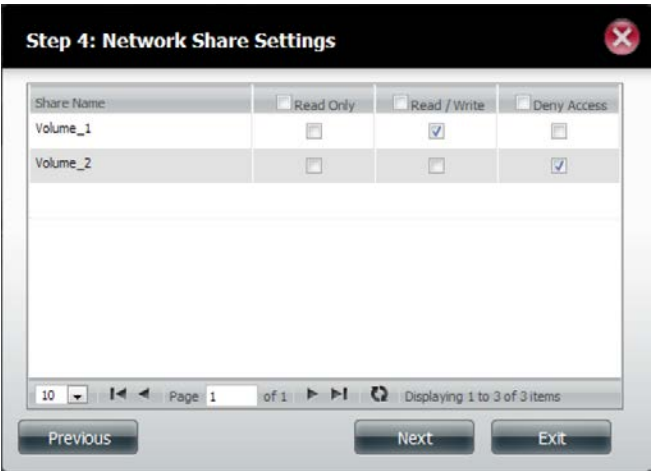


The dialog box titled "Step 2: Create A New User Account" has a close button (X) in the top right corner. The main text reads: "Complete the information in the fields provided." Below this, there are three input fields: "User Name" with the text "jim", "Password" with masked characters "*****", and "Confirm Password" with masked characters "*****". At the bottom, there are three buttons: "Previous", "Next", and "Exit".

Step 3 - Add the user to a group by clicking the Group checkbox. Click **Next** to continue.



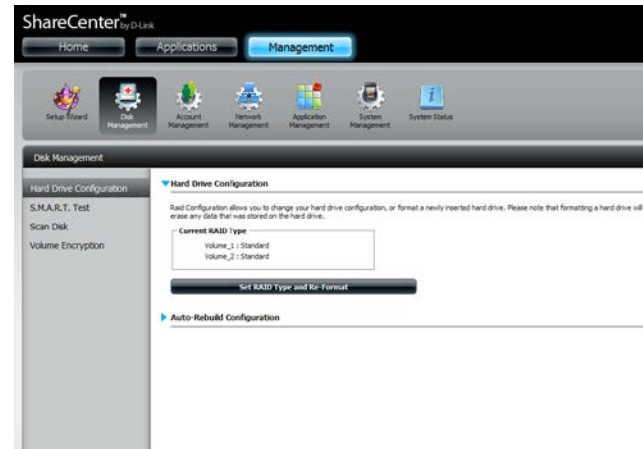
Step 4 - Select the network share settings. Select **Read Only**, **Read/Write**, or **Deny Access**. Click **Next** to continue.



Assign Privileges/Access Methods to the user. Select either **FTP** or **WebDAV**. CIFS and AFP are set as default.

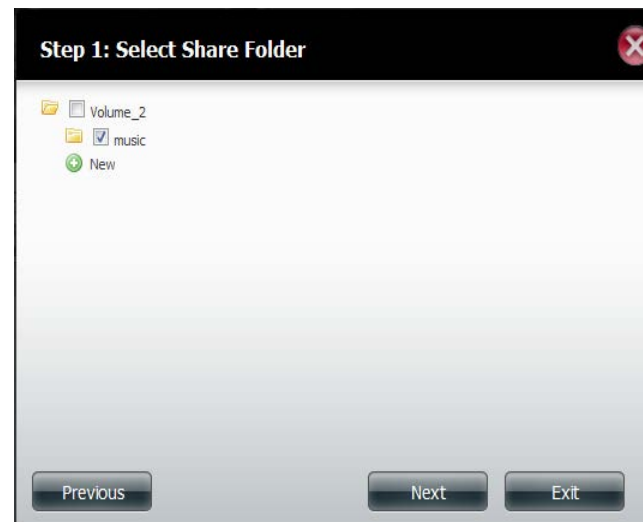
- **CIFS** is short for Common Internet File System.
- **AFP** is short for Apple Filing Protocol.
- **FTP** is short for File Transfer Protocol.
- **WebDAV** is short for Web-based Distribution, Authoring, and Versioning.

Click **Next** to continue.



Select the volumes the user can have WebDAV access to and then select whether to give **Read Only** or **Read/Write** rights.

Click **Next** to continue.



Step 5 - Enter the amount of disk space you wish to assign the user on each volume. Enter zero to provide unlimited disk space to the user. Click **Next** to continue.

Step 5: Quota Settings

Enter the amount of hard drive space you wish to assign these users. Entering "0" into this field denotes the quota as unlimited.

Volume_1 Quota Amount

20

MB

Volume_2 Quota Amount

20

MB

Use zero for unlimited space.

Previous

Next

Exit

Step 6 - The final step is a summary of all the configurations you made. Click **Finish** to accept the changes or click **Exit** to cancel the changes.

Step 6: Summary

This completes the wizard. Click **Previous** to review your settings. Click **Finish** to save the settings.

User Name

Group Name

Read Only

Read / Write

Deny Access

Application List

jim

Volume_1,

Volume_2

FTP,Webdav

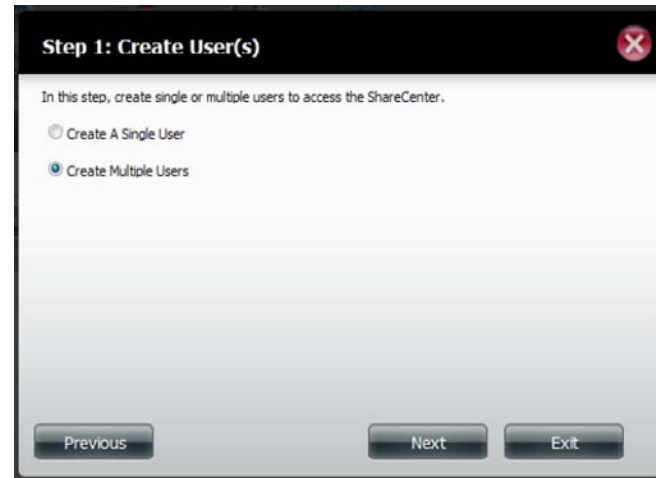
Previous

Finish

Exit

Creating Multiple Users

Step 1 - Select **Create Multiple Users** and then click **Next** to continue.



Step 1: Create User(s)

In this step, create single or multiple users to access the ShareCenter.

☐ Create A Single User

☒ Create Multiple Users

Previous Next Exit

Step 2 - Enter the following information:

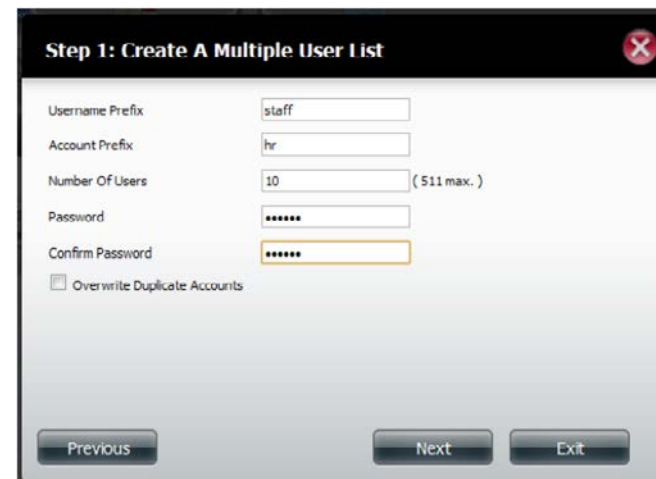
Enter a username.

Enter the account prefix (Eg. this could be a department in the company).

Enter the amount of users you want to create. Next to the input field is the remaining amount of users you can add to the NAS.

Enter a password and confirm it.

Click **Next** to continue.



Step 1: Create A Multiple User List

Username Prefix:

Account Prefix:

Number Of Users: (511 max.)

Password:

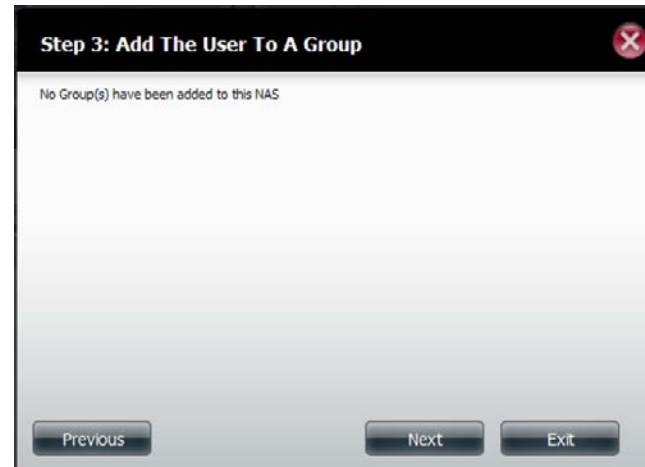
Confirm Password:

☐ Overwrite Duplicate Accounts

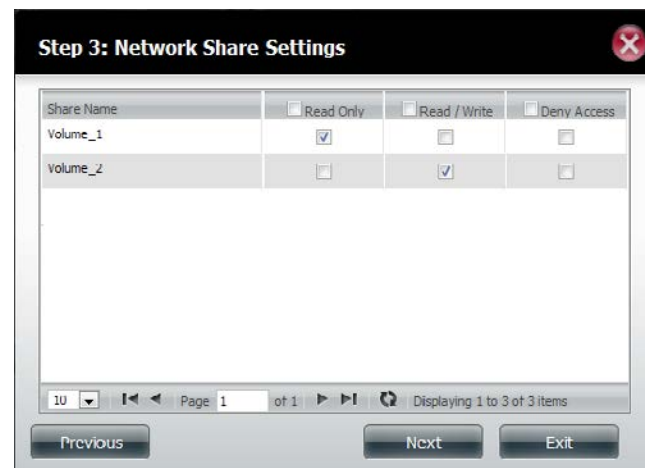
Previous Next Exit

Step 3 - Add the user(s) to a group by clicking the **Group** checkbox.

Click **Next** to continue.



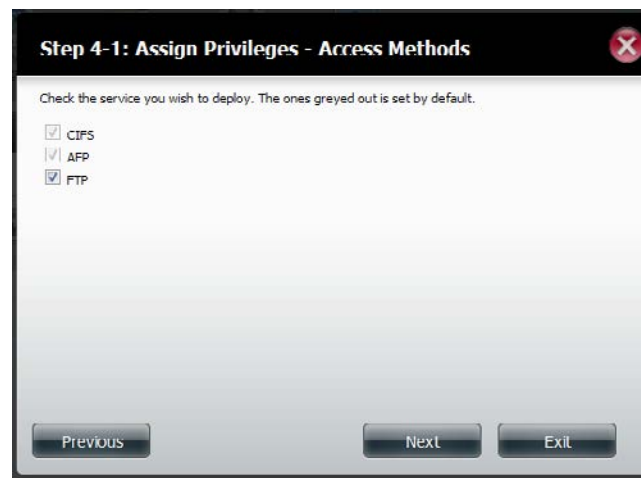
Step 4 - Select the network share settings. Select **Read Only**, **Read/Write**, or **Deny Access**. Click **Next** to continue.



Assign Privileges/Access Methods to the user(s). Select FTP. CIFS and AFP are set as default.

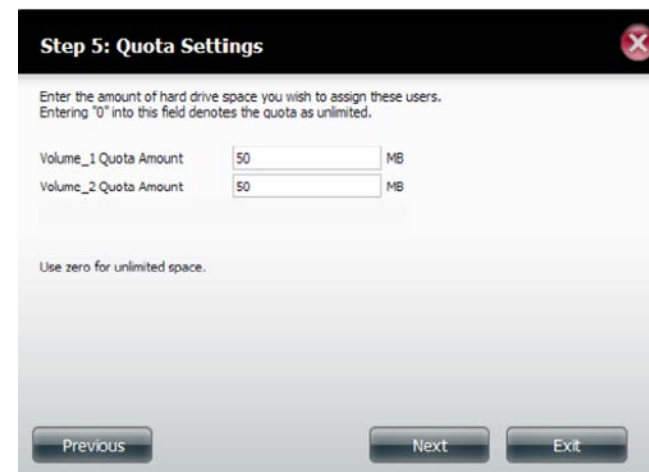
- **CIFS** is short for Common Internet File System.
- **AFP** is short for Apple Filing Protocol.
- **FTP** is short for File Transfer Protocol.

Click **Next** to continue.

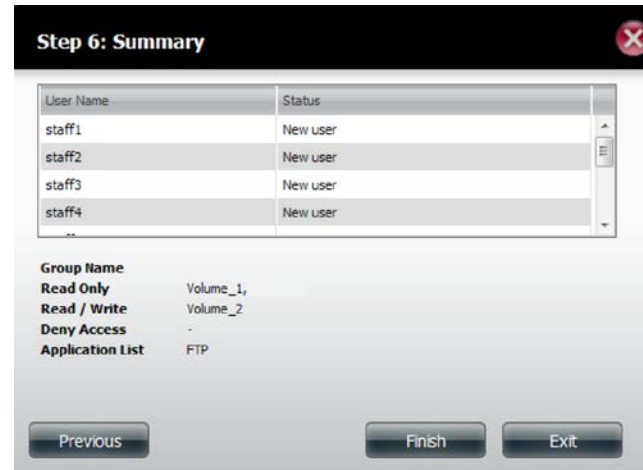


Step 5 - Enter the amount of disk space you wish to assign the user(s) on each volume. Type **0** to provide unlimited disk space to the user(s).

Click **Next** to continue.



Step 6 - The final step is a summary of all the configurations you made. Click **Finish** to accept the changes or click **Exit** to cancel the changes.



The 'Step 6: Summary' window displays a table of user configurations and summary information.

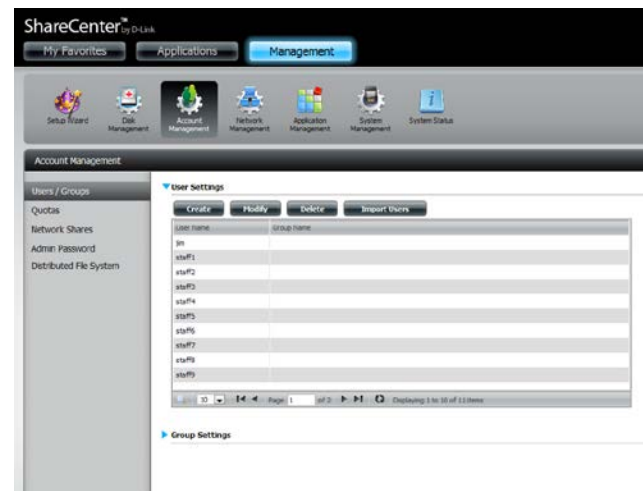
User Name	Status
staff1	New user
staff2	New user
staff3	New user
staff4	New user

Below the table, the following settings are listed:

- Group Name: [Empty]
- Read Only: Volume_1,
- Read / Write: Volume_2
- Deny Access: -
- Application List: FTP

At the bottom, there are three buttons: 'Previous', 'Finish', and 'Exit'.

The User Settings window will show a list of the users created.



The 'ShareCenter' User Settings window shows a list of users under the 'Account Management' section.

Account Management

- Users / Groups
- Quotas
- Network Shares
- Admin Password
- Distributed File System

User Settings

Buttons: Create, Modify, Delete, Import Users

User Name	Group Name
in	
staff1	
staff2	
staff3	
staff4	
staff5	
staff6	
staff7	
staff8	
staff9	

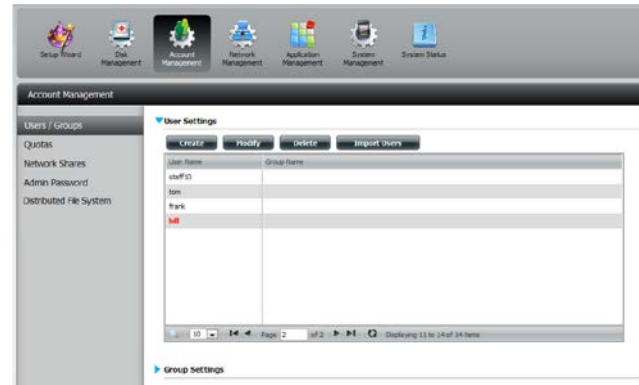
Page 1 of 1, Displaying 1 to 10 of 11 items

Group Settings

Modify Users

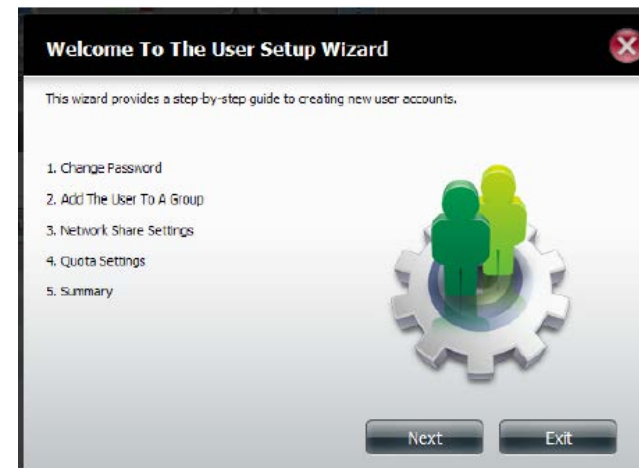
Step 1 - Click the user you wish to modify. The user will be highlighted in red.

Click **Modify** to continue.



Step 2 - The User Setup Wizard will appear.

Click **Next** to continue.



Step 3 - Change the username or password. Click **Next** to continue.

Step 1: Change Password

User Name

bill

Password

Confirm Password

Previous

Next

Skip

Exit

Step 4 - Change the Network Share Settings. Click **Next** to continue.

Step 3: Network Share Settings

Share Name	<input type="checkbox"/> Read Only	<input type="checkbox"/> Read / Write	<input type="checkbox"/> Deny Access
Volume_1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Volume_2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10

Page 1 of 1

Displaying 1 to 3 of 3 items

Previous

Next

Exit

Step 5 - Assign Privileges/Access Methods for the user. Select either FTP or WebDAV. CIFS and AFP are set as default.

- **CIFS** is short for Common Internet File System.
- **AFP** is short for Apple Filing Protocol.
- **FTP** is short for File Transfer Protocol.
- **WebDAV** is short for Web-based Distribution, Authoring, and Versioning.

Click **Next** to continue.



Step 3-1: Assign Privileges - Access Methods

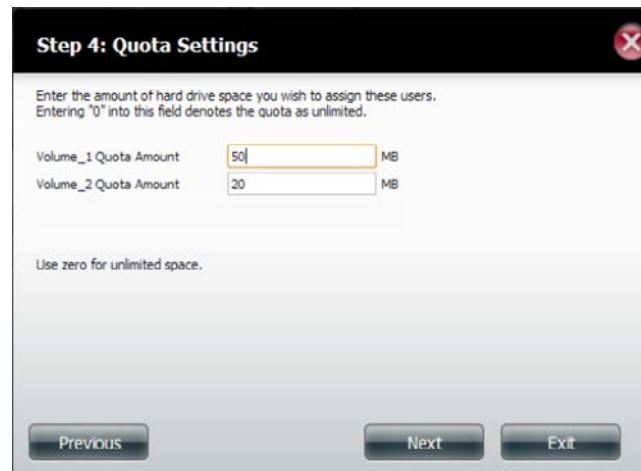
Check the service you wish to deploy. The ones greyed out is set by default.

- ☒ CIFS
- ☒ AFP
- ☒ FTP
- ☐ WebDAV

Previous Next Exit

Step 6 - Enter the re-assigned amount of disk space you wish to assign the user on each volume. Type 0 to provide unlimited disk space to the user.

Click **Next** to continue.



Step 4: Quota Settings

Enter the amount of hard drive space you wish to assign these users.
Entering "0" into this field denotes the quota as unlimited.

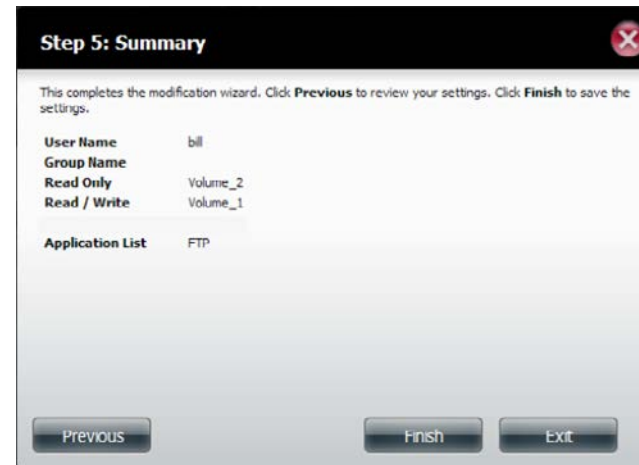
Volume_1 Quota Amount MB

Volume_2 Quota Amount MB

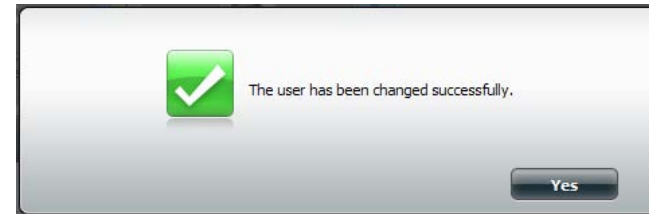
Use zero for unlimited space.

Previous Next Exit

Step 7 - The final step is a summary of all the configurations you made. Click **Finish** to accept the changes or **Exit** to cancel the changes.

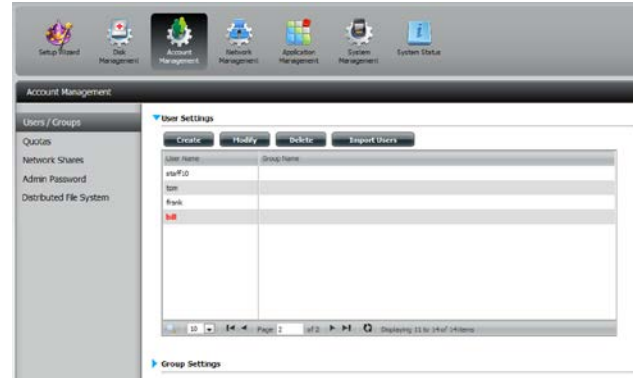


Step 8 - A message will appear stating the user details have been changed successfully. Click **Yes** to exit the wizard.



Deleting Users

Step 1 - Click the user you wish to delete. The user will be highlighted in red. Click **Delete** to continue.



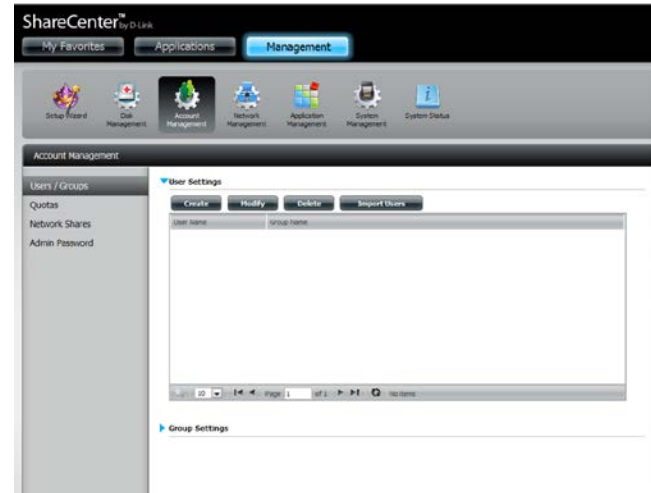
Step 2 - A message will appear prompting you to confirm deleting the user. Click **Yes** to confirm.

The user is now removed from the list.

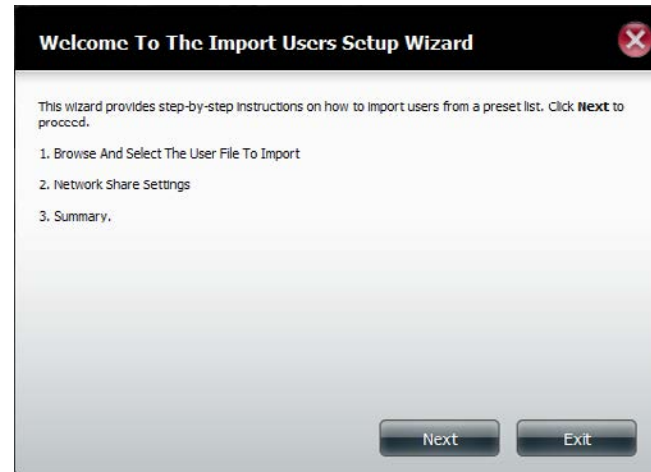


Importing Users

Step 1 - Click **Account Management > Users/Groups > Import Users**.



Step 2 - The Import Users Wizard will start. Click **Next** to continue.

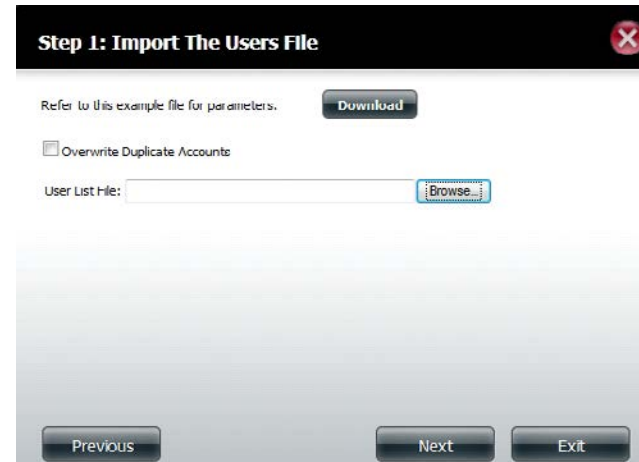


Step 3 - Click **Download** to see a sample file.

Check the **Overwrite Duplicate Accounts** box if this is necessary.

Click **Browse** to select the file you want to import.

Click **Next** to continue



Step 1: Import The Users File

Refer to this example file for parameters. [Download](#)

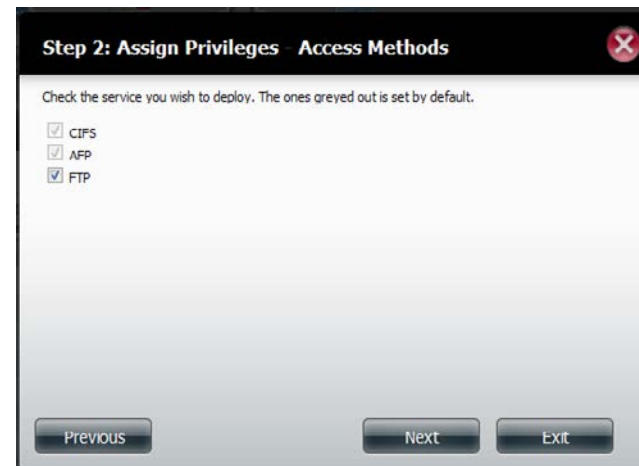
☐ Overwrite Duplicate Accounts

User List File: [Browse...](#)

Previous Next Exit

Step 4 - Assign the privileges and access methods.

Click **Next** to continue.



Step 2: Assign Privileges - Access Methods

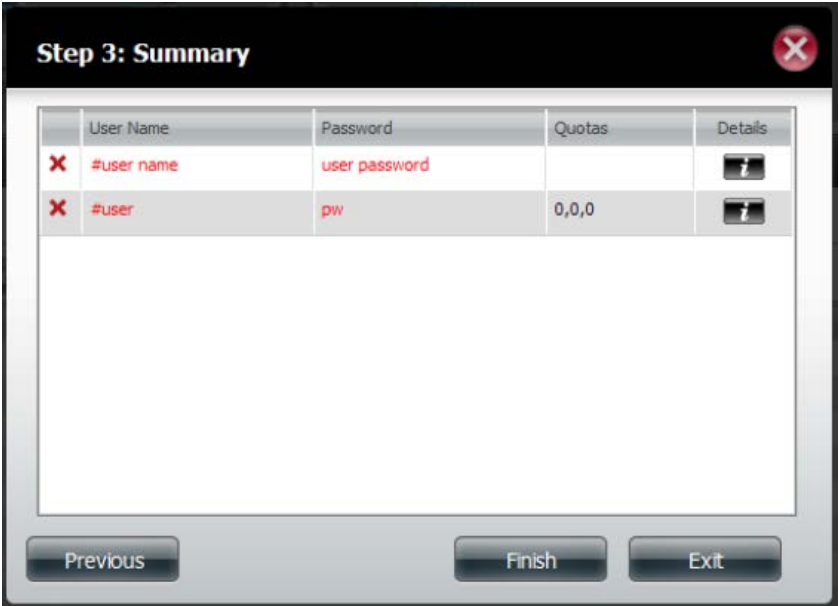
Check the service you wish to deploy. The ones greyed out is set by default.

☒ CIFS
☒ AFP
☒ FTP

Previous Next Exit

Step 5 - The Summary will show a list of the imported users. If there are problems with the user list, the wizard will show the errors in red on the table.

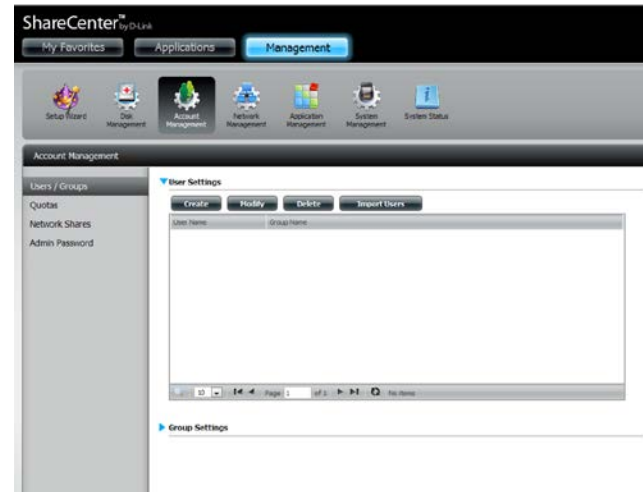
Click **Finish** to close the wizard or go back to change the imported file.



Creating a Group

Step 1 - Click **Account Management > Users/Groups**.

Click the blue arrow next to Group Settings and settings window will appear. Click **New** to create a new Group.



Step 2 - The Group Setup Wizard will now start. Click **Next** to continue.



Step 3 - Enter a Group Name. Click **Next** to continue

Step 1: Create A New Group

Group Name

tech_lab

Previous

Next

Exit

Step 4 - Click the checkbox to select the user(s) you wish to add to the group and then click **Next** to continue.

Step 2: Join User To Group

User Name	<input type="checkbox"/>
staff5	<input type="checkbox"/>
staff6	<input type="checkbox"/>
staff7	<input checked="" type="checkbox"/>
staff8	<input type="checkbox"/>
staff9	<input type="checkbox"/>
staff10	<input type="checkbox"/>
tom	<input checked="" type="checkbox"/>
bill	<input type="checkbox"/>

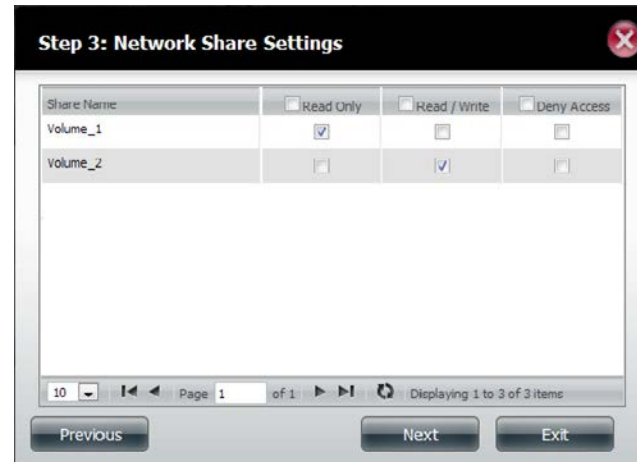
Previous

Next

Exit

Step 5 - Select the Network Share Settings (read, read/write, deny access) for the corresponding disk volume for the group.

Click **Next** to continue.



The screenshot shows a window titled "Step 3: Network Share Settings". It contains a table with columns for "Share Name", "Read Only", "Read / Write", and "Deny Access".

Share Name	Read Only	Read / Write	Deny Access
Volume_1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volume_2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Below the table is a pagination bar showing "Page 1 of 1" and "Displaying 1 to 3 of 3 items". At the bottom are buttons for "Previous", "Next", and "Exit".

Step 6 - Select the Privileges/Access Methods you want to assign to the group. The greyed out selections are assigned by default.

Click **Next** to continue.

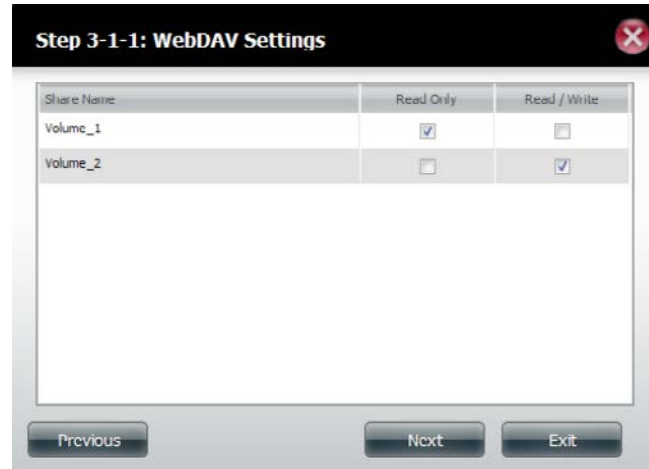


The screenshot shows a window titled "Step 3 :Volume Encryption". It contains a table with columns for "Volume Name", "Type", "Size", and "Encryption".

Volume Name	Type	Size	Encryption
Volume_1	RAID 1	70 GB	<input type="checkbox"/>

Below the table is a "Previous" button and a "Next" button (which is highlighted in blue), and an "Exit" button.

Step 7 - Select the appropriate WebDAV settings and click **Next** to continue.

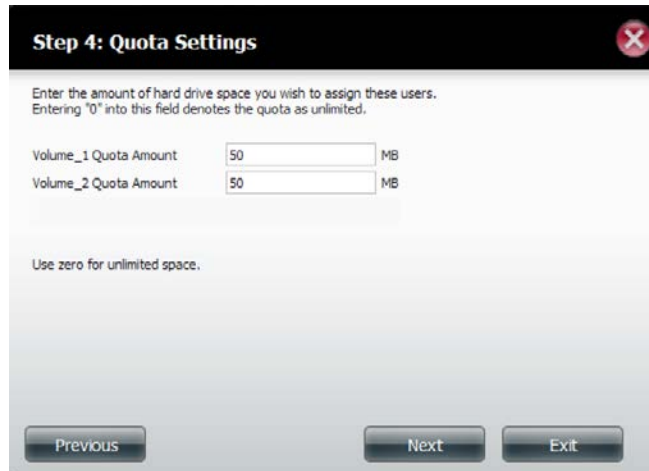


The screenshot shows a window titled "Step 3-1-1: WebDAV Settings" with a close button in the top right. It contains a table with two columns: "Share Name" and two sub-columns for permissions: "Read Only" and "Read / Write".

Share Name	Read Only	Read / Write
Volume_1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Volume_2	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Below the table are three buttons: "Previous", "Next", and "Exit".

Step 8 - Enter the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group. Click **Next** to continue.



The screenshot shows a window titled "Step 4: Quota Settings" with a close button in the top right. It contains the following text:

Enter the amount of hard drive space you wish to assign these users.
Entering "0" into this field denotes the quota as unlimited.

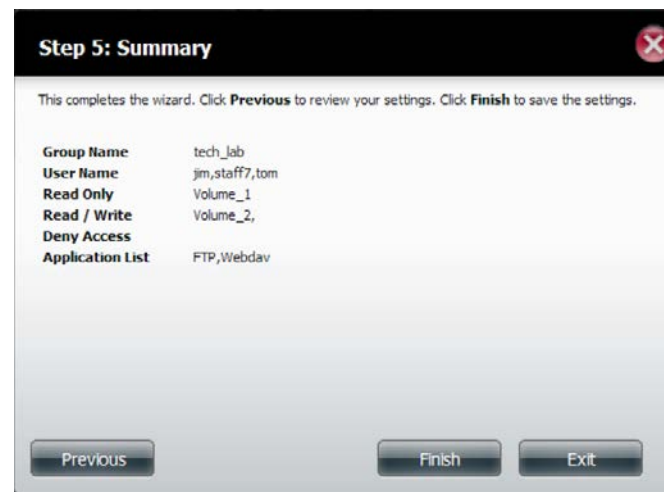
Volume_1 Quota Amount MB

Volume_2 Quota Amount MB

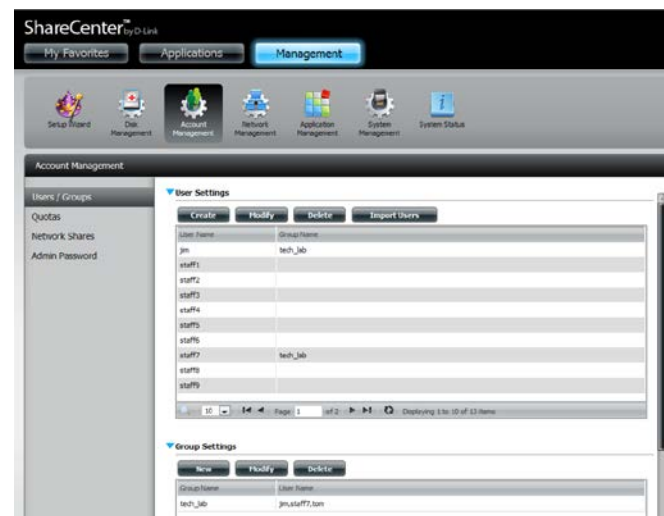
Use zero for unlimited space.

At the bottom are three buttons: "Previous", "Next", and "Exit".

Step 9 - The wizard is now complete. The last step shows a summary of the group you created. Click **Previous** to change your settings or **Finish** to end the wizard.



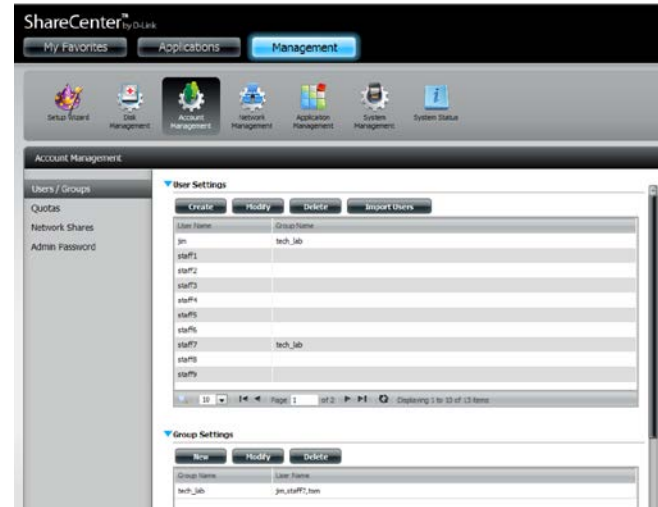
Step 10 - Under Group Settings, a table will display the group you just created.



Modifying a Group

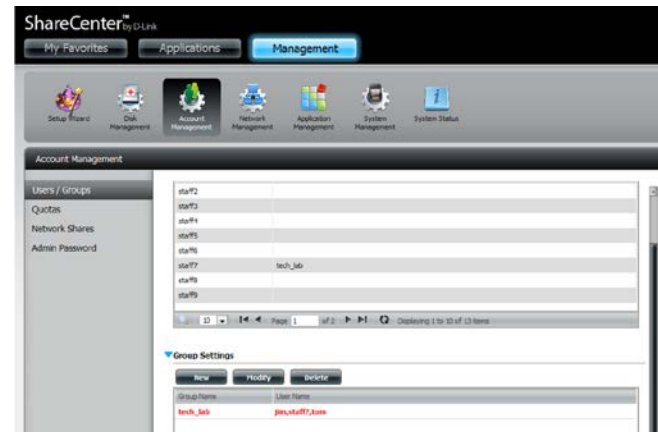
Step 1 - Click **Account Management** > **Users/Groups**.

Click the blue arrow next to Group Settings and the Group Settings table will appear.



Step 2 - Select the group you want to modify. Your selection will turn red.

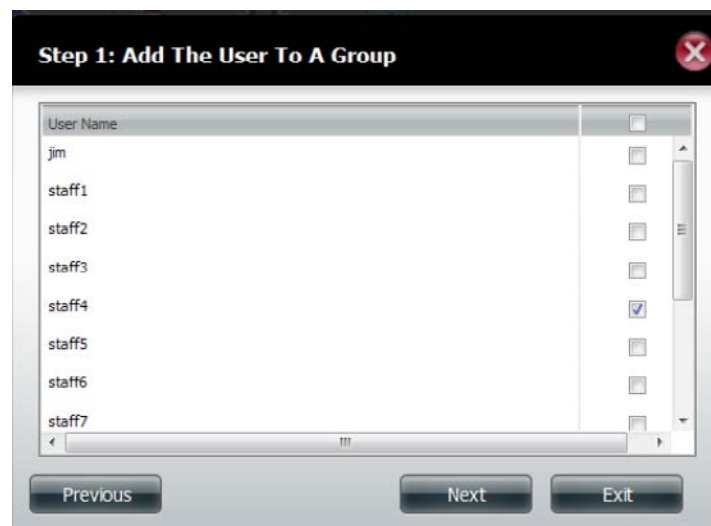
Click **Modify** to change the settings for the Group.



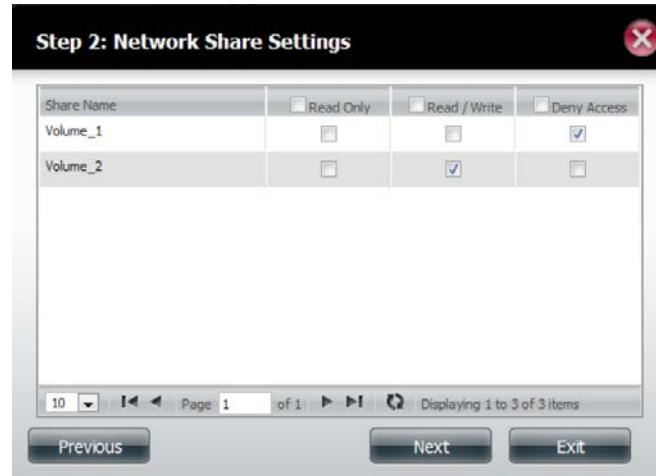
Step 3 - The Group Setup Wizard will now start. Click **Next** to continue.



Step 4 - Make the necessary modifications to the group and then click **Next** to continue.



Step 5 - Select the appropriate Network Share Settings (read, read/write, deny access) for the corresponding disk volume for the group. Click **Next** to continue.



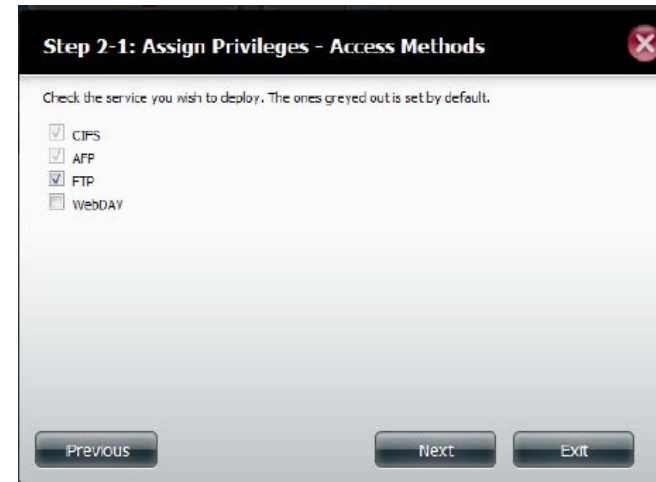
The screenshot shows a window titled "Step 2: Network Share Settings" with a close button in the top right. It contains a table with columns for "Share Name", "Read Only", "Read / Write", and "Deny Access".

Share Name	<input type="checkbox"/> Read Only	<input type="checkbox"/> Read / Write	<input type="checkbox"/> Deny Access
Volume_1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Volume_2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Below the table is a large empty text area. At the bottom, there is a pagination bar showing "Page 1 of 1" and "Displaying 1 to 3 of 3 items". Navigation buttons "Previous", "Next", and "Exit" are at the bottom.

Step 6 - Select the appropriate privileges you want to assign to the group. The greyed out selections are assigned by default and cannot be modified.

Click **Next** to continue.



The screenshot shows a window titled "Step 2-1: Assign Privileges - Access Methods" with a close button in the top right. It contains a list of services with checkboxes. The text "Check the service you wish to deploy. The ones greyed out is set by default." is displayed above the list.

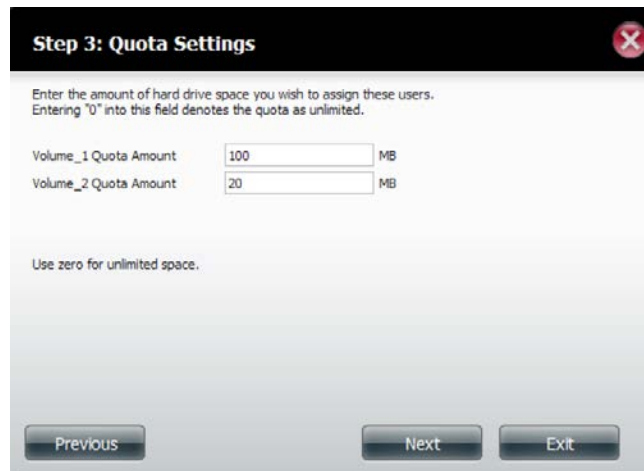
Check the service you wish to deploy. The ones greyed out is set by default.

- ☒ CIFS
- ☒ AFP
- ☒ FTP
- ☐ WebDAV

Navigation buttons "Previous", "Next", and "Exit" are at the bottom.

Step 7 - Edit the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group.

Click **Next** to continue.



Step 3: Quota Settings

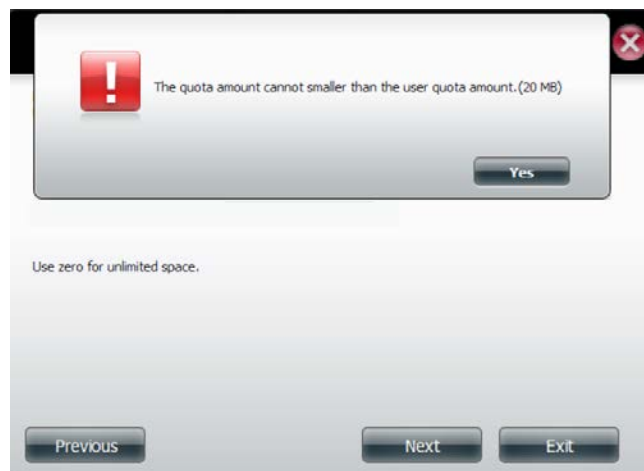
Enter the amount of hard drive space you wish to assign these users.
Entering "0" into this field denotes the quota as unlimited.

Volume_1 Quota Amount	<input type="text" value="100"/>	MB
Volume_2 Quota Amount	<input type="text" value="20"/>	MB

Use zero for unlimited space.

Step 8 - When editing the quota, make sure the size is not smaller than the user quota on his/her account.

Click **Yes** to change the quota.



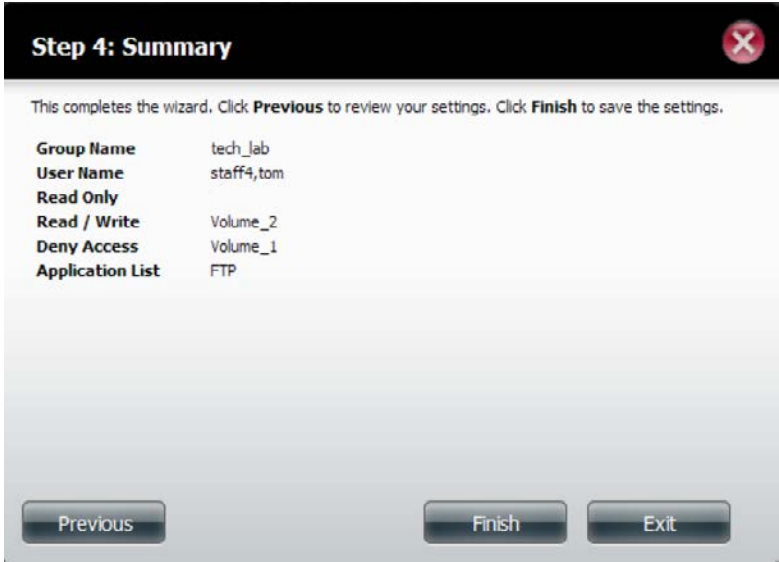
Warning

The quota amount cannot smaller than the user quota amount.(20 MB)

Use zero for unlimited space.

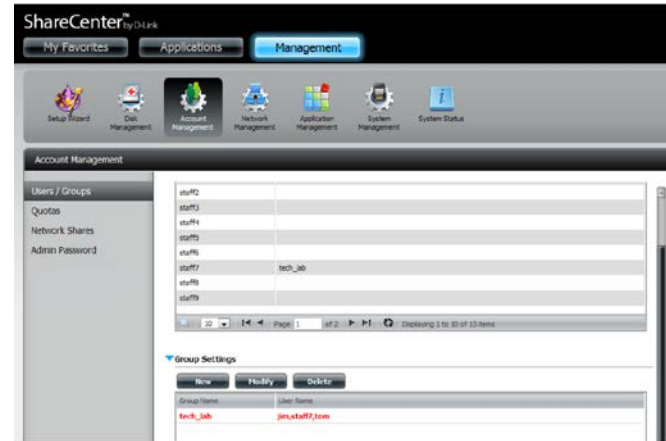
Step 9 - The wizard is now complete and will display a summary of the group you edited.

Click **Previous** to change your settings or **Finish** to end the wizard. **Exit** will cancel all changes you made.



Deleting a Group

Step 1 - Select the Group you want to delete and click **Delete**.



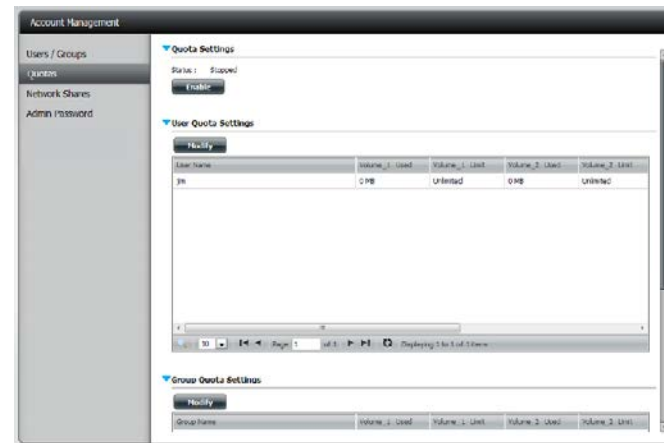
Step 2 - A warning message will appear asking you to verify if you want to delete the Group. Click **Yes** to delete the Group or **No** to cancel your decision.



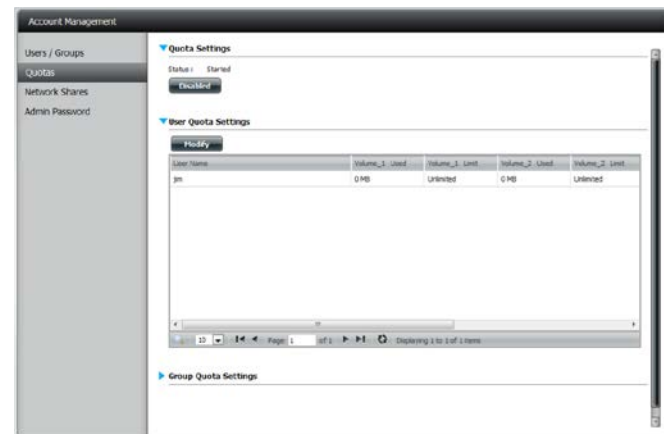
Quotas

The ShareCenter supports storage quotas for both groups and individuals. Assigning a quota to a group or user will limit the amount of storage allocated. By default, users and groups do not have a quota. Click **Account Management** and then **Quotas** on the left side.

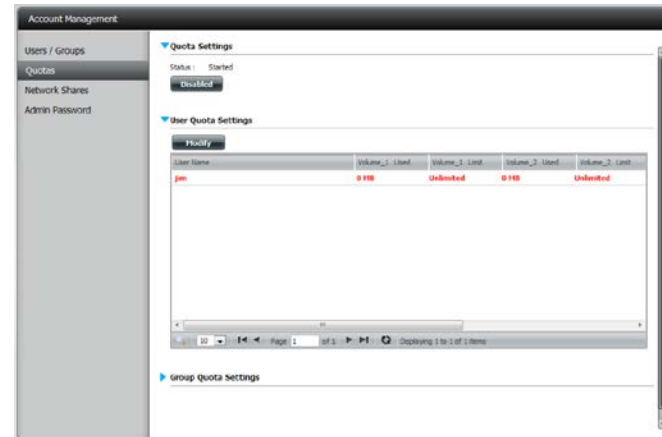
Click **Enable** to activate Quota Settings. The status will now display 'Started' notifying you that the Quota Settings are enabled.



To Modify a User's Quota Settings, click the blue arrow next to User Quota Settings to reveal a table of users.

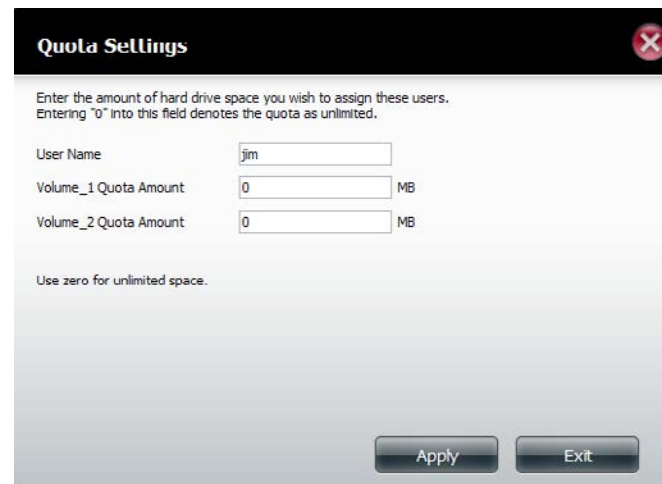


Select the User you want to modify. Your selection will turn red.
Click **Modify** to change the user's settings.

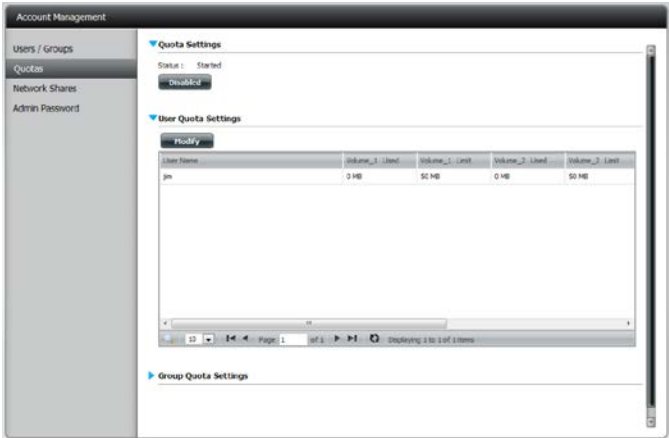


The Quota Settings configuration box will display the user account you want to modify. Enter a new quota amount for each volume.

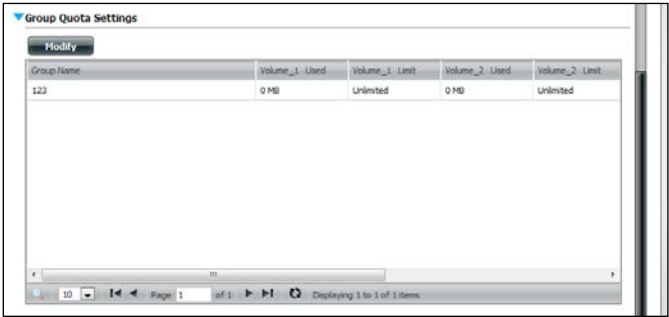
Click **Apply** to confirm your settings.



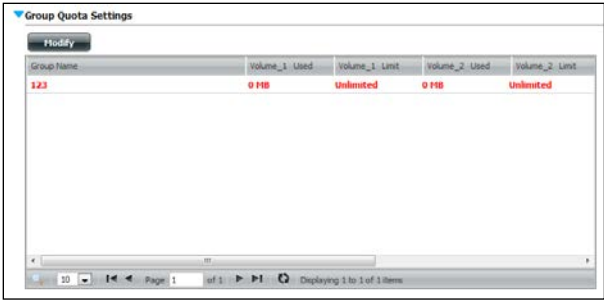
The modified quota settings will be displayed in the table.



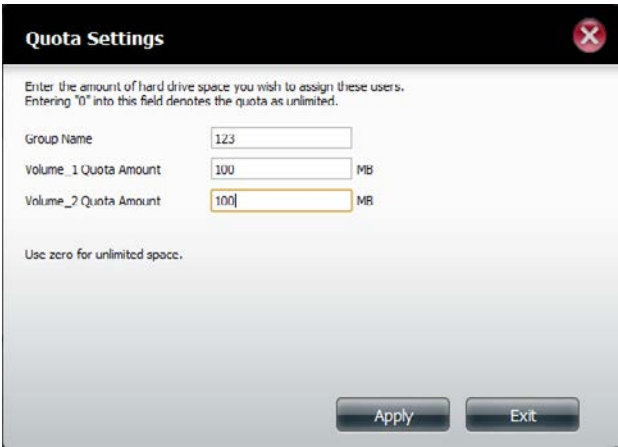
For Group Quota Settings, click the blue drop-down arrow next to Group Quota Settings to view the group quota table.



Select the group you want to modify. Your selection will turn red. Click **Modify**.



The Group Quota Settings screen will display the group you want to modify. Enter a new quota amount for each volume for the current group and click **Apply**.



The modified quota settings will be displayed in the table.

Group Quota Settings

Modify

Group Name	Volume_1_Used	Volume_1_Limit	Volume_2_Used	Volume_2_Limit
123	0 MB	100 MB	0 MB	100 MB

10Page 1 of 1Displaying 1 to 1 of 1 items

Network Shares

The Network Shares page allows the user to configure shared folders and rights to specific users and groups. In order to create network access rules, the default rule must be removed first. This can be done simply by clicking on the **Delete** button. You can also mount .iso files in the ISO Mount Shares settings. When a user has access to a mounted .iso, he/she will also have access to all the files on it.

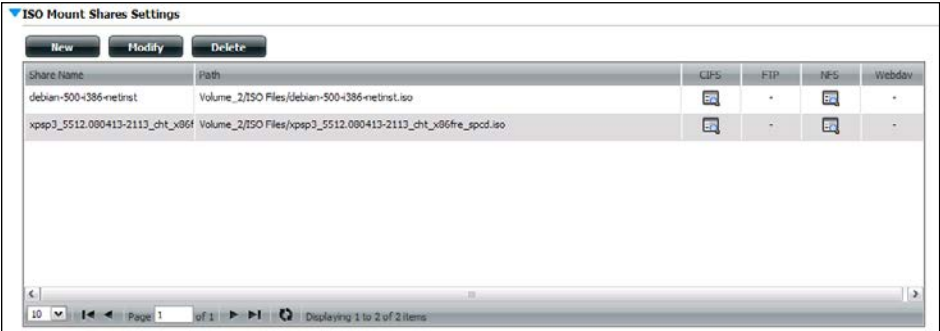
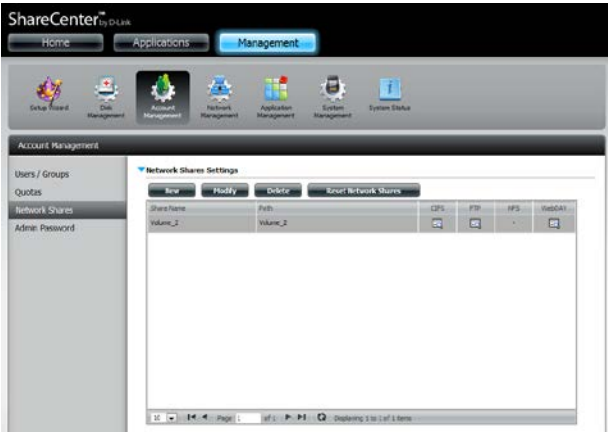
Network Share/ISO Mount Shares: The Network Shares Settings window allows the user to add, modify, and remove both new and existing Network Share and ISO Mount Share Settings.

To add a rule click on the **New** button. To modify an existing rule click on the **Modify** button. To remove a rule click on the **Delete** button.

To select a rule, simply click on the rule. Your selection will turn red, indicating it is selected for use.

At the bottom of the table, the user can navigate through pages and also refresh the window by click on the **Refresh** button.

Click on the **Reset Network Shares** button to reset the network access list to the default configuration.



Add/Modify Network Shares Wizard

The following section will describe how to add a new Network Share on the ShareCenter. To add a Network Share click on the **New** button. An easy to configure wizard will launch.

Step 1 - This window welcomes the user to the setup wizard for creating a new network share.

In this wizard the user will be able to:

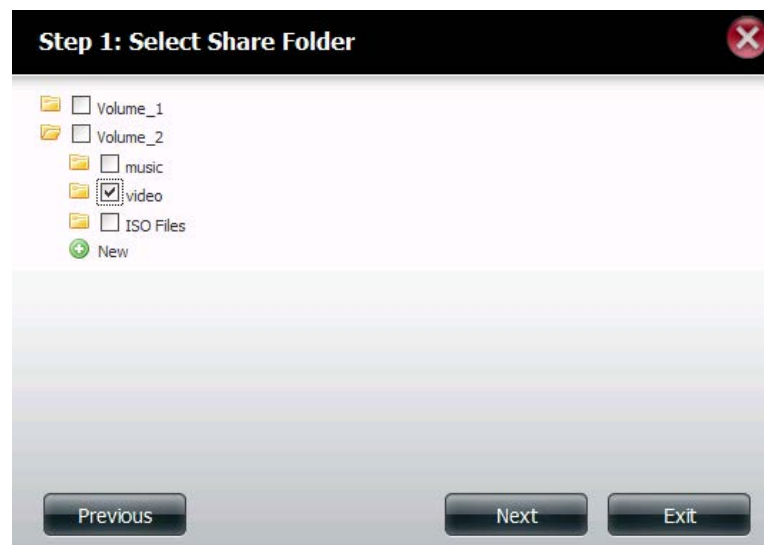
- 1) Select share folders.
- 2) Configure shared folder access rights.
- 3) Configure network access settings.
- 4) View a summary of the configuration before completing.

Click **Next** to continue.



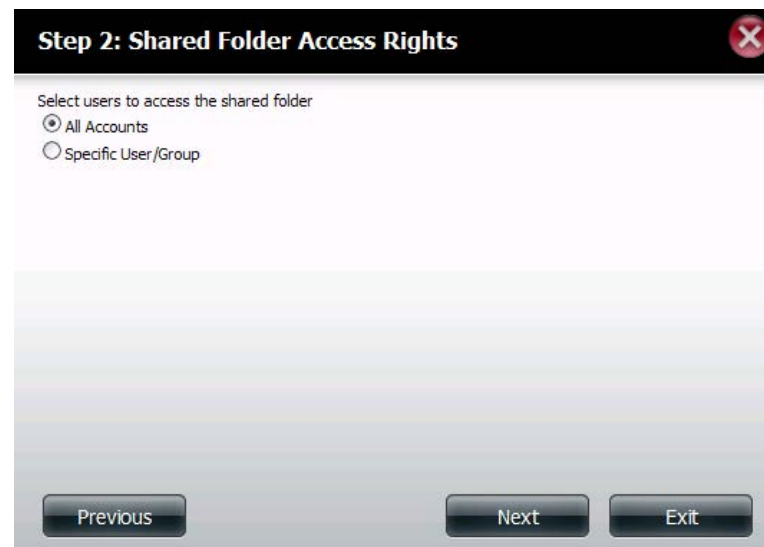
Step 2 - Select the Share Folder from one of the volumes.

Click **Next** to continue.



Step 3 - Select the user accounts or group which are allowed to access this folder(s). Select **All Accounts** to allow access to this folder to all the accounts. Select **Specific User/Group** to only allow certain users or groups access to this folder.

Click **Next** to continue.



Step 4 - Select the appropriate access rights for the share. Options to select from are Read Only, Read/Write, and Deny Access.

This procedure can also be used to block certain users from accessing certain folders.

Click **Next** to continue.



Step 5 - If you selected **Specific User/Group** in Step 3, then this step allows you to set the access rights for each User configured on the ShareCenter.

Click **Next** to continue.

The screenshot shows a configuration window titled "Step 2-2: Select Users" with a close button in the top right corner. It contains a table with columns for "User Name", "Read Only", "Read / Write", and "Deny Access". There are three rows for "user 1", "user 2", and "user 3". Each row has three checkboxes. Below the table is a scroll bar and a pagination control showing "Page 1 of 1" and "Displaying 1 to 3 of 3 items". At the bottom are "Previous", "Next", and "Exit" buttons.

User Name	<input type="checkbox"/> Read Only	<input type="checkbox"/> Read / Write	<input type="checkbox"/> Deny Access
user 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
user 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
user 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 of 1 | Displaying 1 to 3 of 3 items

Previous Next Exit

Step 6 - If you selected **Specific user/Group** in Step 3, then this step allows you to set the access rights for each Group configured on the ShareCenter.

Click **Next** to continue.

The screenshot shows a configuration window titled "Step 2-2-1: Select Groups" with a close button in the top right corner. It contains a table with columns for "Group Name", "Read Only", "Read / Write", and "Deny Access". There are two rows for "group1" and "group2". Each row has three checkboxes. Below the table is a scroll bar and a pagination control showing "Page 1 of 1" and "Displaying 1 to 2 of 2 items". At the bottom are "Previous", "Next", and "Exit" buttons.

Group Name	<input type="checkbox"/> Read Only	<input type="checkbox"/> Read / Write	<input type="checkbox"/> Deny Access
group1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
group2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 of 1 | Displaying 1 to 2 of 2 items

Previous Next Exit

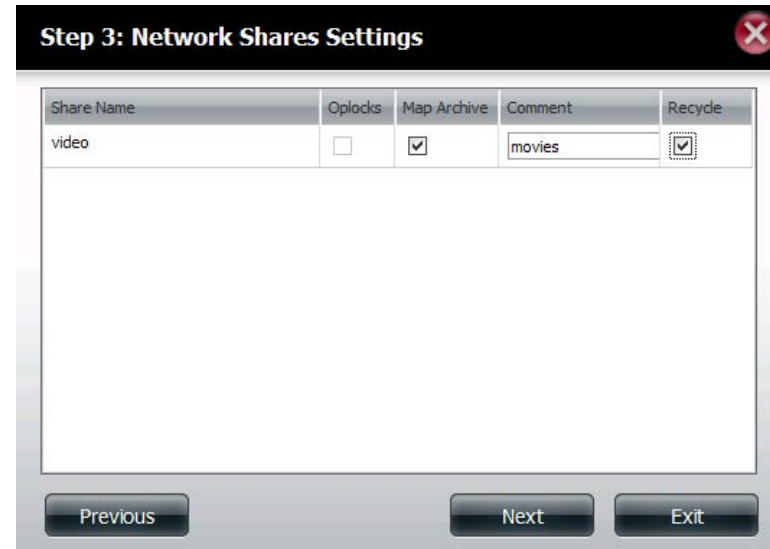
Step 7 - Here you can assign privileges to this share.

Opportunistic locks (oplocks) are a characteristic of the LAN Manager networking protocol implemented in the 32-bit Windows family.

Oplocks are guarantees made by a server for a shared logical volume to its clients. These guarantees inform the Client that a file's content will not be allowed to be changed by the server, or if some change is imminent, the client will be notified before the change is allowed to proceed.

Oplocks are designed to increase network performance when it comes to network file sharing. However it is recommended to set the share oplocks to No (off) when using file-based database applications. When enabled, the file attribute "Map Archive" will be copied as the file is being stored on the ShareCenter.

Click **Next** to continue.



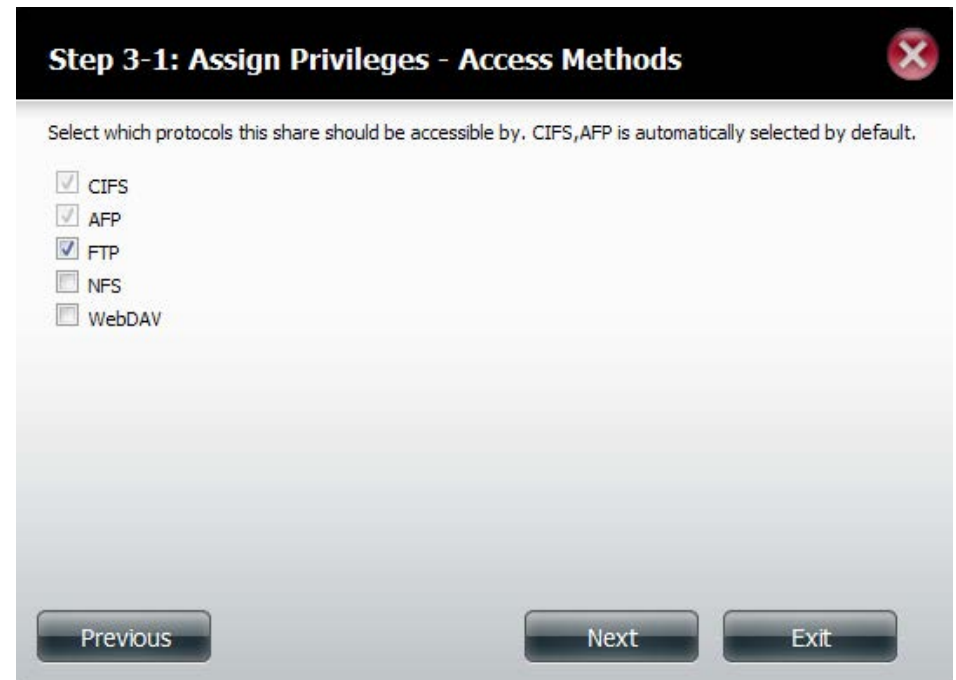
Share Name	Oplocks	Map Archive	Comment	Recycle
video	<input type="checkbox"/>	<input checked="" type="checkbox"/>	movies	<input checked="" type="checkbox"/>

Previous Next Exit

Step 8 - Here you can assign more protocol privileges that a user can use to access this share. Options to choose from are FTP, NFS, and WebDAV. CIFS and AFP are set as default.

- CIFS is short for Common Internet File System.
- AFP is short for Apple Filing Protocol.
- FTP is short for File Transfer Protocol
- NFS is short for Network File System.
- WebDAV is short for Web-based Distributed Authoring and Versioning.

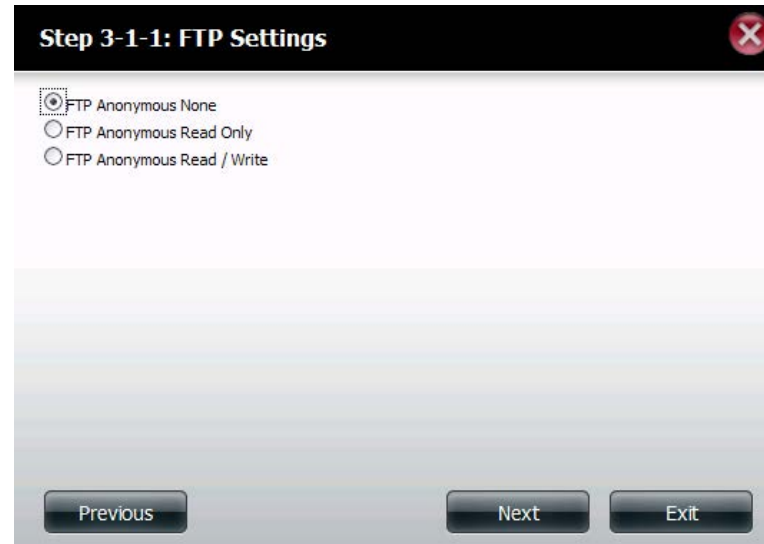
Click **Next** to continue.



Step 9 - Here you can configure the FTP settings for this share. FTP access can be:

- 1) FTP Anonymous None (No Access).
- 2) FTP Anonymous Read Only (Limited Access).
- 3) FTP Anonymous Read/Write (Full Access).

Click **Next** to continue.



The dialog box titled "Step 3-1-1: FTP Settings" contains three radio button options. The first option, "FTP Anonymous None", is selected. The other two options are "FTP Anonymous Read Only" and "FTP Anonymous Read / Write". At the bottom of the dialog are three buttons: "Previous", "Next", and "Exit".

Step 3-1-1: FTP Settings


☒ FTP Anonymous None
☐ FTP Anonymous Read Only
☐ FTP Anonymous Read / Write

Previous Next Exit

If you checked NFS as an access method to your network share then this step allows you to set the parameters below:

- **Host** - Allowable host address that can access using NFS (*indicates all hosts)
- **Root Squash** - Disables writing to the Root owned directories and files on the system when the user has root access privileges.
- **Write** - provide write permission to the file system.

Click **Next** to continue.



The dialog box titled "Step 3-1-2: NFS Settings" contains a table with four columns: "Share Name", "Host", "Root Squash", and "Write". The first row has the values "video", "*", a checked checkbox, and a checked checkbox. Below the table is a large empty text area. At the bottom of the dialog are three buttons: "Previous", "Next", and "Exit".

Step 3-1-2: NFS Settings

Share Name	Host	Root Squash	Write
video	*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Previous Next Exit

If you checked WebDAV as an access method, then this step will allow you to set the access parameters.

Click **Next** to continue.

Step 3-1-3: WebDAV Settings

	Share Name	Read Only	Read / Write	Summary
<input checked="" type="checkbox"/>	video	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Read Only: - Read / Write: All Accounts

Previous

Next

Exit

Step 10 - Here a summary of the created shares will be displayed.

Click **Finish** to save your settings.

Step 4: Finish

Your settings are now complete. Review your settings below and then click the **Finish** button below to save the settings to your NAS.

Share Name

video

Read Only

Read / Write

All Accounts

Deny Access

Application List

FTP,NFS,WebDAV

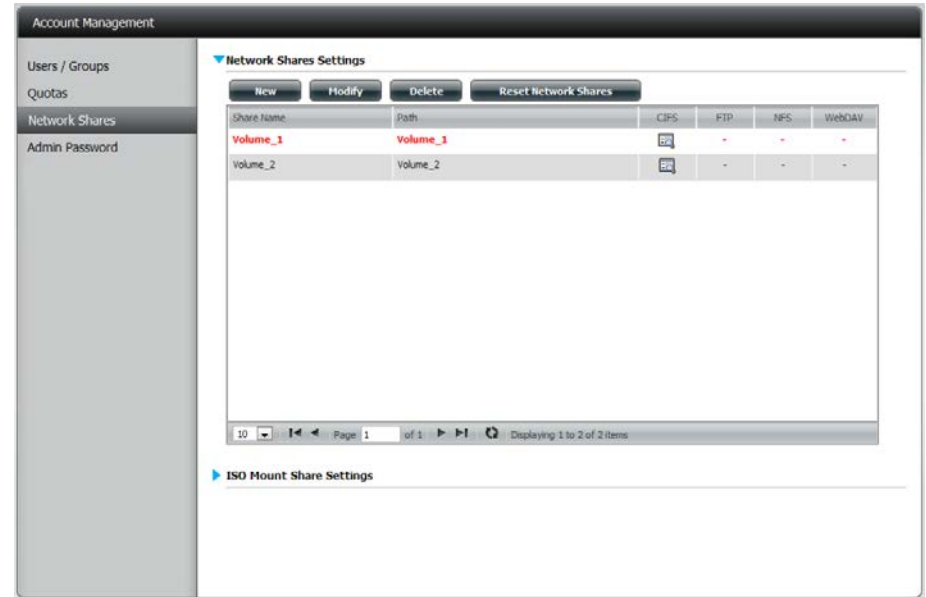
Previous

Finish

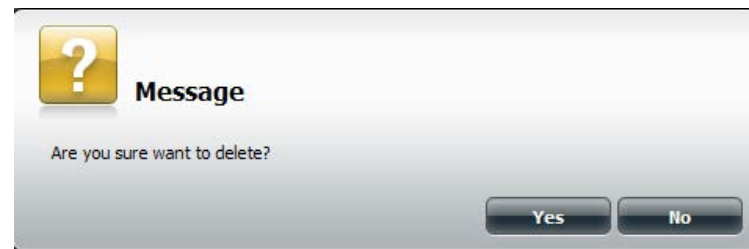
Exit

Deleting a Network Share

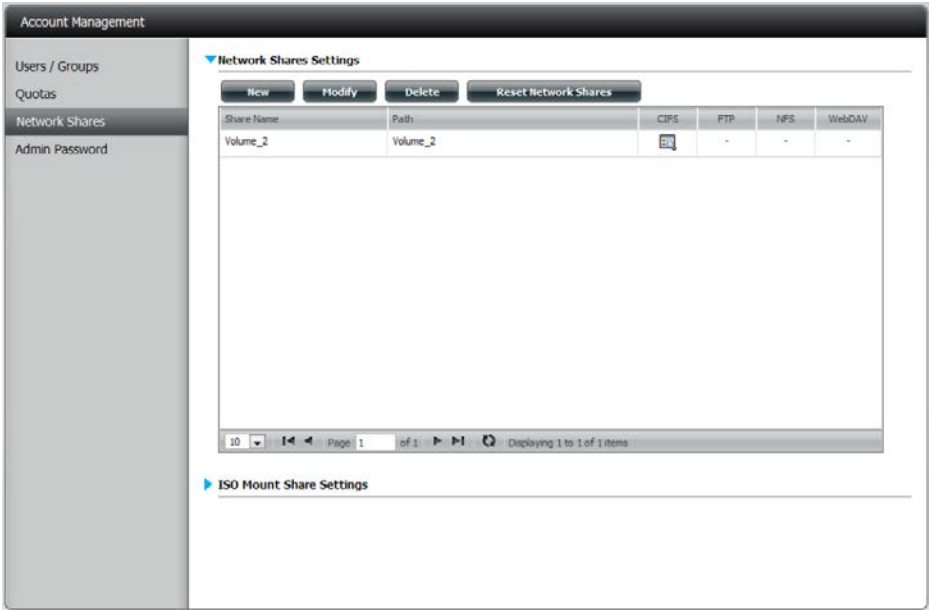
Select the Network Share you wish to delete. Your selection will turn red. Click **Delete** to remove the share.



A warning message will appear prompting you to verify if you wish to delete the Share. Click **Yes** to delete or **No** to Cancel.



The deleted Share will be removed from the Network Share List.



Resetting the Network Shares

Click the **Reset Network Shares** button.



A warning message will prompt you to confirm your selection.

Click **Yes** to confirm or **No** to cancel.



ISO Shares Setup Wizard

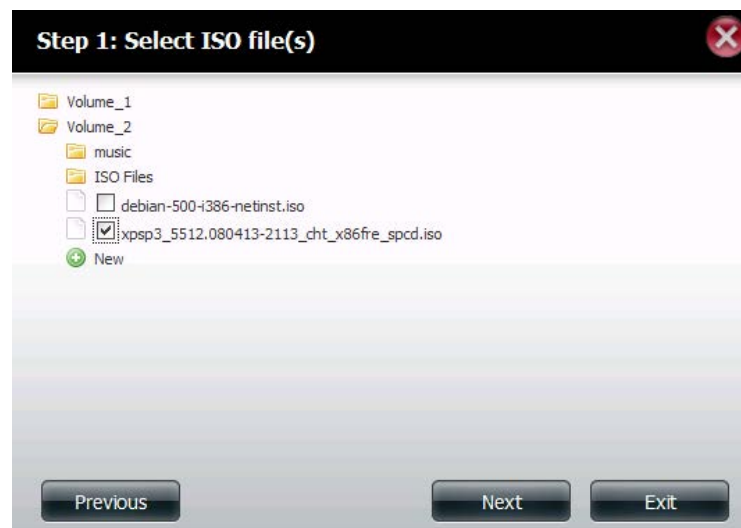
The following section will describe how to add a new ISO mount on the ShareCenter. To add an ISO Mount, click on the **New** button. An easy to configure wizard will launch.

Click **Next** to continue.



Select the ISO file to mount.

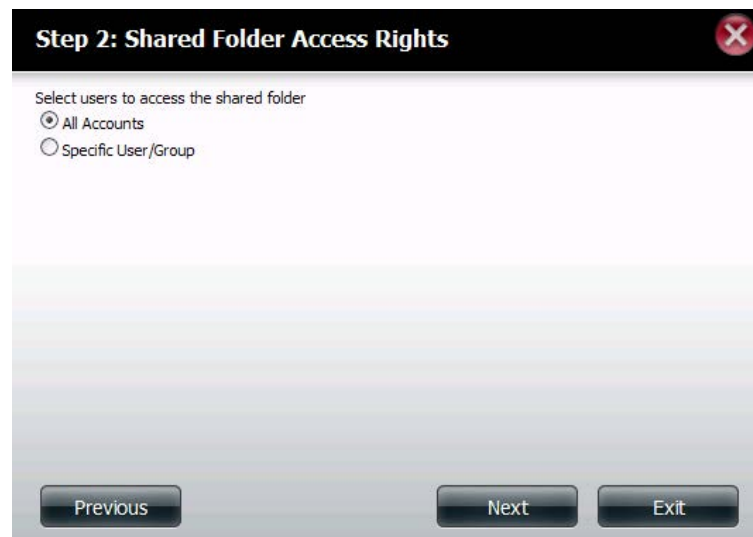
Check the box to the left of the .iso file to select it and click **Next** to continue.



Assign access privileges to this ISO Mount share.

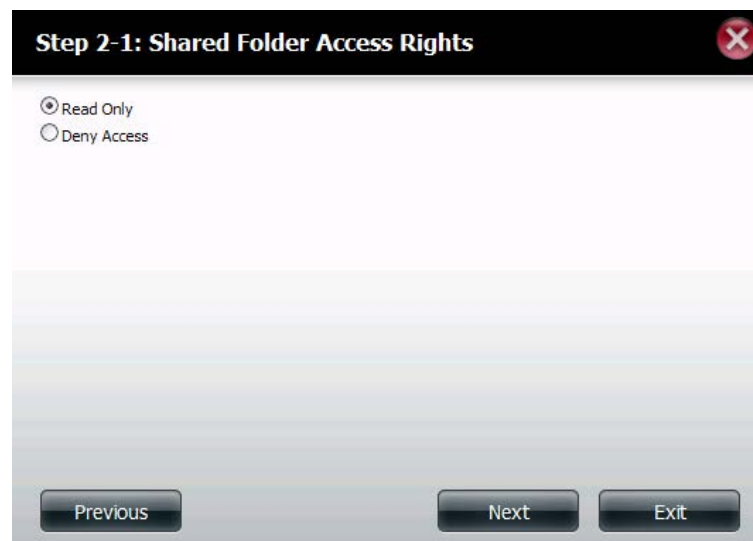
- Select **All Accounts** to assign the ISO Mount share read/deny privileges to all users.
- Select **Specific User/Group** in order to assign read/deny privileges to individual users and groups.

Click **Next** to continue.



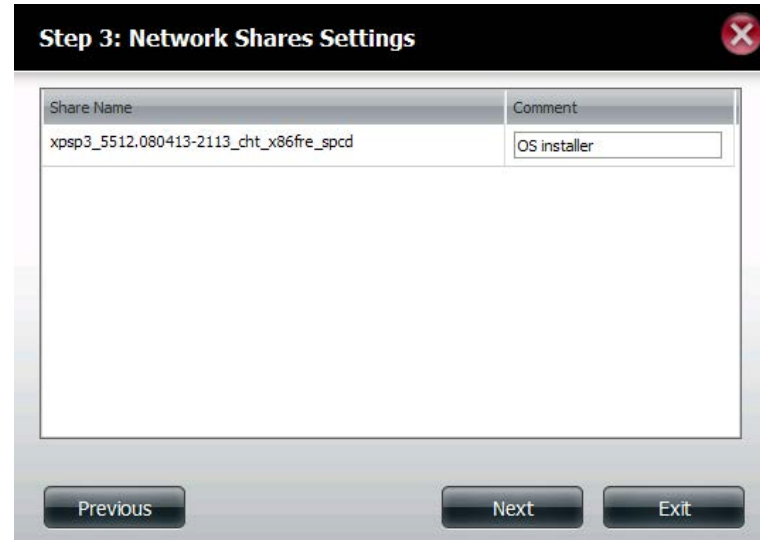
You can assign **Read Only** or **Deny Access** privileges to the ISO Mount share here. Click on the appropriate radio button for the privileges you would like to assign.

Click **Next** to continue.



Add a comment that describes the ISO Mount Share.

Click **Next** to continue.



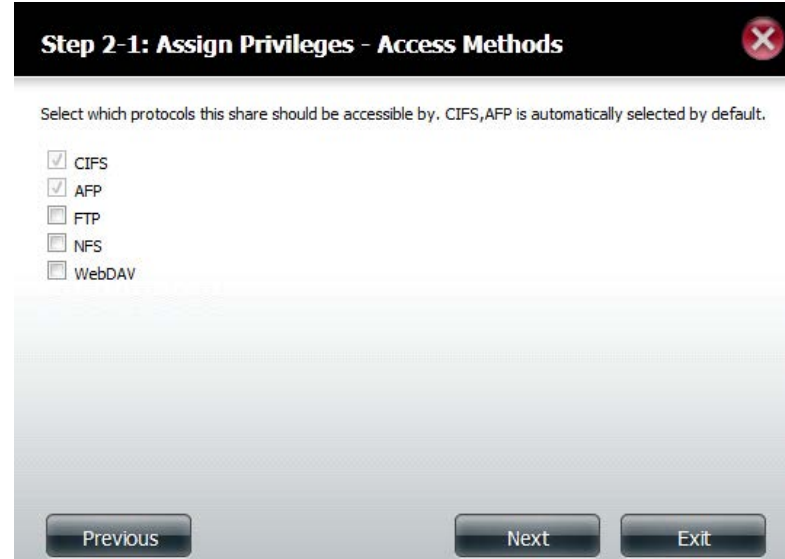
The screenshot shows a window titled "Step 3: Network Shares Settings" with a close button in the top right corner. It contains a table with two columns: "Share Name" and "Comment". The "Share Name" column has the text "xpsp3_5512.080413-2113_cht_x86fre_spcd". The "Comment" column has a text box containing "OS installer". Below the table is a large empty text area. At the bottom of the window are three buttons: "Previous", "Next", and "Exit".

Share Name	Comment
xpsp3_5512.080413-2113_cht_x86fre_spcd	OS installer

Assign more protocol privileges that a user can use to access this share. Options to choose from are FTP, NFS and WebDAV. CIFS and AFP are set as default.

- CIFS is short for Common Internet File System.
- AFP is short for Apple Filing Protocol.
- FTP is short for File Transfer Protocol
- NFS is short for Network File System.
- WebDAV is short for Web-based Distributed Authoring and Versioning.

Click **Next** to continue.



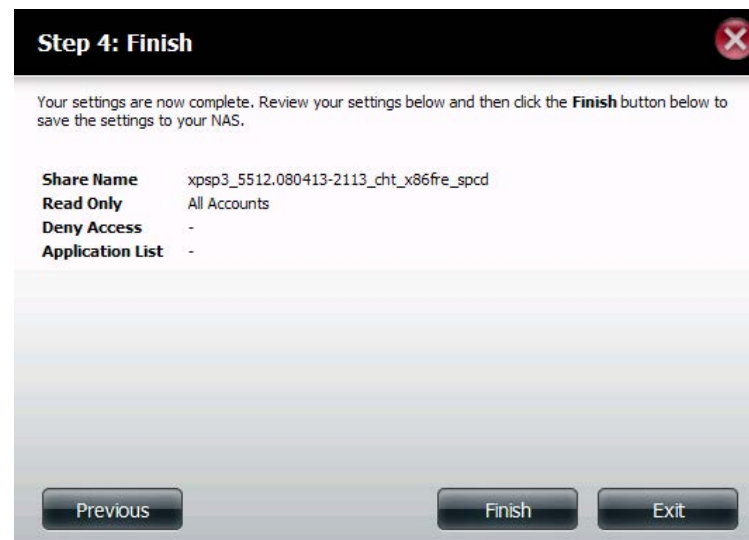
The screenshot shows a window titled "Step 2-1: Assign Privileges - Access Methods" with a close button in the top right corner. Below the title bar, it says "Select which protocols this share should be accessible by. CIFS, AFP is automatically selected by default." There are five checkboxes: "CIFS" (checked), "AFP" (checked), "FTP" (unchecked), "NFS" (unchecked), and "WebDAV" (unchecked). At the bottom of the window are three buttons: "Previous", "Next", and "Exit".

Select which protocols this share should be accessible by. CIFS, AFP is automatically selected by default.

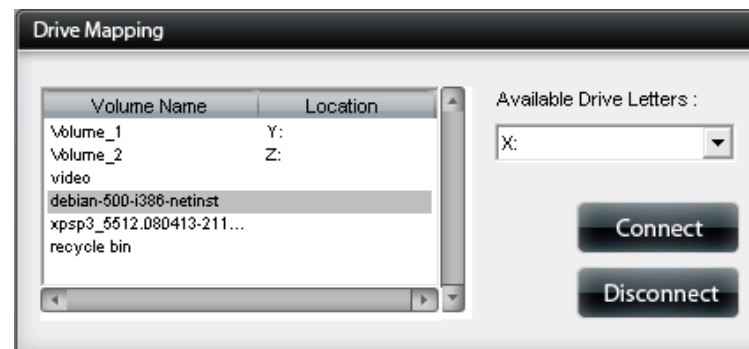
- ☒ CIFS
- ☒ AFP
- ☐ FTP
- ☐ NFS
- ☐ WebDAV

A summary of the share will be displayed.

Click on the **Finish** button to accept the change and complete the wizard.



Through the D-Link Storage Utility, the ISO Mount Share can now be mapped to your computer as a normal network share.

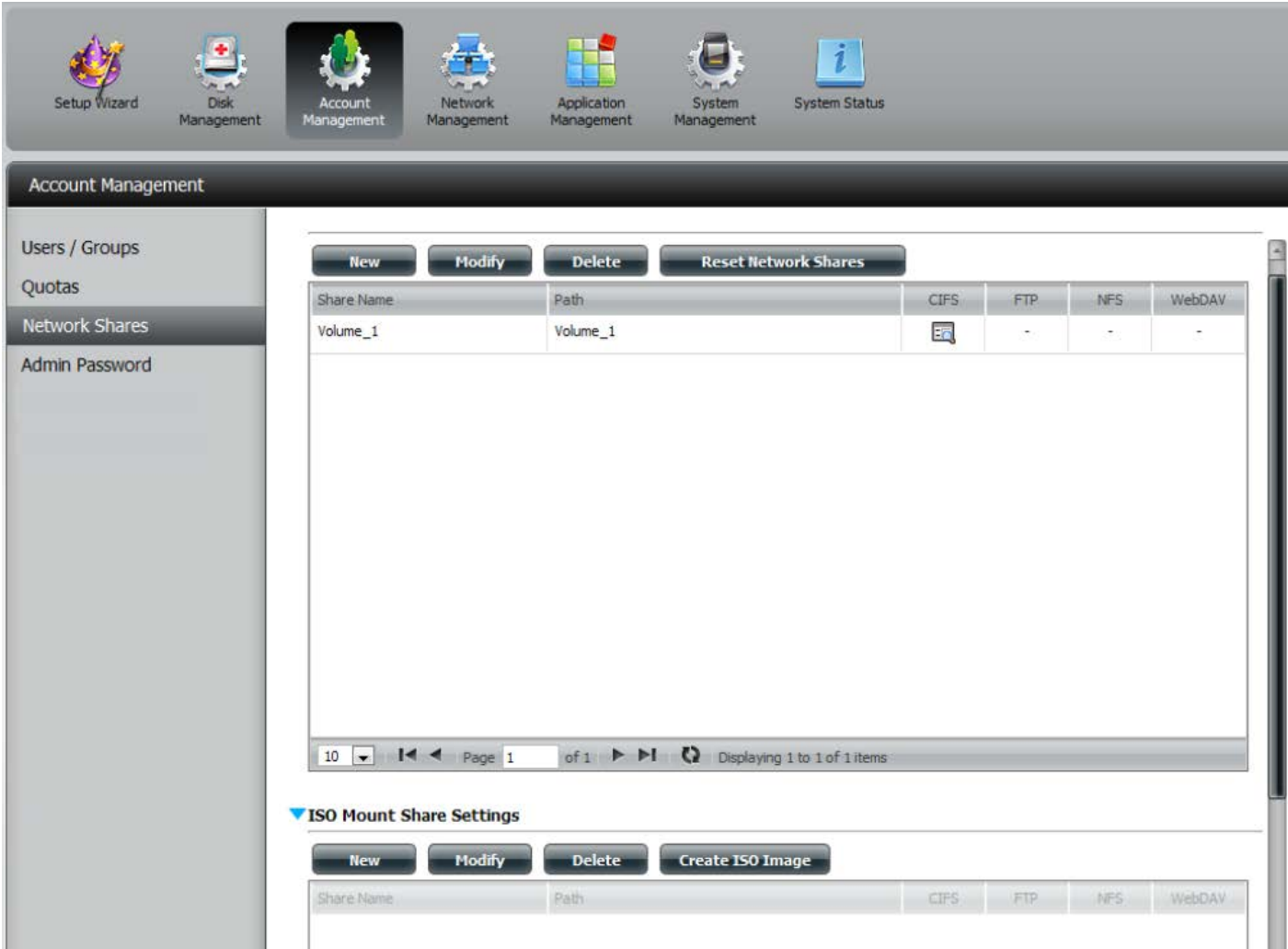


Creating an ISO Image

The following section will describe how to create an ISO image from your NAS, export the data out to your PC.

Click **Account Management > Network Shares > ISO Mount Share Settings**.

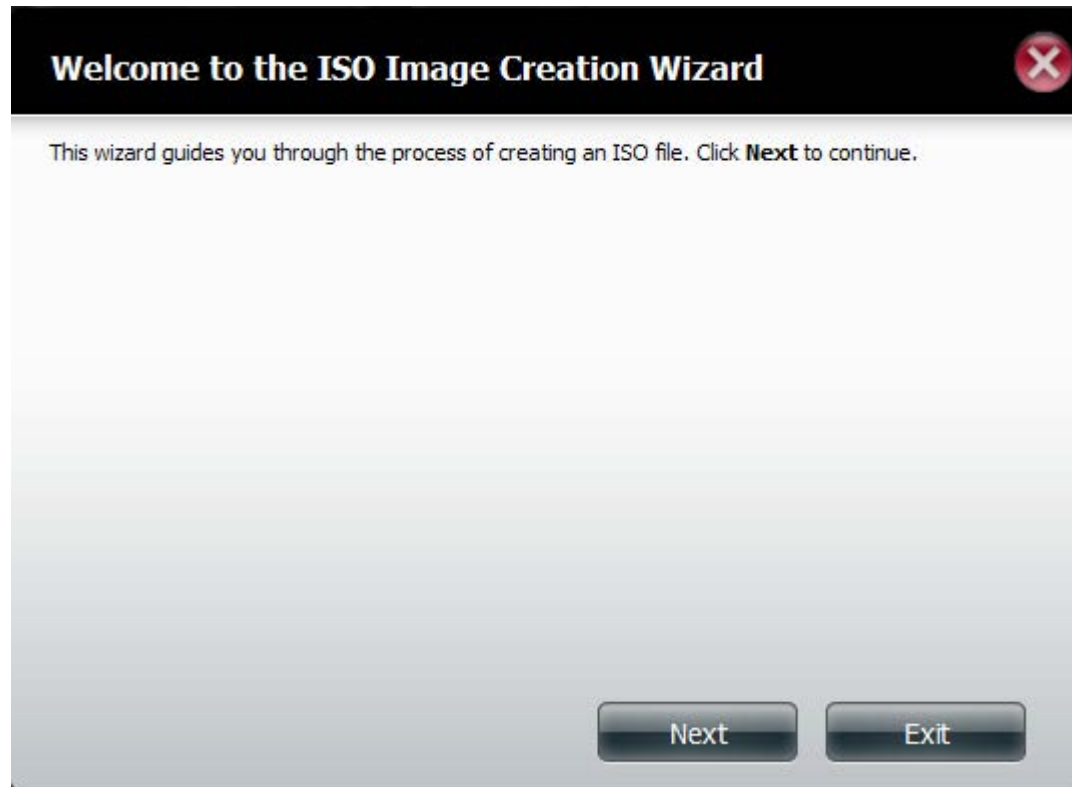
Click on the **Create ISO Image** button at the bottom.



ISO image Creation Wizard

The ISO image wizard helps you create an ISO image on your ShareCenter.

Read the instructions for the **ISO Image Creation Wizard** and then click **Next** to continue.



ISO Name and File Path Settings

Select the **Image Size**.

There are three Image Size choices:

- CDROM (650MB/74MIN) - This creates an ISO file 650MB in size ready for burning onto a CDROM at a later stage.
- DVD5 (4.7GB) - This creates an ISO file 4.7GB in size ready for burning onto a single-layer DVD at a later stage.
- DVD9 (8.5GB) - This creates an ISO file 8.5GB in size ready for burning onto a double-layer DVD at a later stage.



Step 1: ISO Name and File Path Settings

Image Size: CDROM(650MB/74MIN) ▼

Image Path: DVD5(4.7GB) **Browse**

Image Name:

CDROM(650MB/74MIN)

DVD5(4.7GB)

DVD9(8.5GB)

Previous **Next** **Exit**

Select the **Image Path**.

Click the **Browse** button to select the destination folder on your NAS. Click the **Volume** to save it there or click **New** to create a new directory.



Enter a name that resembles the ISO file you are writing. Click **Next**.



The dialog box is titled "Step 1: ISO Name and File Path Settings" with a red close button in the top right corner. It contains three input fields: "Image Size" with a dropdown menu showing "CDROM(650MB/74MIN)", "Image Path" with a text box and a "Browse" button, and "Image Name" with a text box. At the bottom, there are three buttons: "Previous", "Next", and "Exit".

A warning message appears asking you to confirm your decision. Click **Yes** to continue or click **No** to cancel.



The dialog box has a yellow question mark icon on the left. The text reads: "This creates the ISO image for you and cannot be modified. Click Yes to continue or No to cancel." At the bottom right, there are two buttons: "Yes" and "No".

ISO Tree Editing

On the left side of the **ISO Tree Editing** window you have the option to **Overwrite** a previous ISO file or **Skip** it. It also displays the main directory on your NAS. Select the file(s) and click the --> button to add the file(s) to the ISO image. On the right side of the window it displays the total available space of the ISO file and the used space of the ISO. At the bottom of the window it shows the **path** where the ISO file will be saved.

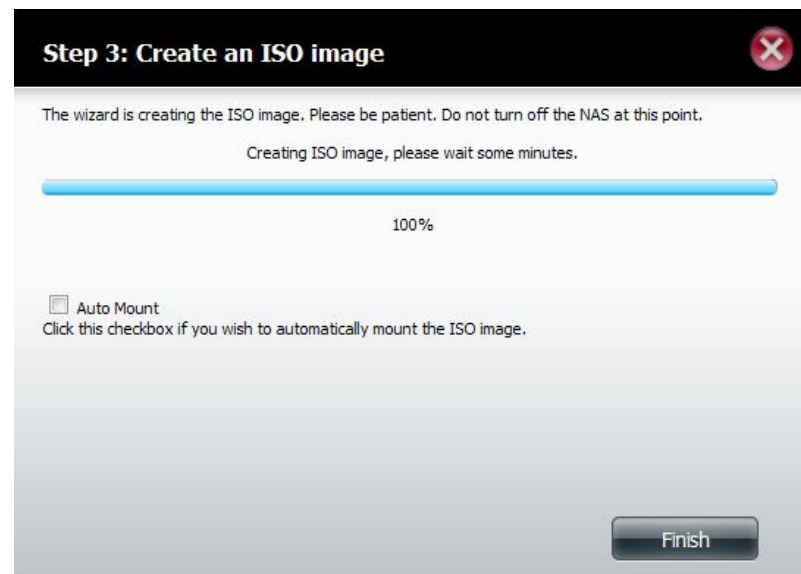
Click **Next** to continue.



The wizard will create the ISO image.

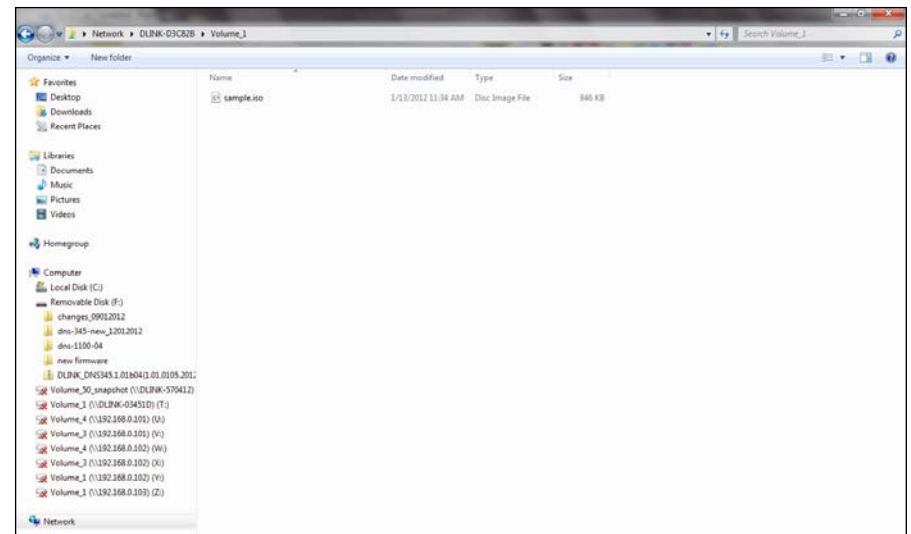
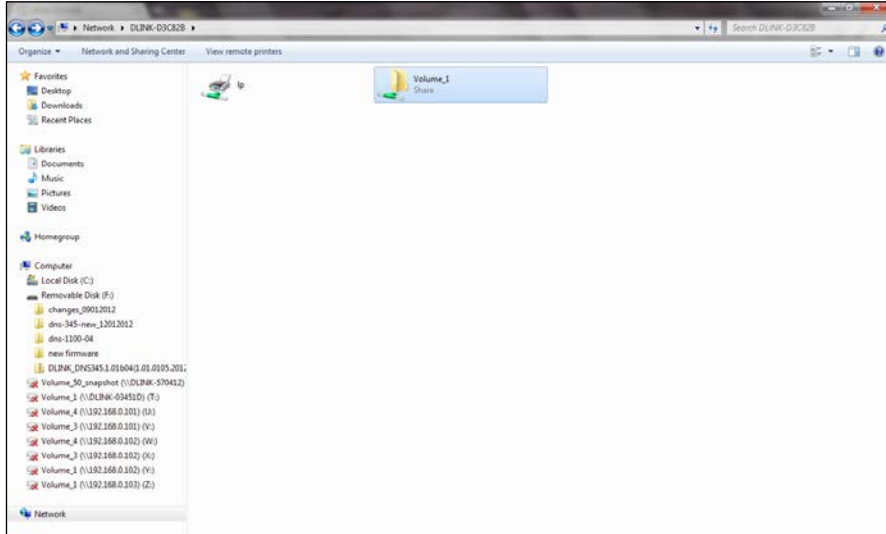
Click the **Auto Mount** checkbox if you want the ISO file to be mounted automatically.

Click **Finish** to close the wizard.



Verifying the ISO image

Open your **Windows Explorer**, click the **Network** icon, **double-click** your **ShareCenter NAS**. Double-click the **volume** you saved the ISO. Your **ISO** image should be there.



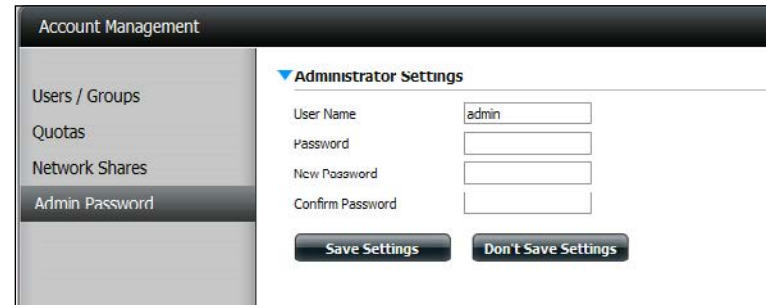
Admin Password

Changes to the administrator username and password can be made here.

The Administrator Settings allows you to change the Username and Password settings.

1. Enter a new **Username**
2. Type the **original Password**
3. Enter a **New Password**
4. Confirm the **New Password**

Click **Save Settings** to accept the changes or **Don't Save Settings** to cancel changes.



The screenshot shows a web interface titled "Account Management". On the left is a sidebar menu with the following items: "Users / Groups", "Quotas", "Network Shares", and "Admin Password" (which is highlighted). The main content area is titled "Administrator Settings" with a blue downward arrow icon. It contains four input fields: "User Name" (with the text "admin" inside), "Password", "New Password", and "Confirm Password". At the bottom of the form are two buttons: "Save Settings" and "Don't Save Settings".

Network Management

LAN Setup

Network Management controls and manages all issues referring to LAN settings. Even though your LAN settings were configured in the Setup Wizard, it can still be configured here. The ShareCenter will automatically configure both LAN cards as a single device. This is Ethernet Port Bonding and provides a more direct management of your LAN throughput. It also enables redundancy. If one of the ports fails, the other acts as backup. The network load is balanced across all links.

Go to **Network Management** and then **LAN Setup**.

Click **Setup**.

The screenshot shows the D-Link ShareCenter web interface. At the top, there are tabs for Home, Applications, and Management. Below these are icons for Setup Wizard, Disk Management, Account Management, Network Management (selected), Application Management, System Management, and System Status. The main content area is titled 'Network Management' and has a sidebar with 'LAN Setup' (selected), 'Dynamic DNS', and 'Port Forwarding'. The 'LAN Settings' section is expanded, showing a 'Setup' button and a table with the following data:

Interface	IP Address	Gateway IP Address	Subnet Mask	DNS1	DNS2	Mode
LAN	192.168.0.104	192.168.0.1	255.255.255.0	192.168.0.1	-	DHCP Client

Below the table are sections for 'IPv6 Settings', 'Link Speed Settings', and 'LLTD Settings'. The 'Link Speed Settings' section shows 'LAN Link Speed' set to 'Auto' with 'Save Settings' and 'Don't Save Settings' buttons. The 'LLTD Settings' section shows 'LLTD' set to 'Disable' with 'Save Settings' and 'Don't Save Settings' buttons.

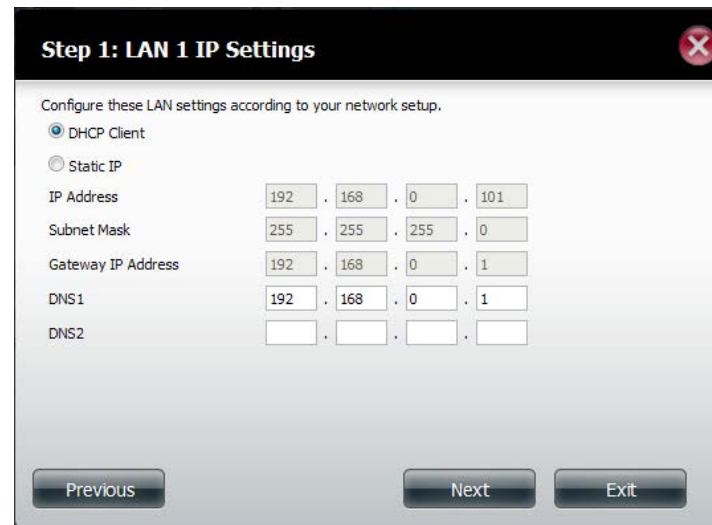
The LAN setup wizard gives you the option to configure two main settings - IP settings.

Click **Next** to continue.



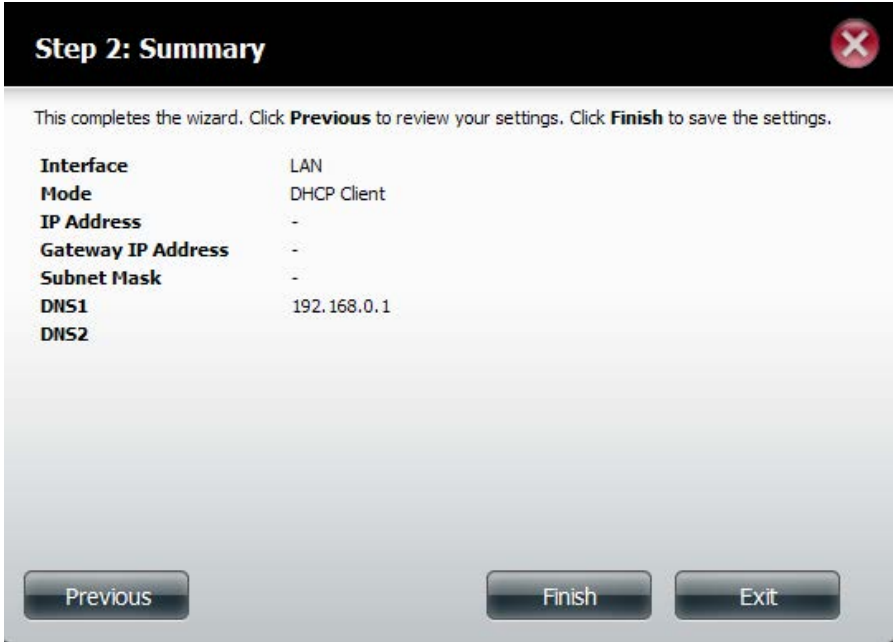
This step allows you to configure your LAN settings. Here you can choose between **DHCP Client** or **Static IP**. If you select Static IP, you will need to manually configure your own IP settings.

Click **Next** to continue.



A summary of what you just configured will be displayed.

Click **Finish** to exit the wizard.



IPv6 Settings

Go to **Management > Network Management > LAN Setup > IPv6 Settings** and click the **Setup** button. An IPv6 setup window will appear.

The screenshot shows the D-Link ShareCenter web interface. At the top, there are navigation buttons: Home, Applications, and Management (which is highlighted). Below these are icons for Setup Wizard, Disk Management, Account Management, Network Management (selected), Application Management, System Management, and System Status.

The main content area is titled "Network Management" and contains a sidebar with "LAN Setup", "Dynamic DNS", and "Port Forwarding". The "LAN Setup" section is expanded, showing "LAN Settings" and "IPv6 Settings".

LAN Settings

Setup

Interface	IP Address	Gateway IP Address	Subnet Mask	DNS1	DNS2	Mode
LAN	0.0.0.0	192.168.0.1	255.255.255.0	192.168.0.1	-	DHCP Client

IPv6 Settings

Setup

Interface	IPv6 Address	Gateway IP Address	Prefix Length	Mode
LAN				Off

Link Speed Settings

LLTD Settings

IPv6 Setup

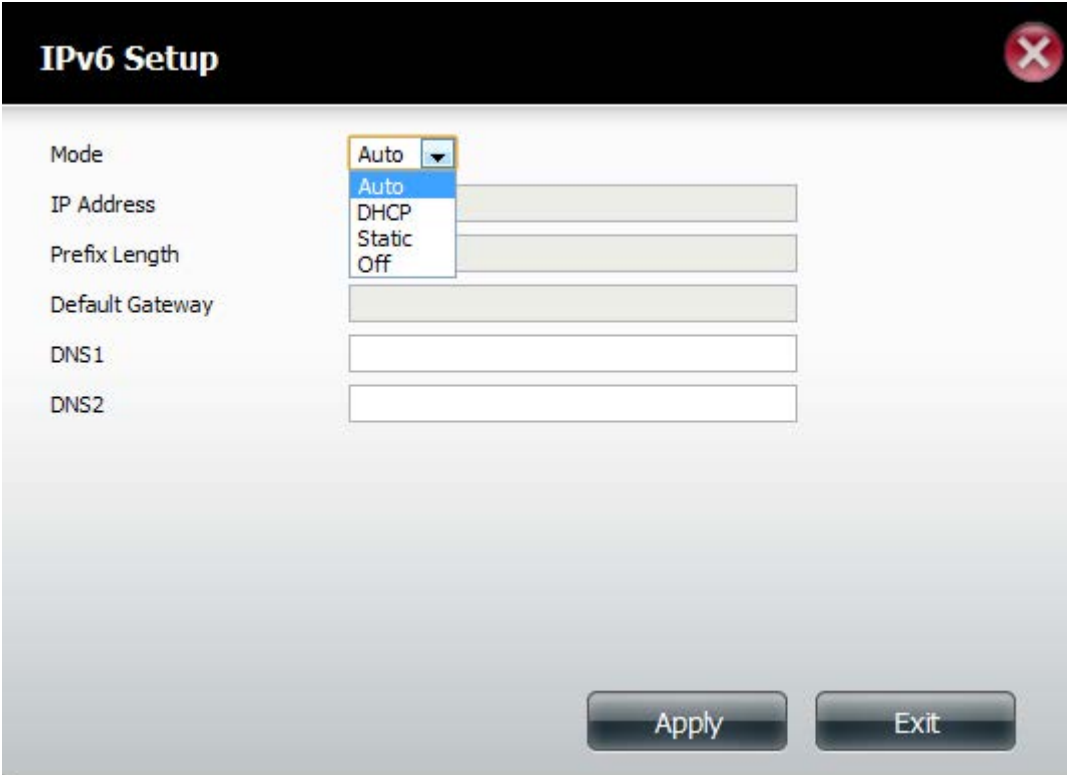
There are four connection modes to select from: **Auto**, **DHCP**, **Static** and **Off**.

Auto - Requests information specifically from an IPv6-enabled router and automatically configure your settings.

DHCP - Requests information from a DHCP server.

Static - Enter your own IP configuration

Off - Do not use IPv6



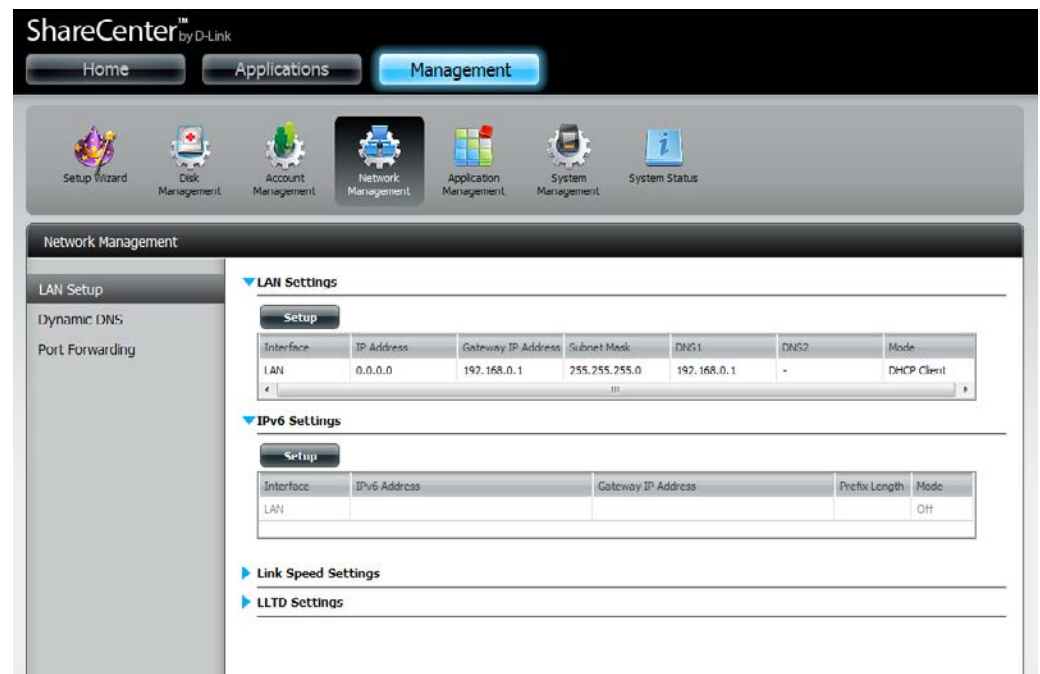
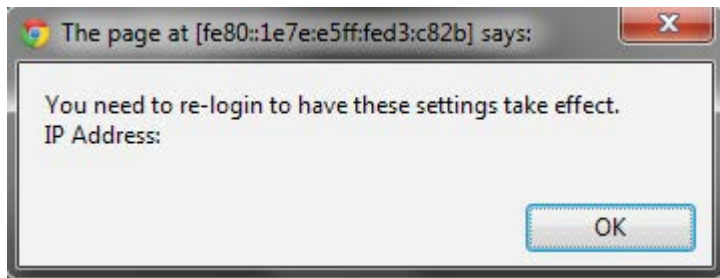
The image shows a screenshot of the 'IPv6 Setup' configuration window. The window has a black title bar with the text 'IPv6 Setup' and a red close button. The main area is light gray and contains several configuration fields. The 'Mode' field is a dropdown menu with 'Auto' selected. Below it are text input fields for 'IP Address', 'Prefix Length', 'Default Gateway', 'DNS1', and 'DNS2'. At the bottom right, there are two buttons: 'Apply' and 'Exit'.

Field	Value
Mode	Auto
IP Address	
Prefix Length	
Default Gateway	
DNS1	
DNS2	

Section 4 - Configuration

When configuring IPv6 with Static Mode, enter the IP address provided by your system administrator. The prefix length for an IPv6 subnet will always be 64; no more, no less. Enter the Default Gateway, and DNS settings. Click **Apply** when complete. The IPv6 Settings table will now display the settings in table format.

In order for the changes to take effect, you are prompted to re-login. Click **OK** and log in.



Link Speed and LLTD Settings

Link Speed: Select either **Auto (Auto-Negotiate)**, **100Mbps**, or **1000Mbps** from the drop-down menu. Click the **Save Settings** button to save the new settings.

LLTD: The device supports LLTD (Link Layer Topology Discovery) and is used by the Network Map application that is included in Windows Vista® and Windows® 7.

Select to enable or disable LLTD.

The screenshot displays the D-Link ShareCenter™ web interface. At the top, there are navigation tabs: Home, Applications, and Management (which is selected). Below these are icons for Setup Wizard, Disk Management, Account Management, Network Management (selected), Application Management, System Management, and System Status. The main content area is titled 'Network Management' and contains a sidebar with 'LAN Setup', 'Dynamic DNS', and 'Port Forwarding'. The 'LAN Setup' section is expanded, showing 'LAN Settings', 'IPv6 Settings', 'Link Speed Settings', and 'LLTD Settings'. The 'LAN Settings' section includes a 'Setup' button and a table with the following data:

Interface	IP Address	Gateway IP Address	Subnet Mask	DNS1	DNS2	Mode
LAN	0.0.0.0	192.168.0.1	255.255.255.0			DHCP Client

The 'IPv6 Settings' section also has a 'Setup' button and a table:

Interface	IPv6 Address	Gateway IP Address	Prefix Length	Mode
LAN				Off

The 'Link Speed Settings' section shows 'LAN Link Speed' set to 'Auto' with a dropdown arrow. Below this are 'Save Settings' and 'Don't Save Settings' buttons. The 'LLTD Settings' section is partially visible at the bottom.

DDNS

The DDNS feature allows the user to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your domain name to connect to your server regardless of your IP address.

Go to **Network Management** and then **Dynamic DNS**.

DDNS: Select Enable or Disable.

Server Address: Select a DDNS Server from the combo box on the right hand-side, or type in the server address manually.

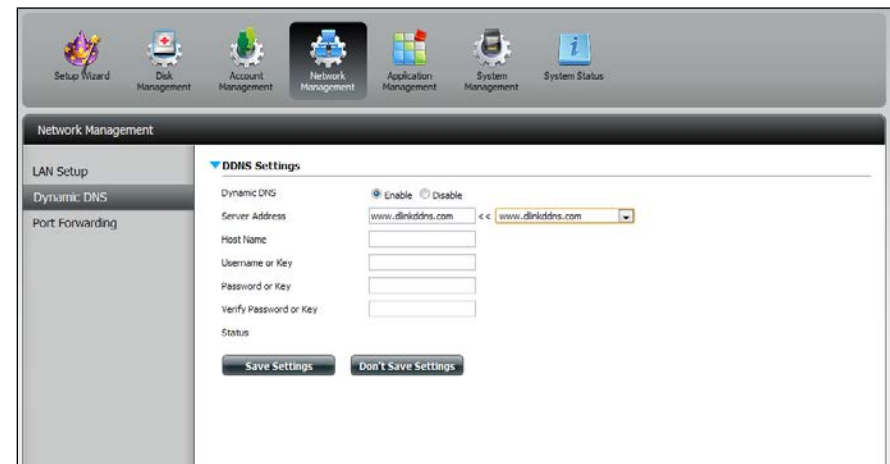
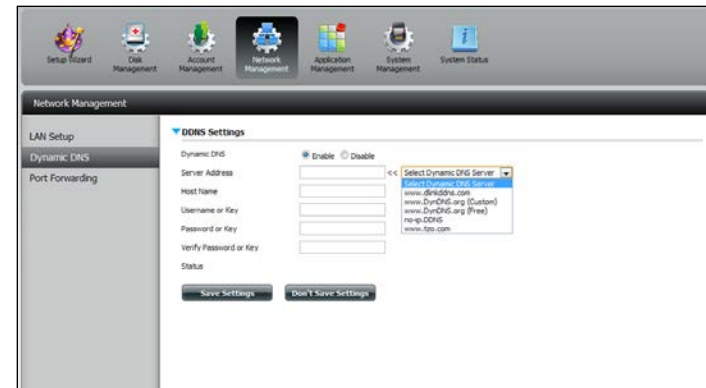
Host Name: Enter your DDNS host name.

Username or Key: Enter your DDNS username or key.

Password or Key: Enter your DDNS password or key.

Verify: Re-enter your password or key.

Status: Displays your DDNS status.



When the user clicks on the "Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com link, the user will be re-directed to the D-Link DDNS page.

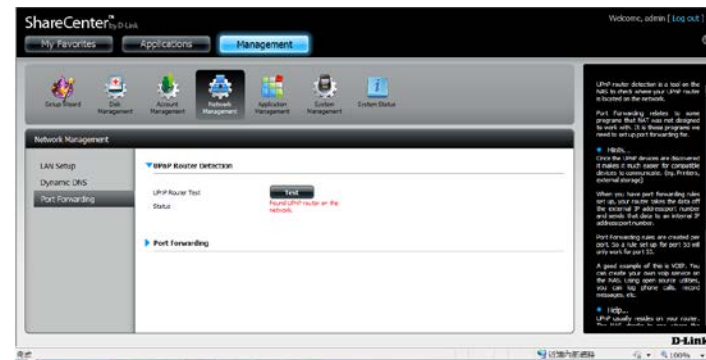
Here the user can create or modify a D-Link DDNS account to use in this configuration.

Port Forwarding

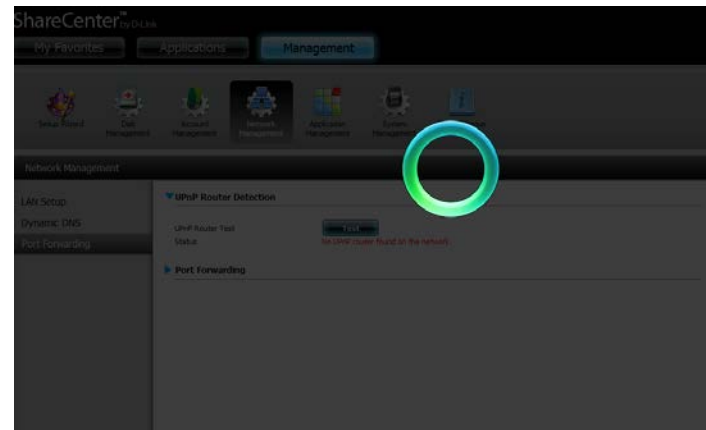
The DNS-320 supports UPnP port forwarding which configures port forwarding automatically on your UPnP-enabled router.

Note: You will need a UPnP router on your network.

Log in and click **Network Management > Port Forwarding**.
Click **Test** to run a search.



The DNS-320 is searching for a UPnP router. Do not turn off your NAS.

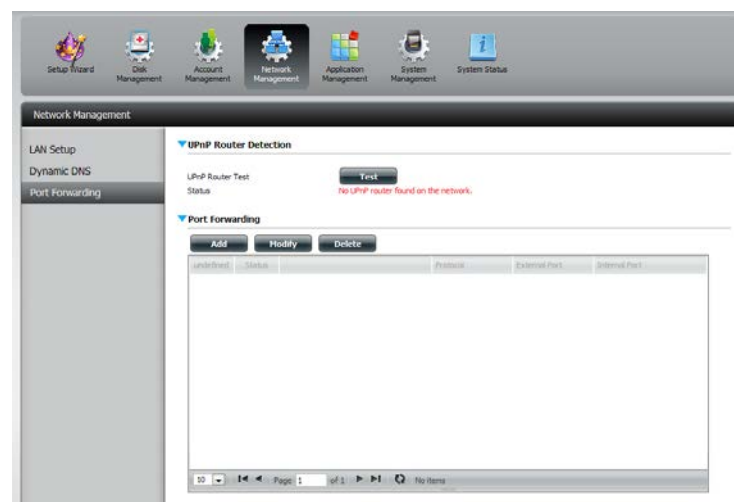


A message will notify you that the wizard has found a UPnP router on the network.

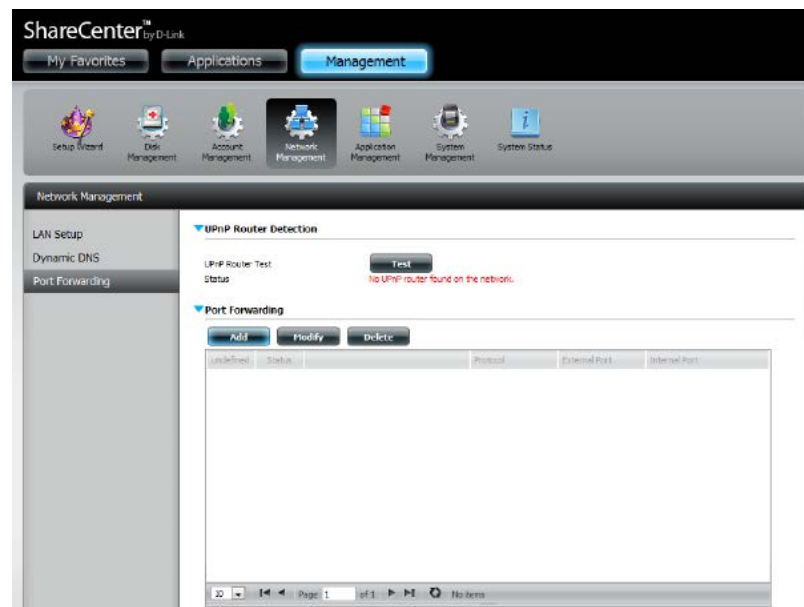
Note that you have to enable UPnP on your router.



Click the blue arrow next to port forwarding to reveal the Port Forwarding options.

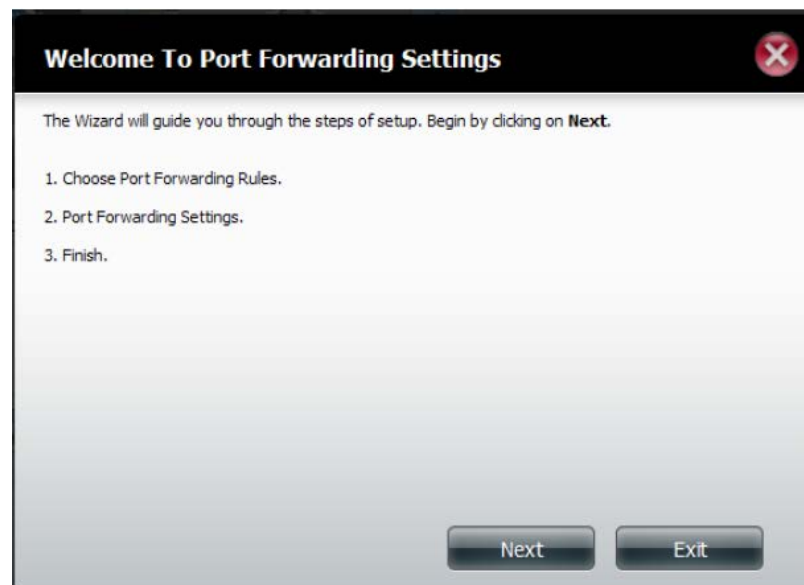


Click **Add**.



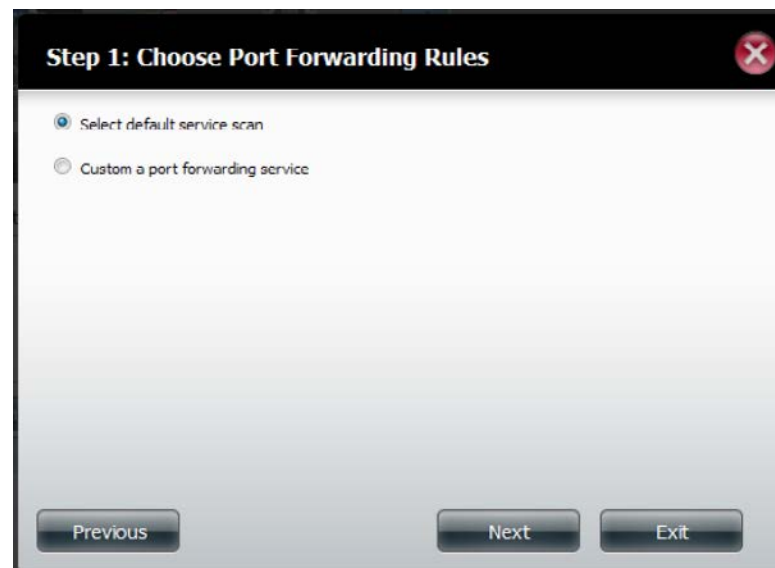
The Port Forwarding wizard will start.

Click **Next** to continue.



Select **Select default service scan** to select the port forwarding services from a list or select **Custom a port forwarding service** to manually configure your own settings.

Click **Next** to continue.



Step 1: Choose Port Forwarding Rules

☒ Select default service scan

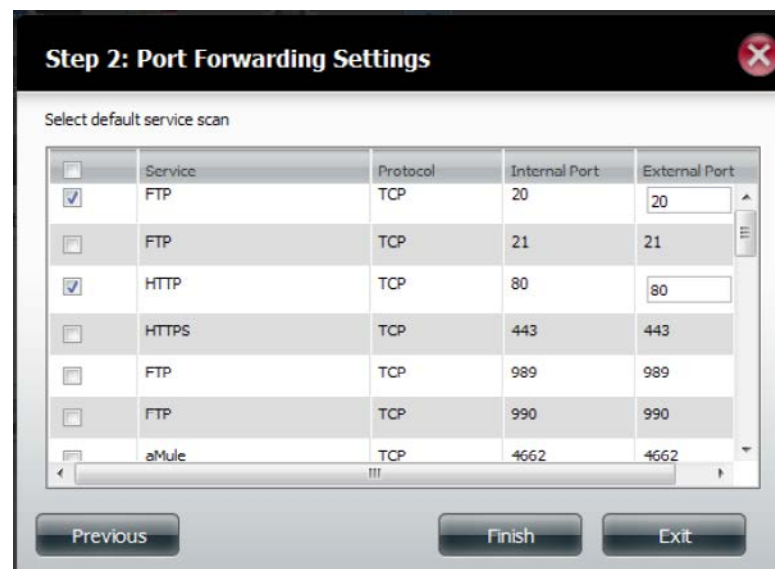
☐ Custom a port forwarding service

Previous Next Exit

If you select default service scan, choose the service(s) to be allowed for remote access from the Internet via your UPnP-enabled router.

Note: You can select more than one port.

Click **Previous** to change the Port Forward Rule or **Finish** to configure the port forwarding on the UPnP router automatically.



Step 2: Port Forwarding Settings

Select default service scan

<input type="checkbox"/>	Service	Protocol	Internal Port	External Port
<input checked="" type="checkbox"/>	FTP	TCP	20	20
<input type="checkbox"/>	FTP	TCP	21	21
<input checked="" type="checkbox"/>	HTTP	TCP	80	80
<input type="checkbox"/>	HTTPS	TCP	443	443
<input type="checkbox"/>	FTP	TCP	989	989
<input type="checkbox"/>	FTP	TCP	990	990
<input type="checkbox"/>	aMule	TCP	4662	4662

Previous Finish Exit

Application Management

FTP server

The Application Management section allows you to configure many services for your DNS-320. The server and service settings include: FTP server, UPnP AV server, iTunes server, AFP, and NFS services. Let's begin by looking at configuration options for the FTP server.

Max User: Set the maximum amount of users that can connect to the FTP server.

Idle Time: Set the amount of time a user can remain idle before being disconnected.

Port: Set the FTP port. Default is 21. If you are behind a router, you will need to forward the FTP port from the router to the device. Additional filtering and firewall settings may need to be modified on your router to allow FTP Access to the device from the Internet. Once the port has been forwarded on the router, users from the Internet will access the FTP server through the WAN IP address of the router.

Passive Mode: In situations where the device is behind a firewall and unable to accept incoming TCP connections, passive mode must be used.

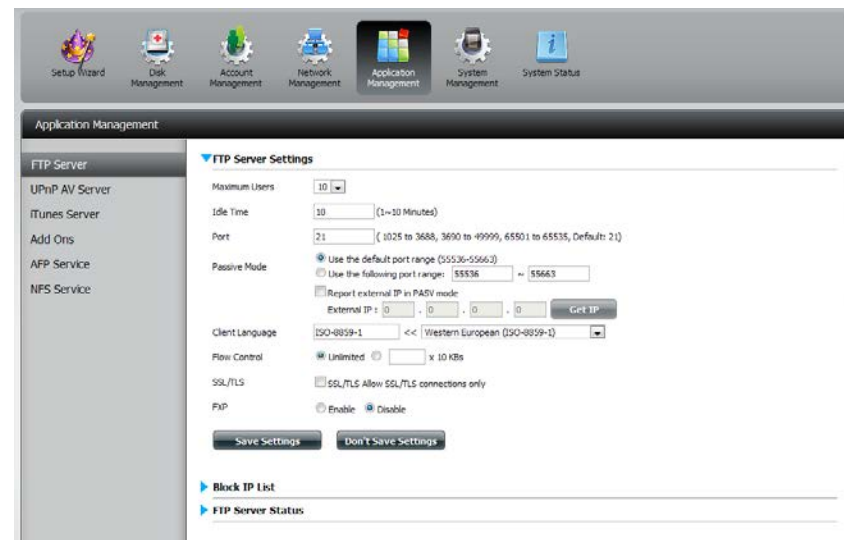
Client Language: Most standard FTP clients like Windows FTP, only support Western European code page when transferring files. Support has been added for non standard FTP clients that are capable of supporting these character sets.

Flow Control: Allow you to limit the amount of bandwidth available for each user.

SSL/TLS: Here the user can enable the SSL/TLS connection only.

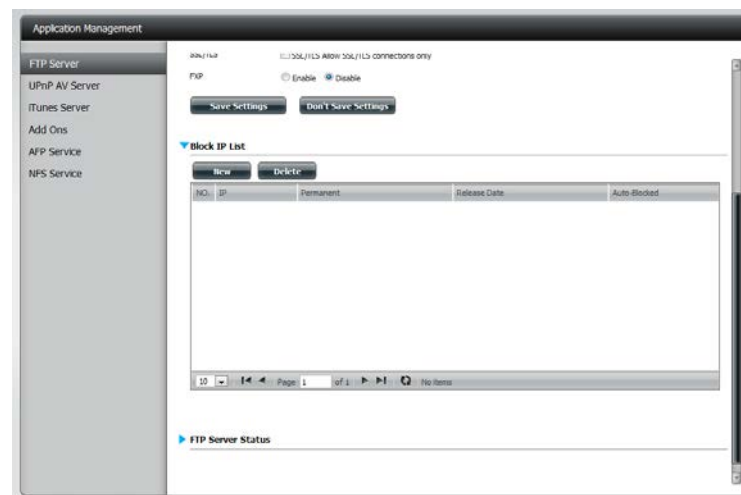
FXP: Enable or Disable File eXchange Protocol to transfer files from one FTP server to another.

Note: In order to use FXP (File Exchange Protocol) for server-to-server data transfer, make sure to change the port from 21 to some other port as listed in the Port section of the Web UI. Also, make sure to open the corresponding port on your router and forward that port from your router to the device.



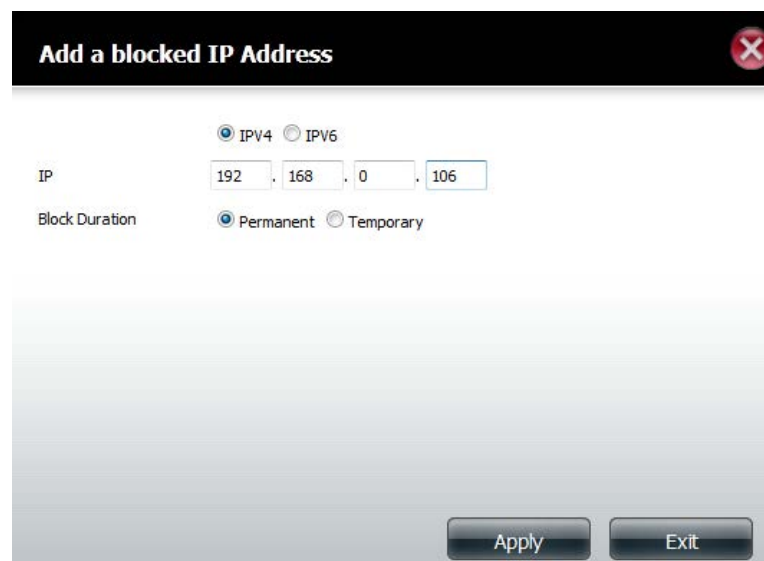
The window expands to include a Blocked IP list and a FTP Server Status report. Click the blue arrow to see the drop-down list.

Click **New** to block a specific IP address.

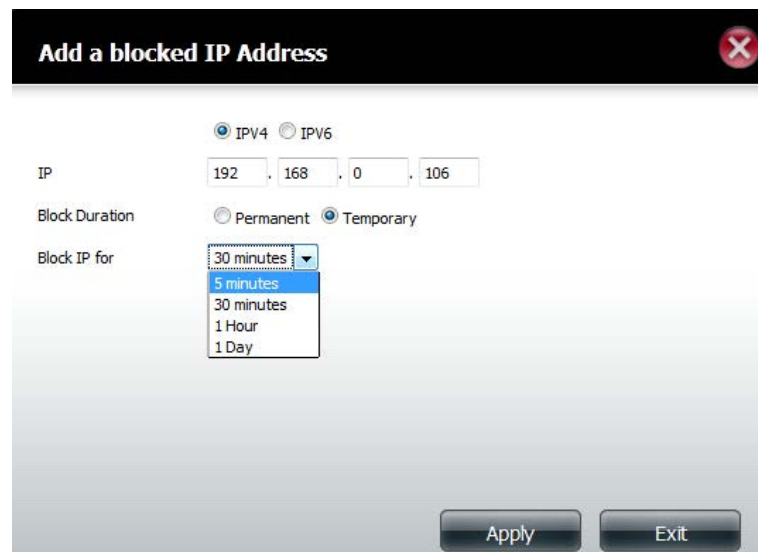


Select **IPv4** or **IPv6** and then enter the IP address of a machine you wish to block. Select **Permanent** if you wish to block the IP address permanently or **Temporary** if you wish to set a time frame.

If you selected permanent, click **Apply** and continue.



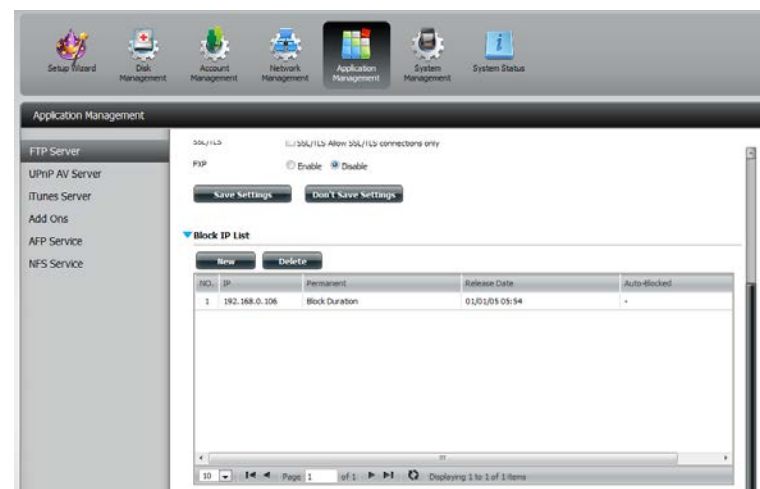
If you selected Temporary, then select a time frame and click **Apply** to continue.



The dialog box titled "Add a blocked IP Address" contains the following fields and options:

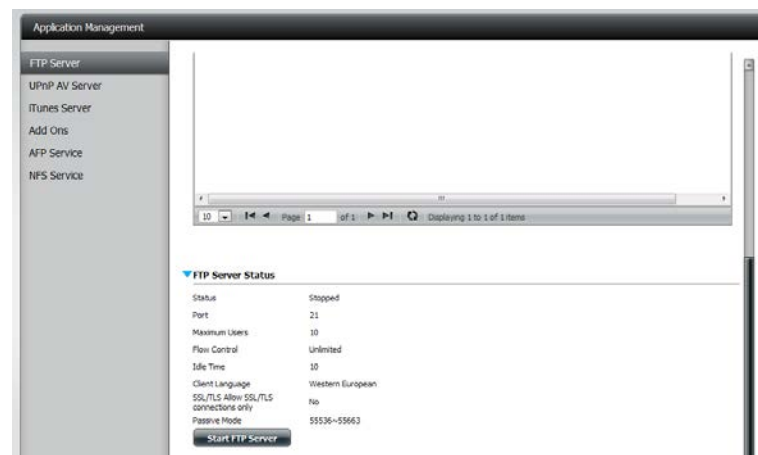
- Protocol: ☒ IPv4 ☐ IPv6
- IP Address: 192 . 168 . 0 . 106
- Block Duration: ☐ Permanent ☒ Temporary
- Block IP for: A dropdown menu showing "30 minutes" (selected), "5 minutes", "30 minutes", "1 Hour", and "1 Day".
- Buttons: "Apply" and "Exit".

The Blocked IP list will display the IP addresses you blocked.



Click the blue arrow next to FTP server status to reveal the FTP details.

The FTP server is stopped by default. Click **Start FTP Server** to run the process.



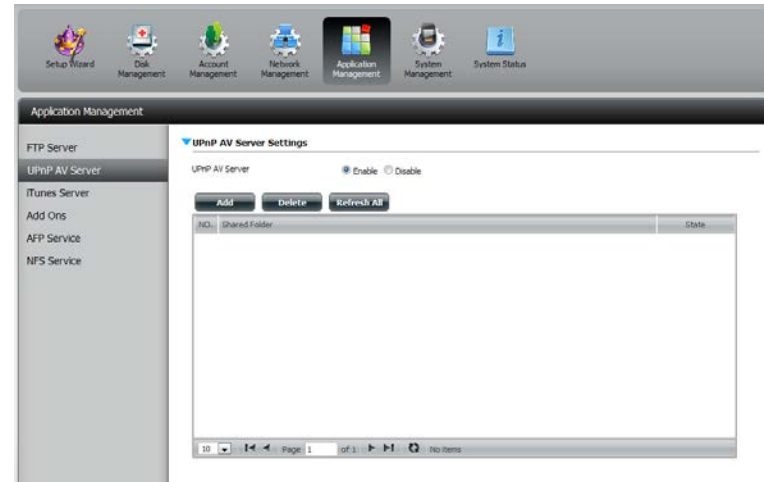
UPnP AV Server

The ShareCenter features a UPnP AV Server. This server provides the ability to stream photos, music and videos to UPnP AV compatible network media players. If the server is enabled, the ShareCenter will be automatically detected by UPnP AV compatible media players on your local network. Click the **Refresh All** button to update all the shared files and folder lists after adding new files/folders.

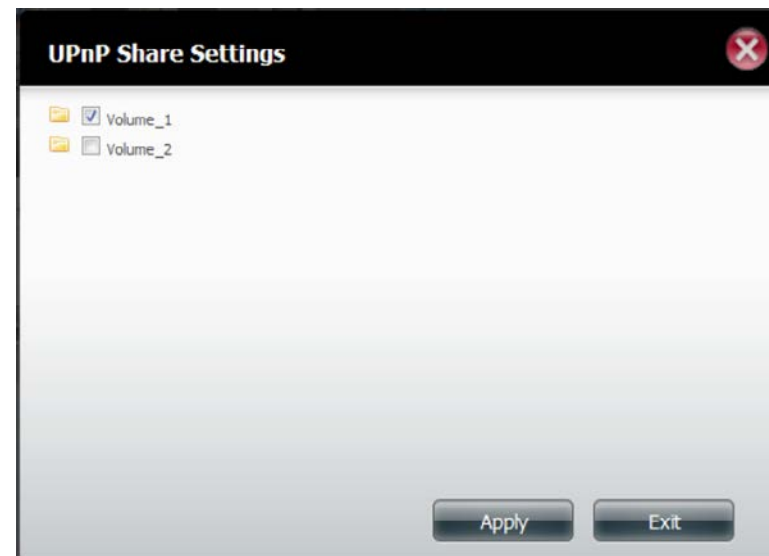
Click **Application Management**, then **UPnP AV Server**.

Click the **Enable** radio button to enable the UPnP AV server.

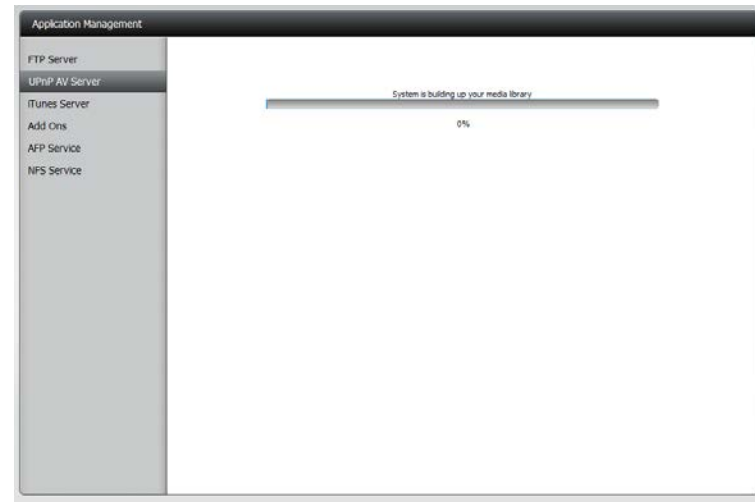
Click **Add** to configure the UPnP AV share.



Select the volume you like to share and click **Apply**.



The NAS is building the media library.

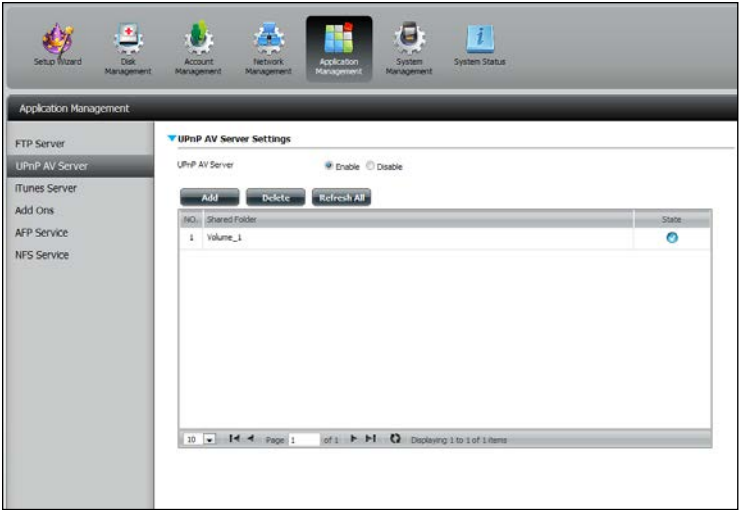


When the system has finished building the media library, a success message will appear.

Click **Yes** to continue.



The selected volume will appear in the table under the UPnP AV server.



iTunes Server

The DNS-320 features an iTunes Server. This server provides the ability to share music and videos to computers on the local network running iTunes. If the server is enabled, the device will be automatically detected by the iTunes program and the music and videos contained in the specified directory will be available to stream over the network. Click the **Refresh All** button to update all the shared files and folder lists.

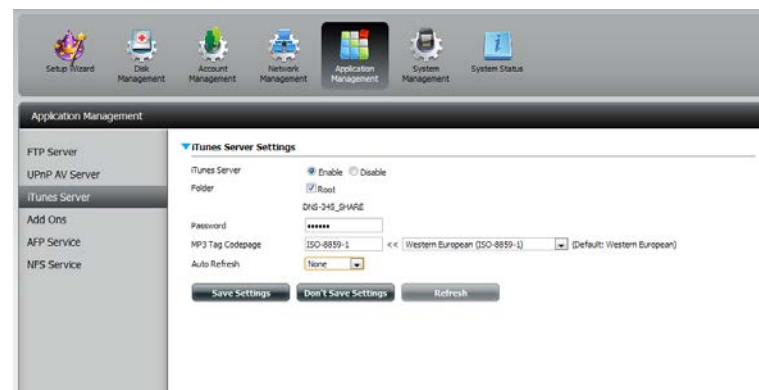
iTunes Server: Select to enable or disable the iTunes Server.

Folder: Specifies the folder or directory that will be shared by the iTunes server. Select root to share all files on all volumes, or click **Browse** to select a specific folders.

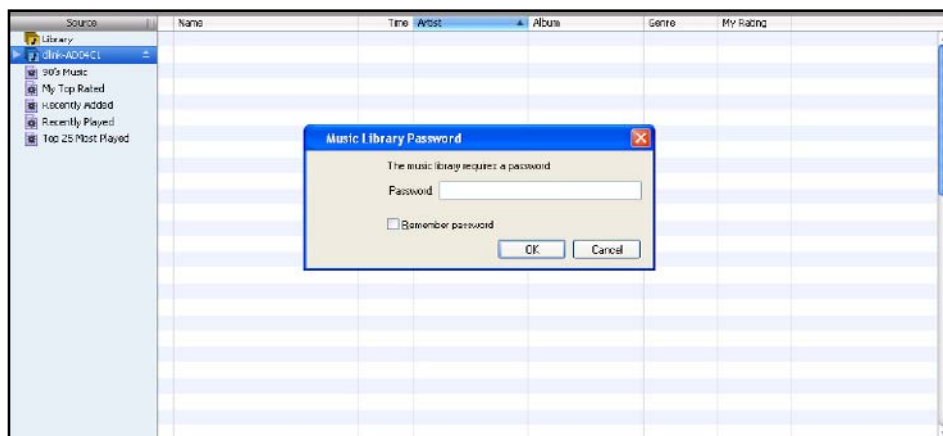
Password: Sets password for the iTunes server. (Optional)

MP3 Tag Codepage: Here the user can select the MP3 Tag Codepage used by this device. Currently the Codepage is set to Western European.

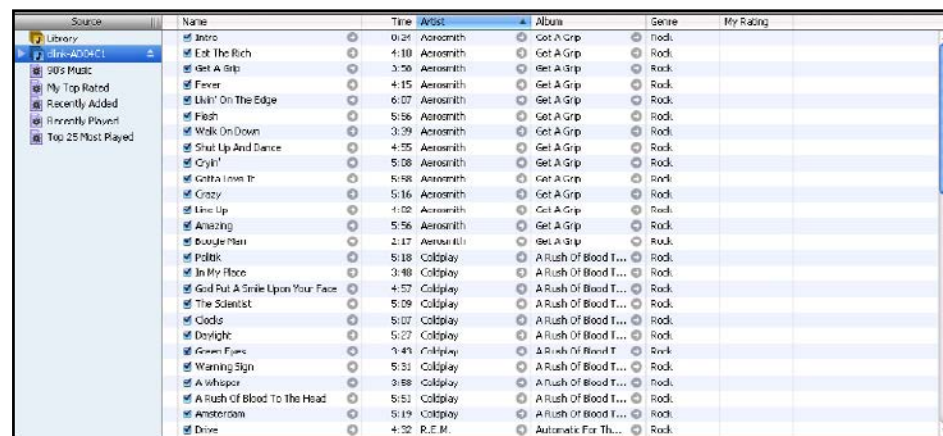
Auto Refresh: Here the user can select the Automatically Refresh time.



After enabling the iTunes server on the ShareCenter, launch iTunes. In your iTunes utility, select the ShareCenter and enter the iTunes server password if required.



Select the ShareCenter. When prompted, enter in the iTunes server password. Click **OK**.



Media stored on the ShareCenter will then be available for use in iTunes.

AFP Service

The ShareCenter supports Apple Filing Service for connectivity with Mac OS® based computers. If you need to use AFP service enable it here otherwise leave it disabled to reduce CPU resource overhead.

Click **Application Management** > **AFP Service**.

Click the **Enable** radio button to turn AFP service on.

Click **Save Settings**.



NFS Service

The ShareCenter supports Network File System (NFS) service. To enable this multi-platform file system on your ShareCenter enable it here. Otherwise disable the option to prevent unnecessary CPU overhead.

Click **Application Management** > **NFS Service**.

Click the **Enable** radio button to turn NFS service on.

Click **Save Settings**.



System Management

Language

The language packs help users customize the DNS-320 to their specific region. Download your language pack from the D-Link website or the CD and follow the instructions below. When you disable the language pack, the GUI will return to English.

Click **System Management** and then **Language** to install a new language.

Click on **Browse** to search for the specific language pack you want to install. After selecting the language pack, click **Apply** to install the language pack.



If you have not selected a language package, a message will prompt you to locate one.

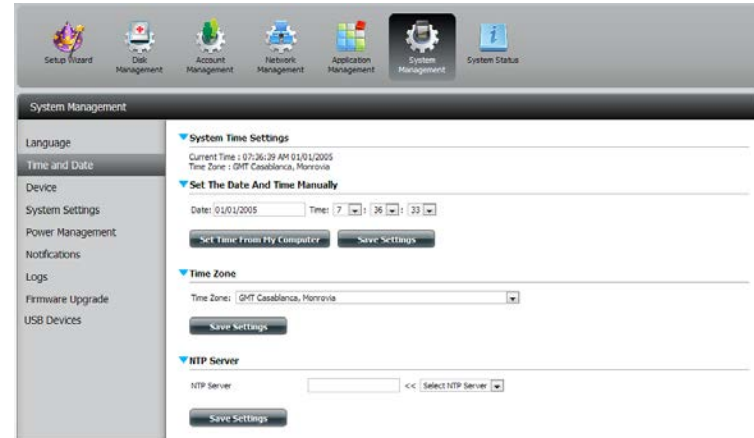
Click **Yes** to continue.



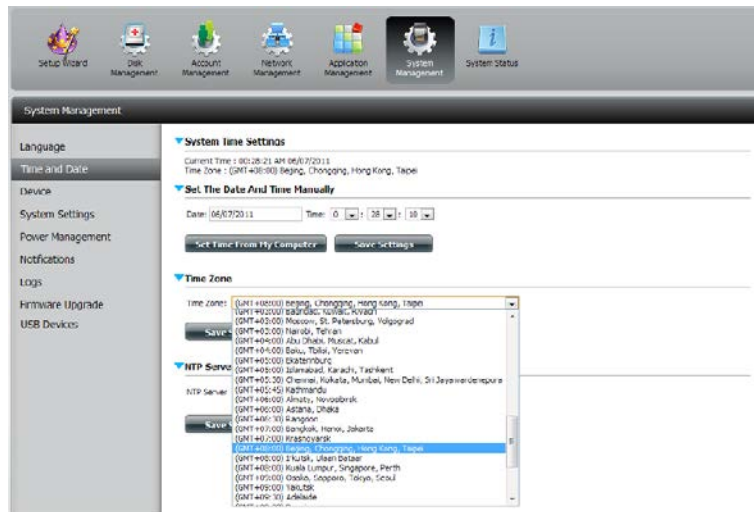
Time and Date

The Time and Date configuration option allows you to configure, update, and maintain the correct time and date on the internal system clock. In this section you can set the time zone that you are in, and set the NTP (Network Time Protocol) Server in order to periodically update your system time from the NTP Server. You can also sync the time and date of your computer as the system time.

Click **System Management**, then **Time and Date**. Select the **Set Time from My Computer** button if you want to use the time and date of your computer. When a confirmation message appears, click **Yes** to continue.



Select your time zone from the drop-down menu. Click **Save Settings**.



You can also select a NTP server from the drop-down menu to sync the time and date with an online server. Then click **Save Settings**.

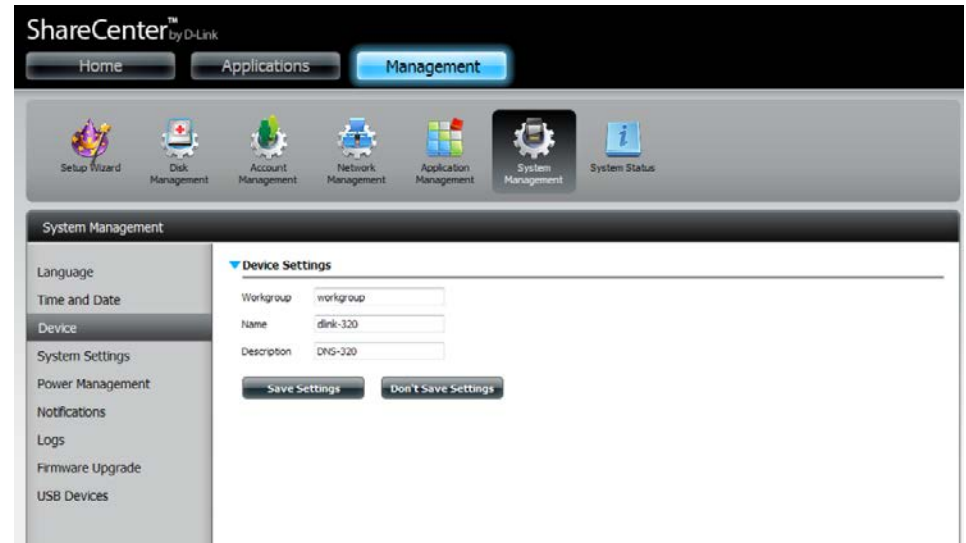
Device

The device settings page allows you to assign a workgroup, name and description to the device. You can access this device by typing the host name in the URL section of your web browser. For example: `http://dlink-d10001`.

Workgroup: Enter your Workgroup name here. The workgroup name should be the same as the computers on the network. Devices using the same workgroup will have additional file sharing methods available.

Name: Enter your device name here. This name is what the device will appear as on the network. By default, the device name is `dlink-xxxxxx`, where `xxxxxx` is the last six digits of the MAC address.

Description: Assign a device description to the device.



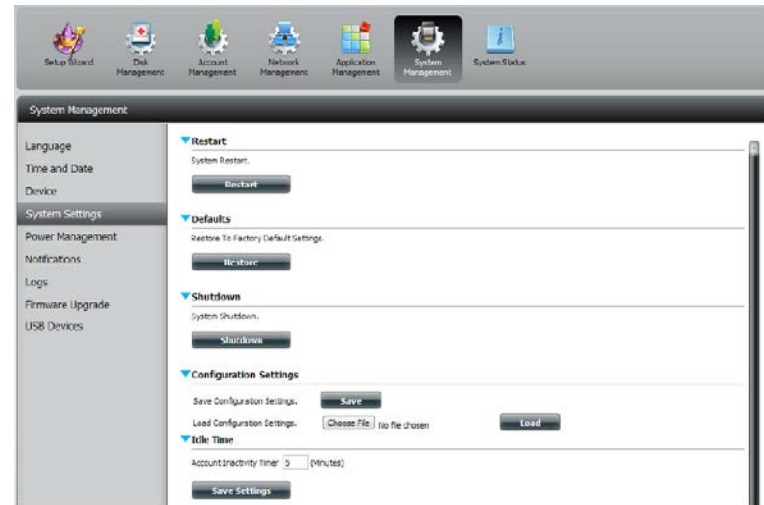
System Settings

System Settings provides features to control your DNS-320. Users can restart the NAS, restore the system to it's original state, set idle times, shutdown the system, configure settings, and configure system temperature settings.

Restart: Click to reboot the DNS-320.

Default: Click to restore the device back to the factory default settings. All previous settings that have been configured will be erased.

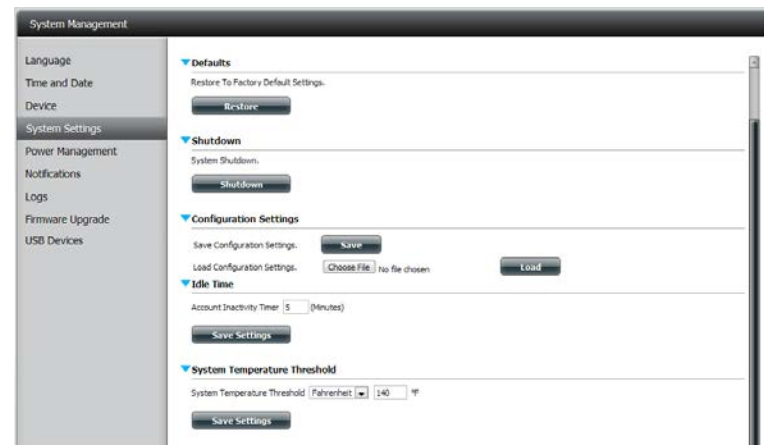
Shutdown: Click to turn off the DNS-320.



Configuration Settings: Click on the **Save** button to save the current configuration settings to a file on your computer. If at a later time you need to reload this configuration after a system reset, browse to the file and click **Load**.

Idle Time: Enter the time (in minutes) that the administrator and users will be allowed to remain idle while accessing the web UI.

System Temperature Threshold: Here you can configure the system temperature threshold value. This value can be set in Fahrenheit or Celsius. The device will automatically shutdown when it reaches the temperature set here.



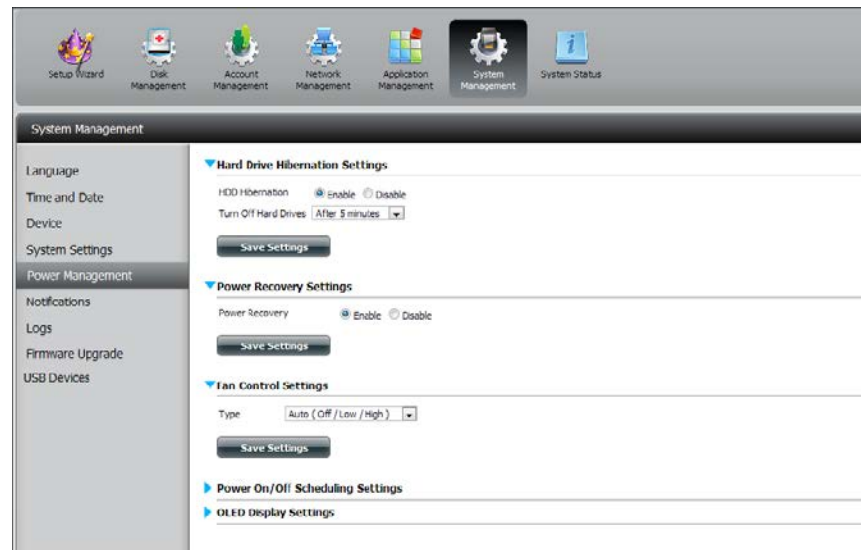
Power Management

The device Power Management feature allows you to configure the drives to shut down while power remains constant to the device. The drives will power up again when data is accessed.

HDD Hibernation: Click **Enable** or **Disable**.

Turn Off Hard Drives: Set the amount of idle time before the drives go into hibernation.

Power Recover: Click **Enable** or **Disable**. The Power Recovery feature will automatically restart your device from a previously unexpected shutdown due to a power failure.



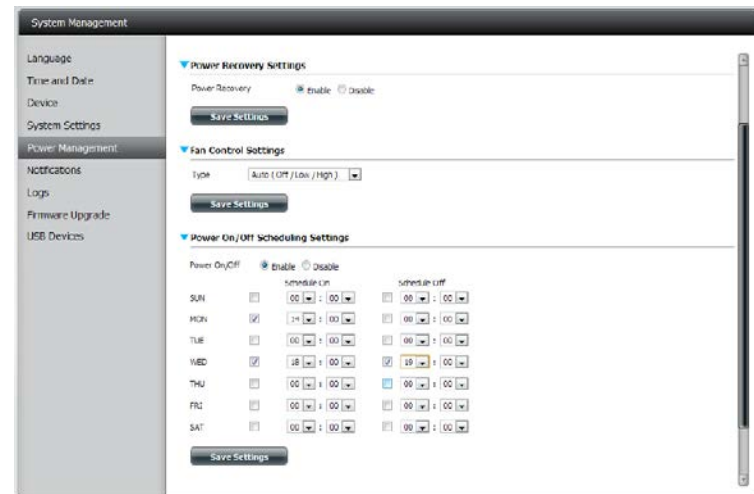
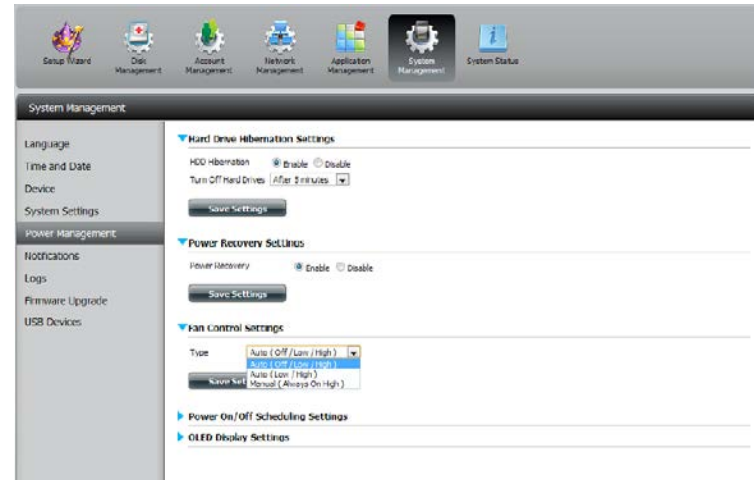
You can control the speed of the fan using three different settings and you can power off the device at scheduled times for each day of the week.

Fan Control: The speed of the fan can be controlled from this section.

If you select **Auto** mode, the speed of the fan will change (Off/Low/High) depending on the internal temperature of the enclosure.

Power Off Scheduling: Click **Enable** to turn on this function.

Enable or disable the power off days using the check box and configure the time for each day that the power off will occur.



Notifications

Email Settings

Login Method: Select either **Account** or **Anonymous**. Choosing Anonymous does not require a User Name or Password.

Username: Enter the appropriate user name for your e-mail account.

Password: Enter the appropriate password for your e-mail account.

Port: Enter the SMTP port number used here.

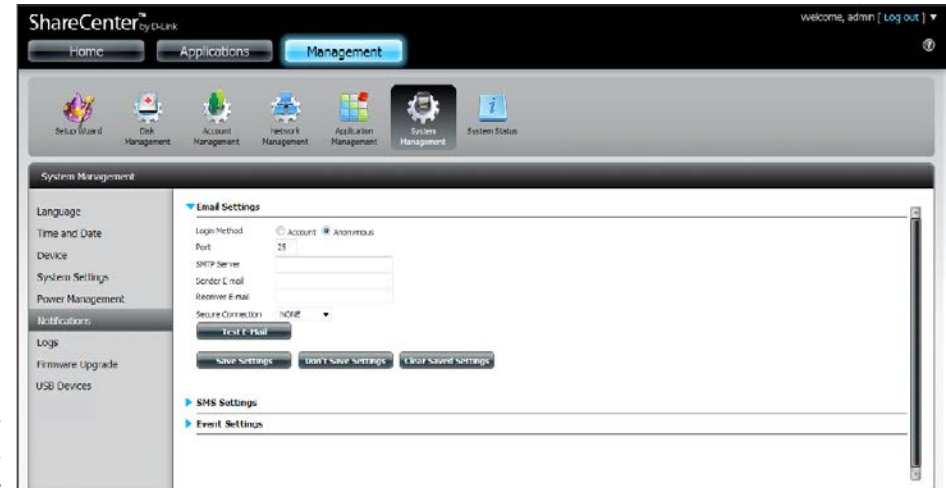
SMTP Server: Enter the IP address or domain name of your outgoing mail server. If you are unsure of this value, contact your e-mail provider.

Sender E-mail: Enter the "from" e-mail address (e.g. alerts@share.com). This field does not require a valid e-mail address. However, if your e-mail client is filtering spam, make sure you allow this address to be received.

Receiver E-mail: Enter the e-mail address you want to send the alerts to. This address must correspond with the SMTP server configured above.

Secure Connection: Select **STARTTLS** or **SSL** from the drop-down menu if it is required by your SMTP server, or select **NONE**.

Test E-Mail: Click the **Test E-Mail** button to send a test alert and confirm your settings are correct.



SMS Settings

The same alerts of system conditions that can be sent to an email box can also be sent to a mobile phone or by SMS text messages. You need to have an agreement with a SMS service gateway that the device can then be configured to send the alerts to. The service provider then sends the received alerts to the configured mobiles as text messages.

Enable SMS Notifications: Check this box to enable SMS alerts to be sent to your mobile phone.

SMS Service Provider: Select from the drop-down list your SMS service provider you would like to use (these are added with the **Add** button)

Add button: Click on the **Add** button and enter the information into the appropriate fields that your provider has given you to use for the configuration.

Delete button: Remove the selected Service Provider from the configuration.

URL: The specific service provider URL provided and added in the Add procedure.

Replace space character with: If required by your service provider enter a character that will be used for the space.

Phone Number 1: Automatically populated from the **Add** button function.

Phone Number 2: Enter a second mobile telephone number. Verify that the number input is according to the configuration instructions from your Mobile Service Provider.

Test SMS button: Click this button to send a test message to your mobile phone to verify the settings are correct and the API URL is functioning with your provider.

The screenshot displays the 'System Management' web interface. The top navigation bar includes icons for Setup Wizard, Disk Management, Account Management, Network Management, Application Management, System Management (active), and System Status. The left sidebar lists various system settings: Language, Time and Date, Device, System Settings, Power Management, Notifications (selected), Logs, Firmware Upgrade, and USB Devices. The main content area is titled 'System Management' and contains the following sections:

- SMTP Server:** Fields for SMTP Server (mail.company.com), Sender E-mail (job@company.com), and Receiver E-mail (jmg@nme.com). A checkbox for 'SMTP Authentication' is checked. Buttons for 'Test E-Mail', 'Save Settings', 'Don't Save Settings', and 'Clear Saved Settings' are present.
- SMS Settings:** A section with a '▼' icon. It includes a checkbox for 'Enable SMS Notifications' which is checked. Below it is a dropdown for 'SMS service provider' with 'Add' and 'Delete' buttons. The 'URL' field is empty. A note says 'Enter the required special character from your service provider' with a radio button for 'Use default' selected. There are two empty text boxes for 'Phone number 1()' and 'Phone number 2()'. A 'Test SMS' button is located below these fields. At the bottom, a red note states '(Note: Click Save Settings to confirm your service provider information.)' with 'Save Settings' and 'Don't Save Settings' buttons.

Adding an SMS Service Provider

Once you have a SMS Service provide you with a HTTP API URL, enter it into the Add SMS Service Provider wizard. Enter the URL in the first window with an appropriate Provider Name. In the next window select the appropriate HTTP API URL parameter types definitions from the drop-down menus next to the parsed fields of the URL.

Welcome to SMS setup wizard

Provider Name:

Enter a SMS URL with the message content set to be "Hello world":

SMS URL *:

*This SMS URL is only for setup purposes. No SMS message will be sent after setup is completed. The format of this URL is provided by the SMS service provider, and the URL must include the following parameters: username, password, destination phone, and message content. Using Clickatell as an example, a possible URL is:
https://api.clickatell.com/http/sendmsg?user=TestUser&password=TestPassword&api_id=3148203&to=886123456789&text=Hello.

Enter your SMS Provider name here.

Enter the HTTP API URL provided to you.

Welcome to SMS setup wizard

URL parameter definition

Select the corresponding category for each parameter

user=joesmith99	<input type="text" value="Username"/>
password=PASSWORD	<input type="text" value="Password"/>
api_id=3266469	<input type="text" value="Other"/>
to=886999555777	<input type="text" value="Phone number"/>
text=Message	<input type="text" value="Message content"/>

Choose the appropriate type parameter in the drop-down menu for the parsed parameters of the URL on the left.

Event Settings

You can limit which events are sent as alerts to the Email or SMS settings by checking the events here.

Event Settings: Select the information you want e-mailed to the above address or sent over SMS messages to the above mobile number. The items checked will be sent when necessary.

The screenshot displays the 'System Management' interface of a D-Link ShareCenter DNS-320. The top navigation bar includes icons for Setup Wizard, Disk Management, Account Management, Network Management, Application Management, System Management (active), and System Status. The left sidebar lists various system settings: Language, Time and Date, Device, System Settings, Power Management, Notifications (selected), Logs, Firmware Upgrade, and USB Devices. The main content area is titled 'System Management' and contains fields for 'URL', 'Phone number 1()', and 'Phone number 2()'. Below these fields are 'Test SMS', 'Save Settings', and 'Don't Save Settings' buttons. A red note states: '(Note: Click Save Settings to confirm your service provider information.)'. The 'Event Settings' section is expanded, showing a list of events with checkboxes: 'The Administrator Password Has Been Changed', 'Spice Status' (checked), 'One Of The Volumes Is Full', 'The Volume/Disk Status Has Been Changed', 'The System Temperature Is Over User Defined Threshold', 'The Firmware Has Been Upgraded', 'Sending Mail', 'One Torrent Download Is Finished', 'Send The S.M.A.R.T. Test Result' (checked), and 'Recover From Power Failure' (checked). At the bottom of this section are 'Save Settings' and 'Don't Save Settings' buttons.

Logs

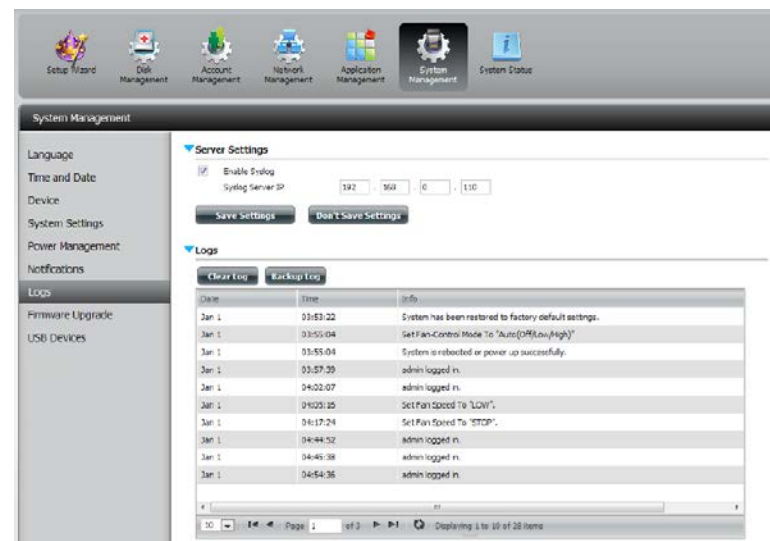
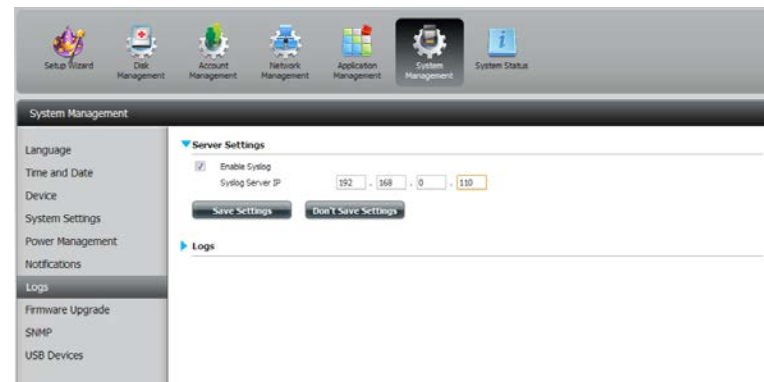
Within the Logs menu you can setup your ShareCenter to receive Log Events from other ShareCenters or send the ShareCenter's log events to another ShareCenter or SysLog server. You can also view the NAS system logs and the FTP logs here.

Enable Syslog: Click to activate the Syslog server functionality of your device to be able to receive logs from other ShareCenters.

Syslog Server IP: Enter the IP address of an external Syslog server that you wish to send the logs of this device to.

Clear Log: Click **Clear Log** to delete all the existing logs.

Backup Log: Click **Backup Log** to save the existing logs to a text file on your computer.



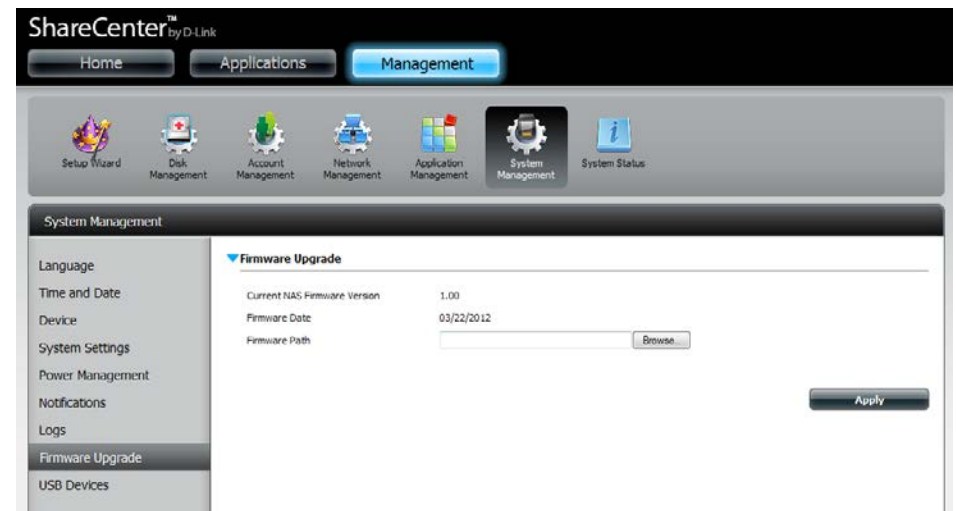
Firmware Upgrade

The Firmware Upgrade Page makes it simple to check for and upload new firmware releases to the device. This section provides a link to check for new firmware on the D-Link support website. If new firmware is available, download the file to your local computer.

Current Firmware Version: Displays the current firmware version on your ShareCenter® device.

Firmware Date: Displays the date of when the firmware was created.

Firmware Upload: When upgrading the firmware, click **Browse** to select the new firmware file on your local computer and then click **Apply** to begin the firmware upgrade process.



USB Devices

UPS Settings

Network UPS is a system management feature that uses a local UPS to protect your NAS from an abnormal shutdown due to a power failure.

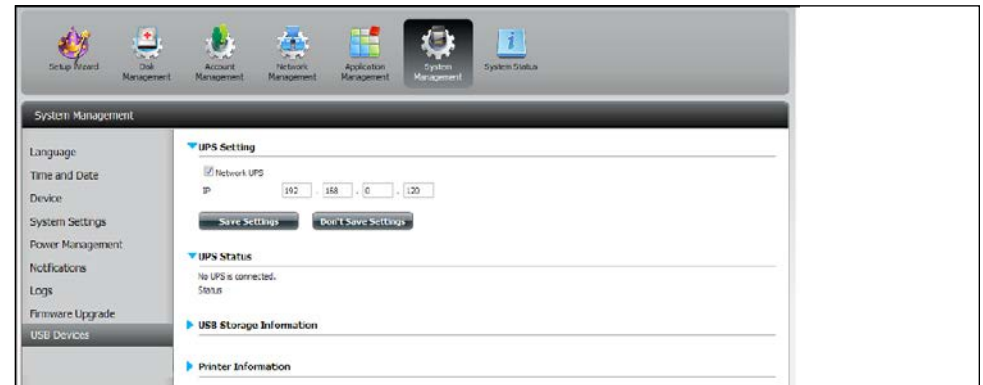
To enable Network UPS to your NAS (Network Slave Mode):

1. Click to enable the Network UPS.
2. Enter an IP address of the Network UPS Master.
3. Click **Save Settings** to receive the critical power status from the network UPS master.

The UPS Status will display the current status of your UPS.

Note: Make sure that the ShareCenter is in the same network as the network UPS master.

If a UPS device is connected to the USB port on your NAS, you can select either Stand-Alone or Master mode. If you select Master mode, you will have to enter the IP address(es) of the network UPS slaves to notify them in the event of a power failure. For more details, refer to the **UPS Connectivity** section.

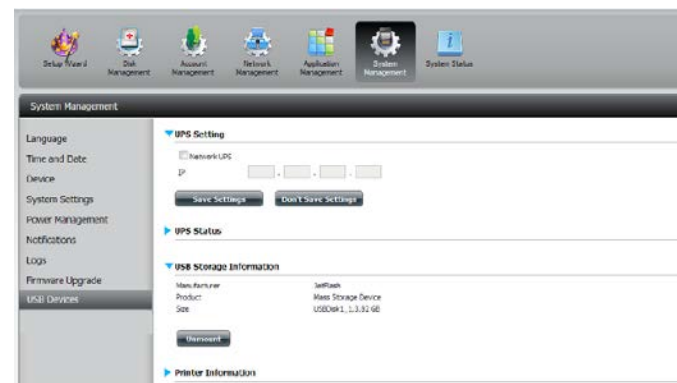


USB Storage Information

Click the blue arrow to reveal the USB storage Information.

It displays information on the manufacturer, product name, and size (capacity).

Click the Unmount button to eject the USB device.

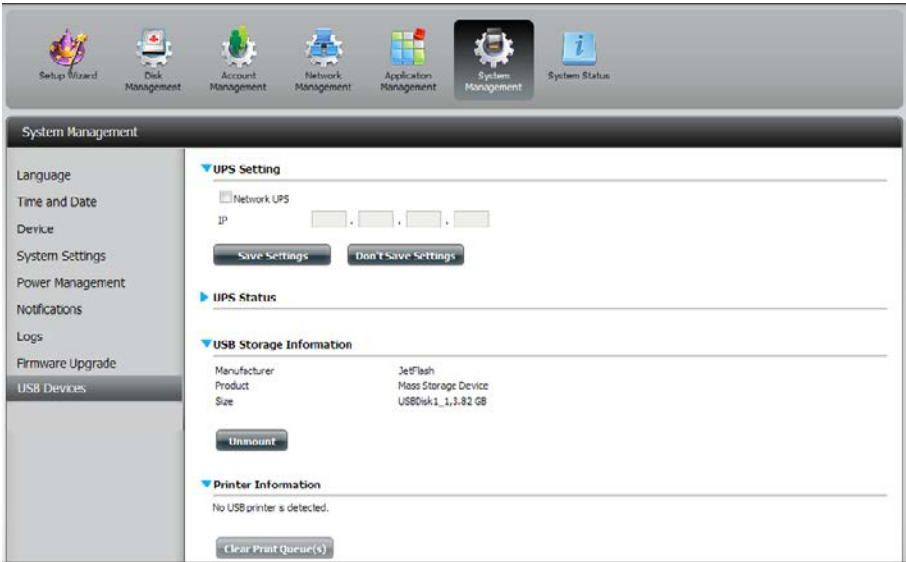


Printer Information

Click the blue arrow to reveal Printer Information.

It displays information on the manufacturer, product type, and connection details.

Click **Clear Print Queue(s)** to remove all active print jobs.



System Status

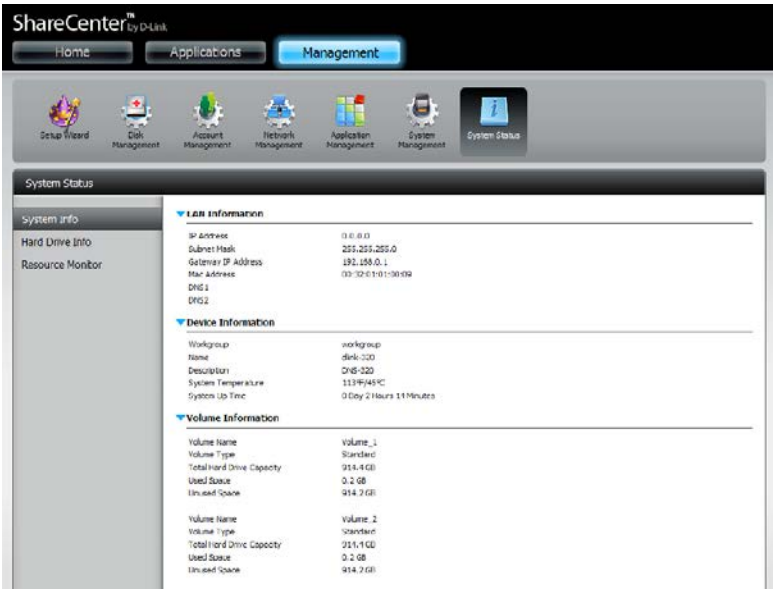
System Info

The System Status information screen provides information on the DNS-320. System Info provides information on the LAN ports, Device Information, and Volume information. Hard Drive Info displays information on all hard drives including the manufacture details, temperatures, size, and status. Resource Monitor offers more detailed information on the CPU, Memory, Bandwidth, and Processes.

Click **System Status** and then **System Info**

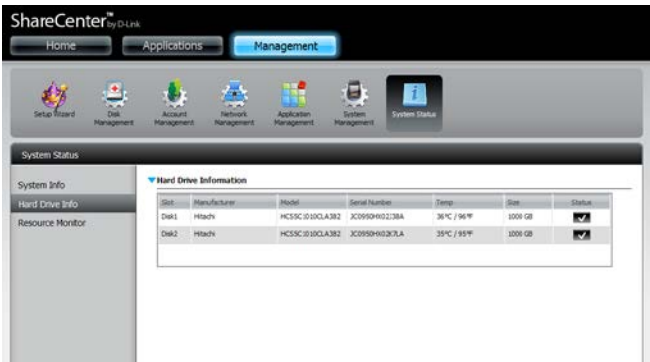
Click the blue arrow from each of the headings to reveal information on each segment.

LAN Information, Device Information, and Volume Information.



Click **System Status** and then **Hard Drive Info**.

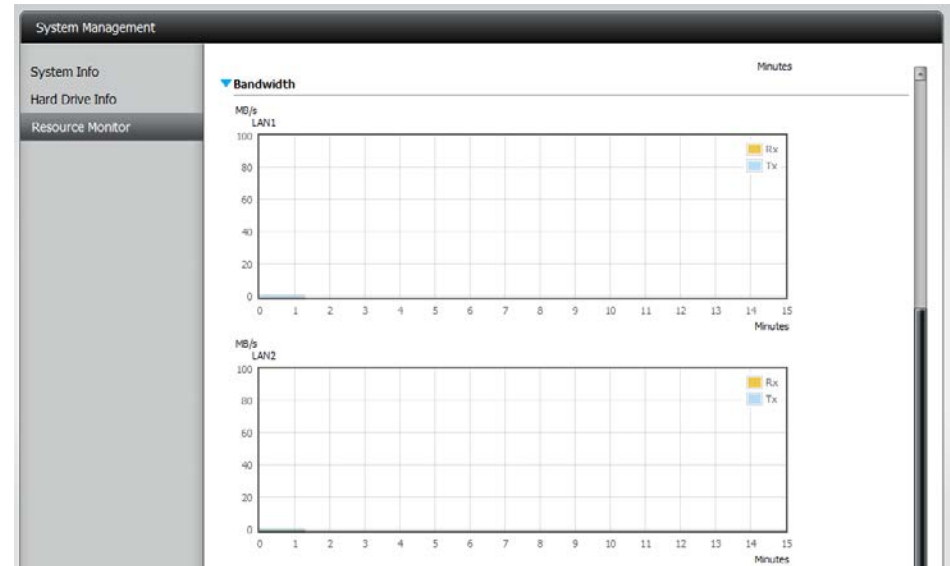
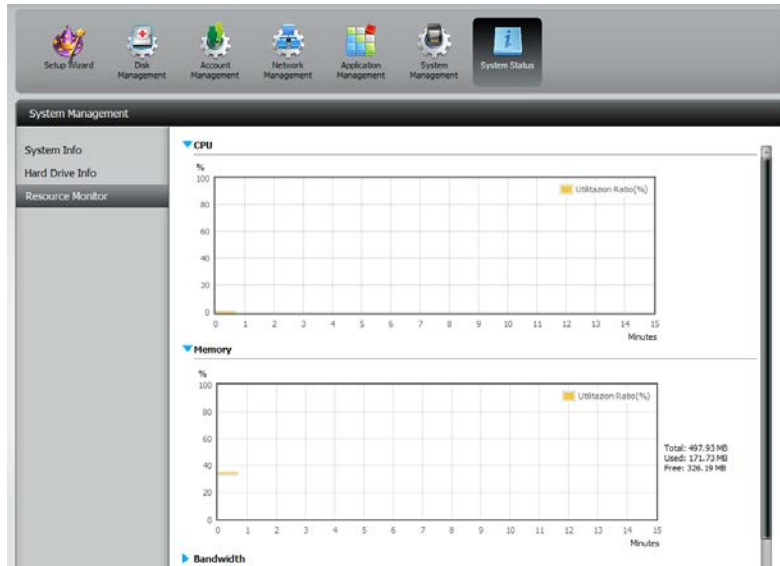
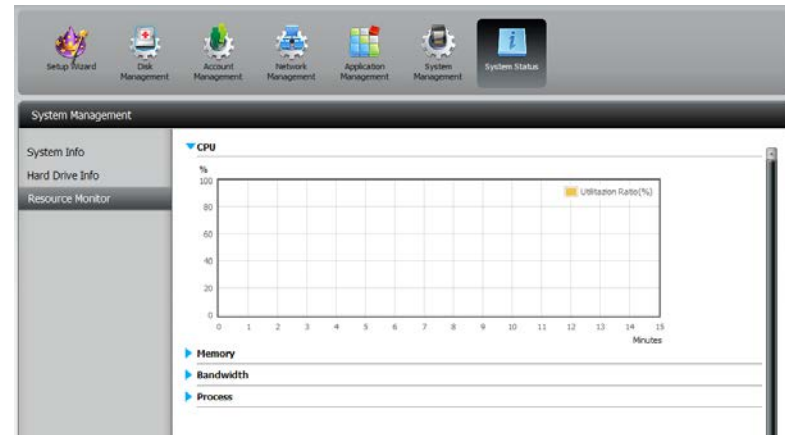
Click the blue arrow to reveal a table of hard drive information.



Section 4 - Configuration

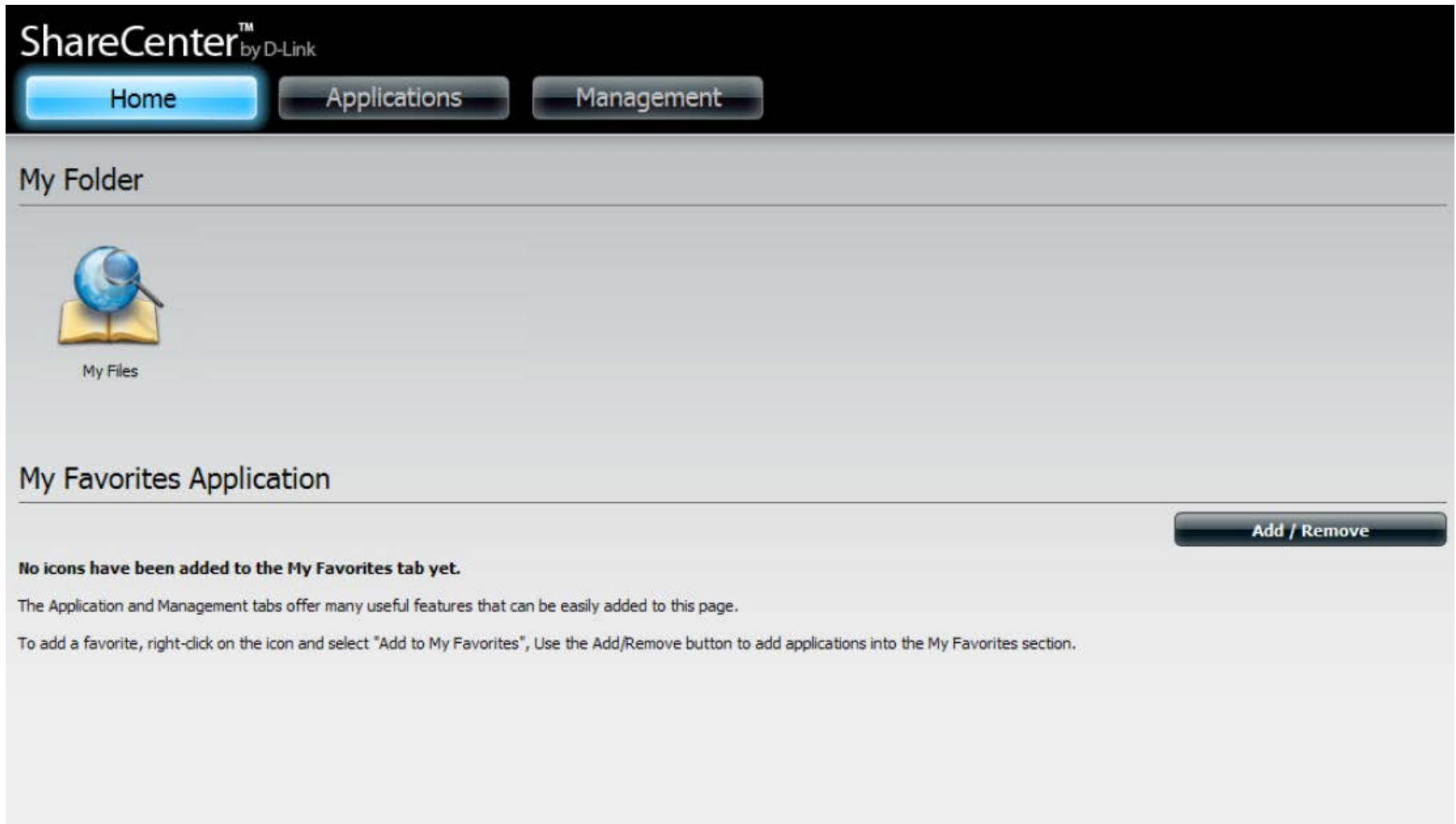
Click **System Status > Resource Monitor**, then click the blue arrow to reveal the resource details.

It provides information on the CPU, memory, bandwidth, and processes in action.



Home

The Home tab is the center for all files on your ShareCenter. Home is divided into one main subfolder called My Folder. Under My Folder resides My Files. Let's take a closer look at this utility independently.

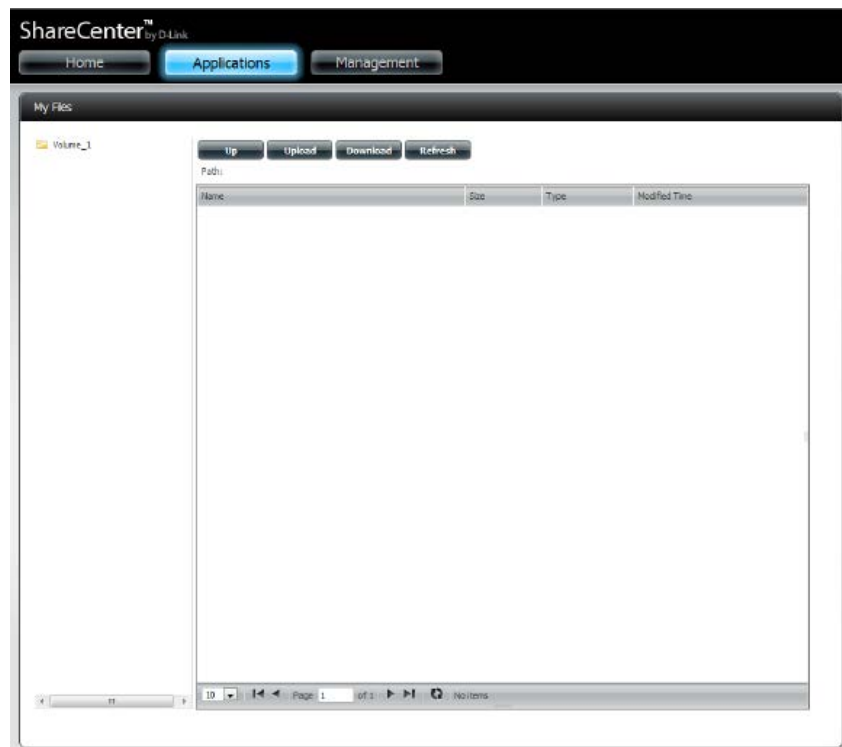
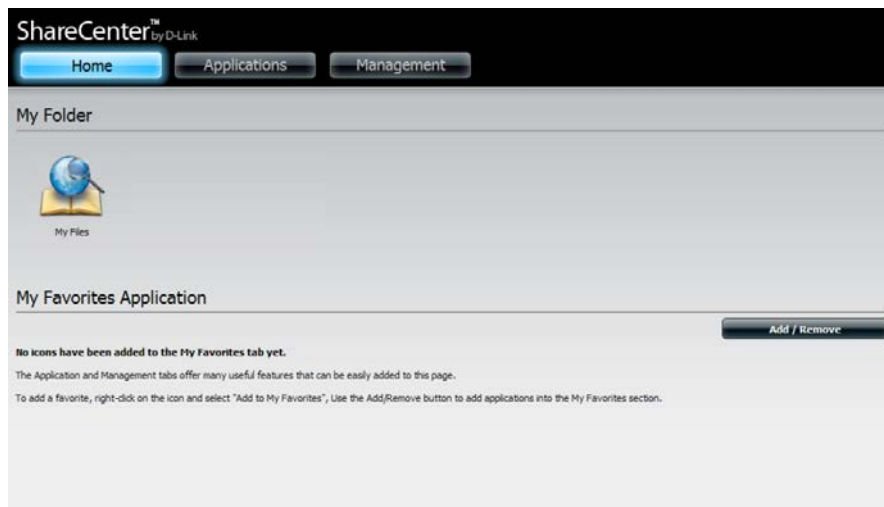


My Files

Users can access files on their ShareCenter by clicking the **My Files** icon in the **My Folder** window under **Home**. **My Files** provides access to all your files on the NAS.

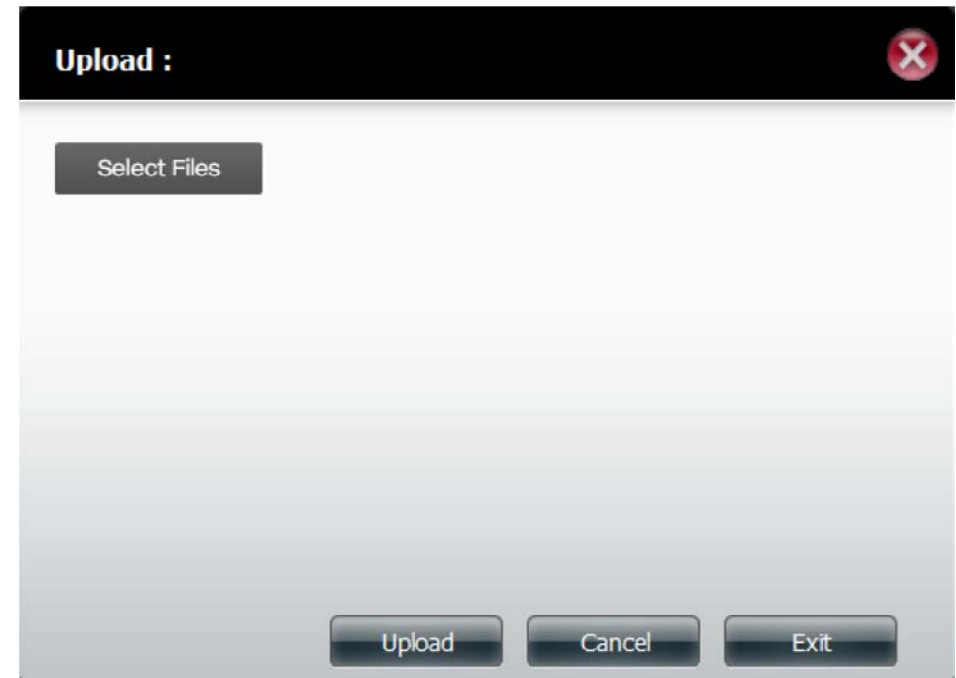
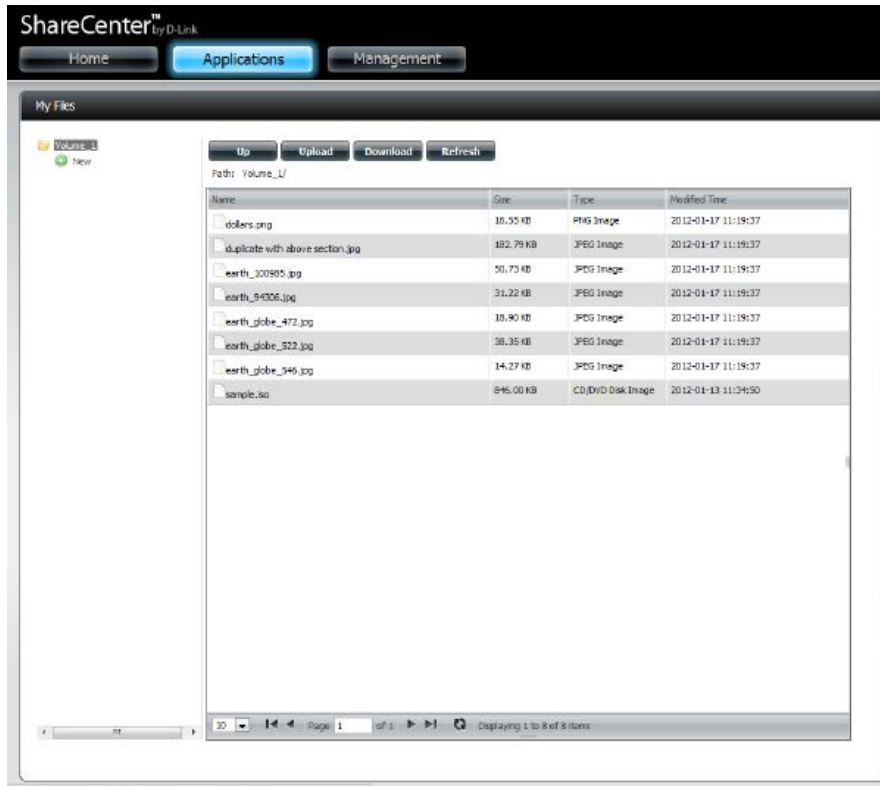
Click **My Files**.

The **My Files** window provides a list of all **volumes** created on the NAS. Click on any **Volume** you created to see a directory listing of the files.



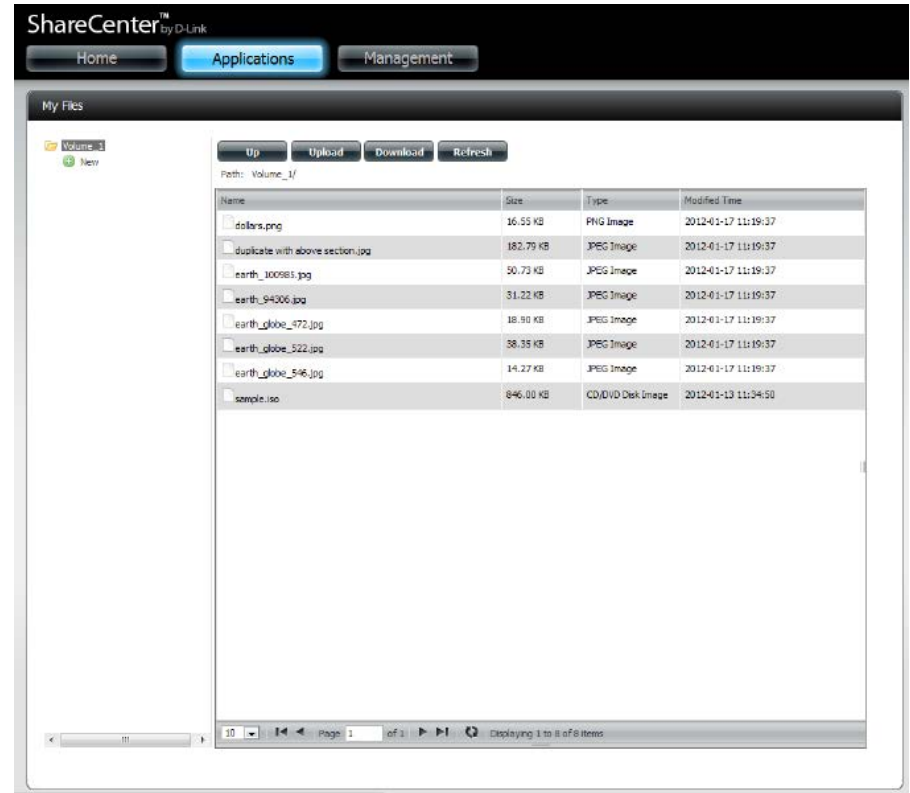
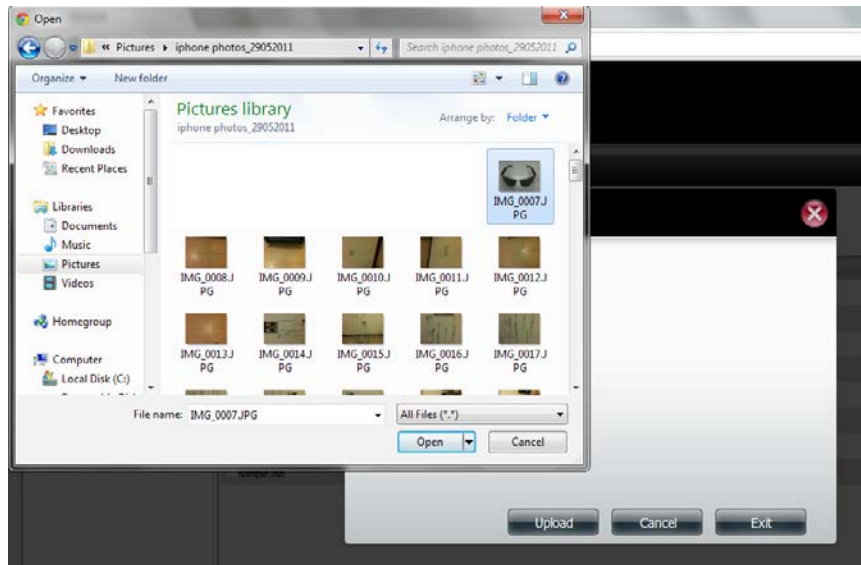
Upload

To upload more files to the volume you have selected, click the **Upload** button. Click the **Select Files** button to find files on your computer to upload to the NAS. Locate the path of the file you want to upload and click **Open**.



Section 4 - Configuration

Click **Upload** to start the uploading process. Then click **Exit** to close the upload window. The file updates to the NAS and is displayed on the directory table.



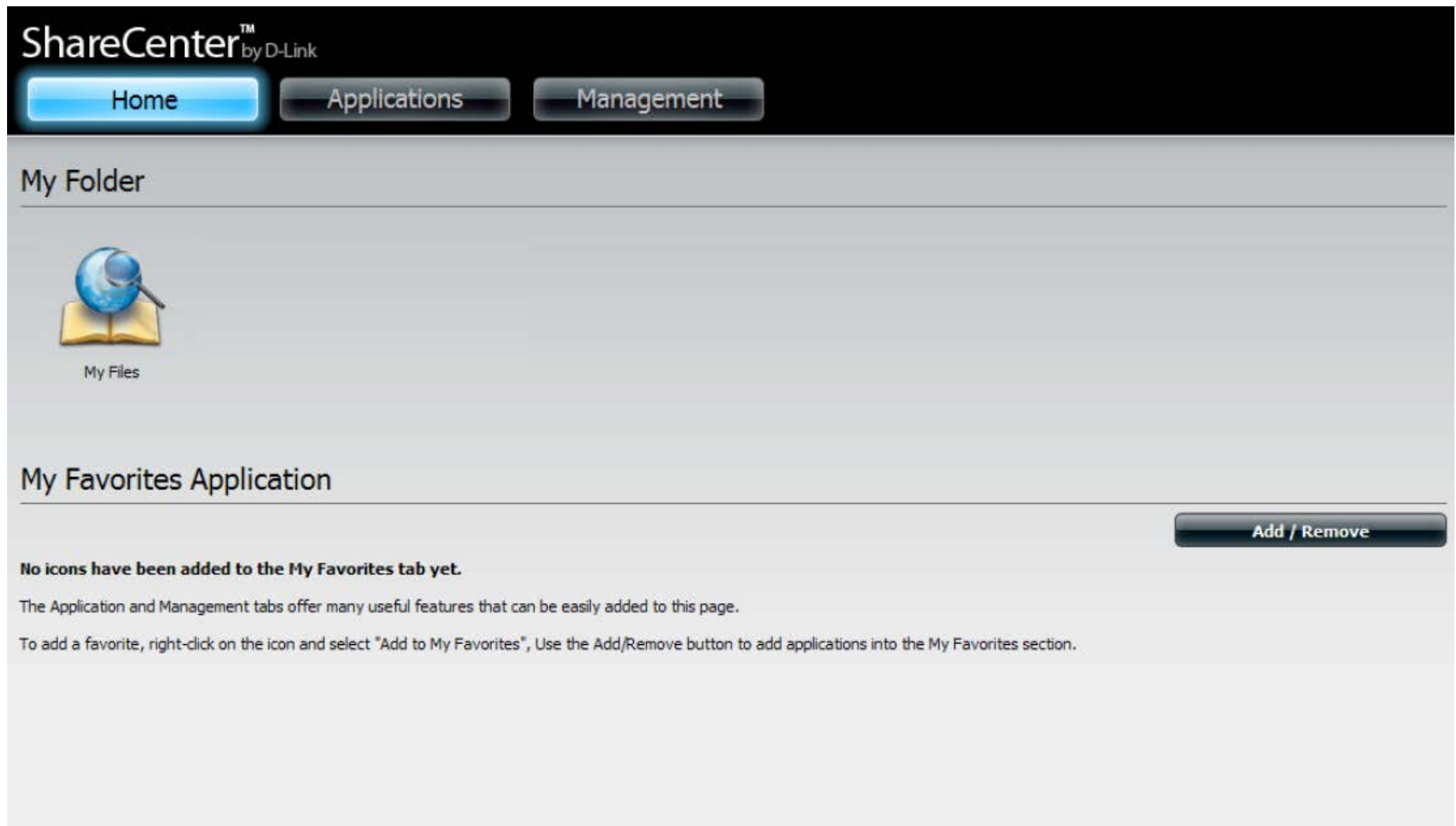
Download

To download files from the NAS to your computer, select the file you want to download and click the **Download** button. Depending on your browser download settings, the browser automatically downloads the file to your saved location.



My Favorites Application

The **My Favorites** Application section allows users to add applications to the **Home** section so users can easily access these applications. Follow these easy steps to setup **Favorite** Applications on the Home screen.



Adding Applications

Click the **Add/Remove** button to add **Applications**. Click the **checkbox** under each application you wish to add to the Home screen. Click **Apply** to continue.



The **shortcut** is now created on the Home screen. Click the **shortcut** to access the application.



Applications

FTP/HTTP Downloads

Schedule file and folder backups from an FTP server, web server, or local network share. Always test the URL before applying changes. This will help to ensure a successful download.

Category: Use the radio buttons to select the type of server that the source files/folders for the Schedule Downloads are located on. Click the **HTTP** radio button to specify that the source files are located on a web server or click the **FTP** radio button to specify that the source files/folders are located on an FTP server.

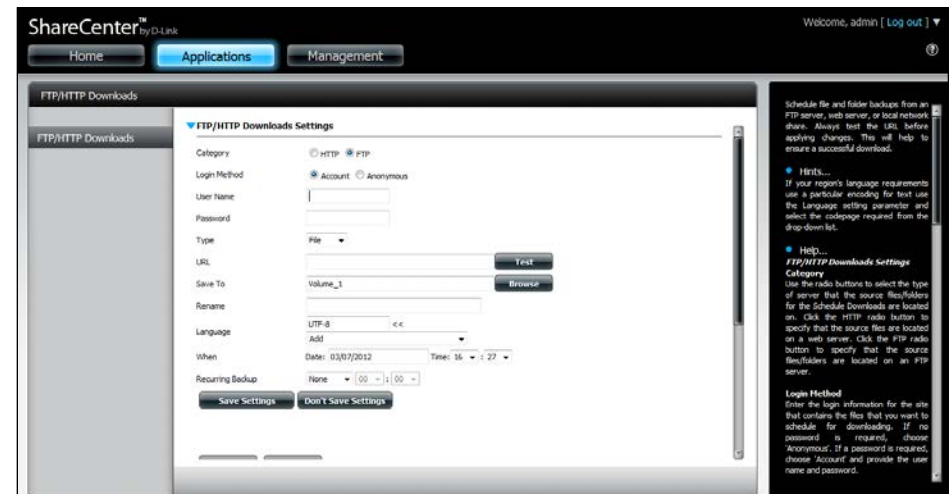
Login Method: Enter the login information for the site that contains the files that you want to schedule for downloading. If no password is required, choose **Anonymous**. If a password is required, choose **Account** and enter the user name and password.

Username: Enter the user name here.

Password: Enter the password here.

Type: Select either **File** or **Folder** from the drop-down list depending on whether you wish to download a file or a folder.

URL: Enter the FTP/HTTP site address for the scheduled download. Click on **Test** to verify access to the site address and file/folder. If you selected **File** from the above drop-down list, you must specify the exact file in the URL path, including the file extension. (e.g. http://example.com/test/testfile.txt).



Category: ☒ HTTP ☐ FTP

URL: **Test**

Save To: **Browse**

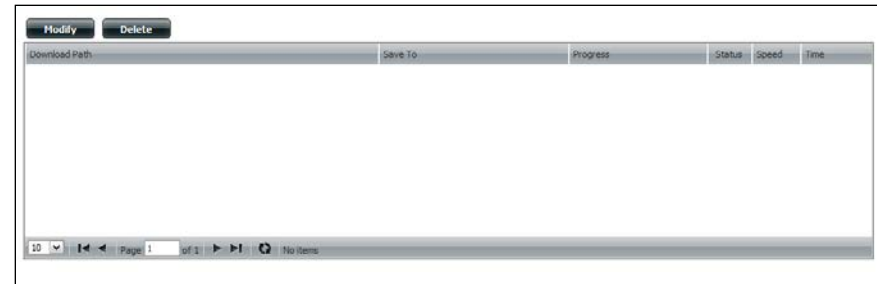
Rename:

When: Date: Time: :

Recurring Backup: :

Save Settings **Don't Save Settings**

- Save To:** Enter the specific destination on the internal drives for the downloaded files or folders to be saved to. Click **Browse** to browse the internal drives.
- Rename:** If you would like to rename a file after it has been downloaded from the specified HTTP/FTP server, enter the name you would like the file to be renamed to in this field.
- Language:** Use the drop-down menu to select the language used in the file or folder that you are trying to download.
- When:** Select the date and time for the download to occur.
- Recurring:** If you wish to schedule a recurring backup, select the desired interval (daily, weekly, or monthly) and the time you want the backup to start.
- Schedule Download List:** Pending and completed download events will be listed here. The current status for each event is displayed here. In addition, there is an option to delete a download event at any time. Current download statistics, such as % completed and download speed, are displayed for each event. A refresh button is also provided to produce updated listings at any time.



Remote Backups

The Remote Backups section allows you to back up your ShareCenter to another ShareCenter, Linux Server or vice versa from a remote ShareCenter or Linux Server to your ShareCenter. Use the **Create** button in the remote backups list to start a wizard where you can configure the remote backup.

Enable remote backup service:

Check this box to enable the remote backup server functionality to allow a remote NAS or Linux server to backup from/to your ShareCenter.

Note: *If you are not using the Remote Backup functionality of your ShareCenter leave this box unchecked so that your ShareCenter's performance will not be affected by the additional overhead used by this process.*

Password:

Enter a password that the remote client will use to access your NAS for backup.

Remote Backups list:

This is the list of remote backup jobs.

Create:

Click the **Create** button to build a new remote backup job on your ShareCenter.

Modify:

Click this button to make changes to your existing Remote Backup jobs in the Remote Backup list. You must select the remote backup job first and then click the **Modify** button.

Delete:

To remove a Remote Backup job select the job in the list and then click the **Delete** button.

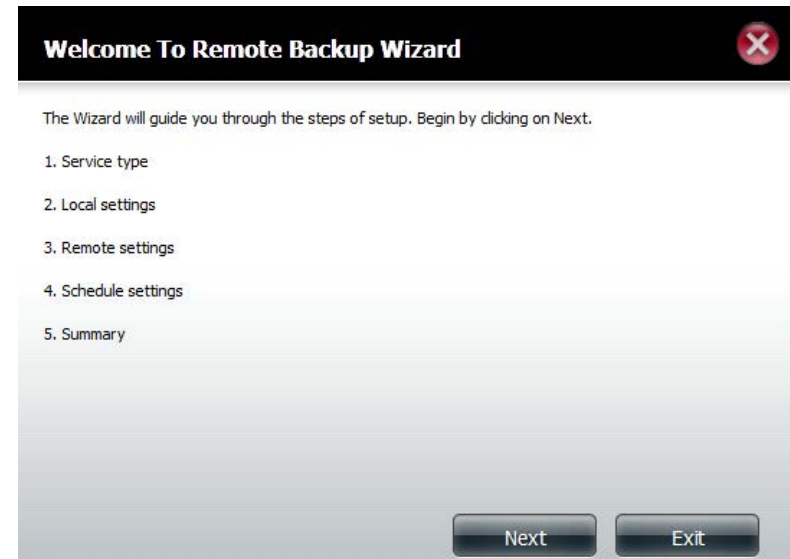
The screenshot shows the 'Remote Backups' configuration window. On the left is a sidebar with 'Server' and 'Remote Backups' options. The main area is titled 'Remote Backup Server' and contains a checkbox labeled 'Enable remote backup service' which is checked. Below the checkbox is a password field with a masked password '.....'. At the bottom are two buttons: 'Save Settings' and 'Don't Save Settings'.

The screenshot shows the 'Remote Backups' list interface. At the top are three buttons: 'Create', 'Modify', and 'Delete'. Below them is a table with the following columns: 'Task', 'Schedule', 'Status', 'Enable / Disable', 'Backup Now', and 'Recovery'. The table is currently empty. At the bottom, there is a pagination bar showing 'Page 1 of 1' and 'No items'.

Create Wizard

When you click the **Create** button above the Remote Backup list a wizard will start, guiding you to configure a new Remote Backup job.

Welcome: Displays the steps of the wizard.

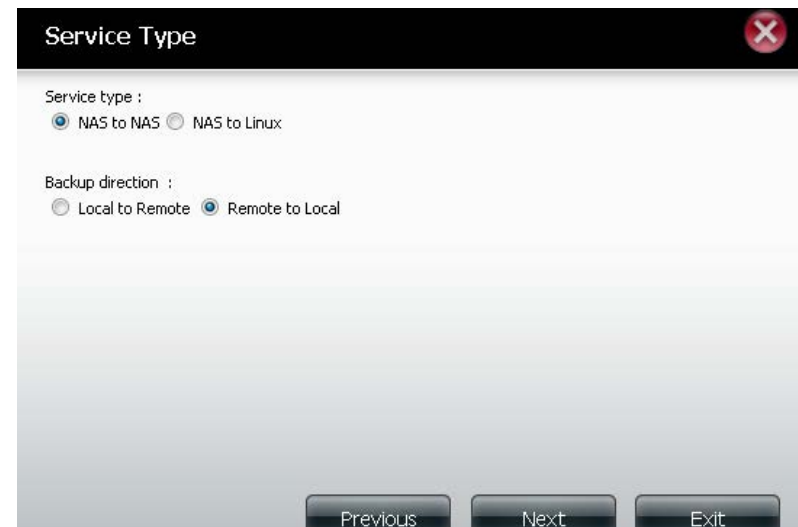


Service Type: **NAS to NAS:** backup from the local NAS to a remote NAS or vice versa.

NAS to Linux backup from the local NAS to a Linux file system or vice versa.

Local to Remote: sets the backup source as the local NAS and the target destination for the backup files as the remote NAS or Linux file system.

Remote To Local: sets the backup source as the remote NAS or Linux file system and the target destination for the backup files as the local NAS.



Local Settings: **Task (Name):** the name used to refer to the backup job which will be listed later in the Remote Backup list.

Folder Path: select a local network share folder or file as the target or source for the backup job.

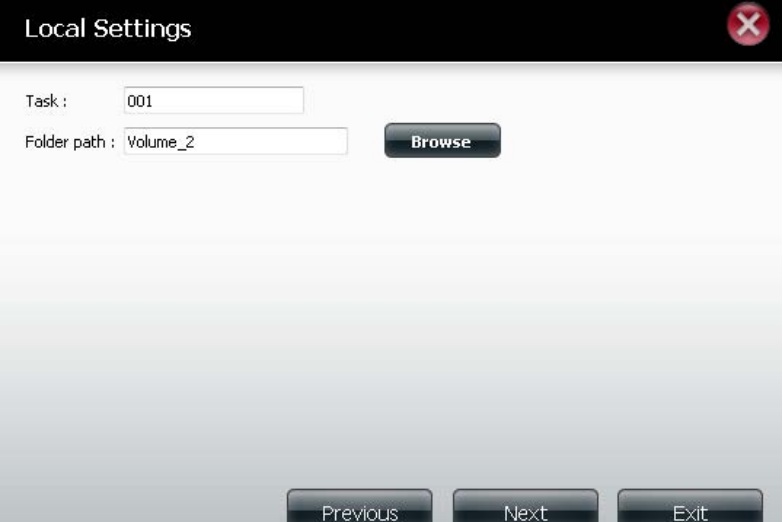
Remote Settings: **Remote IP:** The backup process uses Rsync protocol and needs to know the IP address of the destination source or target device for the backup. Input the IP of the remote NAS or Linux file system.

Password: Enter the password that is used by the remote backup server on the remote NAS or Linux file system.

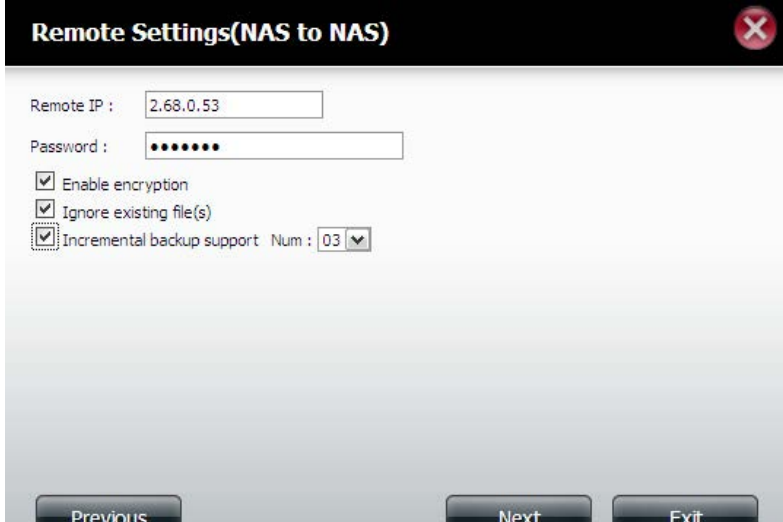
Enable Encryption: Checking this box will enable SSH encryption of the files that are transferred (backed up) over the network between the local and remote devices.

Ignore existing file(s): Checking this box prevents the backup process from writing over any files in the target file system that are not part of the backup files or folders. Therefore any existing files in the target system are preserved.

Incremental backup support Num (#): Checking this box provides multiple backup-capability at scheduled times. The first backup in an incremental series captures all the files for backup. Subsequent backups are incremental in that only the files and the folders that have changed in the backup source since the last incremental backup will need to be backed up. Each incremental backup builds a complete snapshot of the backup source however only the initial backup contains all the original files and folders. The subsequent backups in the incremental series contain new files and folders plus the links to the first incremental backup.



The 'Local Settings' dialog box has a title bar with a close button. It contains two input fields: 'Task :' with the value '001' and 'Folder path :' with the value 'Volume_2'. A 'Browse' button is to the right of the 'Folder path' field. At the bottom, there are three buttons: 'Previous', 'Next', and 'Exit'.



The 'Remote Settings(NAS to NAS)' dialog box has a title bar with a close button. It contains several fields and checkboxes: 'Remote IP :' with the value '2.68.0.53', 'Password :' with masked characters, and three checked checkboxes: 'Enable encryption', 'Ignore existing file(s)', and 'Incremental backup support'. The 'Incremental backup support' checkbox has a sub-field 'Num :' with a dropdown menu showing '03'. At the bottom, there are three buttons: 'Previous', 'Next', and 'Exit'.

Remote Settings: **Remote Path:** Using the **Browse** button, select the file system (folder) path to the remote target or source system for backup.

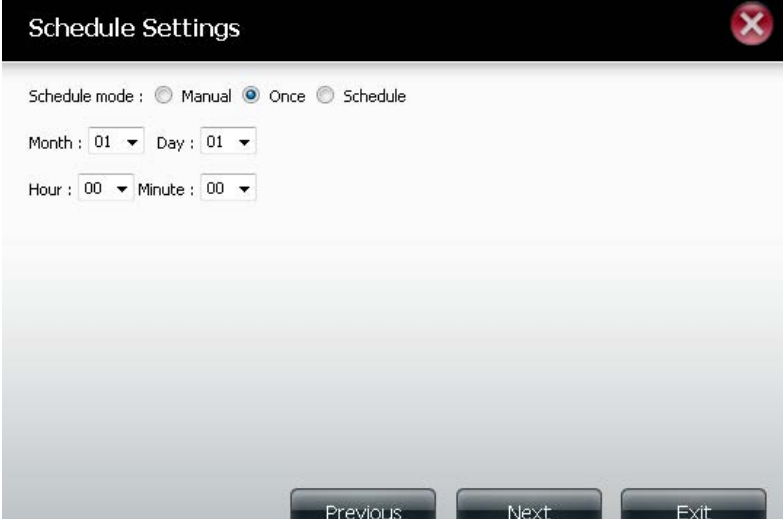
Schedule Settings: **Scheduled Mode:** **Manual:** Check either **Yes** or **No** selection below to start the backup (yes) immediately on completion of the wizard or (no) manually start the backup from the Remote Backup list.

Once - Select this option to run the Remote Backup once at a specific date and time set here.

Scheduled: Select this option to set the backup to occur daily, weekly, monthly per a specific schedule.



The screenshot shows the 'Remote Settings' dialog box. It has a title bar with a close button. The main area contains a 'Remote path' dropdown menu with 'test1' selected. Below it, it displays 'Source used size : 4.0k' and 'Destination free size : 71.2G'. At the bottom, there are three buttons: 'Previous', 'Next' (which is highlighted), and 'Exit'.



The screenshot shows the 'Schedule Settings' dialog box. It has a title bar with a close button. The main area contains a 'Schedule mode' section with three radio buttons: 'Manual', 'Once' (which is selected), and 'Schedule'. Below this, there are four dropdown menus for scheduling: 'Month' (01), 'Day' (01), 'Hour' (00), and 'Minute' (00). At the bottom, there are three buttons: 'Previous', 'Next' (which is highlighted), and 'Exit'.

Finished: Click on the **Finish** button if you are satisfied with all the settings of the Backup job created. Otherwise click on the **Previous** button to go back and make changes. Alternatively click on **Exit** to end the configuration without adding a Remote Backup job.

Remote Backups list:

Task: The name of the Remote Backup job.

Schedule: When the Remote Backup job will execute.

Status: Current status which can be

- Ready the remote backup job is ready to be executed.
- Finished the remote backup job has executed completely and successfully.
- Failed the Remote backup job was unsuccessful during execution.

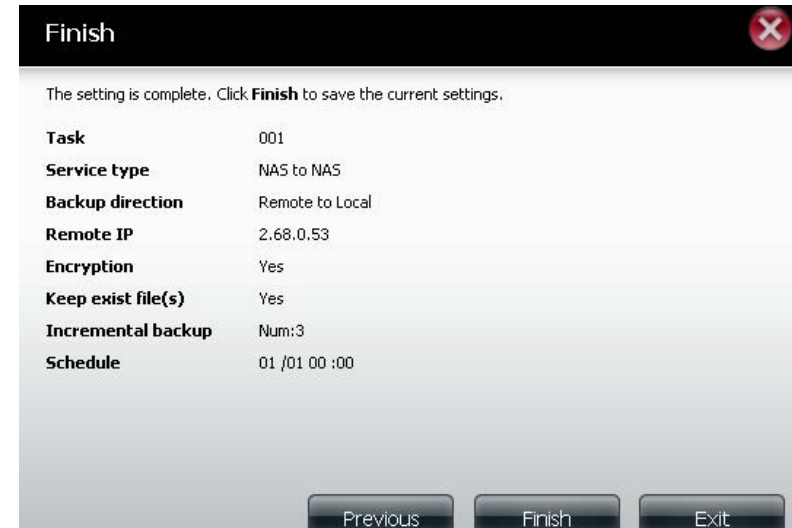
Enable/Disable: If the button shows a red circle the remote backup job is enabled. Clicking the red button will disable the remote backup job and the button will change to a green right pointing triangle. Clicking the green triangle will enable the job again.

Backup now: Clicking this button will execute the backup job immediately as long as the job is enabled.

Recovery: Clicking this button will write the backup files and folders back into the source file system from the backup target system (reverse the file direction).

Navigation buttons: Use these buttons to move up and down in the list when there are multiple jobs configured.

Refresh Button: Click this button during a backup or recovery process to monitor the progress by updating the progress completed bar.



Local Backups

Schedule local file and folder backups from the local network share of the device or from the local computer. Always test the URL before applying changes. This will help to ensure a successful download.

Category: Use the radio buttons to select the backup method. If your NAS device has two volumes you can click the **Internal Backup** radio button to backup the data from the first volume to the second volume and vice-versa. The Internal Backup feature also allows you to backup an existing folder on a volume to another folder on the same volume but nested folders in the same volume are not allowed. If you want to backup the data from your PC or another NAS device to your NAS device, click the LAN Backup radio button.

Login Method: Enter the login information for the site that contains the files that you want to schedule downloads from. If no password is required choose **Anonymous**. If a password is required choose **Account** and provide the user name and password. This option is only available for LAN Backups.

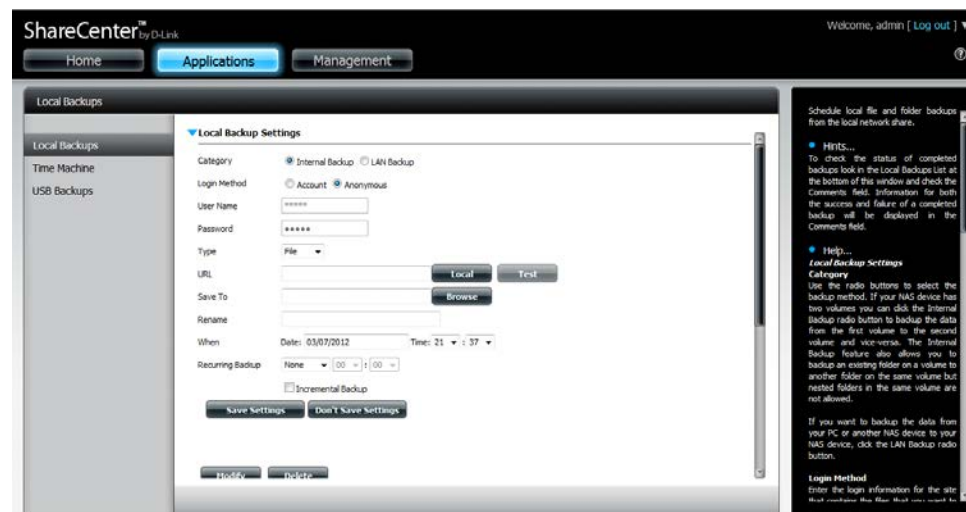
Username: Enter the user name here.

Password: Enter the password here.

Type: Select **File** or **Folder**, depending on what you want to download or backup.

URL: Enter the path of the site or server you are initiating a transfer from. (e.g. **Volume_1/Test** or **\\192.168.0.32\Volume_1\Test\test.txt**).

Save To: Enter a valid destination drive on the ShareCenter, or click **Browse** to select the destination.



Rename: Enter the renamed file name here.

When: Enter the date and time you want the scheduled backup or download to initiate.

Recurring Backup: Designate the interval and time you want the backup or download to run unattended.

Incremental Backup: By default all local backups and file/folder downloads are in Overwrite mode, meaning that identical files in the destination folder will be overwritten by the source files. Checking Incremental Backup will have the ShareCenter compare identical file names at the source and destination. Files will only be overwritten if the source file is more recent.

Time Machine

This section allows the user to configure the ShareCenter so that it becomes a backup destination in the Mac OS® X Time Machine. In order to use this function, the AFP service is required. The AFP service will start automatically as soon as this function is enabled.

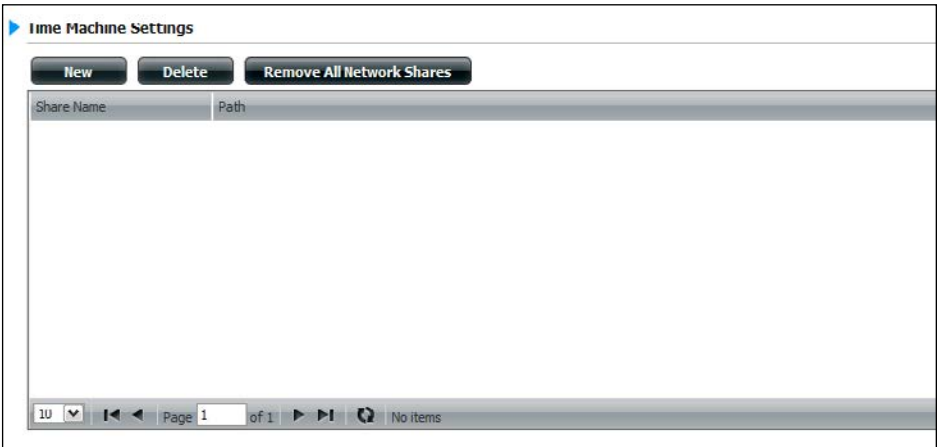
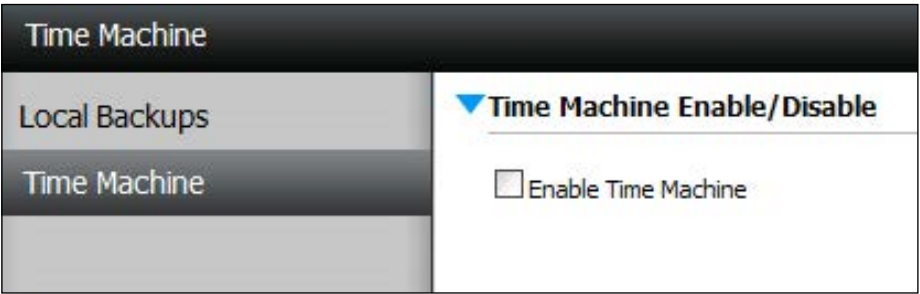
Enable Time Machine: Click this to enable the Time Machine function to work with a Mac OS® X Time Machine. The Time Machine Settings list will appear when this checkbox is checked.

Time Machine Settings list: A list of destination folders on the Network Shares associated with the Time Machine backup.

New: Adds a NAS folder as a Time Machine destination.

Delete: Deletes a NAS folder setup as a Time Machine destination.

Remove all Network Shares: Delete all the NAS folders in the list configured as Time Machine Destinations.



USB Backups

This section allows the user to configure the ShareCenter so that it becomes a backup destination for a USB device that is connected to your DNS-320.

MTP Backups (Media Transfer Protocol) basically backup digital media content from a MTP compatible USB device such as digital cameras, MP3 players, and smartphones to your ShareCenter. USB Backups allows you to backup data from a USB storage device to the ShareCenter or from the ShareCenter to a USB storage device.

The screenshot shows the 'USB Backups' configuration window. On the left is a sidebar with three options: 'Local Backups', 'Time Machine', and 'USB Backups', with 'USB Backups' currently selected. The main area is titled 'USB Backups' and contains two sections. The first section, 'MTP Backups', has a header with a downward arrow. Below it, the 'MTP Backups' label is followed by radio buttons for 'Enable' and 'Disable', with 'Disable' selected. A 'Destination' field contains the text 'Volume_1', and a 'Browse' button is to its right. Below this, the 'Status' is shown as '--'. At the bottom of this section are two buttons: 'Save Settings' and 'Don't Save Settings'. The second section, 'USB Backups', has a header with a rightward arrow and is currently empty.

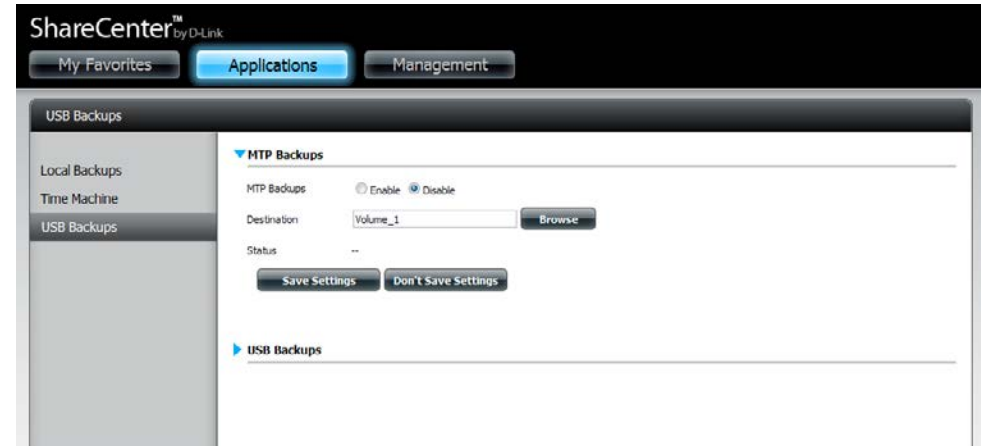
MTP Backups

MTP Backups: Click **Enable** to allow your ShareCenter to copy digital media content from a MTP USB device.

Destination: Click **Browse** to select a folder on your ShareCenter for the backup data to be saved to.

Status: Displays the current MTP backup status.

Click on the **Save Settings** button to save the MTP Backups settings.



USB Backups

USB Backups: Click **Enable** to allow your ShareCenter to copy data from/to a USB storage device.

Category: Select either **USB to NAS** (backup from the USB storage device to the ShareCenter) or **NAS to USB** (backup from the ShareCenter to the USB storage device).

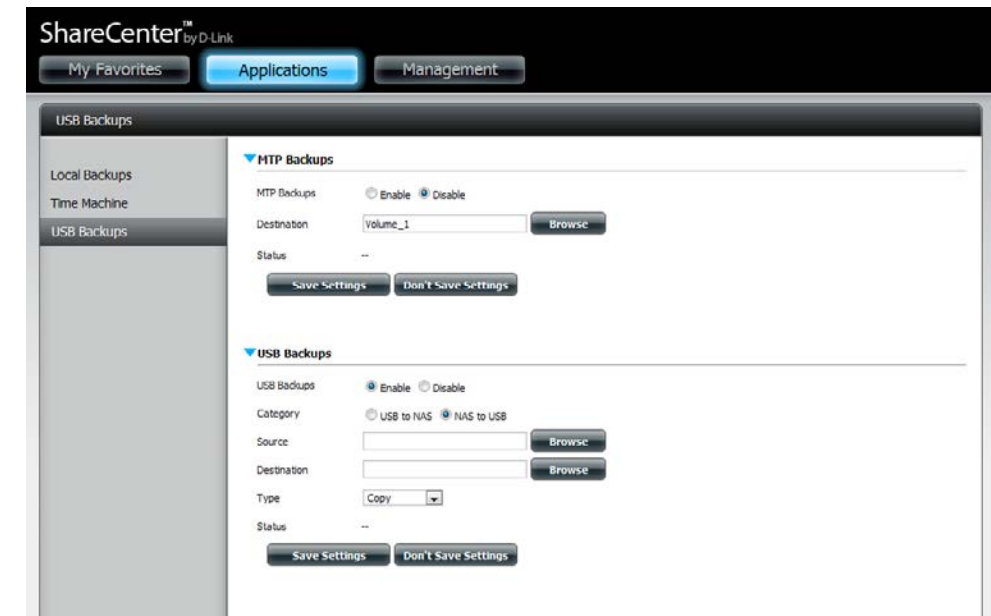
Source: Click **Browse** to select a folder as the source folder for the backups.

Destination: Click **Browse** to select a folder as the destination folder for the backups.

Type: Select **Copy** to create a new folder in the destination folder. Select **Synchronize** to overwrite all the files in the existing USB folder named USBDisk1_1.

Status: Displays the current USB backup status.

Click on the **Save Settings** button to save the USB Backups settings.

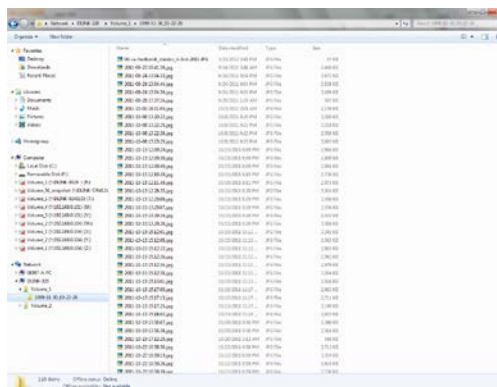


MTP Backup Process

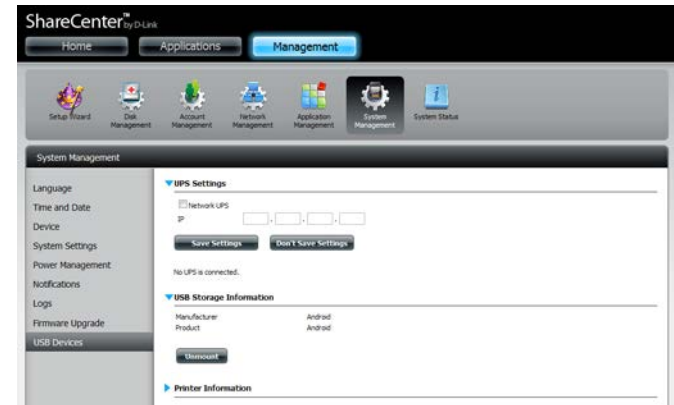
1. Connect a MTP USB device to the USB port on the back panel of the device. The DNS-320 will enter backup mode if MTP Backups has been enabled in the MTP backup settings.



2. Press the **USB** button to start the backup process. The blue USB LED flashes briefly to display that the backup is in the process. The ShareCenter will create a new folder in the destination folder that you selected in the MTP backups settings and will copy all the media files from the MTP USB device to this folder. At this time the USB LED remains blue until the device is disconnected.



3. Go to System Management, USB Devices. Under USB Storage Information, you will see detailed information on the device you plugged into the DNS-320. You can connect an Android device but enable USB debugging.



4. When the backup is complete, the flashing blue LED will become solid blue. Click and hold the USB button at the front and the DNS-320 unmounts the device.



USB Backup Process

1. Connect a USB storage device to the USB port on the back panel of the device. The LED will blink then become solid once it is ready for backup, if USB Backups has been enabled in the USB backup settings.



2. Press the **USB** button to start the backup process. The LED starts to blink that the backup is in the process. The ShareCenter will copy or sync all the files from the source folder to the destination folder. Please Note: No warning message will appear to indicate that all data on the destination folder will be deleted automatically.

3. When the backup is complete, the flashing blue LED will become solid blue. To unmount the USB storage device, you can click and hold the USB button at the front of the DNS-320 or you can go to the **USB Devices** menu of the **System Management** icon in the **Management Tab** of the Web GUI of the device. Click the blue arrow to reveal the **USB Storage** information. Click the **Unmount** button to eject the **USB device**.



P2P Downloads Settings

In this menu you can configure the P2P download management settings.

P2P: Select **Enable** or **Disable**.

Download Schedule: In the block provided the user can configure the running schedule for P2P downloads. Simply select the **Start** and **Stop** block for the appropriate Time and Date.

Auto Download: Here the user can enable or disable the automatic download option.

Port Settings: The user can choose whether to allow the device to automatically choose an incoming connections port or configure the incoming connections port manually.

Seeding: Select one of the three seeding options.

Torrent Save Path: Displays the volume where the Torrent will be saved.

Encryption: Here the user can choose to enable or disable the encryption.

Bandwidth Control: You can manually configure the maximum download rate and maximum upload rate. Enter the value -1 to set the respective field to **unlimited**.

Downloads

Here the user can add torrents and view P2P download lists.

Add Torrent from URL: In the field provided you can copy and paste a link to a torrent file hosted on the internet. The P2P download manager will add the torrent file to the download manager and begin downloading your files.

Add Torrent from File: Browse for a torrent file you have downloaded onto your PC.

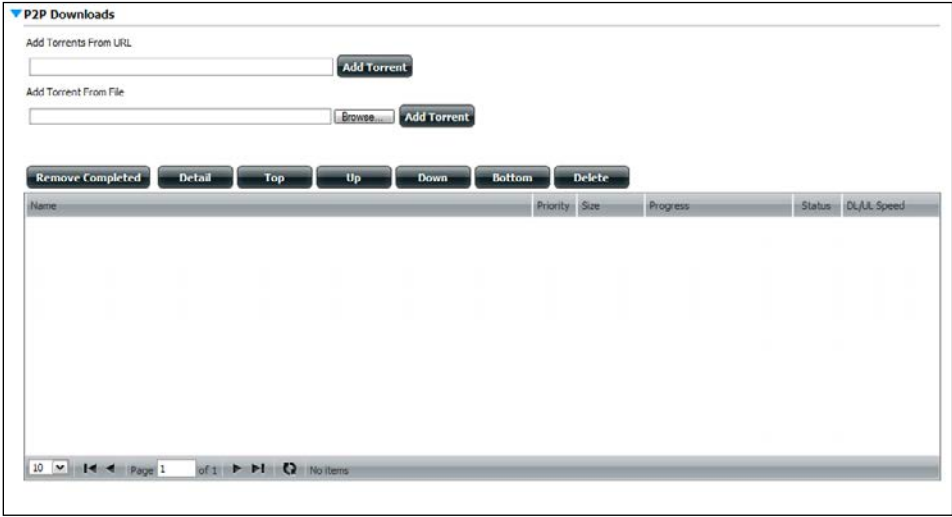
P2P Downloads list: This window will display all the running tasks.

Remove Completed: The user can click on the **Remove Completed** button to remove finished downloads. Sometimes identifying finished jobs, when multiple downloads exist, can be difficult. This option makes it is easier for the user to remove finished downloads from the list with a single click.

Detail: The **Details** button allows the user to view the files that are being downloaded for each torrent.

Top,Up, Down,Bottom: The **Top, Up, Down** and **Bottom** buttons allow you to move the selected P2P download in the task list. The downloads at the top of the list have a higher priority than the one listed below them.

Delete: The **Delete** button allows the user to remove a selected download. This will remove not only the torrent file, but also the partially downloaded files too.



Start / Stop: The **Start** and **Stop** buttons allow users to start and stop selected P2P downloads in the task list.

Navigation: At the bottom of the P2P Task window there are a couple of navigation controls. When multiple tasks exist, the user can select how many tasks will be displayed by using the drop-down menu. The user can also navigate to other pages when more than one page exist.

Refresh: The **Refresh** button allows the user to refresh the P2P task list so it displays the most updated statistics.

My Files

Whenever you cannot mount the network shares of your NAS, use My Files to access the files using a browser over the internet. If the network, that your ShareCenter is connected to is using NAT then you will need to forward HTTP port 80 across your router for access over the internet.

Up: Left click the **Up** button to go up (or back) one directory in the folder structure of the selected network share.

Upload: Select a destination folder in a network share by navigating in the folder view on the left. Then click the **Upload** button to open a dialogue window where you can browse to select a file on your computer for uploading to the destination folder.

Download: Select a file to download to your computer by navigating in the folder view on the left. When you find the file click on it in the folder. Your selection will be highlighted in red. Next click on the **Download** button and save or open the file as needed.

Refresh: Left click the **Refresh** button to update the folder and file view of My Files.

Download: Downloads the file to your computer.

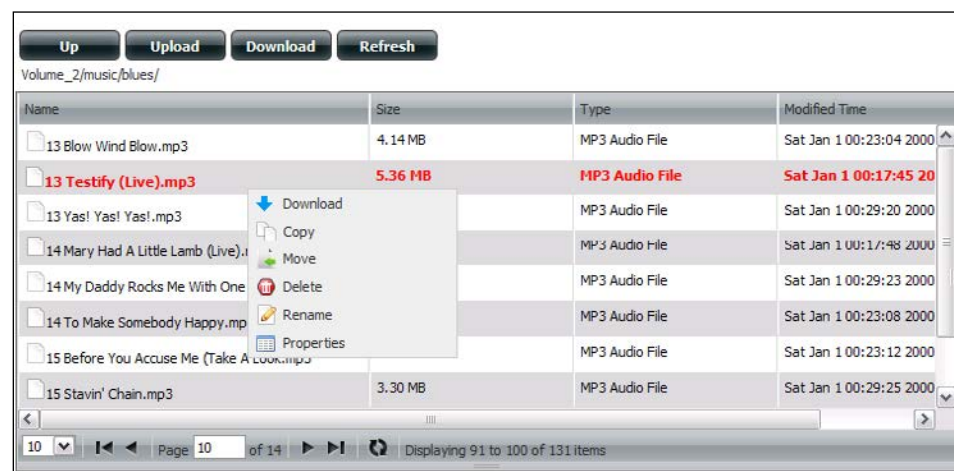
Copy: Copies the file to the clipboard and opens a wizard to allow you to select the folder to paste the file into. Once you have chosen the folder clicking **OK** to paste the file into the folder.

Move: Moves the file to a new folder on the disk.

Delete: Removes the selected file from disk.

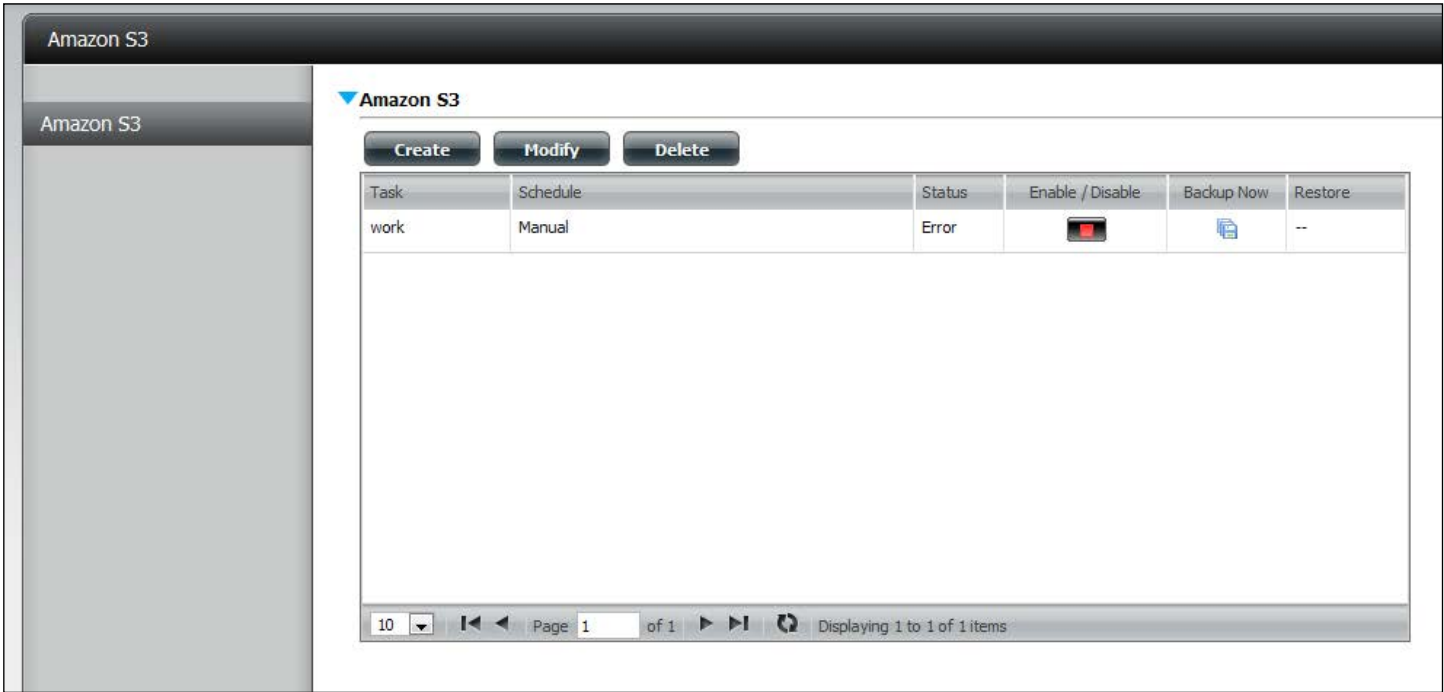
Rename: Allows you to configure a new file name for the selected file.

Properties: Displays the file properties such as ownership, access rights, and modify time.



Amazon S3

Amazon S3 (Simple Storage Service) is an online storage web service offered by AWS (Amazon Web Services). It provides a simple web services interface that can be used to store and retrieve any amount of data at any time from anywhere on the web. With Amazon S3 support, it is possible to upload the data from your DNS-320 to Amazon S3 or download the data from Amazon S3 to your DNS-320.



Creating an AWS Account

Open your web browser and type the following link for the Amazon Web Services: **<http://www.aws.amazon.com/s3>**. Then, click on the link at the top named **“Create an Amazon Web Services Account”**. Follow the instructions to create your AWS account.

Click the **“Sign Up for Amazon S3”** button and follow the instructions to select the amount of desired storage and create your Amazon S3 account.

You will be issued the following keys as credentials to give you access to the account:

1. Access Key ID
2. Secret Access Key

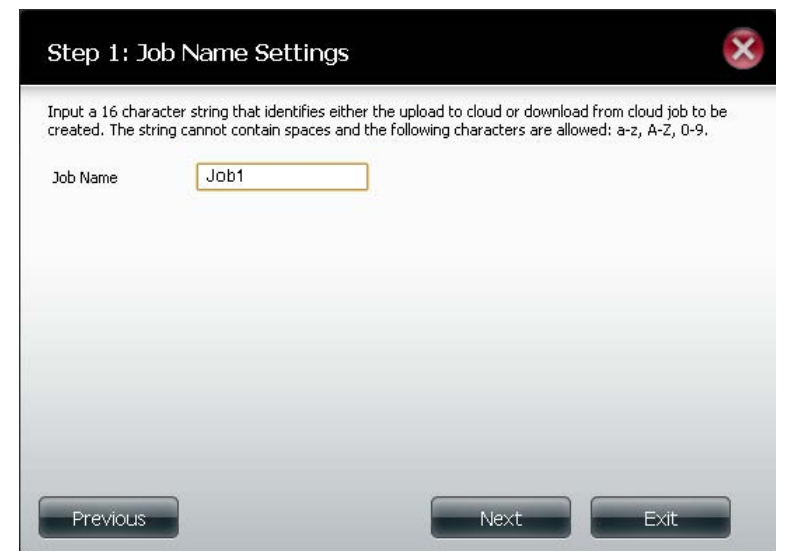
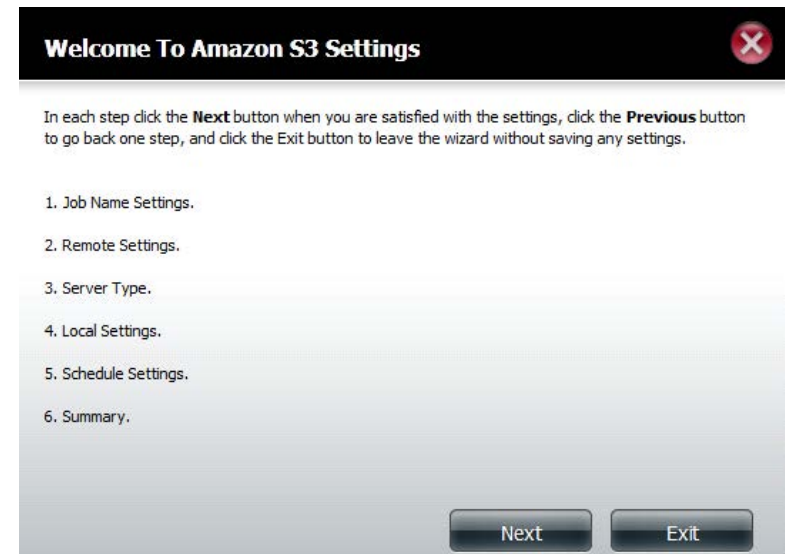
Save these keys in a secure location as your ShareCenter will need them to create the backup and recovery jobs to and from the Amazon S3 Cloud Storage.

Create Button

When you click the **Create** button, the wizard will appear and you will be able to create either a ShareCenter backup or a restore job to the Amazon S3 Cloud Storage. You can schedule the job to run once, scheduled, or manually. You will need the following configuration data to create a backup/restore job:

Step 1: Job Name Settings

Enter a 16 character name to identify the name of the backup or the restore job.



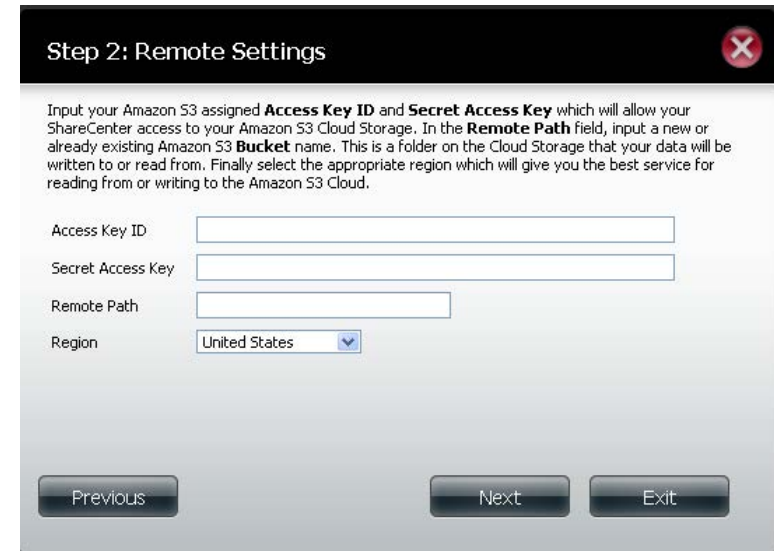
Step 2: Remote Settings

Access Key ID: Enter your Amazon S3 assigned Access Key ID which allows your ShareCenter to access your Amazon S3 Cloud Storage.

Secret Access Key: Enter your Secret Access Key to access your Amazon S3 Cloud Storage.

Remote Path: Input a new or already existing Amazon bucket name.

Region: Select your Region from the drop-down menu.

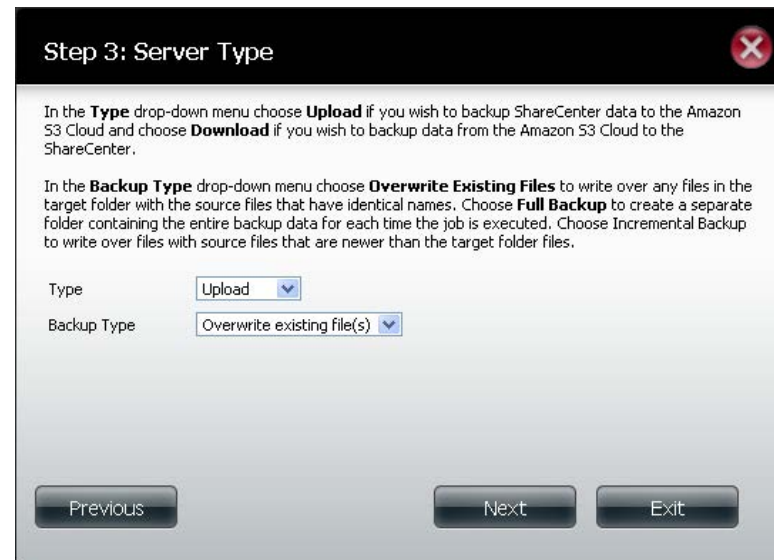


The screenshot shows a configuration window titled "Step 2: Remote Settings" with a close button in the top right corner. The window contains a text box with instructions: "Input your Amazon S3 assigned **Access Key ID** and **Secret Access Key** which will allow your ShareCenter access to your Amazon S3 Cloud Storage. In the **Remote Path** field, input a new or already existing Amazon S3 **Bucket** name. This is a folder on the Cloud Storage that your data will be written to or read from. Finally select the appropriate region which will give you the best service for reading from or writing to the Amazon S3 Cloud." Below the text are four input fields: "Access Key ID" (text box), "Secret Access Key" (text box), "Remote Path" (text box), and "Region" (drop-down menu currently showing "United States"). At the bottom are three buttons: "Previous", "Next", and "Exit".

Step 3: Server Type

Type: Select **Upload** or **Download** from the drop-down menu.

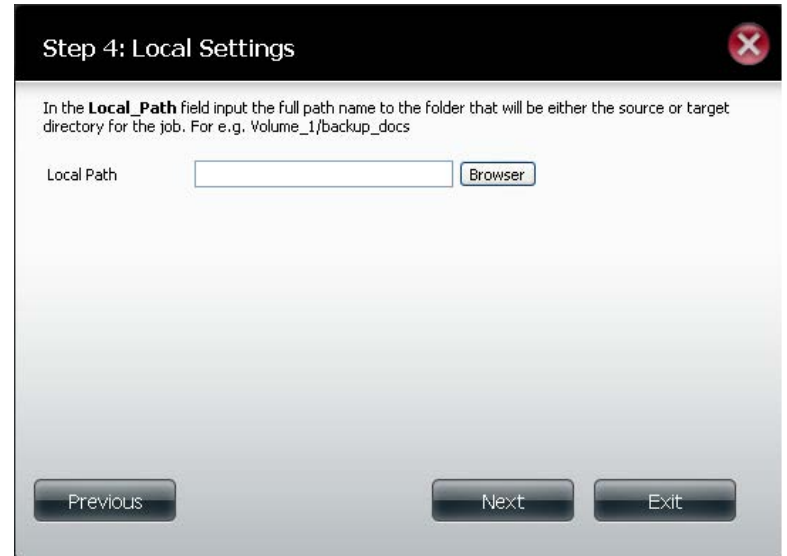
Backup Type: Use the drop-down menu and select **Overwrite Existing Files**, **Full Backup** or **Incremental Backup**.



The screenshot shows a configuration window titled "Step 3: Server Type" with a close button in the top right corner. The window contains two paragraphs of instructions. The first paragraph says: "In the **Type** drop-down menu choose **Upload** if you wish to backup ShareCenter data to the Amazon S3 Cloud and choose **Download** if you wish to backup data from the Amazon S3 Cloud to the ShareCenter." The second paragraph says: "In the **Backup Type** drop-down menu choose **Overwrite Existing Files** to write over any files in the target folder with the source files that have identical names. Choose **Full Backup** to create a separate folder containing the entire backup data for each time the job is executed. Choose **Incremental Backup** to write over files with source files that are newer than the target folder files." Below the text are two drop-down menus: "Type" (currently showing "Upload") and "Backup Type" (currently showing "Overwrite existing file(s)"). At the bottom are three buttons: "Previous", "Next", and "Exit".

Step 4: Local Settings

Use the **Browser** button to locate the path to the ShareCenter file location to be either backed up or restored to/from the AmazonS3 Cloud.



The screenshot shows a dialog box titled "Step 4: Local Settings" with a close button (X) in the top right corner. The main text reads: "In the **Local_Path** field input the full path name to the folder that will be either the source or target directory for the job. For e.g. Volume_1/backup_docs". Below this text is a label "Local Path" followed by a text input field and a "Browser" button. At the bottom of the dialog are three buttons: "Previous", "Next", and "Exit".

Step 5: Schedule Settings

Select the **Schedule Mode** for the job to be executed. You may select **Manual** (now or later from the job list), **Once** (at a predetermined time and day), or **Scheduled** (a predetermined time on a daily basis).



The screenshot shows a dialog box titled "Step 5: Schedule Settings" with a close button (X) in the top right corner. The main text reads: "Select the appropriate **Schedule Mode** to set when the job is to be executed. Click on **Manual** to start the job later using a button that must be manually clicked on. Click on **Once** to schedule a date and time to run the job one time only. Click on **Schedule** to set a daily time when the job is to be run." Below this text are three radio buttons labeled "Manual", "Once", and "Schedule", with "Manual" selected. Below the radio buttons is the text "Do you want to run this backup job now ?" followed by two radio buttons labeled "Yes" and "No", with "Yes" selected. At the bottom of the dialog are three buttons: "Previous", "Next", and "Exit".

Modify Button

Once a job is created, the **Modify** button is used to change any of the settings described in the **Create Button** section. Click on a created job in the Amazon S3 table so that its text turns red. Then click the **Modify** button to edit the job settings in a wizard that appears.

Note: *The Job Name cannot be modified.*

Delete Button

The **Delete** button is used to delete any backed up or restored job listed in the Amazon S3 table. Click on a created job in the Amazon S3 table so that its text turns red. Then click the **Delete** button to remove the job from your ShareCenter configuration.

Enable/Disable Column

This field of the jobs controls whether the job will execute or not. If the button shows a green triangle, clicking it enables the job to function. If the button shows the red square, clicking it disables the job from executing.



Knowledge Base

What is RAID?

RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and performance improvement. There are several different levels of RAID, with each one providing a different method of sharing or distributing data amongst the drives. The DNS-320 supports Standard, JBOD, RAID 0, and RAID 1.

Standard Standard provides a single volume for each drive.

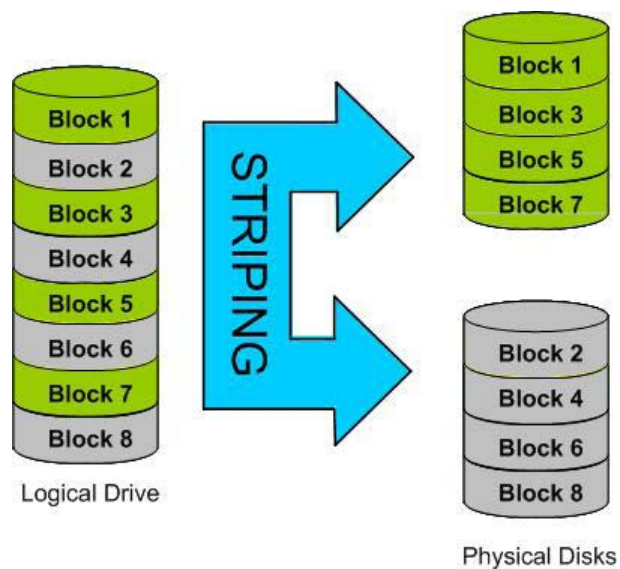
Although performance is improved, the lack of any RAID or mirroring means that if one drive fails, all data on the volume will be lost.

JBOD JBOD allows you to create a large virtual disk drive by concatenating two or more smaller drives together.

It offers no redundancy and limited data protection..

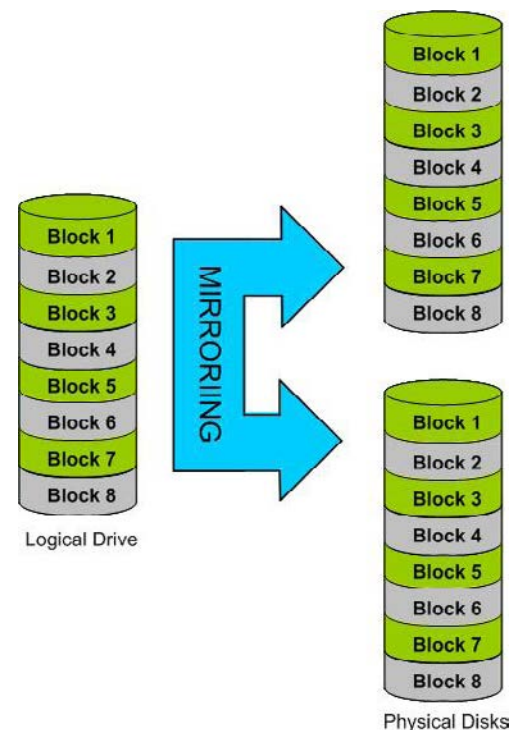
RAID 0 RAID 0 provides data striping, which spreads out blocks of data over all the drives, but does not provide data redundancy.

Although performance is improved, the lack of fault tolerance means that if one drive fails, all data in the array will be lost.



RAID 1 RAID 1 provides mirroring over multiple disks, with the same read/write speed of a single disk. A RAID 1 array can only be as large as it's smallest member disk.

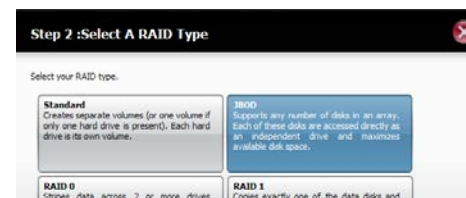
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



RAID Options

Here is a list of the RAID options available on the ShareCenter DNS-320

Standard RAID - creates a single volume for one drive or more drives.



JBOD - allows you to create a large virtual disk drive by concatenating two or more smaller drives together. The individual hard drives that makes up a JBOD RAID can be different sizes and manufacturers. The total size of the JBOD RAID is the combined total of all the individual drives in the set.

JBOD
Combines 2 hard drives in a linear fashion to create one large volume thereby maximizing available disk space.

RAID 0 - allows you to assign two or more disks as a striped set. Once you create the striped set, you will see it as a single disk drive. But when you write data to the RAID 0 striped set, the data will be distributed across all of the drives that make up the set. Because each disk has less to do, it takes less time to write the data. The same is true when reading data; instead of a single disk having to seek out and then send a large block of data, multiple disks each stream their part of the data stream. As a result, RAID 0 striped sets can provide a dynamic increase in disk performance.

RAID 0
Stripes data across 2 or more drives increasing performance.

RAID 1 - allows you to assign two disks as a mirrored set. Once you create the mirrored set, you will see it as a single disk drive. But when you write data to the mirrored set, it will duplicate the data across all members of the set. This ensures that your data is protected against loss if any hard drive in the RAID 1 set fails. In fact, as long as any single member of the set remains functional, you will continue to operate normally, with complete access to your data.

RAID 1

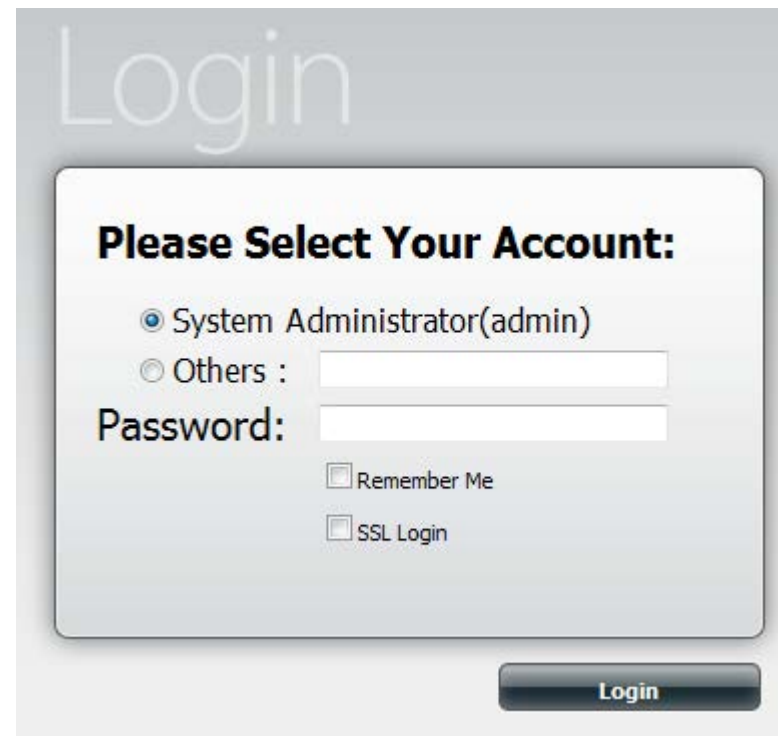
Copies exactly one of the data disks and produces a mirrored copy on another disk.

UPS Connectivity

The DNS-320 supports USB UPS, giving users the ability to share the UPS on their local network and protect from an abnormal shutdown due to a power failure. Connect a UPS to the USB port on the back of the ShareCenter®.

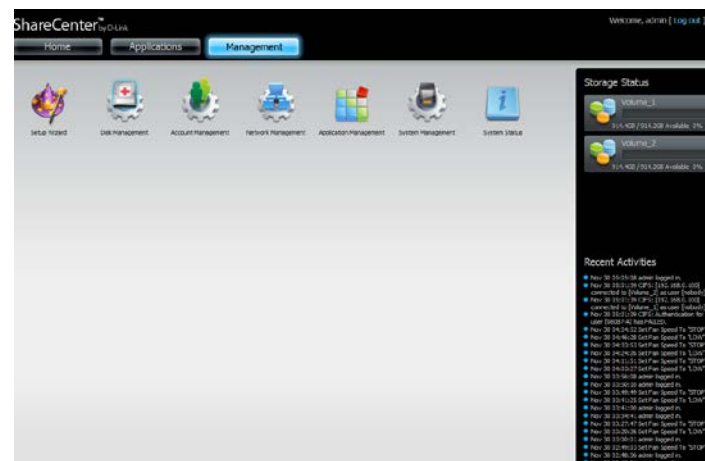
Standalone and Network Master Mode:

Log into the DNS-320.



The image shows a web-based login interface for the DNS-320 device. The background is a light gray with the word "Login" in a large, faint font. In the center, there is a white rounded rectangle with a gray border. Inside this rectangle, the text "Please Select Your Account:" is displayed in bold. Below this text, there are two radio button options: "System Administrator(admin)" which is selected, and "Others :" followed by a text input field. Below these options is a "Password:" label followed by another text input field. At the bottom of the white rectangle, there are two checkboxes: "Remember Me" and "SSL Login". Below the white rectangle, centered, is a dark gray button with the word "Login" in white text.

Click **Management**.

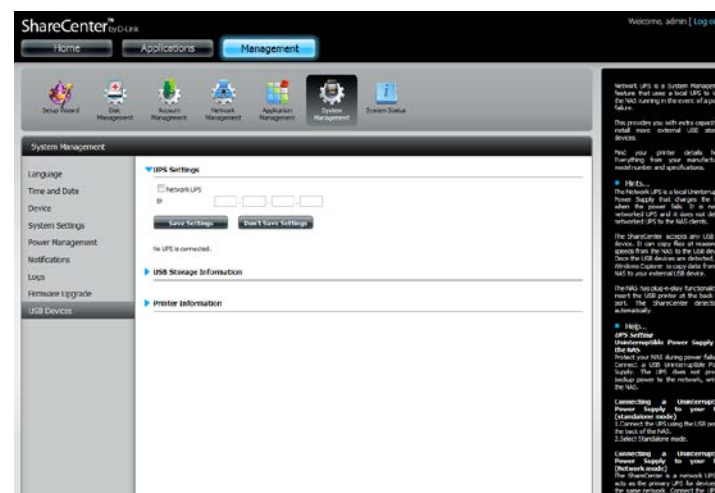


Click **System Management** and then **USB Devices**.

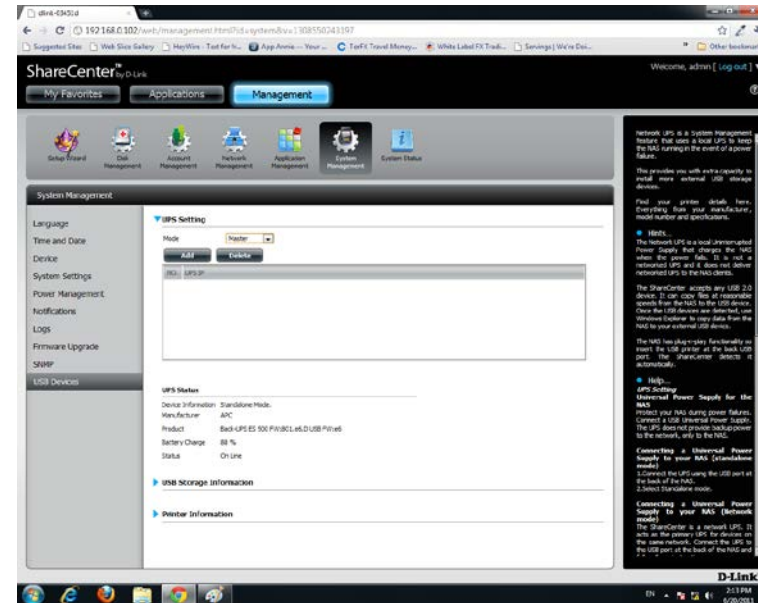
Click the blue arrow next to UPS Settings. There are two modes - **Standalone** and **Master**.

Select **Standalone** to use the UPS only on the DNS-320 or select **Master** to share the UPS with the network UPS slaves.

The UPS Status screen shows the mode, manufacturer, product type, battery charge meter, and status.



Under **Mode**, select **Master** from the drop-down list and then click **Add**.



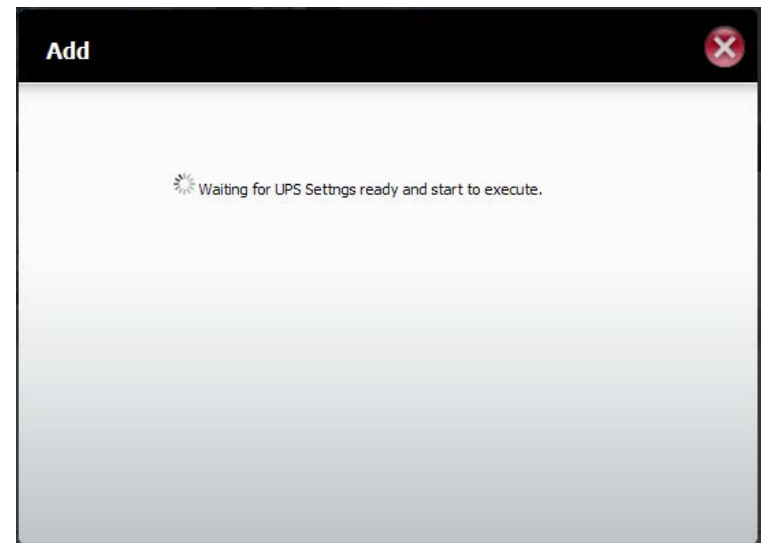
Enter the IP address of the other UPS slave on the network.

Click the + button to add more IP addresses.

Make sure the DNS-320 and the UPS slaves are on the same physical network.

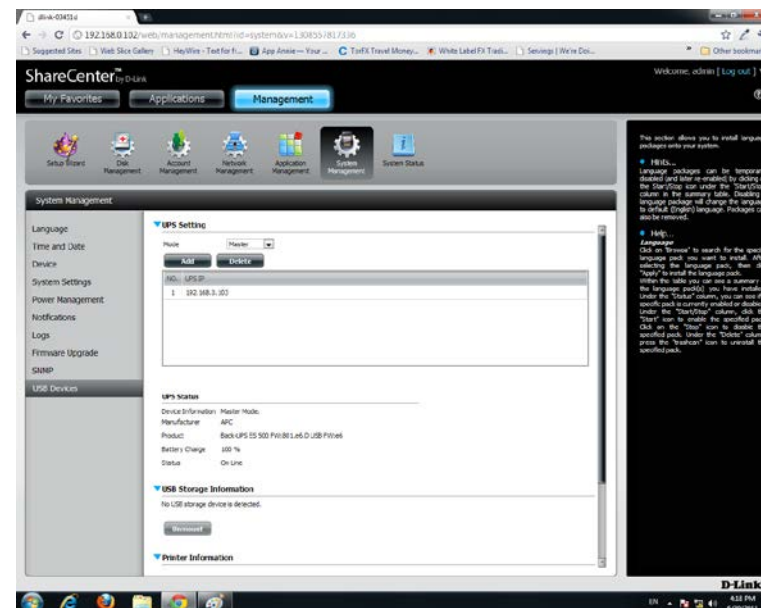


Once you have entered an IP address, the system will check its database for IP address records.



The UPS Settings table will display the IP address(es) you added.

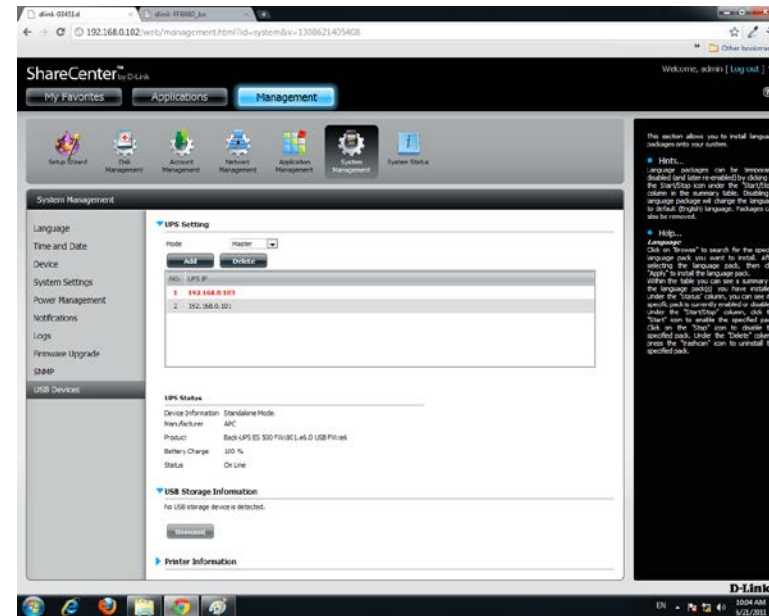
Your DNS-320 is now setup as the network master to notify the network slaves about critical power status.



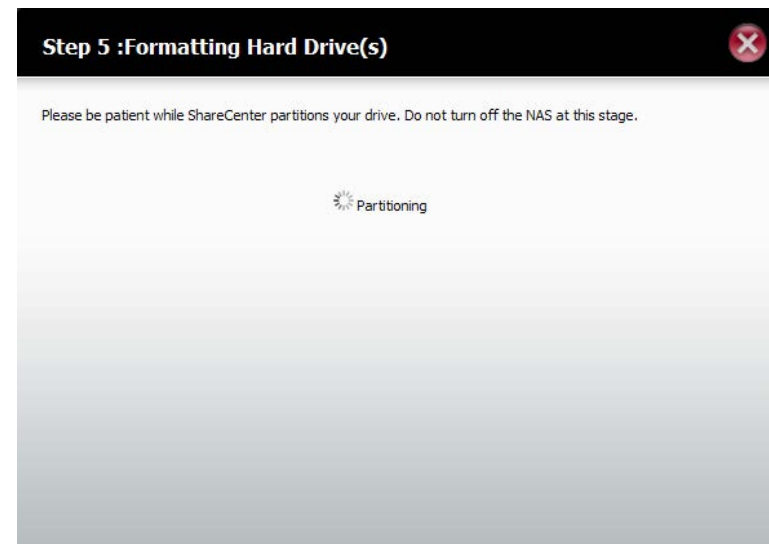
Deleting a UPS Slave

Under **Management > System Management > USB Devices > UPS Setting**, select the IP address. Your selection will turn red.

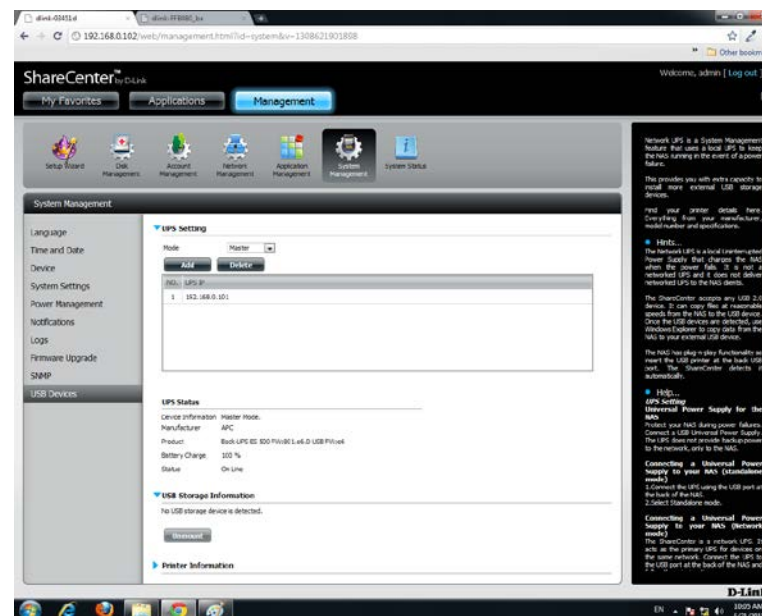
Click **Delete**.



The DNS-320 will process your request.



The IP address will no longer be listed in the table.

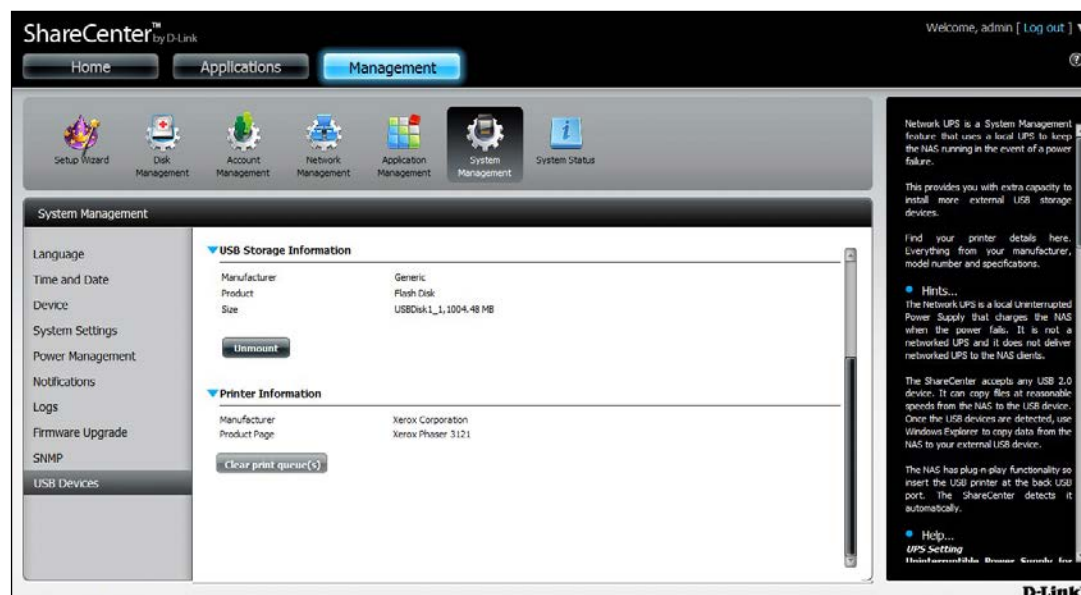


USB Print Server

The device features a built-in USB print server, giving users the ability to share a printer on their local network. Connect a USB printer to the USB port on the back of the device. It is important to ensure that any of the printer manufacturer's drivers are already installed or available on any computer you want to print from.

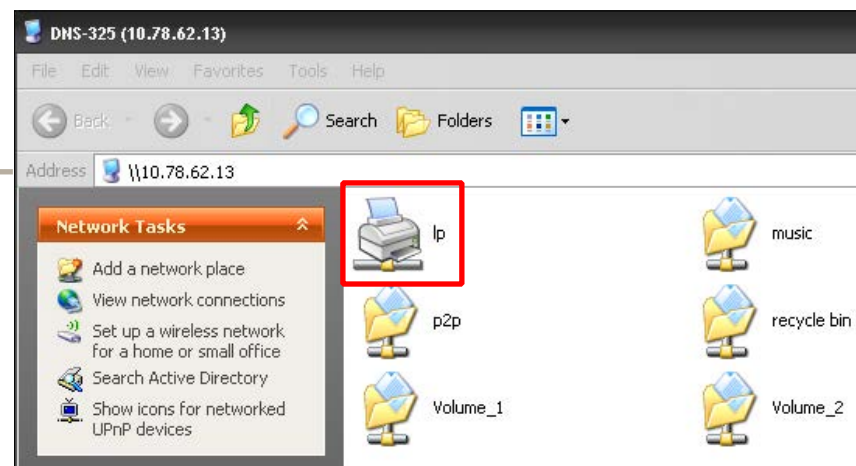
Note: The print function is supported in Microsoft Windows OS only. The device does not support the copy and scan functions of Multi-Function Printers either.

To add a printer, connect your printer via USB cable to the USB port of your device:



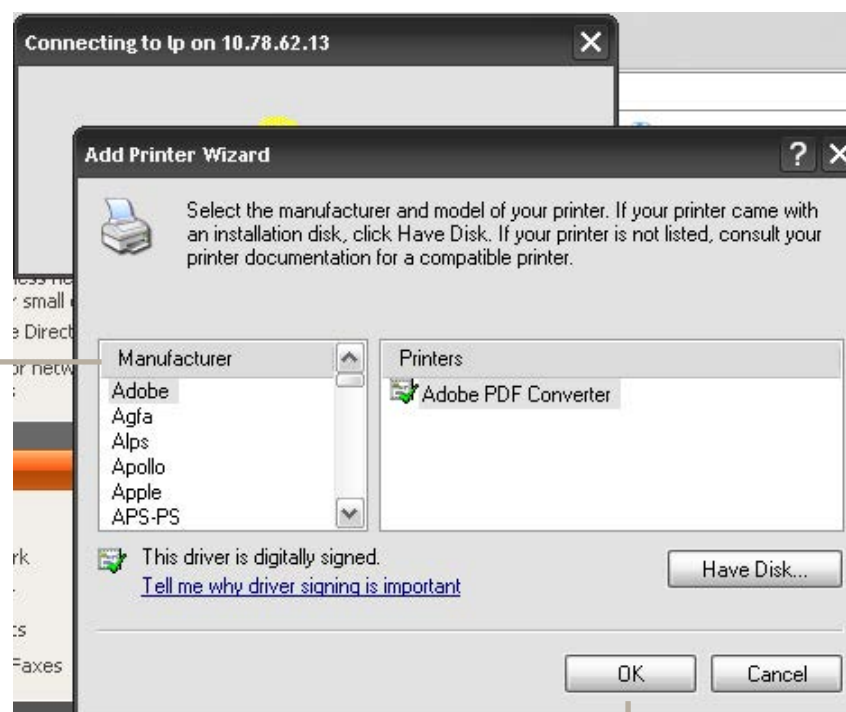
The printer should appear in the USB Devices menu of the System Management icon.

Connect to your device with Samba and then double-click the lp icon.

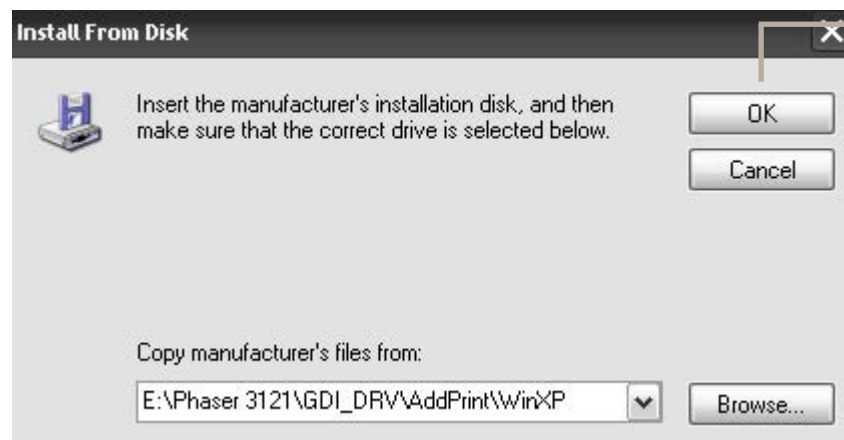


The Windows® Add Printer Wizard will launch:

Select the printer driver from the installed Manufacturer list or use the **Have Disk** button to browse for the printer driver file.

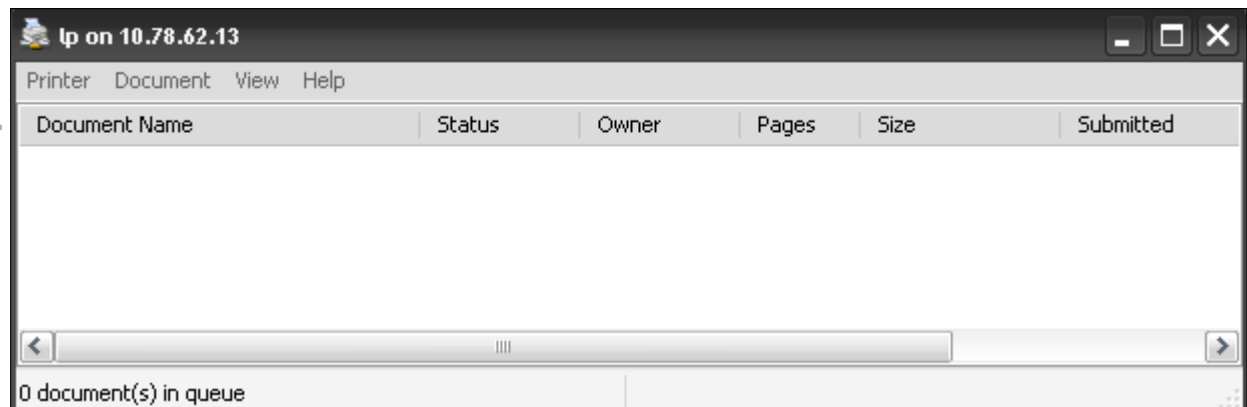


Click **OK** to continue.



Once you have selected the proper driver as shown in the browse list then click **OK** to install the printer.

The printer is now installed and the printer queue will appear.



Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor.
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

Limited Warranty:

D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies): Three (3) years
- Free Technical Support - Basic Installation: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty:

D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim:

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.com/>.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc.
- **USA residents** send to 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.
- **Canadian residents** send to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming. RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM – 9:00PM EST

Disclaimer of Other Warranties:

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED “AS-IS” WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

Governing Law:

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.