D-Link®

Version 1.1 | 04/17/2012

User Manual

ShareCenter® + 4-Bay Network Storage Enclosure

DNS-345

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Product Overview

The D-Link ShareCenter DNS-345 is a 4-Bay Network Attached Storage device. When used with internal SATA drives[1], it enables you to share documents, files, and digital media such as music, photos, and video with everyone in your home or in the office network. Remotely accessing files through the Internet is also possible using the built-in FTP server, Web File server and the WebDAV protocol. Whether you are allowing access locally or over the Internet, you can keep data safe by only giving rights to specific users or groups. When configuring the DNS-345, you can create and assign users and groups 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 limit your children to age appropriate material. The DNS-345 will be available to any computer (PC, Mac, or Linux-based) on your network, without the need to install additional software.

You may back up your music, photos, and video collections to the DNS-345 for safekeeping. Then, enjoy the benefits of the built-in UPnP AV media server as you stream digital content to compatible media players[2] (such as those found in D-Link's MediaLounge product line). This feature is very convenient as it allows you to turn off a computer that would normally be needed for the same function.

To further enhance your ShareCenter's capabilities you can expand the applications available with the ShareCenter by using the Add-On feature which allows you to add supported software applications. These applications can add over the web audio streaming, file and media sharing, and even blogging capability to your ShareCenter.

The DNS-345 has seven RAID modes:

- **Standard -** creates a single volume from one drive.
- **JBOD -** combines all drives in a linear fashion for maximum space efficiency
- **RAID 0 -** uses all drives as a single massive array of storage with the combined capacity of all the drives
- **RAID 1 -** also known as disk mirroring, the system will save data to all the drives in the same array simultaneously
- **RAID 5 -** requires at least 3 drives. Data is split into blocks and stored over all of the drives. Parity data is distributed amongst all of the drives and is used to regenerate lost data during a drive failure.
- **RAID 5+SPARE -** data is a striped set with distributed parity. One drive in the array is left empty so if a drive fails, the spare is used to rebuild the array and restore the redundancy as soon as possible.
- **RAID 10 -** is a combination of RAID 0 (data striping) and RAID 1 (mirroring). It offers the highest performance and data 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.

Package Contents

- D-Link ShareCenter® + 4-Bay Network Storage Enclosure (DNS-345)
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter
- CAT5E Ethernet Cable

Note: *Using a power supply with a different voltage than the one included with the ShareCenter® will cause damage and void the warranty for this product.*

If any of the above items are missing, please contact your reseller.

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
- Windows® 7, Vista®, or XP (with latest service packs), Mac OS® X 10.5 or higher
- Internet Explorer® 7, Mozilla® Firefox® 3, Google® Chrome 4, or Apple® Safari® 4 and above

For Storage:

- Internal 3.5" SATA Hard Drive(s)
- RAID 0/1 requires a minimum of two SATA drives
- RAID 5 requires a minimum of three SATA drives
- RAID 5 + Spare/RAID 10 requires four SATA drives

Note: *For best performance ensure that you are running the latest service packs for the appropriate Windows® operating systems.*

Features

The ShareCenter® DNS-345 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 4 SATA hard drives and includes the product features listed below:

- Four Hard Drive Bays for 3.5" SATA Hard Drives, up to 3TB HDD
- High Performance Gigabit Ethernet Connectivity
- Simplified Hard Drive Installation Process
- OLED Screen - System Information/Temperature, LAN/Volume status, USB Backups
- Supports Remote File Access via Built-in Web File Server, FTP, WebDAV, mydlink Cloud, or AjaXplorer
- Network Protocols
    - Supports DDNS
    - Supports UPnP, Bonjour
    - Supports PnP-X /LLTD
    - Supports VLAN (tags)
    - Link Aggregation / Fail-over and Fail-back for 2 Gigabit Ethernet ports
    - Supports UPnP Port Forwarding
    - Supports IPv6
- Network File Services
    - Supports NFS/AFP Server
    - Supports uni-code for both Samba and FTP server
    - Supports DFS (Microsoft DFS)
- Disk Management
    - Seven Hard Drive Configurations: Standard; JBOD; RAID 0; RAID 1; RAID 5; RAID 5+spare; and RAID 10
    - Supports Volume Encryption
    - Supports RAID migration: Standard to RAID 1, Standard to RAID 5, RAID 1 to RAID 5
    - Supports Advanced Format HDD
    - HDD S.M.A.R.T Test
    - Supports FAT16/32, NTFS for USB external Storage
- Account Management
    - Users and Groups can be assigned to Folders with Read or Read/Write Permissions
    - Quotas for Users and Groups
    - Supports ISO mount Shares
    - Supports Active Directory for Windows® 2003/2008 Server
- FTP Server
    - Built-in FTP server for File Access over the Internet
    - Supports FTP over SSL/TLS abd FXP
- Download Management
    - Scheduled downloads from Web or FTP sites
    - Supports P2P and aMule downloads
- Backup Management
    - Supports Local Backup
    - Full or Incremental Backup
    - Real-time Backups with included Backup Software
    - Supports Apple Time Machine
    - Supports USB Backups
    - Supports Remote Network Backup
    - Supports Cloud Storage Backup (Amazon S3)
- Power Management for Conserving Energy and Extending Hard Drive life
    - Supports Auto Power Recovery
    - Supports Schedule Power ON/OFF

- Media Streaming
    - UPnP AV Server for streaming music, photos, and videos to compatible media
    - iTunes software will be able to automatically find and play music directly from the ShareCenter®
- Supports Add-On Software and Multi-Language Packages
    - Blogging with WordPress
    - Logitech Squeeze Center
    - Audio Streamer
    - AjaXplorer
    - Photo Center
    - aMule
- System Management
    - Web Browser configuration
    - Supports HTTPs management
    - Network Recycle Bin
    - Supports Yahoo Widgets
    - Supports System Log/FTP log
    - Automatic e-mail and SMS notifications
    - Supports network UPS
    - Supports SNMPv2
    - Supports Resource Monitor
- My Folder
    - My Photos - Create albums and manage photos, Share photos through social networks (Google+ & Cooliris), Slideshows
    - My Files - Allows user(s) to access files on the NAS using a web browser.
- mydlink Cloud
    - Remotely access files via web browser and mobile devices
    - Download and remote stream your photos, music, and video files
    - Sync files/folders between the ShareCenter and multiple computers
    - Share content with guest users

Checking the Hardware Requirements

To use your DNS-345, you will need at least one hard drive. If you plan to use RAID, which protects your data against one hard drive failure, you will need at least two hard drives.

Note: *For the ShareCenter®, we recommend that you use at least four 1TB high performance drives. This provides more data drives, better striping performance, and helps distribute loads more effectively.*

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-345. 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-345 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:

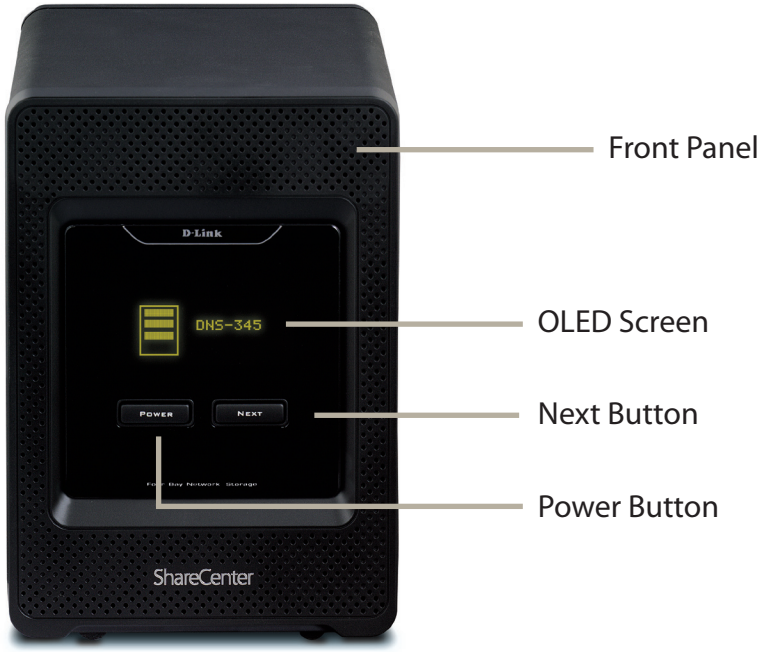
If you are connecting your ShareCenter to a router or switch, your router or switch needs to support Gigabit Ethernet (1000Mbit/s) for maximum performance. The ShareCenter will auto-negotiate the highest connection speed available to your router or switch. If you are using Port Bonding, use a managed 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
Front Panel	This panel unlatches simply by sliding it up. Unhook the front panel to insert or remove your hard drive(s).
OLED Screen	The OLED screen displays the welcome screen, hard disk information, IP address information for both LAN ports, firmware version, temperature, and hard drive modes.
Power Button	Press once to power on the ShareCenter or confirm USB Backup functions. Press and hold the button until the OLED screen displays "Shutdown System" to power it down.
Next Button	Press once to scroll between various modes or cancel USB Backup functions. Refer to the next page.
Drive Tray	With the front cover off, SATA hard drives can be slid in and out of the ShareCenter. Use the tabs on the rear of the ShareCenter to initially push a HDD out of its connector and tray.

OLED Screen

Welcome to DNS-345 NAS

Hard Drive(s) Status:
Amber light(s) - the hard drive(s) are present.

No amber lights - the hard drive(s) are absent.

The IP address on LAN 1 The IP address on LAN 2

Disconnected means there is no connection.

This displays the firmware version and the temperature in Celsius and Fahrenheit.

This displays the drive name and usable storage capacity.

System Shutdown

Backup from NAS to USB

Backups are complete

Enter Backup Mode

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 ports to connect the ShareCenter to the local network. Each 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. Dual LANs support Port Bonding.
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.
Reset Button	Press and hold this button for more than 5 seconds to reset the unit to factory defaults.
HDD Eject Lever	Use each slot's lever to eject the HDD drive .

Rear Panel (Levers)

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

Note: Remove the front 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-345.

Step 1 - Remove the front panel by firmly gripping the panel and sliding it up until it unhooks. Then remove it to allow access to the drive bays.

Step 2 - Insert up to four 3.5" SATA hard drives into the drive 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 icon will not illuminate on the OLED screen after powering on the device.

Step 3 - Re-attach the front panel. Align the 4 panel hooks with the corresponding slots on the chassis and slide the front panel down until it is firmly seated.

Step 4 - Connect an Ethernet cable to the LAN 1 Ethernet port. This cable should connect the ShareCenter to your local network via a router, switch, or directly to a computer for configuration.

Step 5 - 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.

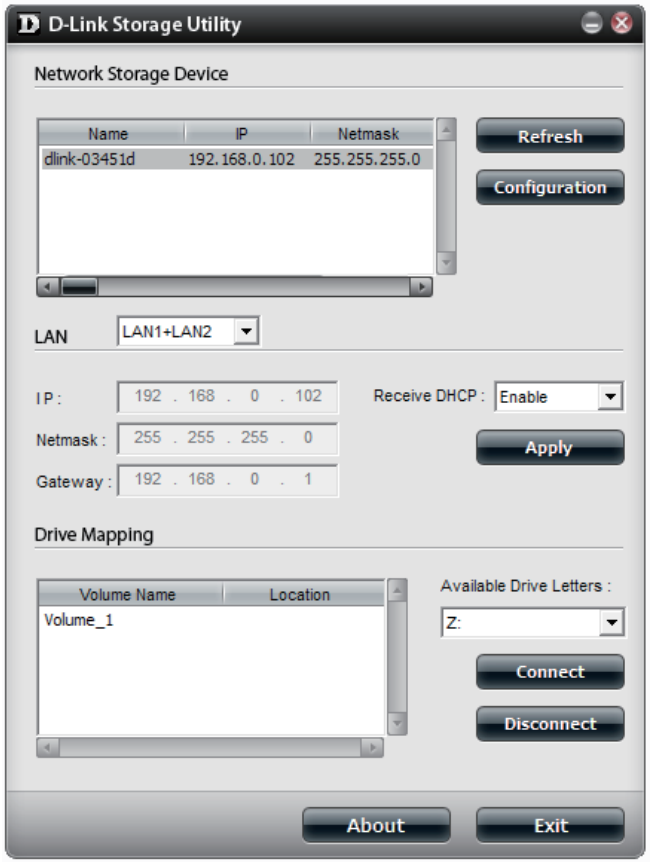
Apply: Click **Apply** to save changes to the LAN Settings.

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.

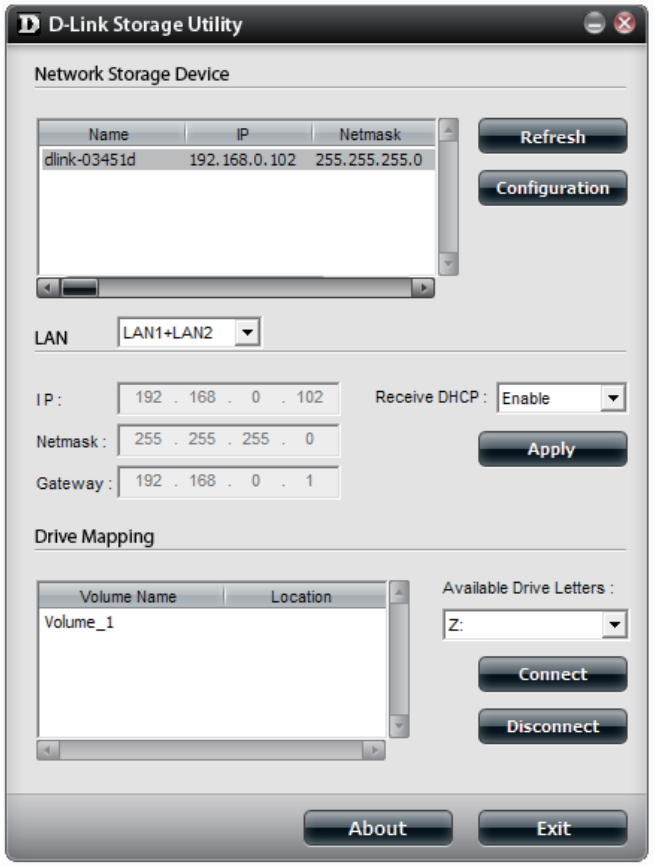
About: Click **About** to view the software version of the Easy Search Utility.

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 front cover of your ShareCenter.

Click **Next** to continue.

Step 4 - Slide one, two, three, or four hard drive into an available hard drive bay of your ShareCenter.

Click **Next** to continue.

Connect to your Network

Step 5 - With the hard drives installed properly into each bay, close the chassis by sliding the panel down into place.

Click **Next** to continue.

Step 6 - Connect a CAT5 Ethernet cable to your ShareCenter and connect the other end to a switch or router (Local LAN). To improve bandwidth, connect a second Ethernet cable to the other port on the ShareCenter to the same switch or router.

Click **Next** to continue.

Power and Device Selection

Step 7 - 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 under the OLED screen.

Click **Next** to continue.

Step 8 - 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-345 to boot up.*

Click **Next** to continue.

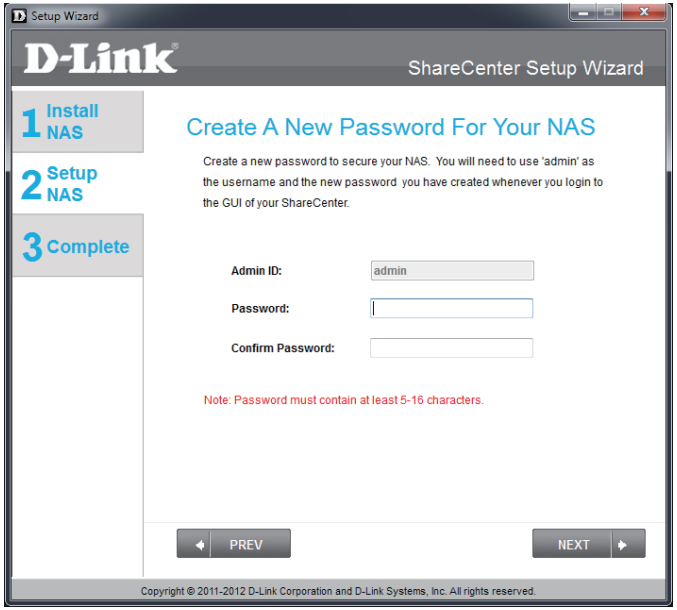
Admin Password

Step 9 - 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.

Step 10 - 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.



Networking Setup

Step 11 - 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.

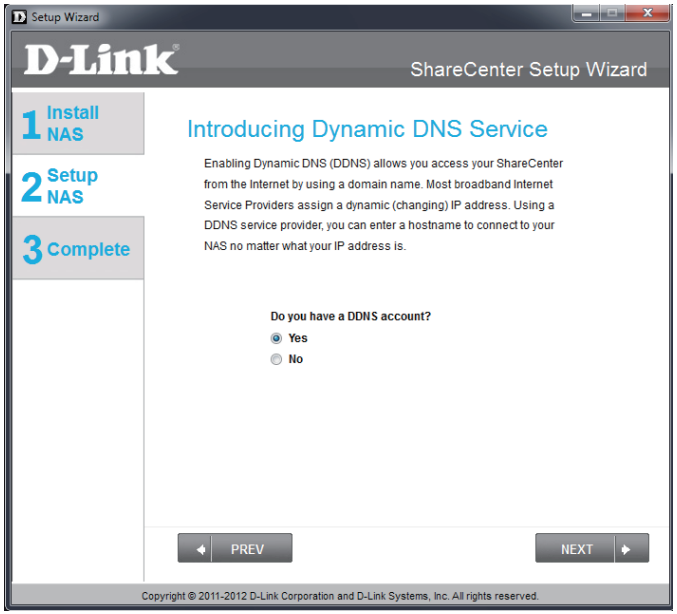
Dynamic DNS

Step 12 - 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.

Step 13 - 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.

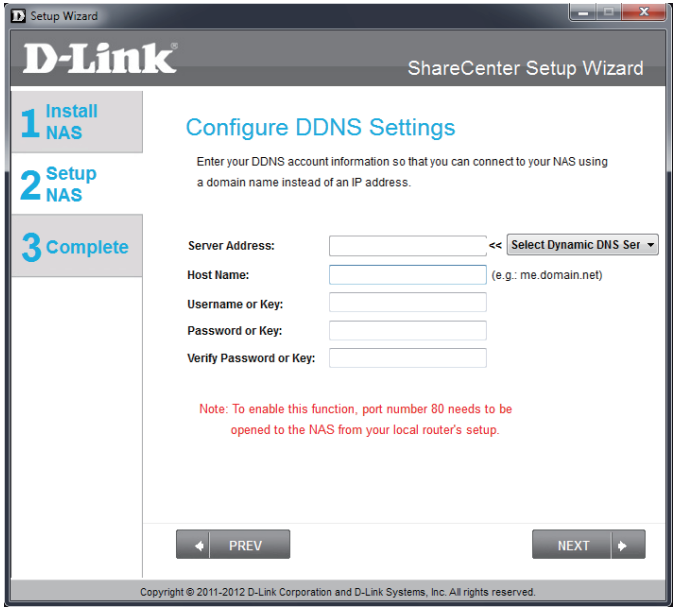
Click **Next** to continue.



Dynamic DNS Account Setup

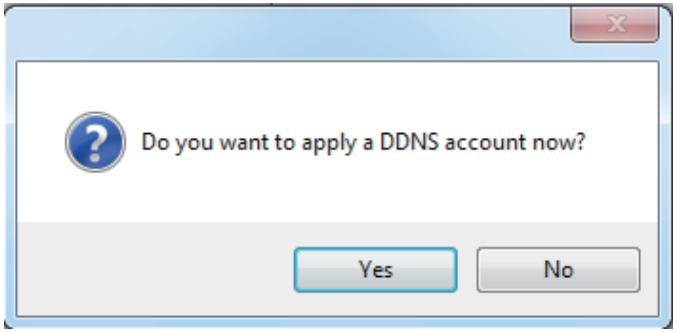
Step 14 - Enter the DDNS parameters requested in this window so that your ShareCenter can be accessed by a URL over the Internet.

Click **Next** to continue.



Step 15 - Click **Yes** to go to a Wizard with instructions and links on how to obtain a free DDNS account.

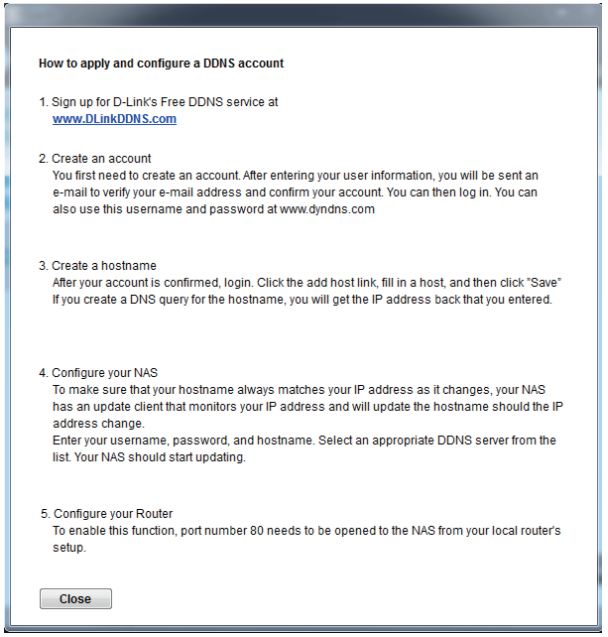
Click **No** skips the DDNS account setup wizard and transfers you back to the ShareCenter Setup Wizard.



DDNS Account and System Time

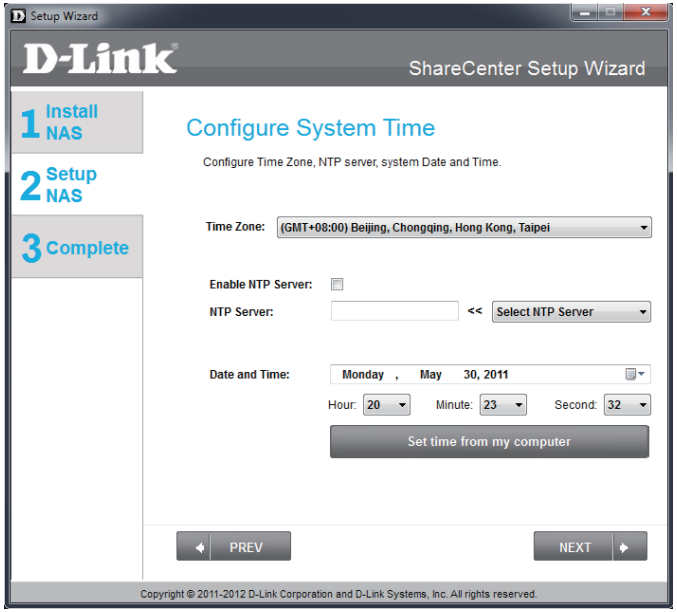
Step 16 - Follow the steps listed here in order to create a DDNS account and configure your LAN equipment and ShareCenter to work with the new settings.

Click **Close** to continue.



Step 17 - 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.

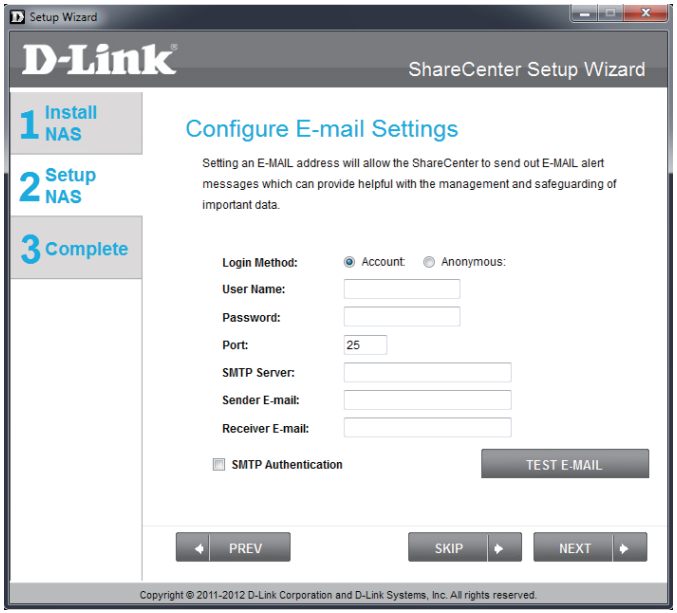
Click **Next** to continue.



Email Settings and Volume Information

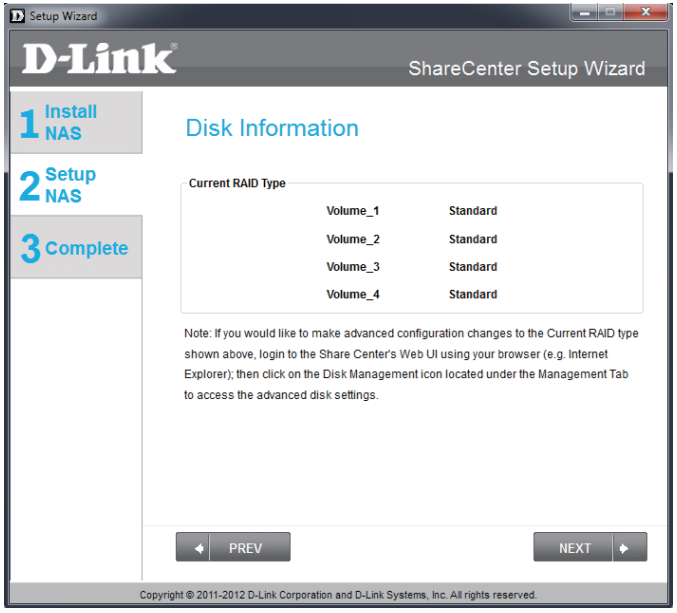
Step 18 - You can configure messages to be sent alerting you to certain operational conditions and drive status conditions to your e-mail account. These alerts can prove helpful with the management and safeguarding of important data.

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.



Step 19 - This step is informational and shows any currently configured Volumes previously setup on the ShareCenter®.

Click **Next** to continue.

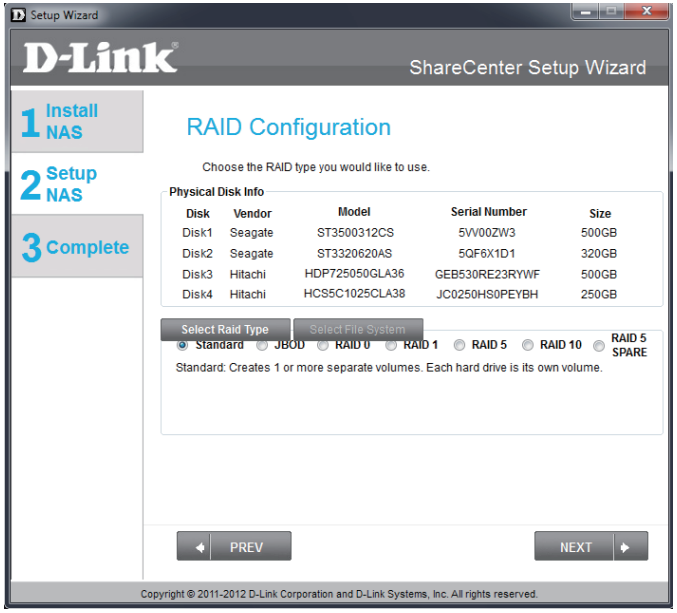


RAID Configuration and Encryption

Step 20 - 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.



Step 21 - Once the RAID configuration is complete, the ShareCenter prompts you to encrypt each or all drives. Check the box next to the hard drive(s) you wish to encrypt.

Click **Next** to continue.

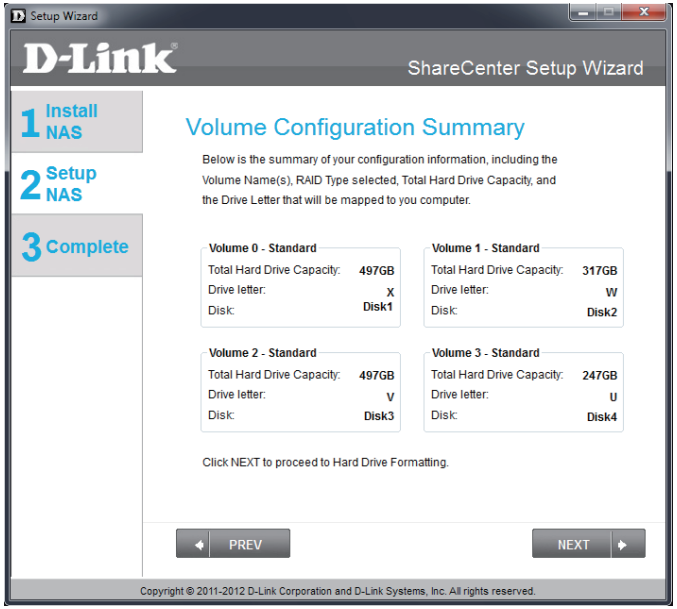
Mapping a Drive and Checking Volume Summary

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).

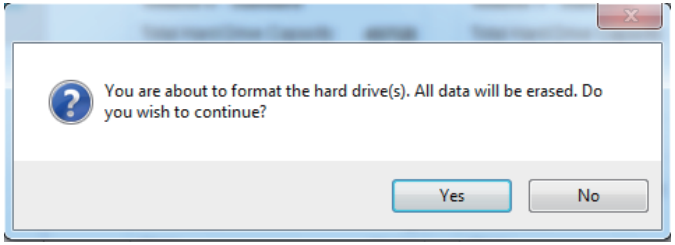
Click **Next** to continue.



Formatting Volumes

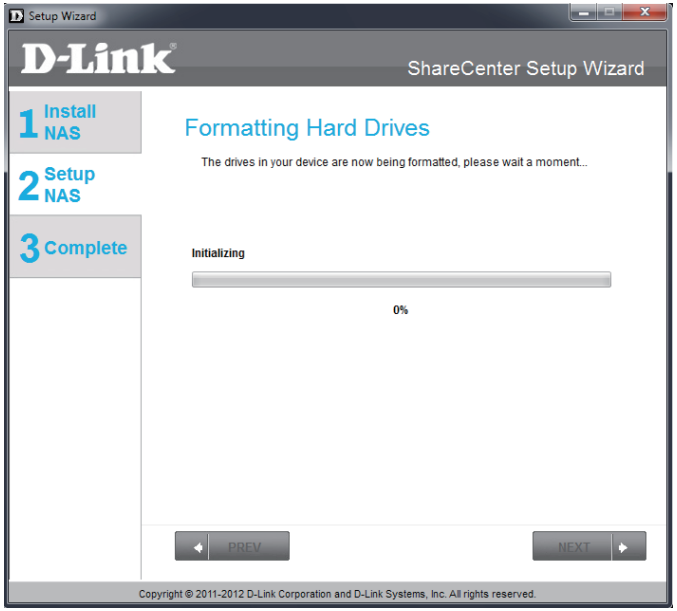
Step 24 - When you click **Next**, a warning message will appear to inform you that all data on the drive(s) will be lost. Click **Yes** to proceed or **No** to exit.

Click **Next** to continue.



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

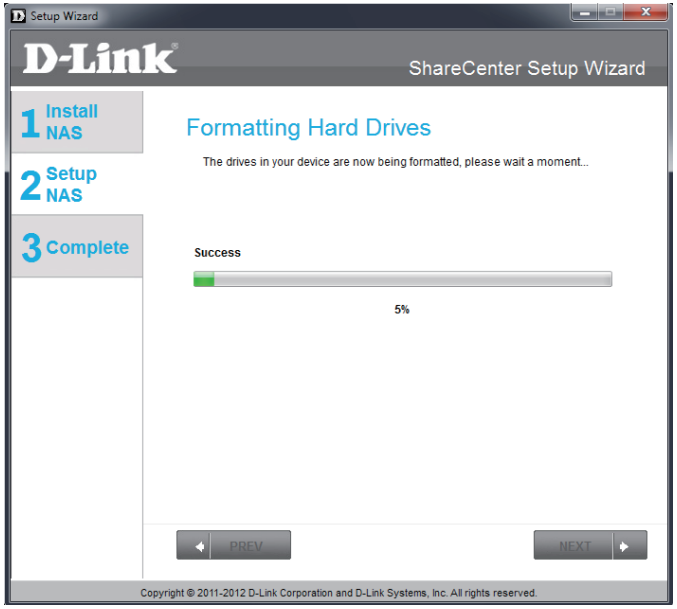
Click **Next** to continue.



Formatting Hard Drives

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

Click **Next** to continue.



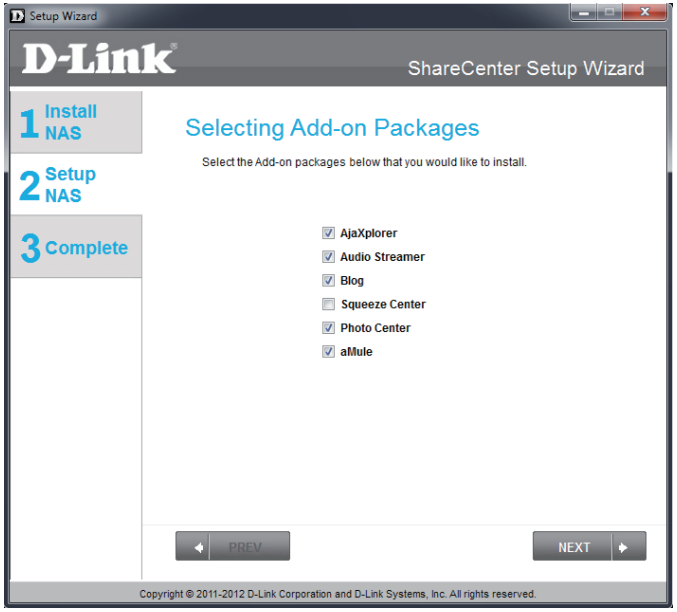
Installing mydlink Cloud and Selecting Add-on Packages

Step 27 - Your ShareCenter supports cloud services. D-Link has provided a cloud service that allows you to remotely access the files from your NAS through the mydlink Cloud service. Read the installation instructions and wait for the process to complete.

Click **Next** to continue.

Step 28 - Your ShareCenter supports Add-On packages. Here you may install the Audio Streamer, Blog, SqueezeCenter, Photo Center, aMule, and AjaXplorer add-ons which extend the application functionality of your ShareCenter.

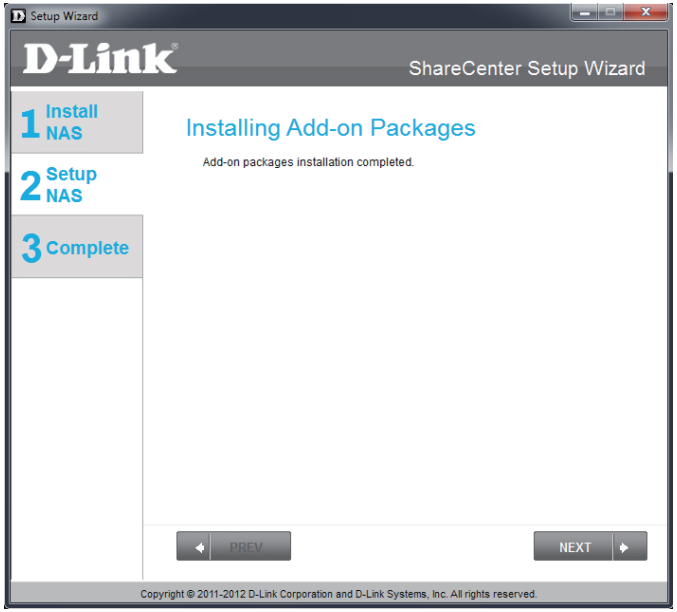
Click **Next** to continue.



Add-on Packages

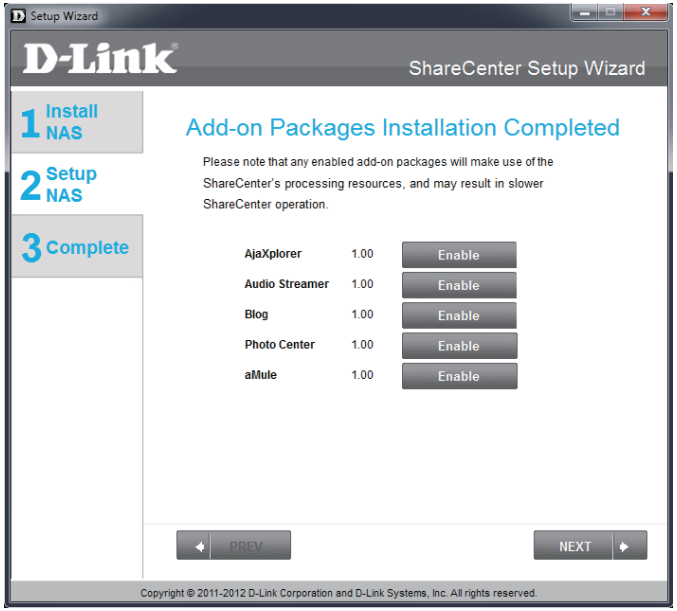
Step 29 - The wizard will notify you that the Add-on packages are installed successfully.

Click **Next** to continue.



Step 30 - The next screen allows you to enable or disable the installed add-on packages.

Click **Next** to continue.

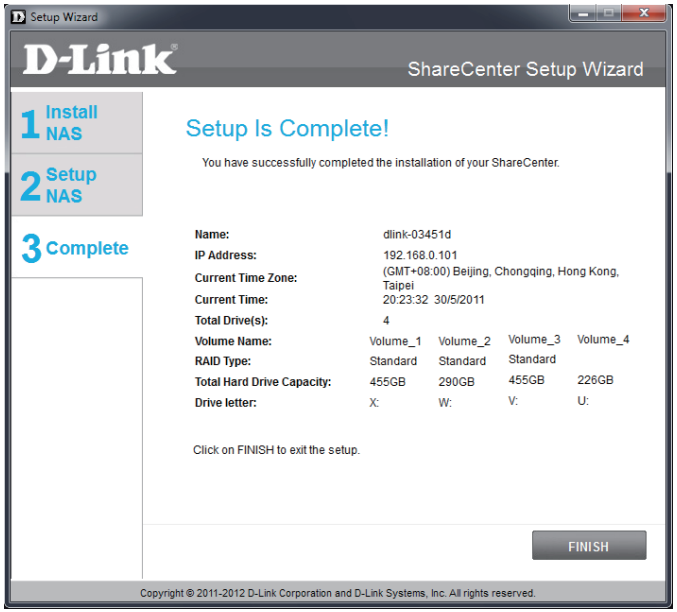


Wizard Complete

Step 31 - The ShareCenter Setup Wizard is complete. Click **Finish** to exit the wizard and start using your DNS-345.

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.

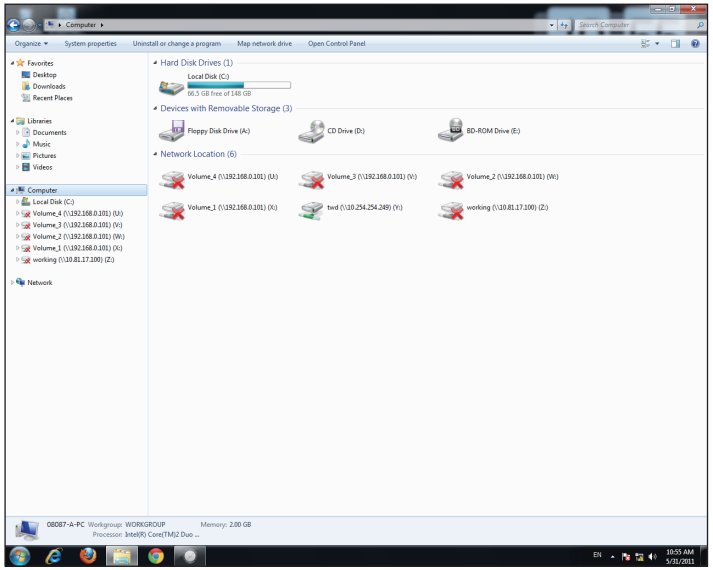


Mapping a Drive

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

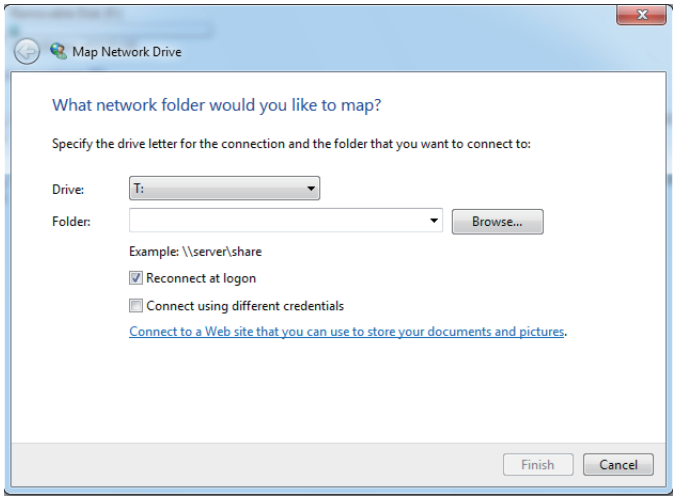
Step 1 - Click **Start**, then **Computer** (the name of your computer).

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'**.

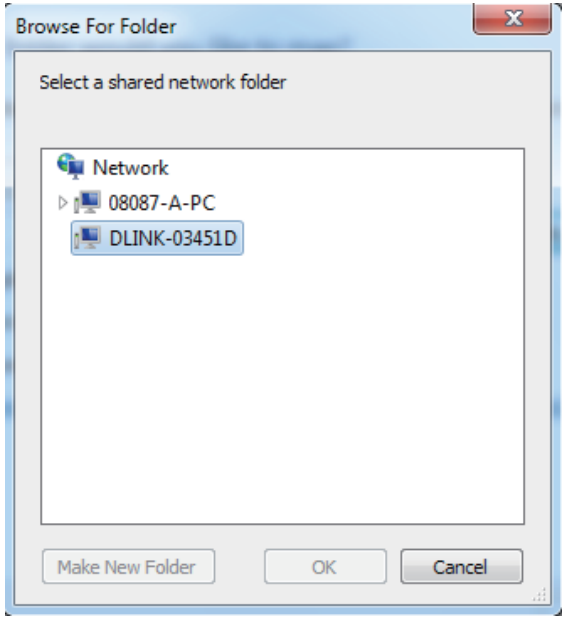


Step 2 - This screen shows some details on selecting a network drive.

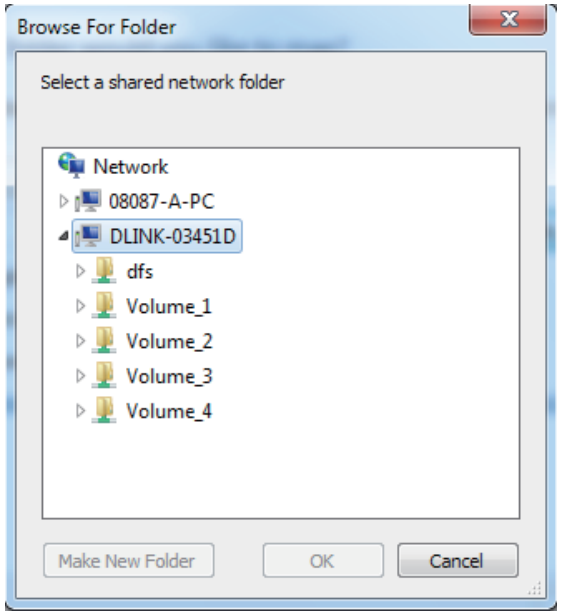
Click **Browse** to find your network.



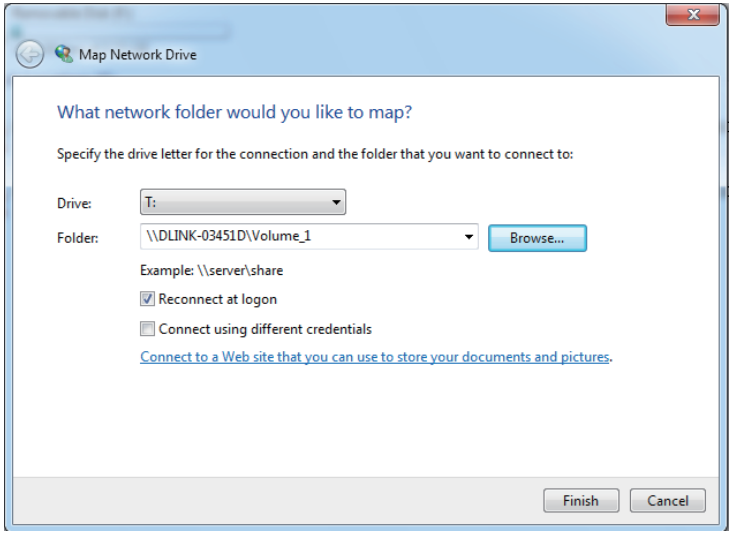
Step 3 - Windows will automatically detect all devices on your network including your ShareCenter.



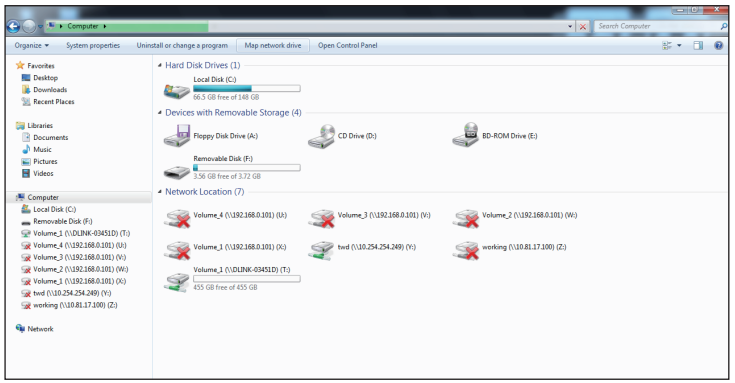
Step 4 - Click on your ShareCenter to see the volumes you created earlier. Then select the volume that you wish to access and click **OK**.



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



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



Configuration
Managing your DNS-345

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

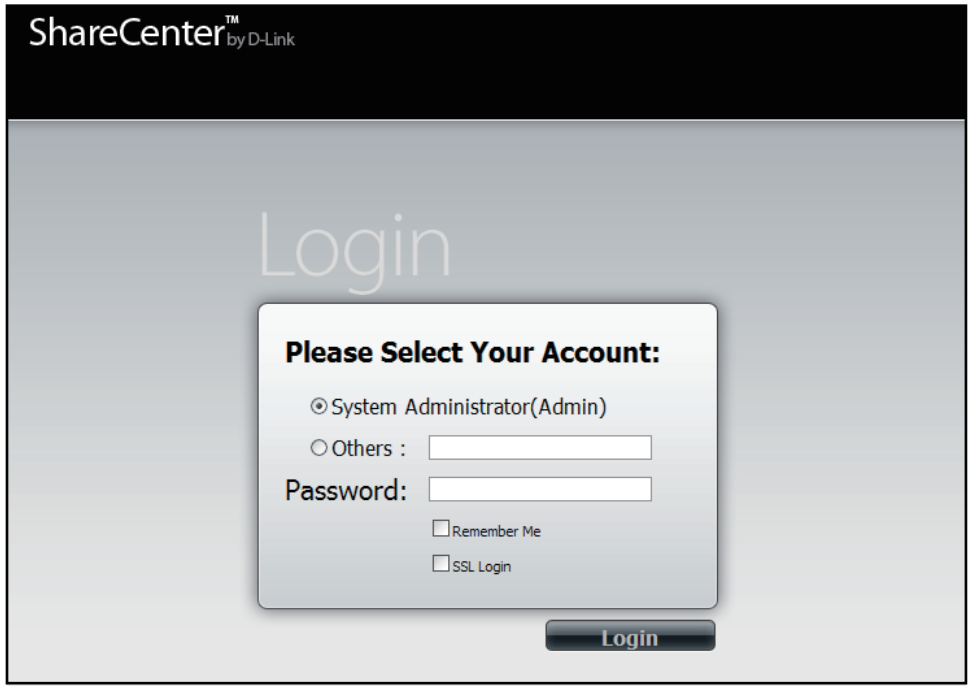
SECTION	OPTION	DESCRIPTION
Home - My Folder	My Photos	Create albums and manage photos, share photos through social networking sites, and slideshows
	My Files	Access files on your NAS via a web browser
	mydlink Cloud	Configures mydlink Cloud services (remote access to your files)
SECTION	**OPTION**	**DESCRIPTION**
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, active directory paths, and distributed file systems
	Network Management	Configures LAN, Dynamic DNS, and Port Forwarding
	Application Management	Configures FTP, UPnP, iTunes server configurations, Add-ons, 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, SNMP checks 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
	My Photos	Create albums and manage photos, share photos through social networking sites, and slideshows
	mydlink Cloud	Share, stream, and manage files on your NAS from the Internet via mydlink portal.

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-345.

The following screen will appear:

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

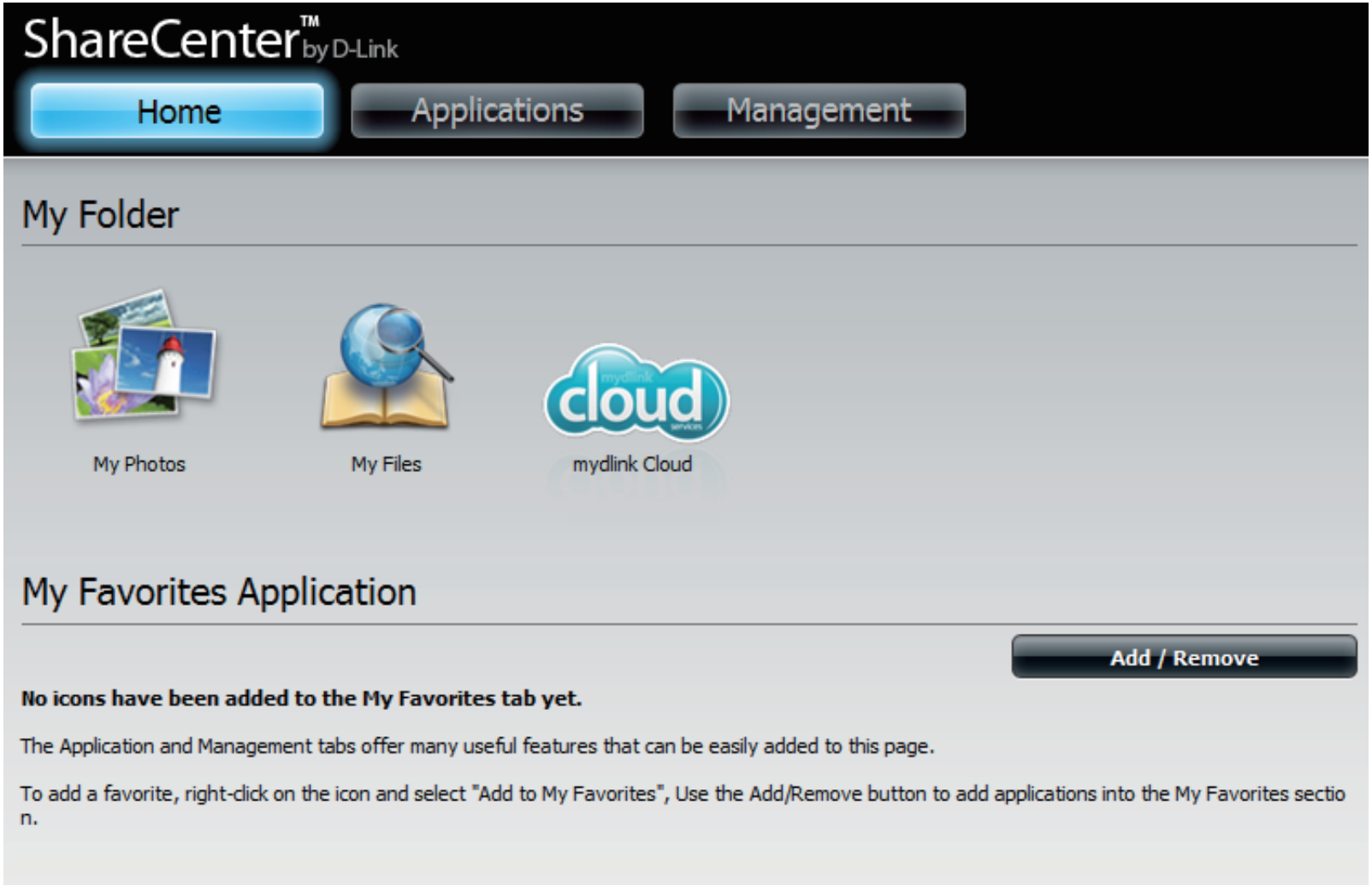


Note: *The computer used to access the ShareCenter web-based configuration manager must be on the same subnet as the ShareCenter. If your network is using a DHCP server and the computer receives IP settings from the DHCP, the ShareCenter® will automatically be in the same subnet.*

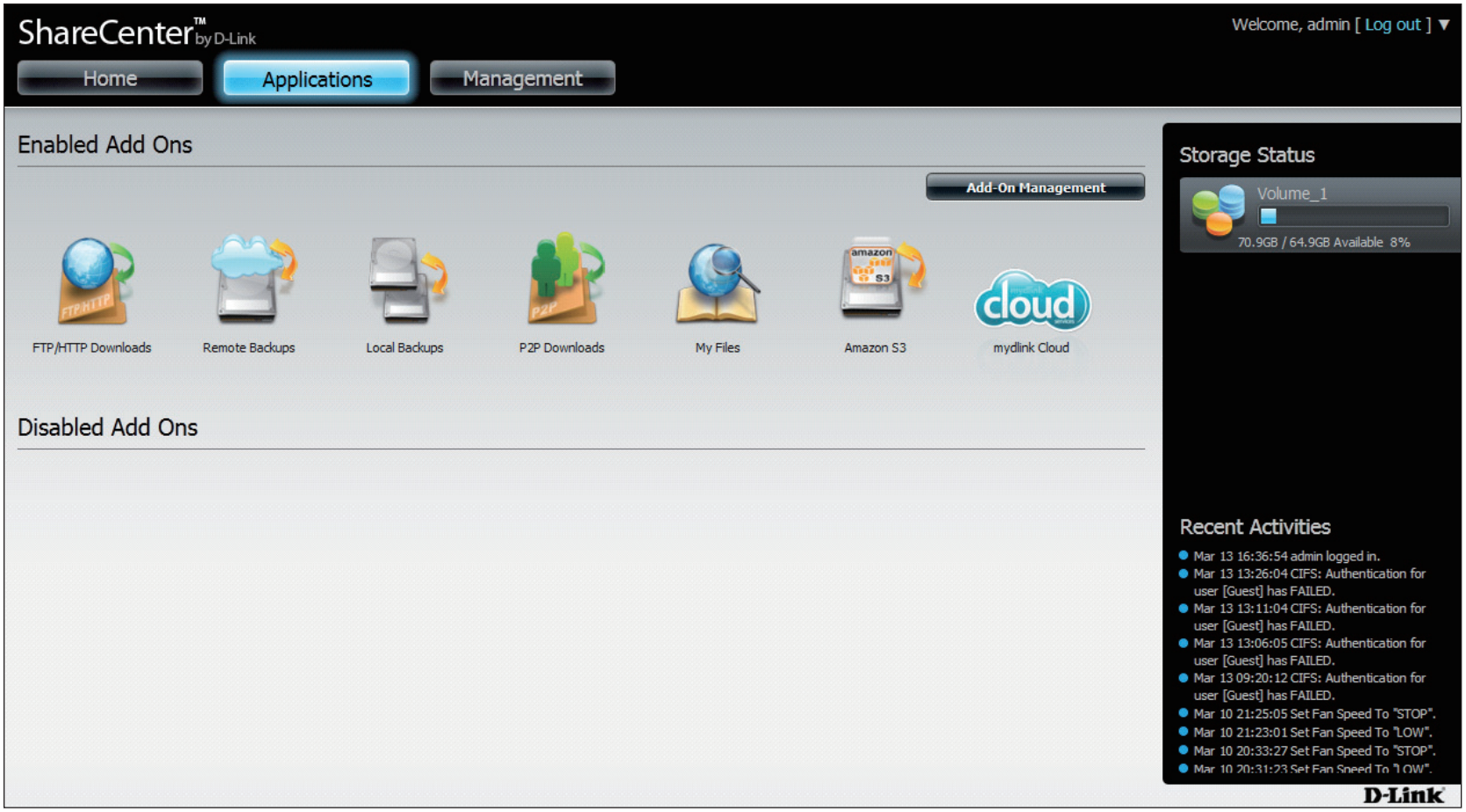
Web UI General Layout

Home

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

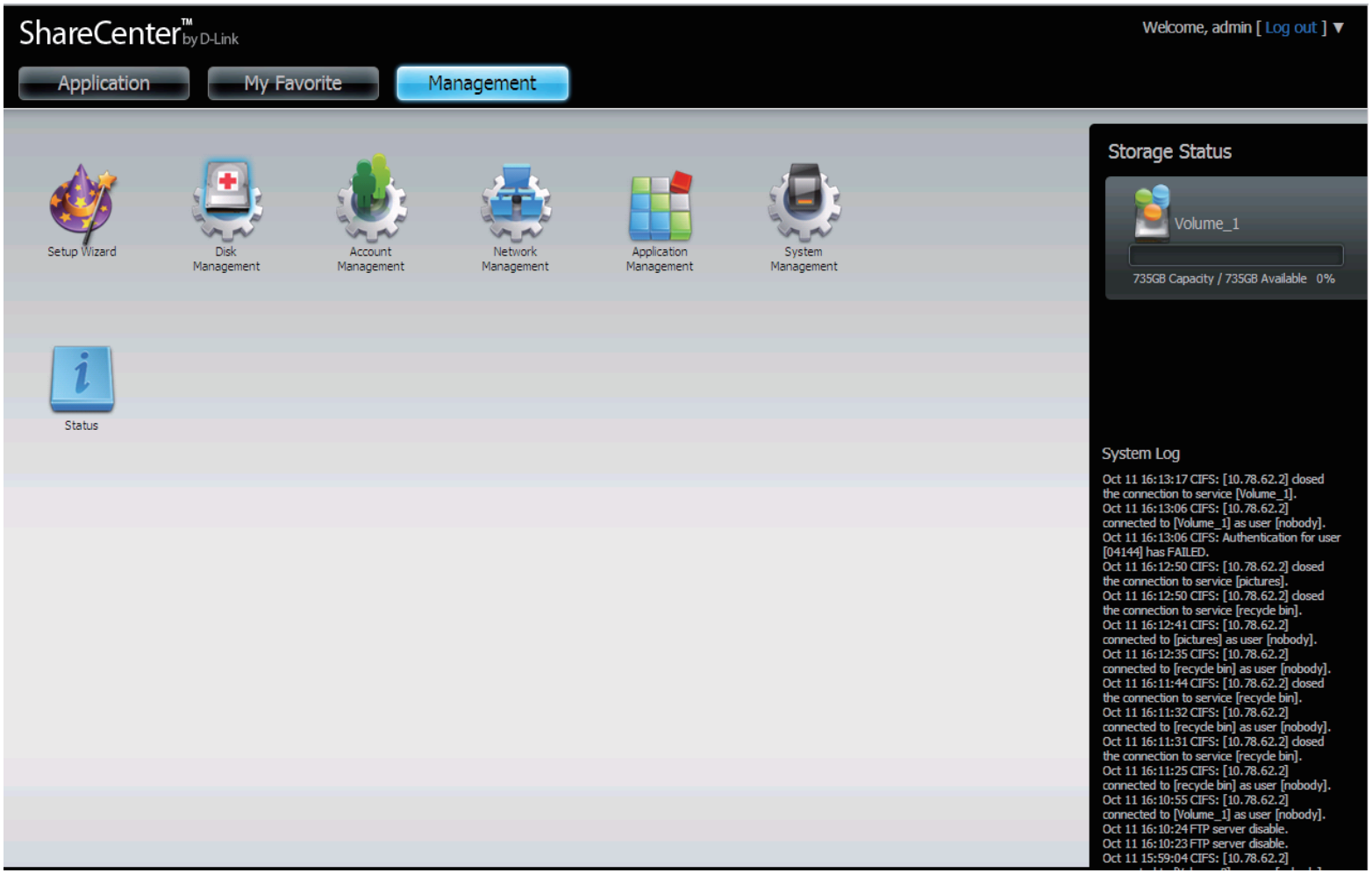


Applications



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.

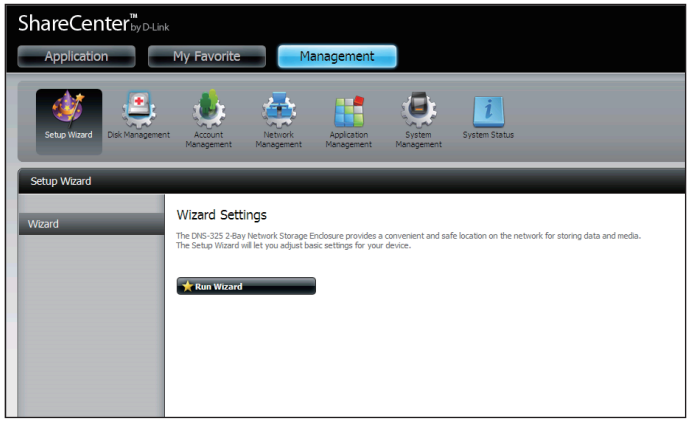


Management

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.

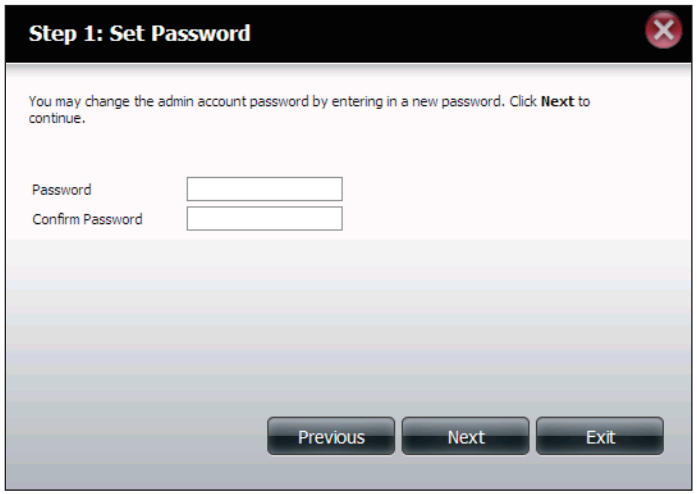
Step 1 - Click the **Run Wizard** button to start the setup wizard.



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

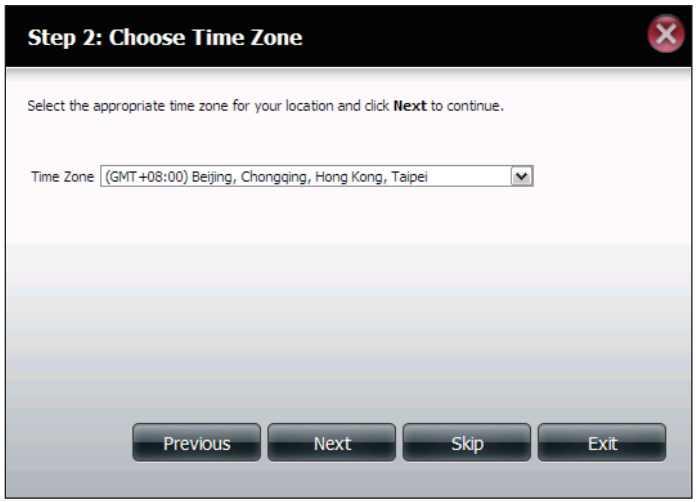
Step 3 - Update the administrator account password here and confirm the password or leave it blank.

Click **Next** to continue.



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

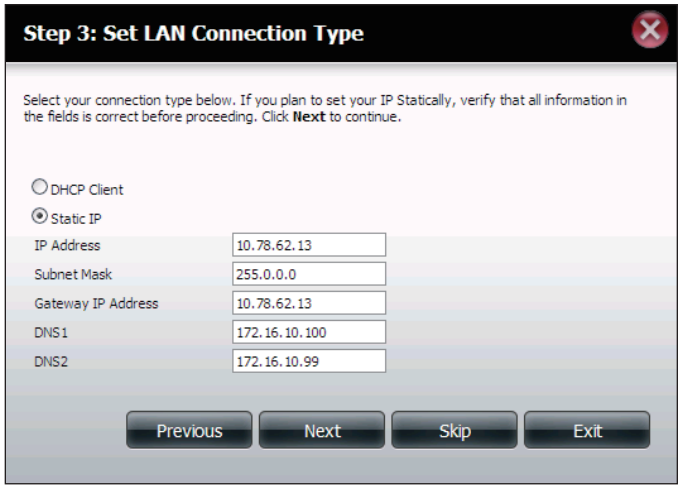
IP Address: Enter an IP address for the DNS-345.

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).

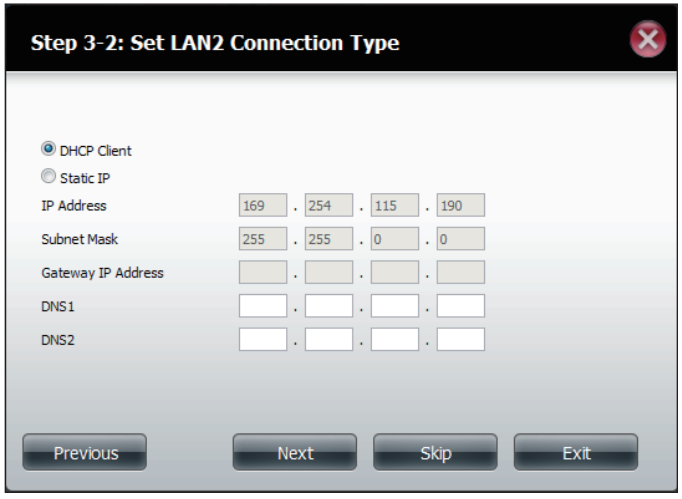
DNS Servers: Enter the IP address(es) of your DNS server(s). DNS1 is usually the IP address of your router.

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



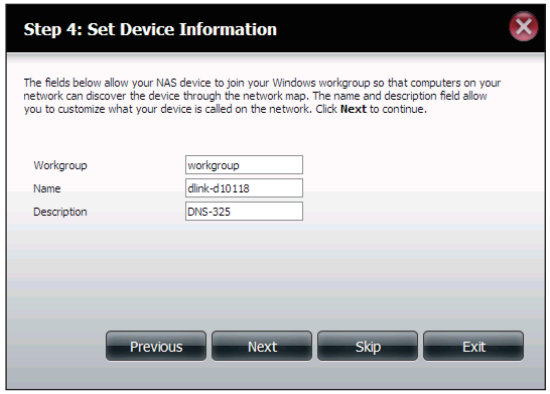
Step 6 - Select **DHCP** to obtain IP settings automatically from a DHCP server (router) or **Static** to assign them manually.

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



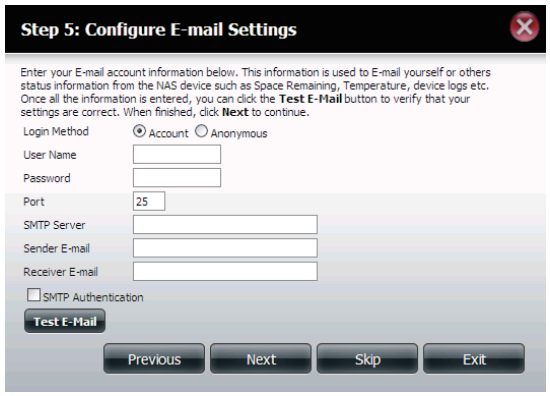
Step 7 - Here you can assign a workgroup and name to the ShareCenter with a short description.

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

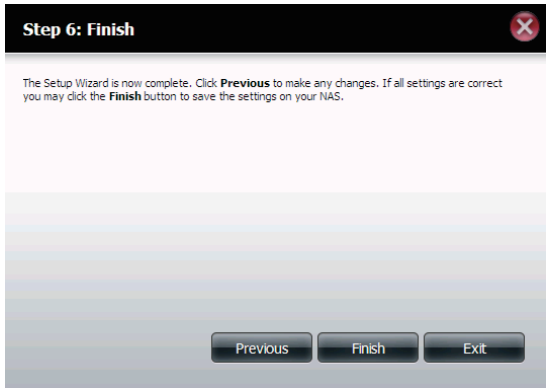


Step 8 - Click **Account** and enter your e-mail information in the boxes provided to receive Event Alerts from the ShareCenter. Click **Anonymous** to create a random account with no specific settings.

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



Step 9 - 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.



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 1-5 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 1-5 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 1-5 functionality then you can check this option.

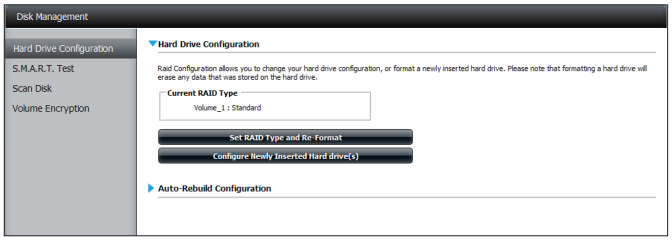
Note: *You can still rebuild a drive using the RAID 1-5 functionality however you must initiate the rebuild manually.*

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:

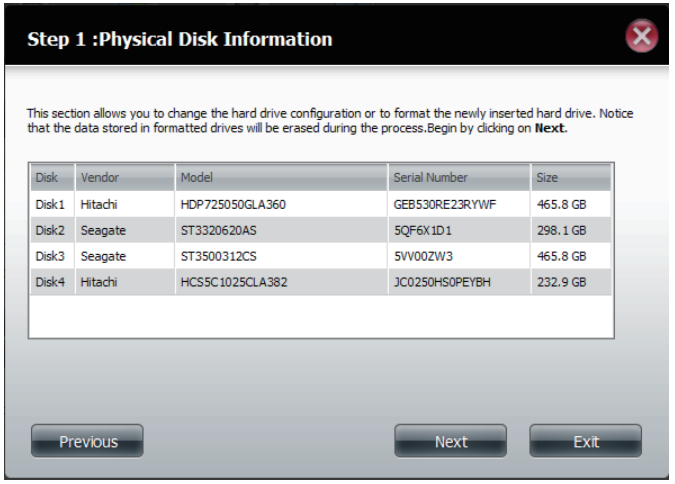
The Hard Drive Configuration page displays the current RAID configuration under 'Current RAID Type'.



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

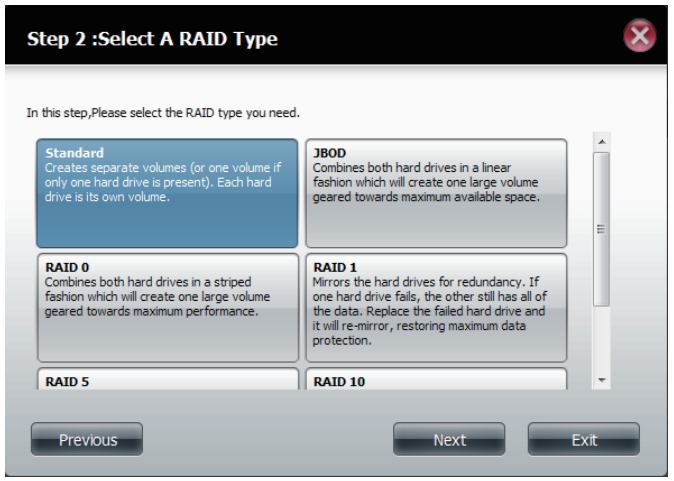
The 'Physical Disk Information' page displays all of the hard drives on the DNS-345. It shows the array number, vendor, model, serial number, and drive capacity.

Click **Next** to continue.



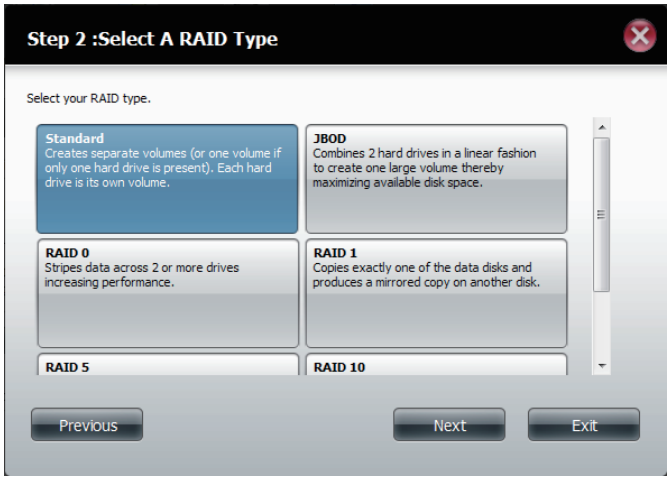
Select the format you want by clicking on the RAID type box (highlight in blue).

Click **Next** to continue.



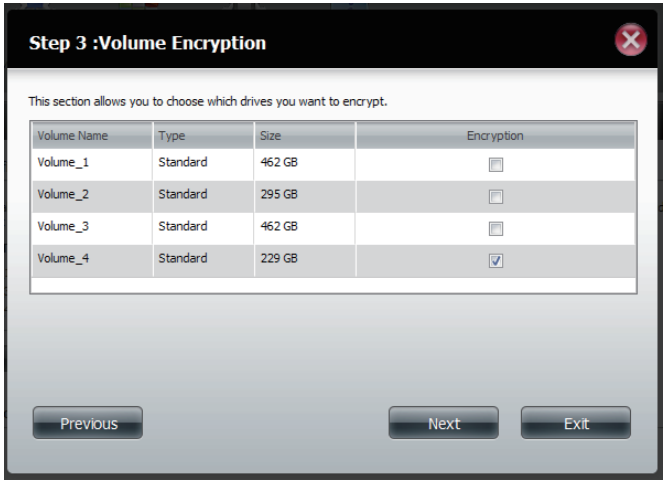
Select **Standard** to create separate volumes for each individual drive.

Click **Next** to continue.



Select a volume or volumes that you would like to encrypt.

Click **Next** to continue.

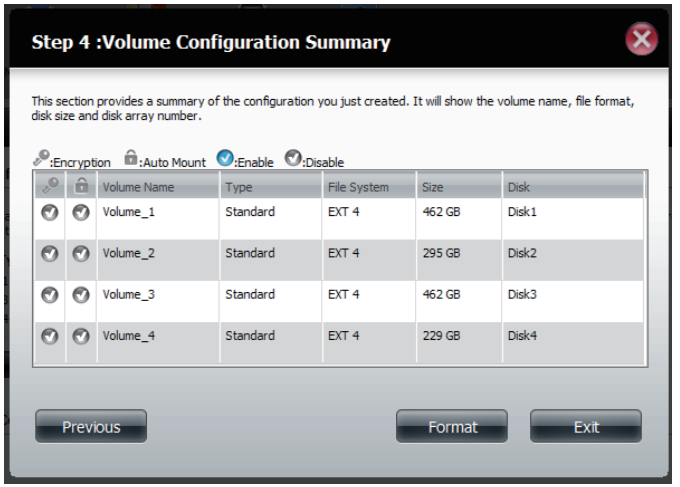


Select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345.

Enter the encryption password and enter it again to confirm.

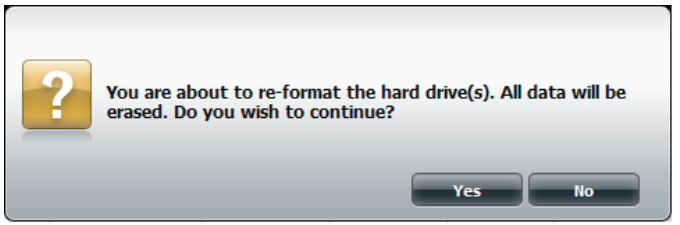
Click **Next** to continue.

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.

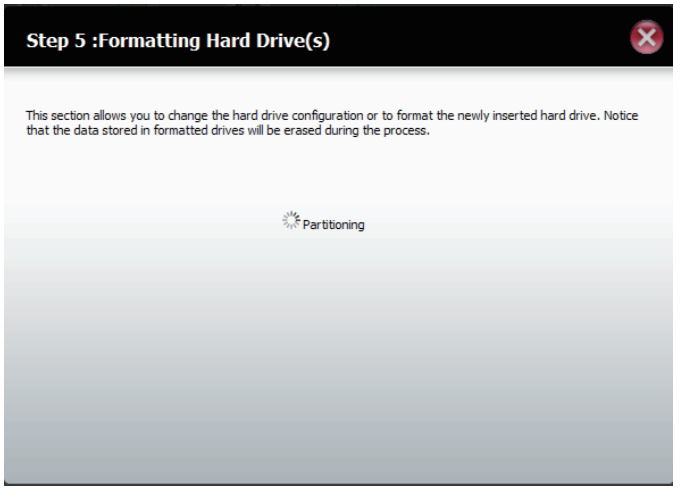


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

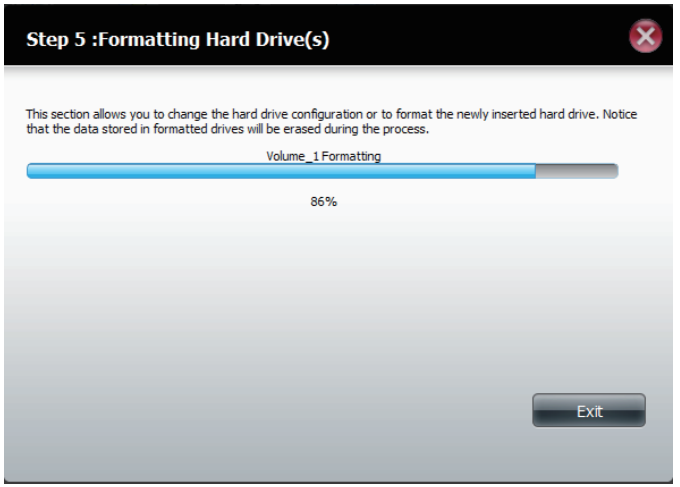


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



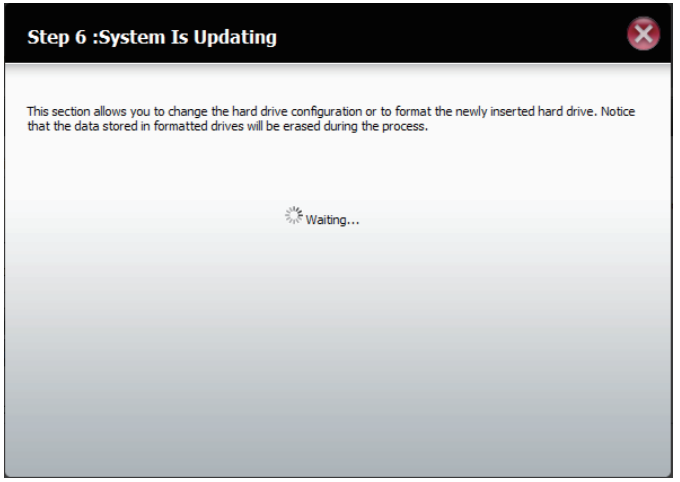
Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Do not turn off your NAS during this process.

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



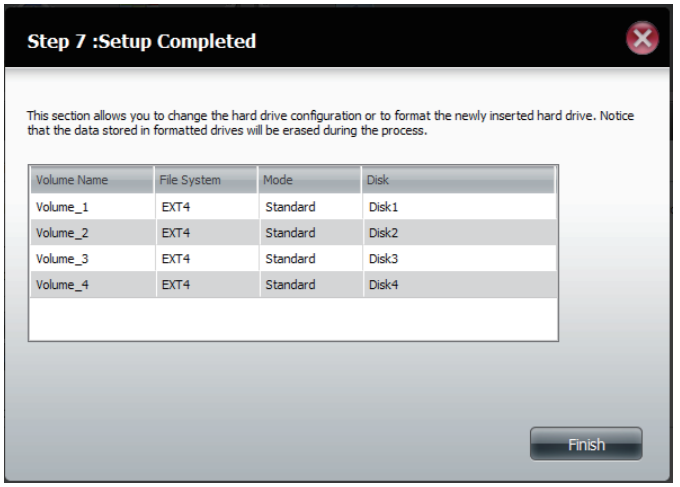
The system will now update all of the changes made.

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.

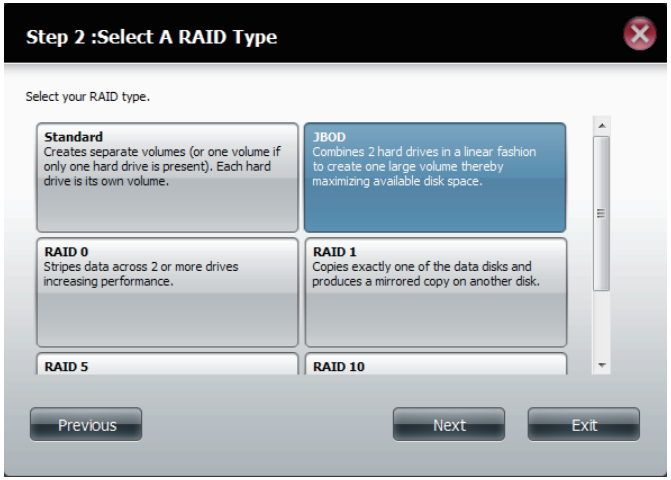
Click **Finish** to complete the process and start using your DNS-345.



JBOD

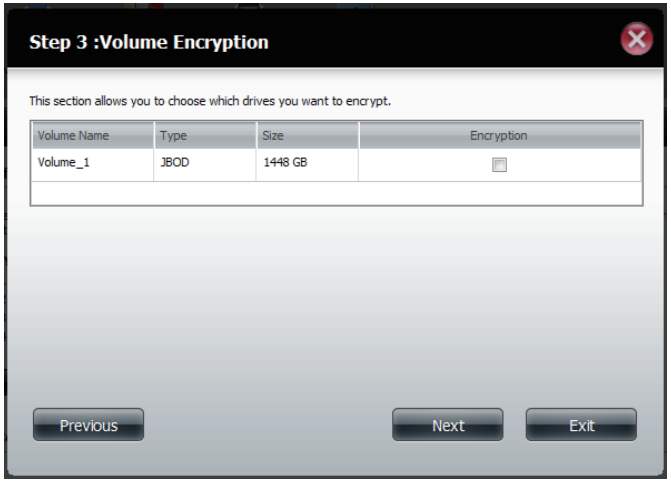
Select **JBOD** to create a single volume from all of the drives.

Click **Next** to continue.



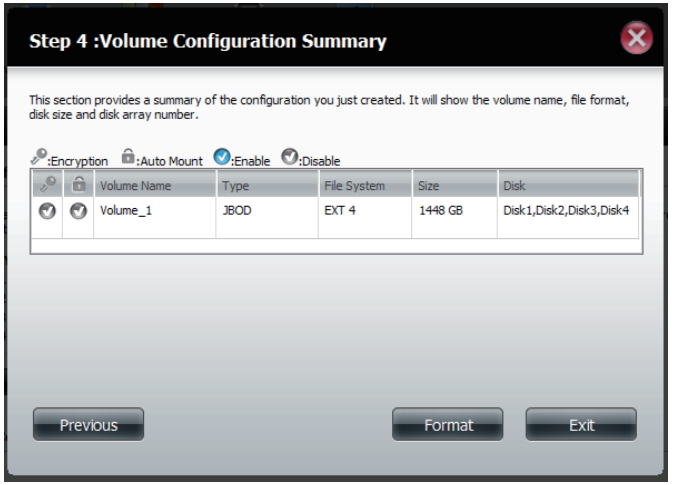
Check the Encryption box if you would like to encrypt the volume.

Click **Next** to continue.



If you decided not to encrypt the volume, a volume configuration summary page will show the details of your configuration.

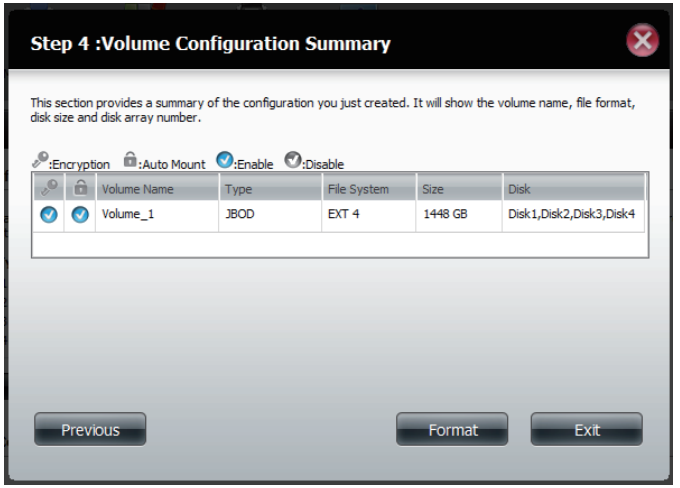
Click **Format** to continue or **Previous** make changes.



If you are encrypting the volume, select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345. Enter a password and then confirm the password.

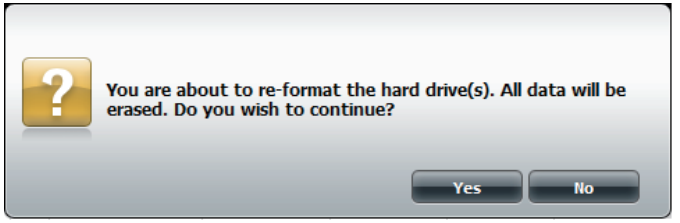
Click **Next** to continue.

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.

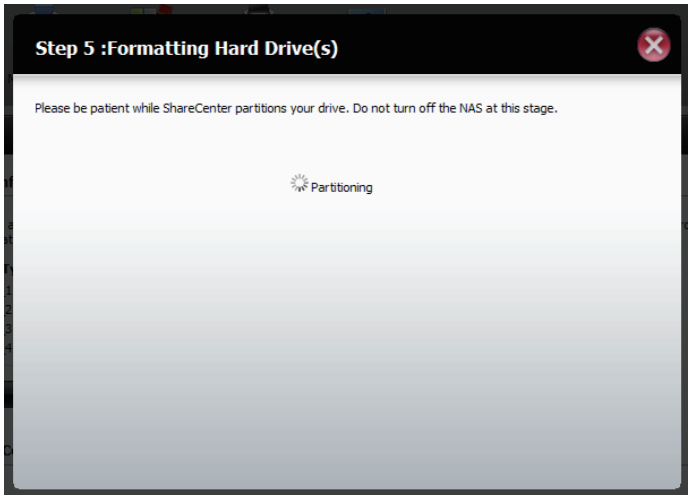


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

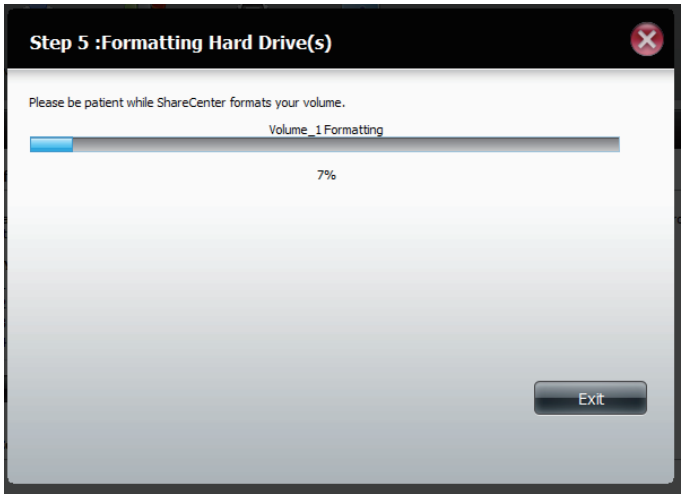


ShareCenter will now prepare the volume for partitioning.



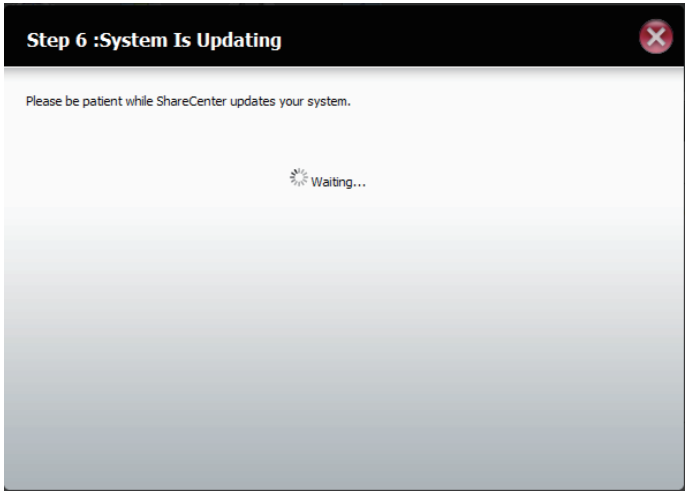
Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Please be patient during this process. Do not turn off your NAS during this process.

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



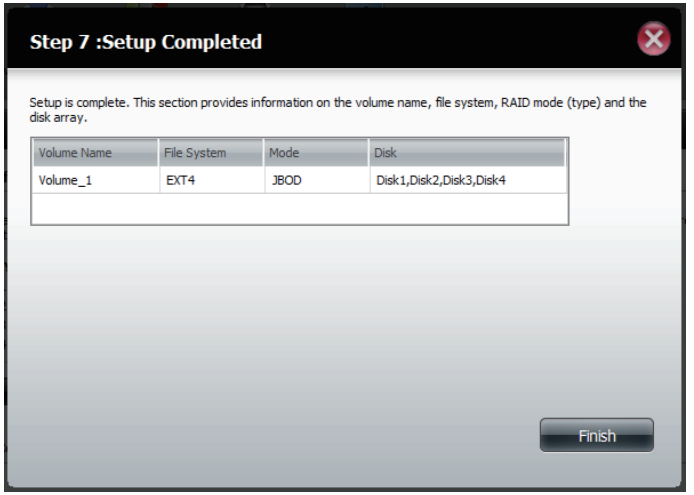
The system will now update all of the changes made.

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, file system selected, the type of RAID, and the disk formation in the RAID.

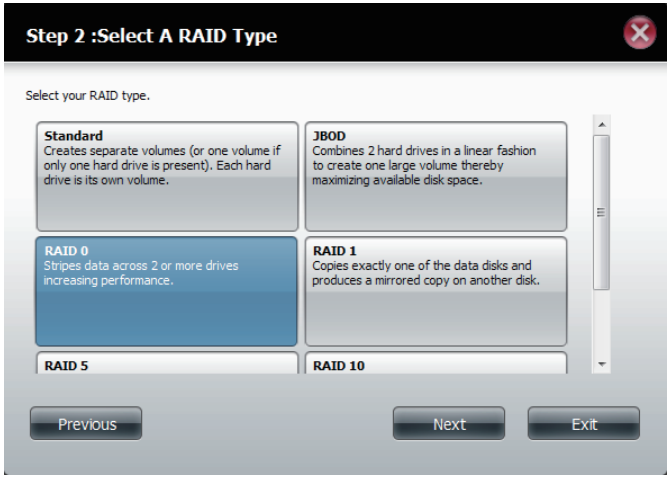
Click **Finish** to complete the process and start using your DNS-345.



RAID 0

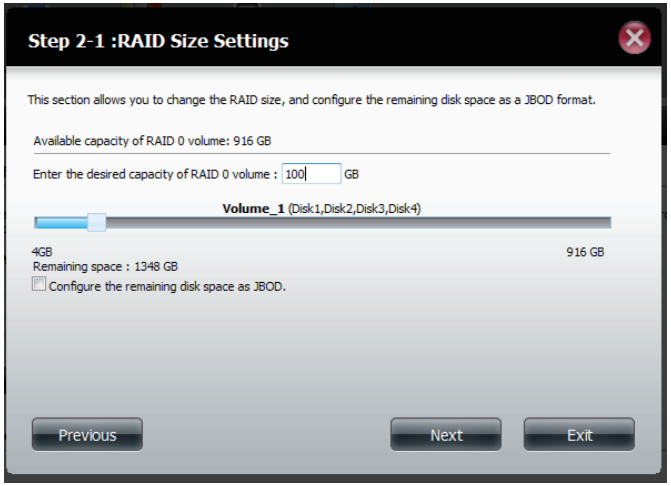
Select RAID 0 (stripes all of the drives).

Click **Next** to continue.



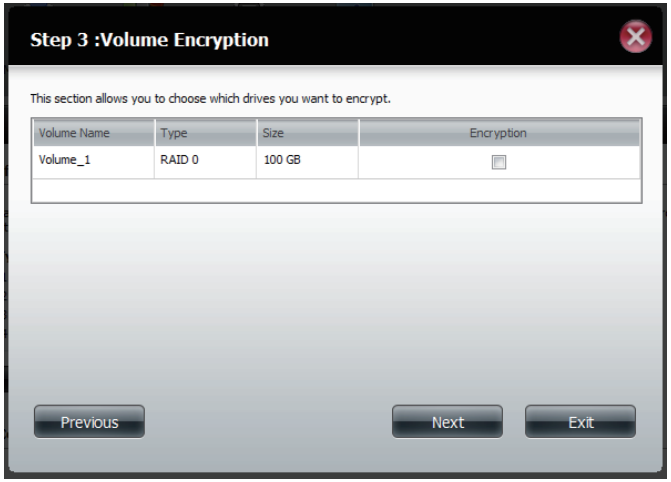
Enter the size (in GB) of RAID 0 and then check the box next to 'Configure the remaining disk space as JBOD' if you wish to configure the remaining space as JBOD.

Click **Next** to continue.

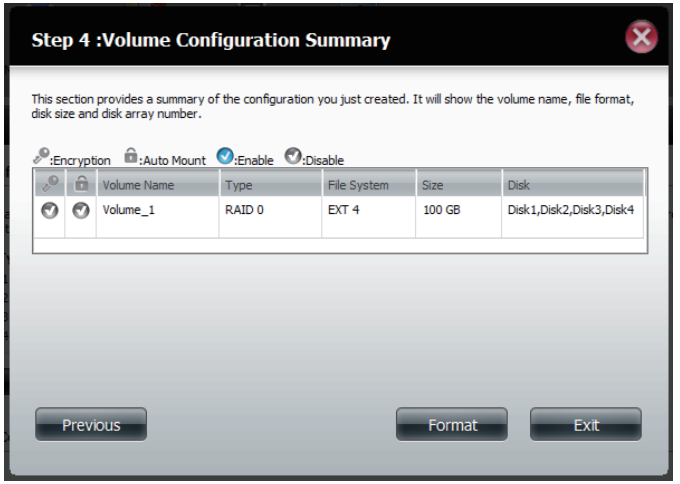


Select a volume or volumes that you would like to encrypt.

Click **Next** to continue.

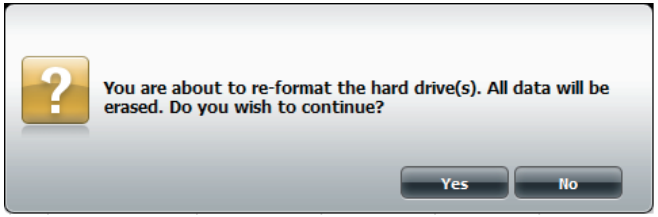


The 'Volume Configuration Summary' shows details on all of the configured drives. Check the details on the list and click **Format** to continue or click **Previous** to make changes.

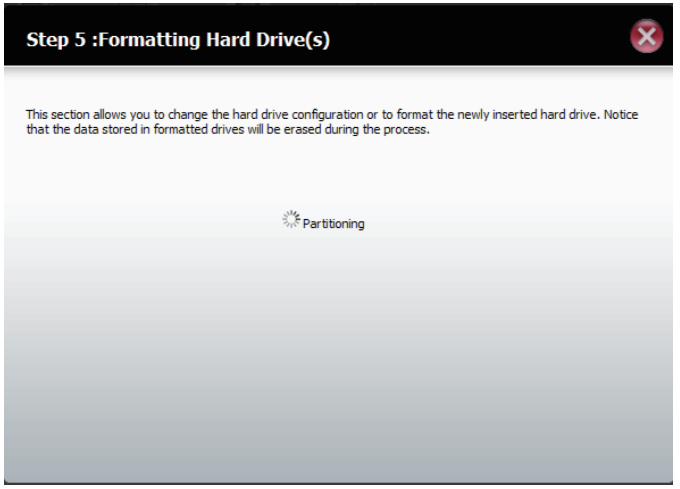


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

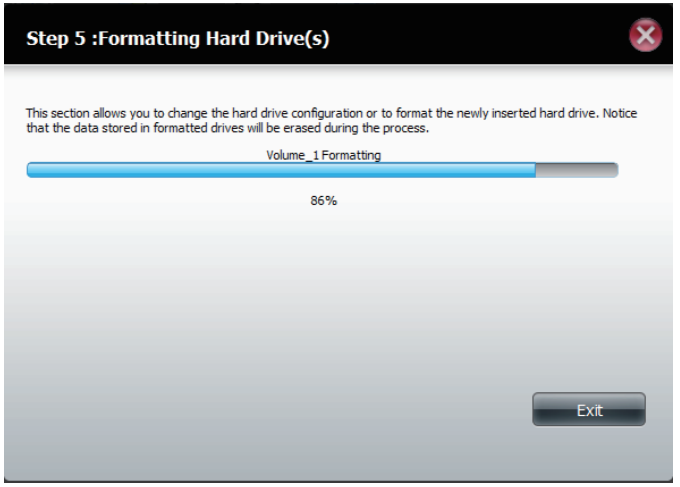


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



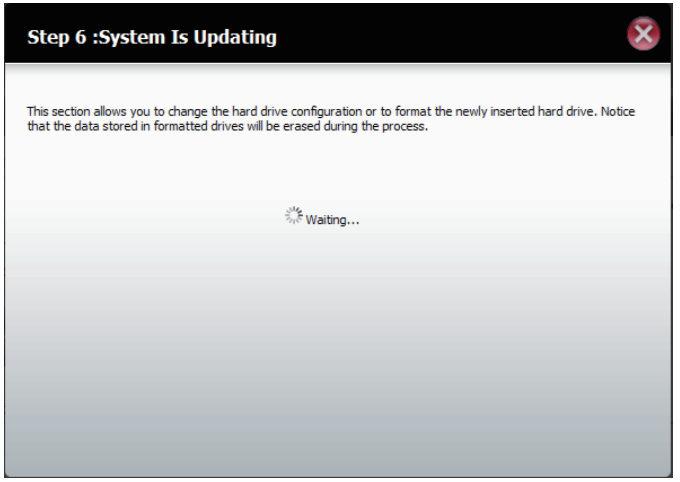
Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Please be patient during this process. Do not turn off your NAS during this process.

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



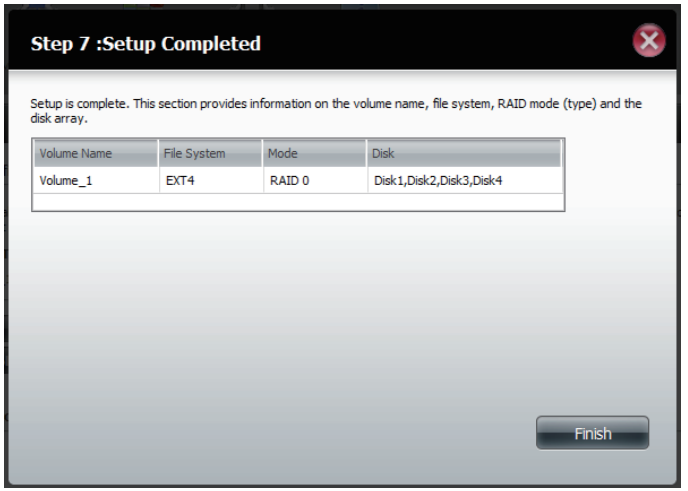
The system will now update all of the changes made.

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.

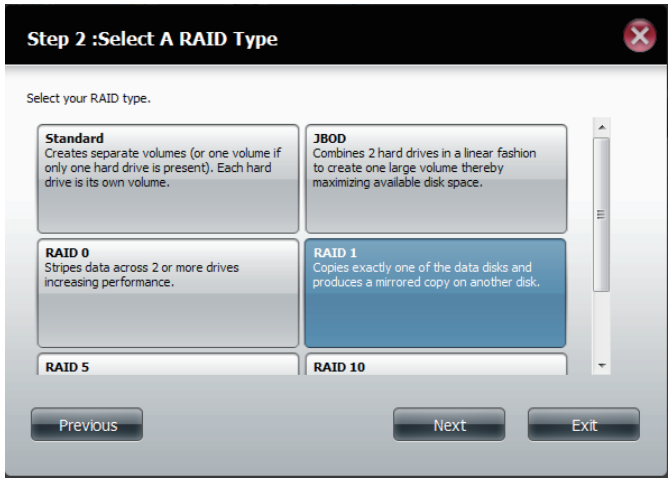
Click **Finish** to complete the process and start using your DNS-345.



RAID 1

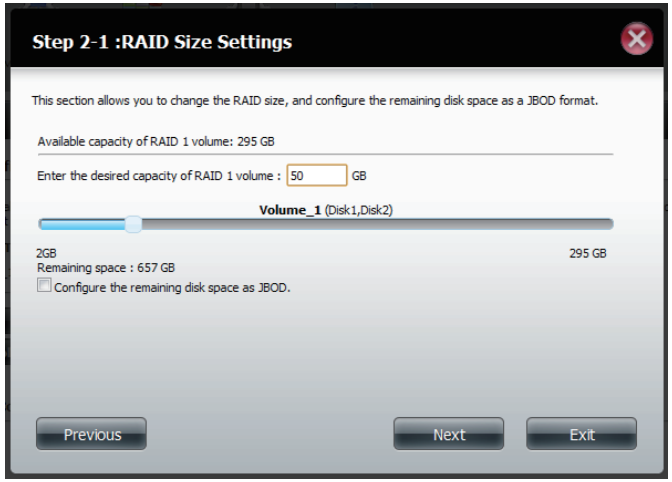
Select **RAID 1** to mirror all the hard drives.

Click **Next** to continue.



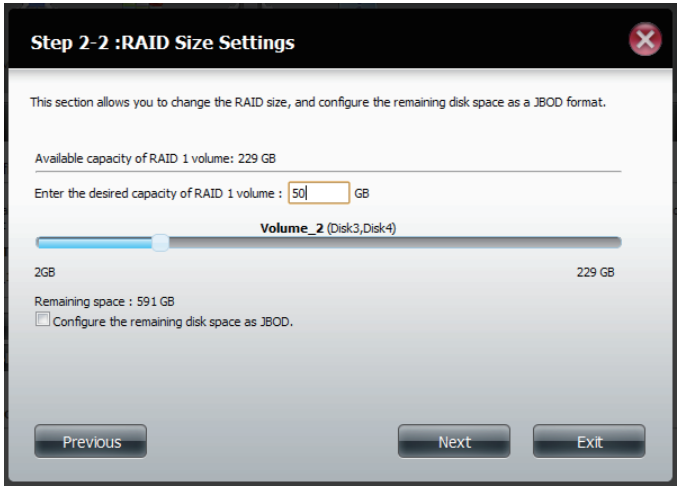
Enter the amount of disk space you would like to assign to the first volume for RAID 1.

Click **Next** to continue.



Enter the amount of disk space you would like to assign to the second volume for RAID 1 and then check the box next to 'Configure the remaining disk space as JBOD' if you wish to configure the remaining space as JBOD.

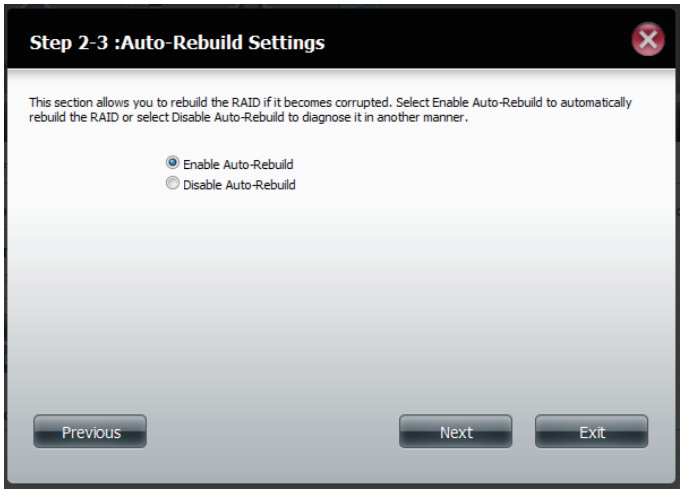
Click **Next** to continue.



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

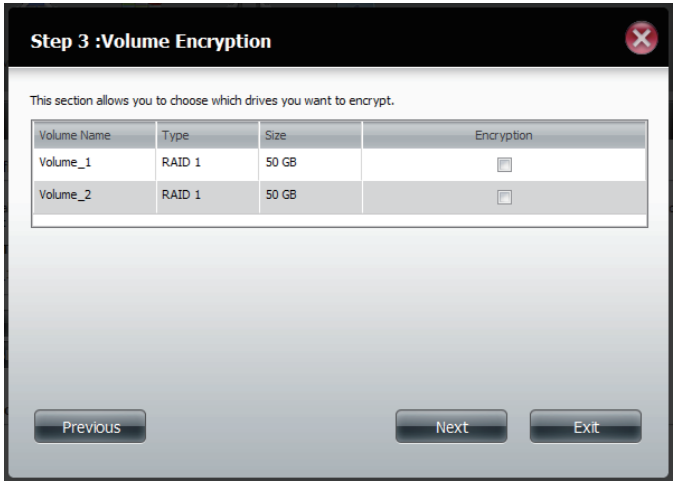
Select **Disable Auto-Rebuild** if you want to start the rebuild process manually after replacing a failed drive.

Click **Next** to continue.



Choose a volume or volumes that you would like to encrypt.

Click **Next** to continue.



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

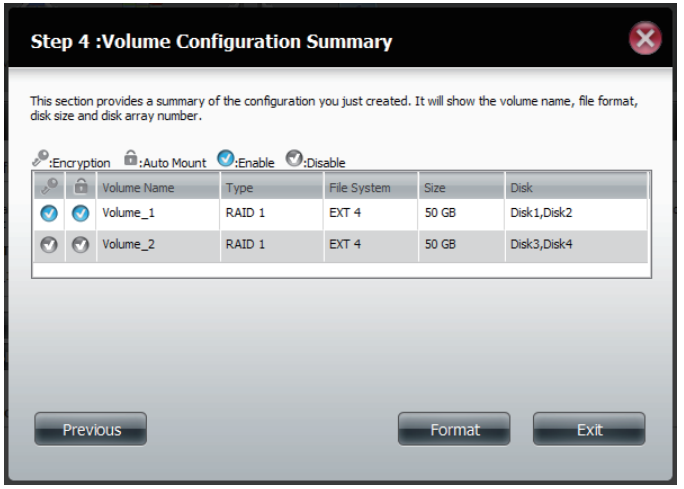
Click **Yes** to continue.

Select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345.

Enter the encryption password and enter it again to confirm.

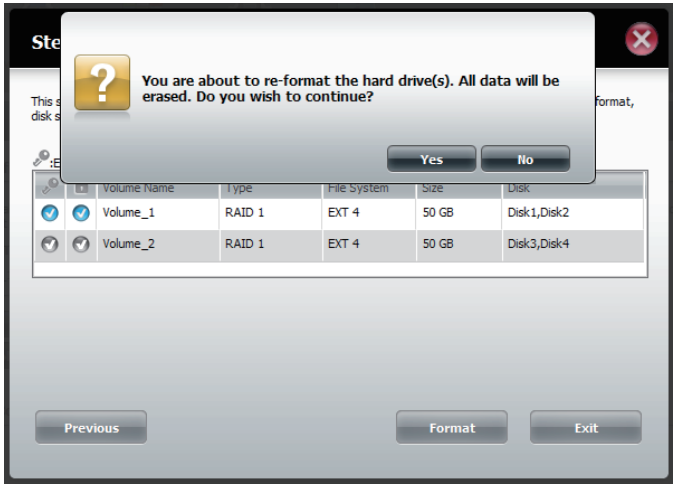
Click **Next** to continue.

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.

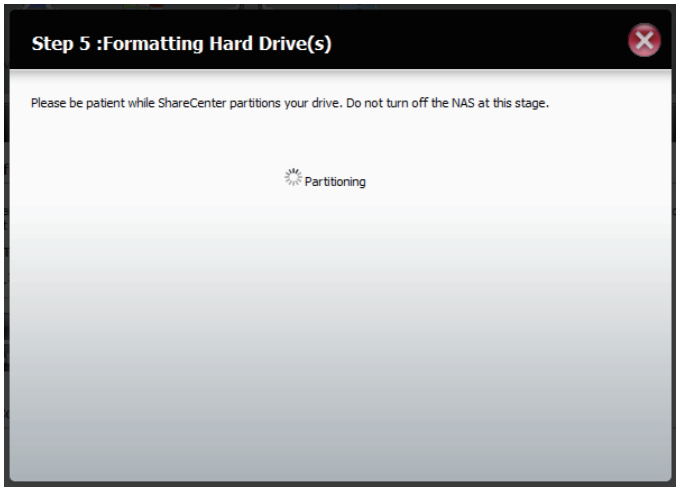


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

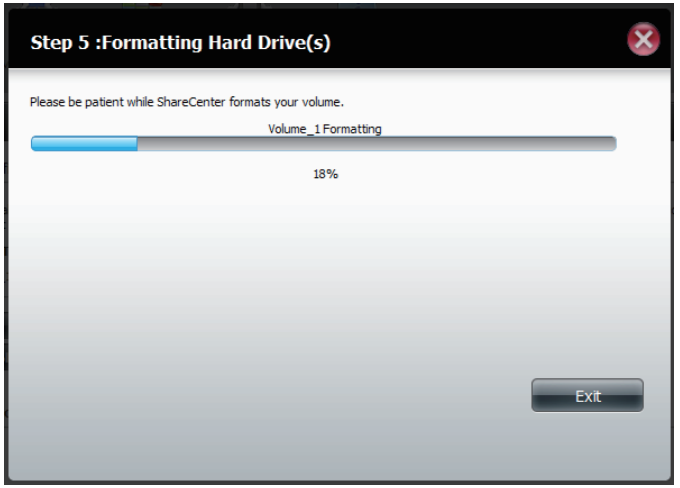


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



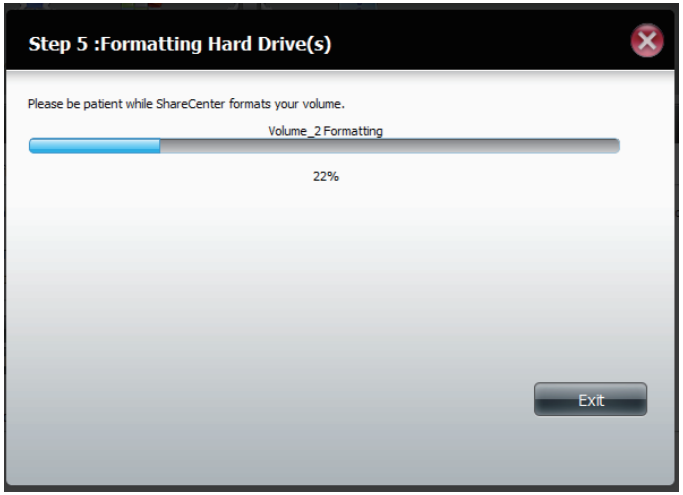
Once the partition is completed, the formatting process will begin. Please be patient during this process. Do not turn off your NAS during this process.

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



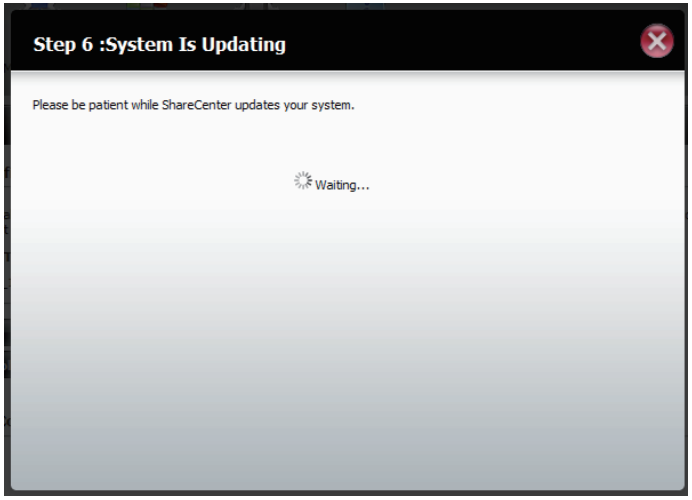
ShareCenter will format the second drive of the volume as well

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



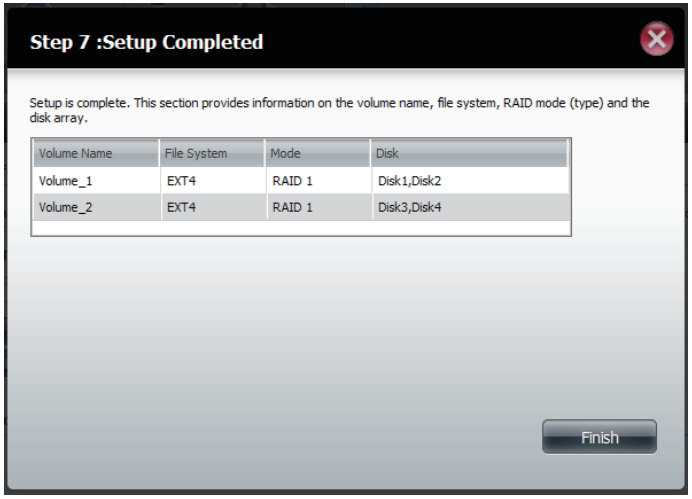
The system will now update all of the changes made.

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



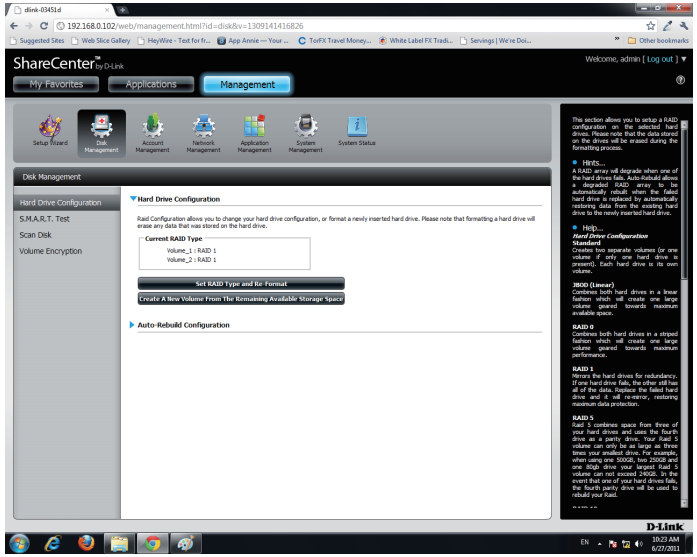
The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to complete the process and start using your DNS-345.



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

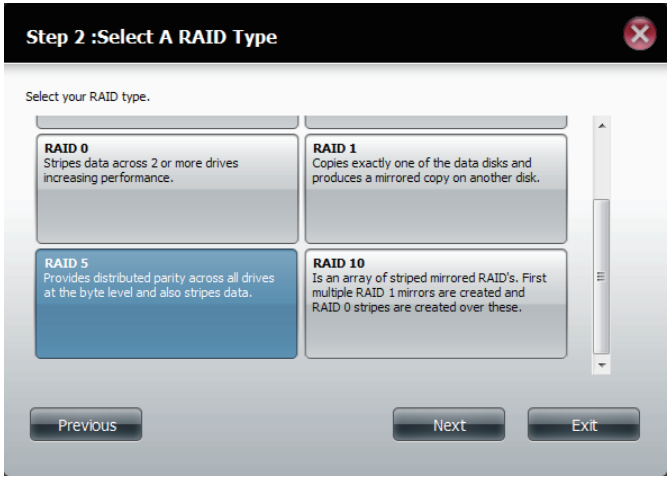
The RAID configuration you just set will be displayed.



RAID 5

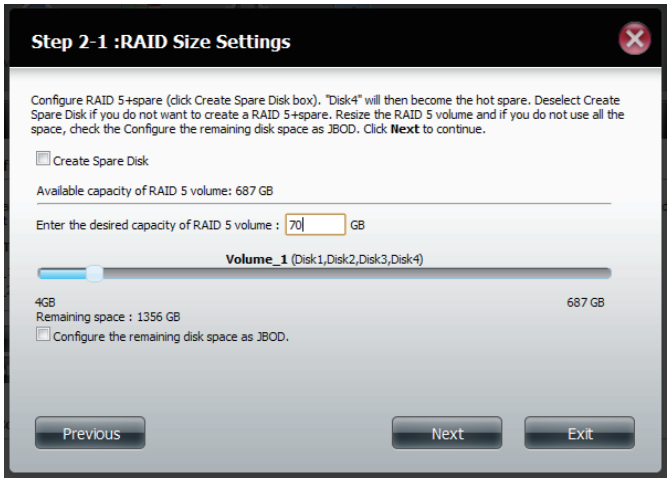
Select **RAID 5**. All the drives are striped with distributed parity.

Click **Next** to continue.



Enter the size (in GB) of RAID 5 and then check the box next to 'Configure the remaining disk space as JBOD' if you wish to configure the remaining space as JBOD.

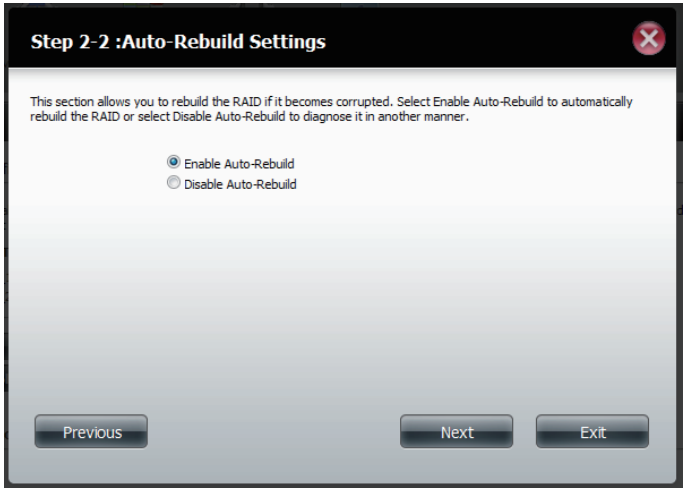
Click **Next** to continue.



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

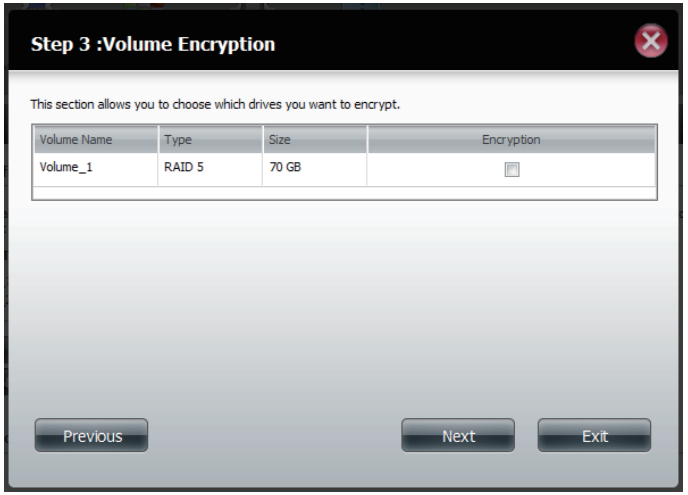
Select **Disable Auto-Rebuild** if you want to start the rebuild process manually after replacing a failed drive.

Click **Next** to continue.



Choose a volume or volumes that you would like to encrypt.

Click **Next** to continue.



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

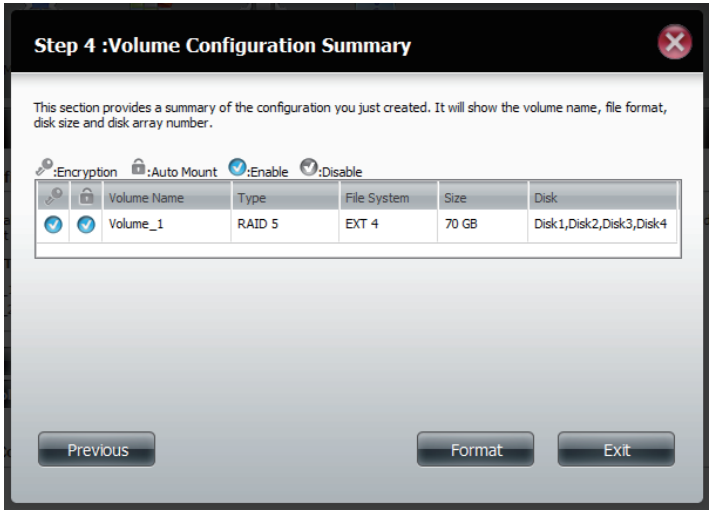
Click **Yes** to continue.

Select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345.

Enter the encryption password and enter it again to confirm.

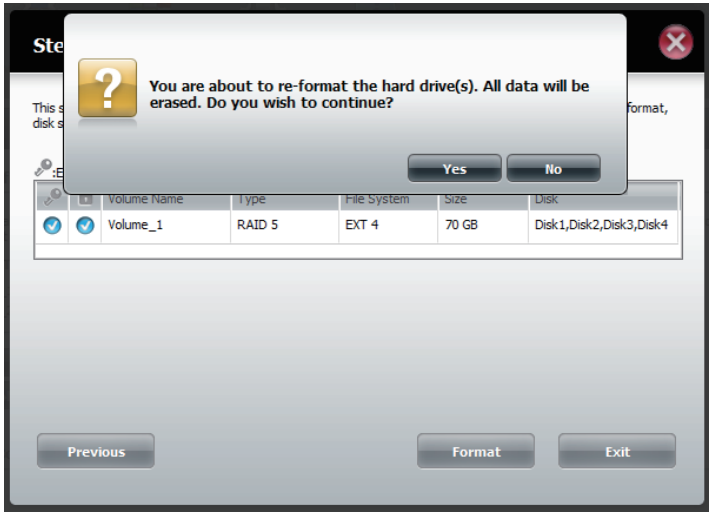
Click **Next** to continue.

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.

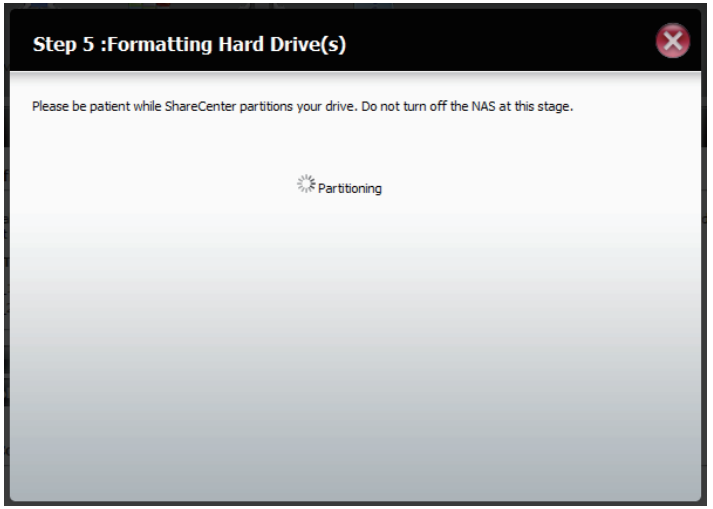


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

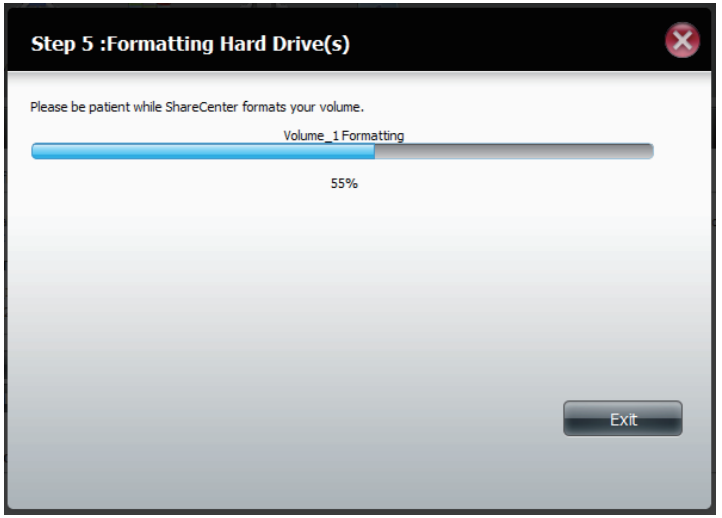


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.

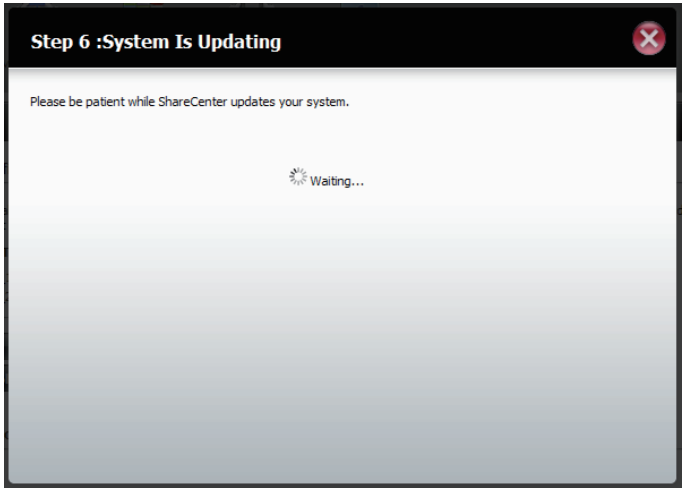


Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Please be patient during this process. Do not turn off your NAS during this process.

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

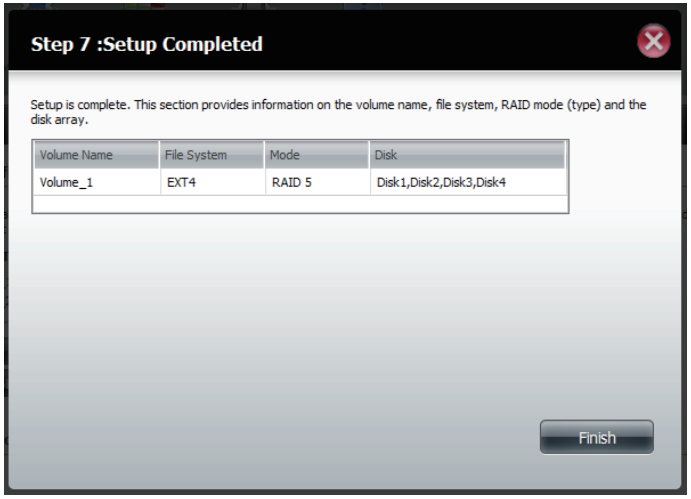


The system will now update all of the changes made.



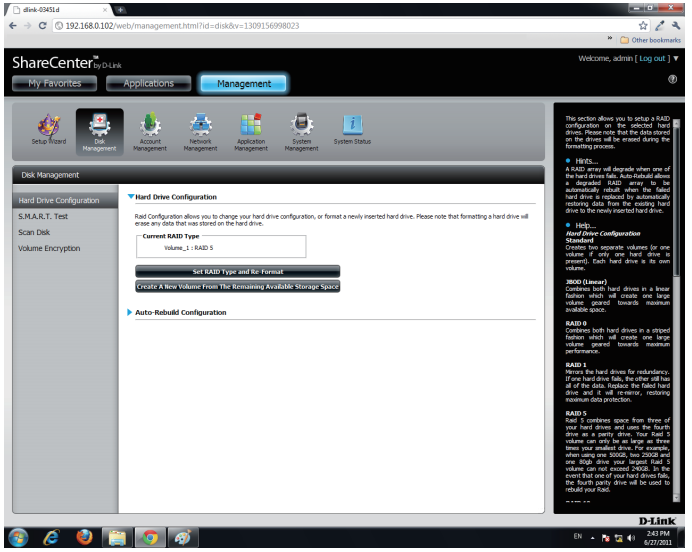
The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to complete the process and start using your DNS-345.



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

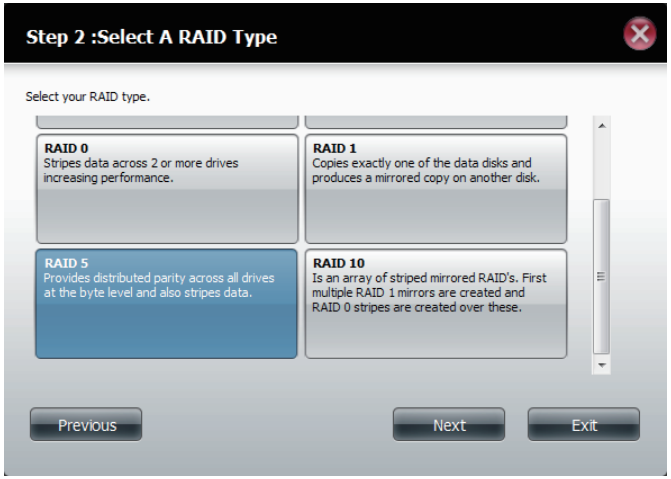
The RAID configuration you just set will be displayed.



RAID 5 + Spare

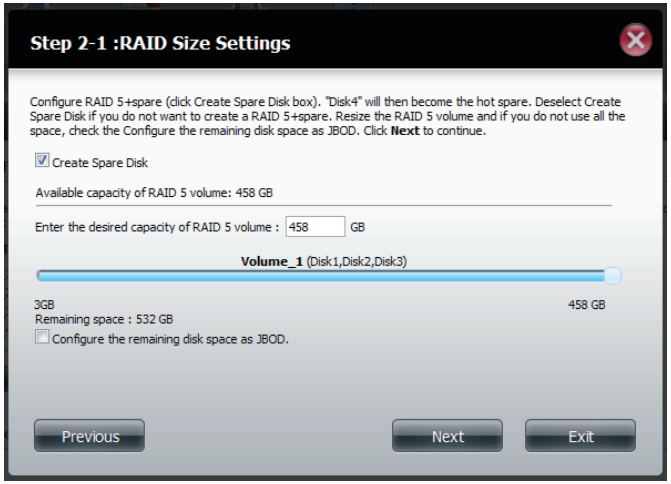
Select RAID 5. All the drives are striped with distributed parity.

Click **Next** to continue.



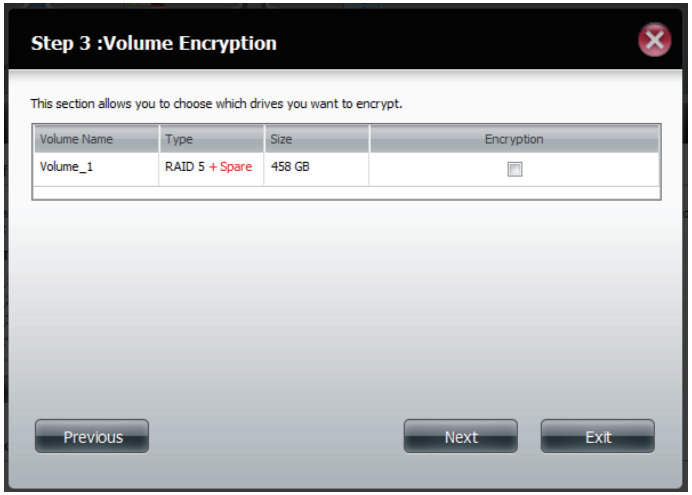
Click **Create Spare Disk** to create RAID 5 plus the spare.

Click **Next** to continue.



The volume is now configured for RAID 5 plus the spare.

Click **Next** to continue.



Choose a volume or volumes that you would like to encrypt.

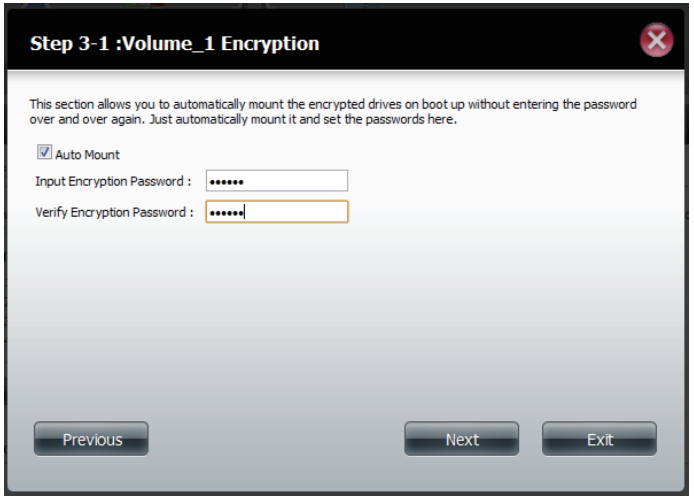
A warning message will warn you that the system will operate slower.

Click **Yes** to continue.

Select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345.

Enter the encryption password and enter it again to confirm.

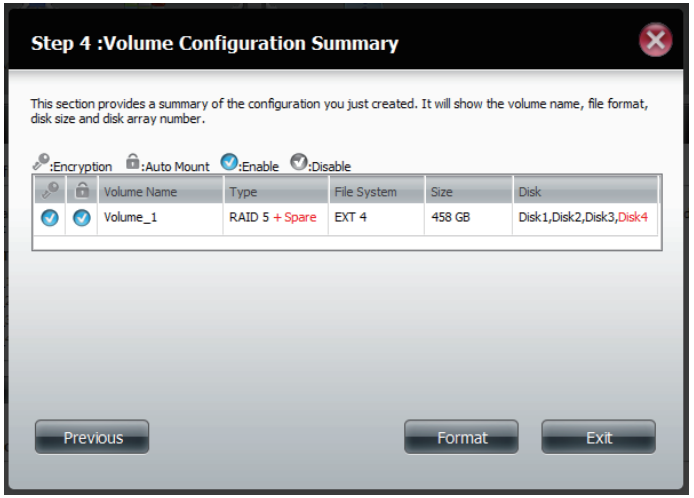
Click **Next** to continue.



ShareCenter will now show the Volume Configuration Summary.

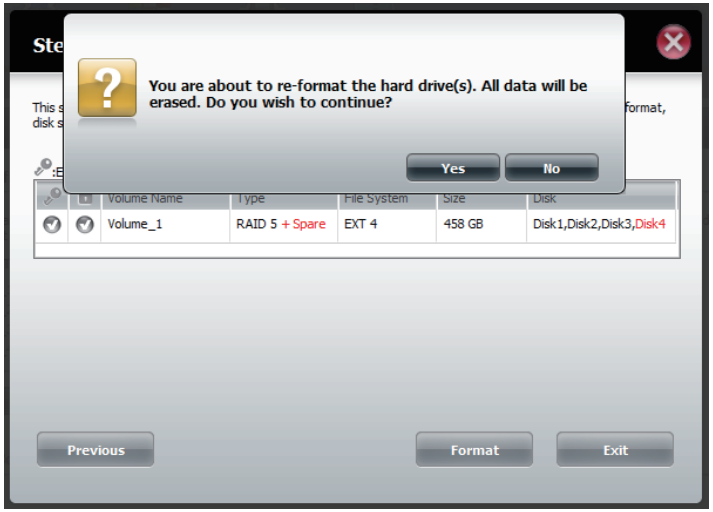
Make sure under type it reads RAID5 + Spare.

Check the details on the list and click **Format** to continue or click **Previous** to make changes.

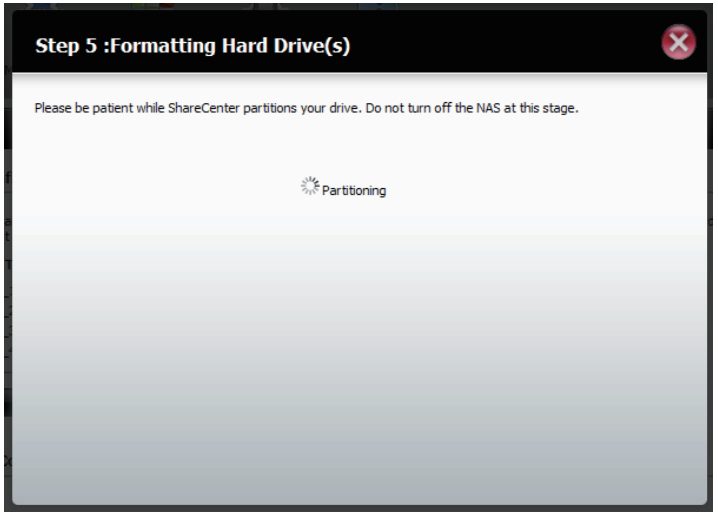


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue.

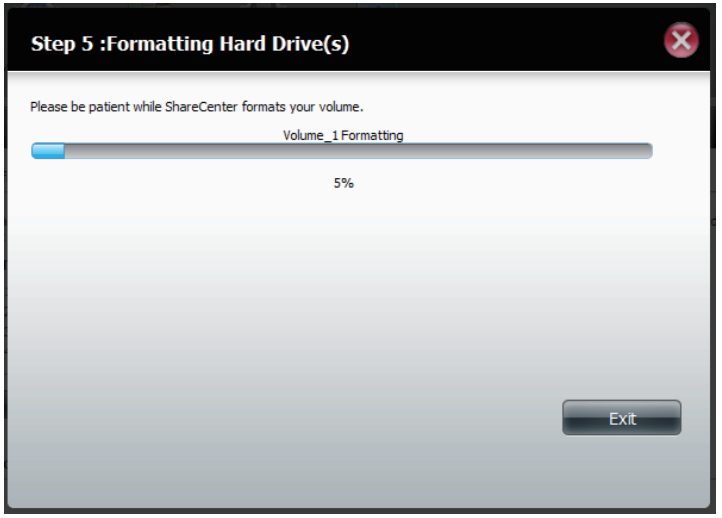


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



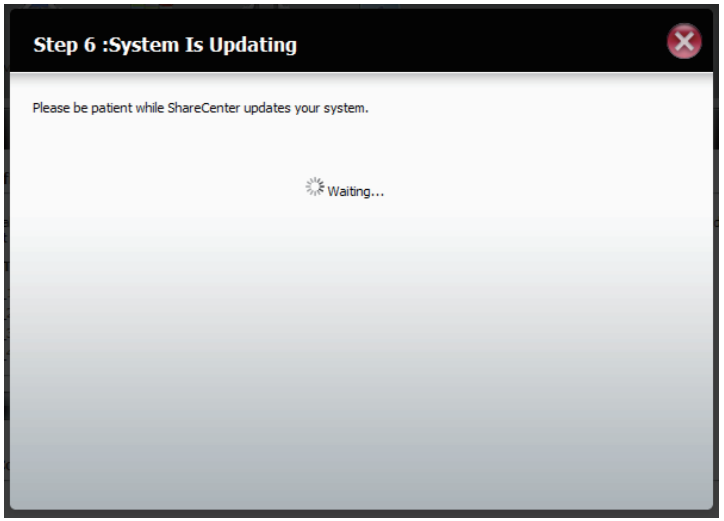
Once the partition is completed, the formatting process will begin. A graphical bar will show the volume being formatted. Please be patient during this process. Do not turn off your NAS during this process.

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



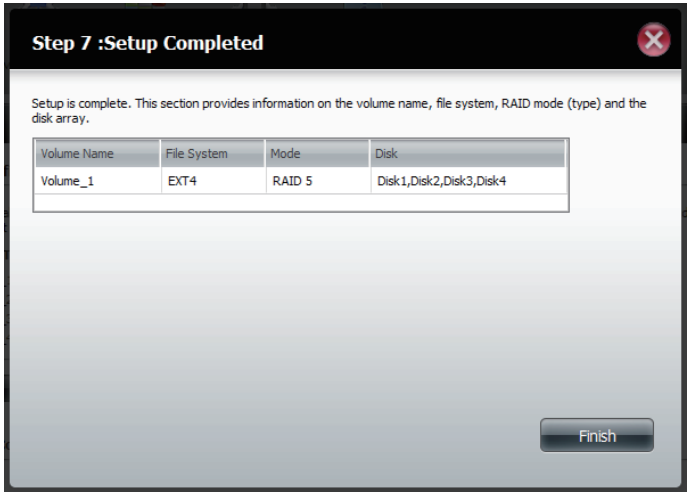
The system will now update all of the changes made.

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



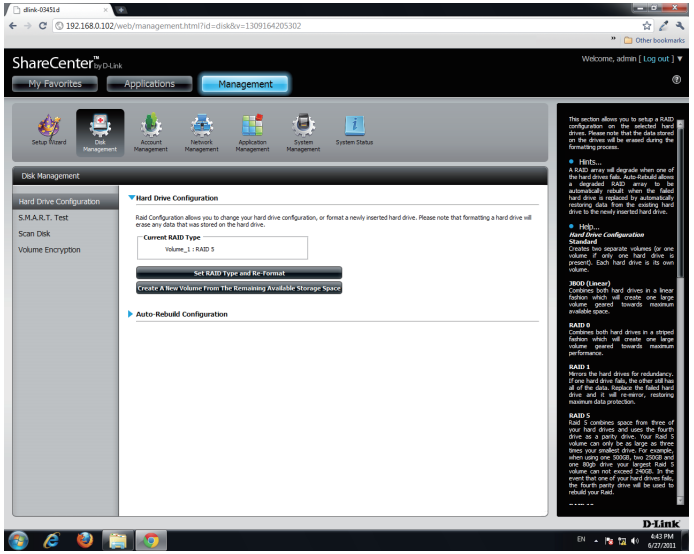
The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to continue.



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

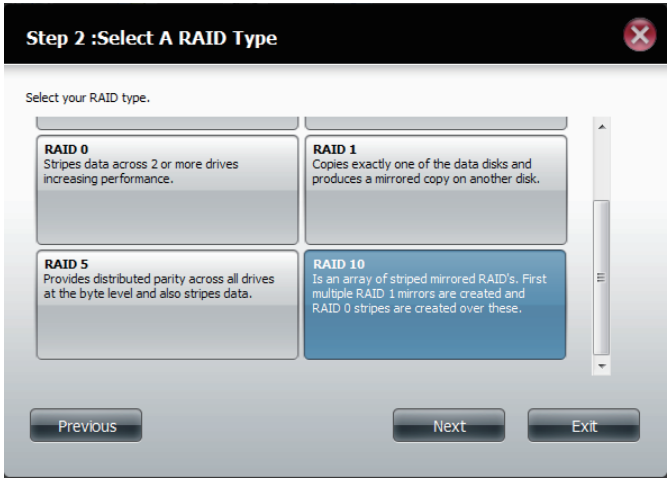
The RAID configuration you just set will be displayed.



RAID 10

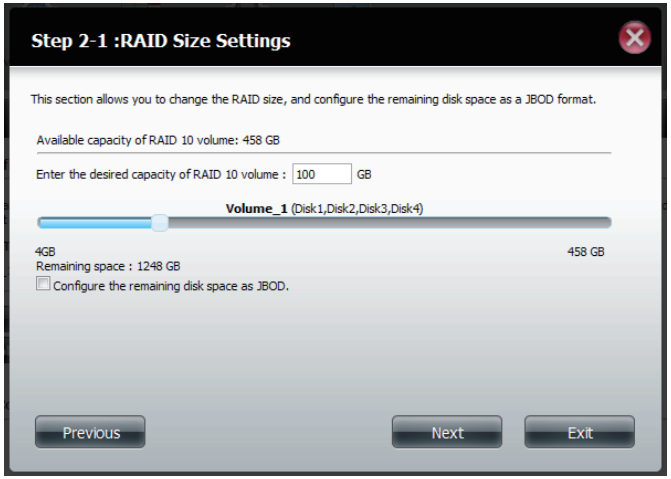
Select **RAID 10**. All drives are mirrored then striped.

Click **Next** to continue.



Enter the size (in GB) of RAID 10 and then check the box next to 'Configure the remaining disk space as JBOD' if you wish to configure the remaining space as JBOD.

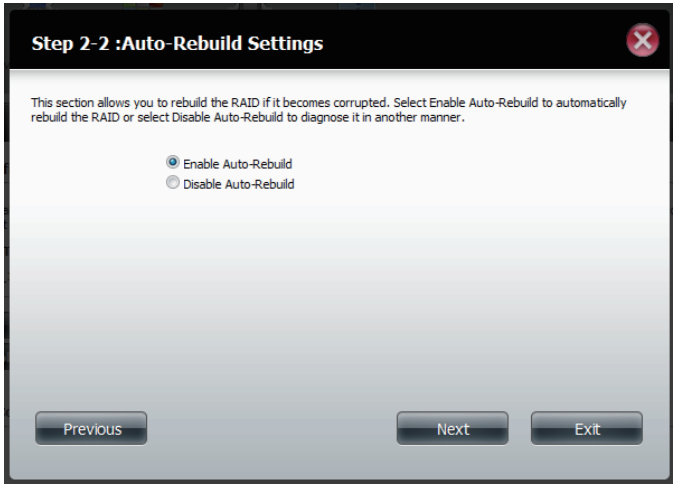
Click **Next** to continue.



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

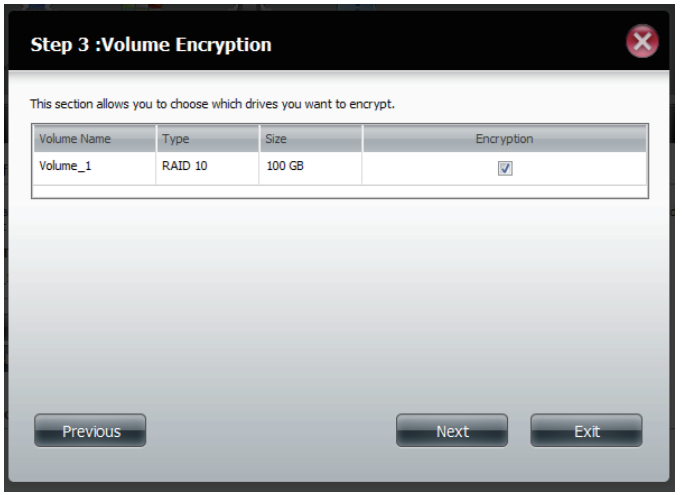
Select **Disable Auto-Rebuild** if you want to start the rebuild process manually after replacing a failed drive.

Click **Next** to continue.



Choose a volume or volumes that you would like to encrypt.

Click **Next** to continue.



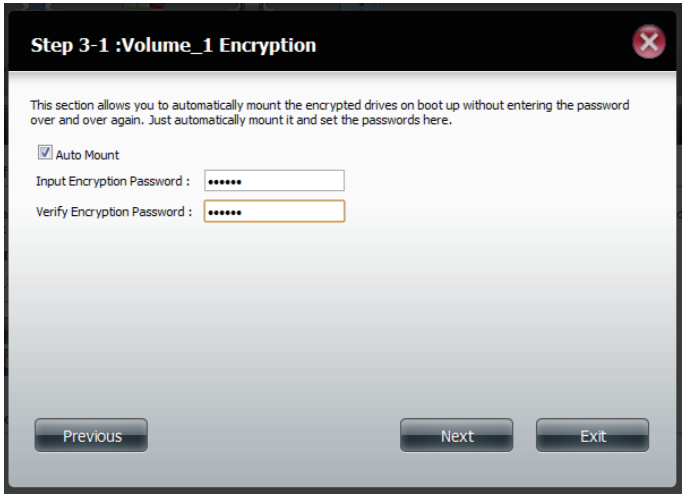
A warning message will warn you that the system will operate slower.

Click **Yes** to continue.

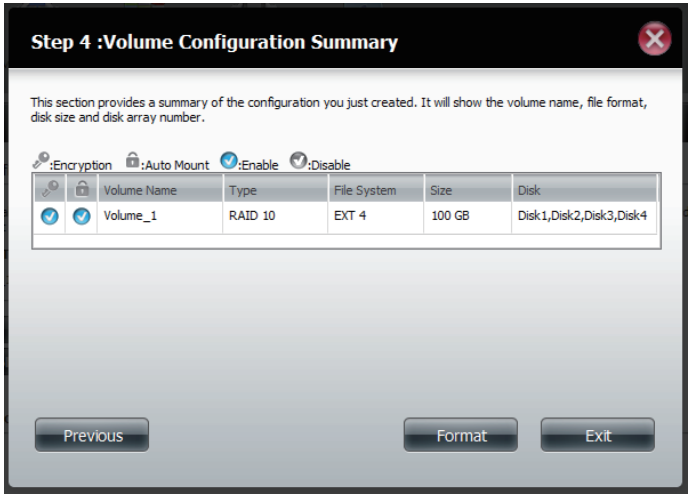
Select **Auto Mount** if you wish to mount the drive(s) without entering a password every time you reboot the DNS-345.

Enter the encryption password and enter it again to confirm.

Click **Next** to continue.

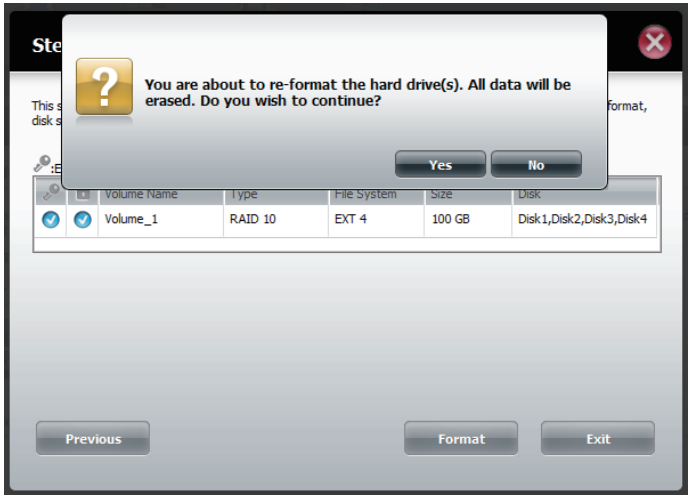


The 'Volume Configuration Summary' shows details on all of the configured drives. Check the details on the list and click **Format** to continue or click **Previous** to make changes.

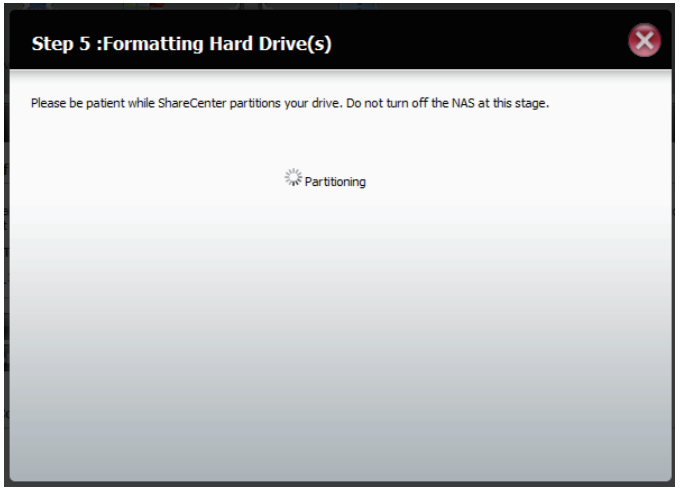


A warning message will appear to inform you that all volumes and data will be formatted and erased.

Click **Yes** to continue or **No** to exit.

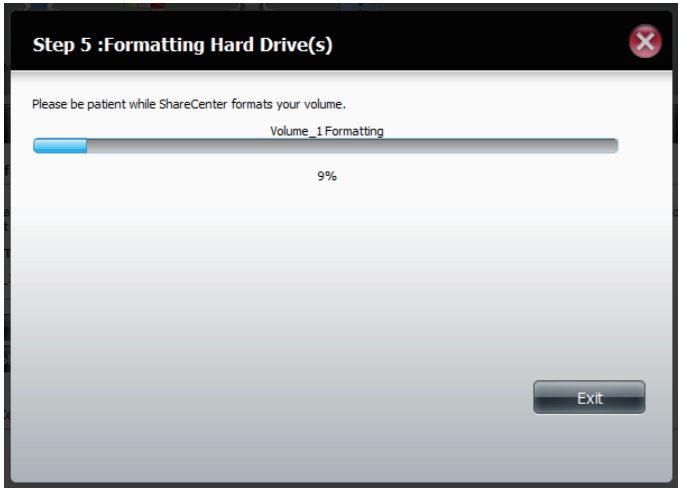


Partitioning will now begin. Please be patient while this process takes place. Do not turn off your NAS during this process.



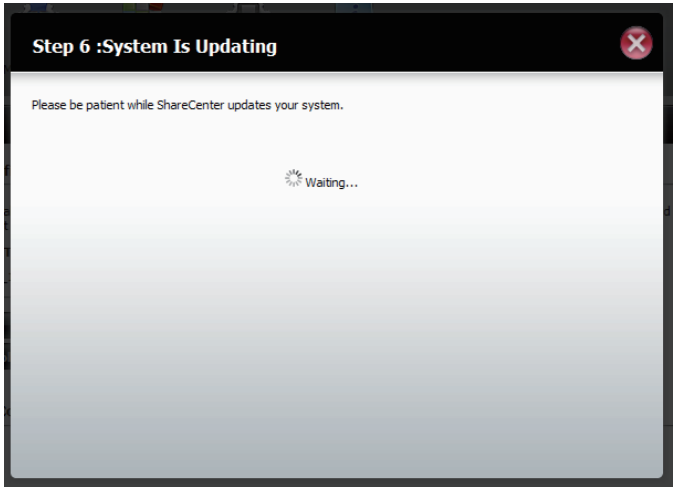
Once the partition is completed, the formatting process will begin. Please be patient during this process. Do not turn off your NAS during this process.

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



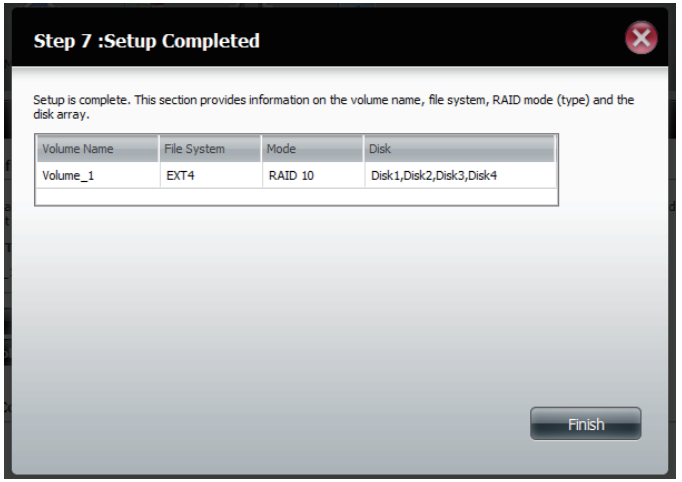
The system will now update all of the changes made.

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



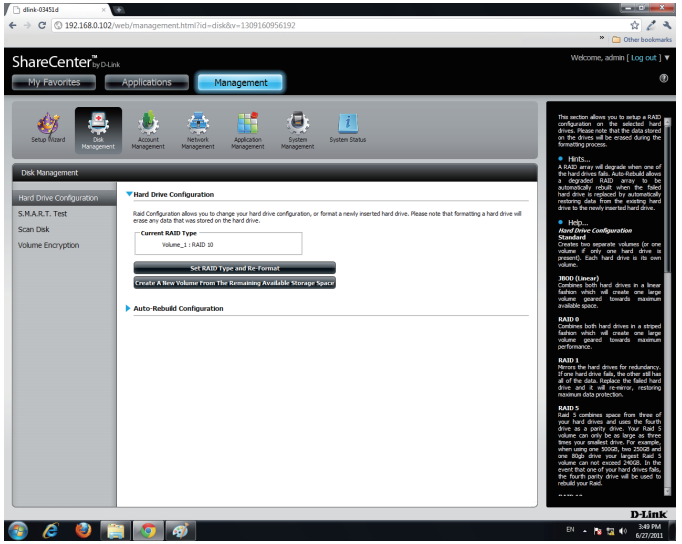
The wizard is now complete. It will show the volume number(s), file system selected, the type of RAID, and the disk formation in the RAID.

Click **Finish** to complete the process and start using your DNS-345.



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

The RAID configuration you just set will be displayed.



RAID Migration

You can install one hard drive in Standard mode during the initial setup and upgrade to RAID 1 or RAID 5 with RAID migration in the future.

You can do the following with RAID migration:

- Migrate the system from Non-RAID mode to RAID 1 or RAID 5
- Migrate the system from RAID 1 to RAID 5

What you need:

- Extra Hard Drives of the same or larger capacity from the existing drives in your ShareCenter

Note: Please refer to the RAID Migration How-To for more options.

Migrating Data from RAID1 to RAID5

The following is an example of a RAID migration from RAID1 to RAID5. When configuring RAID migration, you must shut down the NAS, install extra drives, and then restart the NAS.

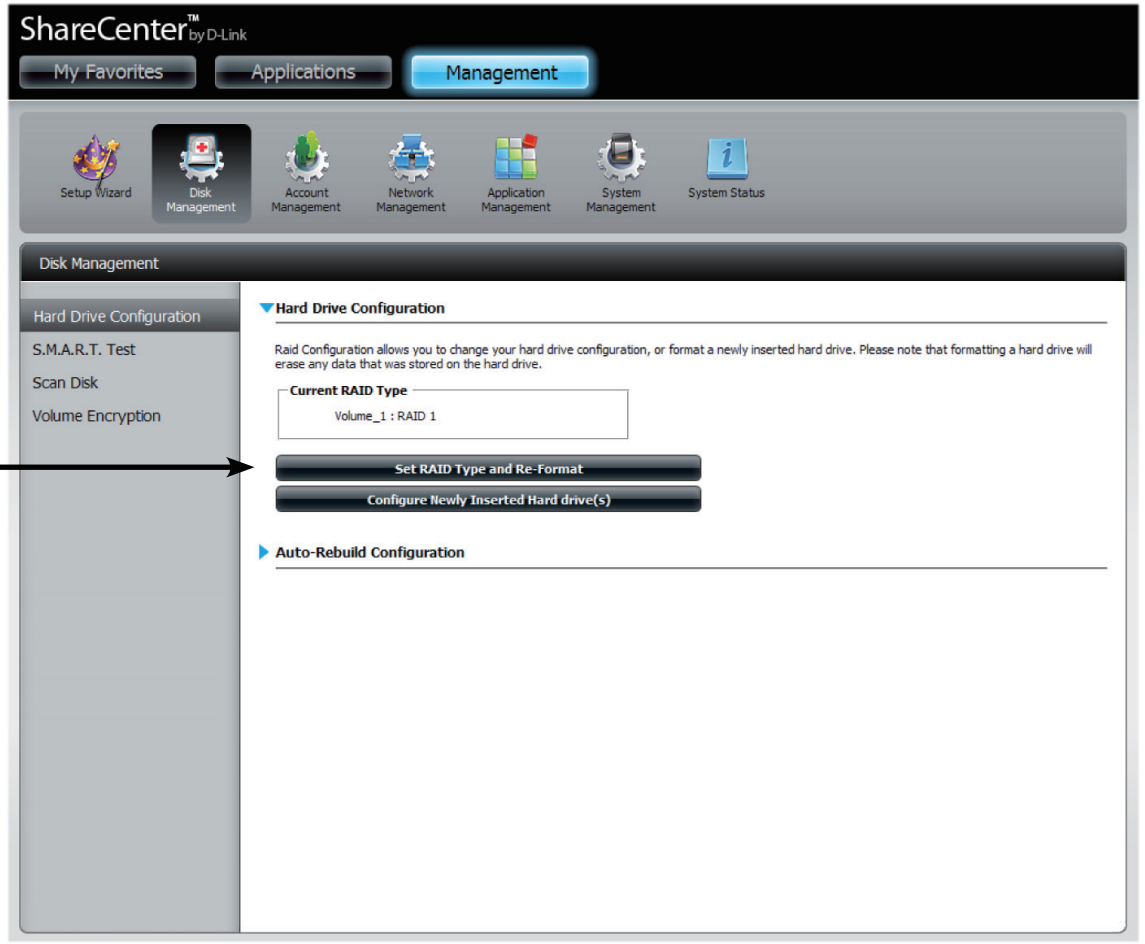
Detach the front cover of the NAS

A minimum of three drives are required for RAID 5

Insert more drives to accommodate RAID 5

Go to **Management** > **Disk Management** > **Hard Drive Configuration.**

Click on the **Configure Newly Inserted Hard Drive(s)** button.



Note: *RAID 5 (striping) requires a minimum of 3 internal SATA drives. Avoid data incompatibility by using drives from the same manufacturer.*

*The storage capacity of a RAID 5 array is equal to (N-1) * (size of smallest drive). N is the number of hard drives in the array.*

Hard Drive Configuration Wizard

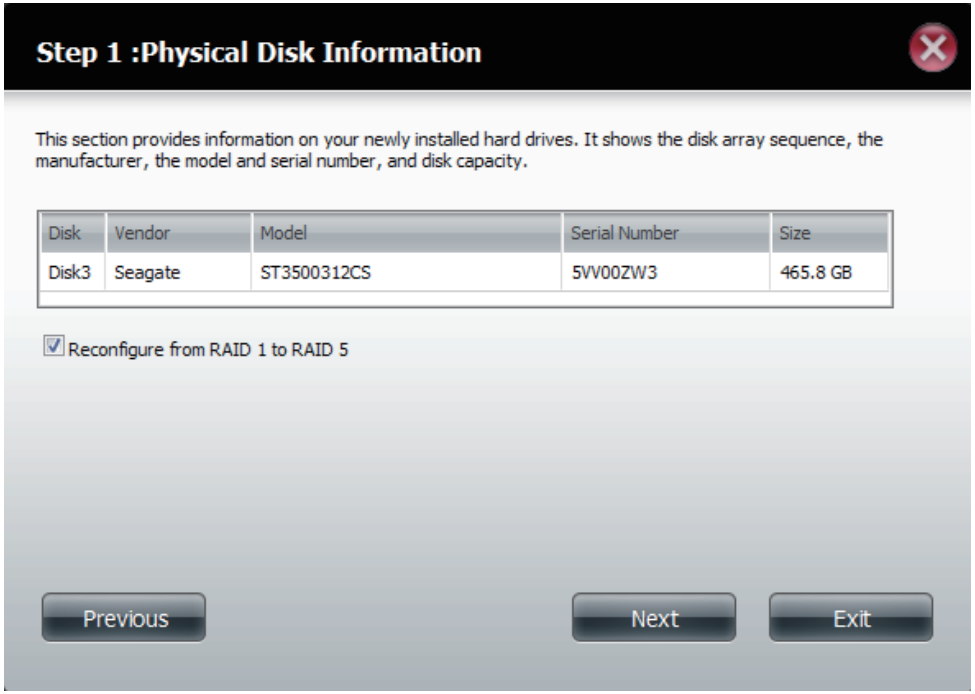
At the **Welcome to Hard Drive Configuration Wizard** read the instructions

Click **Next** to continue.

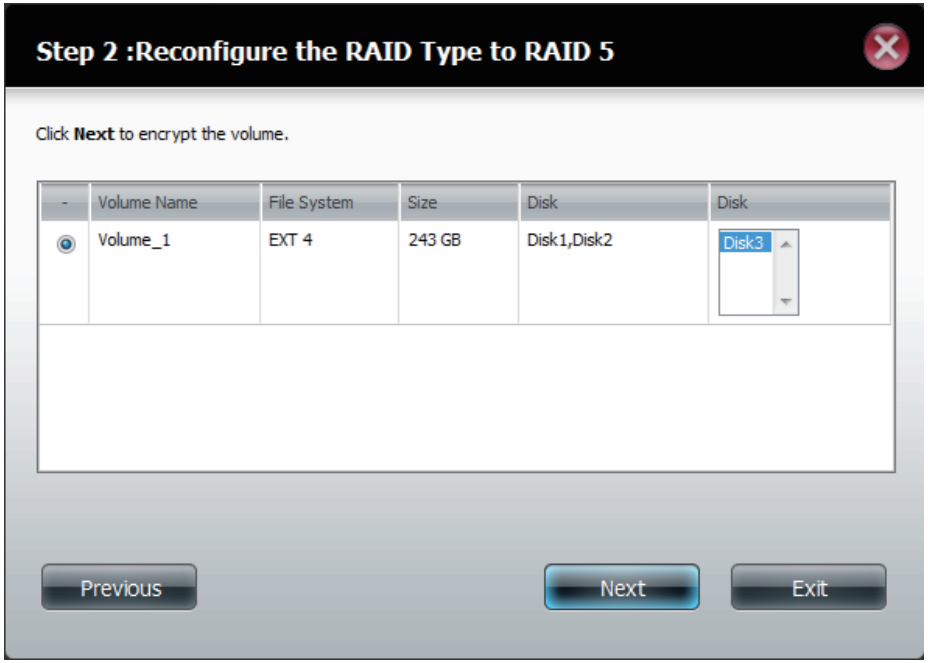
Step 1 - Examine the **Physical Disk Information**.

Check the **Reconfigure from RAID 1to RAID 5** checkbox and then click **Next** to continue.

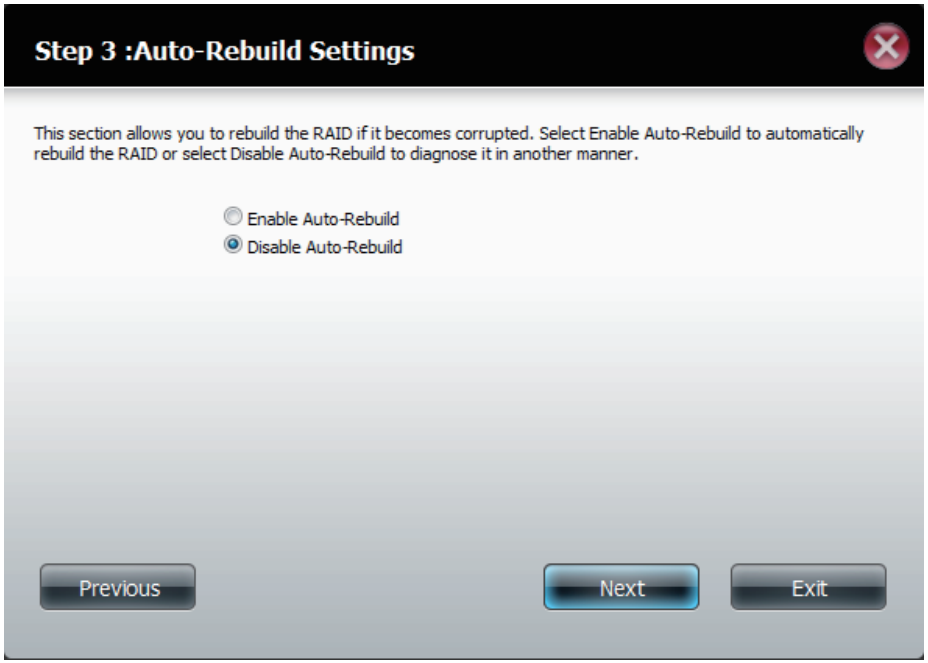
Note: *Clicking Reconfigure to RAID 5 is the most important part of this process. If you do not click this the RAID process will not function properly.*



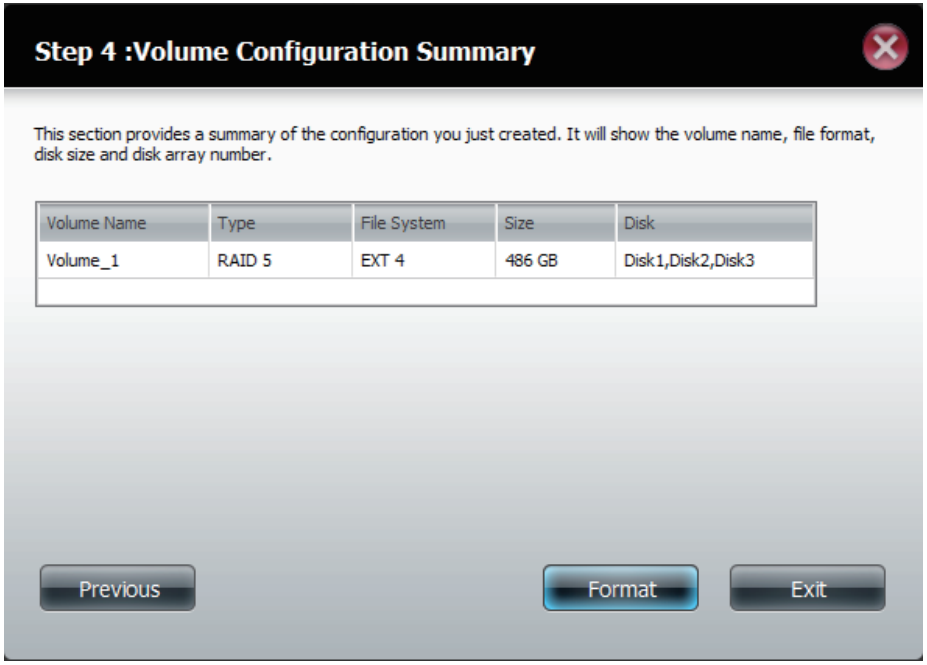
Step 2 - Select the new drive under the **Disk** area from the drop-down list. Click **Next** to continue.



Step 3 - Select **Enable Auto-Rebuild** or leave the device disabled by clicking **Disable Auto-Rebuild**. Click **Next** to continue.



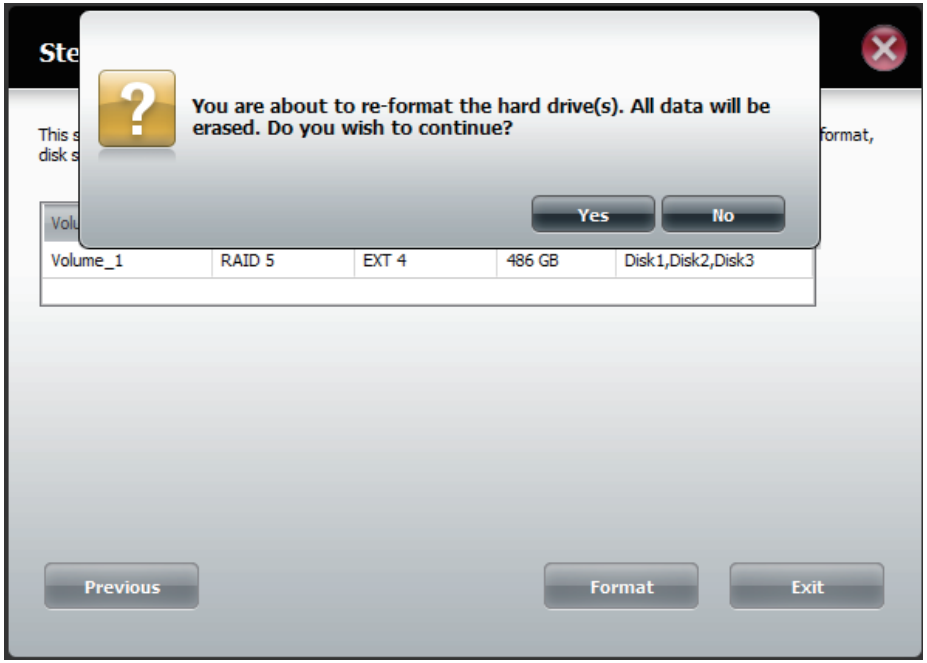
Step 4 - The Volume Configuration Summary window displays all the configuration settings you just made. Click **Format** to continue.



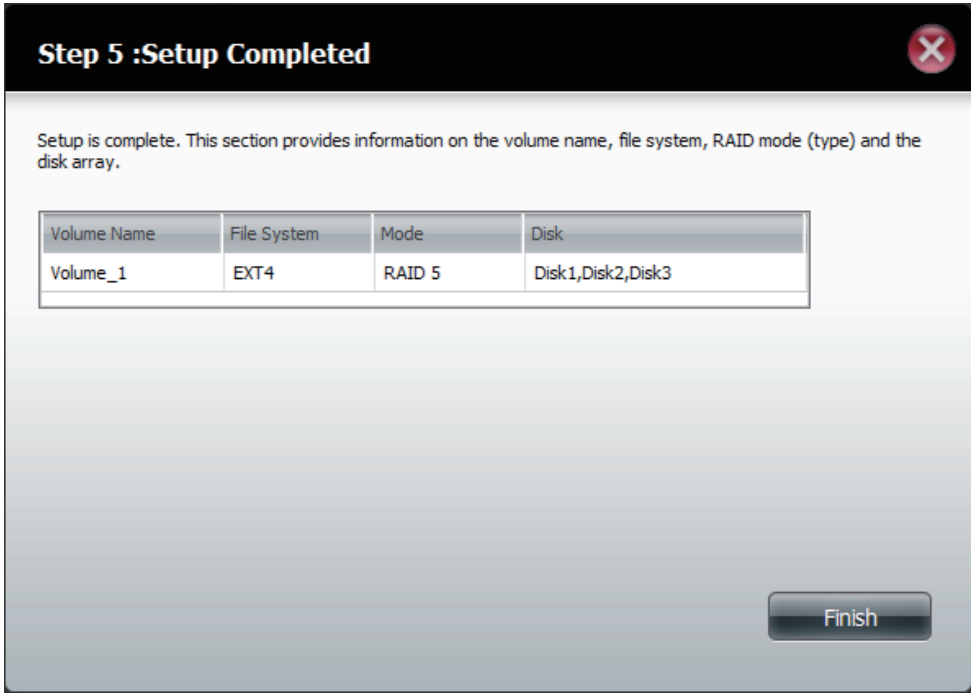
A warning message appears to warn you of data loss

Click **Yes** to continue.

Please Note: The ShareCenter will format the drive(s).



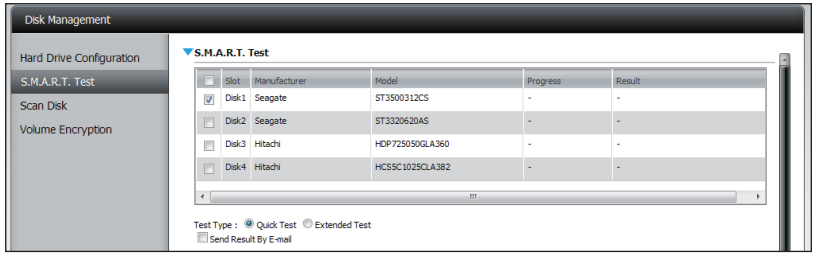
Step 5 - The RAID5 **Format** is complete. Click **Finish** to exit.



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 (refer to page 102).

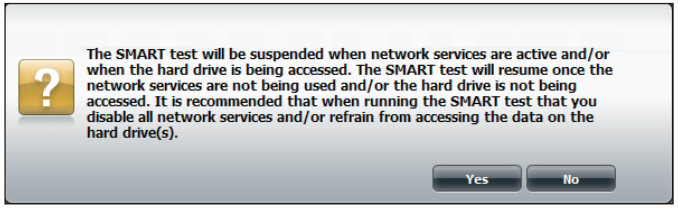


The Quick Test usually takes less than 10 minutes. This test will check the electrical, mechanical, and read performance of the hard drive. The results are displayed as Passed/Failed on the web UI and can also be sent as an e-mail alert.

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

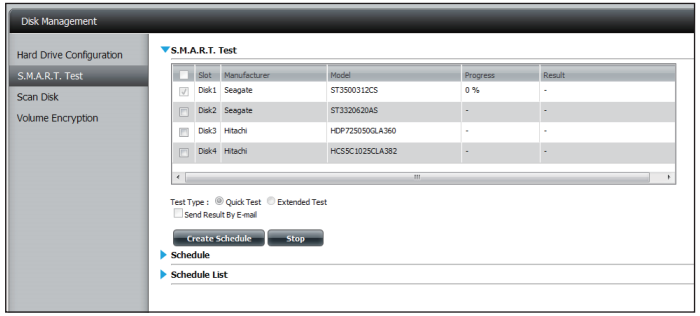
A warning message will prompt you to stop all services and network activity.

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

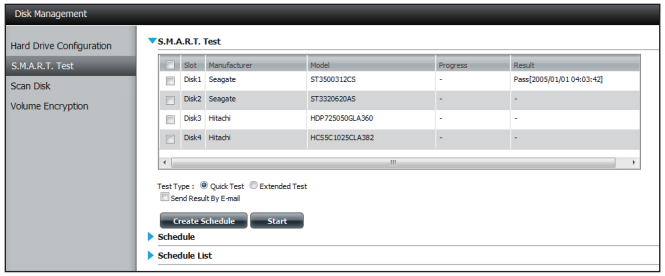


The test will run and a percentage completed will display under the Progress Tab.

The Start button will change to a Stop button.



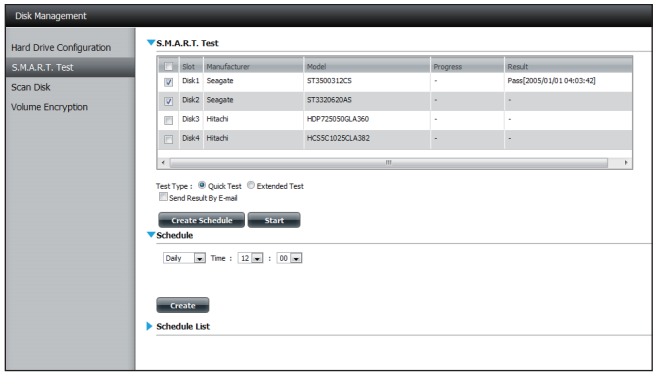
When the test is complete, the results will be displayed in the **Result** column.



Creating a Schedule

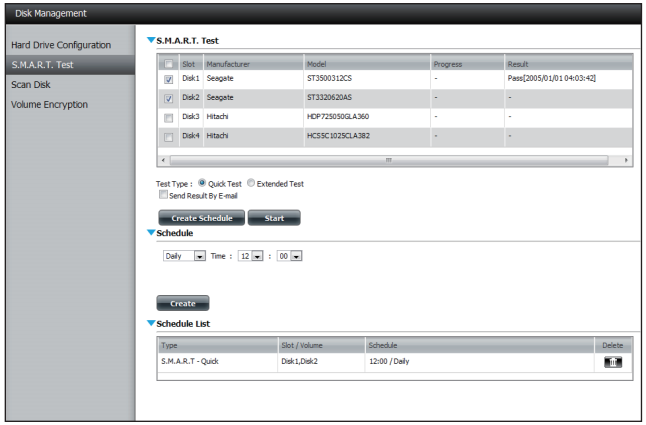
To create a schedule, select the disks/volumes to run the test on. Under Schedule, select the period (Daily/Weekly/Monthly) and then select the time from the drop-down menu.

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.

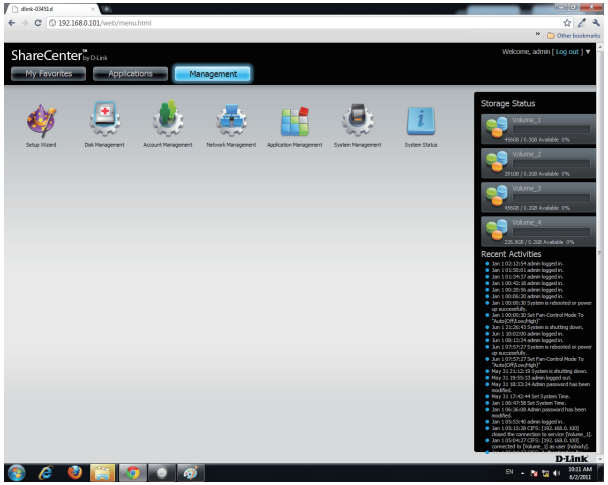
To delete a schedule, click on the **Trash Can**.



Scan Disk

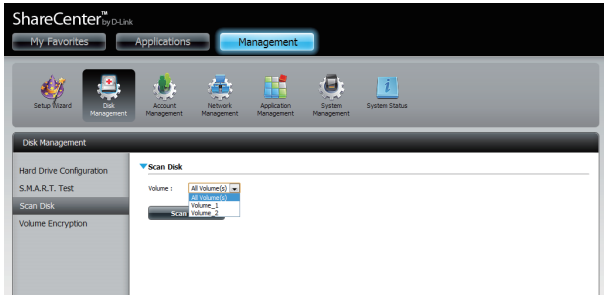
Scan Disk provides a method to test the disk's file system on your ShareCenter. Scan Disk scans your disks file system for errors and/or corruption.

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



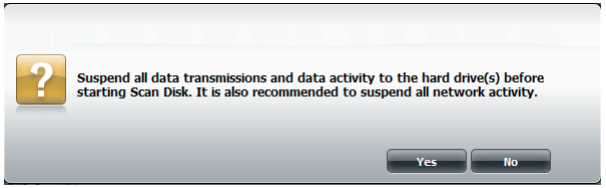
Select the volume from the drop-down list you wish to scan.

Click **Scan Disk**



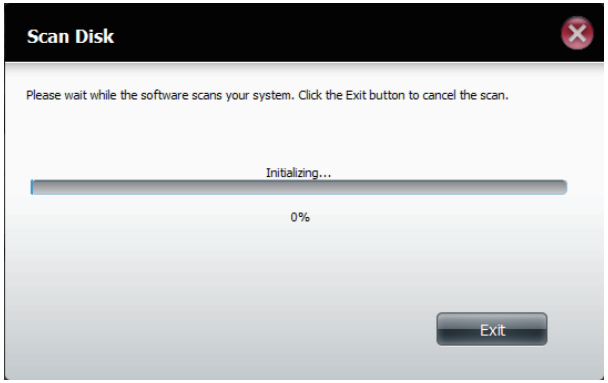
A warning message will prompt you to stop running all services (hard drive and network activity).

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



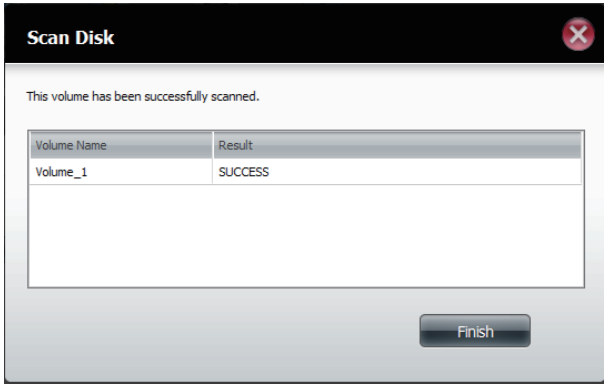
The DNS-345 will initialize the volume(s) and begin scanning.

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.

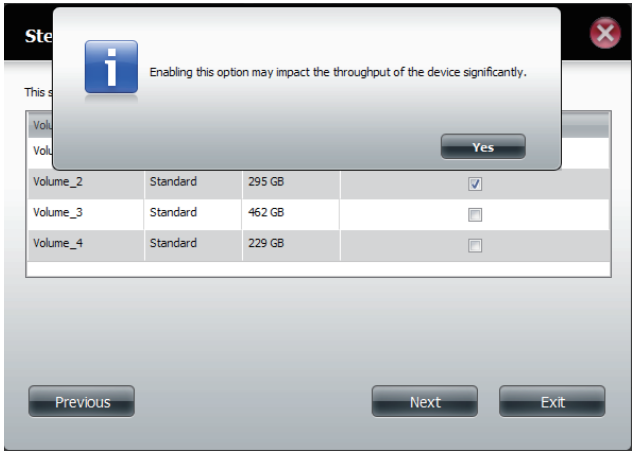


Volume Encryption

Volume Encryption begins at the disk configuration level right after you finished selecting your RAID option. Below are the steps needed to complete Volume Encryption.

Under **Hard Drive Configuration**, select the volume you wish to encrypt. A warning message will appear noting that enabling this option may impact the performance of the device.

Click **Yes** to continue.



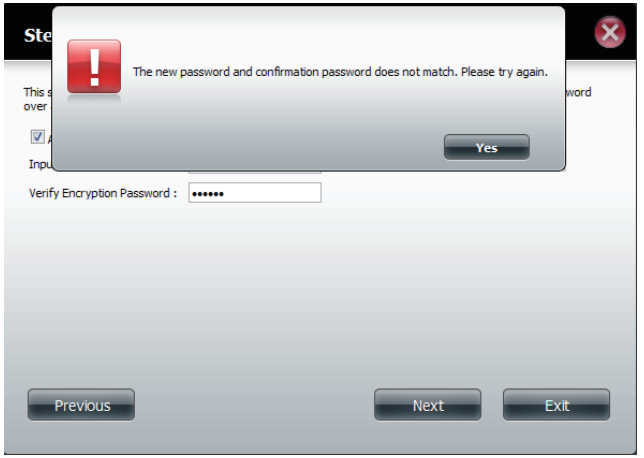
Next, you will be prompted to configure the drive. Select **Auto Mount** if you wish to mount the drive(s) automatically without entering a password every time you reboot the DNS-345. If you do not check the Auto Mount box, you will have to manually mount the drive(s) by clicking the **Mount** button in the main menu of the Volume Encryption table and enter the encryption password after every reboot.

Enter the encryption password, enter it again to confirm and then click **Next** to continue.

Note: Once you enable volume encryption, throughput will be much slower.

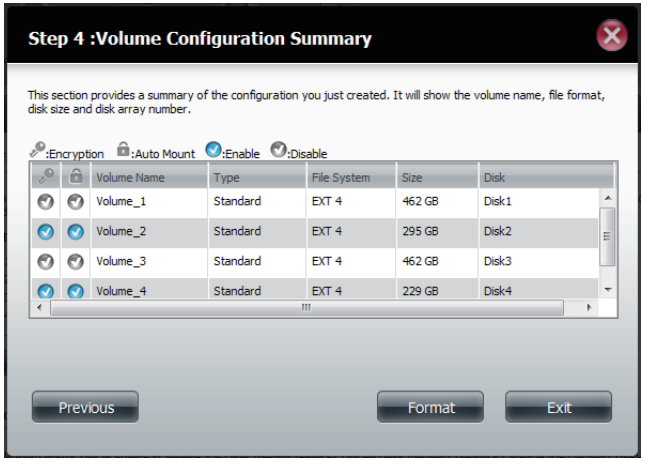
If the passwords do not match then a message will appear.

Click **Yes** to re-enter the matching passwords.



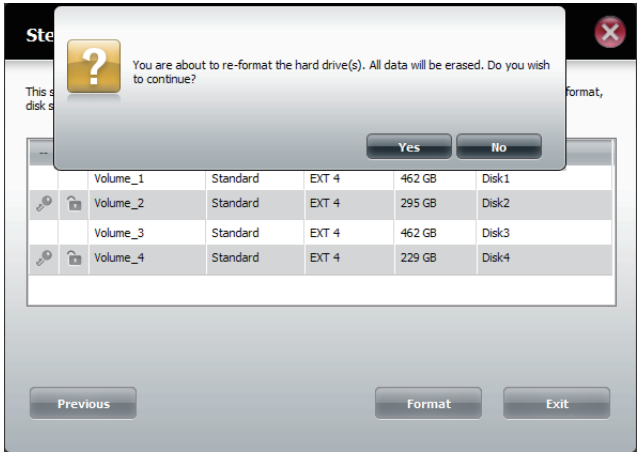
The Volume Configuration Summary shows which volumes are encrypted and which ones are not.

Click **Format** to start the formatting process.

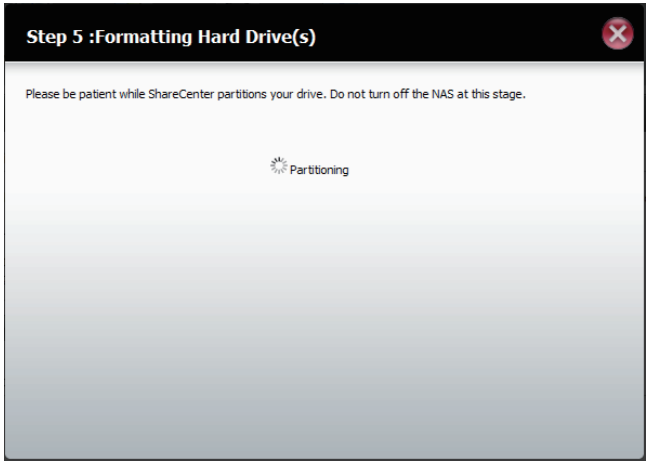


A message will appear asking you to confirm your hard drive selection for formatting.

Click **Yes** to start the formatting process.

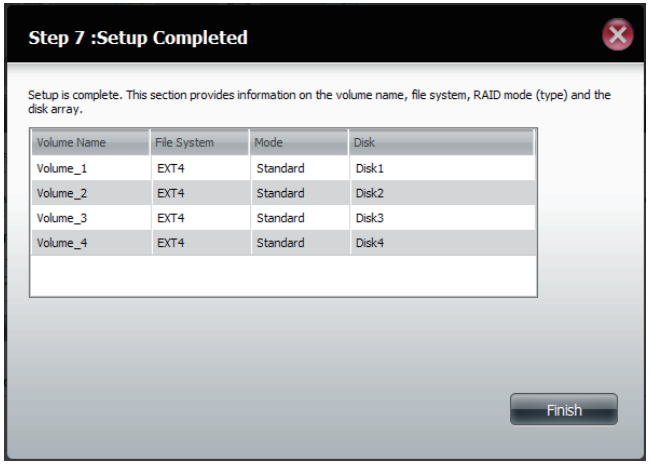


The partitioning and formatting process will begin.

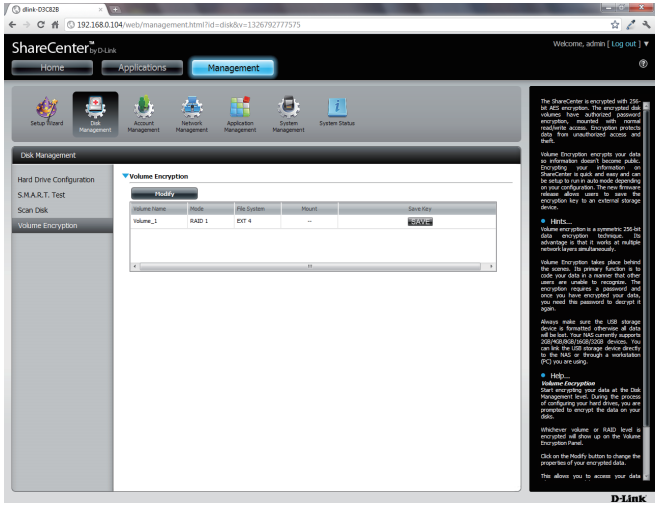


When formatting is complete, a table displaying the volumes formatted, partitioned, and encrypted will appear.

Click **Finish** to close this window.

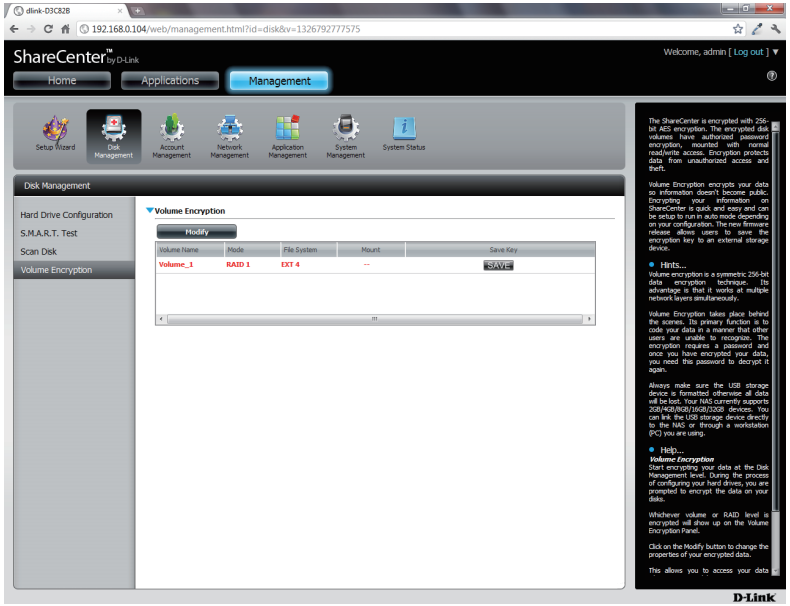


Go to **Disk Management** > **Volume Encryption** to see a list of encrypted volumes.

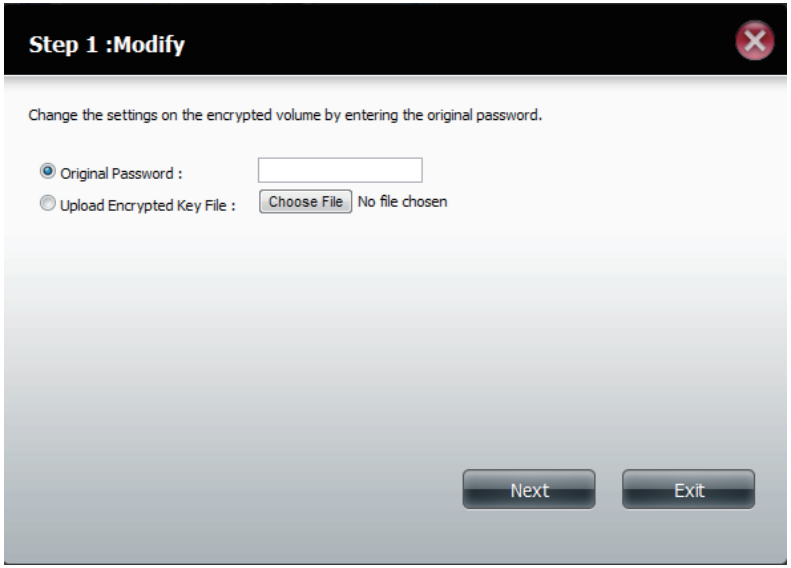


Select the volume(s) you wish to modify. Your selection(s) will turn red.

Click **Modify**.

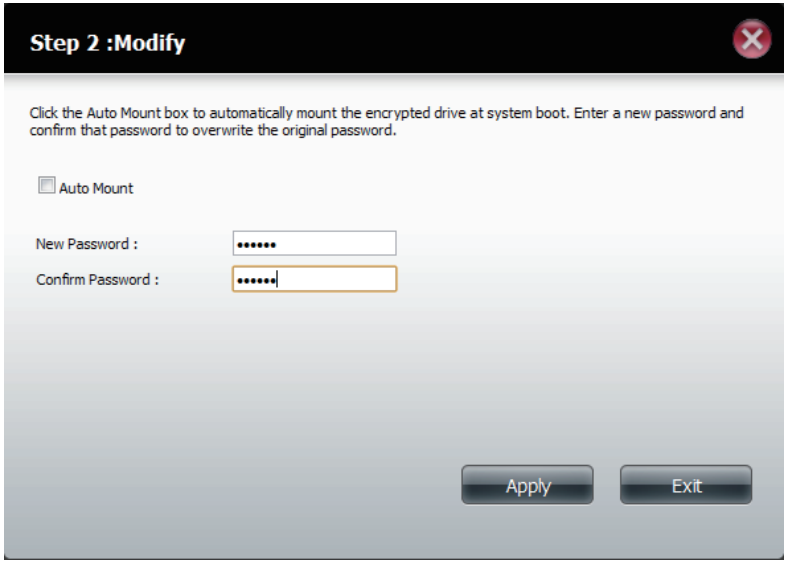


Enter the original password into the field provided or click **Upload Encrypted Key File**. Click **Next** to continue.



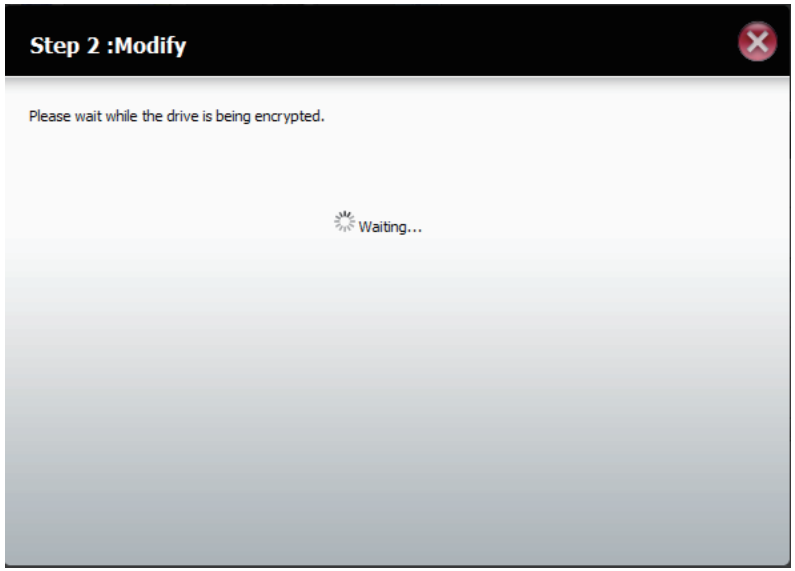
You have the option to enable **Auto Mount** and enter a new password. If you choose not to enable **Auto Mount** you can leave this field blank.

Click **Apply** to continue.

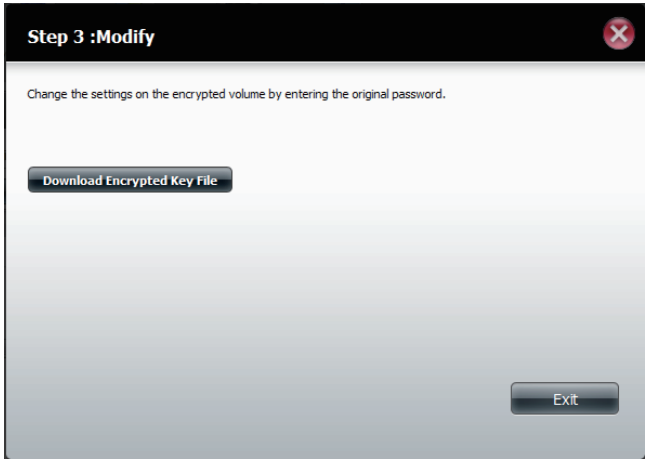


The volumes will be partitioned and formatted.

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



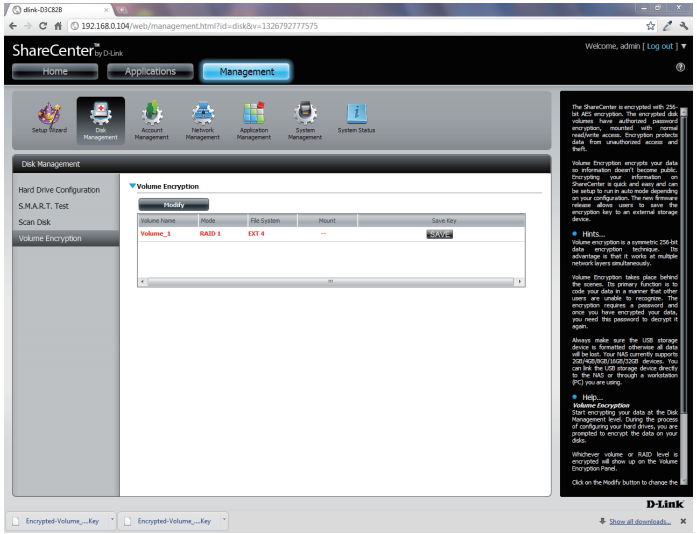
Click the **Exit** button to complete the configuration.



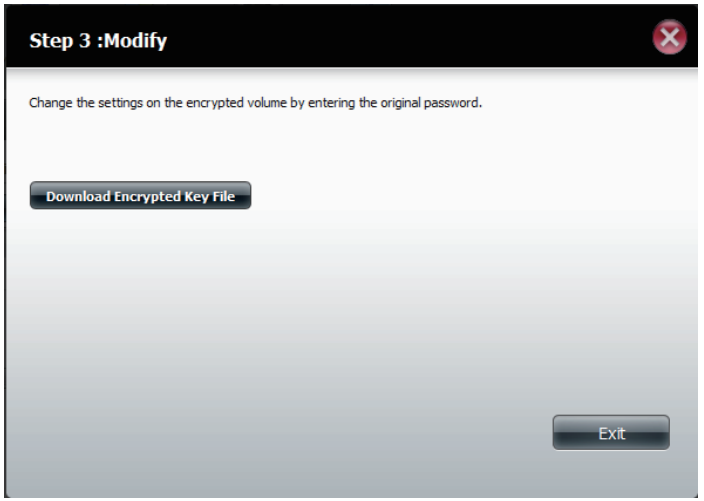
Saving the Encryption Key

There are two ways to save the encryption key. One method is to click the **Save** button in the main menu of the Volume Encryption table and the other method is to save it during the modifying process.

Click **Save** under the **Save Key** section.



Click **Download Encryption Key File** during the modification process.

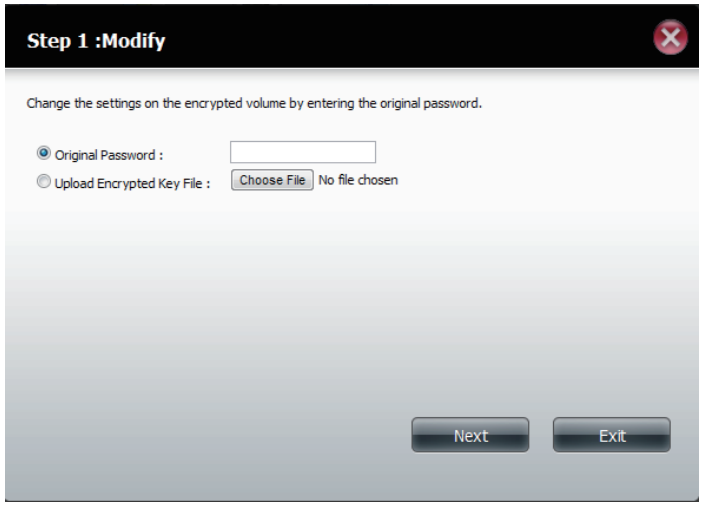


Uploading the Encryption Key

Upload the encryption key during the modification process of the **Volume Encryption**

Select **Upload Encryption Key File** and then click **Choose File**.

The file will be uploaded to the ShareCenter. Click **Next** to continue.



Account Management

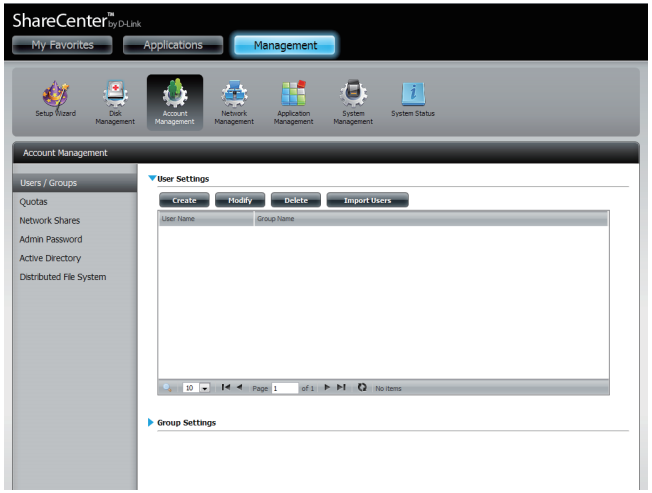
Users / Groups

Creating a Single User

The Users/Groups menu is used to create and manage user and group accounts. Up to 512 users and 64 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.**

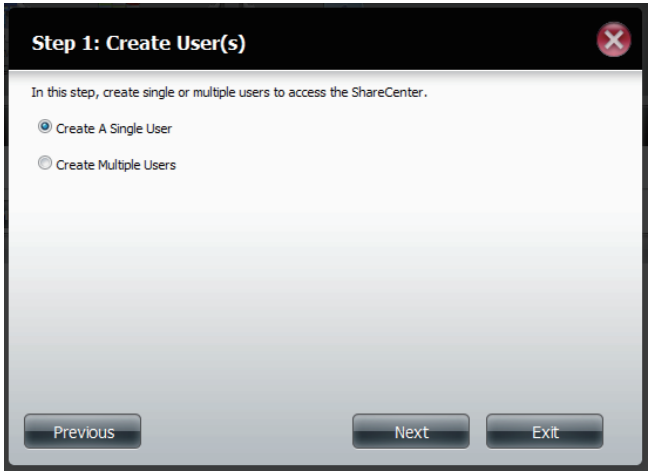
Click **Users/Groups** on the left side and then click **Create.**



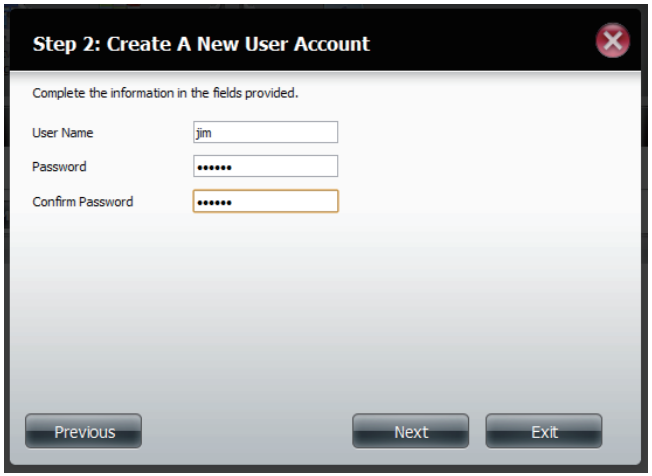
The User Setup Wizard will appear.

Click **Next** to continue.

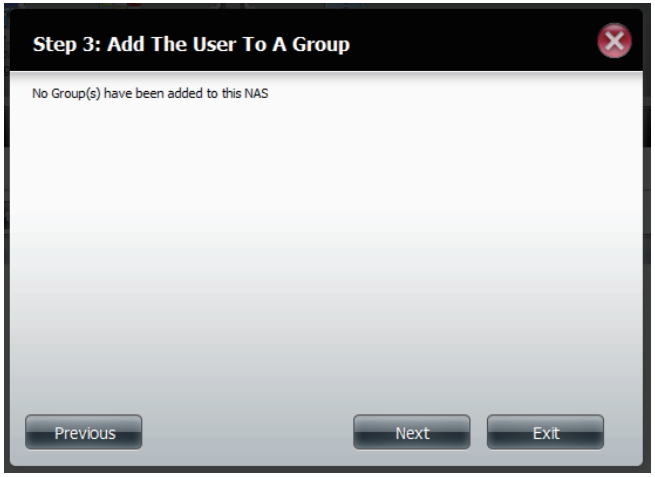
Step 1 - Select **Create a Single User** and then click **Next** to continue.



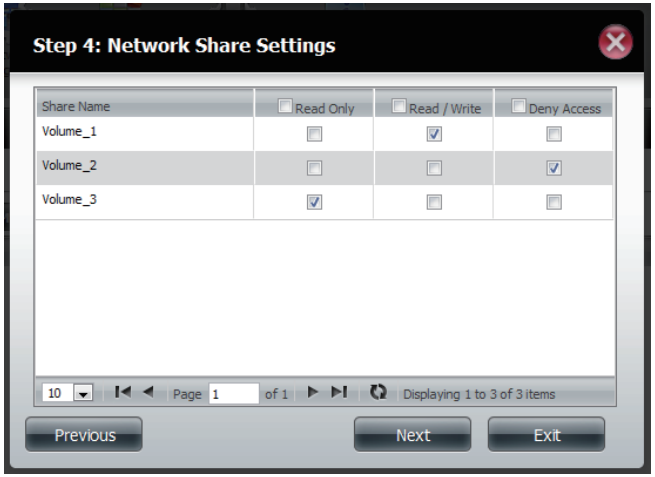
Step 2 - Enter the user name and password for the new user and then click **Next** to continue.



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



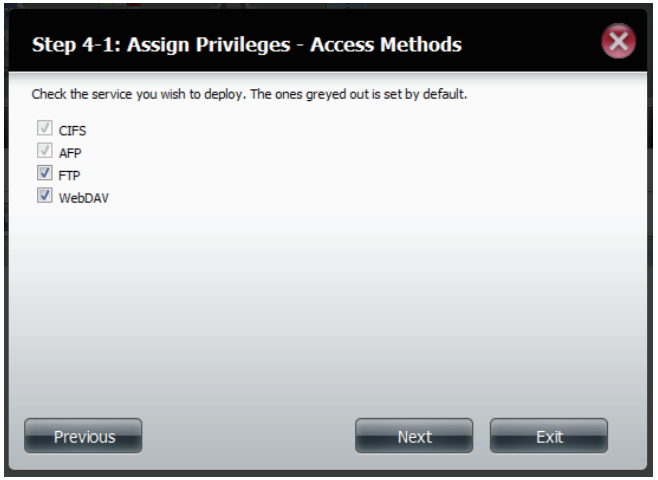
Step 4 - Select the network share settings. Select **Read Only**, **Read/Write**, or **Deny Access**. Click **Next** to continue.



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.
-

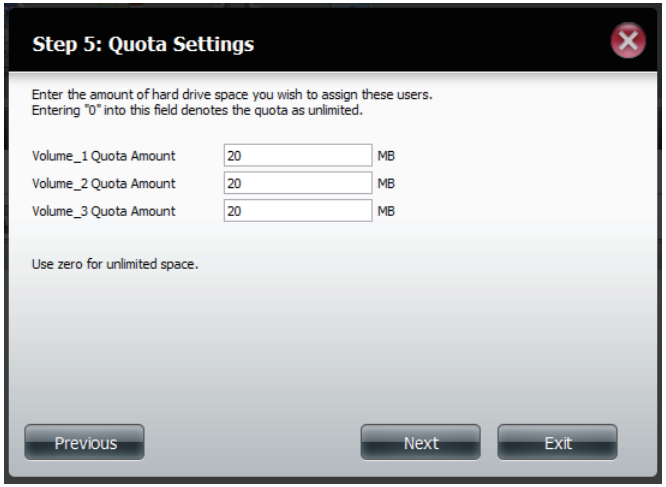
Click **Next** to continue.



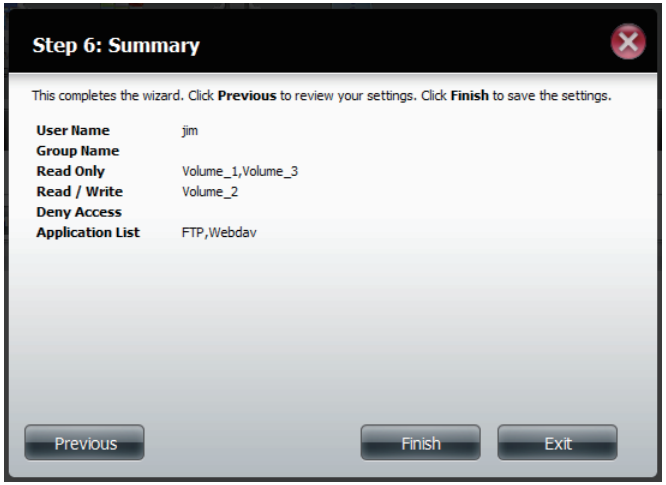
Select the volumes the user can have WebDAV access to and then select whether to give **Read Only** or **Read/Write** rights.

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 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.



Creating Multiple Users

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

Step 2 - Enter the following information:

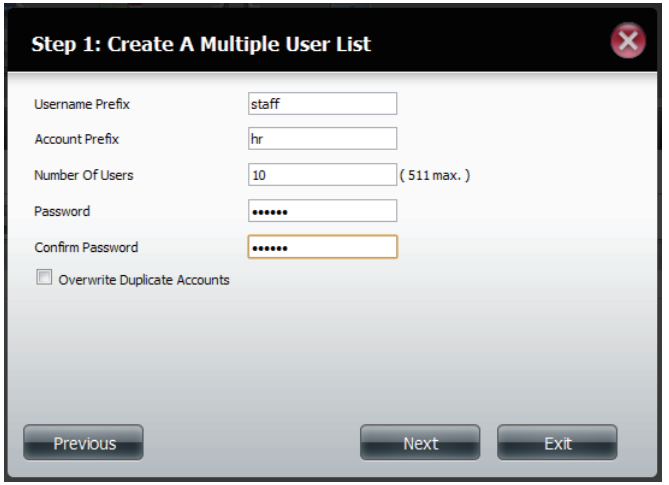
Enter a username.

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.

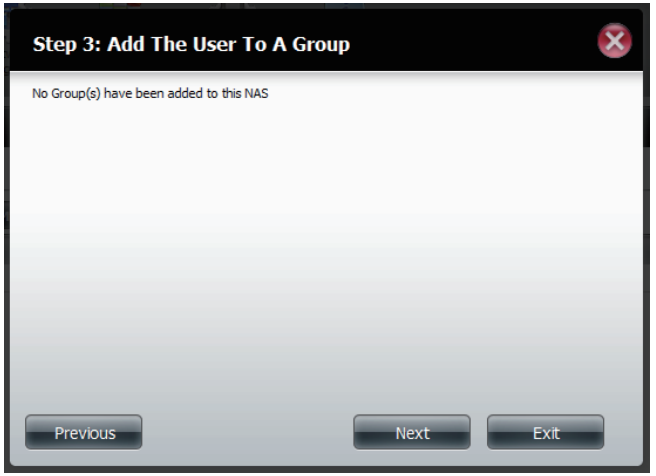
Enter a password and confirm it.

Click **Next** to continue.

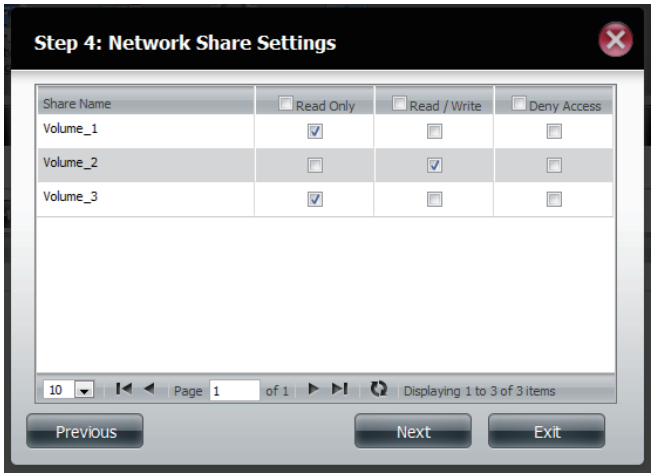


Step 3 - Add the user(s) to a group by clicking the **Group** checkbox.

Click **Next** to continue.



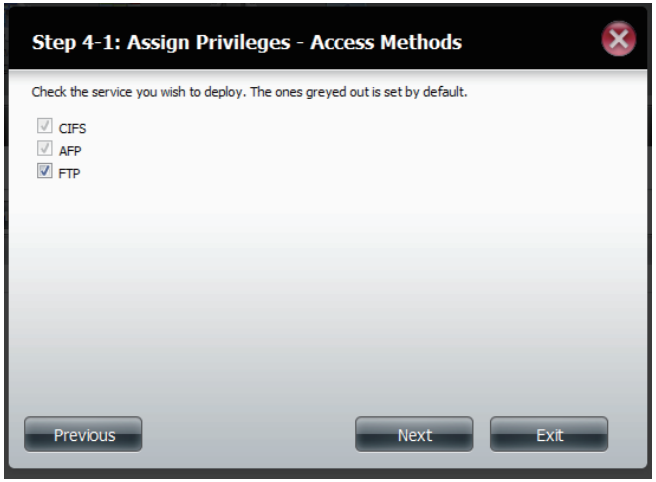
Step 4 - Select the network share settings. Select **Read Only**, **Read/Write**, or **Deny Access**. Click **Next** to continue.



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

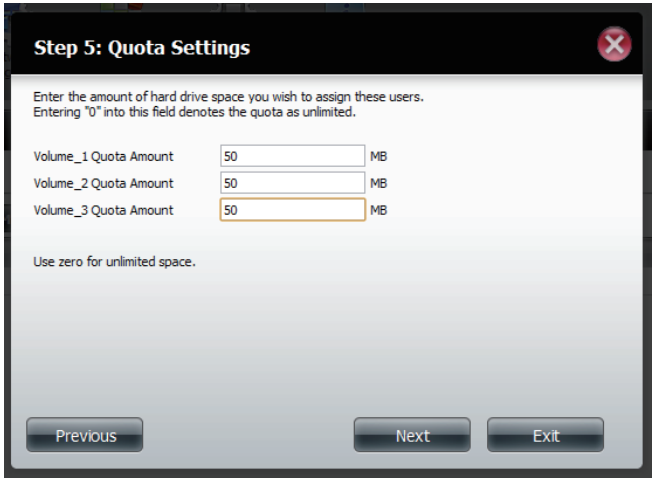
- **CIFS** is short for Common Internet File System.
- **AFP** is short for Apple Filing Protocol.
- **FTP** is short for File Transfer Protocol.

Click **Next** to continue.

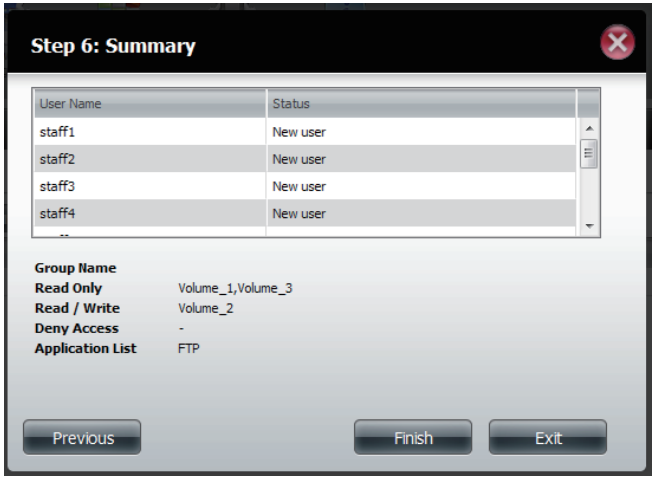


Step 5 - Enter the amount of disk space you wish to assign the user(s) on each volume. Type **0** to provide unlimited disk space to the user(s).

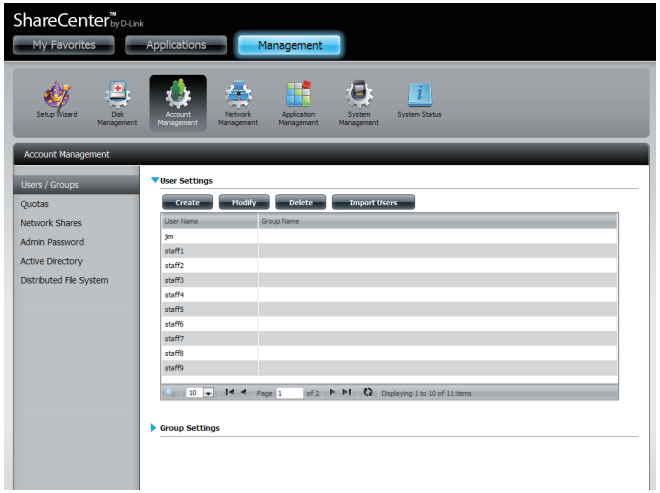
Click **Next** to continue.



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.



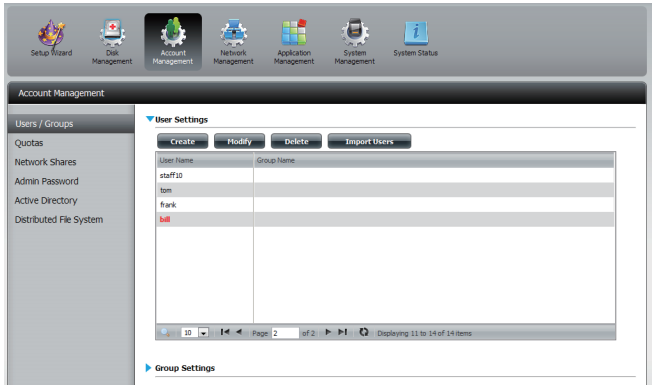
The User Settings window will show a list of the users created.



Modify Users

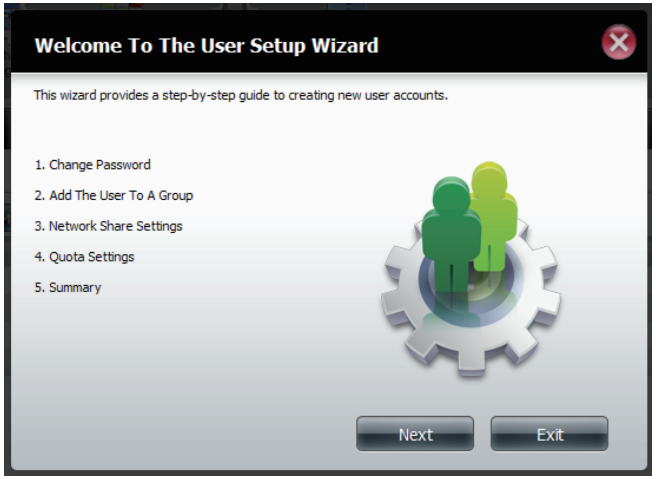
Step 1 - Click the user you wish to modify. The user will be highlighted in red.

Click **Modify** to continue.

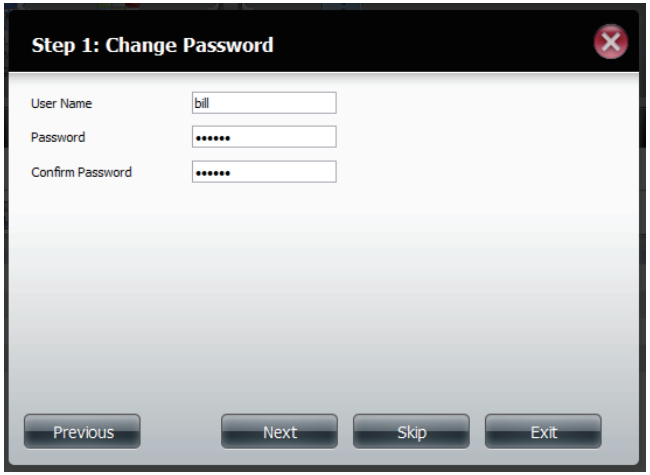


Step 2 - The User Setup Wizard will appear.

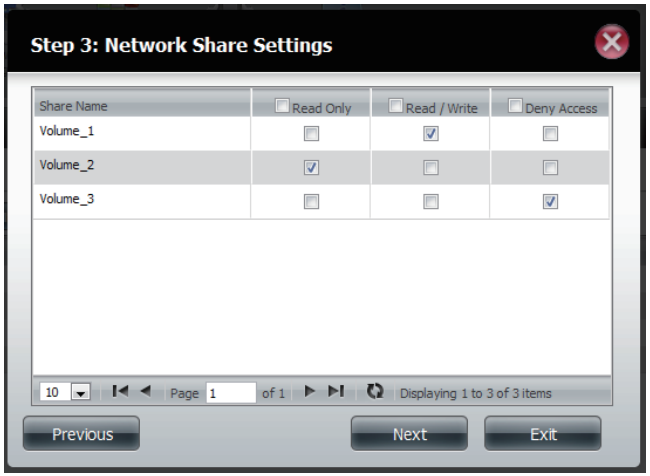
Click **Next** to continue.



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



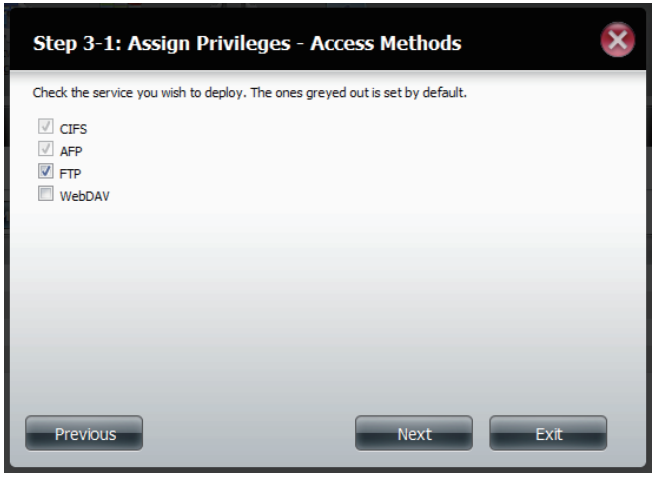
Step 4 - Change the Network Share Settings. Click **Next** to continue.



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

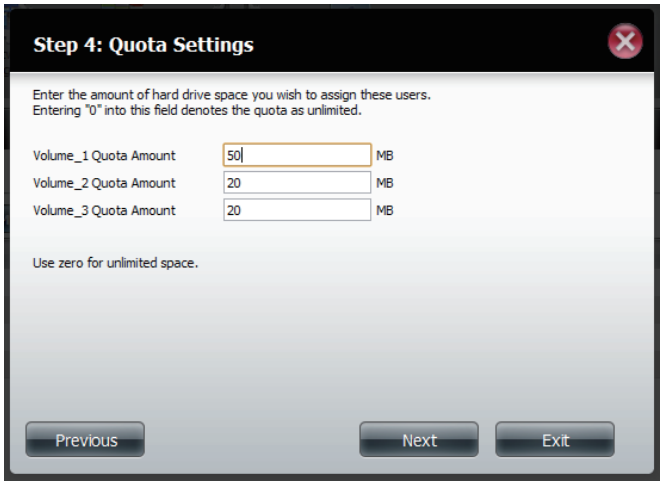
- **CIFS** is short for Common Internet File System.
- **AFP** is short for Apple Filing Protocol.
- **FTP** is short for File Transfer Protocol.
- **WebDAV** is short for Web-based Distribution, Authoring, and Versioning.

Click **Next** to continue.

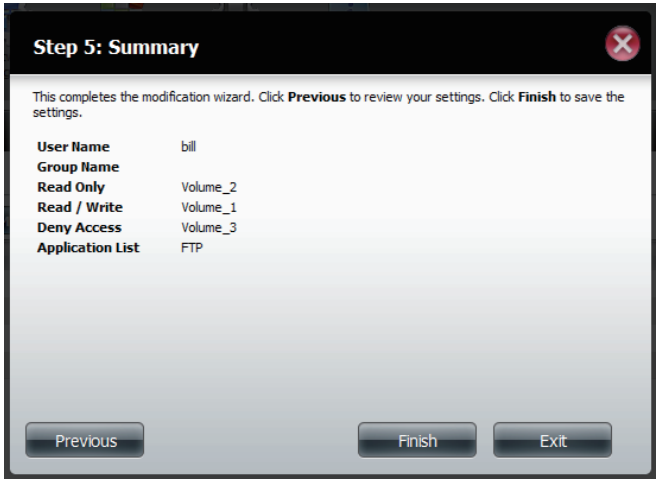


Step 6 - Enter the re-assigned amount of disk space you wish to assign the user on each volume. Type 0 to provide unlimited disk space to the user.

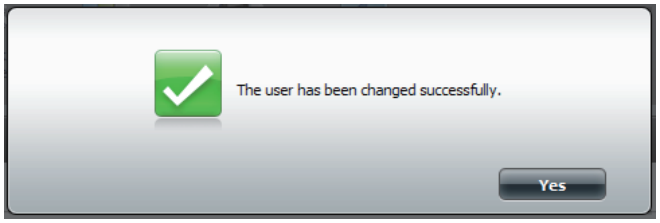
Click **Next** to continue.



Step 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.

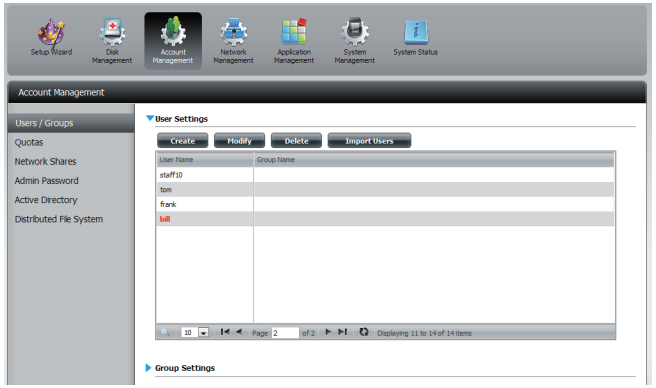


Step 8 - A message will appear stating the user details have been changed successfully. Click **Yes** to exit the wizard.



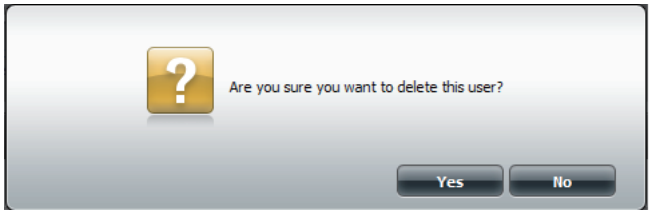
Deleting Users

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



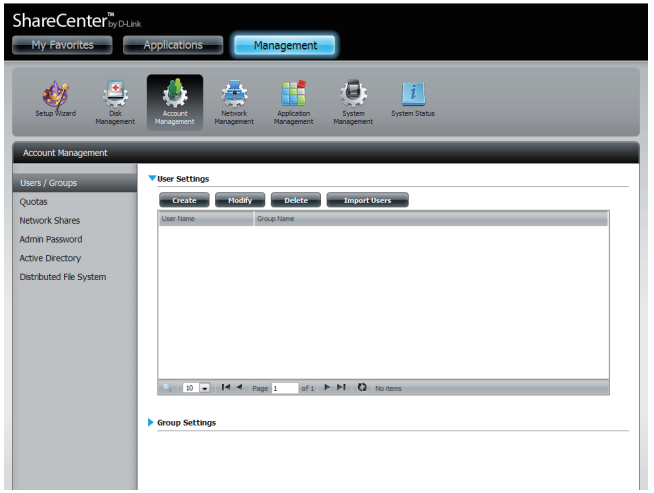
Step 2 - A message will appear prompting you to confirm deleting the user. Click **Yes** to confirm.

The user is now removed from the list.

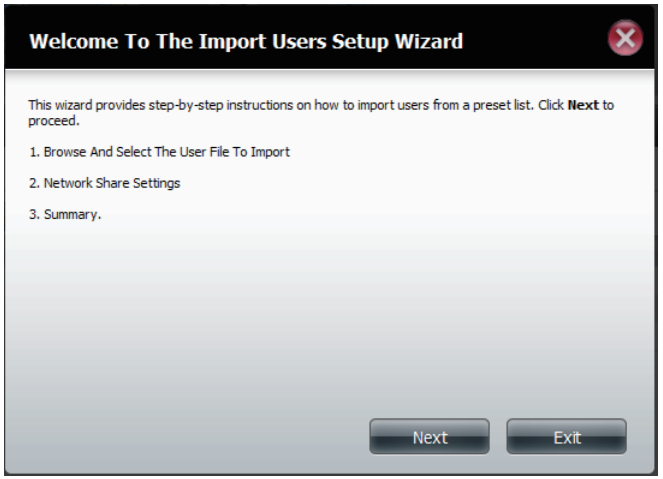


Importing Users

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



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

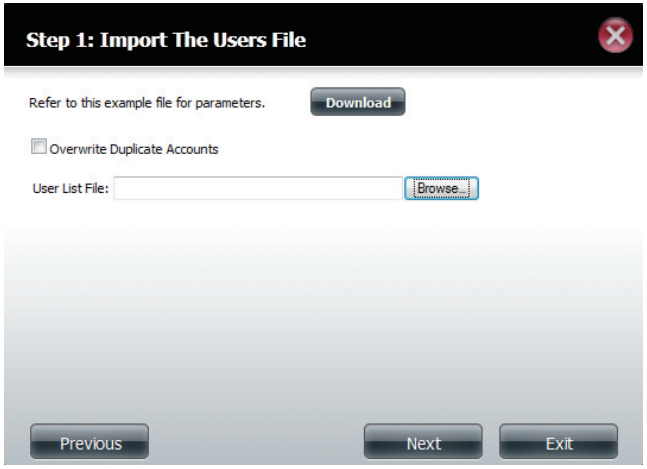


Step 3 - Click **Download** to see a sample file.

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

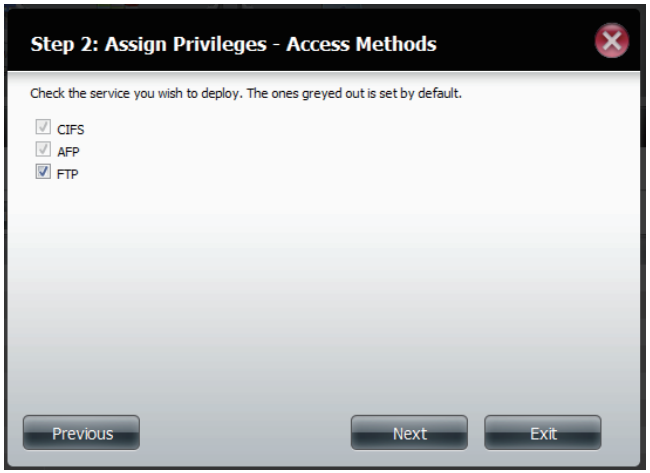
Click **Browse** to select the file you want to import.

Click **Next** to continue



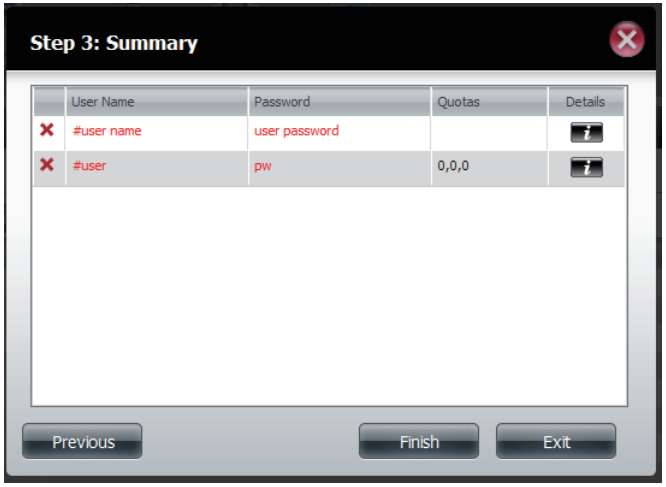
Step 4 - Assign the privileges and access methods.

Click **Next** to continue.



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.

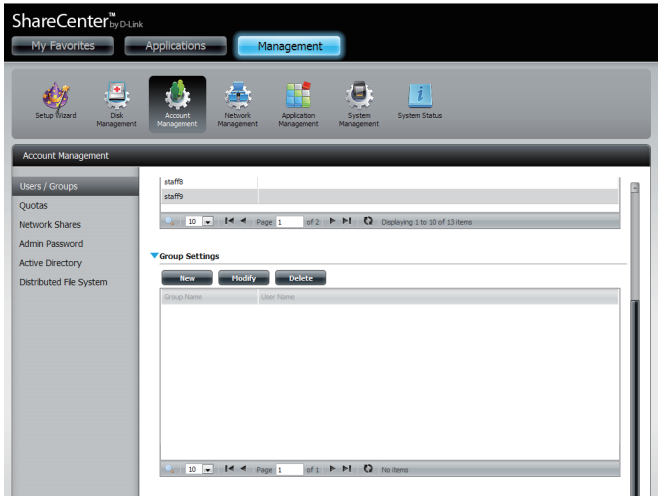
Click **Finish** to close the wizard or go back to change the imported file.



Creating a Group

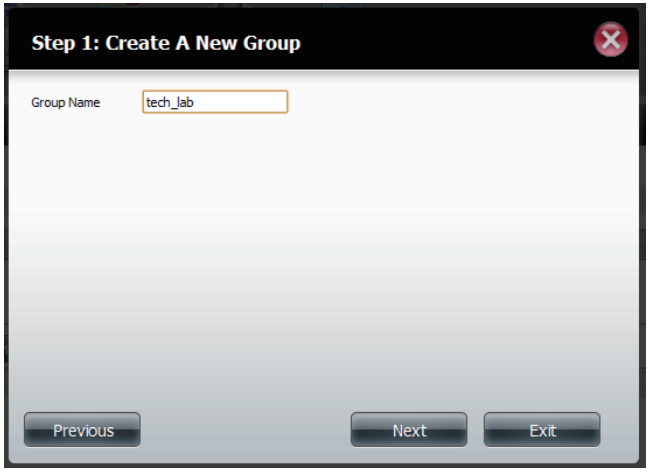
Step 1 - Click **Account Management** > **Users/Groups**.

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

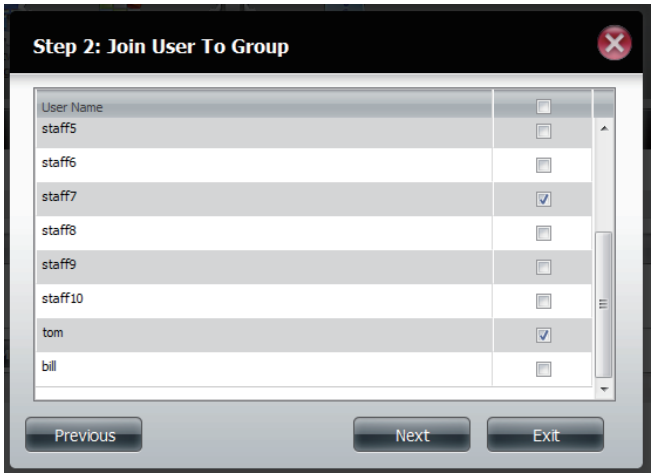


Step 2 - The Group Setup Wizard will now start. Click **Next** to continue.

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

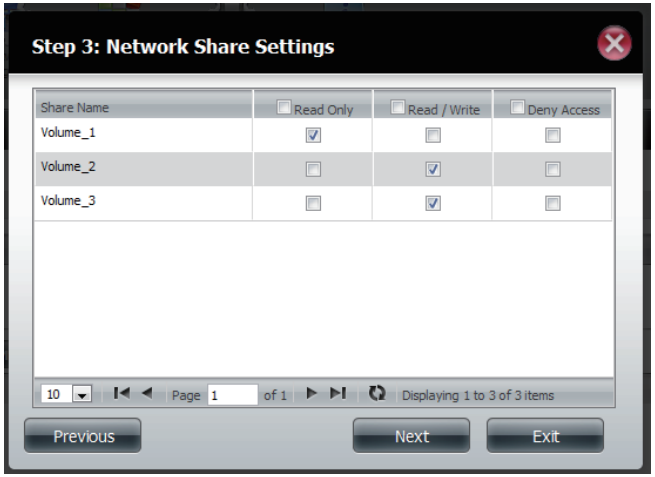


Step 4 - Click the checkbox to select the user(s) you wish to add to the group and then click **Next** to continue.



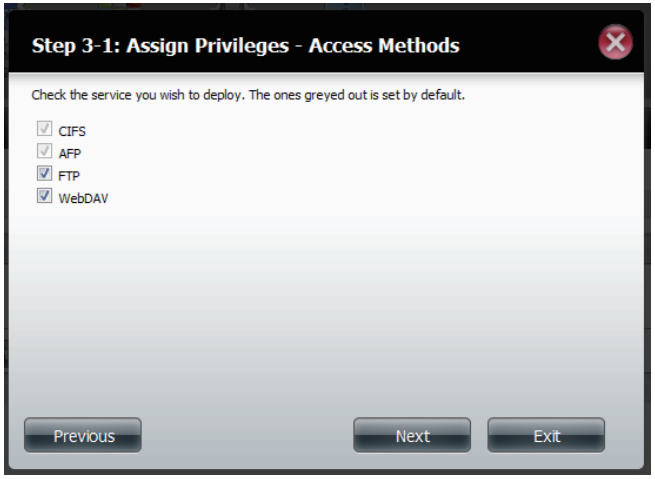
Step 5 - Select the Network Share Settings (read, read/write, deny access) for the corresponding disk volume for the group.

Click **Next** to continue.

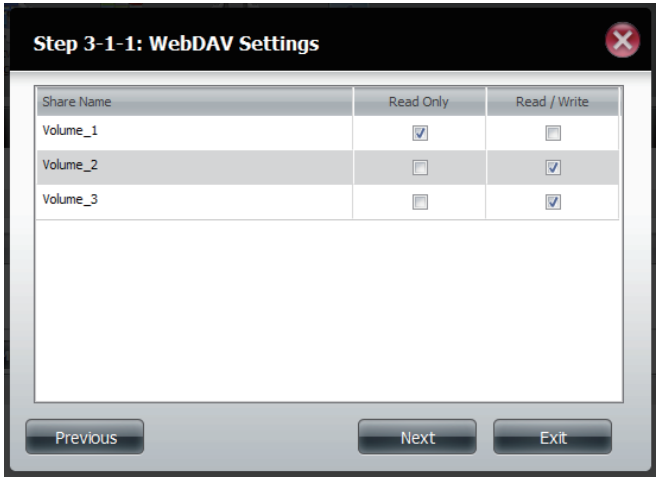


Step 6 - Select the Privileges/Access Methods you want to assign to the group. The greyed out selections are assigned by default.

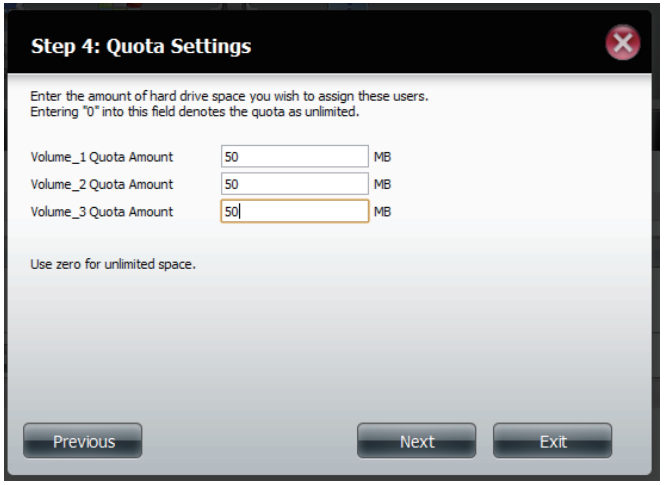
Click **Next** to continue.



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

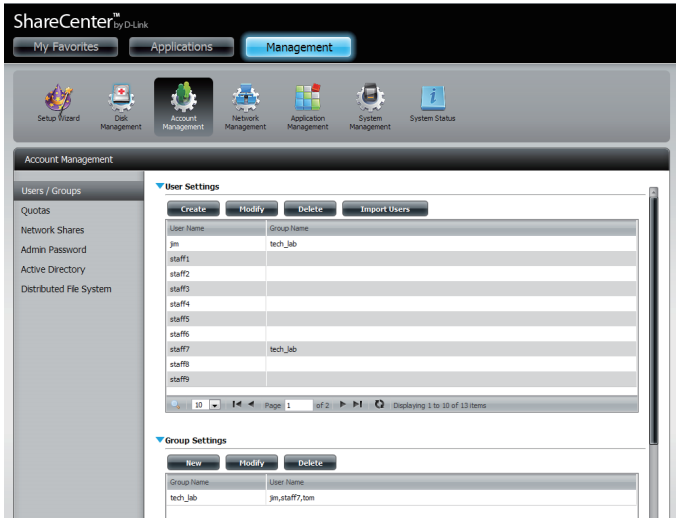


Step 8 - Enter the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group. Click **Next** to continue.



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.

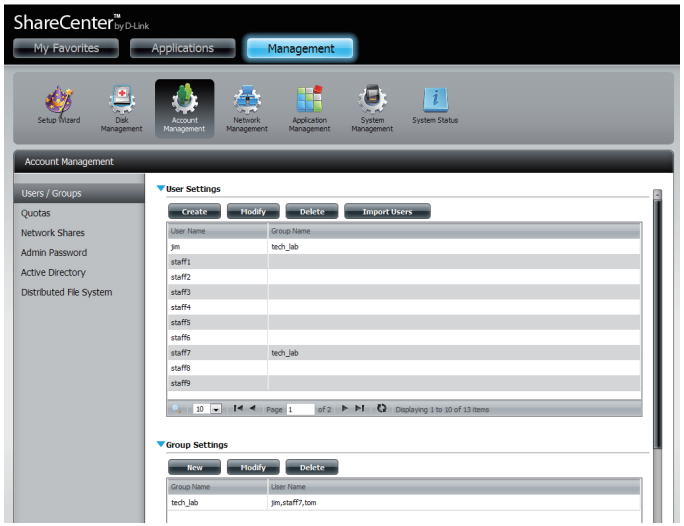
Step 10 - Under Group Settings, a table will display the group you just created.



Modifying a Group

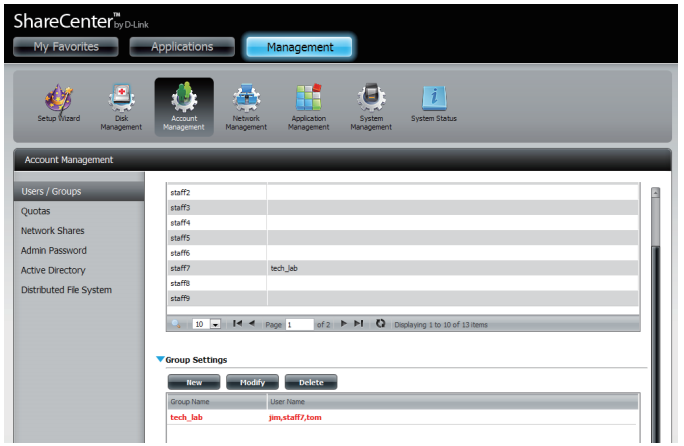
Step 1 - Click **Account Management** > **Users/Groups**.

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



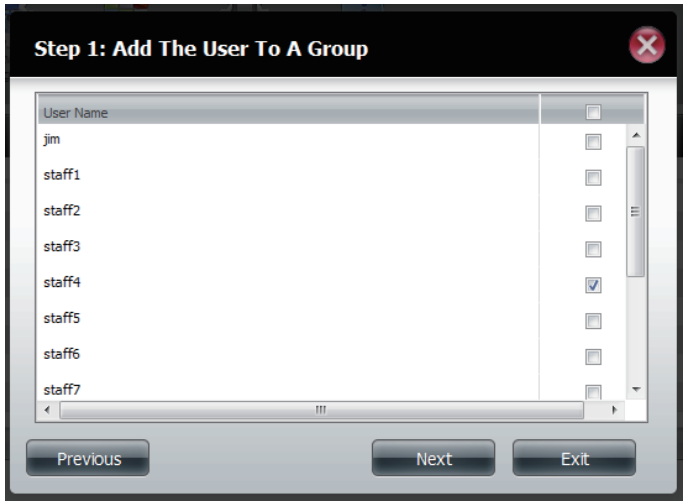
Step 2 - Select the group you want to modify. Your selection will turn red.

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

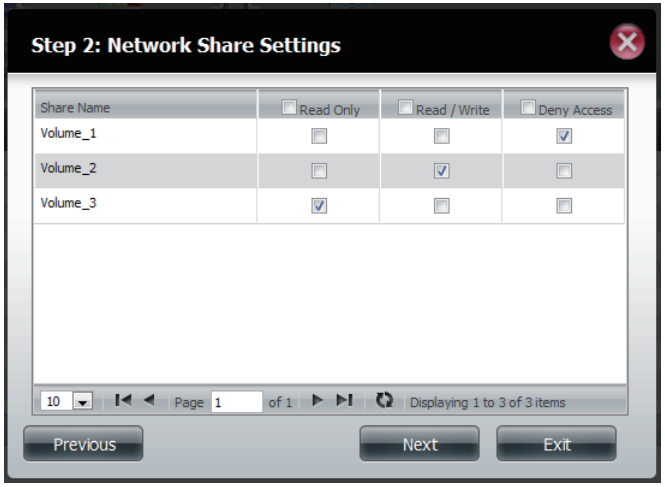


Step 3 - The Group Setup Wizard will now start. Click **Next** to continue.

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

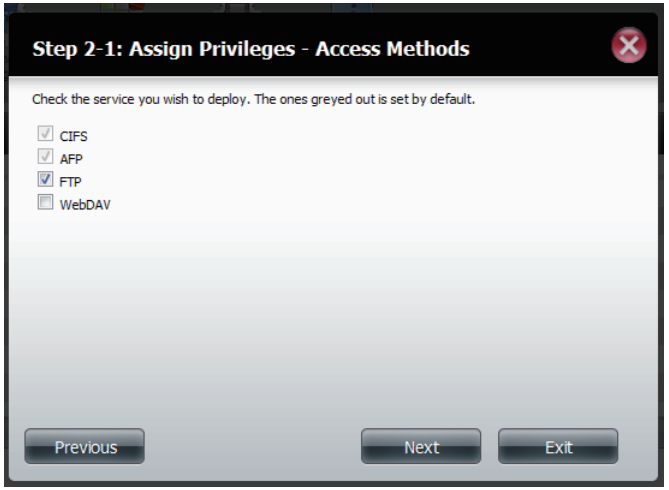


Step 5 - Select the appropriate Network Share Settings (read, read/write, deny access) for the corresponding disk volume for the group. Click **Next** to continue.



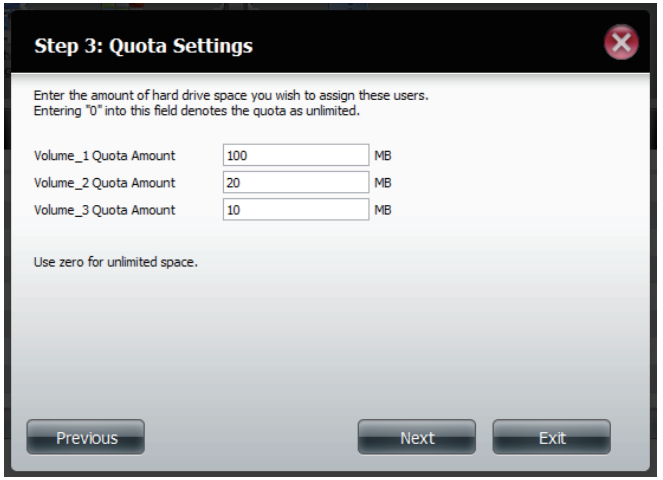
Step 6 - Select the appropriate privileges you want to assign to the group. The greyed out selections are assigned by default and cannot be modified.

Click **Next** to continue.



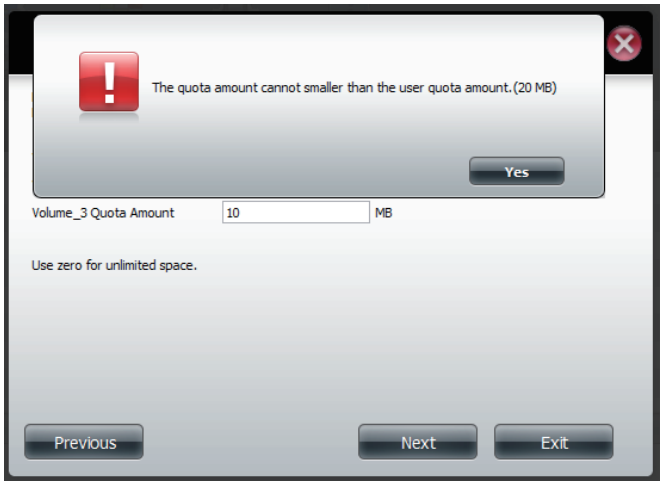
Step 7 - Edit the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group.

Click **Next** to continue.



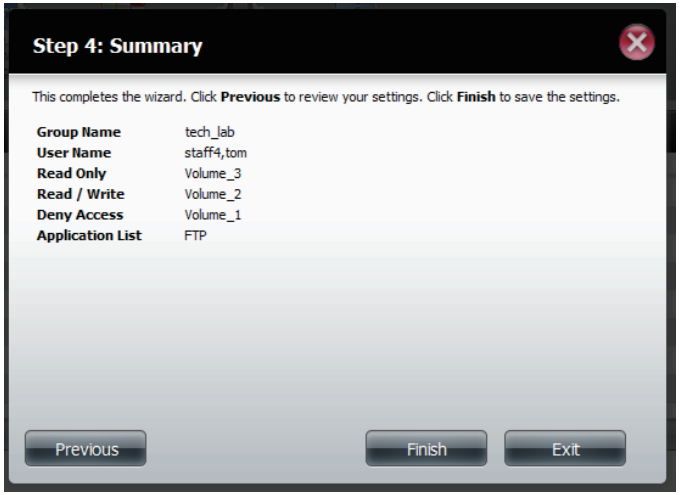
Step 8 - When editing the quota, make sure the size is not smaller than the user quota on his/her account.

Click **Yes** to change the quota.



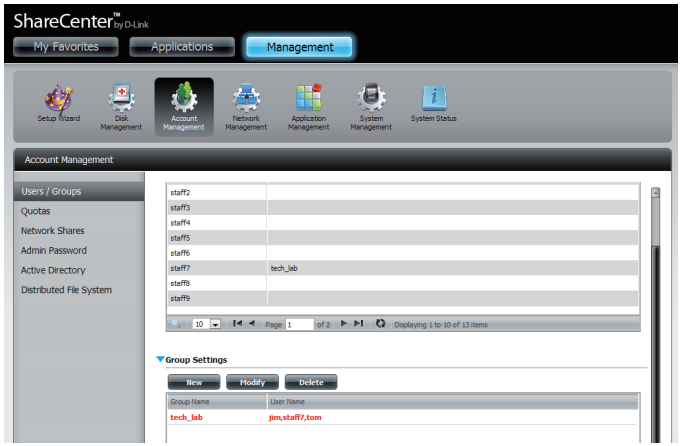
Step 9 - The wizard is now complete and will display a summary of the group you edited.

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

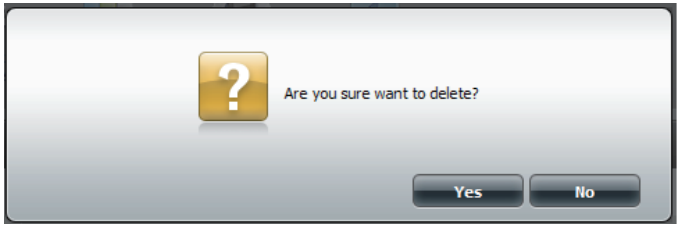


Deleting a Group

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



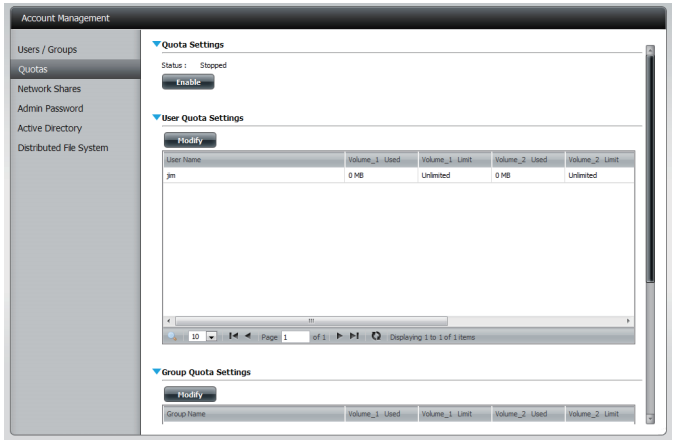
Step 2 - A warning message will appear asking you to verify if you want to delete the Group. Click **Yes** to delete the Group or **No** to cancel your decision.



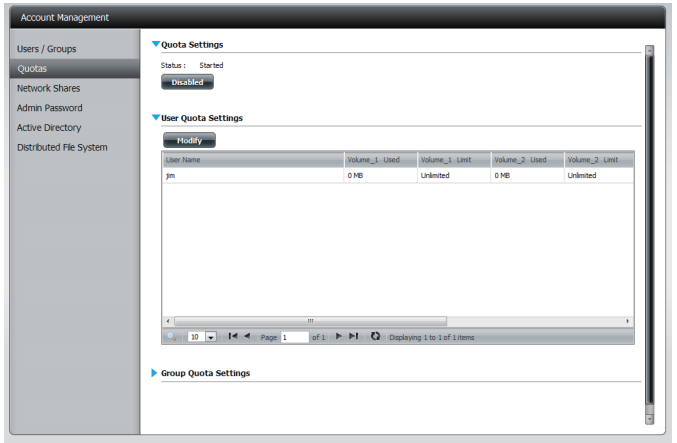
Quotas

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.

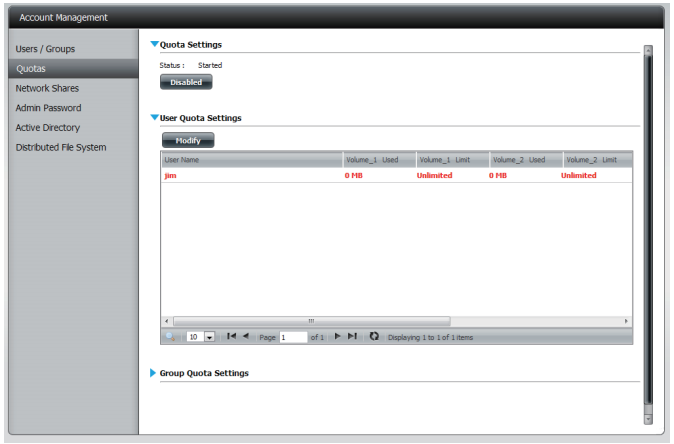
Click **Enable** to activate Quota Settings. The status will now display 'Started' notifying you that the Quota Settings are enabled.



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

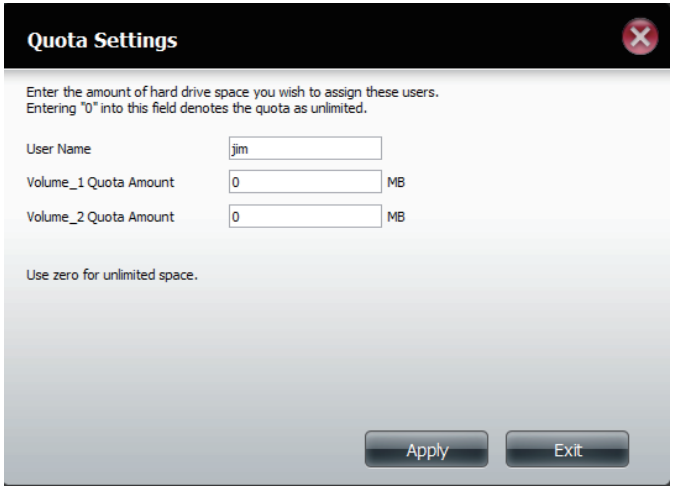


Select the User you want to modify. Your selection will turn red. Click **Modify** to change the user's settings.

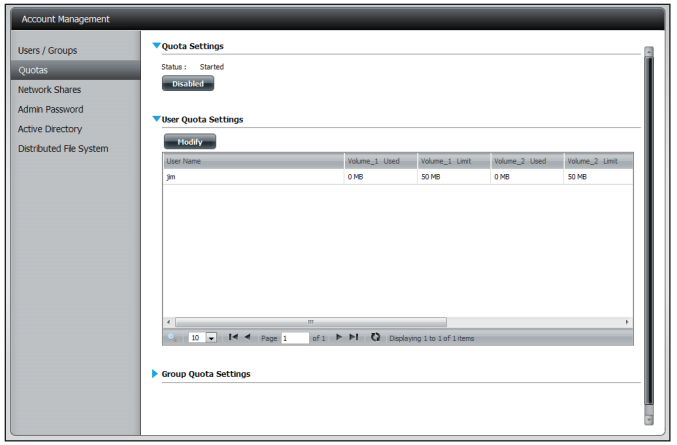


The Quota Settings configuration box will display the user account you want to modify. Enter a new quota amount for each volume.

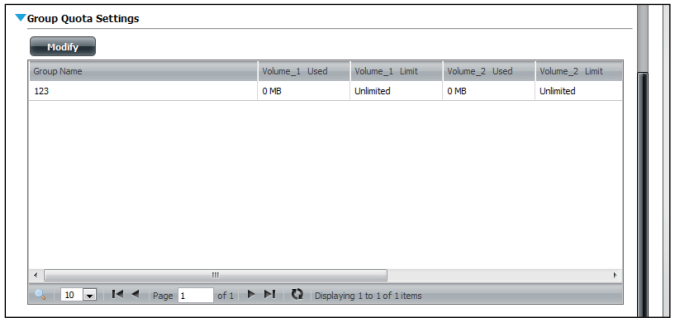
Click **Apply** to confirm your settings.



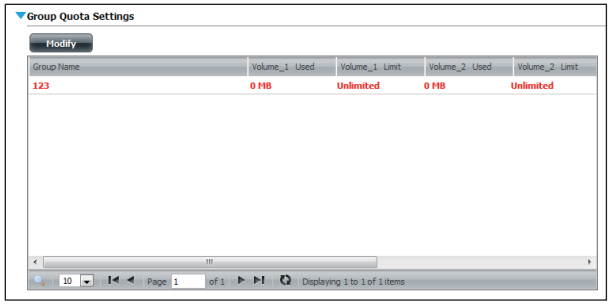
The modified quota settings will be displayed in the table.



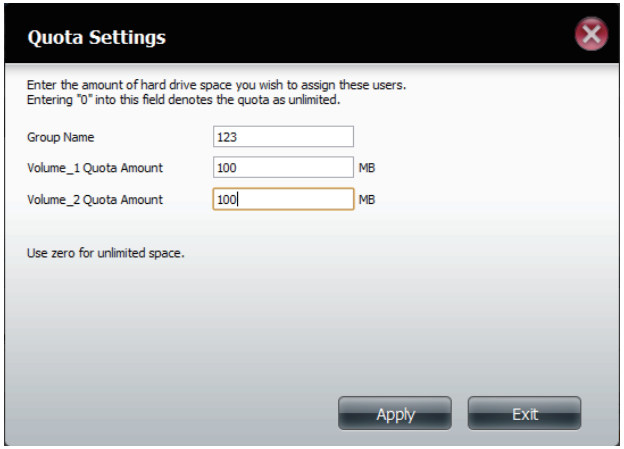
For Group Quota Settings, click the blue drop-down arrow next to Group Quota Settings to view the group quota table.



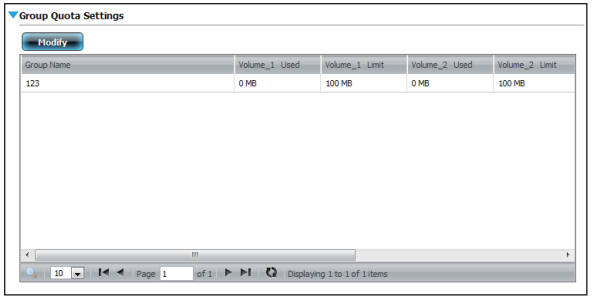
Select the group you want to modify. Your selection will turn red. Click **Modify**.



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.



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.

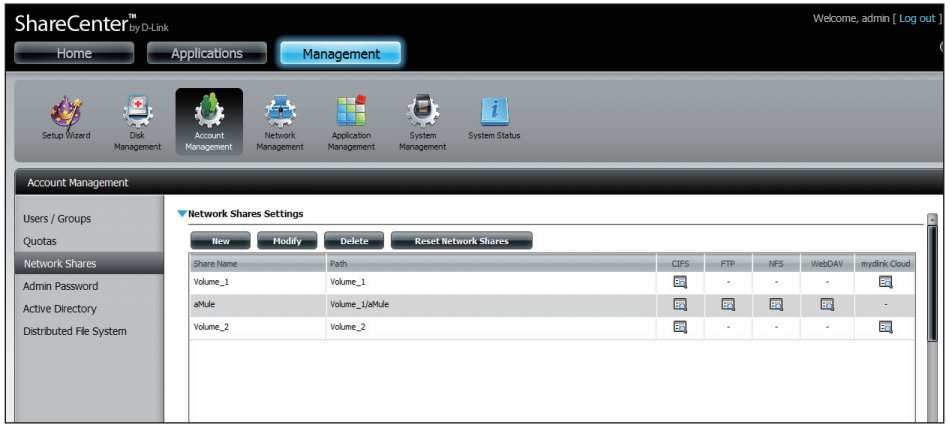
Network Share/ISO Mount Shares: The Network Shares Settings window allows the user to add, modify, and remove both new and existing Network Share and ISO Mount Share Settings.

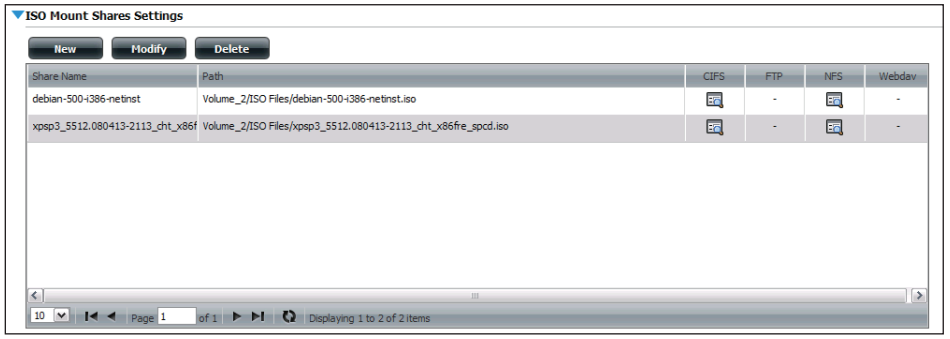
To add a rule click on the **New** button. To modify an existing rule click on the **Modify** button. To remove a rule click on the **Delete** button.

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.





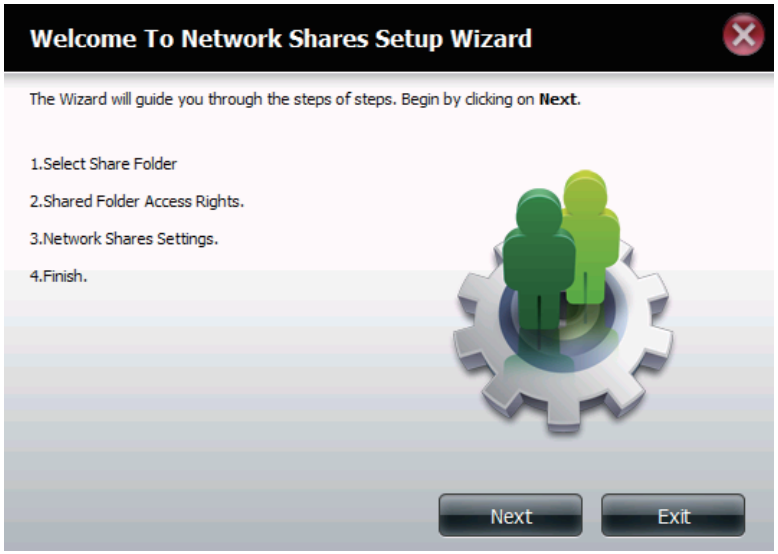
Add/Modify Network Shares Wizard

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.

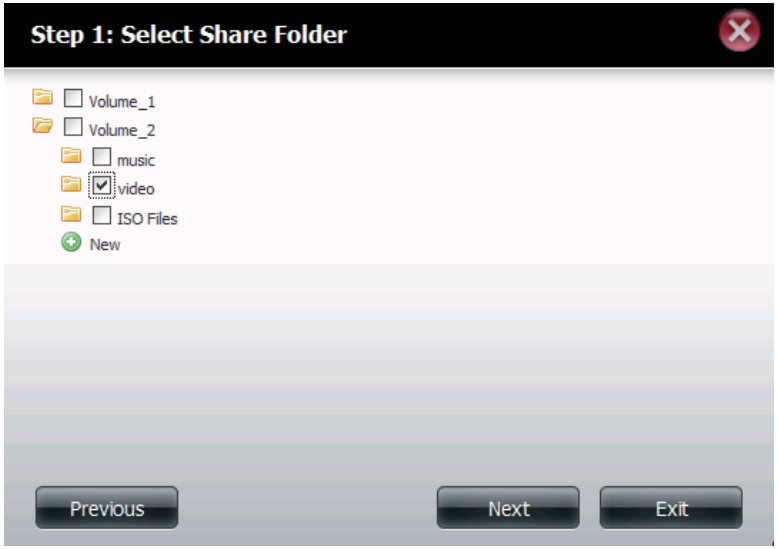
In this wizard the user will be able to:
1) Select share folders.
2) Configure shared folder access rights.
3) Configure network access settings.
4) View a summary of the configuration before completing.

Click **Next** to continue.



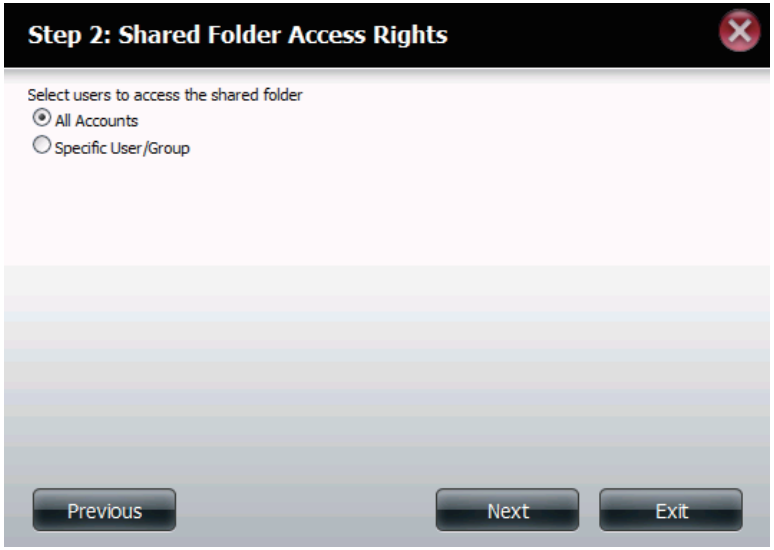
Step 2 - Select the Share Folder from one of the volumes.

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.



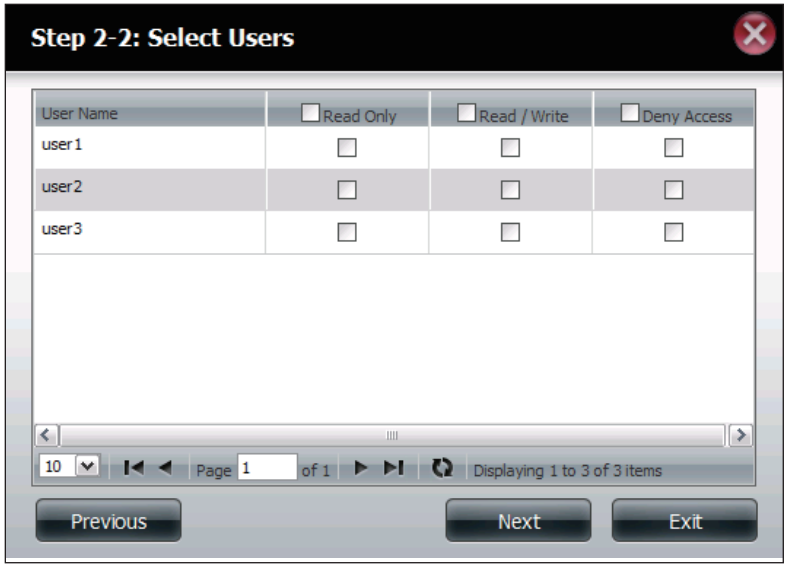
Step 4 - Select the appropriate access rights for the share. Options to select from are Read Only, Read/Write, and Deny Access.

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

Click **Next** to continue.

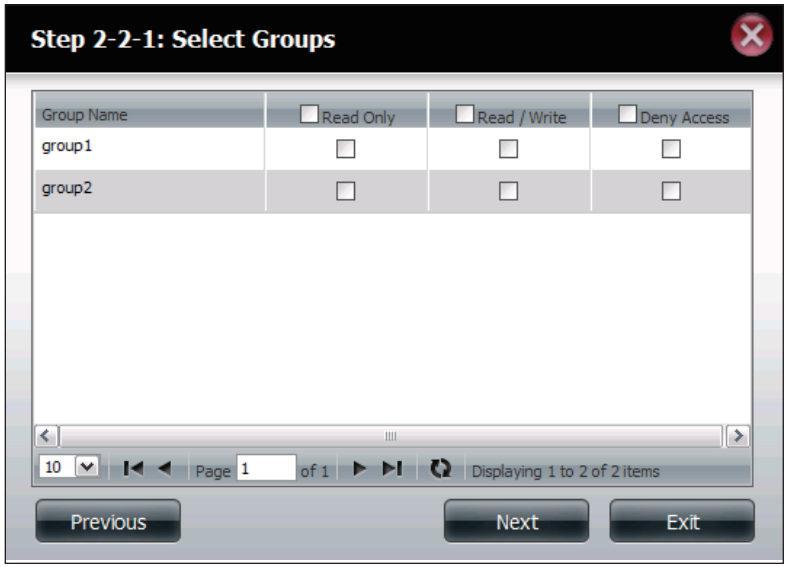
Step 5 - If you selected **Specific User/Group** in Step 3, then this step allows you to set the access rights for each User configured on the ShareCenter.

Click **Next** to continue.



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.



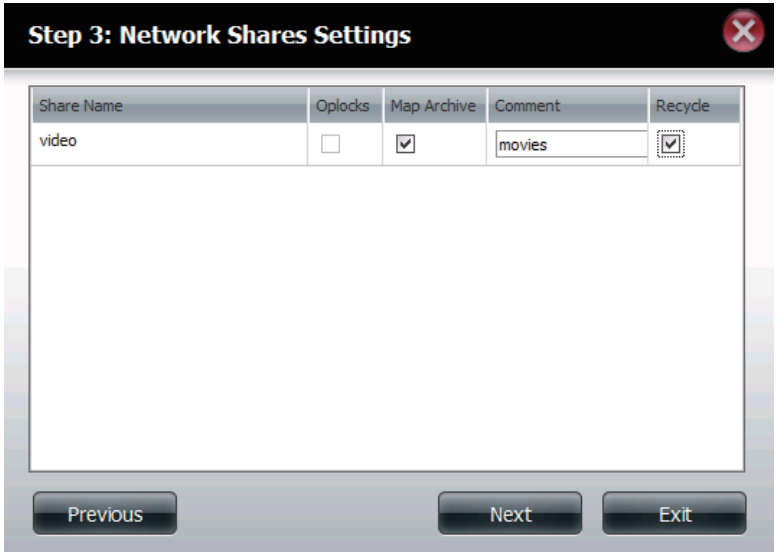
Step 7 - Here you can assign privileges to this share.

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.

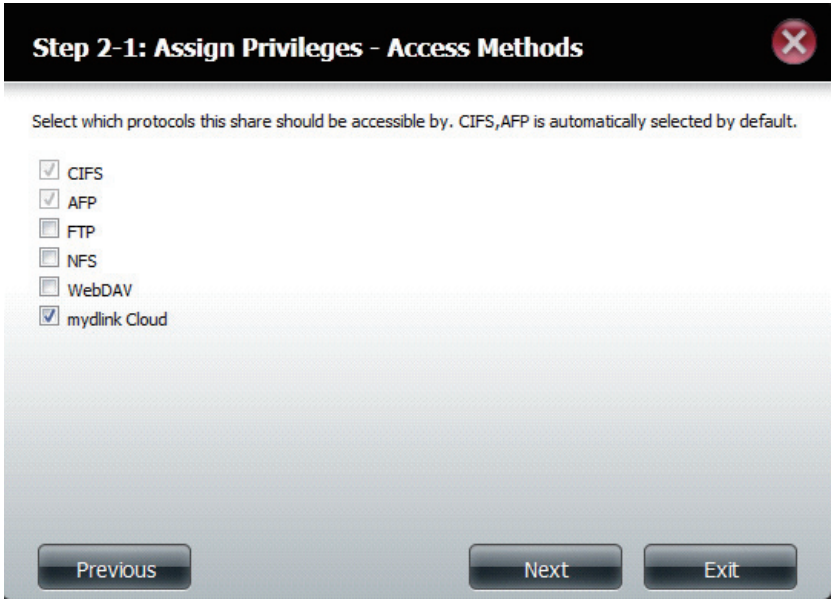
Oplocks are designed to increase network performance when it comes to network file sharing. However it is recommended to set the share oplocks to No (off) when using file-based database applications. When enabled, the file attribute "Map Archive" will be copied as the file is being stored on the ShareCenter.

Click **Next** to continue.



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, WebDAV, and mydlink Cloud. 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.
- mydlink Cloud is a service provided by D-Link which allows you to access files on your NAS from a remote computer or mobile device.

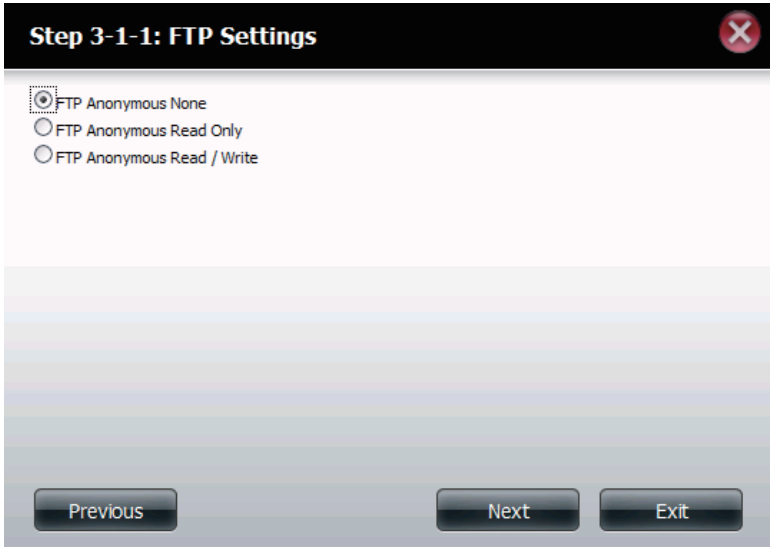


Click **Next** to continue.

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).

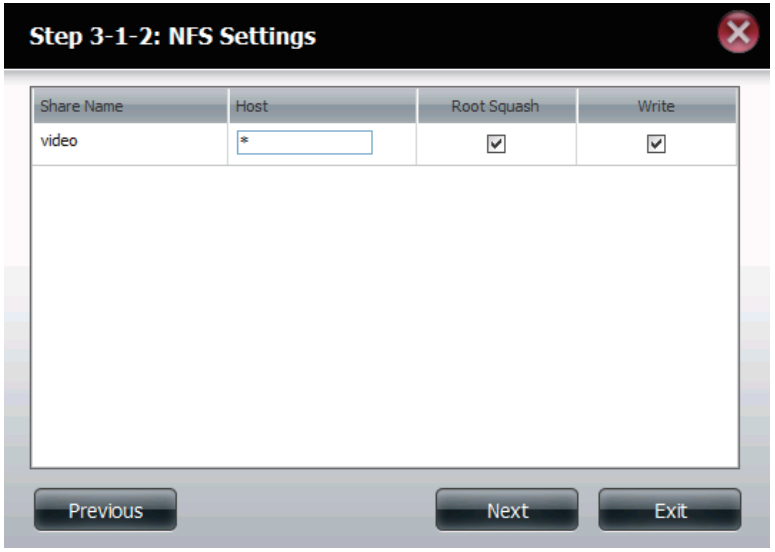
Click **Next** to continue.



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

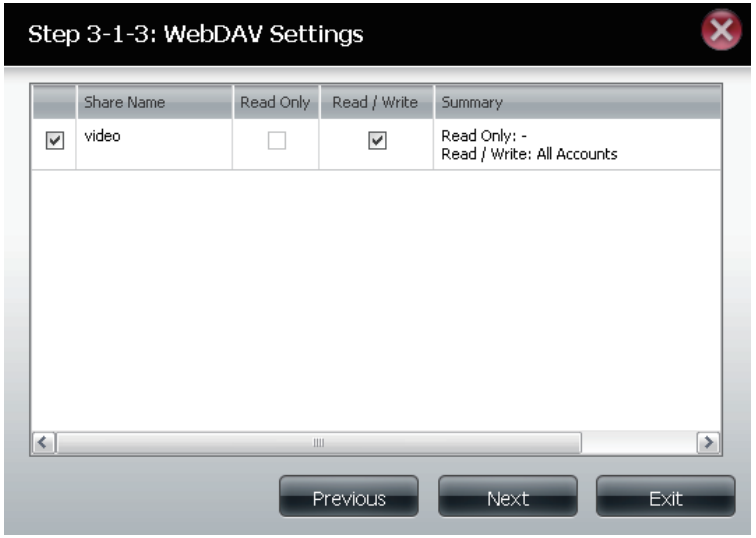
- **Host** - Allowable host address that can access using NFS (*indicates all hosts)
- **Root Squash** - Disables writing to the Root owned directories and files on the system when the user has root access privileges.
- **Write** - provide write permission to the file system.

Click **Next** to continue.



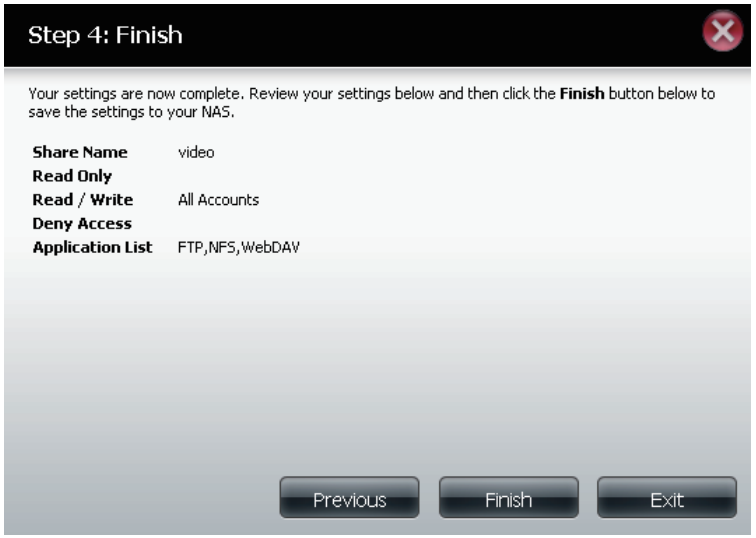
If you checked WebDAV as an access method, then this step will allow you to set the access parameters.

Click **Next** to continue.



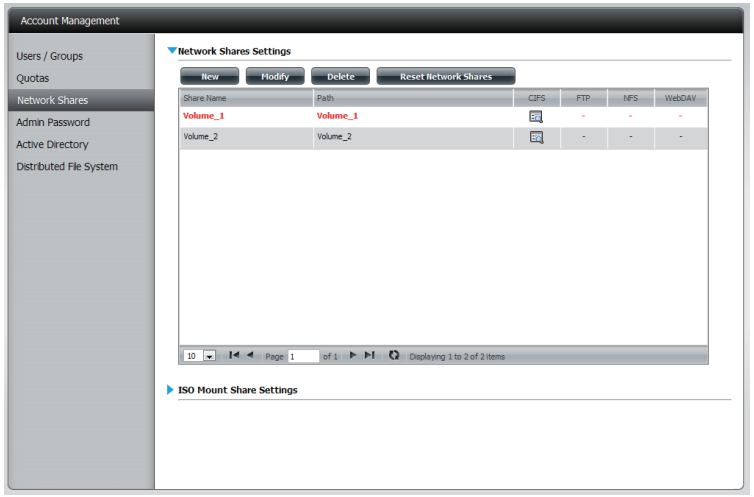
Step 10 - Here a summary of the created shares will be displayed.

Click **Finish** to save your settings.



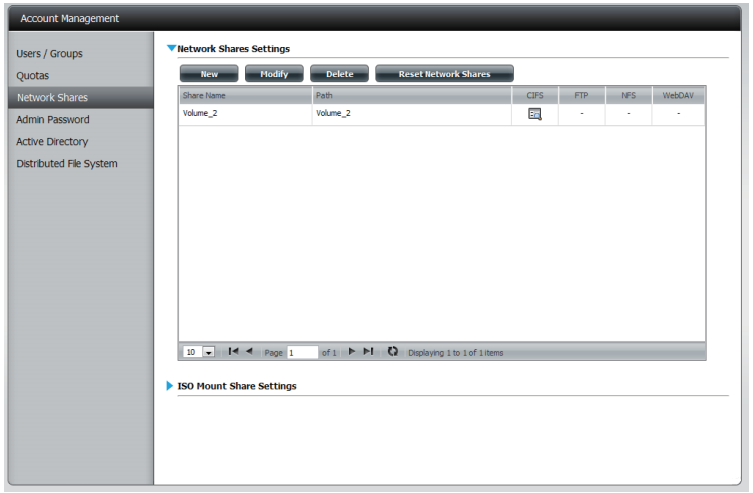
Deleting a Network Share

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.

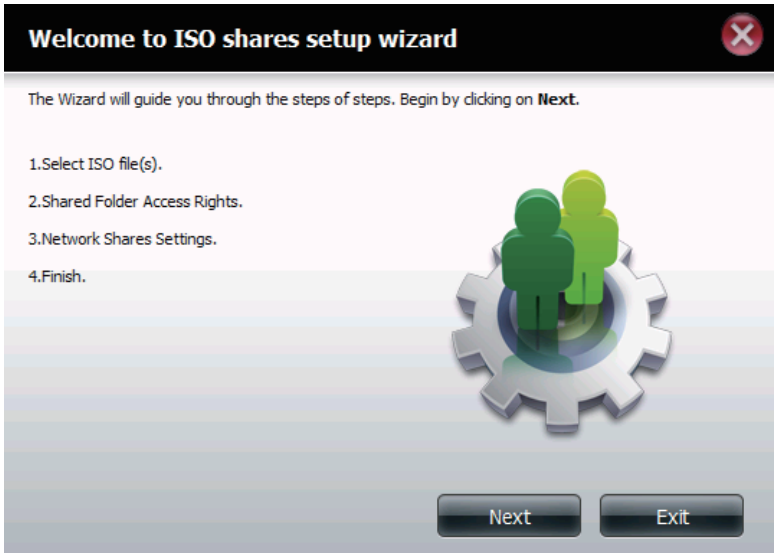
A warning message will prompt you to confirm your selection.

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

ISO Shares Setup Wizard

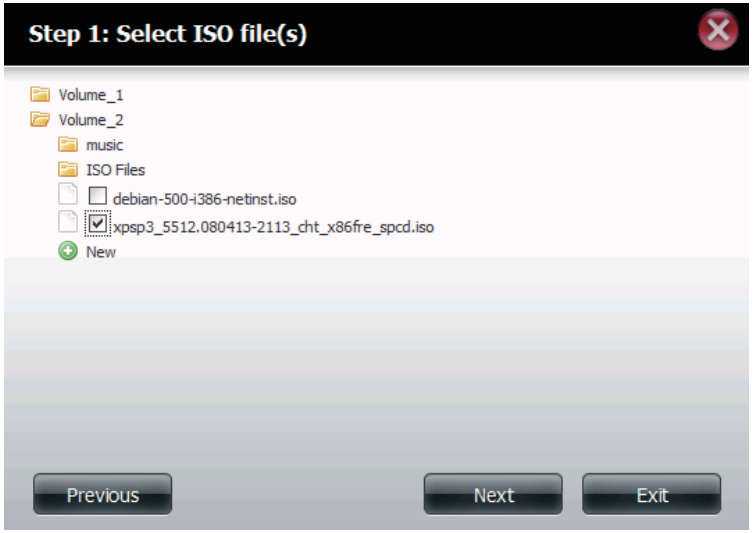
The following section will describe how to add a new ISO mount on the ShareCenter. To add an ISO Mount, click on the **New** button. An easy to configure wizard will launch.

Click **Next** to continue.



Select the ISO file to mount.

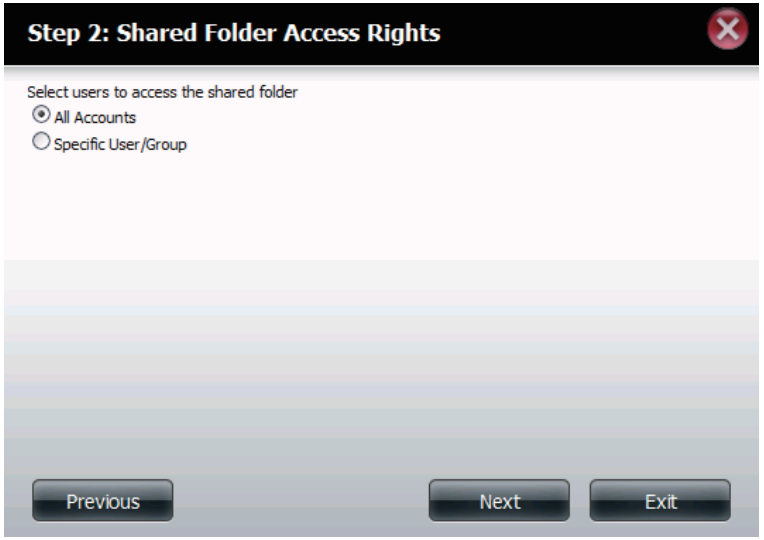
Check the box to the left of the .iso file to select it and click **Next** to continue.



Assign access privileges to this ISO Mount share.

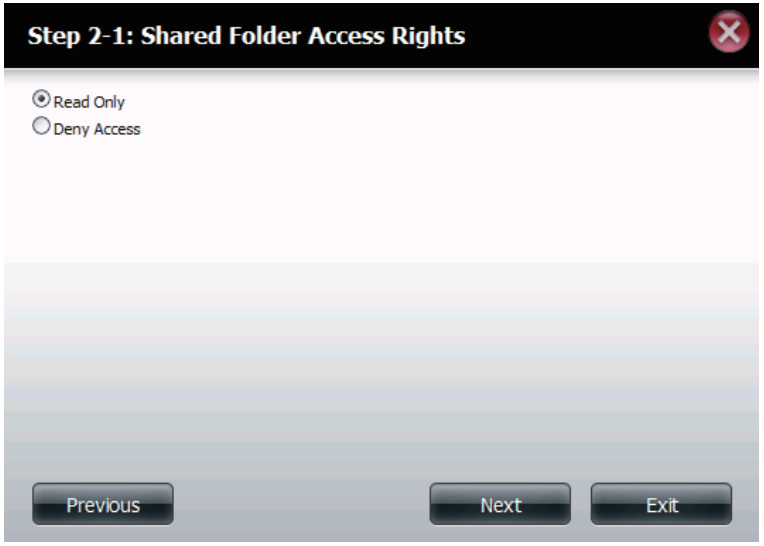
- Select **All Accounts** to assign the ISO Mount share read/deny privileges to all users.
- Select **Specific User/Group** in order to assign read/deny privileges to individual users and groups.

Click **Next** to continue.



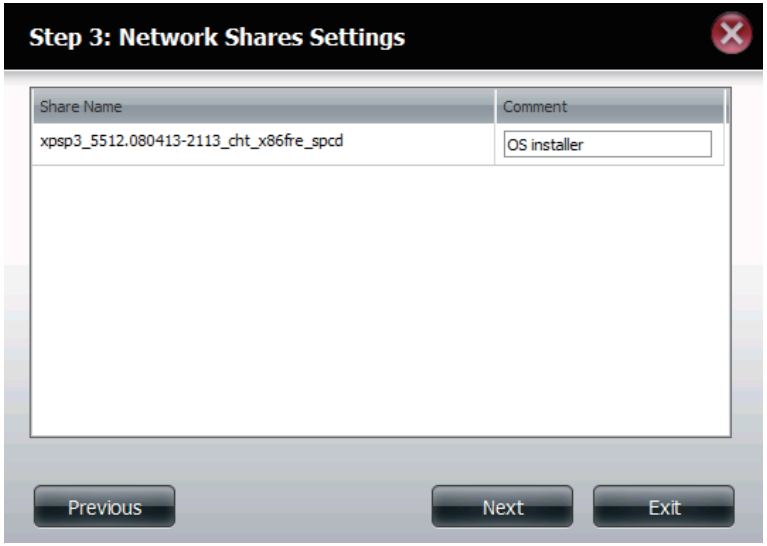
You can assign **Read Only** or **Deny Access** privileges to the ISO Mount share here. Click on the appropriate radio button for the privileges you would like to assign.

Click **Next** to continue.



Add a comment that describes the ISO Mount Share.

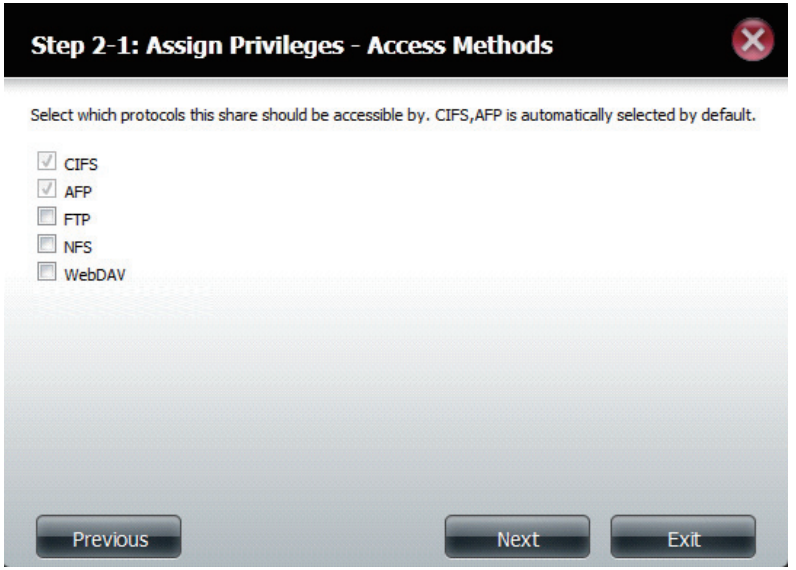
Click **Next** to continue.



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.

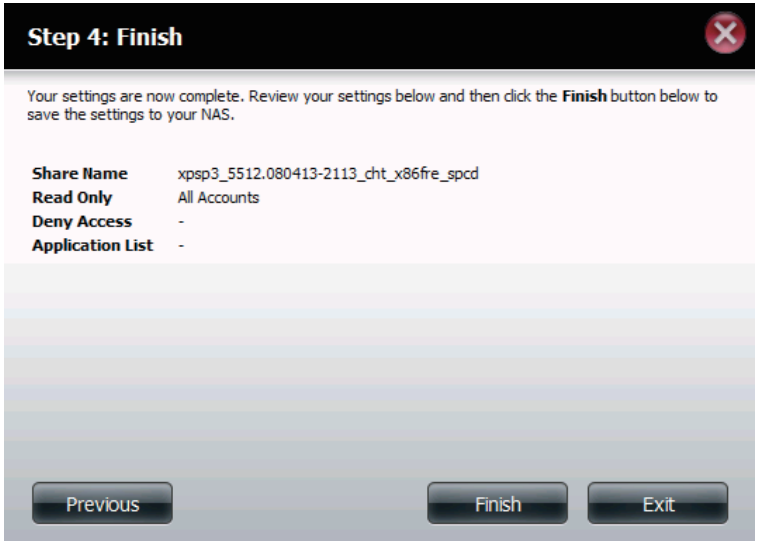
- CIFS is short for Common Internet File System.
- AFP is short for Apple Filing Protocol.
- FTP is short for File Transfer Protocol
- NFS is short for Network File System.
- WebDAV is short for Web-based Distributed Authoring and Versioning.

Click **Next** to continue.

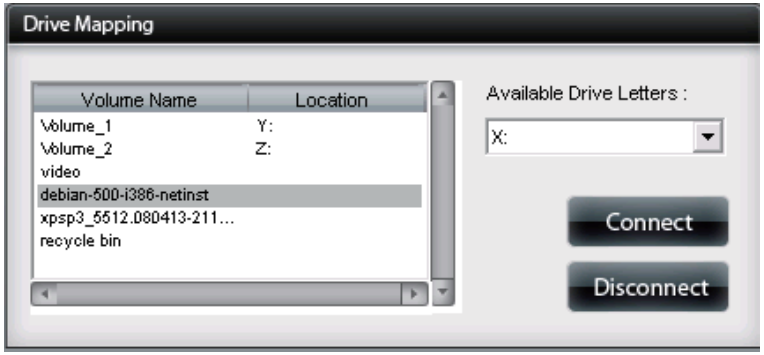


A summary of the share will be displayed.

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.

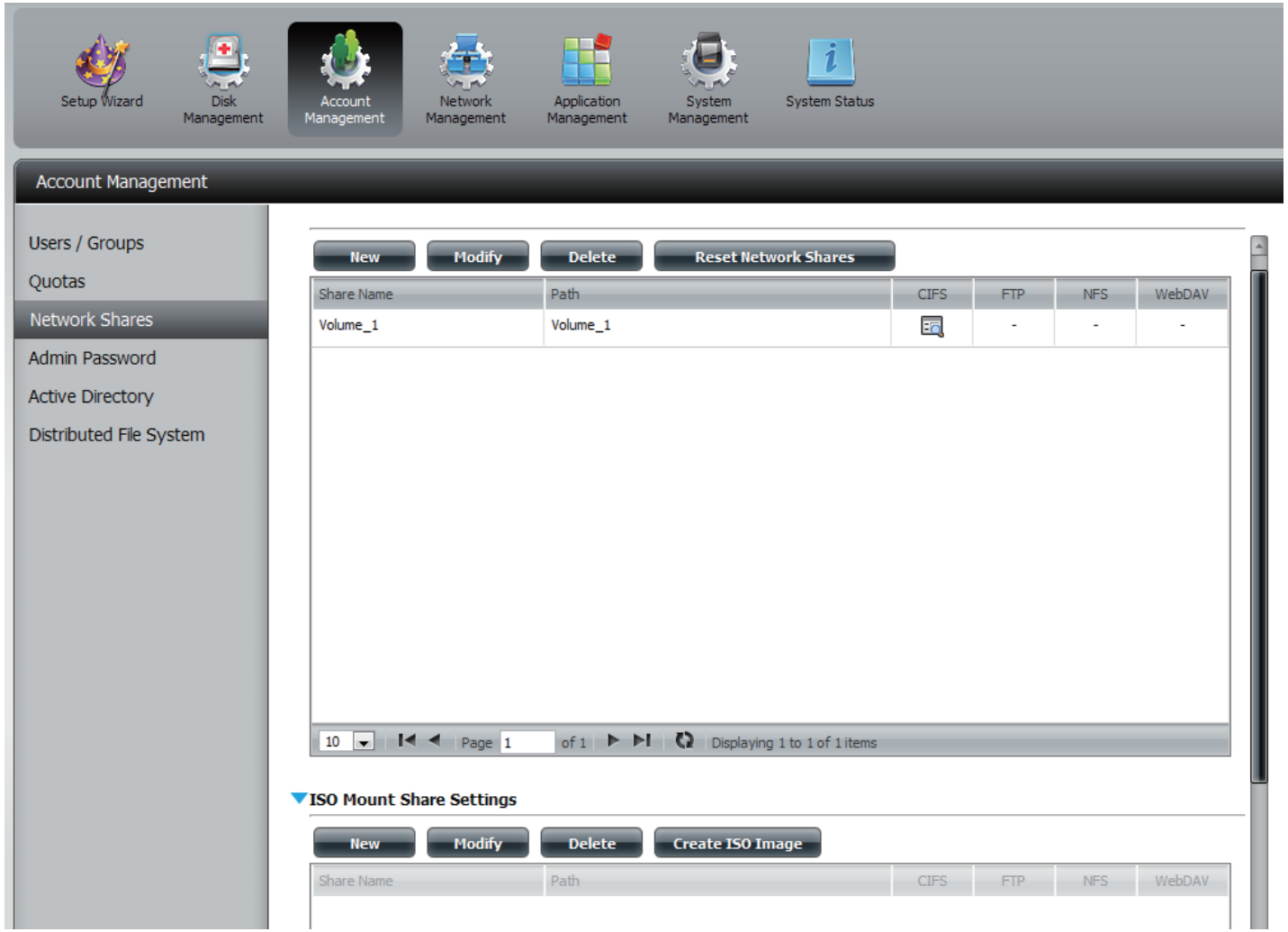


Creating an ISO Image

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

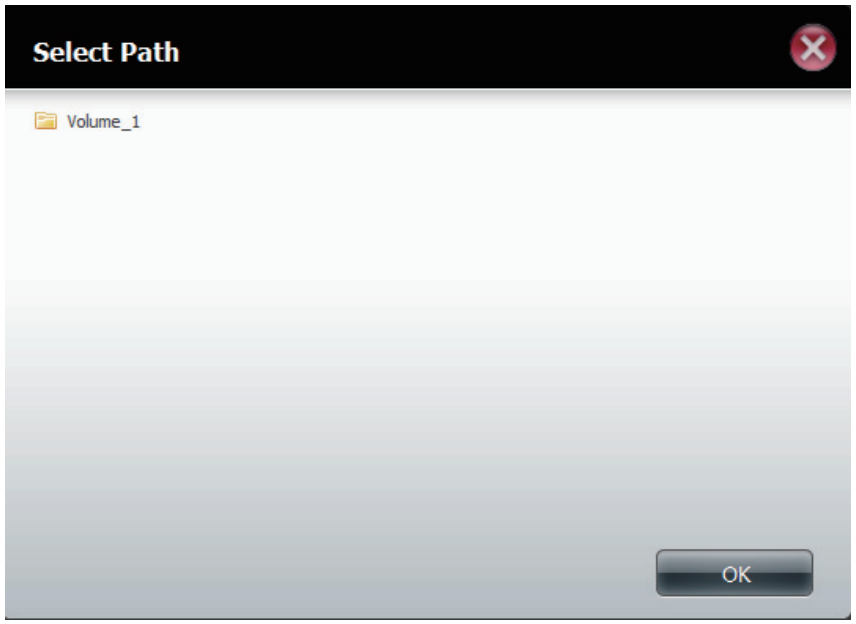
Select the **Image Size**.

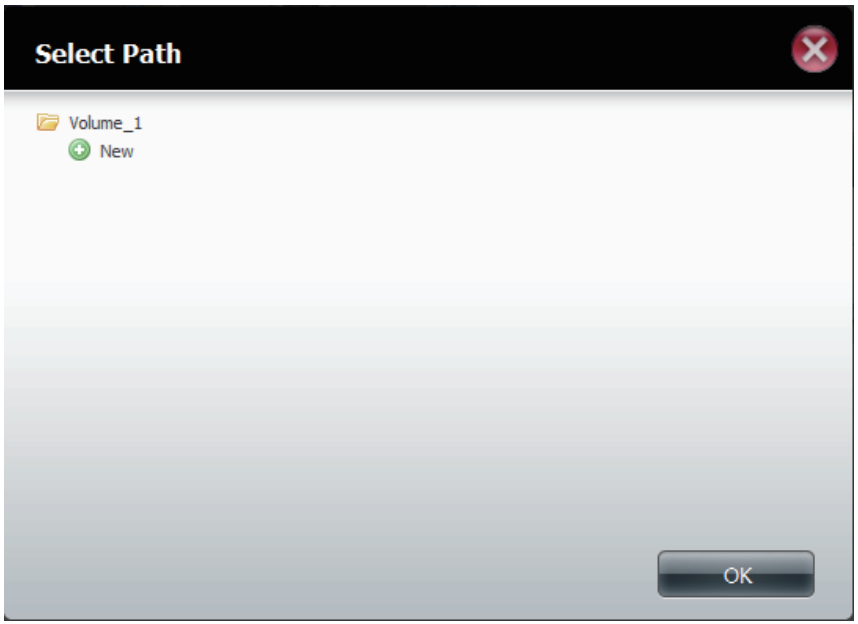
There are three Image Size choices:

- 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.

Select the **Image Path**.

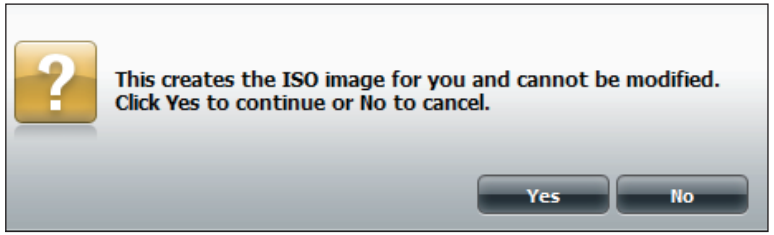
Click the **Browse** button to select the destination folder on your NAS. Click the **Volume** to save it there or click **New** to create a new directory.





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

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



ISO Tree Editing

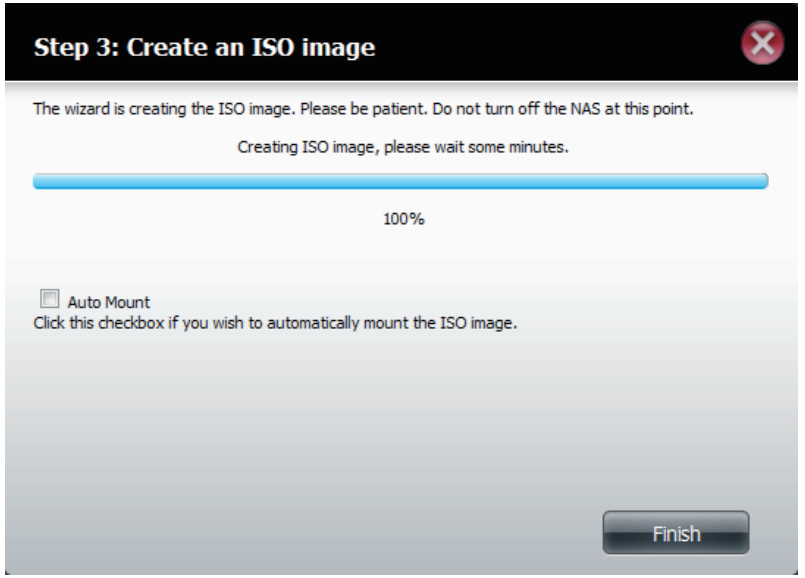
On the left side of the **ISO Tree Editing** window you have the option to **Overwrite** a previous ISO file or **Skip** it. It also displays the main directory on your NAS. Select the file(s) and click the **-->** button to add the file(s) to the ISO image. On the right side of the window it displays 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.

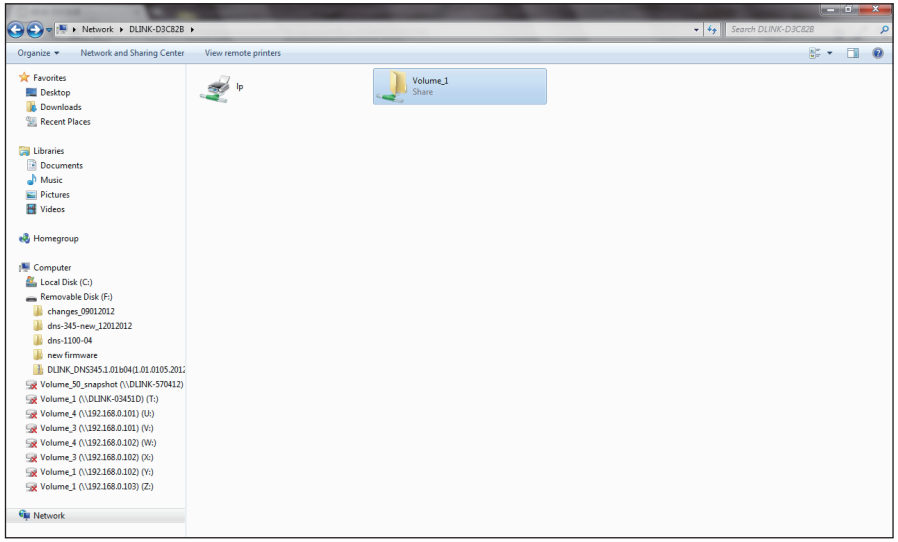
Click the **Auto Mount** checkbox if you want the ISO file to be mounted automatically.

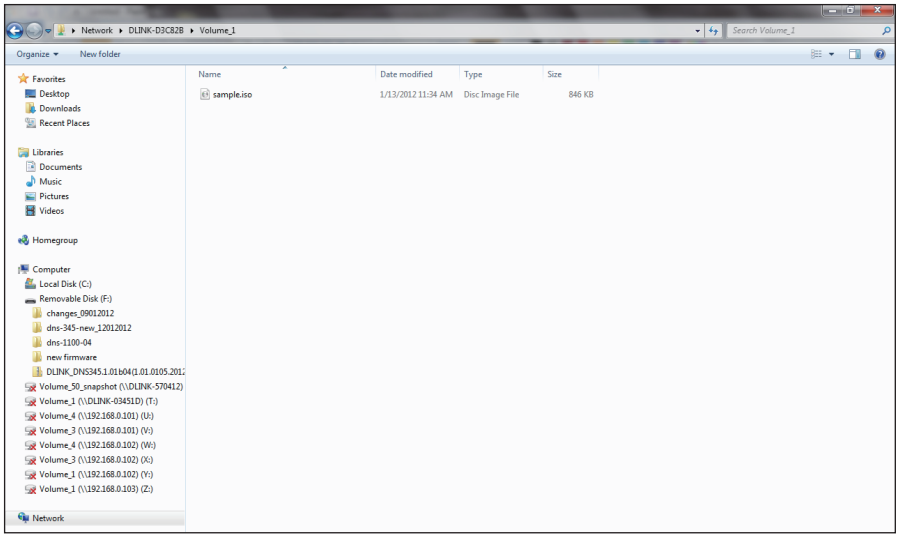
Click **Finish** to close the wizard.



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.





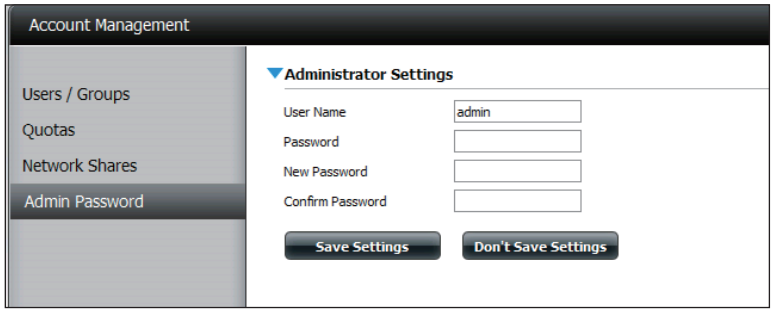
Admin Password

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.

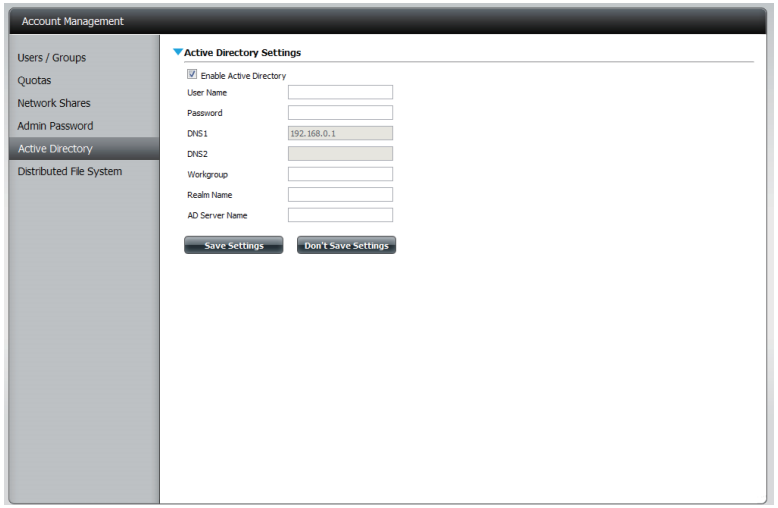


Active Directory Settings

Allows you to configure and communicate with Windows Active Directory.

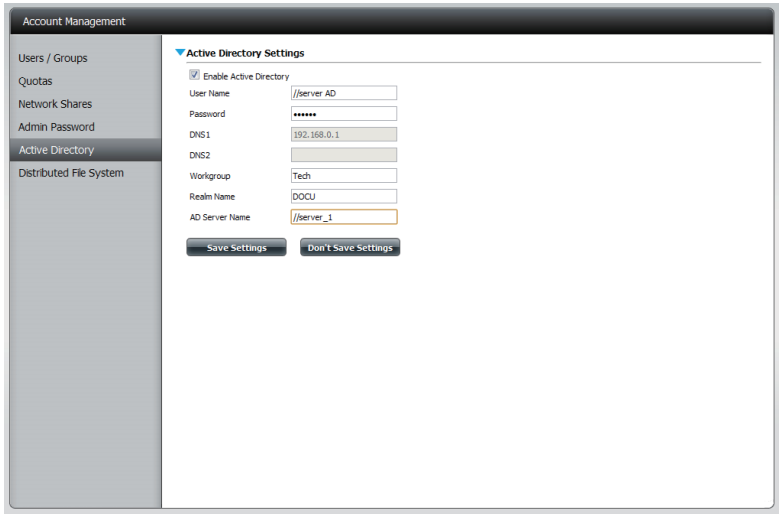
Active Directory is a Windows Server Service that allows you or your company to manage the data on your network.

Check the box next to **Enable Active Directory**.



Enter the following information:

1. Enter the details to communicate with the Active Directory server.
2. Enter a valid Username and Password provided by your systems administrator.
3. Enter the DNS 1 and/or DNS 2 IP addresses.
4. Enter a Workgroup if required.
5. Enter a Realm Name.
6. Enter an Active Directory Server name.

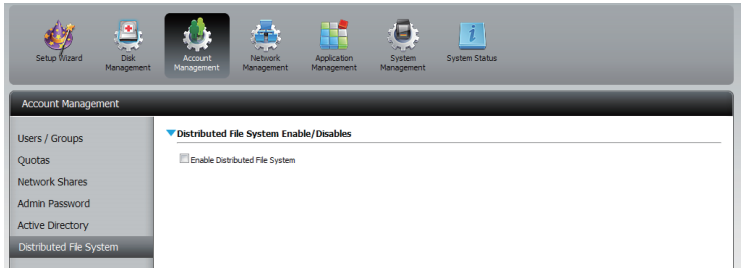


Click **Save Settings** to connect to the Active Directory or **Don't Save Settings** to cancel.

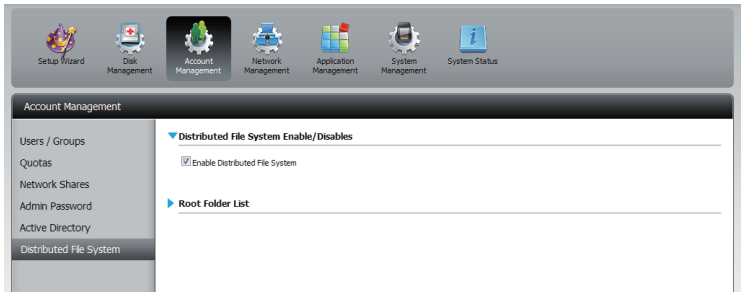
Distributed File System

Distributed File System enables a better file management system without the complications of setting up each individual file system.

Click **Account Management** > **Distributed File System**.



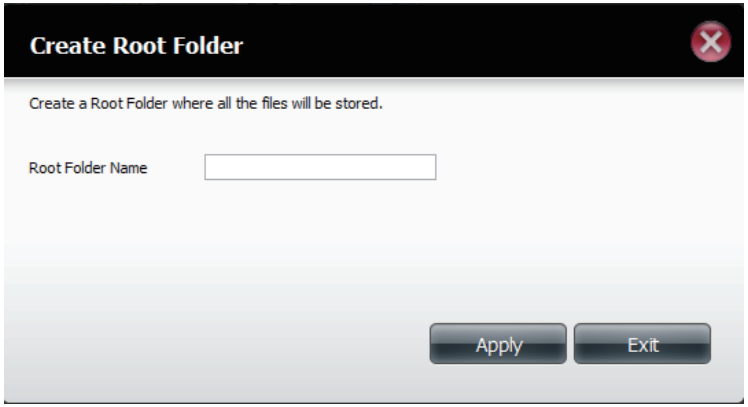
Check the **Enable Distributed File System** box. A new table list will appear called the Root Folder List.



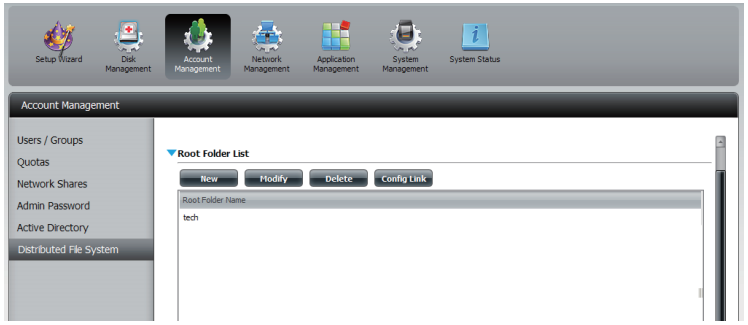
Note: For Administrators - Setup a username and password identical to each PC connected to the NAS for DFS to work.

Once you have access to the Root Folder List, click **New** to create a new folder. You will be prompted to enter a Root Folder Name in the field.

Click **Apply**.



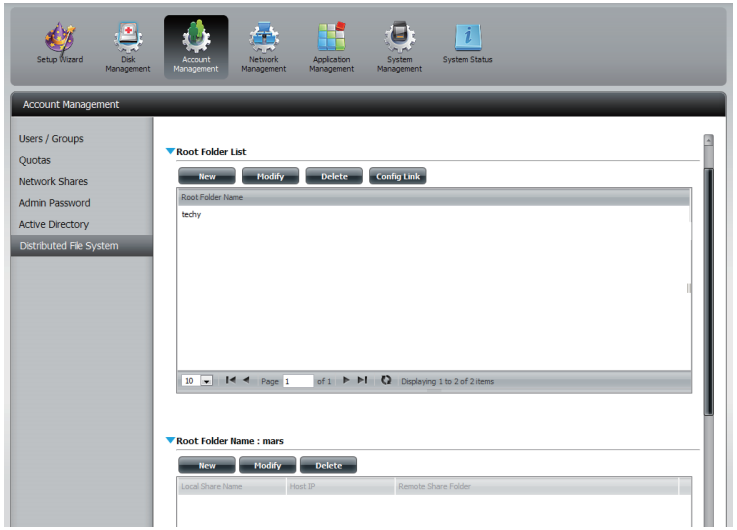
The Root Folder List will now show the new root folder name and provide options to **Modify, Delete,** or **Config Link.**



To modify a folder within the list, click **Modify**.

Enter a new folder name and click **Apply**.

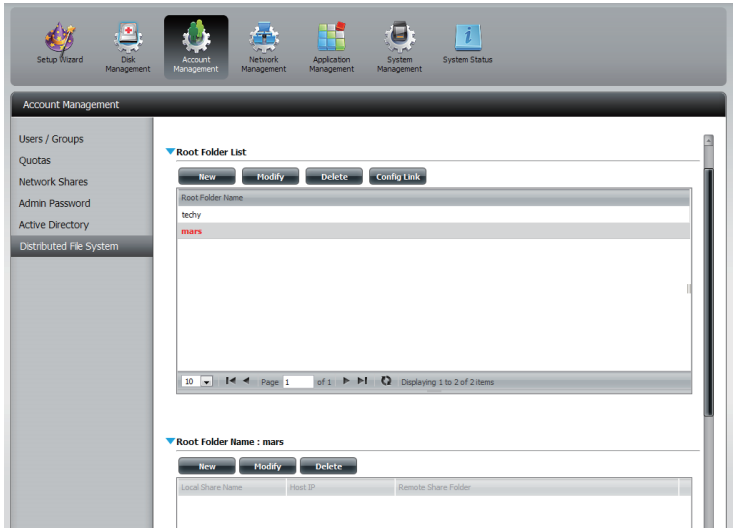
The modified name will be shown in the table. To delete the folder click **Delete**.



To configure a Root Folder click the **Config Link** button.

A new Root Folder Name table will appear below the current Root Folder List.

Click **New** to configure it.

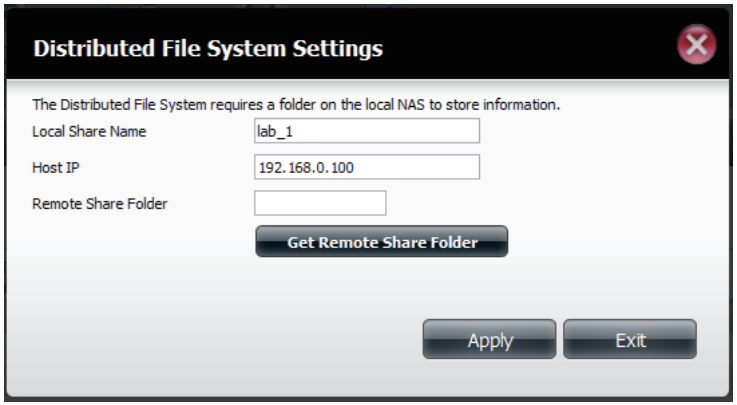


The Distributed File System Settings box will appear.

1. Enter a Local Share Name.

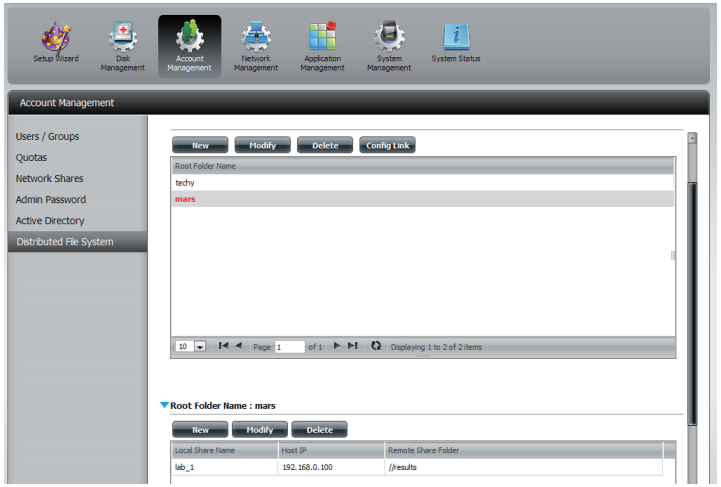
2. Enter the Host IP address.

3. Select the Remote Share Folder by clicking **Get Remote Share Folder** and click **Apply**



Once you have entered the correct details, the local share is created, displaying the host IP and remote share folder name.

To delete a remote folder click the **delete** button.

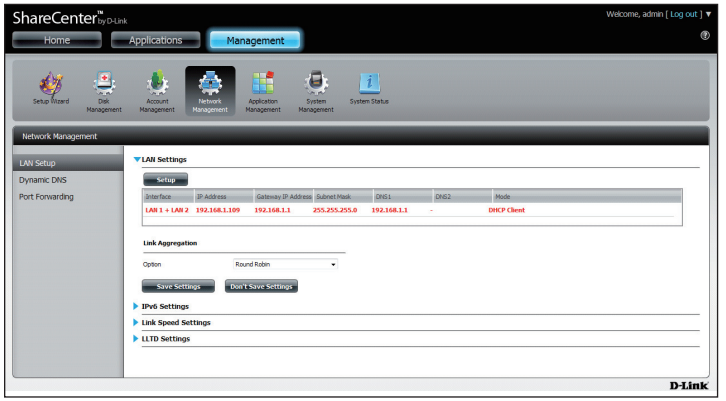


Network Management

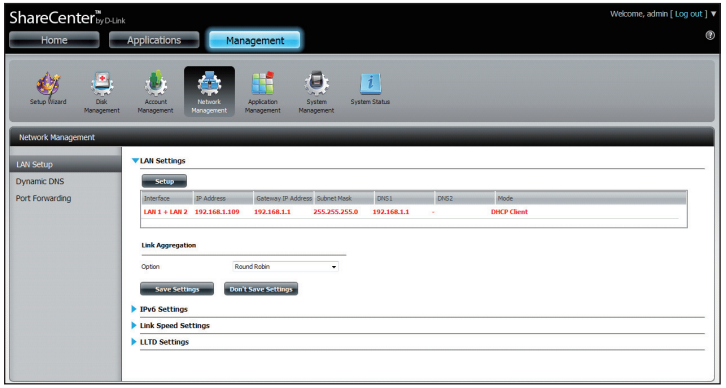
LAN Setup

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**.

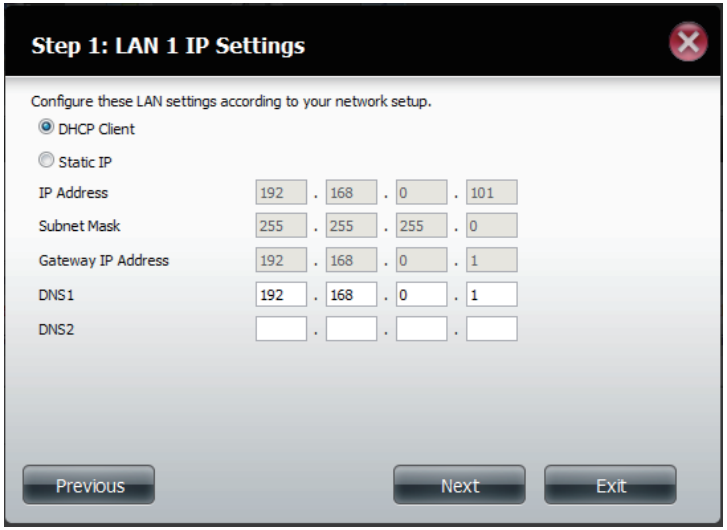


The LAN setup wizard gives you the option to configure two main settings - IP settings and VLAN settings.

Click **Next** to continue.

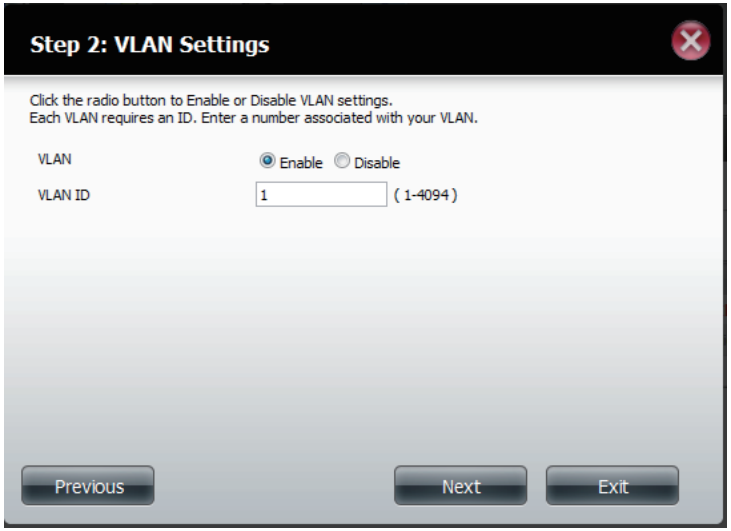
This step allows you to configure your LAN settings. Here you can choose between **DHCP Client** or **Static IP**. If you select Static IP, you will need to manually configure your own IP settings.

Click **Next** to continue.



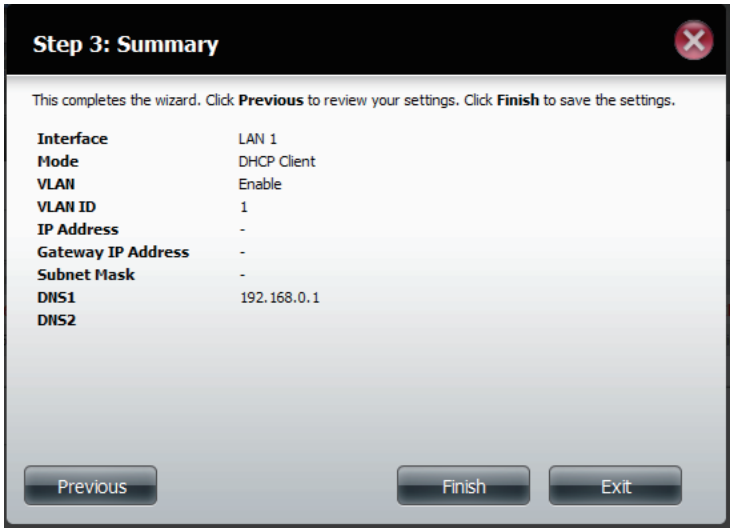
This step requires you to setup your VLAN settings. Select the **Enable** radio button to enable VLAN or click the **Disable** radio button to disable VLAN.

Enter a VLAN identification number and click **Next**.



A summary of what you just configured will be displayed.

Click **Finish** to exit the wizard.



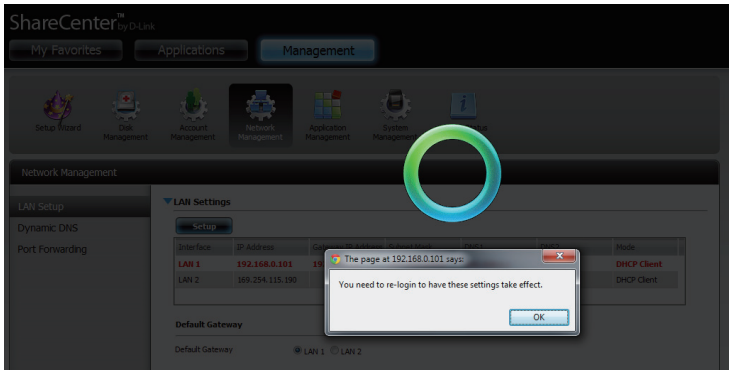
Link Aggregation

To configure the Link Aggregation settings, select the link aggregation options from the drop-down menu. The options include **Round Robin**, **Balance-XOR**, **Broadcast, 802.3ad**, **Adaptive Transmit Load Balancing**, and **Adaptive Load Balancing**.

Click **Save Settings** to continue.

A window will appear to inform you that changes will take place after you login again.

Click **OK**, log out and then log back in to allow the changes to take effect.

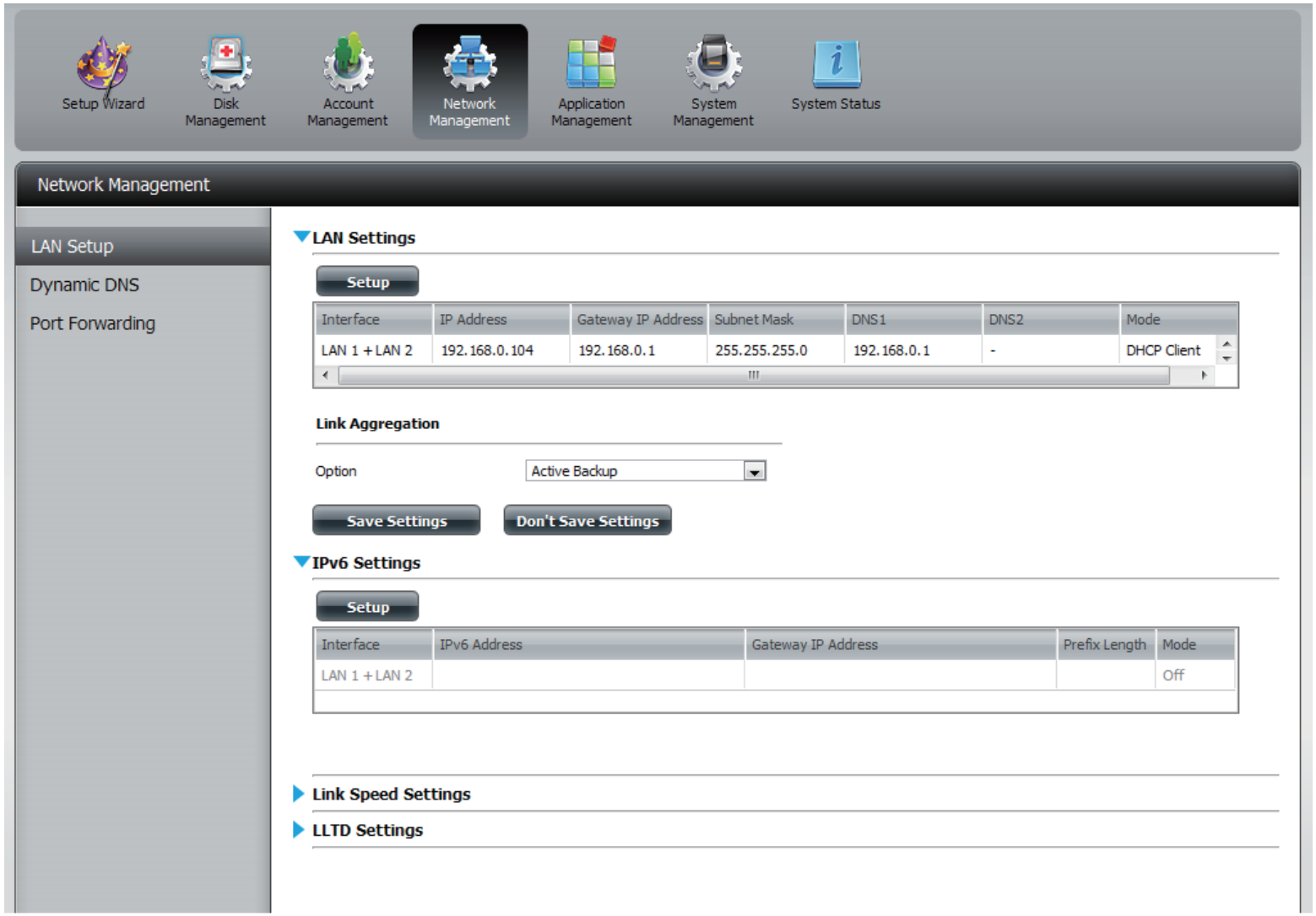


The wizard combined both LAN ports under one configuration group.

Note: Link aggregation, or IEEE 802.3ad, is a computer networking term which describes using multiple Ethernet network cables/ports in parallel to increase the link speed beyond the limits of any one single cable or port, and to increase the redundancy for higher reliability. Link aggregation is an inexpensive way to set up a high-speed backbone network that transfers much more data than any one single port or device can deliver. Link aggregation also allows the network's backbone speed to grow incrementally as demand on the network increases, without having to replace everything and buy new hardware. The ShareCenter DNS-345 provides this feature to better enable the network it's on. Apply various link aggregation options that warrant support for your network.

IPv6 Settings

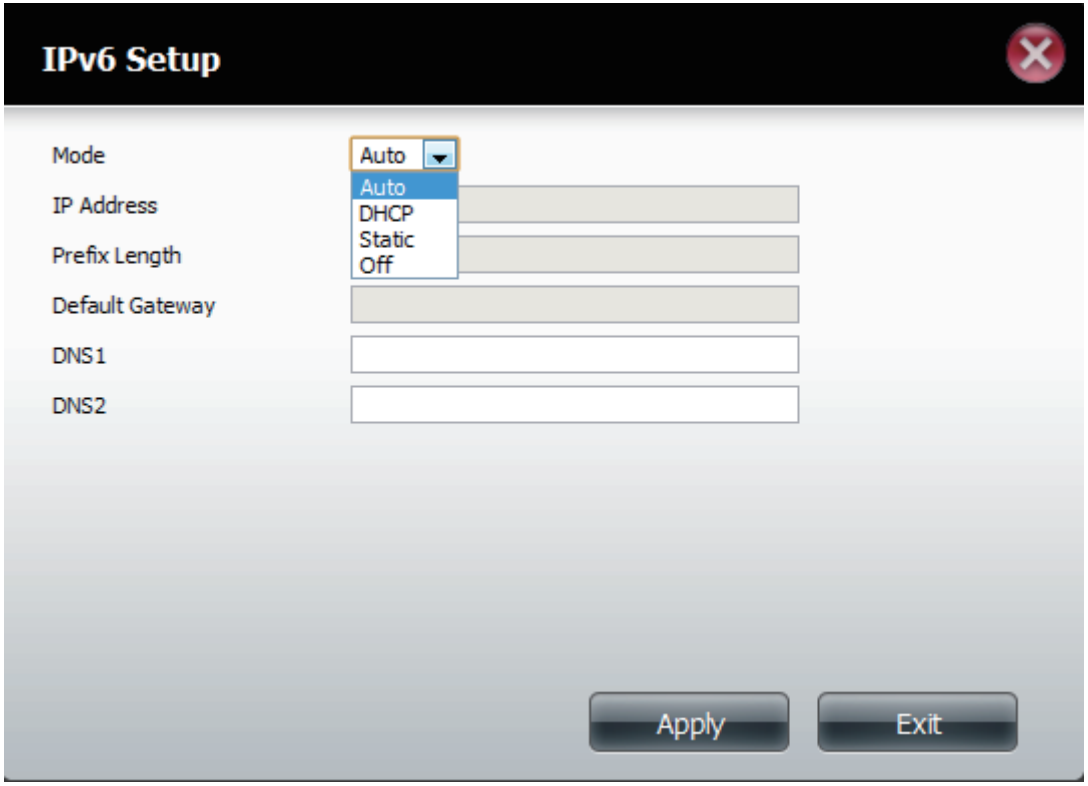
Go to **Management** > **Network Management** > **LAN Setup** > **IPv6 Settings** and click the **Setup** button. An IPv6 setup window will appear.



IPv6 Setup

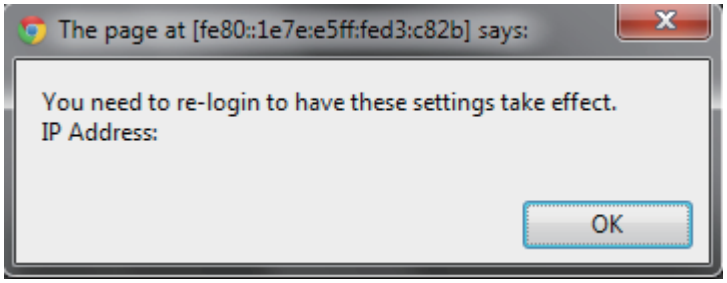
There are four connection modes to select from: **Auto**, **DHCP**, **Static** and **Off**.

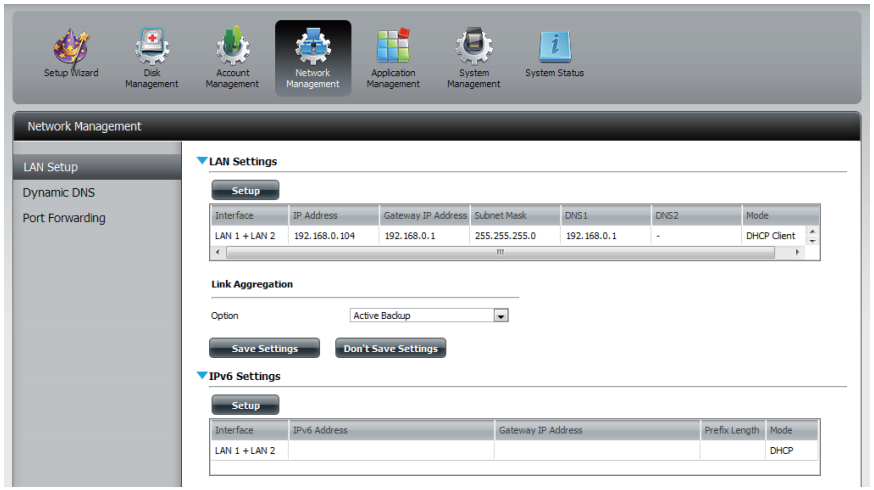
Auto - Requests information specifically from an IPv6-enabled router and automatically configure your settings.
DHCP - Requests information from a DHCP server.
Static - Enter your own IP configuration
Off - Do not use IPv6



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.



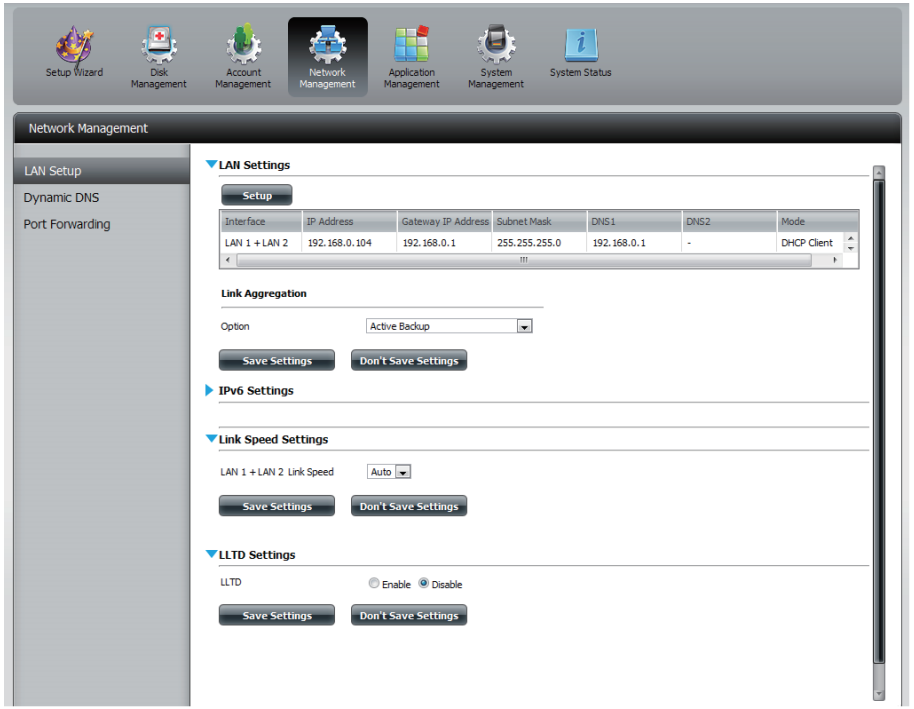


Link Speed and LLTD Settings

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.

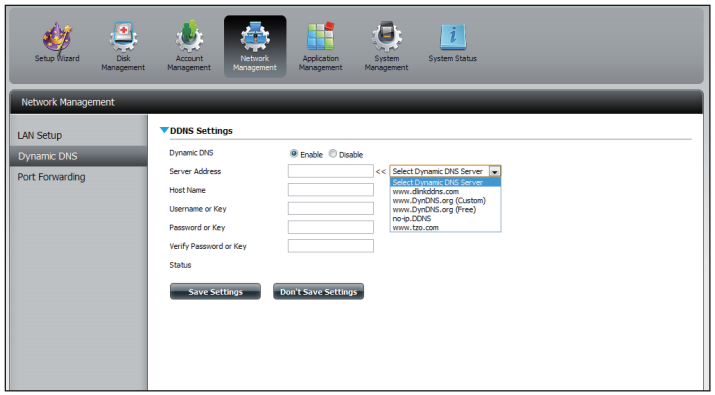
Select to enable or disable LLTD.



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.

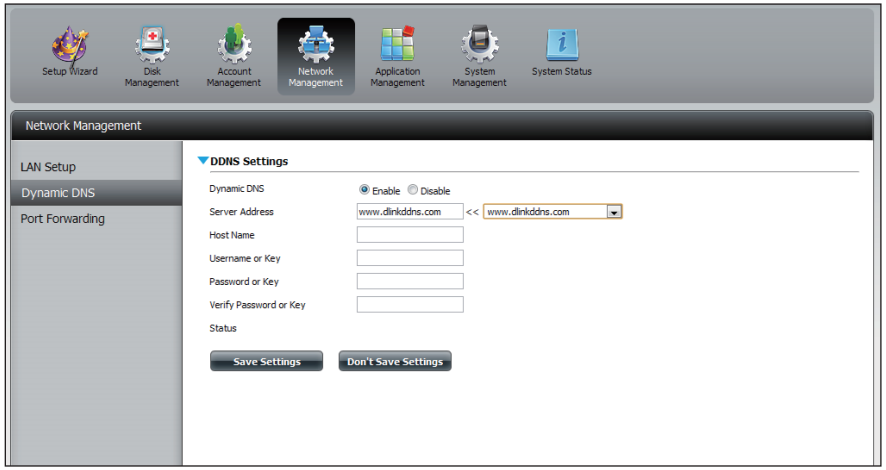
Host Name: Enter your DDNS host name.

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.

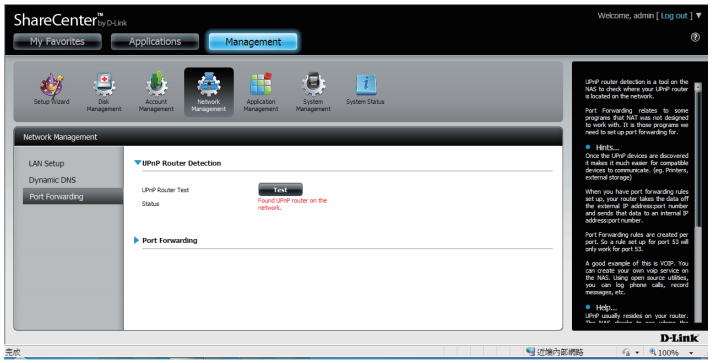
Here the user can create or modify a D-Link DDNS account to use in this configuration.

Port Forwarding

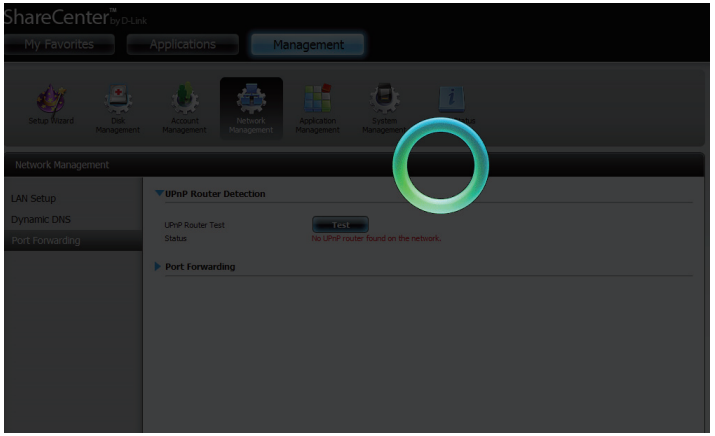
The DNS-345 supports UPnP port forwarding which configures port forwarding automatically on your UPnP-enabled router.

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

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



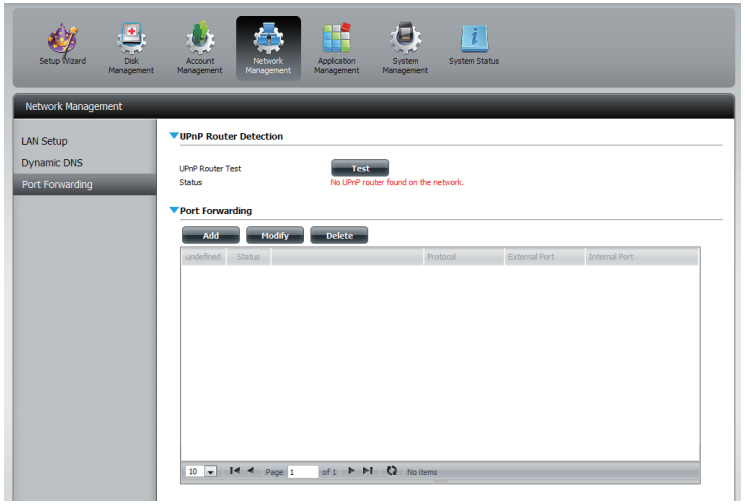
The DNS-345 is searching for a UPnP router. Do not turn off your NAS.



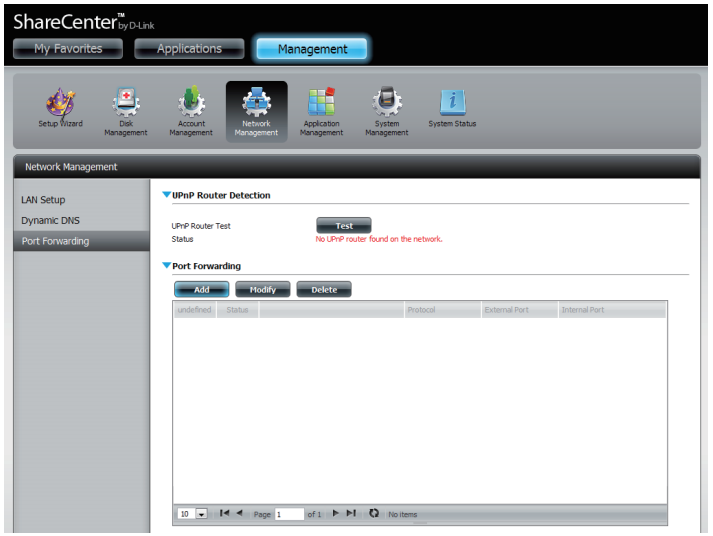
A message will notify you that the wizard has found a UPnP router on the network.

Note that you have to enable UPnP on your router.

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

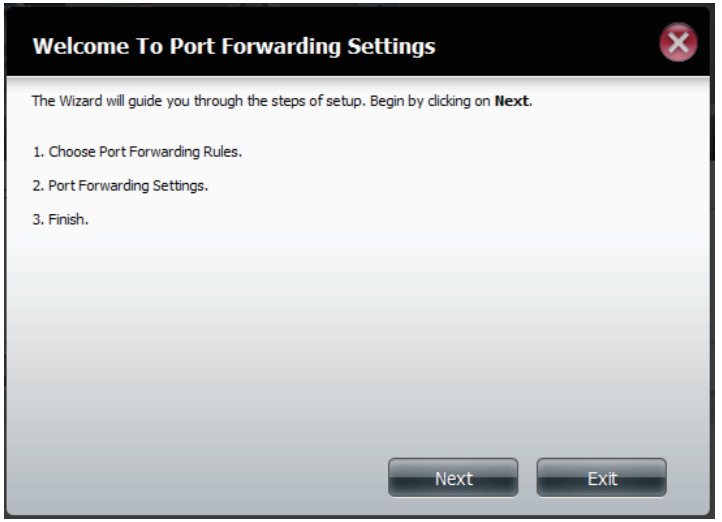


Click **Add**.



The Port Forwarding wizard will start.

Click **Next** to continue.



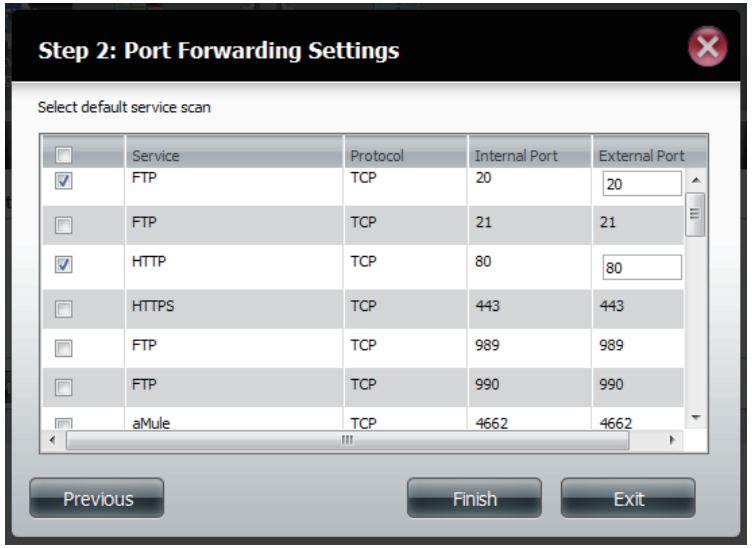
Select **Select default service scan** to select the port forwarding services from a list or select **Custom a port forwarding service** to manually configure your own settings.

Click **Next** to continue.

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.*

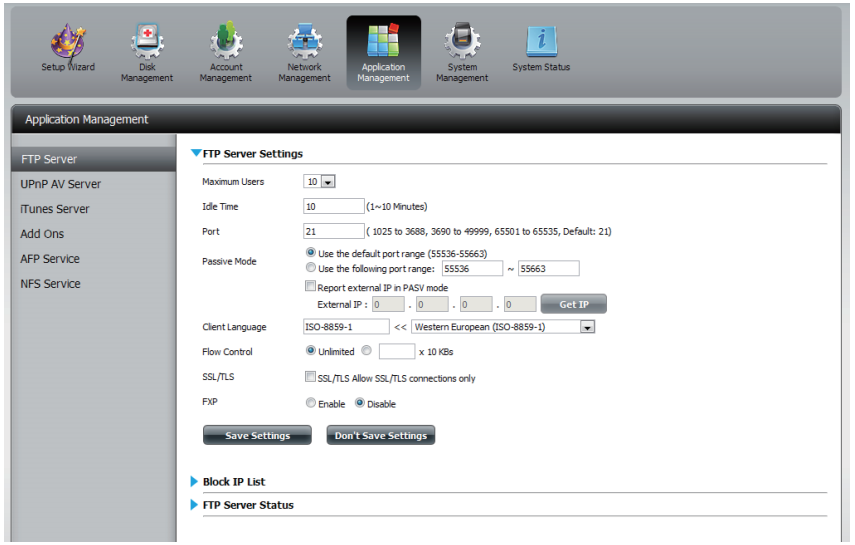
Click **Previous** to change the Port Forward Rule or **Finish** to configure the port forwarding on the UPnP router automatically.



Application Management

FTP server

The Application Management section allows you to configure many services for your DNS-345. The server and service settings include: FTP server, UPnP AV server, iTunes server, selected Add-on features, 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.

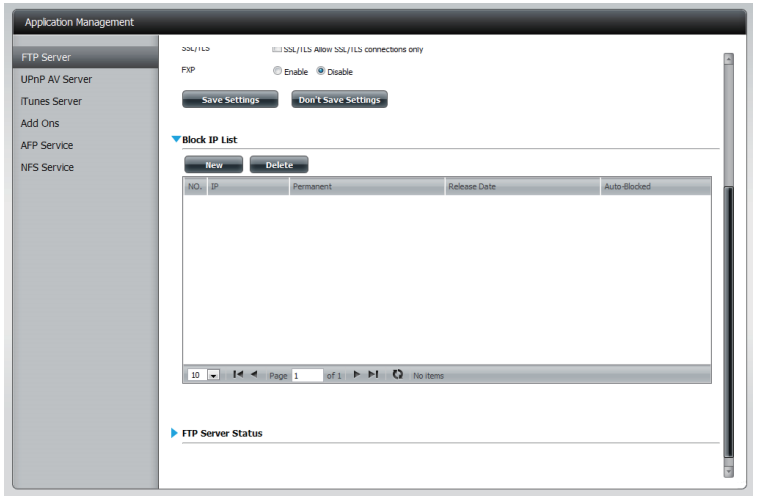
SSL/TLS: Here the user can enable the SSL/TLS connection only.

FXP: Enable or Disable File eXhange 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.*

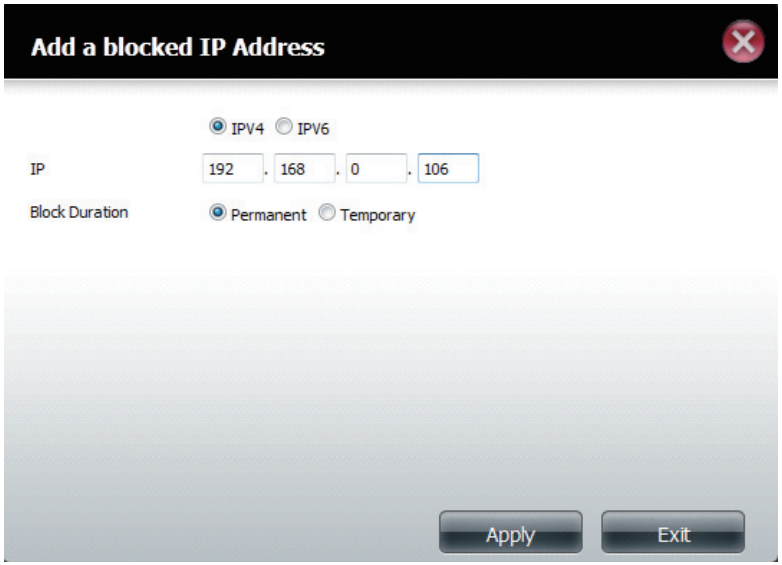
The window expands to include a Blocked IP list and a FTP Server Status report. Click the blue arrow to see the drop-down list.

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

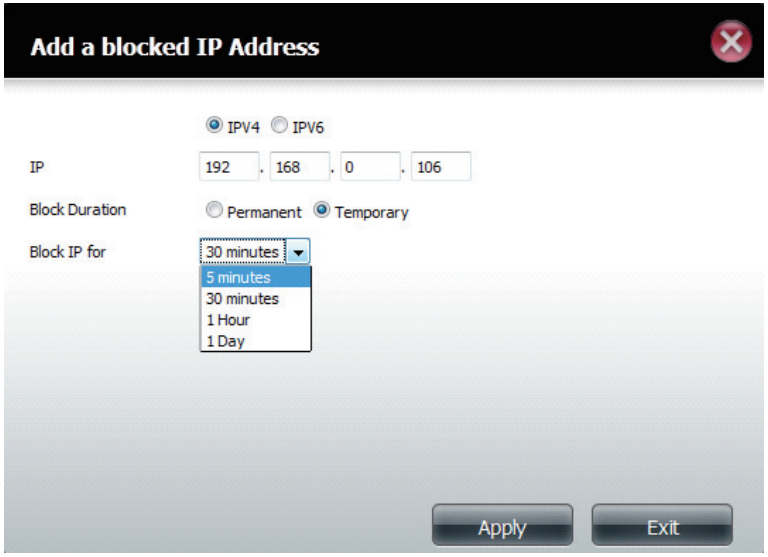


Select **IPv4** or **IPv6** and then enter the IP address of a machine you wish to block. Select **Permanent** if you wish to block the IP address permanently or **Temporary** if you wish to set a time frame.

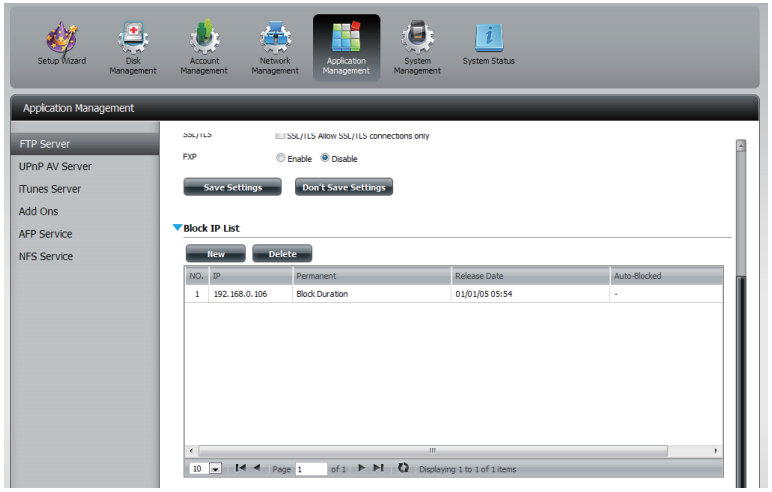
If you selected permanent, click **Apply** and continue.



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

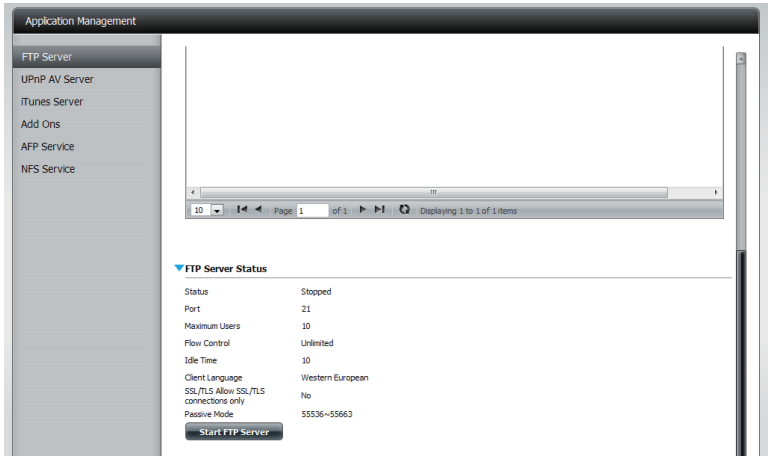


The Blocked IP list will display the IP addresses you blocked.



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.



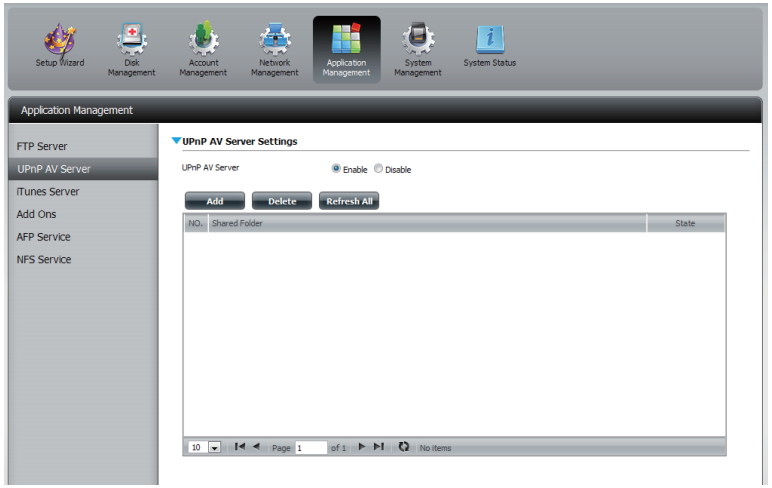
UPnP AV Server

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.

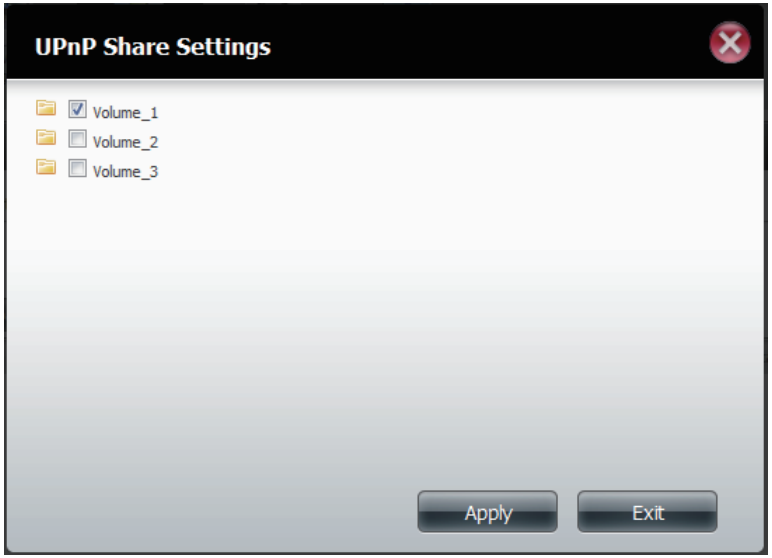
Click **Application Management,** then **UPnP AV Server**.

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

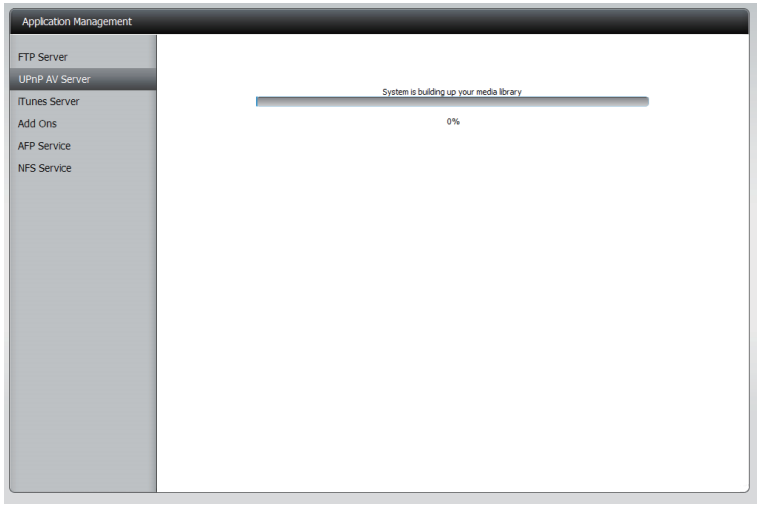
Click **Add** to configure the UPnP AV share.



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

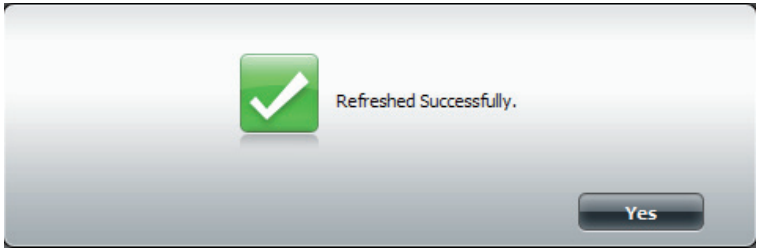


The NAS is building the media library.

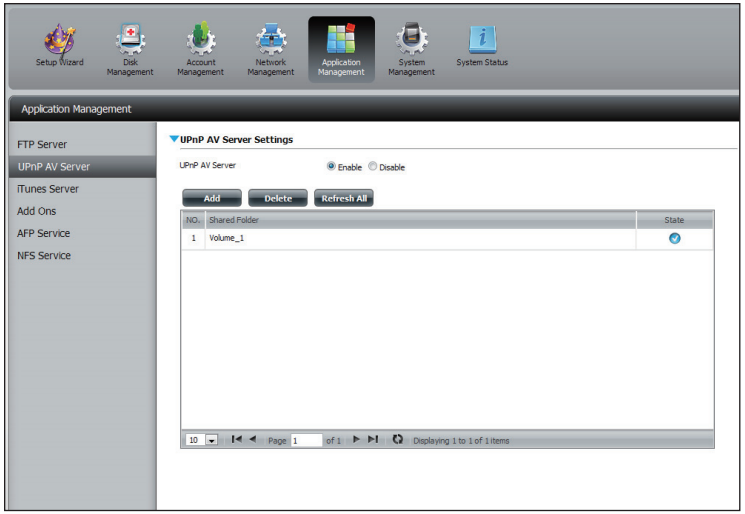


When the system has finished building the media library, a success message will appear.

Click **Yes** to continue.



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



iTunes Server

The DNS-345 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.

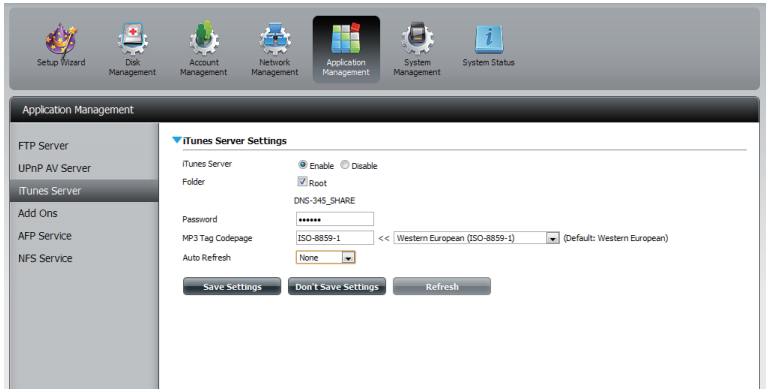
iTunes Server: Select to enable or disable the iTunes Server.

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.

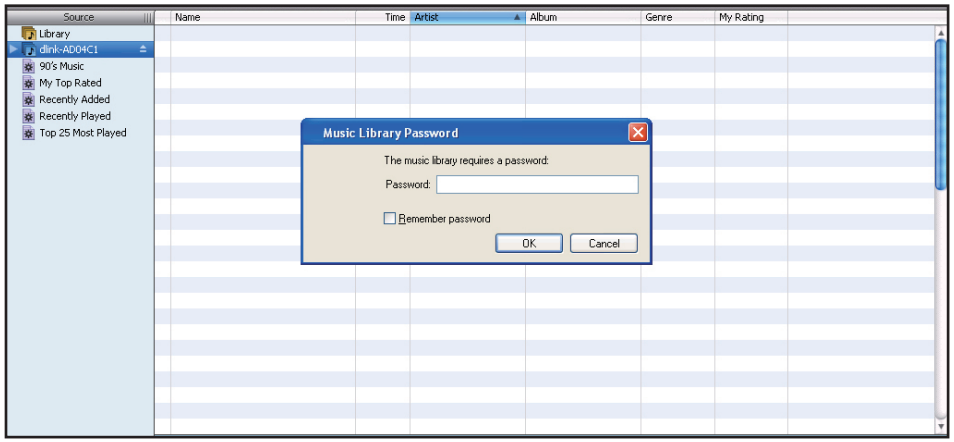
Password: Sets password for the iTunes server. (Optional)

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

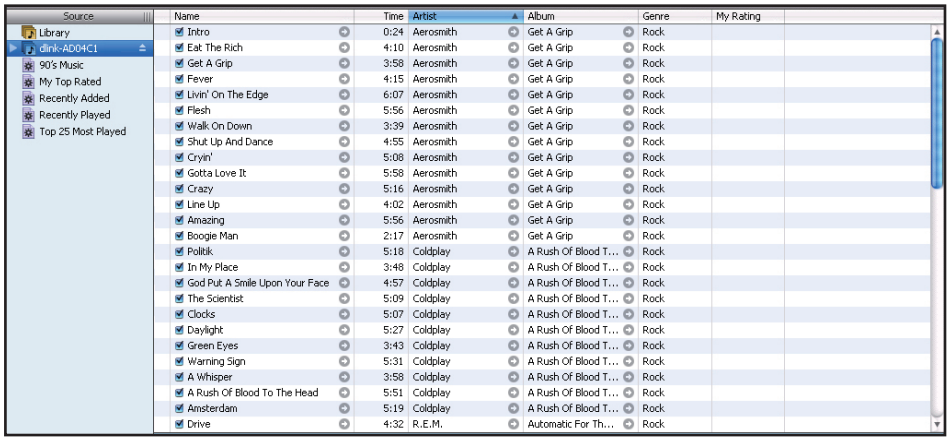
Auto Refresh: Here the user can select the Automatically Refresh time.



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**.



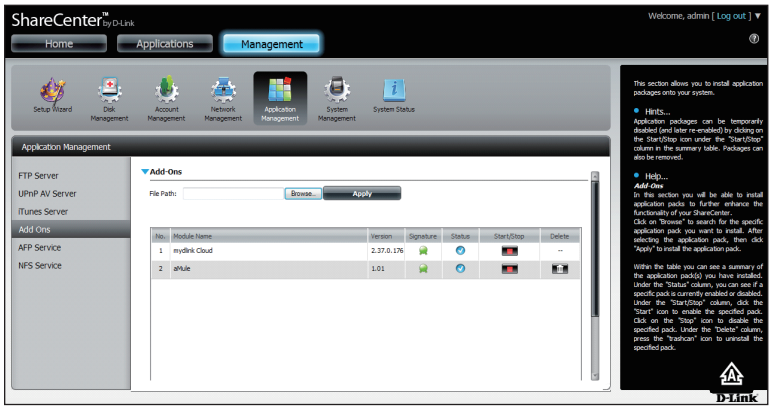
Media stored on the ShareCenter will then be available for use in iTunes.

Add-Ons

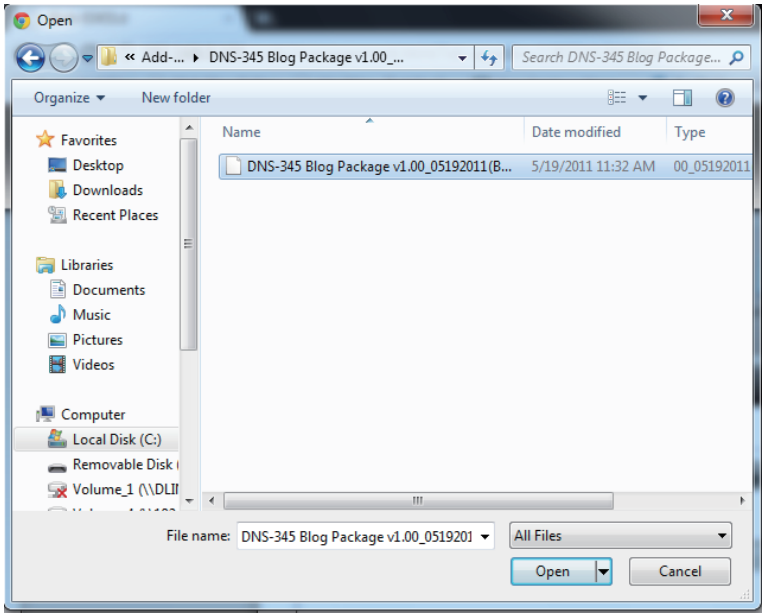
The Add-On menu allows multiple application software to add extended functionality to your ShareCenter. The Add on software is available from the D-Link website in your country and some are available from the Installation Wizard. Page 199 displays a list of some of the supported Add-ons available.

Click **Application Management,** then **Add Ons.**

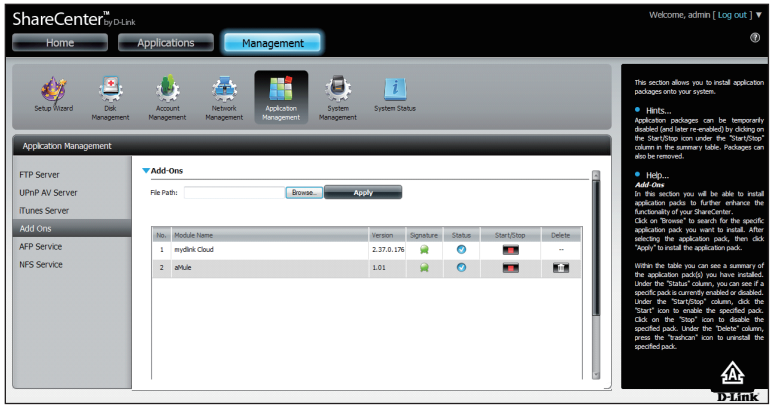
Click **Browse** to locate the add on packages on your local hard drive.



Once you have located the file, select it and click **Open**.

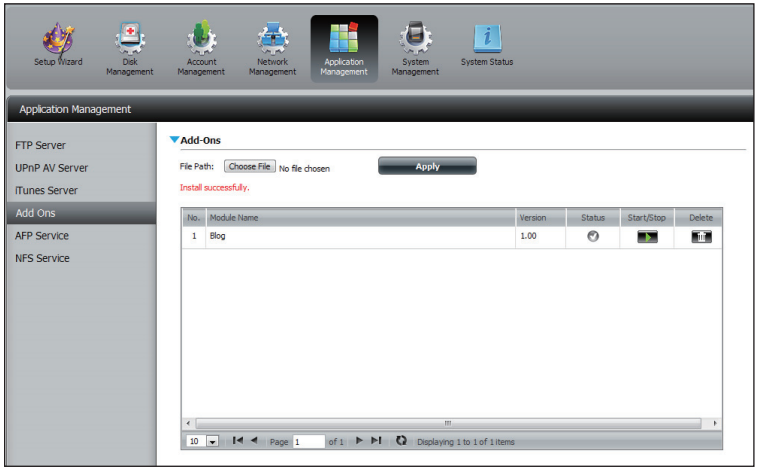


Once the path of the package has been located, click **Apply** to add the package.



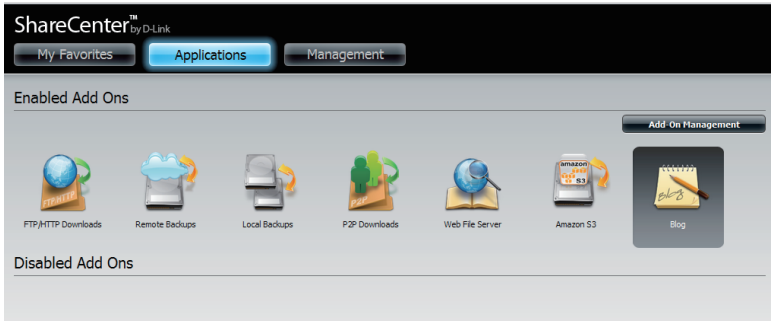
Under Add-ons, a red message will appear to show that the installation of the package was successful.

Click the **Start** button under Start/Stop.



Click the **Applications** button at the top of the browser. You will see your add-ons installed here.

Click it to **enable** the add-on.



AjaXplorer: Ajaxplorer provides an enhanced "explorer like" interface which can download and upload ShareCenter files over the internet. Ajaxplorer also allows a user, on any internet connection, to stream video/audio and view image files that are stored on the ShareCenter.

Photo Center: The Photo Center add-on sets up your ShareCenter to share your photos over the web. It provides a convenient interface from which you can create albums of photos with descriptions. The albums are then accessible over the web using HTTP so that your family and friends can then view your ShareCenter stored photos from any internet connection.

SqueezeCenter: Use the SqueezeCenter add-on to connect your Logitech Media Squeezebox player so that it can play music files stored on your ShareCenter.

Blog (Wordpress): Create your own ShareCenter based customized Blog. Using the ShareCenter's internet connection the Blog created using WordPress can be accessed and commented on from any internet connection.

Audio Streamer: Turn your ShareCenter into an Internet Streaming Music site. From your ShareCenter, the Audio Streamer add-on can transmit multiple streams of playing music files to any internet connection.

aMule: aMule is a P2P application for finding a variety of different media. It enables users to search for P2P files over networks. It works on all major platforms.

Caution: Your ShareCenter CPU resources will be reduced depending on the number of Add-ons you have enabled. Therefore for optimal performance make sure to disable any add-ons not in use.

Note: To check the complete list of Add-on application software available consult your local D-Link support page .

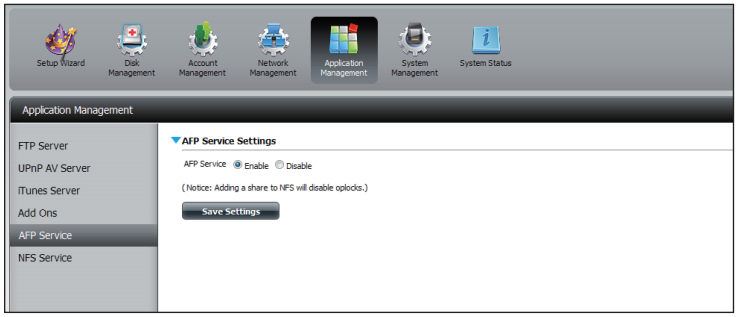
AFP Service

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**.



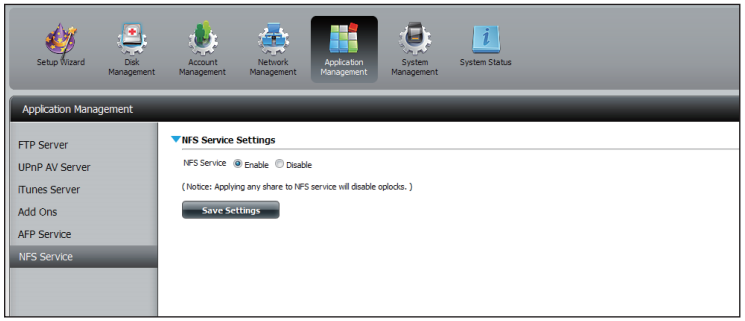
NFS Service

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**.



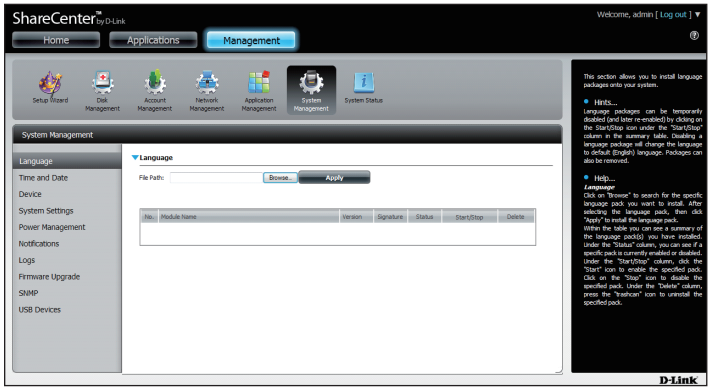
System Management

Language

The language packs help users customize the DNS-345 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.

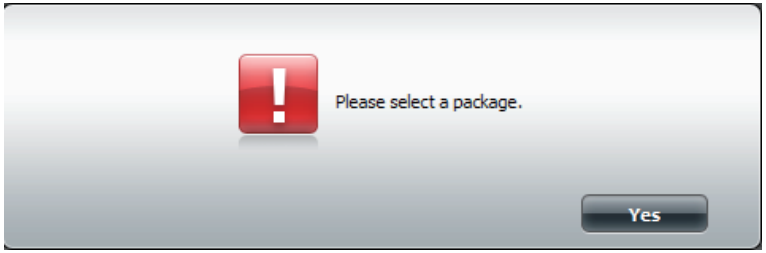
Click **System Management** and then **Language** to install a new language.

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.

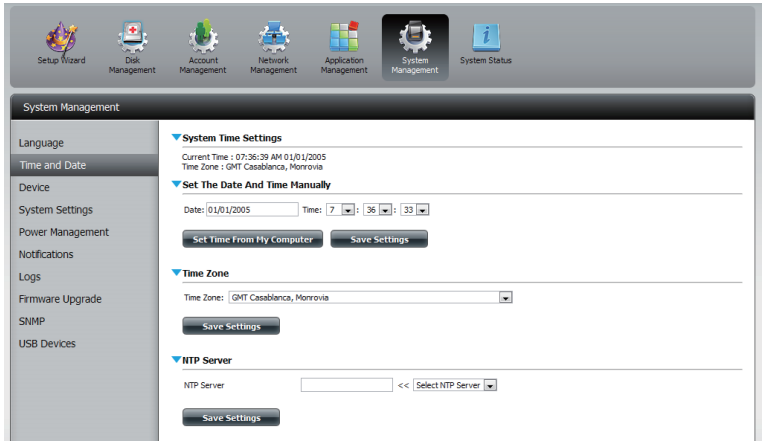
Click **Yes** to continue.



Time and Date

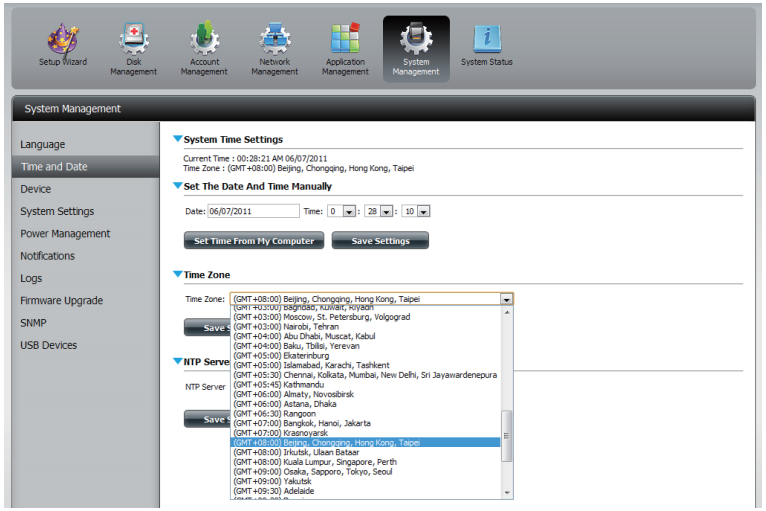
The Time and Date configuration option allows you to configure, update, and maintain the correct time and date on the internal system clock. In this section you can set the time zone that you are in, and set the NTP (Network Time Protocol) Server in order to periodically update your system time from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



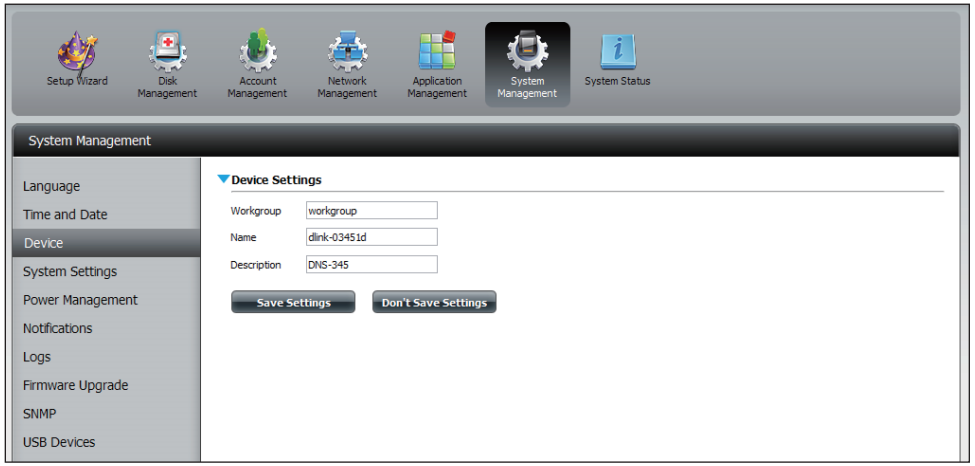
Device

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.



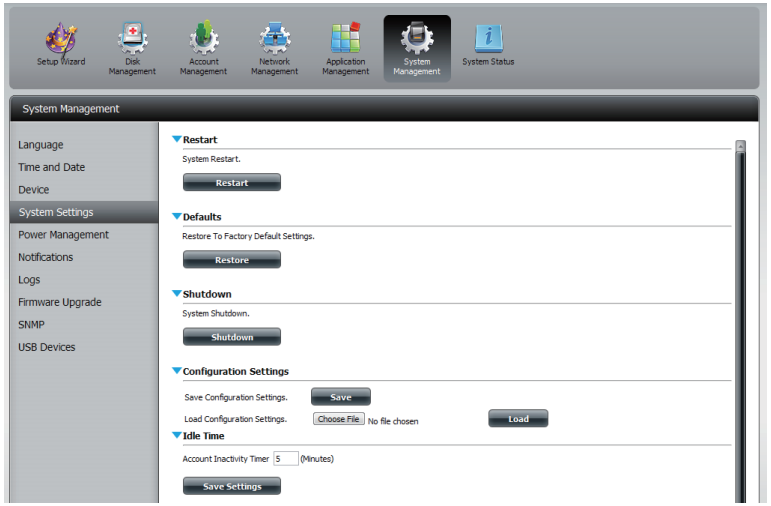
System Settings

System Settings provides features to control your DNS-345. 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-345.

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

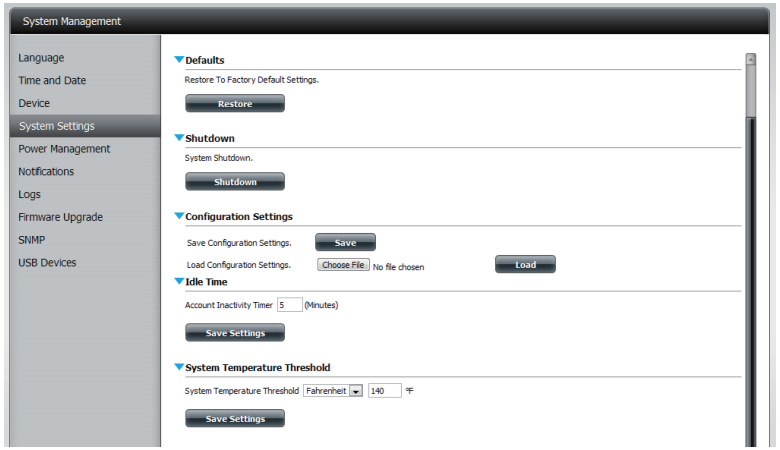
Shutdown: Click to turn off the DNS-345.



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.



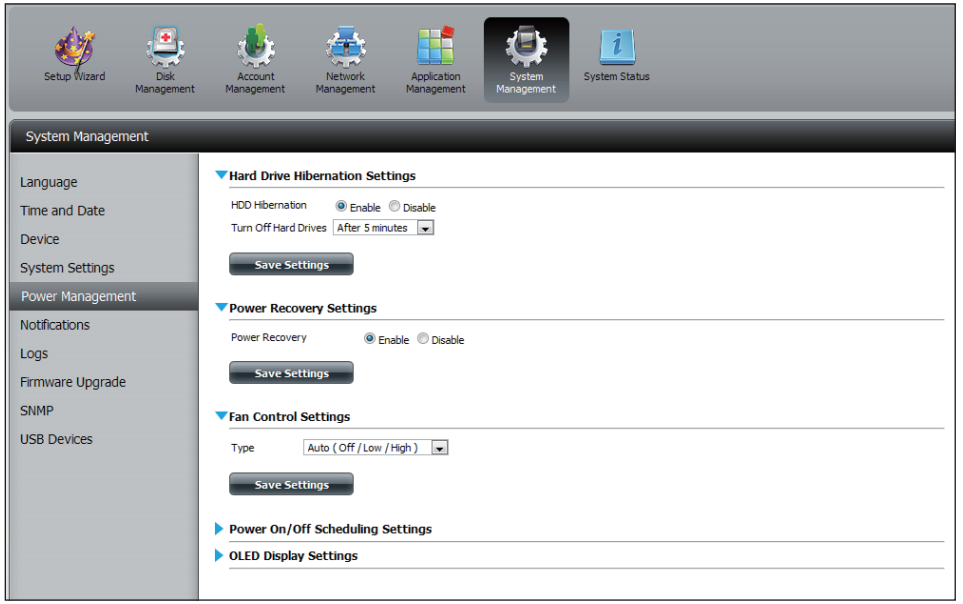
Power Management

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.



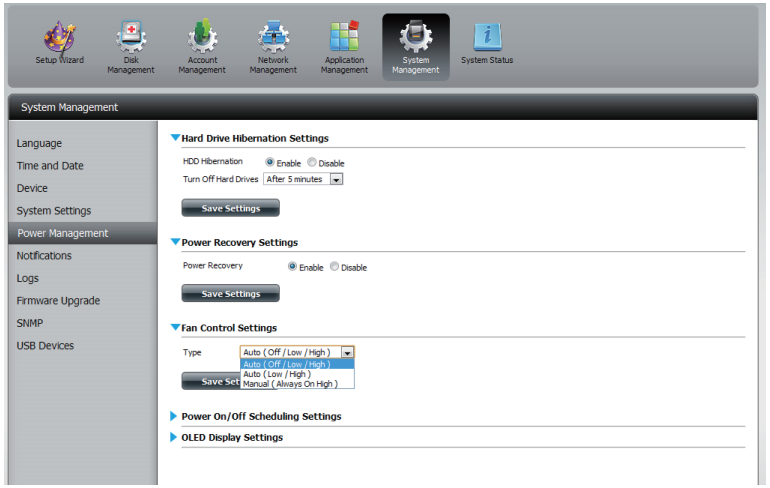
You can control the speed of the fan using three different settings and you can power off the device at scheduled times for each day of the week.

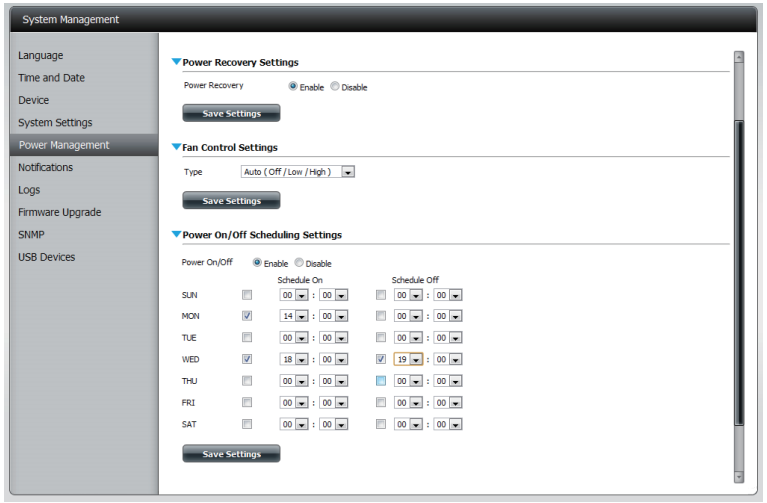
Fan Control: The speed of the fan can be controlled from this section.

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.

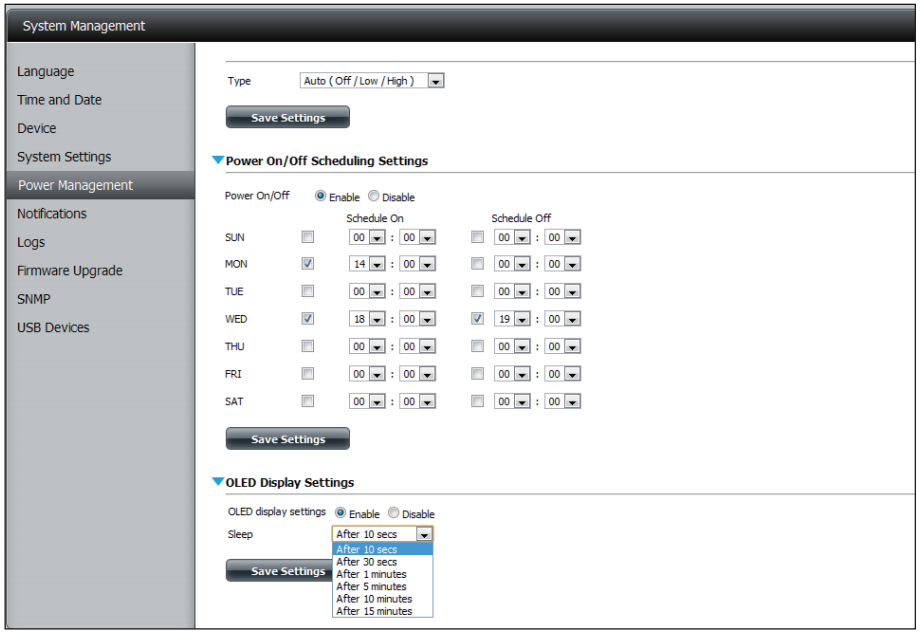




OLED Display Settings: Click Enable to display the OLED display for a specific time period.

Sleep: Select the time from the drop-down menu.

Click **Save Settings**.



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.

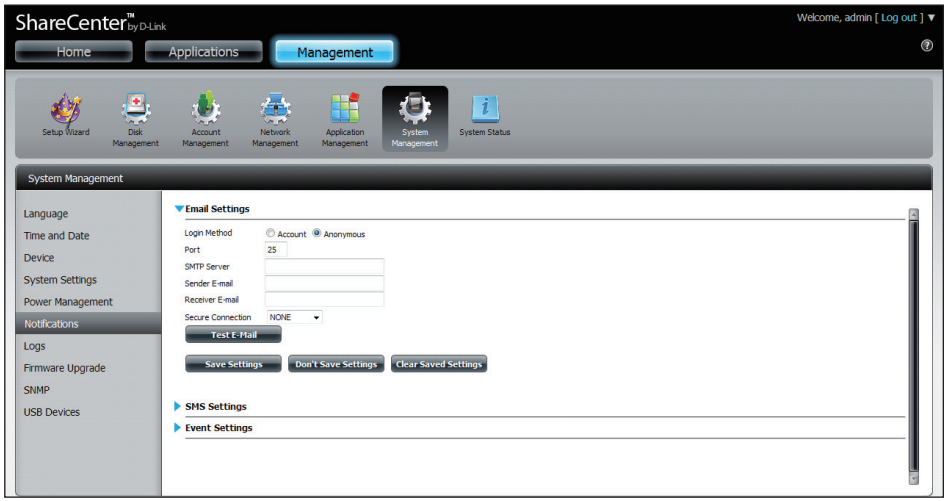
SMTP Server: Enter the IP address or domain name of your outgoing mail server. If you are unsure of this value, contact your e-mail provider.

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.

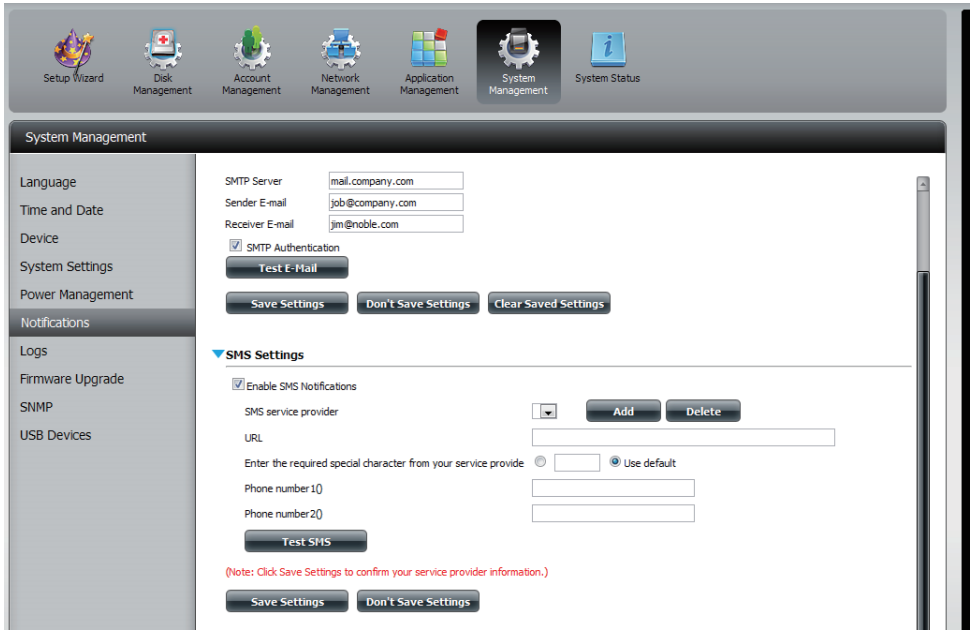
URL: The specific service provider URL provided and added in the Add procedure.

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.

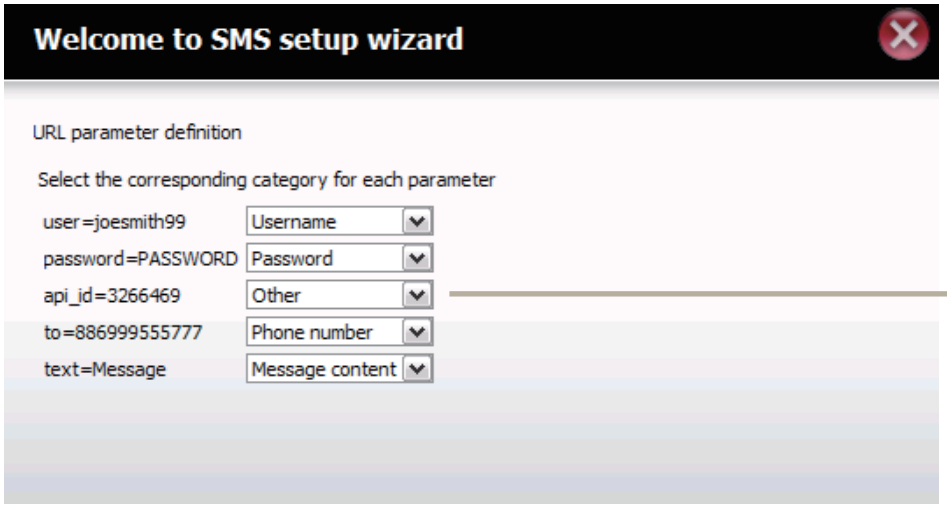


Adding an SMS Service Provider

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.

Enter your SMS Provider name here.

Enter the HTTP API URL provided to you.

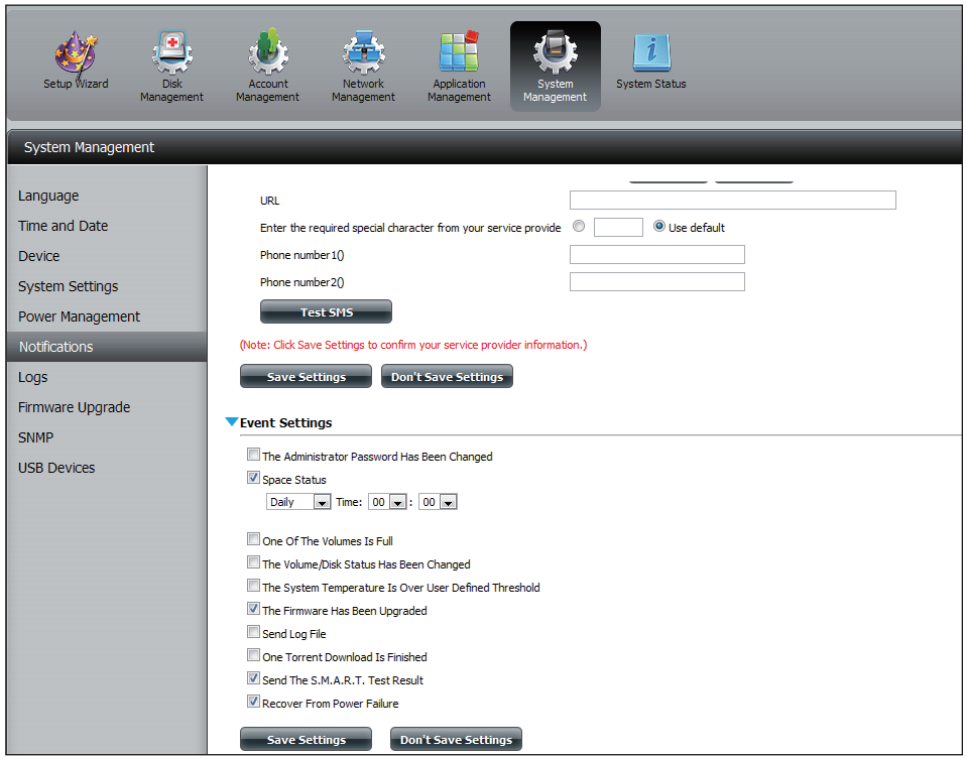


Choose the appropriate type parameter in the drop-down menu for the parsed parameters of the URL on the left.

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.



Logs

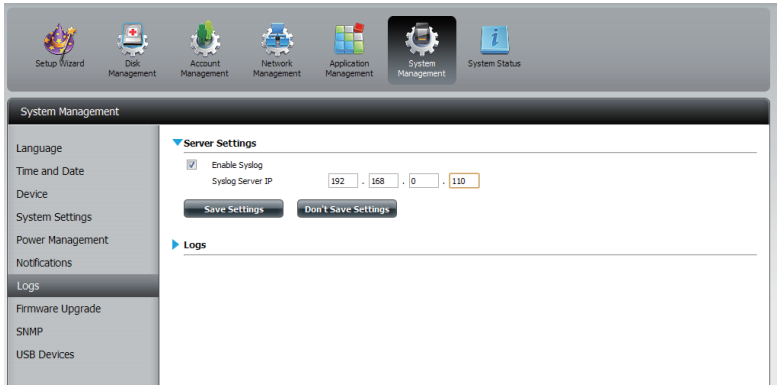
Within the Logs menu you can setup your ShareCenter to receive Log Events from other ShareCenters or send the ShareCenter's log events to another ShareCenter or SysLog server. You can also view the NAS system logs and the FTP logs here.

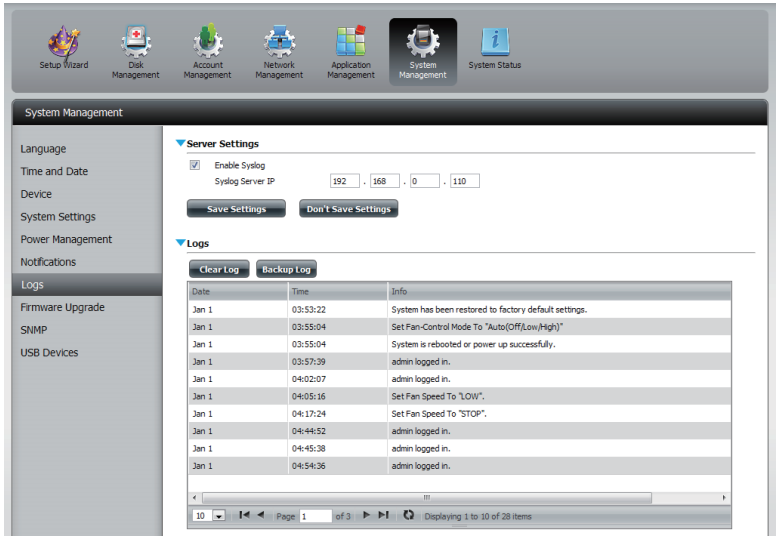
Enable Syslog: Click to activate the Syslog server functionality of your device to be able to receive logs from other ShareCenters.

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.





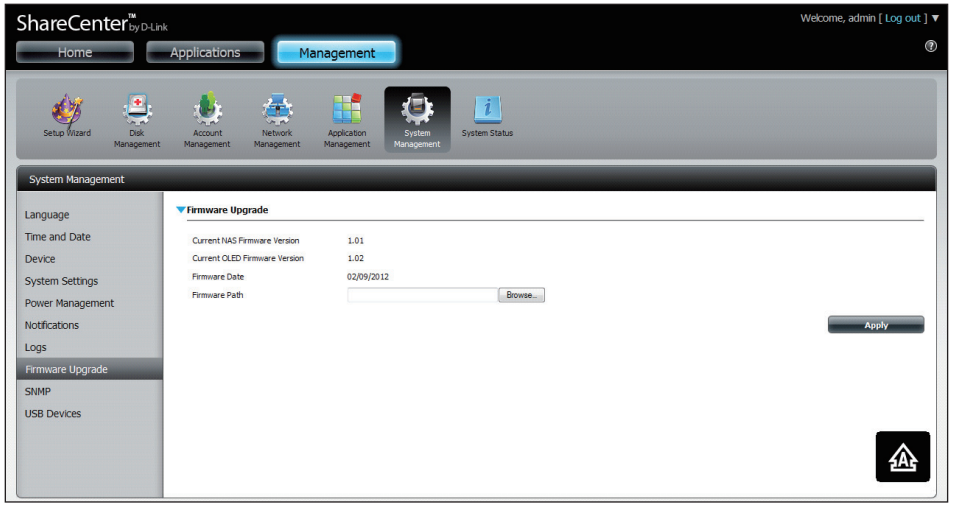
Firmware Upgrade

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.



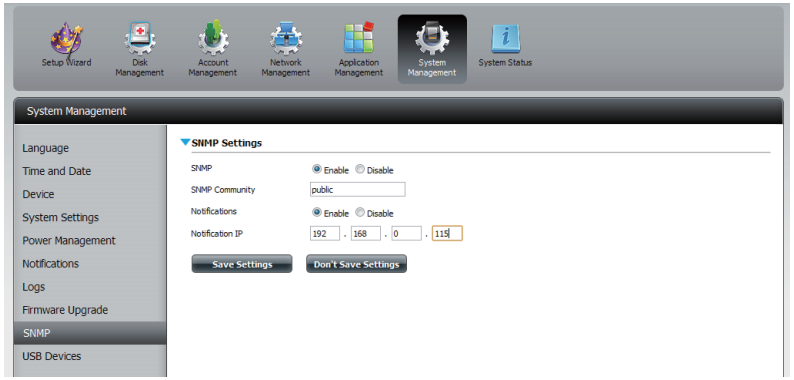
SNMP

Enabling SNMP allows for the NAS administrator to monitor and receive notifications via SNMP.

Click **System Management** and then **SNMP**.

1. Click **Enable** to activate SNMP.
2. Enter the SNMP community name. The default name is Public.
3. Enable notifications and specify the destination IP address.

Click **Save Settings** to continue.



USB Devices

UPS Settings

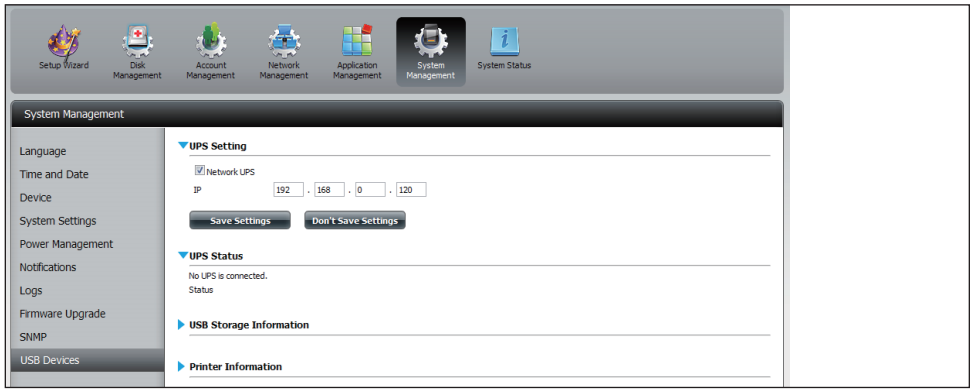
Network UPS is a system management feature that uses a local UPS to protect your NAS from an abnormal shutdown due to a power failure.

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.*

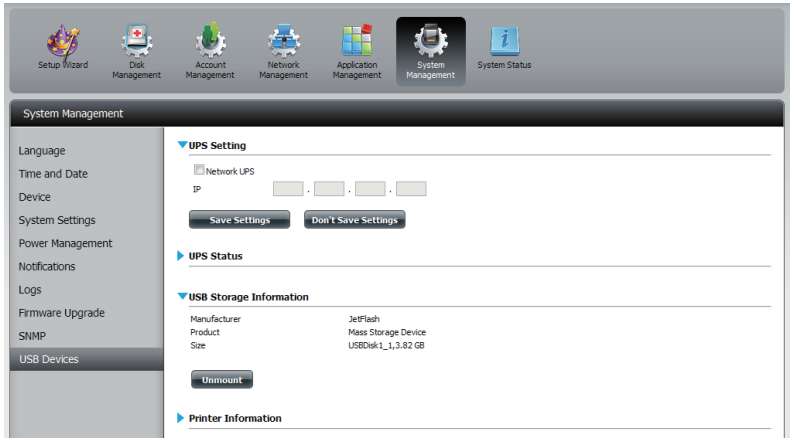
If a UPS device is connected to the USB port on your NAS, you can select either Stand-Alone or Master mode. If you select Master mode, you will have to enter the IP address(es) of the network UPS slaves to notify them in the event of a power failure. For more details, refer to the **UPS Connectivity**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

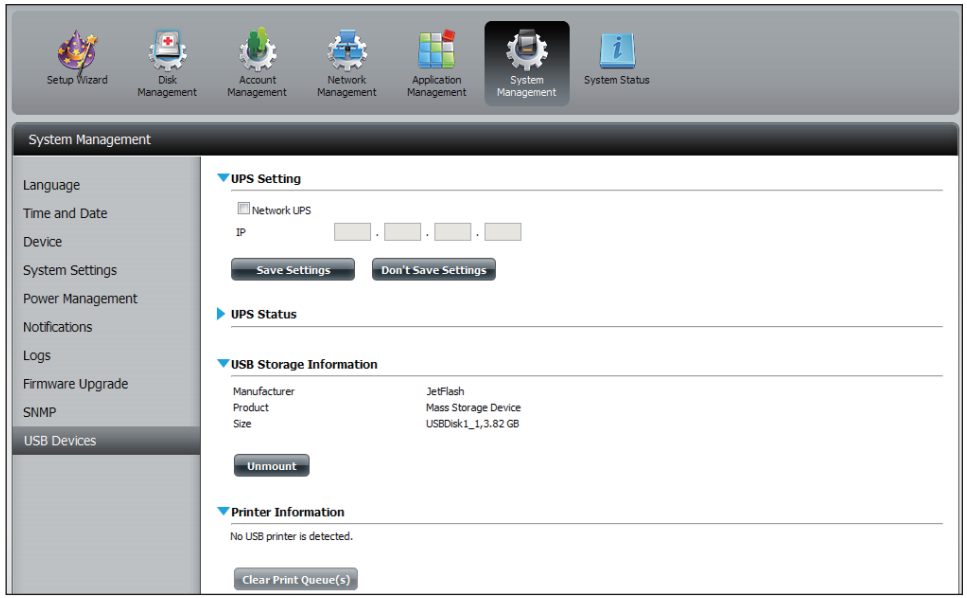


Printer Information

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

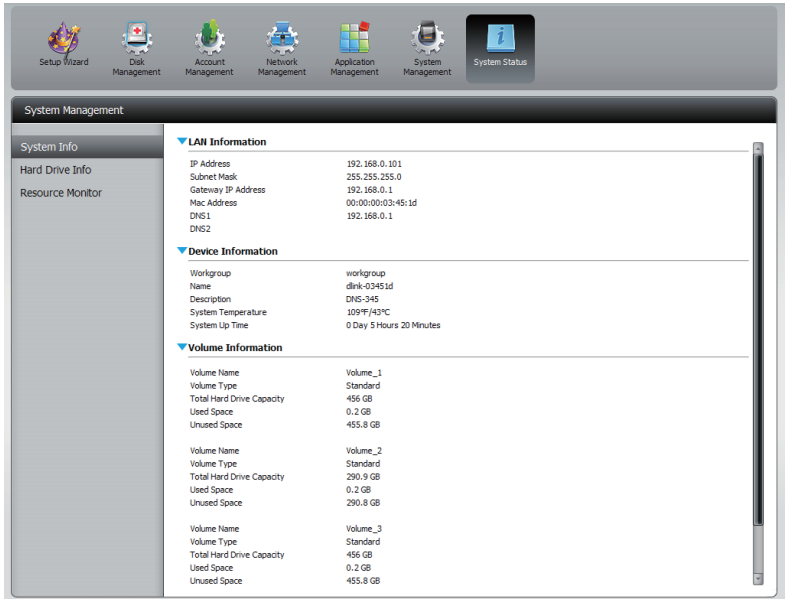
System Info

The System Status information screen provides information on the DNS-345. 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**

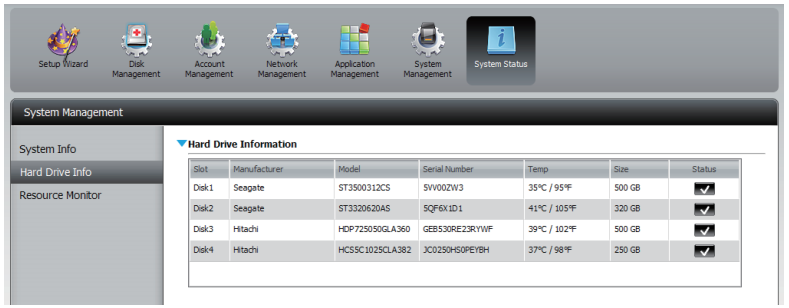
Click the blue arrow from each of the headings to reveal information on each segment.

LAN Information, Device Information, and Volume Information.



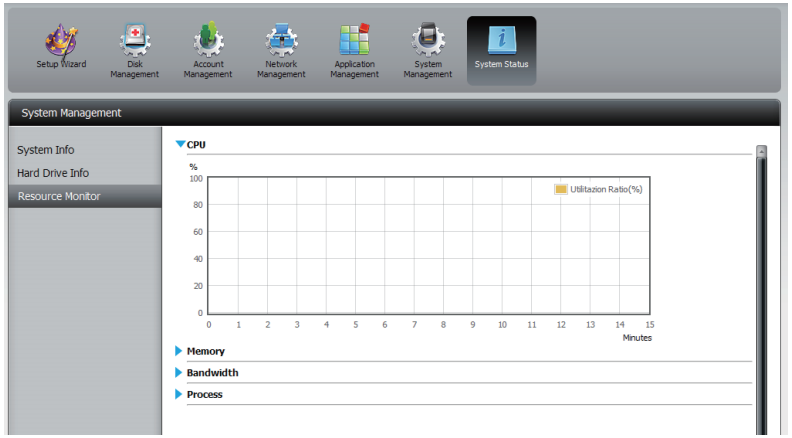
Click **System Status** and then **Hard Drive Info**.

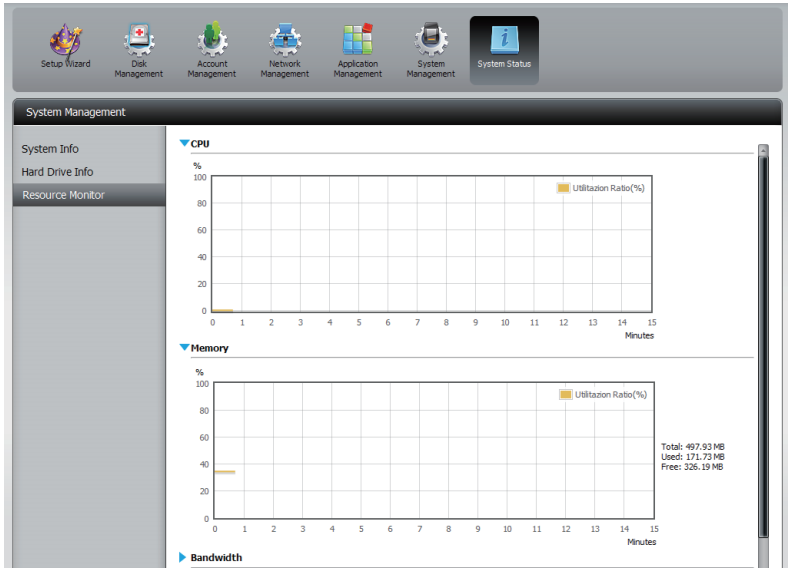
Click the blue arrow to reveal a table of hard drive information.



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

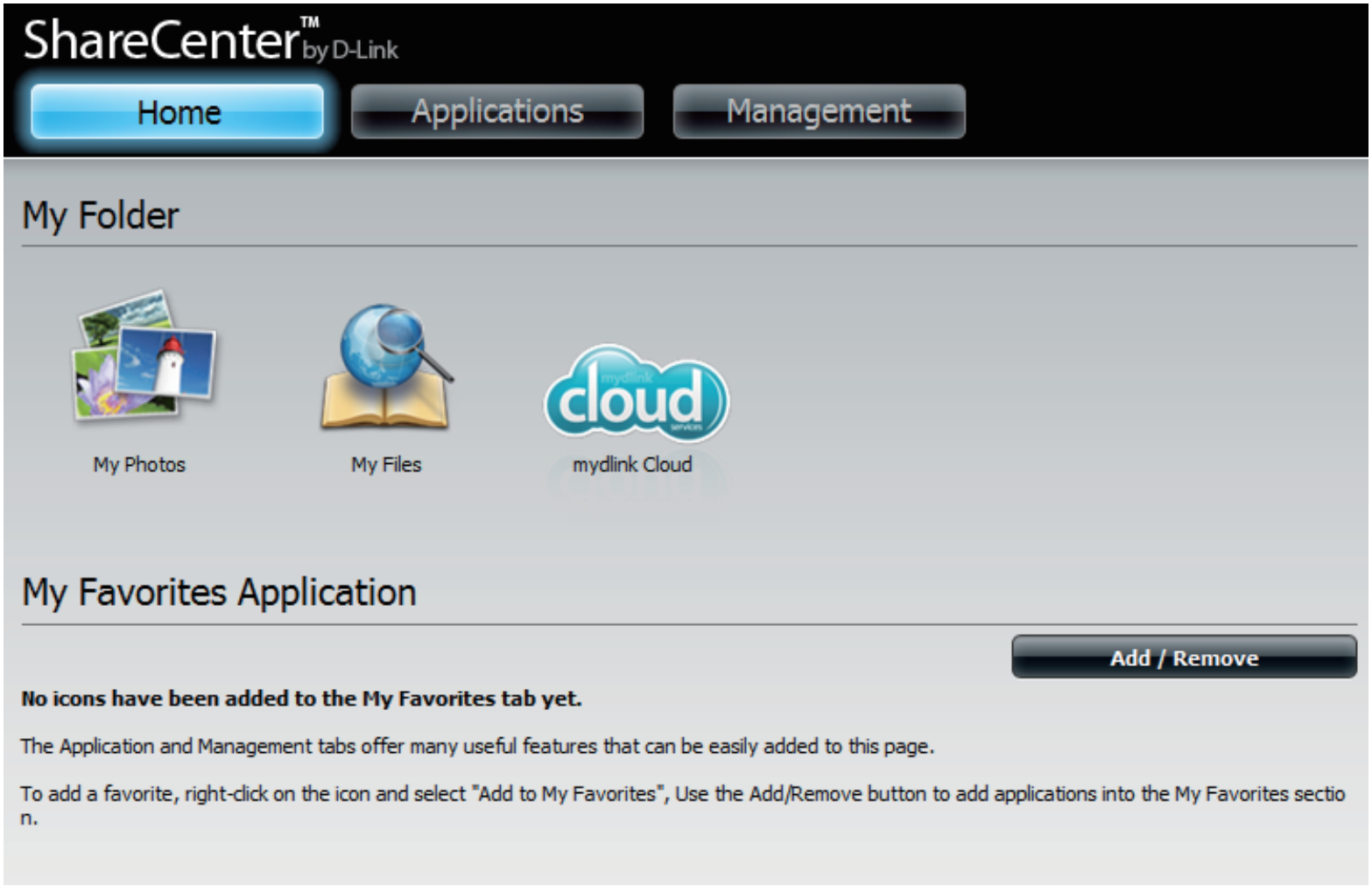
It provides information on the CPU, memory, bandwidth, and processes in action.





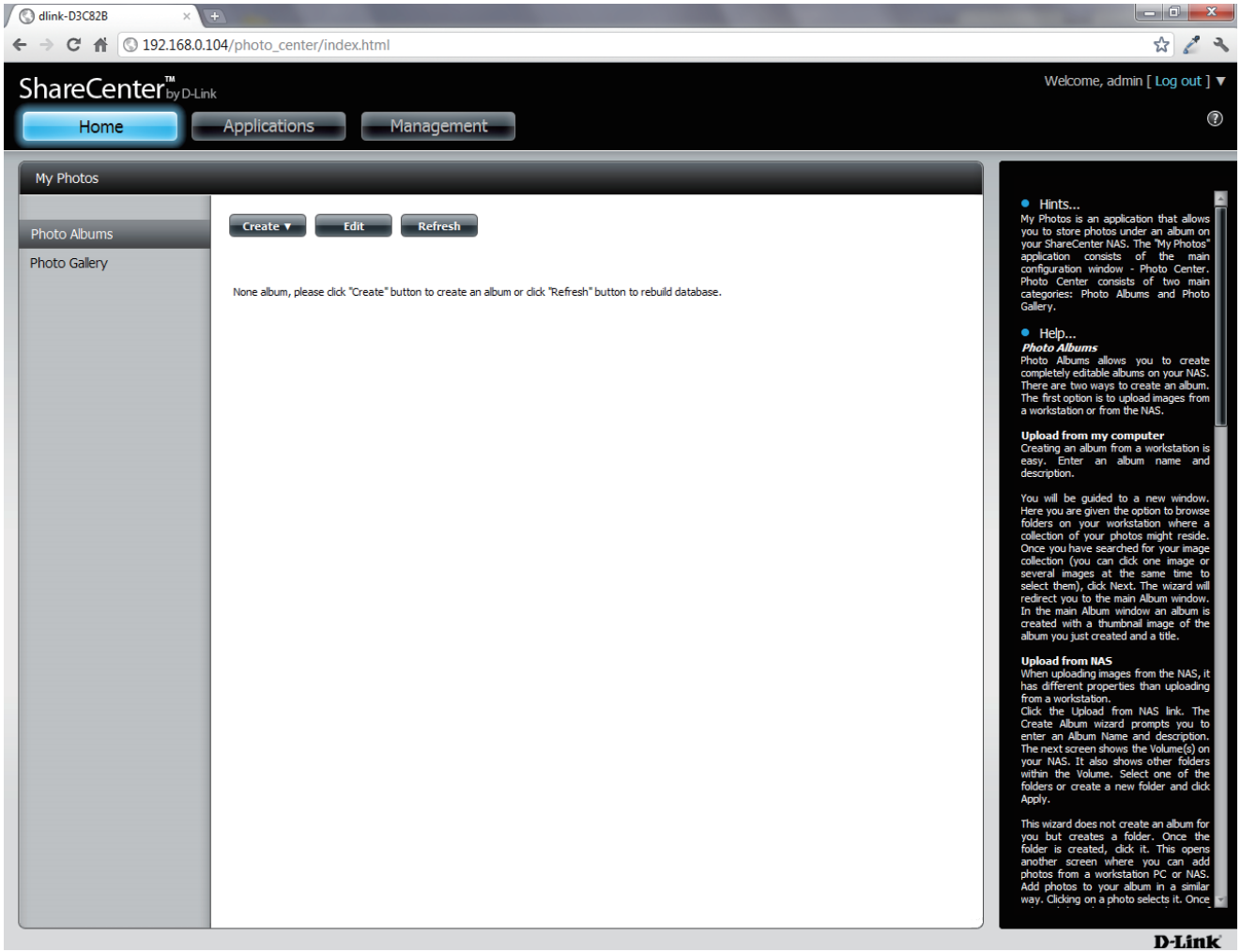
Home

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 three main utilities, My Photos, My Files, and mydlink Cloud. Let's take a closer look at all three utilities independently.



My Photos

My Photos is an utility to create albums on the ShareCenter and share photos via Google+ and Cooliris. Click the My Photos icon to open the window (displayed below).



Creating an Album

Move your mouse and hover over the **Create** button. Two options become available: **Upload from my computer** and **Upload from NAS**.

Click **Upload from my computer.**

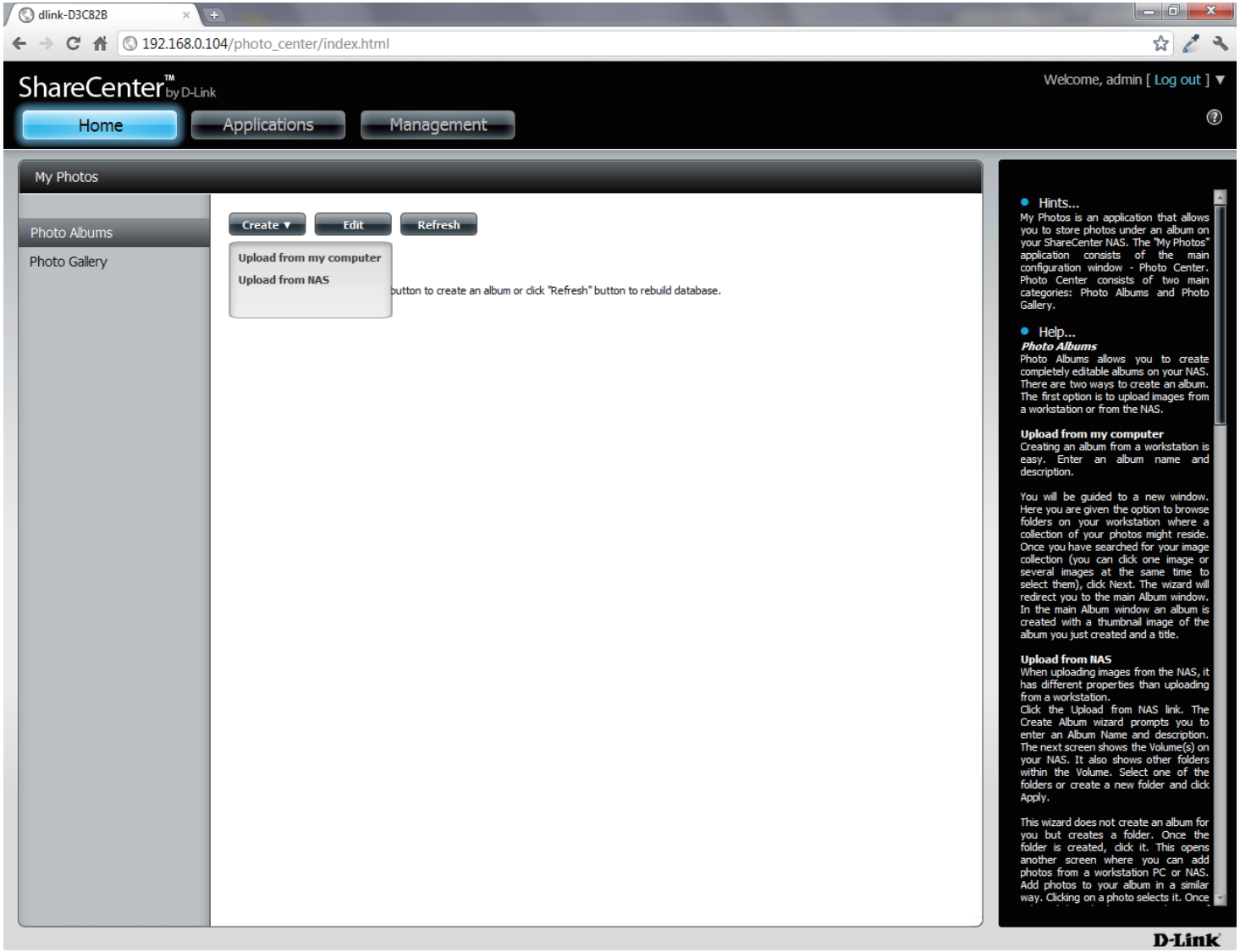
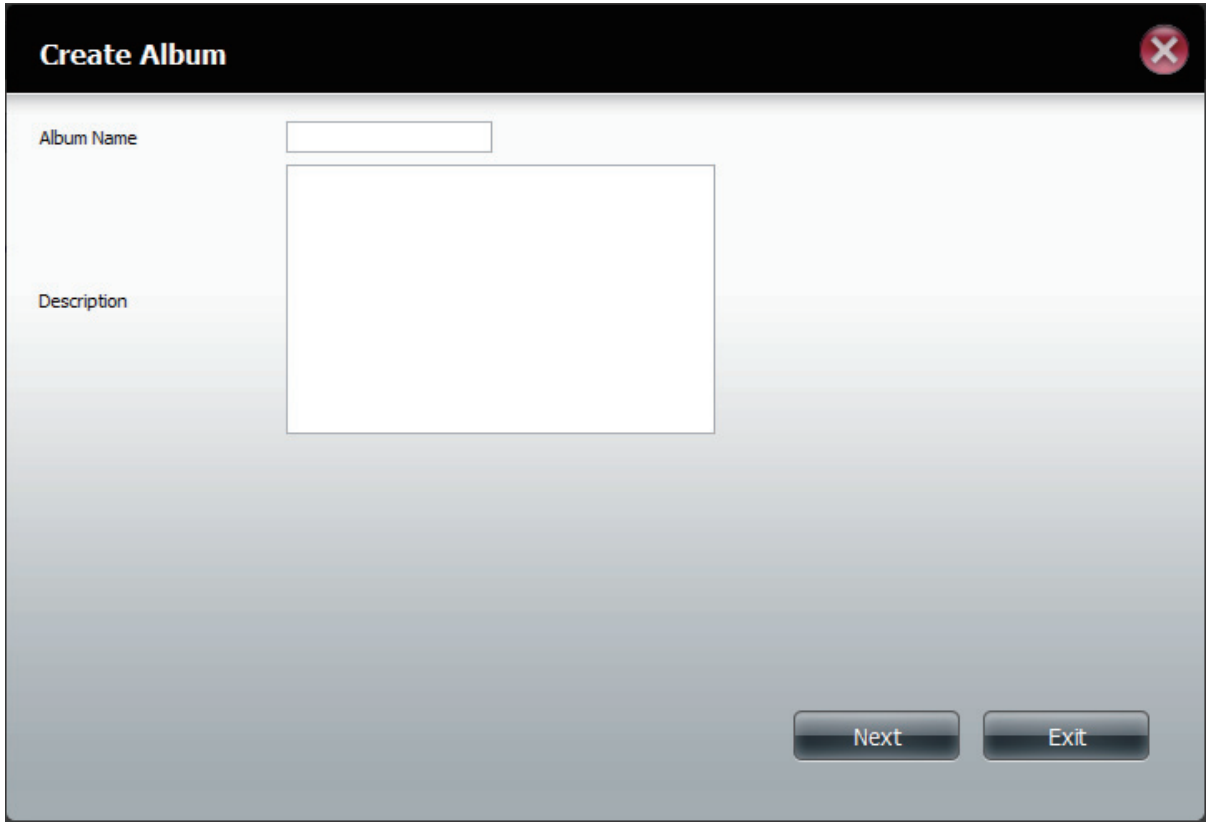


Photo Album Wizard

The **Photo Album Wizard** will assist you with uploading photos from your computer to the ShareCenter. The first step is to create an **Album**.

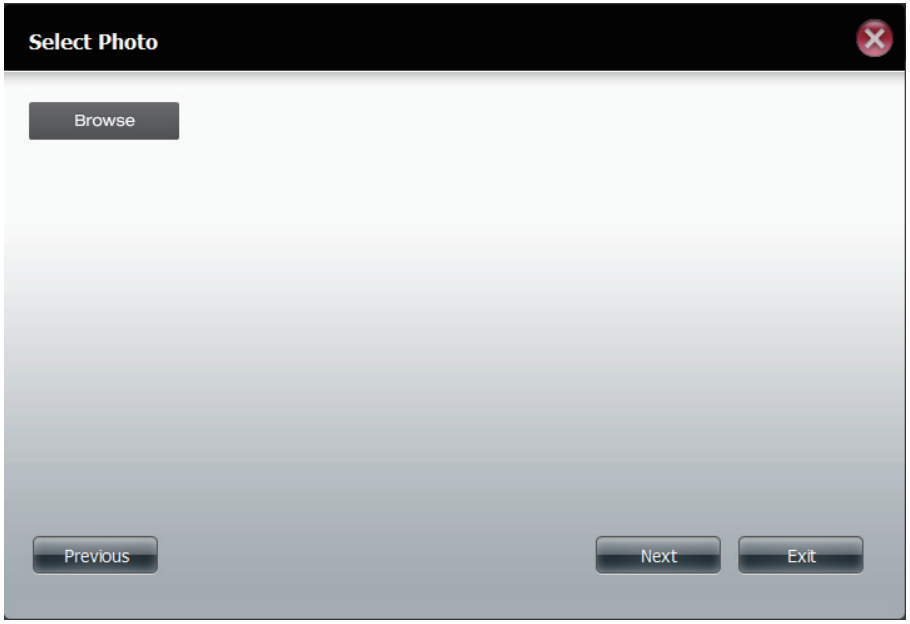
In the **Album Name** field, enter your desired name and then enter a description in the Description field. Click **Next** to continue.

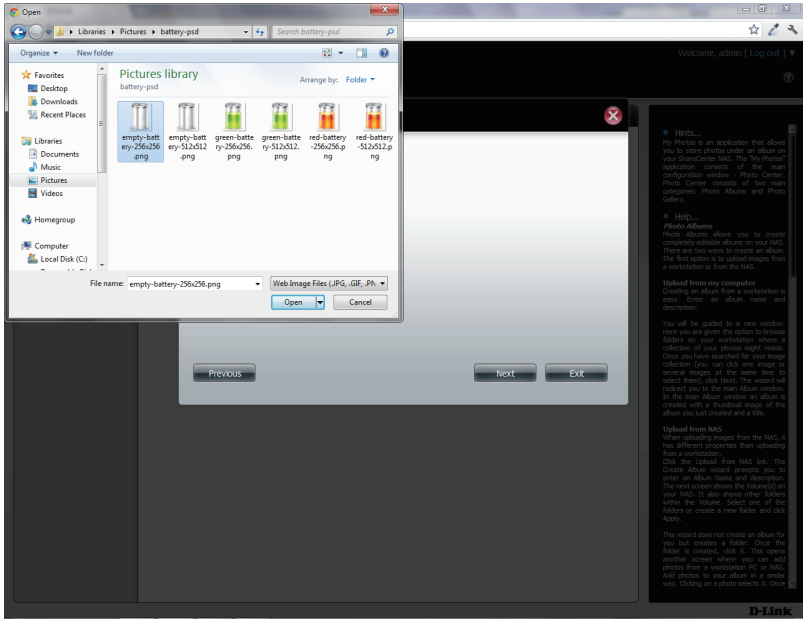


Under the **Select Photo** section, click the **browse** button to search your computer for your photos.

If you wish to add more than one photo repeat the process or hold the **Shift/Control** button on your keyboard and select the photos to add.

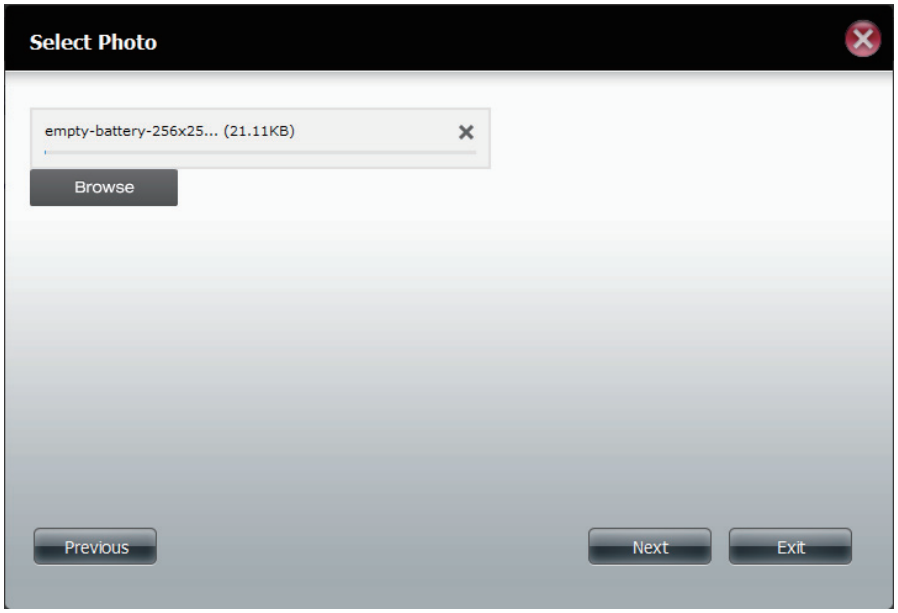
Click the **Open** button to add them to the **Album**.

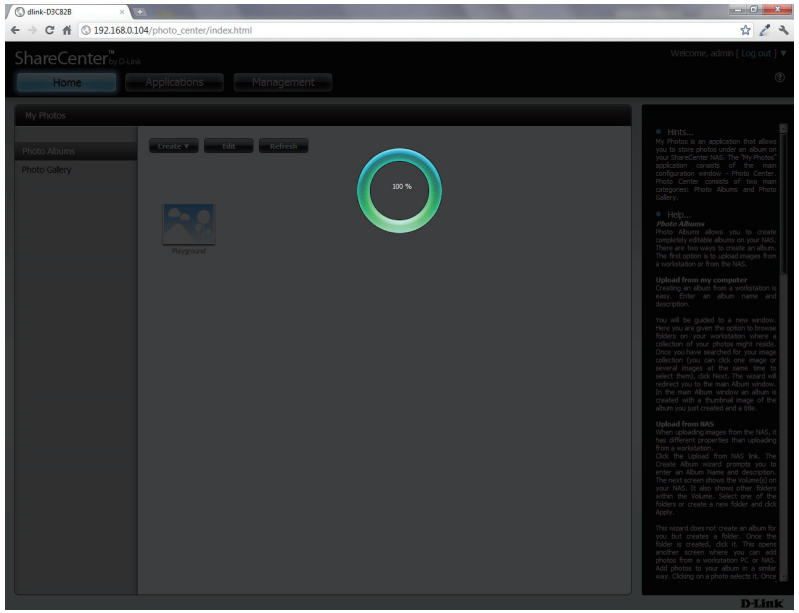




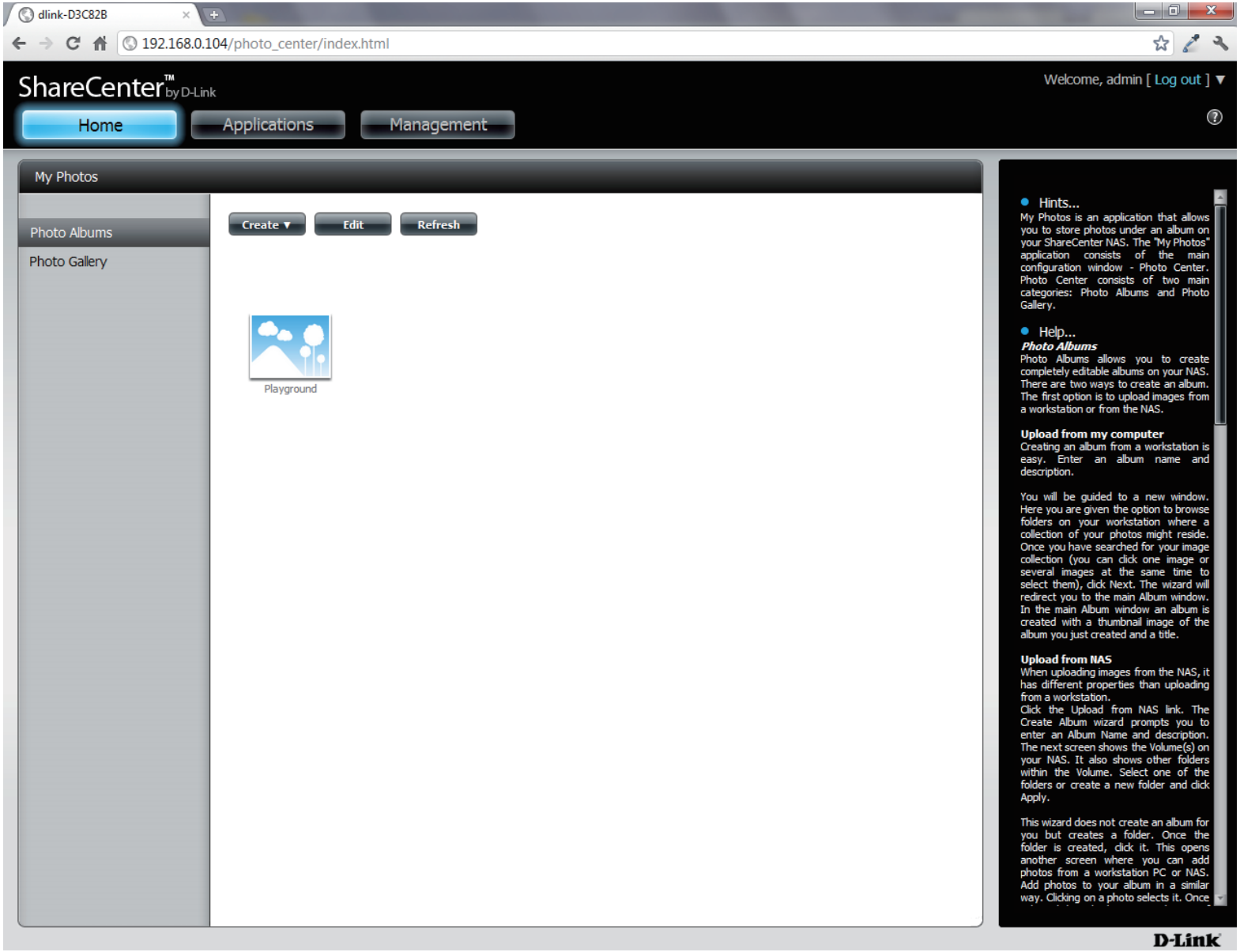
The **Photo Album Wizard** is now populated with the photos you have selected. Click **Next** to upload the photos.

ShareCenter automatically updates the photos to the NAS.





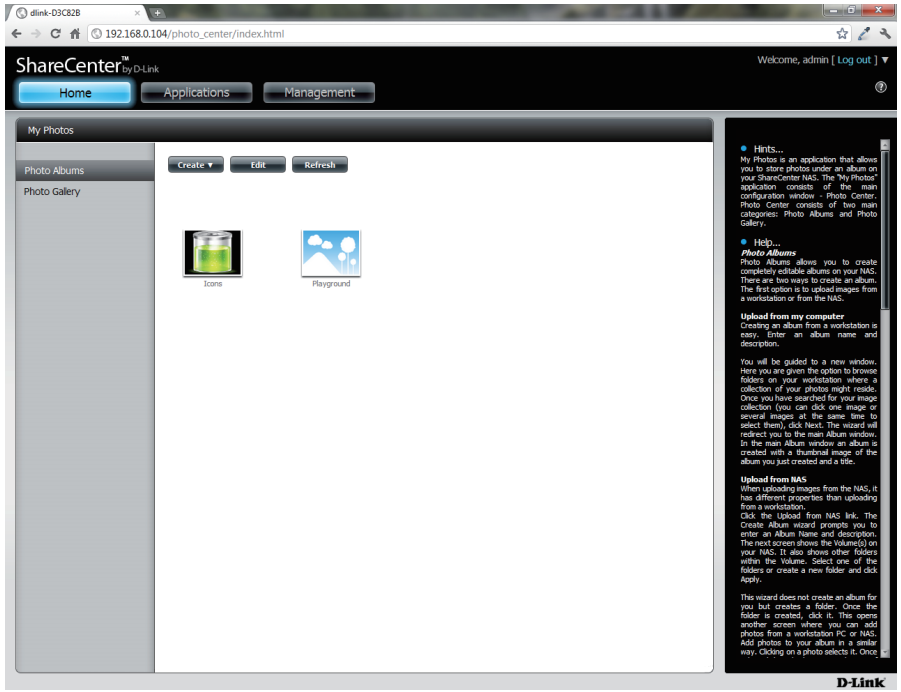
The **Photo Album** now features your Album.

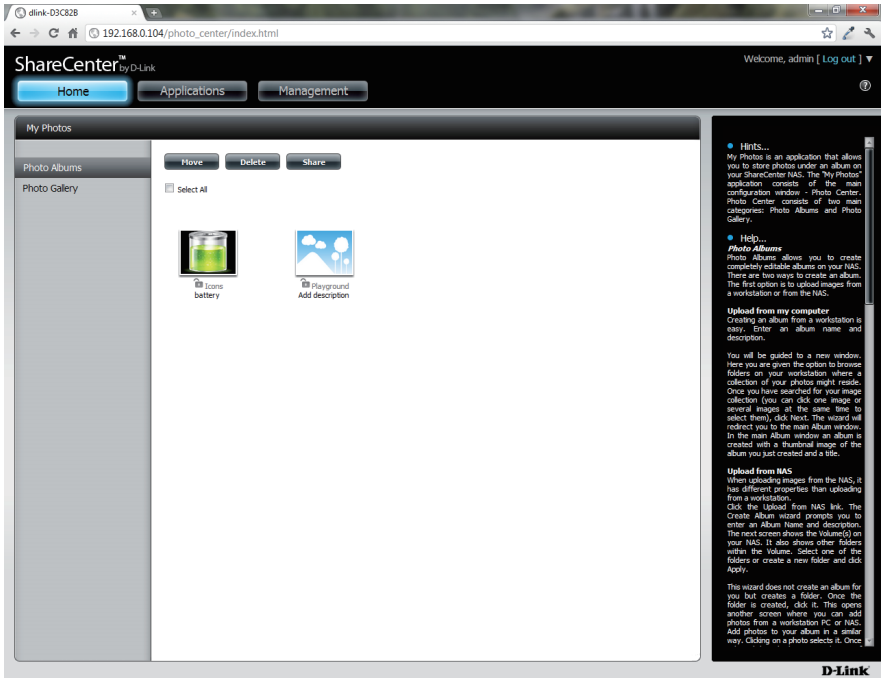


Editing the Photo Album

Go to **Home** > **My Photos** > **Photo Albums** and click **Edit.** The button set at the top changes to Move, Delete, Share.

Click the **album(s)** you want to edit or click the checkbox next to **Select All**.

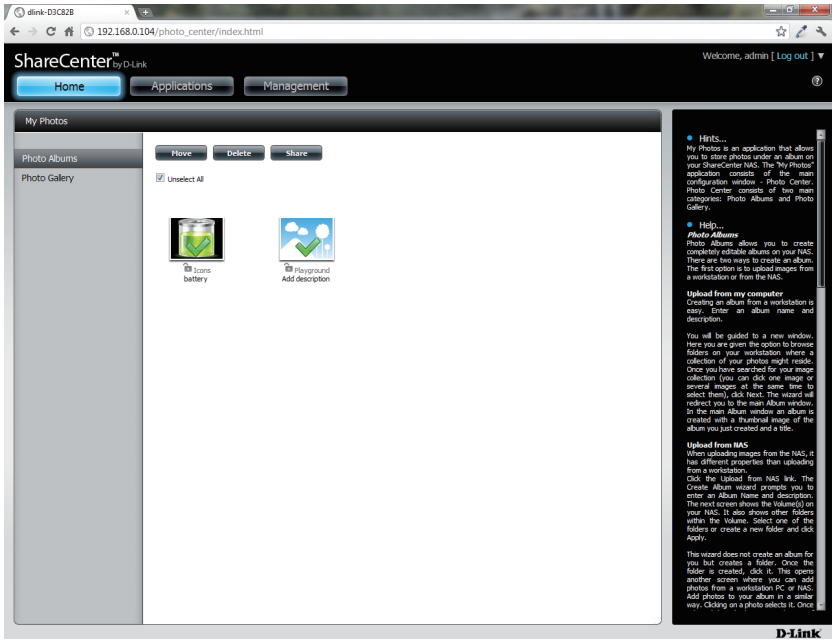


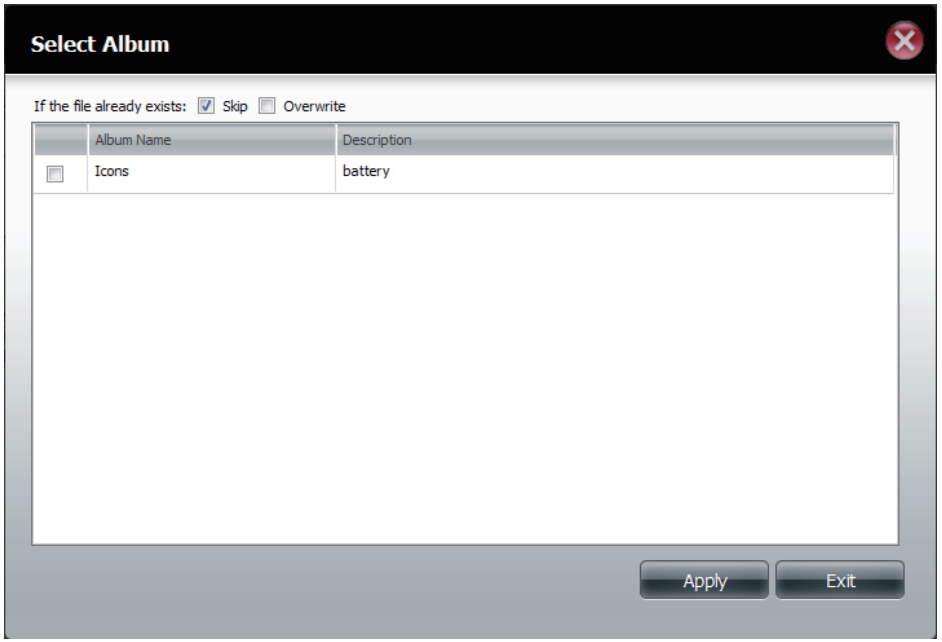


Moving a Photo

Select the **Album/photos** you want to edit and click **Move**.

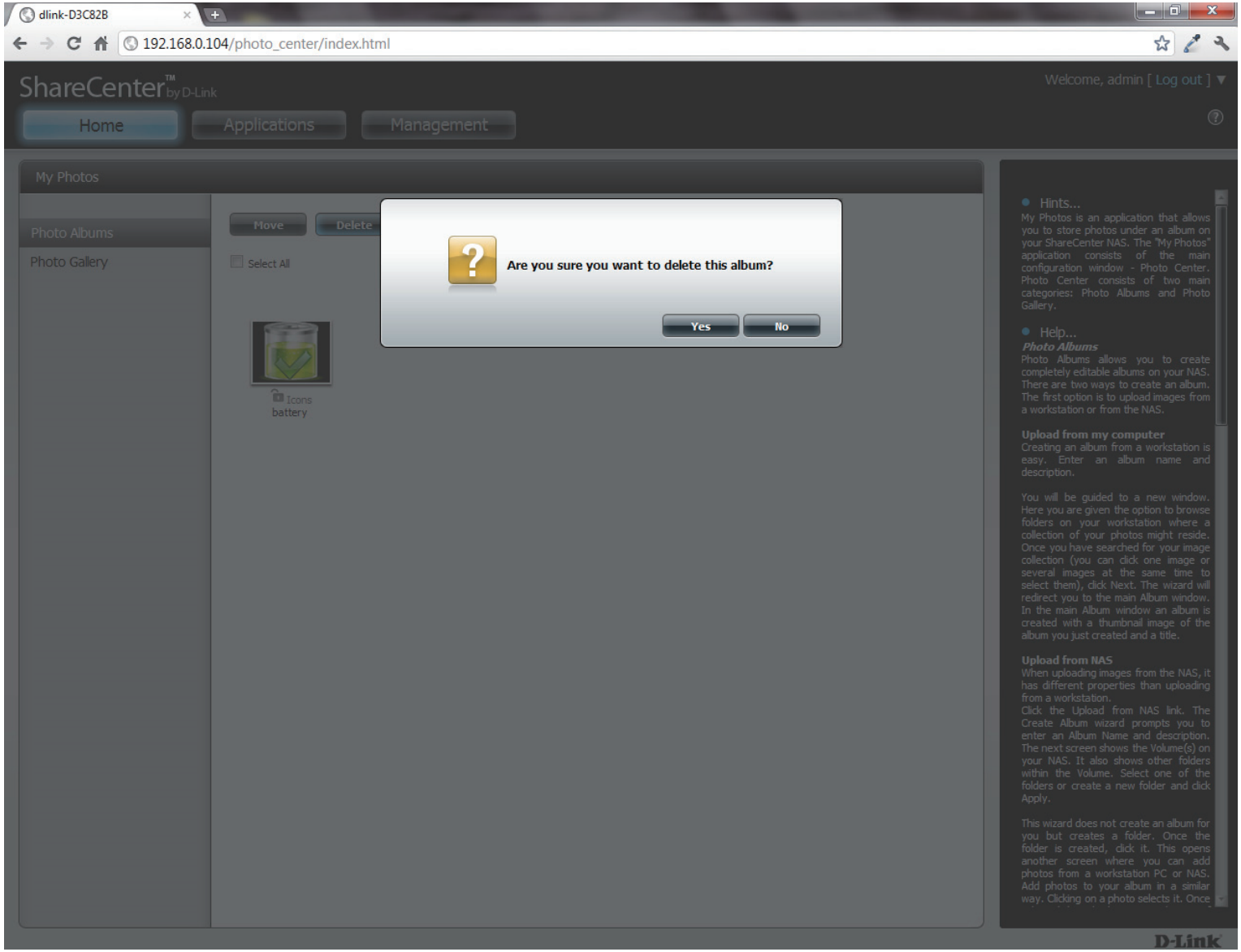
At the top of the editing wizard, you have the option to **skip** the file if it exists or **overwrite** it. Select an album that you want to move photos to and click **Apply**.





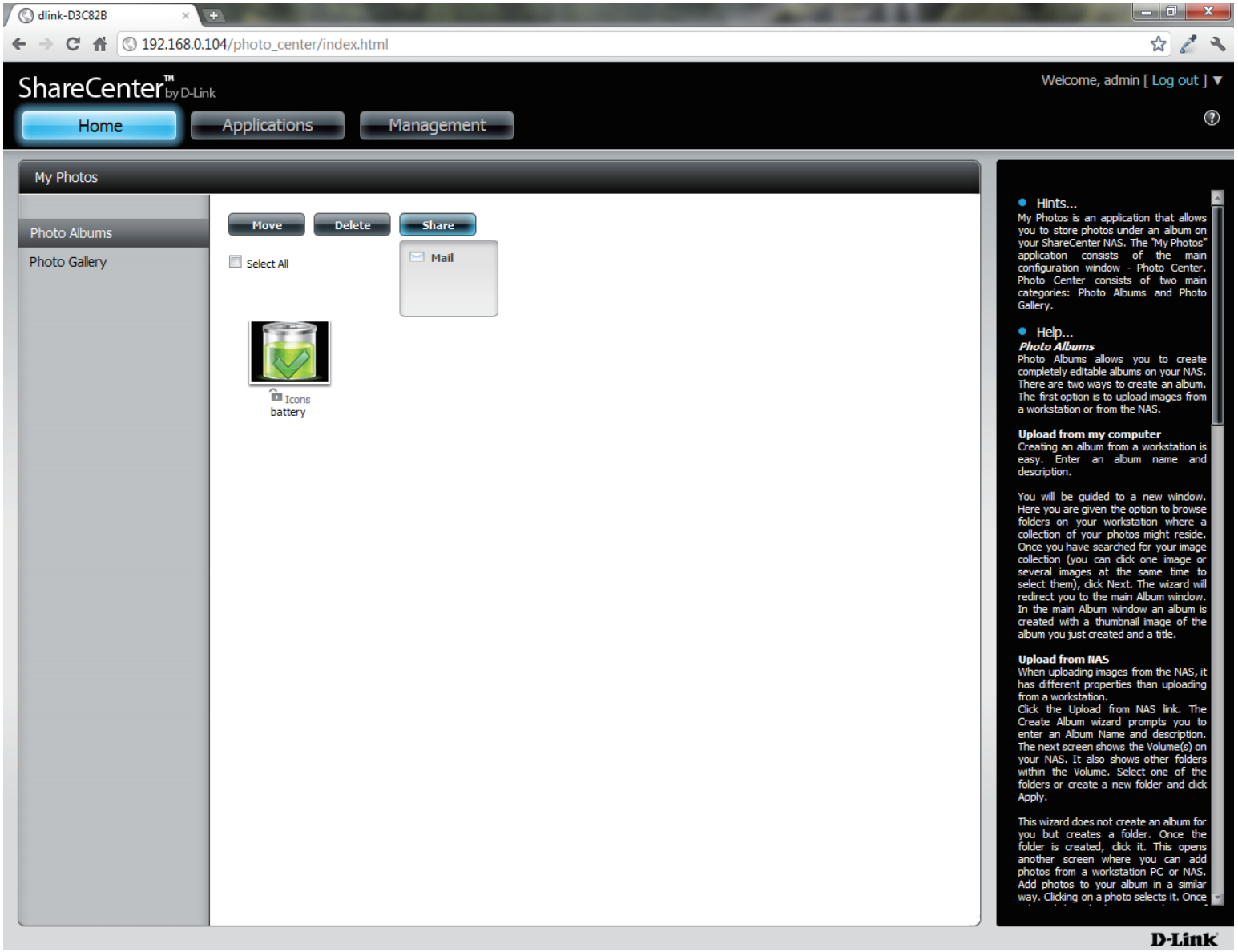
Deleting the Albums

Select the album you wish to delete or click the **Select All** checkbox. Click the **Delete** button. A warning message will appear to confirm whether you want to delete the album. Click **Yes** to delete the album or click **No** to not delete it.

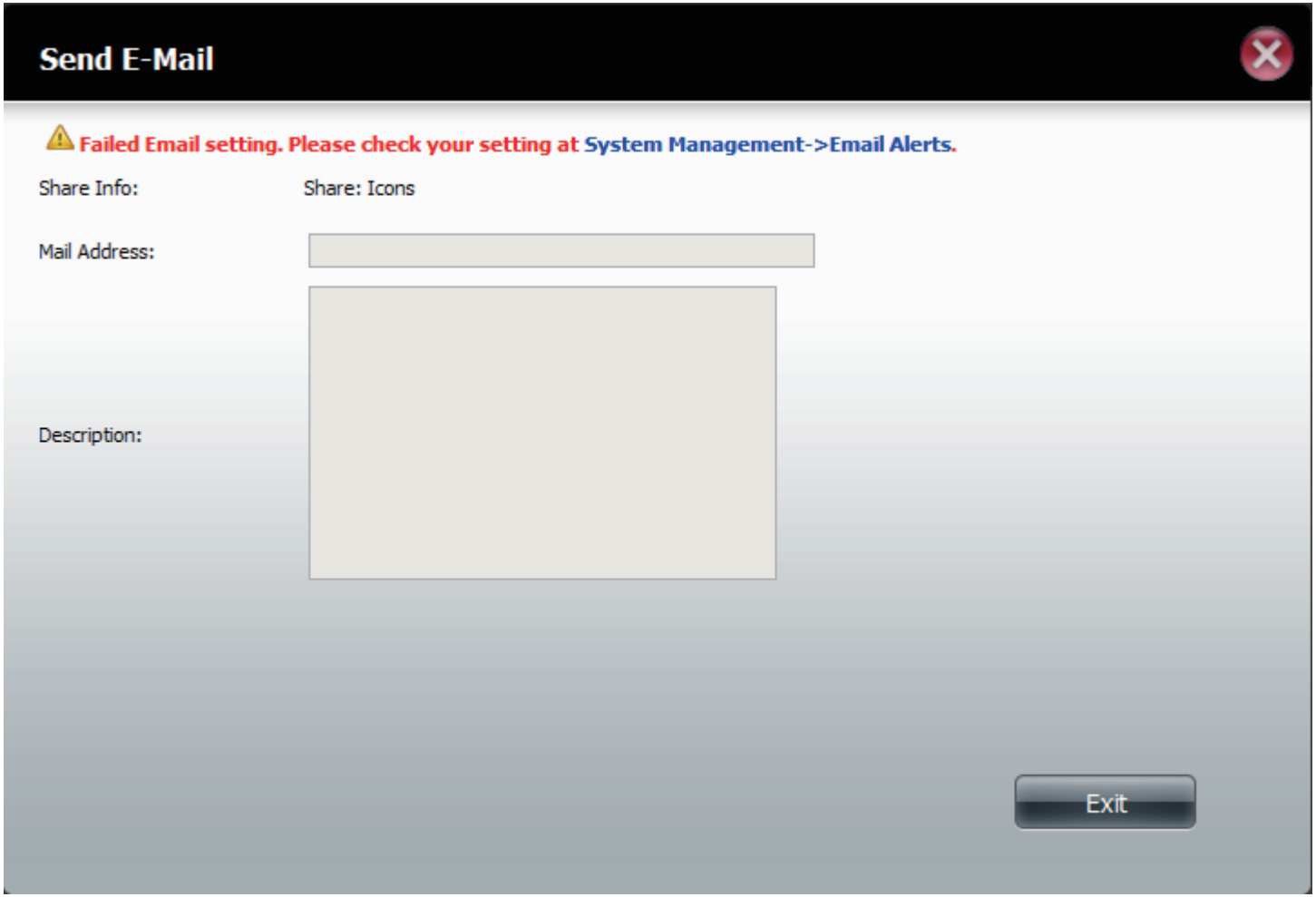


Sharing your Photos

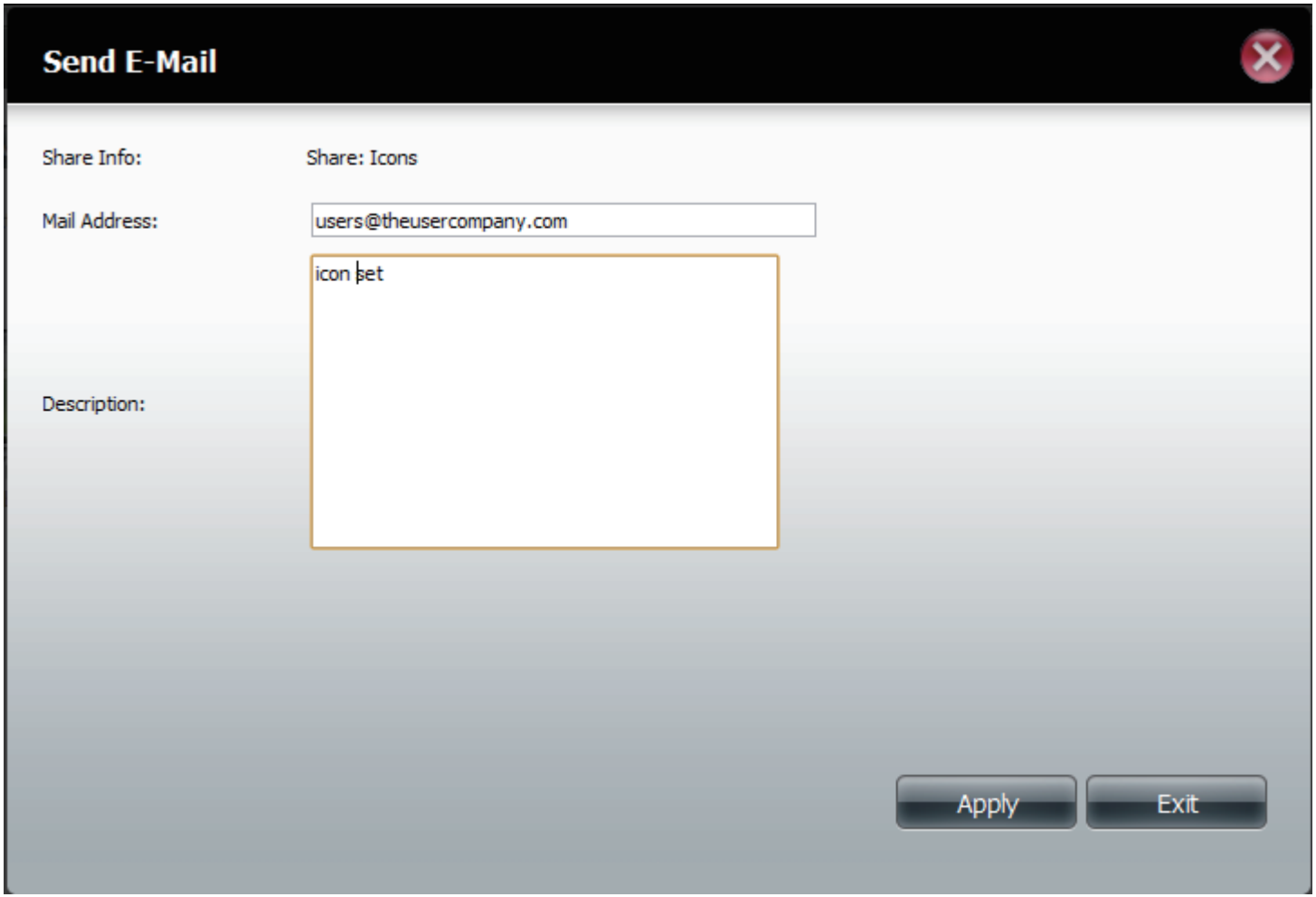
To share your photos select a photo album by clicking it. Then hover your mouse cursor over the **Share** button. Click **Mail** from the drop-down menu to continue. You must select a photo album before proceeding.



If you receive an error message, it means you haven't setup your email settings. Click the link provided to configure your email settings if you haven't configured it before.

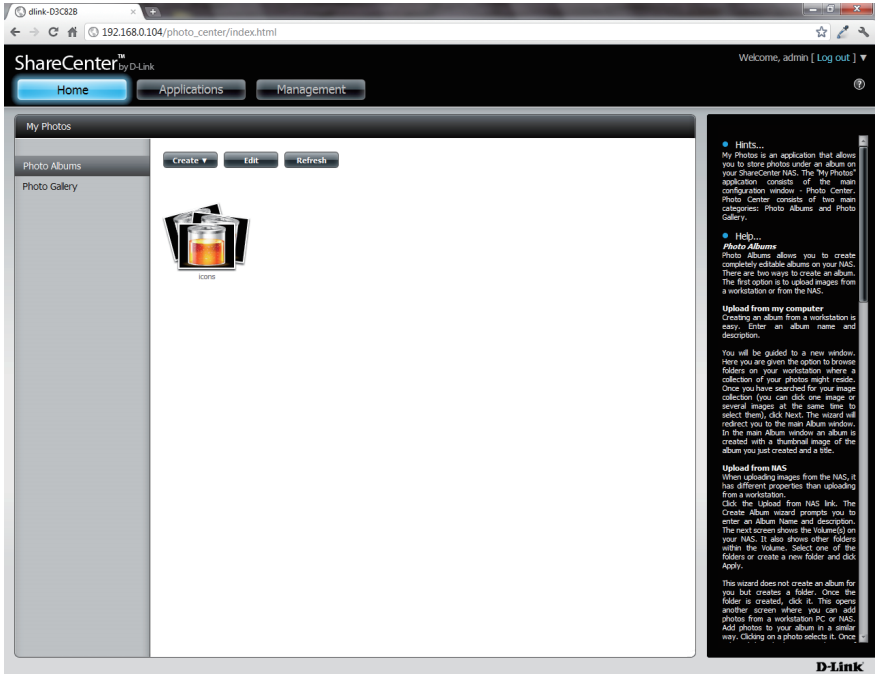


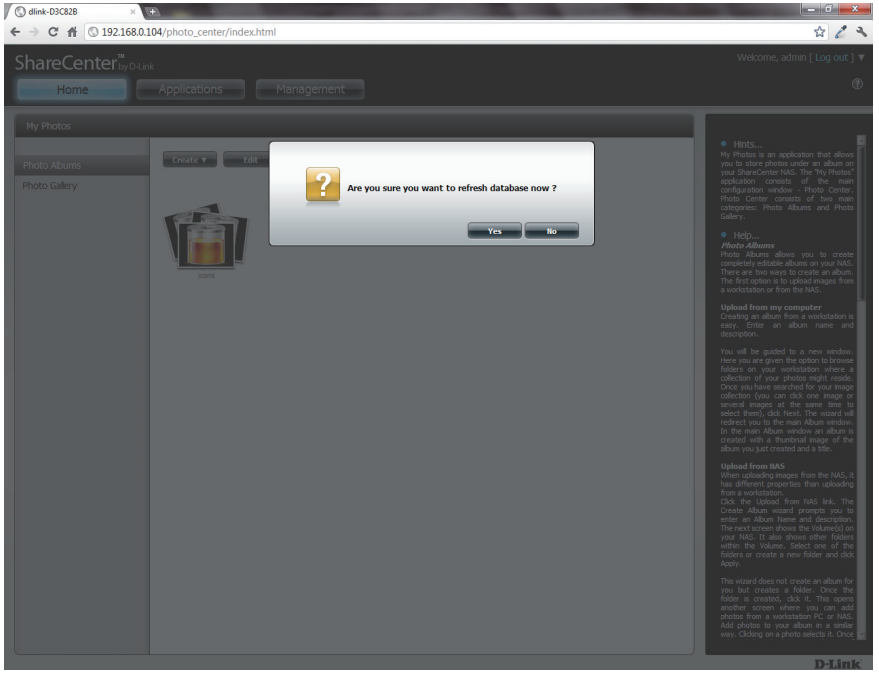
Alternatively, if you have already configured the email settings, enter the email address in the **Mail Address** field and enter a description in the **Description** field. Click **Apply** to send the mail.



Refresh your Photos

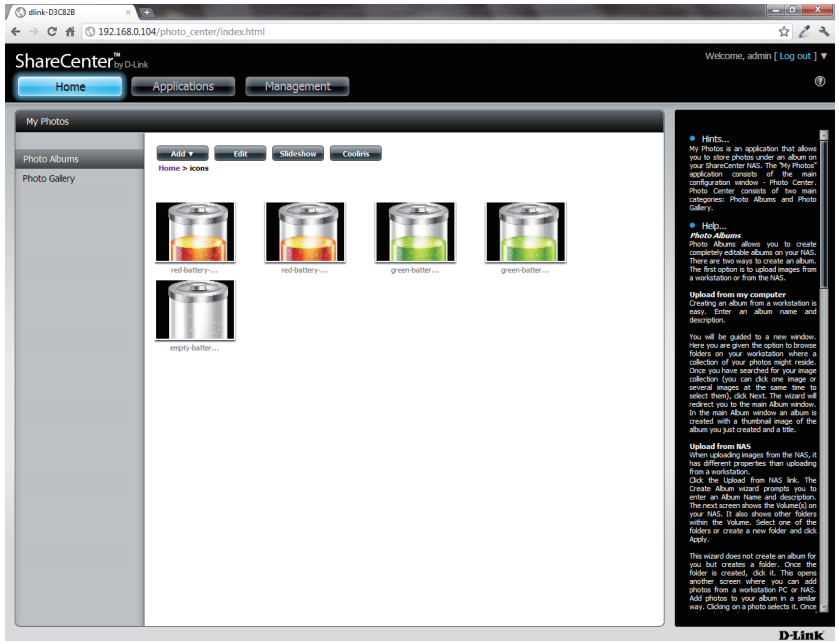
Click the **Refresh** button to refresh the images on the page. A warning message appears asking you if you want to refresh the database. Click **Yes** to continue or **No** to not refresh it.

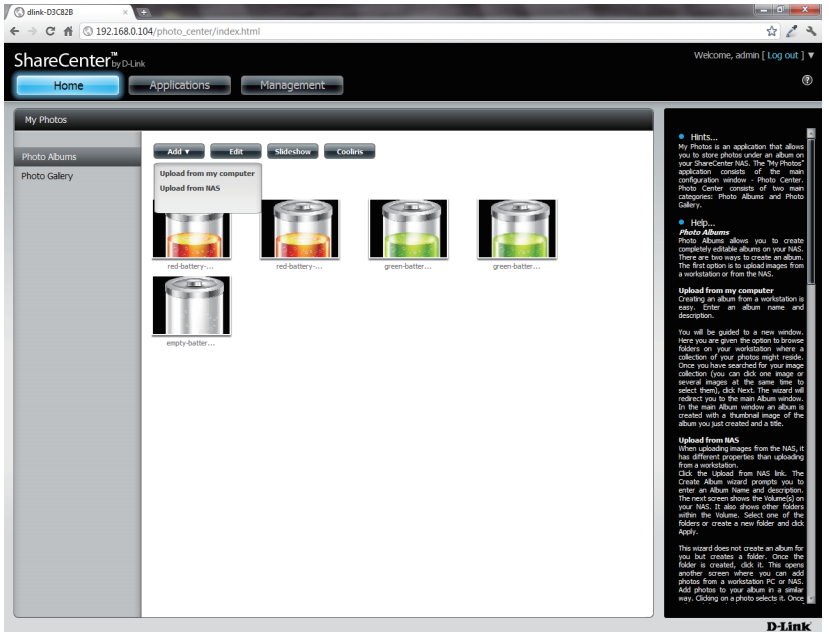




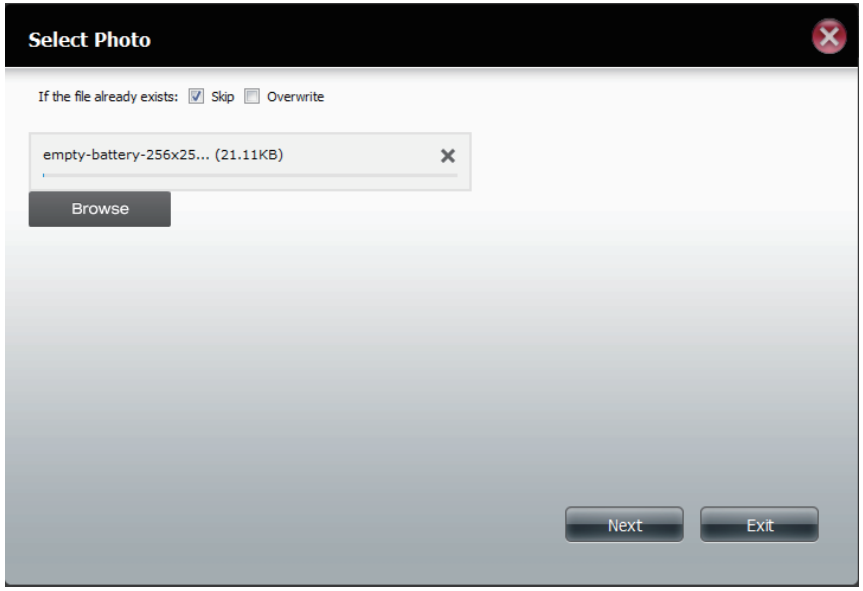
Configuring an Album

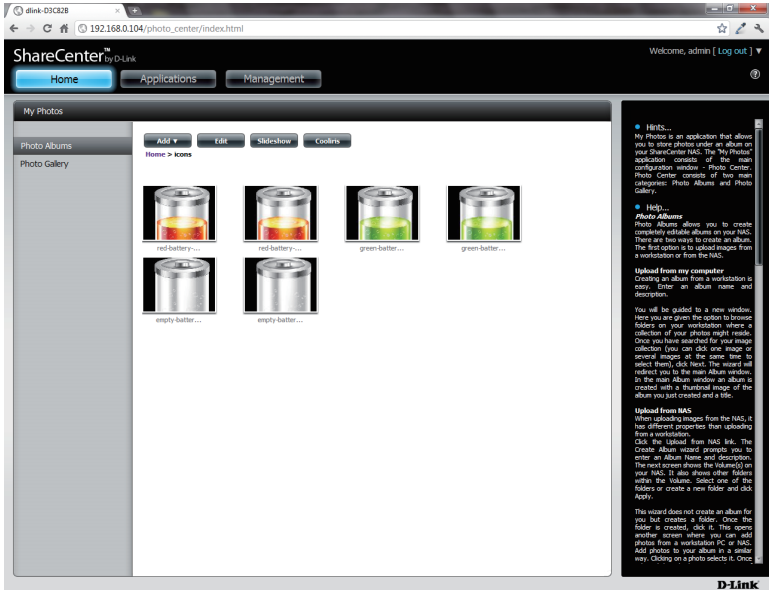
Once you have completed adding photos to an album, you can view all the photos by clicking the album. You can add more photos to the album by moving your mouse over the **Add** button. Here you have two choices, similar to when you first added photos to the album, **Upload from my computer** or **Upload from NAS**. Follow the instructions on the wizard to proceed.





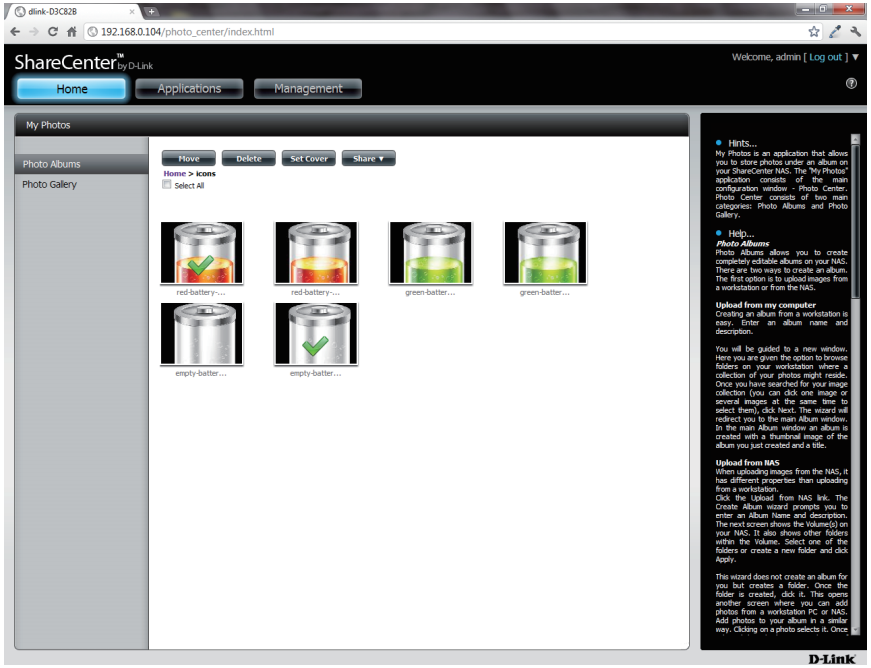
Selecting **Upload from my computer** allows you to browse your computer to find more photos to add to the album. Click **Browse** to find the photo(s). Click **Next** and the new photos will be added to the album.

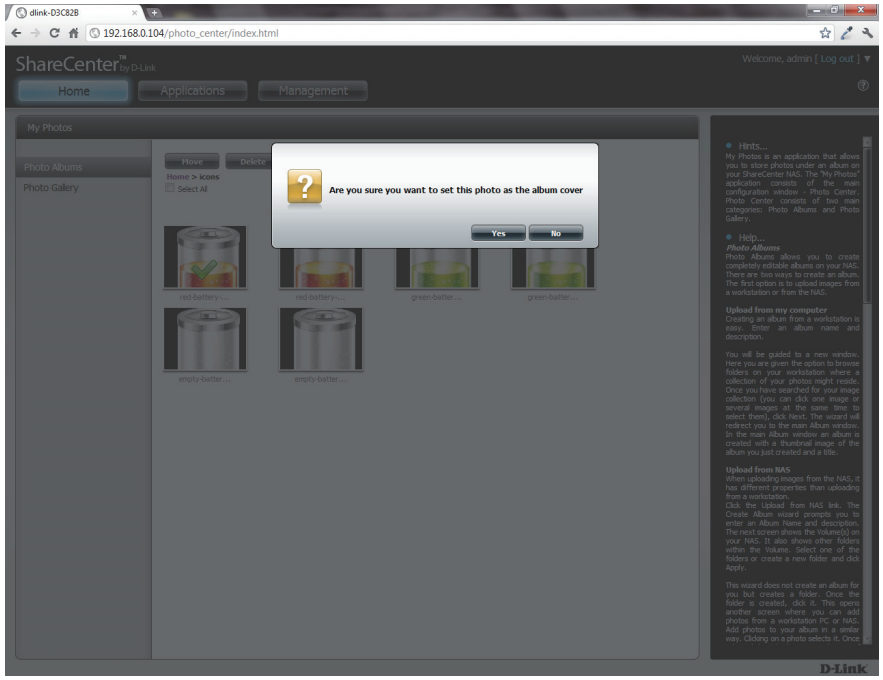




When you want to edit specific photos, click the album. The navigation bar at the top of the widow will change with the following options: **Add**, **Edit**, **Slideshow**, and **Cooliris**. Click the **Edit** button to show all the photos in the album. The navigation bar now changes to **Move**, **Delete**, **Set Cover**, and **Share**. We have already covered **Move** and **Delete** in earlier sections so please refer to those sections.

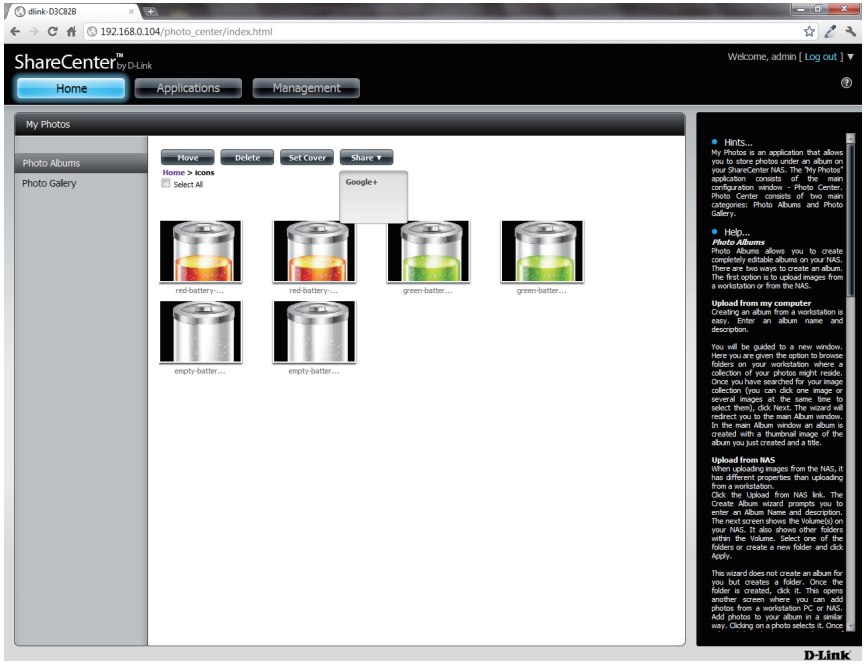
To change the cover of your album, select the photo and click **Set Cover**. A warning message appears asking you if you want to set the image as a cover. Click **Yes** to continue or **No** to not update it.

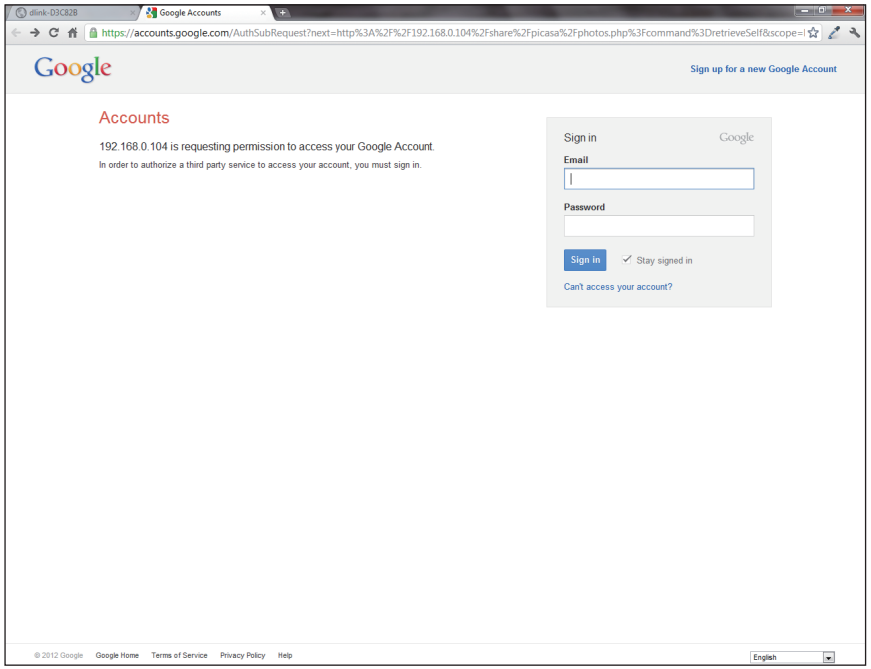




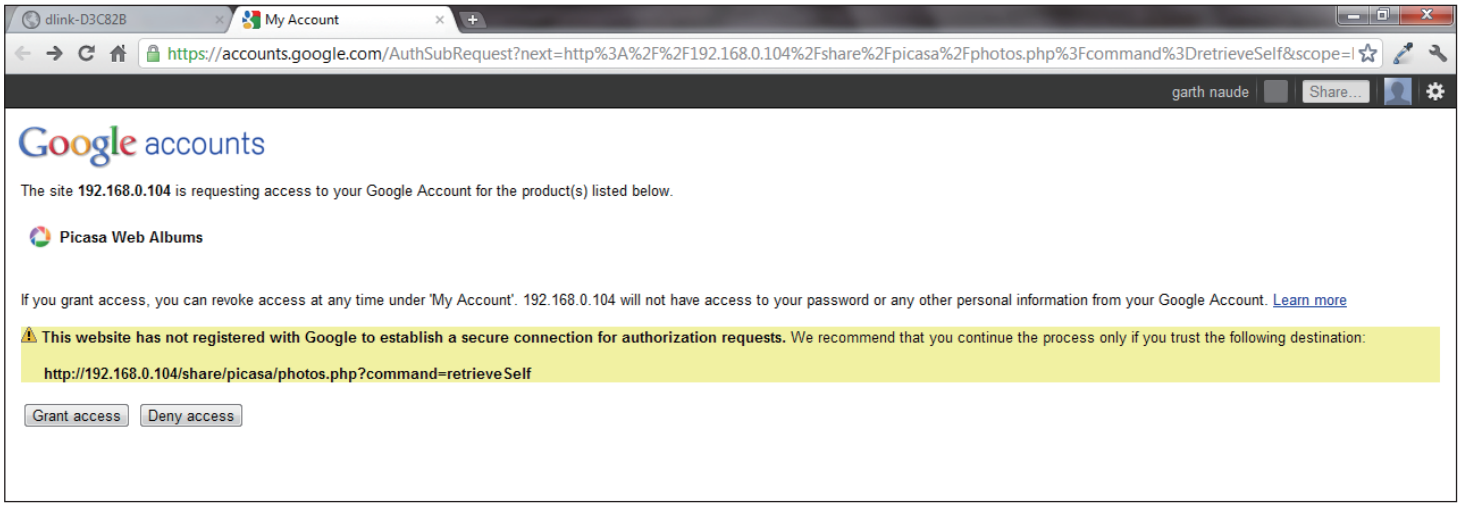
Sharing Photos on Google+

D-Link has created a direct link to **Google+** so you can share your photos with one easy click. Select the photo(s) you want to share, move your mouse over the **Share** button and click the **Google+** link. The browser opens a new **Tab** and directs you to your **Google Gmail** account if you are not logged in. The message informs you that your **ShareCenter** has directed you to the **Gmail** site. It will also show the IP address of your NAS.



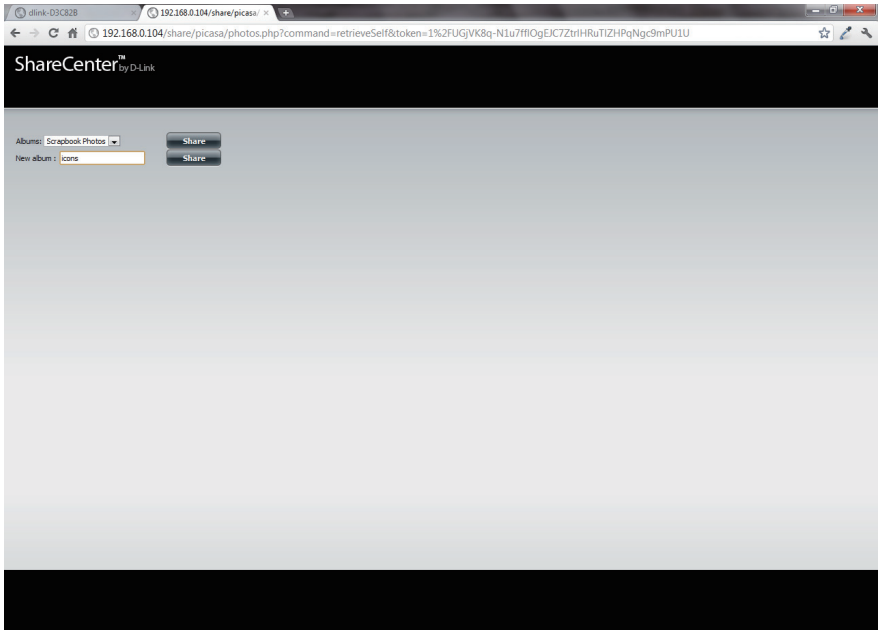


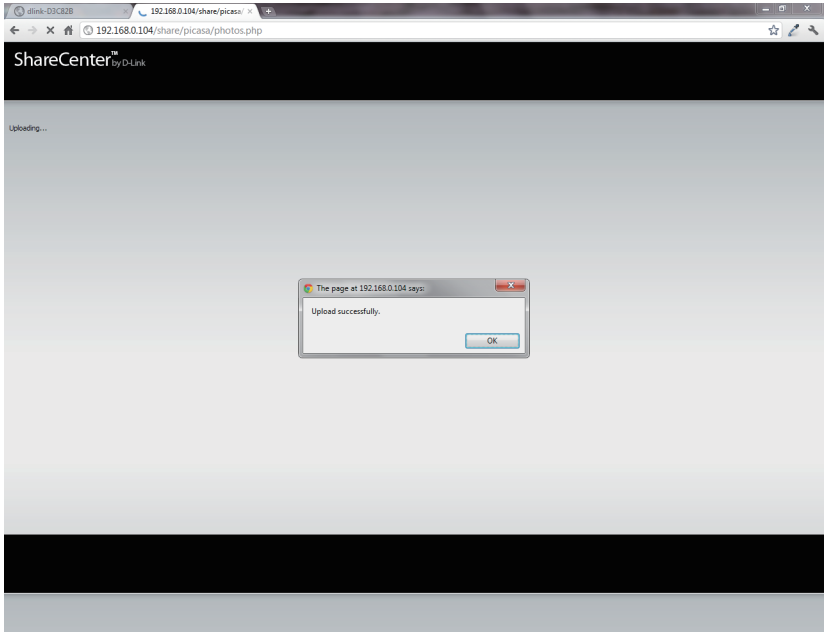
Next, you will be asked whether you want to grant Google access to Picasa and the photos on your ShareCenter. If you select **Grant access** then you will be automatically redirected to another page on your ShareCenter. If you select **Deny Access** then you will be directed away from **Google**.



If you select **Grant access**, you will be directed to the **ShareCenter Photo Manager**. Here you can share photos to the album you already have in Picasa Web or create a new web album to share. **Under Albums**, select an album from the drop-down list and click **Share**. Alternatively, enter the new album name and click the **Share** button. When you click the **Share** button your files are uploaded to your Picasa Web Albums and another window will pop-up to confirm its success.

Note: *You will have to enable Photos (Picasa Web Albums) with your Google account.*





Slideshow

After you have created your **Album** click the album once. This takes you to the full display of images in the album. Click the **Slideshow** button. Depending on the size and scale of your images, the browser will open a new tab and provide a full screen display of your images on the NAS. At the bottom of the image is a toolbar with information on how to view your album.

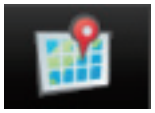
Slideshow Toolbar

The **toolbar** consists of the:

Play button: Press this button to play the Gallery images.

Photo information: View the image name and file format.

Gallery speed slider: Toggle the slideshow speed between slow and fast.

GPS information: Click this button to get GPS information about the image (if your camera supports this function). 

Cooliris link: Click this button to display your images on the Cooliris website.

EXIF: View detailed information about the image (File Name, Size, Image Date, Resolution, Camera, Camera Model, ISO, Exposure Time, & Aperture).

Rotation button: This rotates the image at 90 degree angles.

Gallery Navigation: This provides a pop-up display of all the images in the gallery.

Cooliris

Cooliris allows you to share photos and images on the Cooliris site. This function allows you to stream images from the DNS-345 to the Cooliris server. Please visit www.cooliris.com/desktop for more details about photo sharing with Cooliris.

Click the **Cooliris** button to stream images to **Cooliris**. **Cooliris** is also accessible via the Photo Gallery. You will need to install the free Cooliris plugin on your browser before you can use it.

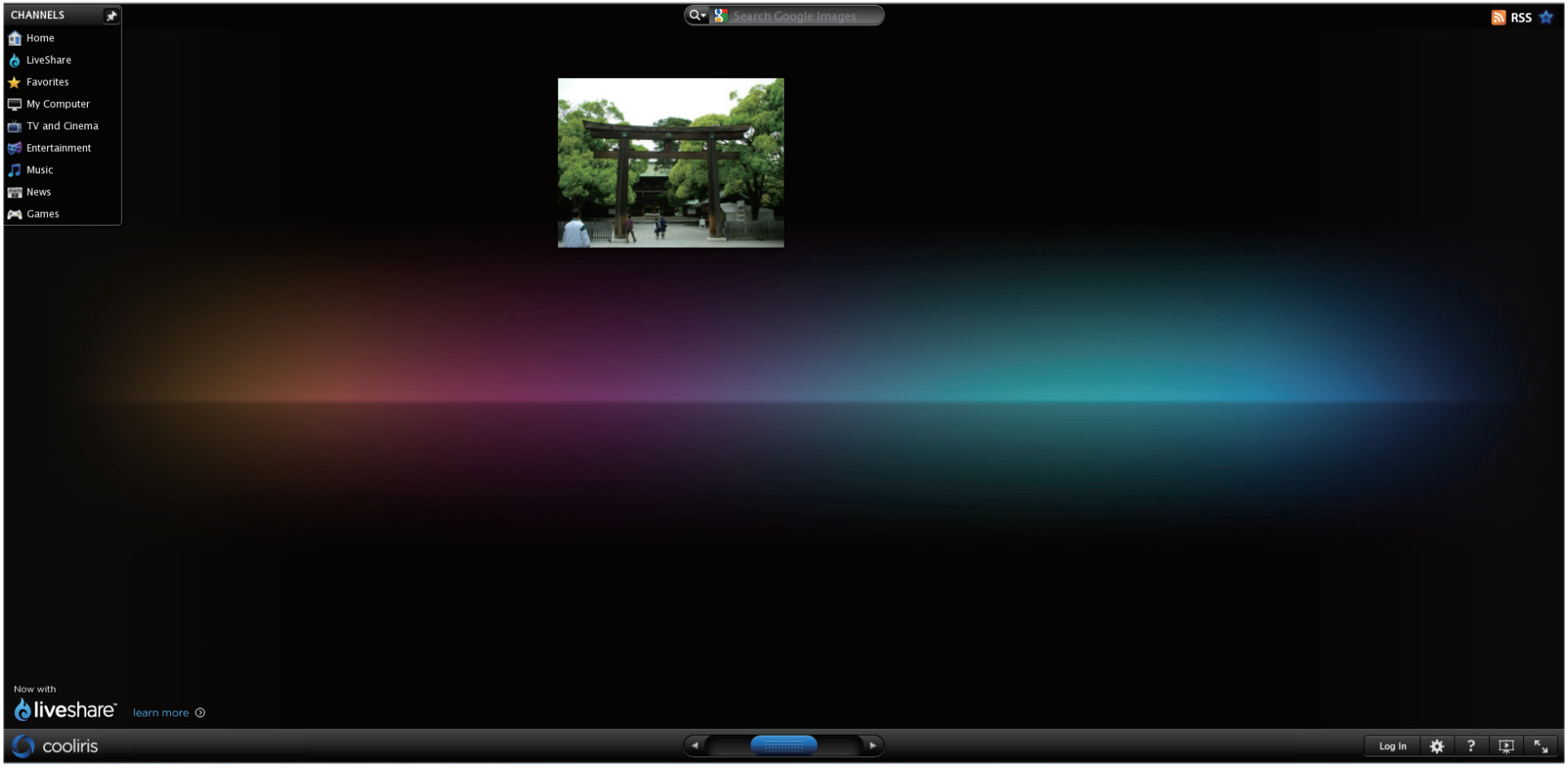
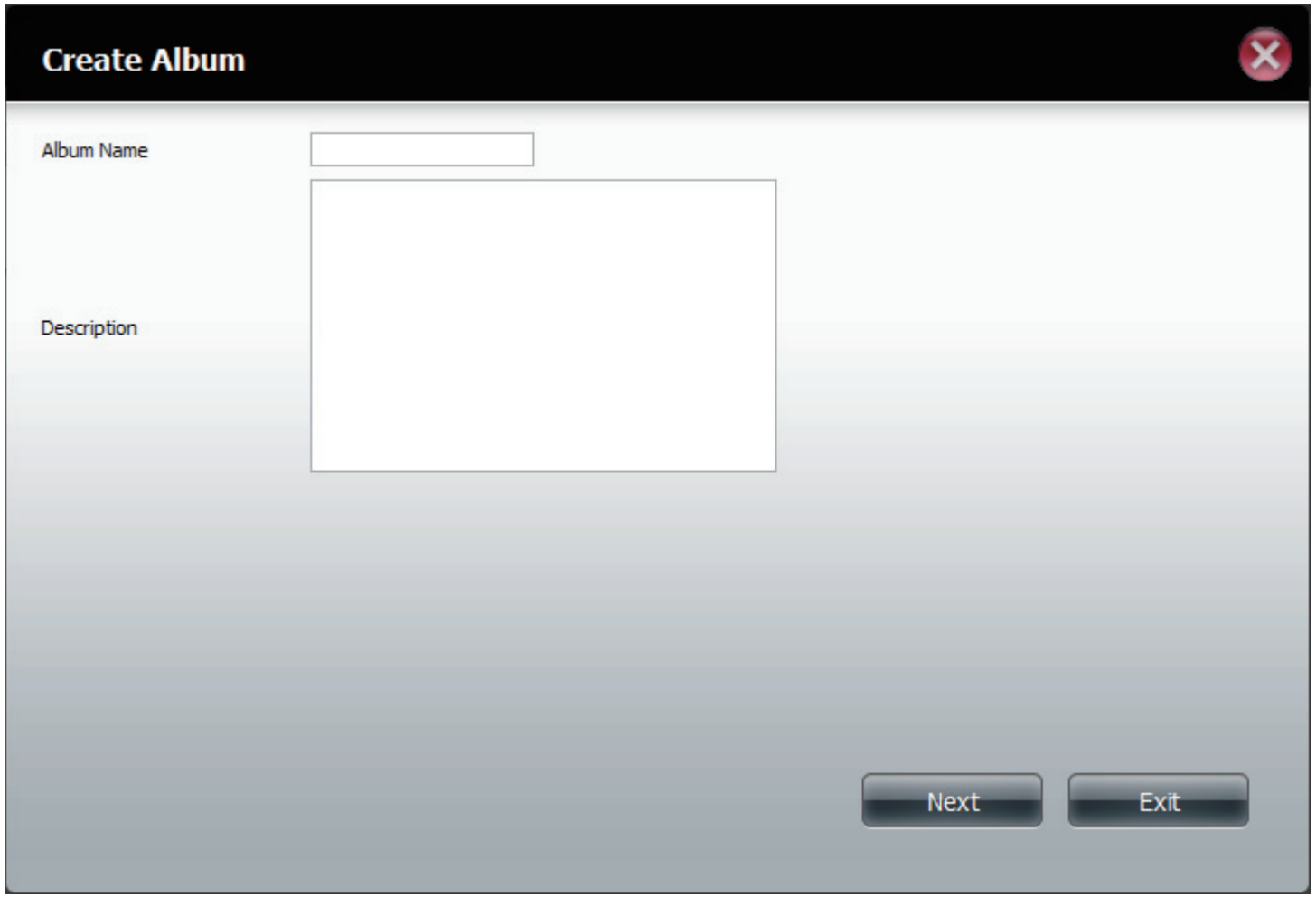


Photo Album - Upload from NAS

The ShareCenter also allows users to upload images that already reside on the NAS. Move your mouse over the **Create** button under **Photo Album**. Click the **Upload from NAS** link. Enter a **Album Name** and Description in the fields provided. Click **Next** to continue.



The next screen displays the **Volumes** on your NAS. Click the name of your Volume and select the photo(s) on the right side of the pane. Click **Next** to continue.

This creates a new Photo Album.

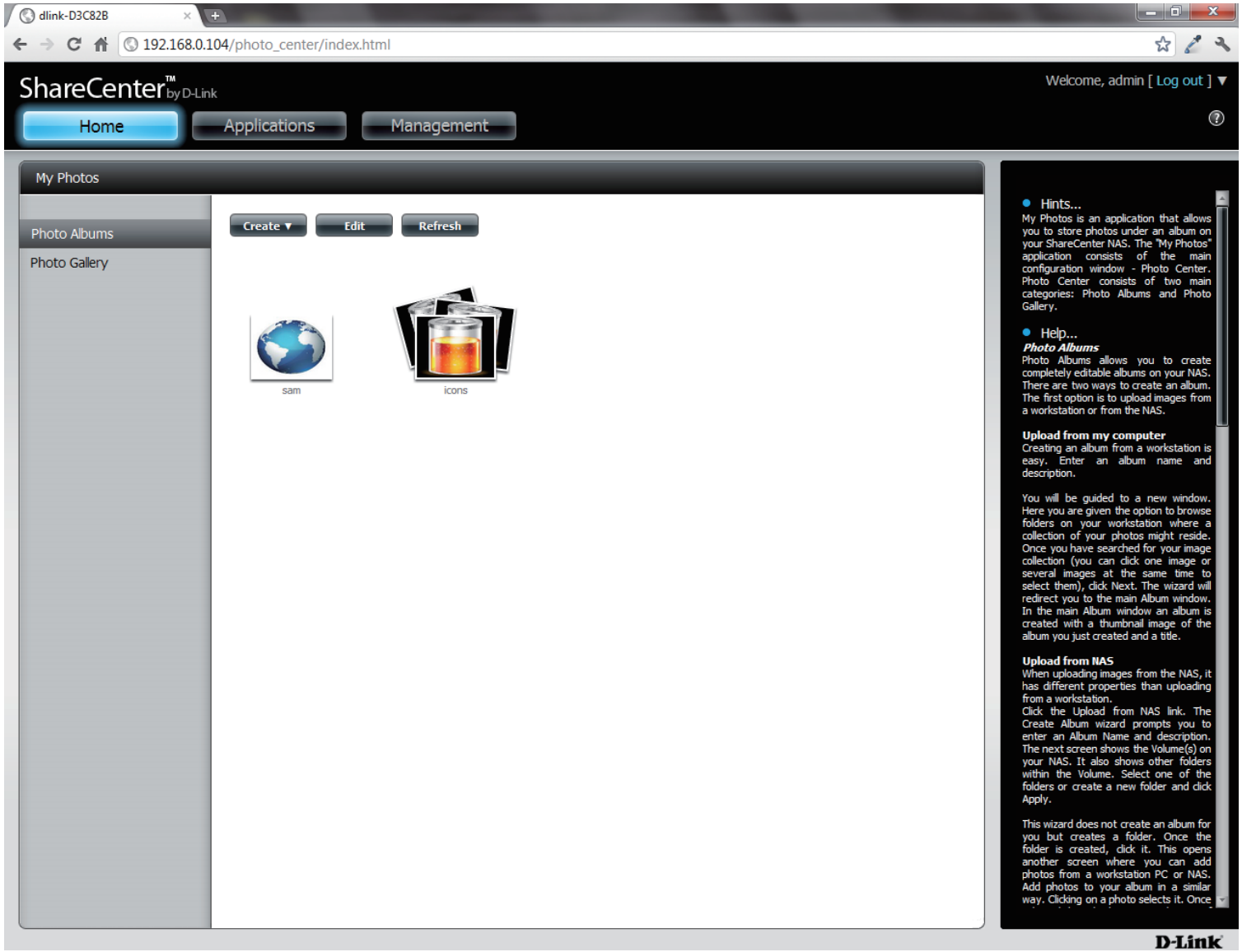
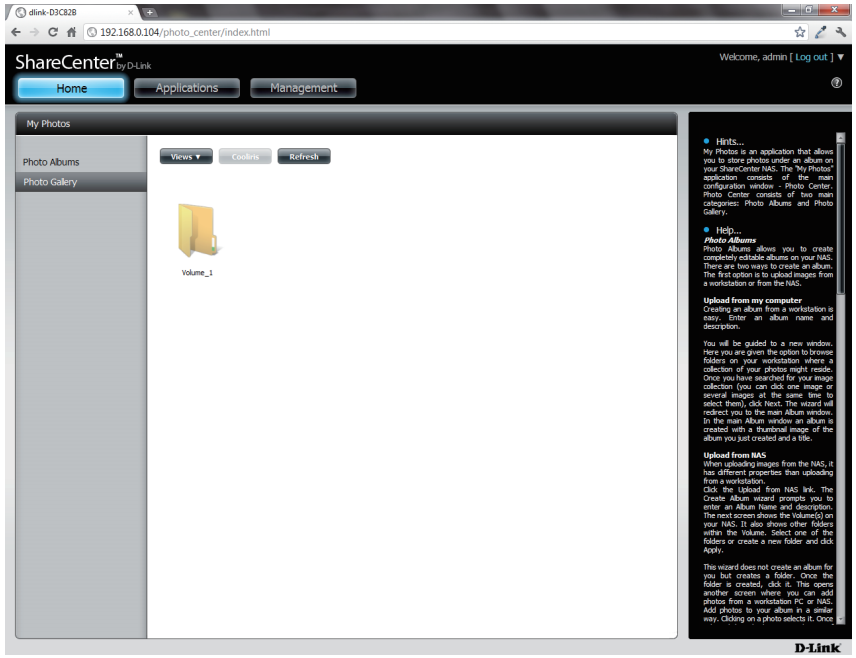
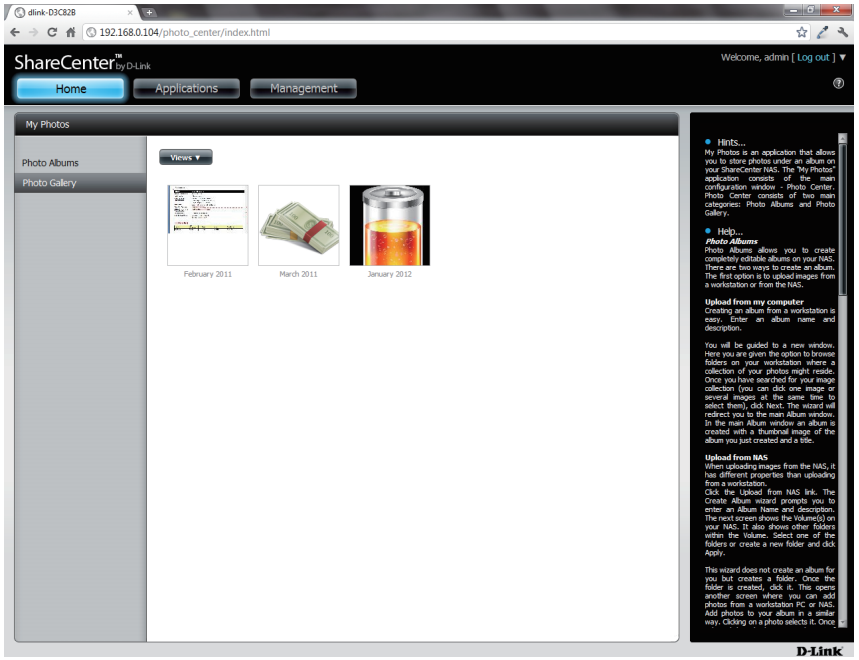


Photo Gallery

The **Photo Gallery** has several options available. View the **Gallery** by **Folder** or view it **by Calendar** date. By default the **Photo Gallery** is in **Folder** view. Click the folder to view the images inside the **Folder** on your **NAS**. View by **Calendar** to see the dates under each image. You can also **refresh** your screen in **Photo Gallery** by clicking the **Refresh** button.



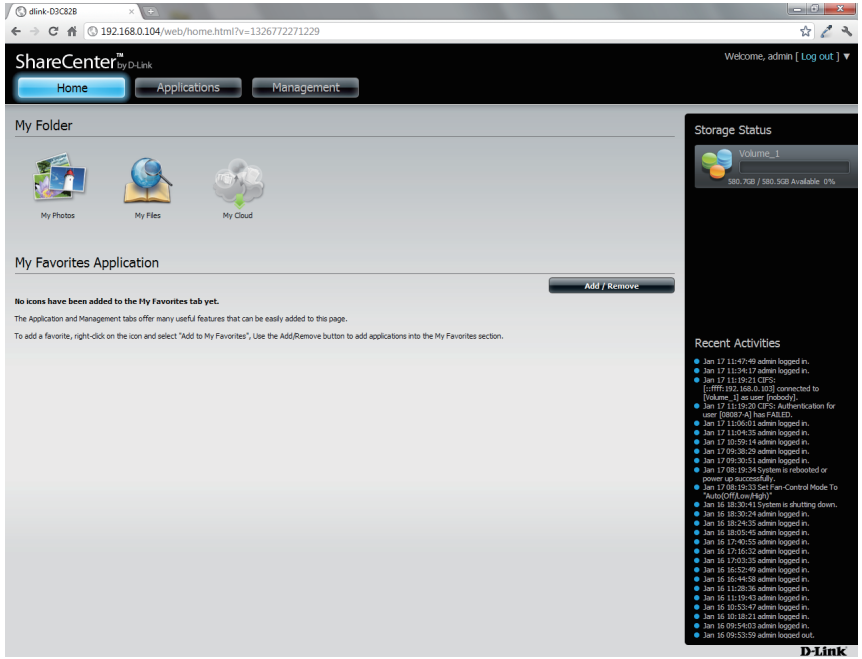


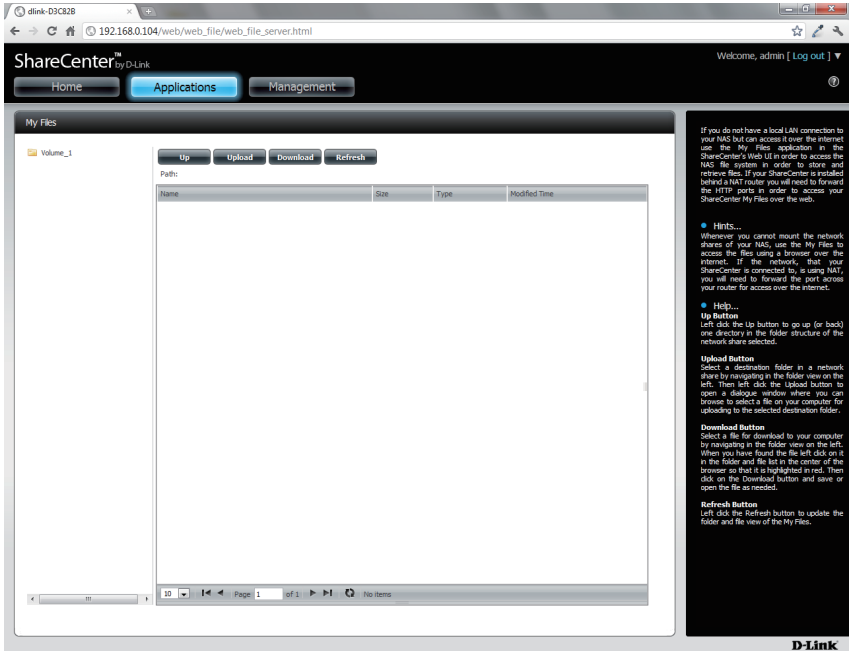
My Files

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.**

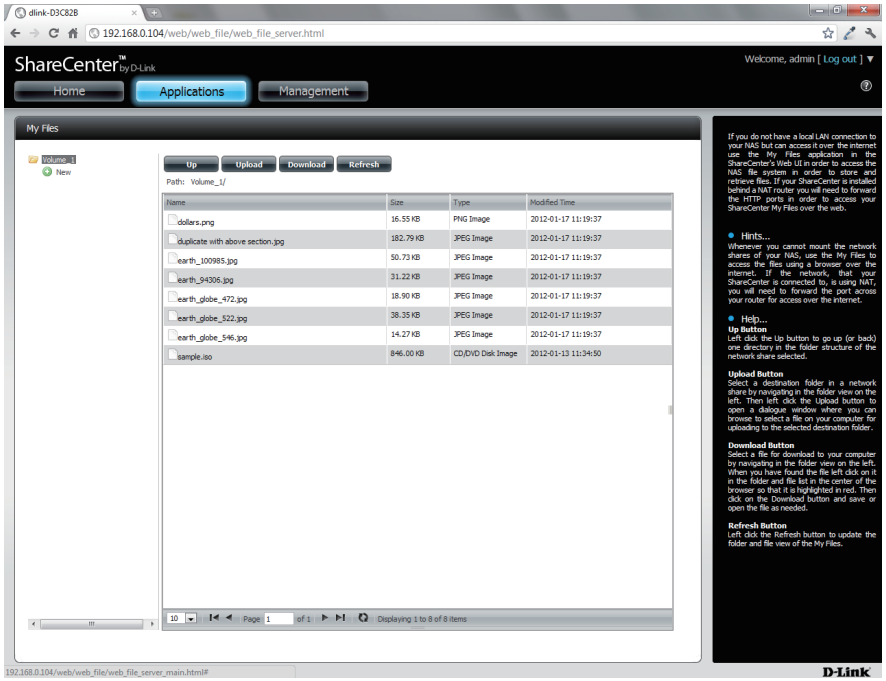
The **My Files** window provides a list of all **volumes** created on the NAS. Click on any **Volume** you created to see a directory listing of the files.

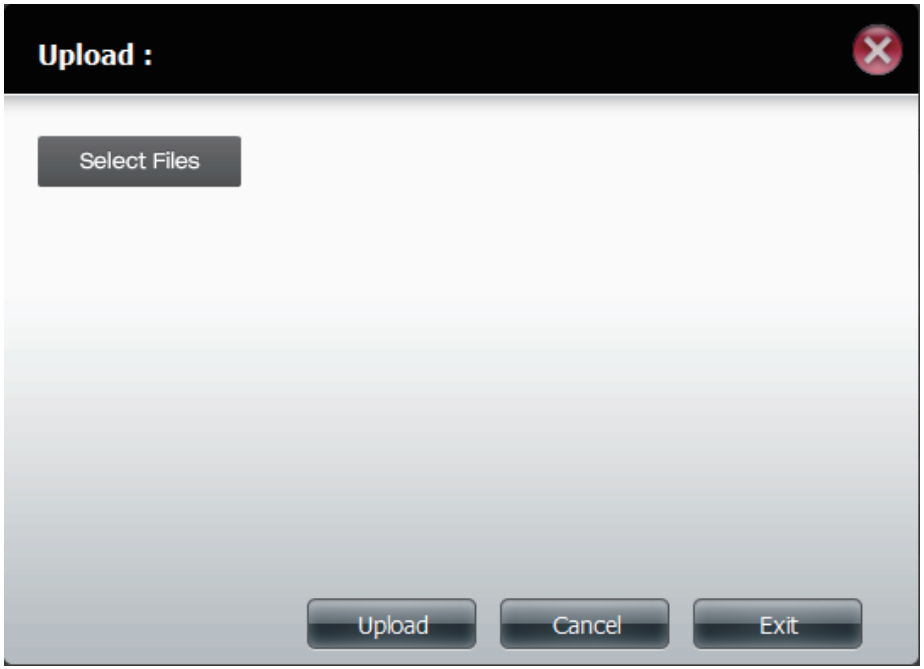




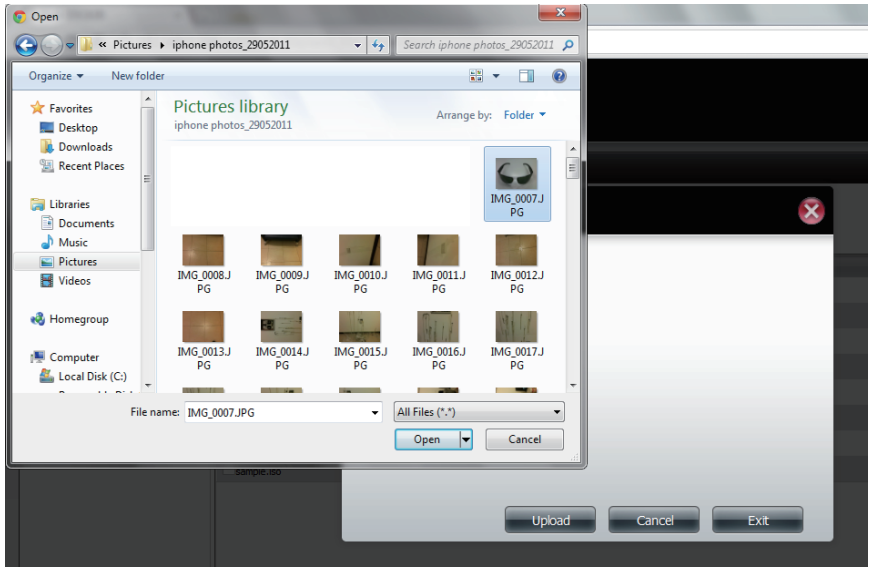
Upload

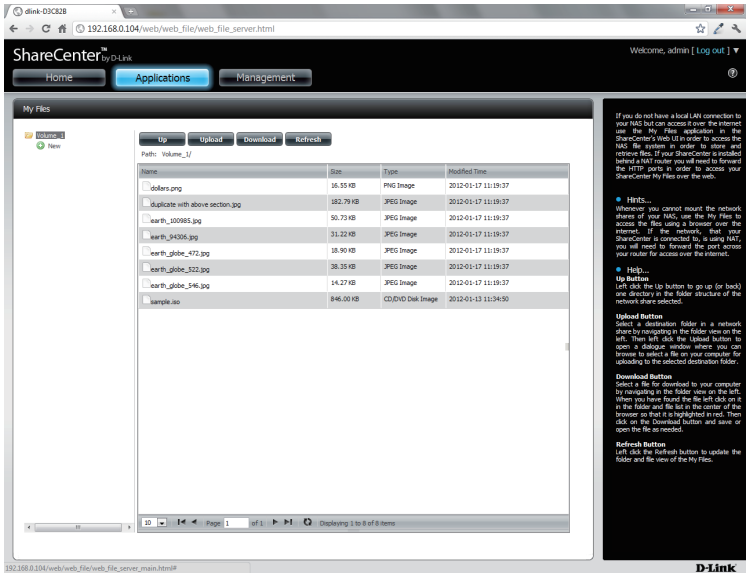
To upload more files to the volume you have selected, click the **Upload** button. Click the **Select Files** button to find files on your computer to upload to the NAS. Locate the path of the file you want to upload and click **Open**.





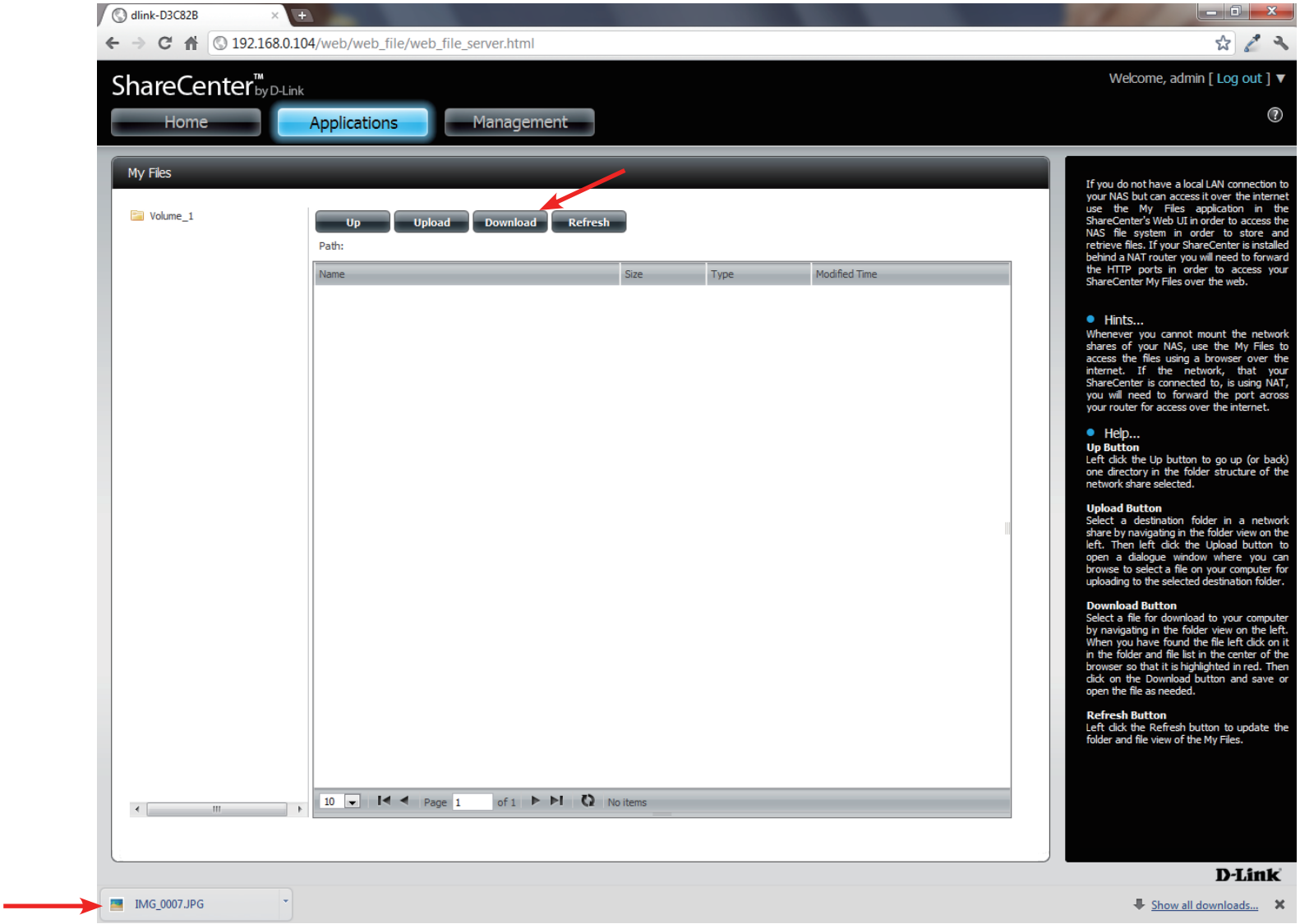
Click **Upload** to start the uploading process. Then click **Exit** to close the upload window. The file updates to the NAS and is displayed on the directory table.





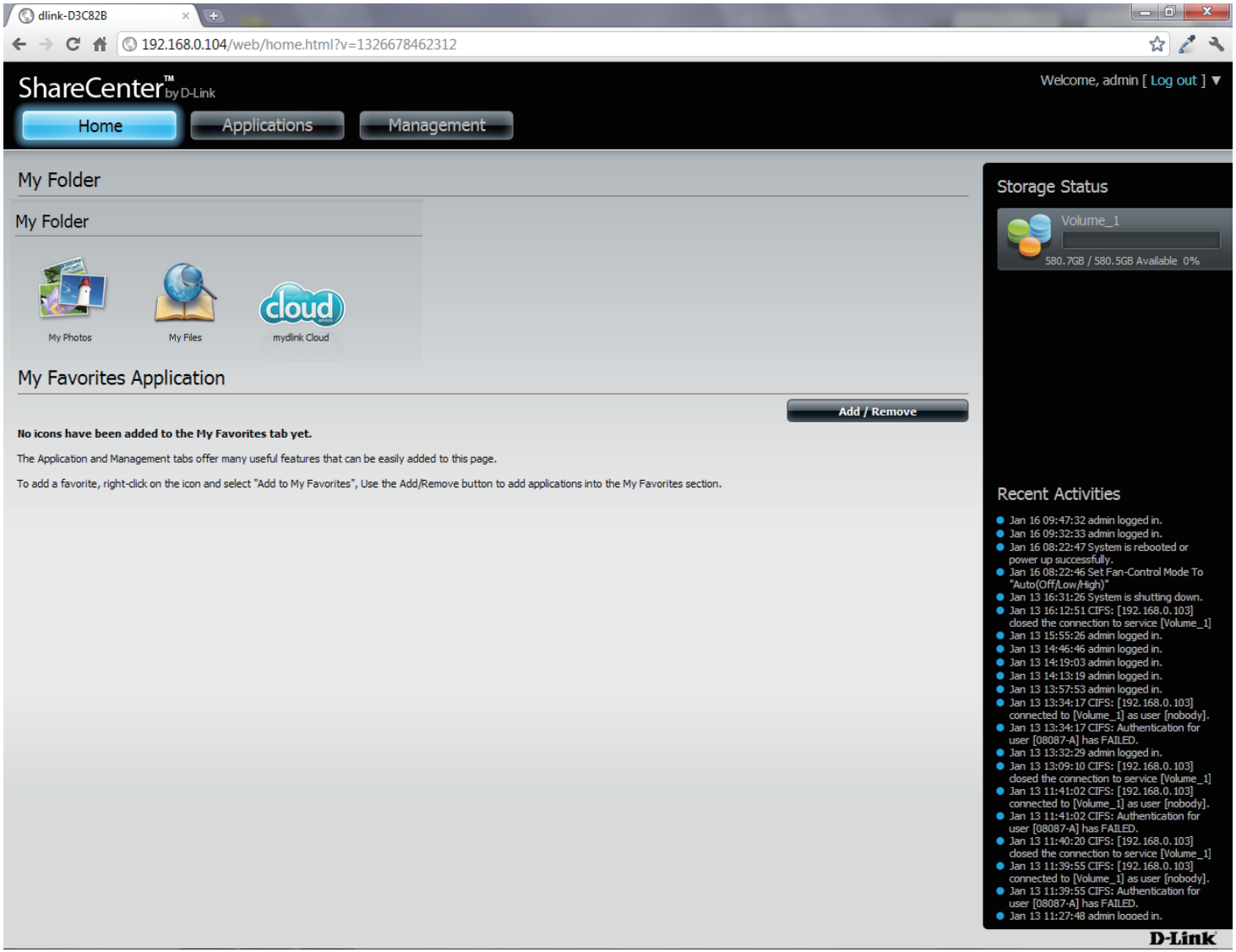
Download

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.



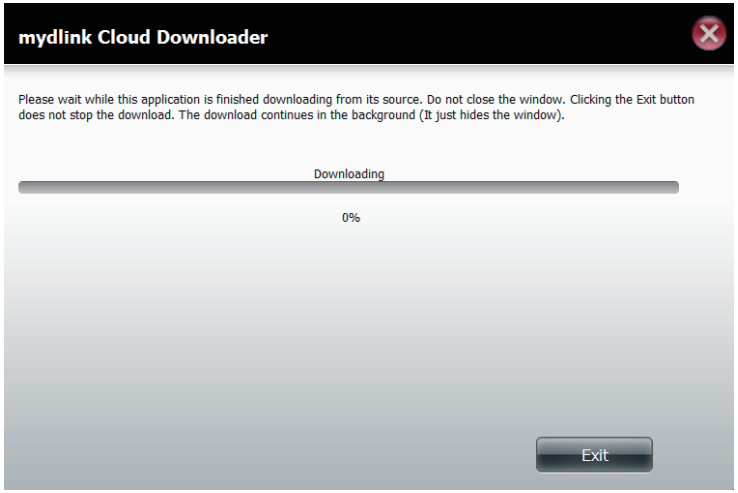
mydlink Cloud

mydlink Cloud is a D-Link service that brings cloud services to the ShareCenter. Access these services by clicking the **mydlink Cloud** icon on the Home screen.

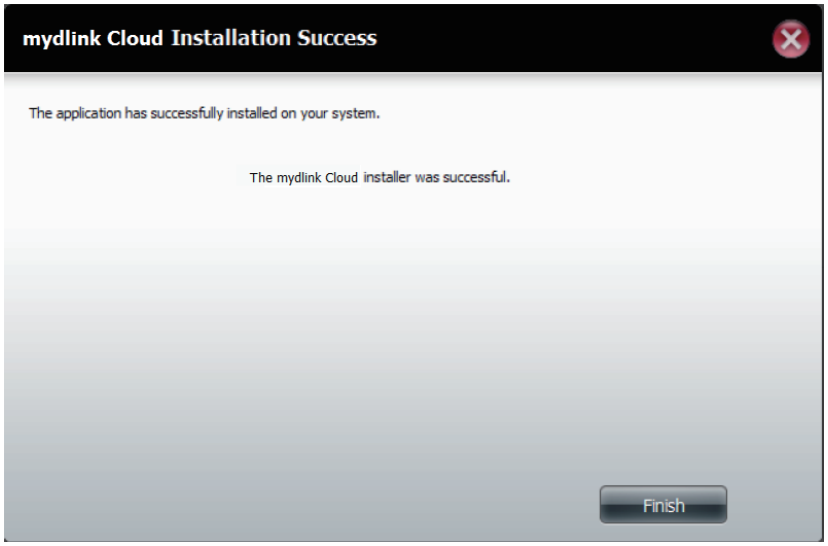


mydlink Cloud Activation

The ShareCenter downloads the software and installs it on your NAS.

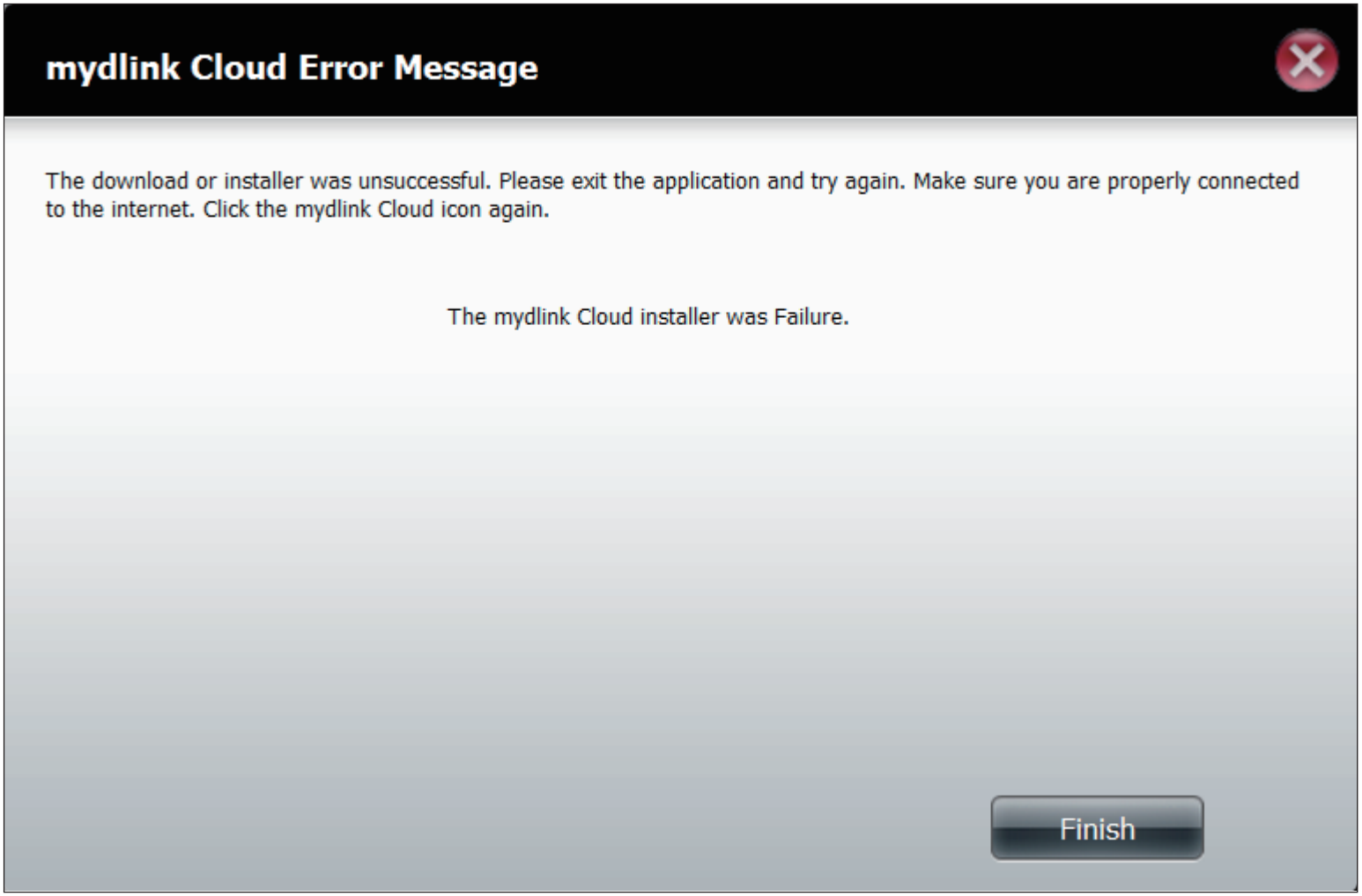


Once the software is installed on the NAS, the setup is complete. Click **Finish** to exit the wizard.



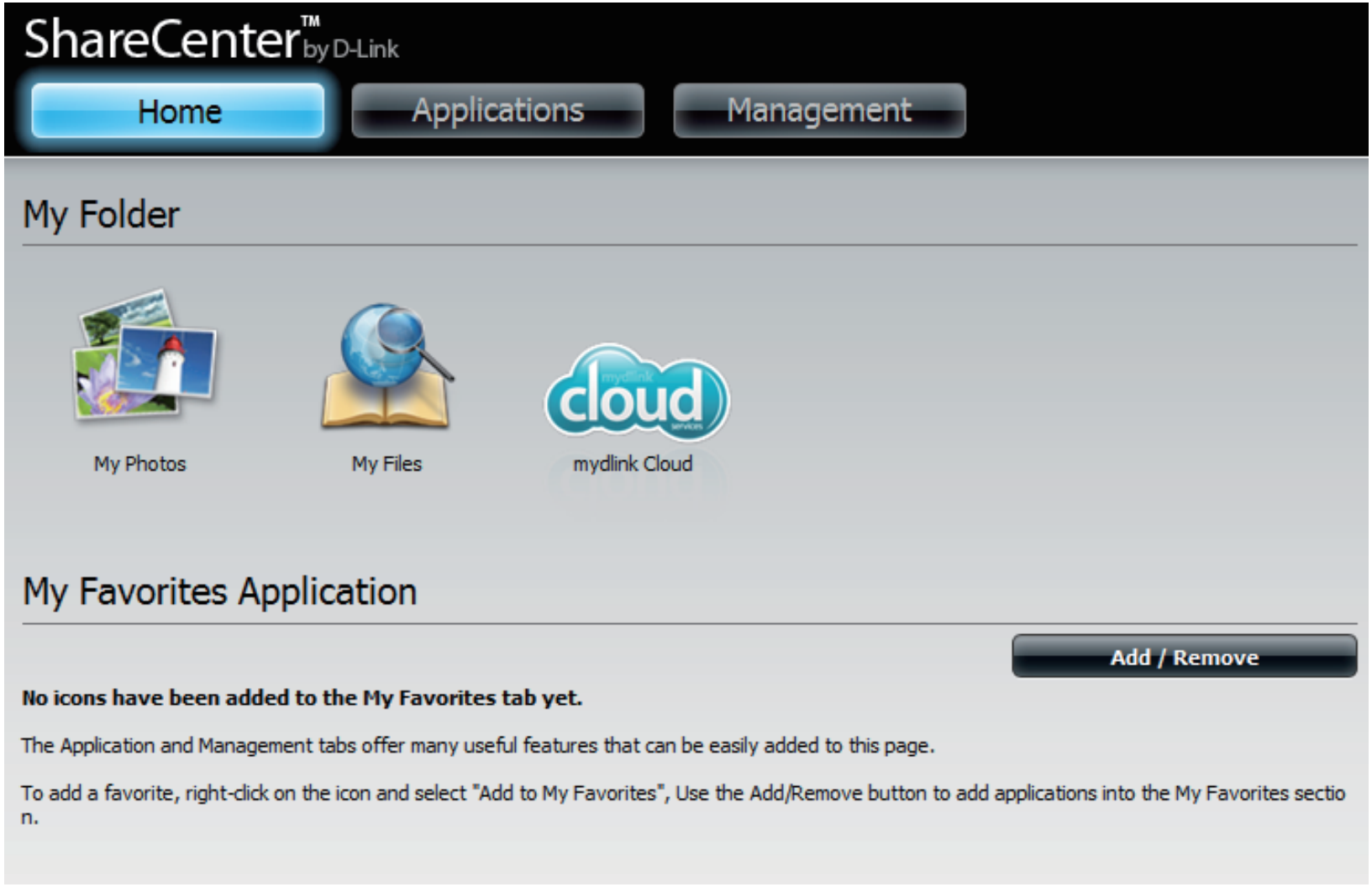
Activation Failure

mydlink Cloud connects to the D-Link server in order to run the mydlink Cloud installer. If you do not have an internet connection a mydlink Cloud error message will appear. Click **Finish**.

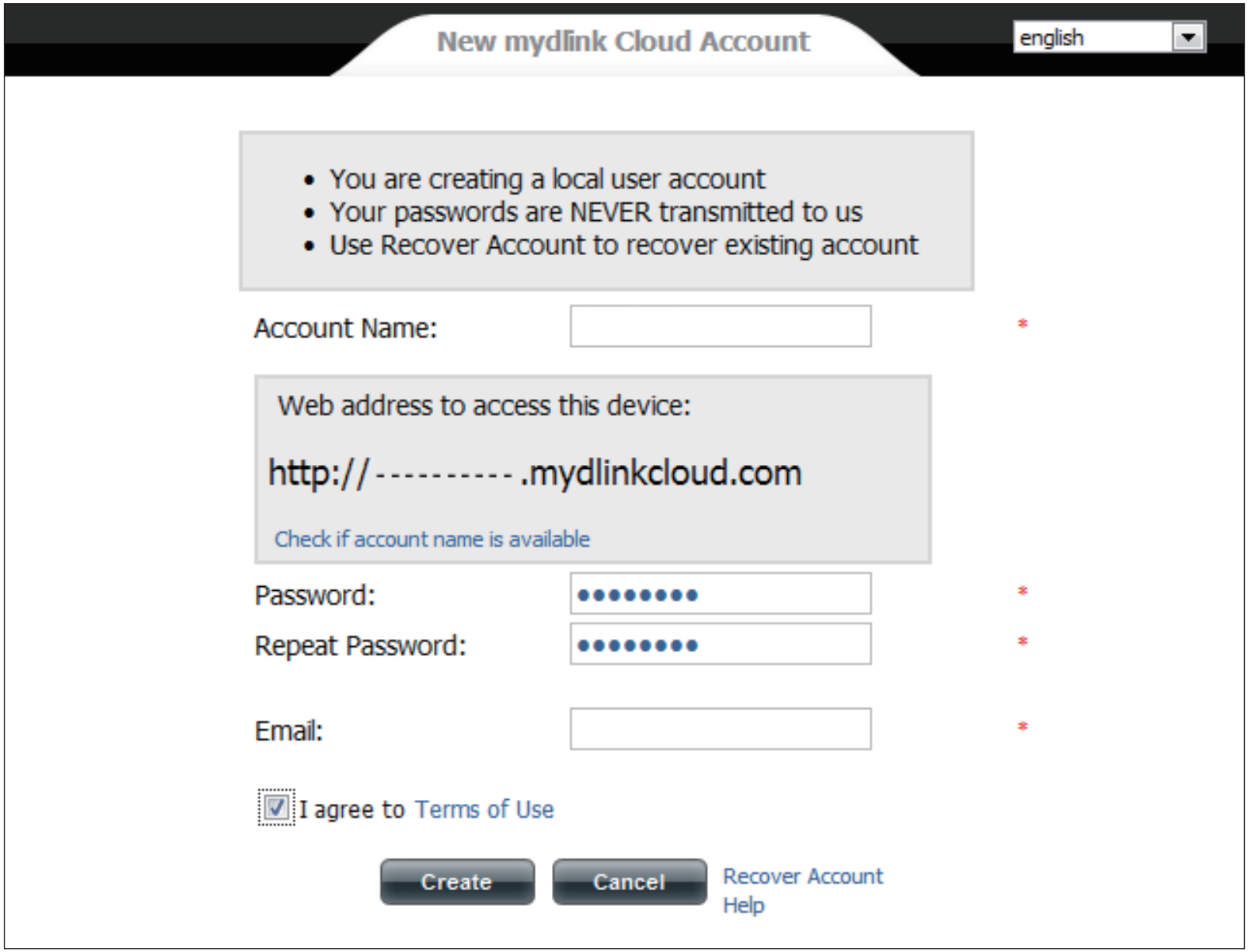


Accessing mydlink Cloud

Once you have accessed your DNS-345, click on the **mydlink Cloud** icon in the Home window.

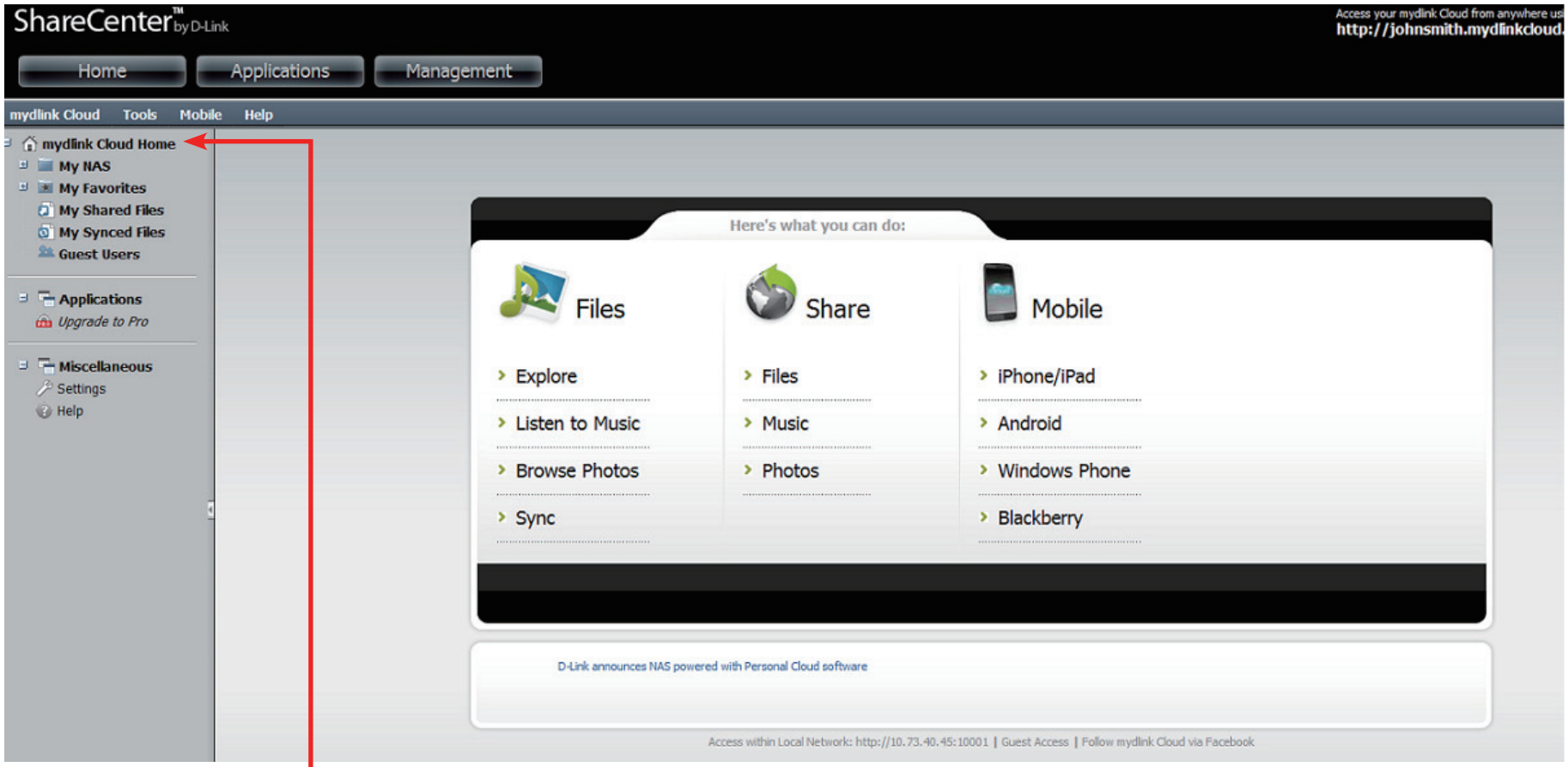


Register for a mydlink Cloud account. Fill in all the fields provided, agree with the **Terms of Use** and click the **Create** button.



After you have clicked the **Create** button the software logs you into the mydlink Cloud.

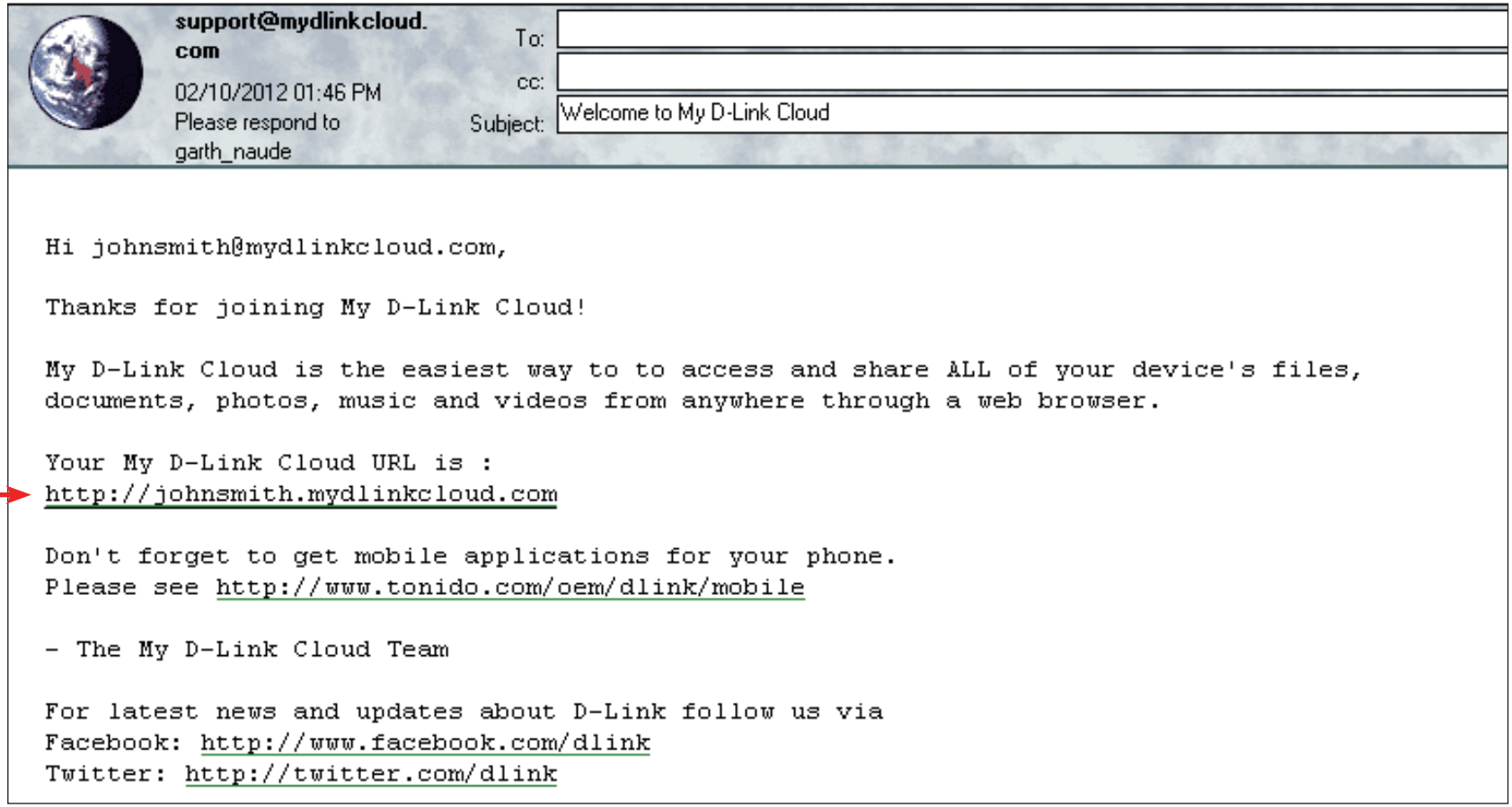
You are now connected to the **mydlink Cloud** web interface. The three main sections in this screen are **Files**, **Share**, and **Mobile**.



If you wish to return to the main section click the **mydlink Cloud Home** link to the left of the window in the side panel.

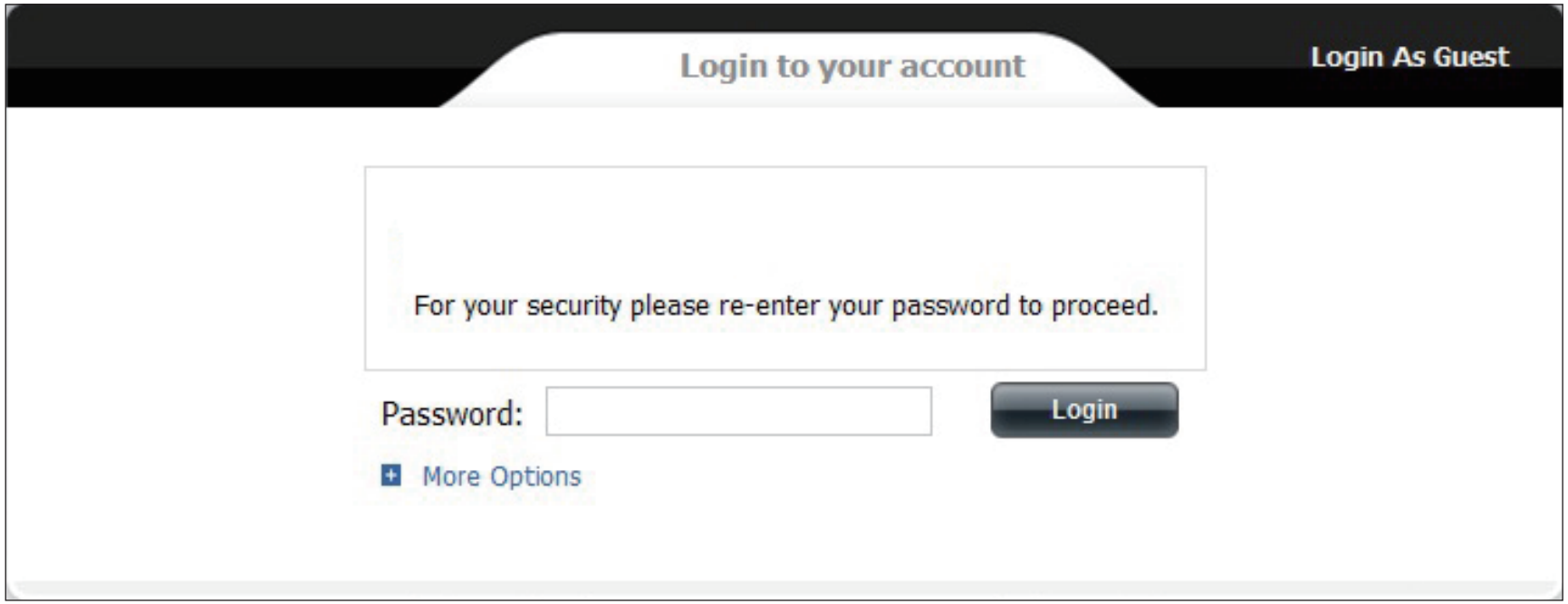
The mydlink Cloud administrators will send you an email showing you how to log into the service from any device and will also provide you with a link to connect to the server.

Click on the link as seen below to access the Cloud service online.



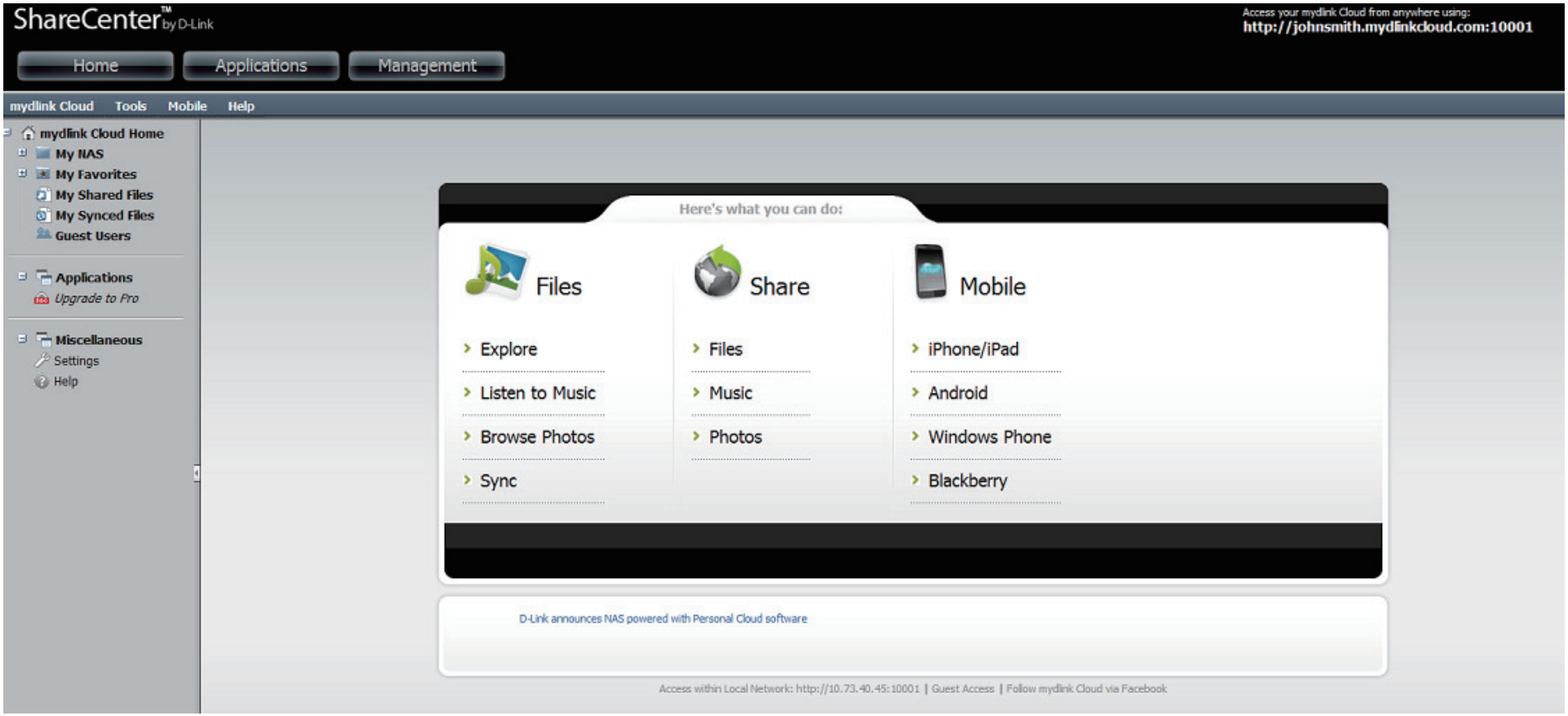
Log into mydlink Cloud

Enter the mydlink Cloud URL into your browser and press **Enter**. You will be provided with your mydlink Cloud account login page. Enter your password and then click **Login** to continue.

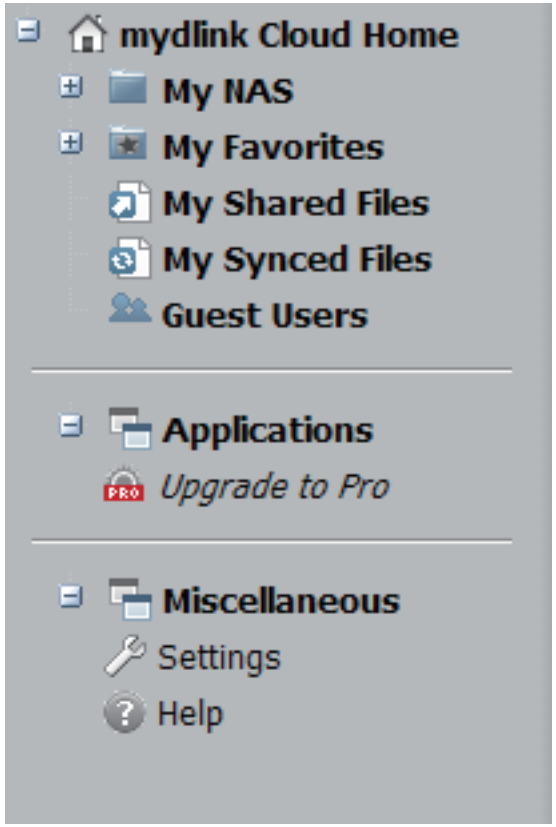


The mydlink Cloud Interface

The mydlink Cloud web interface is divided into two parts. The left panel shows the hiarachical structure of the files connected to mydlink Cloud Home and the right panel shows the separate categories for each feature.



The left sidebar contains the following structure tree below: **My NAS**, **My Favorites**, **My Shared Files**, **My Synced Files**, **Applications**, and **Miscellaneous**.

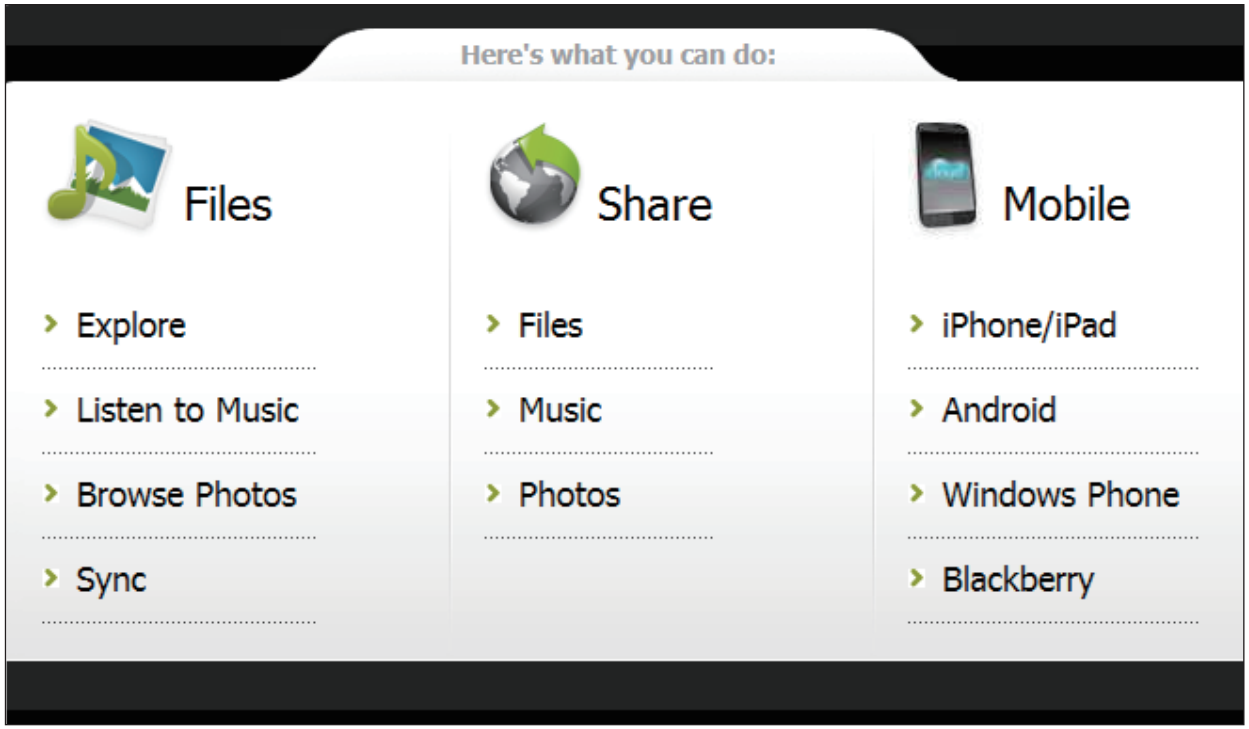


The default **mydlink Cloud** right panel displays various **File**, **Share**, and **Mobile** options.

In **Files**, you can **Explore** the directory, **Listen to Music** (explore the music directory), **Browse Photos** (explore the photo directory), and **Sync** files.

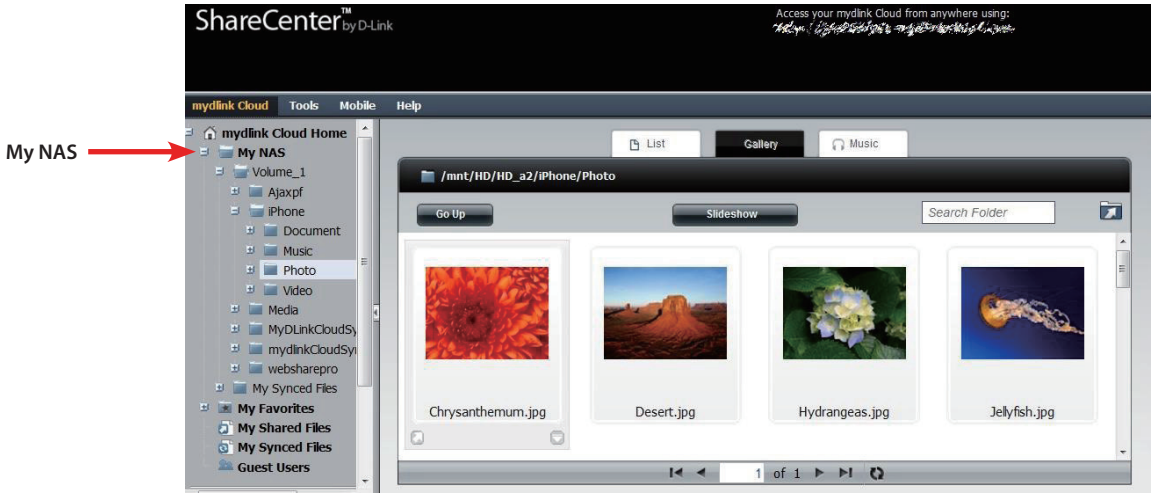
Share allows you to do similar functions, share **Files**, share **Music**, and share **Photos**.

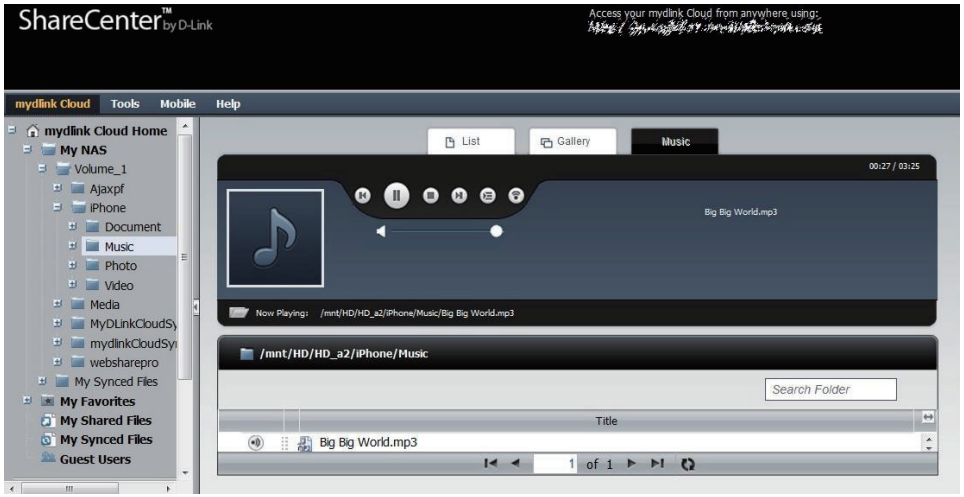
Mobile allows you to download mobile applications for **iPhone/iPad**, **Android**, **Windows Phone**, and **Blackberry**.



My NAS

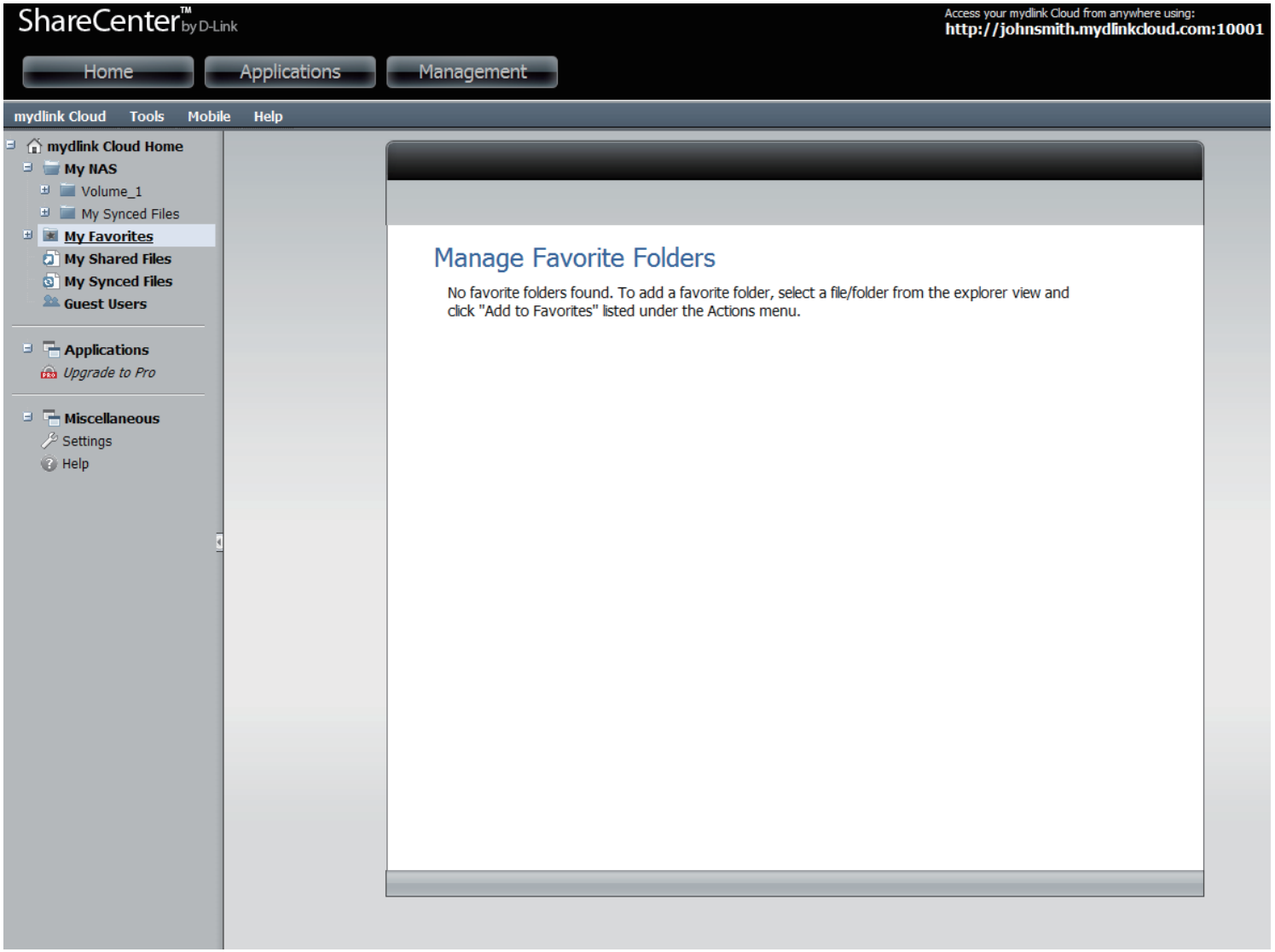
My NAS contains all the files on your system. If you have created several drives or volumes on your NAS, they will all appear in this section. **List** allows you to manage the folders/files on your NAS**. Gallery** displays the photos on your NAS and **Music** displays and allows you to play the music files from your NAS.





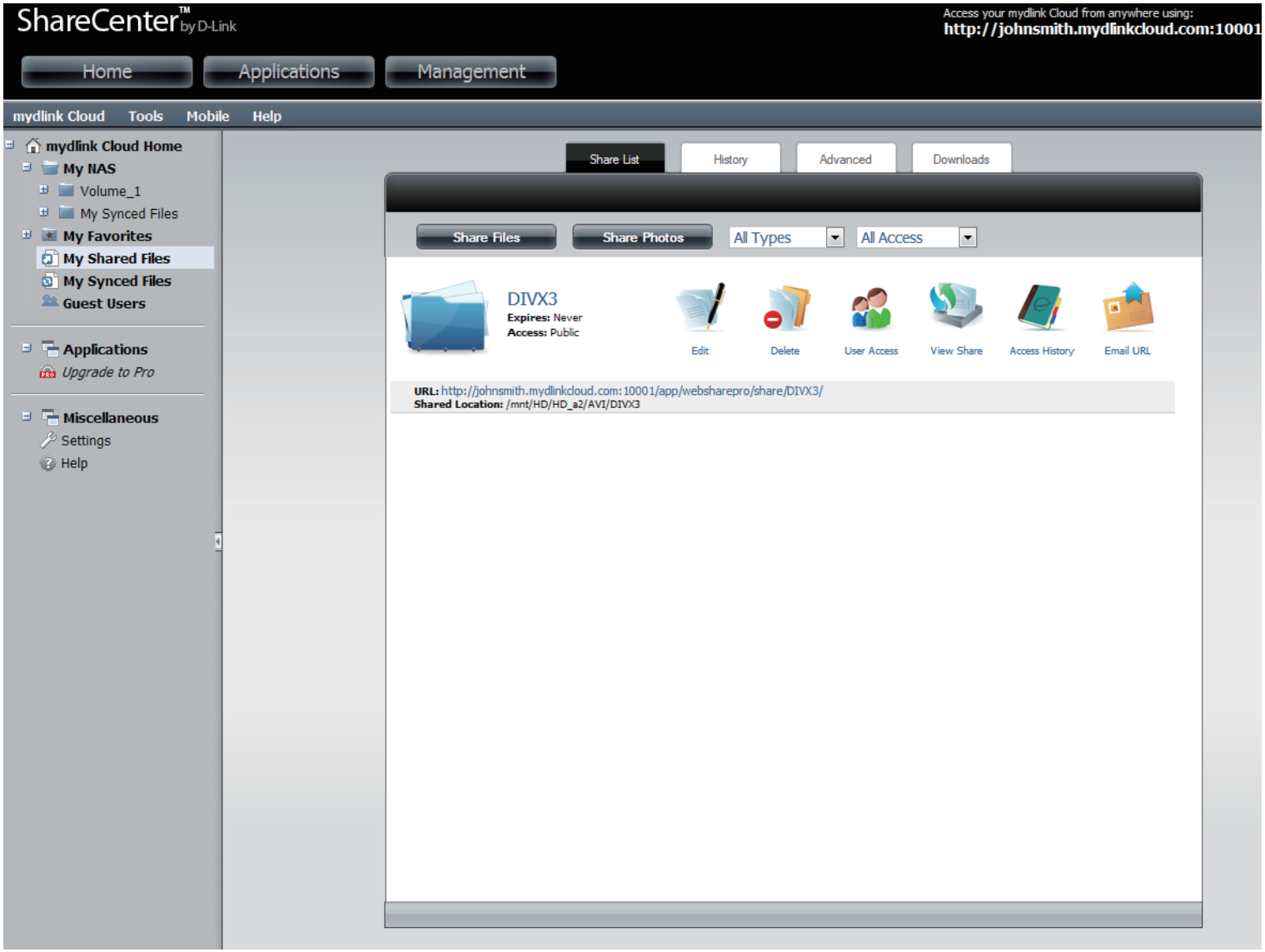
My Favorites

My Favorites is a selection of folders/files you have added from your NAS. Follow the instructions on the screen to add and manage your **Favorites** Folders.

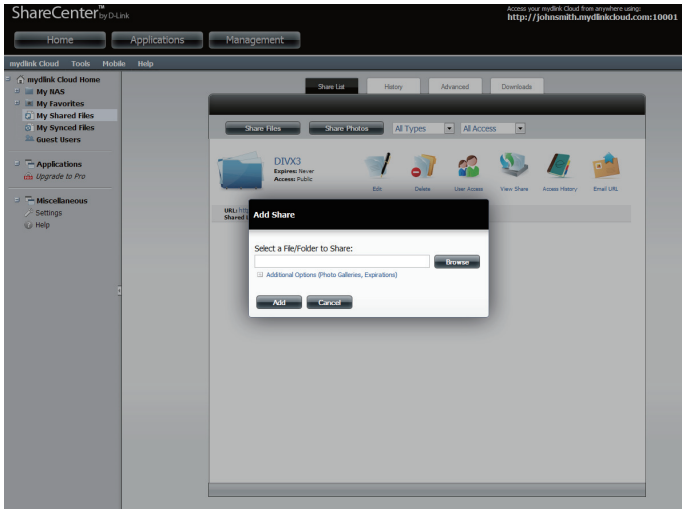


My Shared Files

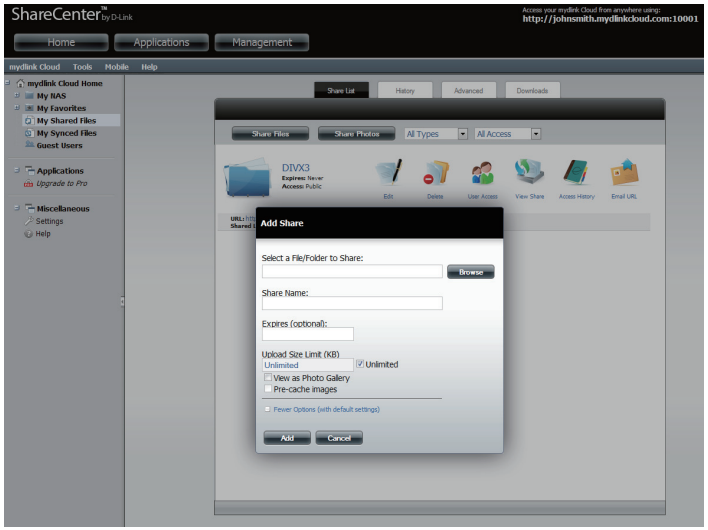
My Shared Files is an online utility that allows you to create a URL web address to your folder/file and share the web address with others. The URL under the folder/file icon is the URL for the share. You can send this URL to your friends and family. The first tab is a Share List of the functions you can do. Click each icon to refer specifically to its capability.



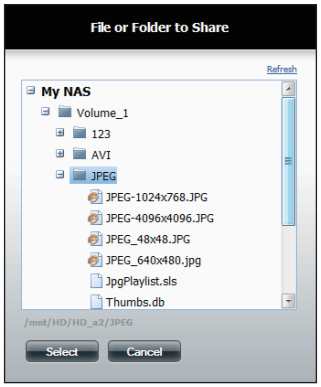
Create a folder/file share by clicking the **Share Files** button.



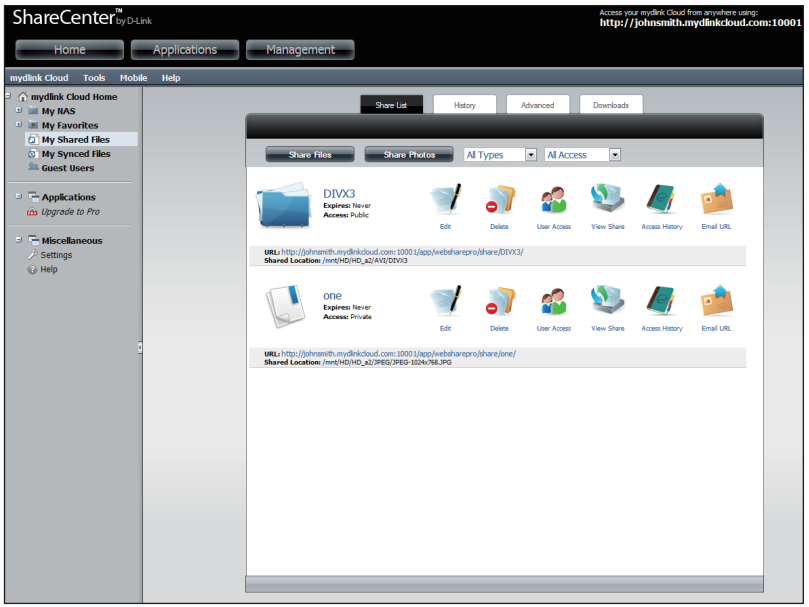
Click **Additonal options** to see a wider choice of selections.



Click the **Browse** button to find the file you wish to share, enter a **Share Name**, and click **Add**.



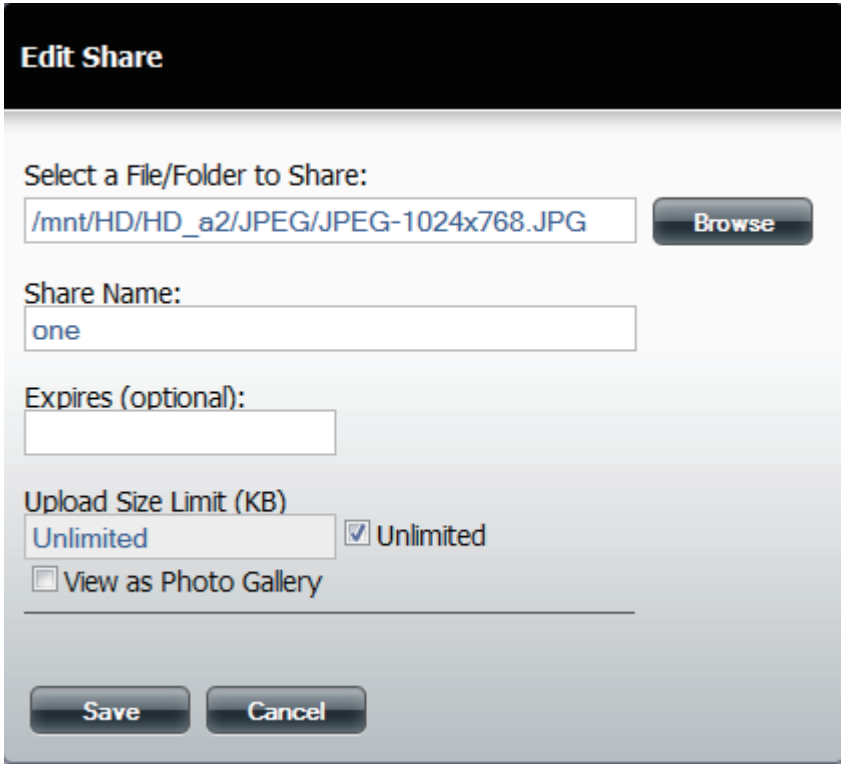
Select the user access rights for the file and click **Close**. The file now appears in the **Share List** directory.



Note: *Please refer to* ***Users/Groups*** *under* ***Account Management*** *to create guest user(s) for accessing your ShareCenter.*

Edit

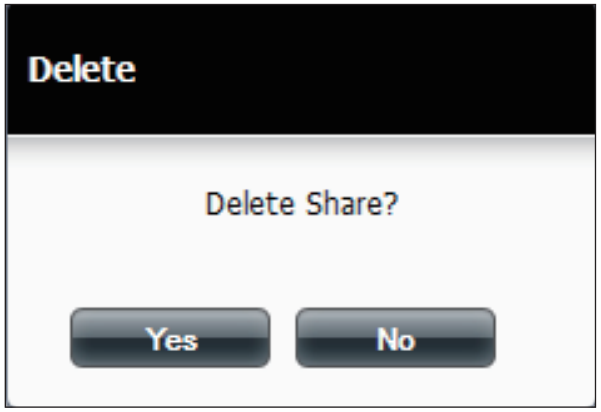
In the **Share List** click the **Edit** icon next to the file/folder you wish to edit. The **Edit Share** screen comes up and provides you with several options.



These options allow you to change the **File/Folder** you are sharing, the **Share Name**, the **Sharing Expiration Date**, the **Size Limit**, and/or as a **Photo Gallery** share. When you have completed making the changes, click **Save** to continue.

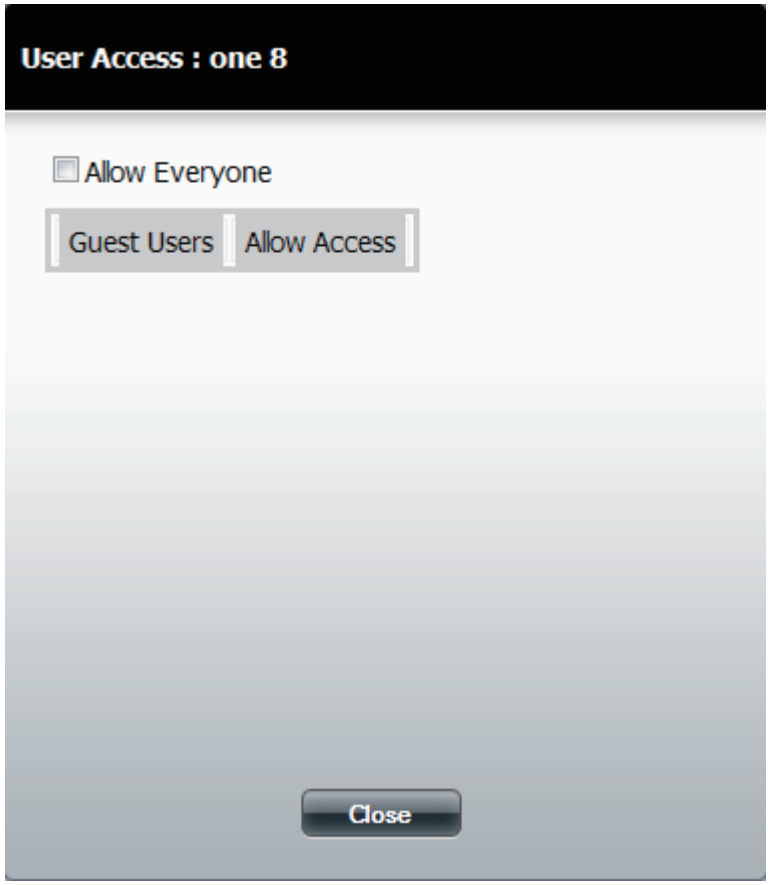
Delete

In the **Share List** click the **Delete** icon next to the file/folder you wish to delete. The **Delete** prompt asks you to confirm the delete (click **Yes**) or ignore the delete (click **No**).



User Access

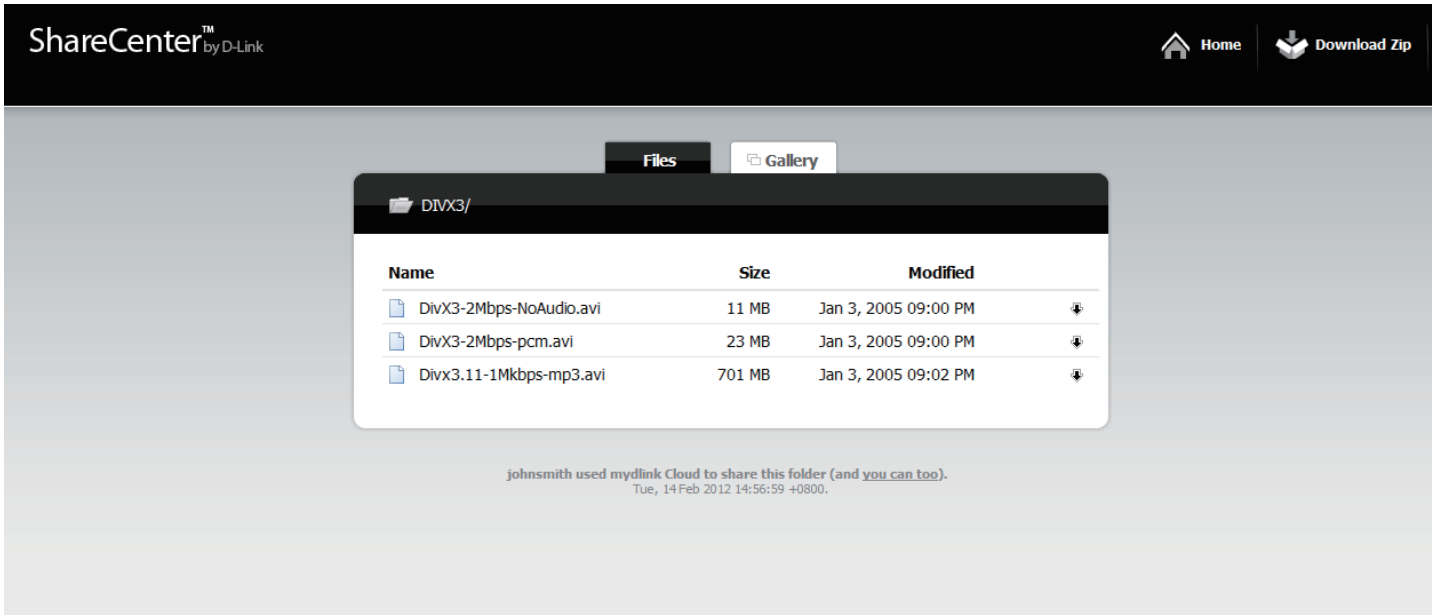
In the **Share List** click the **User Access** icon next to the file/folder you wish to change user access levels. The **User Access window** asks you to select the user(s) you want to add to the Share Folder. Click **Close** when done.



Note: *Please refer to* ***Users/Groups*** *under* ***Account Management*** *to create guest user(s) for accessing your ShareCenter.*

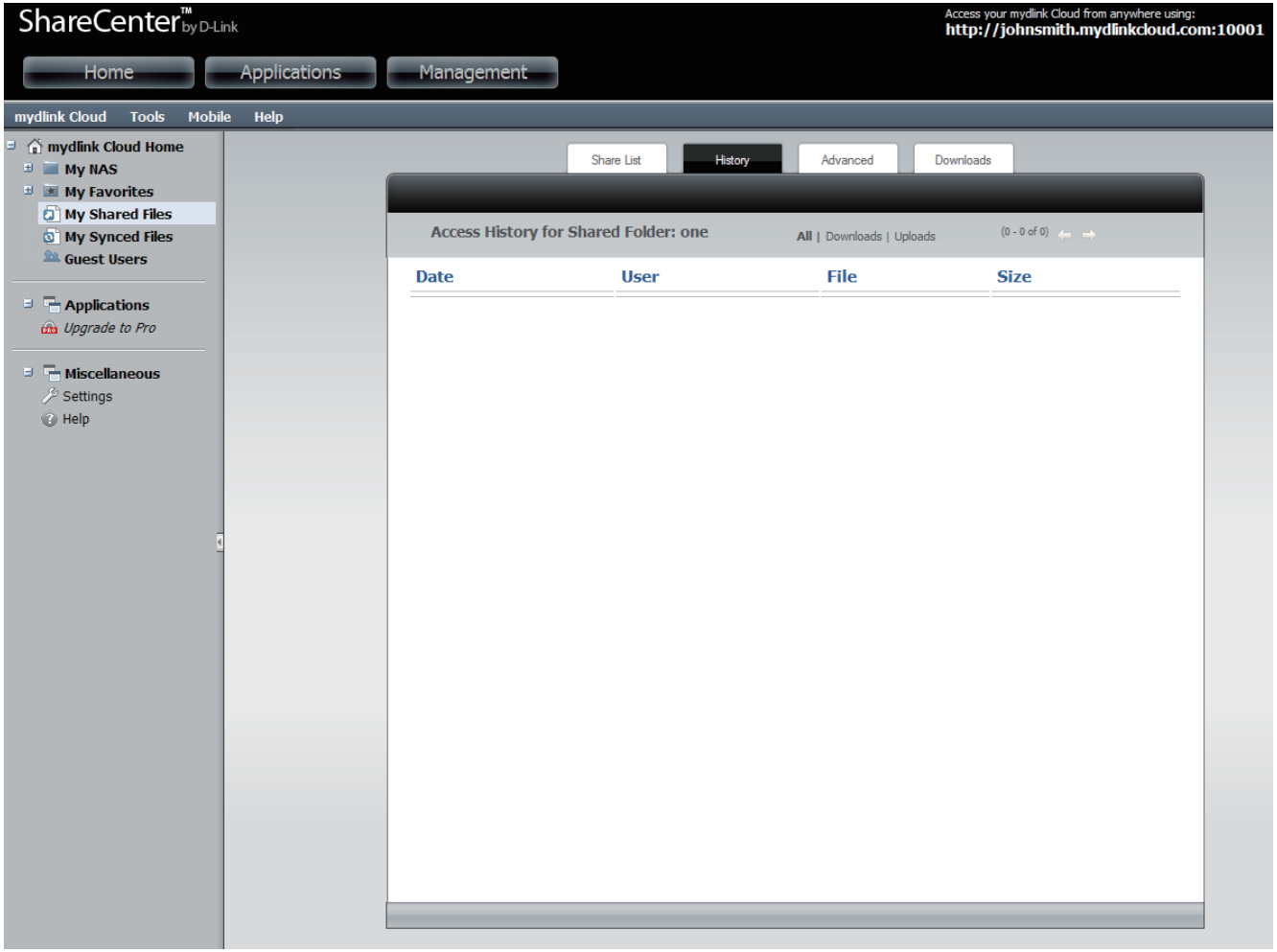
View Share Files

In the **Share List** click the **View Share** icon next to the file/folder you wish to view. The **View Share** link opens a new browser tab and displays all the shared files that users will see. The shares can be viewed in File and Gallery format.



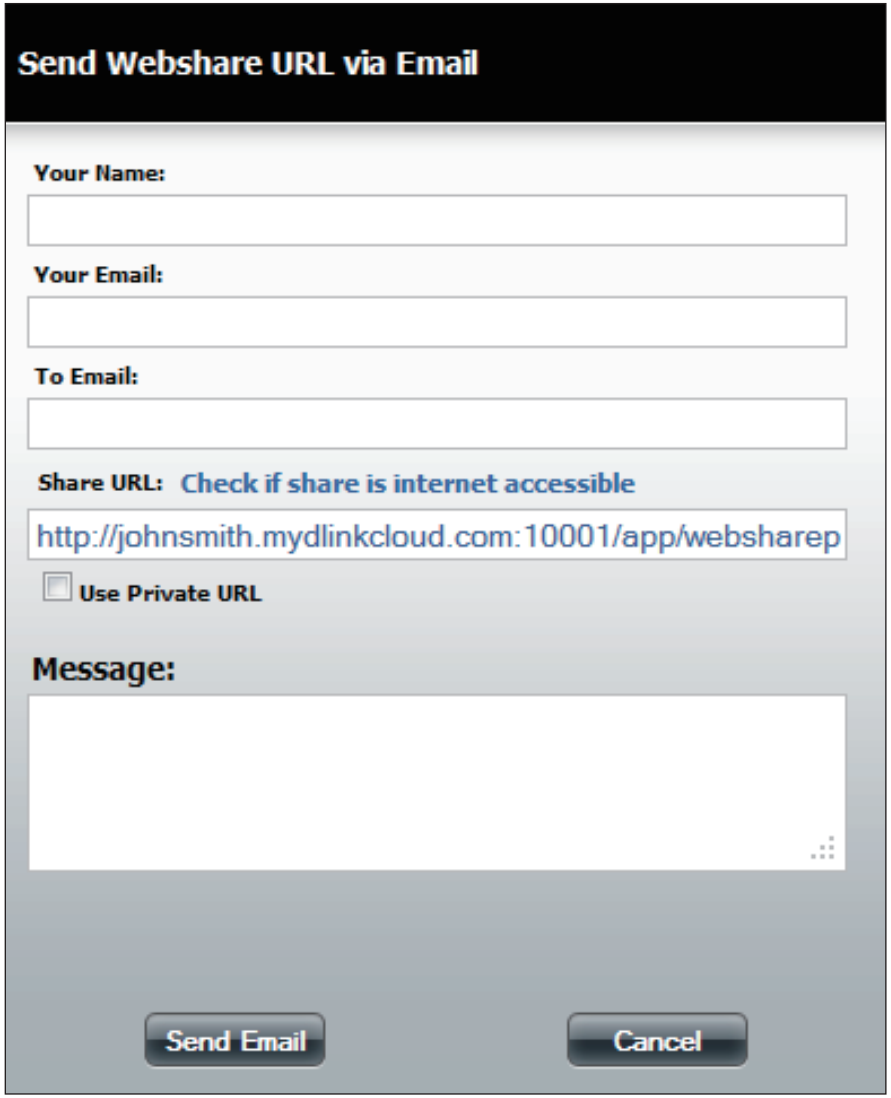
History

In the **Share List** click the **Access History** icon next to the file/folder you wish to view the history. The **Access History** link opens the History tab in the same window.



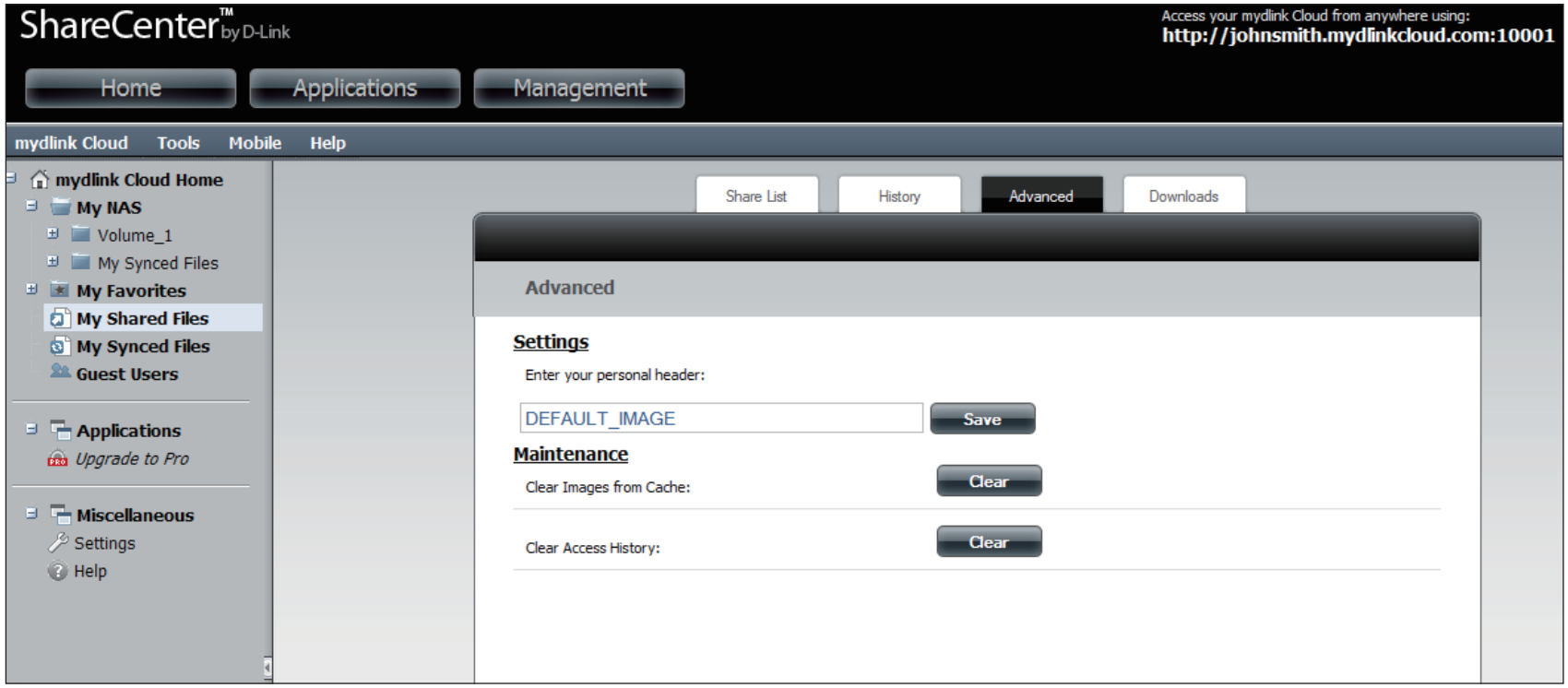
Email URL

In the **Share List** click the **Email URL** icon next to the file/folder you wish to send a link via email. The Email URL link opens the **Send Webshare URL** window. Enter the contact details of the person(s) you want to send the email to and click **Send Email**.



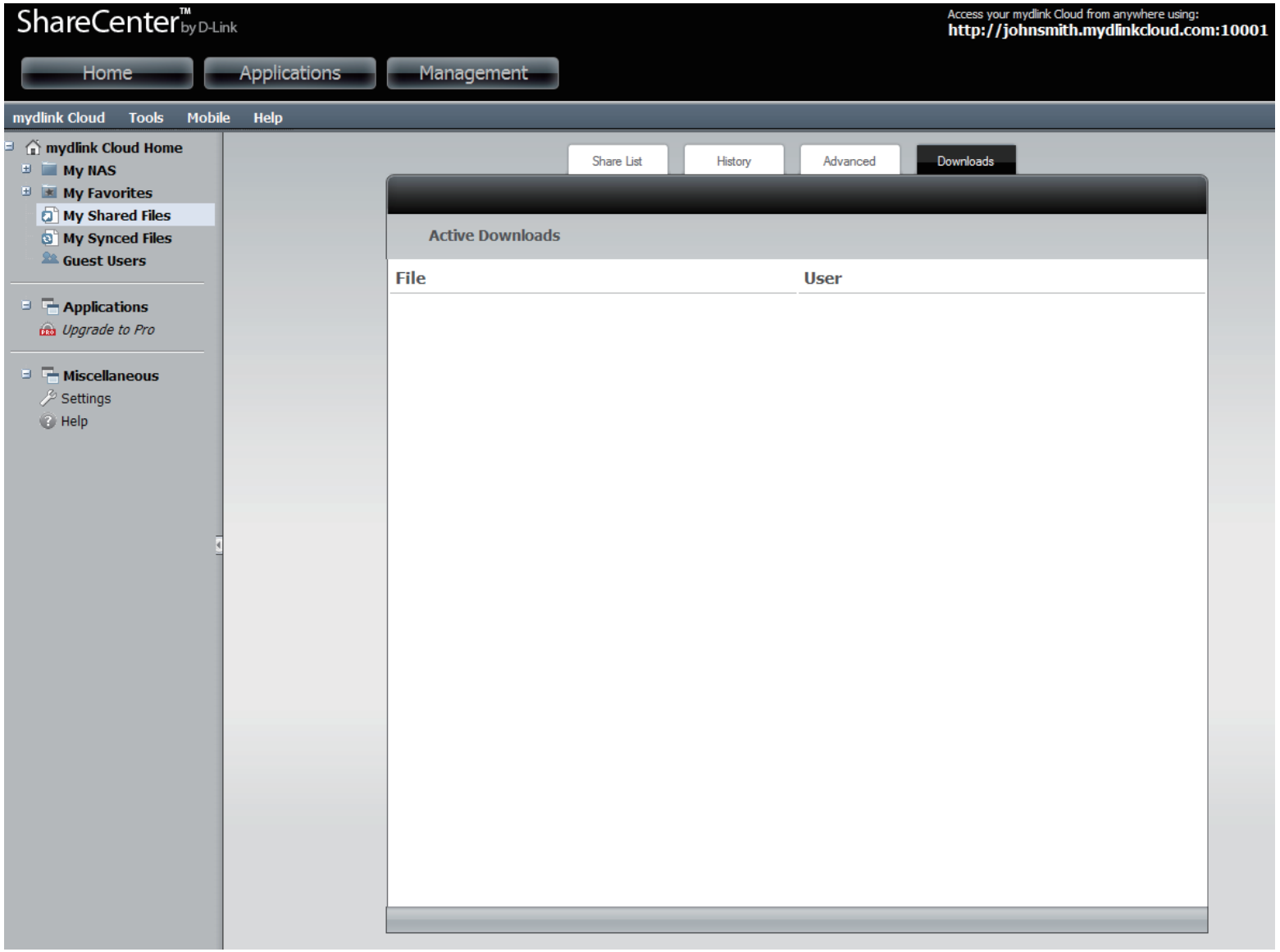
Advanced

Under **My Shared Files**, click the **Advanced** tab. Under **Settings**, enter a name that you want to be displayed on the header of the shared URL link in the personal header field provided and click **Save**. Under **Maintenance**, click the **Clear** button to remove images from the **Cache**. Next to Clear Access History, click the **Clear** button to remove all history .



Downloads

The **Downloads** tab provides a list of active downloads.

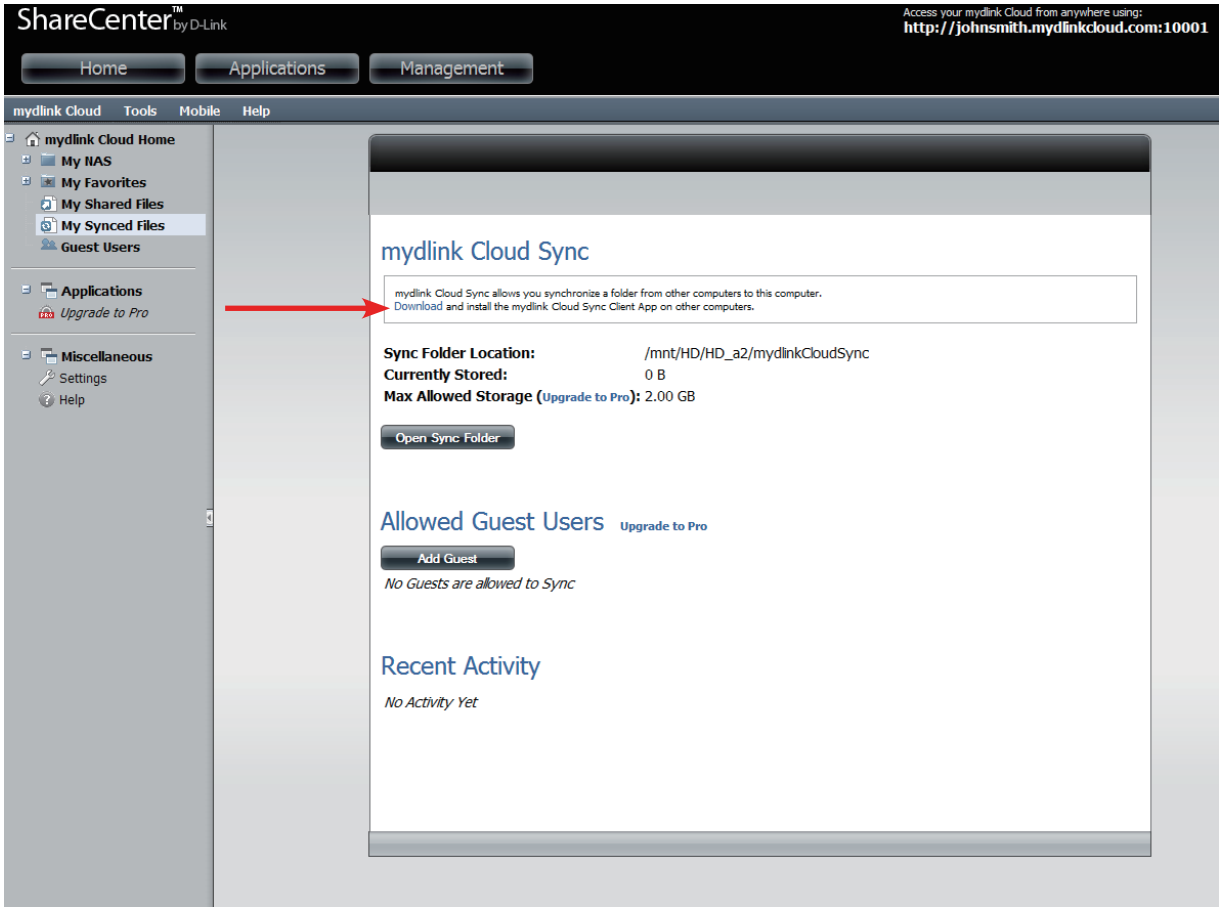


My Synced Files

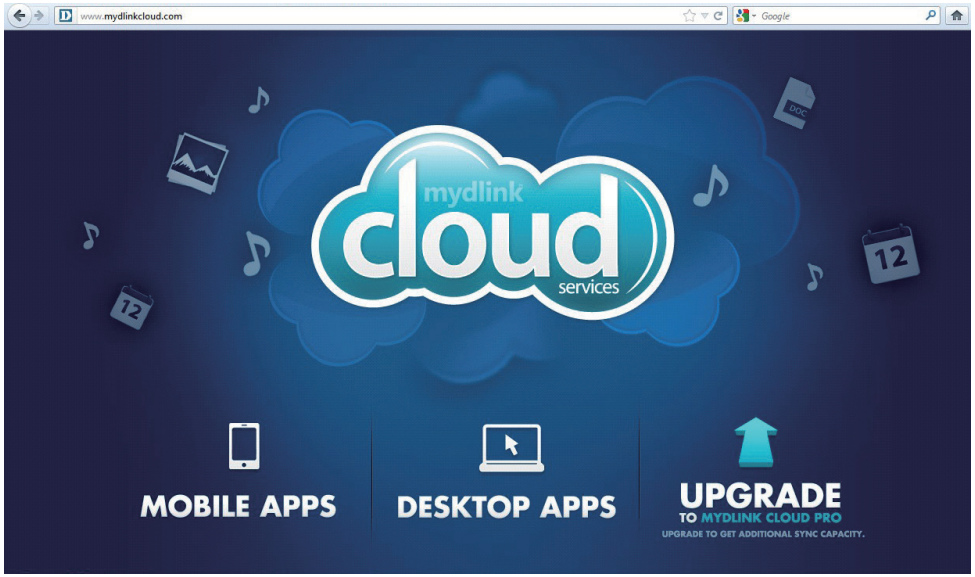
mydlink Cloud Sync allows you to sync files between your NAS and multiple computers. The **My Synced Files** section is a two part application. One part resides on the online mydlink cloud server and the other part is an application you download and use on your personal PC.

To download the sync application to your computer(s), click **Download** (next to the red arrow below).

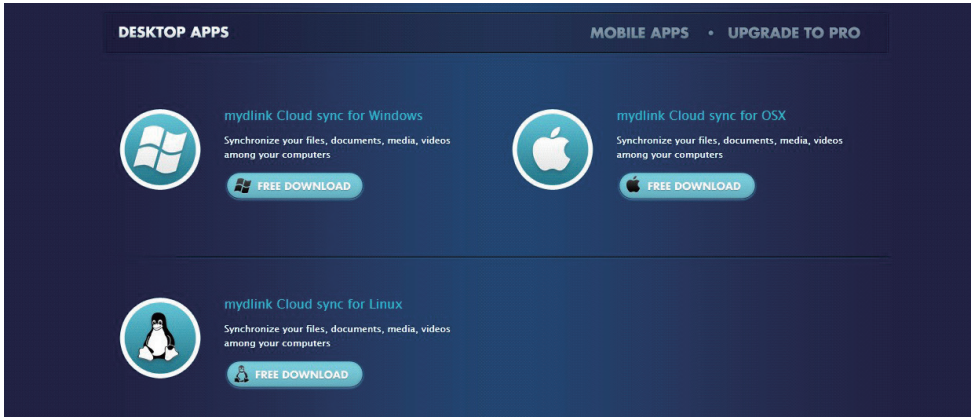
Here you will have the option to buy/upgrade to mydlink Cloud Pro. With mydlink Cloud Pro, you will increase your sync storage space from 2GB to 50GB and will allow guest accounts to sync.



When you click **Download**, you will be directed to the mydlink Cloud website. Click **DESKTOP APPS** to download the mydlink Cloud sync software to your computer.

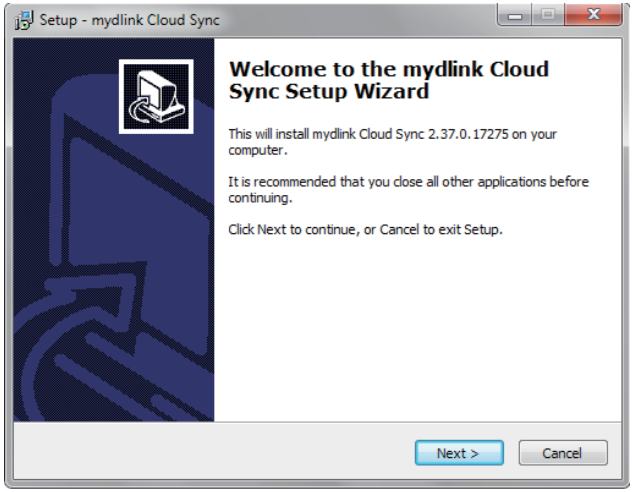


Select your computer's operating system and click **FREE DOWNLOAD** to save the sync application file to your computer.

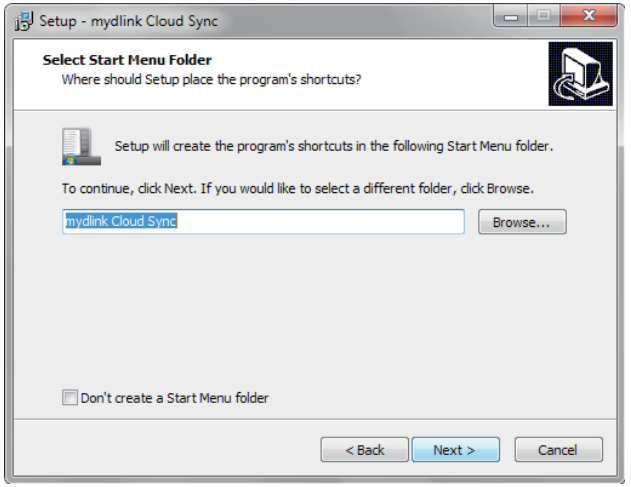


Windows® users - Double-click the **MyDLinkCloudSync.exe** file you downloaded to launch the installation. Refer to the next page.

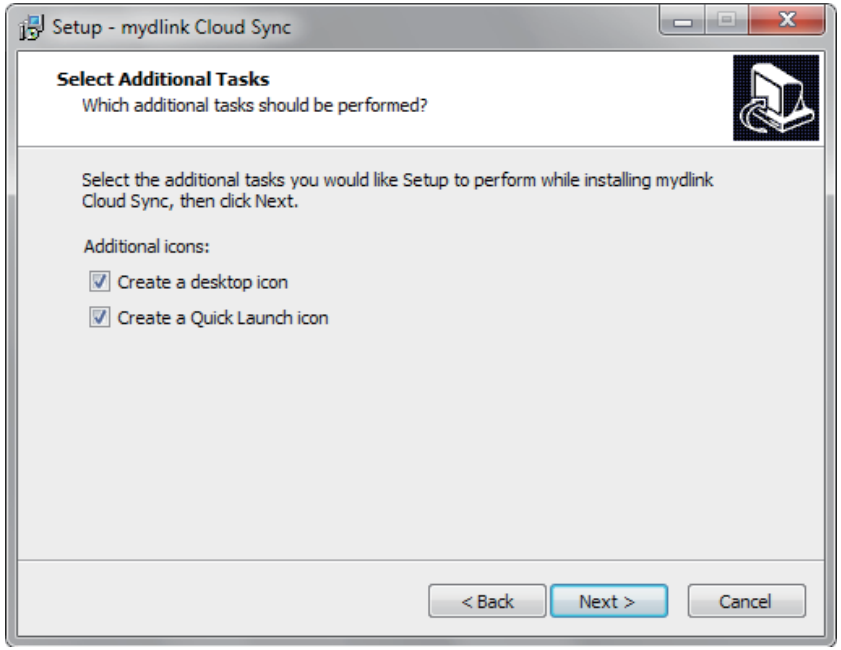
Click **Next** to continue.



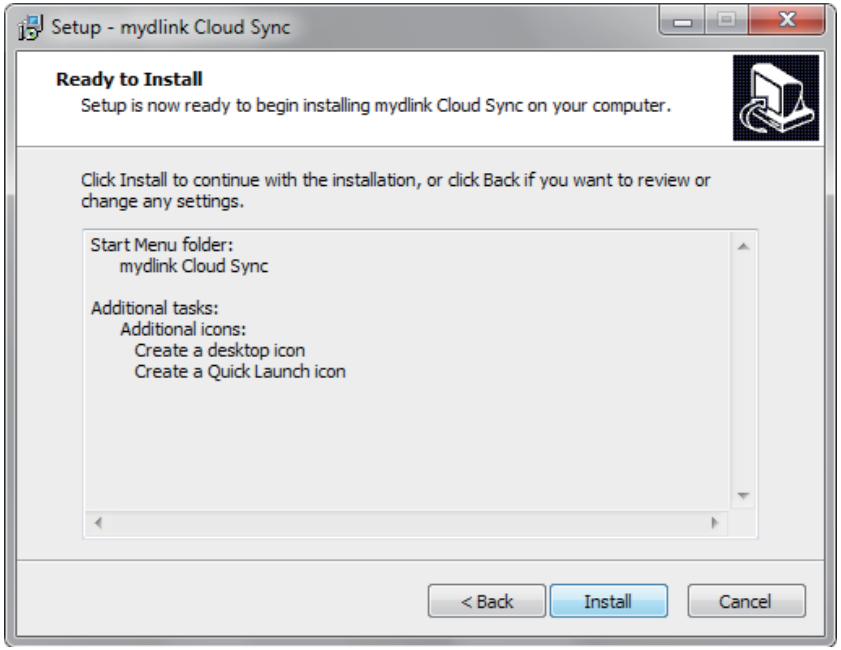
Enter a name for the **Start Menu Folder** or use the default name provided. Click **Next** to continue.



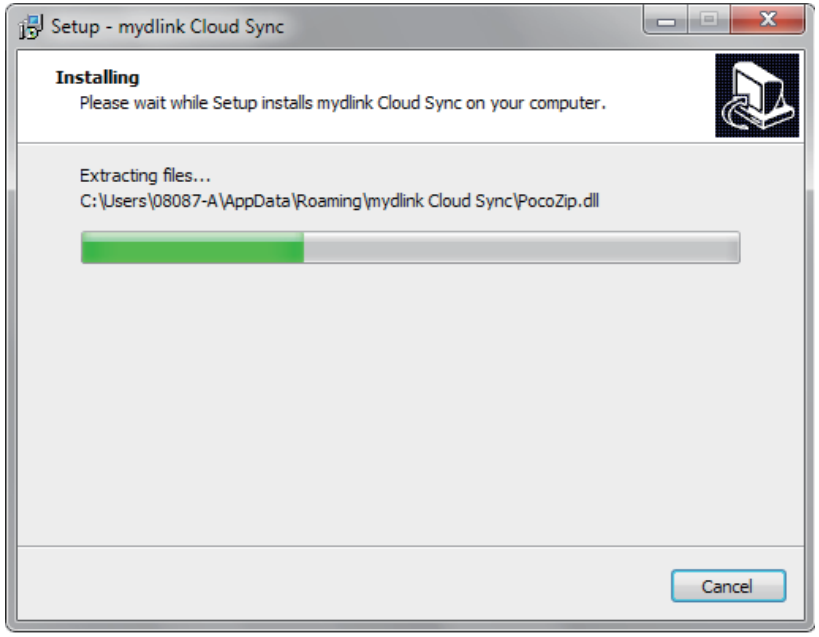
Click the checkbox next to **Create a desktop icon** and click the checkbox next to **Create a Quick Launch icon** to create additional shortcuts. Click **Next** to continue.



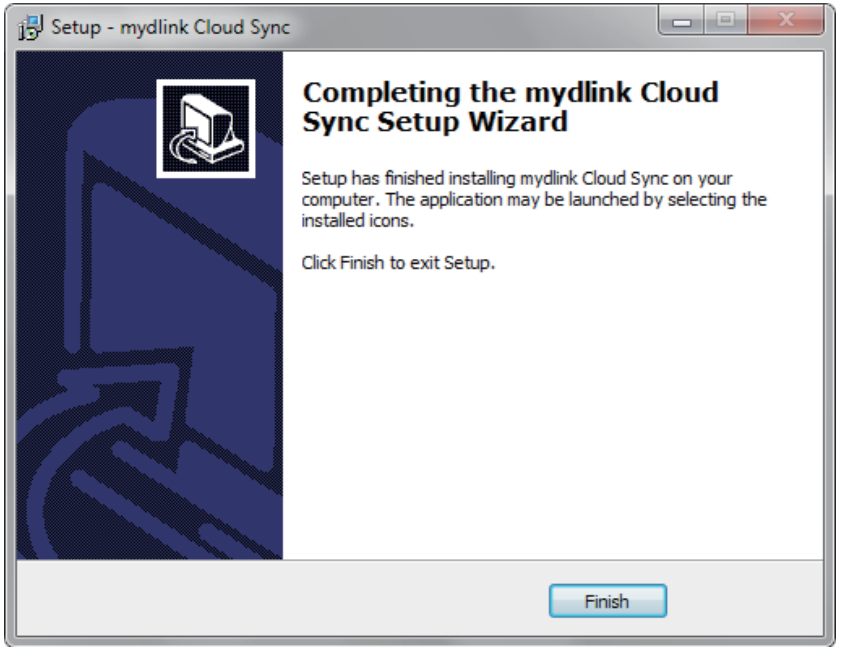
Before running **Install**, check the parameters and click **Install**.



The install process will begin.



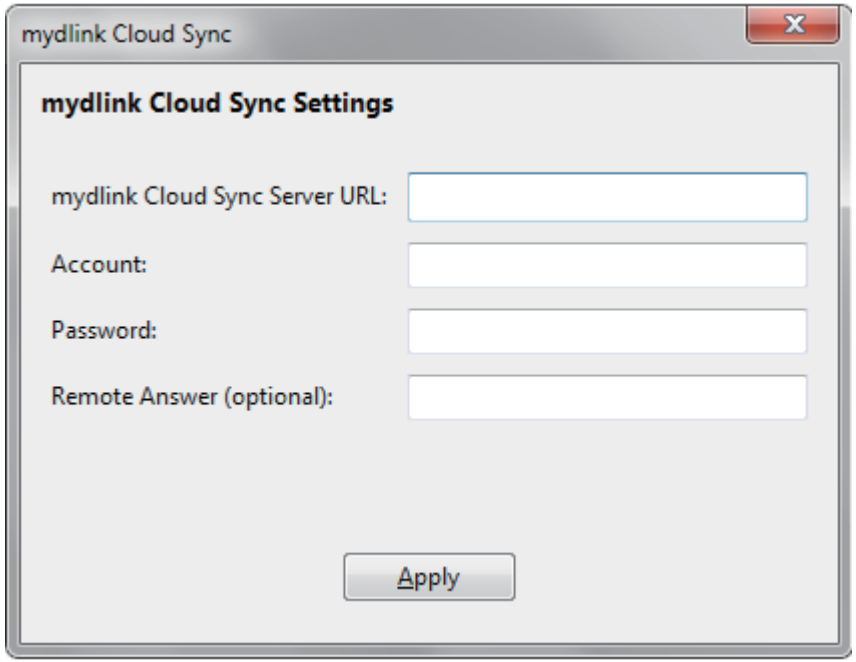
The installation is complete. Click **Finish** to exit.



Running mydlink Cloud Sync

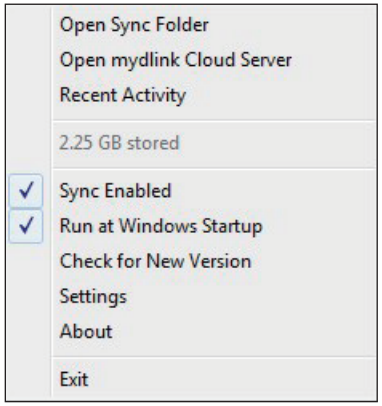
To run the program, click **Start** > **All Programs** > **mydlink Cloud Sync**. Click on the mydlink Cloud Sync icon.

When the **mydlink Cloud Sync** program starts, enter the mydlink Cloud Sync Server URL (e.g. john.mydlinkcloud.com), the account name (e.g. john), and a Password. Enter a Remote Answer (if required) and click **Apply**.

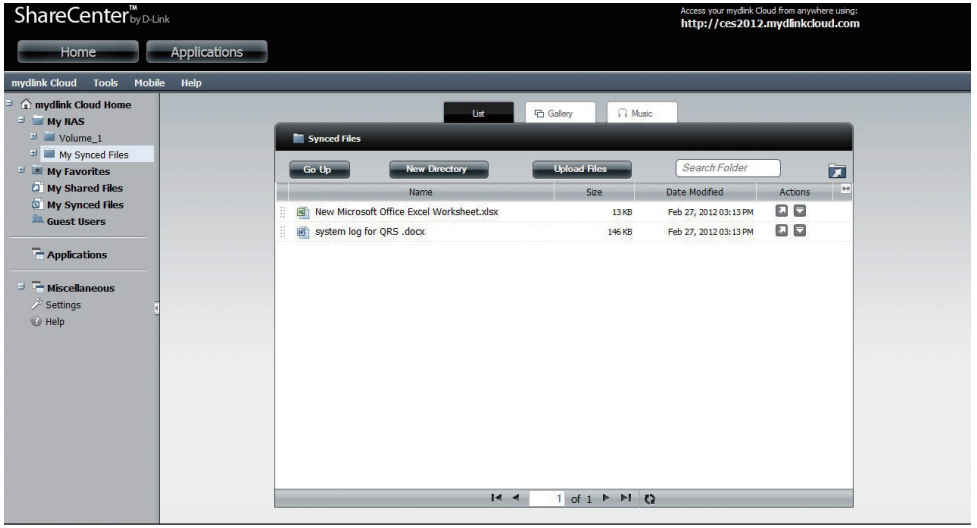


The **mydlink Cloud** shortcut can be found in the **System Tray** while its running.

Right-click on the shortcut in the System Tray then click **Open Sync Folder**. A mydlink Cloud Sync folder is created on your computer. Files added to the Sync Folder on any computer are synced to your NAS (and vice-versa).

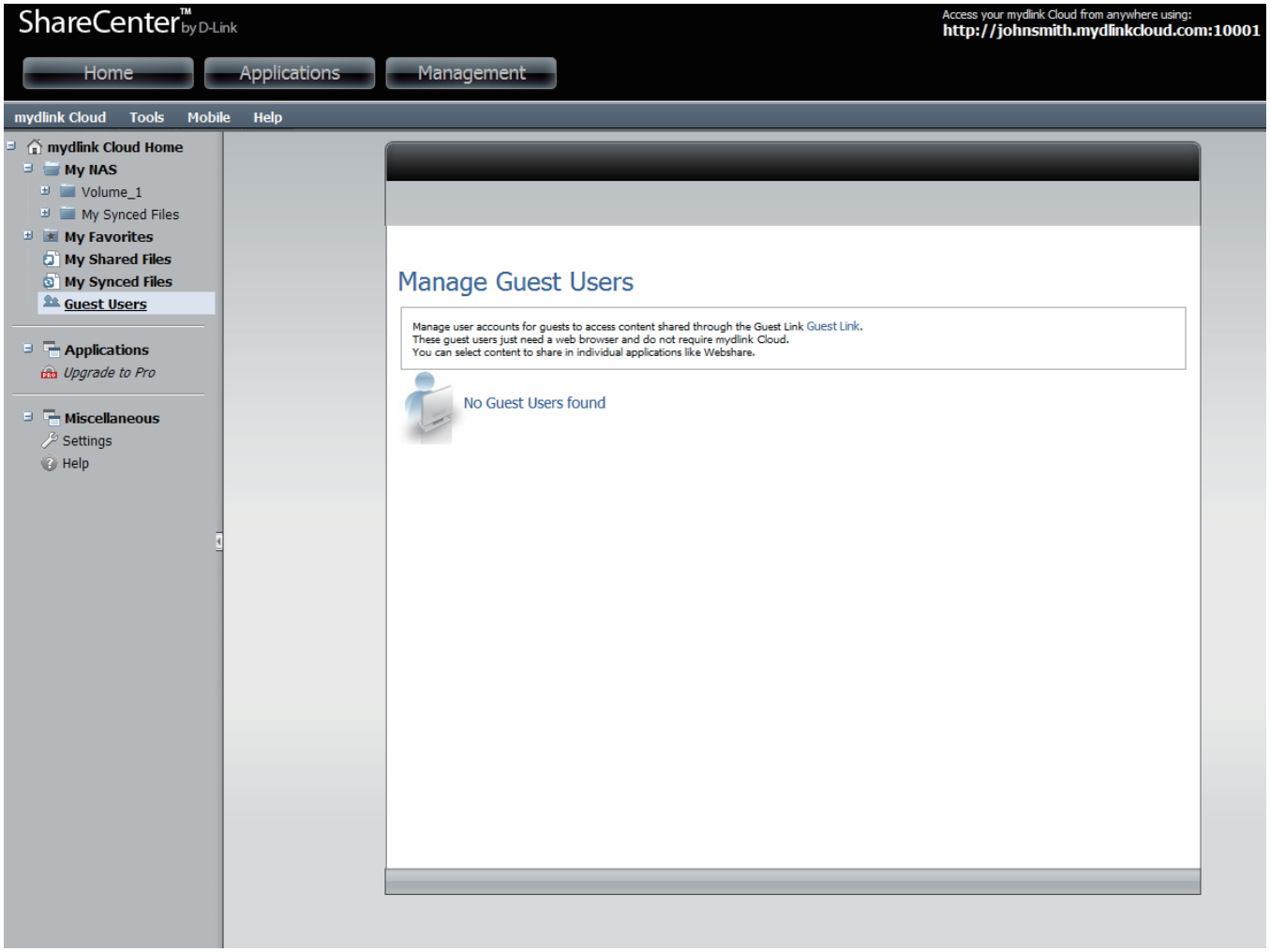


To view the synced files on your NAS, go to mydlink Cloud Web interface and click **My Synced Files** under **My NAS** on the left-hand side. You can also access synced files via your mobile devices.



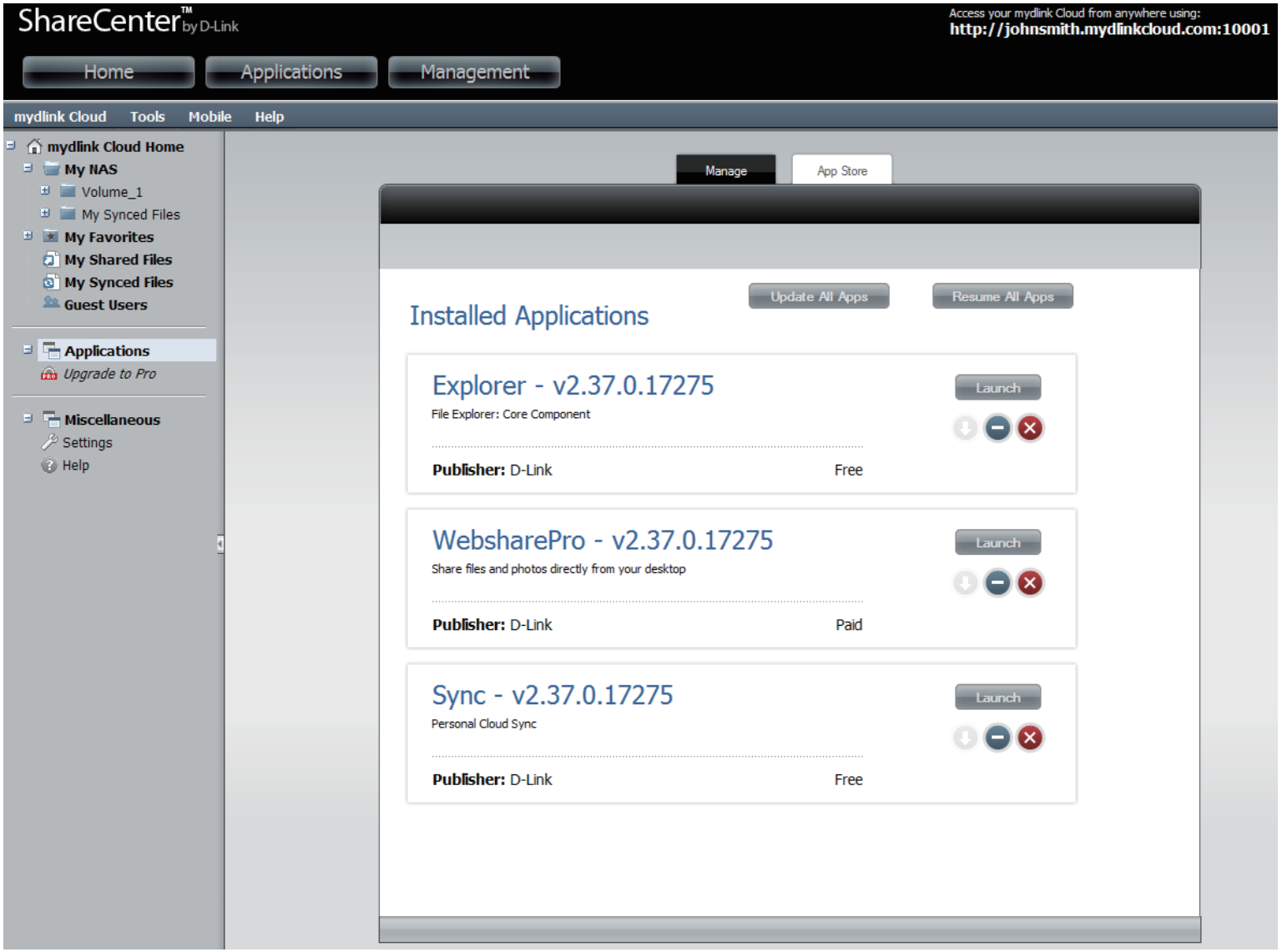
Guest Users

The **Guest Users** section will display a list of guest user accounts that you have created on your NAS. Please refer to the Users/Groups section under Account Management.



Applications
Manage

Applications has two main tabs: **Manage** and **App Store**. Manage has three main *Applications*: **Explorer**, **WebSharePro** and **Sync** (installed by default). You can select to update all, resume all, suspend, or uninstall these apps.

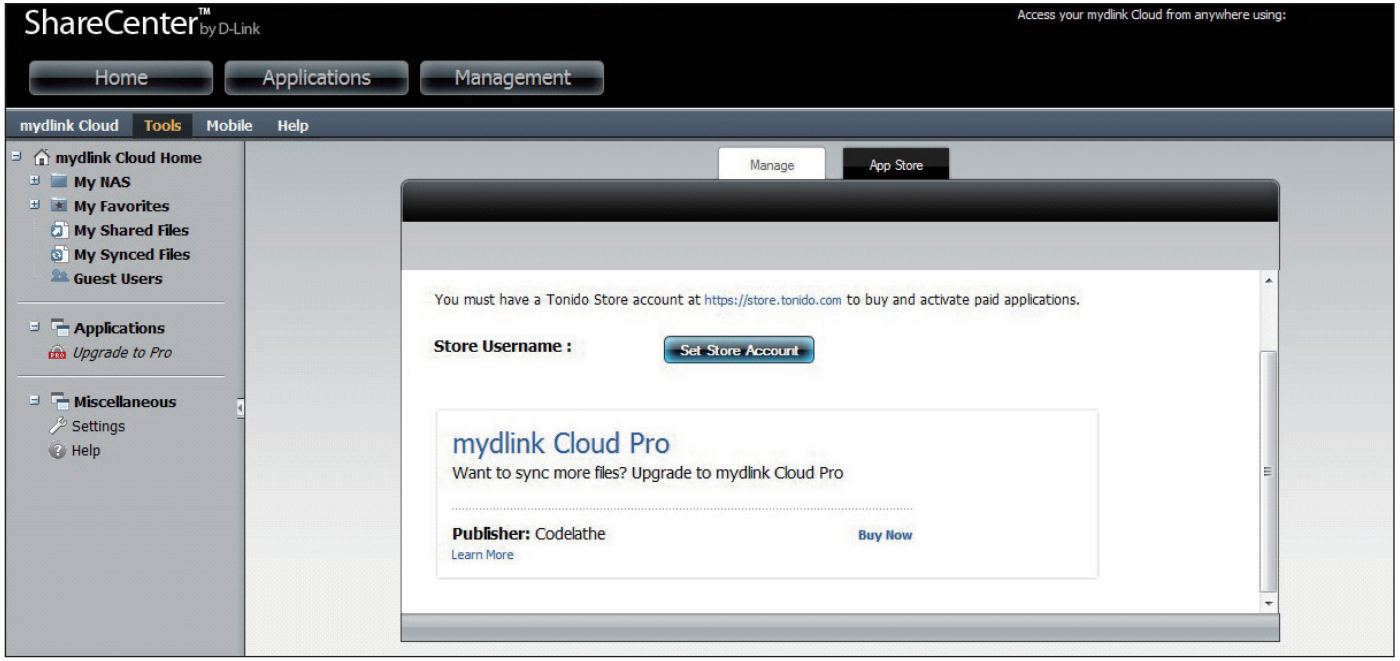


App Store

The App Store allows you to upgrade to the **mydlink Cloud Pro** service.

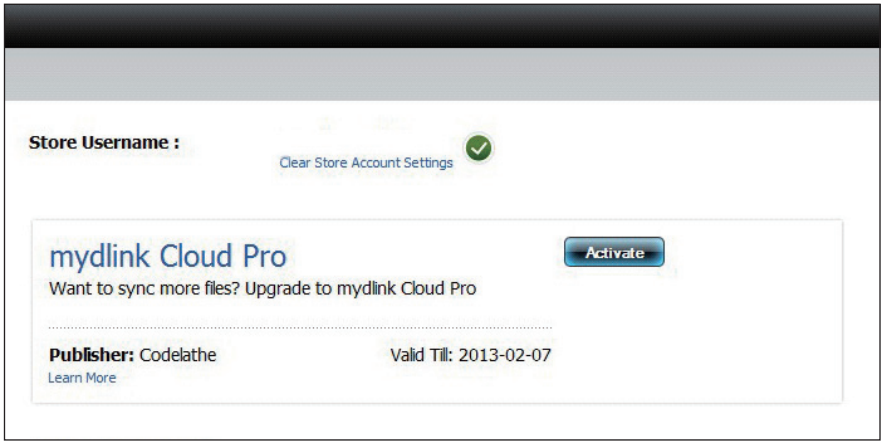
You will need to register a store account and purchase the Pro on the Website before you can activate mydlink Cloud Pro with your shareCenter.

1. Click **Upgrade to Pro** under Applications in the left side bar. Register a store account and purchase **mydlink Cloud Pro**.
2. Go to **Tools** > **Manage Applications** > **App Store**. Click **Set Store Account**.

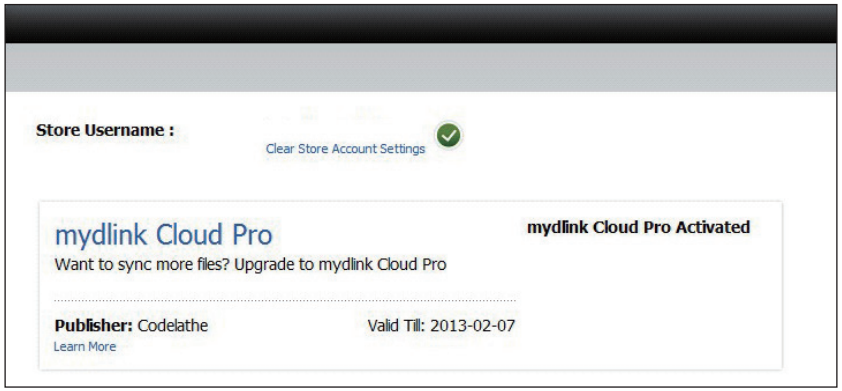


3. Enter the store account information that you used to purchase mydlink Cloud Pro. Click **Submit**.

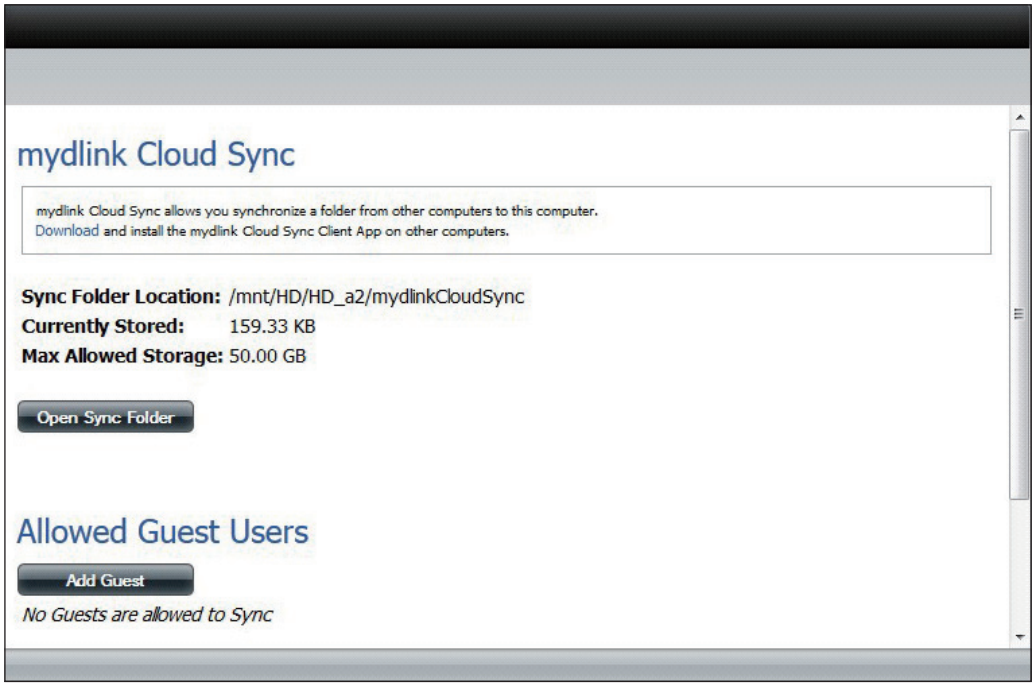
4. If you've purchased the Pro version, an Activate button will appear in the mydlink Cloud Pro box. Click **Activate**.



5. mydlink Cloud Pro has been activated.

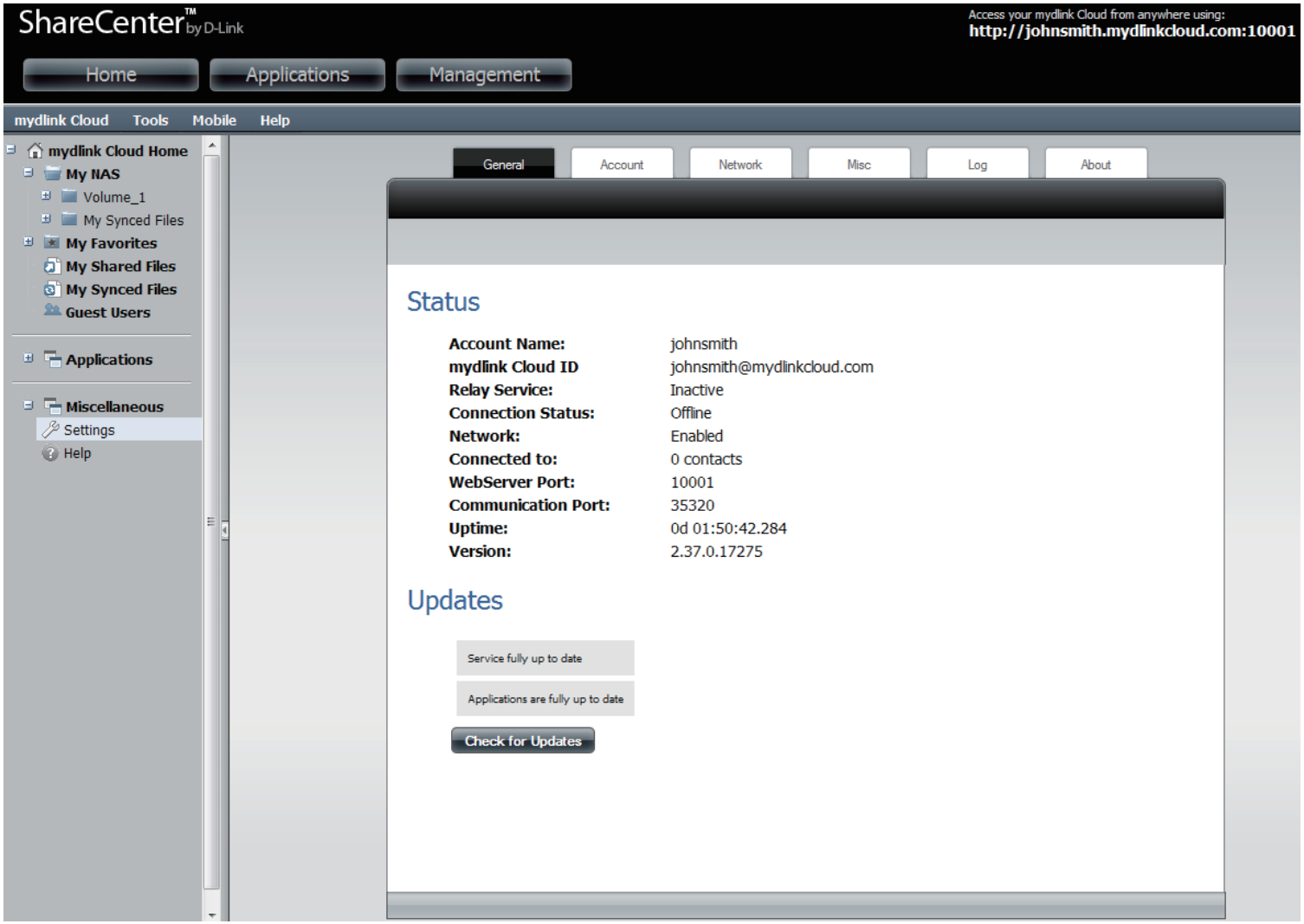


6. Sync storage is now 50 GB and you can also allow guest user accounts to sync to the mydlink Cloud server from their computers.



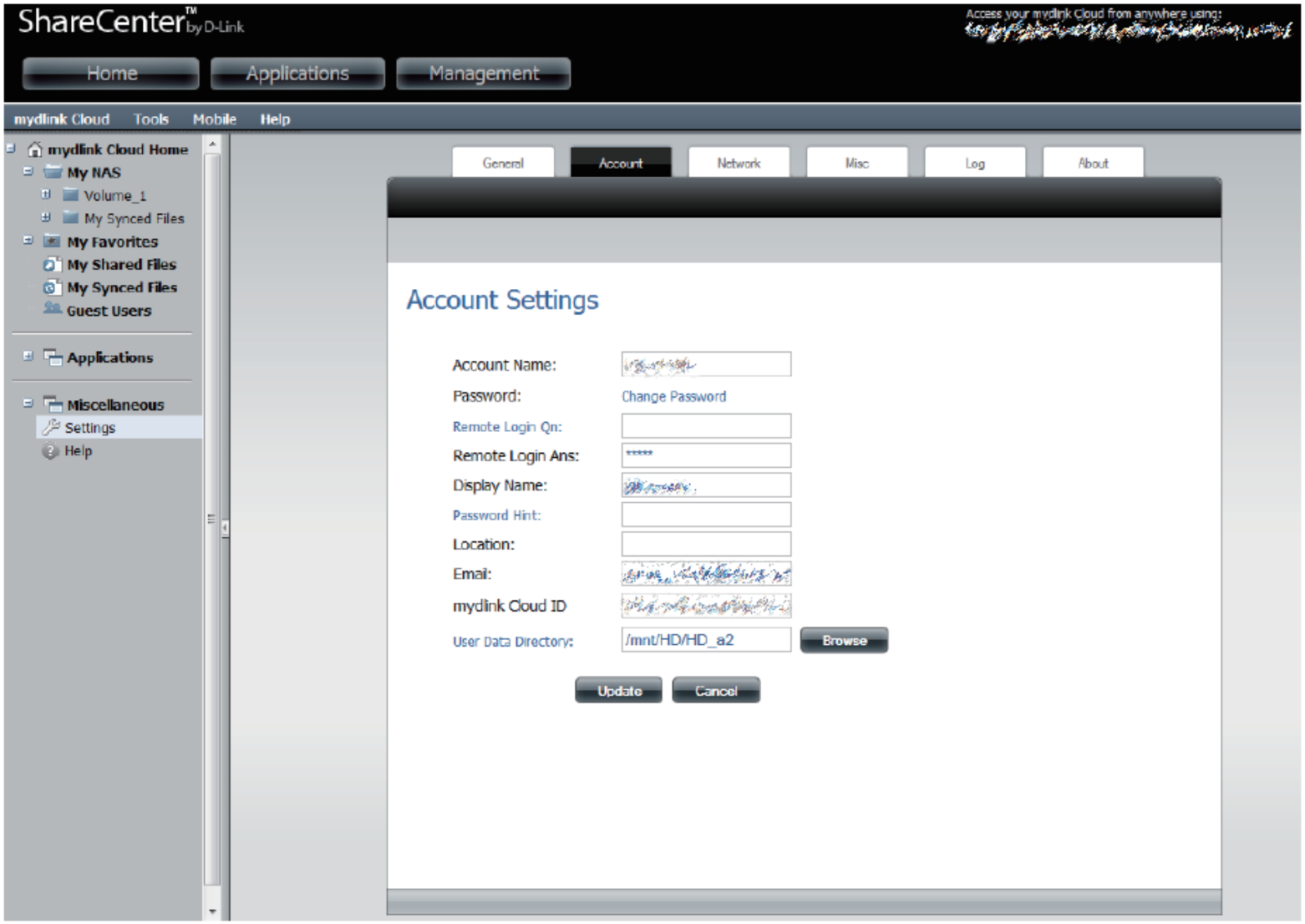
Miscellaneous
Settings

Settings falls under **Miscellaneous** in the left sidebar. The **Settings** configuration panel has six main tab sections: **General**, **Account**, **Network**, **Misc**, **Log**, and **About**.The **General Tab** offers a general status indicator which provides **Account Name**, **mydlink Cloud ID**, **Relay Service**, **Connection Status**, **Network**, **Connected to**, **WebServer Port**, **Communication Port**, **Uptime**, and **Version number**. The **General Tab** also offers **Updates**. Click the **Check for Updates** button to run updates.



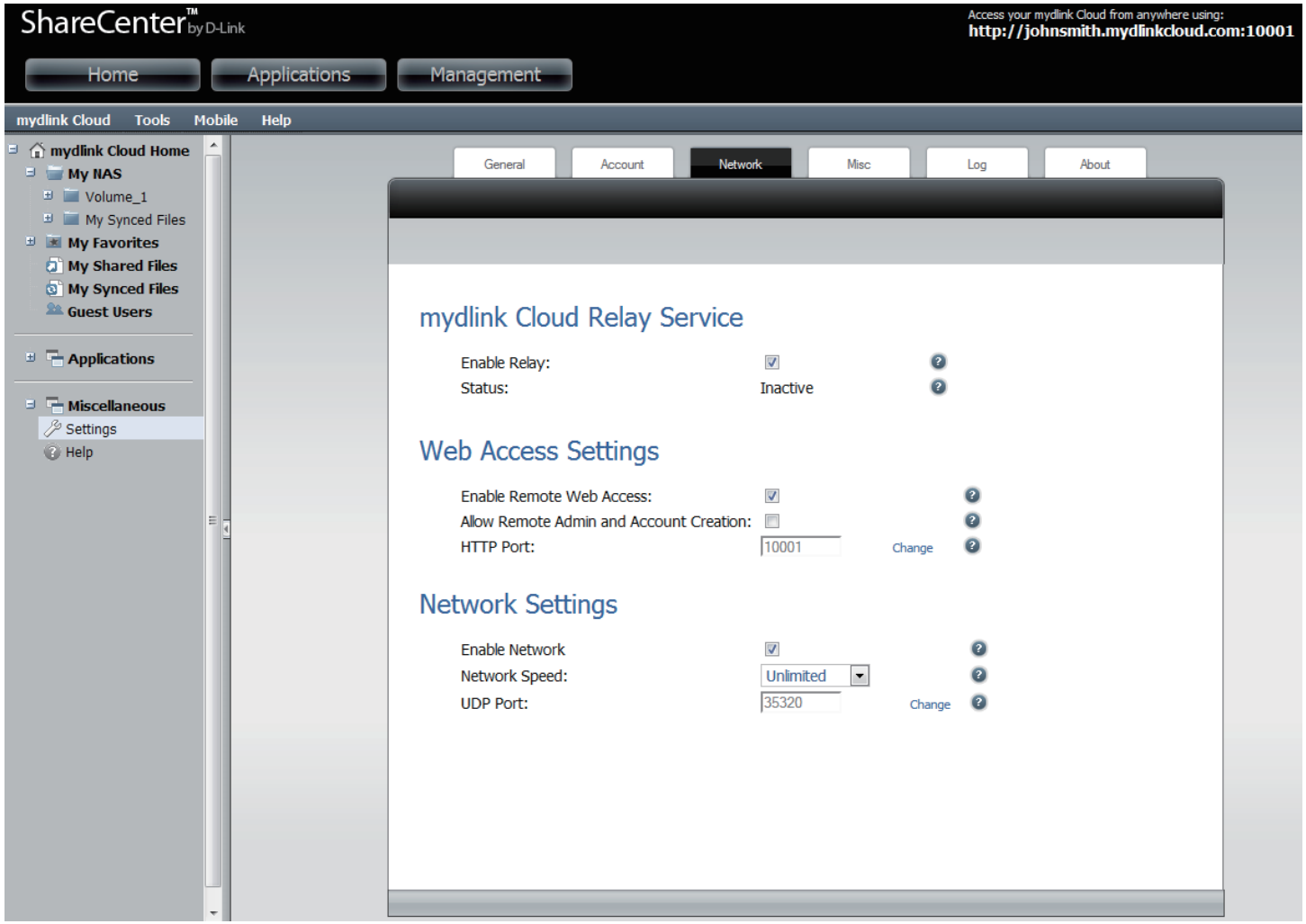
Accounts

The **Account Settings** tab allows users to change account settings. Enter the details according to your requirements and click the **Update** button. Access or change the directory location by clicking the **Browse** button.



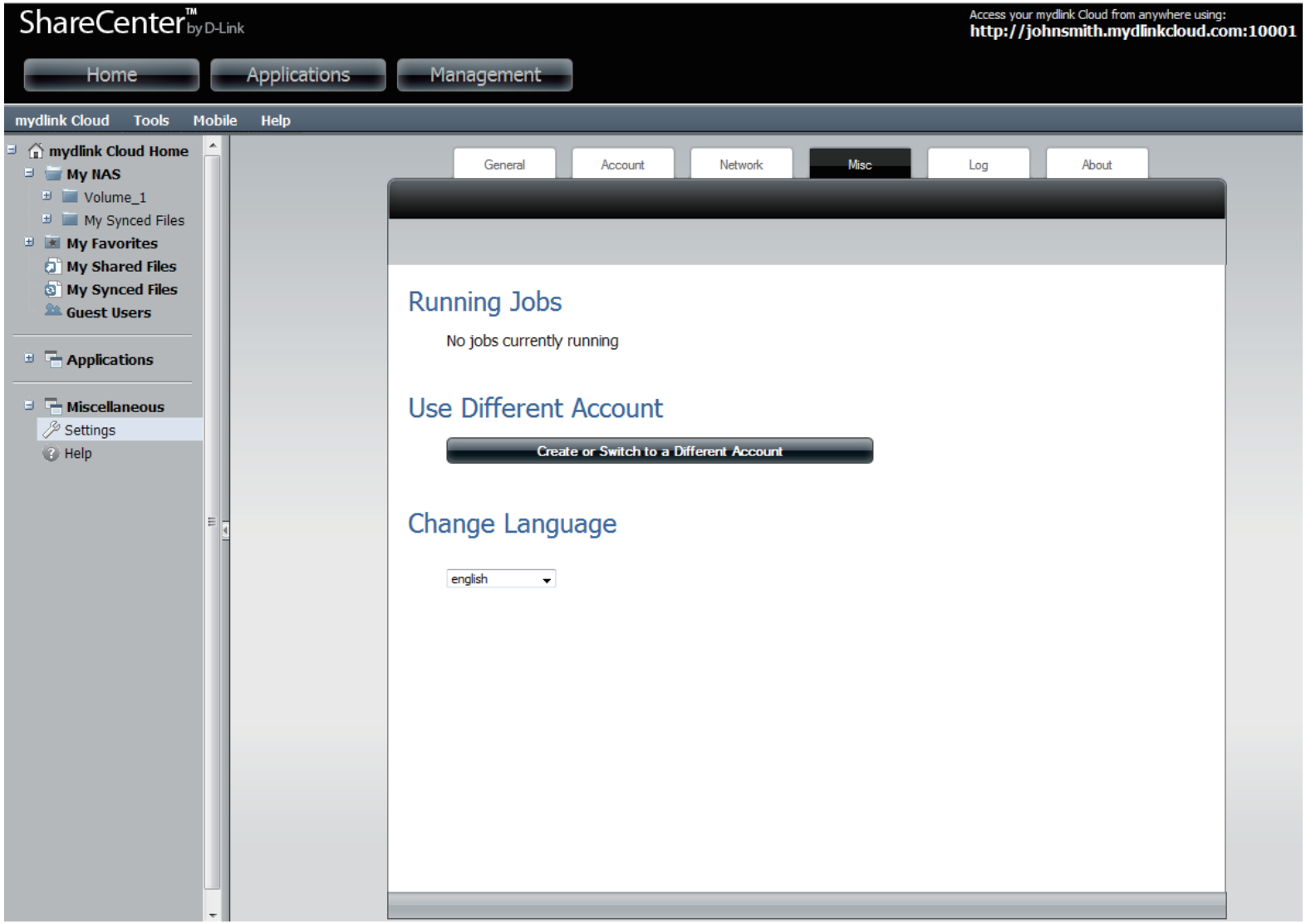
Network

The **Network Settings** tab is divided into three main sections: **mydlink Cloud Relay Service**, **Web Access Settings**, and **Network Settings**. The **mydlink Cloud Relay Service** allows users to enable **Relay Services**. In **Web Access Settings**, you can enable **Remote Web Access**, allow **Remote Admin and Account Creation** and change **HTTP port settings**. For **Network Settings**, you can turn off URL redirection, change the Network Speed, and change the UPD Port settings.



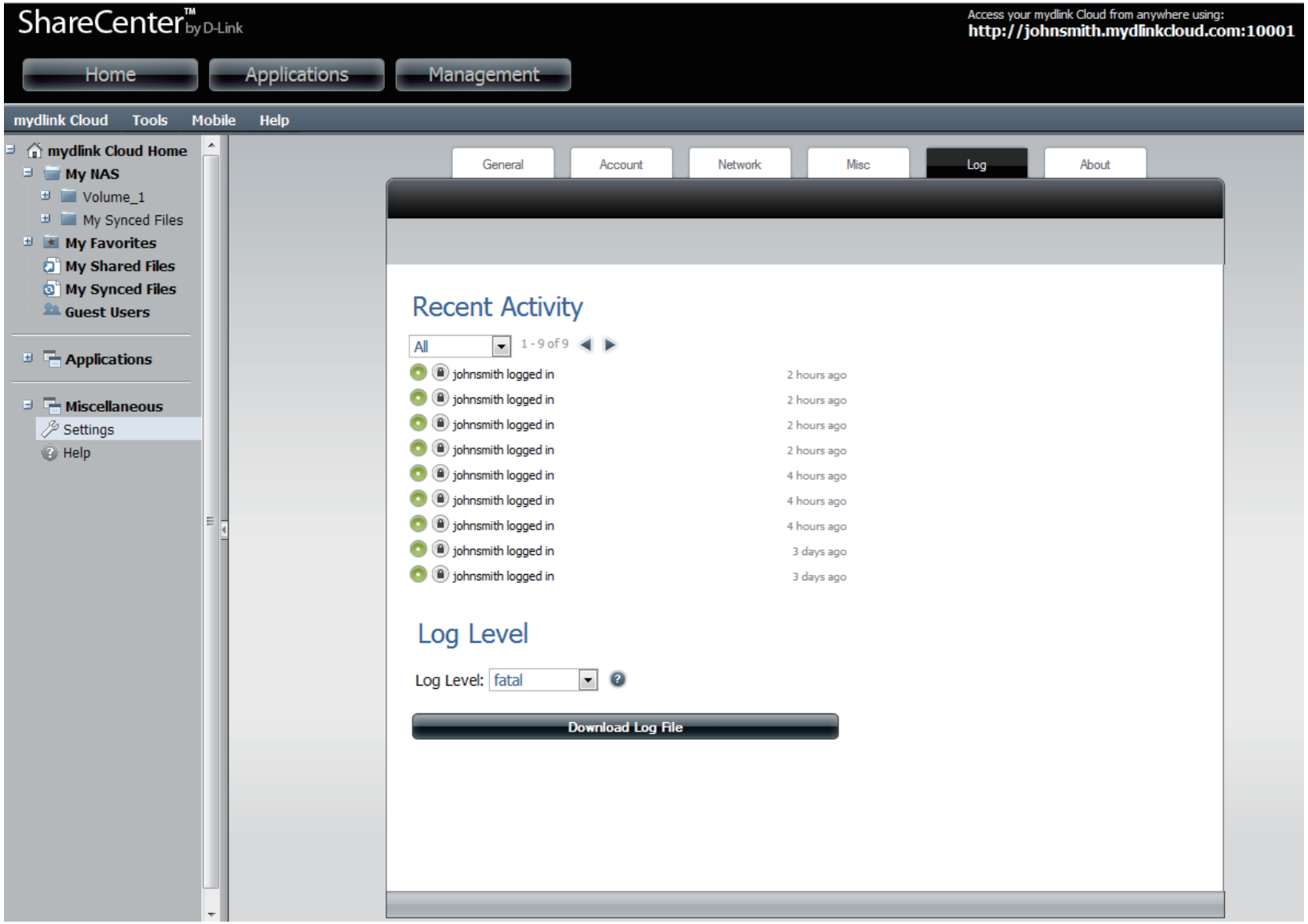
Misc

The **Misc** section will display **Running Jobs**, if any. You can also switch to a different user by clicking the **Create or Switch to a Different Account** button. Currently, you can switch between ten languages from the drop-down menu under **Change Language**.



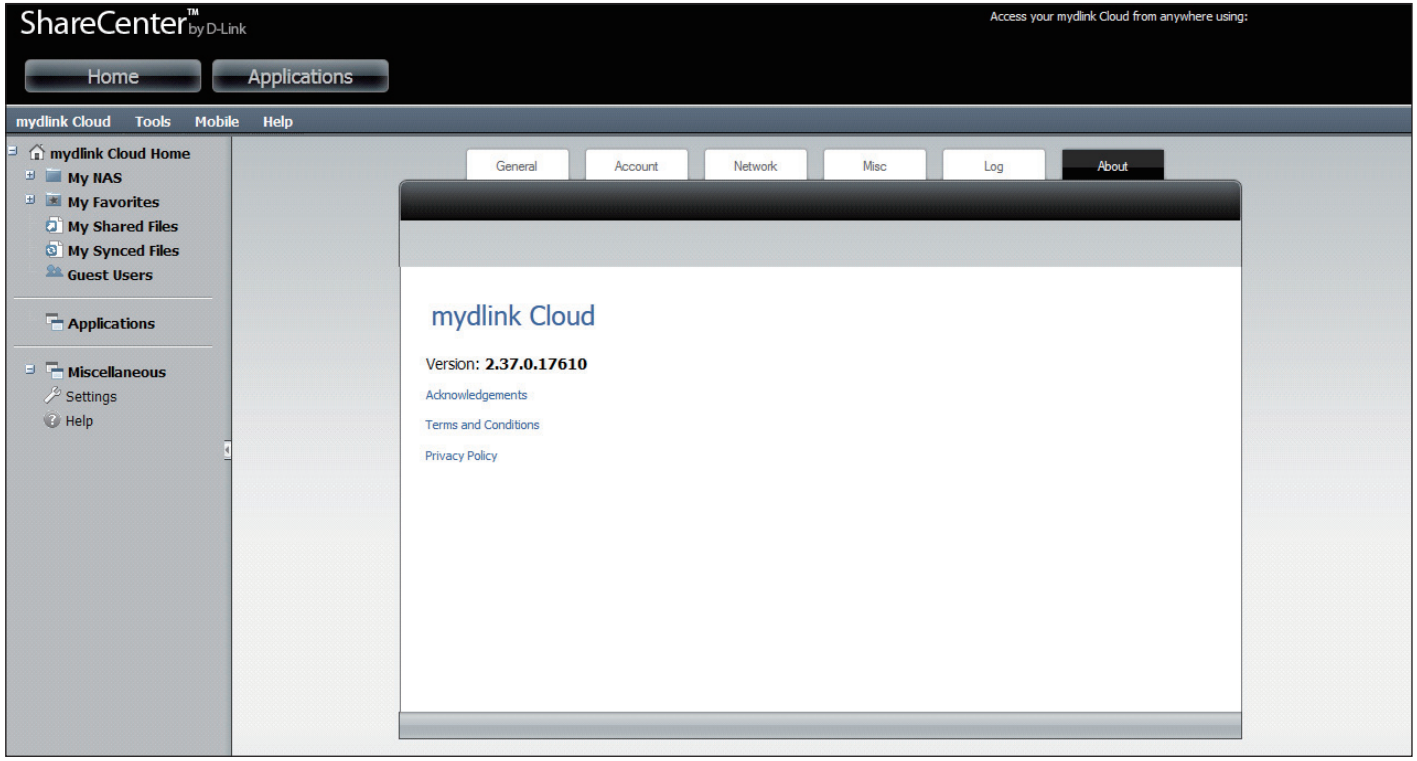
Log

The **Log** window provides a log of all your connections and other accounts connected to the **mydlink Cloud** service. The **Log Level** indicator offers eight options: **fatal**, **critical**, **error**, **warning, notice, information, debug,** and **trace**. Click the **Download Log File** button to keep a record of the file.



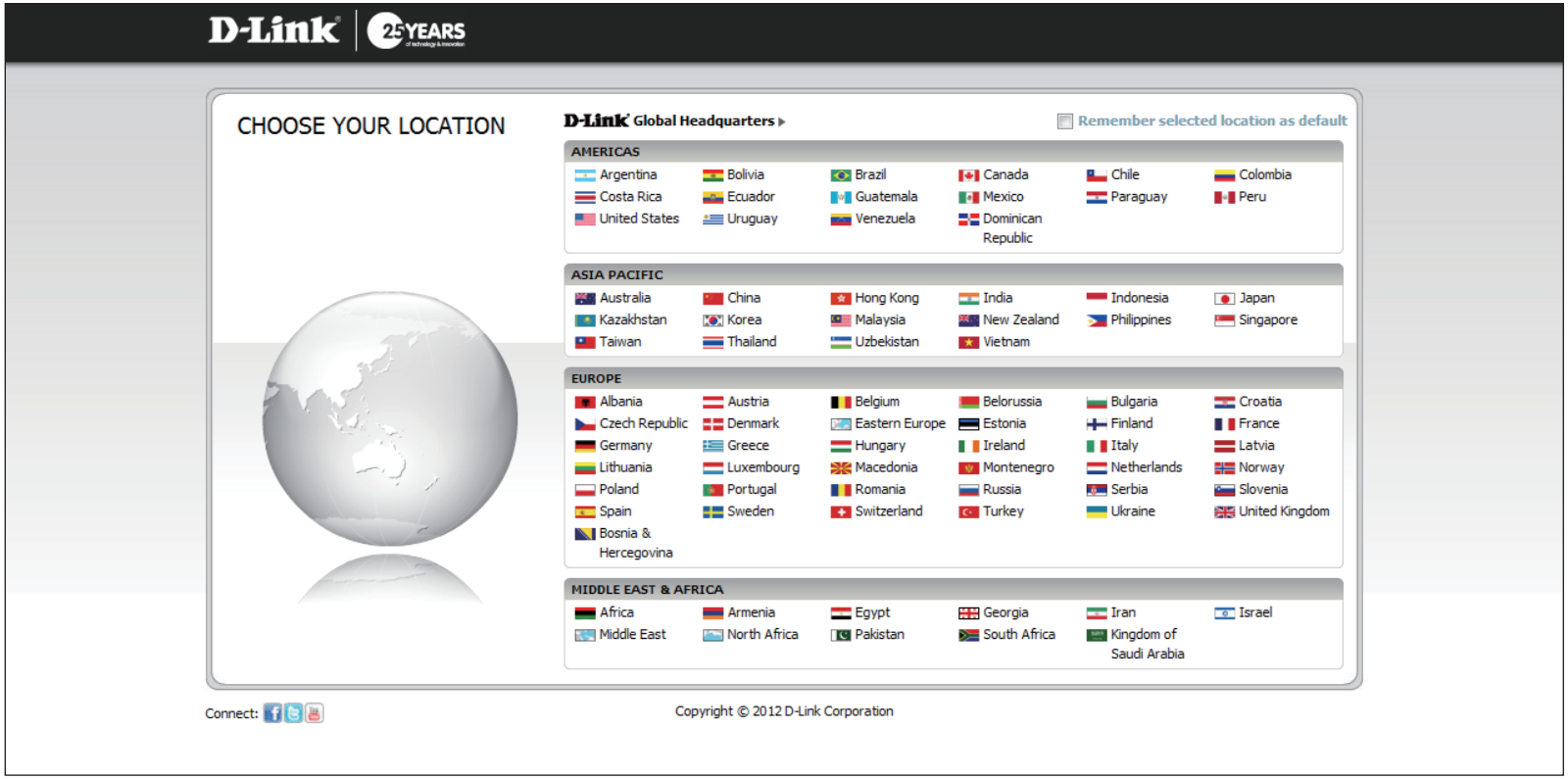
About

The **About** page displays the version number, acknowledgements, terms and conditions, and privacy policy.



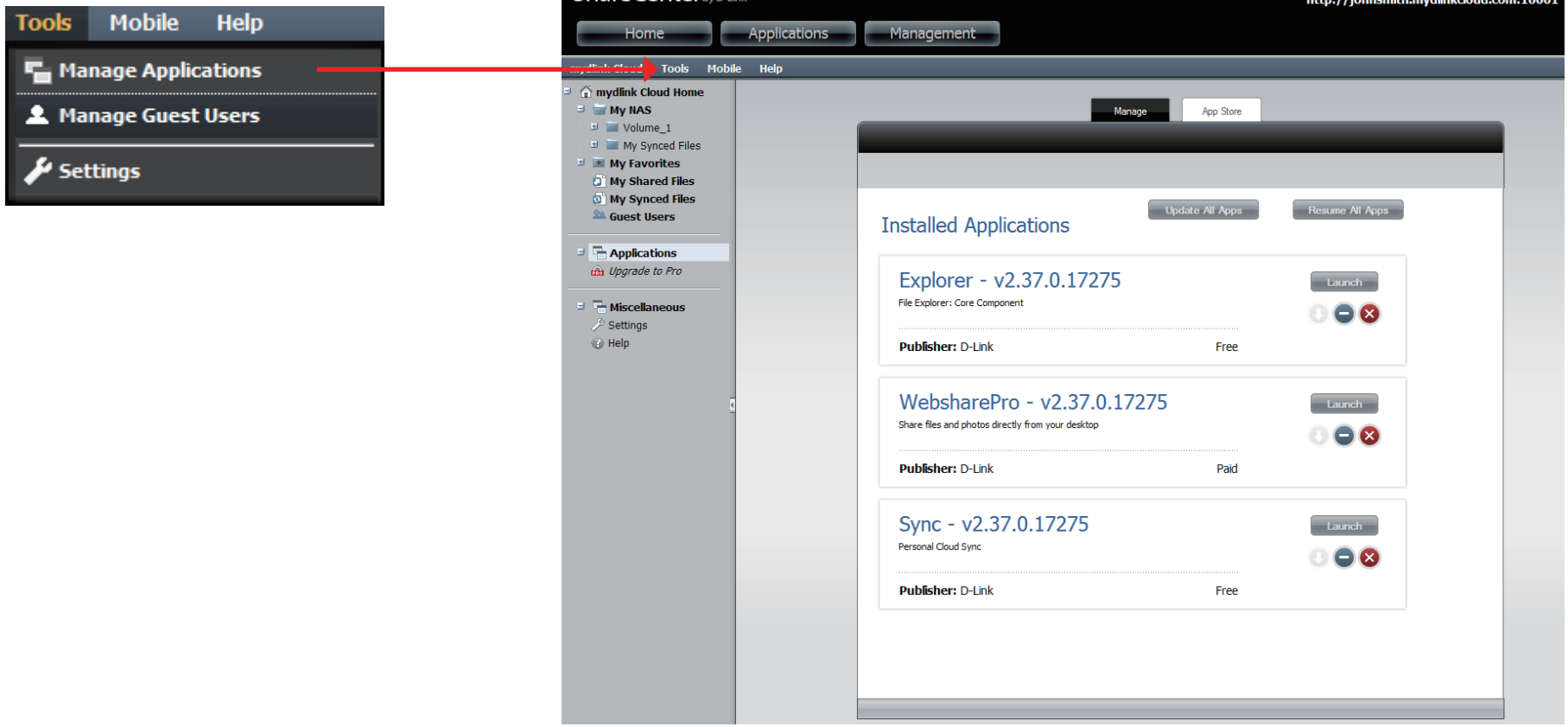
Help

The **Help** link directs you to the **D-Link** website for further reference.



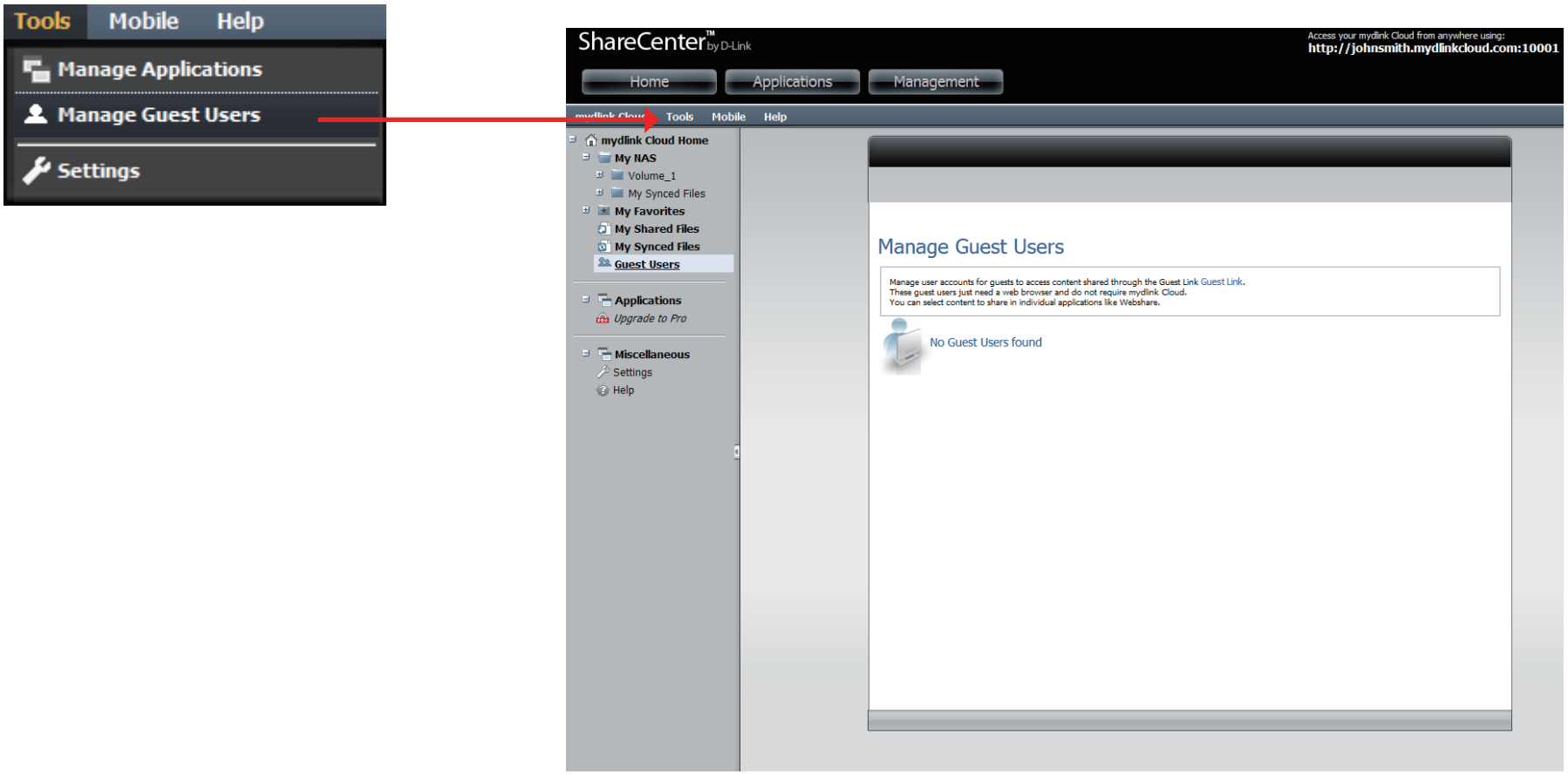
Tools
Manage Applications

Tools has three main sub-menus: **Manage Applications**, **Manage Guest Users**, and **Settings**. These sub-menus are links to pages we have discussed in earlier sections. Manage Applications will allow you to manage applications installed on your mydlink Cloud.



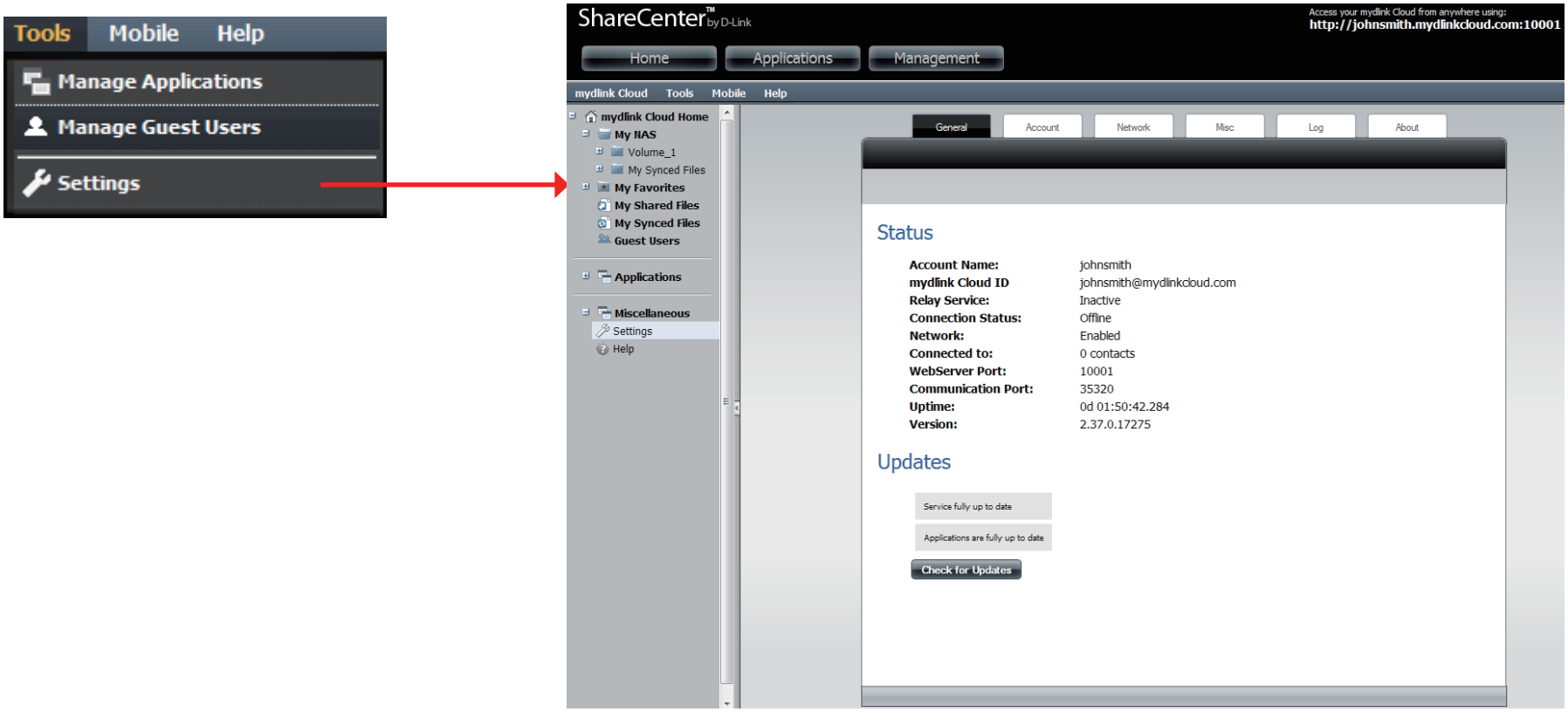
Manage Guest Users

This section displays any created guest users.



Settings

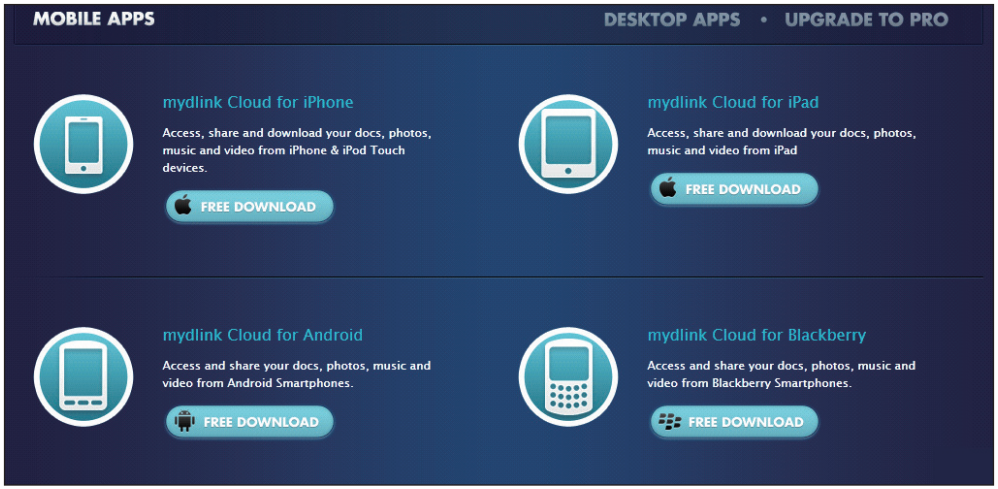
This section allows you to view and manage the settings of your mydlink Cloud.



Mobile

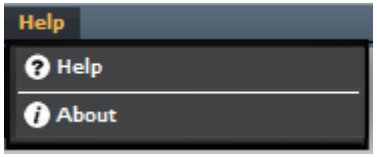
Mobile has four main sub-menus: **iPhone/iPad**, **Android**, **Blackberry** and **Windows Phone 7**. These sub-menus are linked to the mydlink Cloud download page.

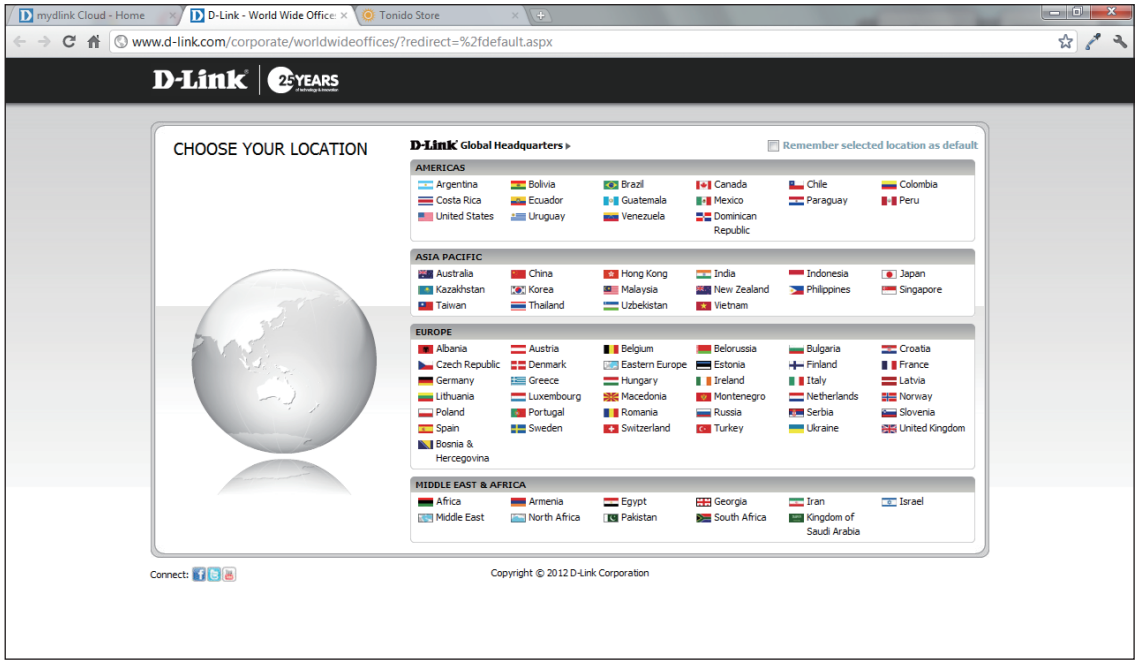
Select the app you would like to download for your mobile devices and click **FREE DOWNLOAD**. You can now install the app from the Apple App Store, Android Market (Google Play), BlackBerry App Store, or Windows Phone Marketplace.



Help

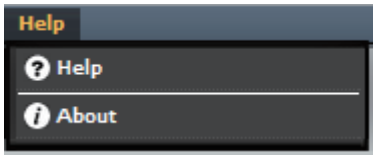
Help has two main sub-menus: **Help** and **About**. These sub-menus are links to pages we have discussed in earlier sections





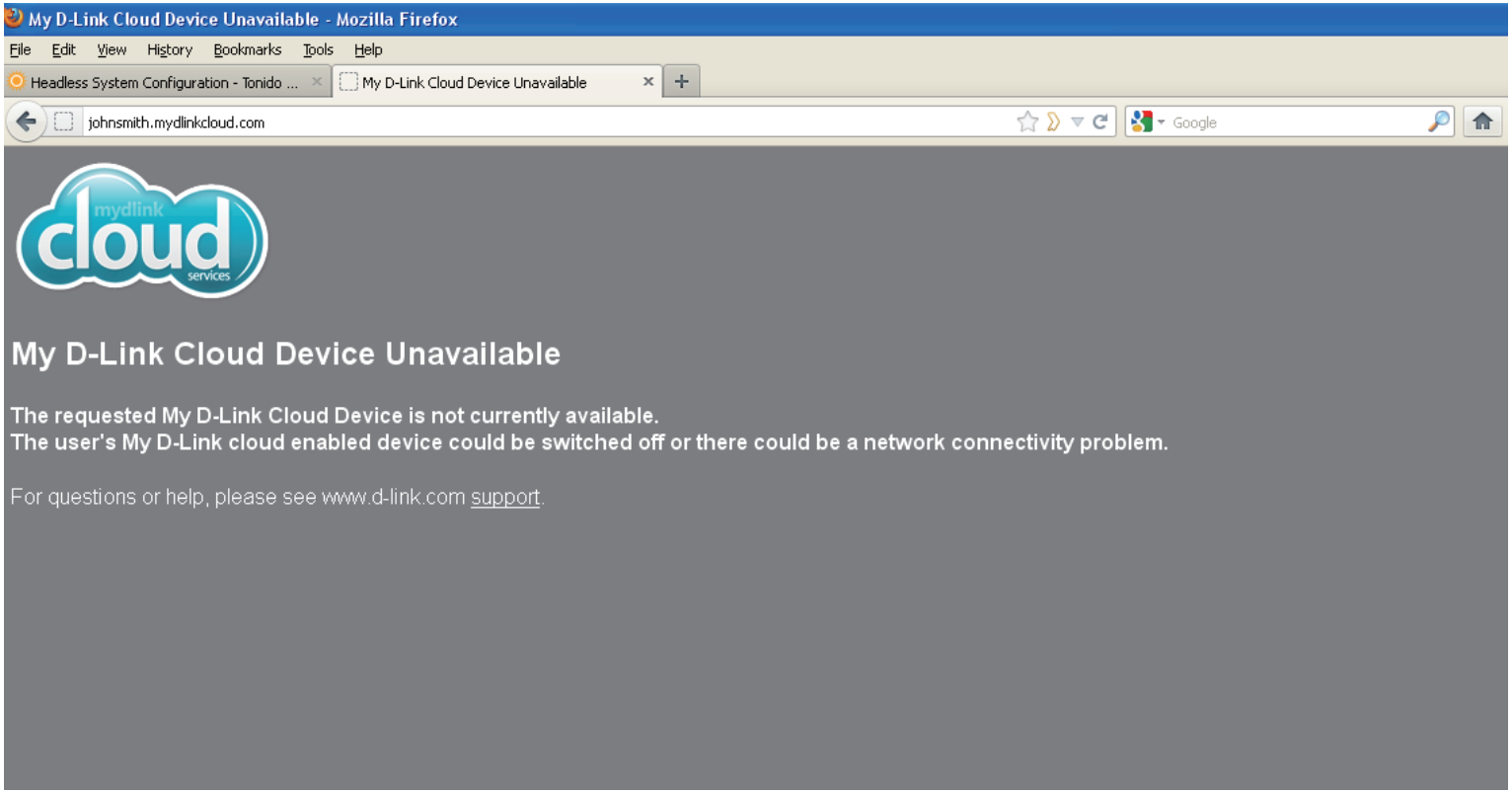
About

About is linked to the about mydlink Cloud pop up window. It displays the version number and web site address



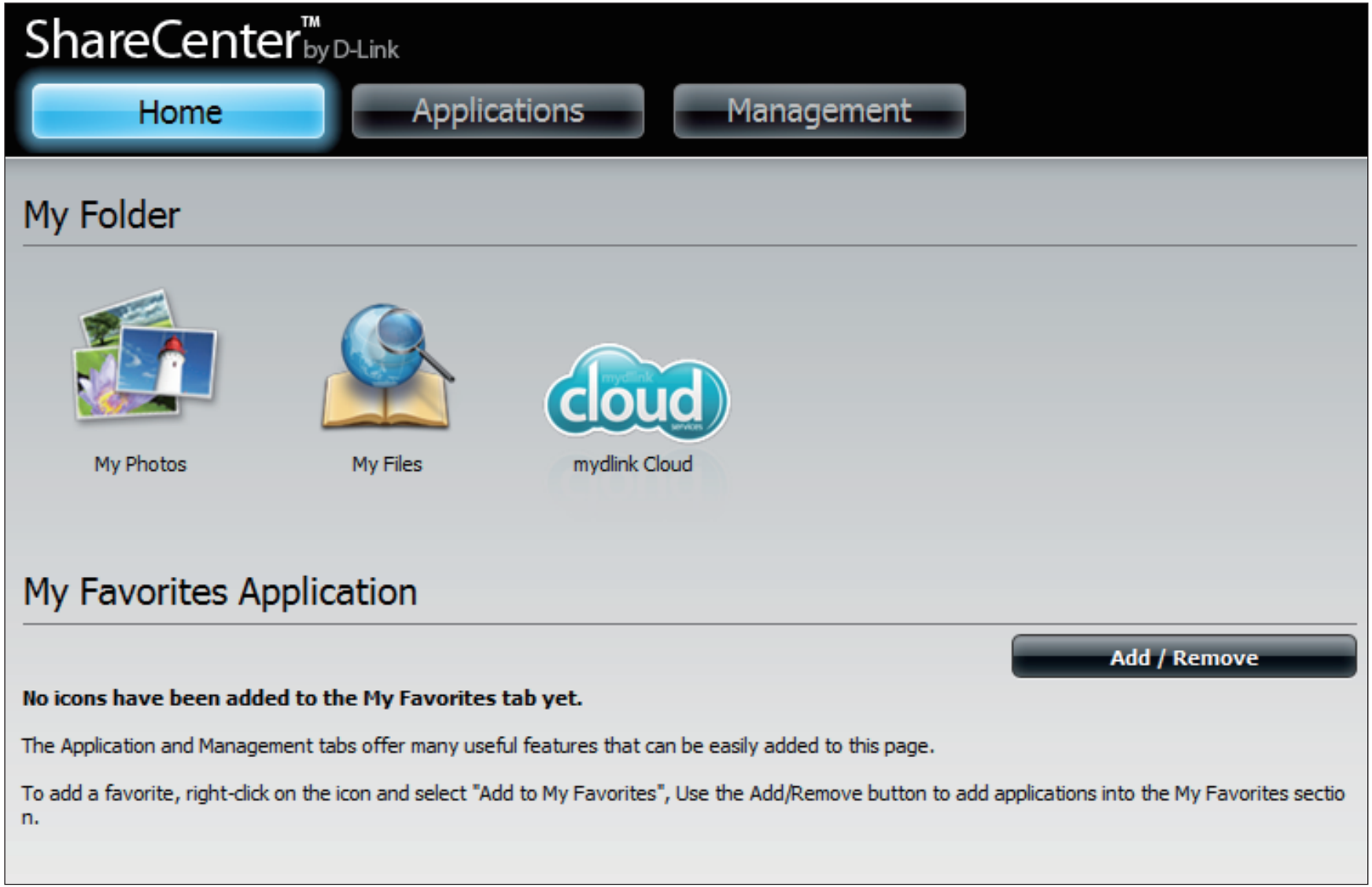
Disconnecting the mydlink Cloud

When you disconnect the DNS-345 from the network or the device is shut down, the connection to your mydlink Cloud also ceases. When this happens just reconnect your NAS or contact your network administrator to resolve your network issue.



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

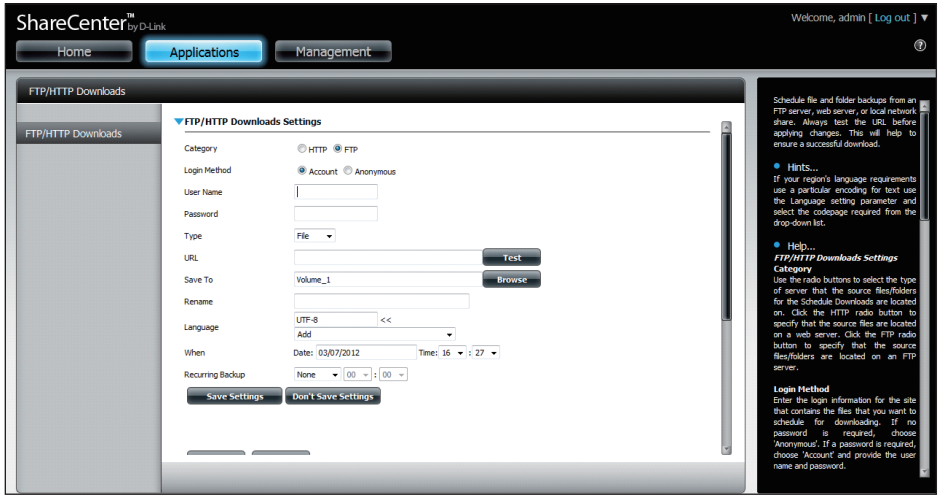
Click the **Add/Remove** button to add **Applications**. Click the **checkbox** under each application you wish to add to the Home screen. Click **Apply** to continue.

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.

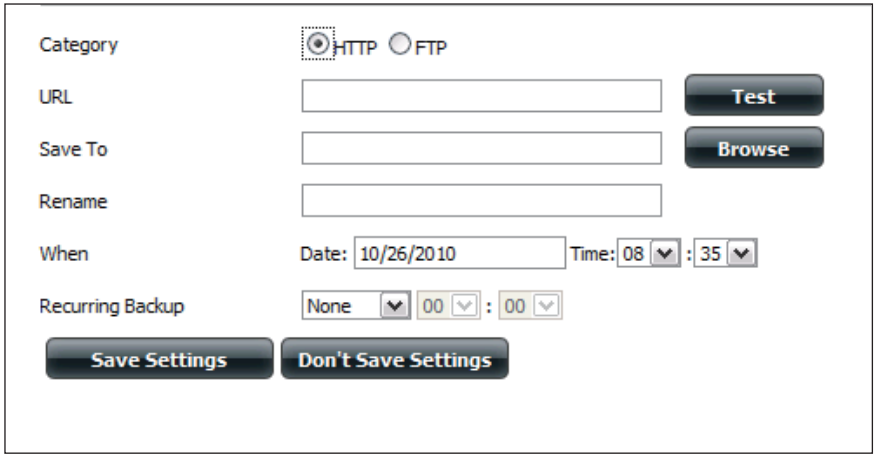
Login Method: Enter the login information for the site that contains the files that you want to schedule for downloading. If no password is required, choose **Anonymous**. If a password is required, choose **Account** and enter the user name and password.

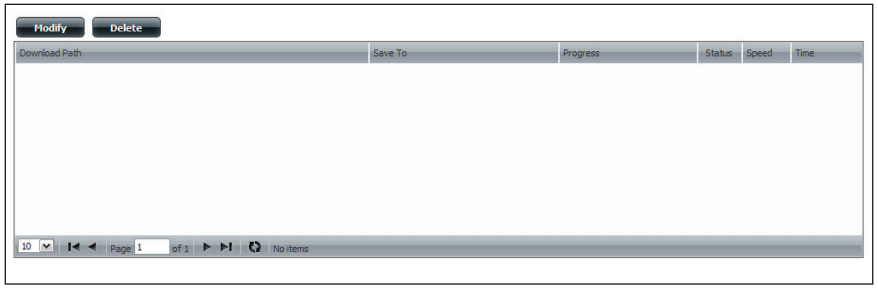
Username: Enter the user name here.

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).





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.

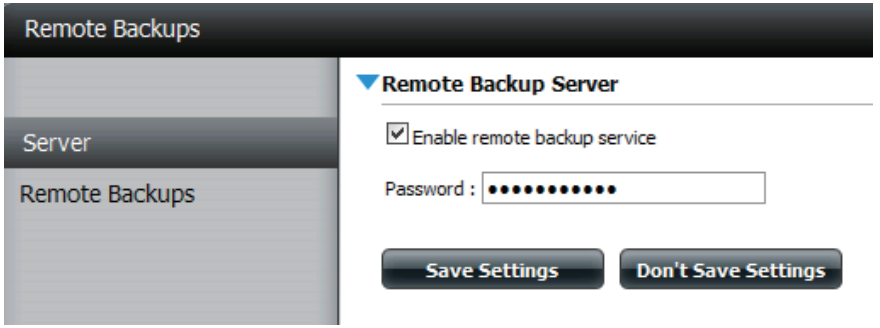
When: Select the date and time for the download to occur.

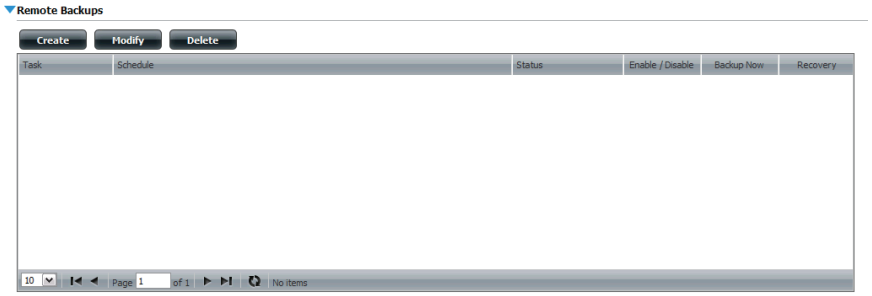
Recurring: If you wish to schedule a recurring backup, select the desired interval (daily, weekly, or monthly) and the time you want the backup to start.

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.

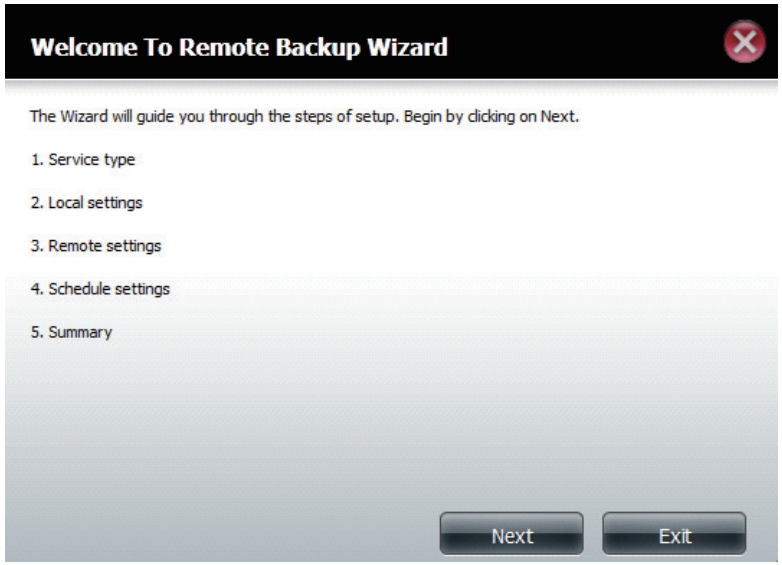
Modify: Click this button to make changes to your existing Remote Backup jobs in the Remote Backup list. You must select the remote backup job first and then click the **Modify** button.

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

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.

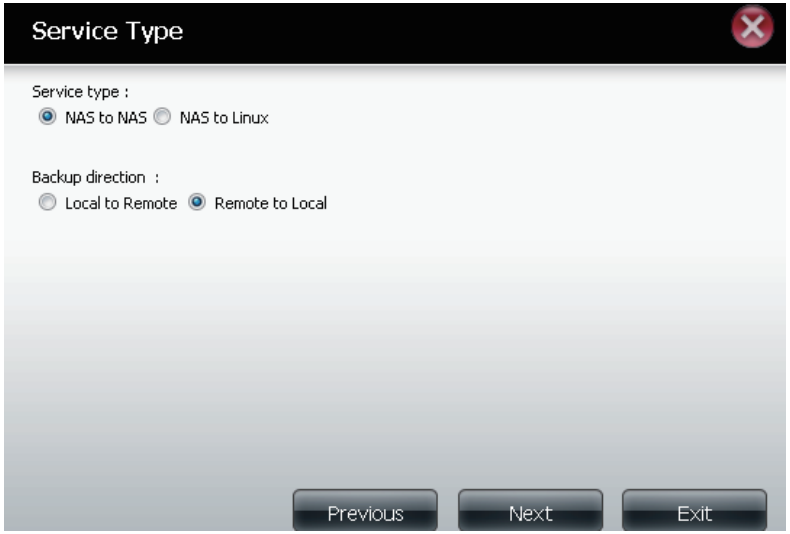


Service Type: **NAS to NAS:** backup from the local NAS to a remote NAS or vice versa.

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.

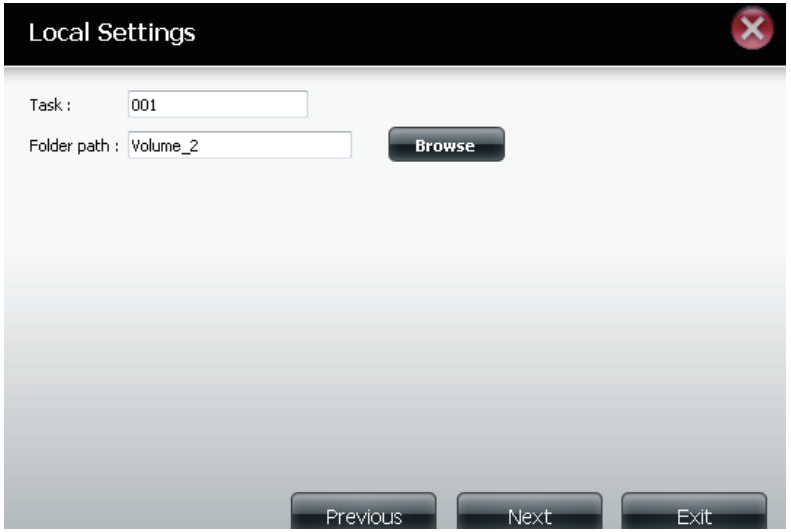
Remote To Local: sets the backup source as the remote NAS or Linux file system and the target destination for the backup files as the local NAS.



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:

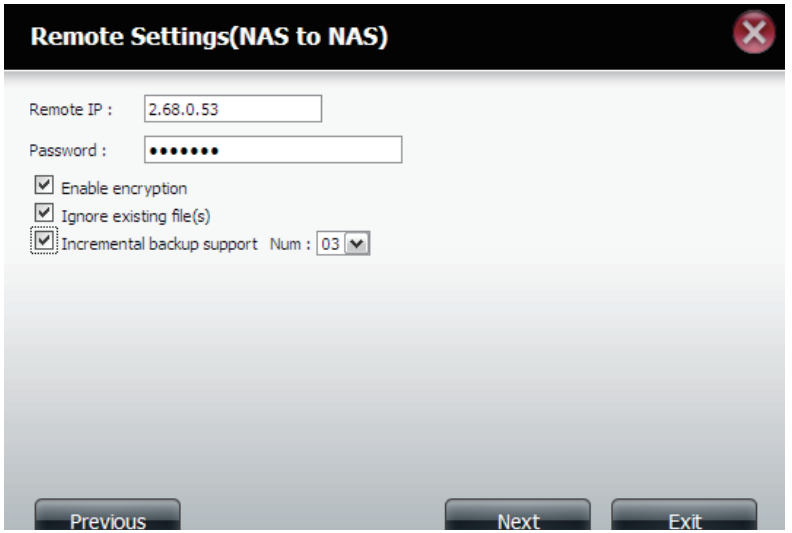
Remote IP: The backup process uses Rsync protocol and needs to know the IP address of the destination source or target device for the backup. Input the IP of the remote NAS or Linux file system.

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.



Remote Settings:

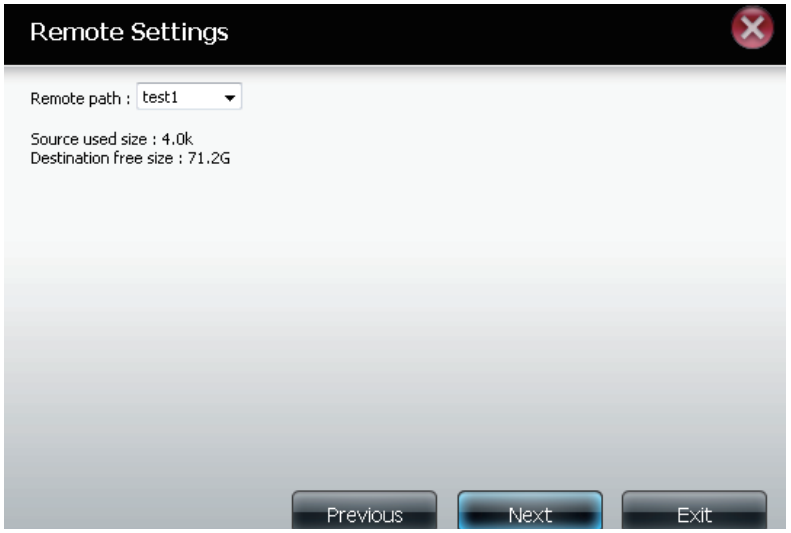
Remote Path: Using the **Browse** button, select the file system (folder) path to the remote target or source system for backup.

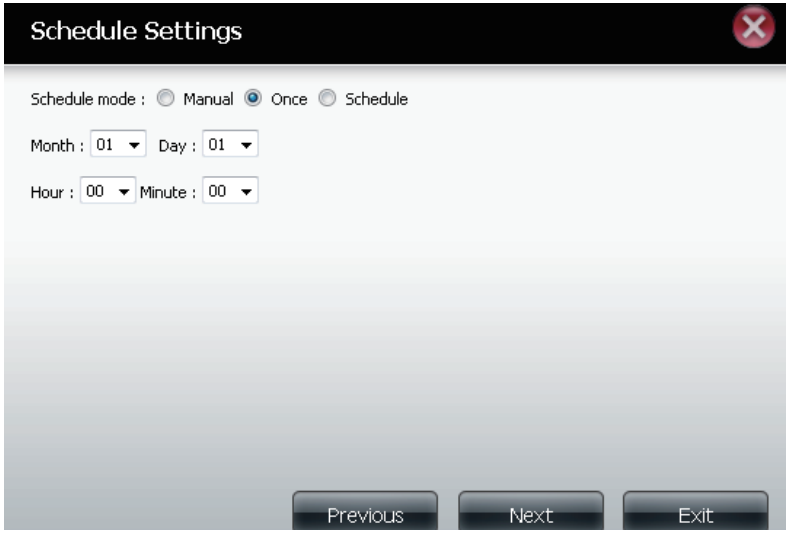
Schedule Settings:

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.

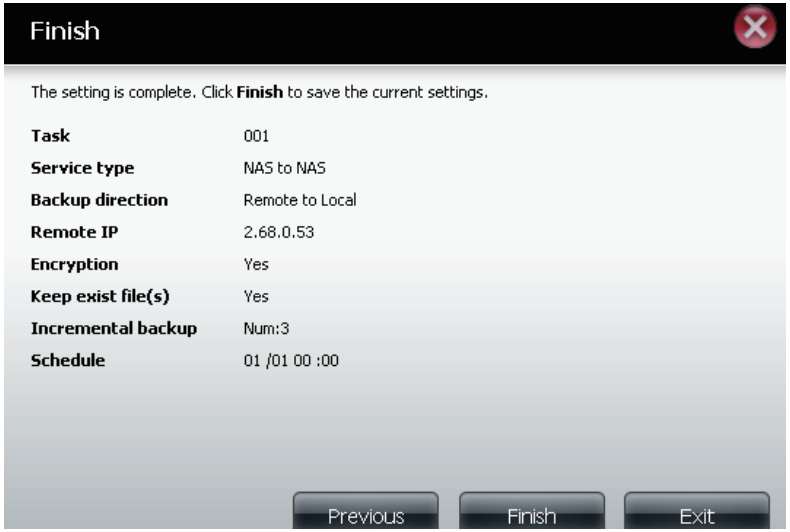
Once - Select this option to run the Remote Backup once at a specific date and time set here.

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





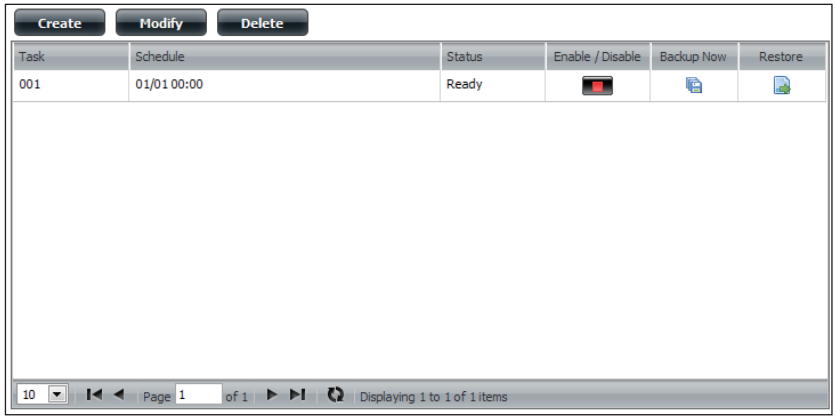
Finished: Click on the **Finish** button if you are satisfied with all the settings of the Backup job created. Otherwise click on the **Previous** button to go back and make changes. Alternatively click on **Exit** to end the configuration without adding a Remote Backup job.



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.

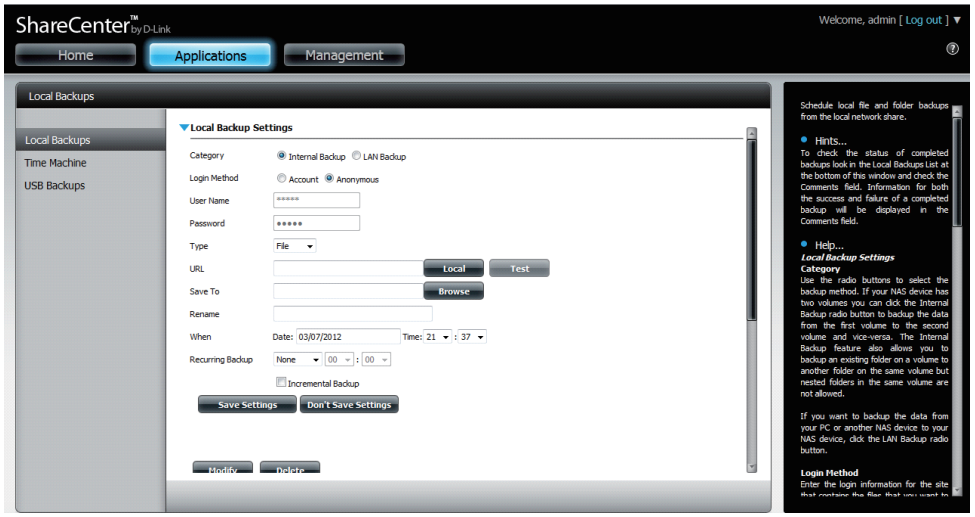
Username: Enter the user name here.

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.

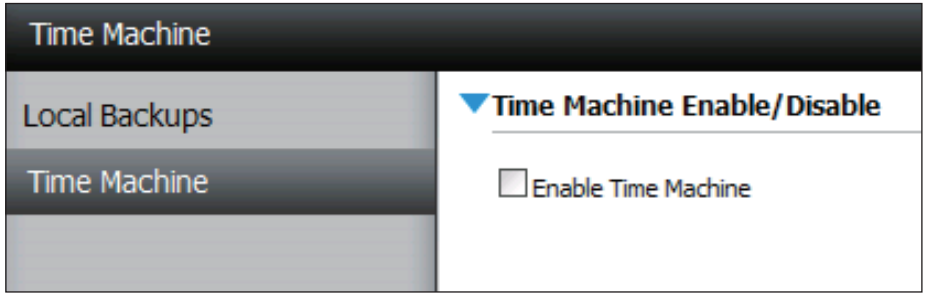
When: Enter the date and time you want the scheduled backup or download to initiate.

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.

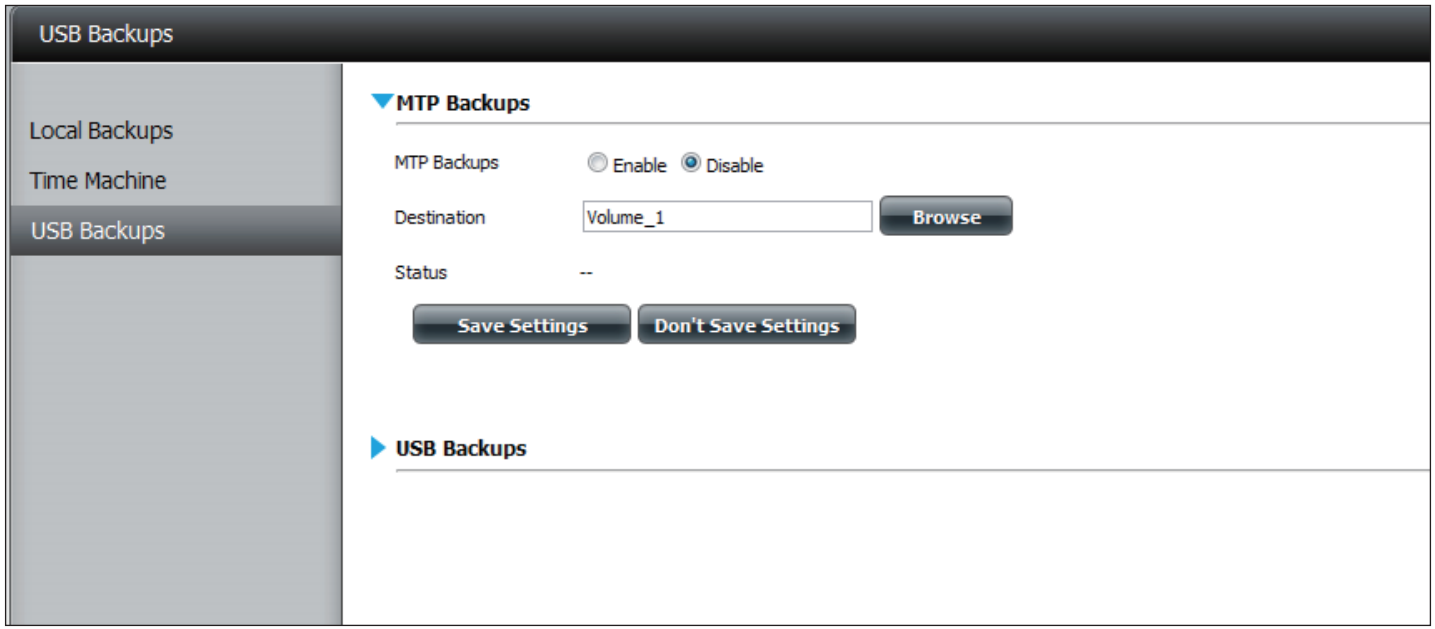
Delete: Deletes a NAS folder setup as a Time Machine destination.

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 any USB device that is connected to your DNS-345.

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.



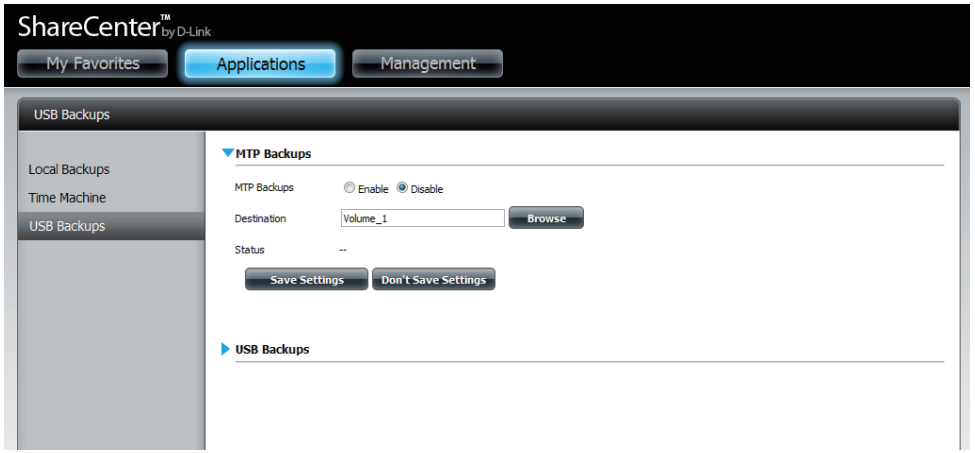
MTP Backups

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.

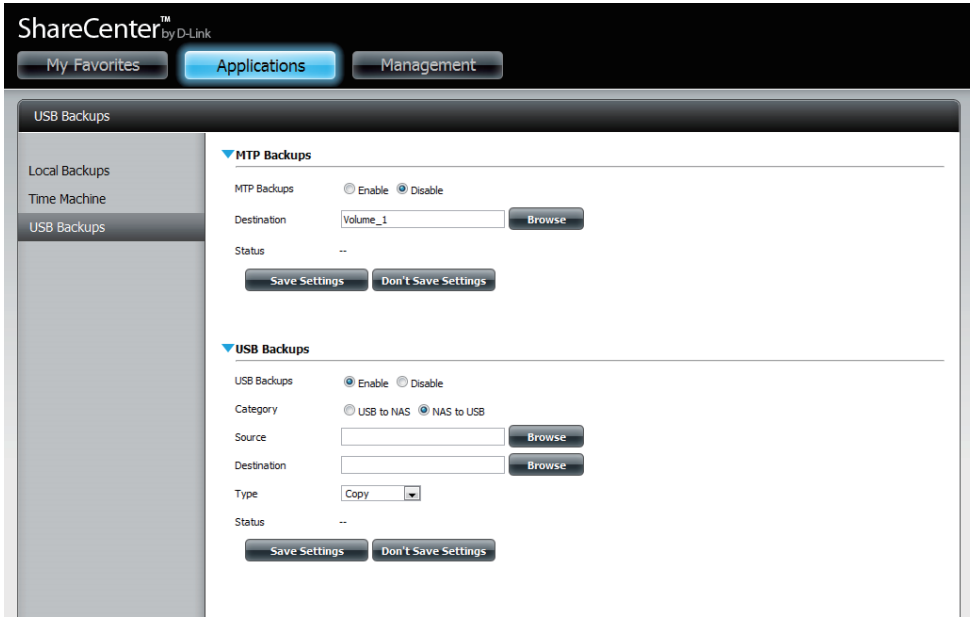
Category: Select either **USB to NAS** (backup from the USB storage device to the ShareCenter) or **NAS to USB** (backup from the ShareCenter to the USB storage device).

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 OLED screen will enter the backup mode if MTP Backups has been enabled in the MTP backup settings.

2. Press the **Power** button to start the backup process. The OLED screen displays 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.

3. When the backup is complete, the OLED screen will display **Complete**.

USB Backup Process

1. Connect a USB storage device to the USB port on the back panel of the device. The OLED screen will enter the backup mode if USB Backups has been enabled in the USB backup settings.

2. Press the **Power** button to start the backup process. The OLED screen displays that the backup is in the process. The ShareCenter will copy or sync all the files from the source folder to the destination folder.

3. When the backup is complete, the OLED screen will display **Complete**.

4. To unmount the USB storage device after the copy is complete, 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.

   Note: *It is a very good practice to un-mount an USB storage device before removing it from a USB port.*

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.

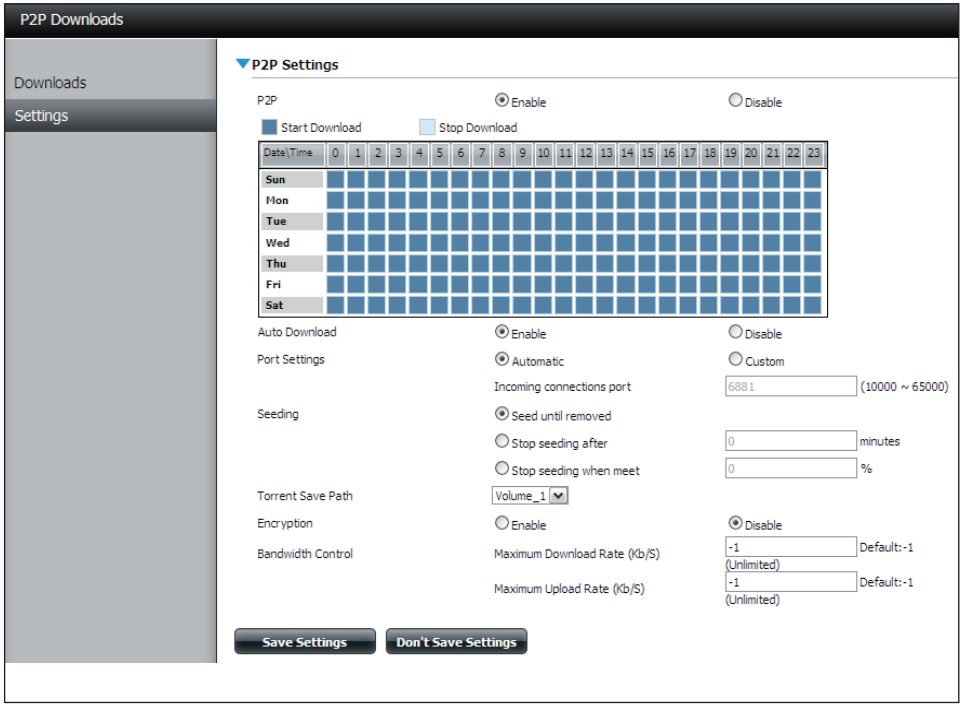
Port Settings: The user can choose whether to allow the device to automatically choose an incoming connections port or configure the incoming connections port manually.

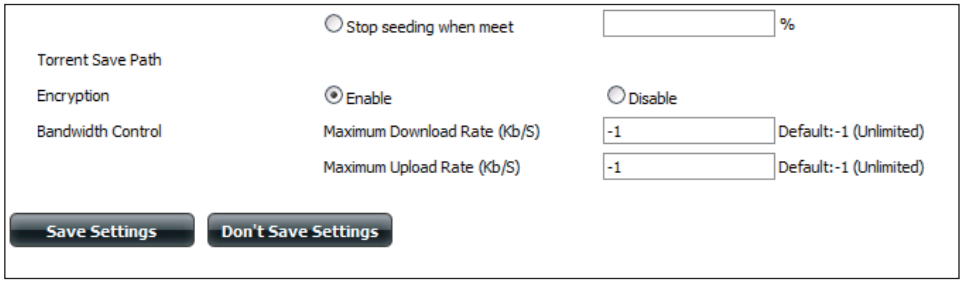
Seeding: Select one of the three seeding options.

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

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

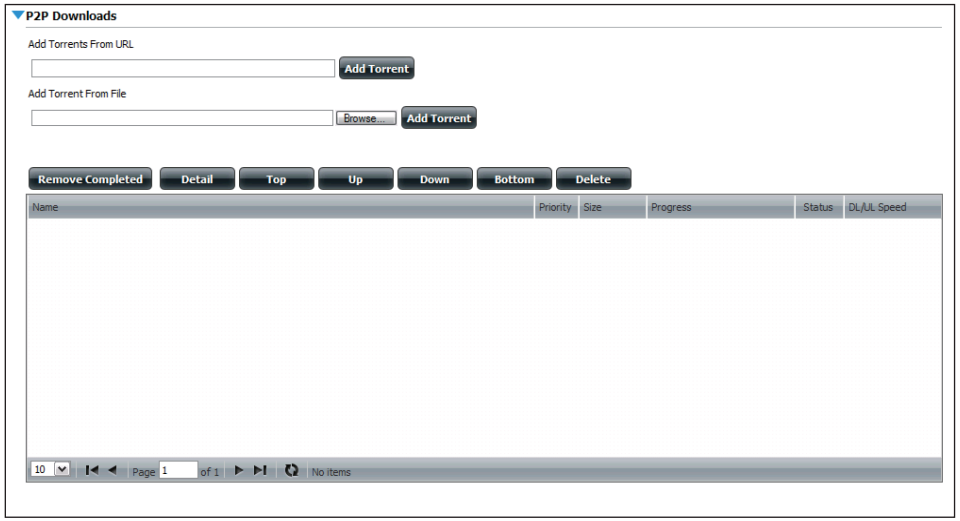
Bandwidth Control: You can manually configure the maximum download rate and maximum upload rate. Enter the value **-1** to set the respective field to **unlimited**.





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.

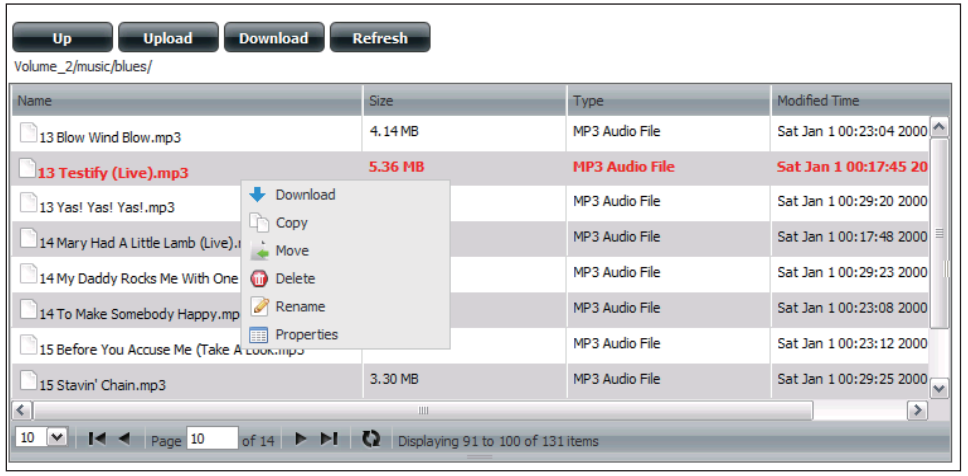
Copy: Copies the file to the clipboard and opens a wizard to allow you to select the folder to paste the file into. Once you have chosen the folder clicking **OK** to paste the file into the folder.

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

Delete: Removes the selected file from disk.

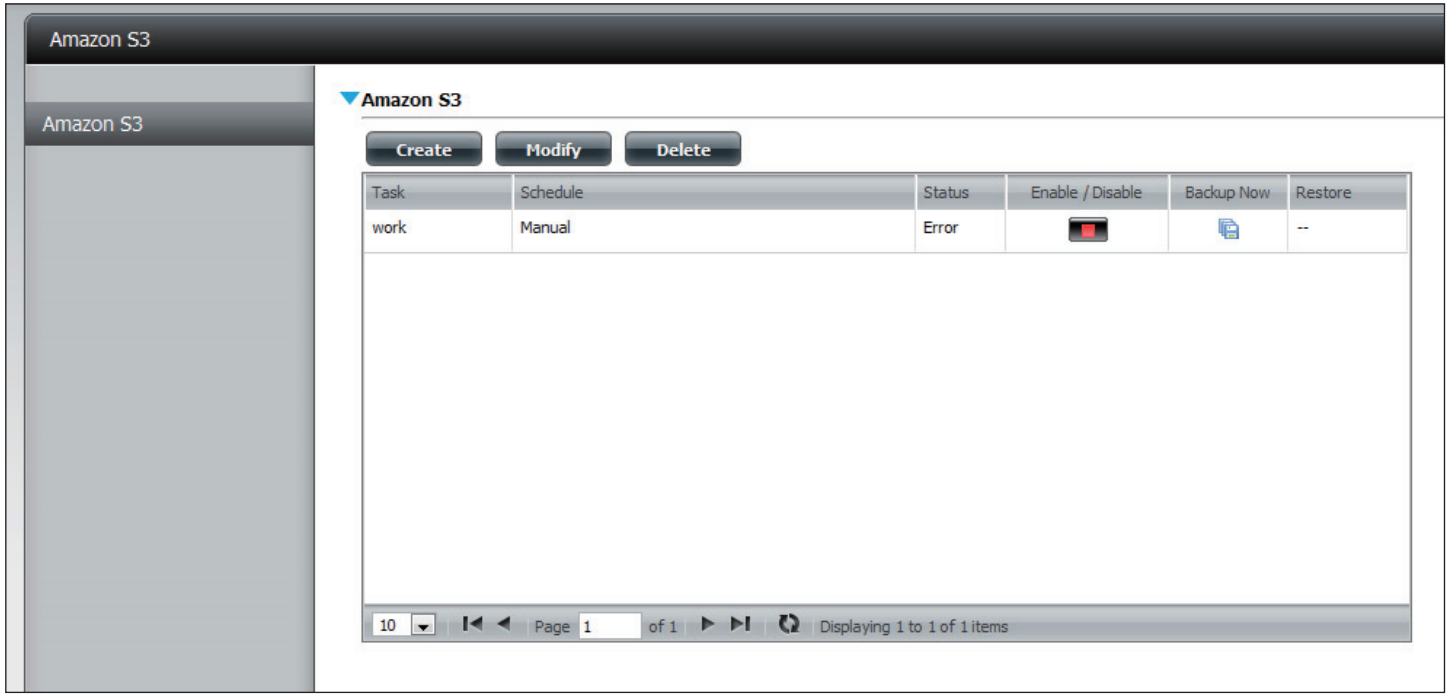
Rename: Allows you to configure a new file name for the selected file.

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-345 to Amazon S3 or download the data from Amazon S3 to your DNS-345.



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.

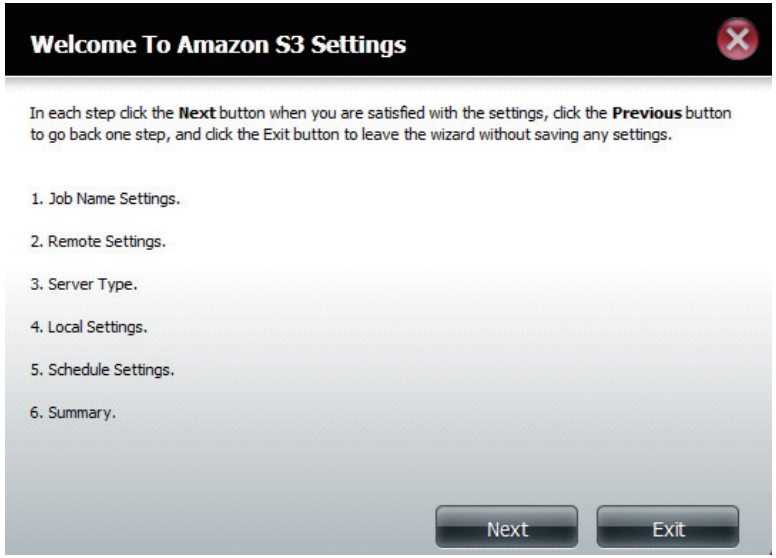
You will be issued the following keys as credentials to give you access to the account:

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.

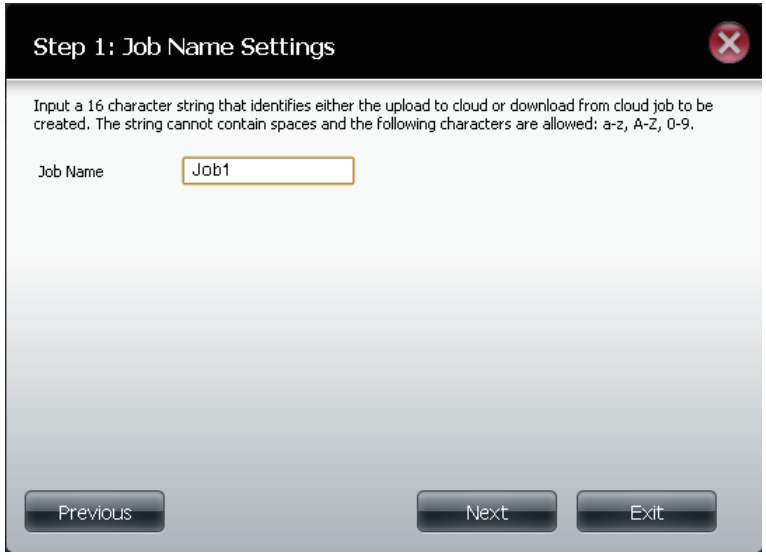
Create Button

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.



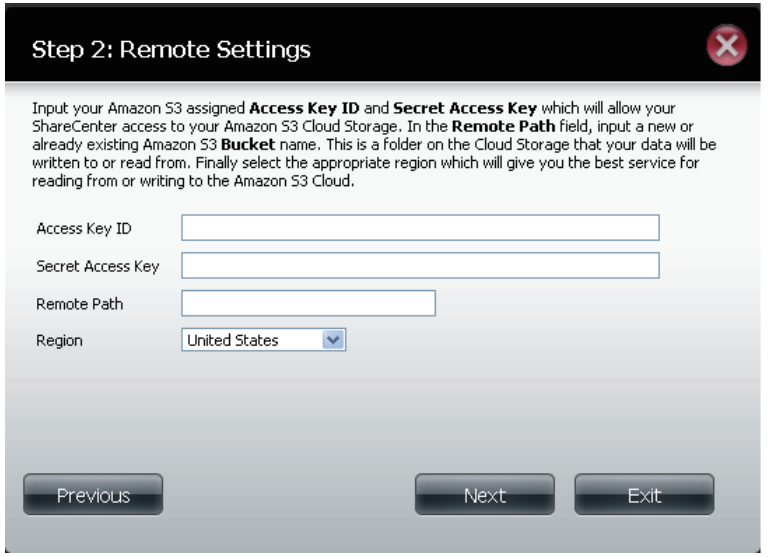
Step 2: Remote Settings

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.

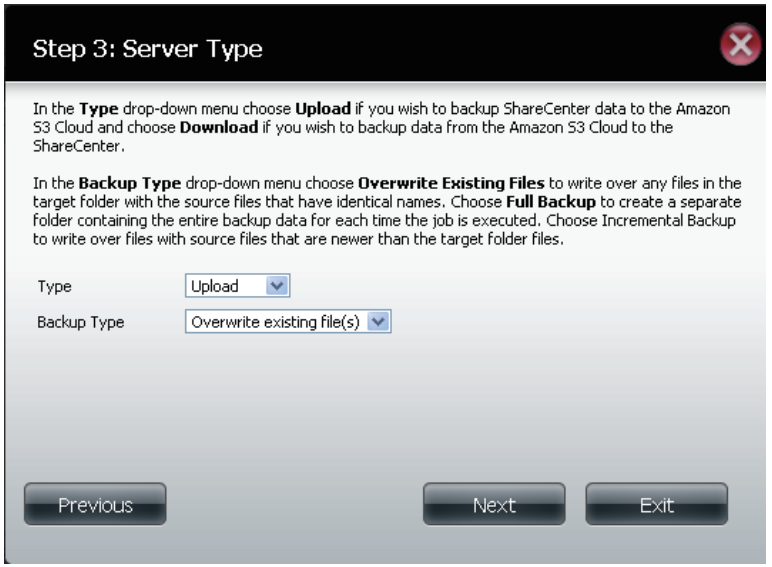
Region: Select your Region from the drop-down menu.



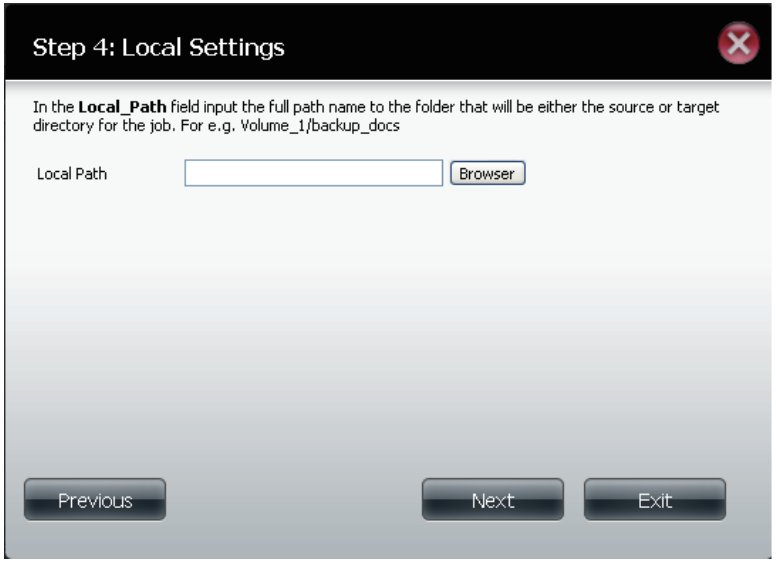
Step 3: Server Type

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

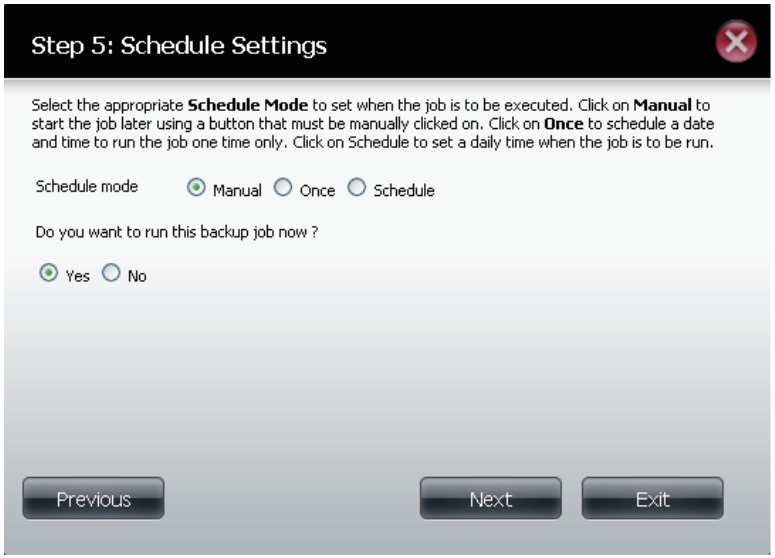
Backup Type: Use the drop-down menu and select **Overwrite Existing Files, Full Backup** or **Incremental Backup**.



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.



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).



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.

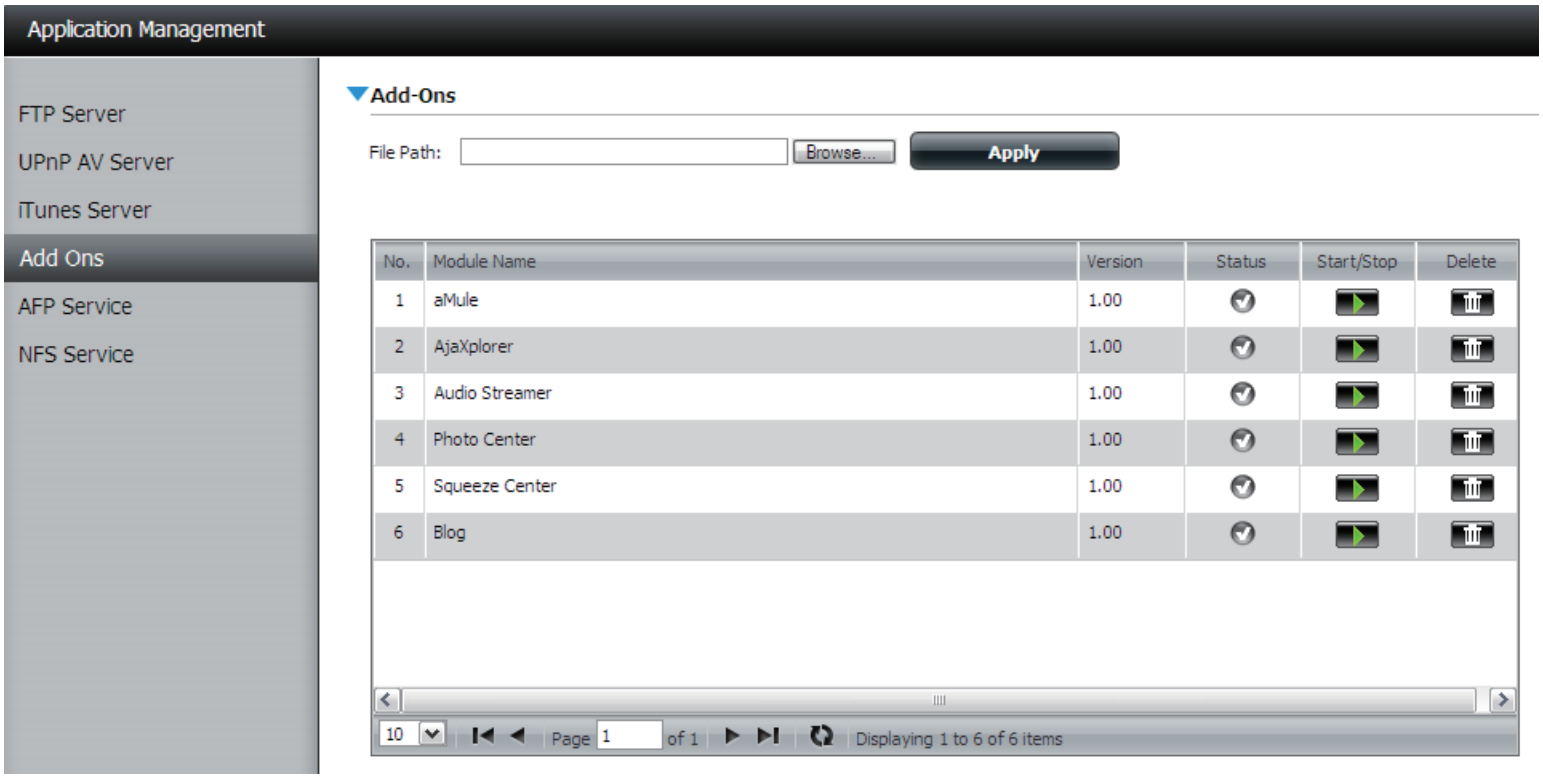
Enable/Disable Column

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.

Add-Ons

Add-ons are Software Applications that extend the capability of your ShareCenter®. Several add-on packages come with your ShareCenter® and some can be installed with the CD-ROM ShareCenter® Setup Wizard. To install add-ons within the Web UI go to the Management icon: Application Management. You will find an Add-ons menu item that you can click. The Add-ons menu provides the following:

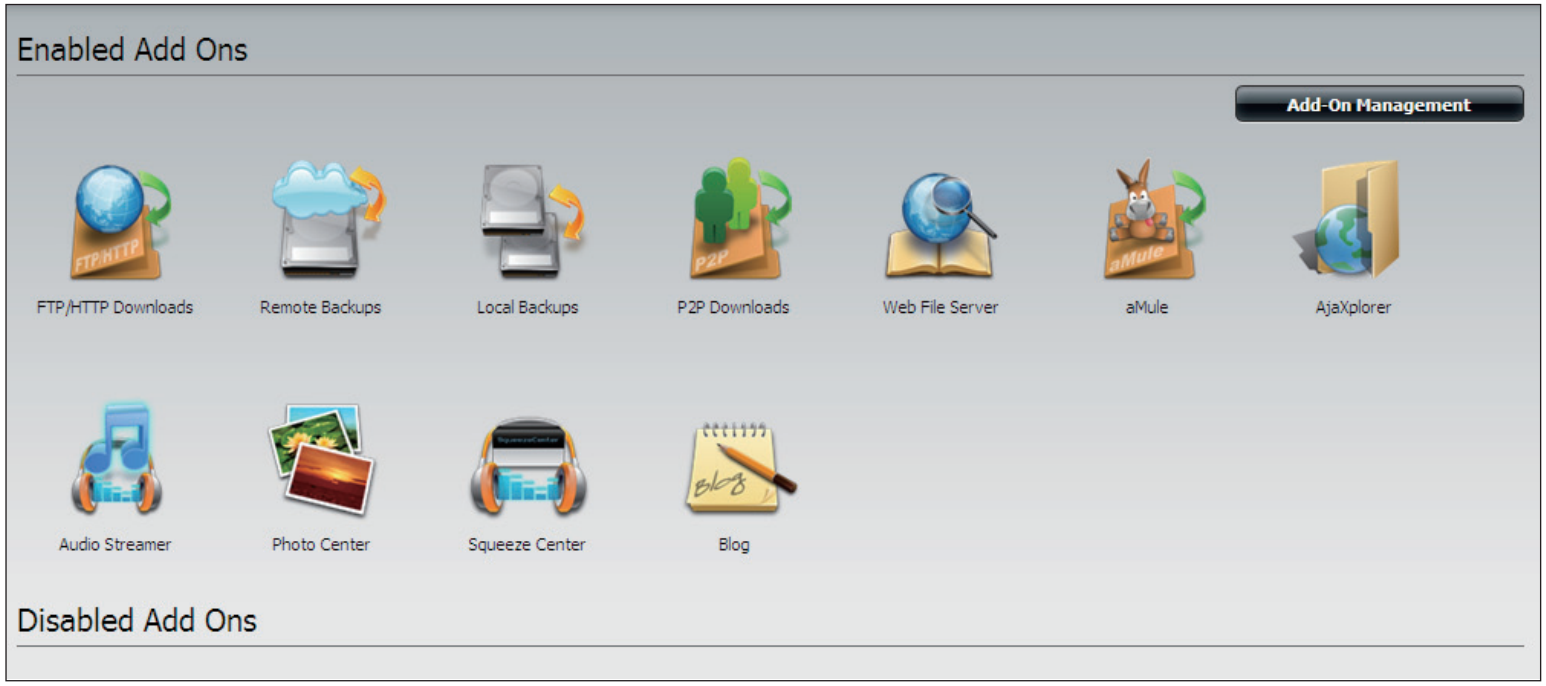
- Installs (Apply button) add-on software onto your ShareCenter®.
- Displays a list of installed add-ons and shows their version and status.
- Enables and Disables (Start/Stop button) add-ons so that you do not over utilize your ShareCenter® CPU resources.
- Removes (Delete button) the add-on software from your ShareCenter®.



Application Menu with Add-Ons

When the add-ons are installed you will see their icons under the Application Tab. If the add-ons are enabled you will see them under the Enabled Add-Ons area otherwise if they are disabled they will be under the Disabled Add-Ons area.

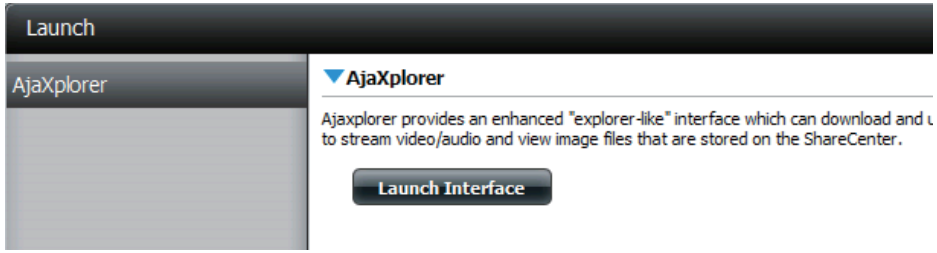
Note: You can add add-ons to the My Favorites as shown in the User Manual by right-clicking the add-on icon and selecting **Add to My Favorites**.



AjaXplorer

This section allows you to configure the AjaXplorer function. AjaXplorer is a file explorer that allows you to remotely manage the files stored under the AjaXplorer folder by using a web browser.

Launch Interface: This launches your browser with the Ajaxplorer file system interface to the ShareCenter®.

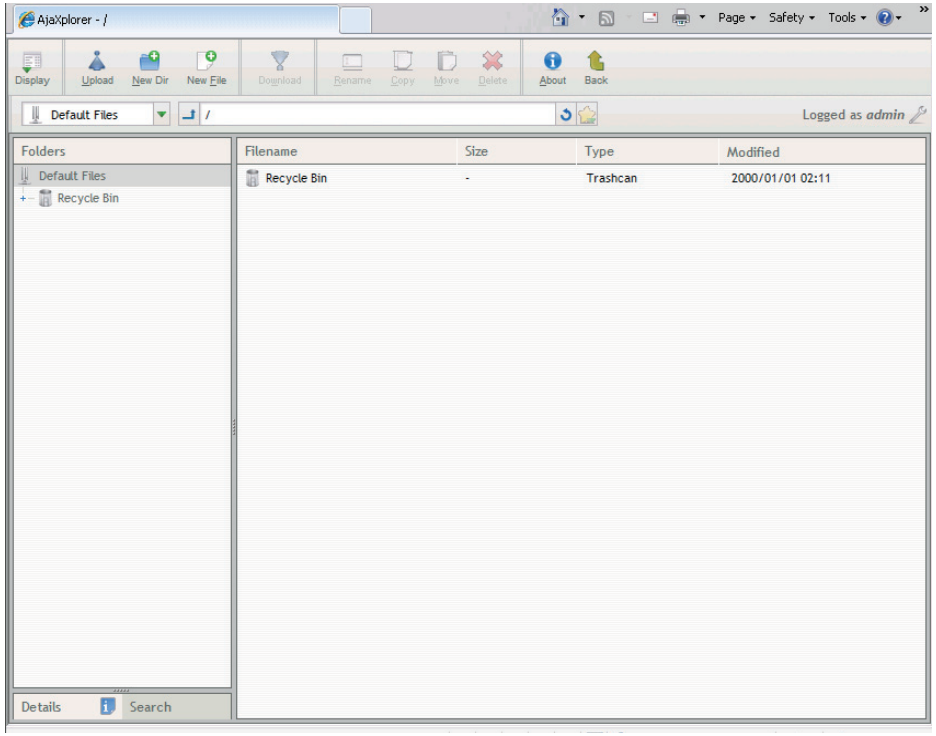


Documentation: Information regarding using the Ajaxplorer application can be found here:

http://www.ajaxplorer.info/

Administrator: If you launched the interface as the admin user in your ShareCenter® then you will have administrator rights within the AjaXplorer interface. As the admin user you will have read write access to all areas of the files systems as well.

User: If you launched the interface as a configured user in your ShareCenter® then you will have the users rights within the AjaXplorer interface. That users read/write access privileges to the shares of the ShareCenter® will be applicable within the AjaXplorer interface as well.



Audio Streamer

The Audio Streamer add-on can turn your ShareCenter® into an internet 'Audio Streamer' with continuously streaming music or any other audio files. Any user, with an internet connection and a web browser, can then connect to your ShareCenter's Audio Streamer and listen to the audio files being played and streamed from your ShareCenter®.

Once you have stored the audio files that you wish to play on the ShareCenter®, use the Add button in the Playlists menu item to create the "IceStation" audio stream channel. The new audio stream channel (playlist) which will then stream the audio collection continuously from your ShareCenter®.

Add: Click this button to add a new playlist. An add wizard will appear to guide you through adding the playlist. After entering the description click and expand the volume folders and check the folder that contains the audio files to be streamed.

Modify: After selecting a Playlist in the Audio Streamer Playlist click the Modify button to edit the Playlist description.

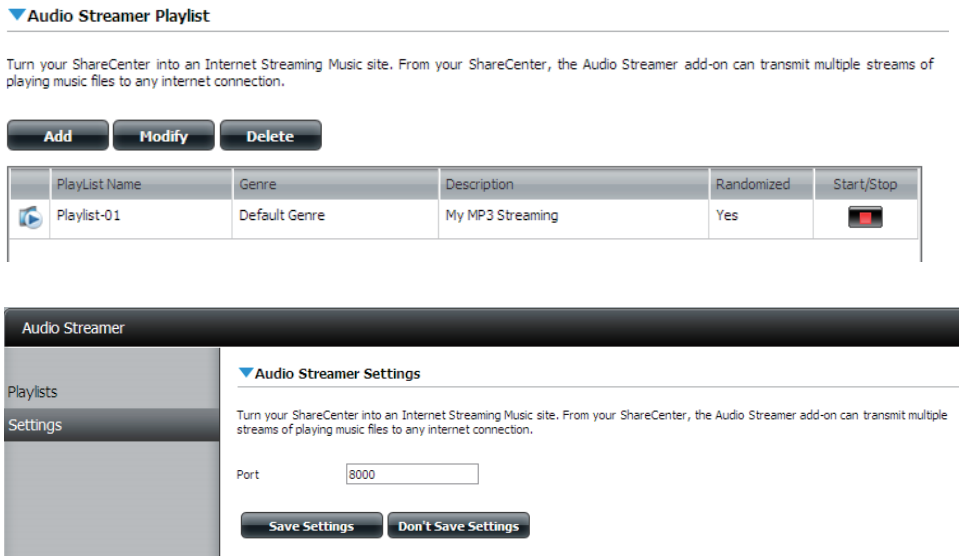
Delete: To remove a Playlist from the Audio Streamer Playlist select the Playlist and click on the delete button.

Port: This is the port the Audio Streamer audio stream will use. The default is 8000. The Audio Streamer web URL becomes the IPv4 address of the ShareCenter® combined with this port. For example:

http://192.168.1.1/8000

Would be the URL for the Audio Streamer streaming broadcast if the ShareCenter's Network address is 192.168.1.1.

Password: Set this password as desired. It is the administrative access password on the Audio Streamer webpage UI.



aMule

The ShareCenter's P2P functionality is enhanced with the aMule add-on by providing search capability for finding desired P2P files. aMule also provides a full featured P2P server/client Web UI interface can be launched to work with your ShareCenter® P2P functionality.

Launch Interface: Click this button to cause the aMule Web UI interface to execute and appear.

The aMule application details and usage guide can be found on the support web page:

http://www.amule.org/

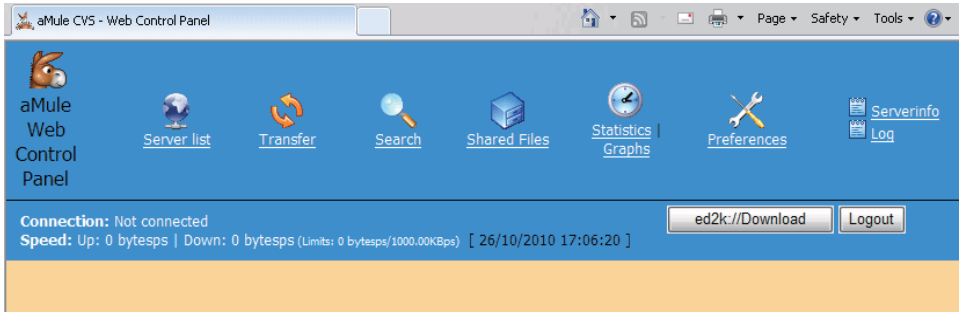


Photo Center

The Photo Center add-on sets up your ShareCenter® to share your photos over the web using Gallery 2 software. It provides a convenient interface from which you can create albums of photos with descriptions. The albums are then accessible over the web using HTTP so that your family and friends can then view your ShareCenter® stored photos from any internet connection.

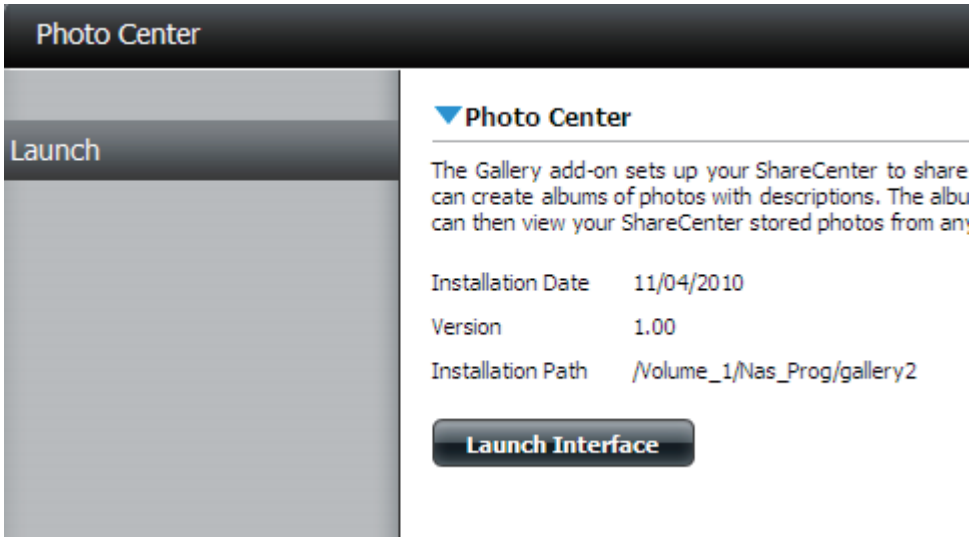
Launch Interface: Click this button to launch the Photo Center (Gallery 2) Web UI where you can then manage photo galleries through a web interface.

Web URL: The Launch button will automatically launch the Web UI in fhe format of the ShareCenter® IPv4 address slash Gallery 2 for example:

http://192.168.1.1/gallery2/

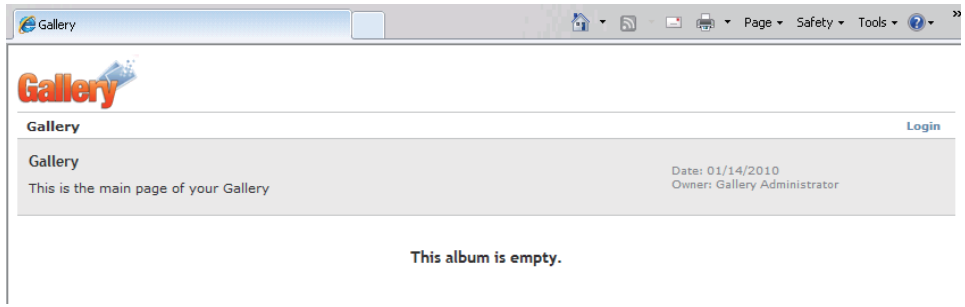
Where 192.168.1.1 is the ShareCenter's network IP address setting.

In the Photo Center Web UI use the user name: admin password: "the ShareCenter's admin password"



Adding Gallery Users: You can add users through the account management settings of your ShareCenter. The same users will be reflected in the Gallery 2 administrative settings and can then be given access to the photos and albums.

If you do not see the user in the user list of the Gallery admin settings then disable the Photo Center add-on and re-enable it.



Gallery 2 Help: You can find more help regarding the Gallery 2 application at:
http://gallery.menalto.com/about

Blog

Create your own ShareCenter-based customized Blog. Using the ShareCenter's internet connection the Blog add-on (Wordpress) can be accessed and commented on from any internet connection.

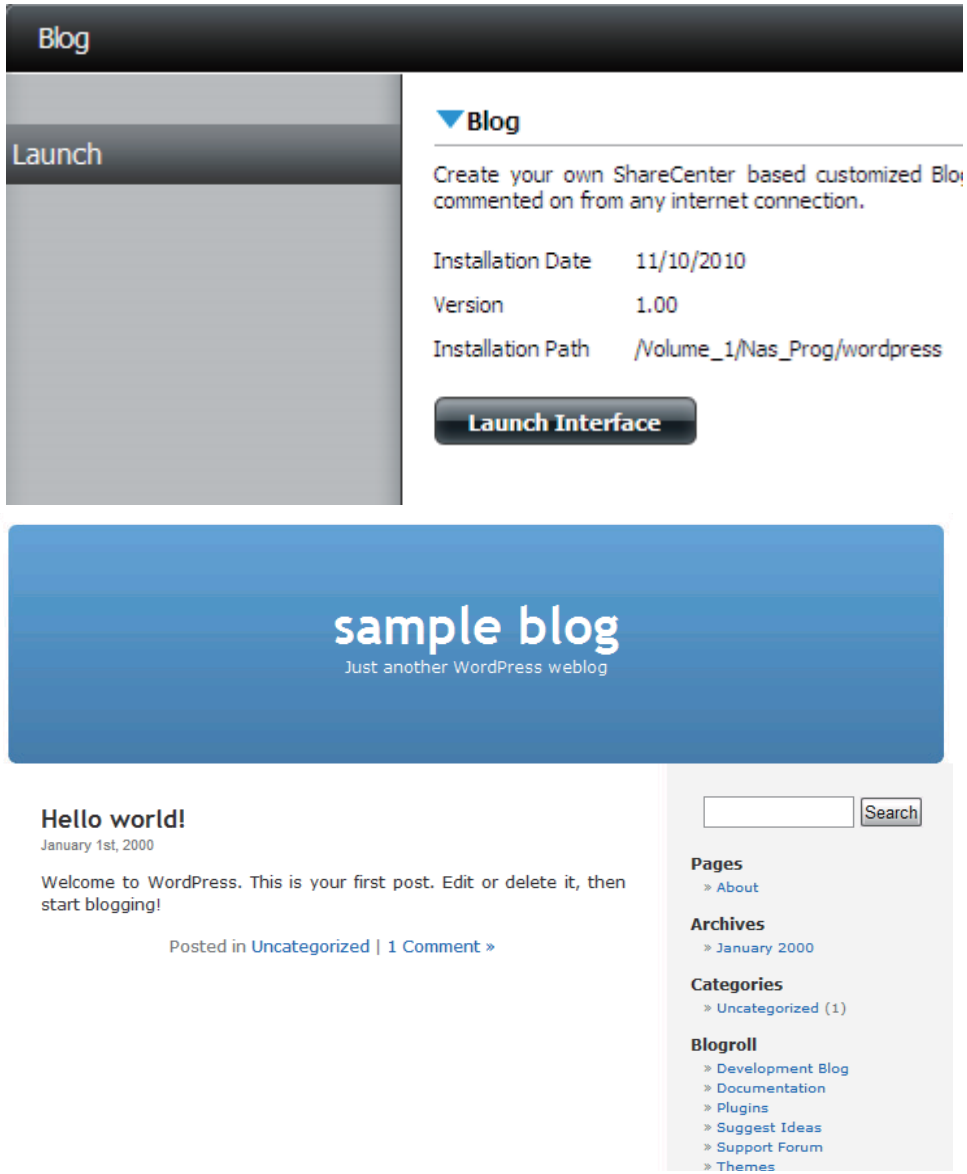
Launch Interface: Click on the Launch Interface button here to cause the Wordpress Web UI to appear where you can then write your own personal blog from your ShareCenter®.

Blog Web UI: Once you have launched the Blog interface you can begin using the Web UI that appears.

Admin Password: The Admin password for the Blog Web UI is: admin

Help: For more information regarding using Wordpress and creating a blog with it refer to:

http://en.wikipedia.org/wiki/WordPress



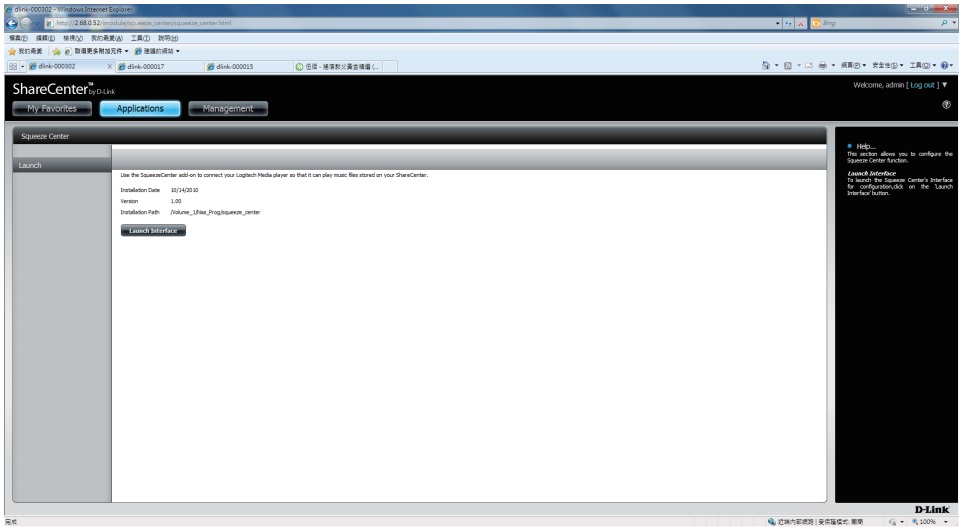
Squeeze Center

Squeeze Center connects your Logitech Media player to your ShareCenter® music files for playback.

Launch Interface: Click this button to launch the Web UI interface to the Logitech™ SqueezeCenter.

Help: For more information regarding using Squeeze Center to play music on your Logitech media player from your ShareCenter® refer to the following link:

http://en.wikipedia.org/wiki/Squeezebox_Server



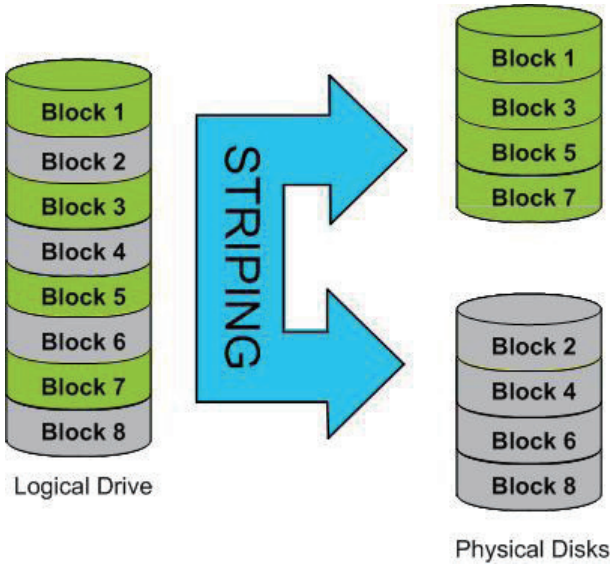
Knowledge Base

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-345 supports JBOD, RAID 0, RAID 1, RAID 5, RAID 5 + Spare, RAID 10,and Standard.

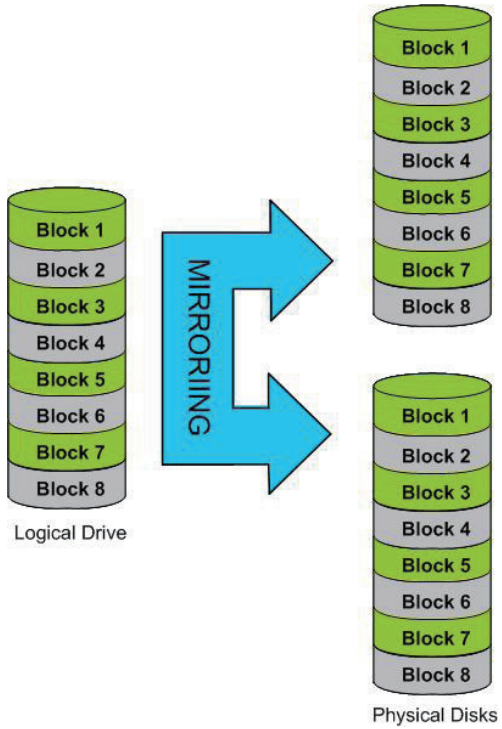
RAID 0 RAID 0 provides data striping, which spreads out blocks of data over all the drives, but does not provide data redundancy.

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.

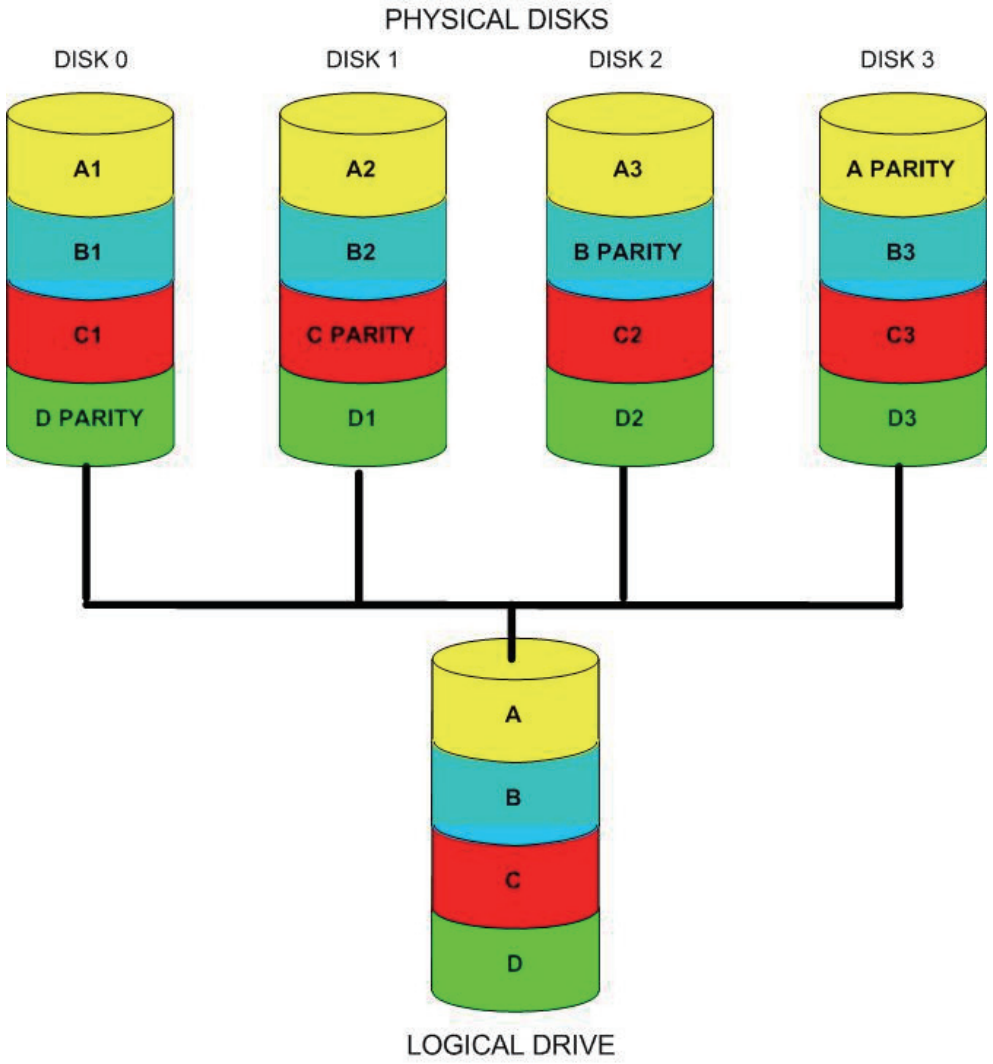
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



RAID 5 RAID 5 provides data striping with distributed parity, which stores information that can be used to reconstruct data. A RAID 5 array will be the size of all the combined disks capacity minus the capacity of one disk, e.g. If there are 4x 80GB disks in the array, the arrays capacity will be 240GB (3x80GB).

Implementing RAID 5 on the ShareCenter Pro allows it to continue operating even if one of the disks fails.

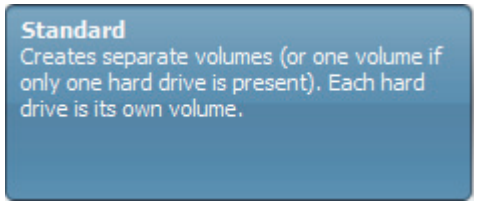
The diagram below indicates the operation of RAID 5:



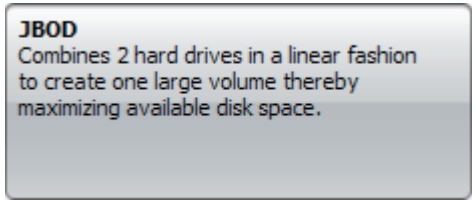
RAID Options

Here is a list of the RAID options available on the ShareCenter DNS-345

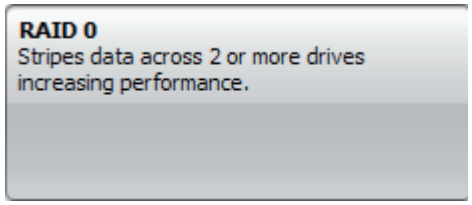
Standard RAID - creates a single volume for one drive or more drives.



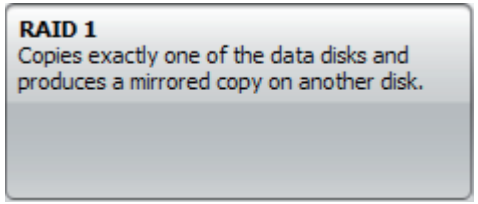
JBOD - allows you to create a large virtual disk drive by concatenating two or more smaller drives together. The individual hard drives that makes up a JBOD RAID can be different sizes and manufacturers. The total size of the JBOD RAID is the combined total of all the individual drives in the set.



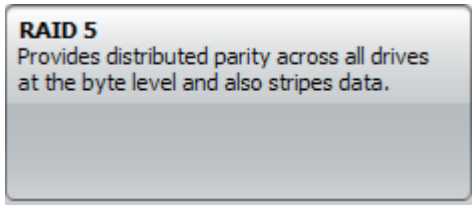
RAID 0 - allows you to assign two or more disks as a striped set. Once you create the striped set, you will see it as a single disk drive. But when you write data to the RAID 0 striped set, the data will be distributed across all of the drives that make up the set. Because each disk has less to do, it 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.



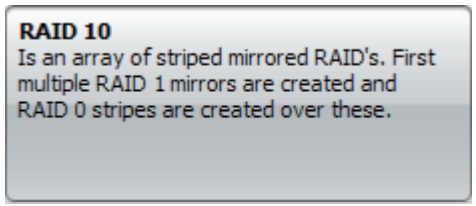
RAID 1 - allows you to assign two disks as a mirrored set. Once you create the mirrored set, you will see it as a single disk drive. But when you write data to the mirrored set, it will duplicate the data across all members of the set. This ensures that your data is protected against loss if any hard 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 5 is another striping RAID level, designed to increase the speed of disk reads and writes. RAID 5 provides drive failure tolerance, allowing any single drive in the array to fail without losing any data in the array. When a drive fails, the RAID 5 array can still be used to read or write data. Once the failed drive is replaced, the RAID 5 array can enter a data recovery mode, where the parity data in the array is used to rebuild the missing data on the newly installed drive.



RAID 10 is a nested RAID system created by combining RAID 1 and RAID 0. The combination is known as a stripe of mirrors. The difference is that each member of the striped set has its data mirrored. This ensures that if any single drive in the RAID 10 array fails, the data is not lost. RAID 10 requires a minimum of four drives and can be expanded in pairs.



What is Ethernet Bonding?

From your network's perspective, channel bonding or "port trunking" -- combines both of the computer's interfaces into a single interface that looks like nothing out of the ordinary to your applications. A combined logical interface can provide load balancing and fault tolerance. The OS can alternate which interface it uses to send traffic, or it can gracefully fail over between them in the event of a problem. You can even use it to balance your traffic between multiple wide area network (WAN) connections, such as DSL and cable, or dialup and your next door neighbor's unsecured Wi-Fi.

The DNS-345 has several options under Link Aggregation. Here are their uses:

Round-robin mode is good for general purpose load balancing between the adapters, and if one of them fails, the link will stay active via the other. The other six mode options provide features for different setups.

- Mode 1, active backup, uses just one adapter until it fails, then switches to the other.
- Mode 2, balance XOR, tries to balance traffic by splitting up outgoing packets between the adapters, using the same one for each specific destination when possible.
- Mode 3, broadcast, sends out all traffic on every interface.
- Mode 4, dynamic link aggregation, uses a complex algorithm to aggregate adapters by speed and other settings.
- Mode 5, adaptive transmit load balancing, redistributes outgoing traffic on the fly based on current conditions.
- Mode 6, adaptive load balancing, does the same thing, but attempts to redistribute incoming traffic as well by sending out ARP updates.

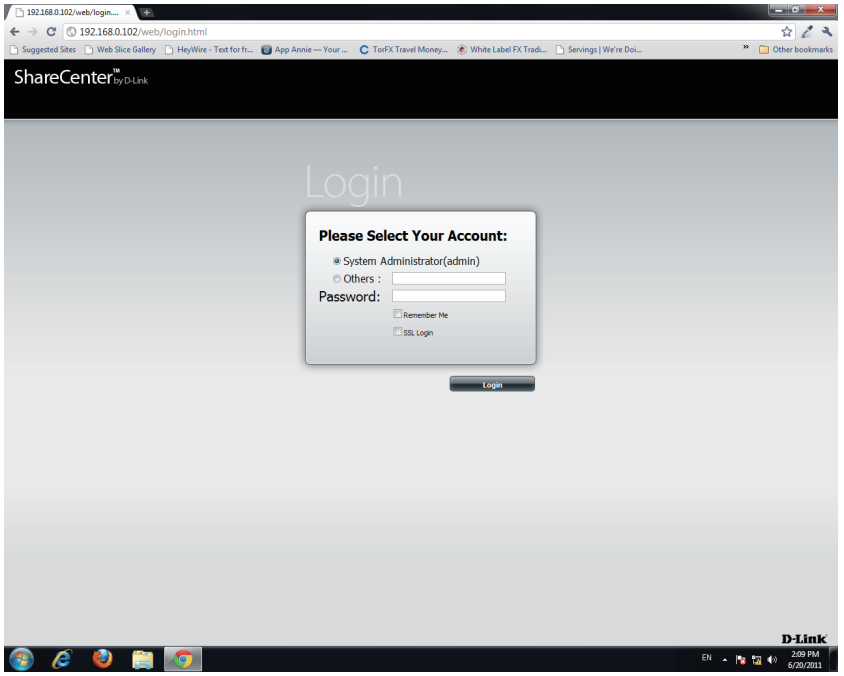
Complex modes are most likely unnecessary for home use. If you have a lot of network traffic you are looking to manage, consult the bonding driver documentation. For most folks, bonding's fault tolerance and failover is a larger gain than any increased link speed. For example, bonding two WAN links gives you load balancing and fault tolerance between them, but it does not double your upstream throughput, since each connection (such as a Web page HTTP request) has to take one or the other route.

UPS Connectivity

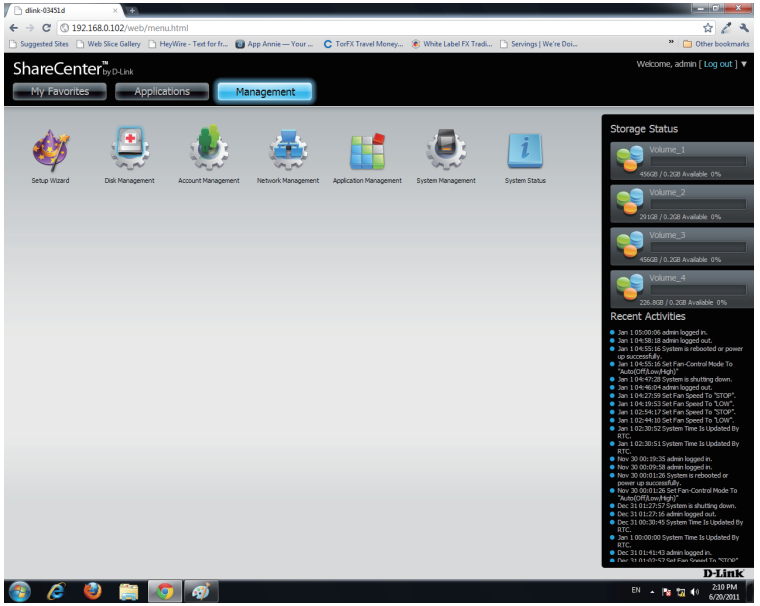
The DNS-345 supports USB UPS, giving users the ability to share the UPS on their local network and protect from an abnormal shutdown due to a power failure. Connect a UPS to the USB port on the back of the ShareCenter®.

Standalone and Network Master Mode:

Log into the DNS-345.



Click **Management**.

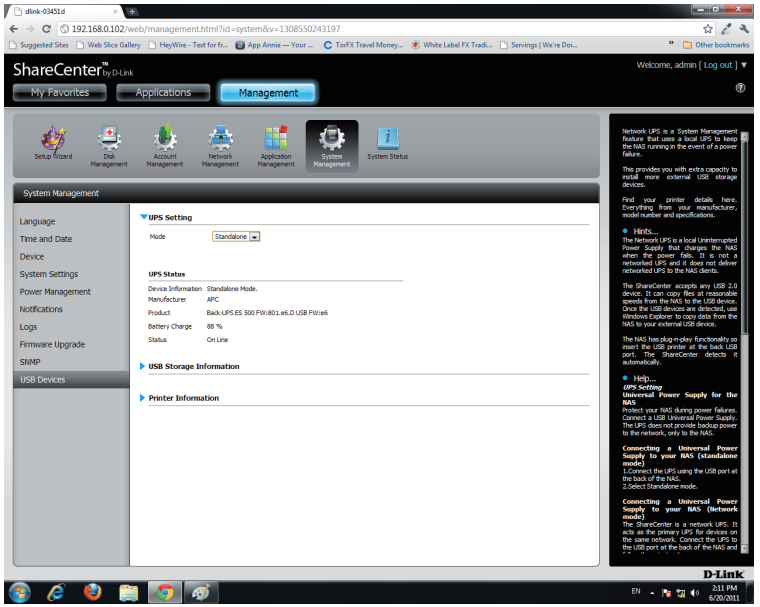


Click **System Management** and then **USB Devices.**

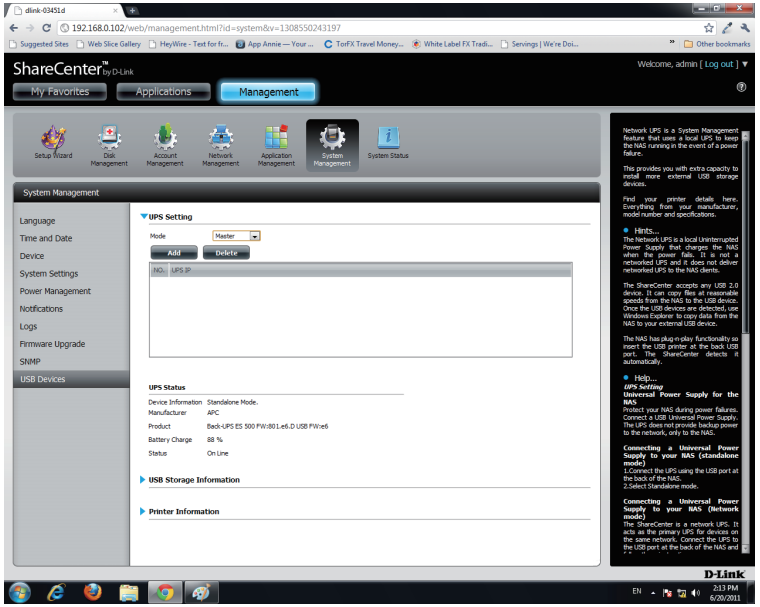
Click the blue arrow next to UPS Settings. There are two modes - **Standalone** and **Master**.

Select **Standalone** to use the UPS only on the DNS-345 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.



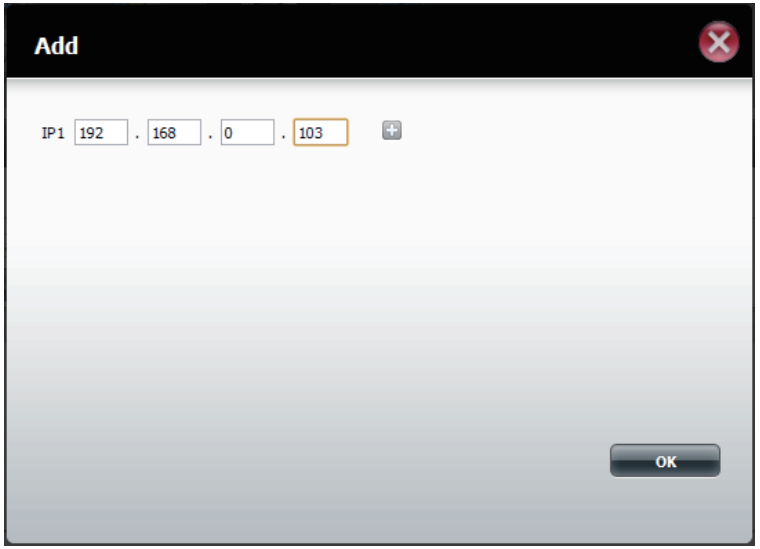
Under **Mode**, select **Master** from the drop-down list and then click **Add**.



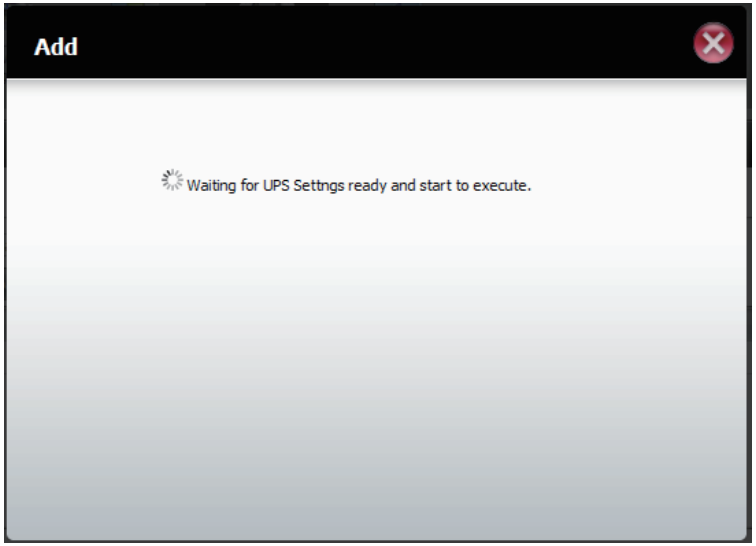
Enter the IP address of the other UPS slave on the network.

Click the **+** button to add more IP addresses.

Make sure the DNS-345 and the UPS slaves are on the same physical network.

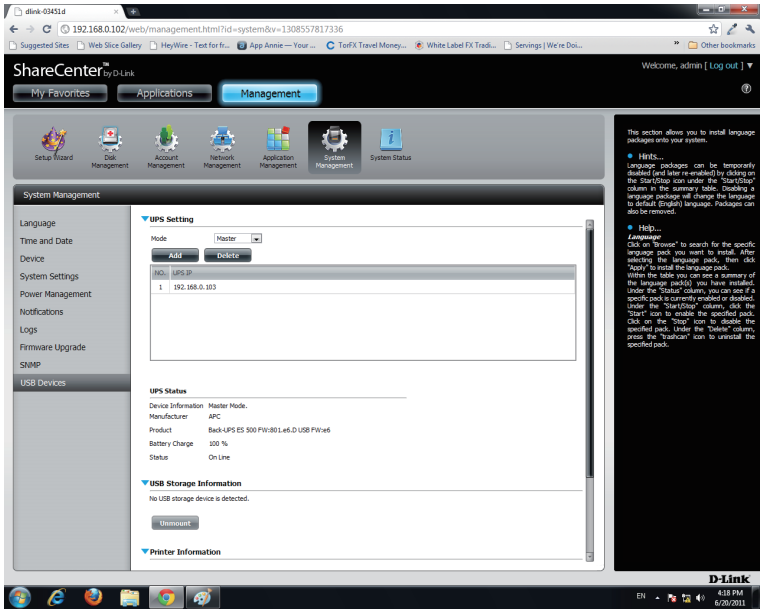


Once you have entered an IP address, the system will check its database for IP address records.



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

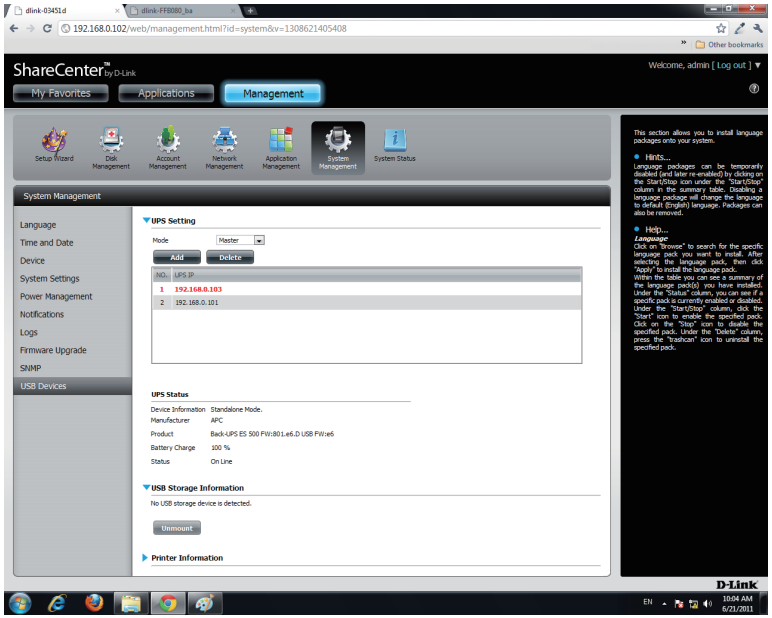
Your DNS-345 is now setup as the network master to notify the network slaves about critical power status.



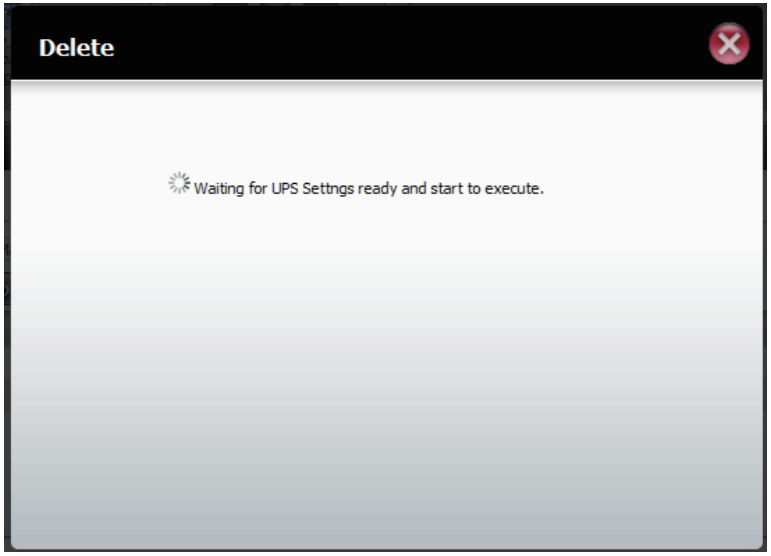
Deleting a UPS Slave

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

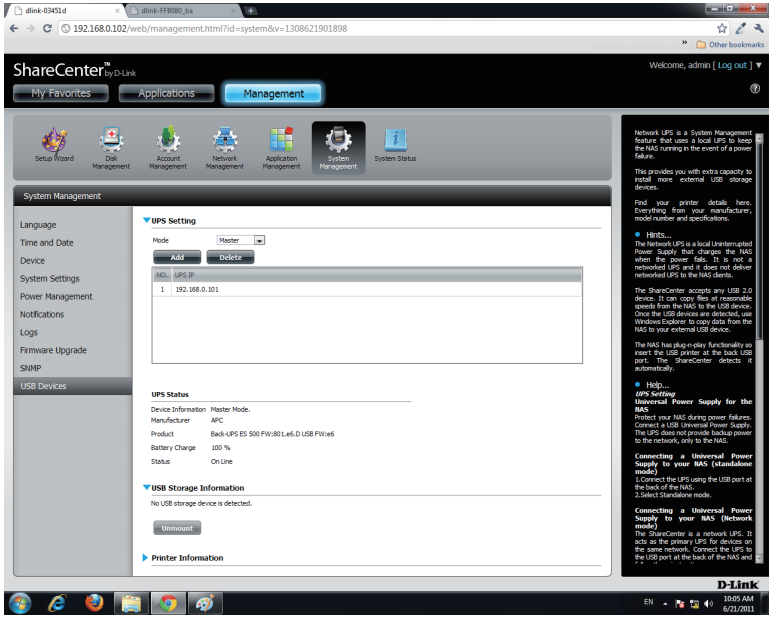
Click **Delete**.



The DNS-345 will process your request.



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

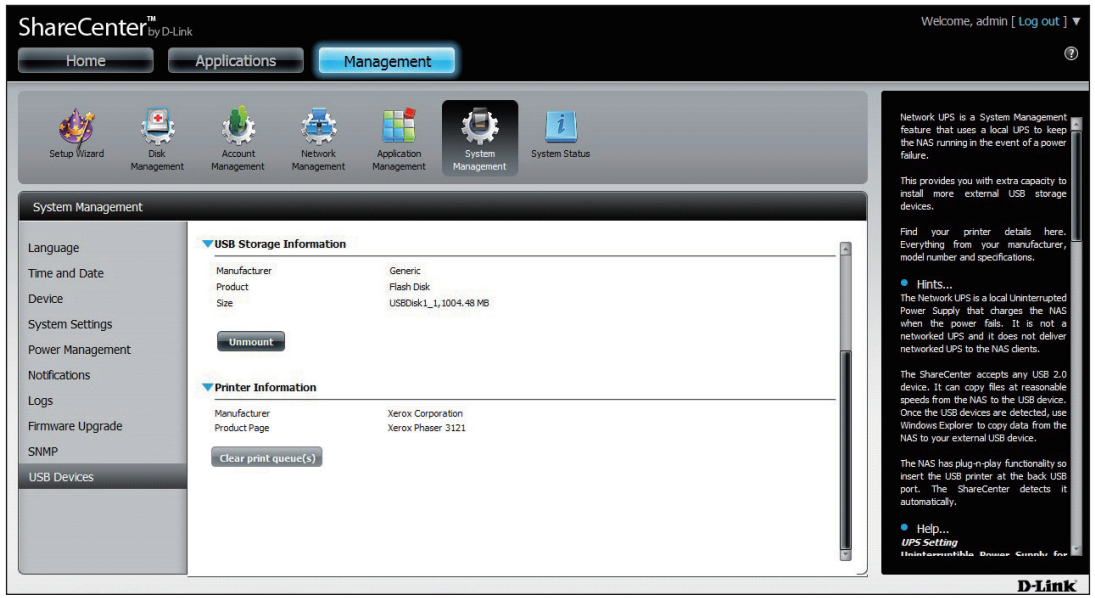


USB Print Server

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.

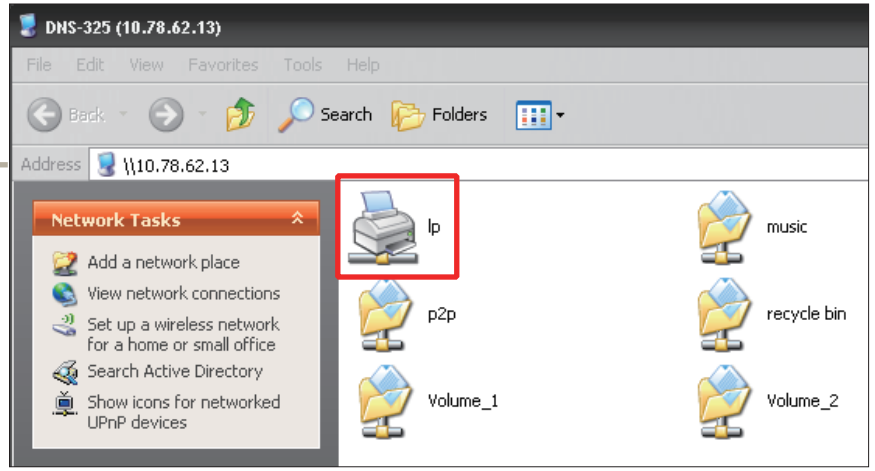
Note: Only the print function is supported. The device does not support the copy and scan functions of Multi-Function Printers.

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



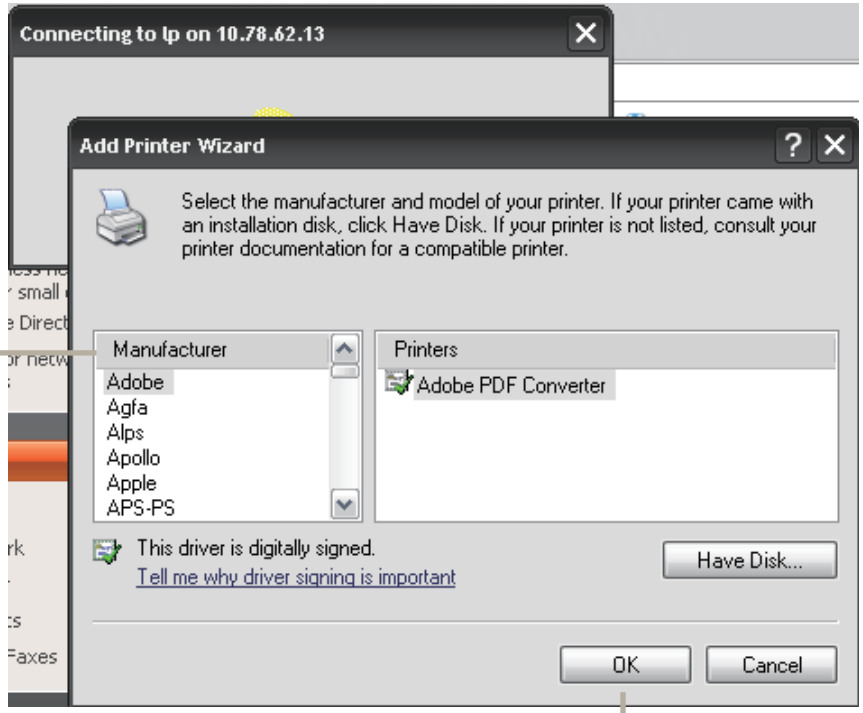
The printer should appear in the USB Devices menu of the System Management icon.

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

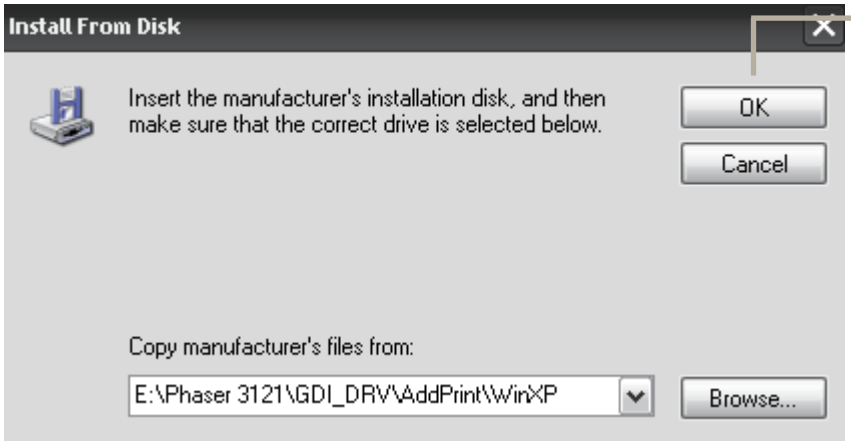


The Windows® Add Printer Wizard will launch:

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

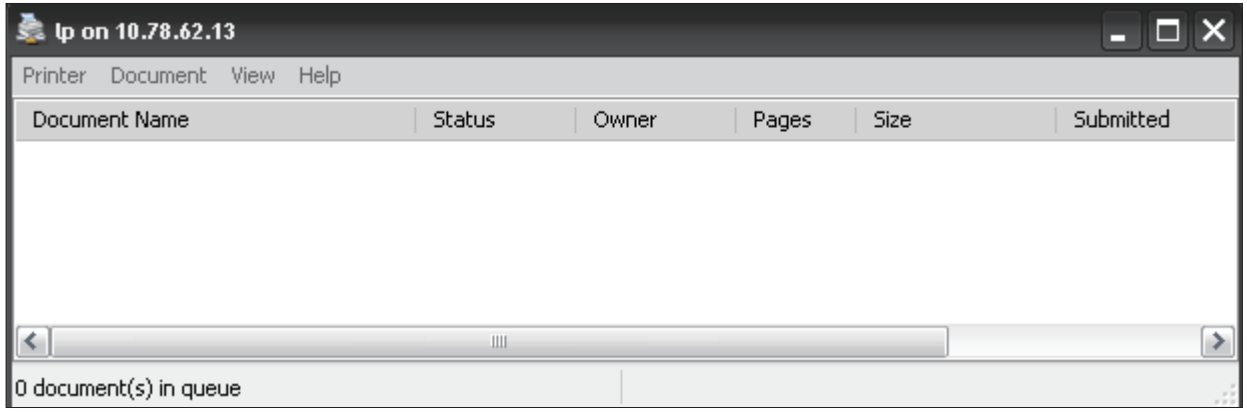


Click **OK** to continue.



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.



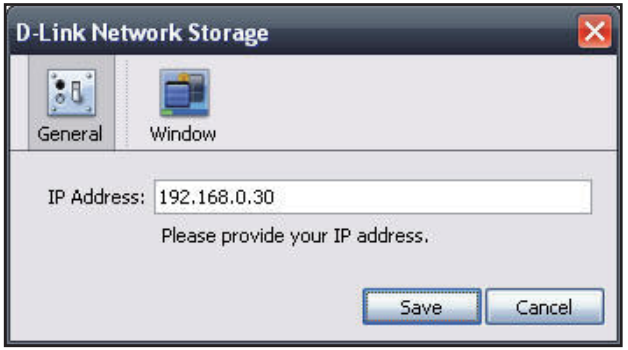
Yahoo! Widget Installation

D-Link provides an added feature called a Yahoo! Widget.

What is a Yahoo Widget?
Yahoo! Widgets are free application platforms that can be used in Microsoft® Windows® and Mac OS® X. The engine uses a JavaScript runtime environment combined with an XML interpreter to run small applications referred to as widgets, and hence is part of a class of software applications called widget engines.

Step 1: Install the Yahoo! Widget. Once the Yahoo! Widget is installed a D-Link icon will appear in your Widget Dock. Once you hover with your mouse over the D-Link Widget you'll be able to click the configuration button.

Step 2: Click the configuration button to configure the Widget. Enter the IP Address of your device and click the **Save** button. Now you are ready to use your new D-Link Yahoo! Widget!



Yahoo! Widget Display

The D-Link Widget is mainly used for monitoring the activities taking place.

System: In the System window information about your Computer, DNS-345, IP Address, Firmware Version and Current Operational Temperature are displayed.

Hard Drive: In the Hard Drive window information about the storage space of your device is displayed.

Server: In the Server window information about the USB Device, UPnP Server, ITunes and FTP Server configured is displayed.

Download: When the P2P Application is loaded, you can monitor your P2P download status here.