D-Link®

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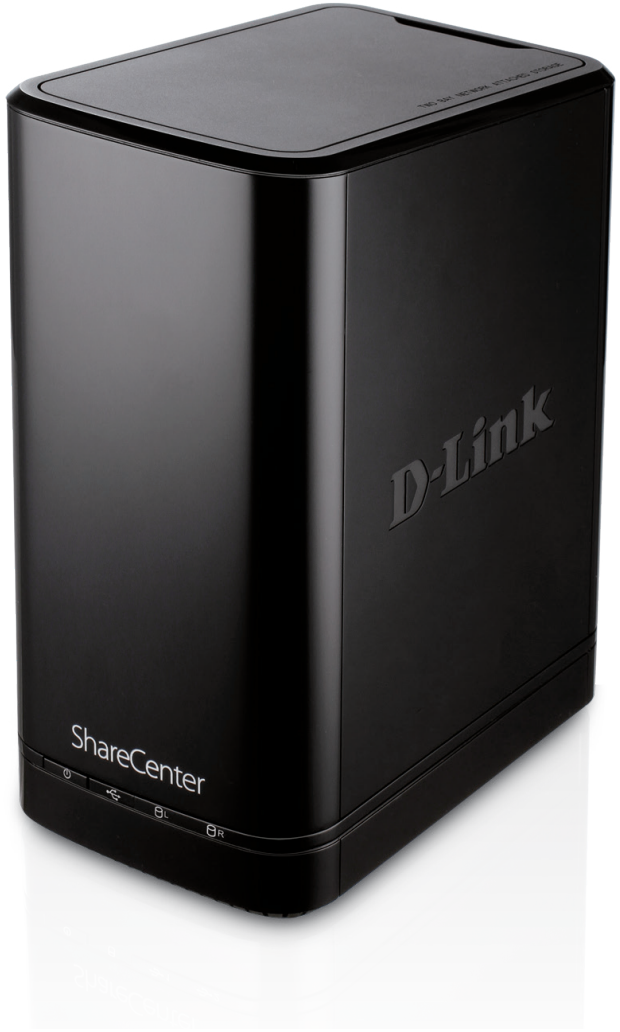

User Manual

ShareCenter™ 2-Bay Cloud Network Storage Enclosure

DNS-320L

Preface

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

Manual Revisions

Revision	Date	Description
1.30	March 09, 2015	• mydlink updates, multimedia, Google Drive

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Power Usage

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

Switched Off: 0.37 watts

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Product Overview

The D-Link ShareCenter® DNS-320L is a 2-Bay Cloud Network Storage device. The cloud-centric network storage device offers all the features a regular NAS offers but brings advanced data backup and storage to the Cloud. This is provided through the "mydlink Account Management" console. The mydlink Cloud service offers complete data management of files, music, photos, and video in the Cloud. So not only can you use the DNS-320 via the Cloud but you can also continue accessing files through the internet 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. Users can also access their DNS-320L remotely using the mydlink™ portal, or by using the mydlink Access-NAS app on a mobile phone or tablet. When configuring the DNS-320L, 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 children's access to certain material. The DNS-320L will be available to any computer (PC, Mac, or Linux) on your network, without the need to install any software.

You may back up your music, photos, and video collections to the DNS-320L for safekeeping, as well as 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 highly convenient as it allows you to turn off a computer that would normally be needed for the same function.

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

The DNS-320L also has several add-on features to enhance your experience, including PhotoCenter, Blogging, Transmission and Audio Streamer. The DNS-320 Cloud Network Storage enclosure also provides access to Google Drive. This allows you to access, save and manage Google Apps like Google Docs, Google Spreadsheets, and Google Presentations to your NAS.

1 Hard Drive(s) not included.

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

Before you Begin

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

System Requirements

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

- Computer with: 1Ghz processor / 512MB RAM / 200MB available space / CD-ROM drive
- Internet Explorer® version 9, Mozilla® Firefox® 26.0, Google® Chrome 33.0, or Apple® Safari® 5 and above
- Windows® XP (with Service Pack 2), Windows Vista®, Windows® 7, Windows® 8, or Mac OS® X 10.5.6 or higher
- Up to two 3.5" SATA Hard Drive(s)

Package Contents

- D-Link ShareCenter DNS-320L
- CD-ROM with Manual and Software
- Quick Installation Guide
- 12V DC 3A Output Power Adapter
- CAT5e Ethernet Cable

Features

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

- Equipped with one 10/100/1000 Mbps auto-MDIX Gigabit Ethernet LAN port, 1000BASE-T supports half-duplex and full-duplex mode
- Embedded two SATA II 3.5" HDD interface, supports drives up to 4 TB
- 2-bay SATA with RAID 0/1 and JBoD support
- Equipped with Ultra Cooler (Plastic housing + FAN speed control)
- Included hard drive trays.
- Supports Real-Time Clock (RTC)
- Networking Support
  - DHCP Client or Static IP
  - NTP Client
  - Windows 7/ Vista x32/64 PnP-X/LLTD
  - Dynamic DNS
  - Bonjour
  - UPnP port forwarding
  - IPv6
- Network File Services
  - Supports Windows XP/ Vista/ 7/ 8, Mac OSX 10.5+, Linux clients
  - CIFS/SMB for Windows and Mac OS X and Linux
  - NFSv3 Server for Linux and UNIX
  - AFP 3.3 for Mac OS X
  - HTTP and HTTPS for web browsers
  - WebDAV
- File System
  - EXT4 for internal HDD
  - FAT32, NTFS for USB external storage
- File System Management
  - Unicode support for both Samba and FTP server
  - File sharing: Windows/ Mac/ Linux
  - File searching
- FTP server
  - FTP over explicit SSL/ TLS mode (FTPES)
  - FTP bandwidth and connection control
  - FTP support FXP
  - IP blocking
- Disk Management
  - Hot swappable
  - RAID: Standard, JBOD, 0, 1
  - RAID 1 Auto/Manual rebuild
  - RAID migration: Standard to RAID 1
  - SMART Disk Status Monitoring
  - HDD SMART test
  - Scandisk
  - Supports advanced format HDD
  - AES based volume encryption(DNS-327L, DNS-340L)

- Disk roaming
- RAID roaming

- Folder Management
  - Share folder level permission
  - Supports ISO mount
  - ISO creator
- Remote File Sharing
  - My files (Web File Server)
  - WebDAV
  - FTP server
  - Mobile device access (mydlink Access NAS)
- User/Group Management
  - User/Group assignment for network sharing and FTP server
  - Quota for user and group
  - Assign users to multiple groups
  - Create user/Import user(s) batch files
- Backup Management
  - Scheduled backup from PC to NAS (ShareCenter Sync)
  - Remote network backup (Rsync, Remote Snapshot)
  - Apple Time Machine® support
  - Local backup
  - USB backup
  - USB copy button
  - Cloud storage backup (Amazon S3, Google Drive, D-Link Vault)
- Download Management
  - HTTP/FTP schedule download
  - Peer-to-peer (P2P) downloads, aMule and Transmission support
- System Management
  - Supports mydlink portal
  - Supports D-Link storage utility/setup wizard
    - OS Support: Windows XP, Vista, 7, 8, and Mac OS X
  - Two access modes supported: Open (Share) mode and Account (User) mode, no setup account and password necessary in open mode
  - Supports configuration file save/load
  - System Service Management
  - mydlink Account Management
  - System Status
  - Email / SMS notifications
  - Network recycle bin
  - System /FTP Log (Syslog Client)
  - Rescue F/W image
  - Resource monitor
  - Multi-lingual GUI support
- Power Management
  - Power saving (disk idle spin-down)
  - Automatic power recovery (with UPS)
  - Schedule power on/off
  - Auto-shutdown on UPS low battery
  - Smart Fan control
  - Network UPS
- USB Port Support
  - Print server
  - UPS monitoring
  - External storage device
  - MTP/PTP

- Media Streaming
  - UPnP AV Server
    - Supports PS3 / XBOX 360
    - Supports UPnP AV > 4GB
    - Complies with DLNA HNv1.5
  - Supports Logitech® Media Server
  - Support Sonos digital music system via Samba
  - iTunes server
  - Audio streamer (icestation)
  - My Music (Music Center)
  - My Photos (Photo Center)
  - Enhance Contents Aggregation
- Cloud Service - mydlink Portal Web Access
  - Remote files access through web browser
  - Browse, upload/download, and manage file/folders
  - Redirect to NAS device UI for the access of NAS applications
  - Email notification to registered mydlink account
  - Supports zero configuration
  - Supports surveillance redirect
- Cloud Service – Mobile Apps (the "mydlink Access-NAS" app)
  - Ability to access content from mobile devices
  - Browse, upload/download, open, and manage files/folders
  - Auto-upload photos stored on mobile devices to NAS
  - View photos and play back multimedia files
  - Access to media: Streaming for music, photo galleries
  - Content classification : Classify contents according to media type (photo, video, music)
  - iPhone®, iPad®, and Android® app support
- My Surveillance
  - Camera auto installation
  - 4-Channel Motion JPEG, MPEG4 or H.264 recording
  - Audio & video recording in synchronization
  - Auto recycling recording
  - 4-channel live video
  - 4-channel synchronous playback
  - Recording type : Record by schedule, manual record
  - E-map support
  - Backup recorded video
- Add-on Applications
  - Multilingual language package
  - Photo center (Gallery2)
  - Blog (Wordpress)
  - Audio streamer
  - Logitech Media Center
  - AjaXplorer
  - aMule
  - phpMyAdmin
  - phpBB
  - Joomla
  - Transmission

Checking the Hardware Requirements

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

This section will help you:

- Select the appropriate hard drives
- Determine how much 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-320L. The D-Link ShareCenter supports standard 3.5" internal SATA drives. If you are unsure, check with 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-320L requires more space than what you will use for your data, sometimes more than double the amount of space required. You should select hard drives that are larger in capacity than your maximum storage requirements.

Using a Router or Switch:

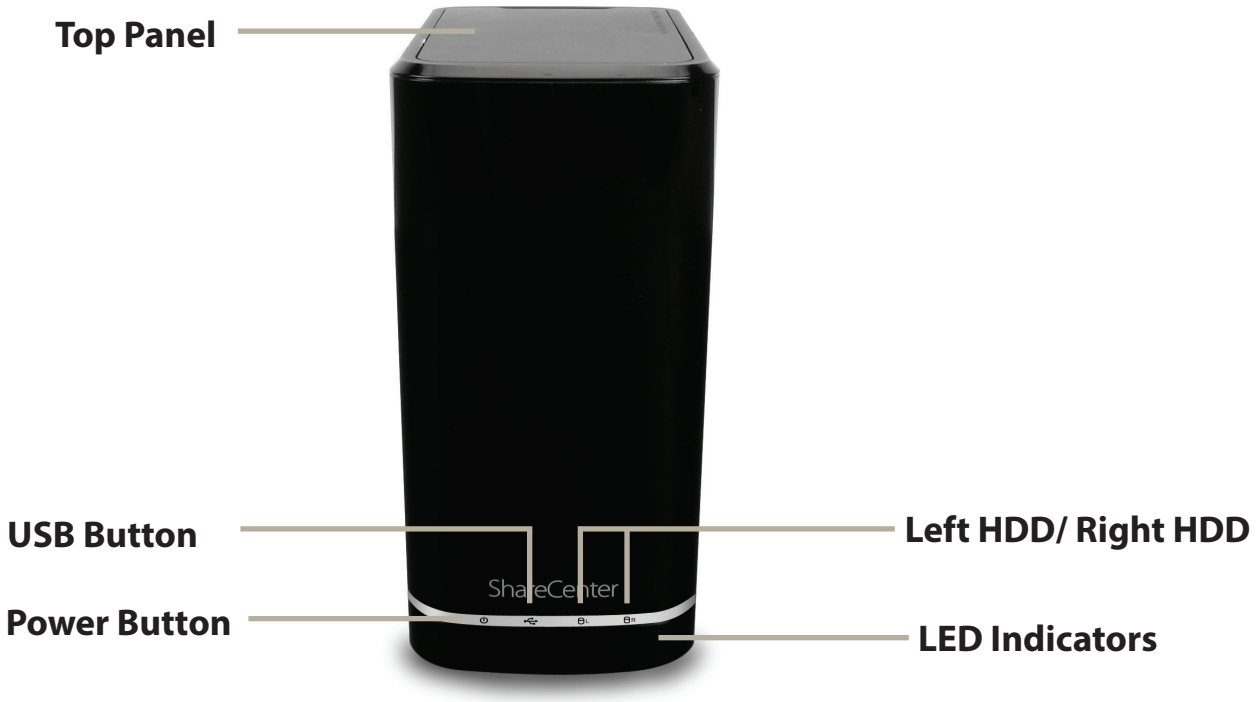
If you are connecting your ShareCenter to a router or switch, your router or switch should support Gigabit Ethernet (1000 Mbit/s) for maximum performance. The ShareCenter will auto-negotiate the highest connection speed available to your router or switch. If you are using port bonding, use a managed 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 data loss in power outages surges.

Hardware Overview

Front Panel

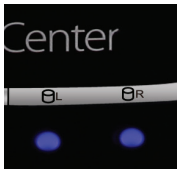


COMPONENT	DESCRIPTION
Top Panel	This panel unlatches simply by pressing the lever at the back. Unhook and lift up to insert or remove your hard drive(s).
Power Button	Press once to power on the ShareCenter. Press and hold the button for more than 5 seconds to power it down.
USB Button	Press once to activate the USB port, or press and hold the button for more than 5 seconds to unmount the USB device.
Left HDD/Right HDD	Identifies the left and right-installed hard drives
LED Indicators	Illuminate depending on activity (see next page for details)

LED Description

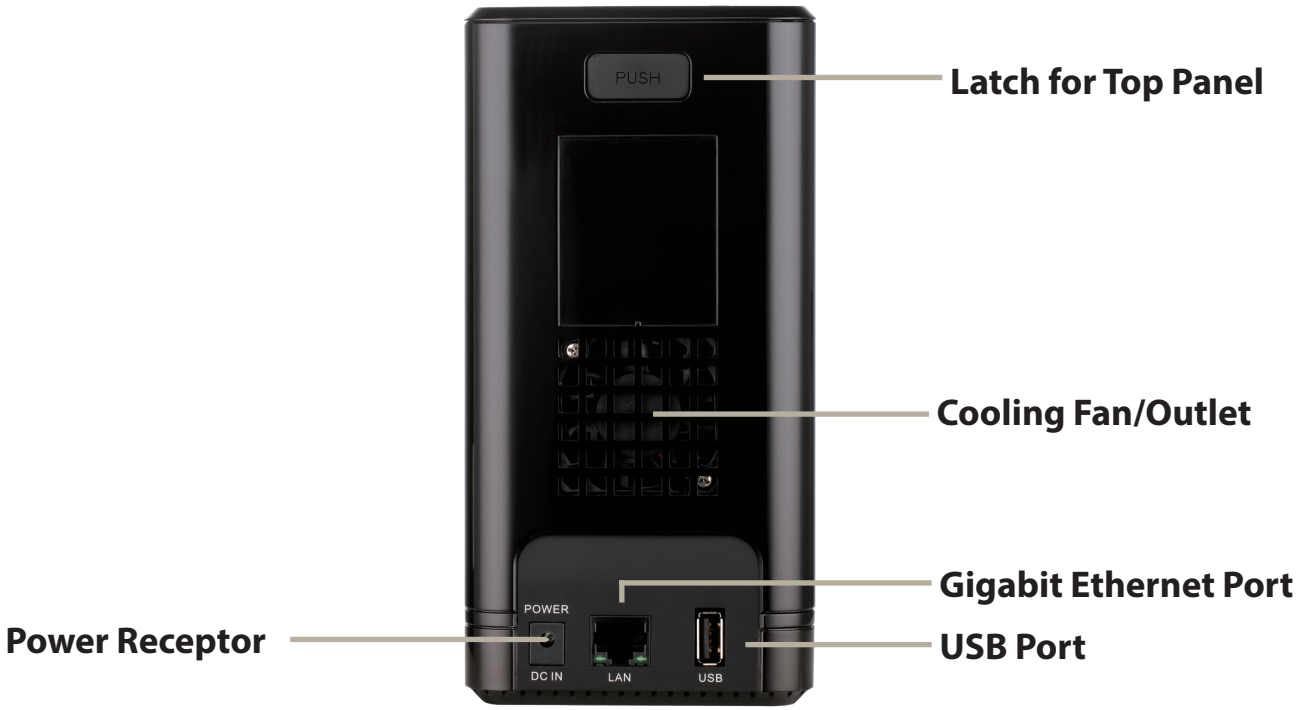
Power:
Solid Blue - the device is on
Blinking Blue - the device is booting or restarting
No Light - the device is off or in power saving mode

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



HDD (Left/Right):
Solid Orange - the specified hard drive has a problem
No Light - the specified hard drive is inactive
Solid Blue - the specified hard drive is functioning correctly
Blinking Blue - there is reading / writing / hot-swapping activity on the specified hard drive

Rear Panel



COMPONENT	DESCRIPTION
Power Receptor	Connect the supplied power cord to the receptor.
Latch	Press the latch to release the top panel for inserting or removing the hard drives
Cooling Fan/Outlet	The cooling fan cools 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 inside the unit rises above 49 °C. Do not cover or obstruct this outlet.
USB Port	A single USB 2.0 (type A) connector. The USB Host port is for Printers, USB storage, or USB UPS monitoring.
Gigabit Ethernet Port	Use the Gigabit Ethernet port to connect the ShareCenter to your local network. The port is equipped with 2 LEDs. The LED on the left 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 right will light solid for a Gigabit connection and will remain off when connected to a 10/100 Mbps device.

Bottom Panel

COMPONENT	DESCRIPTION
Product Details	Information about the product - DNS-320L including serial number, part number, manufacturer number etc.
Reset Button	Press and hold this button for more than 5 seconds to reset the unit to its factory defaults.

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 "Zero Configuration Setup" on page 18 to run the setup wizard which will show you how to install and configure your DNS-320L.

Release the top panel by firmly pressing the latch at the back.

Once the faceplate is unlatched, remove it to expose the hard drive bays.

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

Insert up to two 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 LED will not illuminate after powering on the device.

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

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

Connect the power adapter to the power receptor.

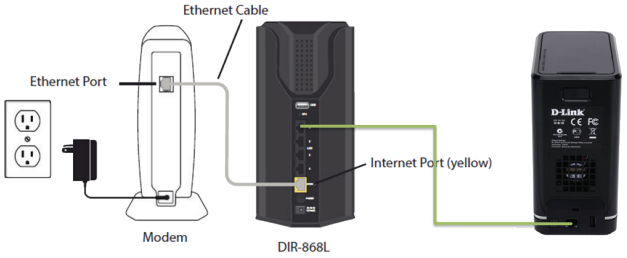
Zero Configuration Setup

If you have a mydlink-enabled cloud router (DIR-808L, DIR-810L, DIR-820L DIR-850L, DIR-860L, DIR-868L, DIR-865L, DIR-855L, DIR-836L), you can take advantage of Zero Configuration setup. Zero Configuration automatically configures your NAS's settings for you, and adds it to your mydlink account. This type of setup allows you to set up your DNS-320L by simply plugging it in and connecting it to your mydlink-enabled router.

Connect your NAS to your mydlink-enabled cloud router and Zero Configuration will automatically configure your DNS-320L and automatically add it to your mydlink account. After the short time it takes to do this you can remotely access your NAS from the www.mydlink.com website to manage and monitor your DNS-320L.

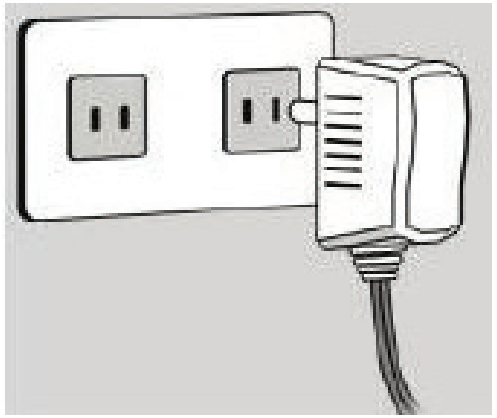
Connect the Ethernet Cable

Use the included Ethernet cable and plug it into the DNS-320L. Plug the other end into an available port on your router. If you wish to use your NAS wirelessly, you will be able to remove the cable from the router after Zero Configuration Setup is complete.



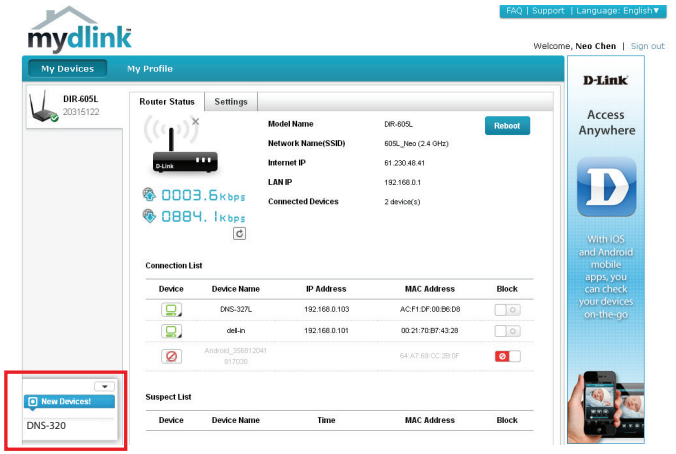
Attach the External Power Adapter

Connect the power adapter to the power connector on your NAS, then plug the power adapter into a wall outlet.

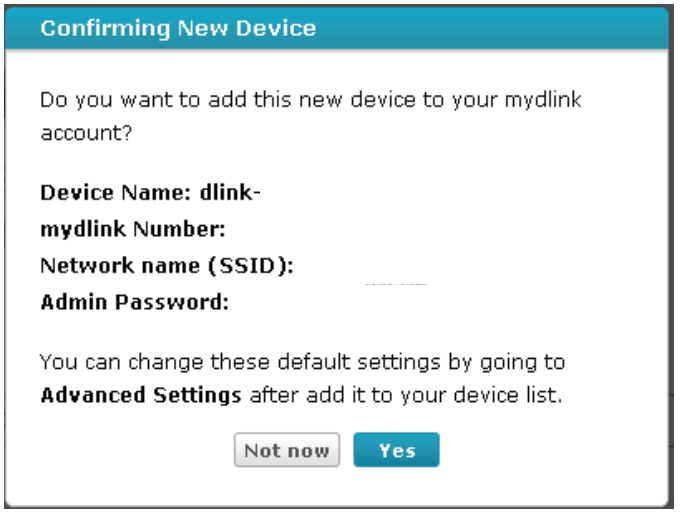


Check Your mydlink Account

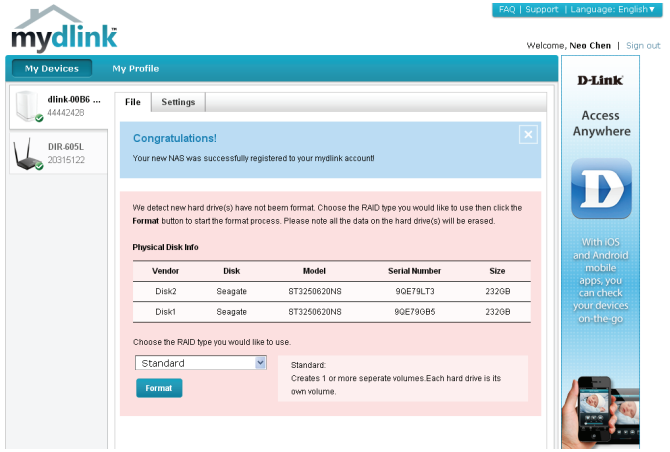
Open a web browser and login to your mydlink account. The mydlink page will check for new devices and display a *New Device Found!* pop-up notification in the bottom-left corner. Click the notification to continue.



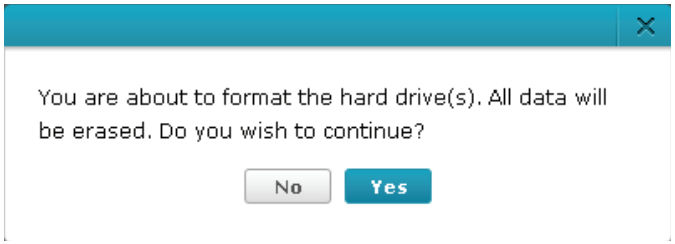
Double-click the device to add it to your mydlink devices. If you wish to add it immediately, click **Yes**, but if you are unsure of what to do click **No**. The pop-up screen displays the **Device Name**, **mydlink number**, **Network Name**, and **Admin Password**. If you are unsure of what to do, you can always go back to **Advanced Settings**.



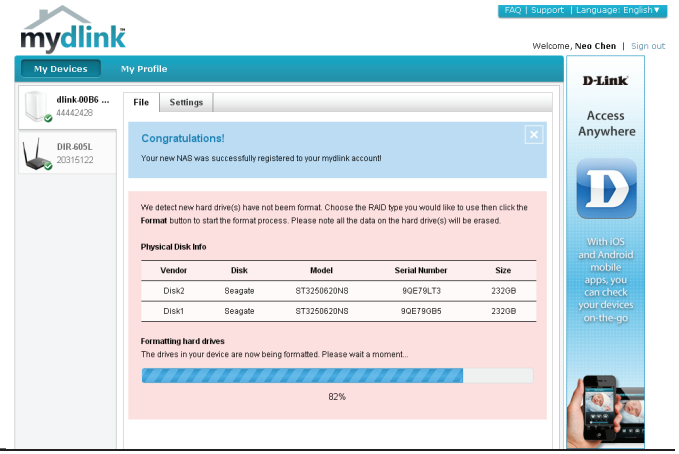
After your DNS-320L is registered, you will be able to access all information about the NAS from the cloud service. This information is already available locally, but the mydlink service provides a way for you to view these details from any location. From this location, you can view all physical disk information, and configure RAID. Please be advised that configuring RAID over the mydlink service will slow your system down and the speed of this service will depend on your ISP and the speeds you are using to connect to mydlink.



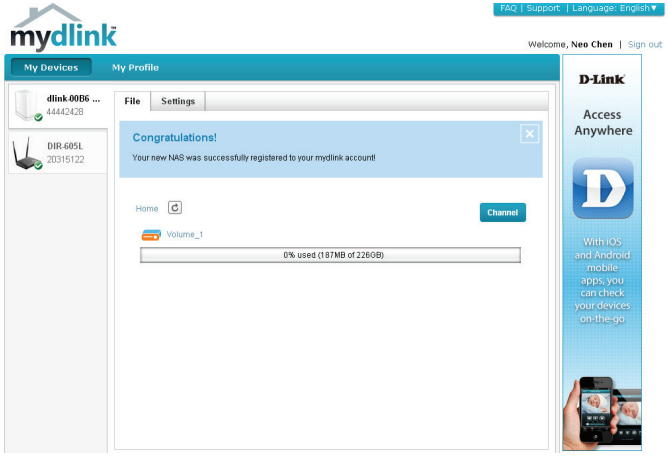
If you have decided to format your NAS using mydlink, select the RAID method from the drop-down list and the click the **Format** button. A pop-up message appears asking you to confirm your choice to format the volume using mydlink. Click **Yes** to format, or **No** to return to the menu.



The format process may take some time to complete. The format process depends on the speed of your network connection and client CPU.

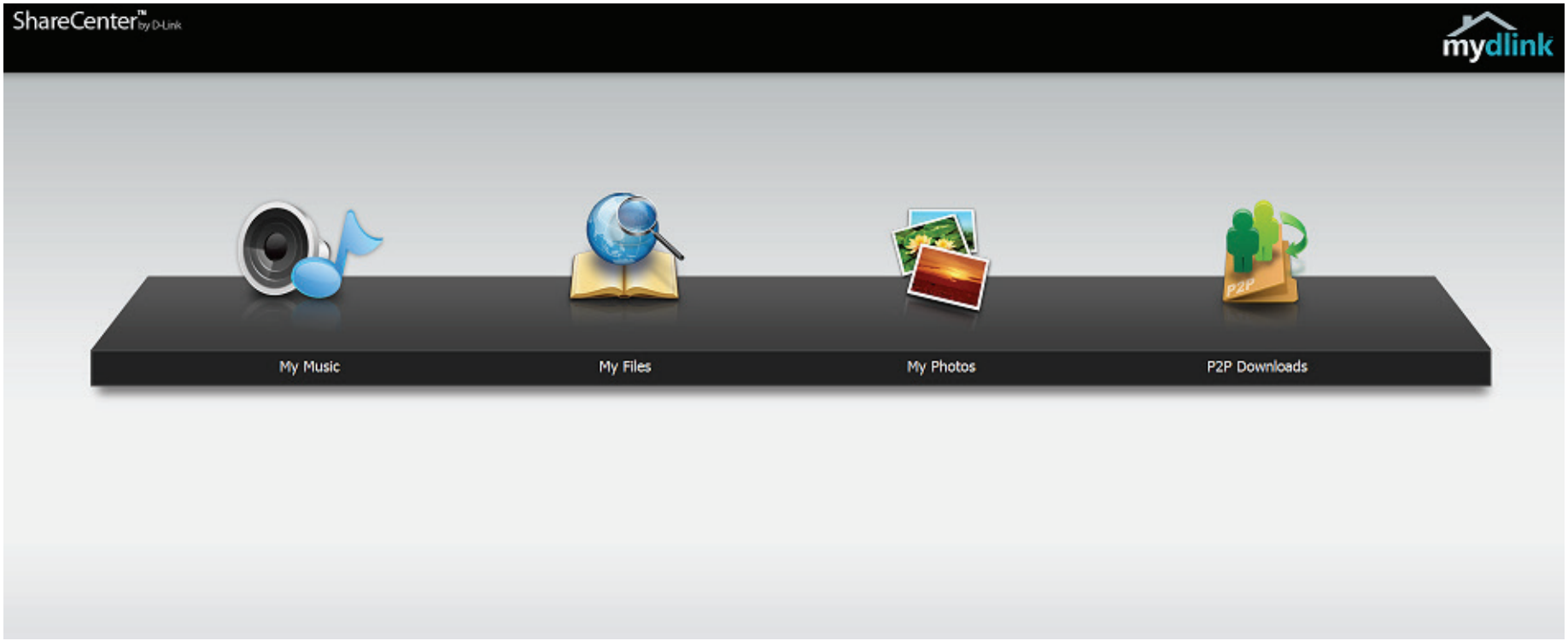


Once the format process is complete, your mydlink cloud service will show you the RAID status and the Volume Status. It also displays the size of the drive, and available and used space.



mydlink on the DNS-320L

Accessing the DNS-320L using mydlink provides a different user interface experience than the usual NAS interface. Once connected to the mydlink service, click the **Application** button to access **My Music**, **My Files**, **My Photos**, and **P2P Downloads** from the main panel.

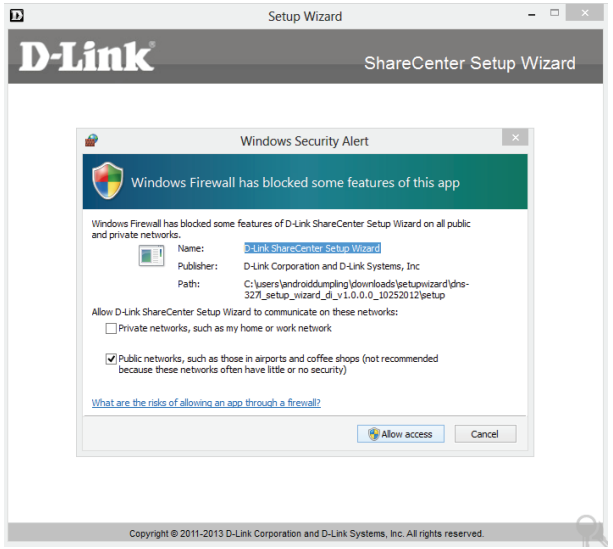


Windows Installation
Setup Wizard

To run the setup wizard, insert the ShareCenter CD into your CD-ROM drive.

When the autorun screen appears, click **Install**

Note: Windows Firewall may present you with a warning message to unblock the device. Click **Unblock** to allow your computer access to the NAS.



Select the language of your choice and then click the **Start** button.

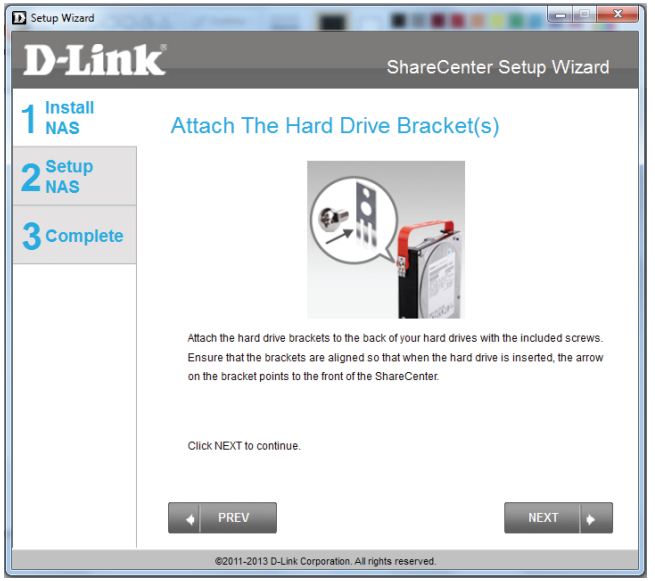
Installing the Hard Drives

Follow the instructions to remove the top cover of your ShareCenter.

Click **Next** to continue.

Attach the hard drive bracket(s) to the side of the hard drives as indicated.

Click **Next** to continue.



Slide one or two hard drives into an available hard drive bay of your ShareCenter.

Click **Next** to continue.

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

Click **Next** to continue.

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

Click **Next** to continue.

Connect the power adapter connector to the power receptor on the back of the ShareCenter. Then, power on the ShareCenter by pressing the power button located on the front panel.

Click **Next** to continue.

Setting up the NAS

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-320L to be recognized.*

Click **Next** to continue.
Note: To double-check the NAS's IP address, go to settings of your local router and check the IP address table.

A warning message will appear prompting you to confirm that the LED on the front of your device is blinking. If so, click **Yes** to proceed.

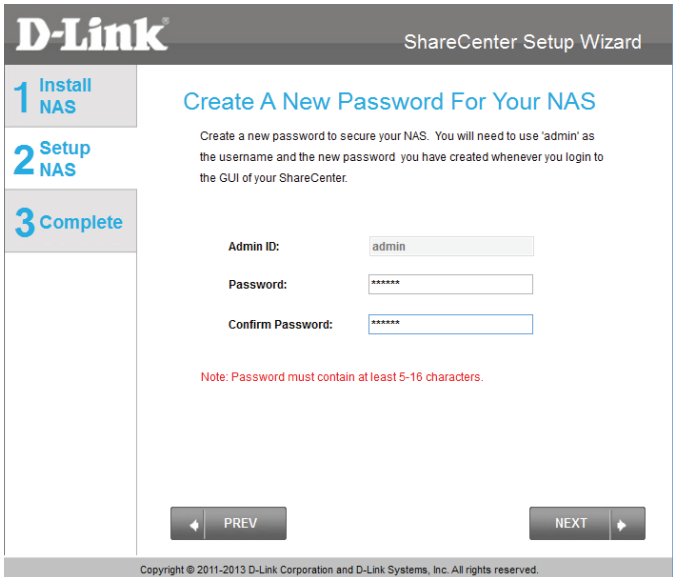
Click **Next** to continue.

Enter the administrator password. If this is the first time you are installing this NAS, leave the password field blank.

Click **Next** to continue.

In this step, you can create a new admin password. It is recommended you set a password, however you may also leave the fields blank. You should make a record of this password for future reference.

Click **Next** to continue.



You may use either **Static IP** or **DHCP Client** to configure the IP network settings of the ShareCenter. If you select **Static IP**, then enter the IP parameters according to your network settings.

Click **Next** to continue.

You may also use DHCP to configure the IP network settings of the ShareCenter. In this situation, leave the parameters blank, as your router will automatically provide this information.

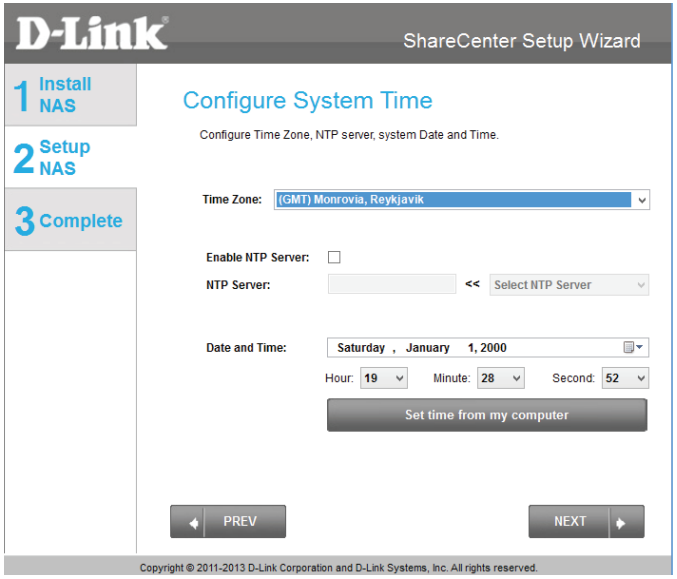
Click **Next** to continue.

Configure the Device Information. Type the **Workgroup** name, a device **Name**, and a **Description** for the device. This workgroup should be the same name as your network's current workgroup settings. If you haven't set up a workgroup yet, type a name that best suits the environment or leave the default "workgroup" name.

Click **Next** to continue.

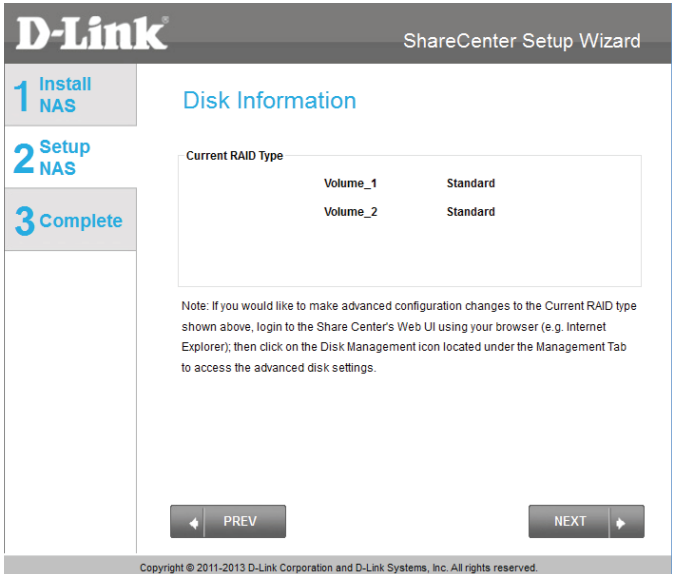
Configure the System Time. Select a **Time Zone** from the drop-down list. Click **Enable NTP Server** and select NTP Server from the drop-down list if you wish to automatically synchronize your time and date settings with an online Network Time Protocol (NTP) server. Set the **Date & Time** settings using the calendar drop-down menu. Configure the time settings by manually configuring the **Hour**, **Minute**, and **Second** settings, or click the "**Set time from my computer**" button to copy your comupter's time and date settings.

Click **Next** to continue.



The **Disk Information** window provides the current RAID type. However, if this isn't already configured, read the instructions under the **Note** displayed on the screen.

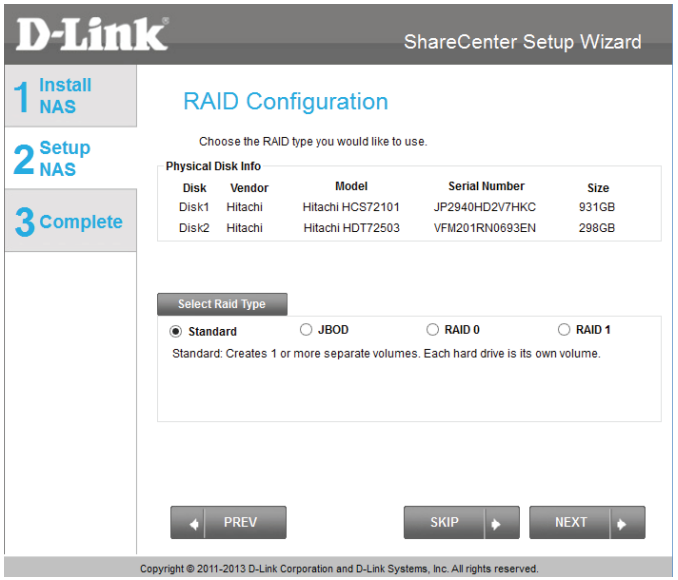
Click **Next** to continue.



Hard Drive Configuration

The next part of the setup wizard helps you to configure your hard drive storage. The DNS-320L offers four options for hard drive storage configuration. You should choose the option which best suits your storage, redundancy, and backup needs.

The **RAID Configuration** window provides more detailed **Physical Disk** information. Here you can analyze your **Disk**, **Vendor, Model** number, **Serial** number, and **Disk** size. Under **Select RAID Type**, there are four options to choose from:



- **Standard (default) -** This option creates one or more volumes on each hard drive which is inserted into the NAS. Each hard drive will have its own volume. Please skip to "Standard RAID" on page 34 to continue the setup process using this option.

- **JBOD -** This option combines the two hard drives into one or more volumes, but does not use a RAID configuration. Please skip to "JBOD" on page 37 to continue the setup process using this option.

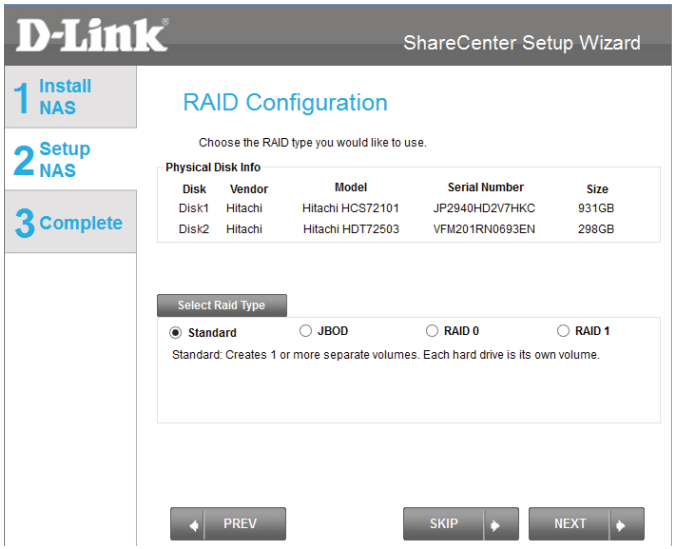
- **RAID 0 -** This option splits data evenly across the two drives to create one array. The size of the array will be limited to the twice the size of the smallest hard drive in use. Please skip to "RAID 0" on page 40 to continue the setup process using this option.

- **RAID 1 -** This option uses one hard drive for storage, and the other hard drive to create a mirror of the first drive for redundancy. If the first hard drive fails, the second hard drive will serve as the primary storage drive until the failed drive is replaced. Please skip to "RAID 1" on page 43 to continue the setup process using this option.

Note: You can skip this step if you have set up this system before.

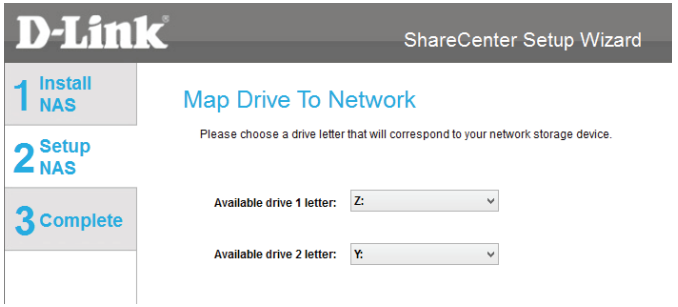
Standard RAID

Select **Standard Raid** using the radio button. Click **Next** to configure the **Standard RAID** or click **Skip** to bypass this step.



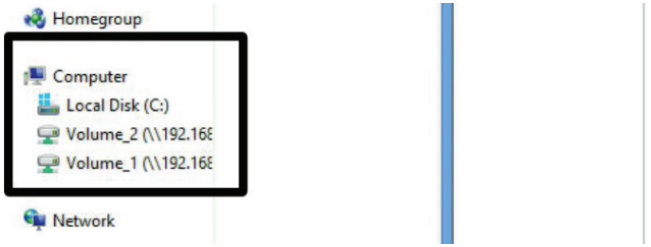
Map Drive to Network. This window makes it possible for you and users on your network to communicate with your NAS directly. The **Map Drive** assigns a letter to each volume on your NAS. Use the drop-down menus to assign drive letters to the volumes in your NAS. Please refer to "Mapping a Drive" on page 52 for further information on mapping drive volumes.

Click **Next** to continue.

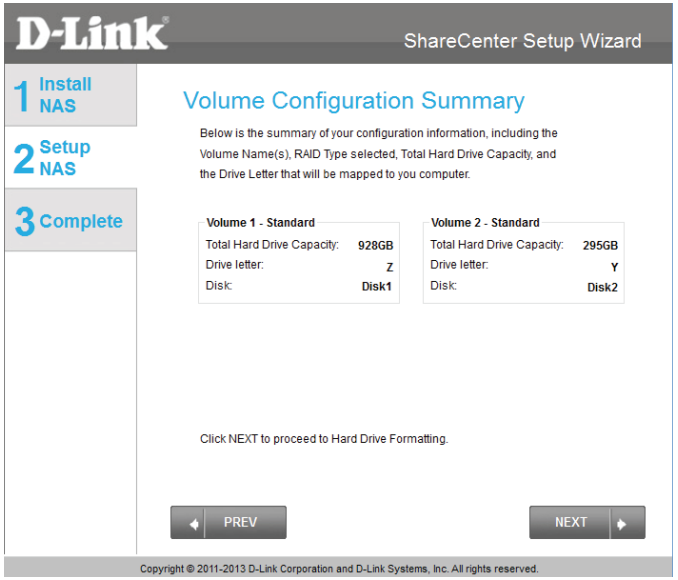


After doing this, the wizard automatically maps drives to your configured volumes.

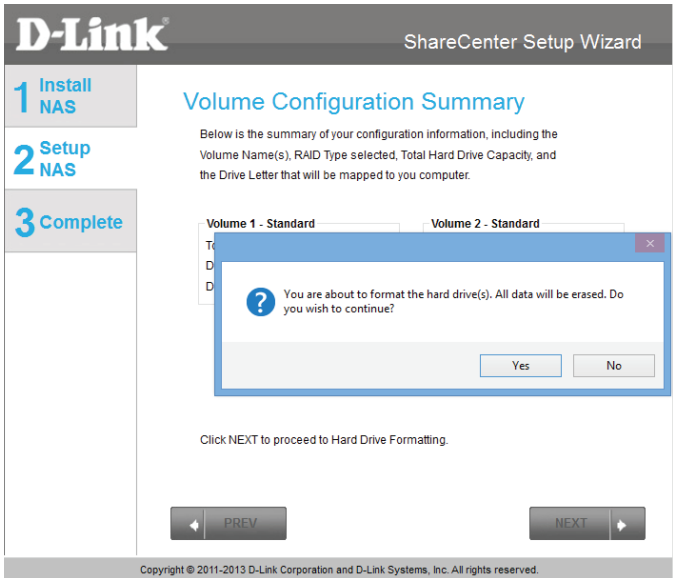
Click **Next** to continue.



Volume Configuration Summary. This window provides a detailed summary of your current configuration. If you are satisfied with your configuration, click **Next**, or if you want to change your settings click **Prev** to go back and change your settings. Read the details carefully before continuing.

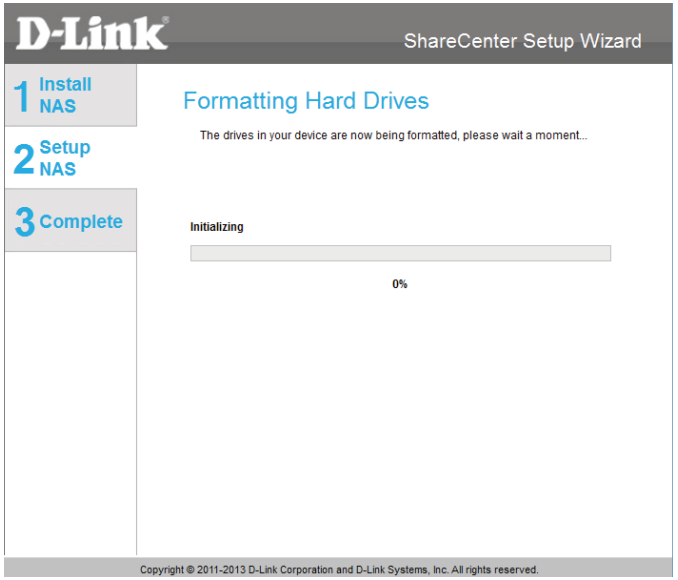


When you click **Next**, you are prompted to verify your decision before you can continue.



The wizard software will start the formatting process. After this is complete, click **Next** to continue.

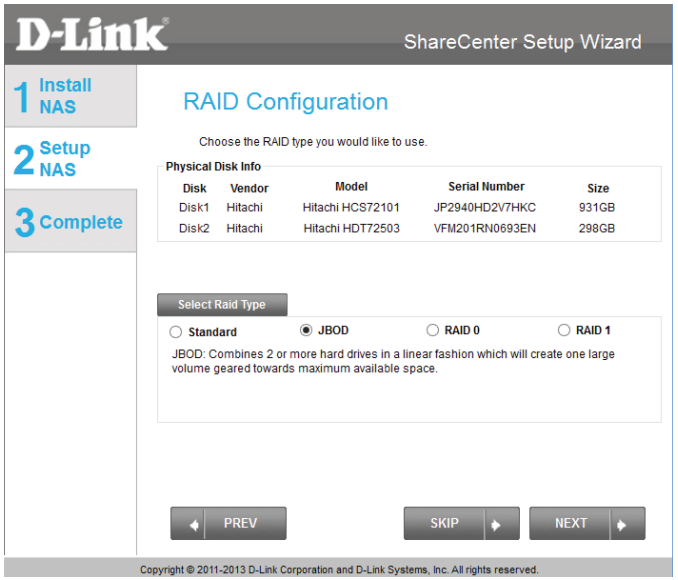
Note: Do not close the wizard or use other applications until the process is complete.



JBOD

Under **RAID Configuration**, **Select RAID Type**, choose **JBOD**. Read the **JBOD RAID** configuration requirements.

Click **Next** to continue.

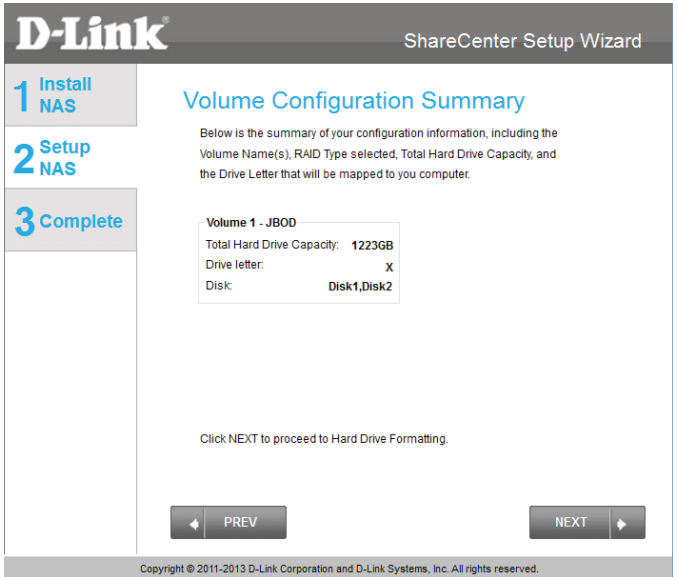


Under **JBOD** more than one disk is classified as a complete volume, so when mapping a drive, only one drive letter is needed. **Map Drive to Network** only shows one drive. Select a drive letter using the drop-down menu. For further information, please refer to "Mapping a Drive" on page 52.

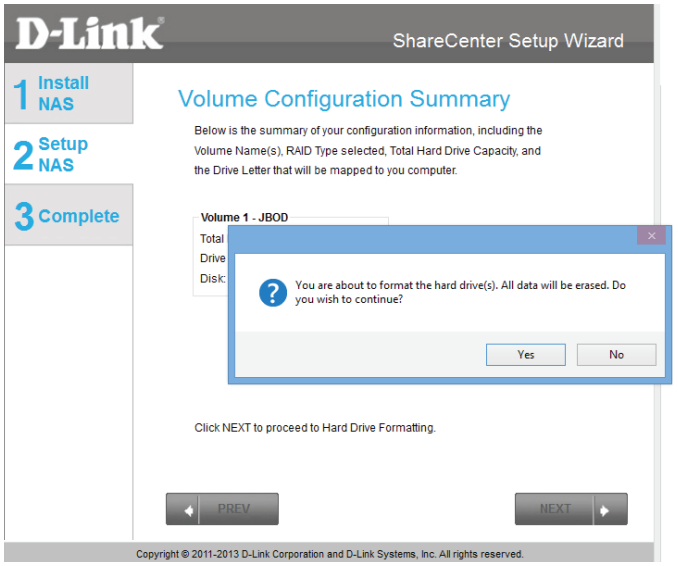
Click **Next** to continue.

The Volume Configuration Summary displays a detailed summary of your JBOD configuration.

Click **Next** to continue.

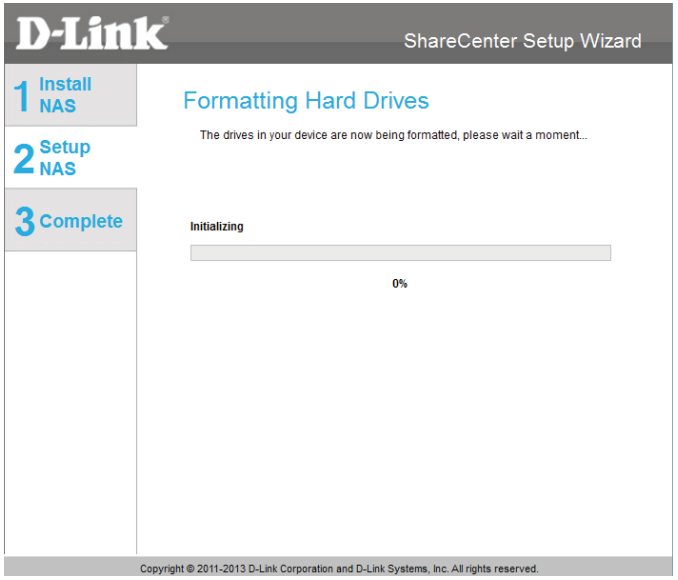


Click **Next**, you are prompted to verify your decision before you can continue. Click **Yes** to continue.

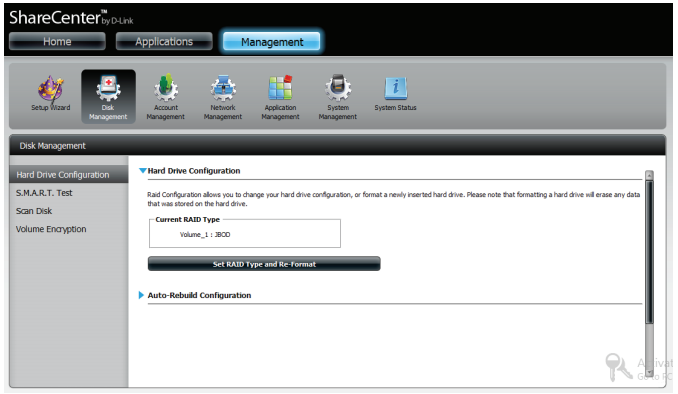


The wizard software will start the formatting process. After this is complete, click **Next** to continue.

Note: Do not close the wizard or use other applications until the process is complete.



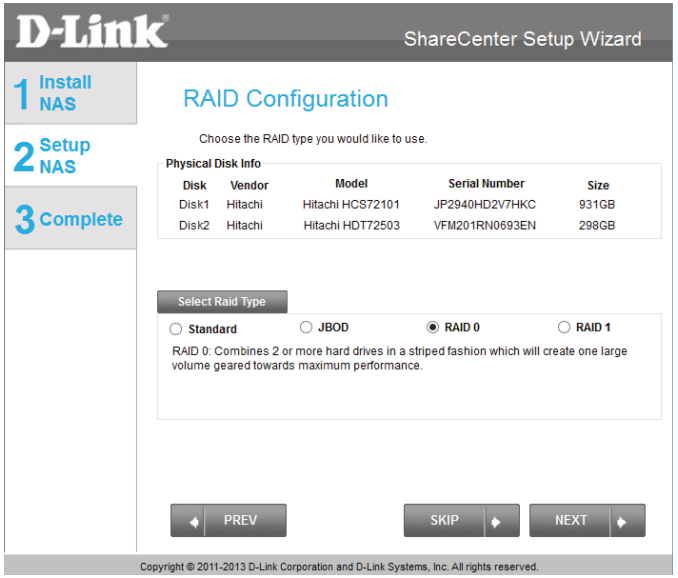
To verify your **JBOD**, login to your NAS, go to **Management >> Disk Management >> Hard Drive Configuration**. This shows the current status of your drive(s).



RAID 0

Under **RAID Configuration**, **Select RAID Type**, choose **RAID 0**. Read the **RAID 0** configuration requirements.

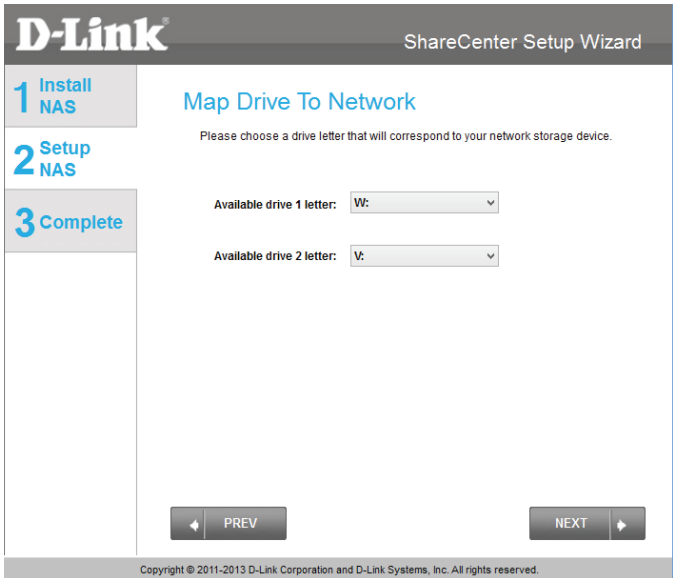
Click **Next** to continue.



With **RAID 0**, the two drives are 'striped' into one volume, making it appear that you have one drive. Data is saved evenly across the two drives.
Map Drive to Network indicates that the NAS has separated the drive into 2 volumes; if the two drives are different sizes, the excess drive space will be formatted as a separate JBOD volume. To have only one volume, you should use two hard drives of the same size.

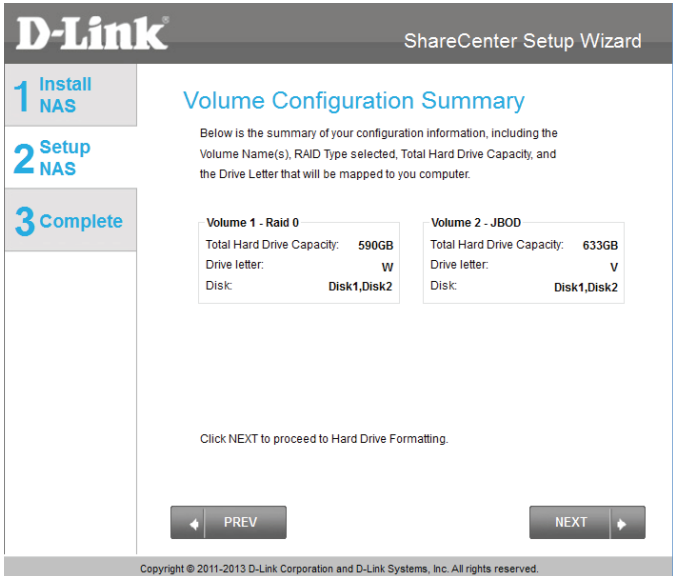
Use the drop-down menus to select a drive letter to map each of the volumes to. For further information, please refer to "Mapping a Drive" on page 52.

Click **Next** to continue.

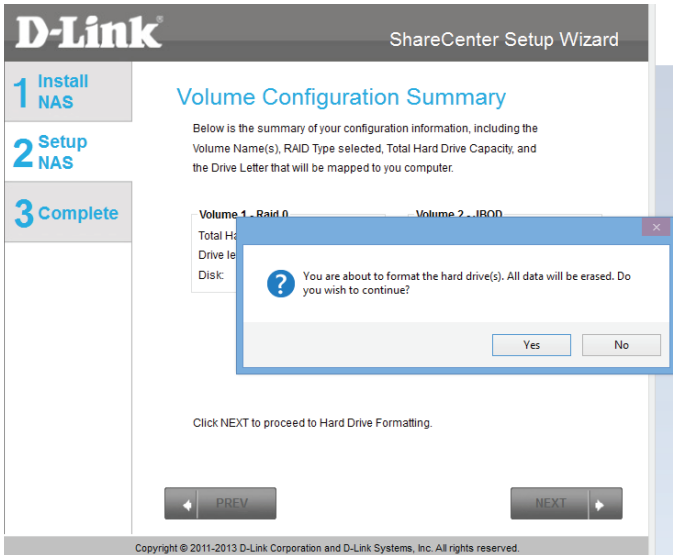


The Volume Configuration Summary, displays the details of the new configuration.

Click **Next** to continue.

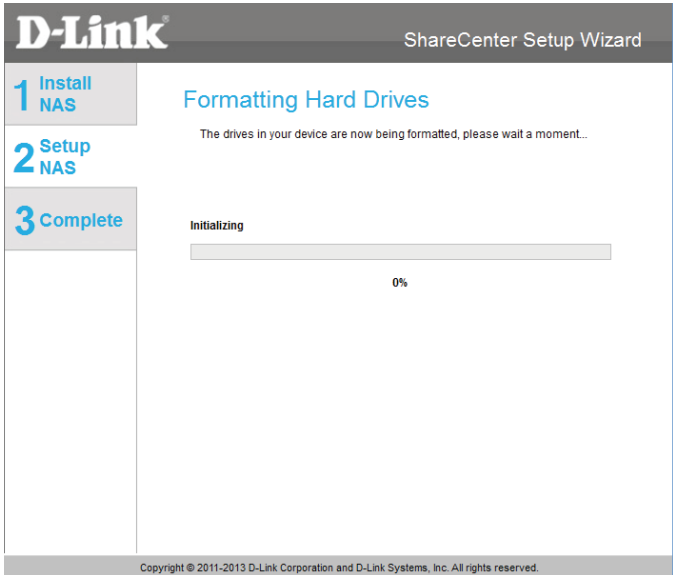


Verify your configuration selection before continuing. Click **Yes** to continue

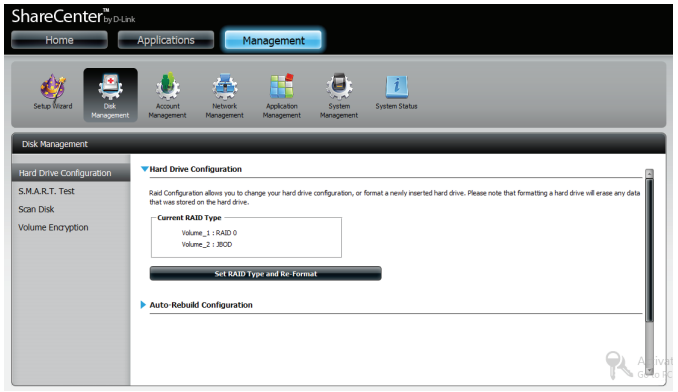


The wizard software will start the formatting process. After this is complete, click **Next** to continue.

Note: Do not close the wizard or use other applications until the process is complete.



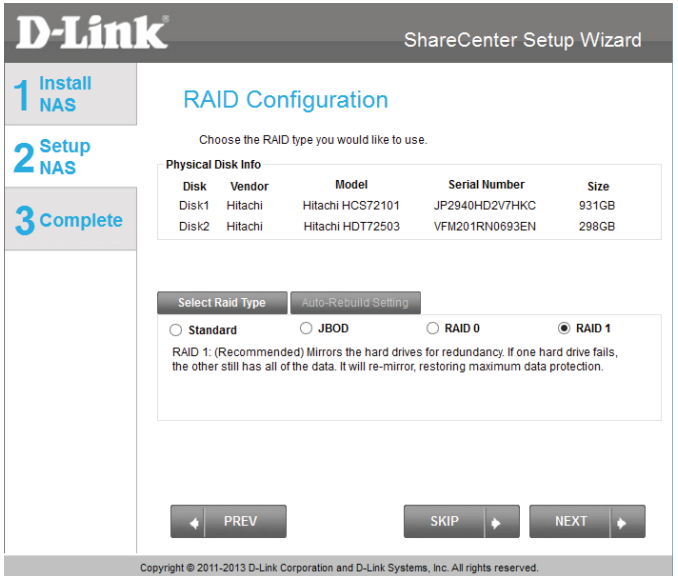
To verify your **RAID 0** configuration, log in to your NAS, go to **Management**>>**Disk Management**>>**Hard Drive Configuration**. This shows the current status of your drives.



RAID 1

Under **RAID Configuration**, **Select RAID Type**, choose **RAID 1**. Read the **RAID 1** configuration requirements.

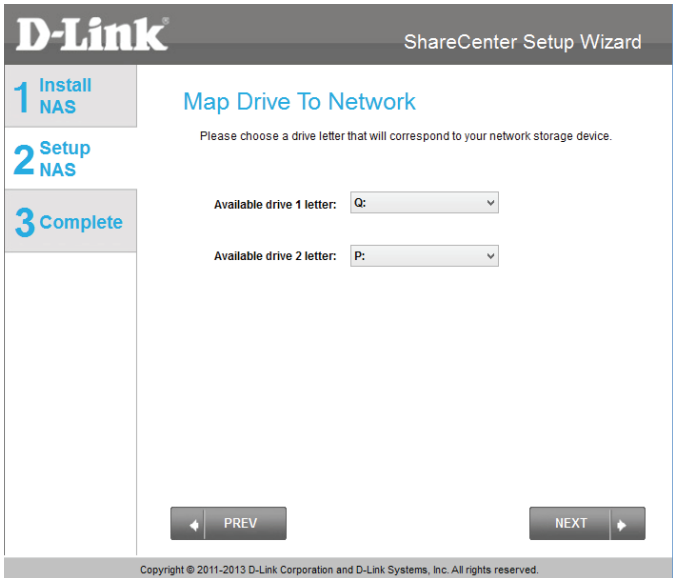
Click **Next** to continue.



With RAID 1, the drives are mirrored for redundancy. Map Drive to Network indicates that the NAS has separated the drive into a RAID array. Use the drop-down menus to select drive letters to map the drives to. For further information, refer to "Mapping a Drive" on page 52.

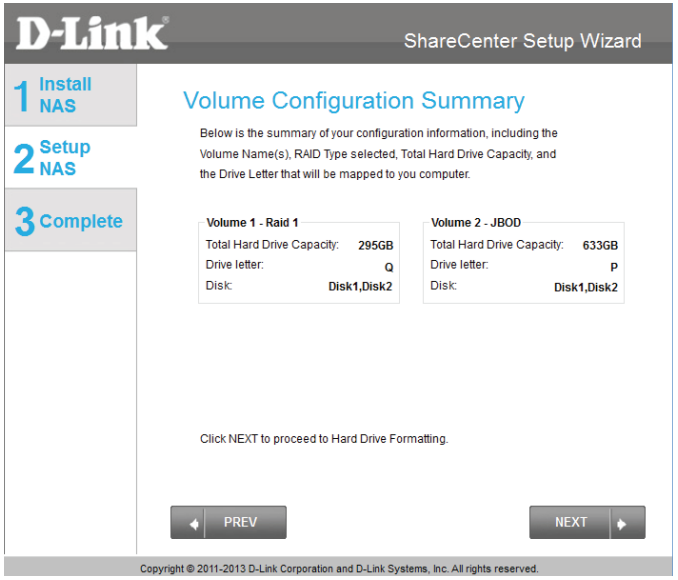
Note: If the size of these two drives are different, the excess space on the larger drive will be formatted as a **JBOD** Volume.

Click **Next** to continue.

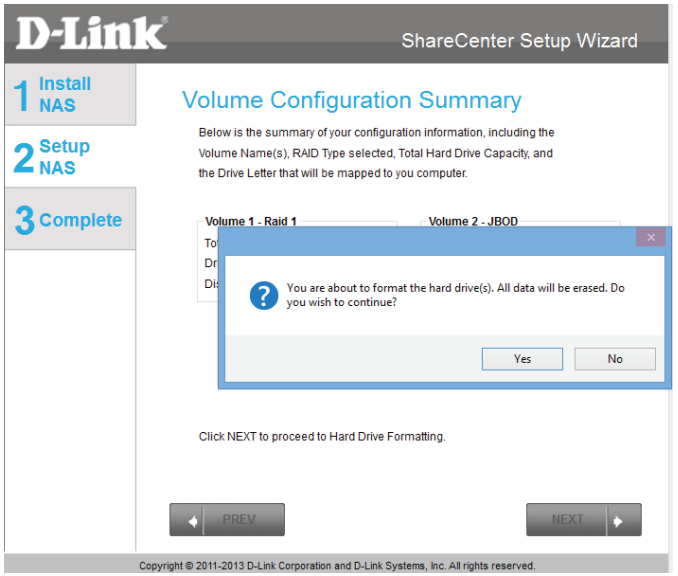


The Volume Configuration Summary, displays the details of the new configuration.

Click **Next** to continue.

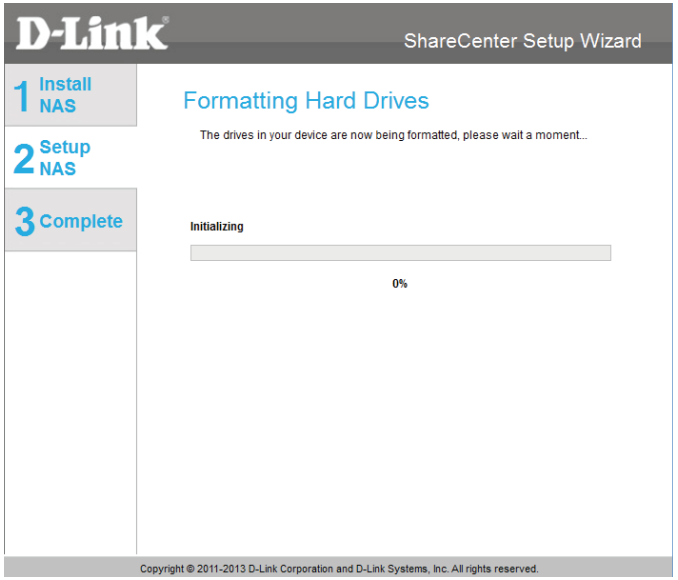


Verify your configuration selection before continuing. Click **Yes** to continue

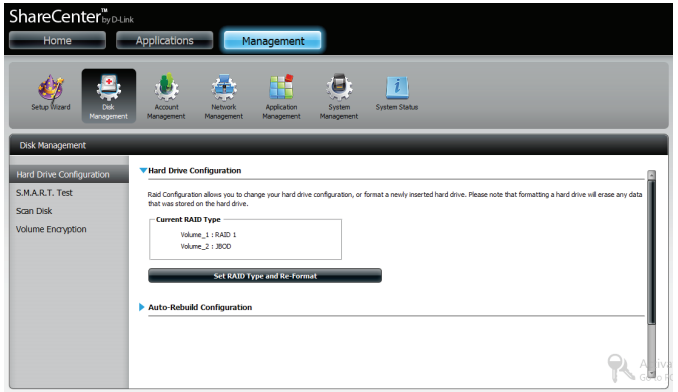


The wizard software will start the formatting process. After this is complete, click **Next** to continue.

Note: Do not close the wizard or use other applications until the process is complete.



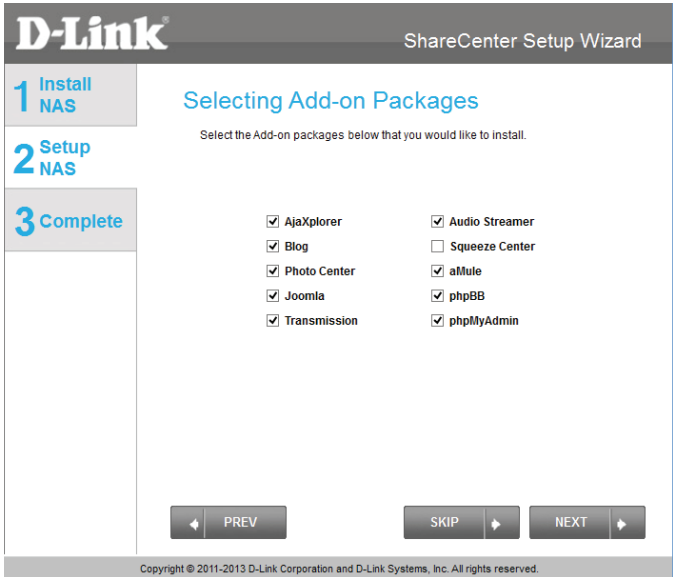
To verify your **RAID 1**, login to your NAS, go to **Management>>Disk Management**>>**Hard Drive Configuration**. This shows the current status of your drives.



The DNS-320L also offers add-on packages**.** Select the desired add-on packages from the menu by checking the appropriate boxes.

Alternatively, you can install the add-on packages available on the CD or from the D-Link website at a later stage. Refer to "Add-ons" on page 166 for details.

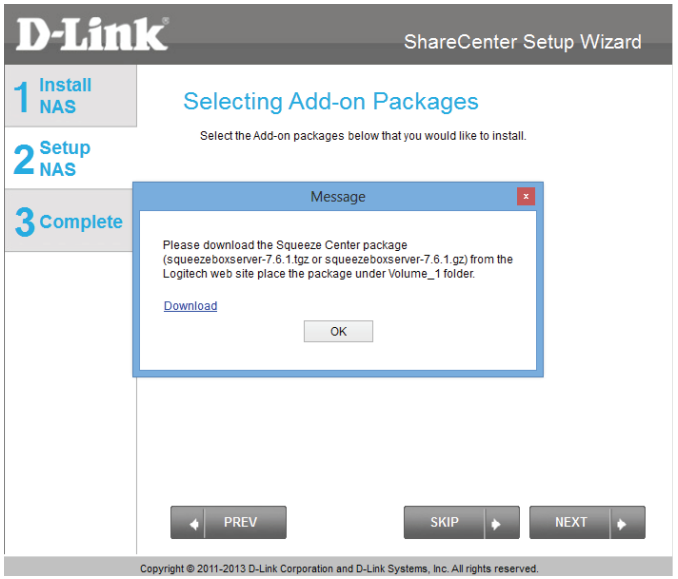
Click **Next** to accept these installations or click **Skip** to continue. If you wish not to install Squeeze Center (Logitech Media Server) please continue to **Step 22**



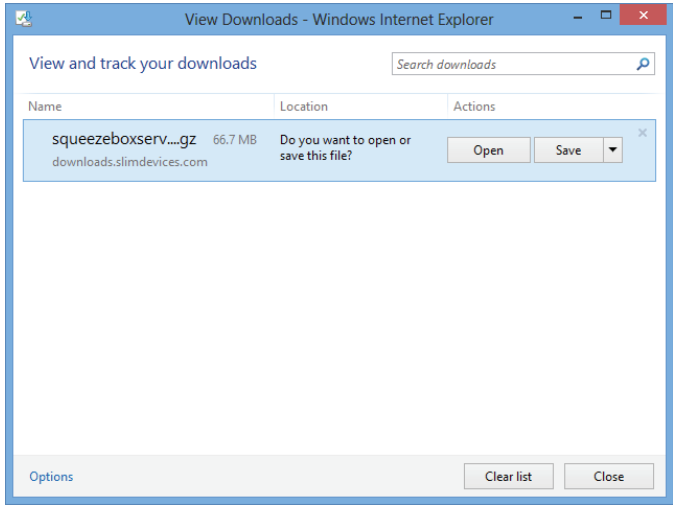
If you wish to install the remaining Squeeze Center, click the box next to Squeeze Center. If you no not require Squeeze Center, or are unfamiliar with this product, you should skip this step.

Click **Next** to accept these installations or click **Skip** to continue.

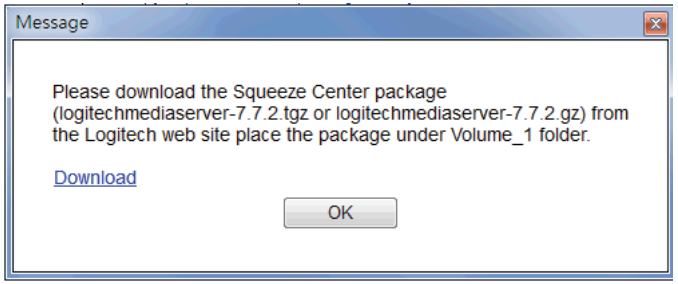
Once you have selected it and clicked **Next**, a window will appear. Click **Download** to download the Squeeze Center installation files.



Opting to download the Squeeze Center automatically opens your default browser to download the application. Once Squeeze Center is downloaded, continue with the rest of the installation. Click **Save** to save the file to your local hard drive.

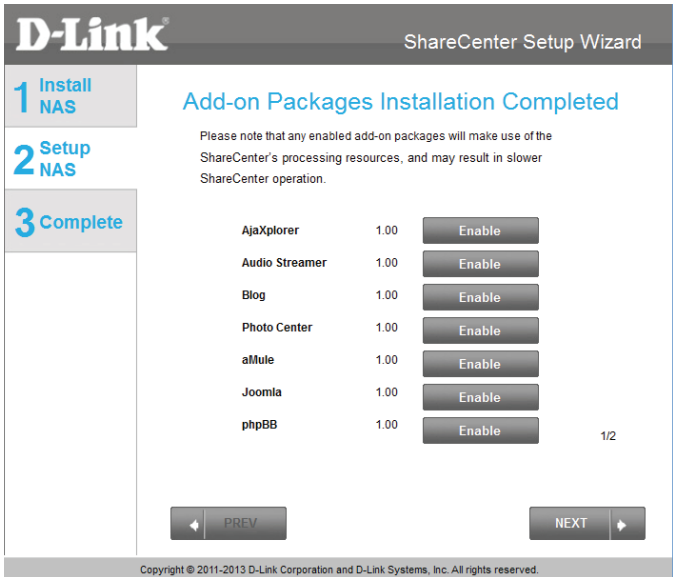


Once the download has completed, copy the Squeeze Center package from your local hard drive to Volume_1 of the ShareCenter. Click **OK** in the dialog box to continue the installation.



After the **Add-on Packages** are installed, click **Next** to continue.

The following screens display the installed Add-on Packages. To enable an add-on, click the **Enable** button next to the name of the add-on that you wish to enable. Click **Next** to continue to the next window.



Registering With mydlink

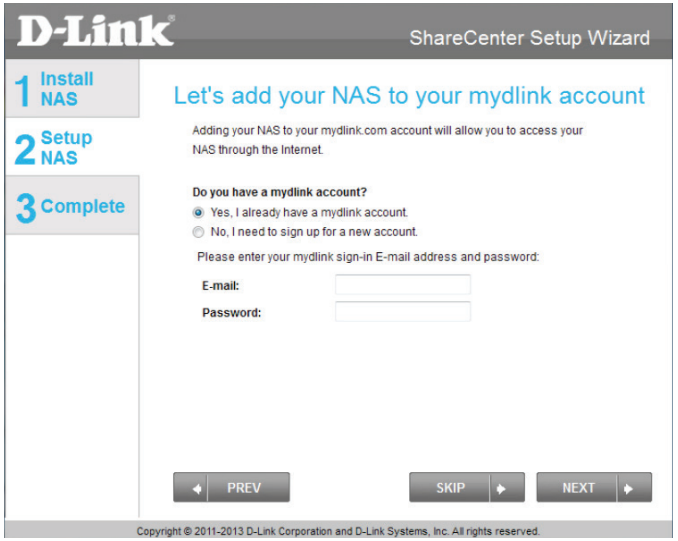
mydlink service allows you to remotely access the files from your NAS through the mydlink website. If you wish to register your DNS-320L with mydlink, select the **Yes** radio button. If you do not wish to register with mydlink, select the **No** radio button.

Click **Next** to continue.

The wizard will connect to the mydlink servers and configure your cloud service.

If you already have a mydlink account, select the **Yes** radio button and enter your account information in the **Email** and **Password** fields.

Click **Next** to continue.

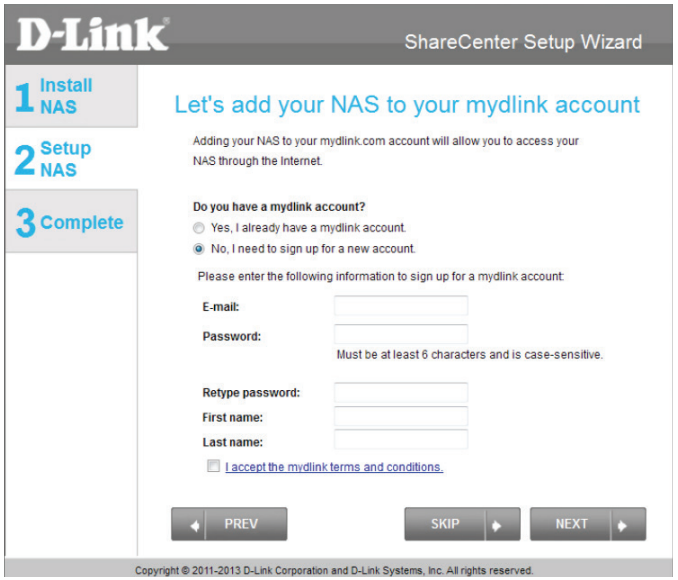


Alternatively, you can create a new account if you select "No, I need to sign up for a new account."

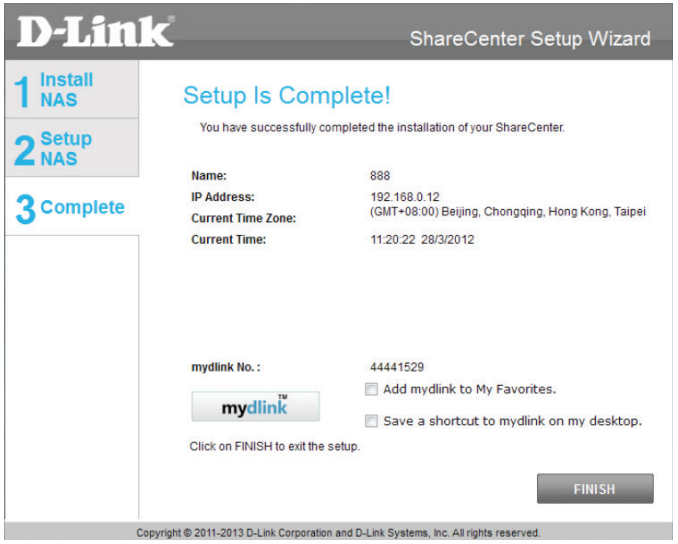
Enter your e-mail address in the **E-mail** field, and choose a password in the **Password** and **Retype Password** fields. Enter your **First Name** and **Last Name** in the appropriate fields. Then click the checkbox to accept the terms and conditions of the mydlink service. You can read the terms and conditions by clicking on the link.

Click **Next** to continue.

The mydlink service will send a confirmation e-mail to the address you specified in the previous step. Click the activation link in the e-mail to activate your mydlink account.



When the mydlink section of the wizard installation is complete, the wizard provides you with a mydlink number. You can also tick the **Add mydlink to My Favorites** checkbox, or **Save a shortcut to mydlink on my computer** checkbox. You should make a record of this mydlink number for future reference.



Click **Finish** to complete the setup process.

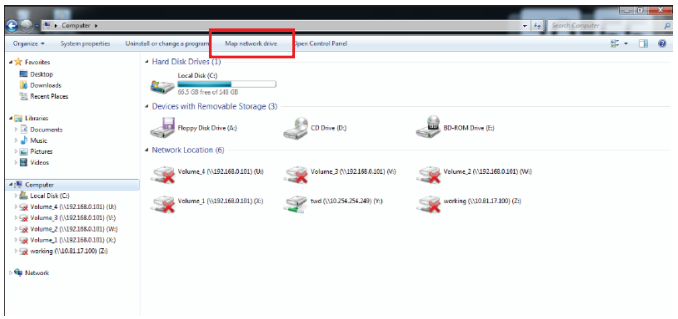
Your ShareCenter is now installed and ready to use. If your drives are mapped using the wizard, you will be able to access them using your operating system's file explorer.

If you did not use the wizard to map the drives, you can manually map or access the created volumes through your computer's operating system. Detailed instructions for configuration using the web UI are provided in the configuration section of this manual.

Mapping a Drive

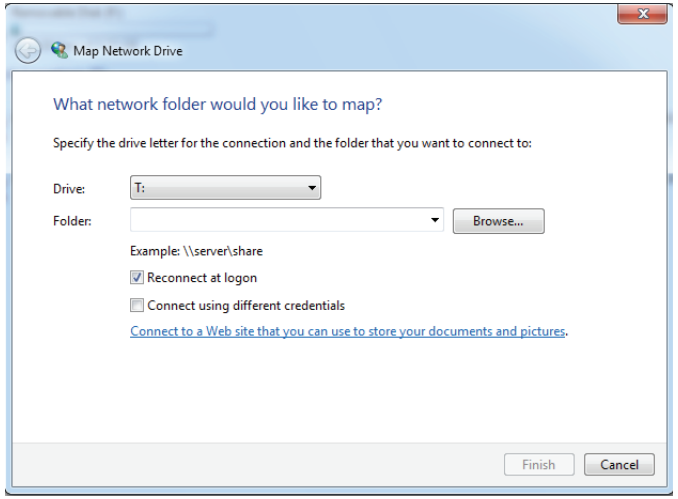
You can map a volume on your DNS-320L using Windows Explorer in Windows 7.

Open My Computer by clicking on the icon on your desktop, or press the Windows key and the letter E on your keyboard at the same time.

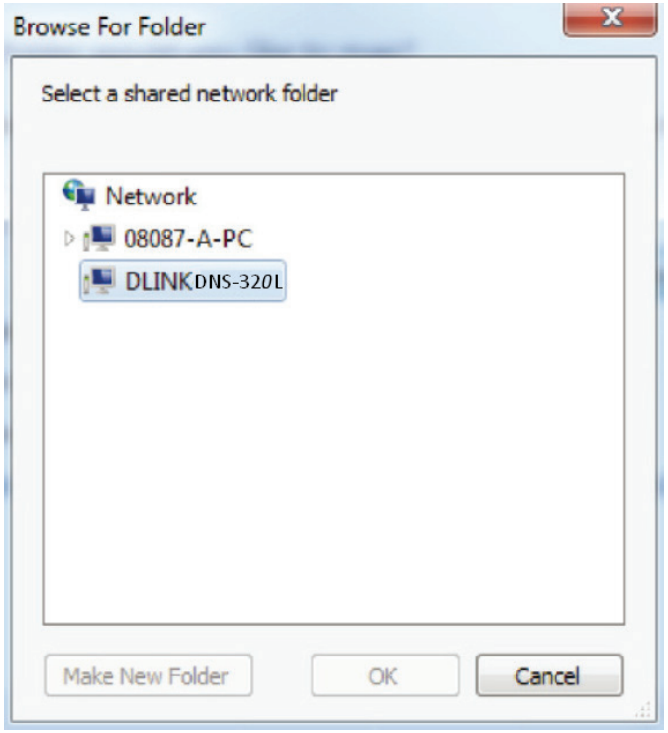


The right-side panel displays a list of your hard drives, removable storage, and network locations. If you do not have any network locations, this may be the first time you set up a network drive. Begin by clicking on '**Map Network Drive**'

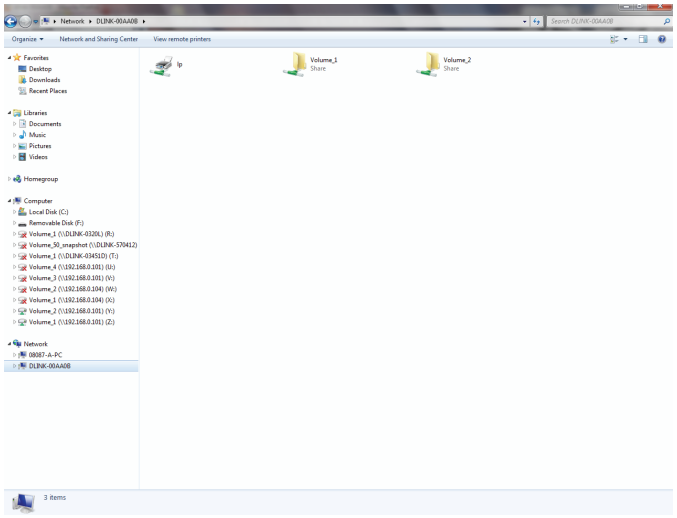
The Map Network Drive screen will appear. Choose a letter from the drop down menu to map the new drive to. Click **Browse** to find the NAS volume you wish to map on your network.



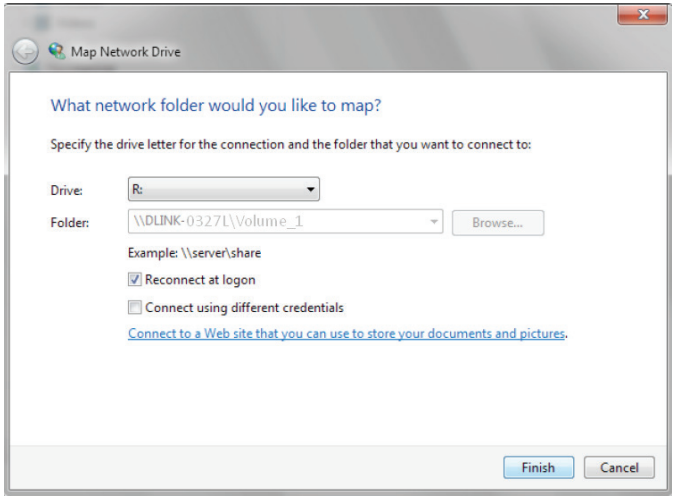
Windows will automatically detect all devices on your network including your ShareCenter



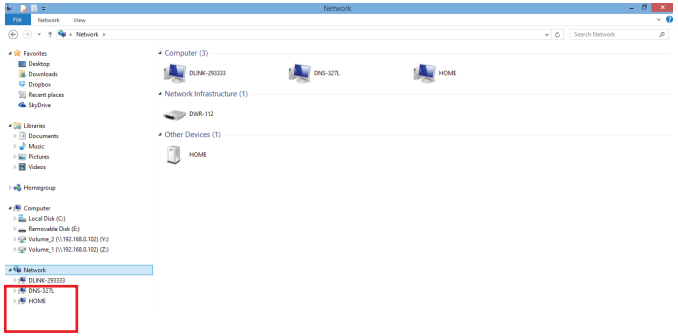
Click on your ShareCenter to see the volumes you created earlier. Then select the volume that you wish to access and click **OK**.



After selecting your volume, click **Finish** to proceed.

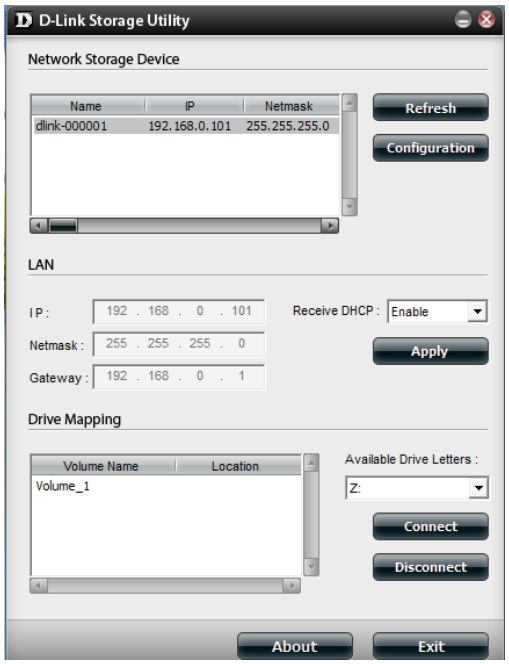


The drive will then appear in your Windows Explorer under **Network**. This means the drive is active and ready for use.

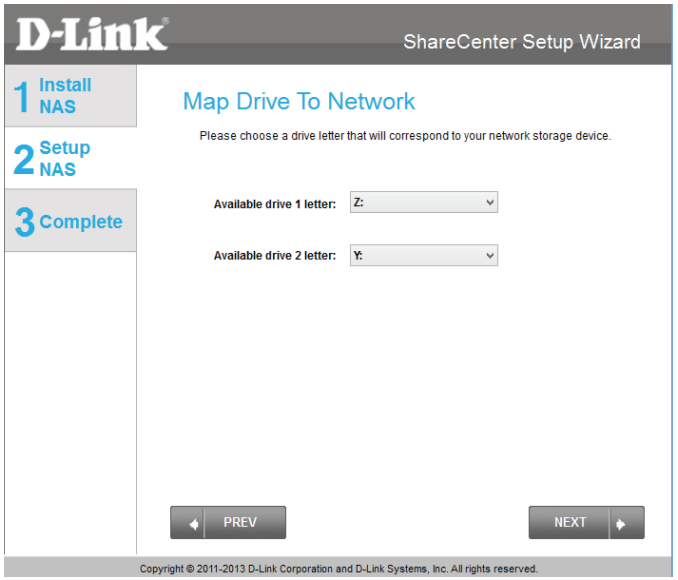


Alternative Methods for Mapping a Drive

You can also map a drive using the D-Link Storage Utility. Once the DNS-320L is discovered in the Storage Utility and the LAN configuration settings are complete, finding the drives happens automatically. Select the drive letter and click **Connect**. To disconnect the drive, click the **Disconnect** button.



Another method is using the Setup Wizard. As you go through the Setup Wizard process, there is a step in the process to map the drive. The **Map Drive to Network** screen should look similar to the image on the right. Please refer to the relevant section of "Setup Wizard" on page 24 for further instructions on how to map drives using the setup wizard.



Mac - Setup Wizard Installation

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

When the autorun screen appears, double-click the .dmg file.

Double-click the SetupWizardDNS icon.

Click **Start** to begin the wizard. Follow the instructions on the screen to finish setting up your DNS-320. For more details, refer to "Setup Wizard" on page 24.

Configuration

Managing your DNS-320L

The ShareCenter web UI (User Interface) is a browser-based utility that allows you to manage and configure the different tools and services associated with your NAS. 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, create slideshows, and share photos through social networking sites.
	My Files	Access files on your NAS via a web browser
	My Music	Access your music collection. Add tracks, albums, etc
	My Surveillance	View and control security cameras connected to your NAS
	My Favorites Application	Add the favorite applications you use on a regular basis to the Home page
Applications	FTP/HTTP Downloads	Configure FTP and HTTP download settings
	Remote Backup	Configure remote backup services
	Local Backups	Configures local backups, 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
	Google Drive	Create, modify, and delete folders and files to Google Drive
	Xunlei Downloads	Create, modify, and delete folders and files to Xunlei. This is a Chinese Download Manager.
Management	Setup Wizard	Step by step guide through password & time settings, connectivity, and device configuration
	Disk Management	Configures disk volumes, RAID, and performs disk diagnostics
	Account Management	Configures user and group management, network shares
	Network Management	Configures LAN, Dynamic DNS, and Port Forwarding
	Application Management	Configures FTP, add-ons, AFP, NFS, and multimedia services
	System Management	Configures language, time and date, device, and system settings. Also allows you to control power, notifications, view logs, do firmware upgrades, and manage USB devices.
	System Status	Displays system and hard drive information along with resource monitoring

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 utility of the ShareCenter.

LAN: Configure the LAN Settings for the ShareCenter here. You can only adjust these settings if **Receive DHCP** is disabled.

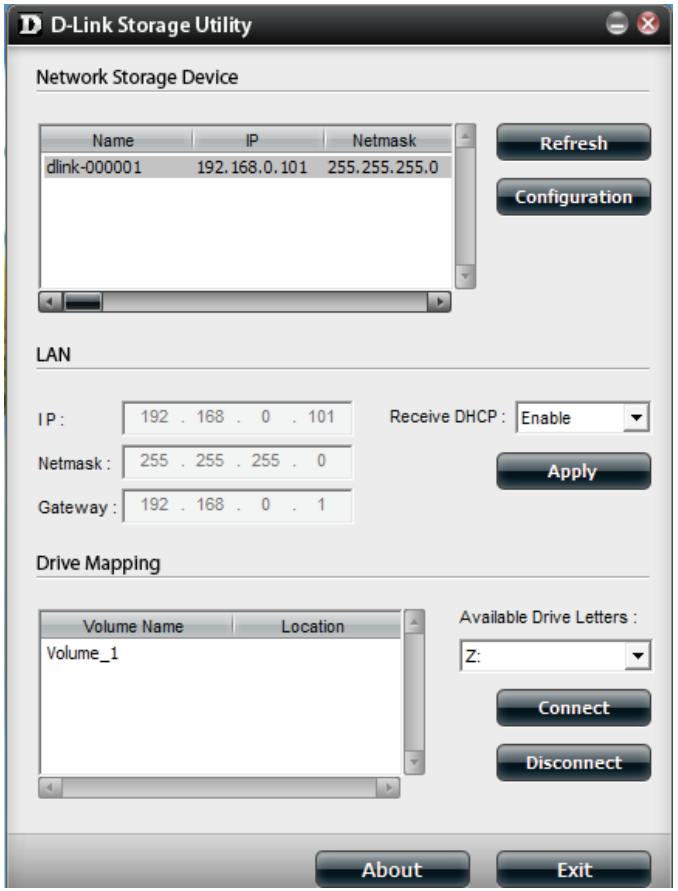
Apply: Click **Apply** to save changes to the LAN Settings.

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.

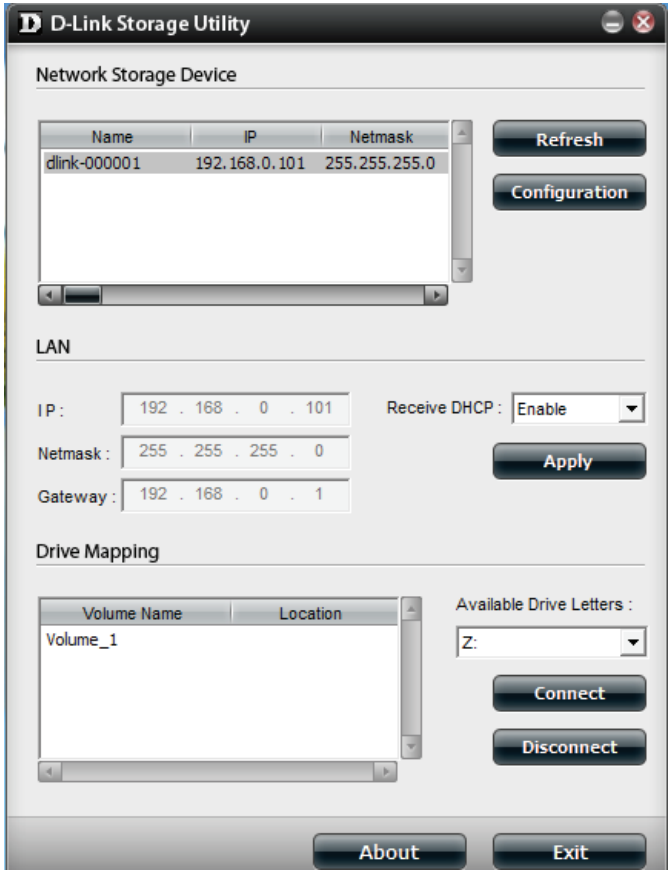
About: Click **About** to view the software version of the Easy Search Utility.

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 ShareCenterwill automatically be in the same subnet.*



D-Link Storage Utility - For Mac

To get started with the ShareCenter Storage Utility for Mac, insert the supplied CD into your CD-ROM drive: Double-click the .dmg file.

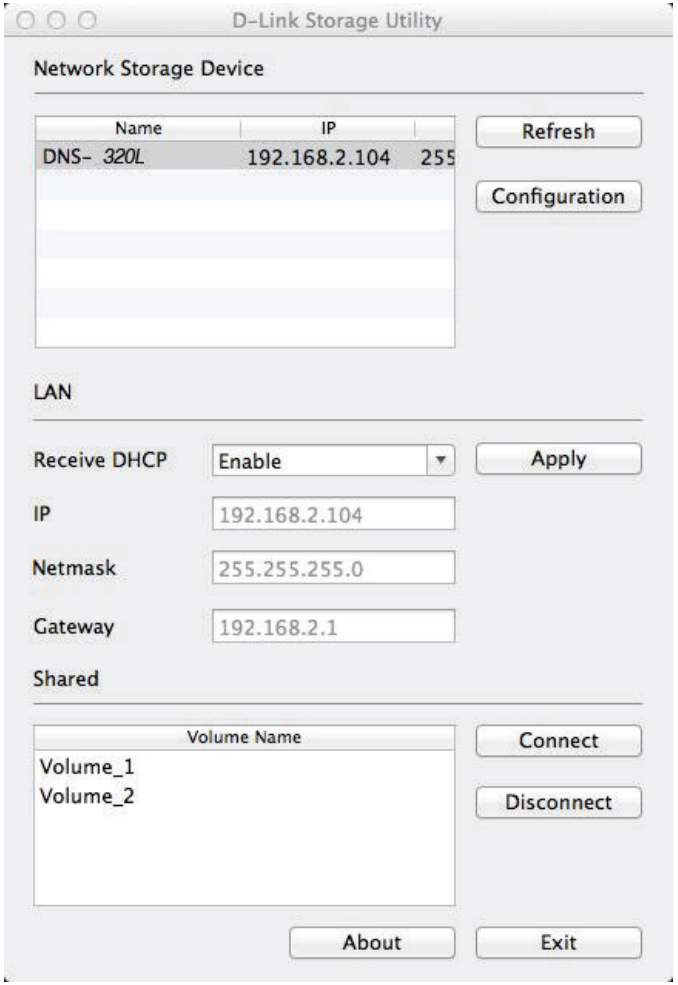
Double-click the .dmg file to install the program. In the end you should have the D-link Storage Utility for Mac.

The D-Link Storage Utility will open. Make sure you are connected to your local LAN, then click the **Refresh** button. The D-Link Storage Utility will find the D-Link DNS-320L.

Click **Configuration** to open the web-based configuration utility using your computer's default web browser.

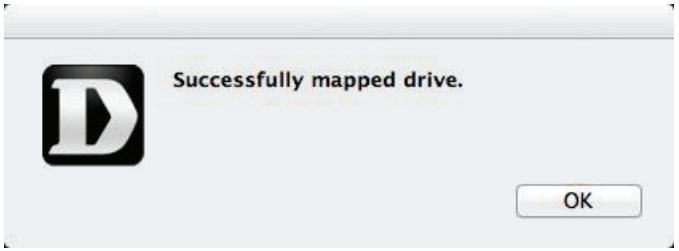
Use the drop-down list to enable or disable **Receive DHCP**. If this is disabled, you will be able to manually configure your LAN settings. Click **Apply** to save the current configuration.

To map a NAS volume, select a Volume from the list then click the **Connect** button.

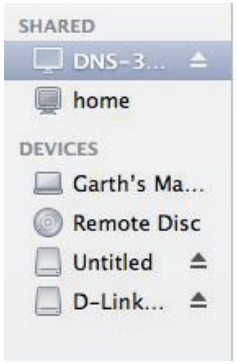


The log-in window will appear. Select **Guest** or **Registered User**. Enter your **Name** and **Password** in the fields provided and click **Connect**.

A pop-up window appears notifying you that mapping the drive was a success. Click **OK** to continue. Use the **Disconnect** button in the D-Link Storage Utility to disconnect from the mapped drive(s).



Finder will now open the drive and display the DNS-320L under the **Shared** column on the left and the **Volumes** on the right.

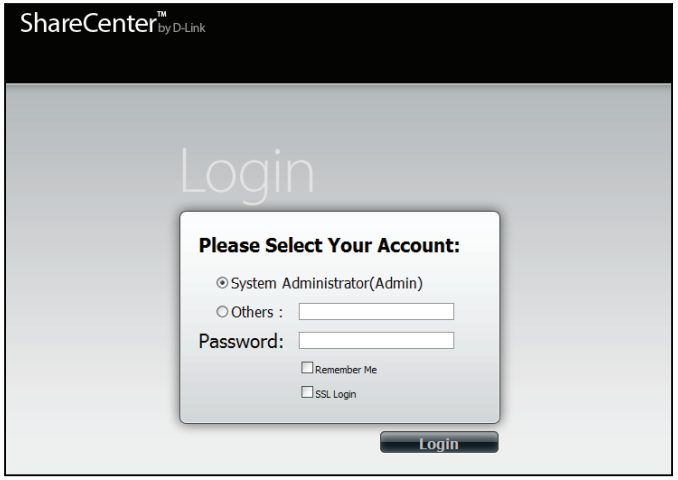


Web UI Login

To access the web UI, open the D-Link Storage Utility, select DNS-320L from the Network Storage Device list, then click the Configuration button.

The following screen will appear:

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



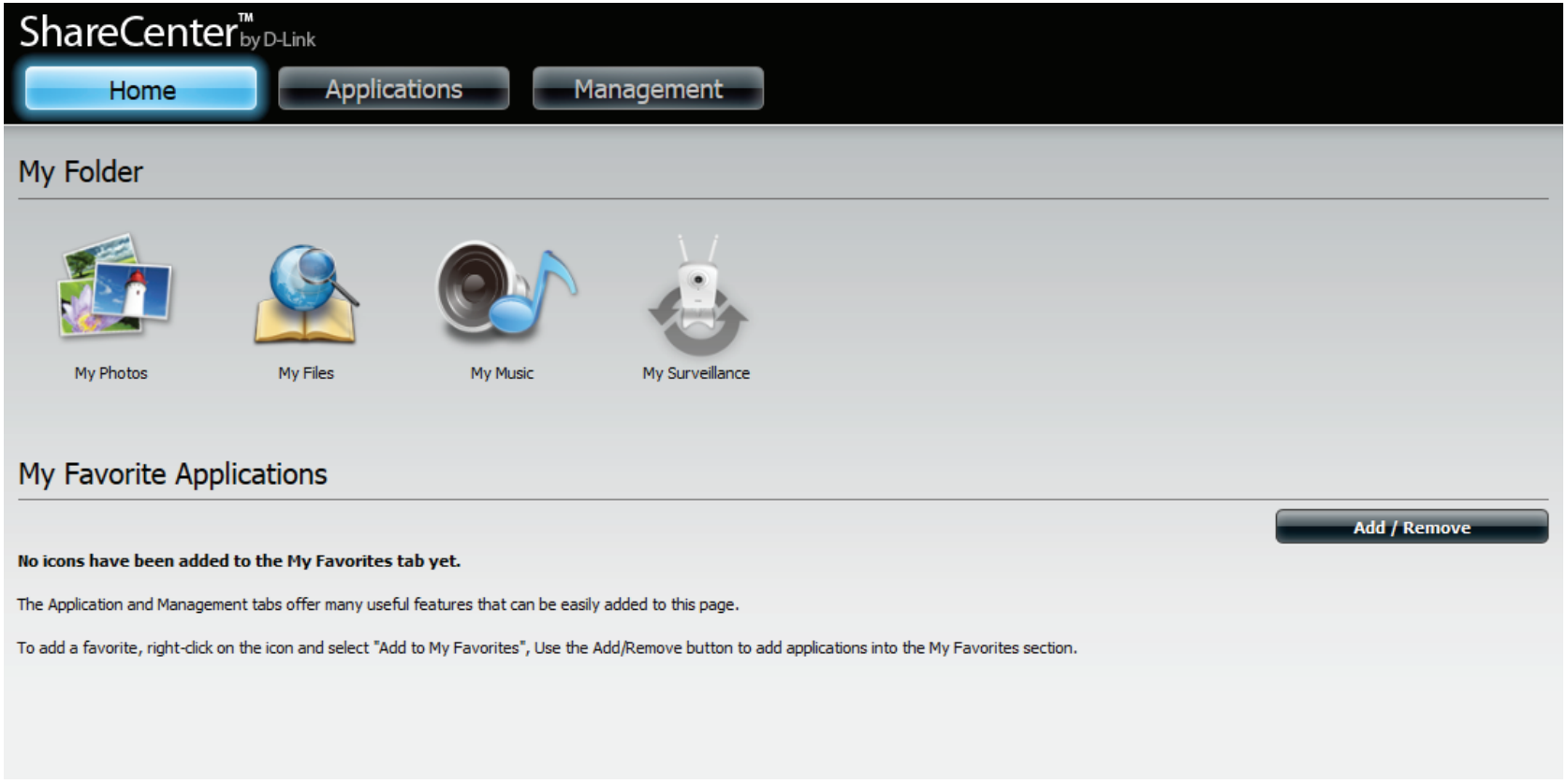
Note: *The computer used to access the ShareCenter web-based configuration manager must be on the same subnet as the ShareCenter. If your network is using a DHCP server and the computer receives IP settings from the DHCP, the ShareCenter will automatically be in the same subnet.*

Web UI General Layout

Home

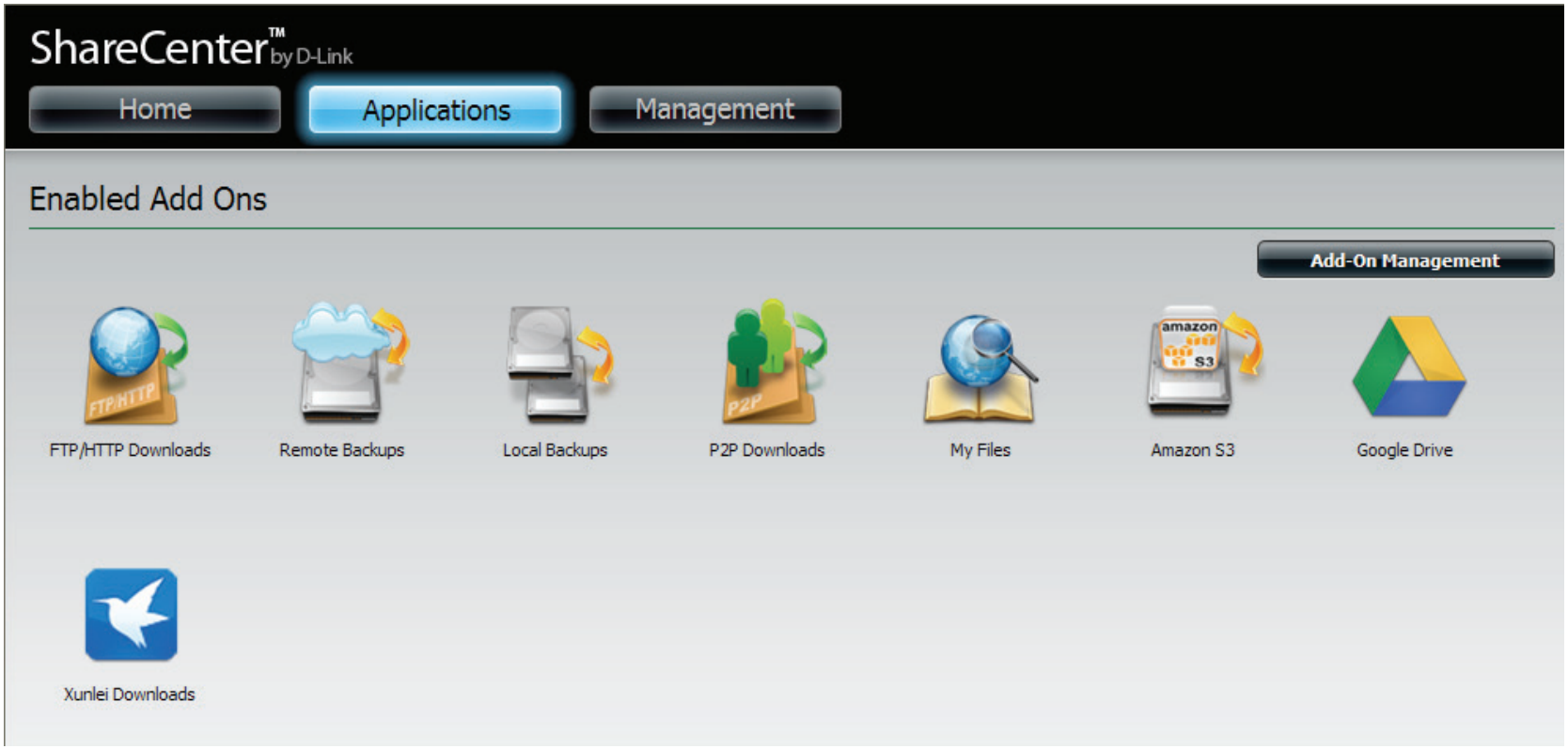
After logging in, the ShareCenter **Home** tab will appear. You will see the **Applications** and **Management** tabs alongside it.

By default, **My Folder**, **My Files**, **My Music**, and **My Surveillance** will appear under the **Home** tab. You can also add favorite applications to this tab.



Applications

By default, the **Applications** tab contains **FTP/HTTP Downloads**, **Remote Backups**, **Local Backups**, **P2P Downloads**, **My Files**, **Amazon S3** icons, **Google Drive**, and **Xunlei Downloads**. Click on each icon to see the submenus. Any additional add-ons which you have enabled will also appear here. Disabled add-ons will appear under the "**Disabled Add Ons**" heading below.



Management

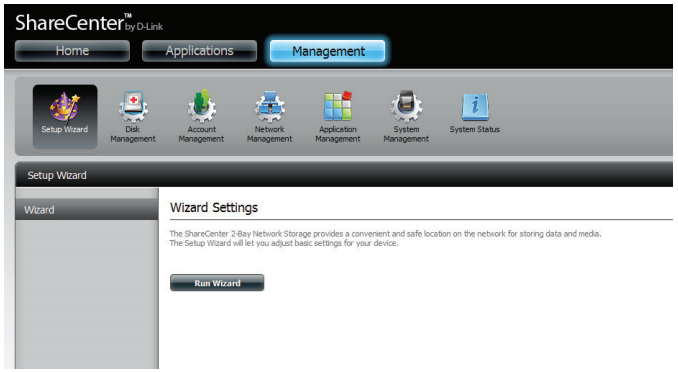
The Management tab contains the Setup Wizard, Disk Management, Account Management, Network Management, Application Management, System Management, and Status icons. Click on each icon to see the submenus.

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.

Click the **Run Wizard** button to start the setup wizard.



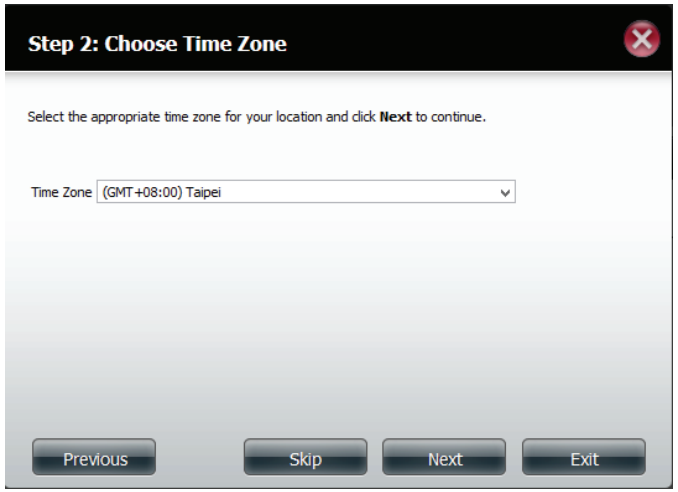
Click **Next** to continue.

To update the Administrator password, enter the existing password in the **Password** field, and then enter the **New Password** and confirm the new password in the **Confirm Password** field.

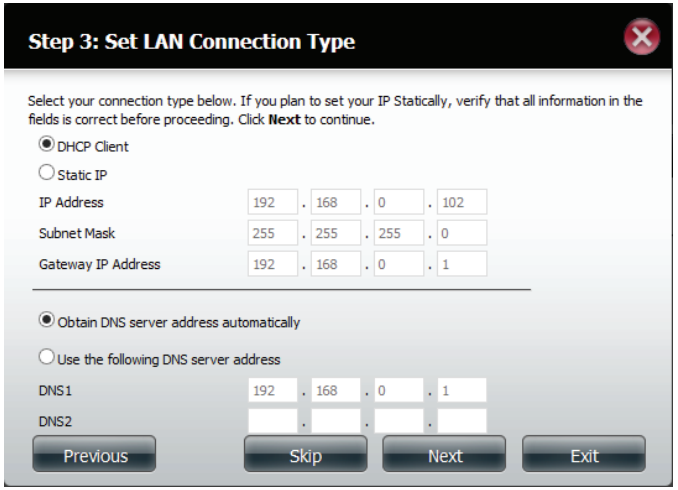
Click **Next** to continue.

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.



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



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

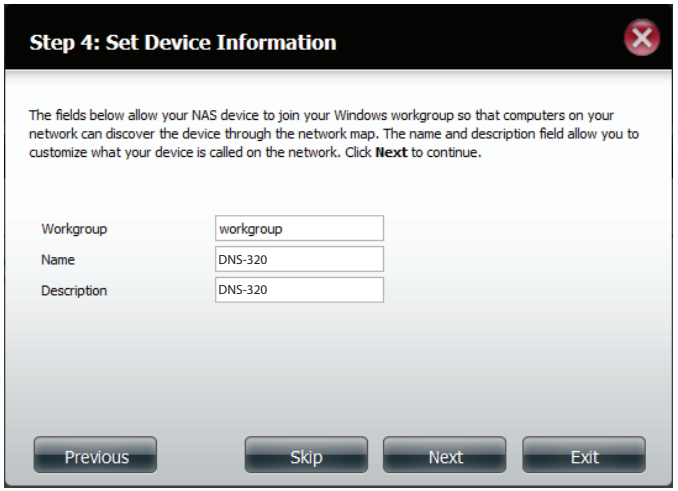
Subnet Mask: Enter the subnet mask of your network.

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.

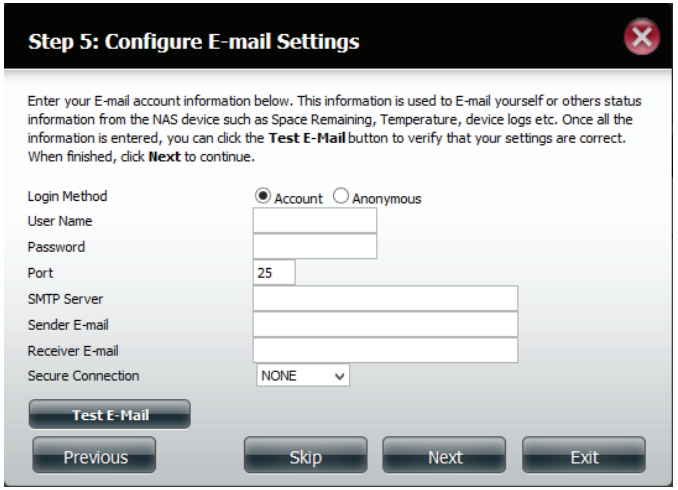
Type the workgroup name, a device name, and a description for the device. This workgroup should be the same name as your current workgroup settings. If you haven't set up a workgroup yet, type a name that best suits the environment or leave the default "workgroup" name.



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

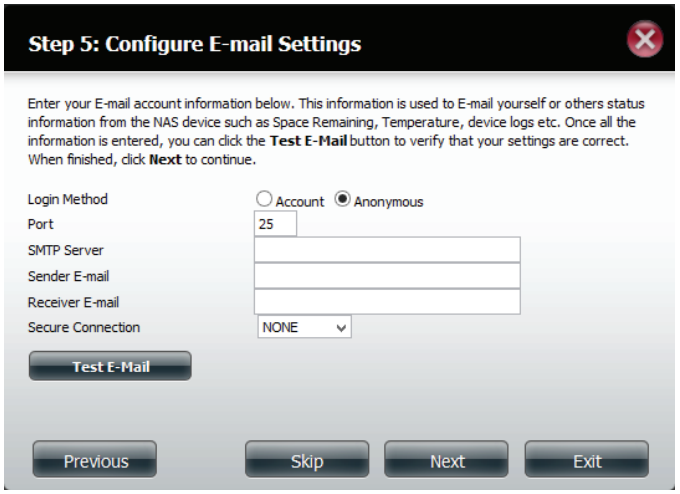
The DNS-320L can be configured to send e-mails containing status information to you or another designated person.

To send e-mails from a specific account, click **Account** and enter your e-mail account **User Name**, **Password**, **Port**, **SMTP Server**, and **Sender E-mail**. Next, enter the e-mail account which you wish to send e-mail alerts to in the **Receiver E-mail** field. If you require a secure e-mail connection, select your **Secure Connection** type from the drop-down menu. Click the **Test E-mail** button to test your settings.

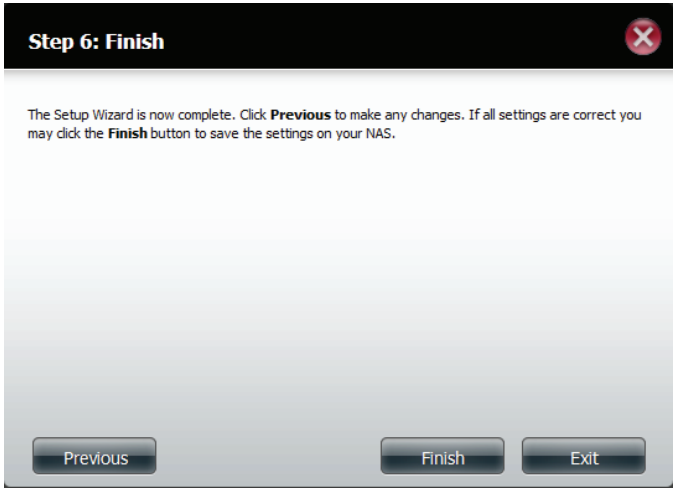


If you want to send e-mails without using a specific account, click **Anonymous** to create an e-mail account with no specific settings.
Enter your e-mail server's **Port** and **SMTP Server**, and then enter the **Sender E-mail** and **Receiver E-mail**. If you require a secure e-mail connection, select your **Secure Connection** type from the drop-down menu. Click the **Test E-mail** button to test your settings.

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



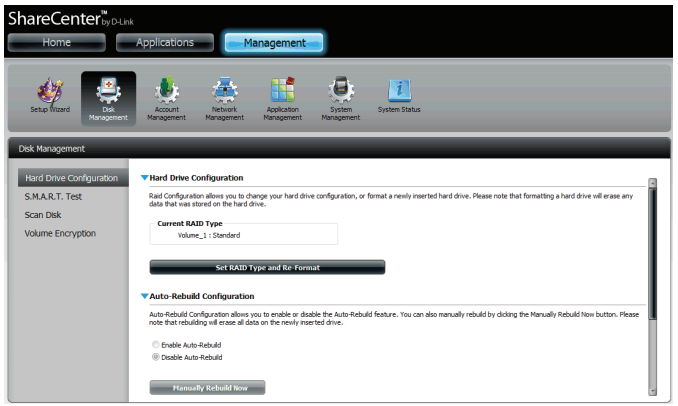
If you are satisfied with the settings, click the **Finish** button to save and complete the wizard. You can also click the **Previous** button to go back and check your settings, or click **Exit** to end the wizard without saving your settings.



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 as the configuration option, you can **Enable** or **Disable** the Auto-Rebuild function here using the radio buttons.

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

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

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

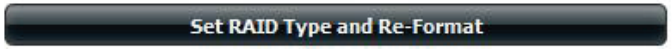
Manually Rebuild Now: If Auto-Rebuild is disabled then you can use the **Manual Rebuild** option by clicking this button.

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'.

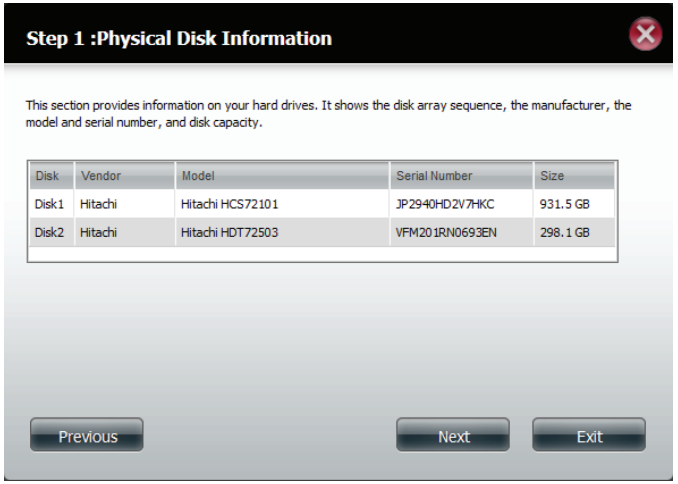
Click **Set RAID Type and Re-Format**.



The Hard Drive Configuration Wizard will begin. Click **Next** to continue.

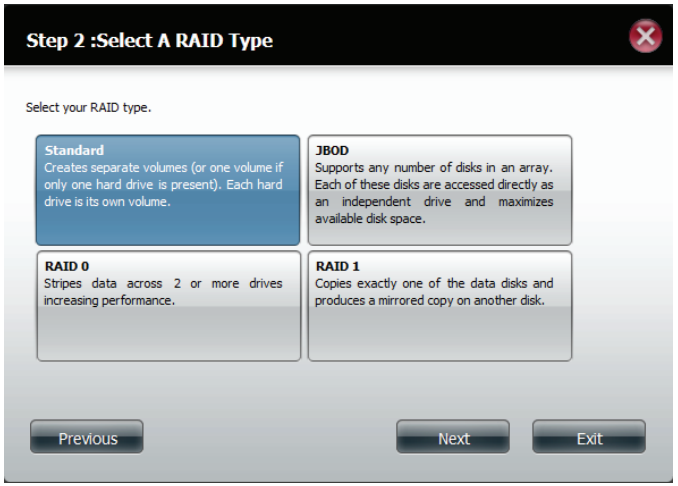
The 'Physical Disk Information' page displays information about all of the hard drives connected to the DNS-320L. It shows the array number, vendor, model, serial number, and drive capacity.

Click **Next** to continue.



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

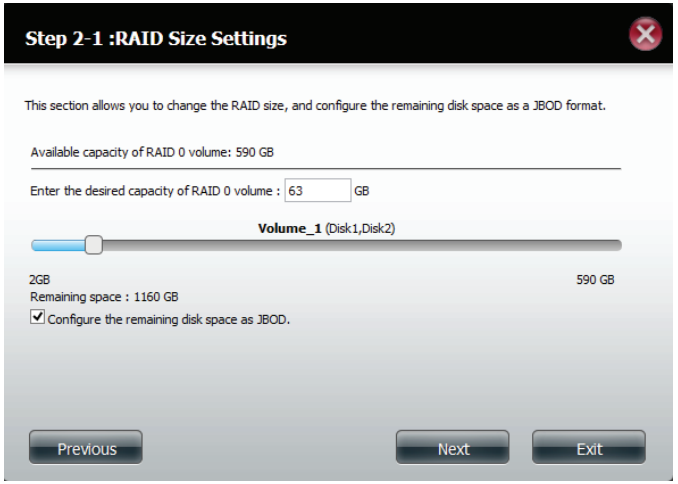
Click **Next** to continue.



If you selected RAID 0 or RAID 1, this screen will appear to allow you to adjust the size of the RAID Volume.

Use the slider to change the RAID size or enter an amount in the field provided. Check "**Configure the remaining disk space as JBOD**" if you wish to use the remaining space for another RAID configuration.

Click **Next** to continue.

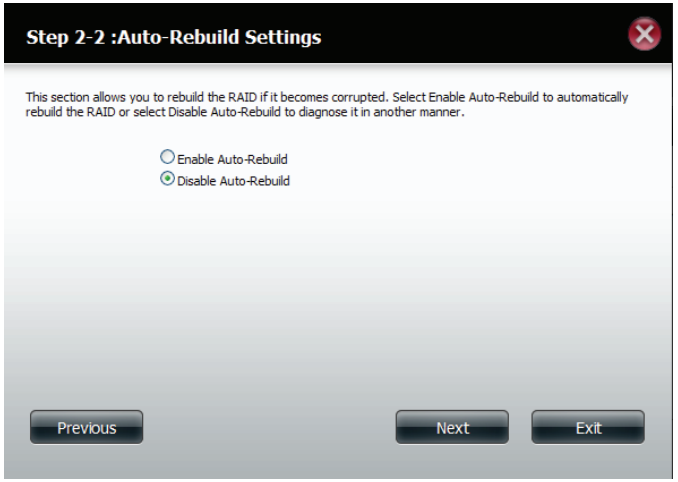


If you selected RAID 1, this screen will appear to let you configure your auto-rebuild settings.

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.

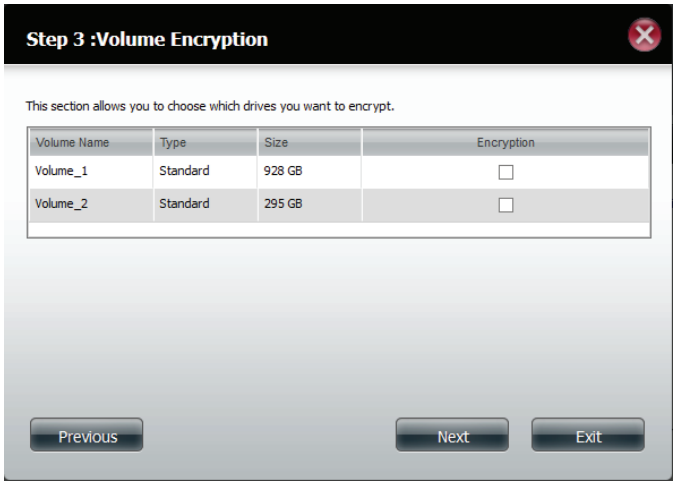
Click **Next** to continue.



Volume Encryption encodes your volumes to keep them safe from unauthorized access. Select the volume you wish to encrypt by clicking the checkbox next to it. You can select one volume or many.

Click **Next** to continue.

Note: The "Volume encryption" feature is only available on models DNS-327L and DNS-340L.

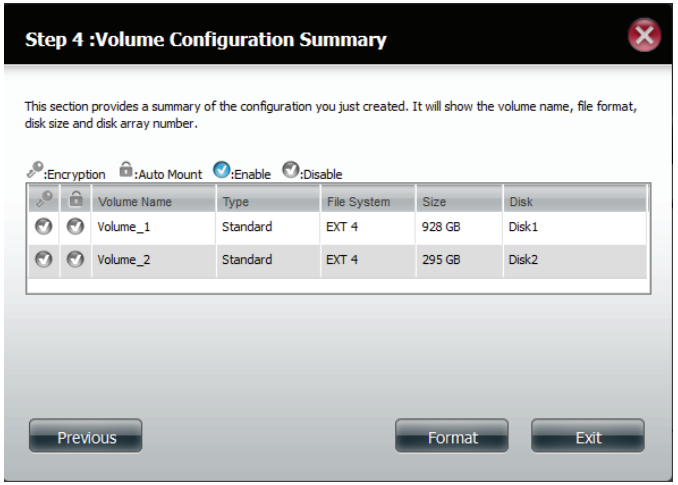


If you chose to use encryption, this screen will appear. Check **Auto Mount** if you wish the encrypted volume to be automatically mounted. Enter a **password** and re-enter the same **password** to verify your settings.

Click **Next** to continue.

The Volume Configuration Summary will show your selected settings for **Volume Name,** the **RAID** type, the **File System** used, and **Size** for each **Disk**.

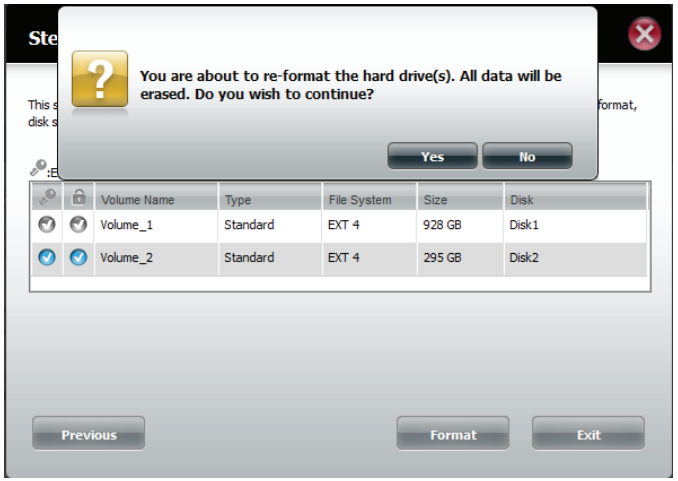
Click **Format** to continue.



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

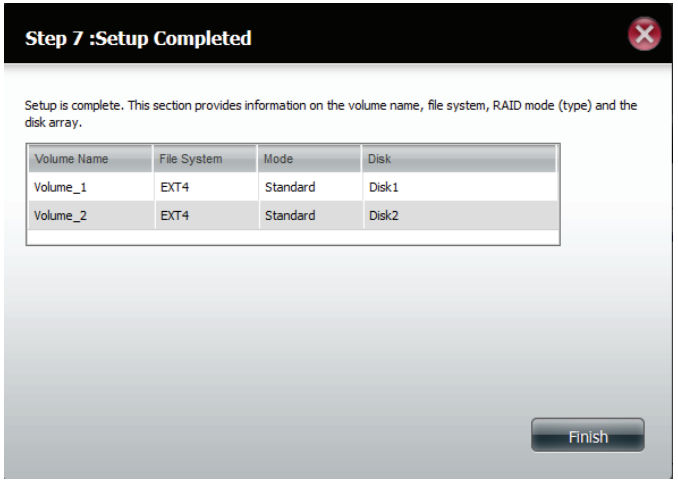
Click **Yes** to continue, or click **No** to cancel the reformatting.

After clicking **Yes**, your drives will be formatted and partitioned through several stages. Please be patient while this process takes place. Do not turn off your NAS during this process.

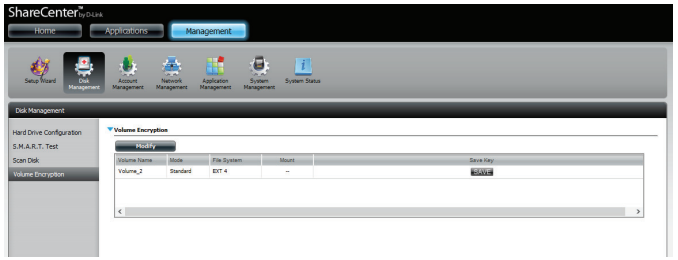


The wizard is now complete. It shows the **Volume Name**, **File System** selected, the type of RAID **Mode**, and the **Disk** formation in the RAID.

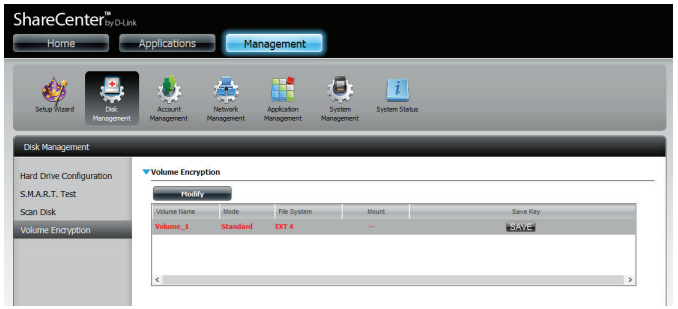
Click **Finish** to complete the process and start using your DNS-320L.



You can confirm encryption use on your volumes by going to **Management>>Disk Management>>Volume Encryption.**



You can also select an encryption volume and click the **Save** button to save the encryption key on your local hard drive for future reference.



Upgrading from Standard Mode to RAID 1

Standard Mode doesn't offer any redundancy or security of data. If, after formatting for Standard Mode you find that you require the additional features of RAID 1, it is best then to migrate from Standard Mode to RAID 1. To do this, follow these instructions:

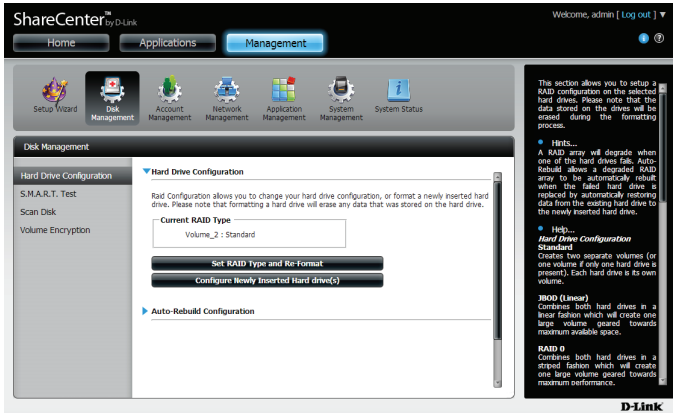
Insert a second hard drive into the DNS-320L as per the instructions for the initial installation. The existing hard drive should be the volume which you wish to create a mirror of using the RAID 1 format.

Replace the top cover and restart the DNS-320L.

Go to **Management**>>**Disk Management**>>**Hard Drive Configuration**. There will be two options available: Set RAID Type and Re-Format or Format the new drive as Standard type

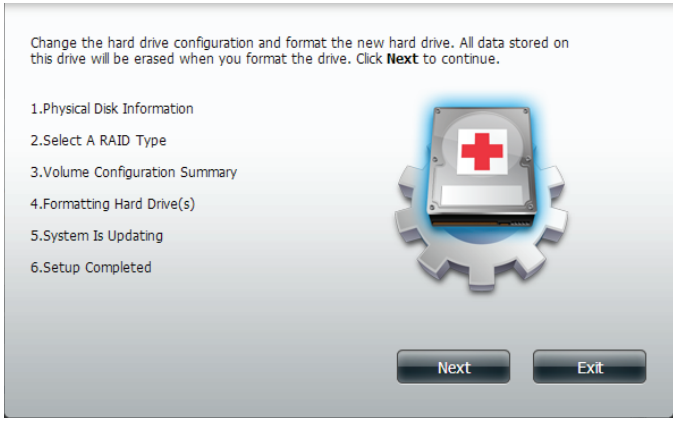
The images below shows the configuration steps for each procedure.

Once you have selected the required configuration procedure, click **Next** to continue.



Set RAID Type and Re-Format.

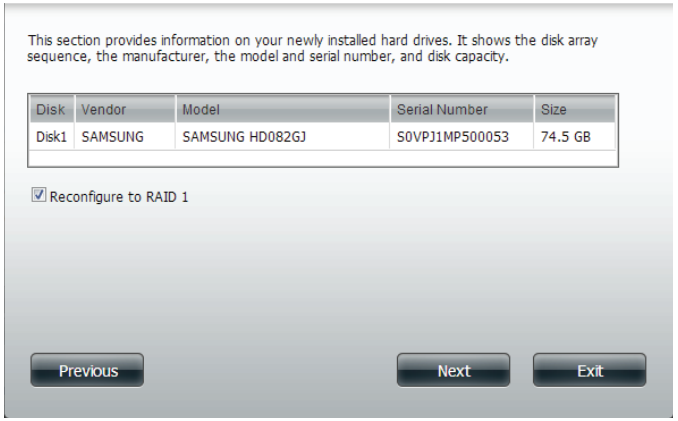
If you choose the first option, "**Set RAID Type and Re-Format**", you can configure the new disk volume as two standard disks; JBOD, RAID 0, and RAID 1, but all data on the disk volume will be erased. Please backup all data before taking this action. If you select the second option, "Format the new drive as Standard type", the data on the original disk will remain.



Format the new drive as Standard type.

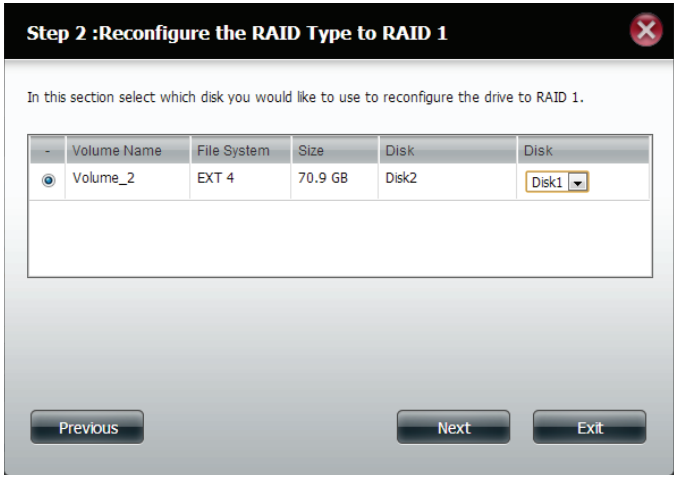
Under Physical Disk Information, you will be able to see the drive you just installed. It provides the **Slot** location, **Vendor**, **Model**, **Serial Number**, and disk **Size**. Just below this informational box is a checkbox that offers you the option to **Reconfigure to RAID 1**. Click the checkbox to proceed by migrating to RAID 1.

Click **Next** to continue.



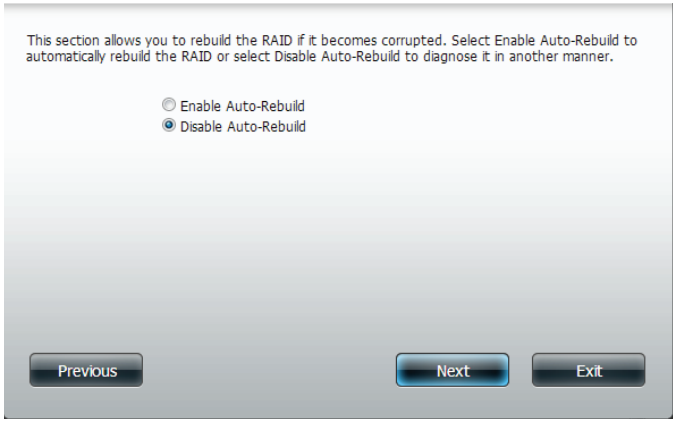
Select the disk drive you would like to use to reconfigure the drive to RAID 1.

Click **Next** to continue.



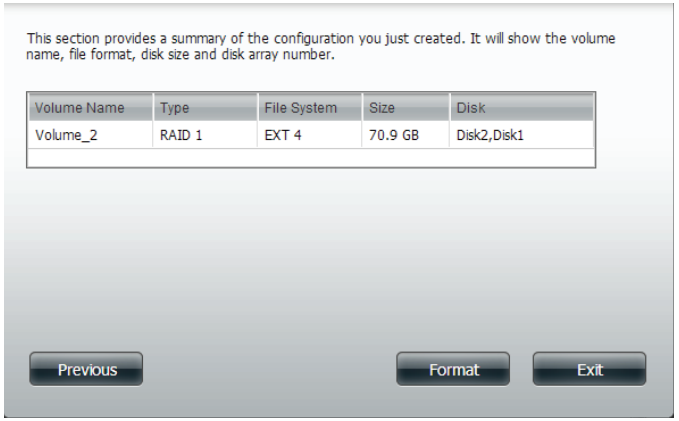
Under Auto-Rebuild Settings, select whether you want to **Enable Auto-Rebuild** or **Disable Auto-Rebuild**.

Click **Next** to continue.



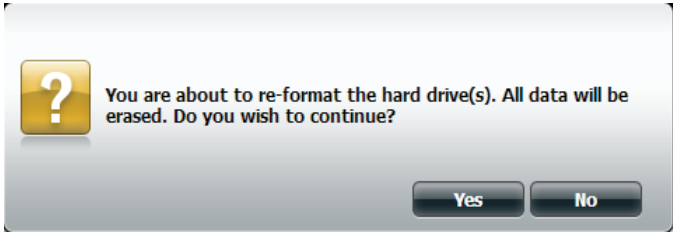
The following screen will show the summarized configuration for the drive you are about to format.

Click **Format** to continue.



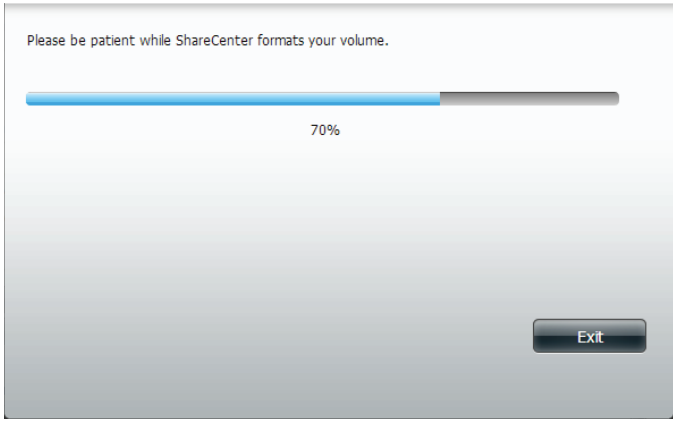
A warning message will appear prompting you to confirm whether you want to format your hard drive. Click **Yes** to continue, or **No** to exit.

If you select re-format, all data will be erased. Please back up all data before continuing. Click **Next** to continue.



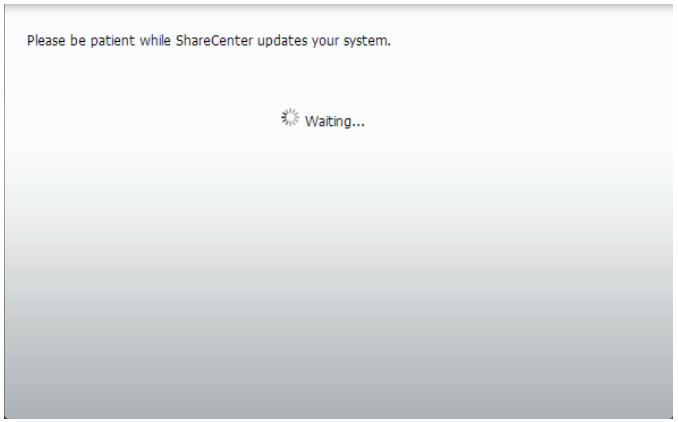
Please wait while the wizard formats the hard drive.

Click **Next** to continue.



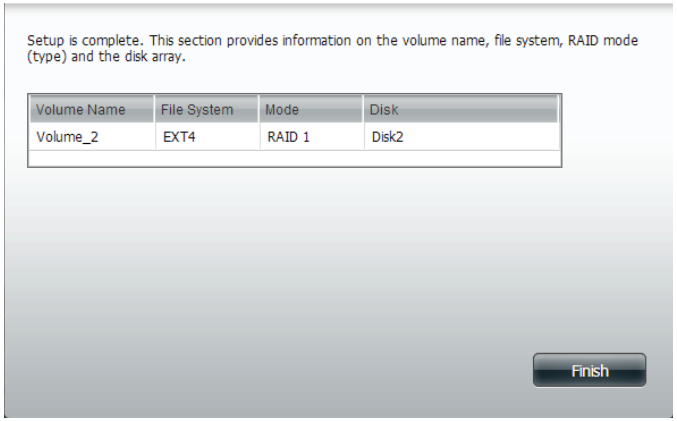
Please wait while the system updates the volume information.

Click **Next** to continue.

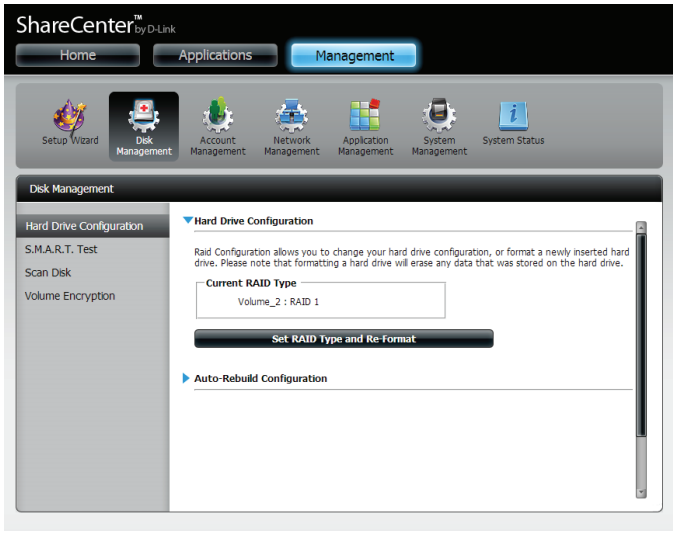


When the setup is complete a summary will show the **Slot**, **Vendor**, **Model**, and **Serial Number**.

Click **Finish** to continue.



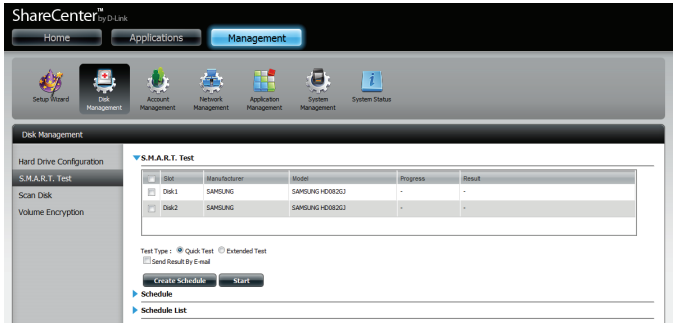
Once complete, the wizard will return to the main configuration page.



SMART Test

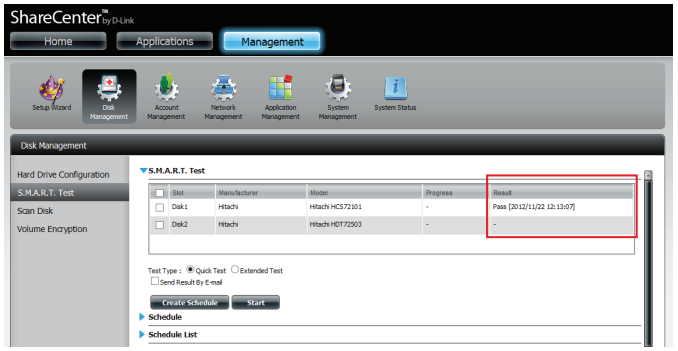
Self-Monitoring, Analysis, and Reporting Technology (SMART) is a system on a hard drive used to monitor and report on the health of the drive. Under this tab, your hard drives will be listed, and can be selected to conduct a SMART test. If the hard drive is grayed out, then it does not support SMART test functionality.

To run the SMART test, select the hard drive you wish to perform the SMART test on. Select whether to run a **Quick Test** or **Extended Test**:



- The Quick Test usually takes less than 10 minutes to complete. This test will check the electrical, mechanical, and read performance of the hard drive. The results will be displayed as Passed/Failed on the web UI.
- The Extended Test is a much more thorough test and therefore requires a lot more time to complete. The total time taken will depend on the specifications of the hard drives being tested.

After selecting a test, click **Start** to run the test. When the test is complete, the results will be displayed in the **Result** column.

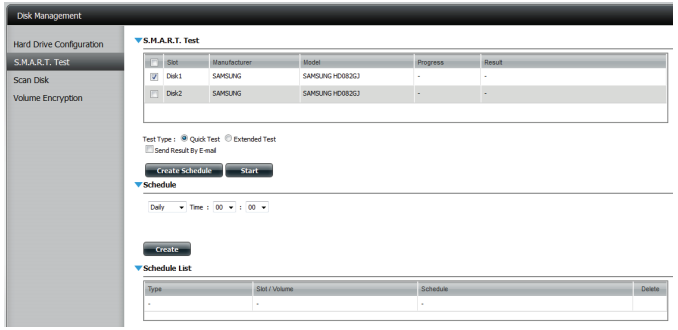


You can also click the **Create Schedule** button to run the test at a pre-determined time and date (refer to "Creating a Schedule" on page 86). You can also check the **Send Results by E-mail** checkbox to send the test results to the e-mail account specified in the E-mail Settings section of the configuration.

Creating a Schedule

You can create a schedule to have the SMART test carried out automatically. To create a schedule, select the disks/volumes to run the test on, and click the **Create Schedule** button. Under Schedule, select the period (Daily/Weekly/ Monthly) and then select the time from the drop-down menu.

Click **Create.**



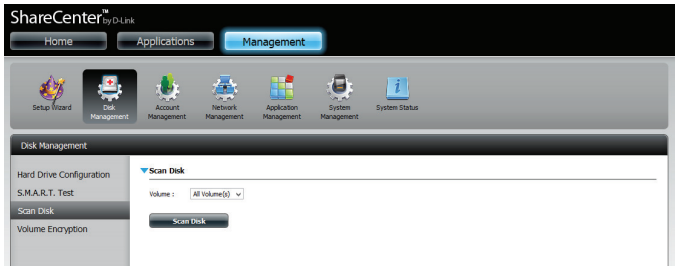
To view the **Schedule List**, click on the **Schedule List** arrow. A new table will appear showing details of the new schedule created.

To delete a schedule, click on the **Trash Can** icon next to the schedule that you wish to delete.

Scan Disk

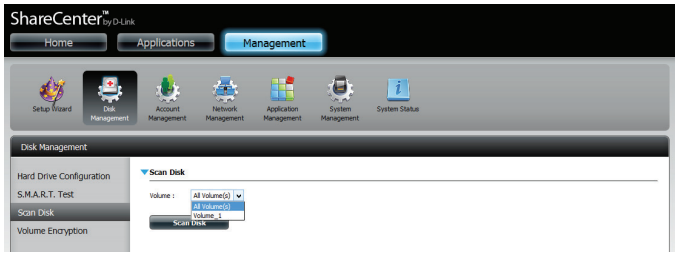
Scan Disk provides a method to test the file system on your ShareCenter disks. **Scan Disk** scans your disk's file system for errors and/or corruption.

Select **Scan Disk** from the side menu under the Disk Management tab.



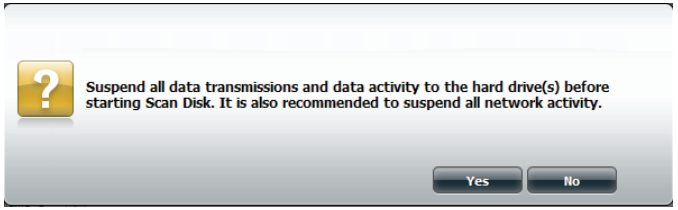
Using the drop-down menu, select the volume that you wish to conduct a scan of.

Click **Scan Disk** to start the scan.



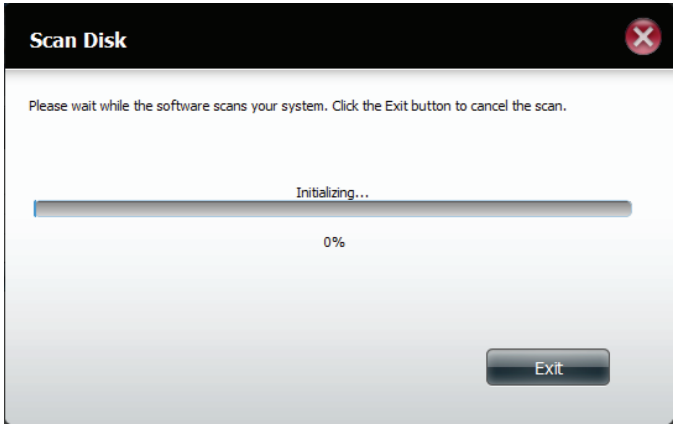
A warning message will prompt you to stop running all services (hard drive and network activity).

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



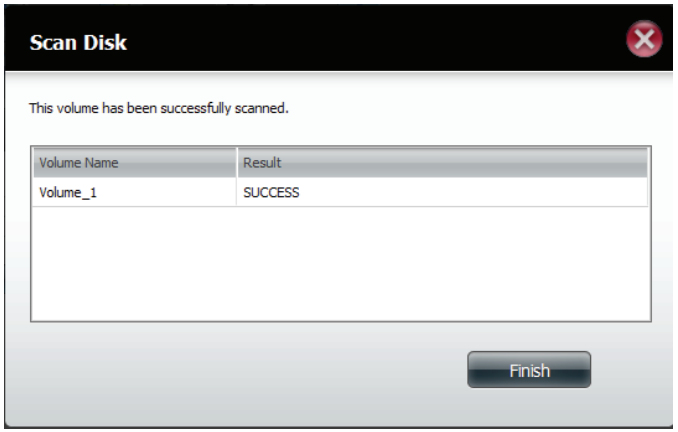
The DNS-320L will initialize the volume(s) and begin scanning.

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**.

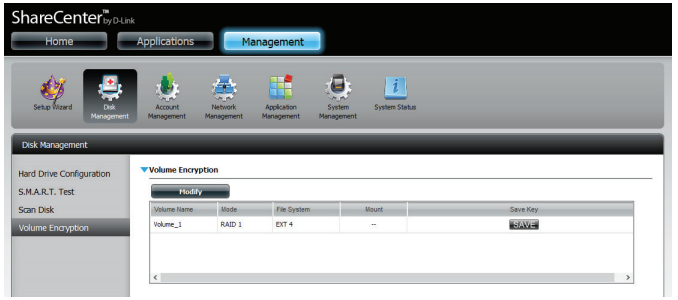
Click **Finish** to exit.



Volume Encryption

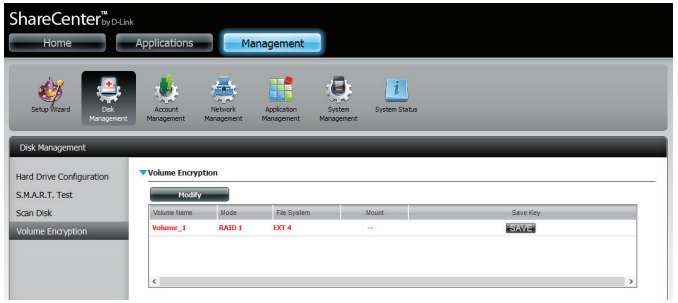
Volume Encryption allows you to use encryption to protect your data against unauthorized access. The use of volume encryption may slow disk performance due to the additional processing required.

Select **Volume Encryption** from the side menu under the Disk Management tab**.** If you created an encrypted volume using the setup wizard, the volume will be shown in the list. If you did not create an encrypted volume, there will be no options available for configuration. You will need to re-format the volume in order to enable encryption.



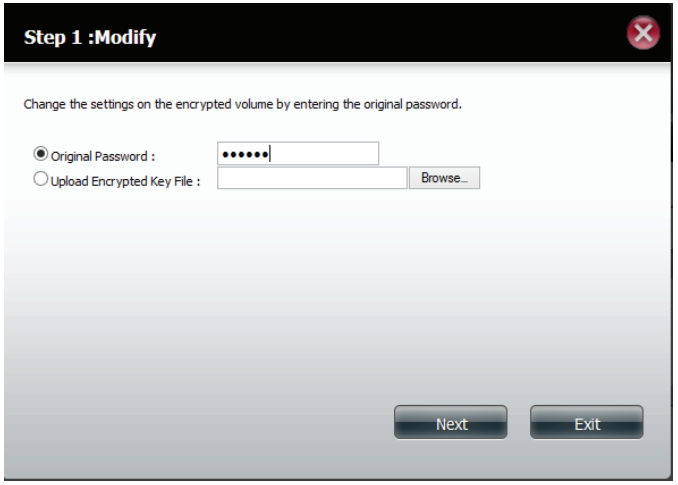
Note: The "Volume Encryption" feature is only available on models DNS-327L and DNS-340L.

Before proceeding with modifying the encryption data, click the volume you wish to modify. It will turn red. Click **Modify**.



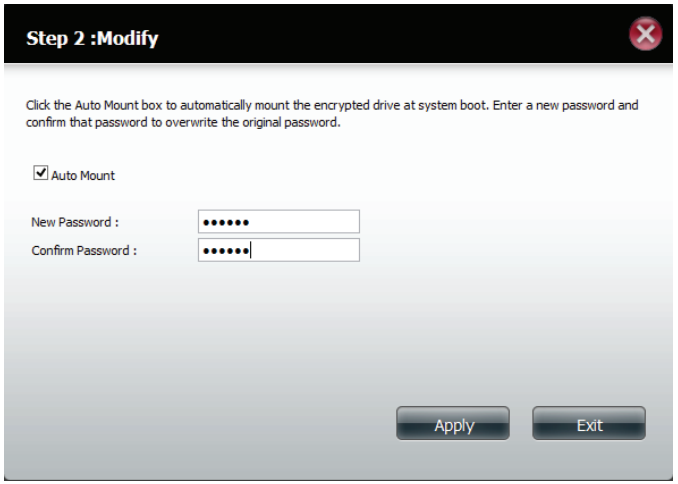
To change the settings for volume encryption, you need to enter the **Original Password** in the field provided. Alternatively, click the **Browse** button to upload an **Encrypted Key File** which is saved on the local computer.

Click **Next** to continue.



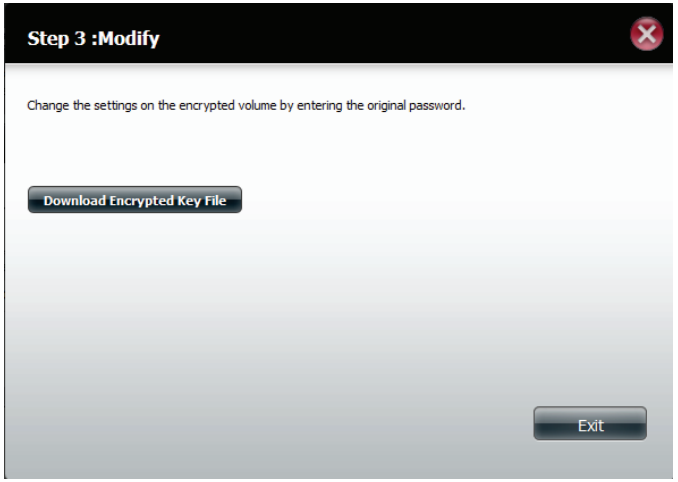
Click the Auto-Mount checkbox to have the system mount the volume automatically. Enter a new password in the **New Password** and **Confirm Password** fields.

Click **Apply** to continue.

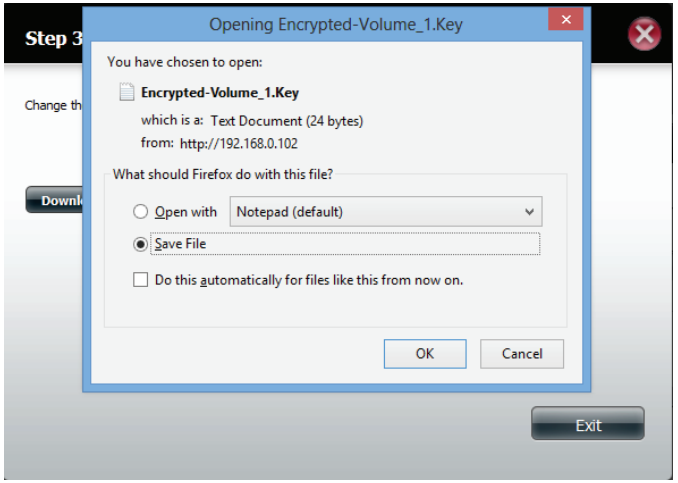


Once the encryption process has been completed, click **Exit** to close the wizard and return to main Volume Encryption window.

You can also click **Download Encrypted Key File** to save the encryption key to your local computer.



If you choose to save the encryption key file, a 'Save File' dialog will appear in your web browser. Follow the instructions to save the file to your computer.



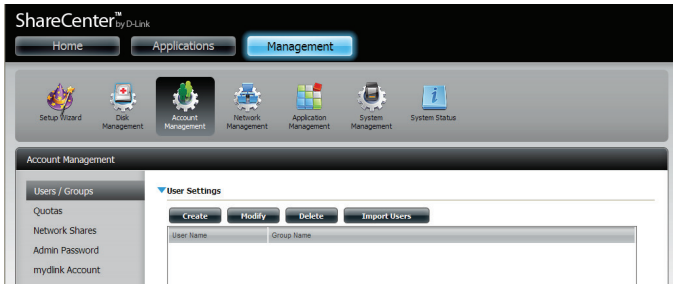
Account Management
Users / Groups

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

Creating a Single User

Click **Management** >> **Account Management.**

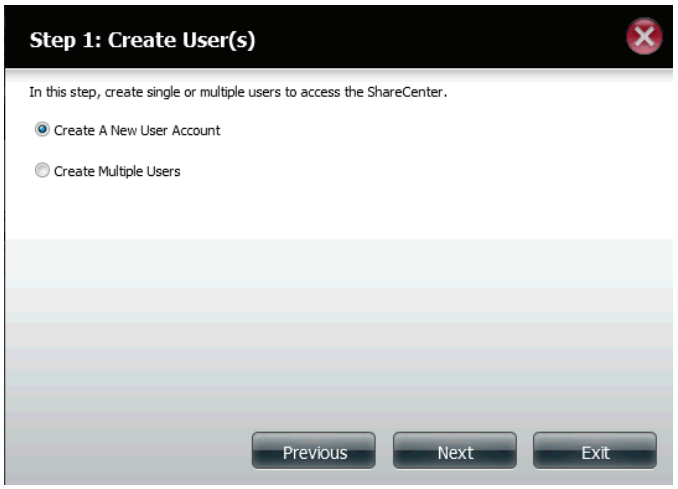
Click **Users/Groups** on the left side and then click **Create.**



The **User Setup Wizard** will appear.

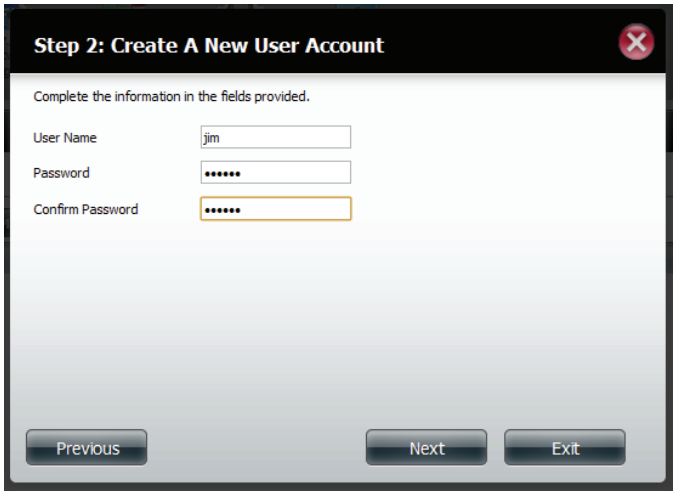
Click **Next** to continue.

Select **Create A New User Account** and then click **Next** to continue.



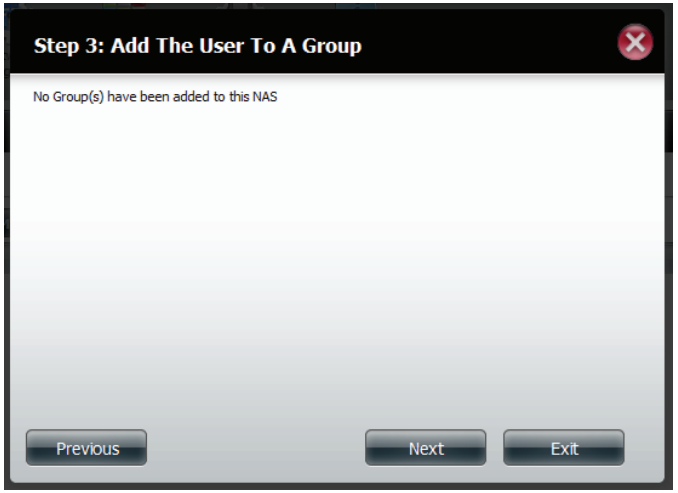
Enter a **User Name** and **Password** for the new user in the fields provided. Re-enter the password in the **Confirm Password** field.

Click **Next** to continue.



If you have already created user groups, you can add the user to a group by clicking the **Group** checkbox. If you have not created any groups, this option will not be available.

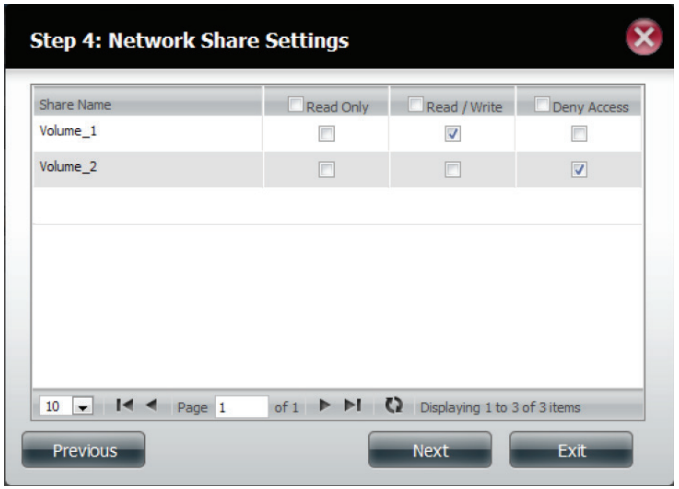
Click **Next** to continue.



Select the network share settings using the checkboxes:

- **Read Only** - Users will only be permitted to read the contents of the volume.
- **Read/Write** - Users will be permitted to read the contents of the volume, and make changes to the contents.
- **Deny Access** - Users will be denied access to the volume.

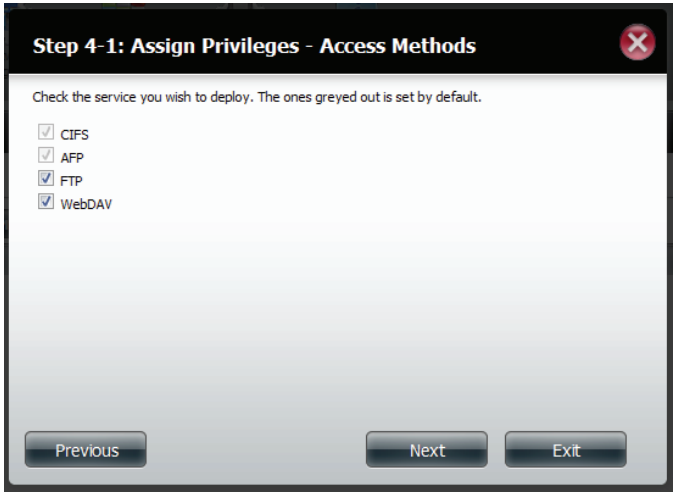
Click **Next** to continue.



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

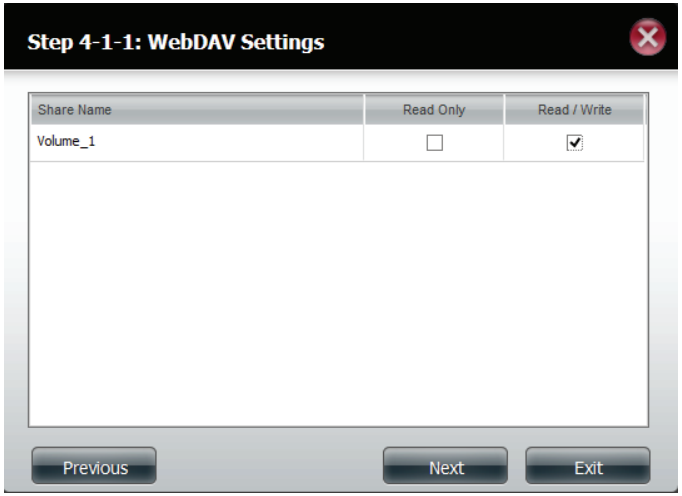
- **CIFS** - for Common Internet File System.
- **AFP** - Apple Filing Protocol.
- **FTP** - File Transfer Protocol.
- **WebDAV** - Web-based Distribution, Authoring, and Versioning.

Click **Next** to continue.



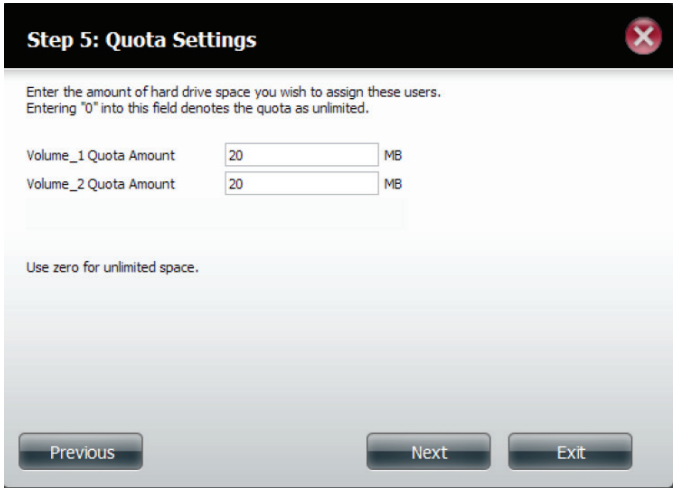
If you enabled WebDAV in the previous step, select the volumes the user can have WebDAV access to and then select whether to give **Read Only** or **Read/ Write** rights.

Click **Next** to continue.

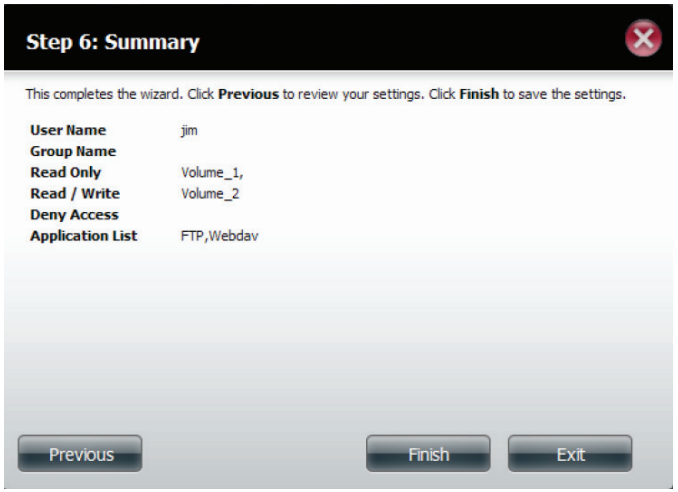


Enter the amount of disk space you wish to assign the user on each volume. Enter zero to provide unlimited disk space to the user.

Click **Next** to continue.

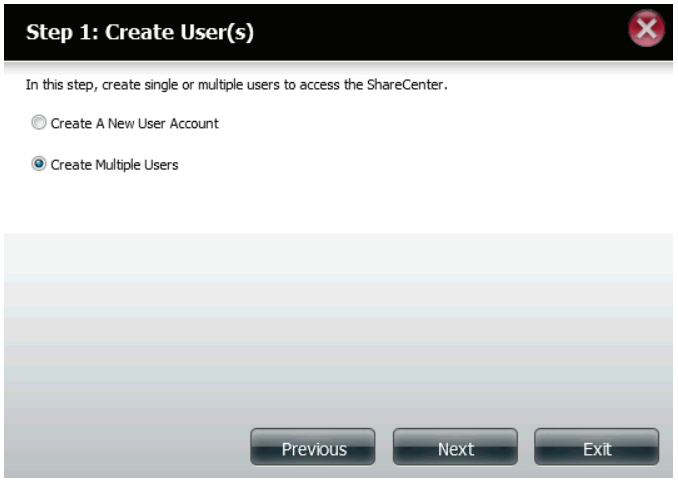


The final step is a summary of the configuration for the new user. Click **Finish** to accept the changes or click **Exit** to cancel the changes.



Creating Multiple Users

Start the Create Users wizard as described for creating a single user above. Select **Create Multiple Users** and then click **Next** to continue.



Enter the following information:

Enter a **Username Prefix** for the account group. This prefix will be used to identify all user accounts in this group. Usernames will be in the format *Username Prefix+Account Prefix*.

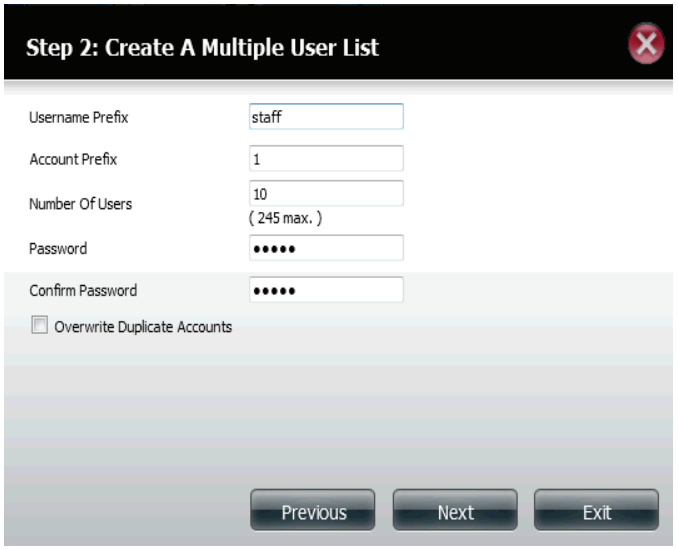
Enter an **Account Prefix**. The Account Prefix is a starting number (Eg. 1, no alphabet letters are allowed) used to identify users in this group.

Enter the **Number of Users** you want to create. Below to the input field is the remaining amount of users which can be added.

Enter a password in the **Password** field and confirm the password in the **Confirm Password** field

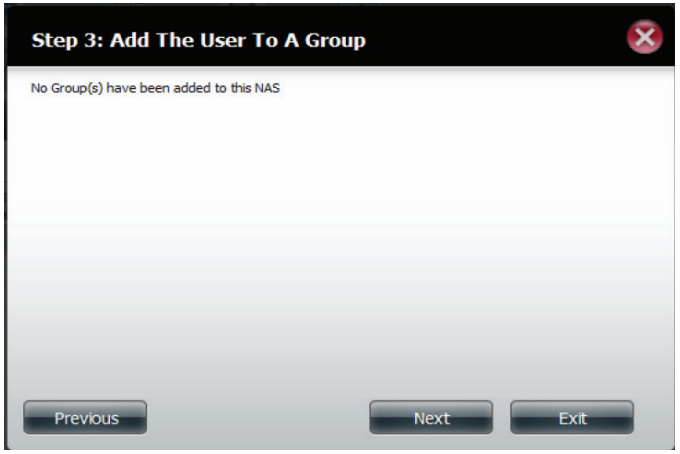
Check the **Overwrite Duplicate Accounts** box to have existing accounts with the same credentials overwritten by the new accounts.

Click **Next** to continue.



If you have already created user groups, you can add the user to a group by clicking the **Group** checkbox. If you have not created any groups, this option will not be available.

Click **Next** to continue.



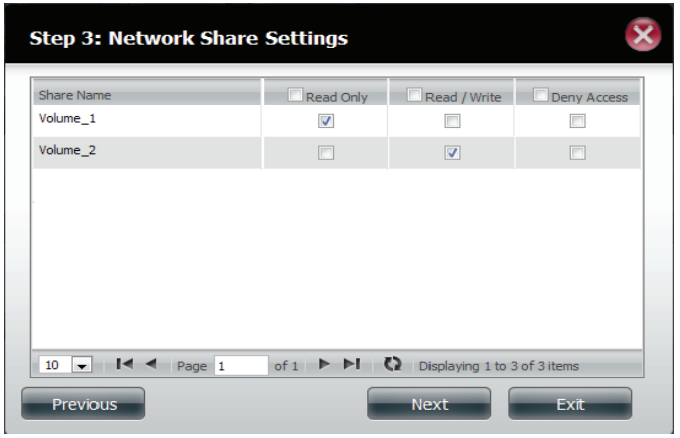
Select the network share settings using the checkboxes:

Read Only - Users will only be permitted to read the contents of the volume.

Read/Write - Users will be permitted to read the contents of the volume, and make changes to the contents.

Deny Access - Users will be denied access to the volume.

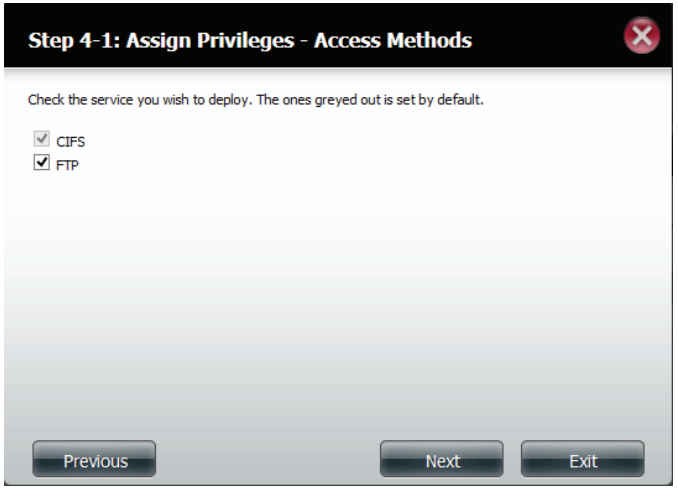
Click **Next** to continue.



Assign Privileges/Access Methods to the user(s). CIFS is set by default. Check the FTP box to enable FTP.

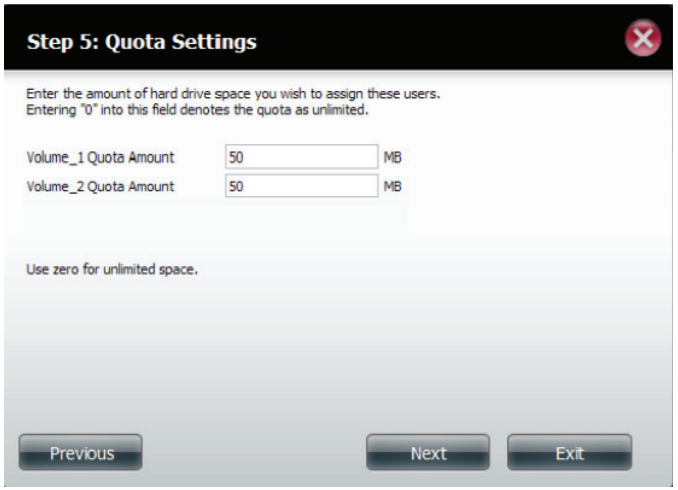
- **CIFS** - Common Internet File System.
- **FTP** - File Transfer Protocol.

Click **Next** to continue.

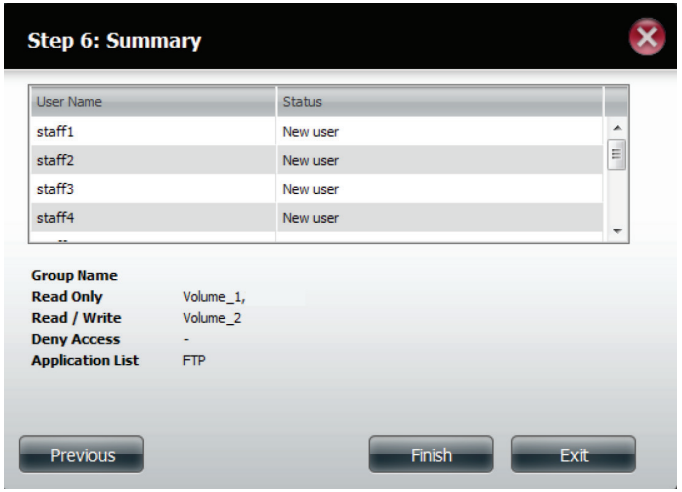


Enter the amount of disk space you wish to assign the user(s on each volume. Type **0** to provide unlimited disk space to the user(s).

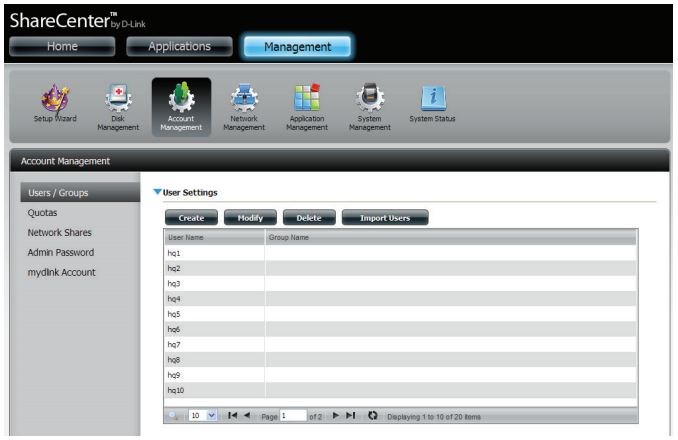
Click **Next** to continue.



The final step is a summary of the new accounts made using the setup wizard. Click **Finish** to accept the changes or click **Exit** to cancel the changes.



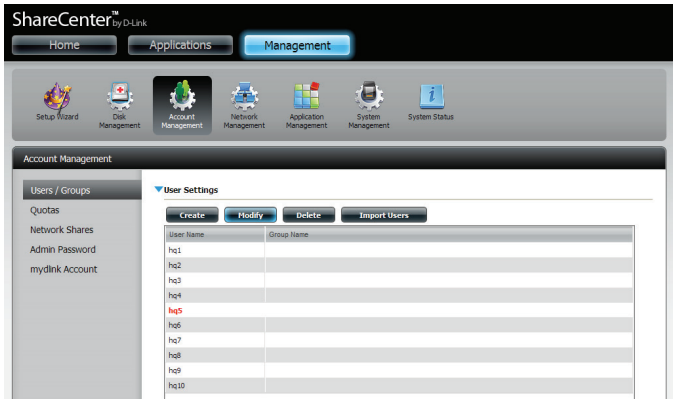
The User Settings window will show a list of the users created.



Modify Users

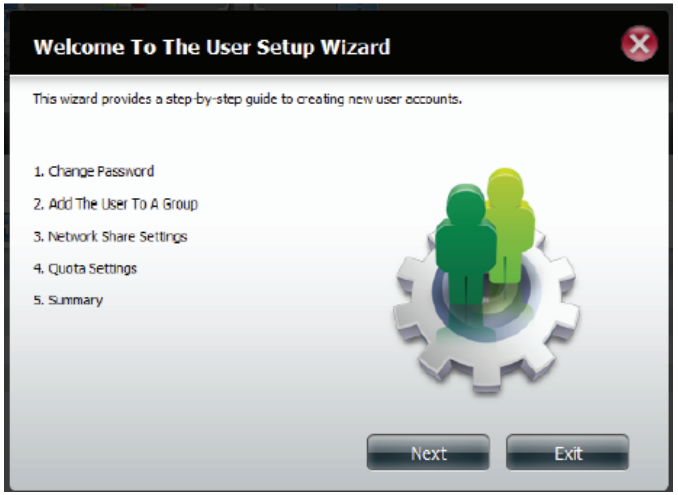
Click the user you wish to modify. The user will be highlighted in red.

Click **Modify** to continue.

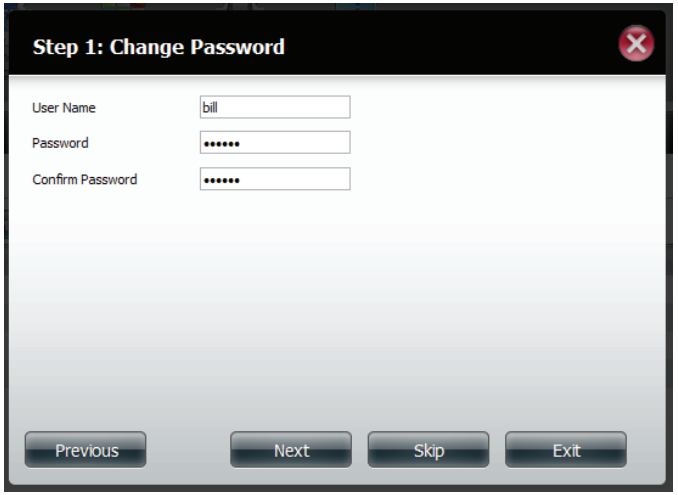


The User Setup Wizard will appear.

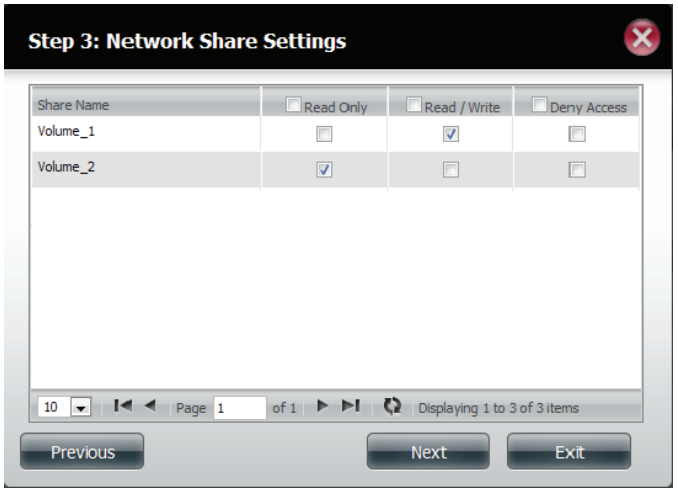
Click **Next** to continue.



To change the username or password, enter the new information in the relevant field. Click **Next** to continue.

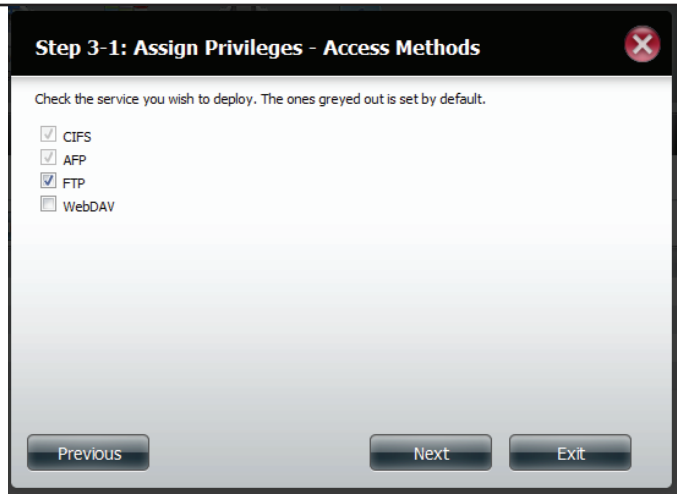


Change the Network Share Settings if desired. Click **Next** to continue.



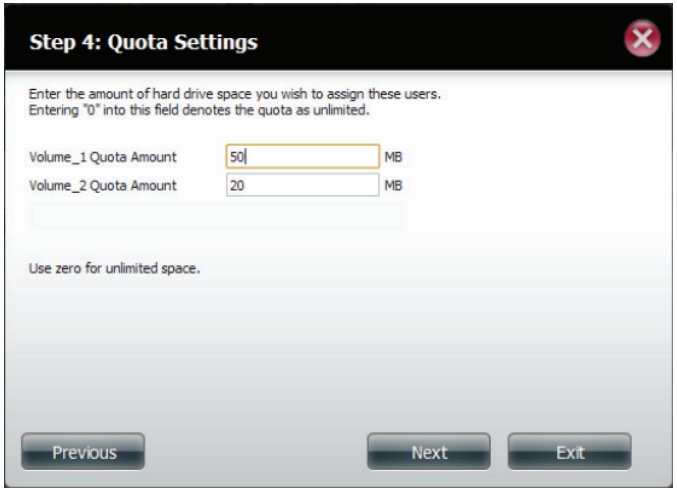
Modify the assigned **Privileges/Access** methods for the user if desired. Select either FTP or WebDAV. CIFS and AFP are set by default.

Click **Next** to continue.

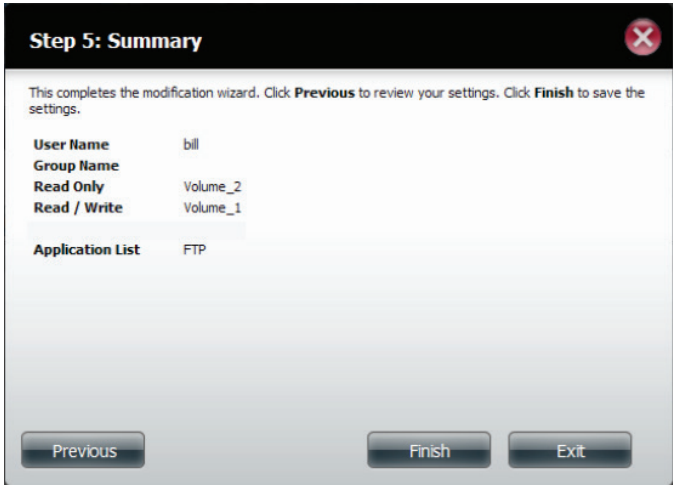


Enter the re-assigned amount of disk space you wish to assign the user on each volume. Type 0 to provide unlimited disk space to the user.

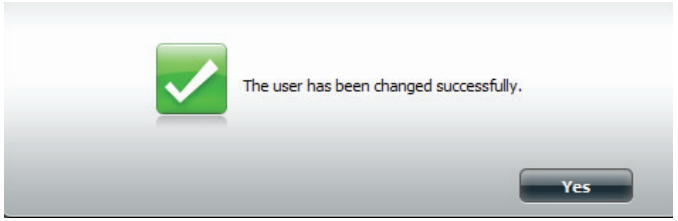
Click **Next** to continue.



The final step shows a summary of the configuration for the modified user. Click **Finish** to accept the changes or **Exit** to cancel the changes.

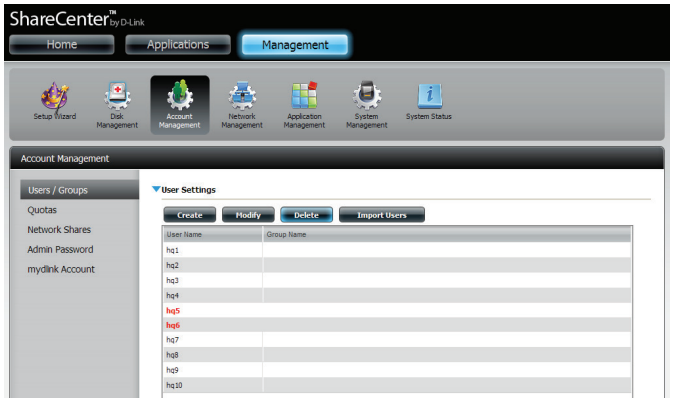


A message will appear stating the user details have been changed successfully. Click **Yes** to exit the wizard.



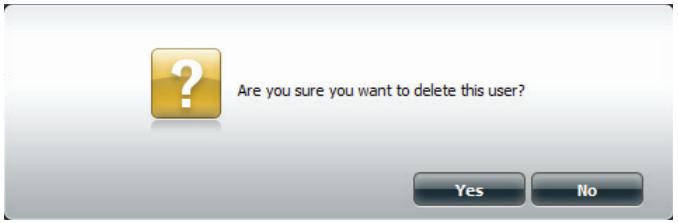
Delete Users

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



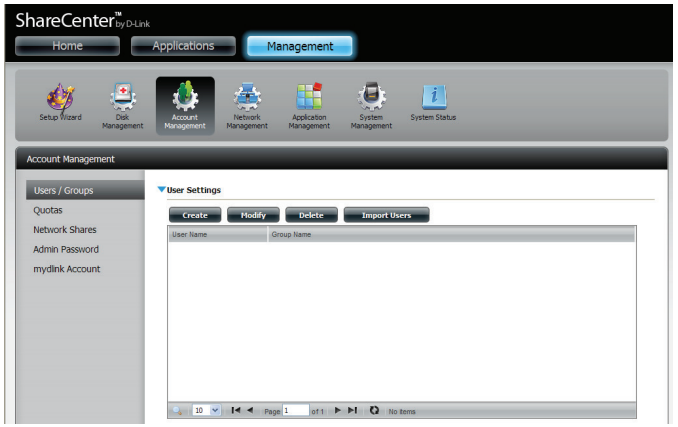
A message will appear prompting you to confirm deleting the user. Click **Yes** to confirm.

The user is now removed from the list.



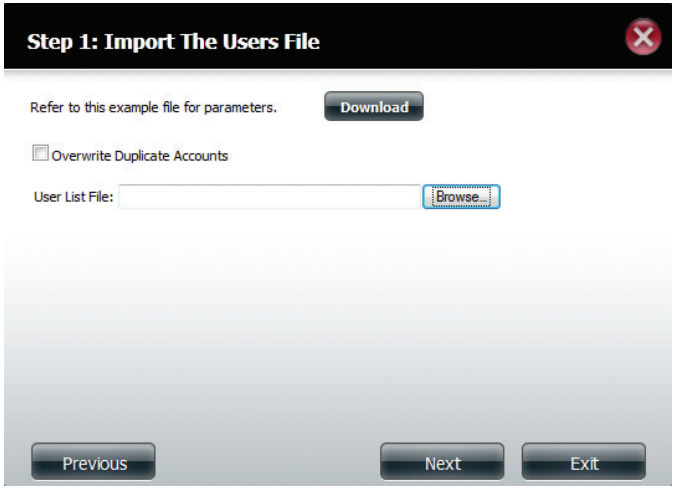
Import Users

Click the **Import Users** button under the **Users/Groups** tab.



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

Click **Download** to see a sample file containing the required parameters (import_file.txt).



Format: user name/user password/user groups/shared folder(rw)/shared folder(ro)/shared folder(deny)/user quota

Ex: staff3/staff3/Group_Staff2/Folder_RW1///100

Note: You must create the user groups and share folders first before importing the users file

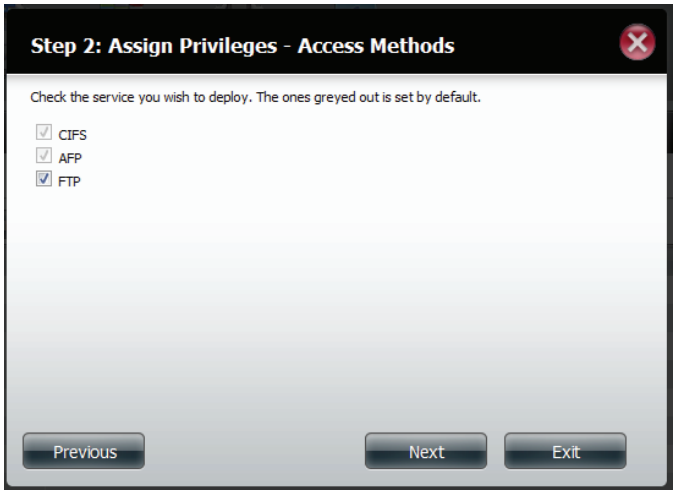
Check the **Overwrite Duplicate Accounts** box if this is necessary.

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

Click **Next** to continue

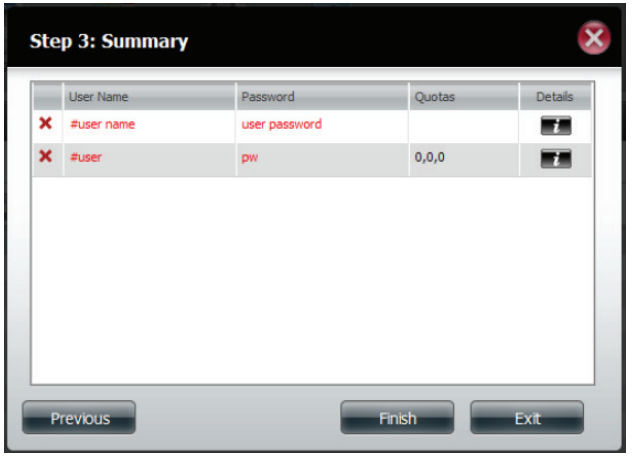
Assign the desired privileges and access methods by checking the boxes.

Click **Next** to continue.

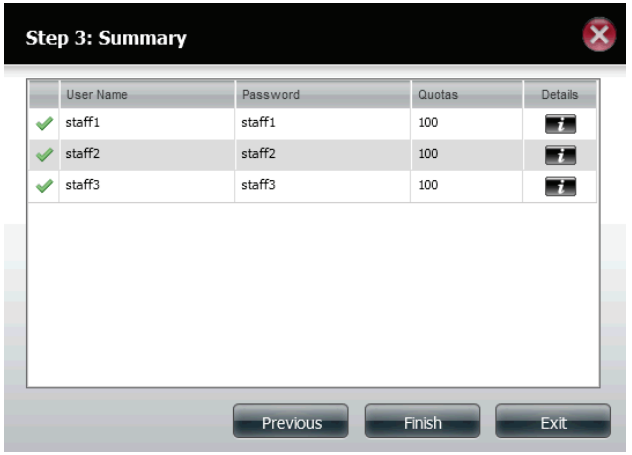


The Summary will show a list of the imported users. If there are problems with the user list, the wizard will show the errors in red on the table.

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



Click the **"i"** icon to see details of each user.



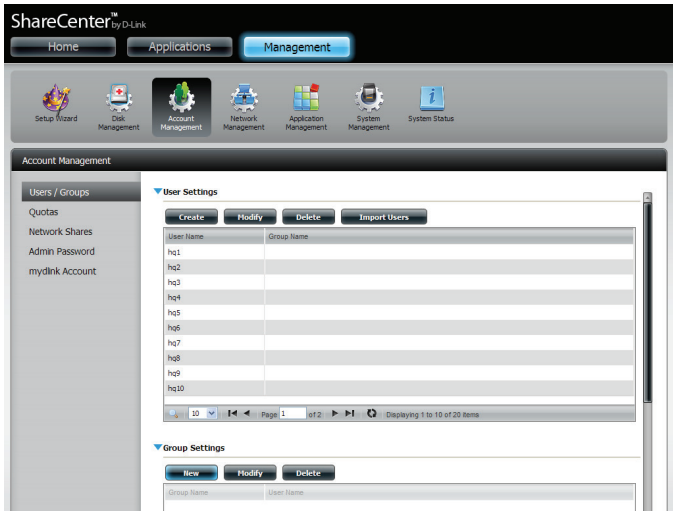
Each user's details are provided in a list according to username, group name, read/write privileges, or access control

Creating a Group

Groups allow you to control parameters such as access control and share settings for all members of the group.

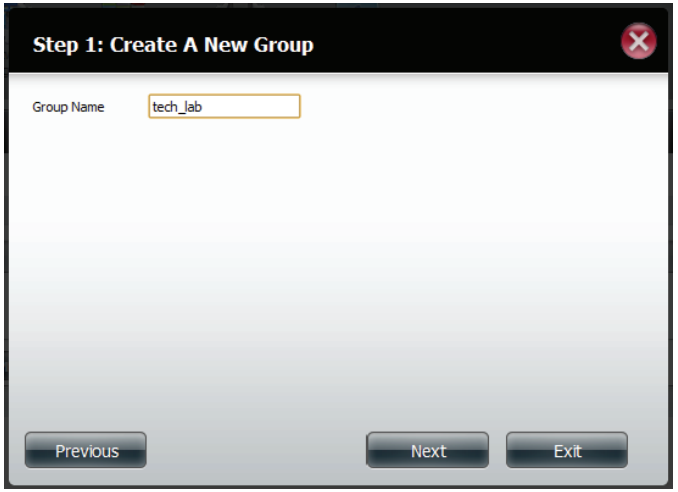
Click **Account Management** >> **Users/Groups**.

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



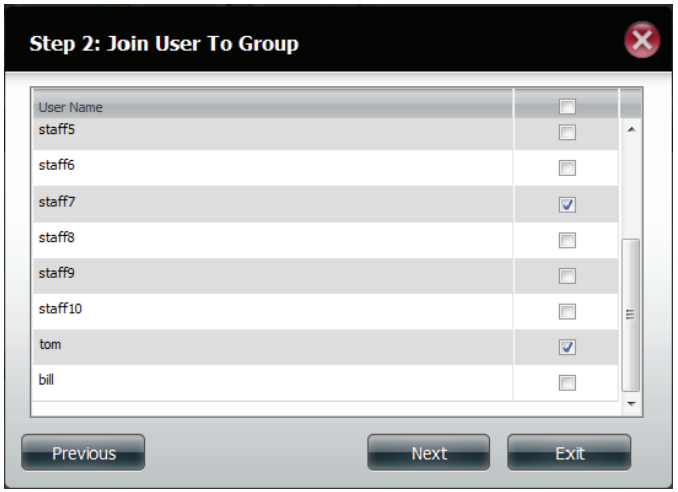
The Group Setup Wizard will now start. Click **Next** to continue.

Enter a **Group Name**. Click **Next** to continue



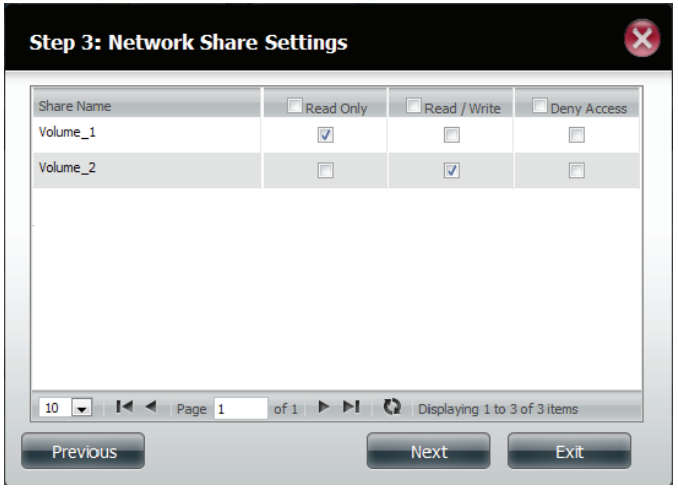
Select the user(s) you wish to add to the group by clicking the checkbox next to the user name.

Click **Next** to continue.



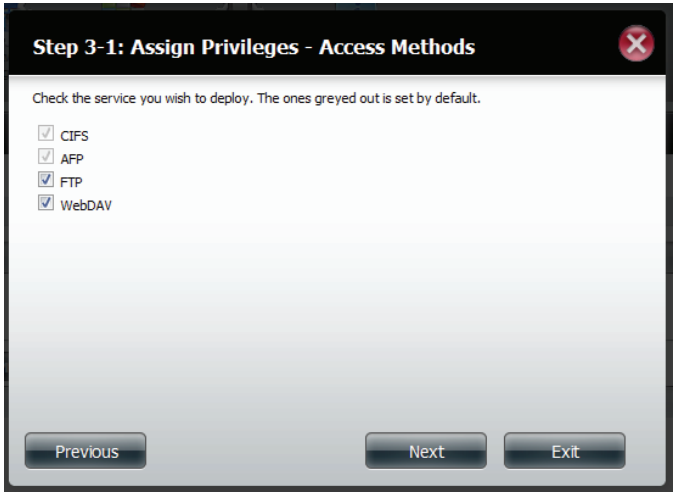
Select the **Network Share Settings** (read, read/write, deny access) for the corresponding disk volume for the group.

Click **Next** to continue.



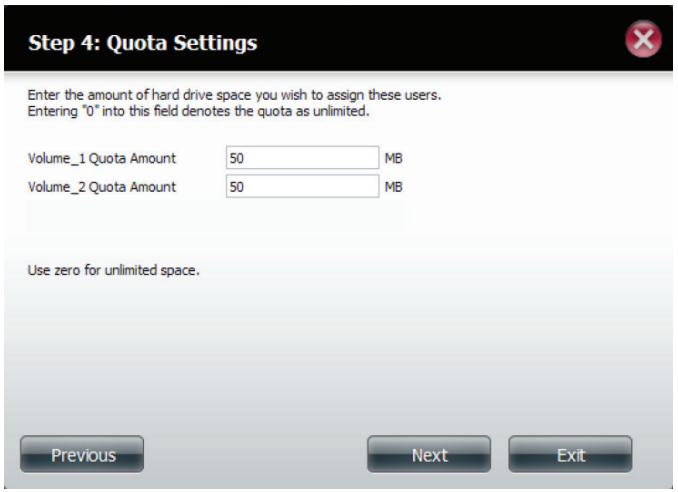
Select the **Privileges/Access Methods** you want to assign to the group. The greyed out selections are assigned by default.

Click **Next** to continue.

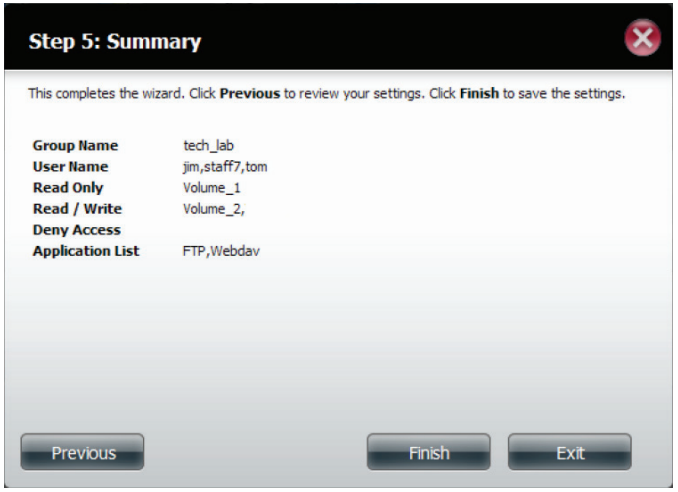


Select the appropriate **WebDAV** settings and click **Next** to continue.

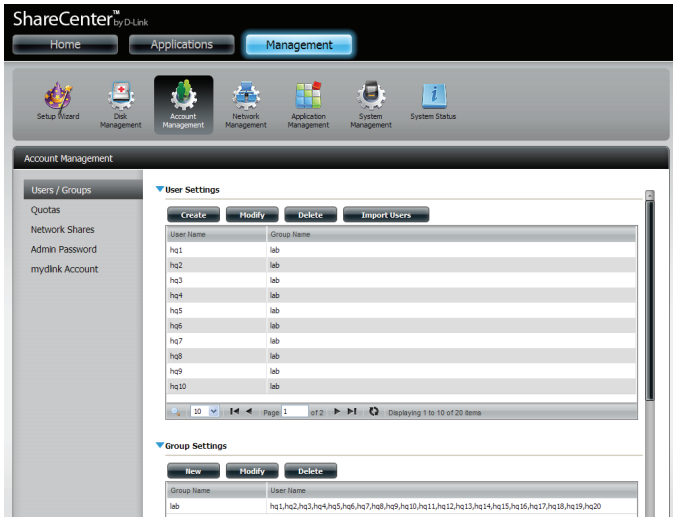
Enter the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group. Click **Next** to continue.



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



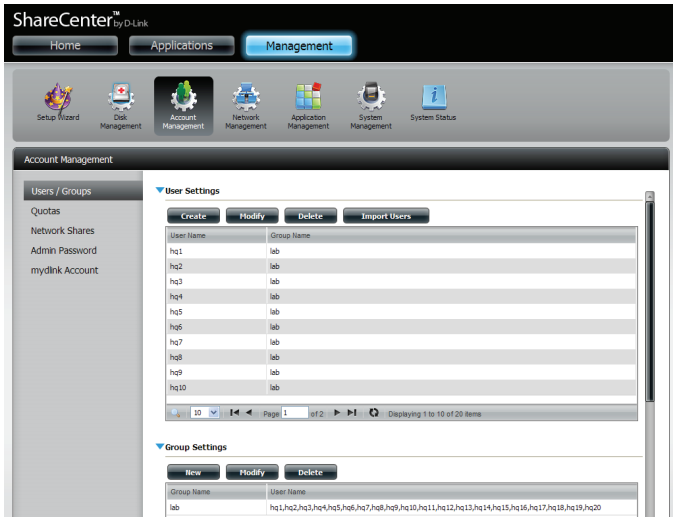
Under **Group Settings**, a table will display the group you just created.



Modifying a Group

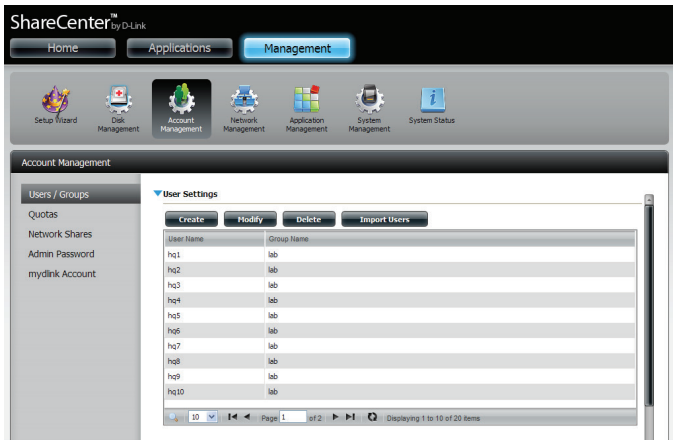
Click **Account Management** >> **Users/Groups**.

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



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

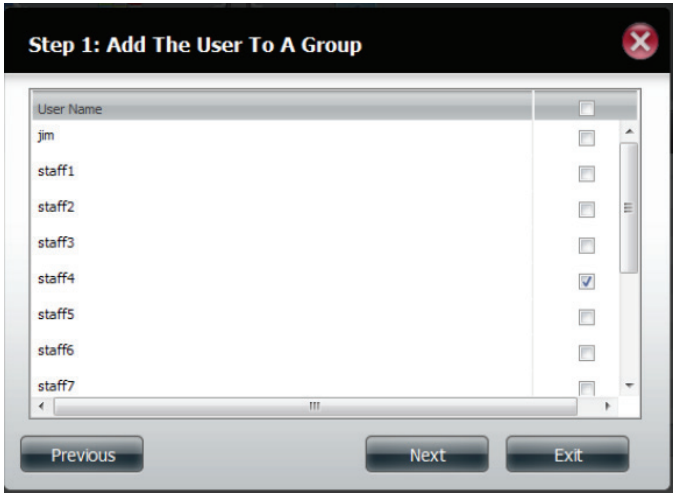
Click **Modify** to change the settings for the group.



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

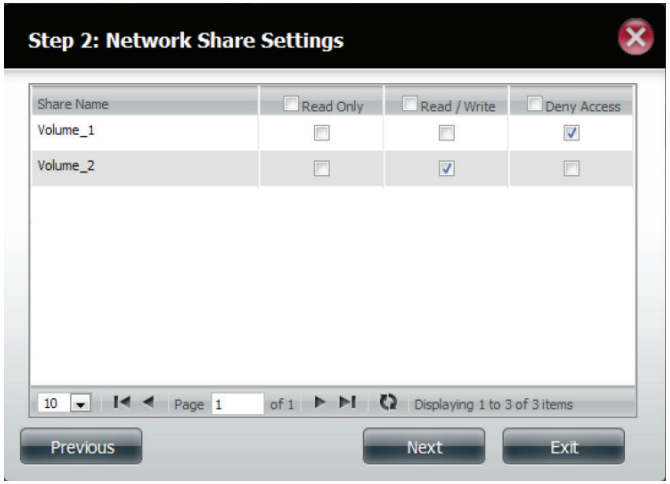
Select the group members that you wish to make modifications to.

Click **Next** to continue.



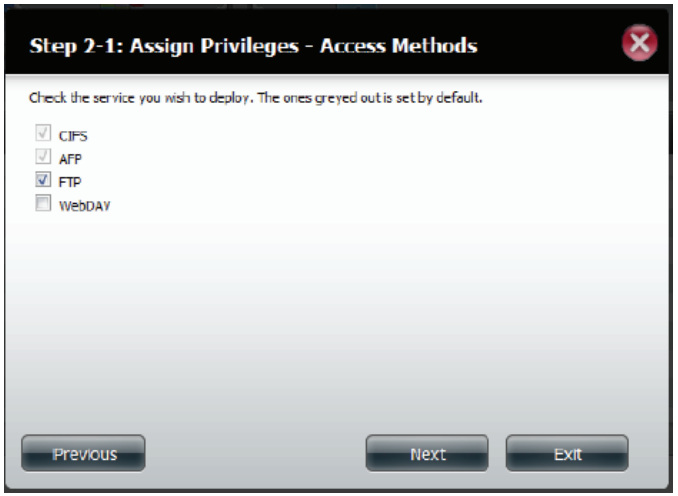
Select the appropriate **Network Share Settings** (read, read/write, deny access) for the corresponding disk volume for the group.

Click **Next** to continue.



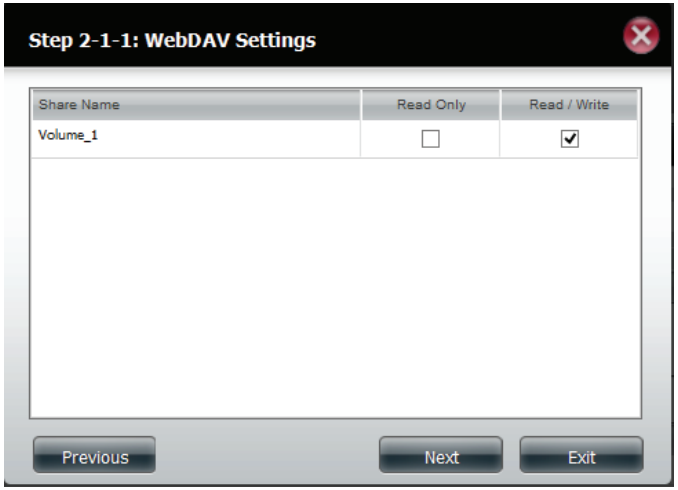
Select the appropriate privileges you want to assign to the group. The greyed out selections are assigned by default and cannot be modified.

Click **Next** to continue.



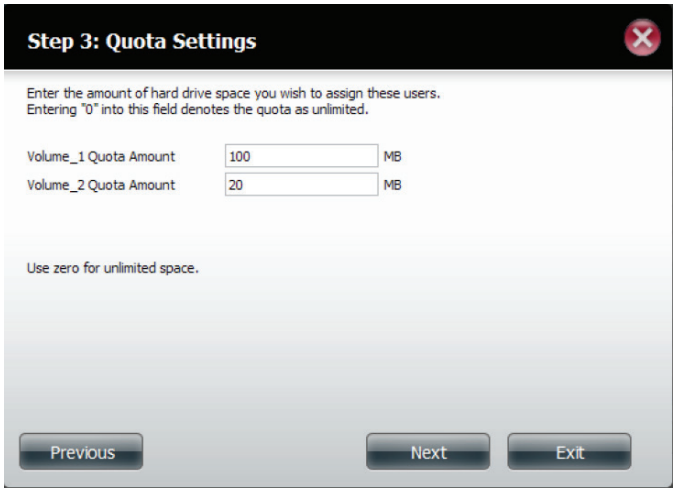
If you selected **WebDAV** in the previous step, select either **Read Only** or **Read/ Write** privileges for WebDAV Settings.

Click **Next** to continue.



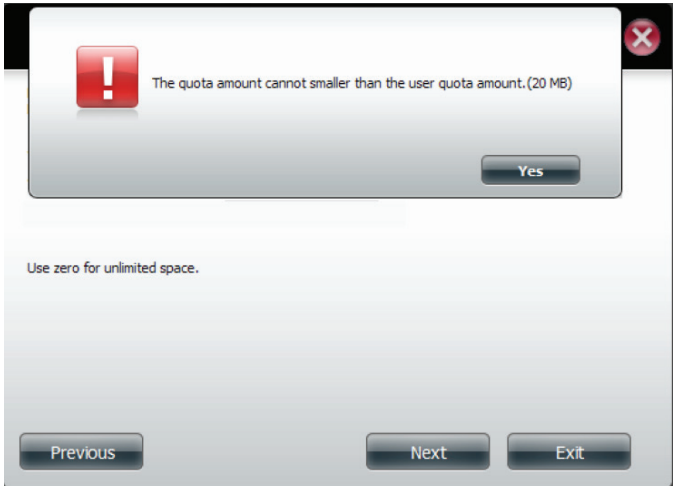
Edit the amount of space you want to assign to the group for each volume. Enter zero to give unlimited disk space to the group.

Click **Next** to continue.



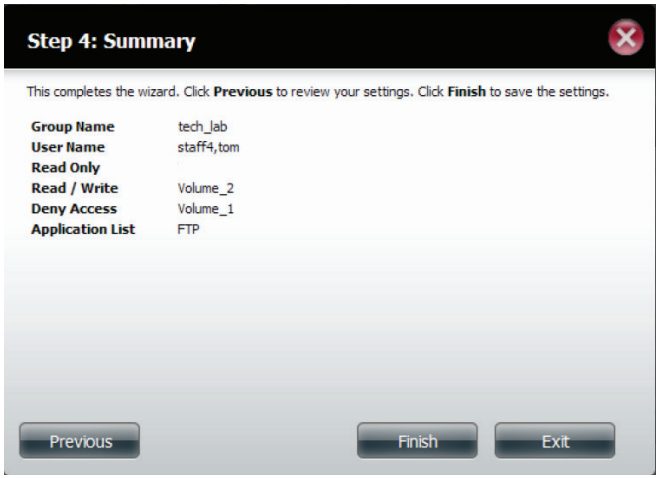
When editing the quota, make sure the size is not smaller than the user quota on his/her account.

Click **Yes** to change the quota.



The wizard is now complete and will display a summary of the modified group settings.

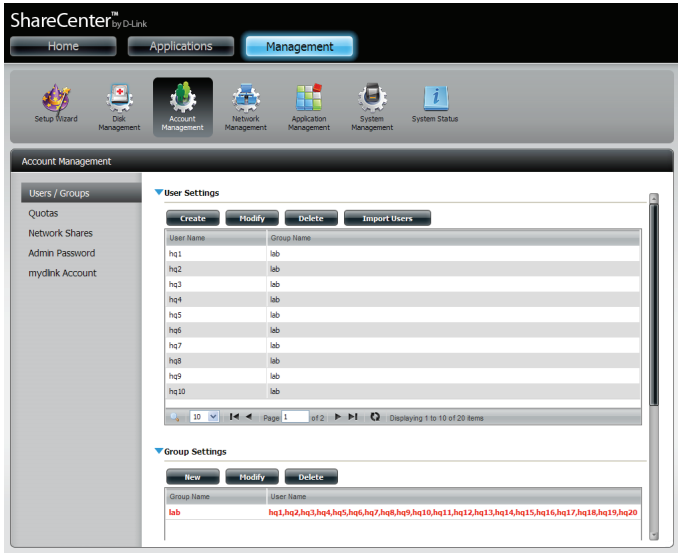
Click **Previous** to change your settings or **Finish** to end the wizard. **Exit** will cancel all changes you made.



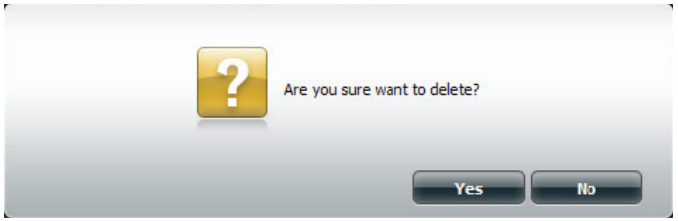
Deleting a Group

Select the **Group** you want to delete, your selection will turn red.

Click **Delete** to continue.



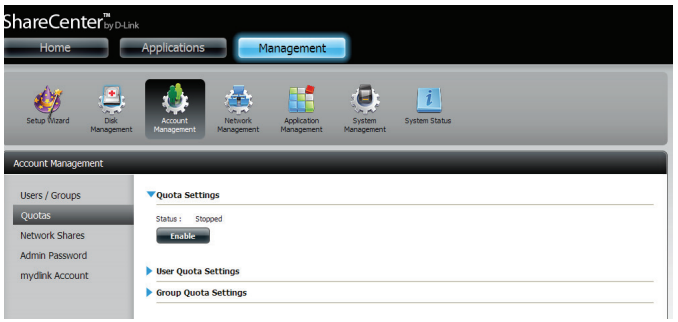
A warning message will appear asking you to verify if you want to delete the Group. Click **Yes** to delete the Group or **No** to cancel your decision.



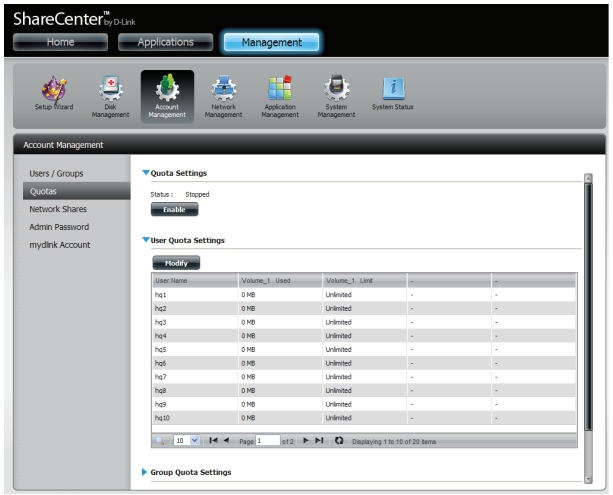
Quotas

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 menu.

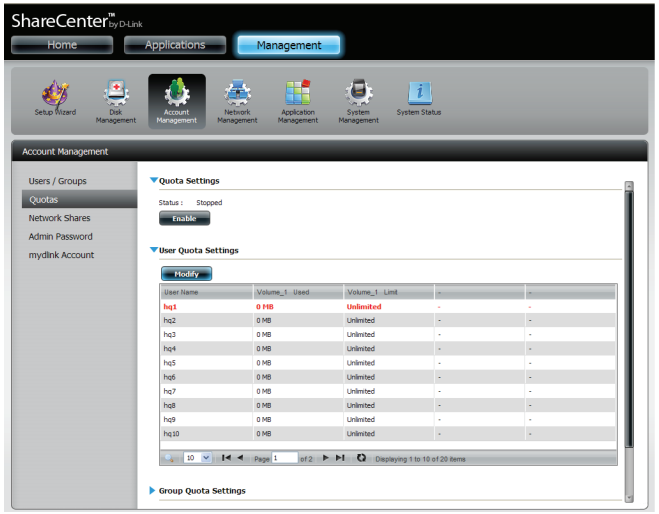
Click **Enable** to activate Quota Settings. The status will now display 'Started' notifying you that the Quota Settings are enabled.



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

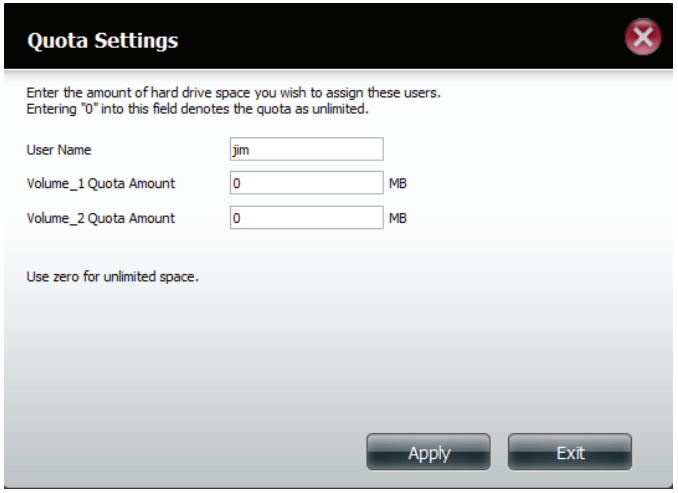


Select the **User** you want to modify. Your selection will turn red. Click **Modify** to change the user's settings.

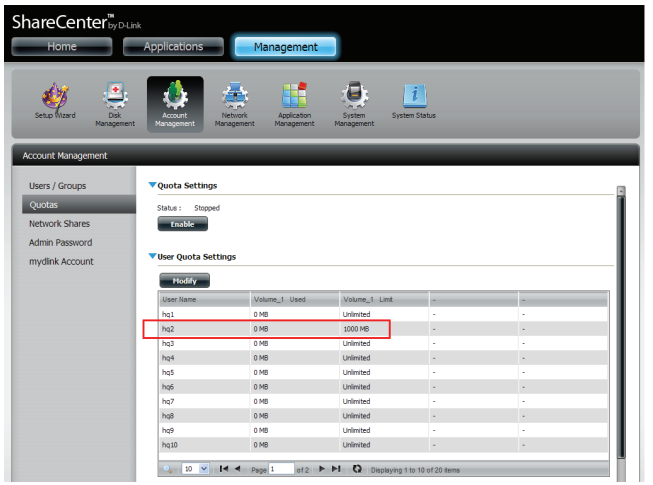


The **Quota Settings** configuration box will display the user account you want to modify. Enter a new quota amount for each volume.

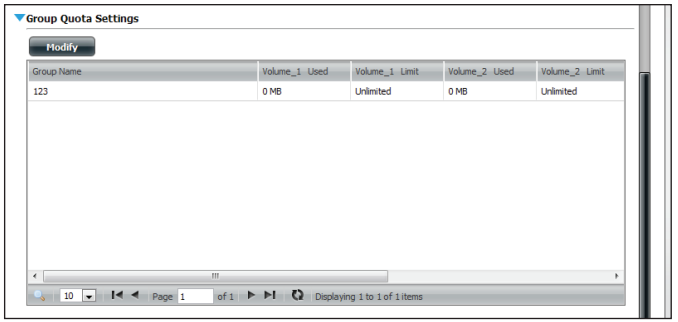
Click **Apply** to confirm your settings.



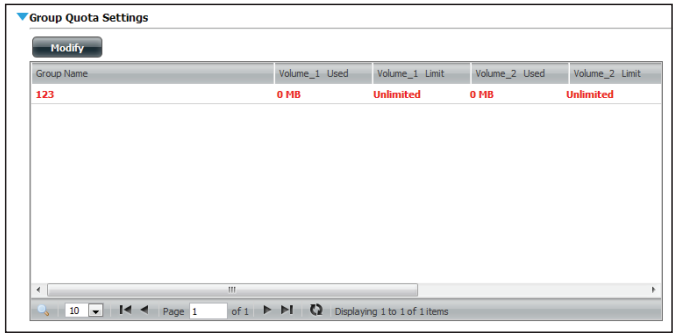
The modified quota settings will be displayed in the **User Quota Settings** table.



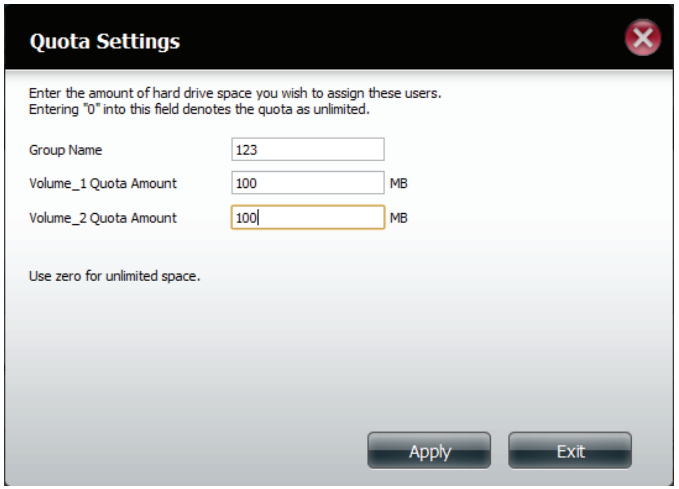
To modify **Group Quota Settings**, click the blue drop-down arrow next to **Group Quota Settings** to view the group quota table.



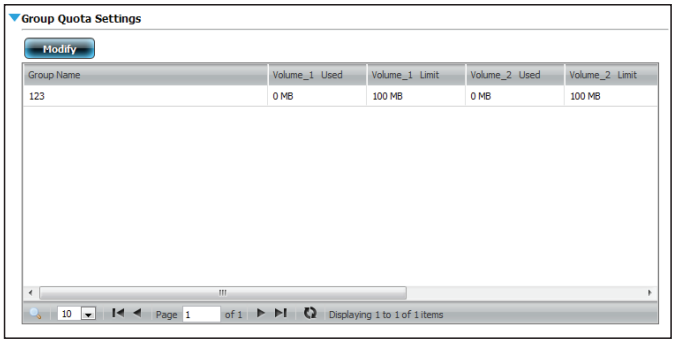
Select the group you want to modify. Your selection will turn red. Click **Modify**.



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**.



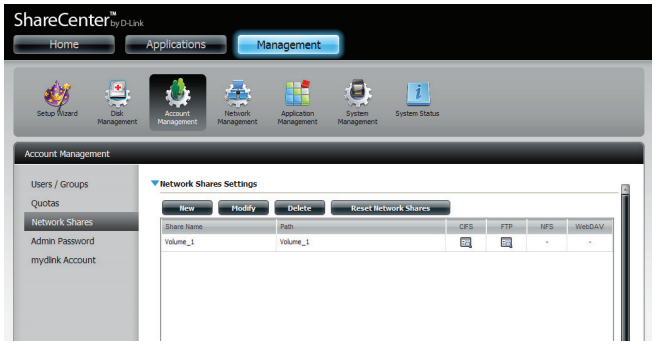
The modified quota settings will be displayed in the **Group Quota Settings** table.



Network Shares

The Network Shares page allows the user to configure shared folders and rights to specific users and groups. 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.

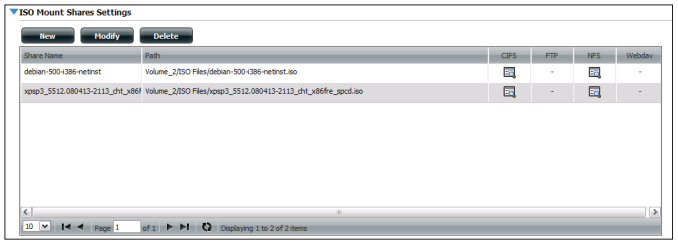
The **Network Shares Settings** window allows the user to add, modify, and remove both new and existing **Network Share** and **ISO Mount Share Settings**.



To add a rule click on the **New** button. To modify an existing rule, first click on the rule to select it, then click the **Modify** button. To remove a rule, first click on the rule to select it, then click the **Delete** button.

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

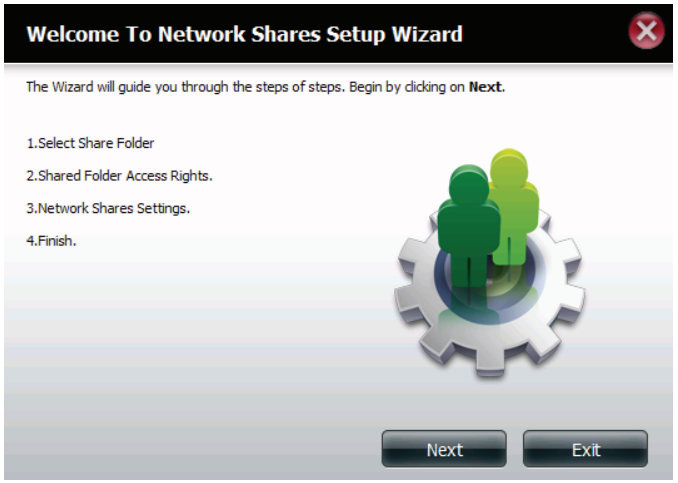
Click on the **Reset Network Shares** button to reset the network access list to the default configuration.



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. The **Network Shares Setup Wizard** will begin.

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

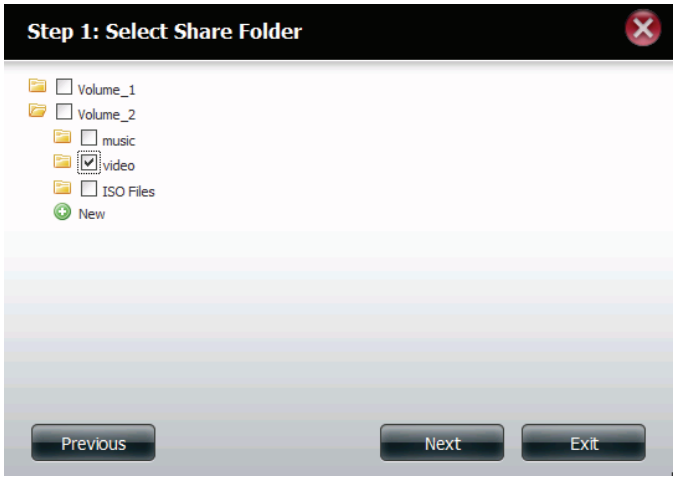


In this wizard the user will be able to:

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.

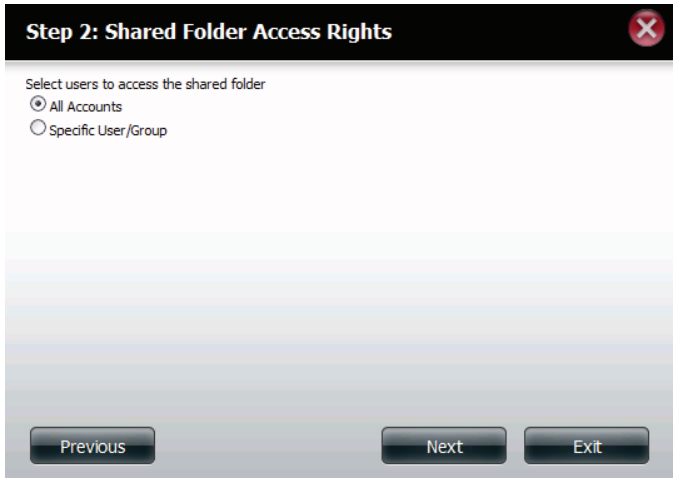
Select the folder that you wish to share from one of the volumes.



Click **Next** to continue.

Select the user account/s or group which is 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.



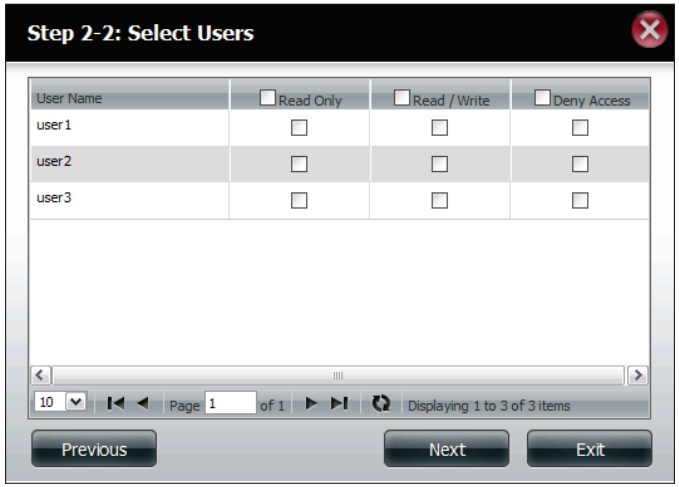
Select the appropriate access rights for the share. Options to select from are **Read Only**, **Read/Write**, and **Deny Access**.

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

Click **Next** to continue.

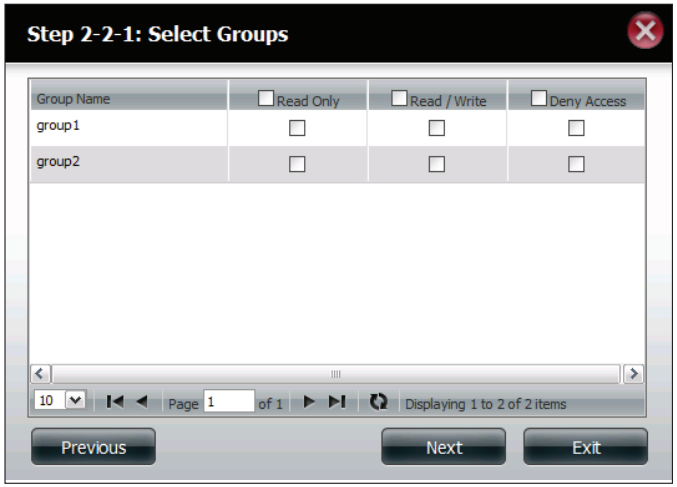
If you selected **Specific User/Group** in Step 3, then this step allows you to set the access rights for each user configured for the ShareCenter.

Click **Next** to continue.

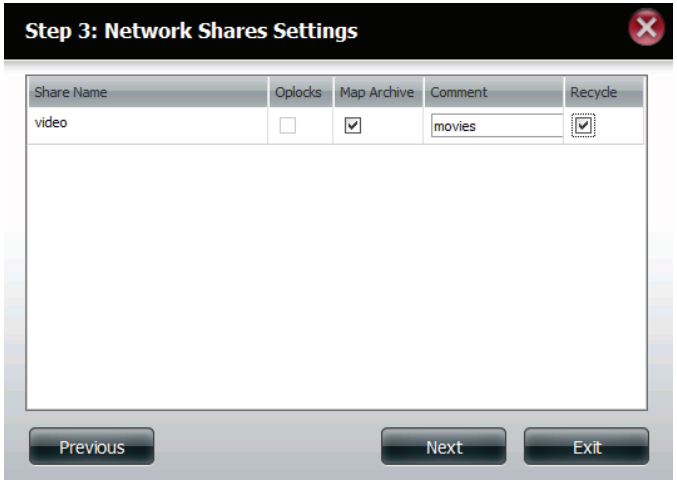


If you selected **Specific User/Group** in Step 3, then this step allows you to set the access rights for each group configured for the ShareCenter.

Click **Next** to continue.



Here you can assign privileges to this share.



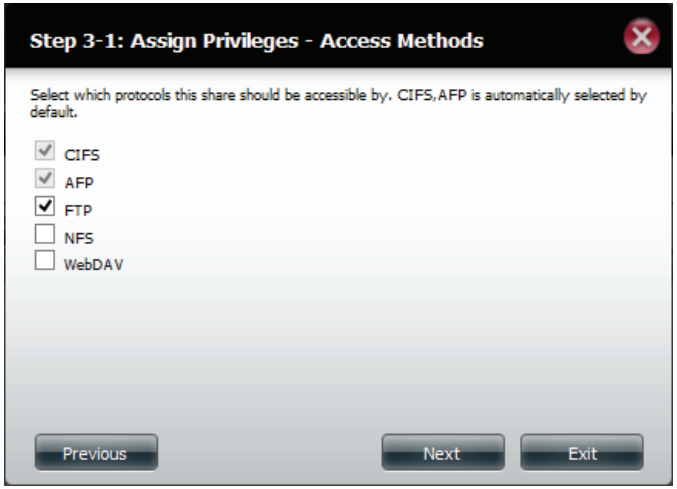
Opportunistic locks (oplocks) are a characteristic of the LAN Manager networking protocol implemented in the 32-bit Windows family.

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 off when using file-based database applications. When "Map Archive" is enabled, the file attribute will be copied as the file is being stored on the ShareCenter.

Click **Next** to continue.

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

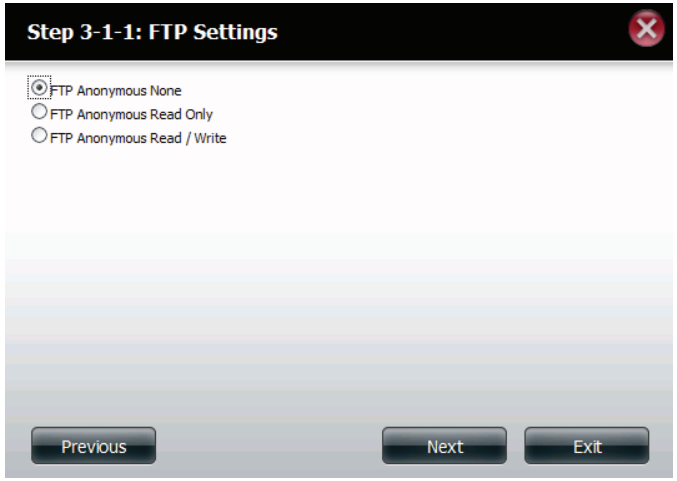


- CIFS - Common Internet File System.
- AFP - Apple Filing Protocol.
- FTP - File Transfer Protocol
- NFS - Network File System.
- WebDAV - Web-based Distributed Authoring and Versioning.

Click **Next** to continue.

Here you can configure the **FTP** settings for this share.

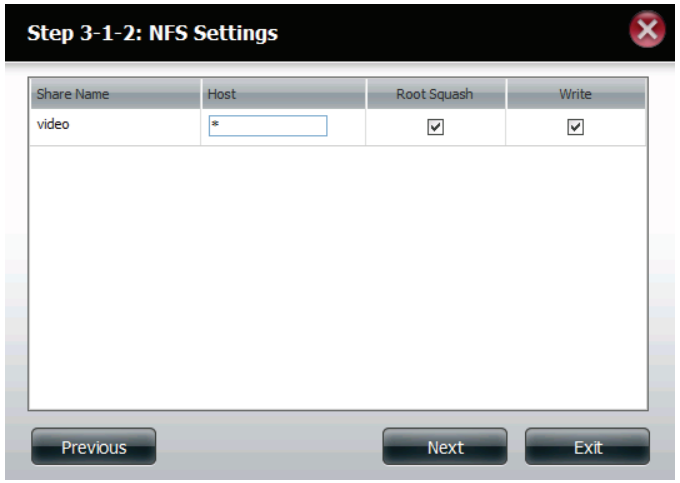
Click **Next** to continue.



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** - Provides write permission to the file system.

Click **Next** to continue.

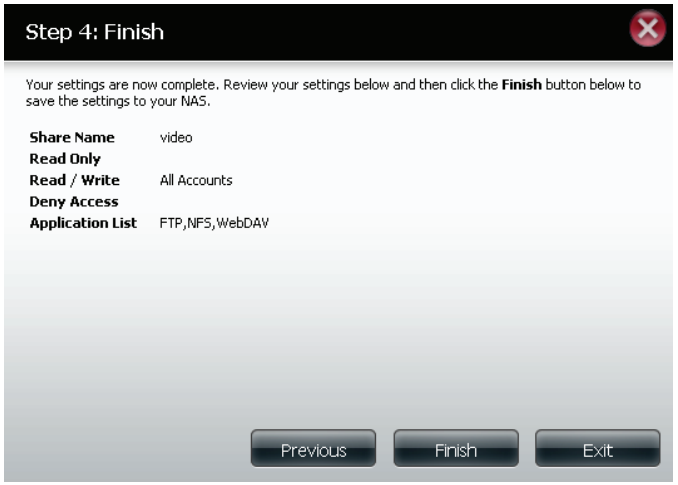


If you checked **WebDAV** as an access method, then this step will allow you to set the access parameters.

Click **Next** to continue.

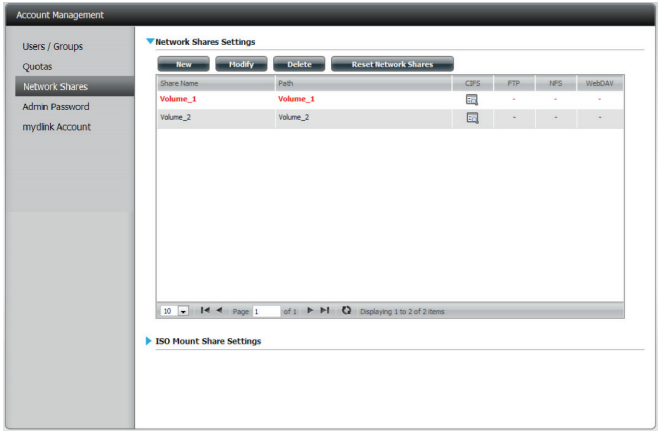
Here a summary of the created shares will be displayed.

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.

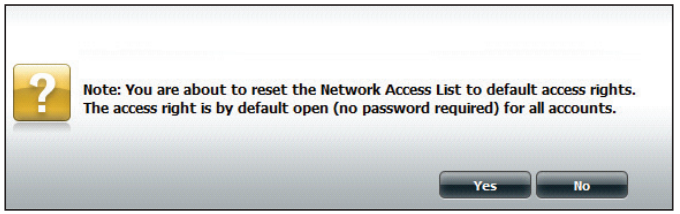


Resetting the Network Shares

Click the **Reset Network Shares** button.

A warning message will prompt you to confirm your selection.

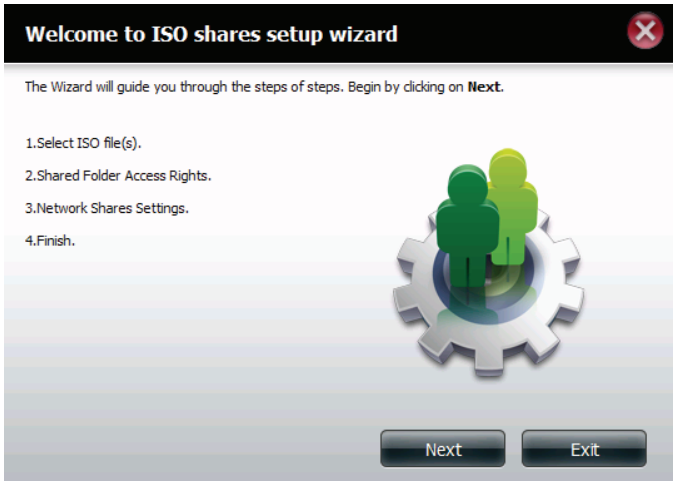
Click **Yes** to confirm or **No** to cancel.



ISO Shares Setup Wizard

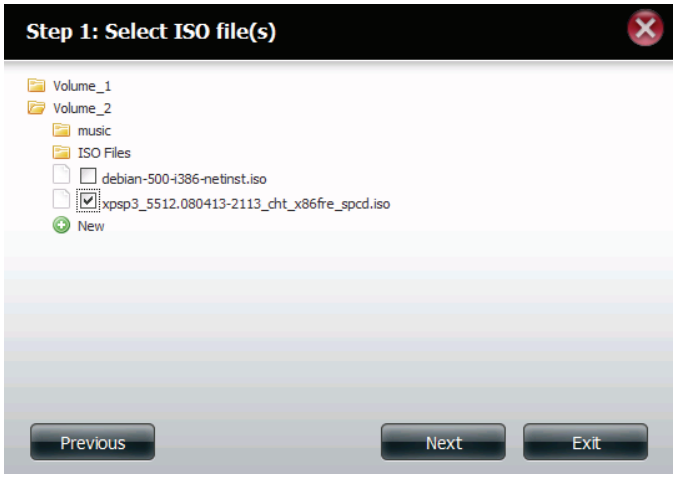
The following section will describe how to add a new ISO mount on the ShareCenter. To add an **ISO Mount**, click on the **New** button. The **ISO Shares Setup Wizard** will start.

Click **Next** to continue.



Select the **ISO file** to mount.

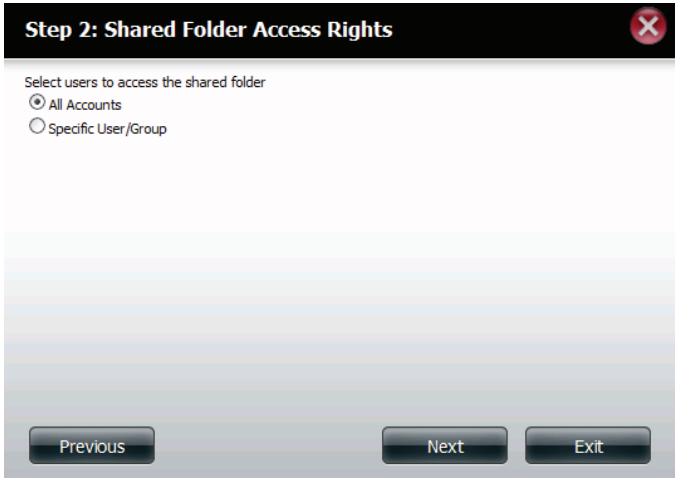
Check the box to the left of the .iso file to select it and click **Next** to continue.



Assign access privileges to this **ISO Mount** share.

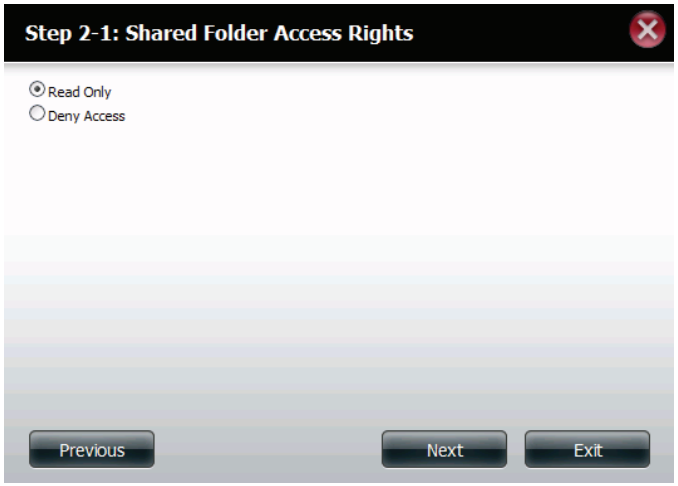
- Select **All Accounts** to assign the ISO Mount share's read/deny privileges to all users.
- Select **Specific User/Group** in order to assign read/deny privileges to individual users and groups.

Click **Next** to continue.



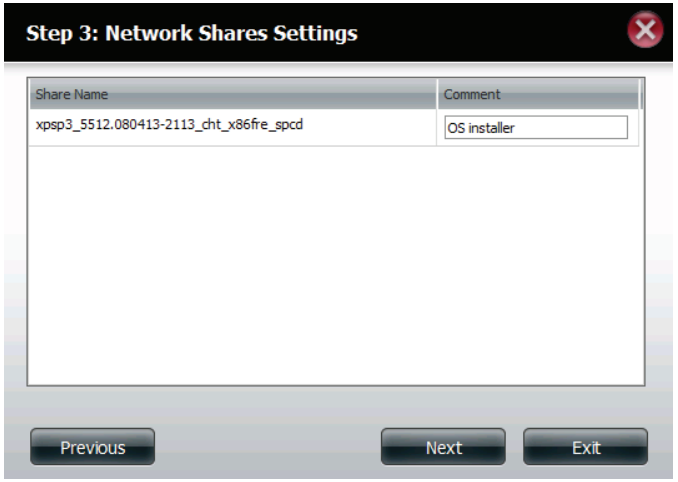
You can assign **Read Only** or **Deny Access** privileges to the **ISO Mount** share here. Click on the appropriate radio button for the privileges you would like to assign.

Click **Next** to continue.



Add a comment that describes the **ISO Mount Share**.

Click **Next** to continue.

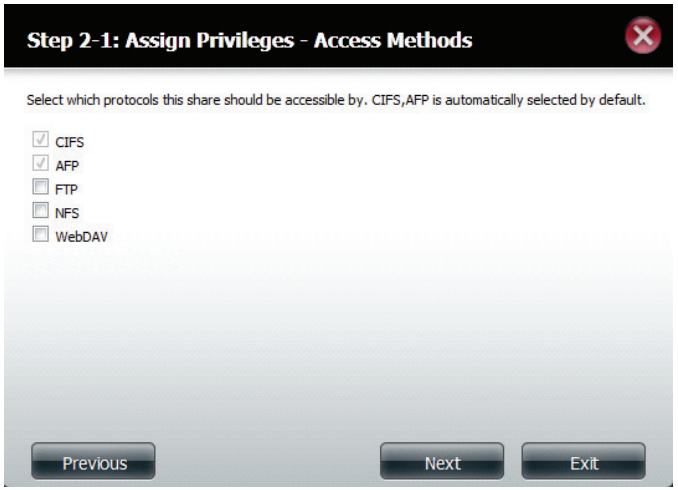


Assign more protocol privileges that a user can use to access this share. Options to choose from are **FTP, NFS and WebDAV**. **CIFS** and **AFP** are set by default.

- CIFS - Common Internet File System.
- AFP - Apple Filing Protocol.
- FTP - File Transfer Protocol
- NFS - Network File System.

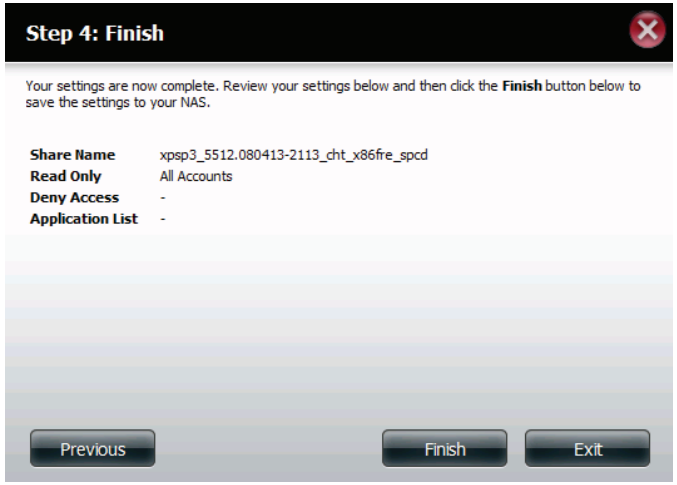
`

Click **Next** to continue.

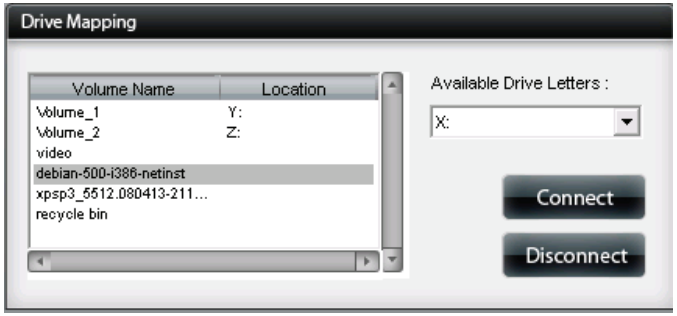


A summary of the share will be displayed.

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.

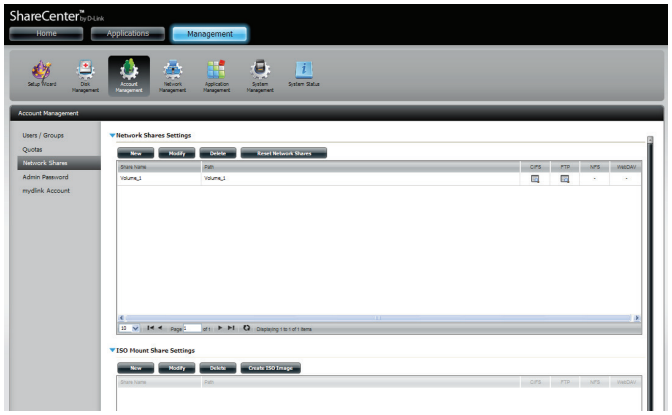


Creating an ISO Image

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

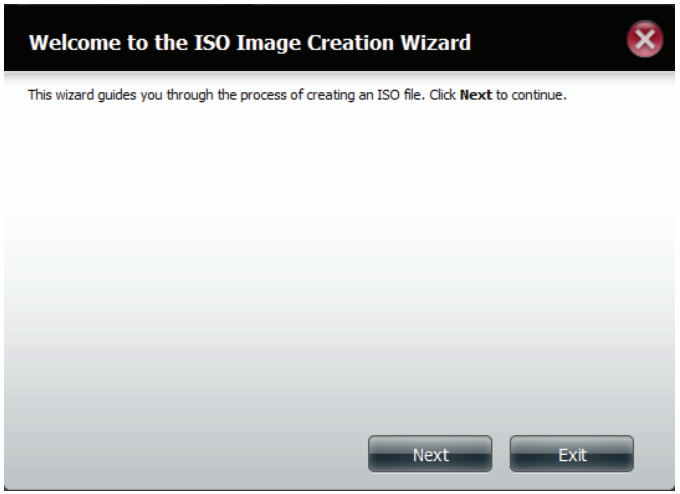
Click on the blue arrow labelled **ISO Mount Share Settings** to expand the settings dialog.

Click on the **Create ISO Image** button at the bottom of the page to start the 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.



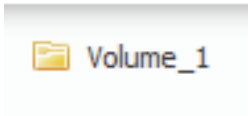
ISO Name and File Path Settings

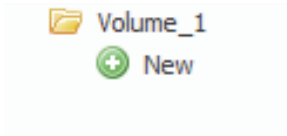
Select the **Image Size**. There are three Image Size choices:

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

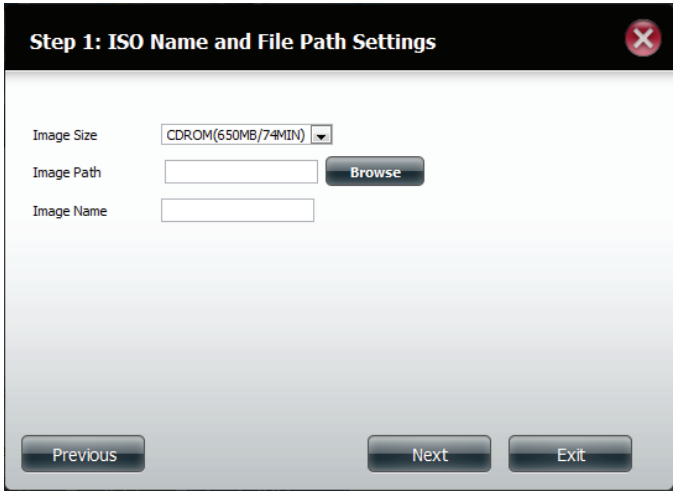
Select the **Image Path**.

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 folder.

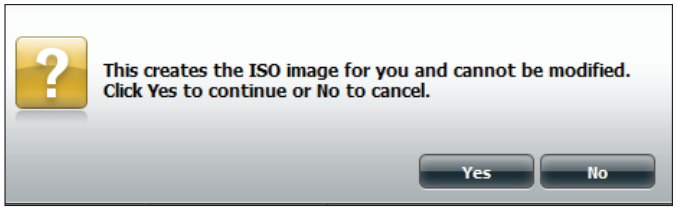




Enter a name to identify the ISO file you are writing. Click **Next**.



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



ISO Tree Editing

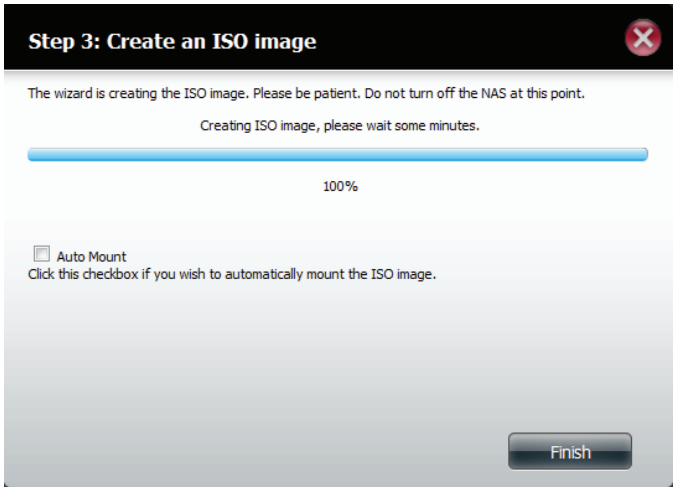
On the left side of the **ISO Tree Editing** window you have the option to **Overwrite** a previous ISO file or **Skip** it. It also displays the main directory on your NAS. Select the file(s) and click the **-->** button to add the file(s) to the ISO image. On the right side of the window it displays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

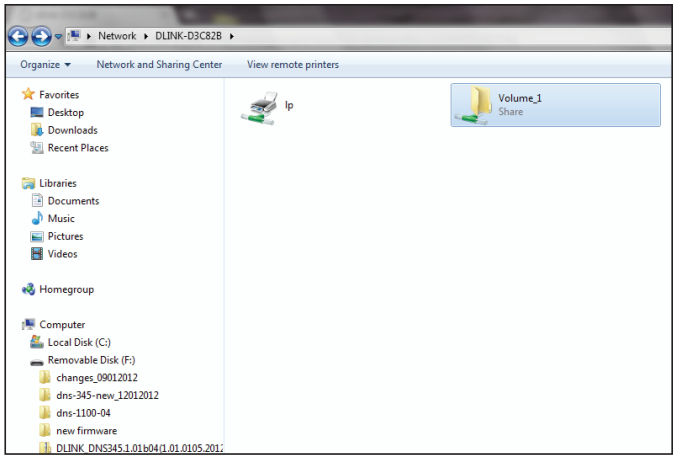
Click the **Auto Mount** checkbox if you want the ISO file to be mounted automatically.

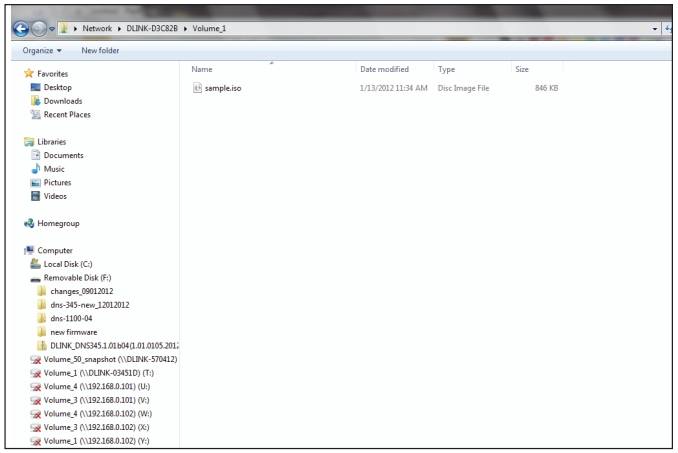
Click **Finish** to close the wizard.



Verifying the ISO image

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

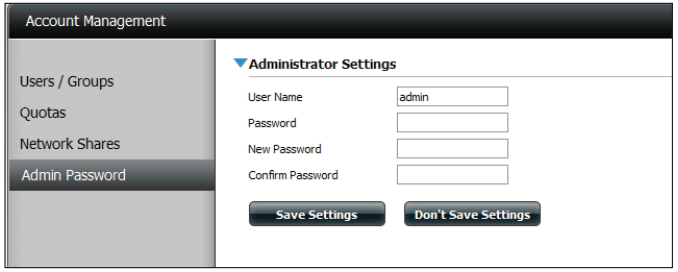




Admin Password

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

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



Enter a new **Username,** type the existing **Password**, enter a **New Password** or confirm the **New Password**

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

mydlink Account

Setup your mydlink account within the ShareCenter interface (instead of through the browser).

Go to **Account Management**.

Enter the existing **Password**, then enter a **New Password**, and re-enter the new password under, **Confirm Password**.

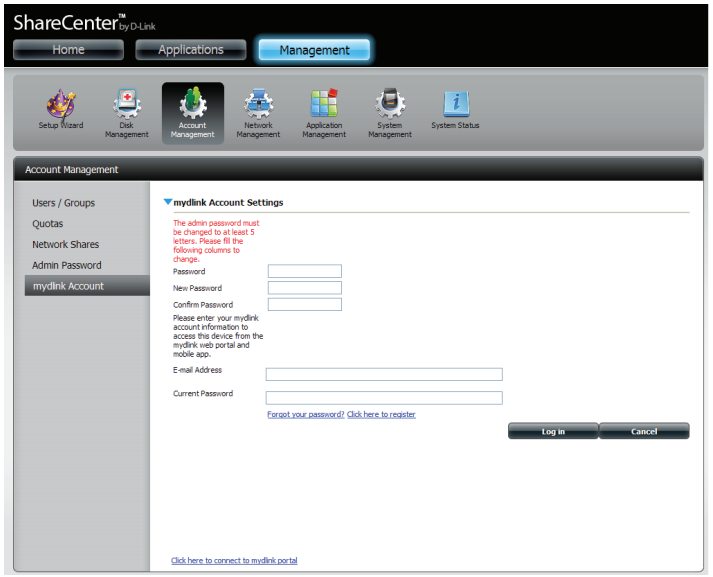
Enter the **E-mail Address** you use with your online mydlink account.

Enter the **Current Password** you use associated to that account.

Click the **Log in** button to access the account or click **Cancel** to exit.

Alternatively, if you wish to connect to the mydlink portal, click the link **Click here to connect to mydlink portal**

Note: If you have forgotten your password, click the **Forget your password?** link. If you need to register a new mydlink account, click the **Click here to register** link.

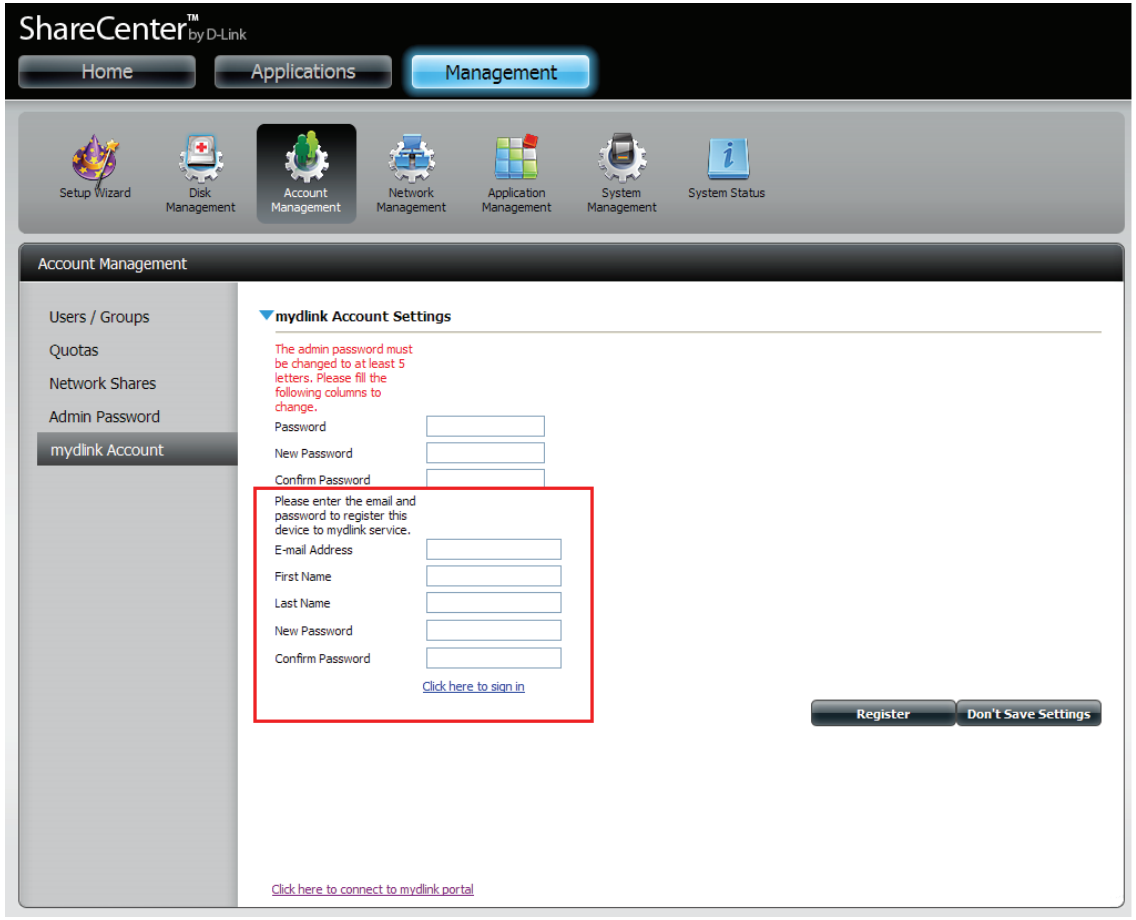


When you click the **Click here to register**, the data field changes. Follow the instructions below:

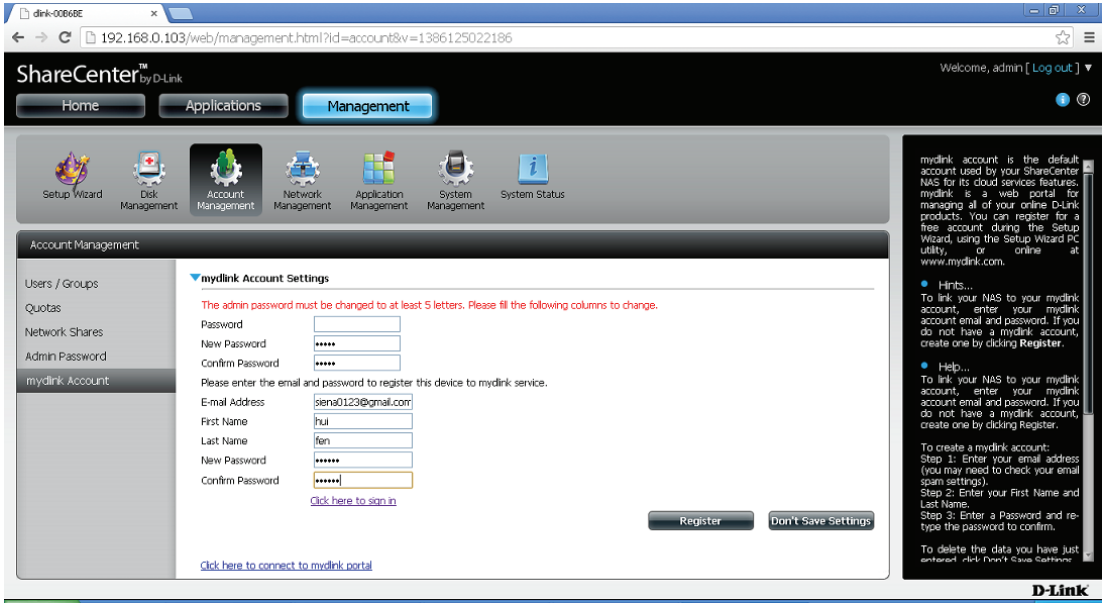
Please enter the email and password to register this device to mydlink service.

Enter the **E-mail address**, **First Name**, **Last Name**, **New Password**, and **Confirm Password**.

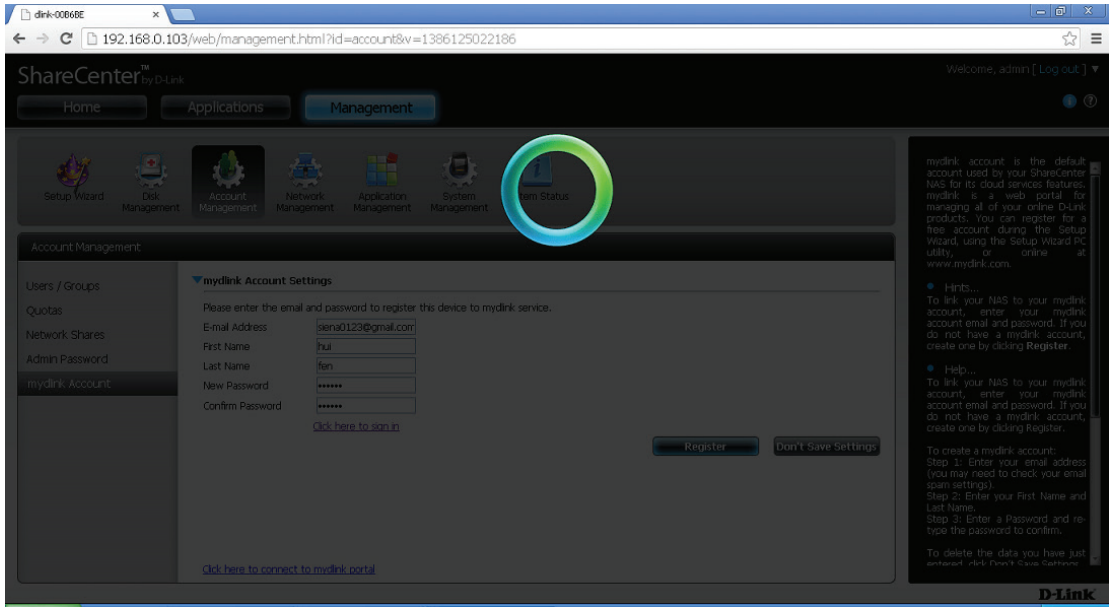
Click the **Register** button to connect to the registration process or click the **Don't Save Settings** to exit.



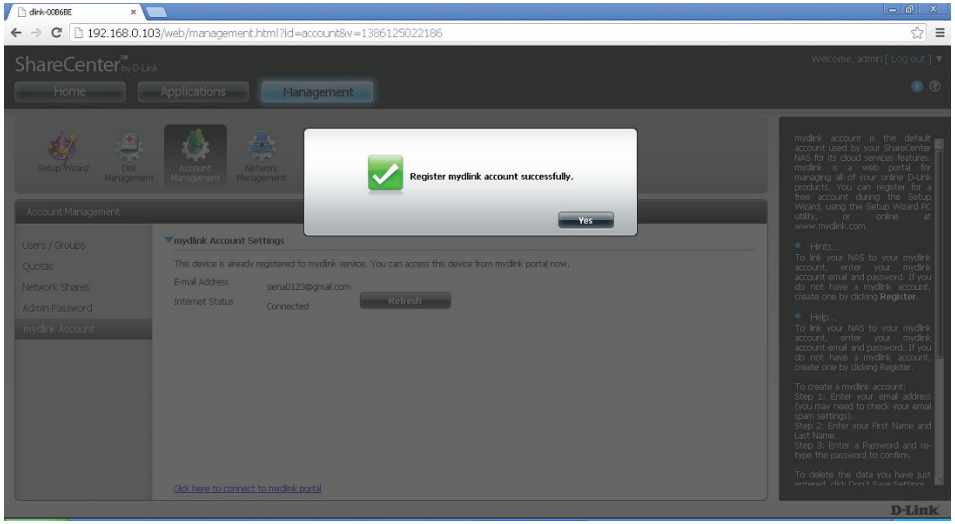
To register, complete all the details as mentioned above. Remember, the admin password must have at least 5 letters.



The DNS-320 saves your data.

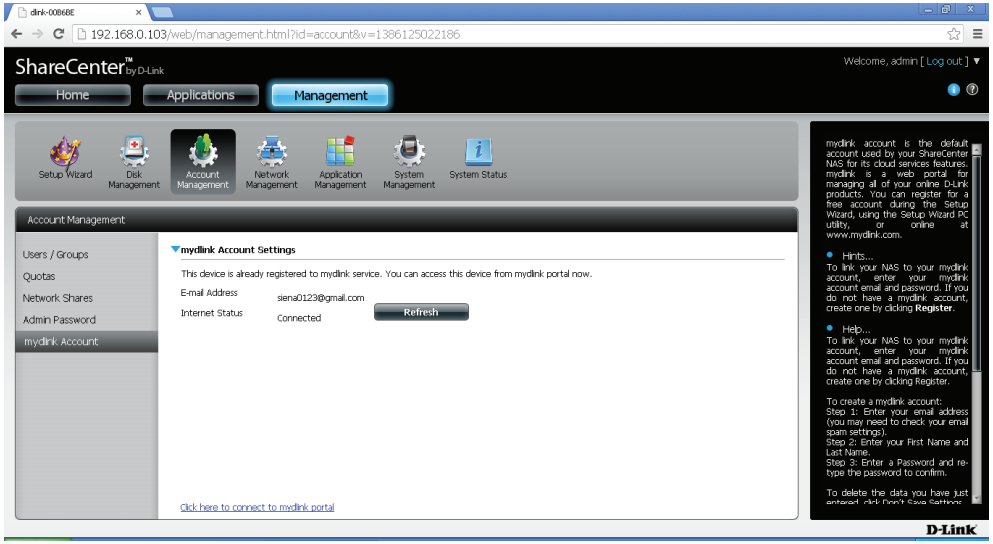


Once the data is saved you will get a verification message from the mydlink site - **Register mydlink account successfully**.



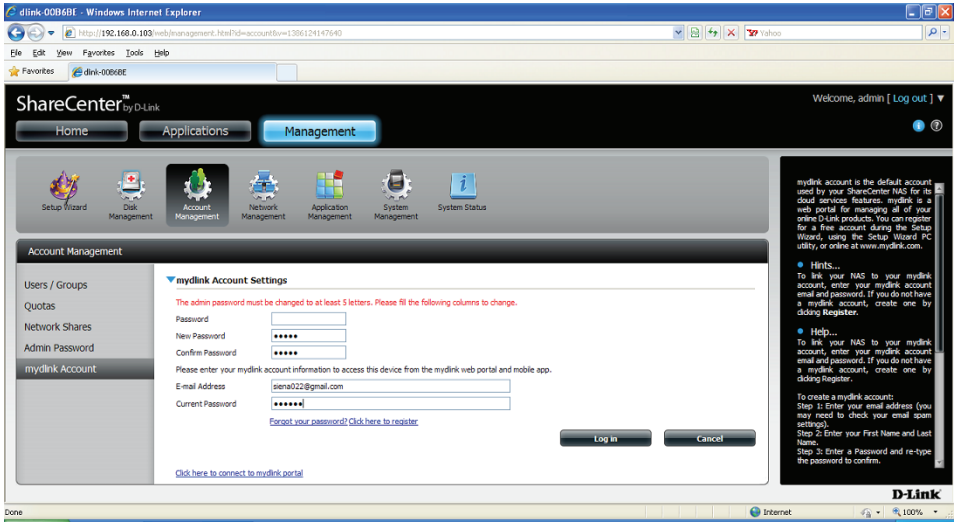
Click **Yes**, to continue.

The **mydlink Account Settings** displays your email address and **Internet Connection Status**.

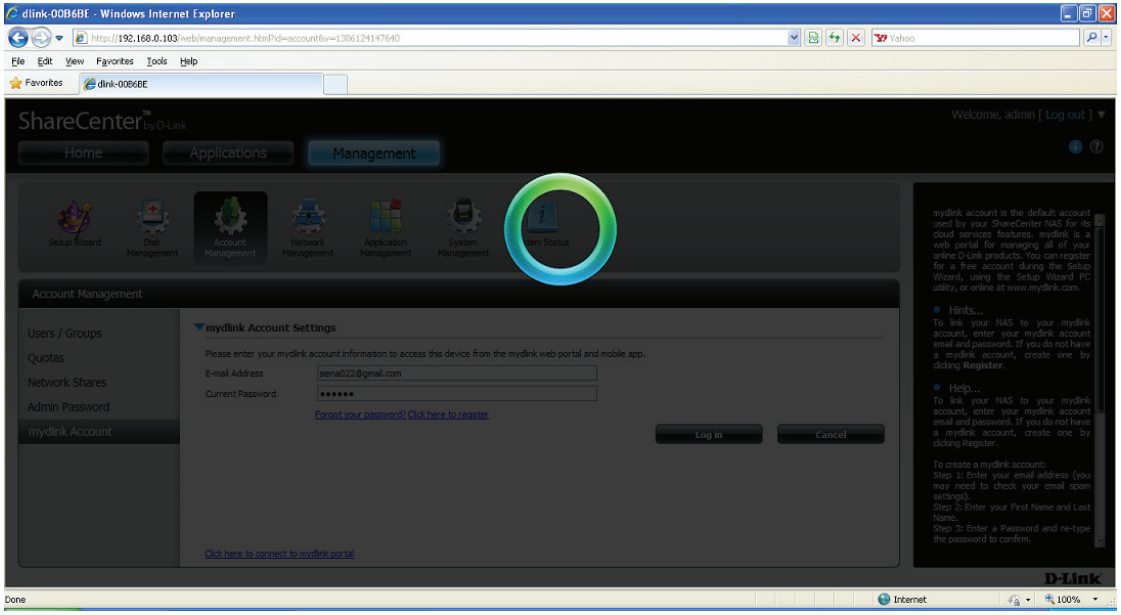


Click **Refresh** to remain connected to the account.

To sign-in to your mydlink account from your DNS-320, enter the details as highlighted here. Do remember the **E-mail address** and **Current Password**.

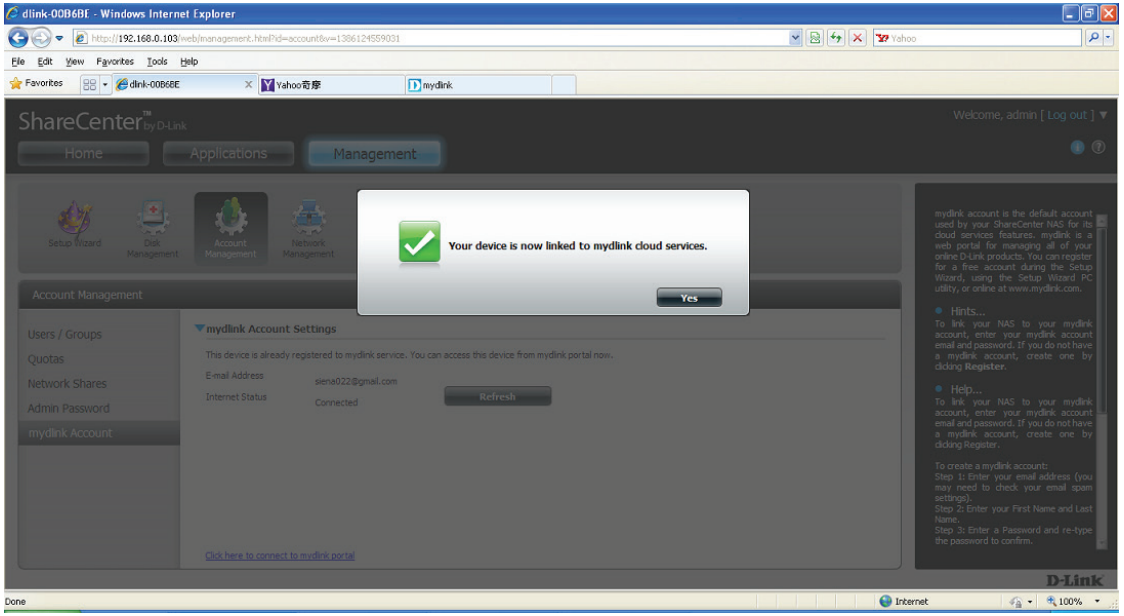


The NAS starts to save the data.



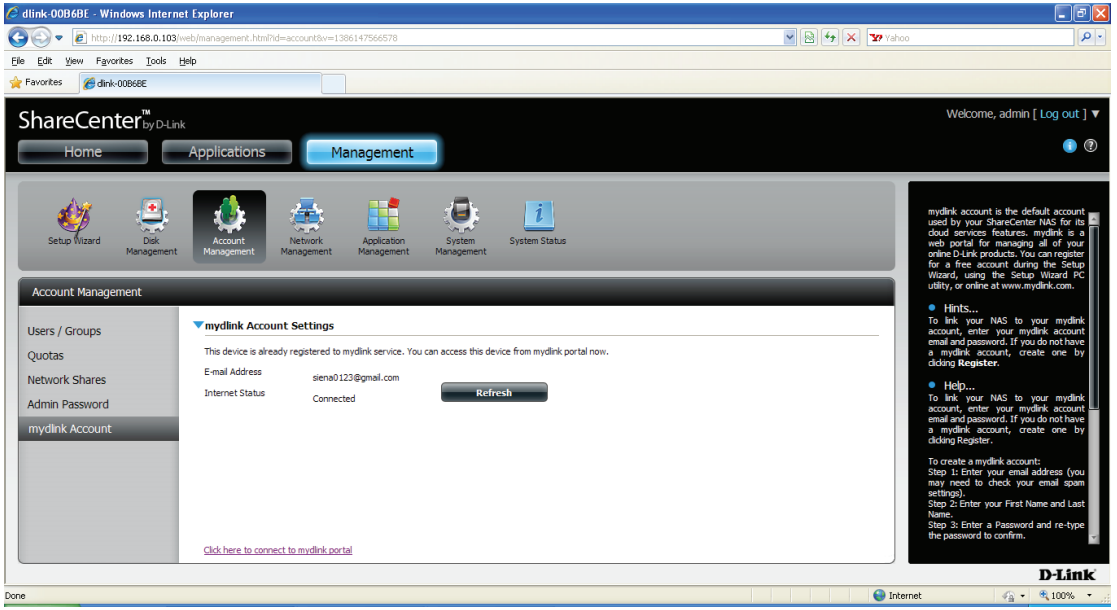
Once saved, you will see this pop-up notification - Your device is now linked to mydlink cloud services.

Click **Yes** to continue.



The **mydlink Account Settings** displays your email address and **Internet Connection Status**.

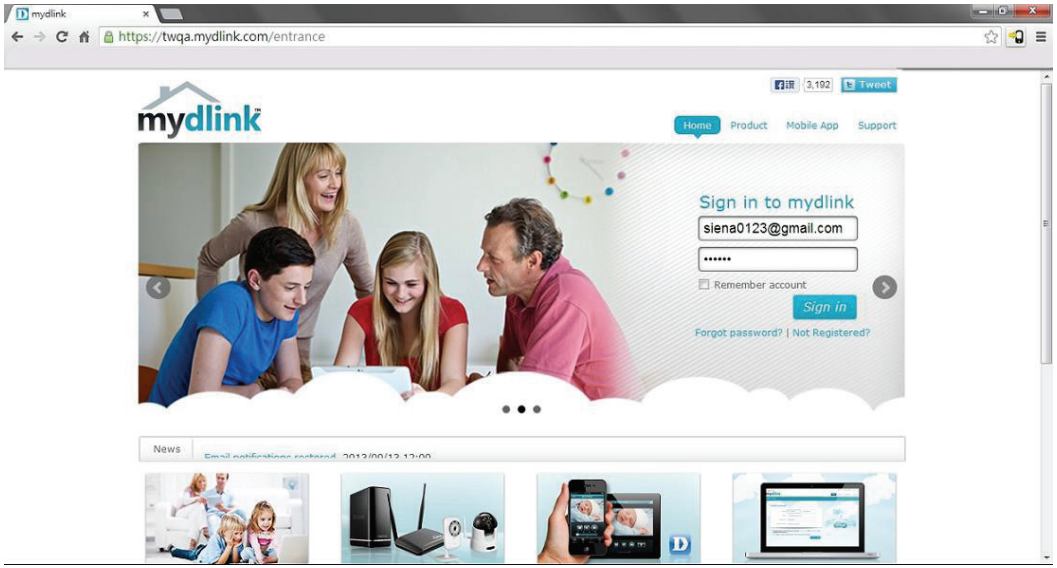
Click **Refresh** to remain connected to the account.



mydlink Account online

Once you have confirmed the mydlink configuration on the DNS-320, you need to sync and confirm the connection to the mydlink account online.

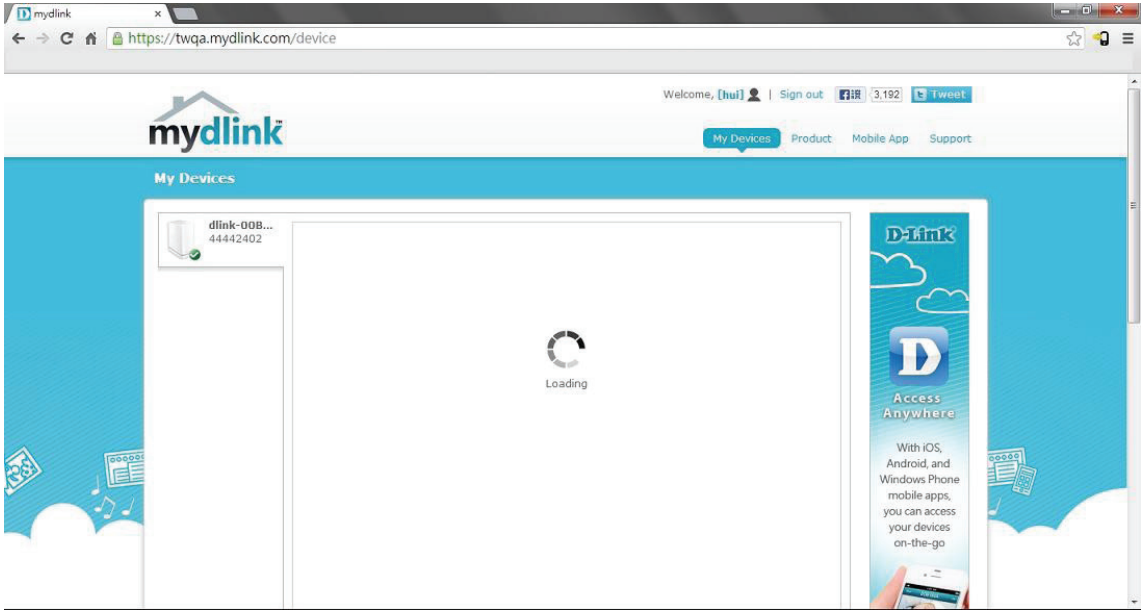
Open your browser and type in **http://www.mydlink.com**.



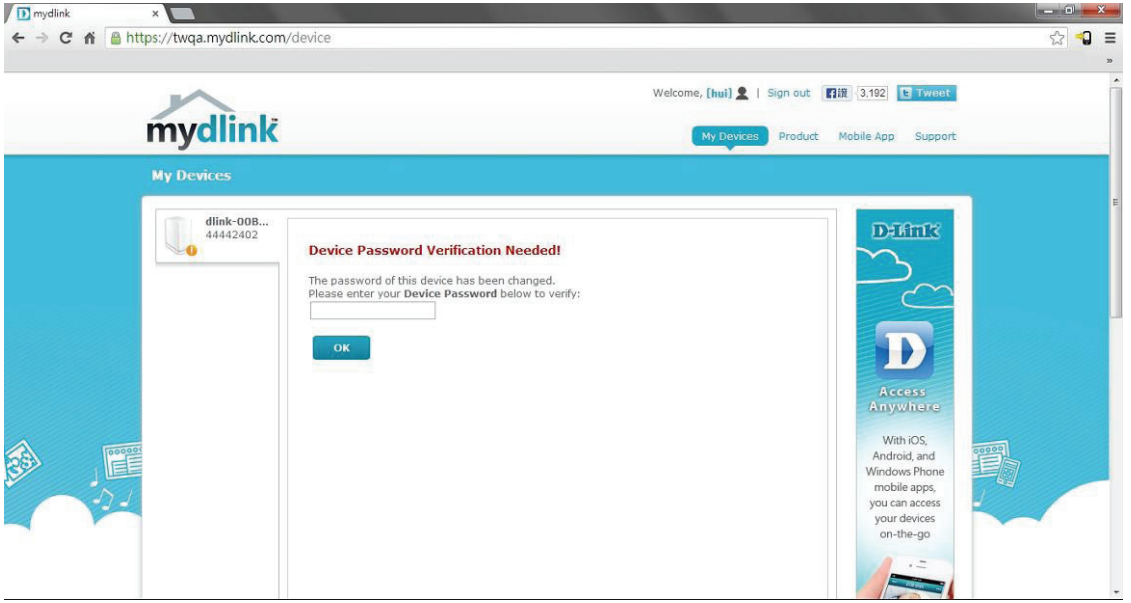
Under **Sign into mydlink** on the right-hand side, type in your **username** (preferably your email address associated to the account) and your **password**. Click the checkbox next to **Remember me** if you wish the username and password to saved to memory and click the **Sign in** button.

Other options available are: **Forget Password** (if you forgot your password you are redirected to a site where you can change your password. The other option is to register if you haven't already registered. Just click **Not Registered**.

On the next screen you are directed to your account. It displays your DNS-320.

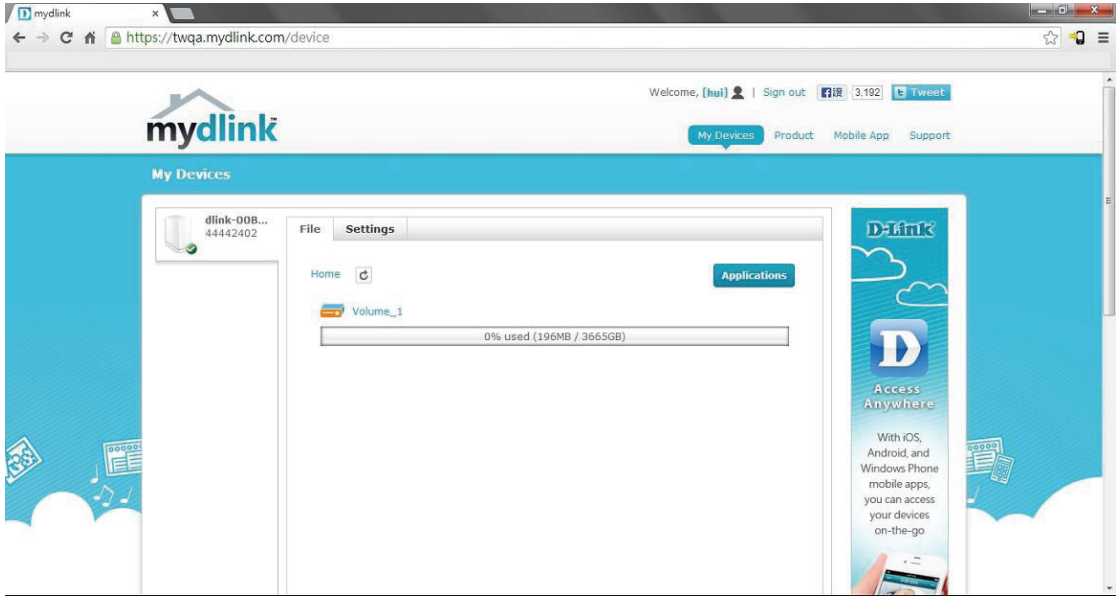


To confirm your product and account details to mydlink, you are asked to verify access with your password. Enter your password in the field provided and click **OK**.

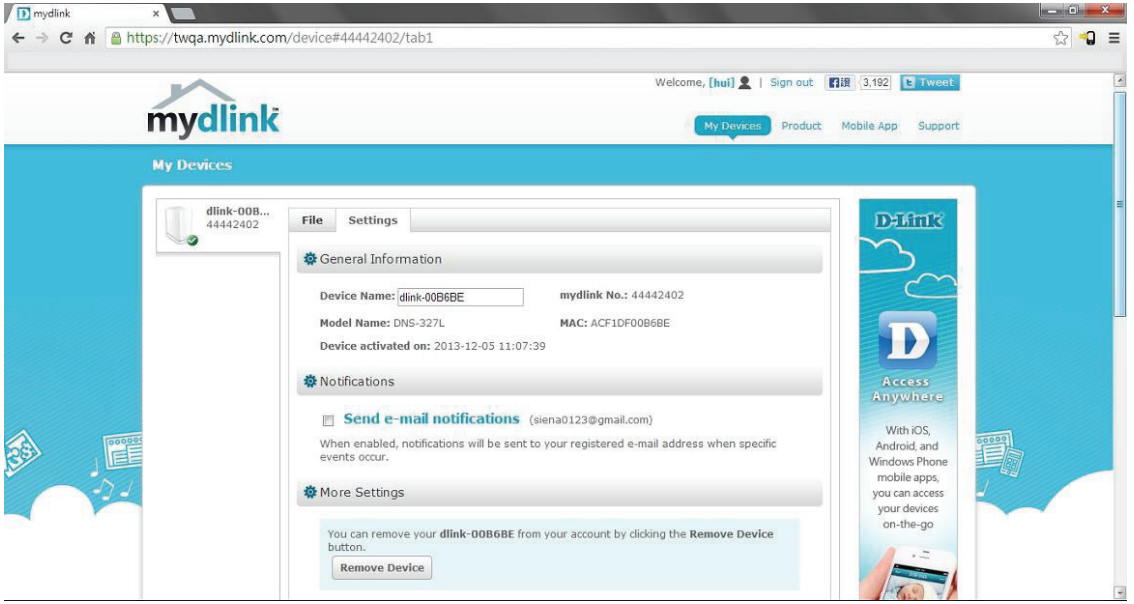


Once the confirmation process is complete, the interface displays the **Volume** you originally setup on your DNS-320.

It also displays **Settings** and **Applications**. These are discussed in more detail later in the manual.



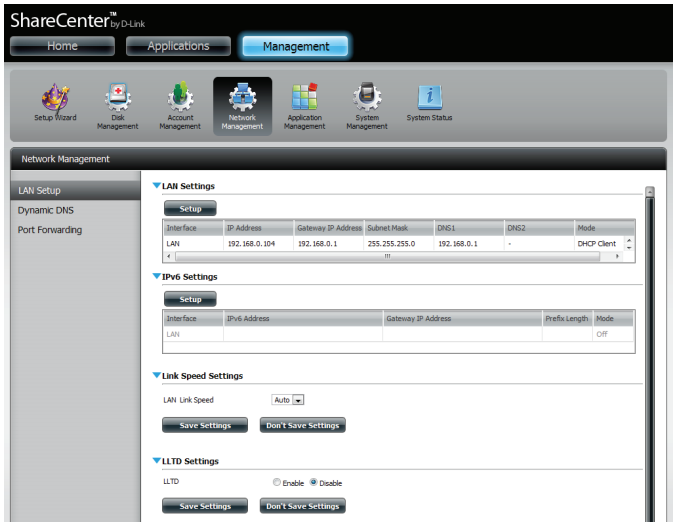
Click **Settings** to find some general information about your DNS-320. Here you will also get information on **Notifications** (email notifications), and **More Settings** (methods to **Remove your Device** from the account).



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, they can still be modified here.



Go to **Network Management >>LAN Setup.** Under the LAN Settings section, click **Setup**.

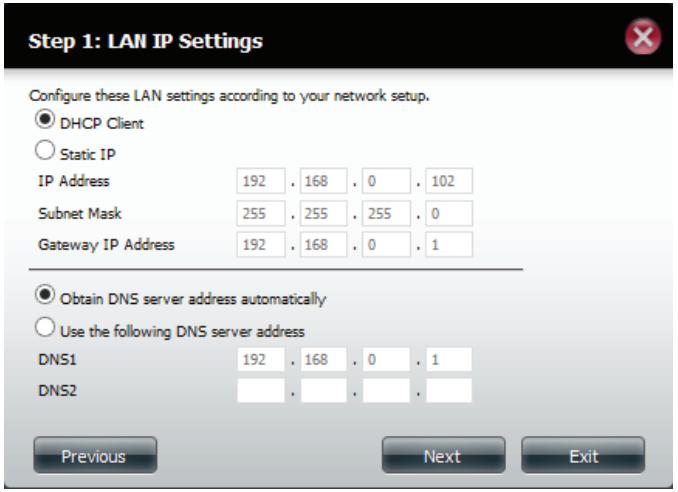
The LAN setup wizard gives you the option to configure the IP settings.

Click **Next** to continue.

This step allows you to configure your LAN settings. Choose **DHCP Client** to automatically obtain IP address information from your network's router or DHCP server. Select **Static IP** to manually configure your IP address settings.

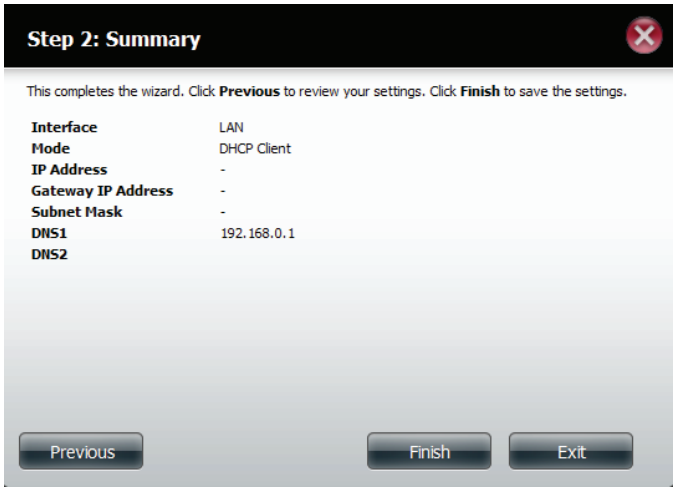
You can also choose to **Obtain DNS server address automatically** or select **User the following DNS server address** to manually enter DNS server information.

Click **Next** to continue.



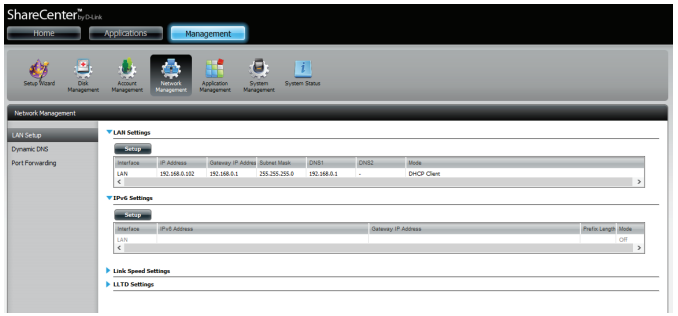
A summary of the updated configuration will be displayed.

Click **Finish** to exit the wizard.



IPv6 Settings

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



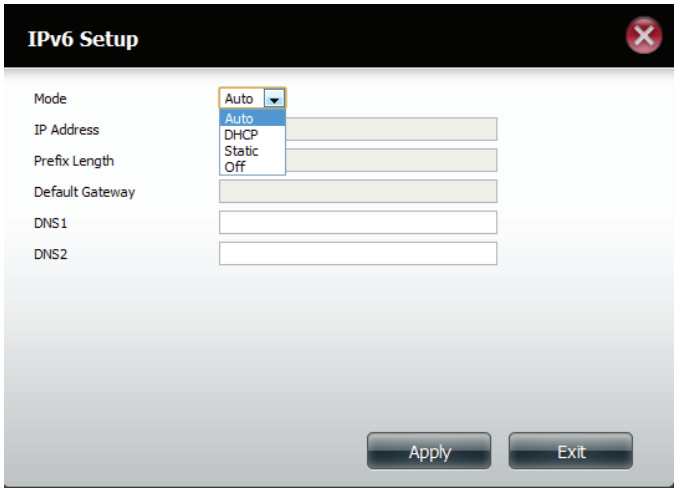
There are four connection modes to select from: **Auto**, **DHCP**, **Static** and **Off**.

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

DHCP - Requests information from a DHCP server.

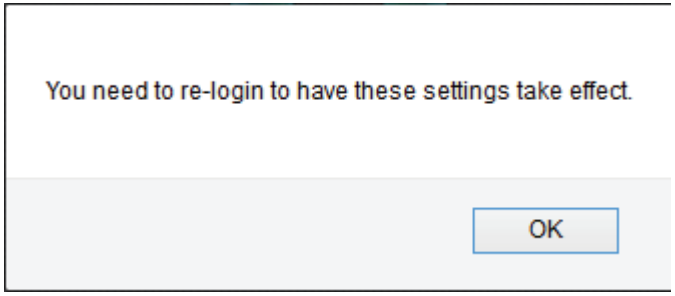
Static - Allows you to manually enter your own IP configuration.

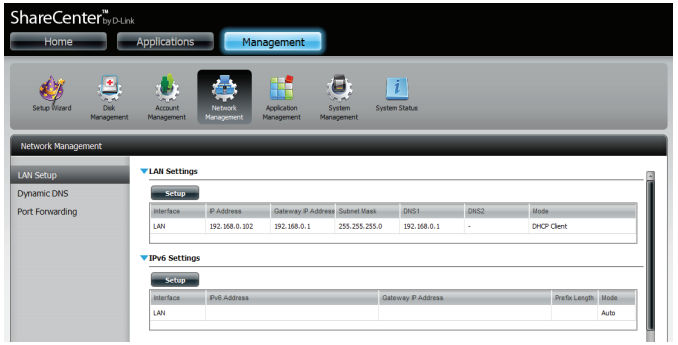
Off - Disables IPv6 functionality.



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 again.

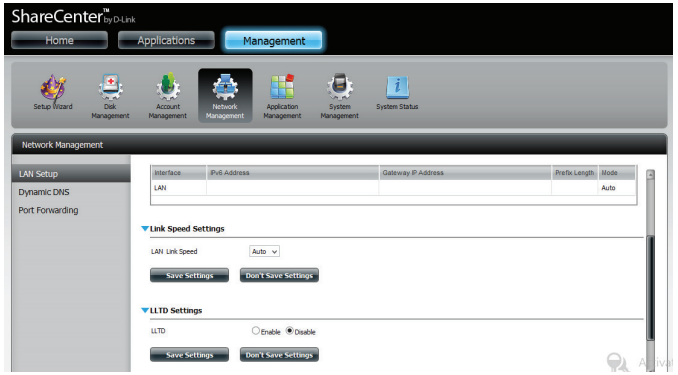




Link Speed and LLTD Settings

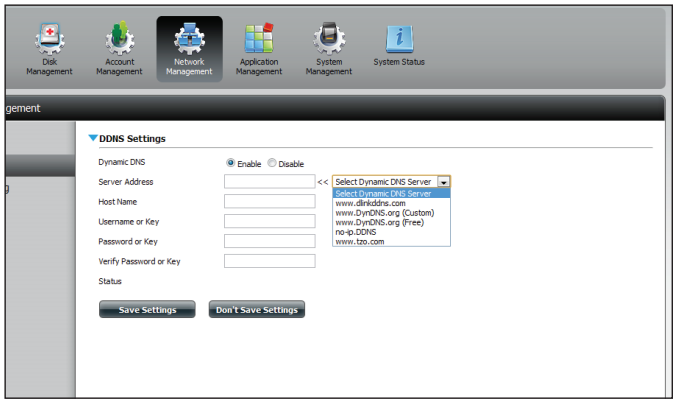
Link Speed: Select either **Auto (Auto-Negotiate)**, **100 Mbps**, or **1000 Mbps** from the drop-down menu. Click the **Save Settings** button to save the new settings.

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

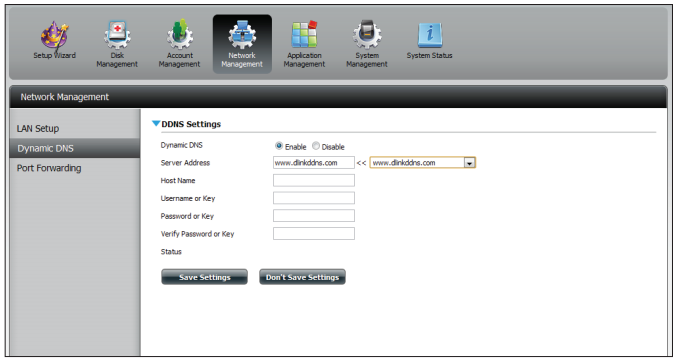
The **DDNS** feature allows the user to host a server (web, FTP, game server, etc…) using a domain name that you have purchased (www.yourdomain.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider,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



Go to **Network Management >> Dynamic DNS.**

DDNS: Select **Enable** or **Disable**.

Server Address: Select a **DDNS server** from the combo box on the right hand-side, and click << to automatically populate the fields. You can also type in the server address manually.



DDNS: Enter your **DDNS host name**.

Username or Key: Enter your **DDNS username** or key.

Password of Key: Enter your DDNS password or key.

Verify: Re-enter your password or key.

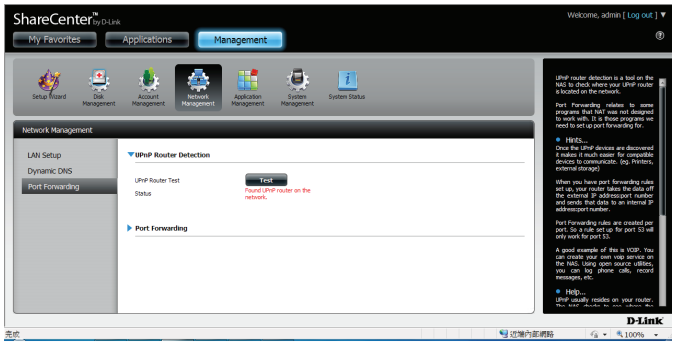
Status: Displays your DDNS status.

Port Forwarding

The DNS-320L 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.

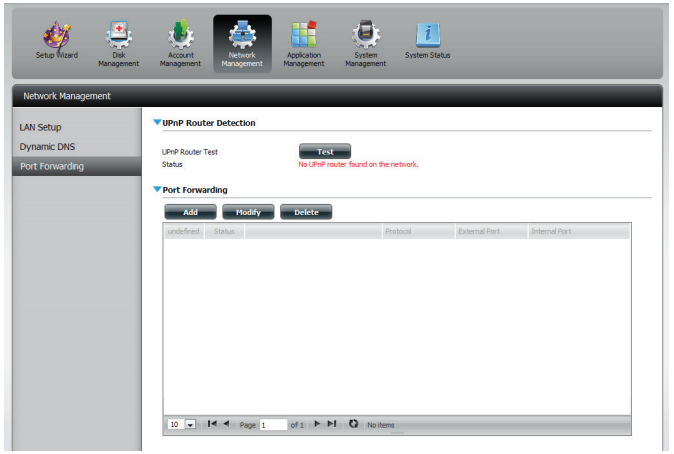


The DNS-320L will search for a **UPnP** router. Do not turn off your NAS.

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.

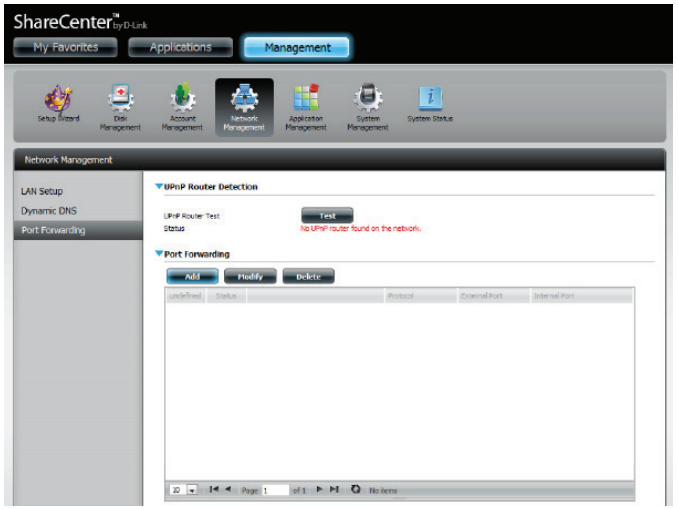
Click the blue arrow next to port forwarding to reveal the **Port Forwarding** options.



Click **Add**.

The Port Forwarding wizard will start.

Click **Next** to continue.



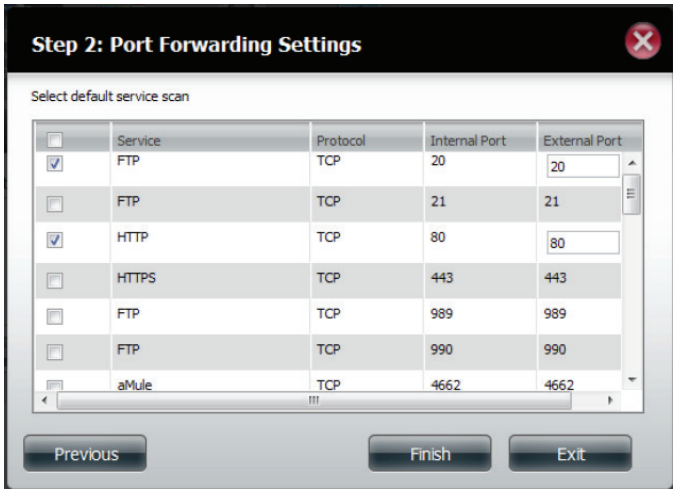
Select **Select default service scan** to select the port forwarding services from a list, or select **Custom a port forwarding service** to manually configure your own settings.

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.*

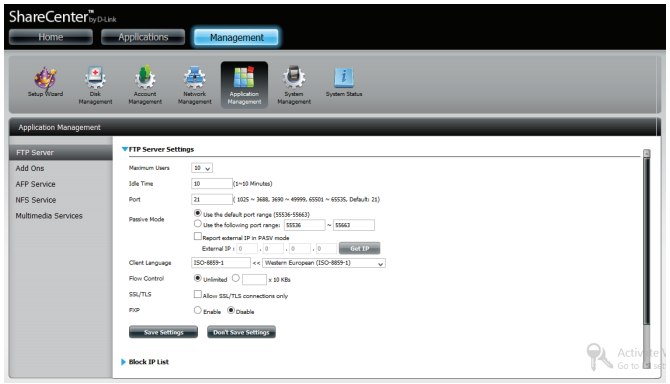
Click **Previous** to change the Port Forward Rule or **Finish** to configure the port forwarding on the UPnP router automatically.



Application Management

FTP server

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



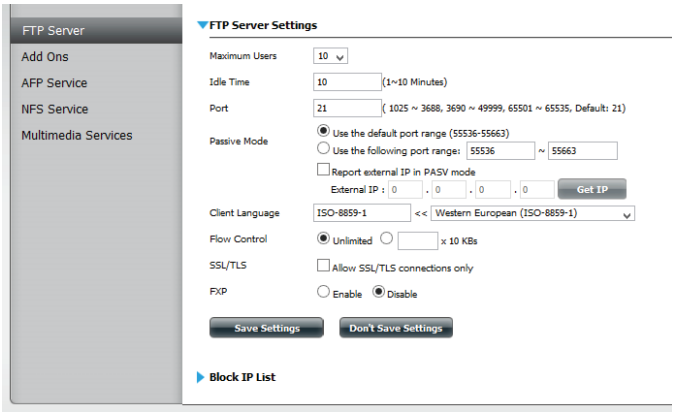
Max User: Set the maximum amount of users that can connect to the FTP server.

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

Port: Set the FTP port. The default port 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: Most standard FTP clients like Windows FTP only support Western European code page when transferring files. 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 Support has been added for non standard FTP clients that are capable of supporting these character sets.

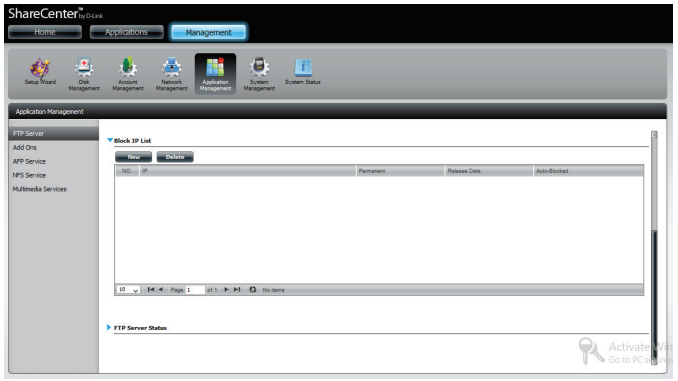
SSL/TLS: Allows you to limit the amount of bandwidth available for each user.
Here the user can restrict connections to SSL/TLS connections only.

FXP: **Enable** or **Disable** the use of the File eXhange Protocol (FXP) to transfer files from one FTP server to another.

Note: In order to use FXP 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.

Block IP List

The Block IP List allows you to block IP address that you consider threatening to your network. Click the blue arrow to open the configuration window.

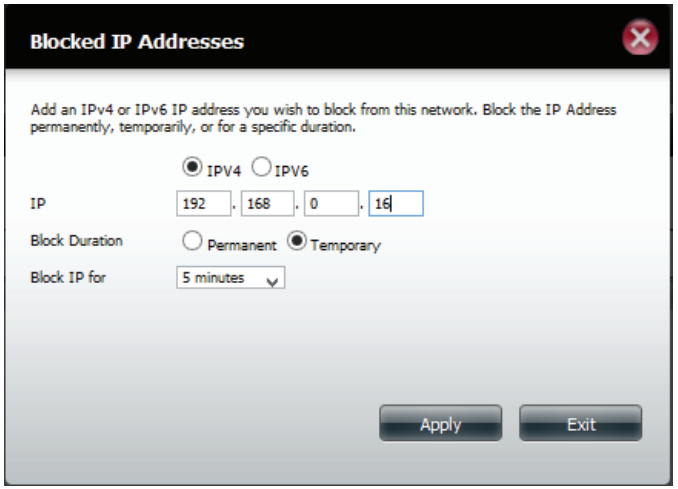


The window expands to include a Blocked IP list and a FTP Server Status report.

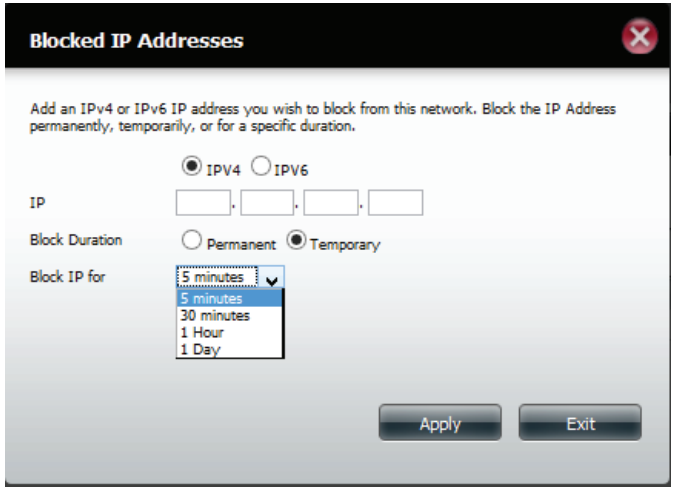
Click **New** to block a specific IP address.

Select **IPv4** or **IPv6** and then enter the IP address that 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.

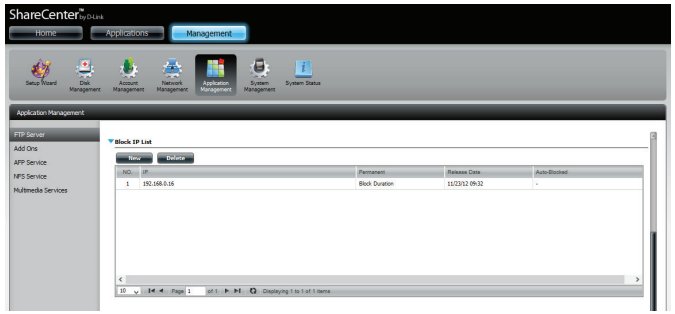
If you selected permanent, click **Apply** and continue.



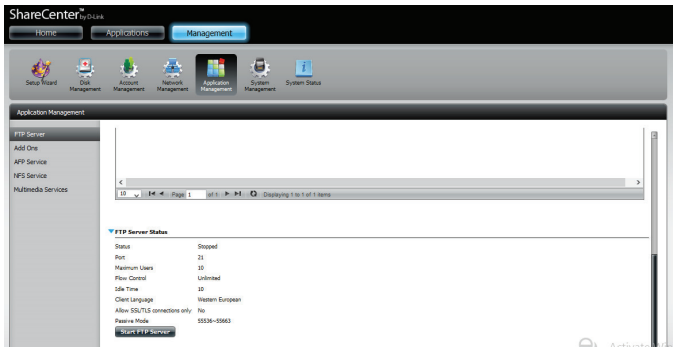
If you selected **Temporary**, then select a time frame and click **Apply** to continue.



The **Blocked IP** list table will display a list of blocked IP addresses.

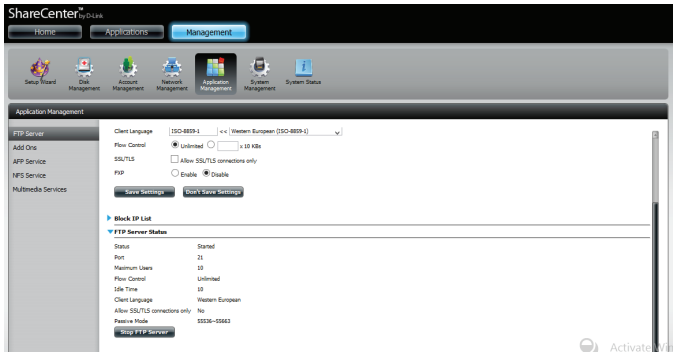


Click the blue arrow next to **FTP Server Status** to reveal the FTP details.

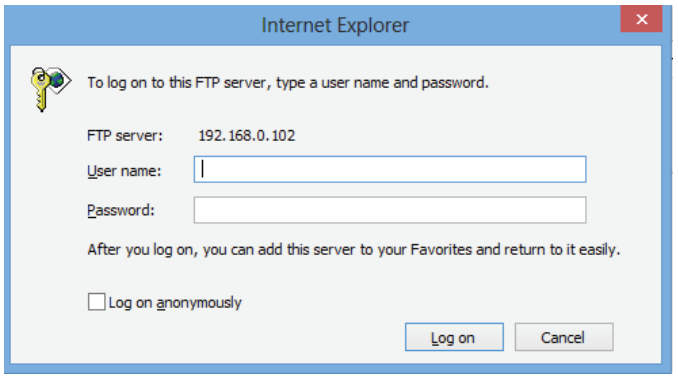


The **FTP server** is stopped by default. Click **Start FTP Server** to run the process.

After you have clicked the **Start** button, the **Status** shows **Started.**



Open your default browser or FTP application and log-in to your FTP server.



Add-ons

Add-ons add extra services to the DNS-320L. Here is a look at each Add-on service available.

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 view your ShareCenter stored photos from any Internet connection.

Squeeze Center: 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, a blog created using WordPress can be accessed and commented on from any Internet connection.

Audio Streamer: Turn your ShareCenter into an online 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 the Internet. It works on all major platforms.

Joomla: Create your own ShareCenter based customized CMS (Content Management System). Using the ShareCenter's Internet connection, you can use this add-on to manage your website's online content.

phpBB: Create your own ShareCenter based customized forum. This add-on uses the Sharecenter to host an online forum which can be accessed by users over the Internet.

phpMyAdmin: Manage your own ShareCenter MySQL database using the phpMyAdmin add-on.

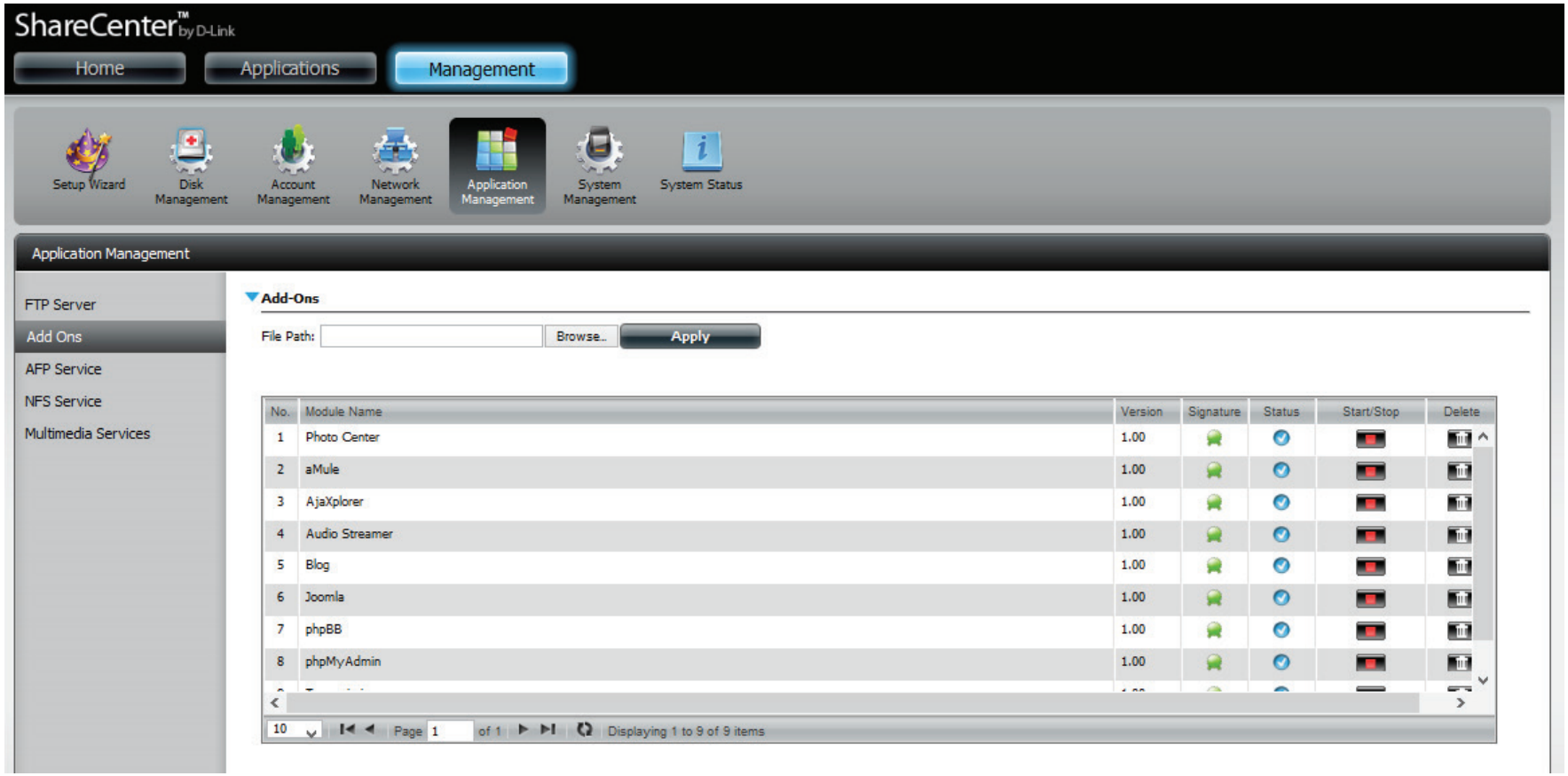
Transmission: The ShareCenter's P2P functionality is enhanced with the Transmission add-on for downloading P2P files. Transmission also provides a full featured P2P web UI interface which can be launched to work with your ShareCenter's P2P functionality.

The a list of Add-Ons is also available on your installation CD using the setup wizard. They include, Photo Center, aMule, AjaXplorer, Audio Streamer, Blog, Joomla, phpBB, phpMyAdmin, Squeeze Center, and Transmission. The Add-Ons panel provides a version number, Signature, Status, Start/Stop, and Delete options. Please refer to the Setup Wizard instructions earlier in this manual for further information on how to enable add-ons using the Setup Wizard.

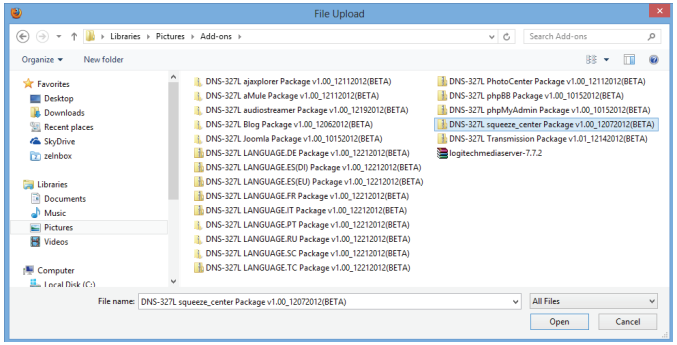
Caution: The ShareCenter's CPU resource usage may become heavy depending on the number of Add-ons you have enabled. For optimal performance you should disable any add-ons not in use.
Note: To check the complete list of Add-on application software available consult your local D-Link support page

Installing Add-ons from the Web UI

Add-Ons can also be installed using the web-based UI. The Add-Ons menu can be accessed by going to **Management>>Application Management>>Add-Ons**.



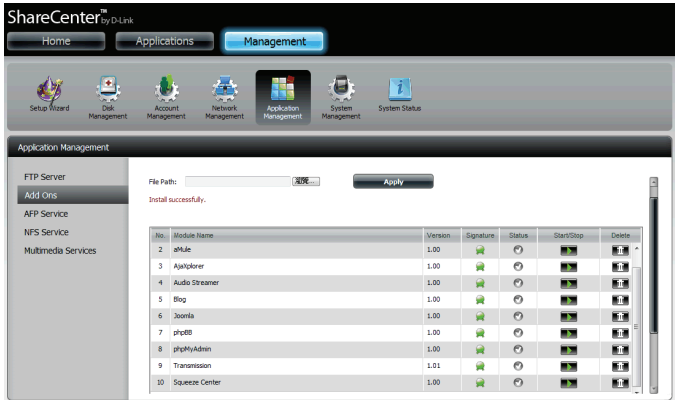
To add a new program, click **Browse** next to the File Path field. Locate the installation file for the target add-on and click **Apply** to commence the installation.
Add-on files are available on the ShareCenter CD, or can be downloaded from the D-Link support site



Once the path of the package you want to install 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 green arrow button under **Start/Stop** to enable the add-on.



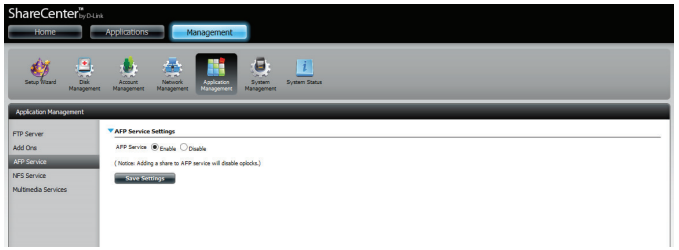
AFP Service

The ShareCenter supports the Apple Filing Protocol (AFP) for connectivity with Mac OS® based computers. If you need to use the 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**.



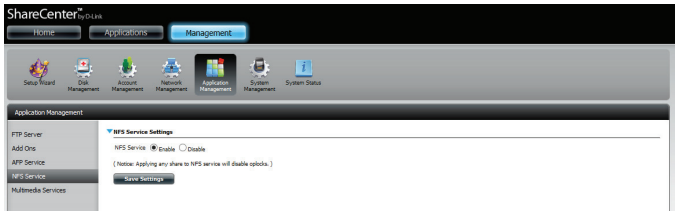
NFS Service

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.

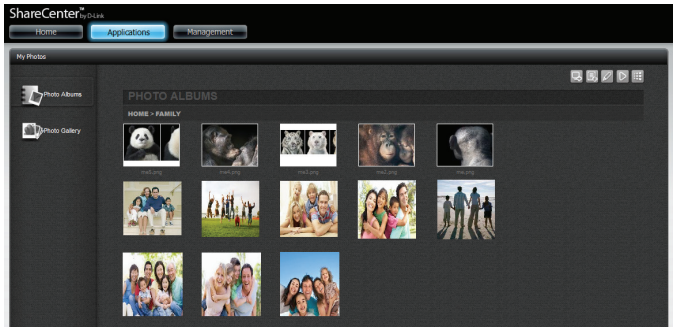
Click **Application Management** > **NFS Service.**

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

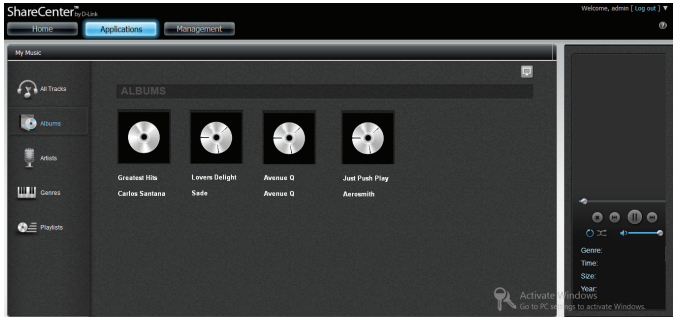
Click **Save Settings**.



Multimedia Services



The **Multimedia Share Settings** creates a media library from the photos, videos, and audio files stored on your **Sharecenter**. Users can upload files to the designated "**Media Share**" folders on the DNS-320L and have the multimedia services collate, organize and publish the content in one library. Once these photos, videos, and music files are uploaded to the "Media Shares" folders, the system will generate the media library. Users can see thumbnail views from the **My Music** and **My Photos** panel.



The **My Music** service provides detailed information on the genres, file size and cover art. **My Photos** creates automatic albums and collates them according to your collection.

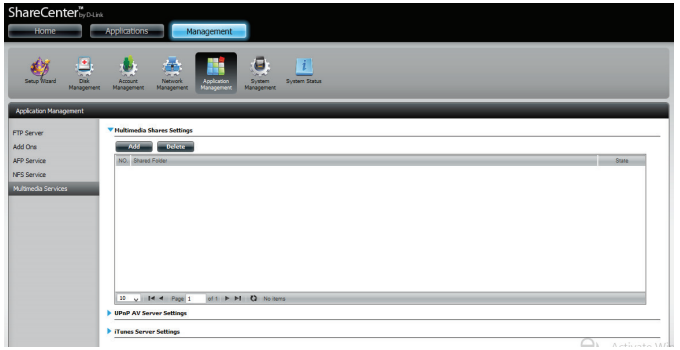
These categories, **My Photos** and **My Music** (including any video data you might have), offer stable features you can use smoothly on your DNS-320. One feature most useful is: **Enhanced Content Aggregation.**

Enhanced Content Aggregation allows you to pause/resume images, music and videos more easily without lag. Within multimedia the DNS-320 also offers the current processing file name and how many files still remain for you to upload or download.

Note: The system may become slow when generating the media library, especially when processing with a large number of files. After a media library is created, whenever you copy new media files into the Media Share folder, new media files in the folder will be automatically added to the media library.

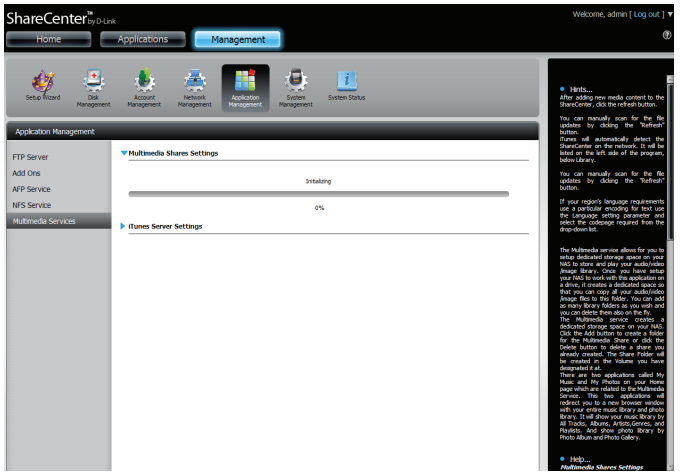
To create a multimedia library, go to **Application Management**>>**Multimedia Services**.

Click the **Add** button to connect Multimedia Shares to a Volume. Select the Volume or folder and click **Apply**.

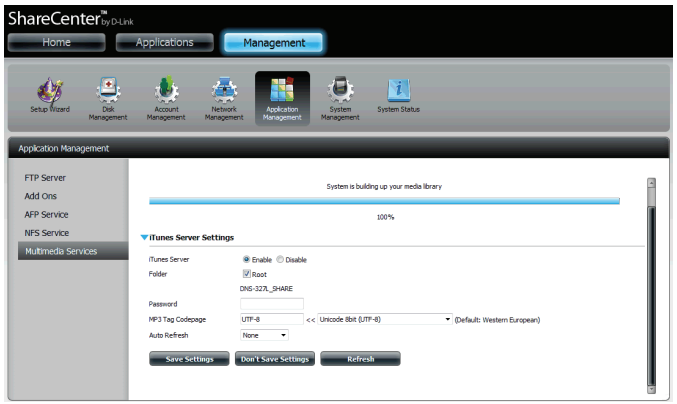


The maximum shared folders in multimedia shares settings is limited to 10.

The wizard initializes the process and compiles the data.

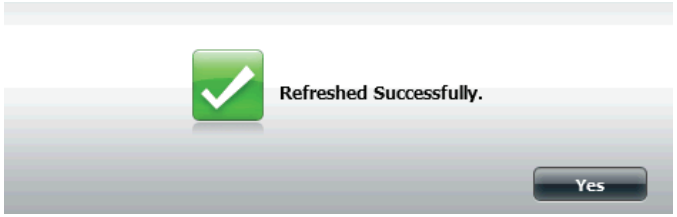


The ShareCenter will build the library automatically.

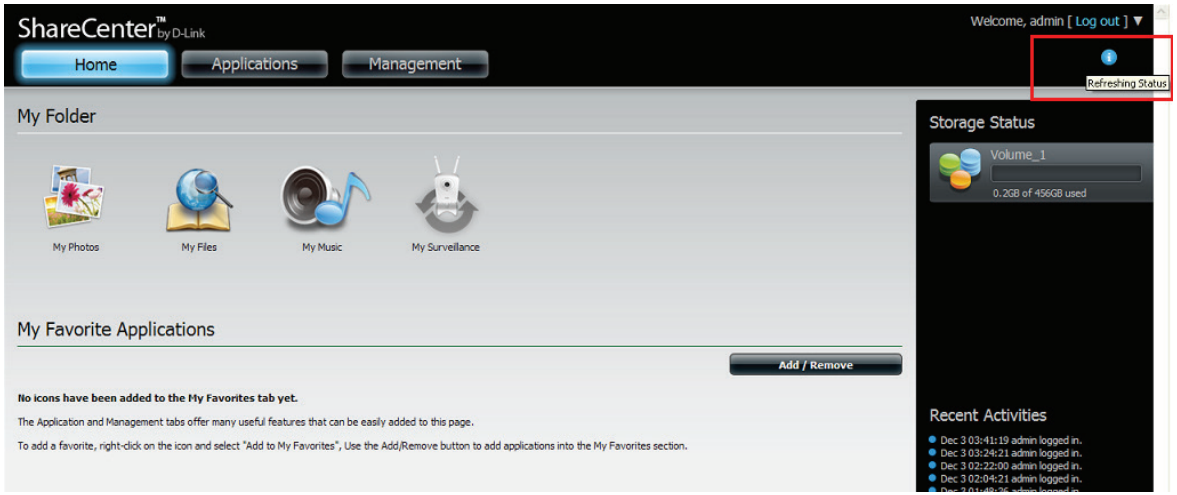


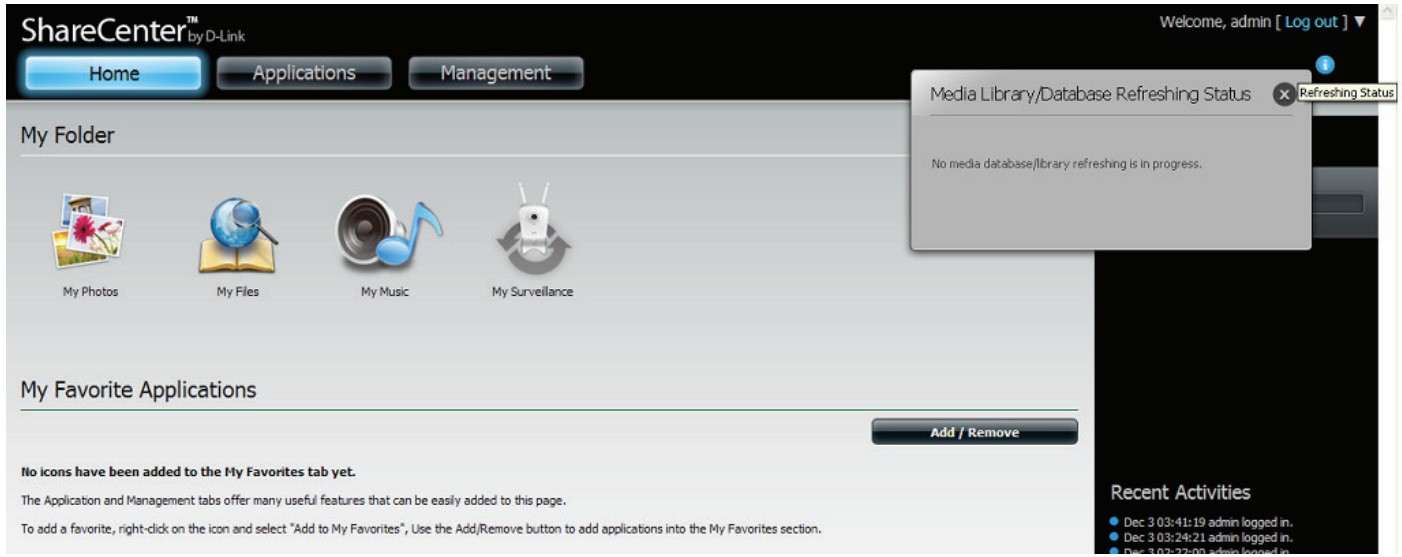
When the system has finished building the media library, a success message will appear.

Click **Yes** to continue.

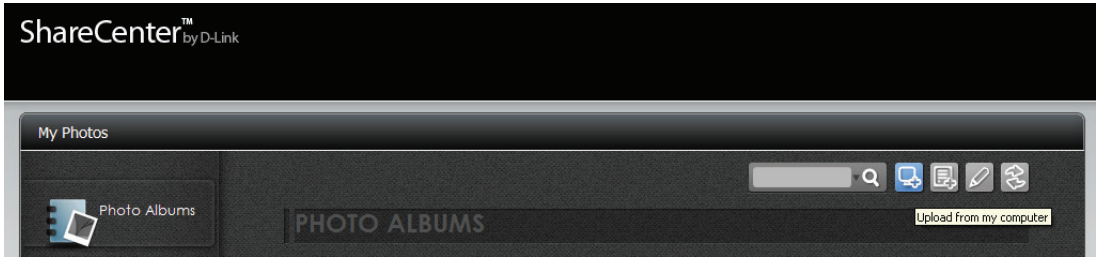


Once the media is loaded onto the DNS-320, one feature to monitor media is through the **Information Icon.** Move your mouse over this icon to refresh information. When you click the icon an information panel appears giving you information on the media you have on the DNS-320.





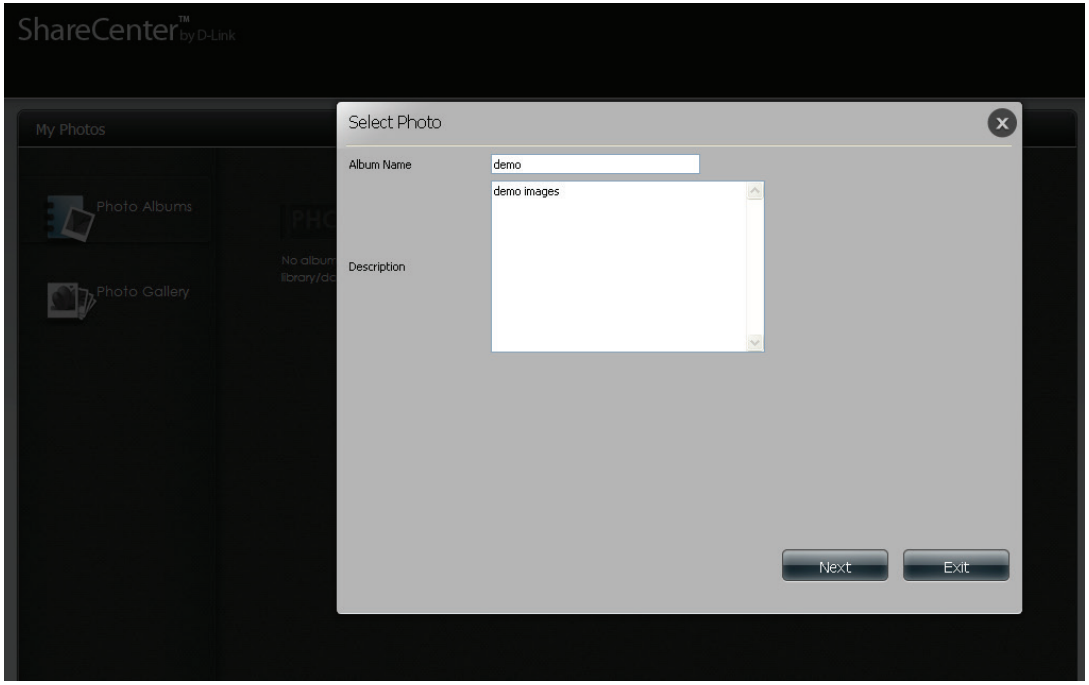
To test this feature, go to **Home** => **My Photos** => Select **Upload from my computer**.



Enter an **Album Name** in the field provided.

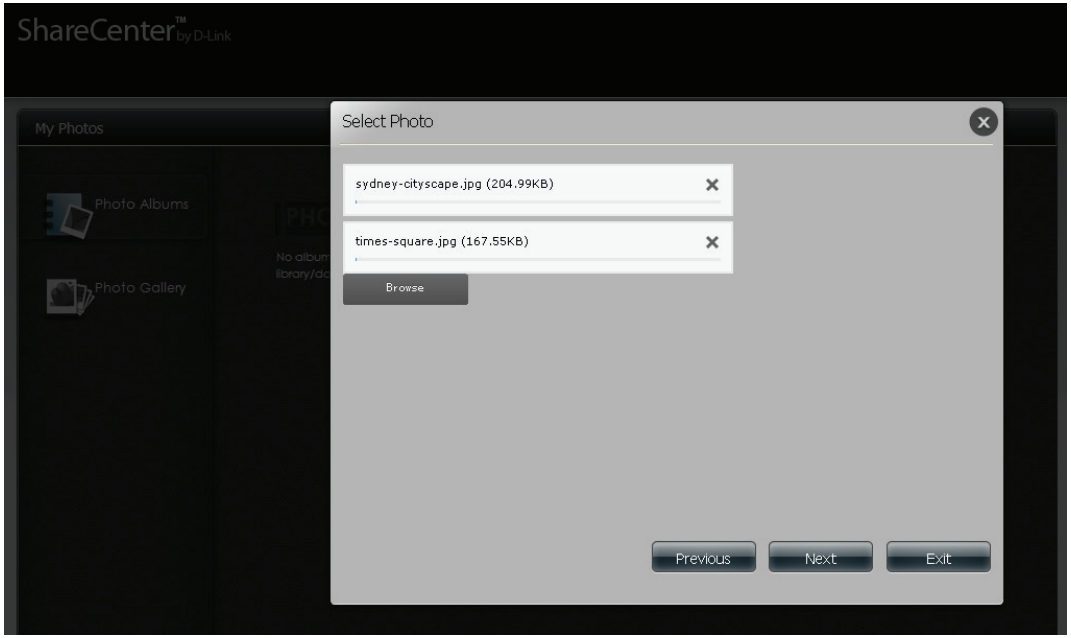
Enter a **Description.**

Click **Next**.

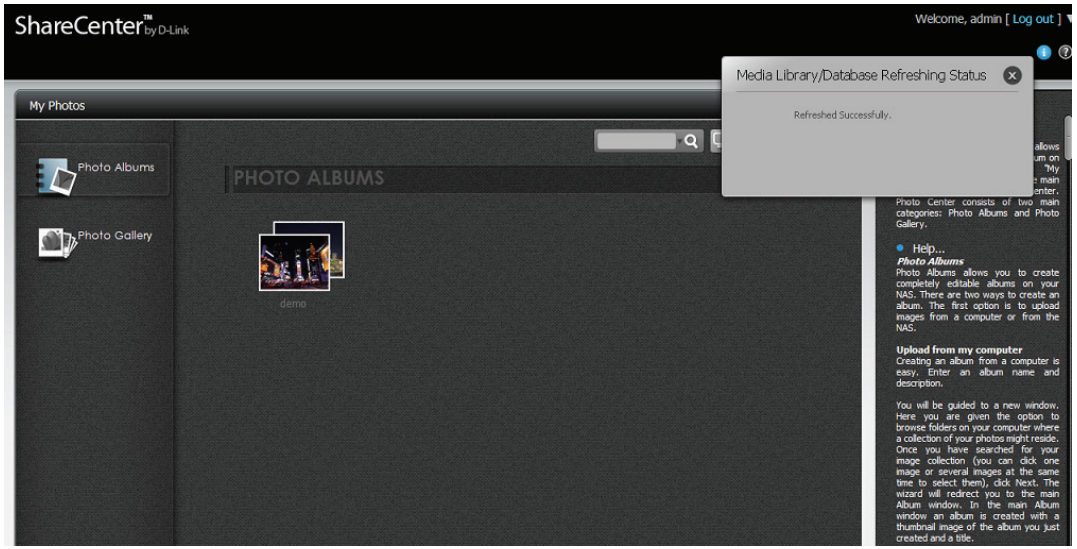


Click **Browse** to find the images/photos you wish to use.

Click **Next** to continue.

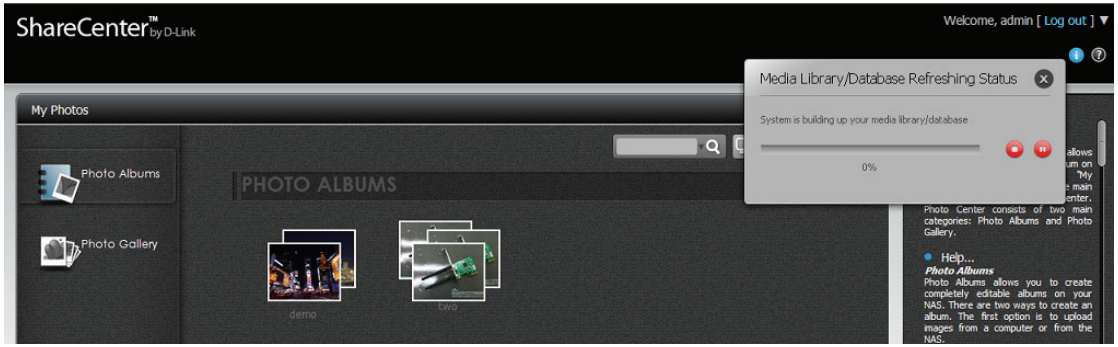


When the photos are uploaded, click the **Information icon**, then click the **Refresh** button and you can view the **Media Library/Database Refreshing Status**.



Another view is to click **Refresh** and see the system build the database.

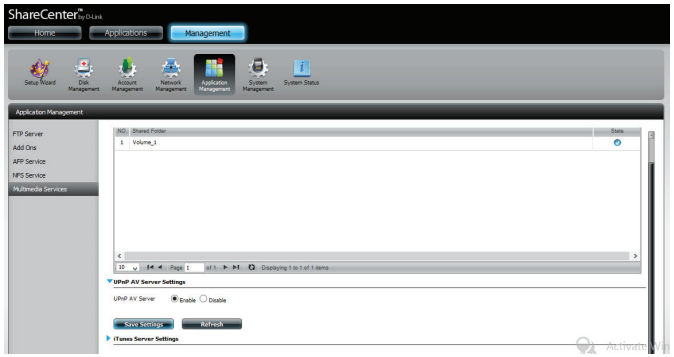
Refer to page 200 for more details on **My Photo**.



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>>Multimedia Services** and expand the **UPnP AV Server** section by clicking on the blue arrow.



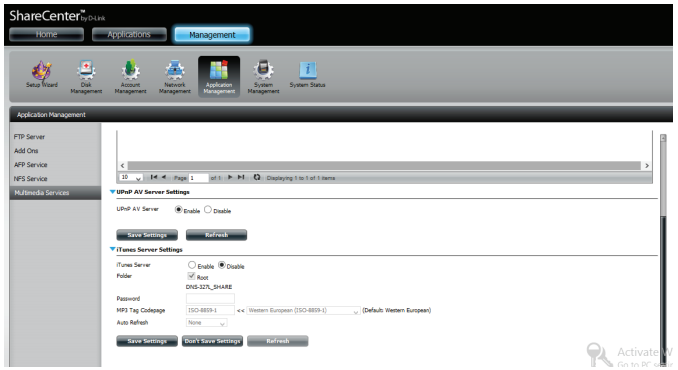
Click the **Enable** radio button to enable the UPnP AV server.

Click **Save Settings** to configure the UPnP AV share.

Click **Refresh** to rebuild the media library.

iTunes Server

The DNS-320L features an **iTunes Server.** This server provides the ability to share music 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 contained in the specified folder will be available to stream over the network. Click the **Refresh** button to update all the shared files and folder lists. To access the configuration, click on **Application Management>>Multimedia Services** and expand the **iTunes Server** section by clicking on the blue arrow.



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.

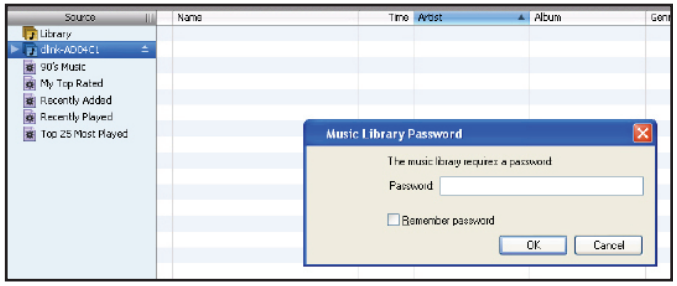
Password: Sets password for the iTunes server (optional).

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

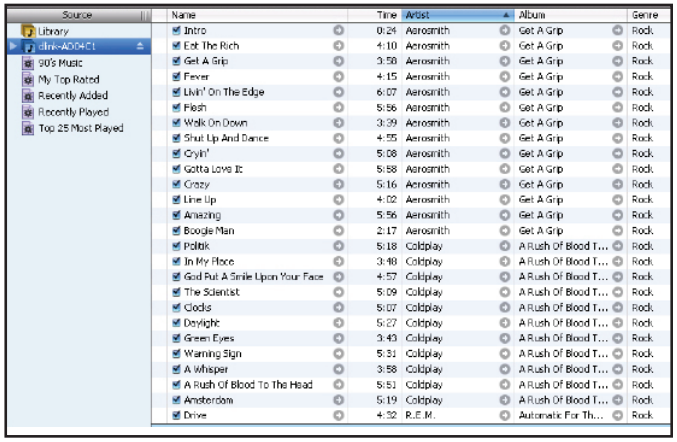
Auto Refresh: Here the user can select the interval between automatically refreshing the iTunes library.

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.

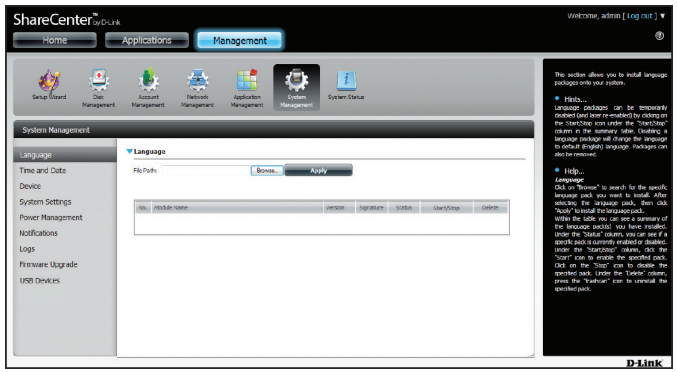


System Management

Language

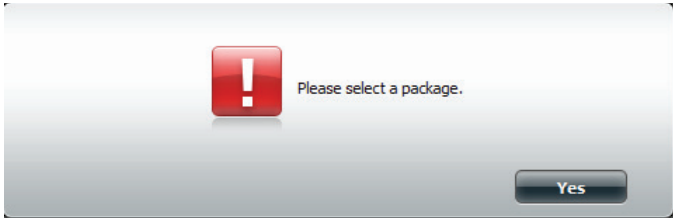
This section allows you to add language packs for the DNS-320L's user interface. Language packs can be downloaded from the D-Link website or the included installation CD. If you disable the language pack, the user interface language will return to English.

Click **System Management >>Language** to install a new language pack.



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.

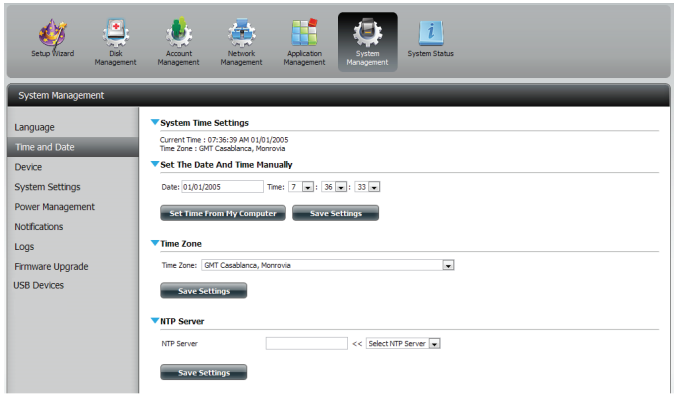


Click **Yes** to continue.

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 synchronize the system time with the time and date of your computer.

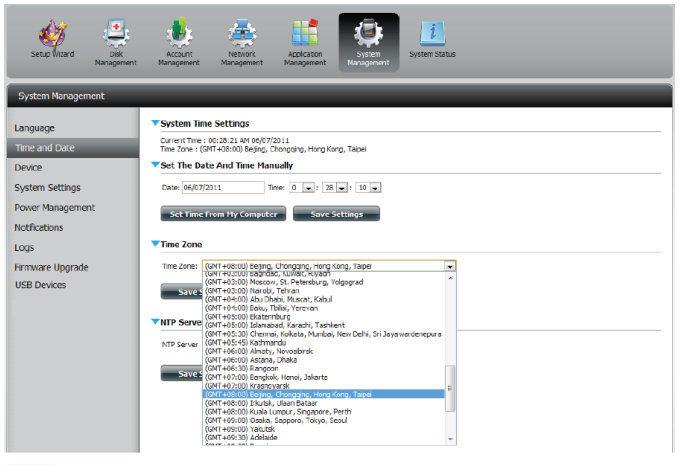
Click **System Management>>Time and Date.** You can manually enter the date, and select the time from the drop-down menu. You can also click the **Set Time from My Computer** button if you want to use the time and date of your computer. When a confirmation message appears, click **Yes** to continue.



Click **Save Settings** to save the current time configuration

Select your time zone from the drop-down menu.

Click **Save Settings**.

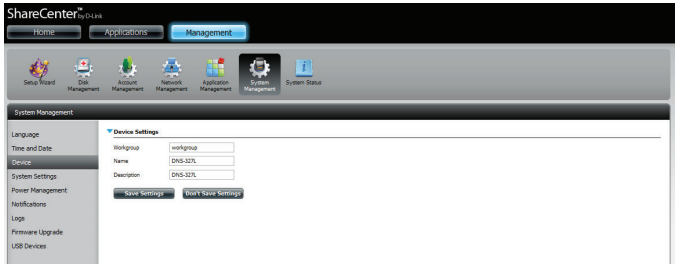


If you wish to synchronize the system time with an online NTP server, enter the address of the server in the field provided, or select an NTP server from the drop-down menu, and click << to populate the field.

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-nas/ (where the name of the device is “dlink-nas”).



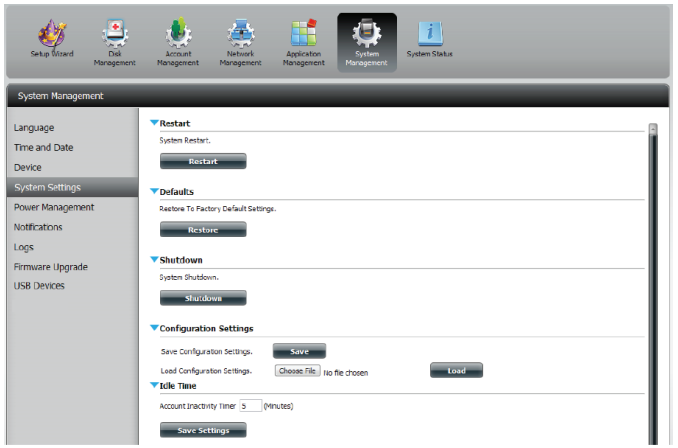
Workgroup: Enter your workgroup name here. The workgroup name should be the same as the computers on the network. Devices using the same workgroup will have additional file sharing methods available.

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-320L. 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.

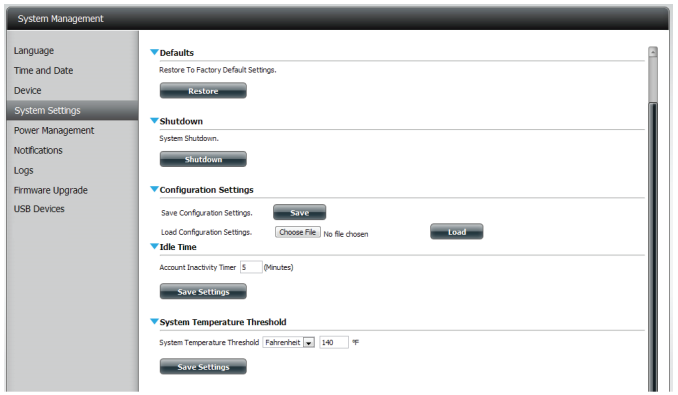


Restart: Click to reboot the DNS-320L.

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-320L.

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**.

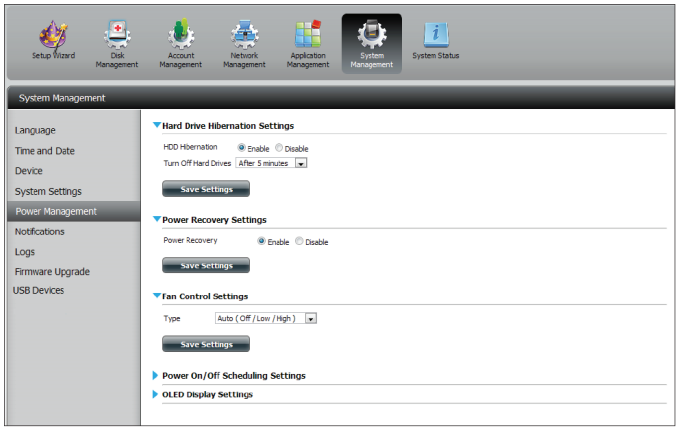


Idle Time Enter the amount of time after which the user administrator will be automatically logged out if there is no activity. After an automatic logout due to inactivity, the administrator will need to log in again using their username and password.

System Temperature Threshold Here you can configure the system temperature threshold value to protect the device from overheating. This value can be set in Fahrenheit or Celsius. The device will automatically shut down when the internal sensor detects 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. Click the **Save Settings** button at the bottom of each section to save the configuration.

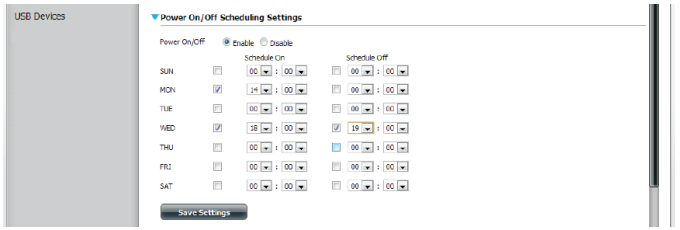


HDD Hibernation Select whether you would like to **Enable** or **Disable** the automatic hard driver hibernation feature.

Turn Off Hard Drives If the above option is disabled, you should also select an idle period after which to shut down the hard drives from the drop-down menu.

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

Fan Control The speed of the fan can be controlled from this section. Select a fan speed from the drop-down menu. If you select **Auto** mode, the speed of the fan will change (Off/Low/High) depending on the internal temperature of the enclosure.

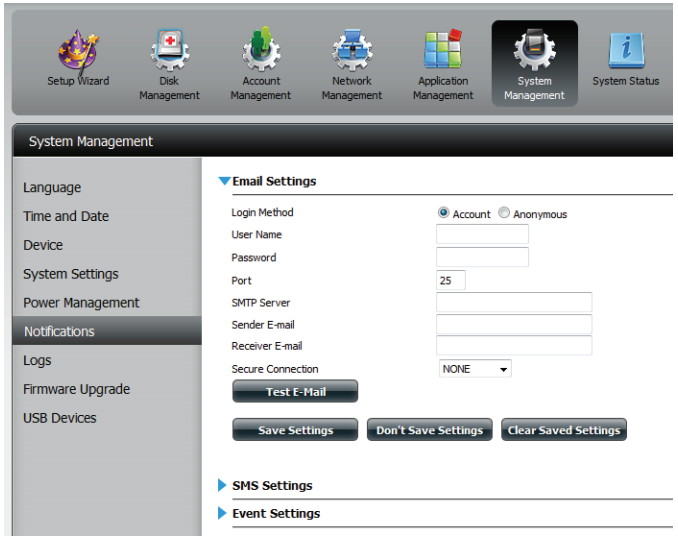


Power On/Off Scheduling Click **Enable** to turn on this function. If enabled, use the checkboxes to select which day(s) to apply the power scheduling. Under the **Schedule On** column, select the time that the power should be turned on. Under the **Schedule Off** column, select the time that the power should be turned off.

Notifications

Email Settings

The DNS-320L can send email notifications to a designated email account when specified system events occur. Here you can specify the email account settings to be used for notifications. Click the **Save Settings** button at the bottom of the section to save your current configuration.



Login Method: Select either **Account** or **Anonymous**. Choosing Anonymous does not require a Username or Password (if your email server does not require these in order to send emails).

Username: Enter the appropriate user name for your e-mail account (Account only).

Password: Enter the appropriate password for your e-mail account (Account only).

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 to be displayed in email notifications (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.

:

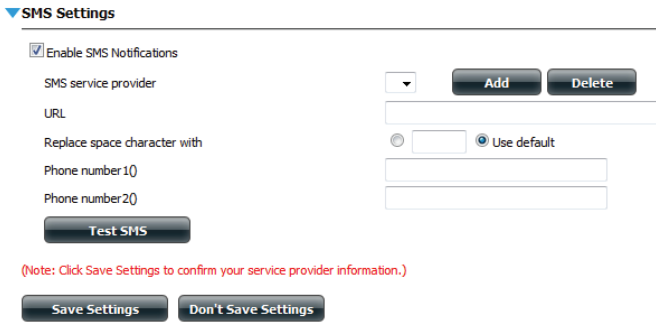
Receiver E-mail: Enter the e-mail address you want to send the alerts to. This address must correspond with the SMTP server configured above.

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 that your settings are correct.

SMS Settings

The same system notifications that can be sent by email can also be sent to a mobile phone by SMS text message. You need to have an agreement with an 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 mobile phone 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 Special 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.

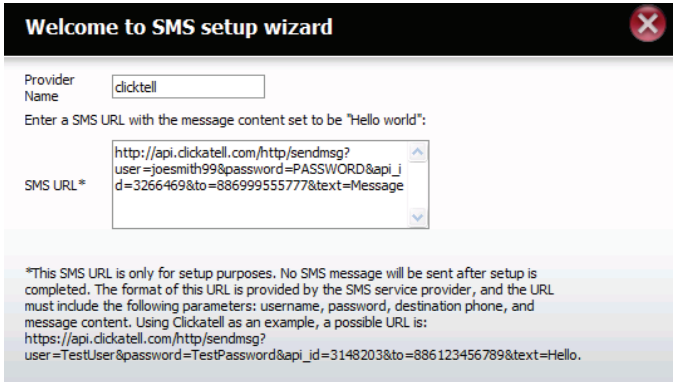
Phone Number 2: Enter a second mobile telephone number. Verify that the number input is according to the configuration instructions from your Mobile Service Provider.

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.

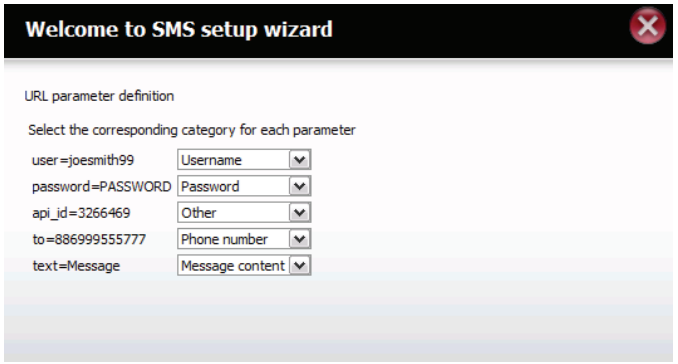
Adding an SMS Service Provider

Once you have an 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. Click on the **Add** button to start the wizard.

Enter your SMS Provider and the HTTP API.



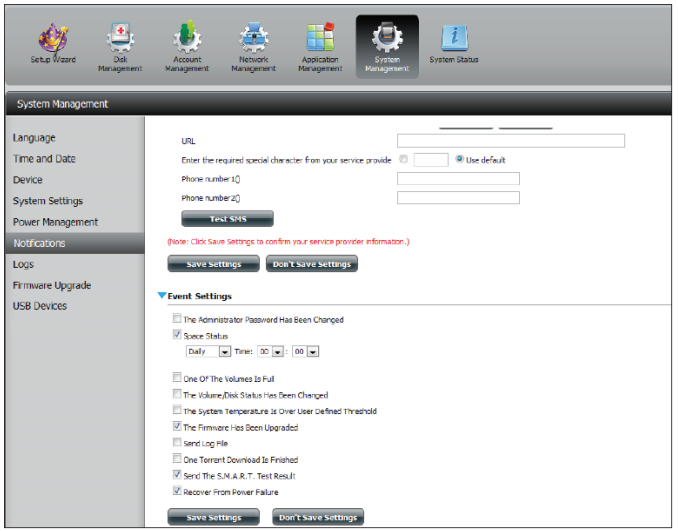
Choose the appropriate type parameter in the drop-down menu for the parsed parameters of the URL on the left.



Event Settings

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

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. Click **Save Settings** to save the current configuration.



Logs

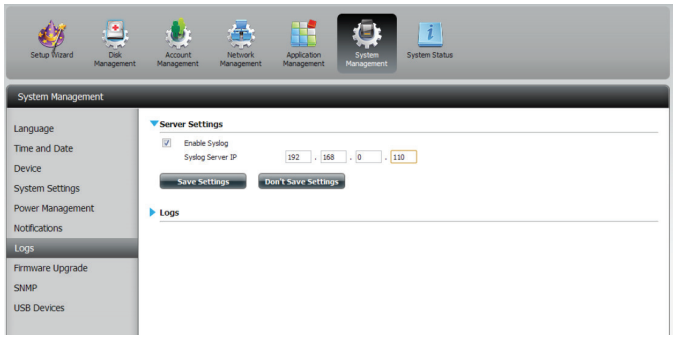
Within the Logs menu you can setup your ShareCenter to send the device's log events to a SysLog server. You can also view the NAS system logs and the FTP logs here.

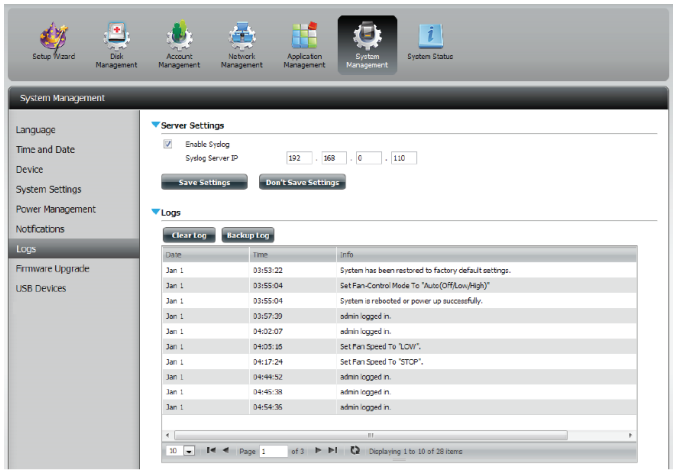
Enable Syslog: Click to activate the **Syslog** client functionality of your device to be able to send the ShareCenter's log events to the Syslog server.

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.

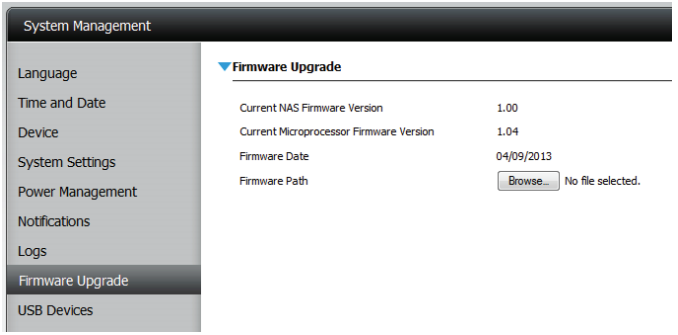
Backup Log: Click **Backup Log** to save the existing logs to a text file on your computer.





Firmware Upgrade

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



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

Current Microprocessor Firmware Version: Displays the current firmware version for your device's microprocessor.

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.

Click **Apply** to save the current settings

USB Devices

UPS Settings

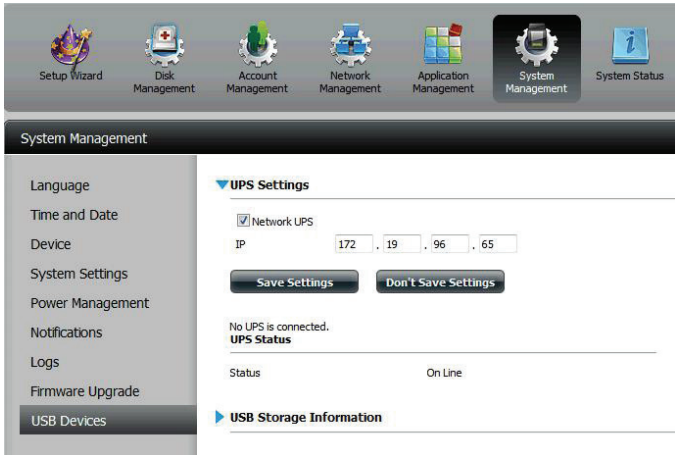
Network UPS is a system management feature that uses a local UPS to protect your NAS from an abnormal shutdown due to a power failure.

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 "UPS Connectivity" on page 390.

USB Storage Information

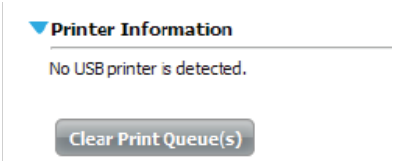
Click the blue arrow to reveal the **USB Storage Information**.

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

Click the **Unmount** button to eject the USB device for safe removal from the USB port.

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

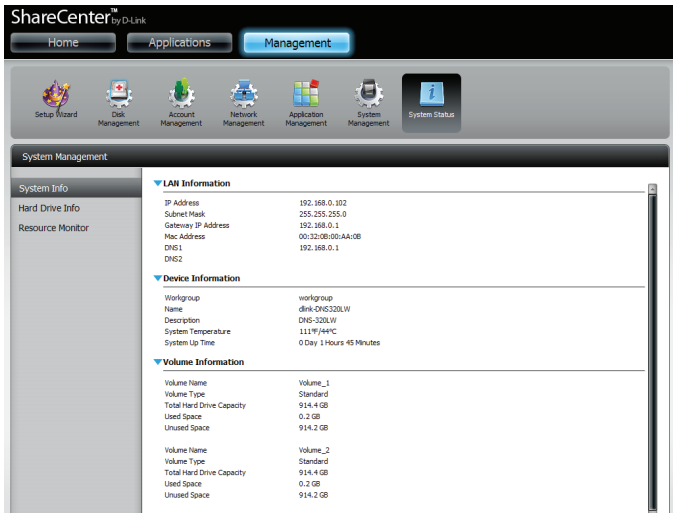
System Info

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

Click **System Status >> System Info**

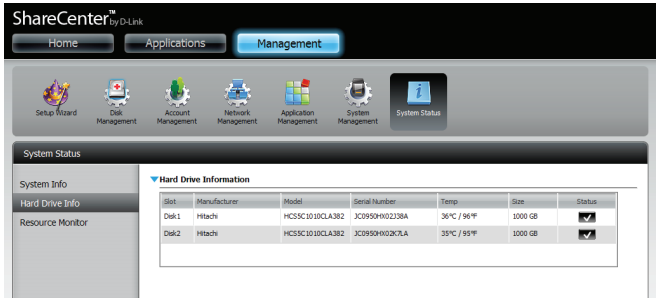
Click the blue arrow from each of the headings to reveal information on each segment.

LAN Information, Device Information, and Volume Information.



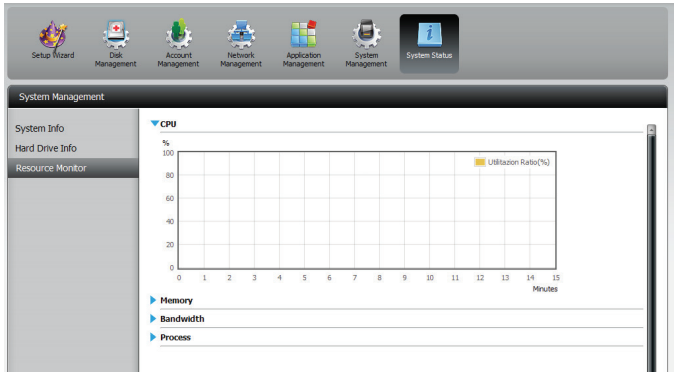
Click **System Status >> Hard Drive Info**.

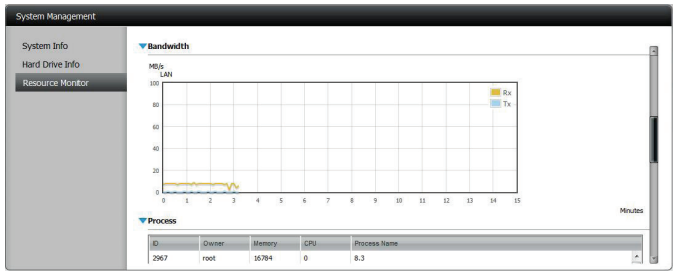
Click the blue arrow to reveal a table of hard drive information.

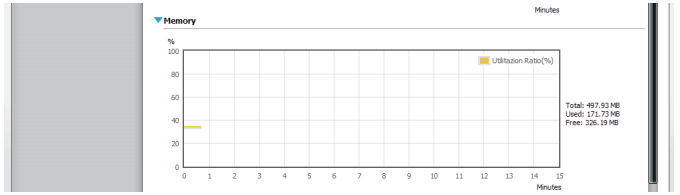


Click **System Status** >> **Resource Monitor**, then click the blue arrow to reveal the resource details.

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

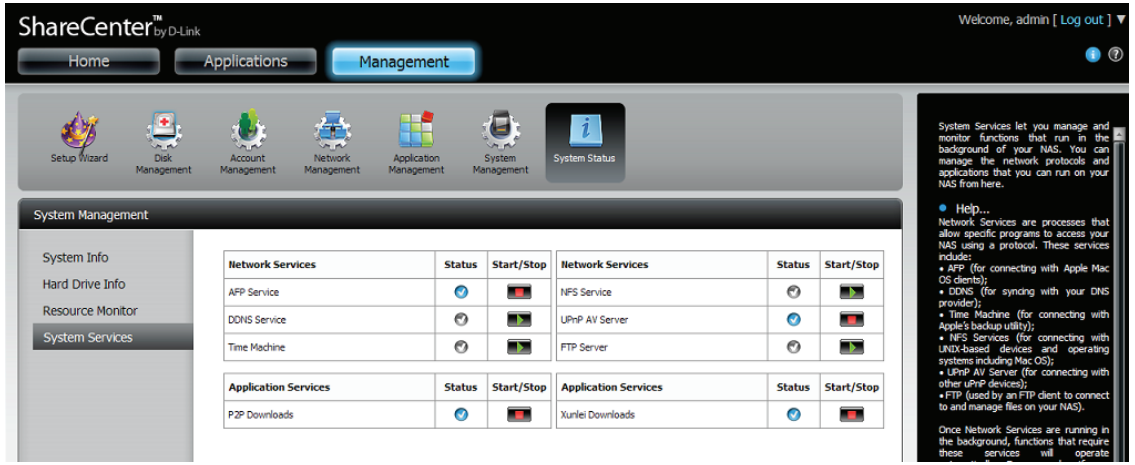






Click **System Status** >> **System Services**.

This section is divided into two main areas: Network Services, and Application Services. Here you can monitor the Status of each service and Start/Stop services. The services can be installed from the Add-On section. The following icons are guidelines for operating procedures.



The **blue** checkered icon means the service is **active.**

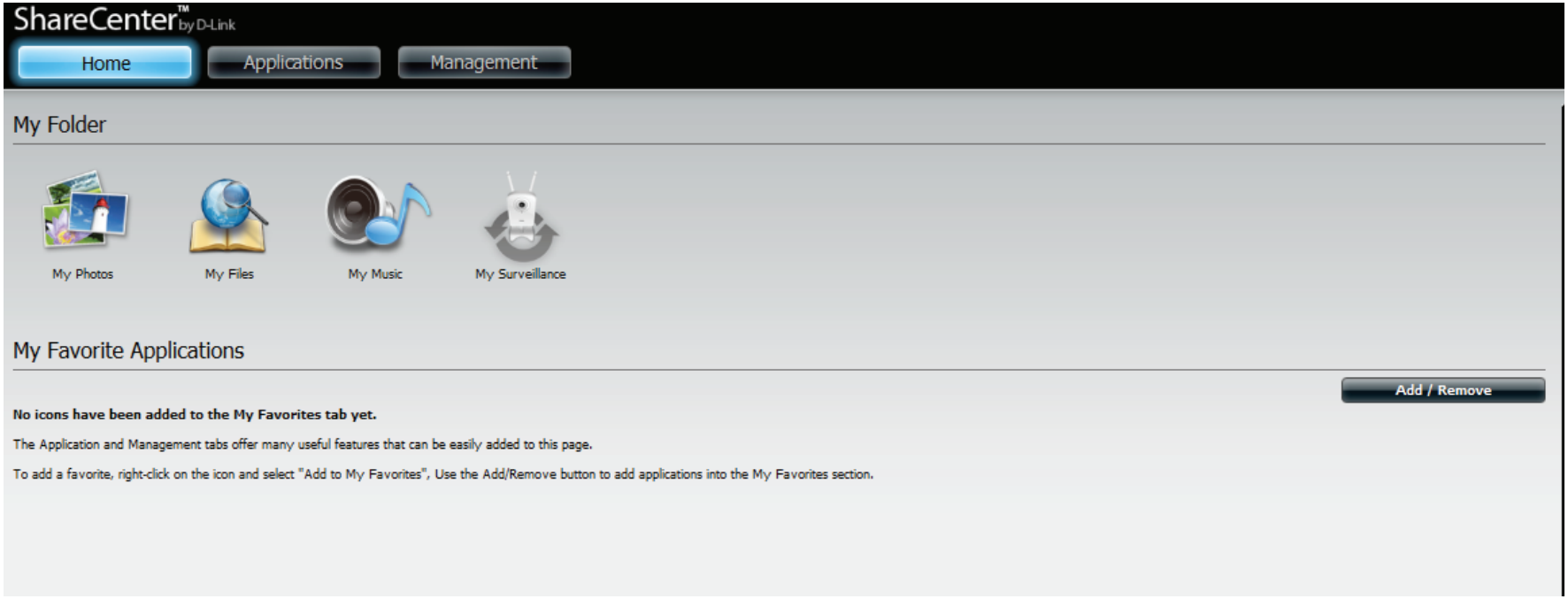
The **greyed** checkered icon means the service is **inactive**.

Use the red **Stop** button to **stop** the service.

Use the green **Play** button to **start** the service.

Home

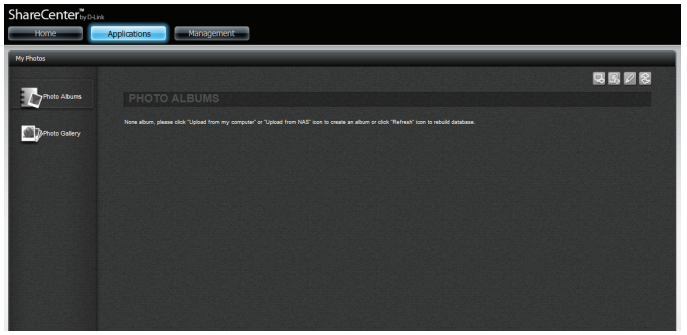
The Home tab is the center for all files on your ShareCenter. Home is divided into one main subfolder called **My Folder**. Under **My Folder** reside four main apps; **My Photos**, **My Files**, **My Music**, and **My Surveillance**. Let's take a closer look at all four apps independently.



My Photos

My Photos is an app to create albums on the ShareCenter and share photos via Picasa, Facebook, Flickr and Cooliris. Click the My Photos icon to open the window (displayed below).

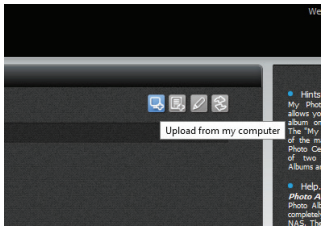
When you click the **My Photo** app, you are transferred to the **Applications** section. There are two sections in the **My Photos** app - **Photo Albums** and **Photo Gallery**.



On the right-hand side of **My Photos** there are 4 main icons. The icons turn blue when you roll your mouse over them. The first icon is "**Upload from my computer**"

The second icon is "**Upload from NAS**"

The third icon is "**Edit**"

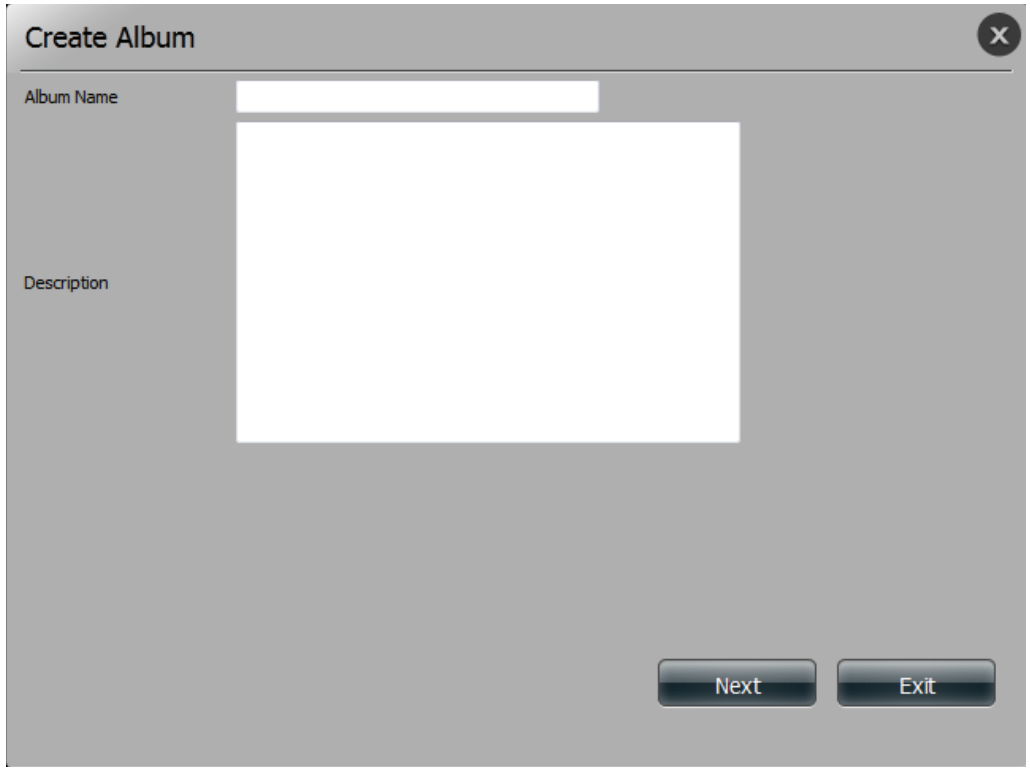


Creating an Album

Click **Upload from my computer.** A **Create Album** window pops up.

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

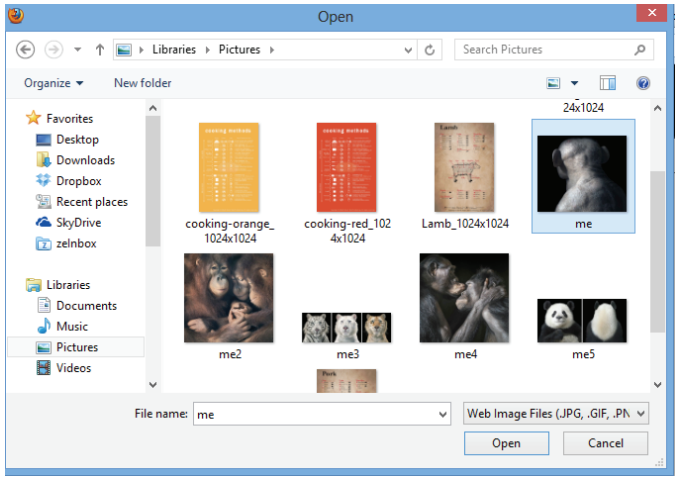
In the **Album Name** field, enter your desired name and then enter a description in the **Description** field. Click **Next** to continue.



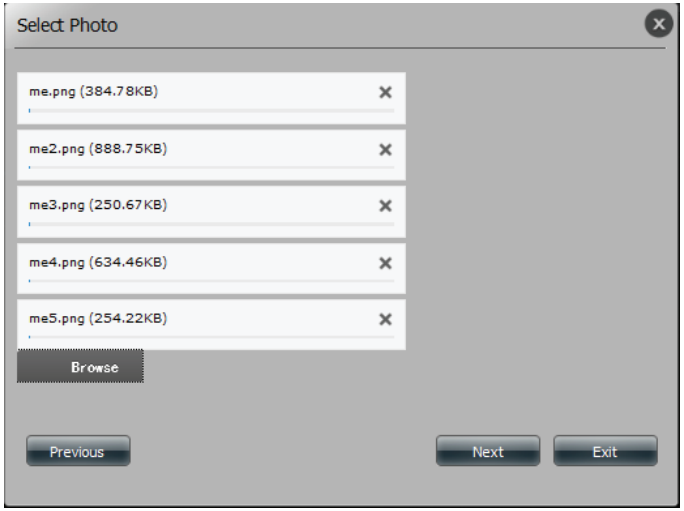
Under the **Select Photo** section, click the **Browse** button to search your computer for photos.

If you wish to add more than one photo, repeat the process or hold the **Shift** key to select a range of photos, or the **Control** button to select several individual photos.

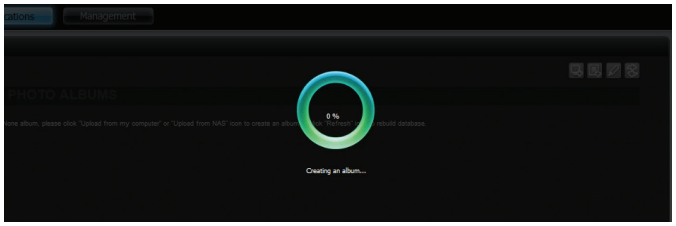
Click the **Open** button to add them to the **Album**.



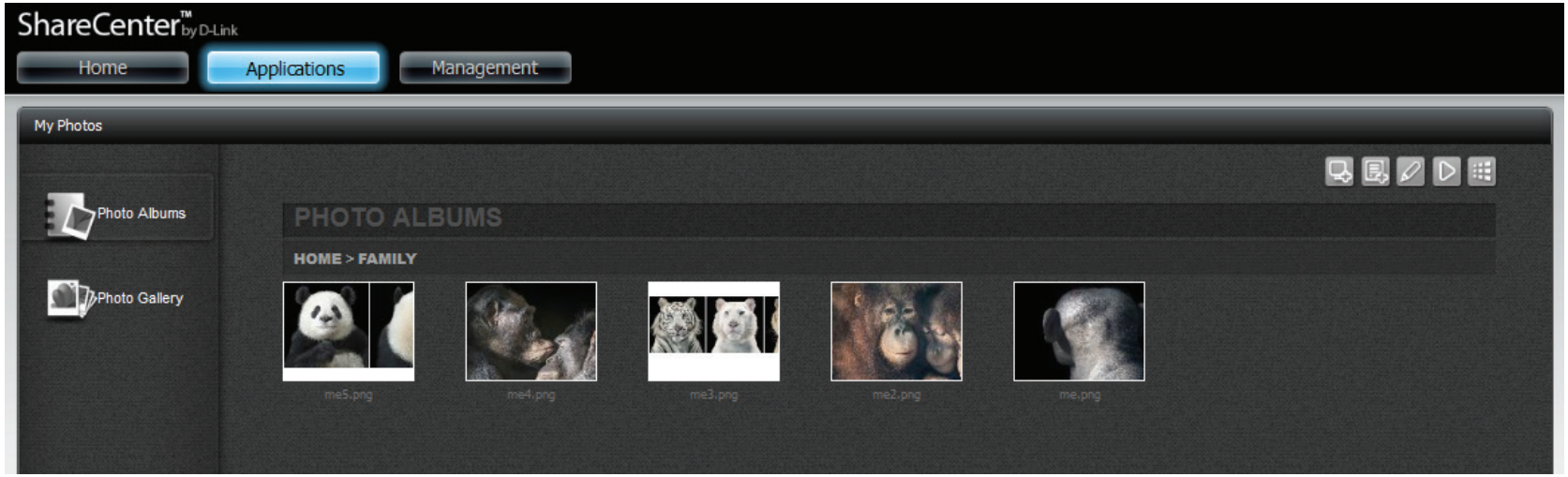
The **Photo Album Wizard** is now populated with the photos you have selected. Click **Next** to upload the photos.



ShareCenter automatically updates the photos to the NAS.

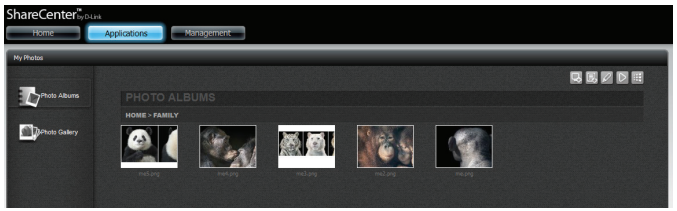


The **Photo Album** now features your Album.

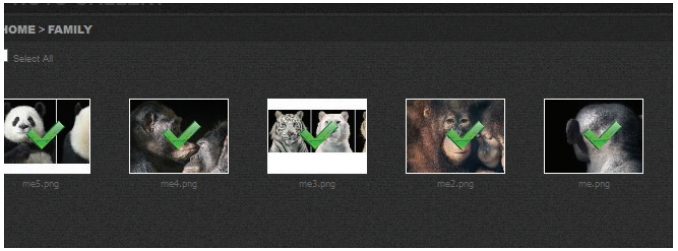


Editing Photos in an Album

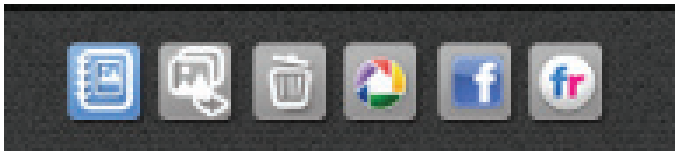
Click the Album that you wish to edit. Click **Edit**. The screen changes. You can click the **Back** ( )button to return to the home screen. You can quickly select all photos in the album by checking the **Select All** checkbox which appears below the **Album's** name. The icon panel changes on the right-hand side of the screen.



When a photo is selected, A green check mark will confirm that it has been selected.



Moving your mouse over each icon presents a different action.



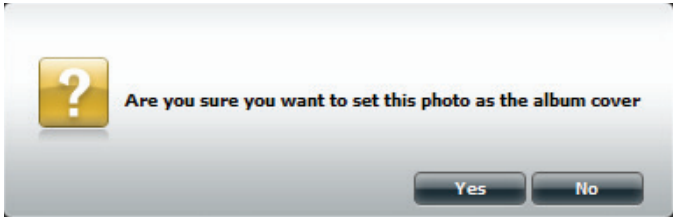
- Set the current photo as the **Photo Album cover**.
- Move the current photo to a different location
- Delete the current photo from the Photo Album
- Share the current photo to Picasa
- Share the current photo to Flickr
- Share the current photo to Facebook

Select a Photo as a Cover image

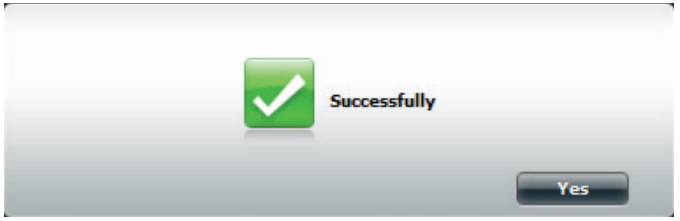
Click the **Set Cover** icon.

You are asked to verify your instruction. Click **Yes** to continue, **No** to exit.

The NAS will configure the changes.

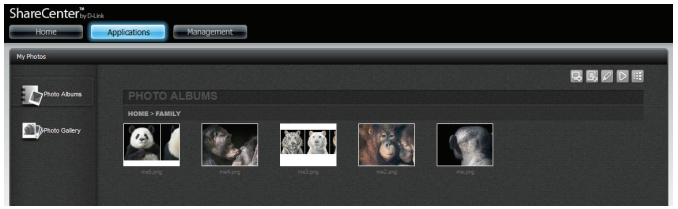


The configuration is updated and saved. Click **Yes**, to continue.

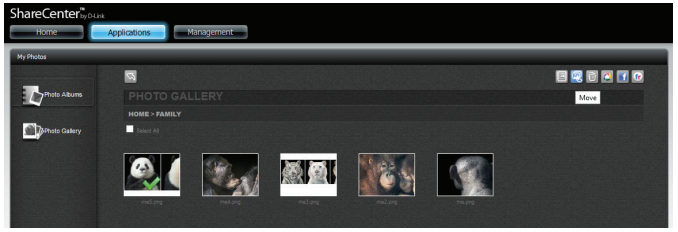


Select a Photo to Move

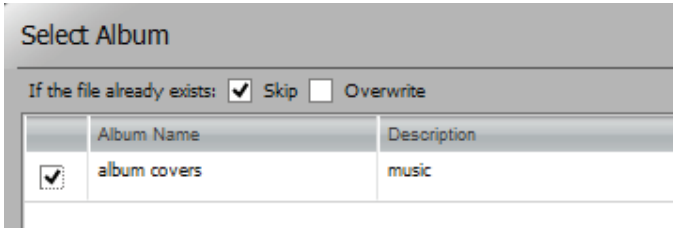
Click **My Photos**>>**Photo Albums**>>**Photo Album** you wish to select the photo from.



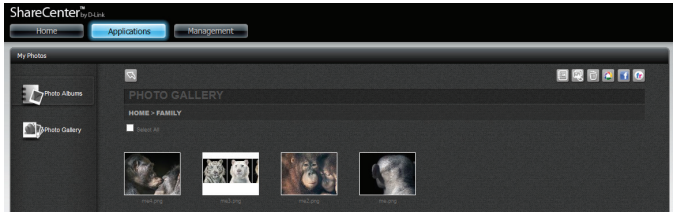
Select the photo and click **Move**.



The **Select Album** window opens.

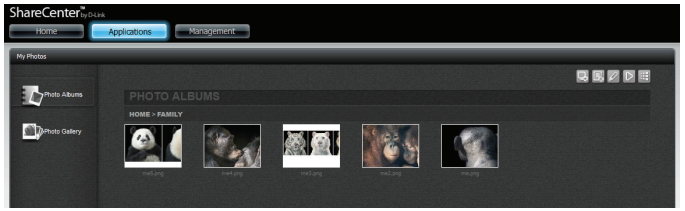


Select the **Album** you wish to transfer the photo to. Click the checkbox. The photo will be transferred to the new album.

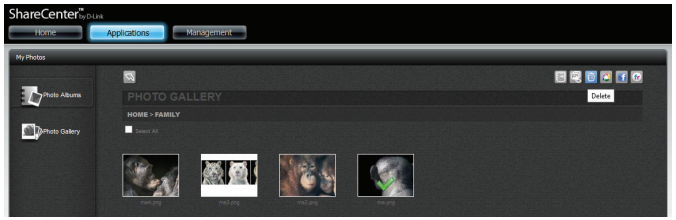


Delete a Photo

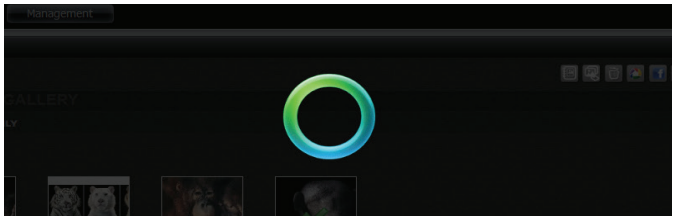
Click **My Photos**>>**Photo Albums**>>**Photo Album** you wish to select the photo from.



Select the photo and click **Delete**.

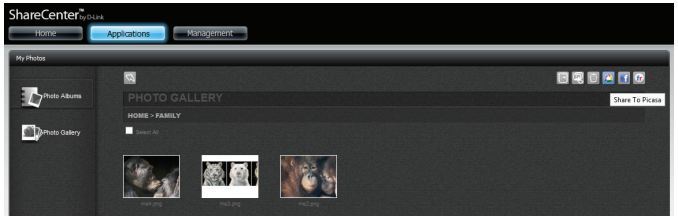


The system automatically deletes the file without verification.

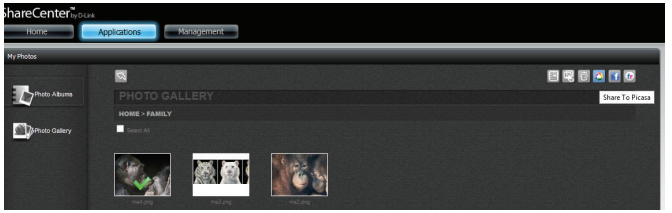


Share a Photo to Picasa

Click **My Photos**>>**Photo Albums**>>**Photo Album** you wish to select the photo from.

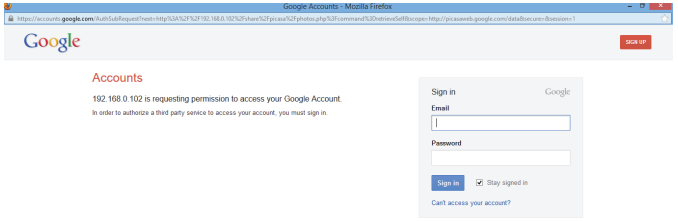


Select the photo you wish to share on **Picasa**. A green check-mark highlights your selection and click **Share to Picasa**.

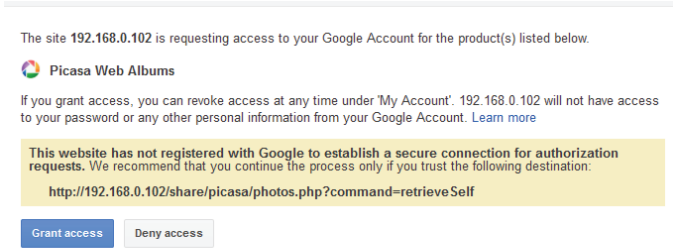


Google will request you log-in to your Google account. You are unable to use the **Picasa** feature if you do not have a Google account.

Enter your **Email Address** and **Password,** and click **Sign In** to proceed.

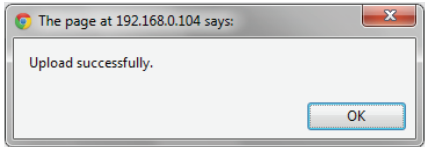


Google may request that you to grant access to Picasa Web Albums. Click **Grant Access** to proceed.



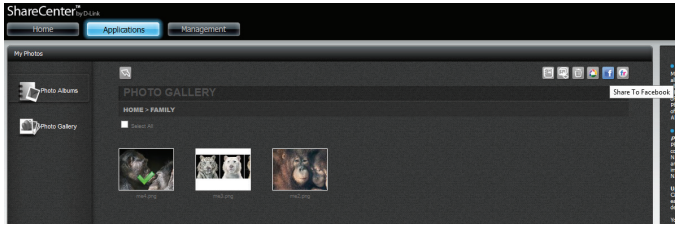
If you select **Grant access**, you will be directed to the ShareCenter Photo Manager. Here you can share photos to the album you already have in Picasa Web or create a new web album to share. Under Albums, select an album from the drop-down list and click **Share**. Alternatively, enter the new album 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) on your Google account in order to use this feature.*



Share a Photo to Facebook

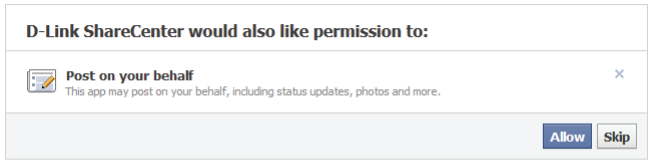
Click **My Photos**>>**Photo Albums**>>**Photo Album** you wish to select the photo from.



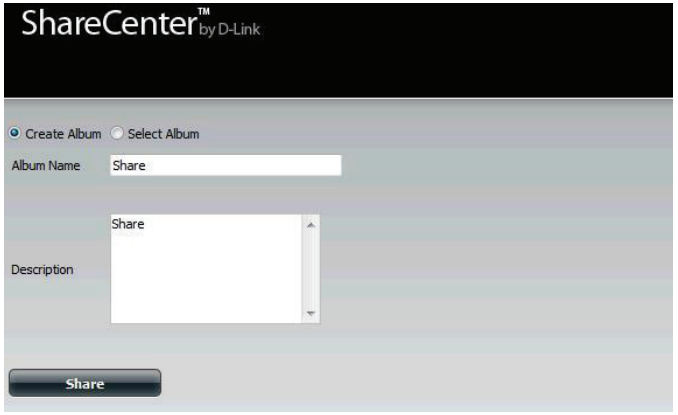
Select the photo you wish to share on Facebook. A green check-mark highlights your selection and click **Share to Facebook**. A pop-up window appears directing you to log-in to Facebook. Enter your details and log-in.

Facebook will request you to access and get their D-Link ShareCenter App. Click **Go to App** to proceed.

The D-Link ShareCenter App also requests permission to post images on your behalf. Click **Allow** to continue.



If you select **Allow**, you will be directed to the ShareCenter Photo Manager. Here you can share photos to an album you already have on Facebook, or create a new web album to share. Under Album Name, select an album from the drop-down list and click **Share**. Alternatively, enter the new album name and click the **Share** button.

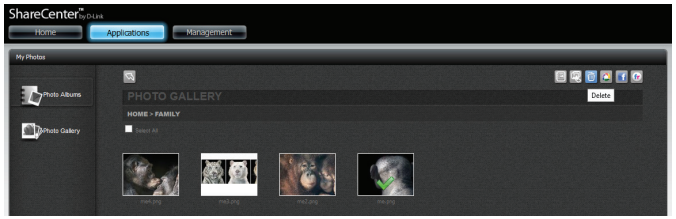


When you click the **Share** button your photos will be uploaded to your Facebook account and another window will pop-up to confirm its success.

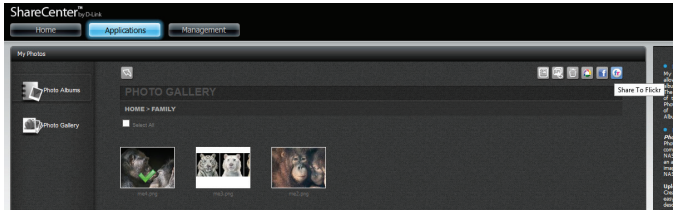
Click **Yes** to continue.

Share a Photo to Flickr

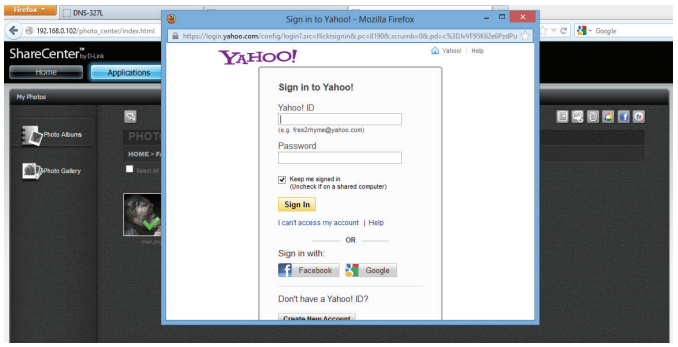
Click **My Photos**>>**Photo Albums**>>**Photo Album** you wish to select the photo from.



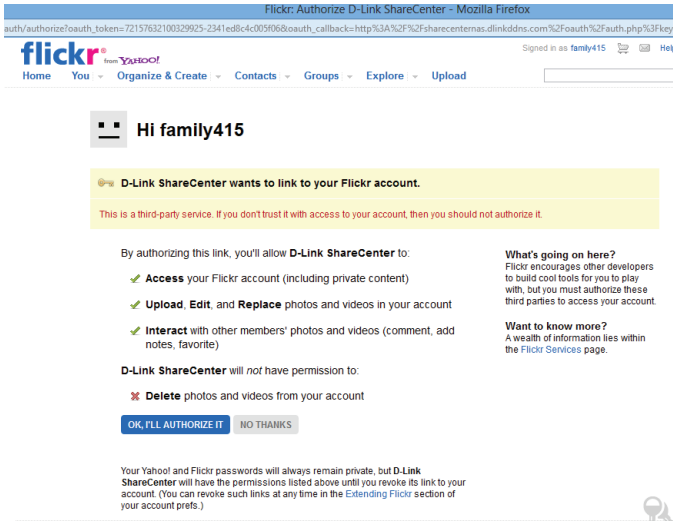
Select the photo you wish to share on Flickr. A green check-mark highlights your selection and click **Share to Flickr**.



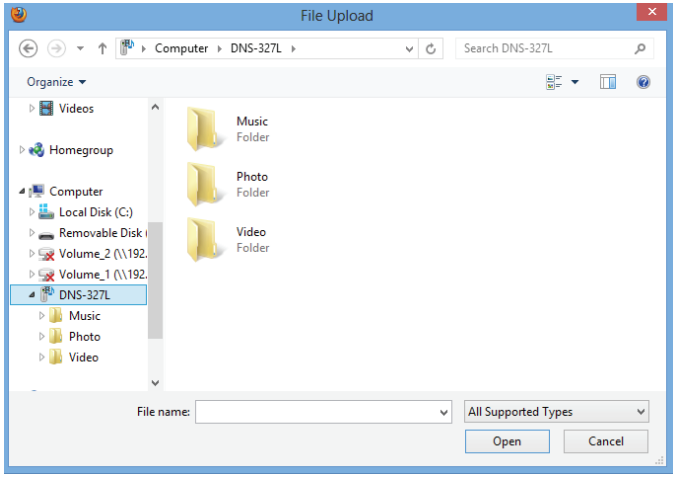
A pop-up window will appear directing you to log-in to **Yahoo Flickr**. Enter your details and click Sign-in.



The D-Link ShareCenter asks to link to the Flickr account. Click **OK, I'LL AUTHORIZE IT**, to proceed.



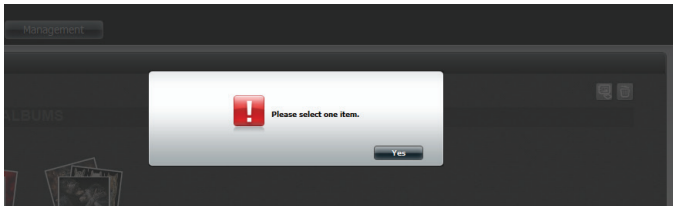
Use your DNS-320L to access and upload files to Flickr.



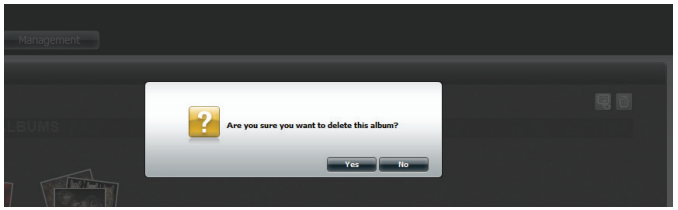
Deleting an Album

Click the **Edit** button. Click **Delete** to delete an **Album**.

If you do not select an album, you are prompted to select an item. Click **Yes** to continue.



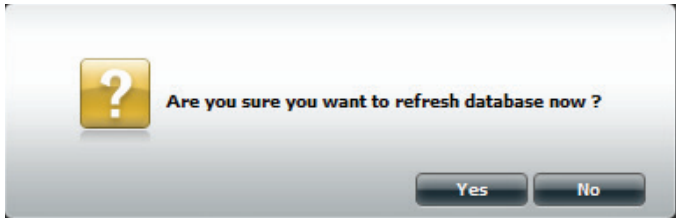
Select an album, a green checkmark will indicate the selection, click the **Delete** icon. A warning message will ask you to verify your choice. Click **Yes**, to continue or **No** to exit.



The Album is now deleted from the Photo Albums menu.

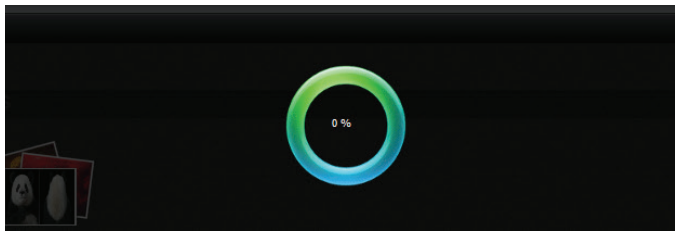
Refreshing the Album Database

Click **My Photos**>>**Photo Albums**, and click the **Refresh** icon to refresh the entire database.



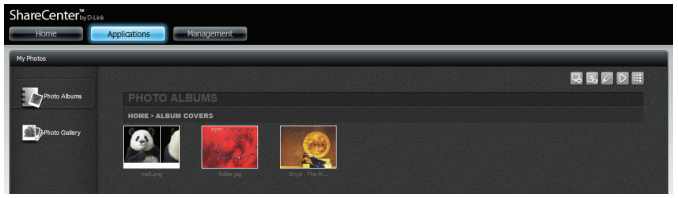
Before the screen is refreshed, you are prompted to verify your decision to refresh the database. Click **Yes**, to continue.

The DNS-320L will refresh the system and return to the My Photos page when the refresh is complete.

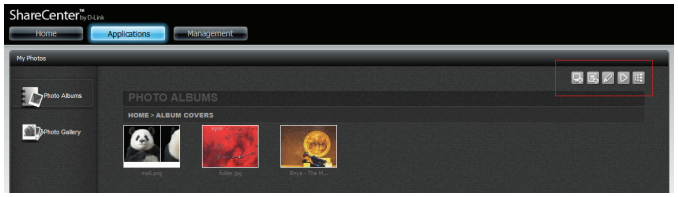


Managing Photos

My Photos contains all of your photos on the DNS-320L. Click **My Photos** from the Home panel to manage all photos.

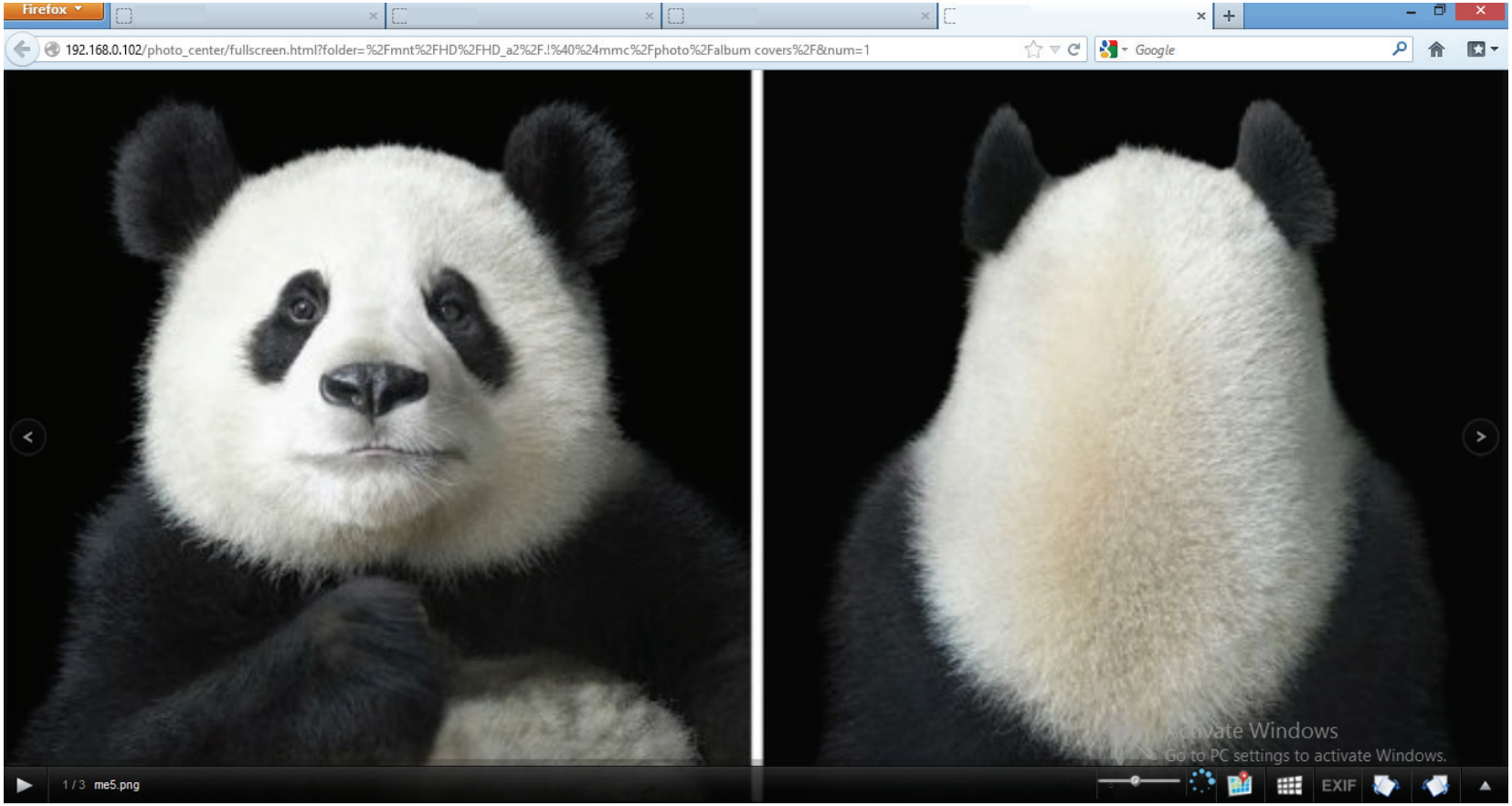


The Management Panel in the upper right-hand corner will have the following options available: **Upload from my computer, Upload from NAS, Edit, Slideshow,** and **Cooliris.**



Slideshow Toolbar

Clicking on the Slideshow icon will open a slideshow in a new window or tab in your browser. There will also be a slideshow toolbar at the bottom of the page.



The slideshow toolbar consists of the following features:

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

Photo information: Displays the image name and file format, as well as the image position in the slideshow.

Airplay button: This feature beams your slideshow to a local device or to a TV via an AirPlay enabled Apple Device.

Gallery speed slider: Toggle speed at which the slideshow progresses.

GPS information: Click this button to get GPS information about the image (if the image contains geotag information).

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 buttons: These rotate the image at 90 degree angles.

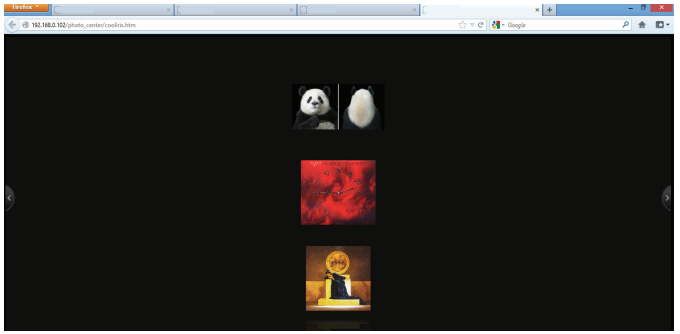
Gallery Navigation: This provides a pop-up display of all the images in the gallery.

Viewing images using Cooliris

By clicking on the Cooliris icon in the slideshow toolbar, you can view your slideshow using the Cooliris website. The controls of the Cooliris website are different to those of the regular slideshow viewer.

Click the **Cooliris** icon. This opens **Cooliris** in a new tab.

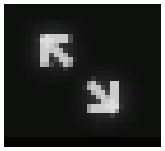
Click the **arrows** on each side of the **Cooliris** window to scroll between images.



Click here to activate **Facebook** in **Cooliris**.

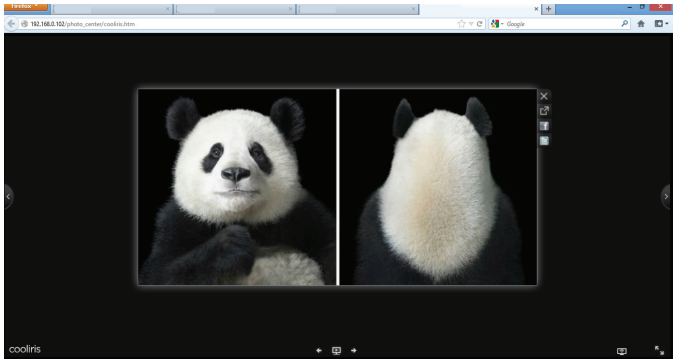
Click here to activate **Twitter** in **Cooliris**.

Click here to activate **Full Screen mode**.

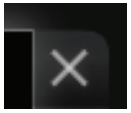


Click here to **slide** between photos.

Click on each photo to view separately. The photo is enlarged. On the right-hand side of each image are the social network links.

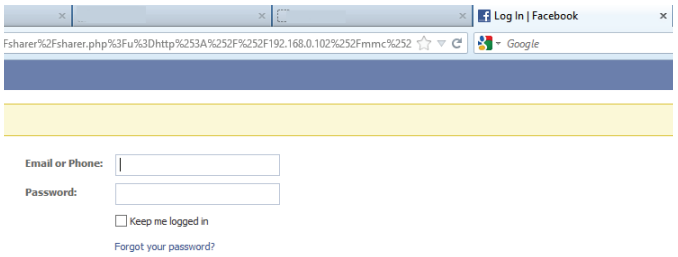


Click here to close **Single-Image view**.

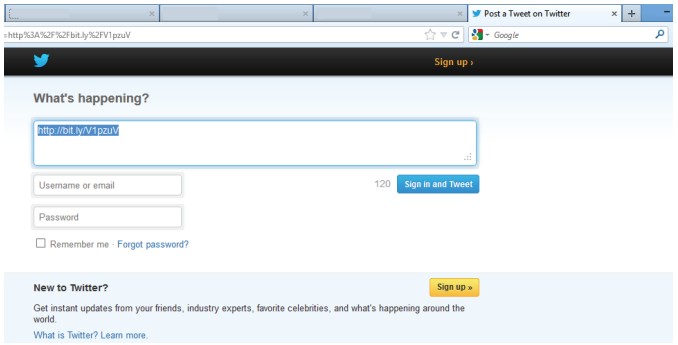


Click here to enlarge into **Full-screen mode**.

Click the **Facebook** link to connect your images to your **Facebook account**.

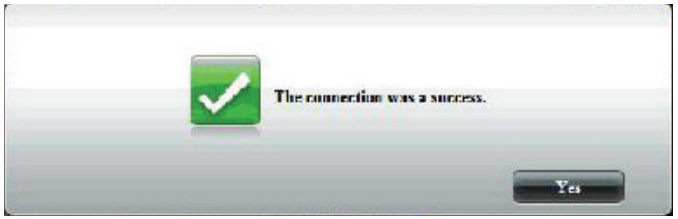


Click the **Twitter** link to connect your images to your **Twitter account**.



Stream a Slideshow to your Airplay Device

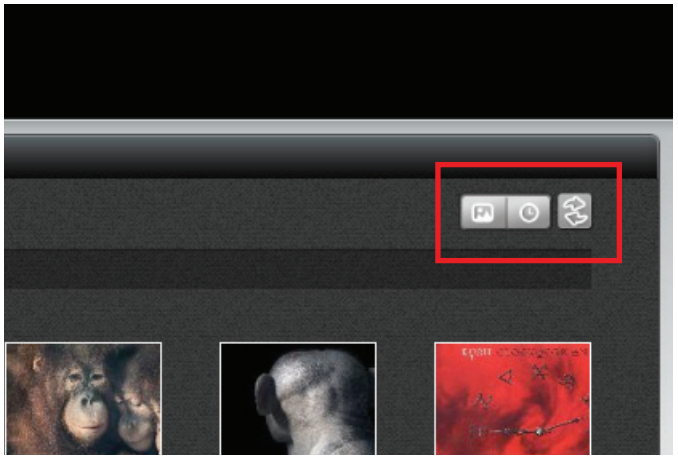
When you click the Airplay icon, the ShareCenter will connect to a shared Apple device on the network to display your slideshow, a message will pop-up after connecting successfully. Press **Yes** to continue.



Now you can enjoy your slideshow on your Airplay connected device using your DNS-320L.

Photo Gallery

Click **Photo Gallery** to view the images in your gallery.

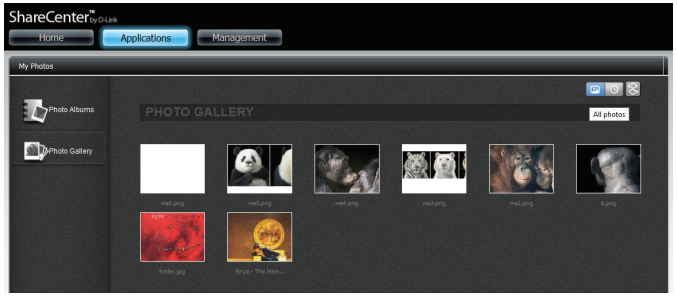


Near the top right-hand corner there are three main icons.

Click here to view **By Calendar**.

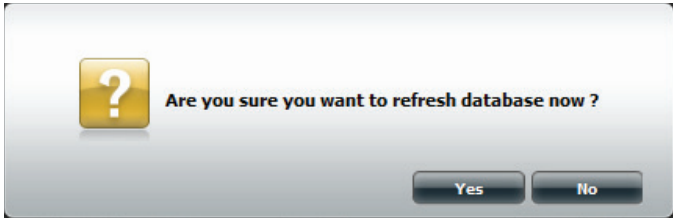
Click here to **Refresh** the page.

Click the **All Photos** icon to view all your photos in your **Photo Gallery.**



Click the **By Calendar** icon to view your **Photo Gallery** by date.

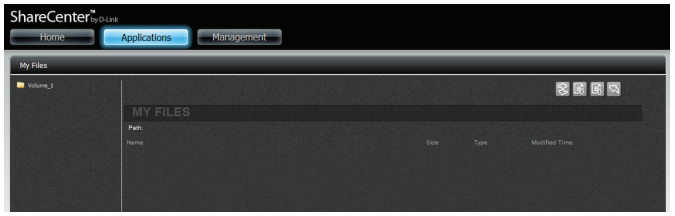
Click the **Refresh** icon to refresh the database.



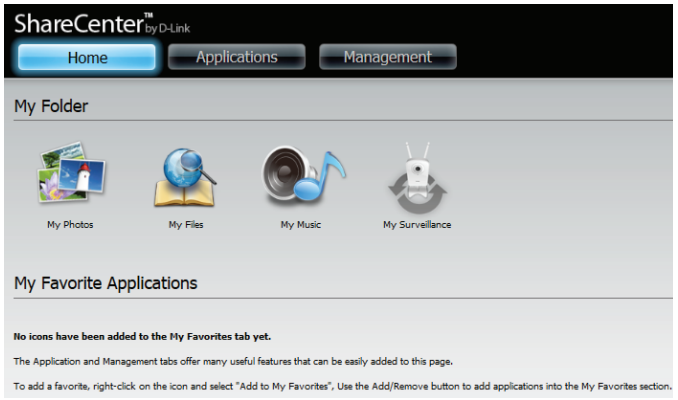
My Files

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 the Volumes created on the NAS. Click on any Volume you created to see a directory listing of the files.



My Files - Icons

Click the icons near the right-hand side of the panel to access the My Files features. Click this button to **Refresh** the view.

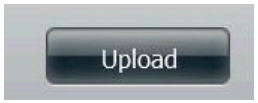
Click the icons near the right-hand side of the panel to access the My Files features. Click this button to **Download** files to your local PC.

Click the icons near the right-hand side of the panel to access the My Files features. Click this button to **Upload** files to the NAS.

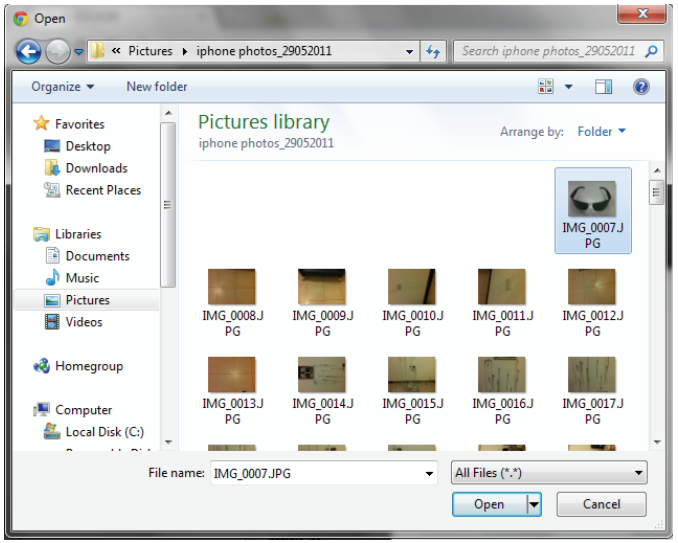
Click the icons near the right-hand side of the panel to access the My Files features. Click this button to **Return** to the previous screen.

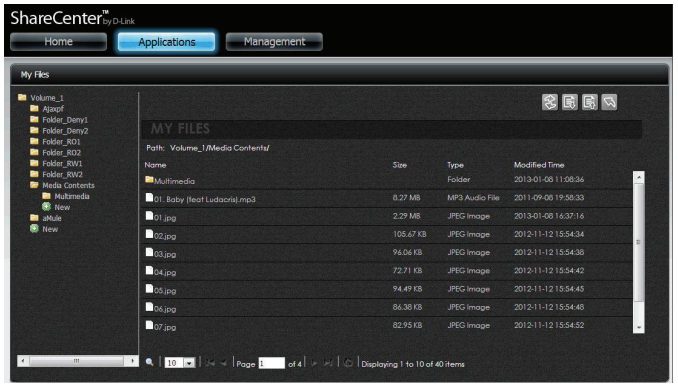
Upload

To upload more files to the volume you have selected, click the **Upload** button. Click the **Browse** 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**.



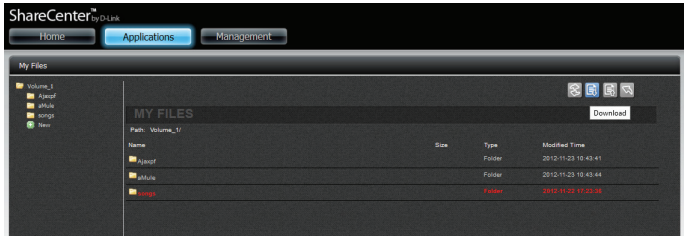
Click **Upload** to start the uploading process. Then click **Exit** to close the upload window. The file updates to the NAS and is displayed on the directory table.



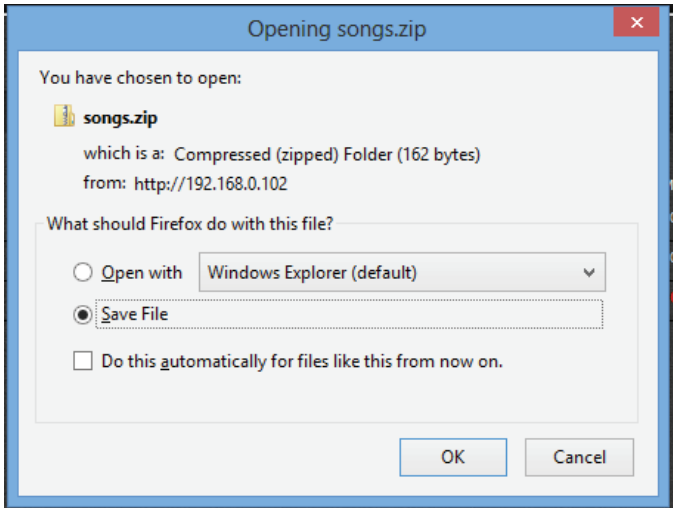


Download

To download files from the NAS to your computer, select the file you want to download (highlighted in red) and click the **Download** button. Depending on your browser download settings, the browser may automatically download the file to your predetermined save location.

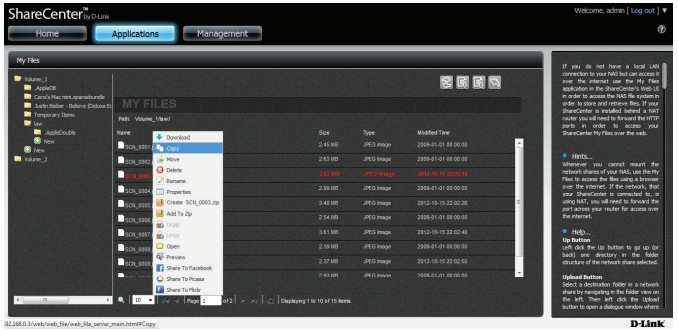


Alternatively, click the **Save File** button and **OK** to continue.

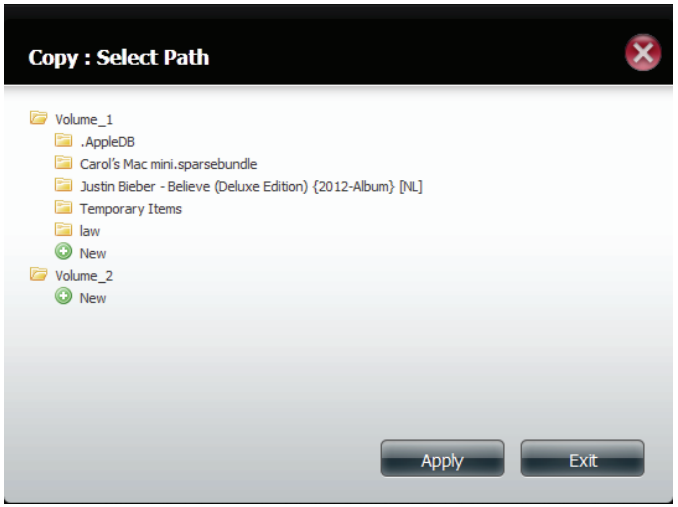


Copy

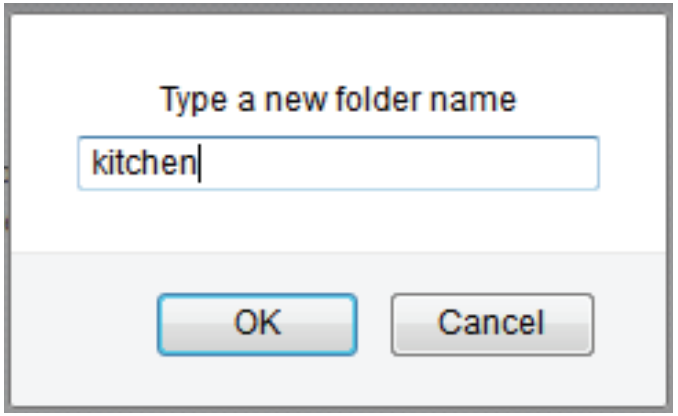
Go to **Applications**>>**My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select **Copy** from the menu.



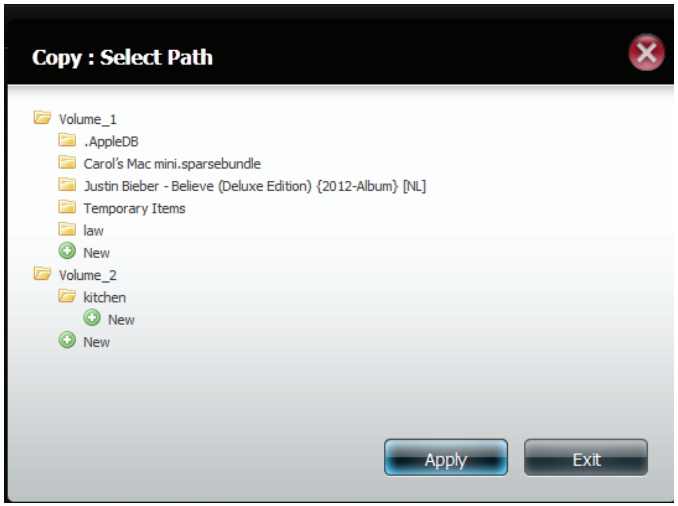
Under **Copy,** select a destination folder or create a new folder.



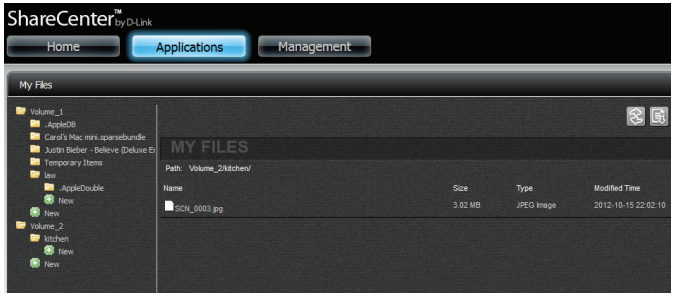
To create a new folder, click the **New** folder at the bottom of the volume you wish to create the new folder in. Enter a name for the new **Folder**. Click **OK**.



Select the newly created folder and click **Apply**.

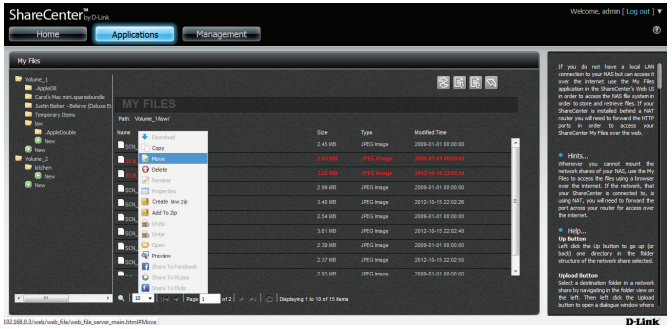


To verify that the file did copy to the destination, browse to the folder in question.

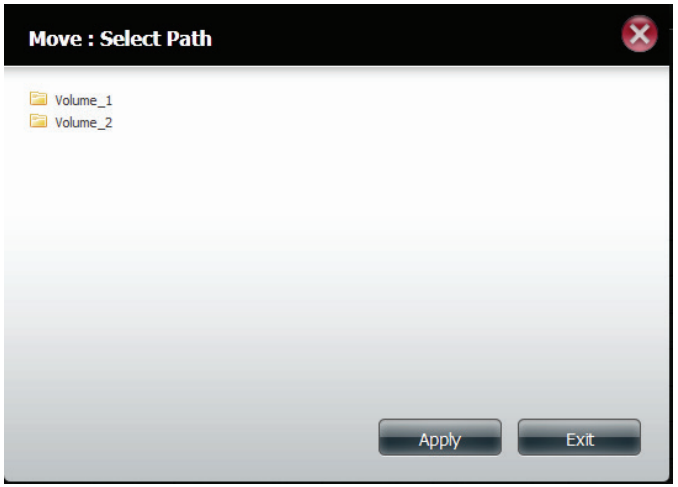


Move

Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select **Move**.



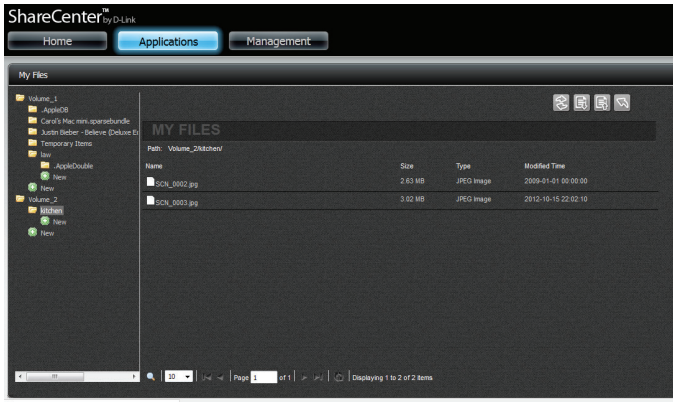
Under **Move,** select a destination folder or create a new folder.



Select a folder from one of the **Volumes** and click **Apply.**

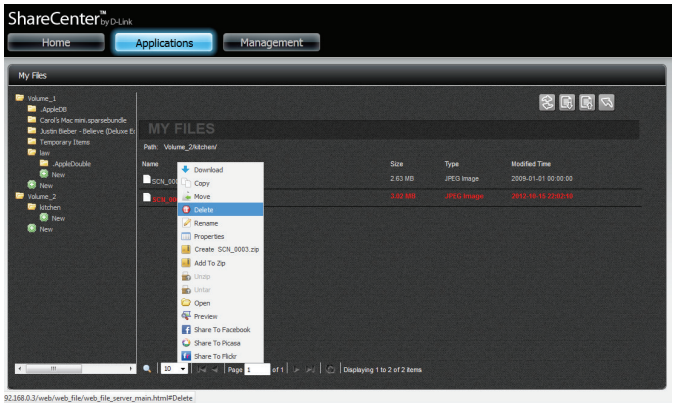
To create a new folder, click the **New** folder at the bottom of the volume you wish to create the new folder in. Enter a name for the new **Folder**. Click **OK**.

Browse to where you moved the file.



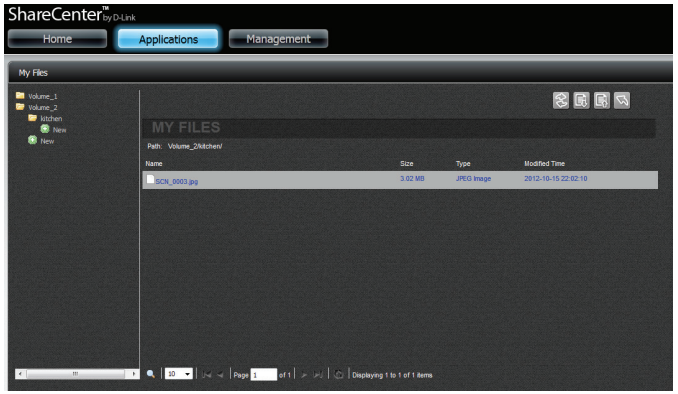
Delete

Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select **Delete**.



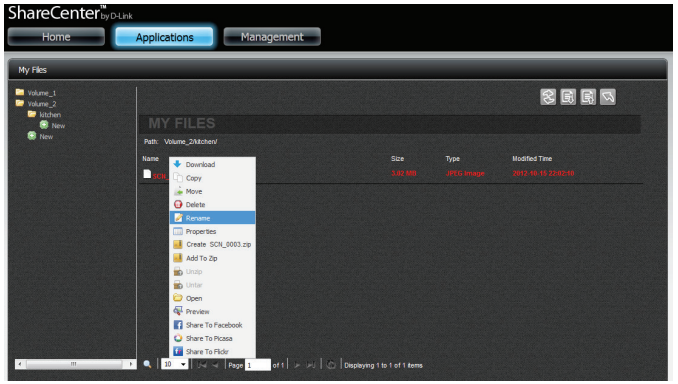
A verification message appears asking for you to verify your selection. Click **OK** to confirm.

The file no longer exists in the folder.

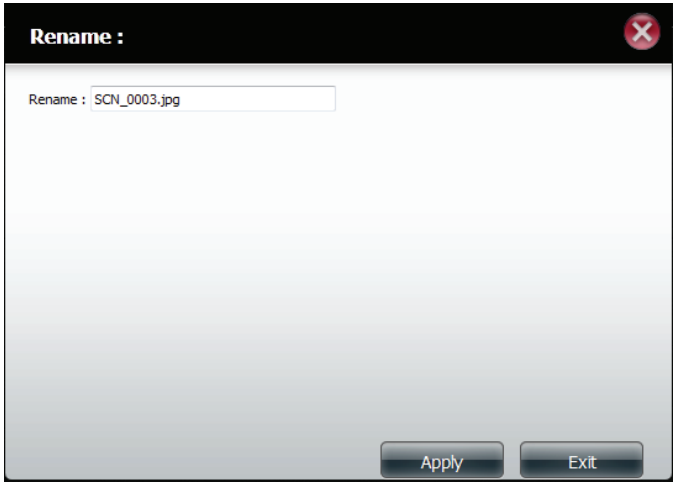


Rename

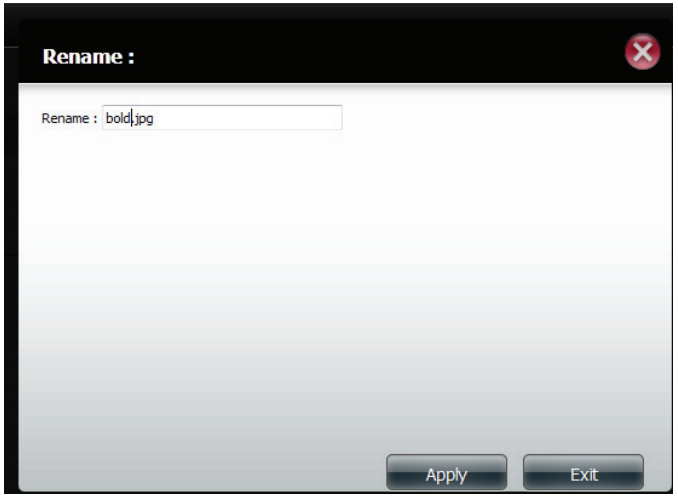
Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select **Rename**.



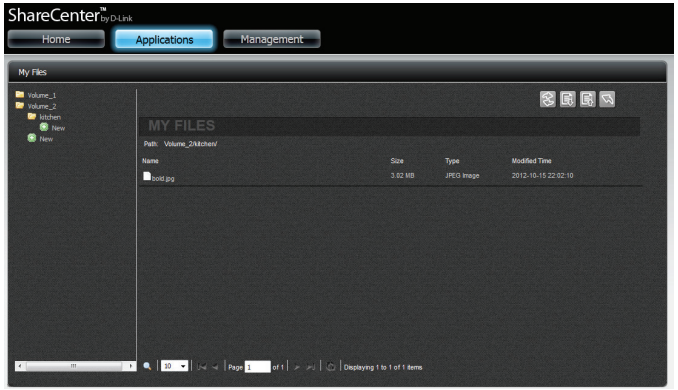
The Rename window displays the original name.



Enter a new name for the file. Click **Apply**.



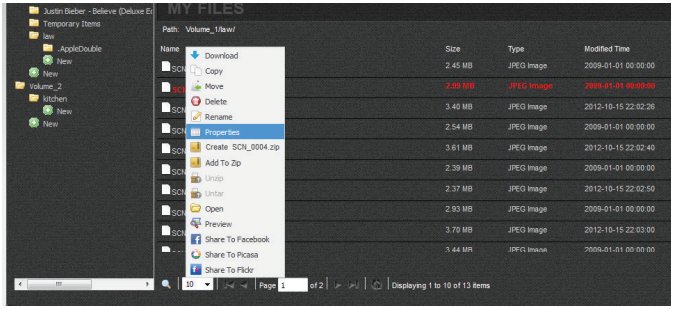
The **Renamed** file will now appear in its original location.



Properties

To get general information about a file(s) from the NAS, select the file (highlighted in red) and right-click. From the drop-down list click **Properties**.

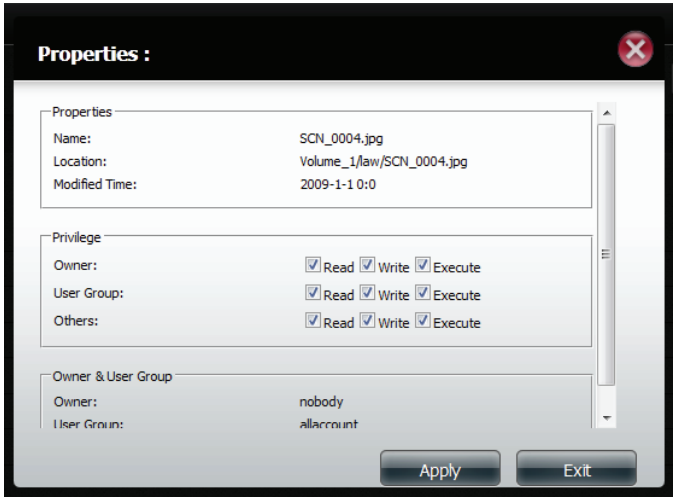
Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select **Properties**.



The Properties window displays the **Properties**, **Privileges**, and **Owner and User Group**.

Under **Privileges**, you are allowed to change the ownership settings. The **Owner**, **User Group**, and **Other** users have **Read**, **Write**, and **Execute** settings.

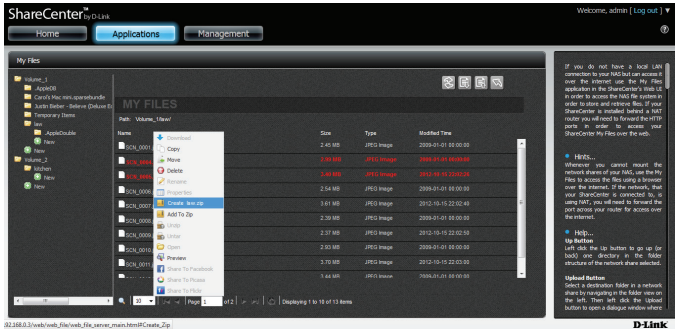
Click **Apply** once you have made the changes for them to take effect.



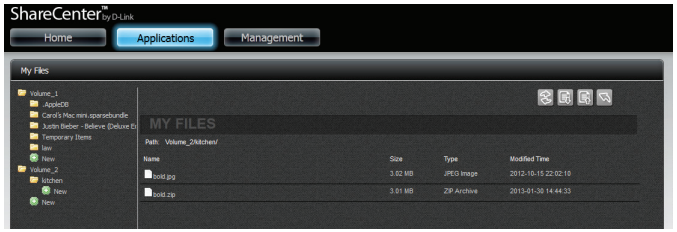
Create a Zip file from the Selected Folder

You can use Zip compression to create a package of files which can be easily transported or sent.

Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any of the files in the right pane. Select "Create (file name).zip."

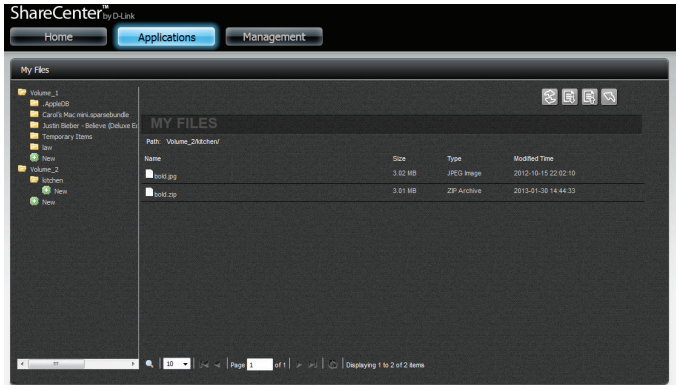


The wizard will create a zipped file in the same folder.

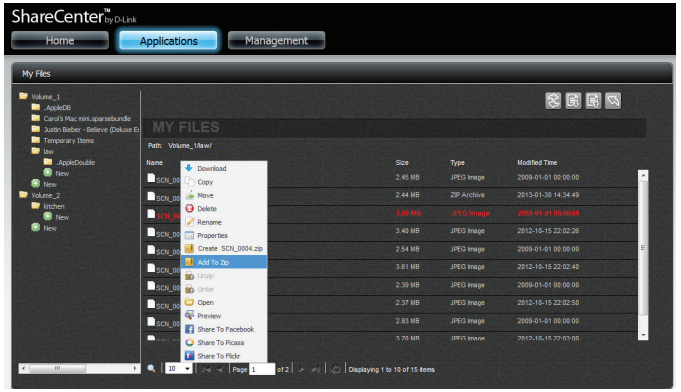


Add to Zip

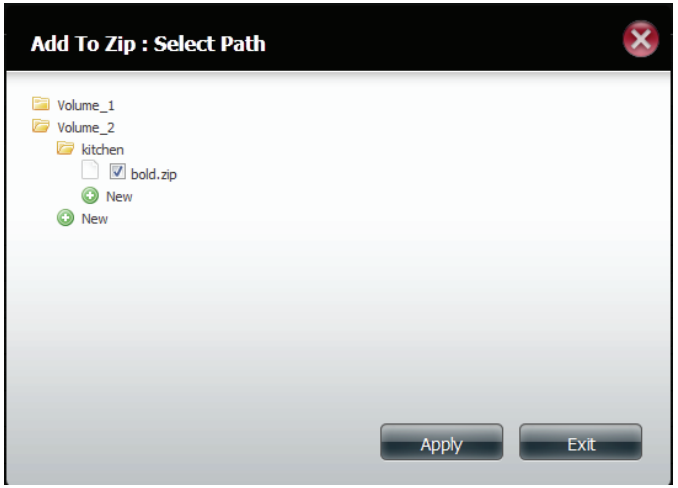
Add to zip allows you to add to an existing zipped file. In our example, we use the existing file "bold.zip".



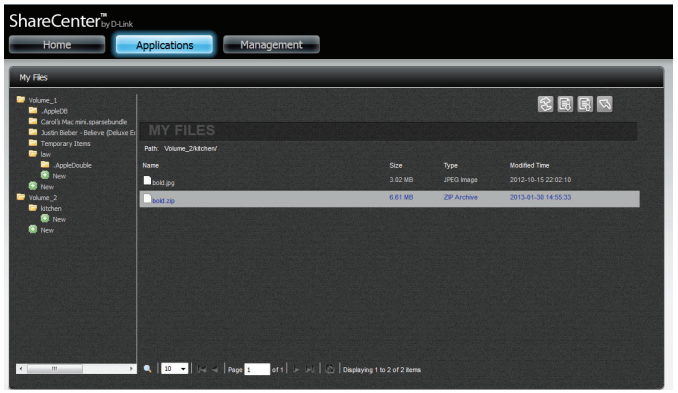
Locate the file that you wish to add to the zip file. Right click the file and click **Add to Zip** from the menu.



In the **Add to Zip** window, select the zipped file you want to have the file added to. Click the checkbox and click **Apply**.

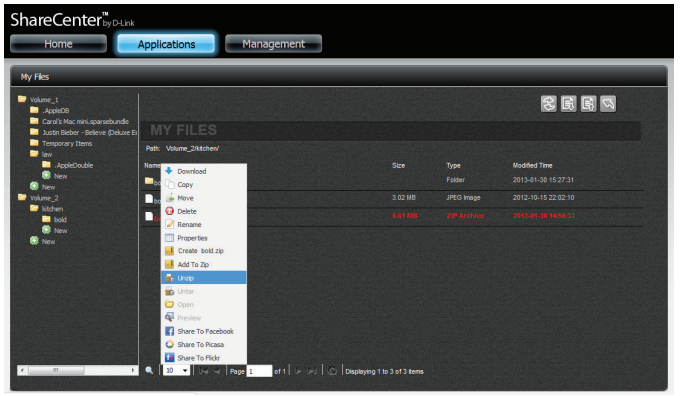


The wizard will add the new file to the zipped file. Your existing Zip file will have increased in size due to the addition of the new file(s).



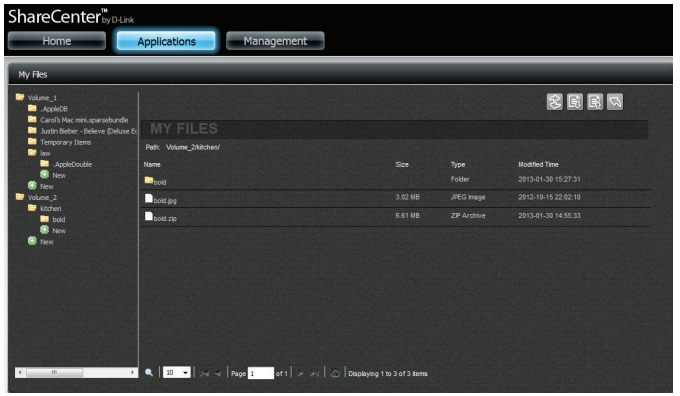
Unzipping a Zipped File

Go to **Applications>>My Files.** Browse any of the folders on the left pane, right click any zipped files in the right pane. Select **Unzip**.



The wizard will unzip the zipped file.

A new folder is created for the unzipped file. The new folder will have the same name as the zipped file.

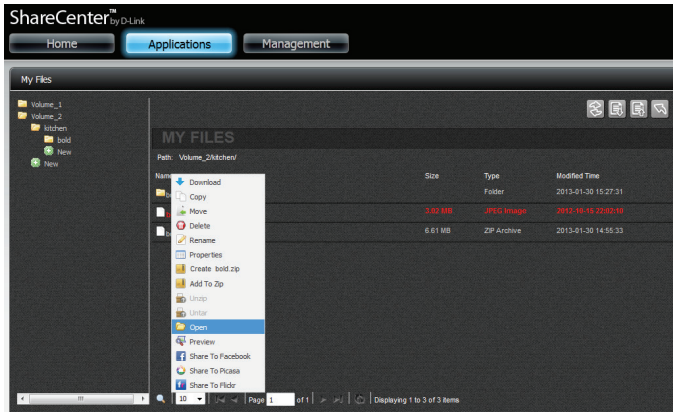


Unzipping a Tar File

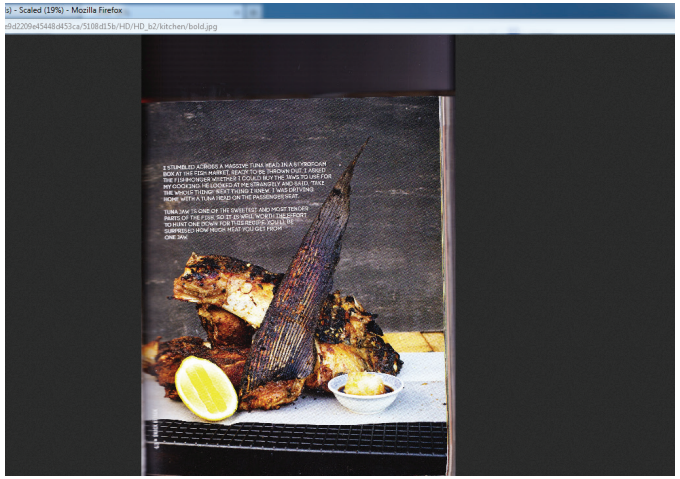
An unzipped TAR file works when your workstation is Linux-based. The unzipping process works similar to unzipping a normal file. To unzip a tar file on the NAS, select the file you want to untar (lighlighted in red) and right-click. From the drop-down list click **Untar**.

Opening a File

Select the file you want to open, right-click and select **Open** from the drop-down menu.



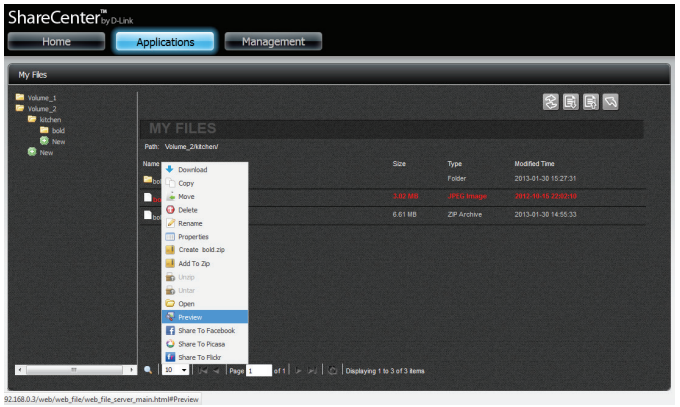
The file will be opened in a new browser window.



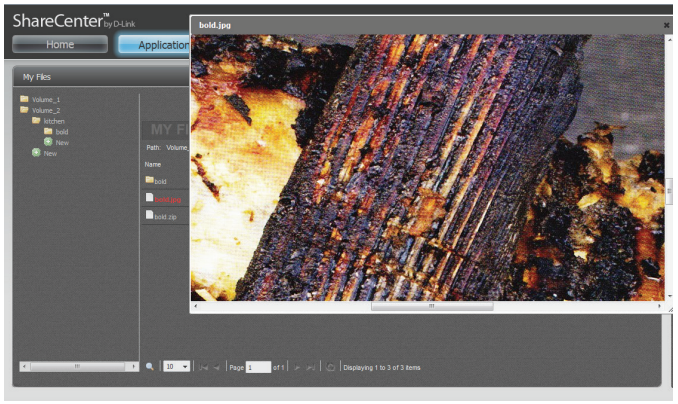
Previewing a File

You can preview a file of any supported type (bmp, gif, ico, j2k, jiff, jpeg, jpg, jpg2, pdf, png, ps, psb, psd, webp, doc, docx, xls, xlsx, mp3, txt) on the NAS.

Select the file you want to preview. Right-click and select **Preview** from the drop-down menu.

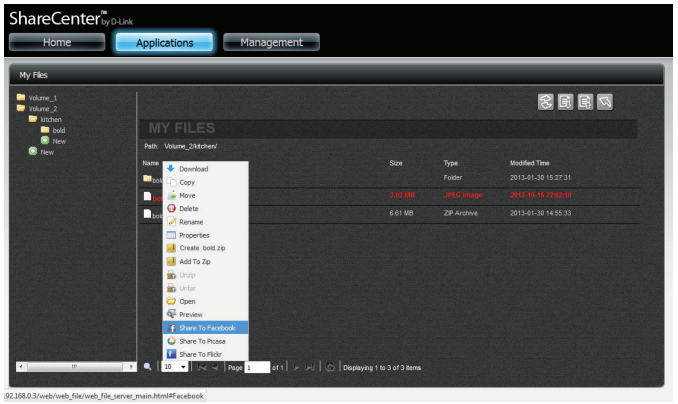


The file opens in a new gallery-like window. Use the left/right slider to view the image or re-size the image from the corner points.

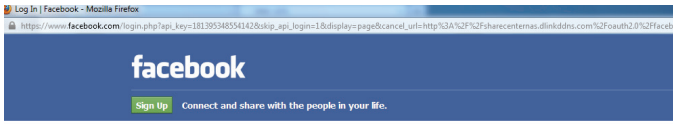


Share to Facebook

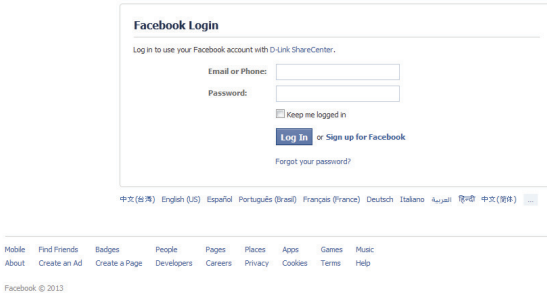
Select the file you want to share to Facebook. Right-click and select **Share to Facebook** from the drop-down menu.



The browser will open a new window and redirect you to log-in with your Facebook account to automatically upload files to Facebook.

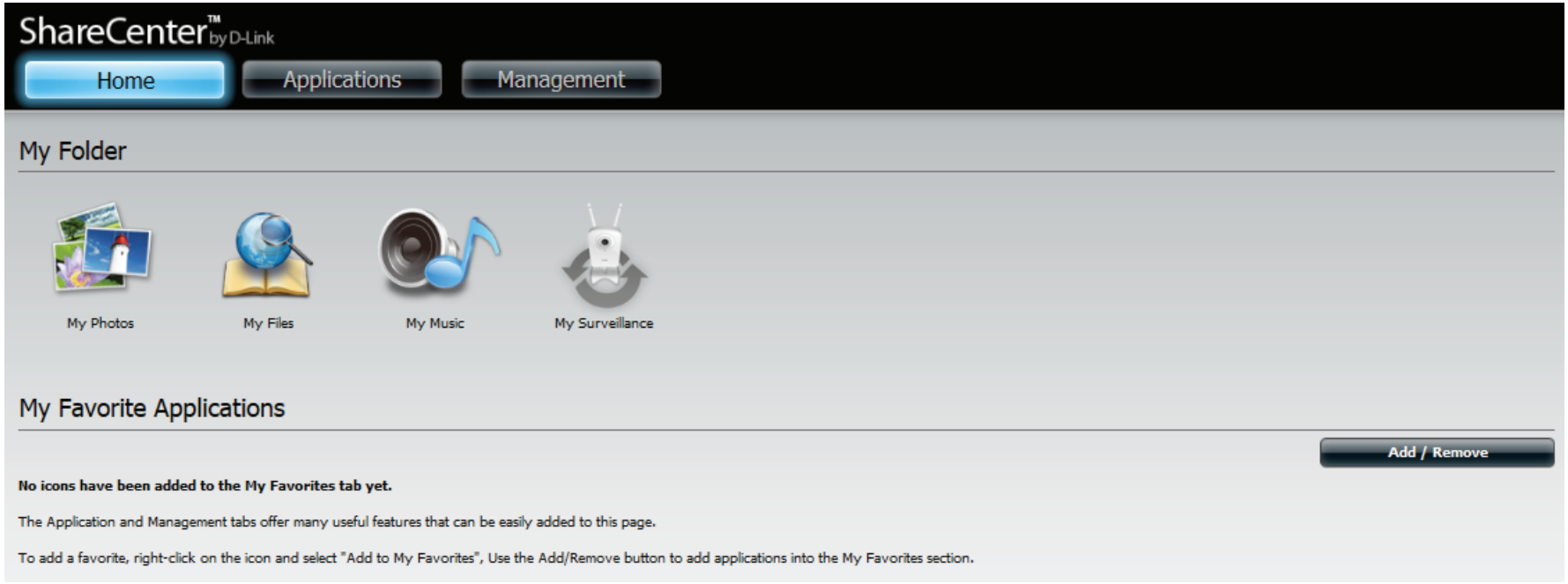


Follow the same steps to share to Picasa and Flickr



My Music

My Music allows users to add music to the DNS-320L. Using this application, users can view, edit and play music straight from the NAS, and access music files over the network.

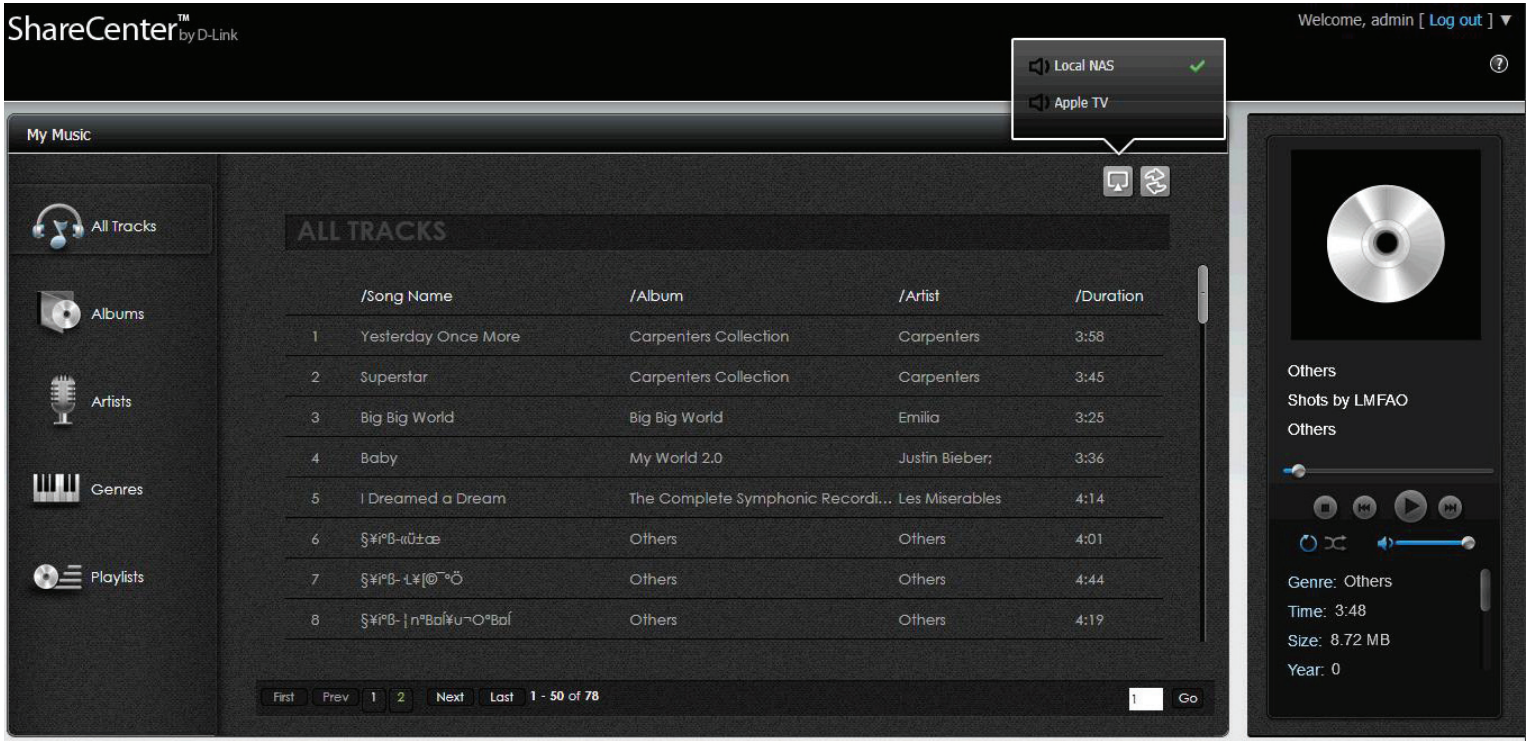


Click **My Music** to view the My Music features.

My Music - The Interface

Click here to play back music to a Local Device or to an AirPlay enabled Apple Device.

The **Music Player** plays tracks directly off the DNS-320L.



My Music - Categories

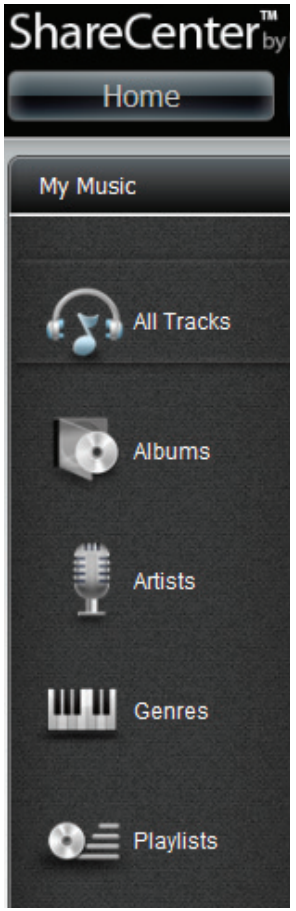
Click **All Tracks** to view all the audio tracks on the DNS-320L.

Click **Albums** to sort audio tracks on the DNS-320L by album.

Click **Artists** to sort audio tracks on the DNS-320L by artist.

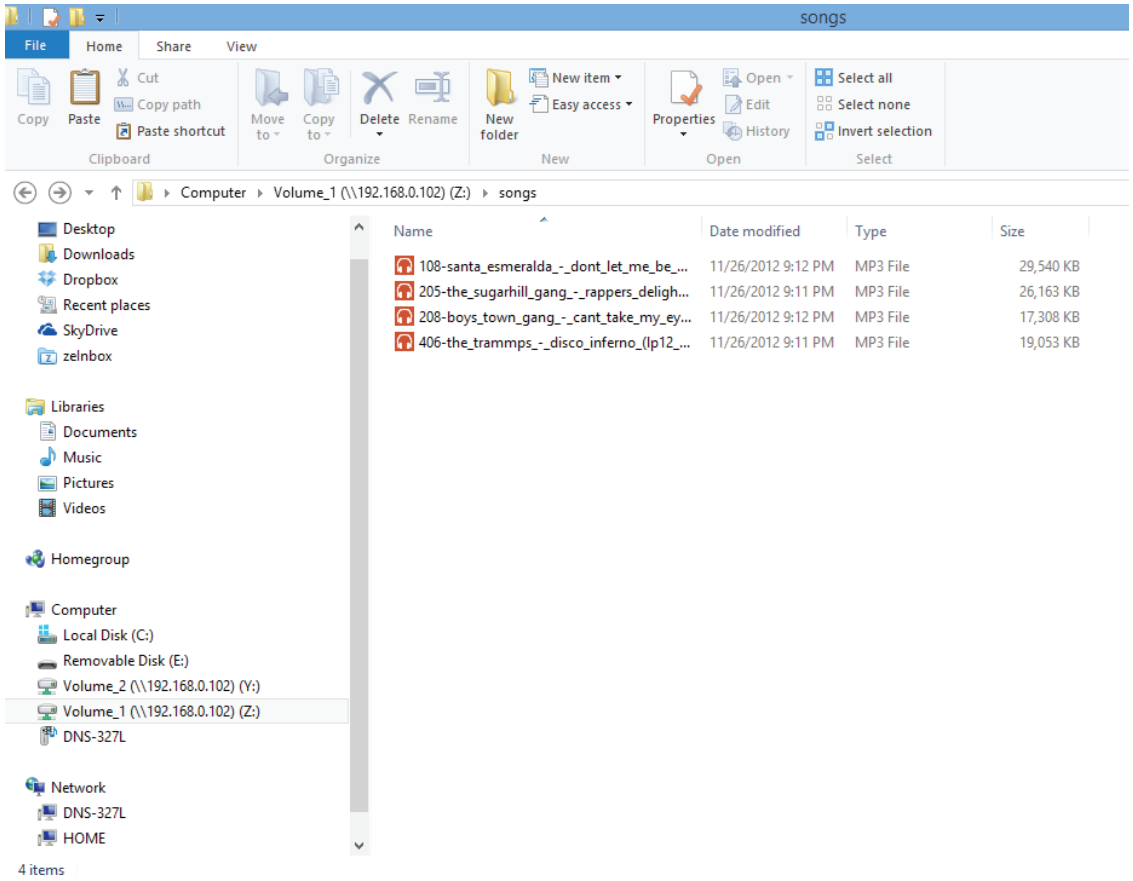
Click **Genres** to audio tracks on the DNS-320L by genre.

Click **Playlists** to view all playlists and create new playlists on the DNS-320L.

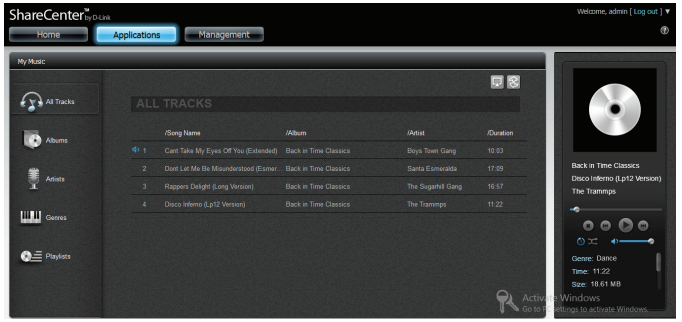


My Music - Music on your DNS-320L

Access your DNS-320L from your network. Click the NAS volume directly. Copy music directly from your local drive to any of the volumes on the DNS-320L. The NAS can only play back files in MP3 format, you should ensure that all audio files are in this format.



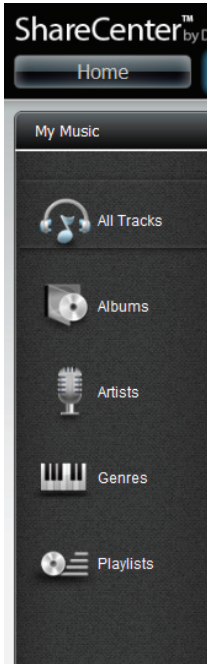
View your All Tracks window and click the **Refresh** button.



The playlist will be populated with all audio tracks found on the volumes of the NAS.

Click **Artists** to sort the tracks by artist.

Click **Albums** to sort the tracks by album.



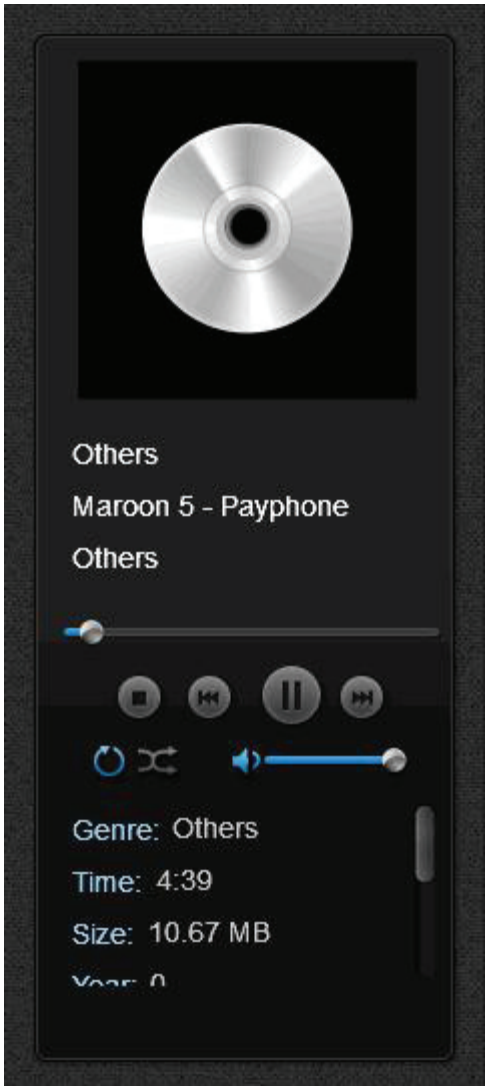
My Music - Playback Music on an Apple Device

Click the Airplay button, and select the Airplay-enabled device that you wish to play the audio tracks to. The ShareCenter will connect to the device over the network. A message will pop-up after connecting successfully. Click **Yes** to continue. Your music will now play through your Airplay-enabled device.

My Music - The Player

The following buttons are displayed on the music player:

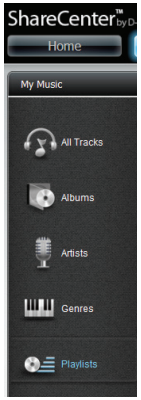
- Album Art (if available)
- Album
- Track Name
- Composer
- Seek Bar
- Skip Backward
- Stop
- Shuffle
- Repeat
- Play/Pause
- Skip Forward
- Volume Control
- Additional track information



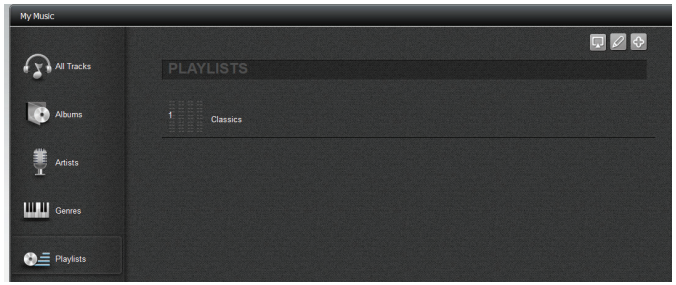
My Music - Create a Playlist

Click the **Playlist** tab at the bottom of My Music.

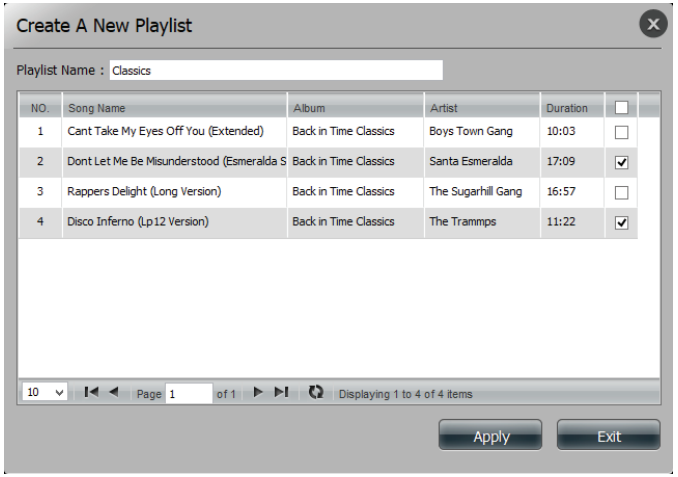
Click the **Plus** icon at the top right-hand corner.



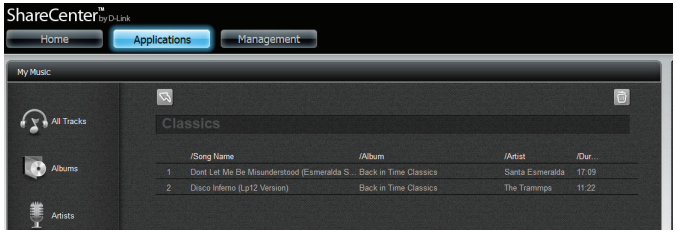
The Create a New Playlist menu will appear. Enter a name under **Playlist Name** and click the songs you wish to add to the playlist. Click **Apply** to add them to the list.



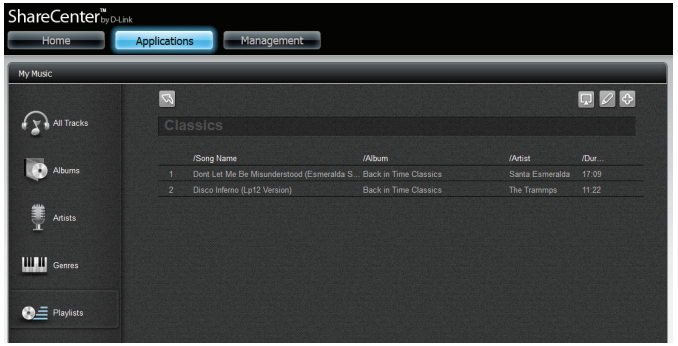
The new playlist will be created under the Playlists window.



Click on the playlist to view its contents. Click the **Back** ( ) icon to return to the playlist menu or click the **Edit** ( )icon to delete songs from the playlist. Click **Add** ( )

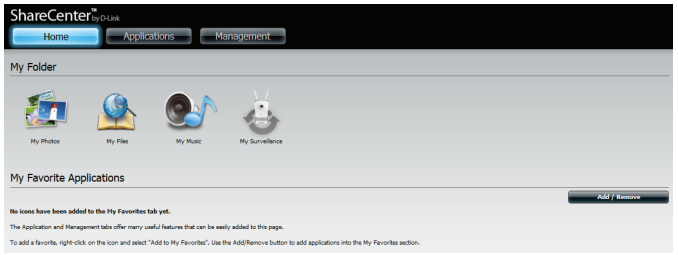


Once you are in **Edit** mode, click the track you want to delete and click the **Delete** ( ) icon.



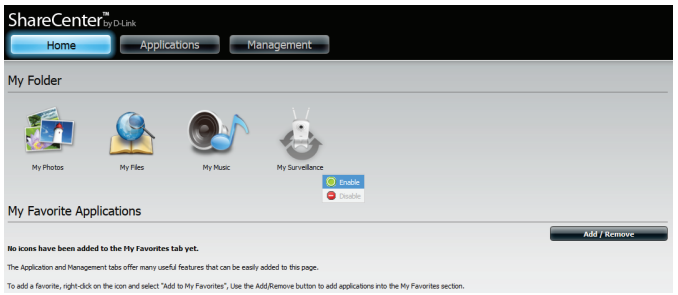
My Surveillance

The My Surveillance app works with D-Link Cloud-enabled cameras. It manages your IP cameras from the NAS and allows all streaming video to be saved to the NAS. My Surveillance can connect up to 4 cameras. Click the **My Surveillance** icon under the My Folder window in the Home tab. By default, My Surveillance is disabled. To enable it, right-click the icon and click **Enable**. Right-clicking only applies to this app and icon.



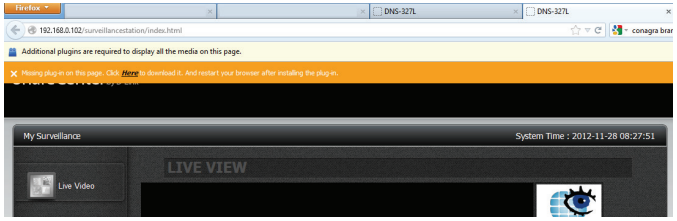
A colored icon indicates that the My Surveillance feature is enabled.

To enable, right-click the icon and click **Enable**.

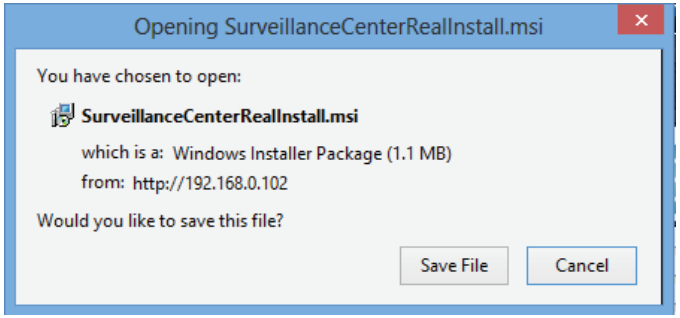


A greyed-out icon indicates that the My Surveillance feature is disabled.

After you have enabled **My Surveillance**, it opens up in a new browser window. Before you can proceed, you should to make sure you have the correct browser plug-ins to view the streaming video. If required, the browser will prompt you to install the new plug-in. Click the plug-in advisory to continue.

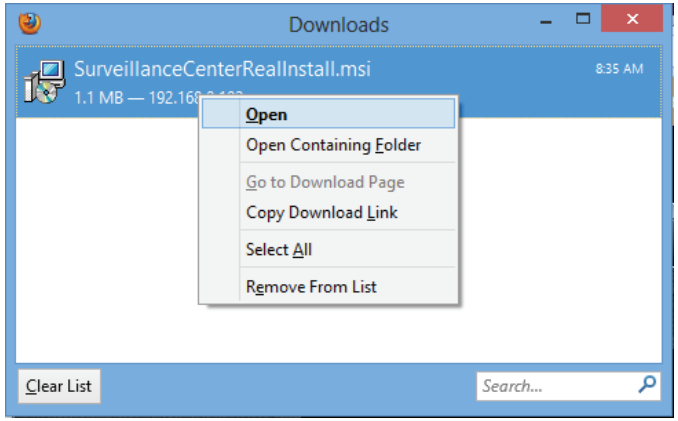


Click **Save File** to accept the **SurveillanceCenterRealInstall.msi** file.



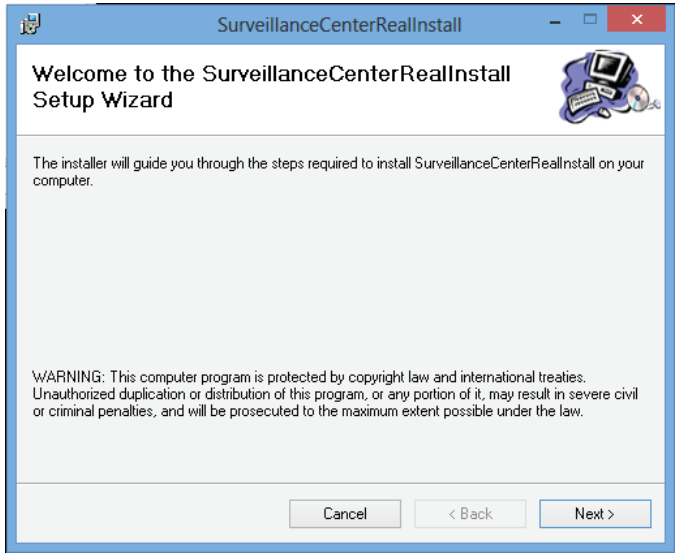
Note: My Surveillance supports the following web browsers:
Internet Explorer 8 or higher
Mozilla Firefox 4 or higher
Apple Safari 4 or higher (Windows)
Google Chrome 13 or higher

Once the file is downloaded, **double-click** or **right-click**, select **Open** and install the program from your browser's Downloads window.



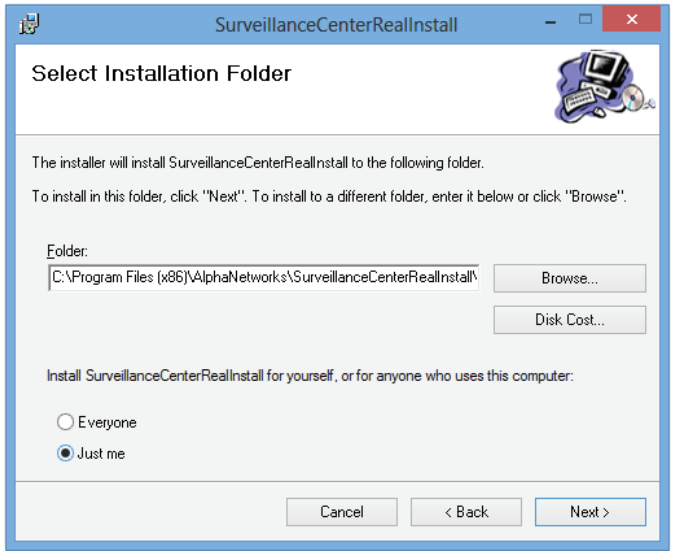
The **Surveillance Center Real Install** setup wizard will begin.

Click **Next** to continue.



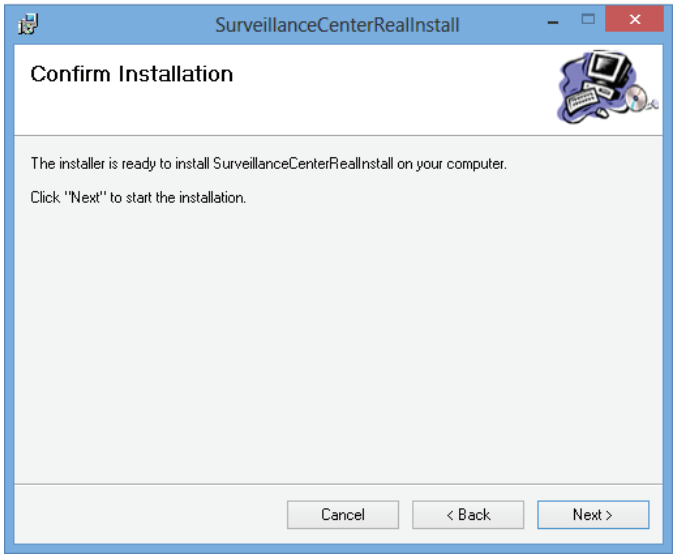
Select an **Installation Folder** location.

Click **Next** to continue.



Confirm that the Installation is complete.

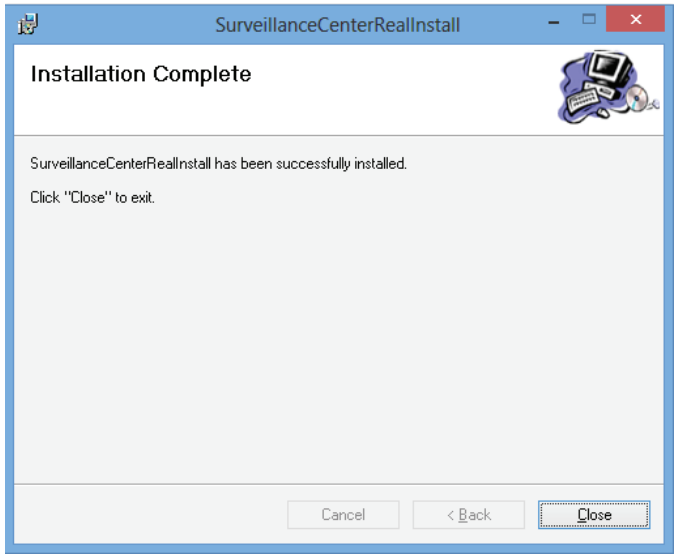
Click **Next** to continue.



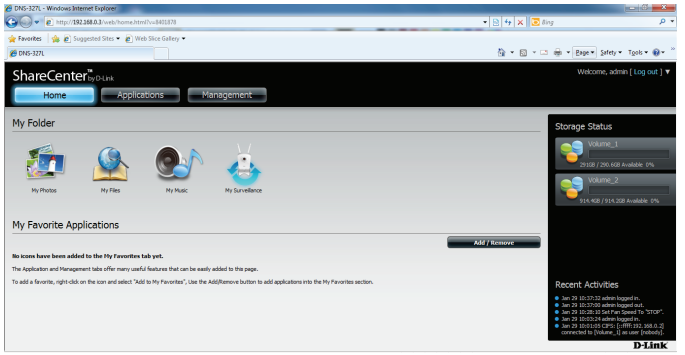
The installation is complete.

When you connect one of the supported cameras to the network, the My Surveillance software will detect the camera automatically. The software is able to recognize the IP address, model number, and bit rate speed

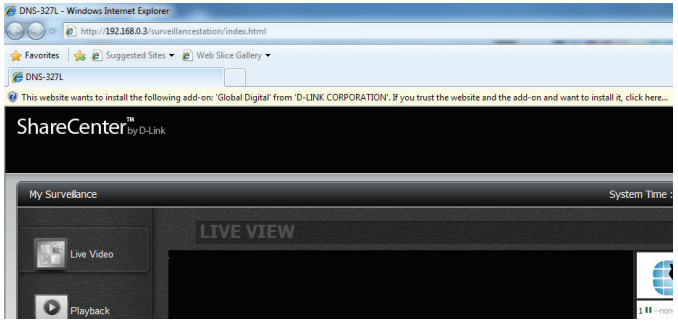
Click **Close** to continue.



To view the Surveillance utility in a browser, open your web browser. When you log in, you will see the **My Surveillance** icon under the **Home**>>**My Folder** screen.

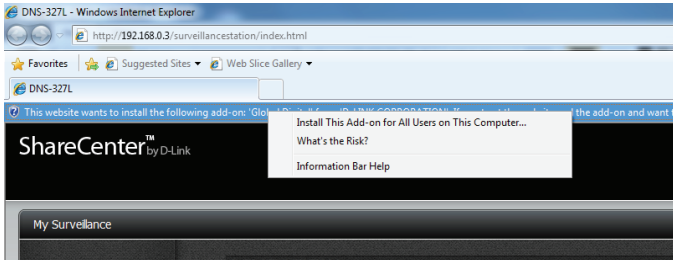


Logging into My Surveillance for the first time using Internet Explorer, requires an add-on. The add-on pops up at the top of the browser.

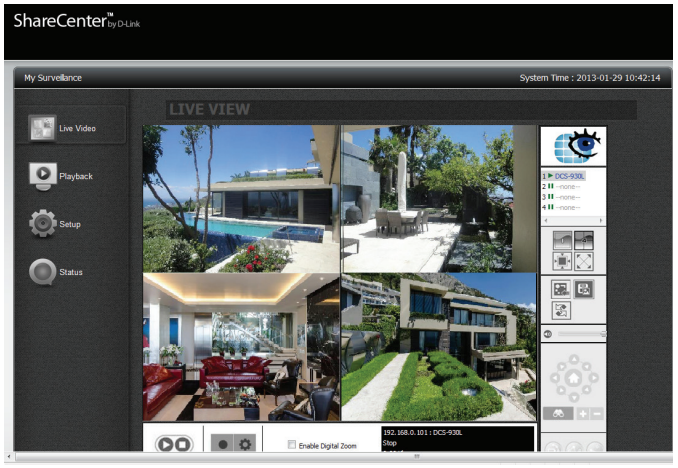


Click the pop up and click **Install This Add-on for All Users on This Computer**.

The **Global Digital, D-Link Corporation** add-on warning message pops up. Click **Yes** to confirm the installation.



Once confirmed, Internet Explorer will display the live camera feed.



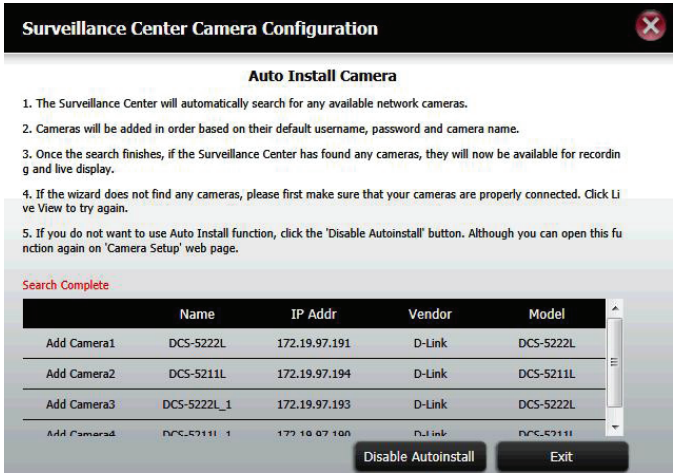
After the program is installed, the **Surveillance Center Camera Configuration** window automatic camera detection wizard searches for any known cameras. The program is launched by default and automatically when you access the Live Video Page.

A red notification appears if you do not have any detected cameras. Read the Auto Install Camera instructions to configure cameras for later use.

If you wish to disable auto-install click the **Disable Autoinstall** button.

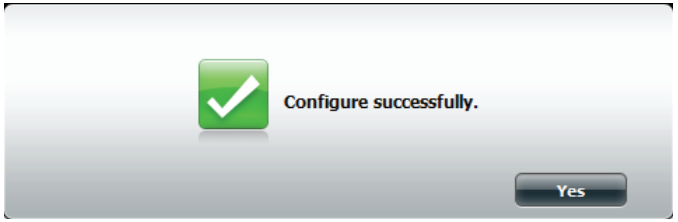
Click **Exit** to continue.

Please Note: The Autoinstall Camera function will not work if you modify the password on the IP cameras.



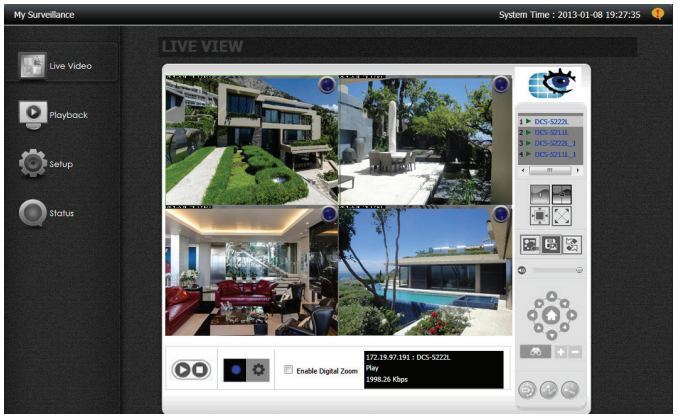
Configuration is complete.

Click **Yes** to continue.



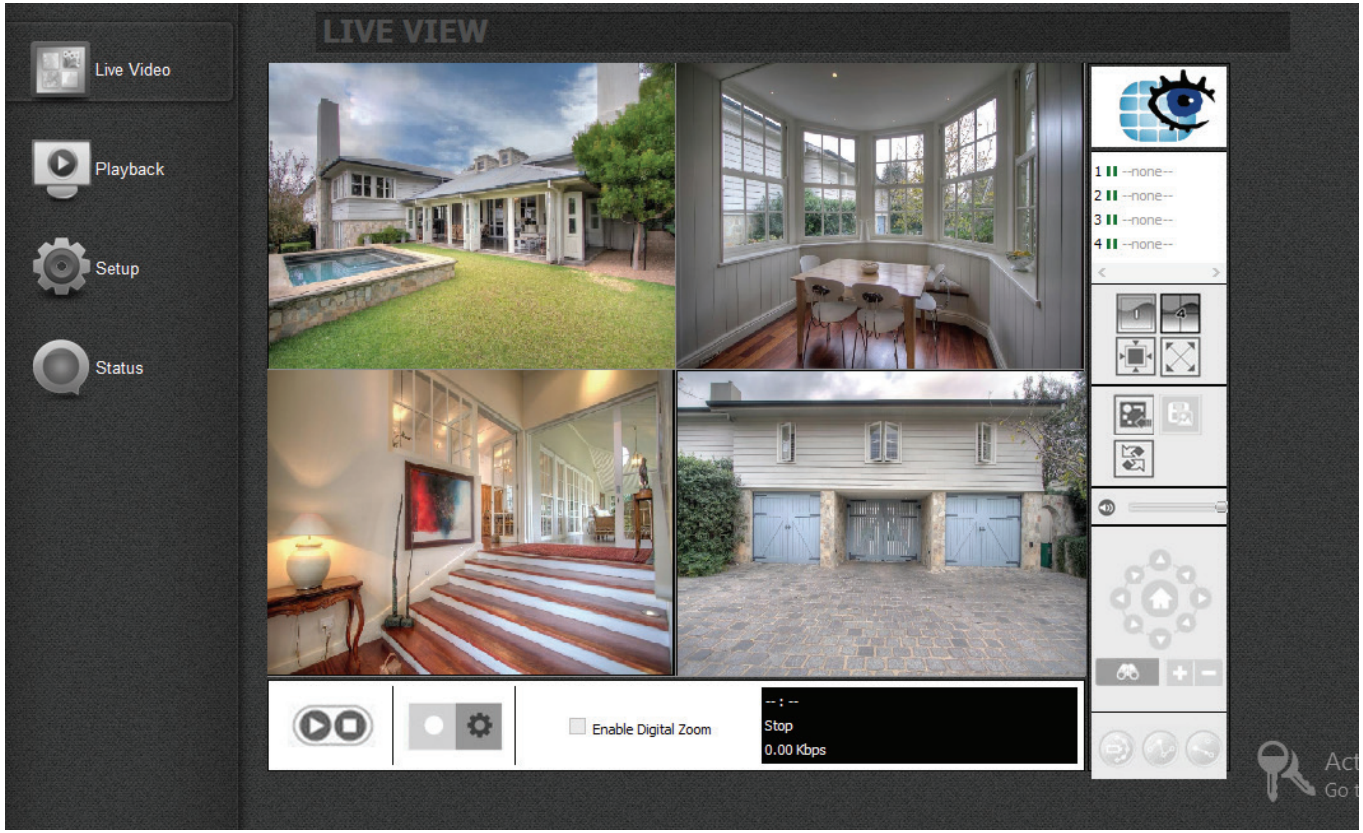
The browser will now display the **Live View**. However, if you do not have any cameras connected, the live view window will have no video stream to show.

Close the browser tab to exit.



My Surveillance

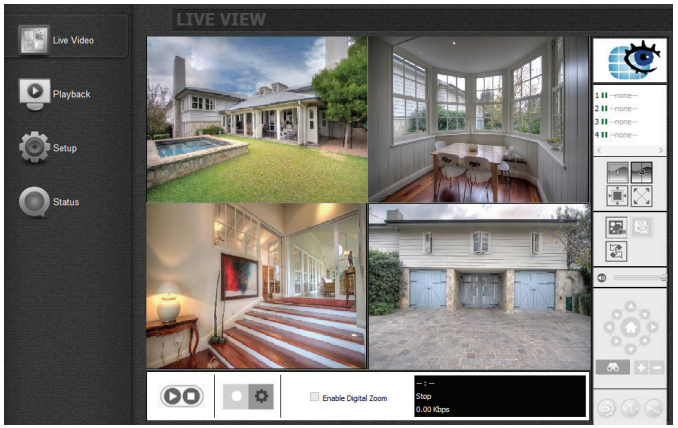
The My Surveillance interface is based on the surveillance and camera features. Normal operation is also dependant upon the camera's functionality. The interface features navigation tabs in the left-hand column which can be used to access the various functions of the My Surveillance app.



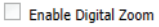
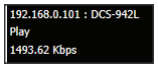
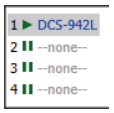
My Surveillance - Live View

The Live View window will show up to four live video streams from your connected IP cameras. There are also various controls and functions on this page which can help you to customize your video view.

- My Surveillance
- Camera Name & IP Address
- Camera View
- E-map, Snapshot,
- Mute and Volume Slider
- Pan-Tilt-Zoom Control
- Zoom
- Patrol Mode for PTZ
- Stop/Start Manual
- Digital Zoom
- Camera details

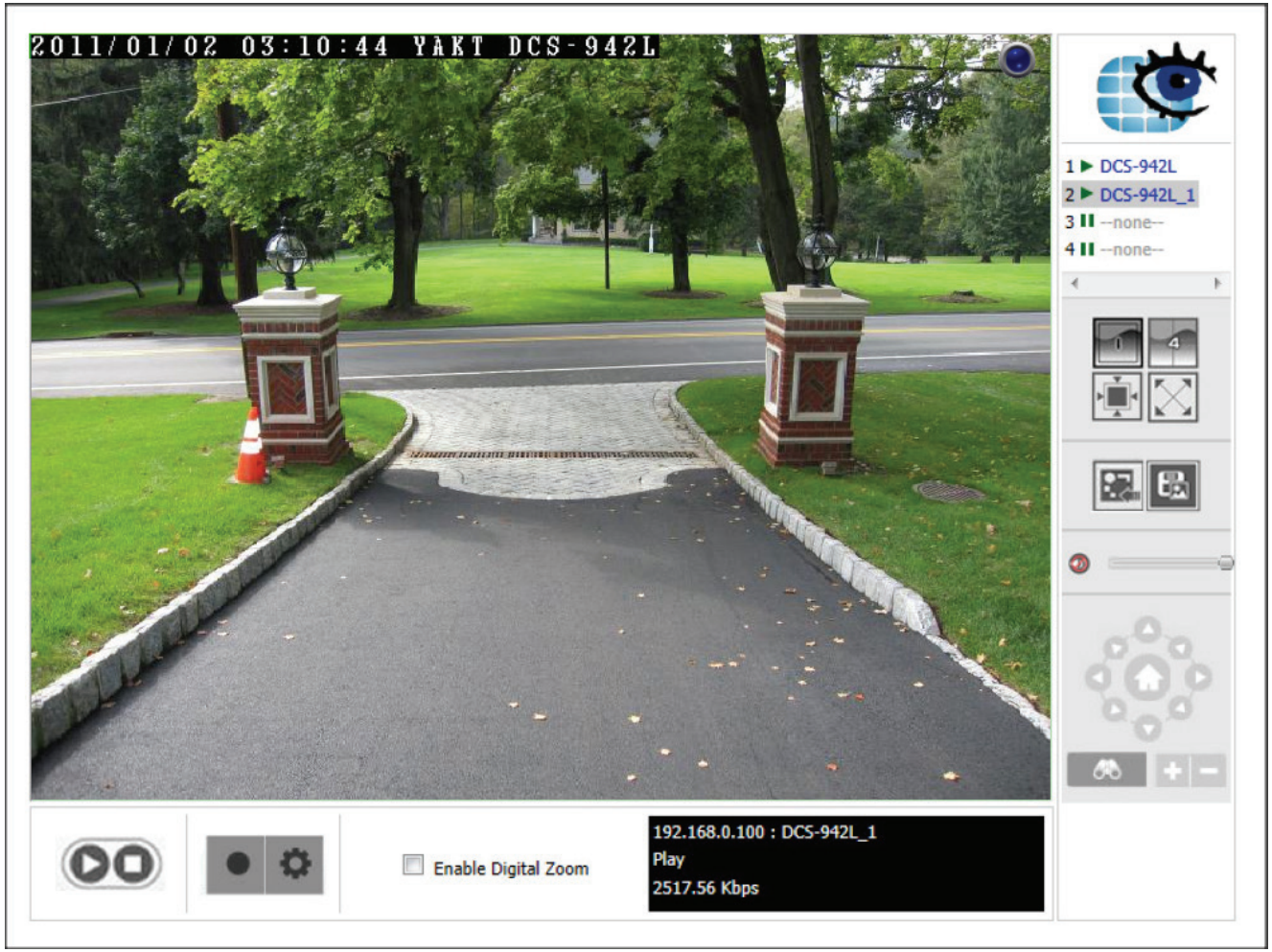


My Surveillance - Live View

FUNCTION	ICON	DESCRIPTION
Live Video Screen		View the live video of cameras connected to the DNS-320L via the network
Stop/Start		To stop or start camera live view
Manual Recording & General Settings Tab		Click the "Manual Recording" button to stop or start camera manual recording Click the "gear cog" to set up the basic configuration
Enable Digital Zoom		Enable the use of digital zooming on the selected camera.
Camera Details Display		This screen indicates the currently selected camera's IP address, name, status, and bit rate
Patrol Mode		Use the patrol buttons to set the camera's patrol mode. You can instruct the camera to undertake a constant patrol through it's pan/tilt range, specify a preset point for quick reference, or instruct the camera to go to it's preset point.
Pan-Tilt-Zoom Control		Used for cameras that support Pan-Tilt-Zoom (PTZ) controls. You can use these controls to control the direction of the camera lens.
Zoom		Click the + or - button to zoom in or zoom out. This option is only available when digital zoom is enabled.
Mute and Volume Slider		The mute button can be used to mute the sound from the camera and the slider bar used to adjust the volume.
E-map		Use the E-map button to toggle between the live camera view and the E-map display
Snapshot		Take a live snapshot of the live streaming video
Auto Scan		Activate auto scan to rotate through the camera live views on the display.
View as 1x1		View one screen at a time
View as 2x2		View four cameras at a time
Actual Size		The button lets you view cameras with the actual size
Full Screen		View a live video stream of any camera in full screen mode, press escape to return to the user interface.
Camera Name and IP Address		These icons show the status of each camera and allows you to double-click to toggle the status of each camera.

My Surveillance - Single Camera Live Video Mode

Click the 1x1 button ( ) to enter Single Camera Mode. The live video for the selected camera will expand to cover the full live viewing area. Click the 2x2 button ( ) to return to Split Camera Mode. Click on the camera you wish to view in the Camera Name and IP Address window.

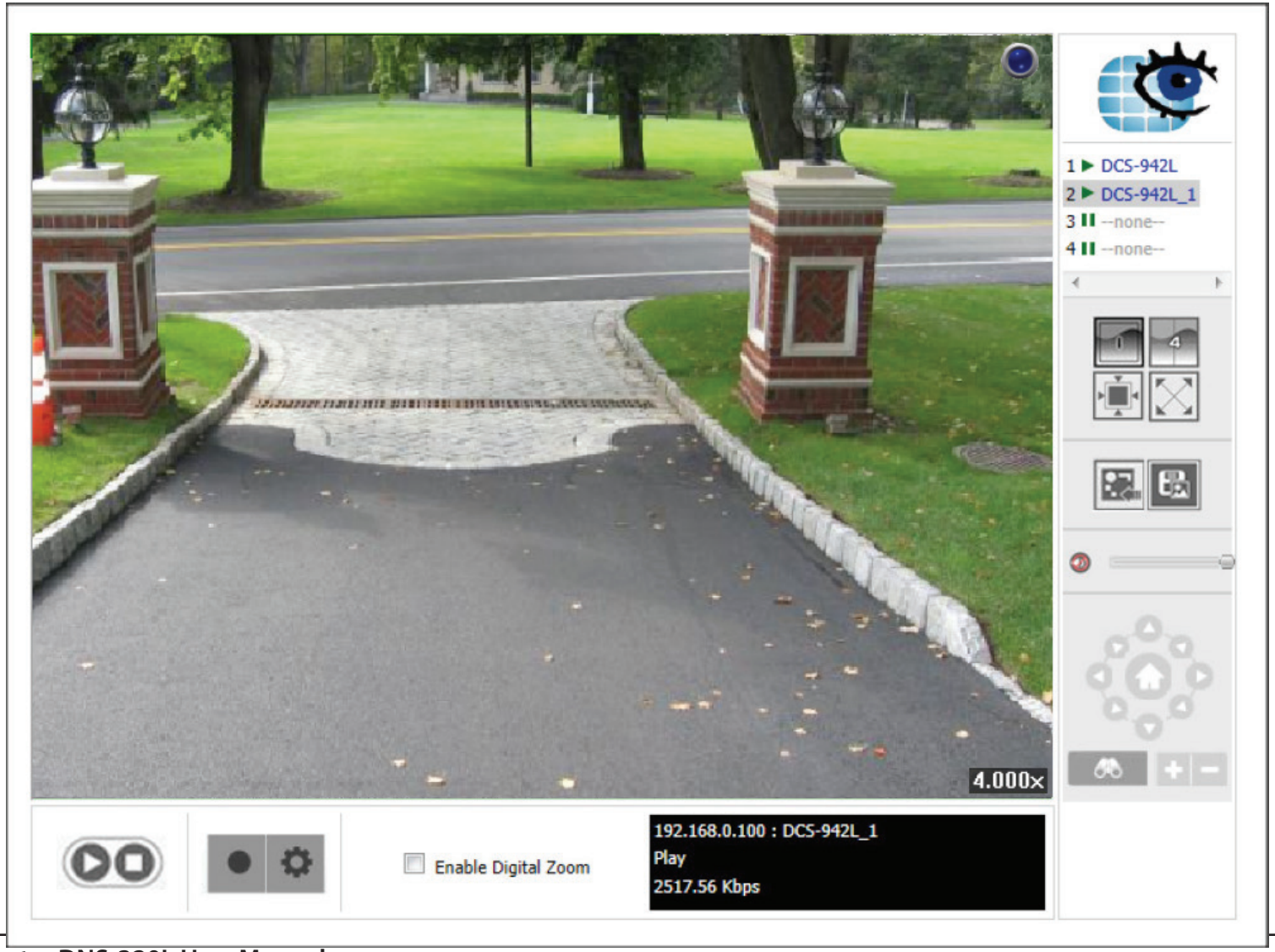


My Surveillance - Full Screen Live Video Mode

Click the Full Screen button ( ) to enter Full Screen Camera Mode. The viewing angle expands to cover the entire screen. Click the 2x2 button ( )to return to Split Camera Mode. This full-screen mode can be used in 2x2 mode and 1x1 mode.

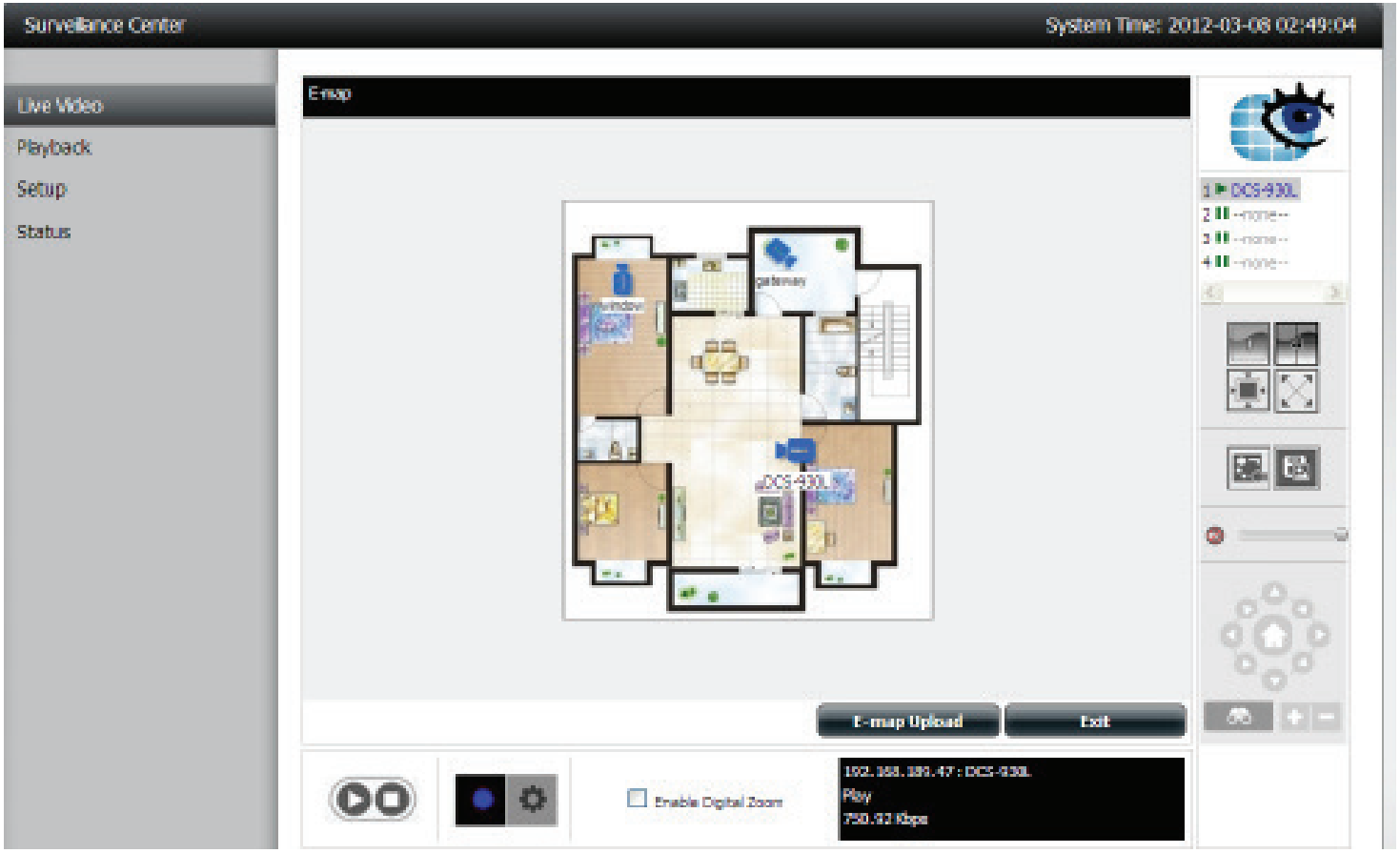
My Surveillance - Digital Zoom Video Mode

When **Enable Digital Zoom** is checked, the software allows you to zoom in and out on an area of the image. You can place the mouse pointer in the bottom right corner of the image to click and drag the box around to view different parts of the video. You can also click directly on the part of the main image you want to focus on. Use the mouse wheel to control the level of zoom.



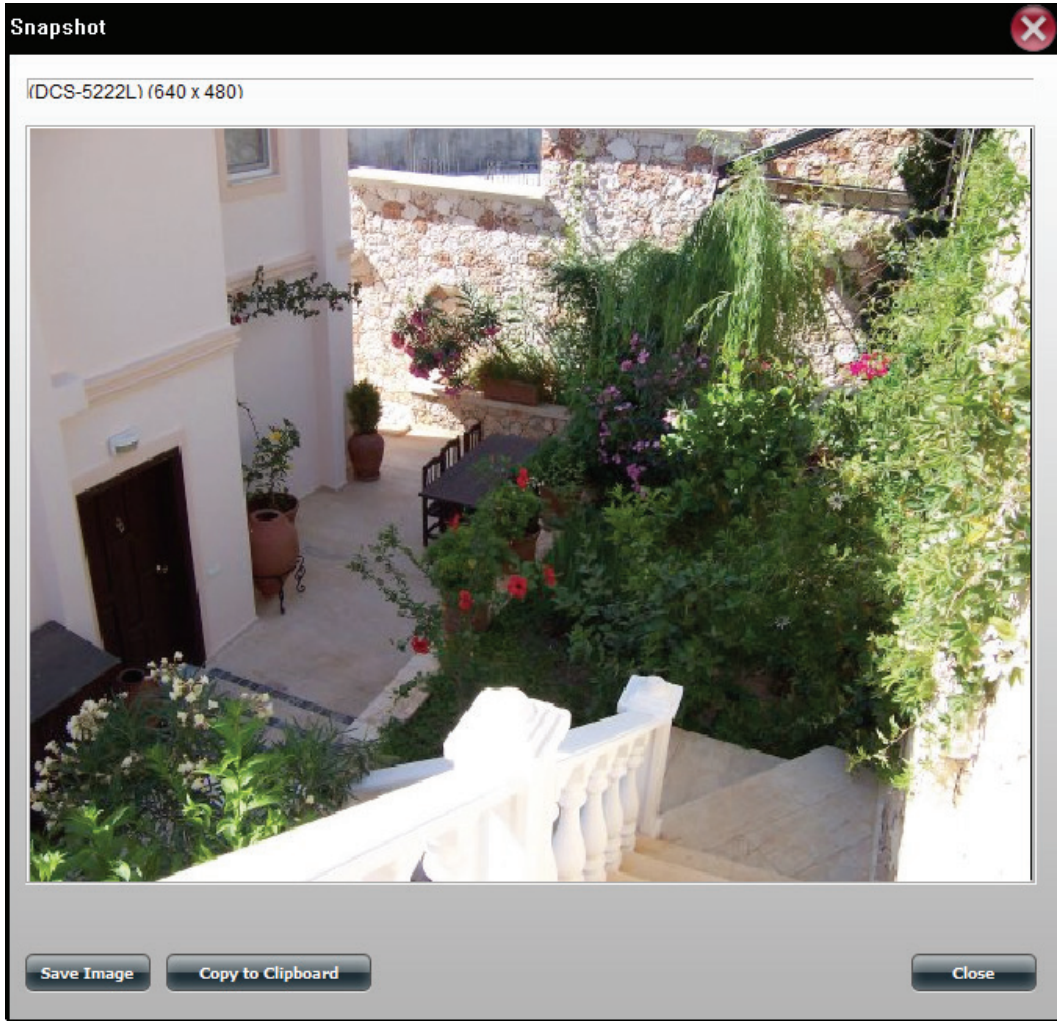
My Surveillance - E-Map View

You can access the E-map from the Live Video screen by clicking the button. Note: you must have installed E-map JPEG files in order to use this feature. Click the **E-map Upload** button to upload images into the database. When you click this button you will be directed to the E-map Upload window.



My Surveillance - Snapshot View

You can access Snapshot from the Live Video screen by clicking the snapshot button ( ). This will take a snapshot of your current live screen. You can copy this image to the clipboard by clicking the **Copy to Clipboard** button, or you can save the image to disk by clicking the **Save Image** button. Click the **Close** button to exit this mode.

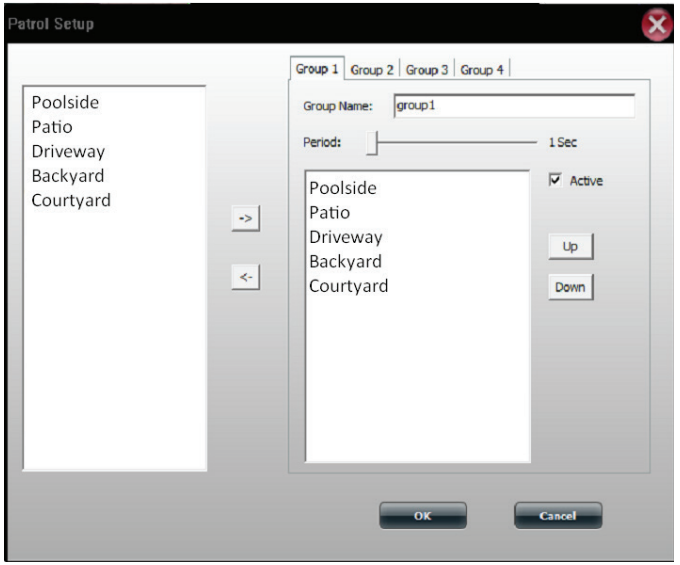


My Surveillance - Motion Detection Camera Mode

If the camera is configured to record when motion is detected, the camera icon on the E-map will change to red when an alarm is sounded or motion is detected, as shown below. When motion is detected or an alarm is triggered, click on the red camera icon on the E-map to play the recorded event.

My Surveillance - Configuring Patrol Settings

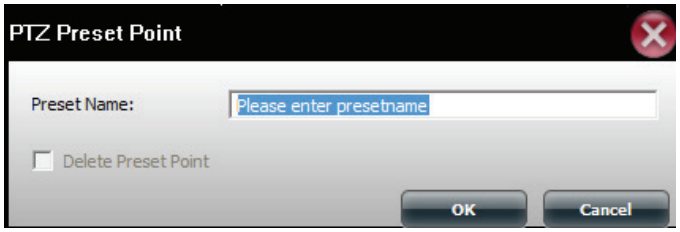
Patrol Settings are dependent upon the capabilities of the camera you are using. The Surveillance Center works with the following D-Link PTZ cameras: [1]. Click the Patrol icon ( ) to configure the Patrol settings. Scroll down and click **Set Patrol**. The **Patrol Setup** window will pop up.



[1] Please check your local D-Link support site for an updated list of camera models which support the Patrol function.

My Surveillance - Configuring Patrol Preset Points

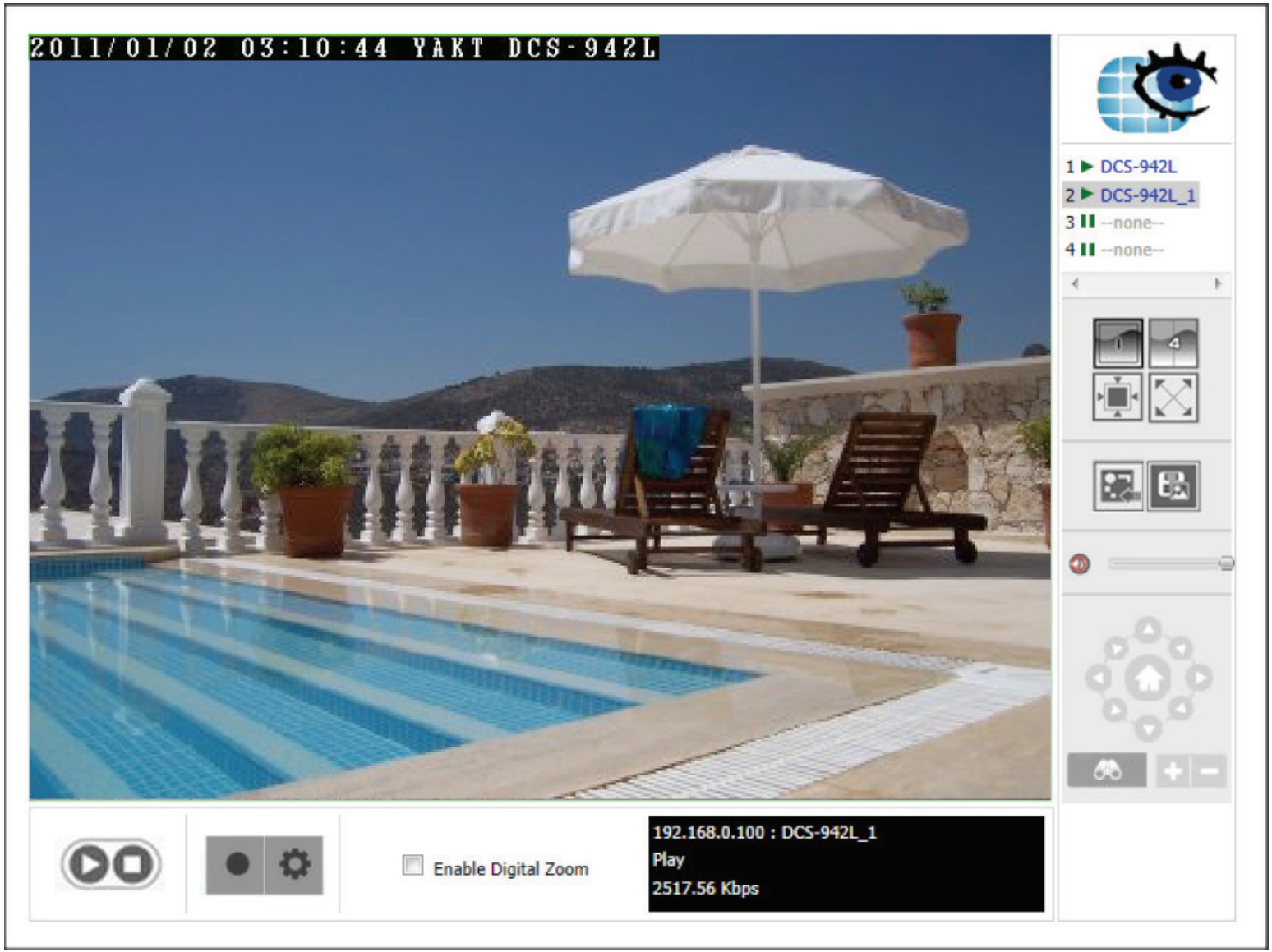
Click the **Preset Point** icon ( ). A drop-down list will appear. Select **Clear All** to clear the list or select **Add Preset Point** to create a new Preset Point. This brings up the PTZ Preset Point box. Enter a **Preset Name** and click **OK**.



To edit the presets click the **Preset Point** icon and select whichever preset you wish to delete.

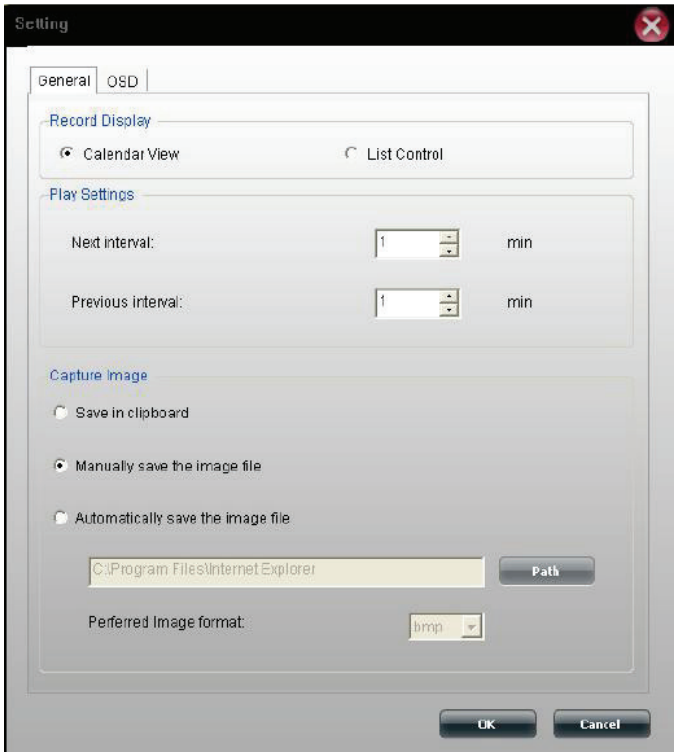
My Surveillance - Viewing Preset Points

Click the **Go to Preset Point** icon ( ). This icon directs the camera to the designated points.



My Surveillance - Live Video/Playback Settings

You can access this window from the Live Video window by clicking the Settings (cog) icon.



Record Display
The Record Display function is only available when accessed from the Playback screen. The Record Display options allow you to modify what is displayed when using the Open Recording button on the Playback screen, a calendar month highlighting dates with recordings or a simple list of folders with recordings.

Play Interval
Use this setting to determine how many minutes one click on the Next Minutes or Previous Minutes buttons on the control panel advances or rewinds the video playback.

Capture Image
This allows you to select where to save the snapshots taken using the snapshot button on the live video screen and the format they are stored in:

Save in Clipboard - Snapshots will automatically be copied to the clipboard. You should use the *Paste* function to save the copied image.

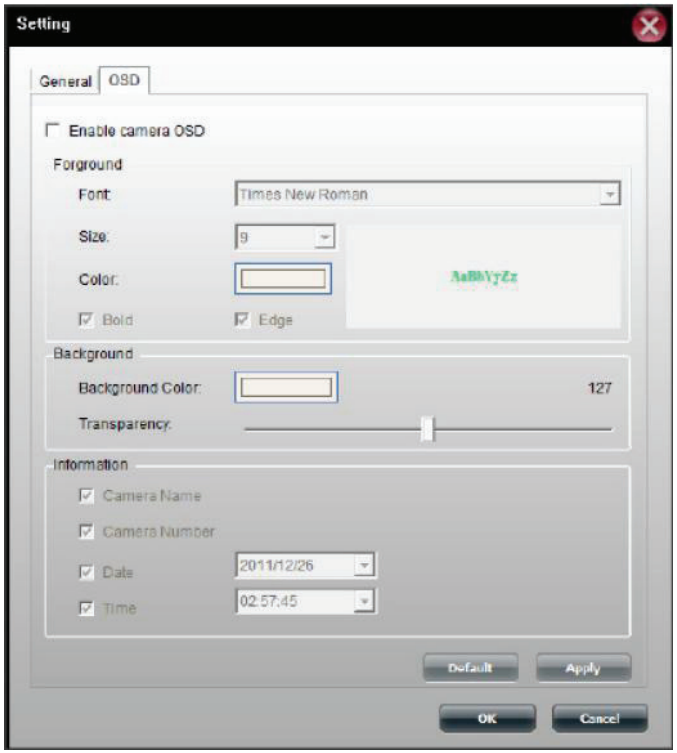
Manually save the image file - You will be prompted with a *Save File* dialog each time you take a snapshot. You can then choose where to save the captured image.

Automatically save the image file to - Use the **Path** button to select a folder to automatically save each snapshot to.

You can also select the **Preferred Image Format** from the drop-down menu.

My Surveillance - OSD Settings

You can access this window from the Live Video window by clicking the Settings button and then selecting the OSD tab at the top. The On Screen Display settings window allows you to adjust settings for the display of an overlay of information on the video.



If you want to enable this overlay, check the **Enable camera OSD** box.

Foreground - You can adjust the font type, size, and color of the foreground box. There are also options to make the text bold and choosing the edge option will apply the selected color to the text.

Background - In the background section you can select a color for the OSD box, and the level of transparency.

Information - The information box allows you to select the information to display. You may display the camera name, camera number, the date and time. There are several date and time formats to select on and this may be done by using the drop down menus.

If you have made changes and want to revert back to the default settings, click the **Default** button at the bottom. Click **Apply** to save the current configuration.

Click **OK** when you are done to save your settings.

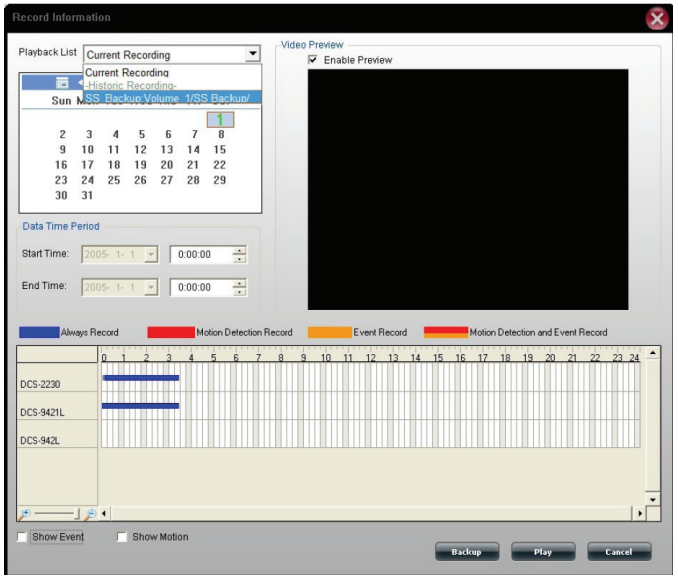
My Surveillance - Playback

In this section, you can play back previously recorded videos.

My Surveillance - Playback

COMPONENT	ICON	DESCRIPTION
Recorded Video Playback		View the recorded video here
Playback Controls		Control the playback video from here (clockwise): Play/Stop/Pause/ Previous Second/Previous Minute/Next Minute/Next Second / Speed Up/Speed Down / Zoom In/Zoom Out
Camera Details		This area displays the time and date of the recording, the playback speed and the current state of playback.
Enable Digital Zoom		Enable this on individual cameras
Mute and Volume Slider		The mute button can be used to mute the sound from the recorded video and the slider bar to adjust the volume
Settings		This configures general setting
Snapshot		Take a live snapshot of the recorded video
Synchronous Playback		This syncs four video channels to playback at the same time
View as 1x1		View one screen at a time
View as 2x2		View four cameras at a time
Actual Size		The bottom lets you view cameras with the actual size
Full Screen		View a live video stream of any camera in full scream mode and press Escape to return to the user interface.
Open Recording		Click this button to open an existing recording.

My Surveillance - Recording Information



When you click the Open Recording button on the Playback screen, you are presented with this screen. This screen allows you to see at a glance the recordings that have been from with the connected cameras.

Depending on your settings, you may see a calendar month or list of recordings by date at the top left of the screen. Use this calendar or list to select a recording. In calendar view, days highlighted in green are ones which have a recording.

In calendar view, clicking the icon selects the current date, allowing you to browse through calendar months and quickly return to the current date.

The **Playback List** drop down menu provides various options:
Current Recording - This shows camera videos recorded by the Surveillance Center module.
Historic Recording - This shows camera recordings backed up by the user. The number of entries below this will depend on how many recordings you have backed up.

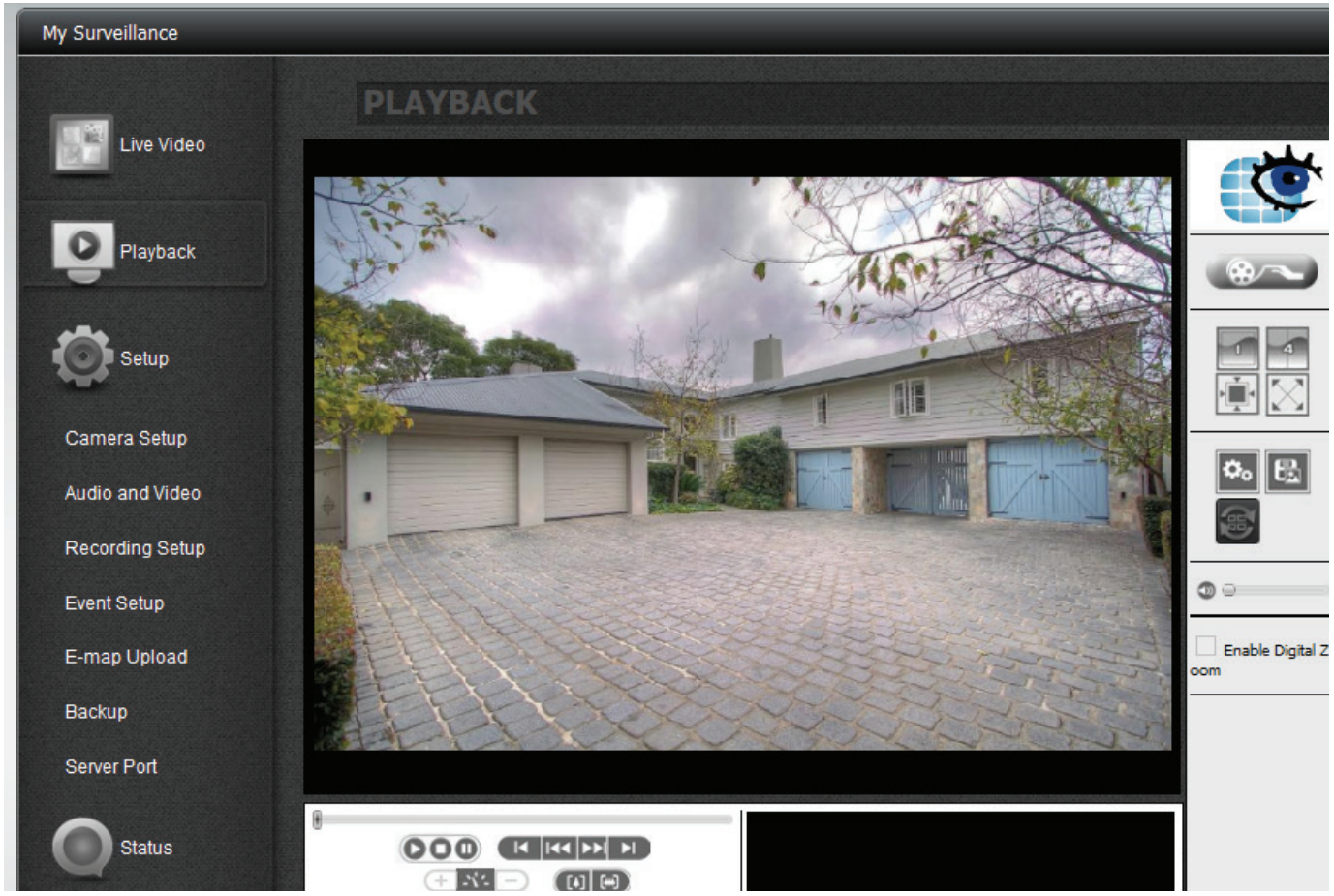
The Date Time Period section allows you to narrow down the time and date for which to show recordings.

The timeline at the bottom of the window plots the selected day and displays the different types of recordings and the times they were recorded. The recordings are all color-coded to differentiate between the types. You can play any of these recordings by simply clicking on the point on the timeline that you want to play. Use the two checkboxes at the bottom of the window to toggle whether to **Show Events** and **Motion Detection** on the graph.

Click the **Backup** button at the bottom of the window to go to the Backup Setup screen where you can backup the selected recording.
Click the **Play** button at the bottom of the window to play the selected recording on the main playback screen.

Note: You can backup or play up to 4 selected recordings at the same time.

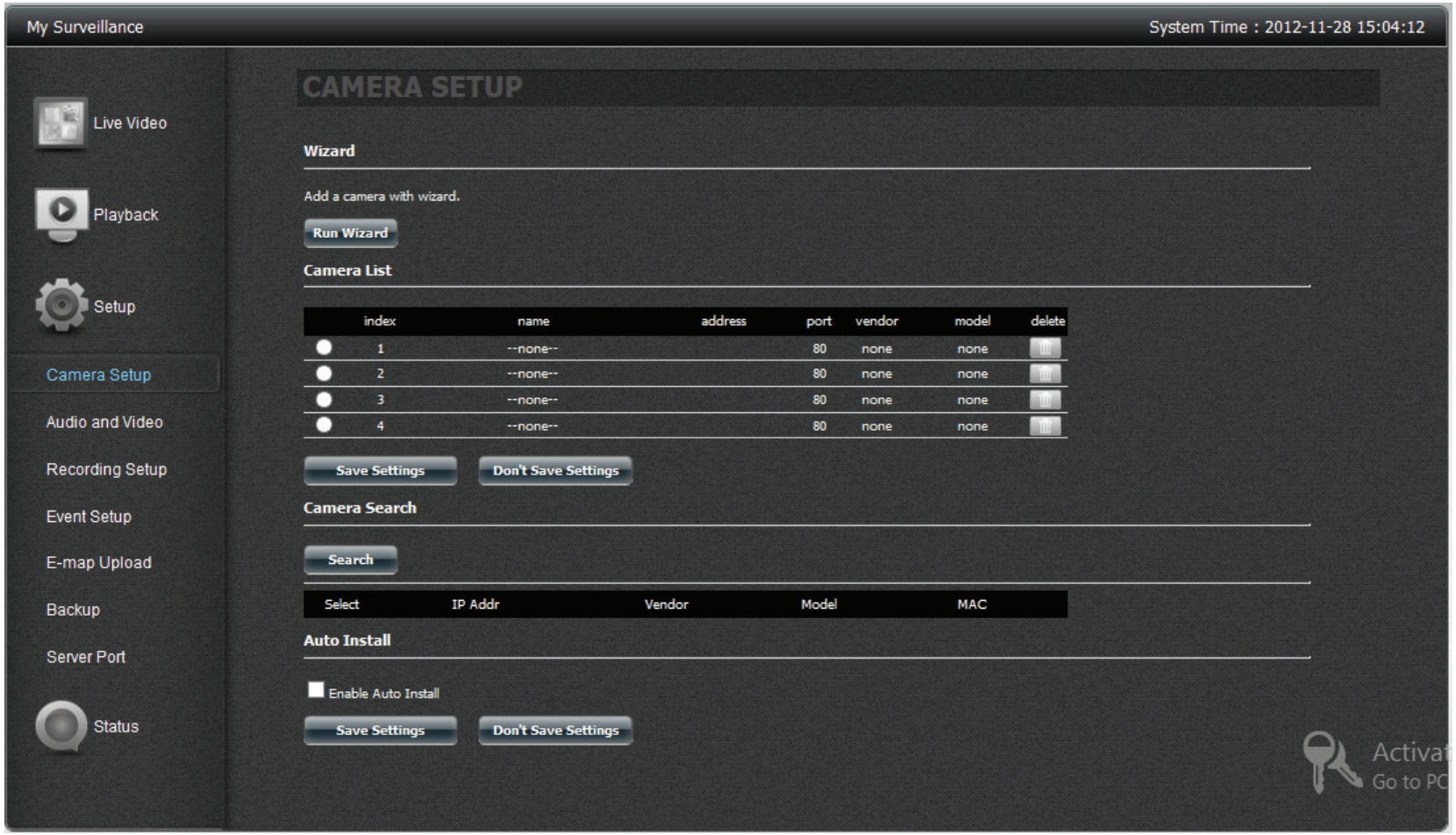
My Surveillance - Setup



Note: See descriptions later in this Manual.

My Surveillance - Setup - Camera Setup

Once you click Setup, Camera Setup is the first screen to configure. On the left side are the sub-menus while on the right are the configurable options. Camera Setup is divided into four sections. Wizard, Camera List, Camera Search, and Auto Install. Let's take a look at Wizard first.



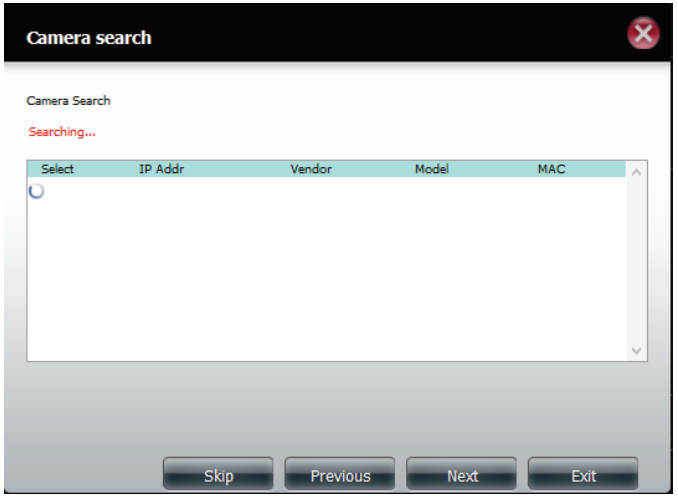
Click **Run Wizard**.

The **Camera Setup Wizard** introduction configuration box appears.

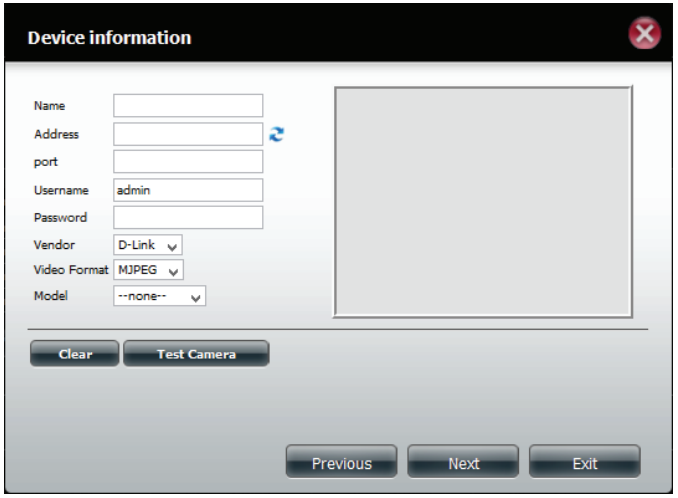
Click **Next** to continue.

The **Wizard** searches for your camera. Make sure you have connected your camera to your router, and you have enabled **DHCP** on your router to detect your camera.

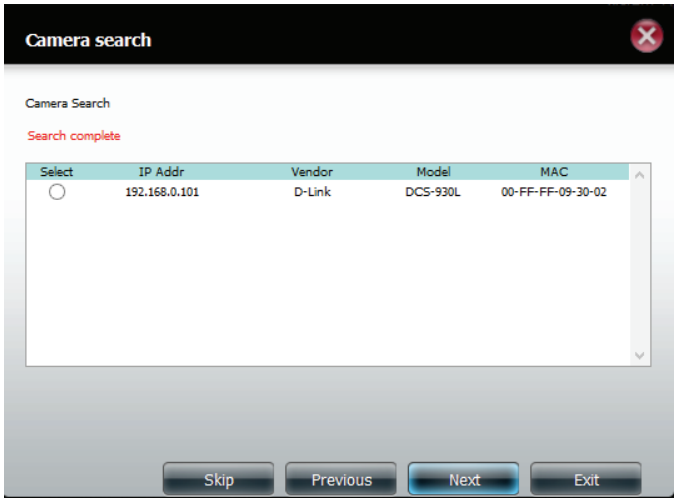
You may attempt to skip this process using the **Skip** button. However, once you do this, you will be unable to detect your camera.



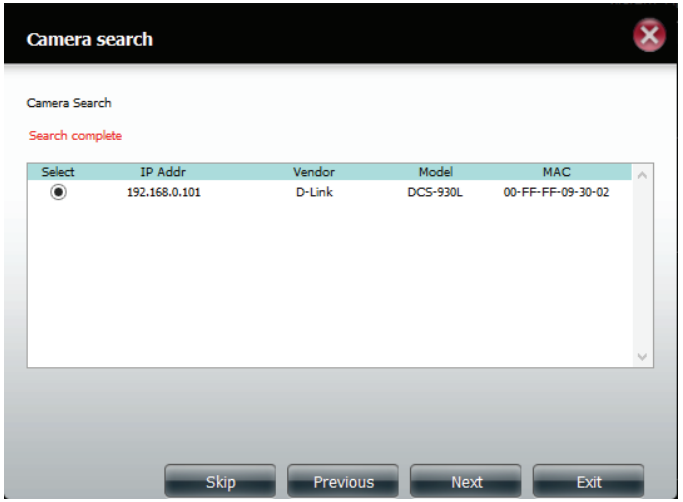
The next screen appears blank if the camera wizard was unable to find your camera.



If you have set up your camera properly, the camera wizard should have detected your camera. The camera then appears in the **Search** box.

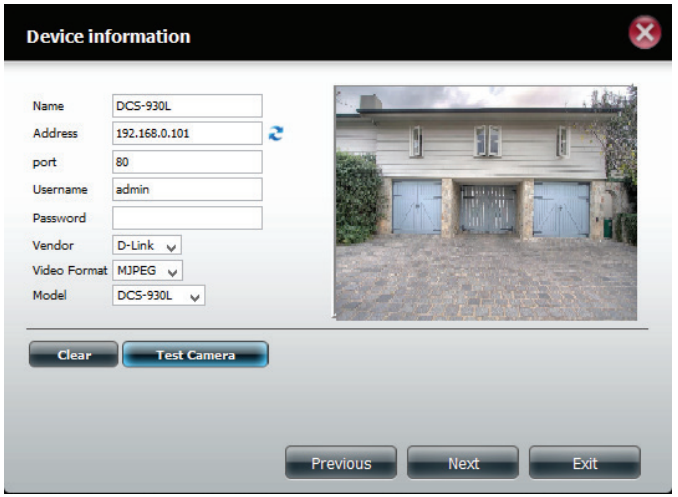


Select the camera and click **Next**.



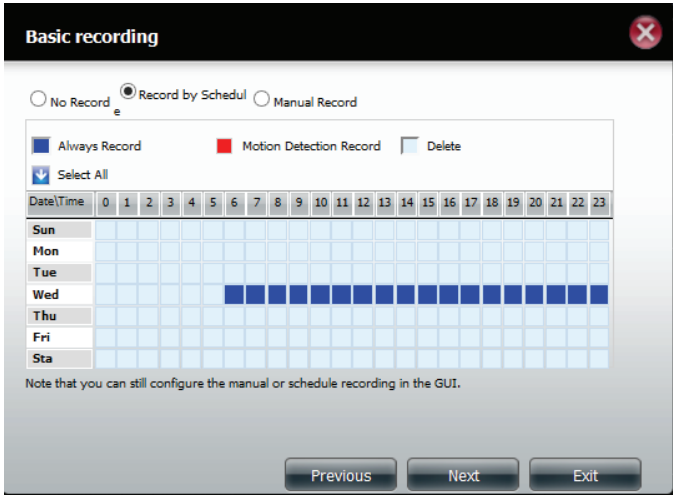
As previously indicated, if you haven't setup your camera on the network then the camera wizard will not be able to detect your IP camera. However, if you have, the Device Information window is automatically populated with your device information.

Click the **Test Camera** button to view streaming video from the connected camera.



Under Basic Recording, select your recording method. In this instance, we have chosen, **Record By Schedule**. Click and drag your mouse over the selected area you wish to record. The recorded area is highlighted in blue. Click Motion Detection Record if you wish to apply recording based on motion detection by the camera.

Click **Next** to continue.



Set your **Quota Information.**

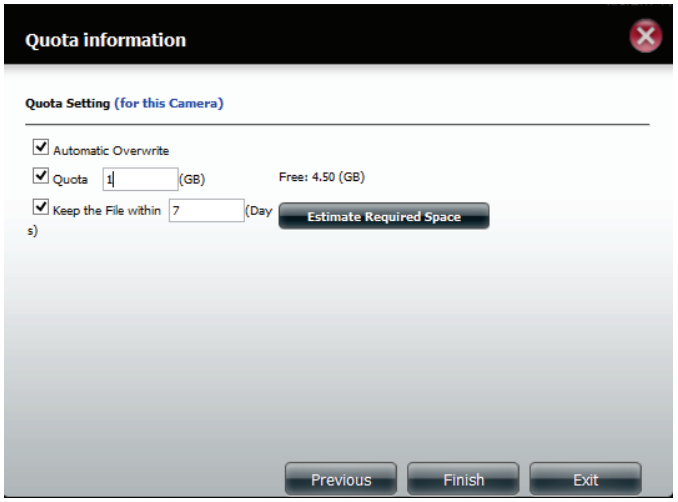
By default, the NAS will keep the last 7 days of recordings and automatically overwrite the old recordings with new ones.

Select **Automatic Overwrite** to overwrite the earliest recorded video with the latest video if it reaches the quota limitation or if the disk space is full.

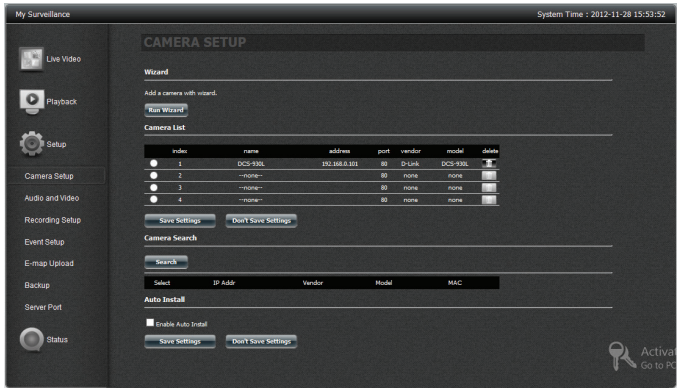
Select the **Quota** disk size based on your available disk space.

Check **Keep the File within**, and enter a number of days to keep recordings for. Click the **Estimate Required Space** button to see how much space you would require to keep video for this period of time.

Click **Finish** to complete the Wizard.



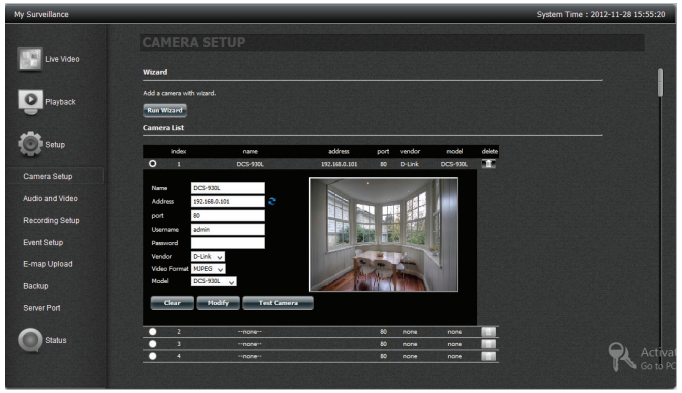
The Camera List now shows your configured camera.



If you want to modify the camera settings, select a camera from the camera list. The camera appears in the chosen slot in the section above and you are able to adjust some settings. You can modify the **Name, IP Address** and **Port** if they are incorrect. Enter the username and password for the camera if there is one. Select the desired **Video Format** (dependent on your camera). Finally, confirm if the **Vendor and Model** are correct for your chosen camera.

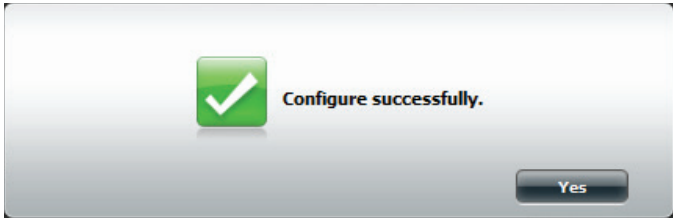
Click **Modify** to confirm the changes.

You can also click **Test Camera** to view the live feed from the camera.



Click **Save Settings** to continue.

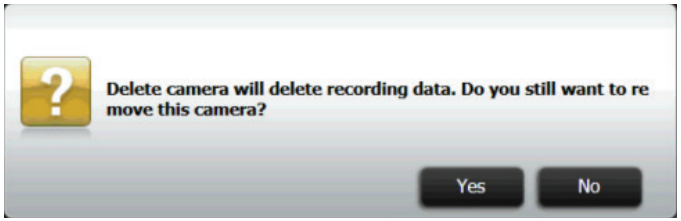
Click **Yes** to exit confirm.



You can also delete the camera from the list.

Select a camera from the camera list, click the **Trash** button. A confirmation message will pop up.

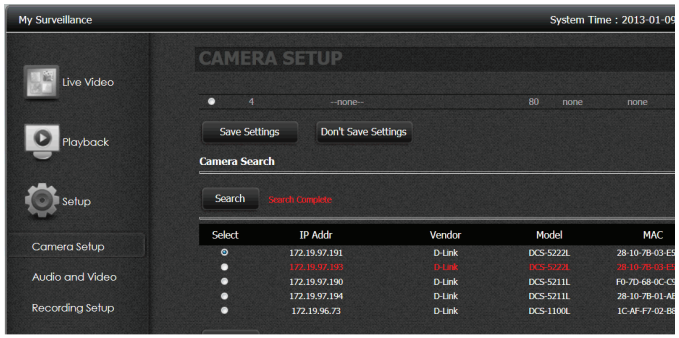
Click **Yes** to remove the camera from the list.



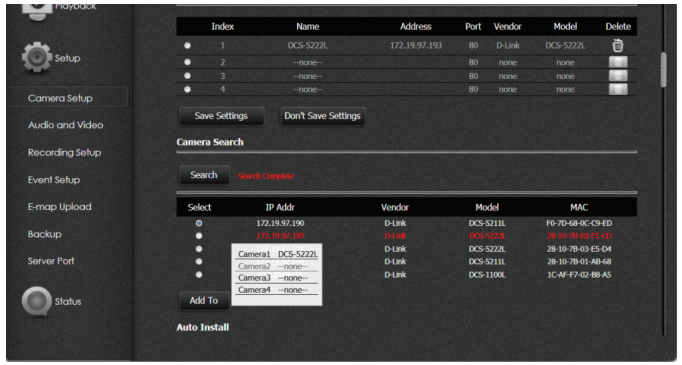
A message will pop up to confirm the changes. Click **Yes** to exit.

My Surveillance -Search and Add Camera

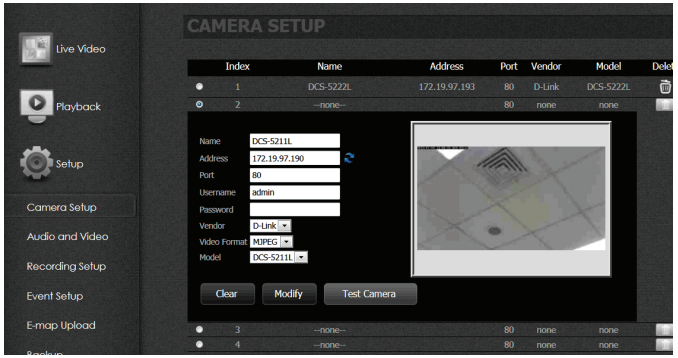
Click the **Search** button to search all available cameras on the LAN.



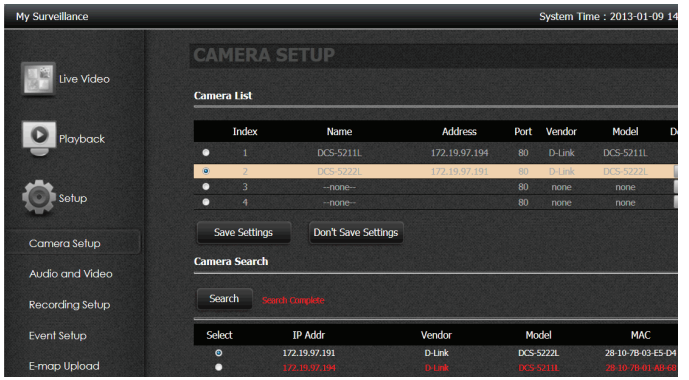
Select one camera and click **Add To** to add the camera to the list (Camera2)



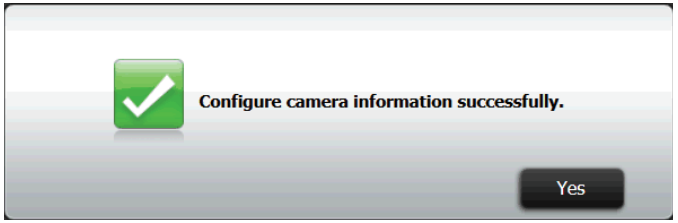
Click the **Test Camera** button to view streaming video from the connected camera.



Click **Modify** to add the camera to the camera list then **Click Save Settings** to continue.



A message pops up to confirm the changes. Click **Yes** to exit.

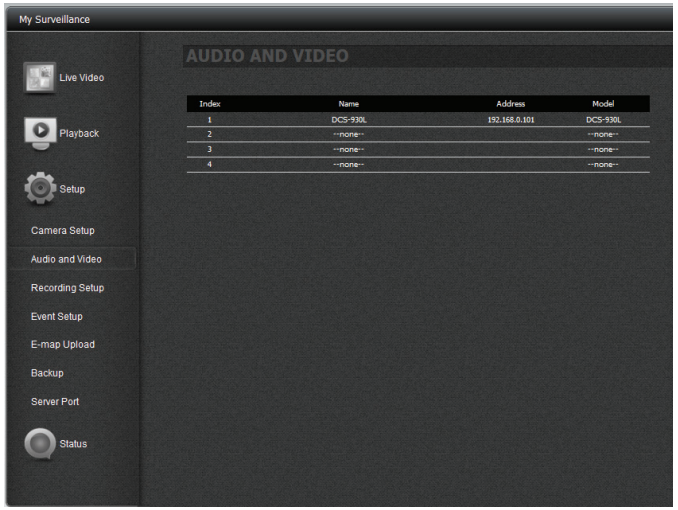


Under Auto Install, click **Enable Auto Install** to detect other IP cameras next time you access the Live Video Page.

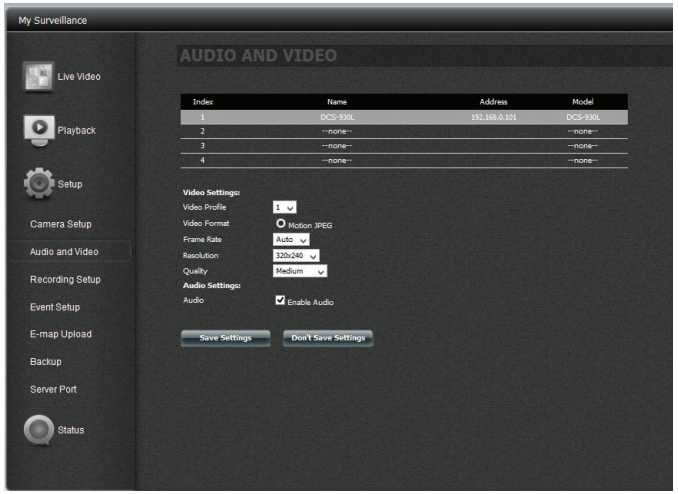
My Surveillance -Setup - Audio and Video

Audio and Video configures all your audio and video settings on each camera. Let's take a look at a single camera configuration.

Click **Audio and Video.** Here you can view all camera audio and video settings.



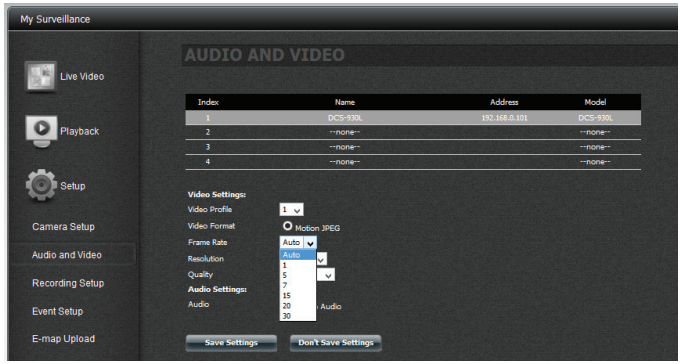
Click on the device to see the configuration options.



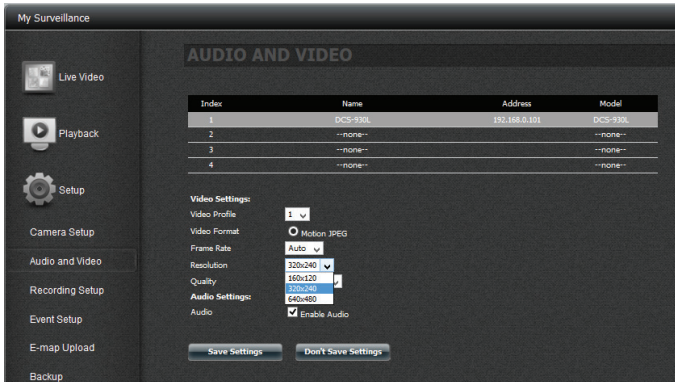
Video Profile: Select a profile to use or edit.

Video Format: Choose the video format to use for your recordings. Each format has different size and quality characteristics.

Frame Rate: This is the number of frames per second recorded. A higher number of frames per second means smoother video and results in a larger file size.



Resolution: The resolution is the number of pixels that the video will include. This varies according to your camera video quality.

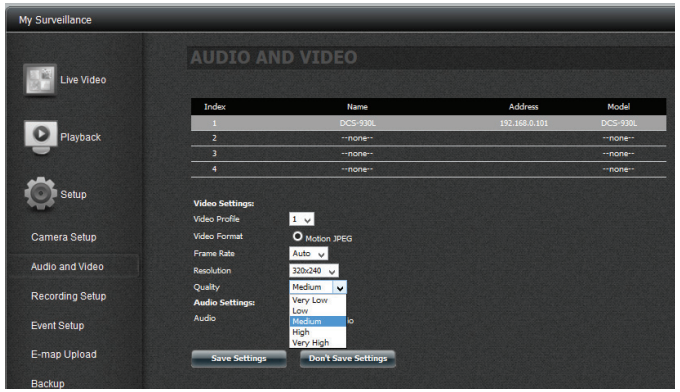


Quality: Select between **Very Low**, **Low**, **Medium**, **High**, and **Very High**. Selecting **Fixed Quality** will give you this setting and is a rough guide to determine the output video quality.

Bitrate: This is the number of kilobits (Kbps) per second the video recording will contain. A higher bitrate means a larger output file.

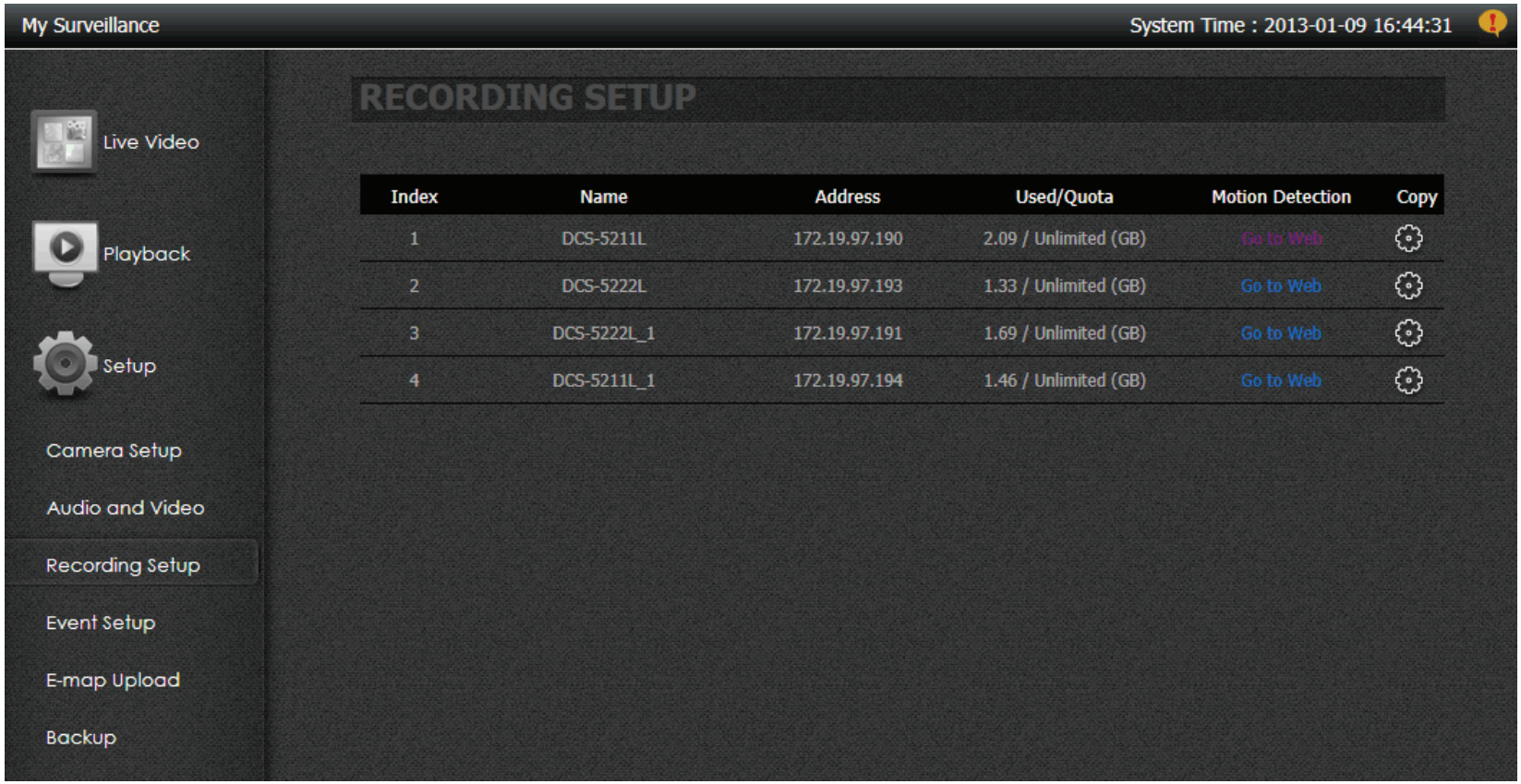
Audio Settings: Click the checkbox to enable audio.

Click **Save Settings** to continue.

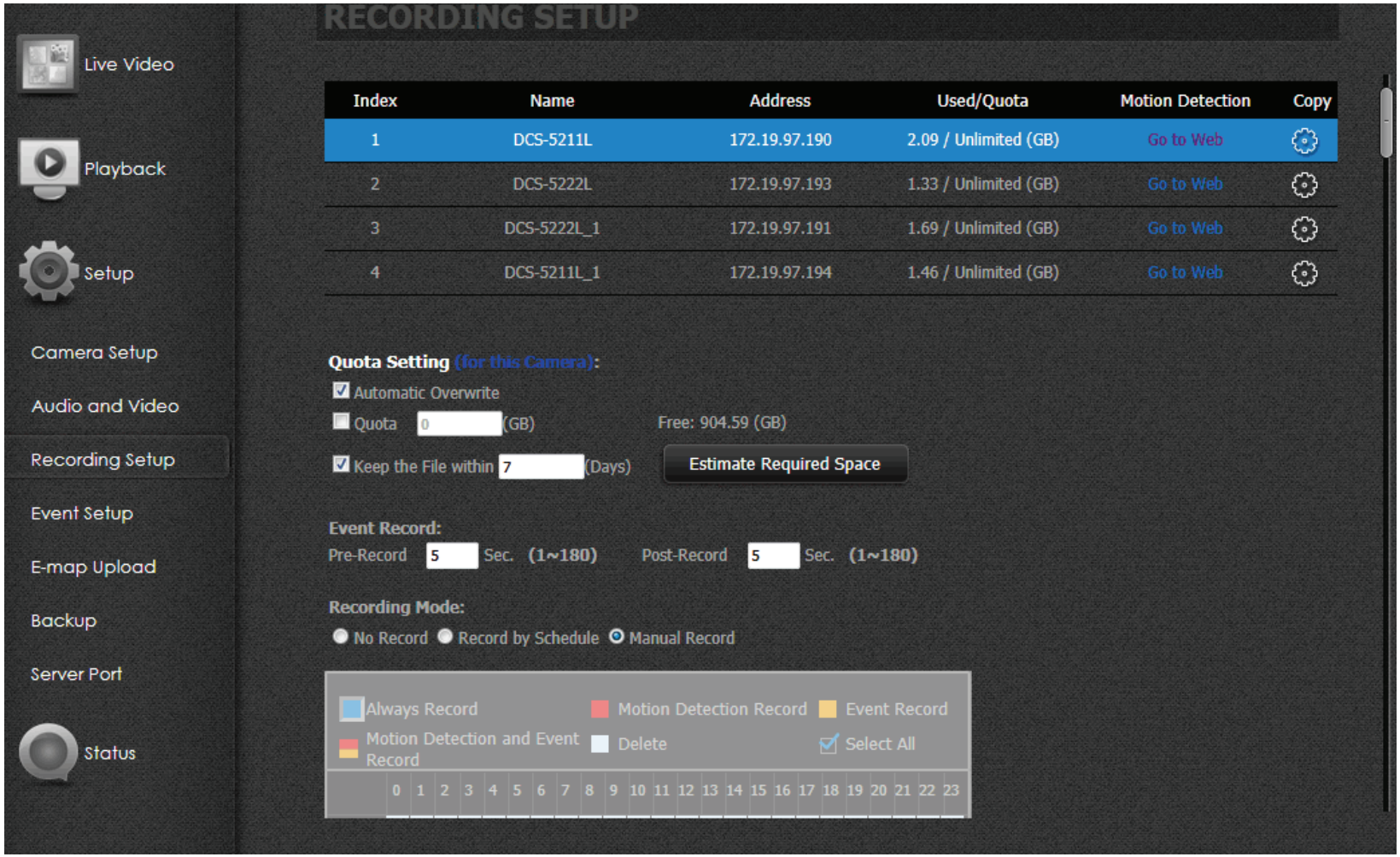


My Surveillance - Setup - Recording Setup

The Recording Setup configuration tool displays options for each camera. The settings including Quota Setting, Event Record, and Recording mode.

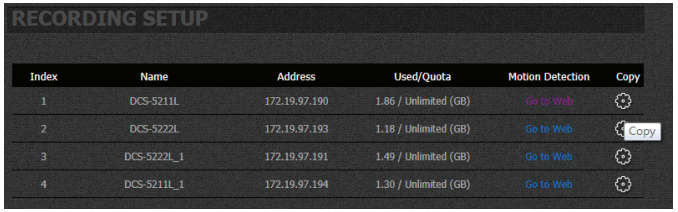


Double-click the camera to expand the configuration options.

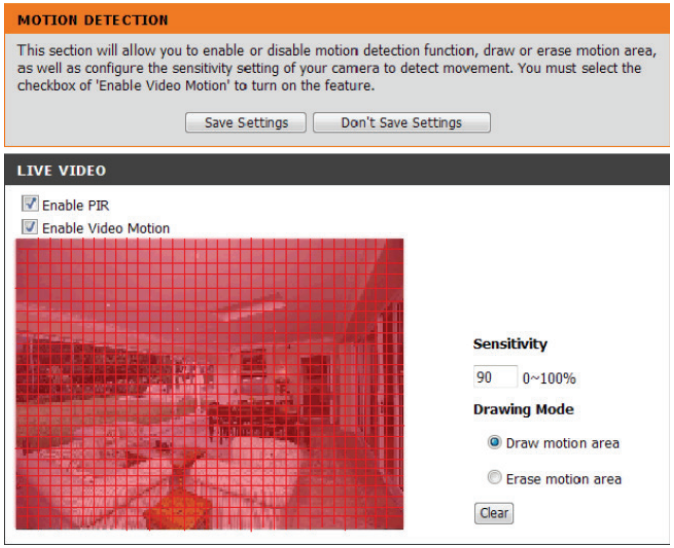


COMPONENT	DESCRIPTION
Motion Detection	When using the Record by Schedule mode together with the Motion Detection function, you must first click the **Go to Web** link and log in to the camera's web interface and enable the motion detection function on that camera. Please refer to the manual of your camera for more information on enabling motion detection.
Copy	Copy the camera recording setup to other similar cameras
Quota Settings	Configurable per camera. Indicates the maximum amount of disk space will be used for recordings.
Automatic Overwrite	Click this checkbox if you wish to overwrite the earliest recorded video with the latest video if reaches the quota limitation or disk space is full.
Quota	Click this checkbox to set the amount of storage you want to allocate to each camera. Next to it is displayed the remaining free disk space
Keep the File within	This indicates how long you want to keep the recorded camera video files before it is overwritten.
Estimate Required Space	Click this button to find out how much disk space is required for video storage with the current settings.
Event Record: Pre-record	If required, select how long video should be recorded for prior to an event alarm being triggered (1-180 seconds).
Event Record: Post Record	If required, select how long video should be recorded for following an event alarm being triggered (1-180 seconds).
Record Mode	No Record - no recording is made
Record Mode	Record by Schedule - Drag and drop on the weekly map below • **Always Record** means that the camera will always record for the specified period. • **Motion Detection Record** will wait for motion on the camera to be detected before it begins recording • **Event Record** will wait for event on the camera to be triggered before it begins recording
Record Mode	Manual Record - requires you to manually click a record button to begin recording.

Clicking the **Go to Web** link under the Motion Detection column will take you to the camera's motion detection configuration page, where you can configure motion detection settings for that camera. These settings will then be used when recording motion detection events on the ShareCenter.

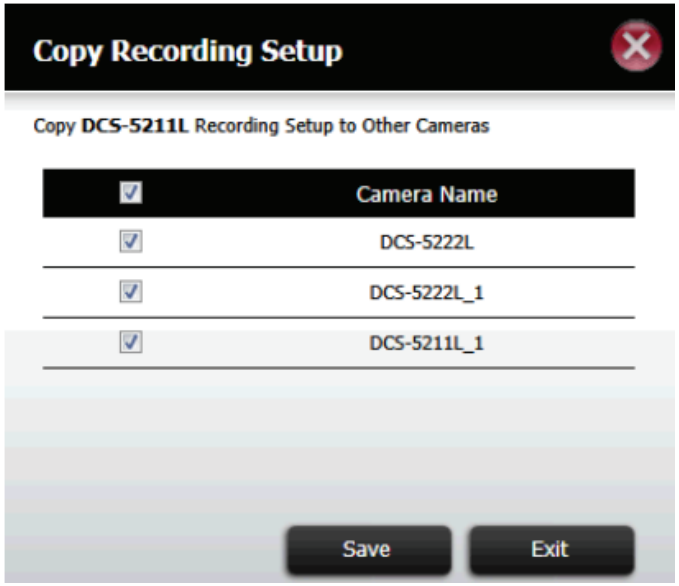


Here is an example of a camera's motion detection configuration page.
Note: The appearance and/or functions of this page may vary depending on the camera model you are using.



By clicking the **Copy** button, you can copy the camera recording settings to similar cameras. Check the boxes of the cameras you wish to copy recording settings to, and click **Save** to continue.

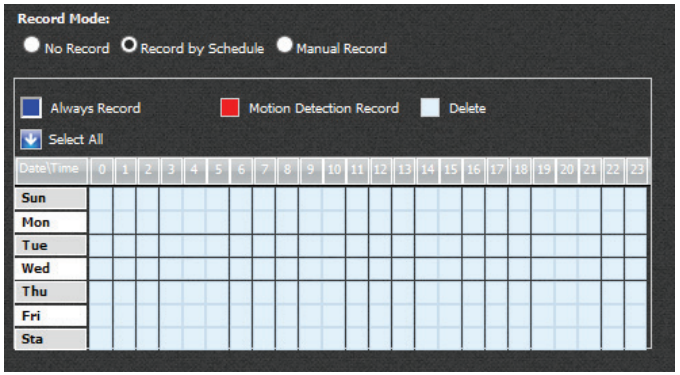
Click **Yes** to continue.



Select your Recording Mode.

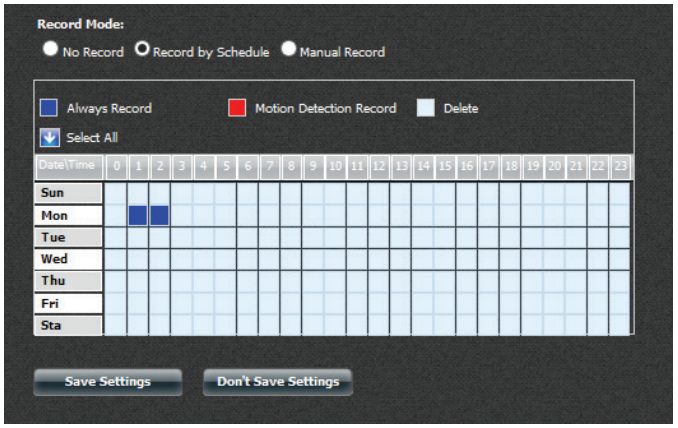
Record by Schedule

Click the **Always Record** (blue) box to set normal recording mode.



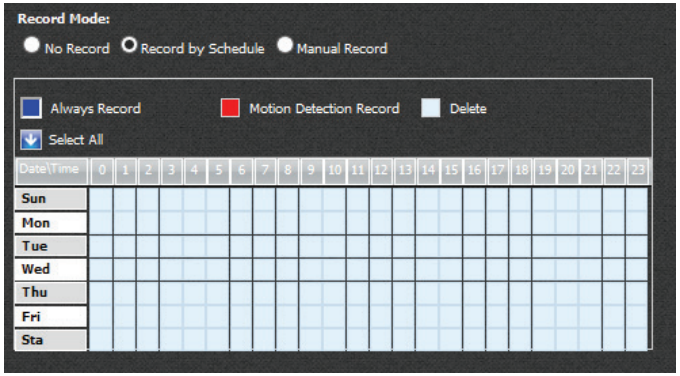
Click or click and drag your mouse over the time frame(s) you want to set for constant recording. The selected frames turn to blue to indicate the recording duration.

Click **Save Settings** to finish



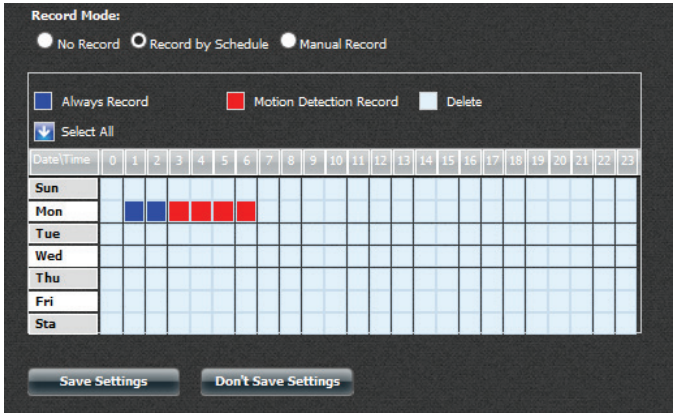
Motion Detection Record

Click the **Motion Detection Record** (red) box to set recording only when motion is detected by the camera.

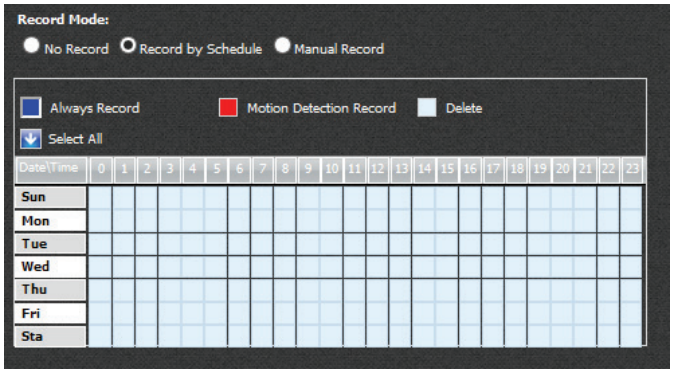


Click or click and drag your mouse over the time frame(s) you want to set for motion detection recording. The selected frames turn to blue to indicate the recording duration.

Click **Save Settings** to finish

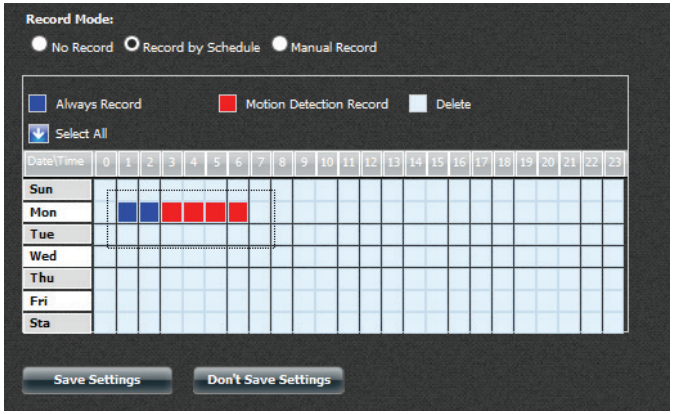


To delete recording schedule frames, click the light blue **Delete** box.



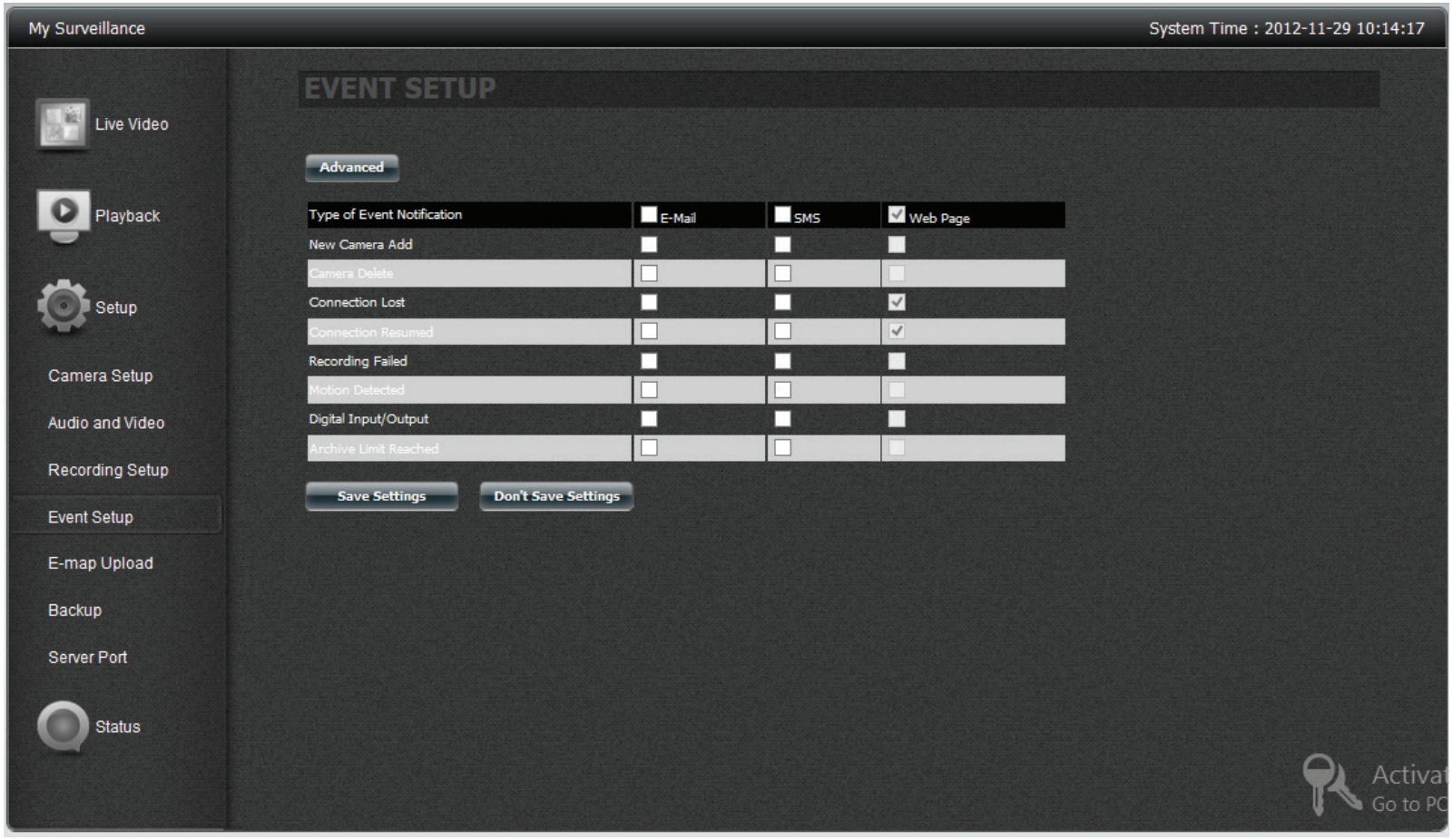
Click or click and drag your mouse over the time frame you want to delete. The selected frames will return to light blue to indicate no recording schedule. You can also check **Select All** to select all frames.

Click **Save Settings** to finish



My Surveillance -Setup - Event Setup

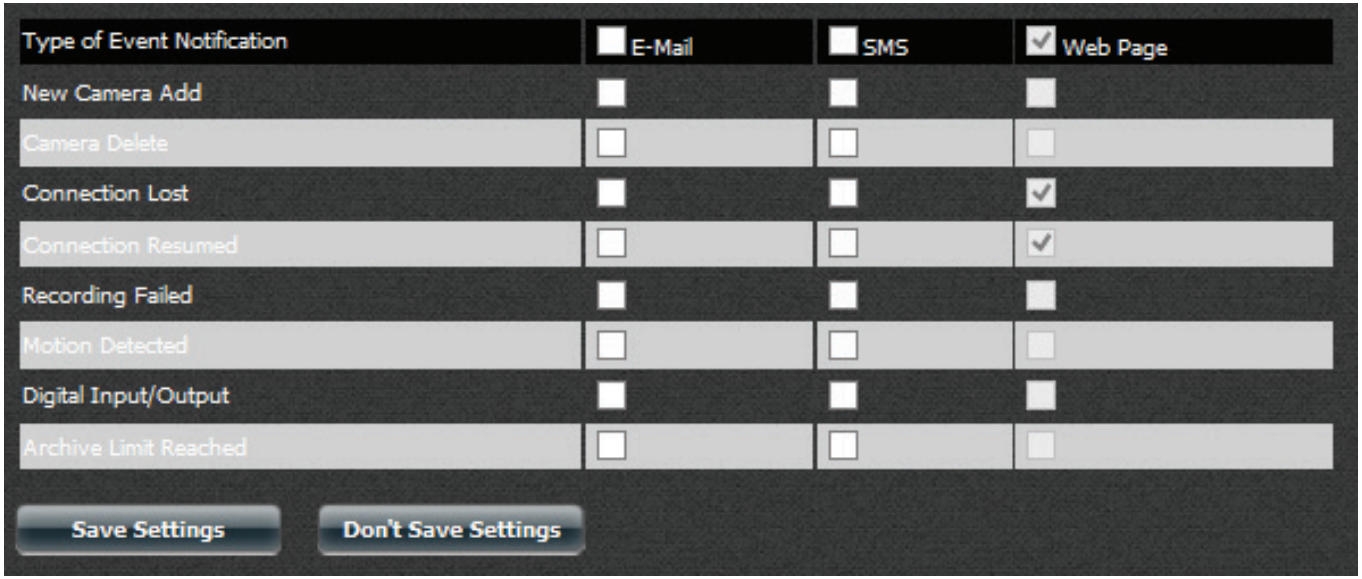
The Event Setup configuration tool displays options for each camera. The basic settings relate to how you want event notifications to be sent. Click Advanced to configure accounts for Email and SMS notifications.



NOTIFICATION TYPE	DESCRIPTION
Add New Camera	Notifies you when a new camera is connected
Delete Camera	Notifies you when a camera is deleted from the connected cameras
Connection Loss	Notifies you when there is a network error
Resumed Connection	Notifies you when the network comes back online
Failed Recording	Notifies you when there has been an error in the recording
Motion Detection	Notifies you when motion detection has started or ended
Digital Input/Output	When an event is triggered from the D/I port of the camera, the D/O port of the camera will begin sending a signal to My Surveillance. My Surveillance will then notify you accordingly.
Archived Limit Reached	Notifies you when your history (archive) material has reached or exceeded the disk space allocated to it

Use the checkboxes to select whether you would like each event type notification to be sent by **E-mail**, **SMS**, or **Web Page**. You can select more than one notification method for each event type.

Click **Save Settings** to finish.

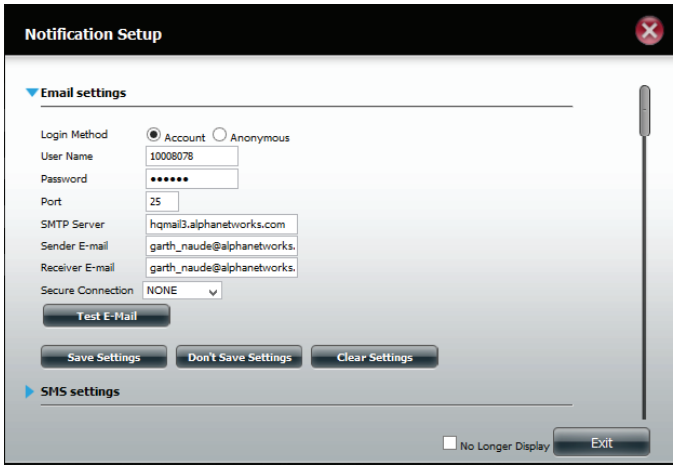


To activate advanced features, click the **Advanced** button

By default, the Advanced configuration window pops up. However, if you wish to return to it later, click the Advanced button.

Fill in the required information for the email account to which you wish to send notifications. For a detailed explanation of these settings, please refer to "Email Settings" on page 186 of this manual.

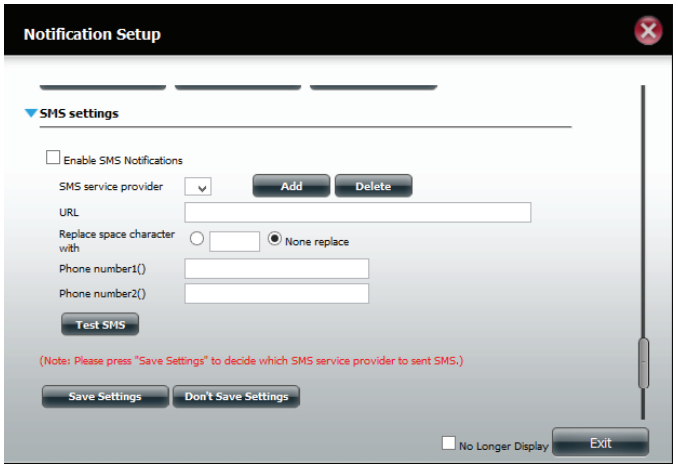
Click **Save Settings** when done and click **Exit**.



Click the blue arrow next to SMS Settings to extend the SMS configuration options.

Check the box to enable SMS notifications, and enter the required information for your SMS service provider. For a detailed explanation of these settings, please refer to "SMS Settings" on page 188 of this manual.

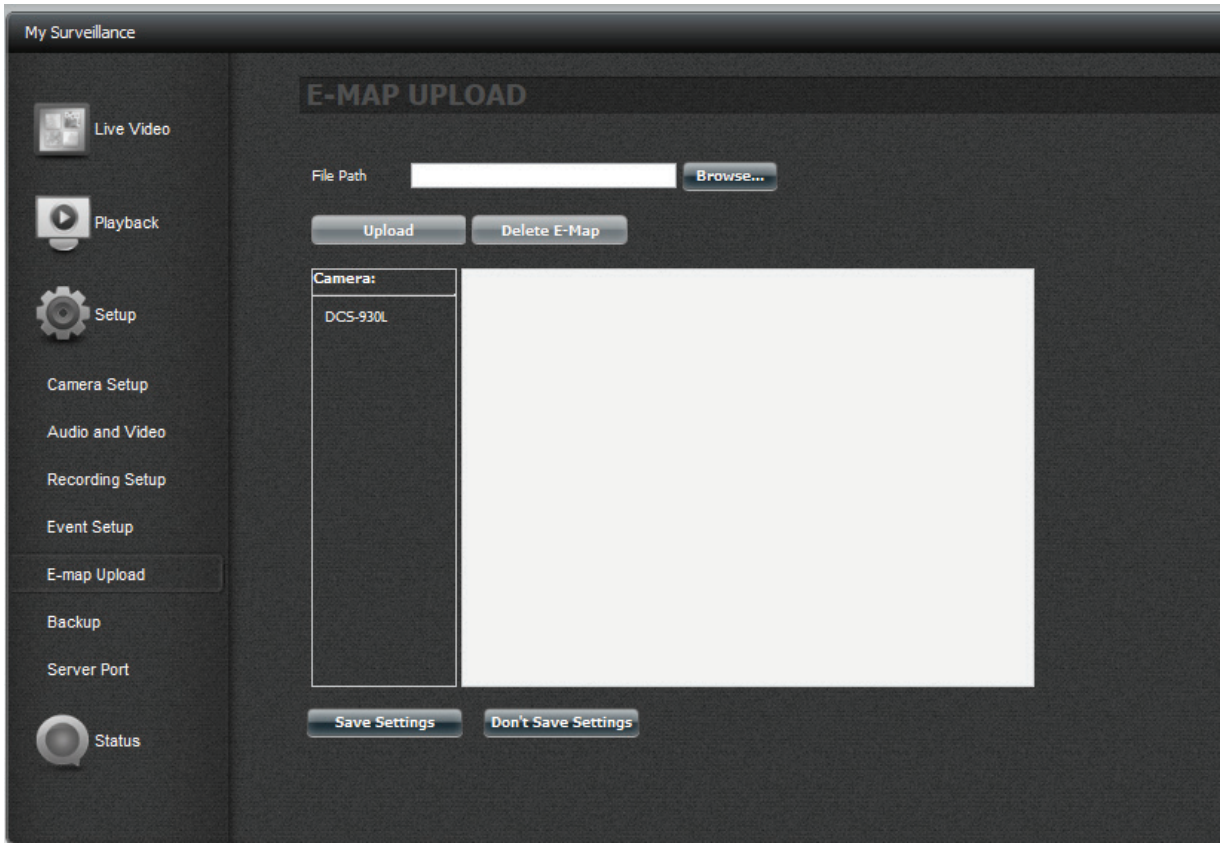
Click **Save Settings** when done and click **Exit**.



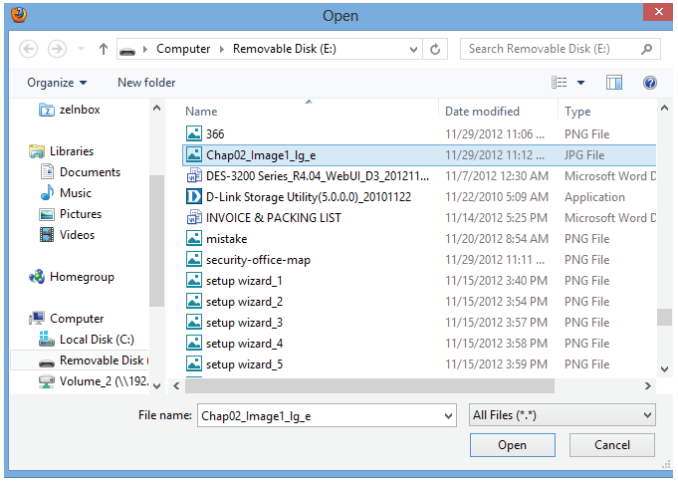
Note: Make sure your SMS service provider supplies you with the correct information, otherwise this feature will not work properly

My Surveillance - Setup - E-map Upload

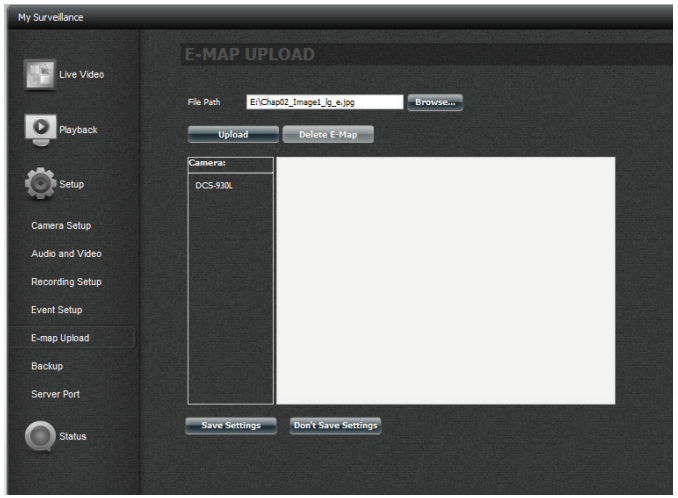
The E-map Upload configuration panel allows you to import a schematic illustration of the area/office space you want to monitor using your IP cameras. The E-map, in JPEG, BMP, GIF and PNG format, is uploaded to the DNS-320L and configured to work with the camera(s) installed.



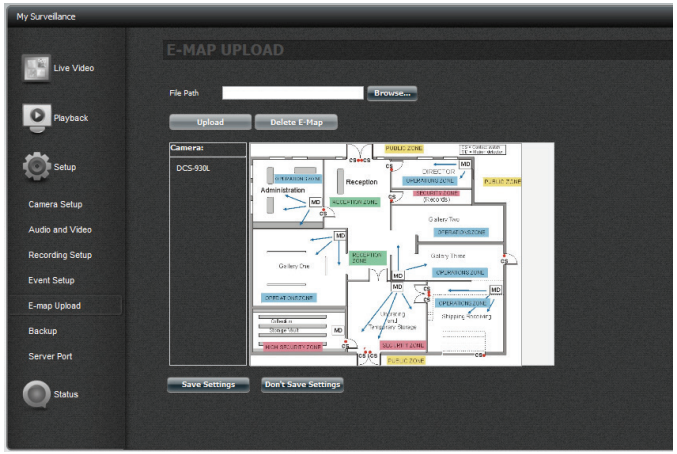
Click the **Browse** button to find the E-map you want to use.



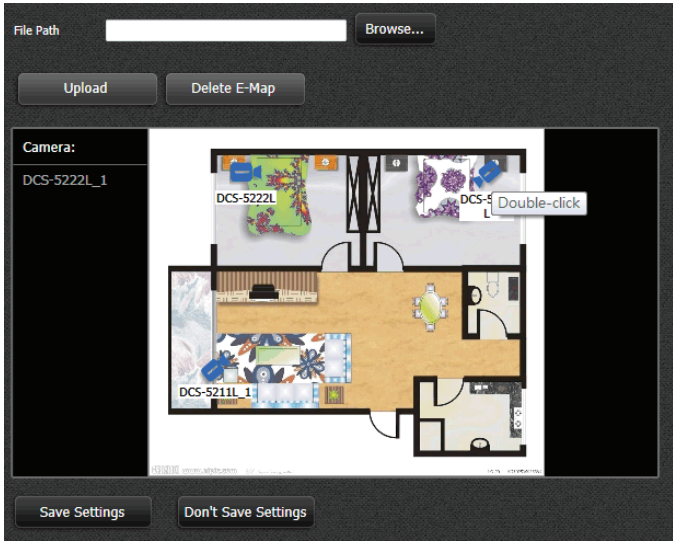
Select the E-map and click **Upload**



The file is now displayed on right side of the camera.

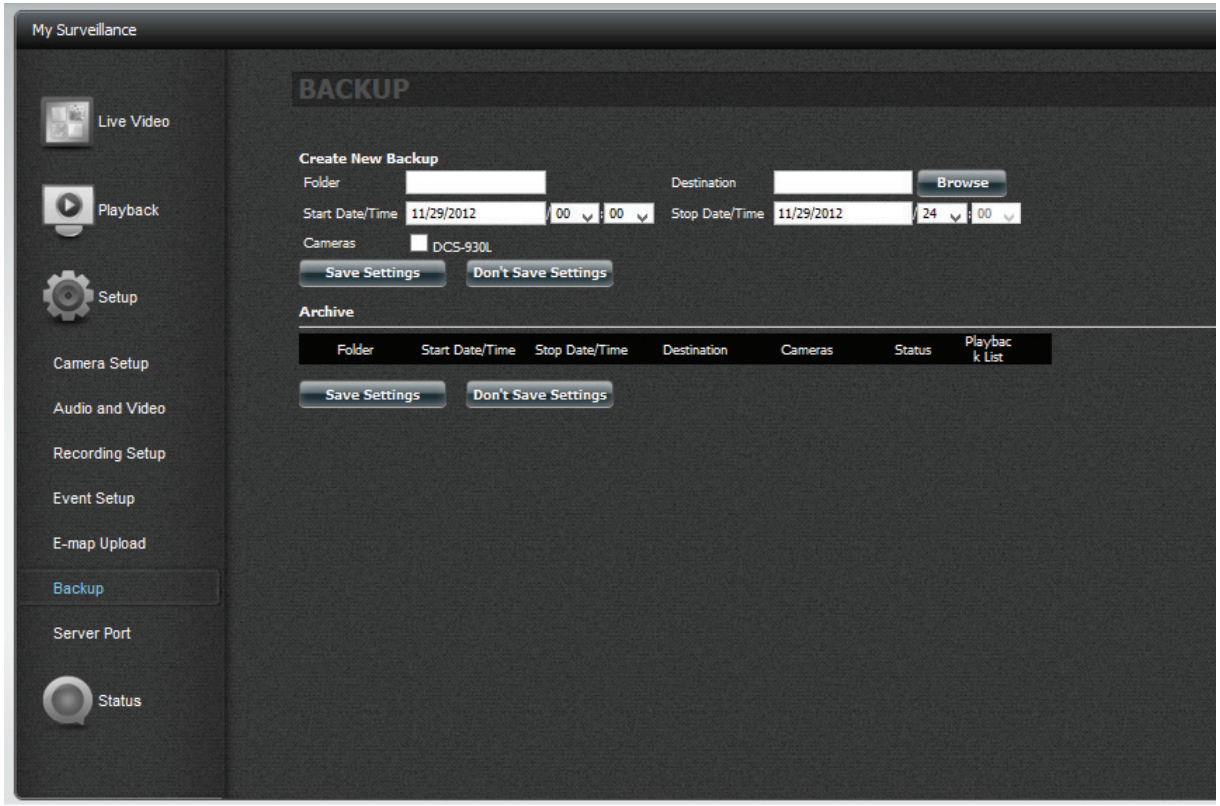


Click and drag a camera from the camera list on the left of the image. When you have placed the camera in the correct location, double-click the icon to change the orientation of the camera.



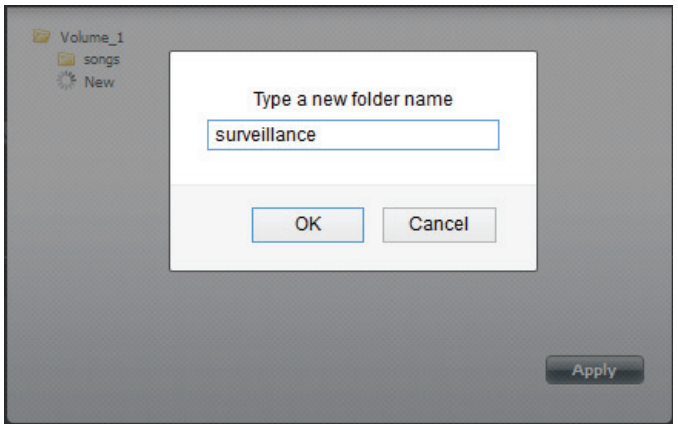
My Surveillance - Setup - Backup

The Backup Setup page allows you to configure the ShareCenter NAS to backup and restore the IP Camera recordings.

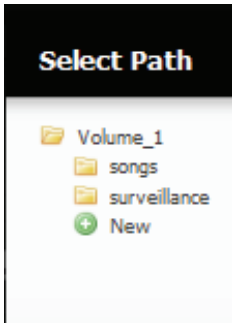


Under Create New Backup, start creating your new backup folder and destination.

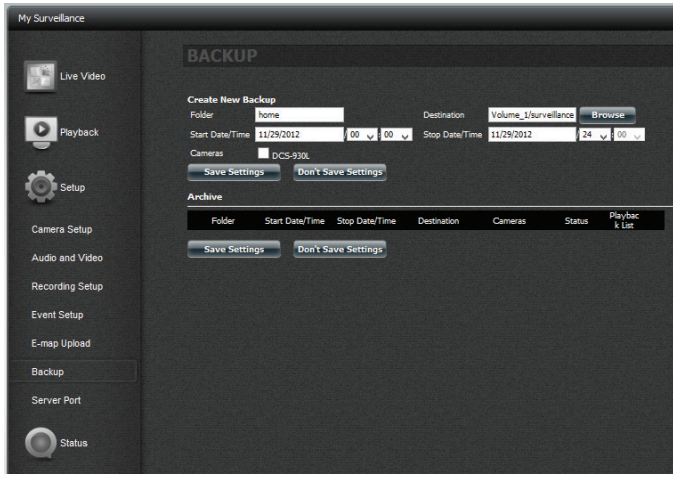
Enter a **Folder Name** in the field provided. Click **Browse** to select a destination path. If you do not have a folder, click the + sign to create a new folder. Type a new folder name then click **OK** to continue.



Select the path, on the NAS, where you want the backup to reside.



You should have the Folder name and the Destination configured.

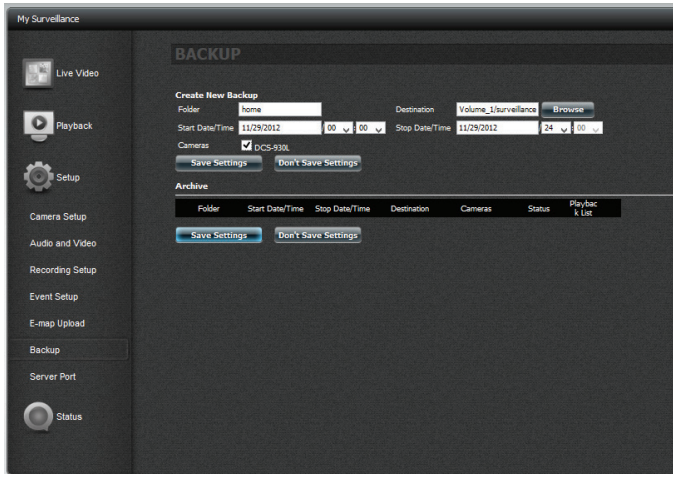


Configure a **Start Date/Time** and a **Stop Date/Time.**

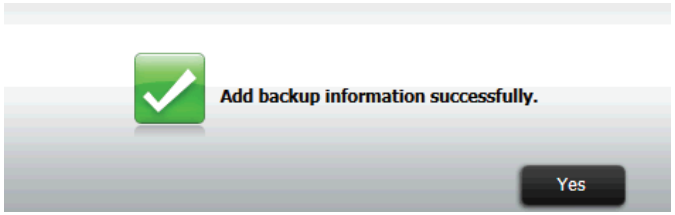
Click the **Camera** checkbox (next to the camera's name) to activate the camera you want to use as a backup.

Click **Save Settings** to finish.

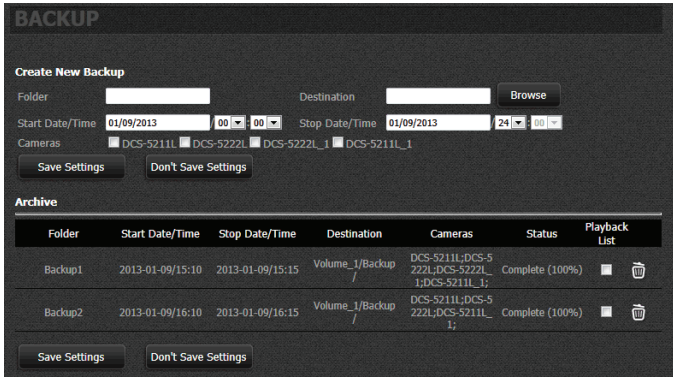
The archive table at the bottom will populate as you collect data.



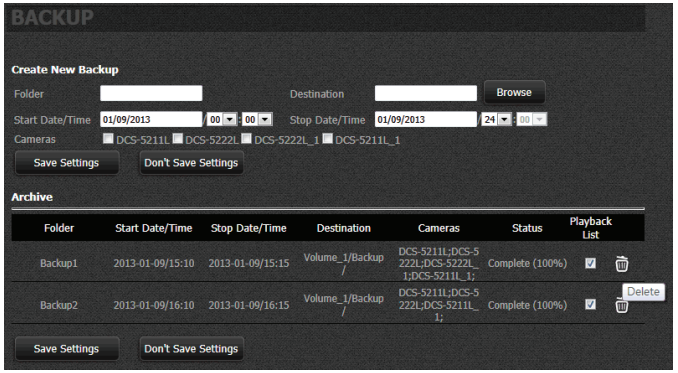
A message will pop up to confirm the configuration. Click **Yes** to continue and the DNS-320L starts to backup the IP camera recordings.



The list is now displayed in the table.

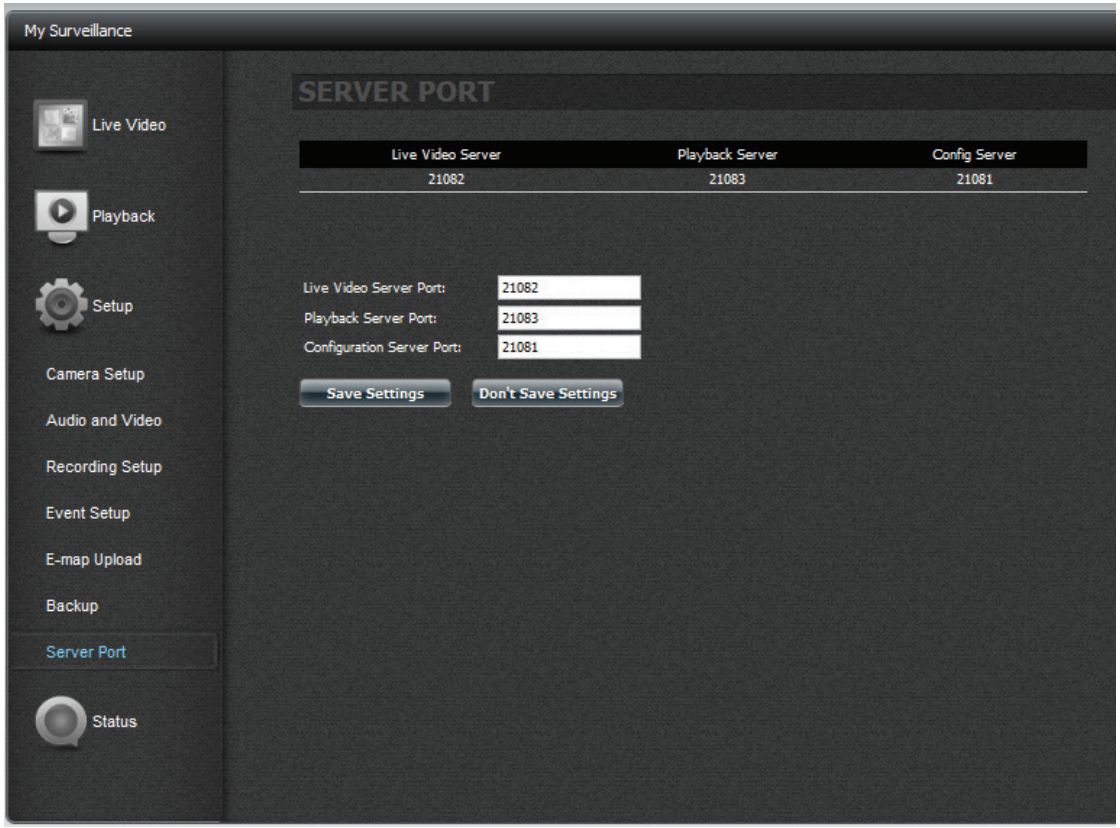


When you have created a new backup, it will appear in the Archive section. From here you can check which archives to include in the playback list on the playback screen by adding or removing a check from the Playback List column. If you want to delete the archive, click the trash can icon for the folder you want to delete.



My Surveillance - Setup - Server Port

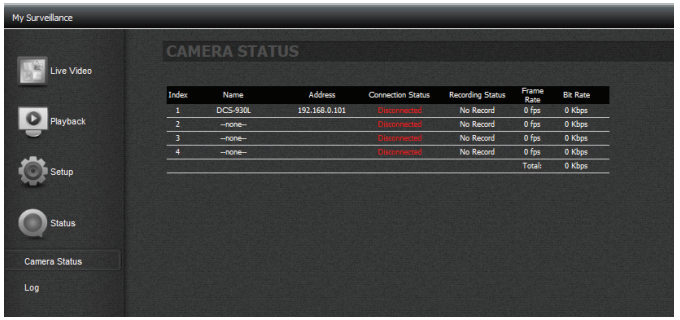
This page allows you to modify the ports that the Live Video Server, Playback Server, and Config Server operate on. You may wish to do this if you have port restrictions on your local network. To change the port numbers, use the provided fields and click **Save Settings**.



My Surveillance - Status

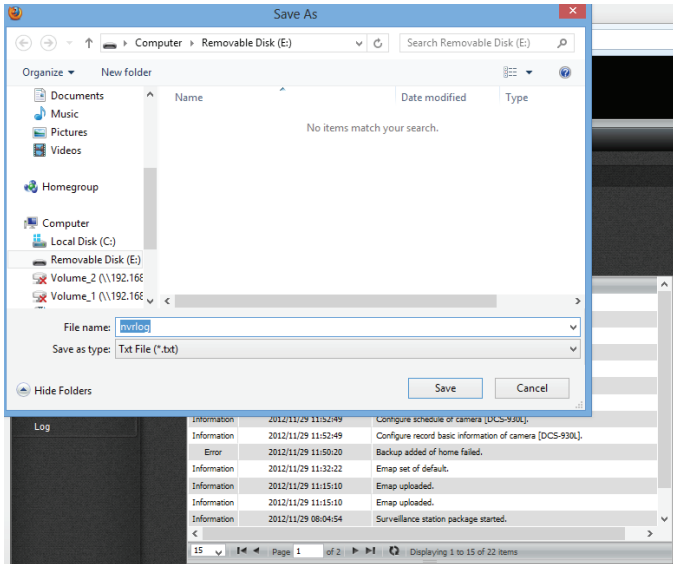
My Surveillance - Status

The Status configuration window displays two sets of information about the camera - Camera Status and Log. The Camera Status shows the current status of all cameras connected to the network, and Log shows a history of all significant events of the Surveillance Center software. You can filter the events shown in the log by checking the checkbox for **Type**, **Camera** or **Date**. You also have the option to back up the log to a text file and clear the log.



To backup your files, click the **Backup Log** button.

Select the location that you wish to save the log file to, and click **Save**.

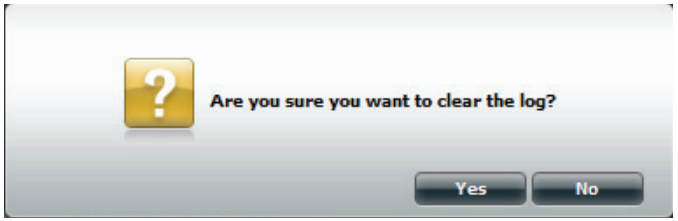


A notification will appear to confirm that the log file has been successfully saved.

Click **Yes** to continue.

To clear your the, click the **Clear Log** button.

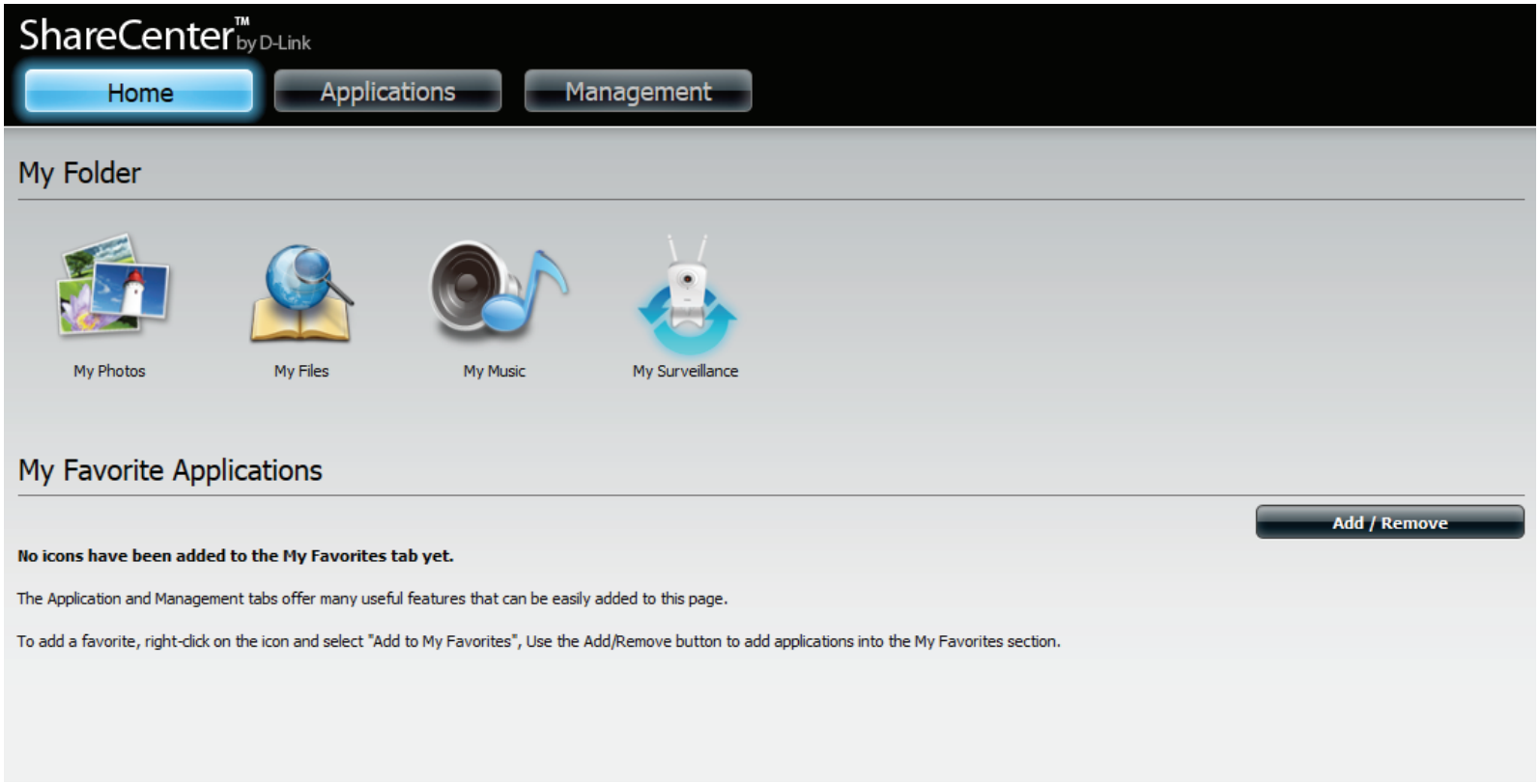
You will be prompted to verify that you want to clear the log. Click **Yes** to continue.



Now you can see that your previous log disappears.

My Favorite Applications

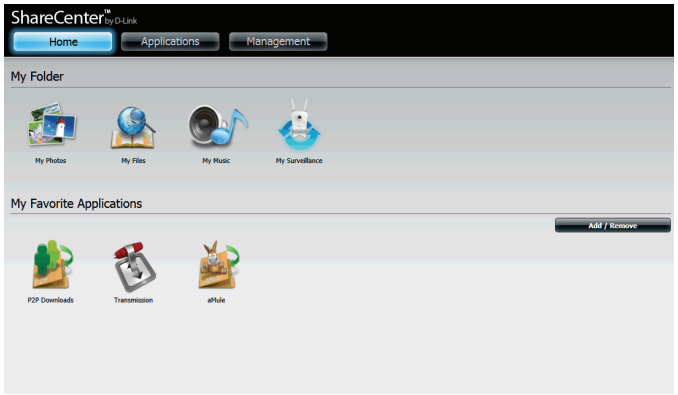
The My Favorite Applications section allows users to add applications to the Home section so users can easily access these applications. Follow these easy steps to set up favorite applications on the Home screen.



Adding Applications

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

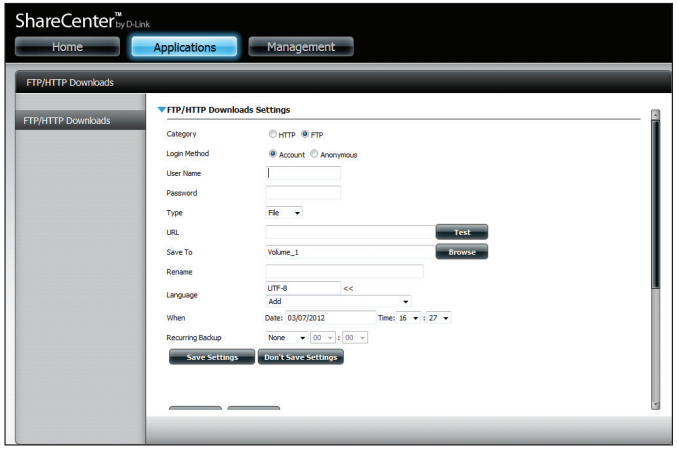
A shortcut will be created on the Home screen. Click the shortcut to access the application.



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.

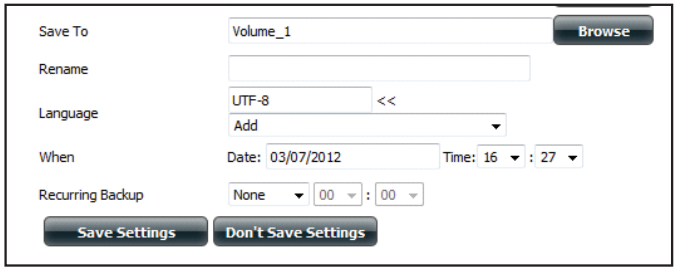
Login Method: Enter the login information for the site that contains the files that you want to schedule for downloading. If no password is required, choose **Anonymous**. If a password is required, choose **Account** and enter the user name and password.

User Name: Enter the user name for the server here.

Password: Enter the password for the server 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).



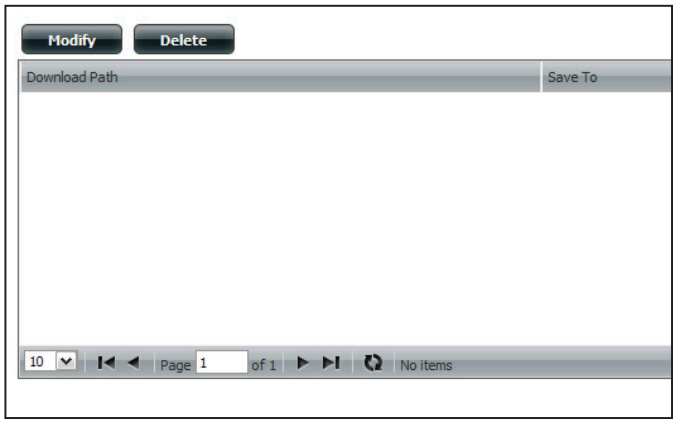
Save To: Enter the specific destination on the internal drives for the downloaded files or folders to be saved to. Click **Browse** to browse the internal drives.

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.

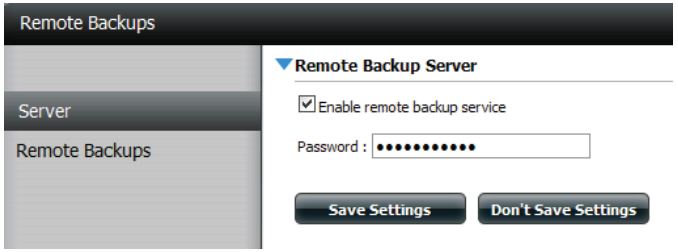
Recurring Backup: If you wish to schedule a recurring backup, select the desired interval (daily, weekly, or monthly) and the time you want the backup to start.



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, or 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. Click **Next** to commence the wizard.

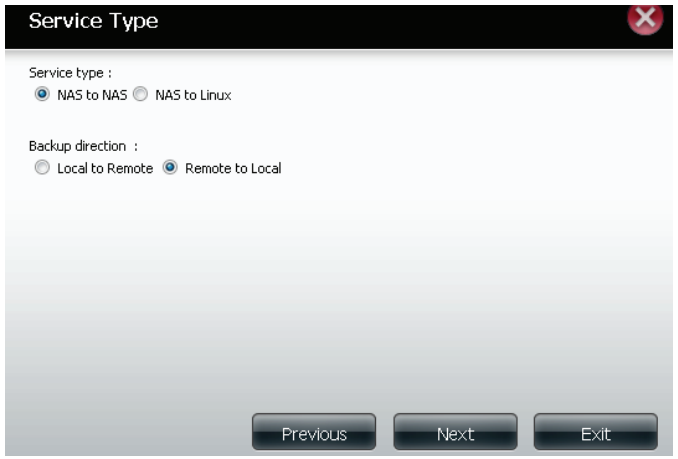
Service Type: **NAS to NAS:** backup from the local NAS to a remote NAS or vice versa.

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.

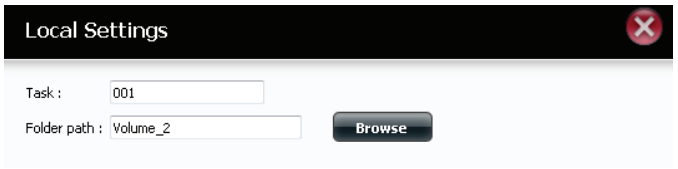
Click **Next** to continue.



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:

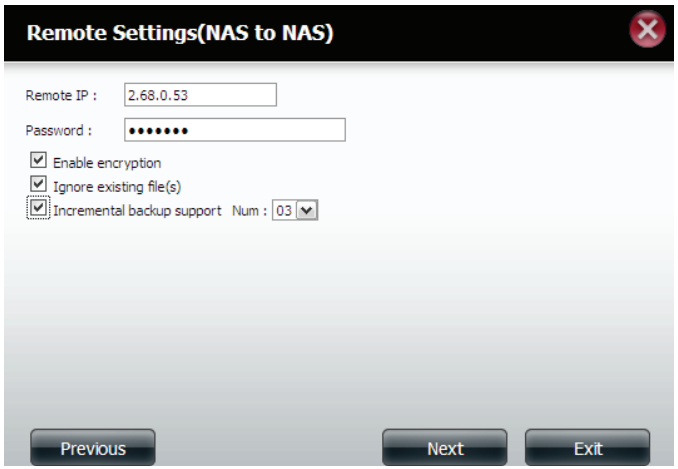
Remote IP: The backup process uses the Rsync protocol and needs to know the IP address of the destination source or target device for the backup. Input the IP of the remote NAS or Linux file system.

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.

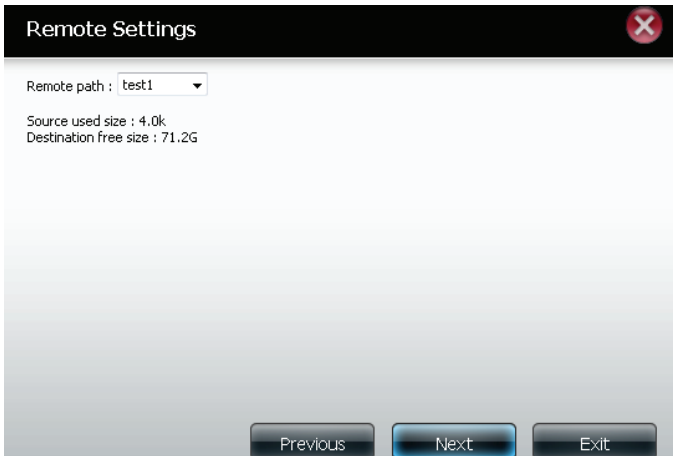
Ignore existing file(s): Checking this box prevents the backup process from writing over any files in the target file system that are not part of the backup files or folders. Therefore any existing files in the target system are preserved.

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:

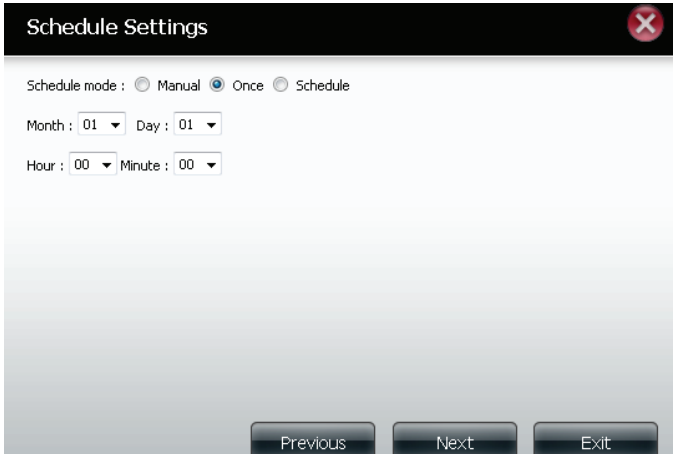
Scheduled Mode:

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 as per a specific schedule.

Click **Next** to continue.



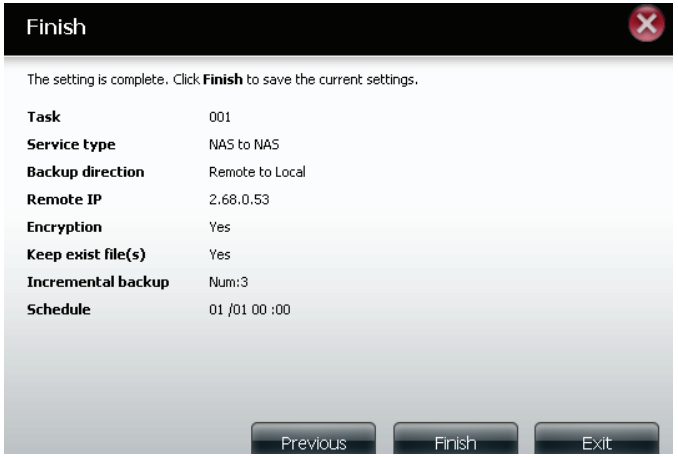
Finished

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:

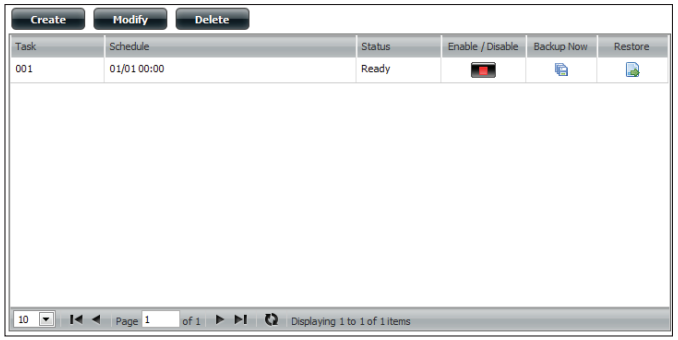
Task: The name of the remote backup job.
Schedule: When the remote backup job will execute.
Status: Current status which can be

- **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.



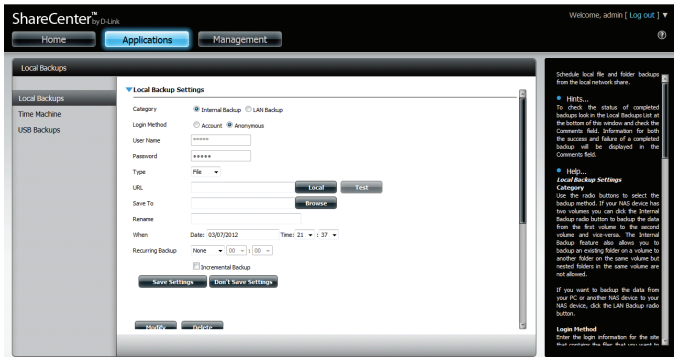
Recovery: Clicking this button will write the backup files and folders back into the source file system from the backup target system (reverse the file direction).

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 backup.



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, or 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 backups 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.

User name: Enter the user name here.

Password: Enter the password here.

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

Save To: Enter the date and time you want the scheduled backup to initiate.

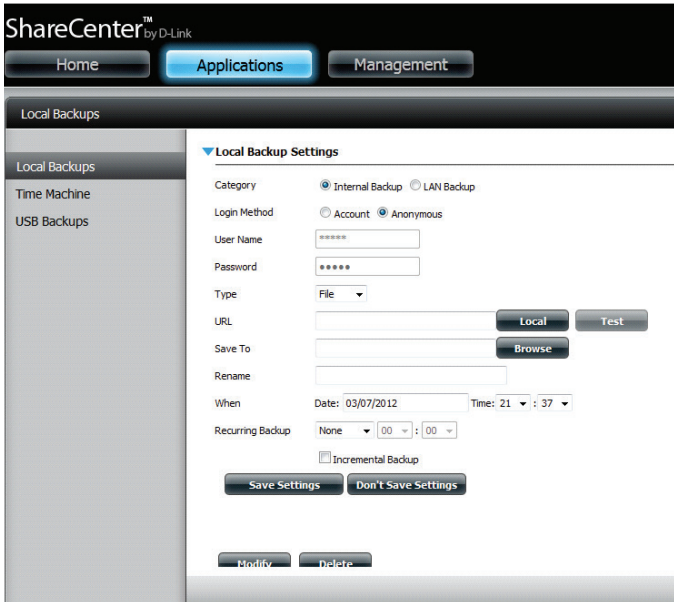
Rename: Enter the renamed file name here.

When: Designate the interval and time you want the back up or download to run unattended.

Recurring Backup: Designate the interval and time you want the back up 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.

Click **Save Settings** to save the current configuration.



Time Machine

This section allows the user to configure the ShareCenter so that it becomes a backup destination for 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.

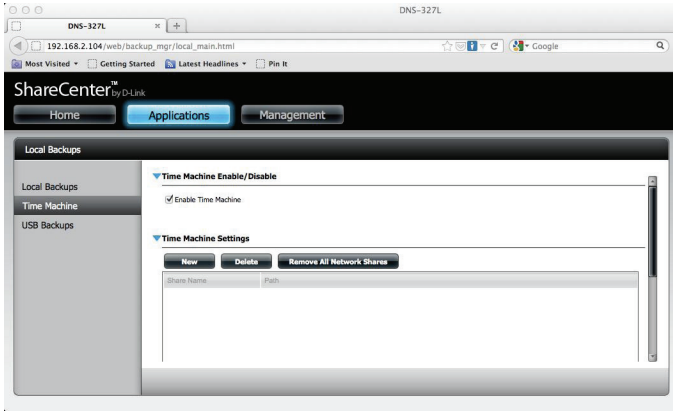
Enable Time Machine: Click this to enable the Time Machine function to work with a Mac OS® X Time Machine. The Time Machine settings list will appear when this box is checked.

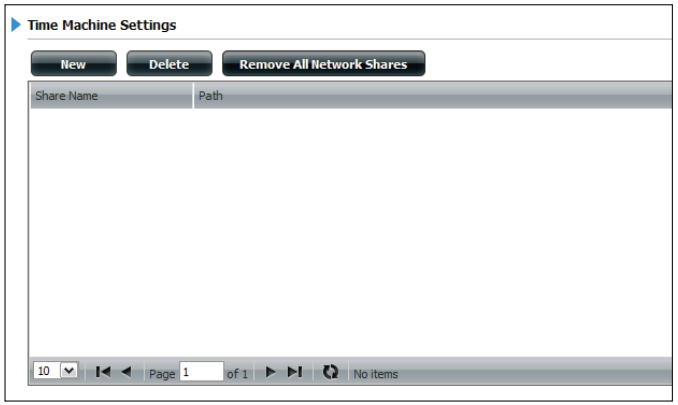
Time Machine Settings list: A list of destination folders on the Network Shares associated with the Time Machine backup.

New: Starts the setup wizard to add a new 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.



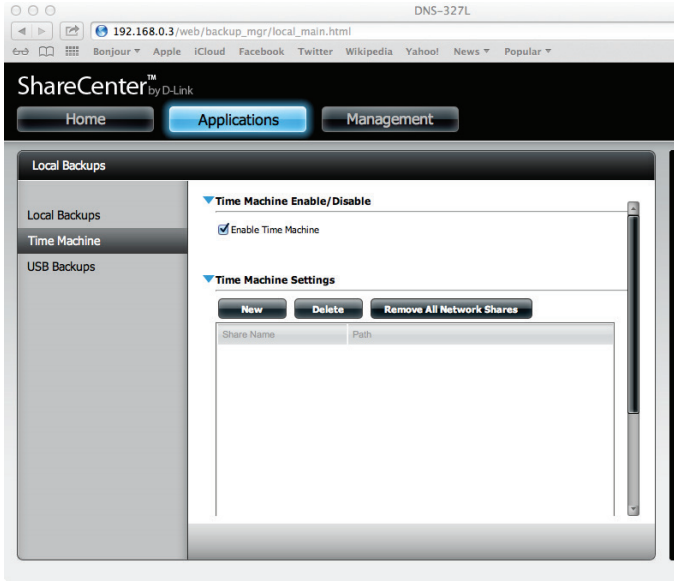


Time Machine Setup Wizard

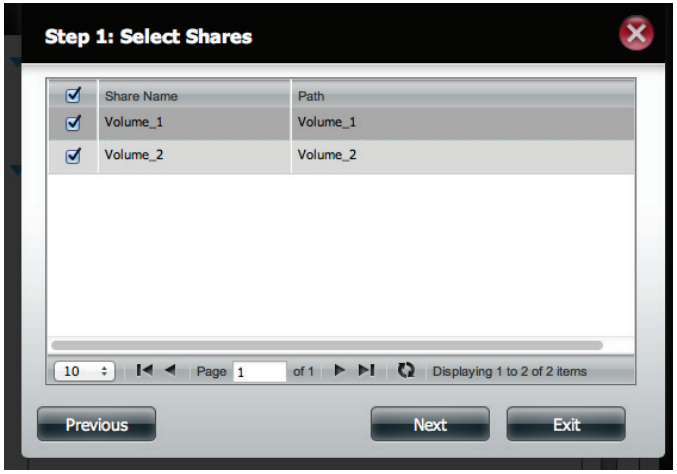
If you have enabled the Time Machine functionality on the Sharecenter, you can add new backup destinations by clicking on the **New** button. This will start the Time Machine Setup Wizard.

Click **New** to start the wizard.

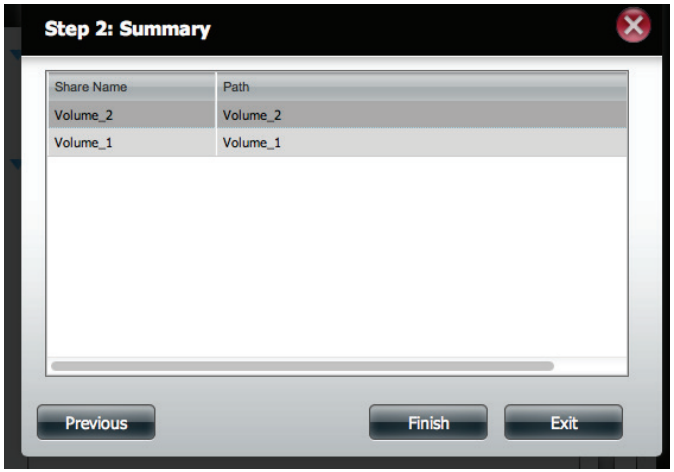
The wizard will explain the steps involved. Click **Next** to continue.



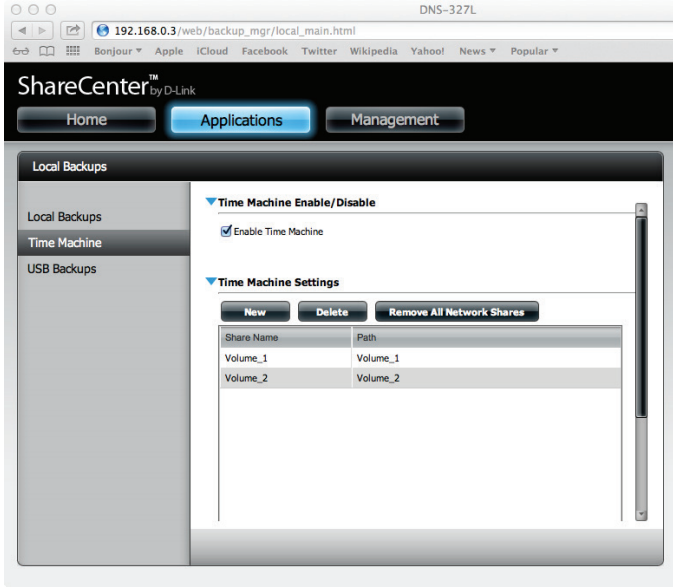
Use the checkboxes to select the volume you want to use for Time Machine and click **Next**.



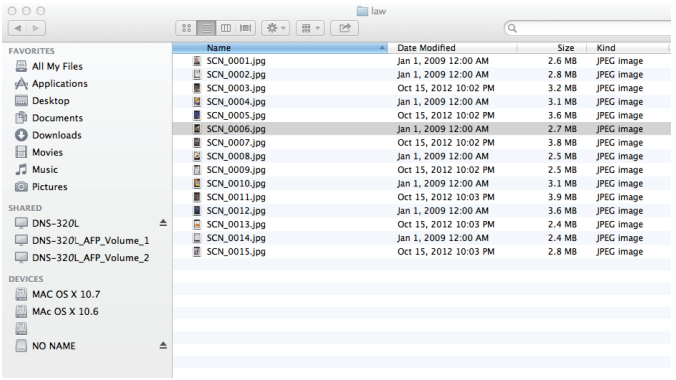
A summary displays your backup options. Click **Finish**.



The wizard returns to the Time Machine table. It displays the volumes you just selected for the backup process.

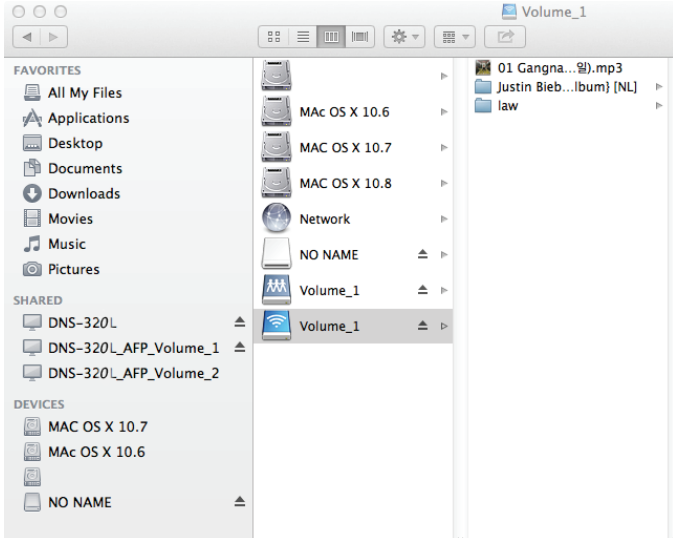


The volumes are also viewable in the Finder.



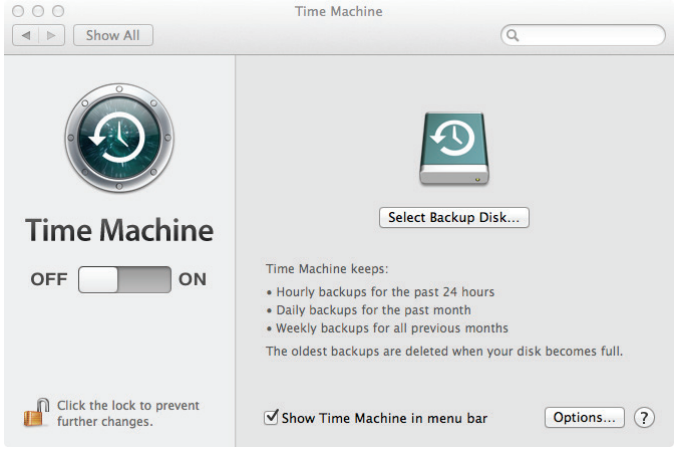
Time Machine Setup - Mac OS

You can also browse the volume in **Finder**.

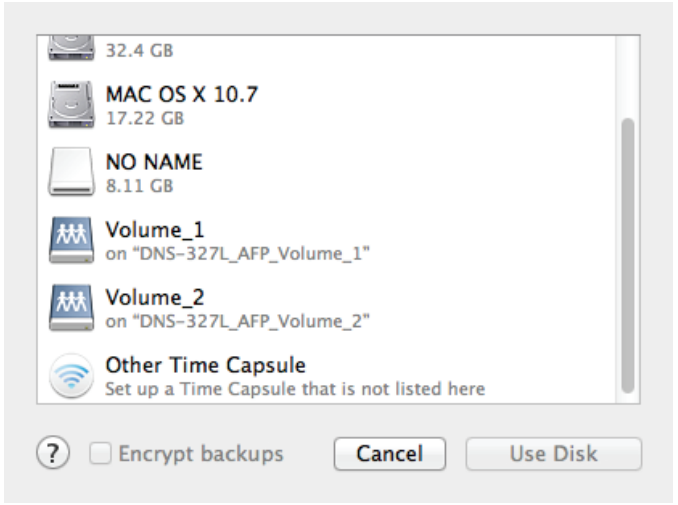


Go to **System Preferences**, click **Time Machine**.

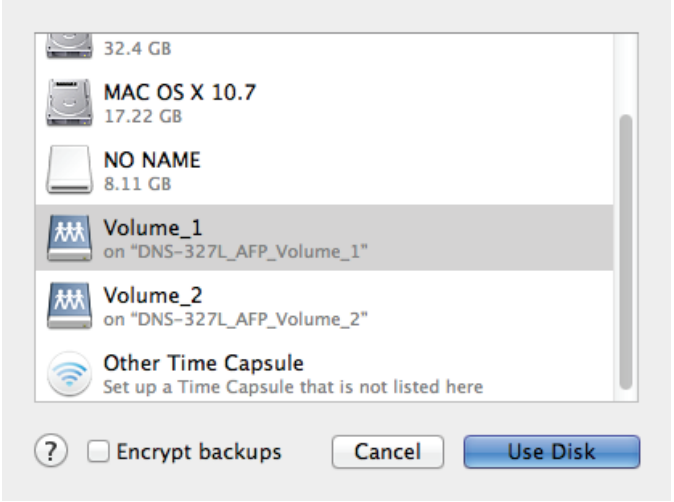
In Time Machine, click **Select Backup Disk**.



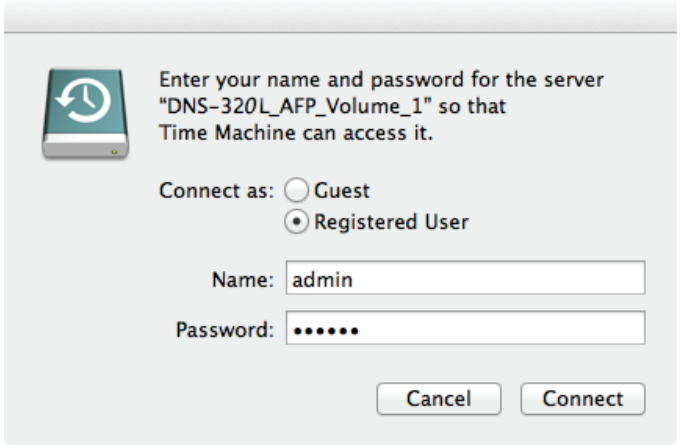
View the DNS-320L Volumes.



Select the volume you want to use for the backup and click **Use Disk**.



Log in to the server. Enter the Name and a Password that you configured for the volume you are using, and click **Connect**.

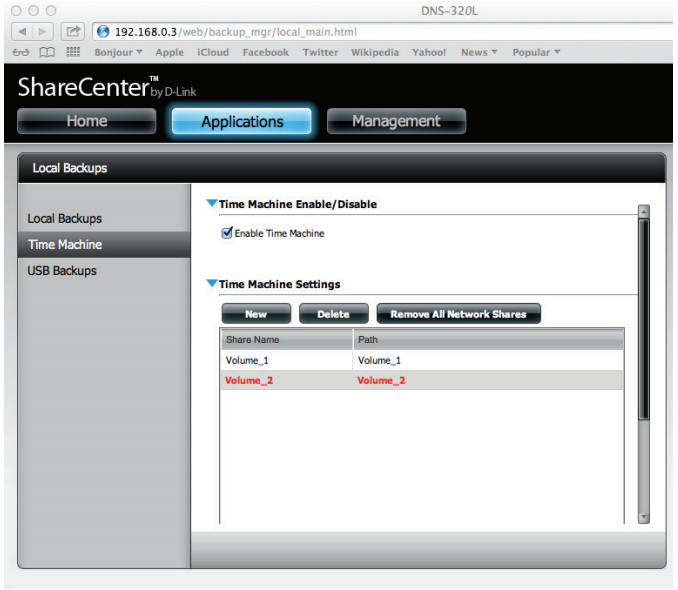


The Time Machine backup process is now complete. View your settings once you have set your disk.

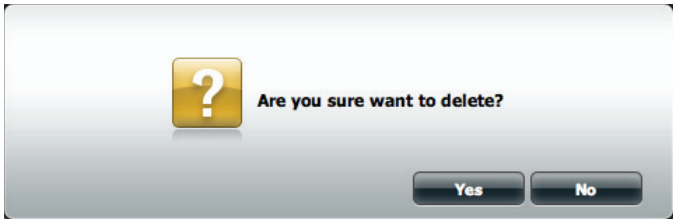
To deactivate **Time Machine**, move the slider to **OFF**. This, however, doesn't delete the **Volumes** from the **DNS-320** settings.

Time Machine - Delete a Volume

To delete a volume under Time Machine Settings, select the volume you want to delete - it will turn red. Click the **Delete** button.

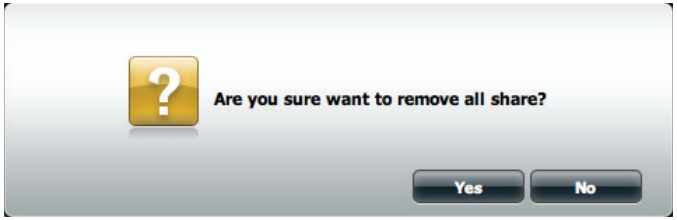


A warning message prompts you to verify if you want to delete the Volume. Click **Yes**.

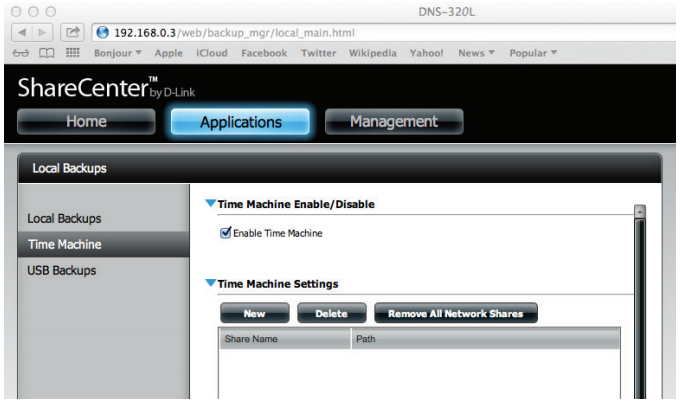


The volume will no longer be visible in Finder.

To Remove all network shares, click the **Remove All Network Shares** button. A warning message appears asking you to confirm your selection. Click **Yes** to continue.



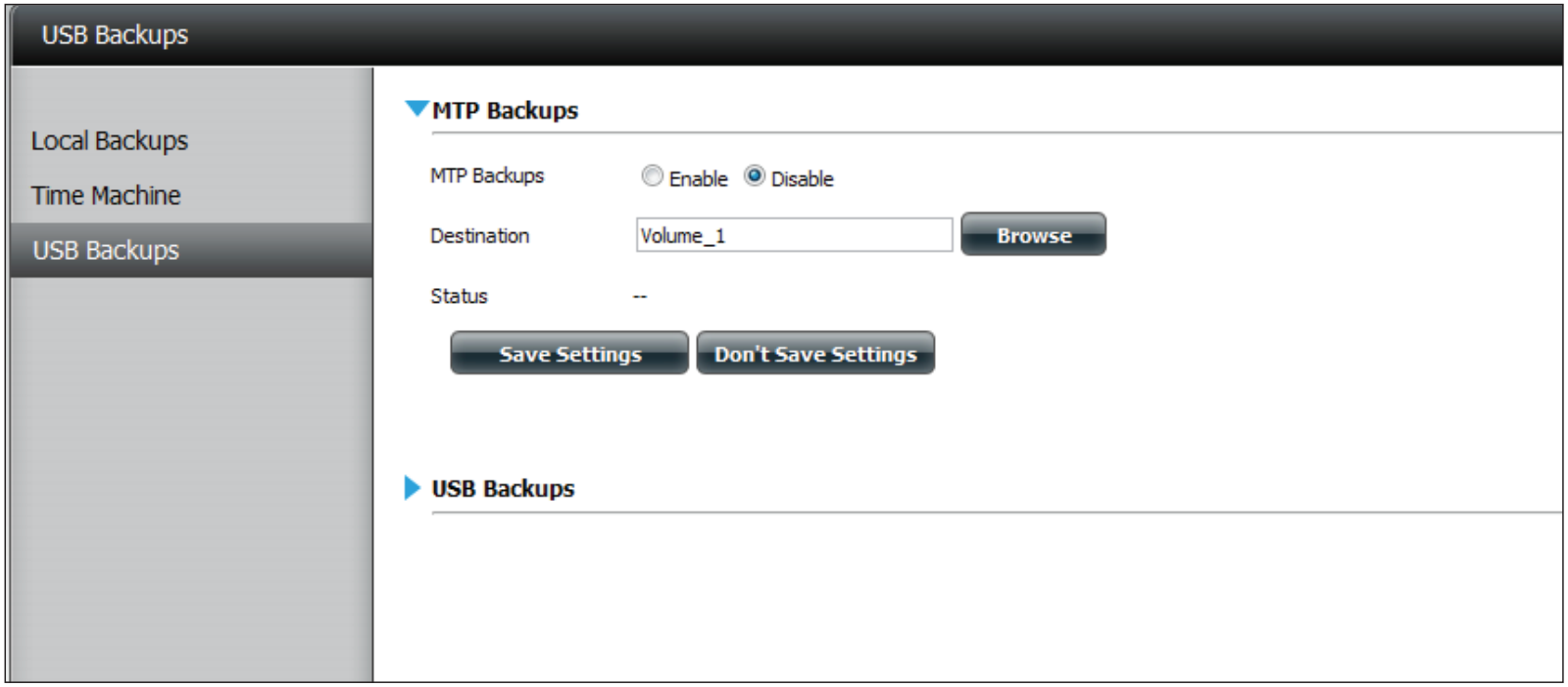
The **Time Machine** wizard shows an empty Time Machine Settings window.



USB Backups

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

MTP (Media Transfer Protocol) Backups basically backup digital media content from an MTP compatible USB device such as a digital camera, MP3 player, or smartphone 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.



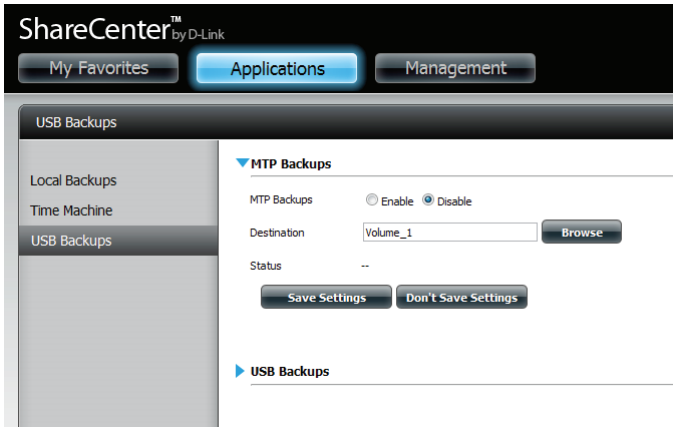
MTP Backups

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).

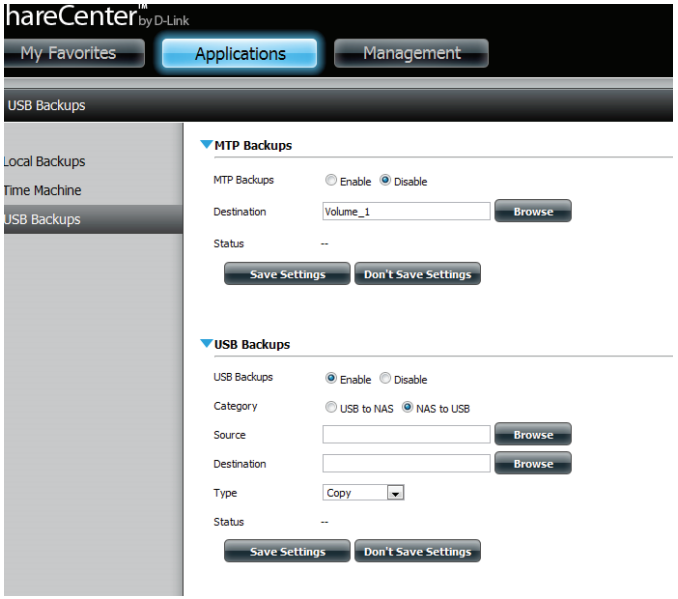
Source: Click **Browse** to select a folder as the source folder for the backups.

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.

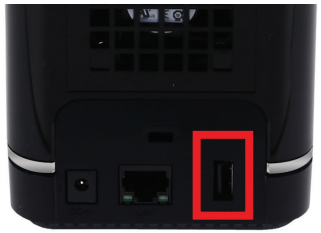
Status: Displays the current USB backup status.

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

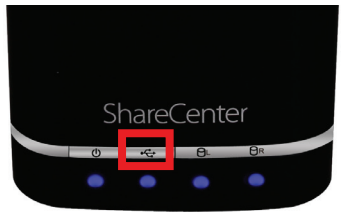


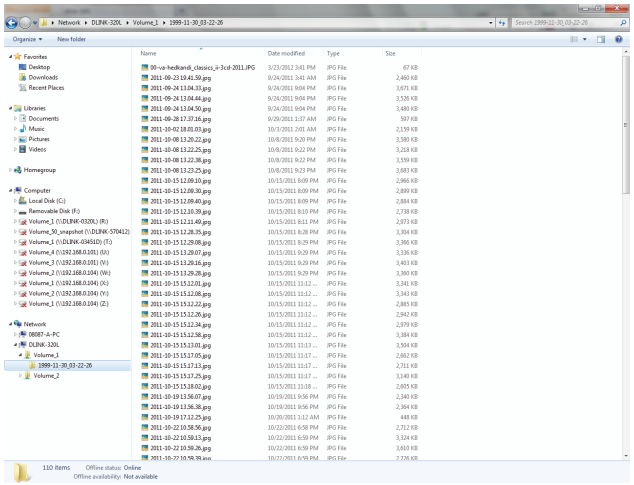
MTP Backup Process

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

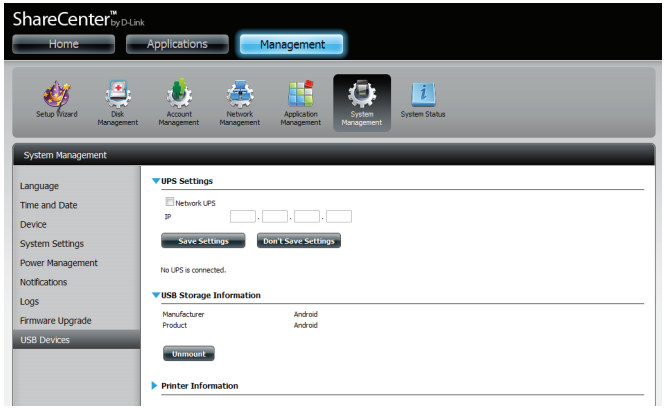


Press the **USB** button to start the backup process. The white USB LED flashes briefly to indicate that the backup is in process. The ShareCenter will create a new folder in the destination folder that you selected in the MTP backups settings and will copy all the media files from the MTP USB device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





Go to **System Management>>USB Devices**. Under USB Storage Information, you will see detailed information on the device you plugged into the DNS-320L. You can connect an Android device, but the USB debugging feature must be enabled.

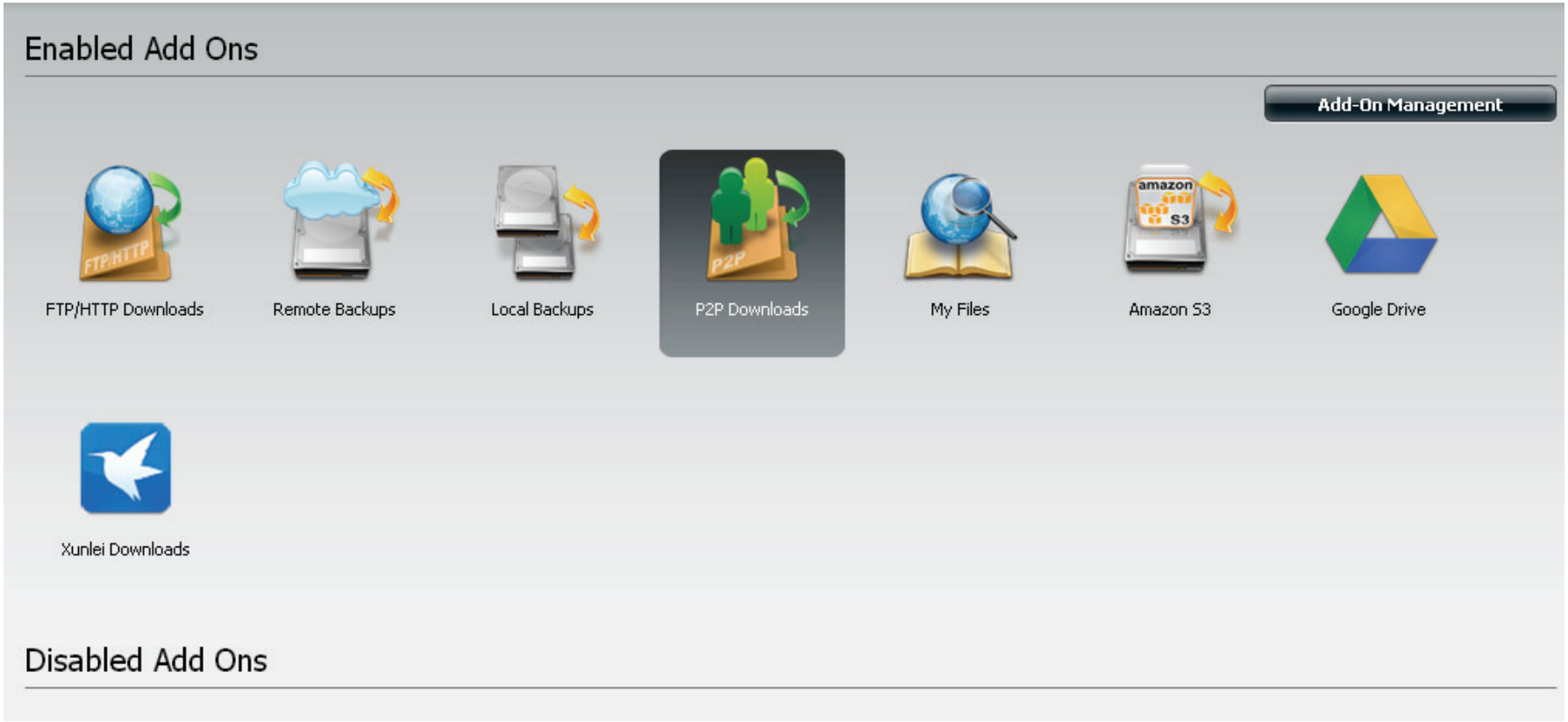


When the backup is complete, the flashing white LED will become solid white. Click and hold the USB button at the front for at least 5 seconds to unmount the USB device for safe removal.

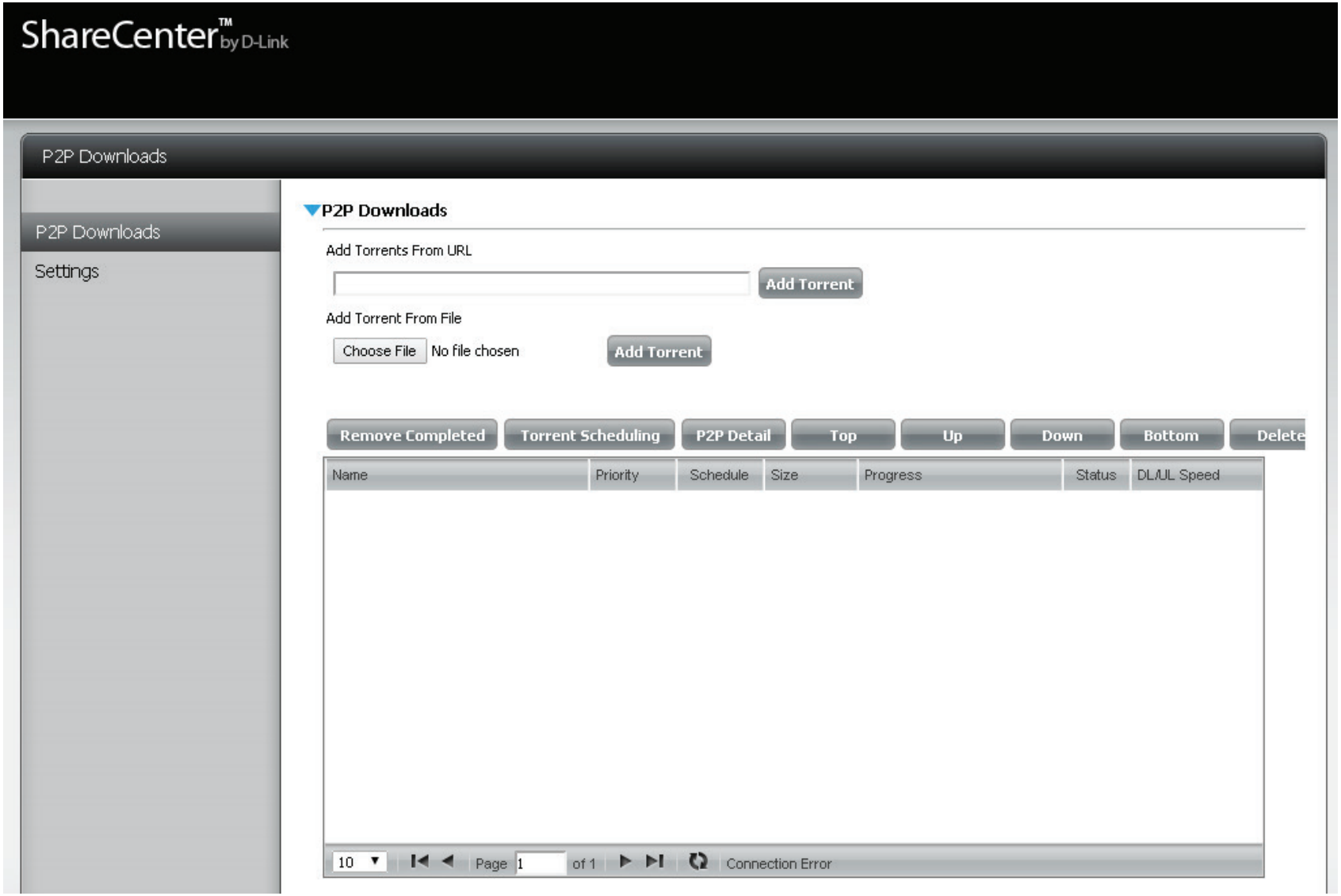
P2P Downloads

The DNS-320L is able to act as a P2P download manager, enabling you to download files directly to the Sharecenter's storage without the need for a computer. In this section you can view the status of current downloads, and configure the P2P download management settings.

Go to **Applications**, and click on **P2P Downloads**.



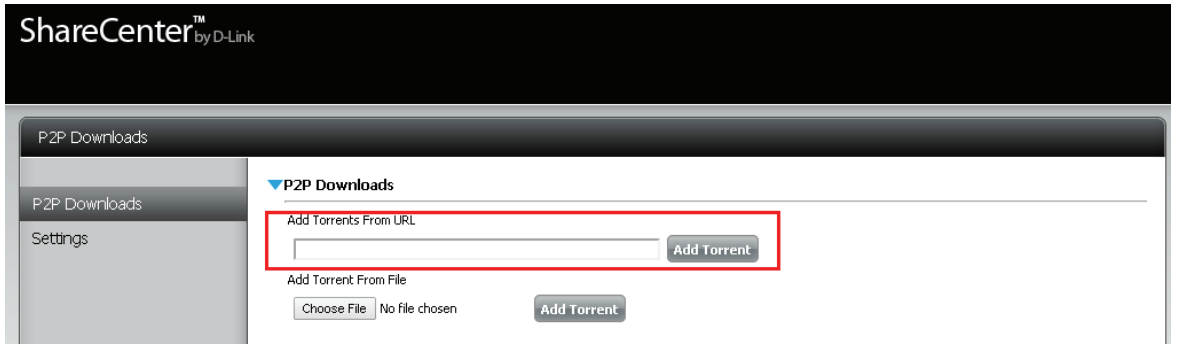
When you open P2P Downloads there are two sections, **P2P Downloads** and **Settings**.



The **P2P Download**s screen gives you access to the following settings:

Add Torrents from URL:

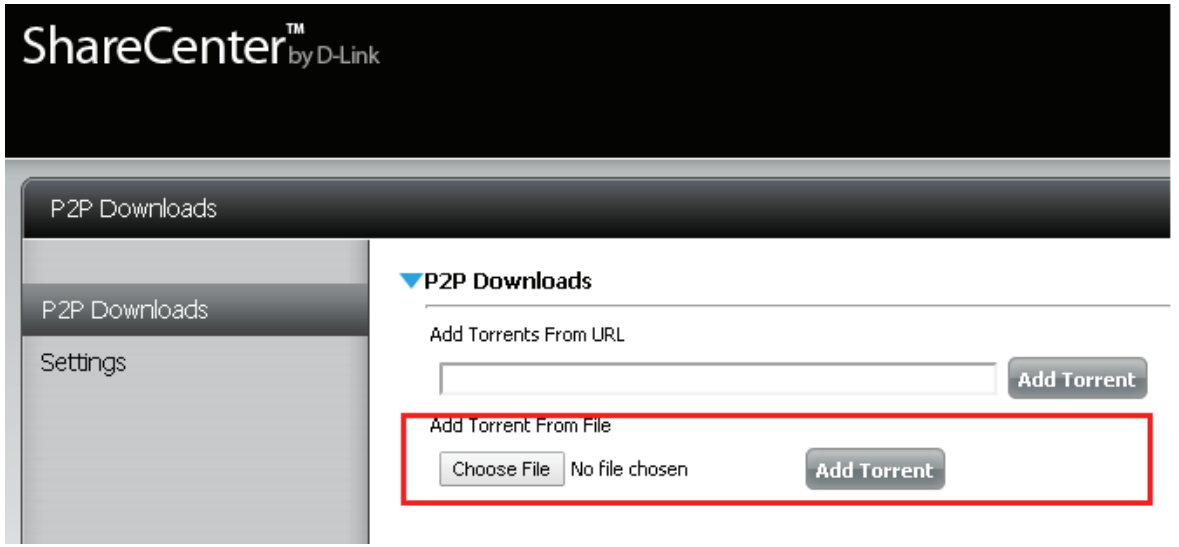
In the field provided you can copy and paste a link to a torrent file hosted on the internet. When you click **Add Torrent**, the P2P download manager will add the torrent file to the download manager and begin downloading your files.



Add Torrents from File:

Browse for a torrent file you have downloaded onto your PC.

Click **Choose File**, select the file you wish to upload, and click **Add Torrent**.

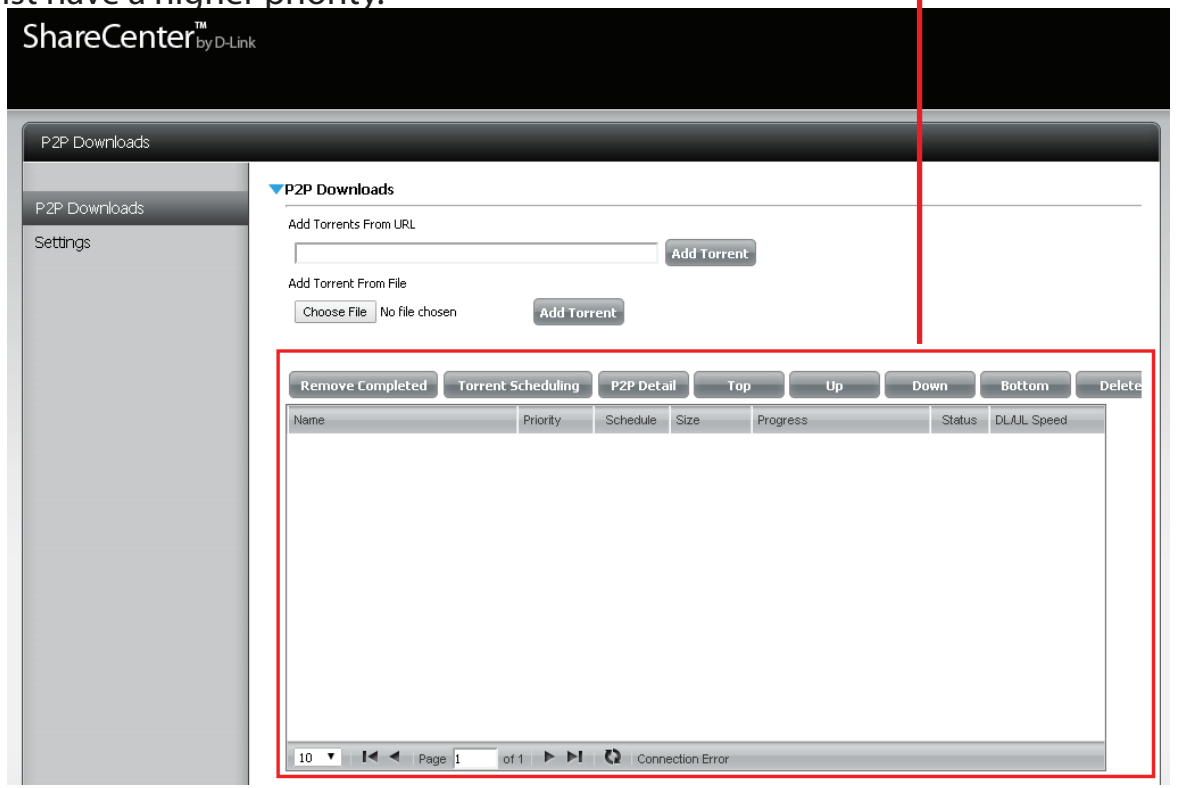


This window will display the status of current downloads.

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.

P2P Detail: The **Detail** 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.

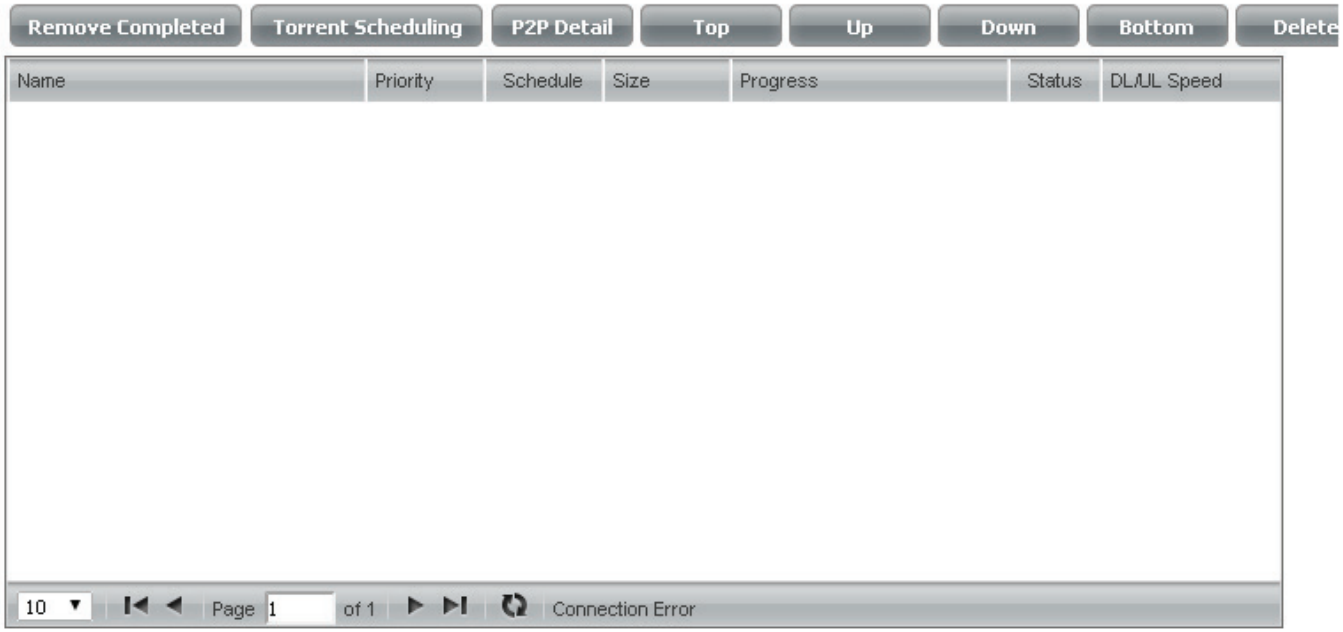


Delete: The **Delete** button allows the user to remove a selected download. This will remove not only the torrent file, but also the partially downloaded files.

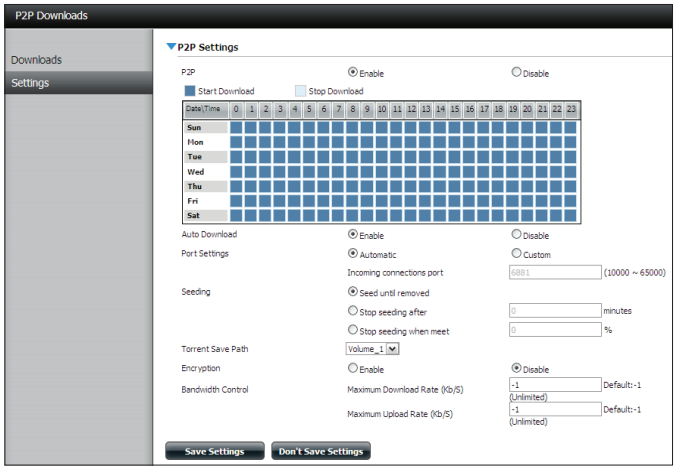
Start / Stop: The **Start** and **Stop** buttons allow users to start and stop selected P2P downloads in the task list.

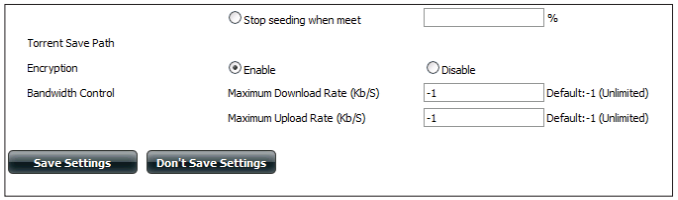
Navigation: At the bottom of the P2P Task window there are a couple of navigation controls. When multiple tasks exist, the user can select how many tasks will be displayed by using the drop-down menu. The user can also navigate to other pages when more than one page exist.

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



Settings





P2P: Select whether you wish to **Enable** or **Disable** P2P functionality.

Download Schedule: In the block provided the user can configure the running schedule for P2P downloads. Click on a block to toggle between **Start** and **Stop** download 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. If you wish to configure the incoming port manually, enter a port number in the **Incoming connections port** field.

Seeding: Select one of the three seeding options to control when a downloading file is seeded.

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

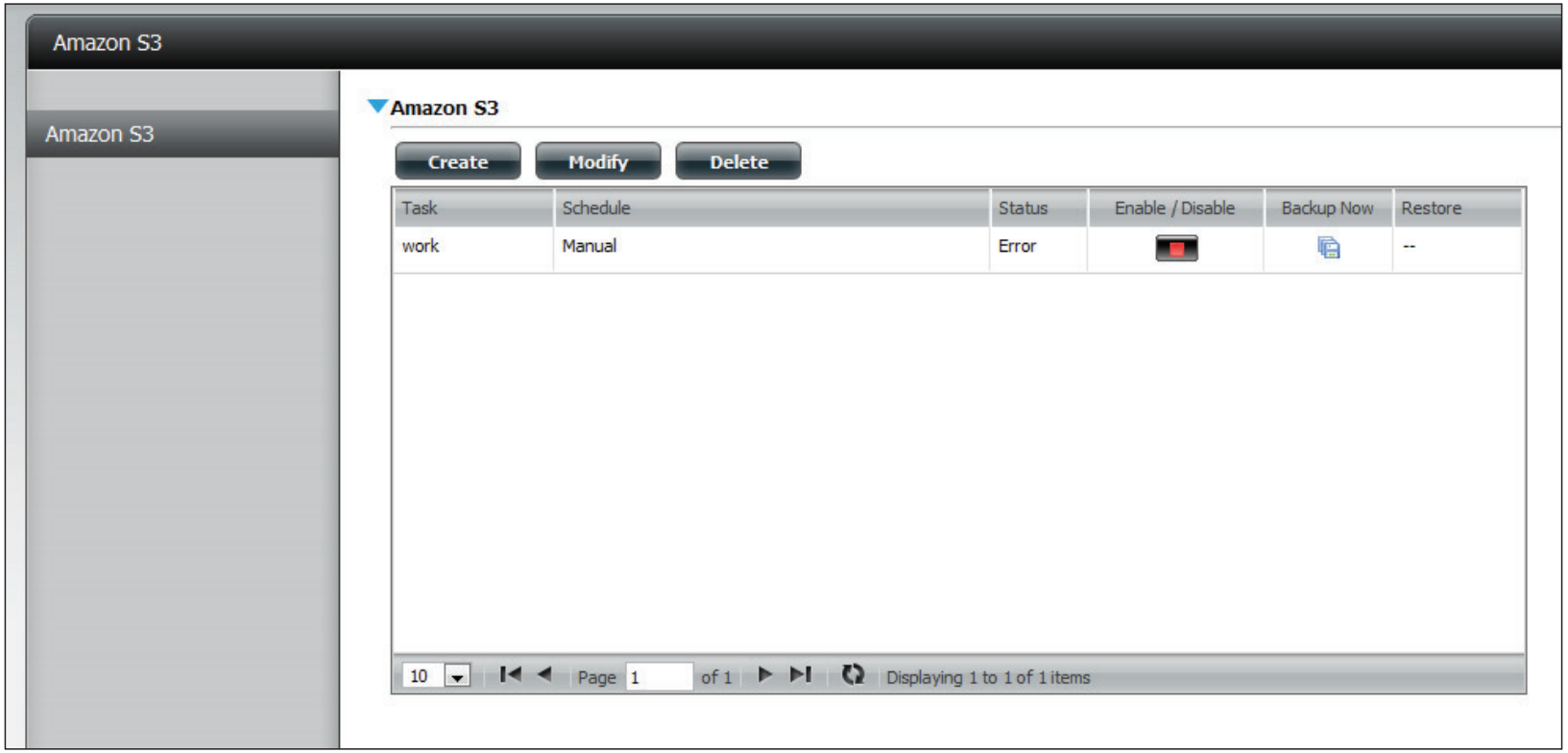
Encryption: Here the user can choose to **Enable** or **Disable** encryption.

Bandwidth Control: Here, you can manually configure the maximum download and upload rates. Enter the value **-1** to set the respective field to **unlimited**.

Click **Save Settings** to save the current configuration.

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-320L to Amazon S3, or download the data from Amazon S3 to your DNS-320L.



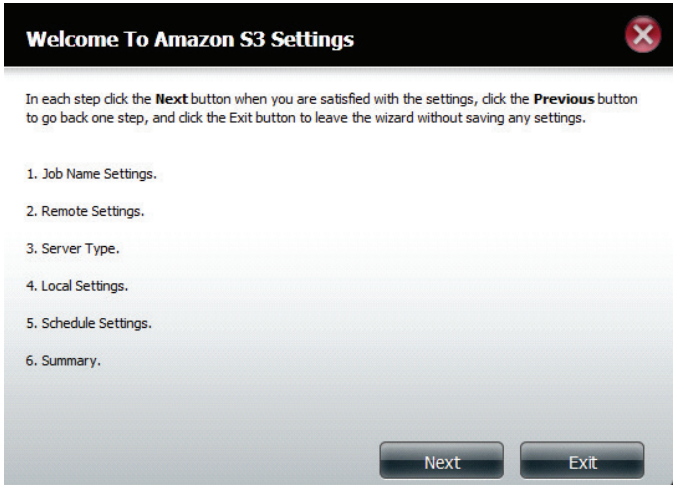
Creating an AWS Account

Before you can use this function on your Sharecenter, you must register an AWS account. To do this, 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 **"Sign Up Now".** Follow the instructions to create your AWS account.

Create

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.

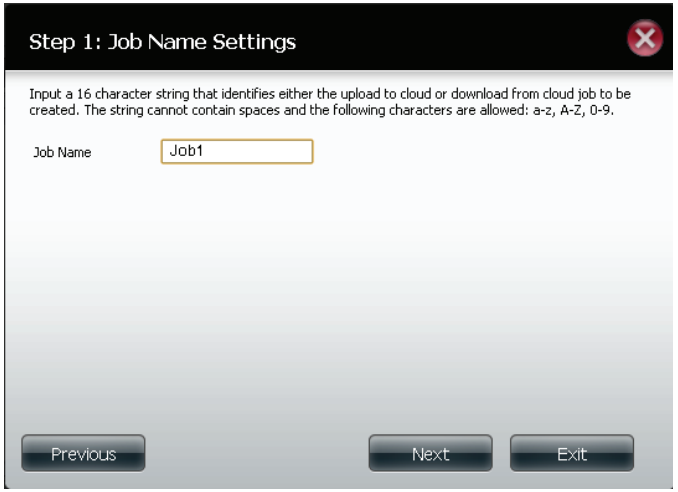
Click **Next** to continue.



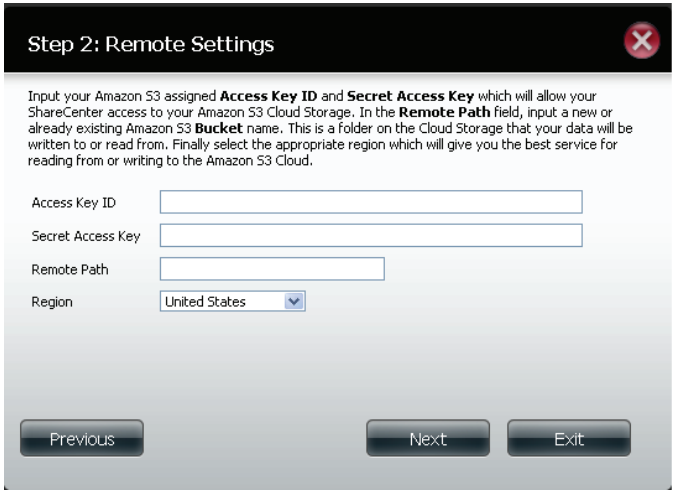
Job Name Settings

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

Click **Next** to continue.



Remote Settings



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

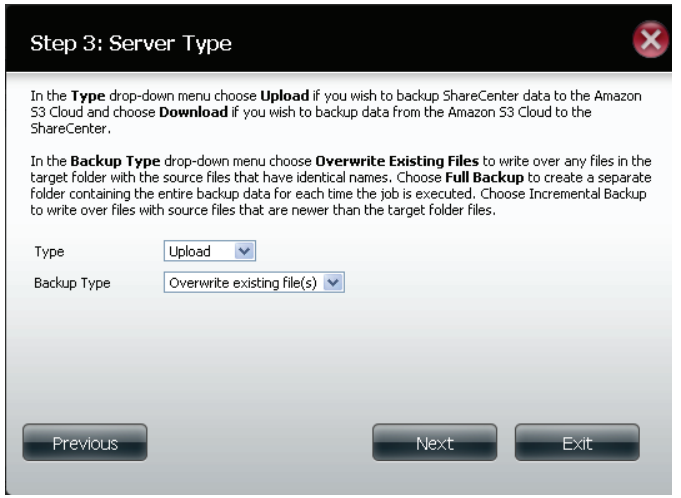
Secret Access Key: Enter your Secret Access Key to access your Amazon S3 Cloud Storage.

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

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

Click **Next** to continue.

Server Type



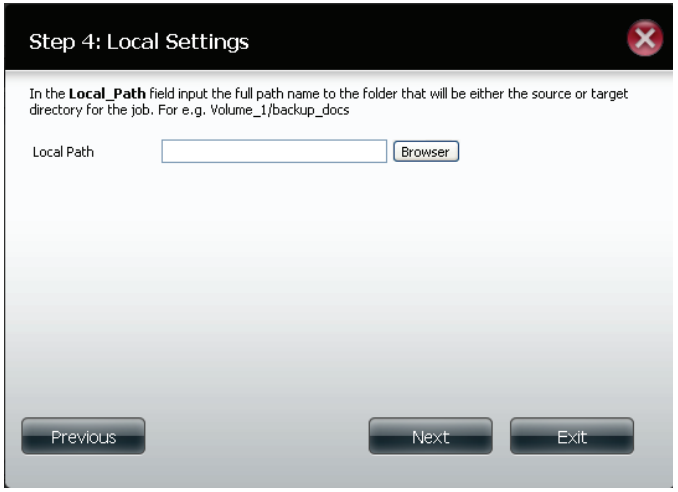
Type: Select **Upload** or **Download** from the drop-down menu.

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

Click **Next** to continue.

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.

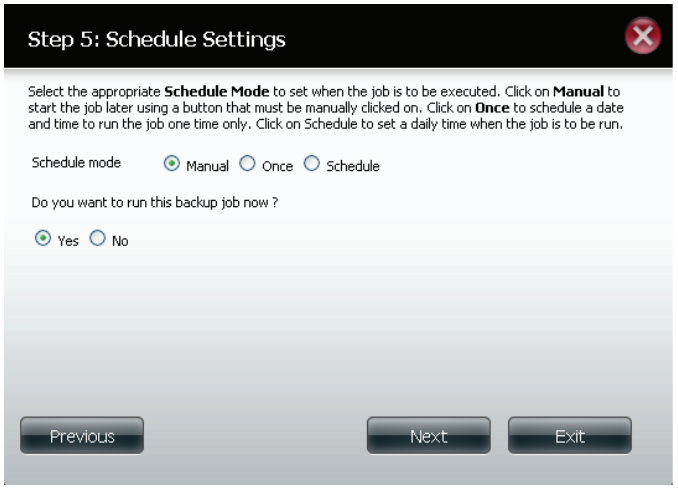


Schedule Settings

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).

If you wish to run the backup immediately, select the **Yes** radio button. Otherwise, select **No**.

Click **Next** to continue



Modify

Once a job is created, the **Modify** button is used to change any of the settings described in the Create 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.

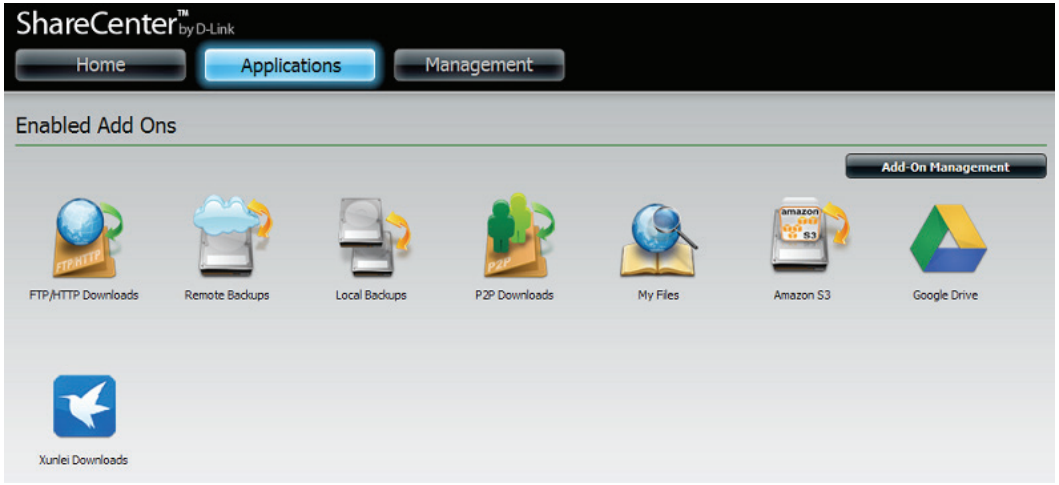
Enable/Disable Column

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.

Google Drive

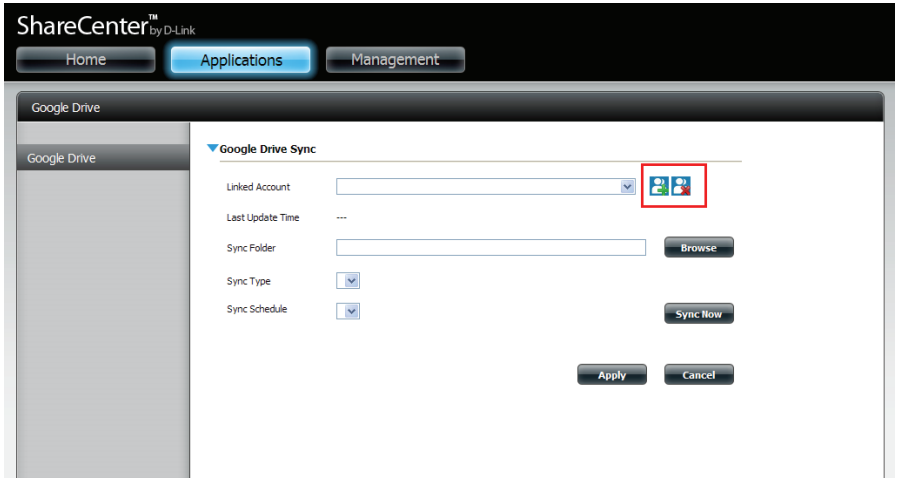
Google Drive is a third-party application and part of the Add-on Management applications. This application creates a directory on your DNS-320 and allows you to sync data with your own Google Drive account. You are required to create a Google Drive account and preferably have a Gmail account. Users who already have a Gmail account, automatically get Google Drive access, can download the app from Google's website. The advantage of using Google Drive is that it syncs all your Google activity from Gmail, Google Docs, etc. onto the DNS-320. So, when you are away from your NAS, you are still able to access data from your DNS-320 and Google Drive as long as your NAS is powered on. To setup your Google Drive Add-on application do the following:

Application Settings
Click Applications, Google Drive.

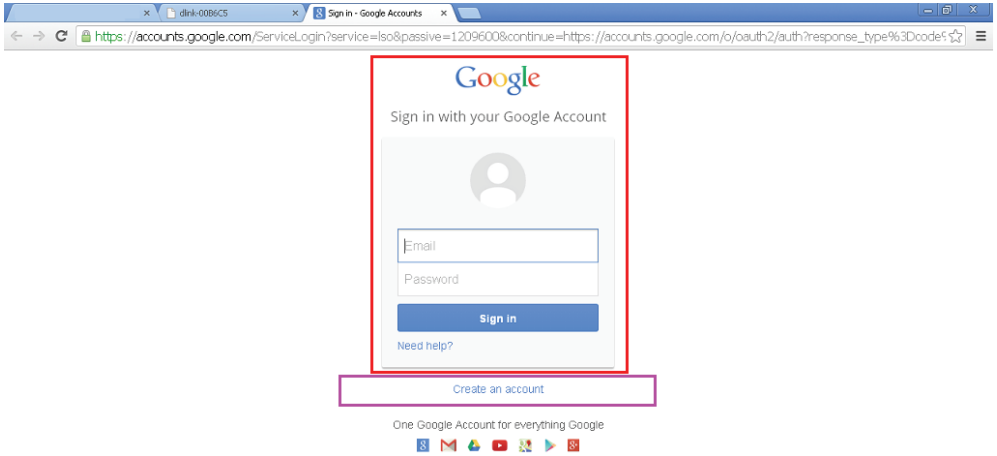


Under **Google Drive Sync**, enter the **Linked Account** name (this is the name you have used to setup your **Google Gmail** and **Google Drive** account). If the drop-down list is blank, create an account using the icons next to it.

The green + button is used to create the Linked Account. The red x is used to delete a Linked Account.

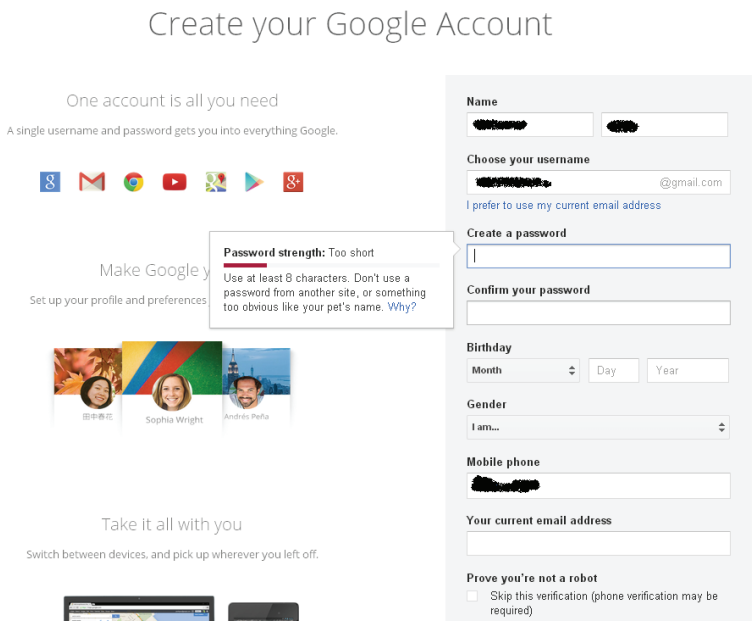


Click the **green +** button to create the account. You are immediately redirected to sign-in or sign up for a Google account.

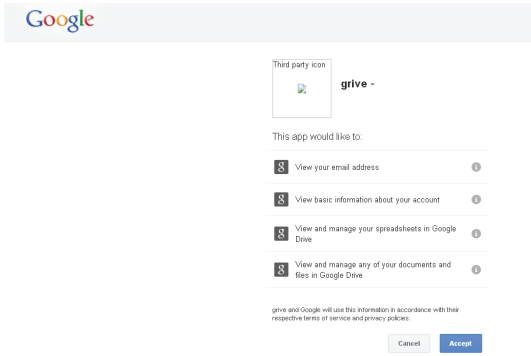


Use you **Gmail** credentials to sign-in (highlighted in red) or create an account (highlighted in pink). It's better to use Google Chrome Browser to do this.

Create your **Google** account by entering the required information.



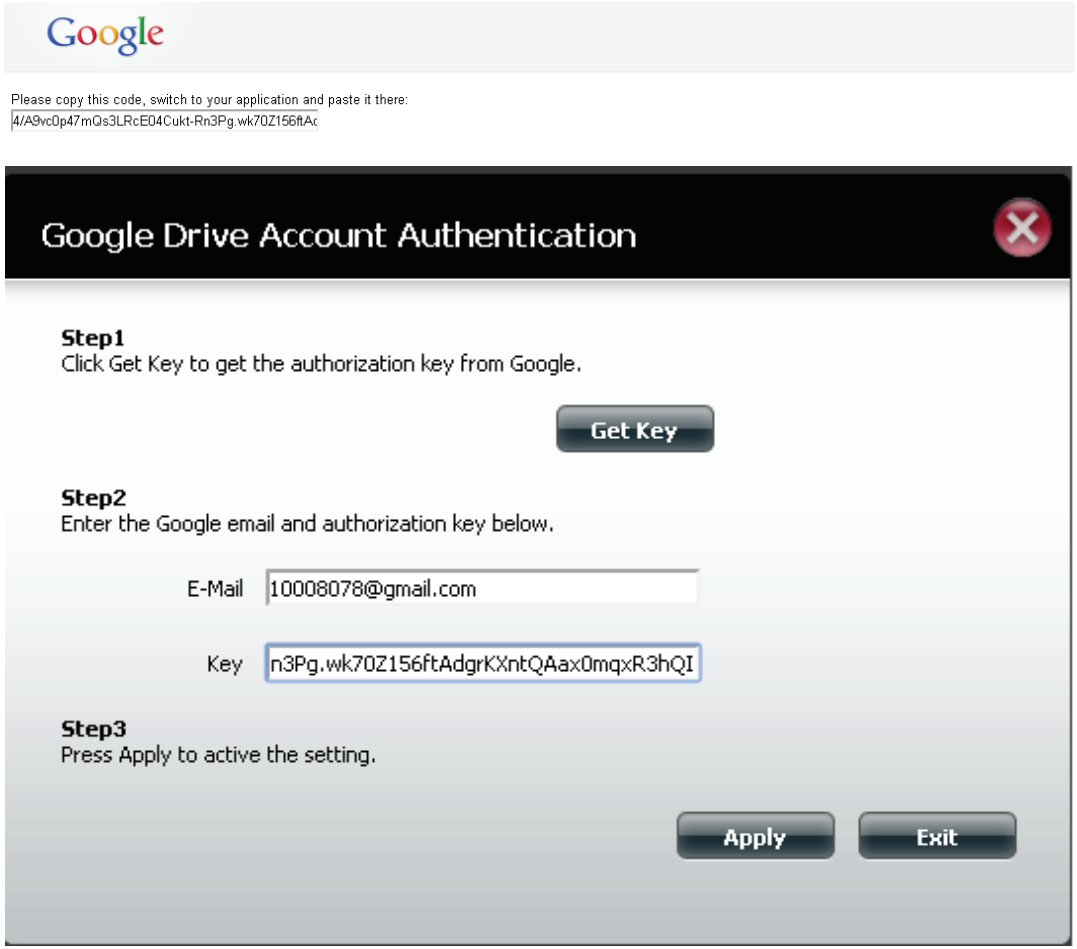
Read the app description and click **Accept**.



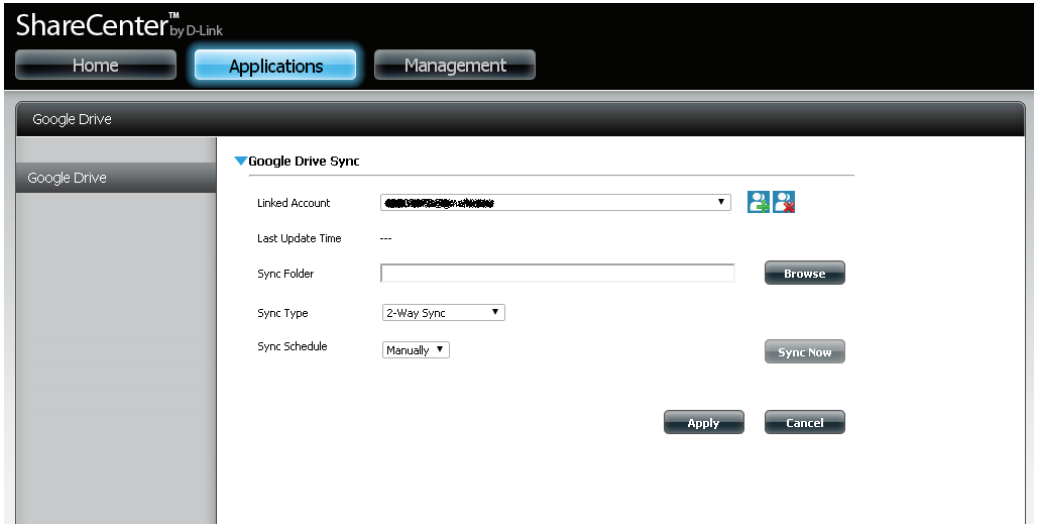
Once complete, **Google** will redirect you to the code. Select the code inside the box and copy it (Use the **Ctl/C** buttons to copy).

Under **Step 2**. enter the email address you just created (or previously had) and paste (Use the **Ctl/P** button to paste)the key into the key field provided.

Click Apply.



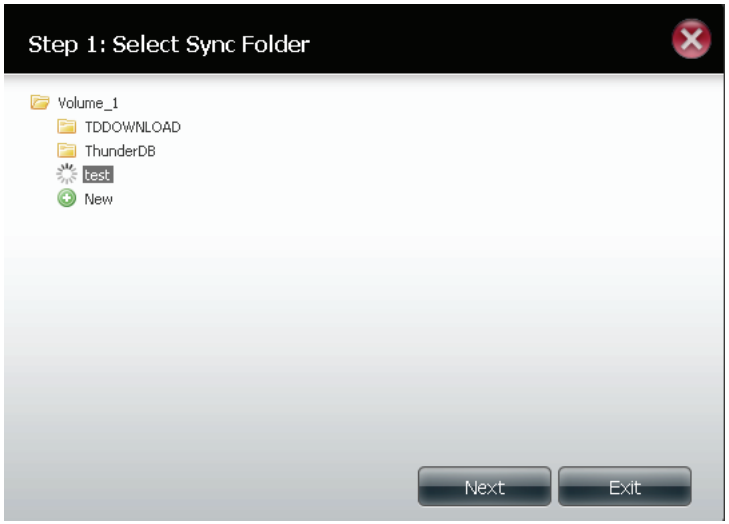
Under **Google Drive Linked Account**, the drop-down menu now lists your account details.



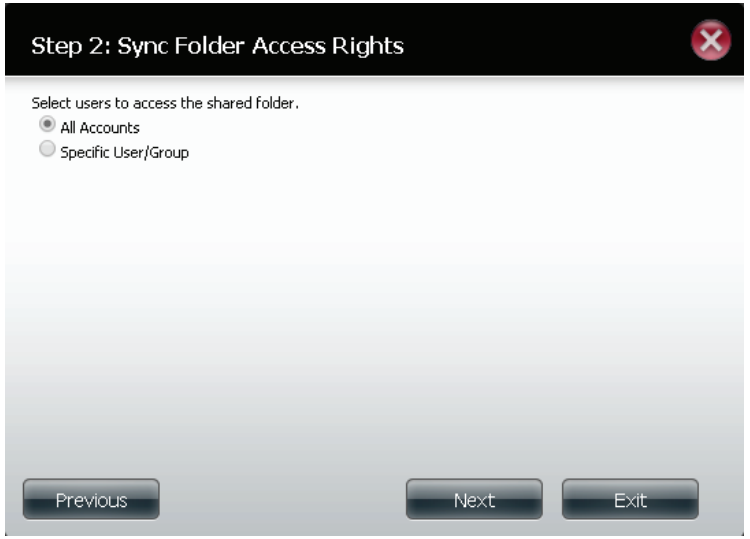
Under **Sync Folder**, click the **Browse** folder to locate the directory you want to use.

Under **Step 1**, **Select Sync Folder**, select the folder you want to use. You can use the drop-down, click folder menu to select a folder.

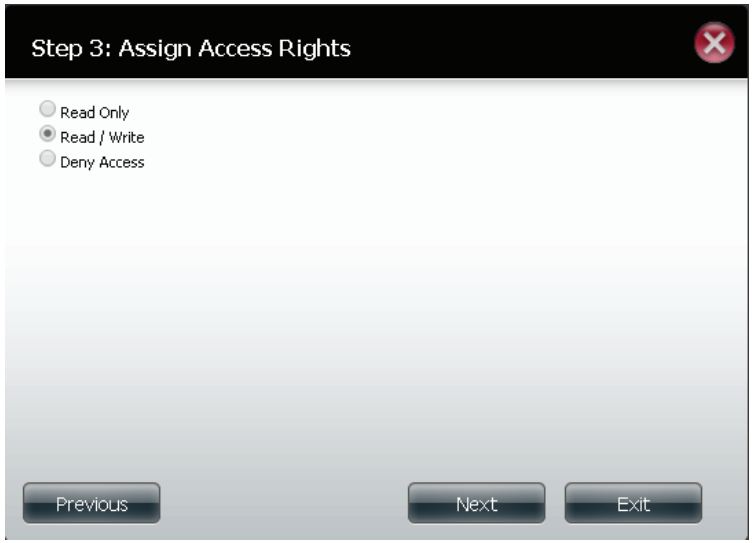
Click **Next** to continue.



Under **Step 2 Sync Folder Access Rights**, select the user access rights. Choose between, **All Accounts** or **Specific User/Group.**

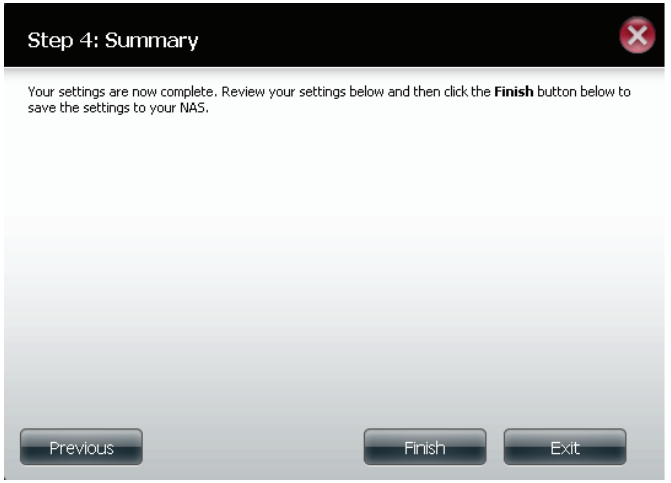


Under **Step 3 Assign Access Rights**, select the access rights. Choose between, **Read Only, Read/Write, or Deny Access.**



Under **Step 4 Summary**, it highlights the steps completed.

Click **Finish** to exit, **Previous** to go back or **Exit** to make no changes.



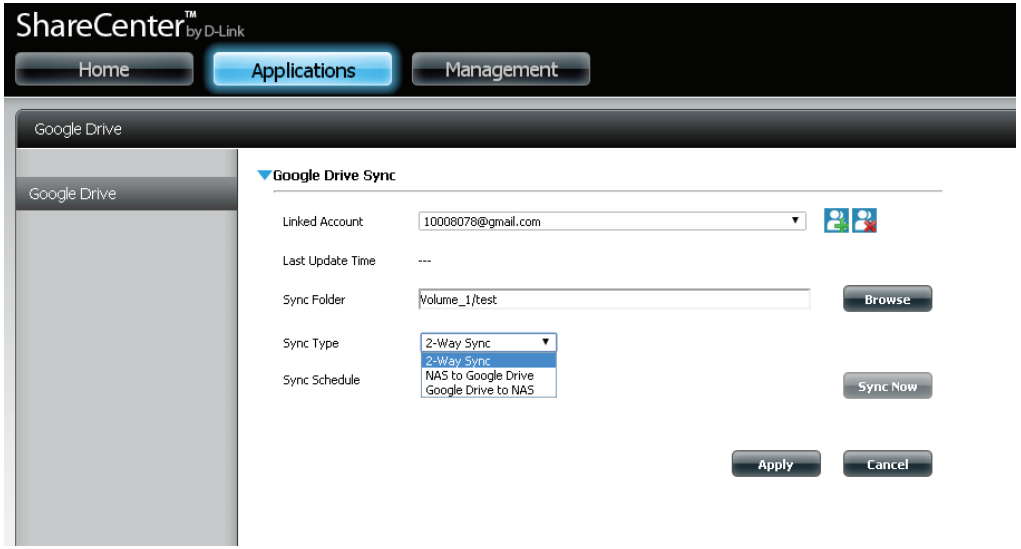
The **Sync Folder** is now populated with the folder you selected.

Select the **Sync Type** you want to use. Choose between **2-Way Sync, NAS to Google Drive, and Google Drive to NAS**.

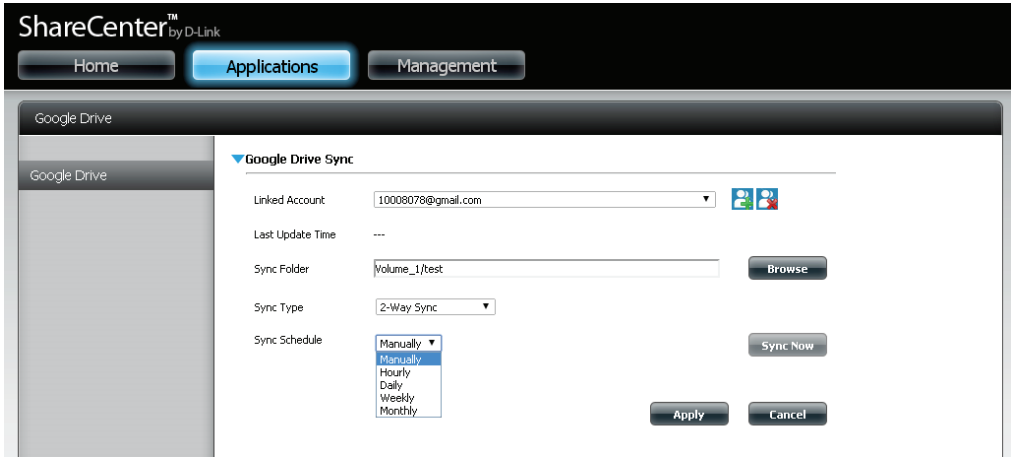
2-Way Sync means data on the NAS will be uploaded incrementally to **Google Drive** and data on Google Drive will be downloaded to the NAS.

NAS to Google Drive means data from the DNS-320 will be uploaded to **Google Drive** only.

Google Drive to NAS means data on Google Drive will be downloaded and synced to the DNS-320.



Next, select the schedule of your syn by either clicking **Sync Now** or choose an option from the drop-down menu (**Manually, Hourly, Daily, Weekly, Monthly**)



For the **Manual** option:

Select **Manually**, click **Apply** and then click **Sync Now**.

For the **Hour** option:

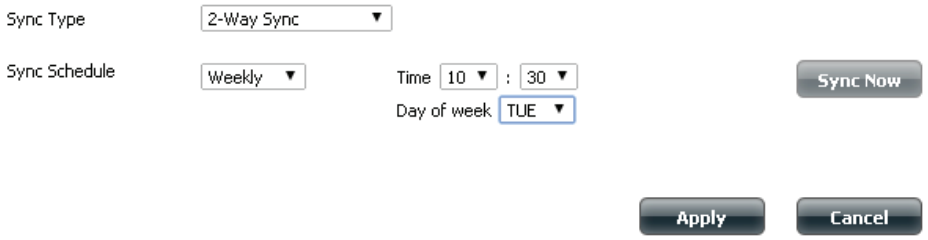
Select **Hourly**, then select the **minutes** from the drop-down menu, and click **Apply**.

For the **Day** option:

Select **Daily**, then select the **Time**: **hour** and **minutes** from the drop-down menu, and click **Apply**.

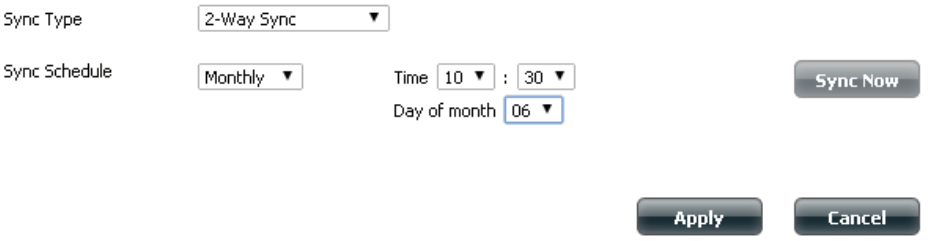
For the **Week** option:

Select **Weekly**, then select the **Time**: **hour**, **minutes, and Day of week** from the drop-down menu, and click **Apply**.

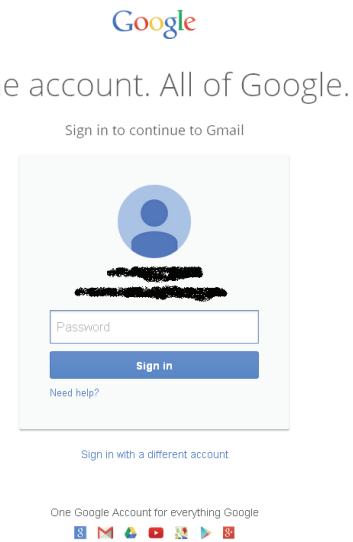


For the **Month** option:

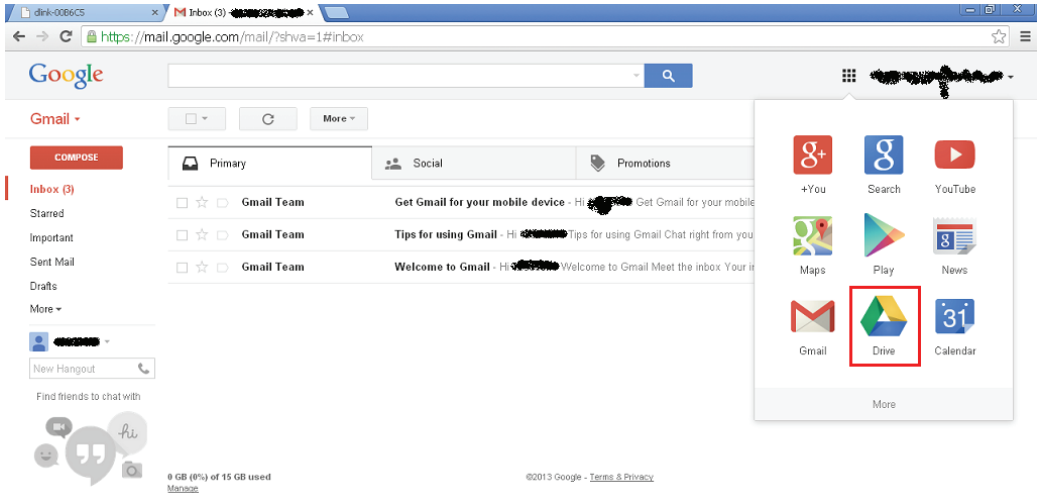
Select **Monthly**, then select the **Time**: **hour**, **minutes, and Day of month** from the drop-down menu, and click **Apply**.



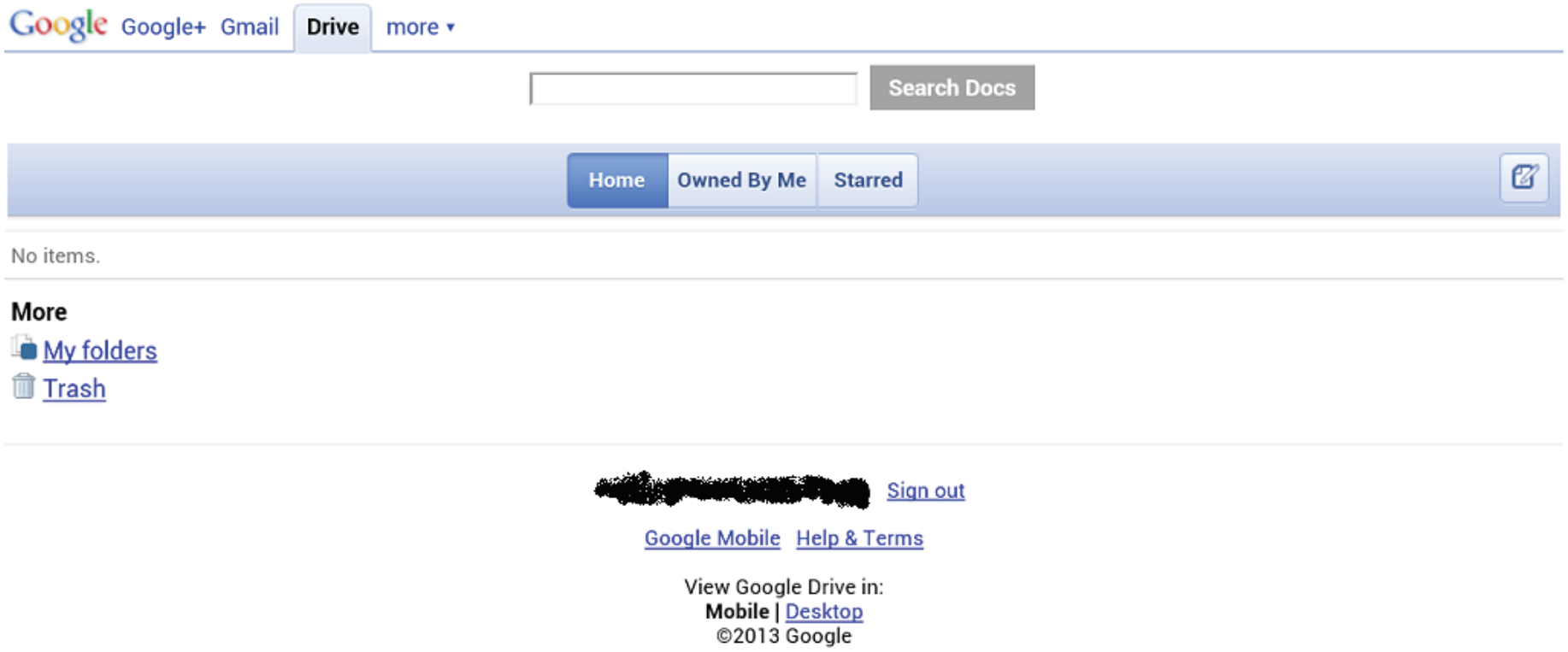
To view the data you synced login to your **Google** account. You can do this through **Gmail** as well.



Once in **Gmail**, select the **Apps** menu from the top-right side and select **Drive**.



Once in the **Google Drive** website, go to **My Folders** file and check to see if the data you synced over is there.

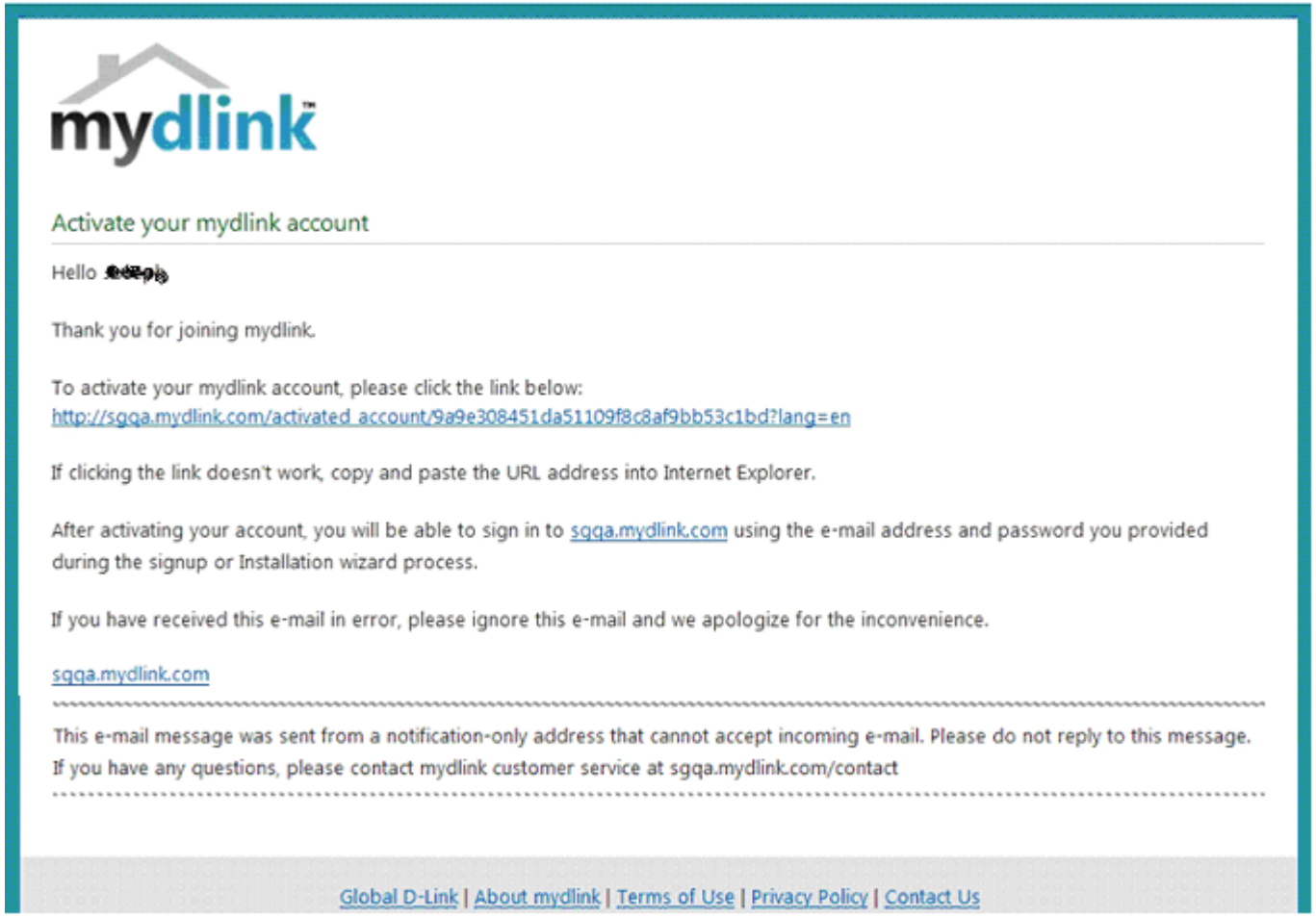


mydlink

The mydlink cloud service is offered to DNS-320L users. Connect to the mydlink service from any location and using any operating system. If you are not connecting to the service directly from the DNS-320L, open your browser and type in www.mydlink.com. Sign into your account on the home page.

mydlink Verification

If this is your first time accessing your mydlink account, you may need to verify your account. An automated email will be sent to your registered email address. Check your e-mail box and click the weblink to activate mydlink account.



mydlink

Activate your mydlink account

Hello [redacted]

Thank you for joining mydlink.

To activate your mydlink account, please click the link below:
http://sgqa.mydlink.com/activated_account/9a9e308451da51109f8c8af9bb53c1bd?lang=en

If clicking the link doesn't work, copy and paste the URL address into Internet Explorer.

After activating your account, you will be able to sign in to sgqa.mydlink.com using the e-mail address and password you provided during the signup or Installation wizard process.

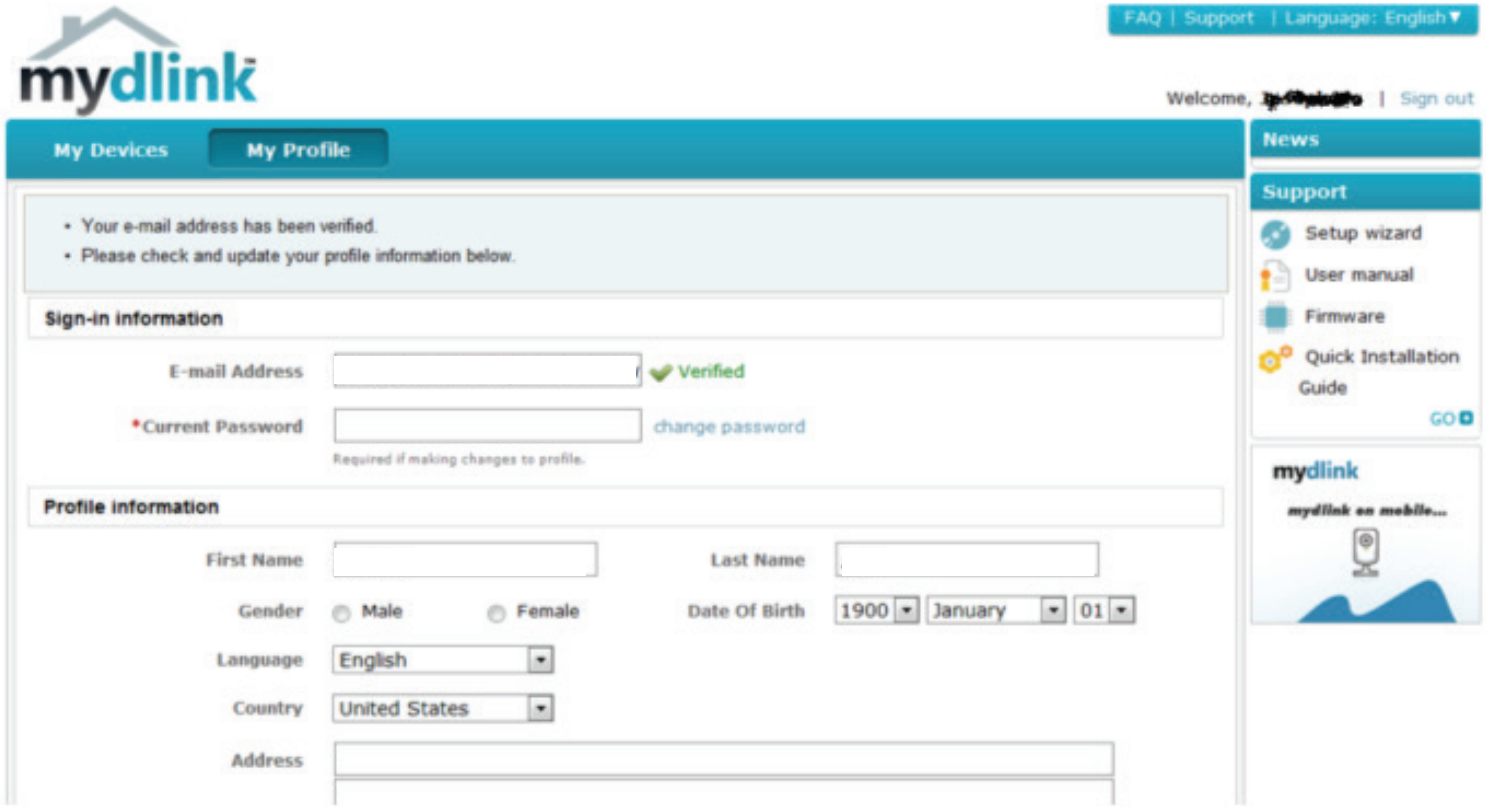
If you have received this e-mail in error, please ignore this e-mail and we apologize for the inconvenience.

sgqa.mydlink.com

This e-mail message was sent from a notification-only address that cannot accept incoming e-mail. Please do not reply to this message.
If you have any questions, please contact mydlink customer service at sgqa.mydlink.com/contact

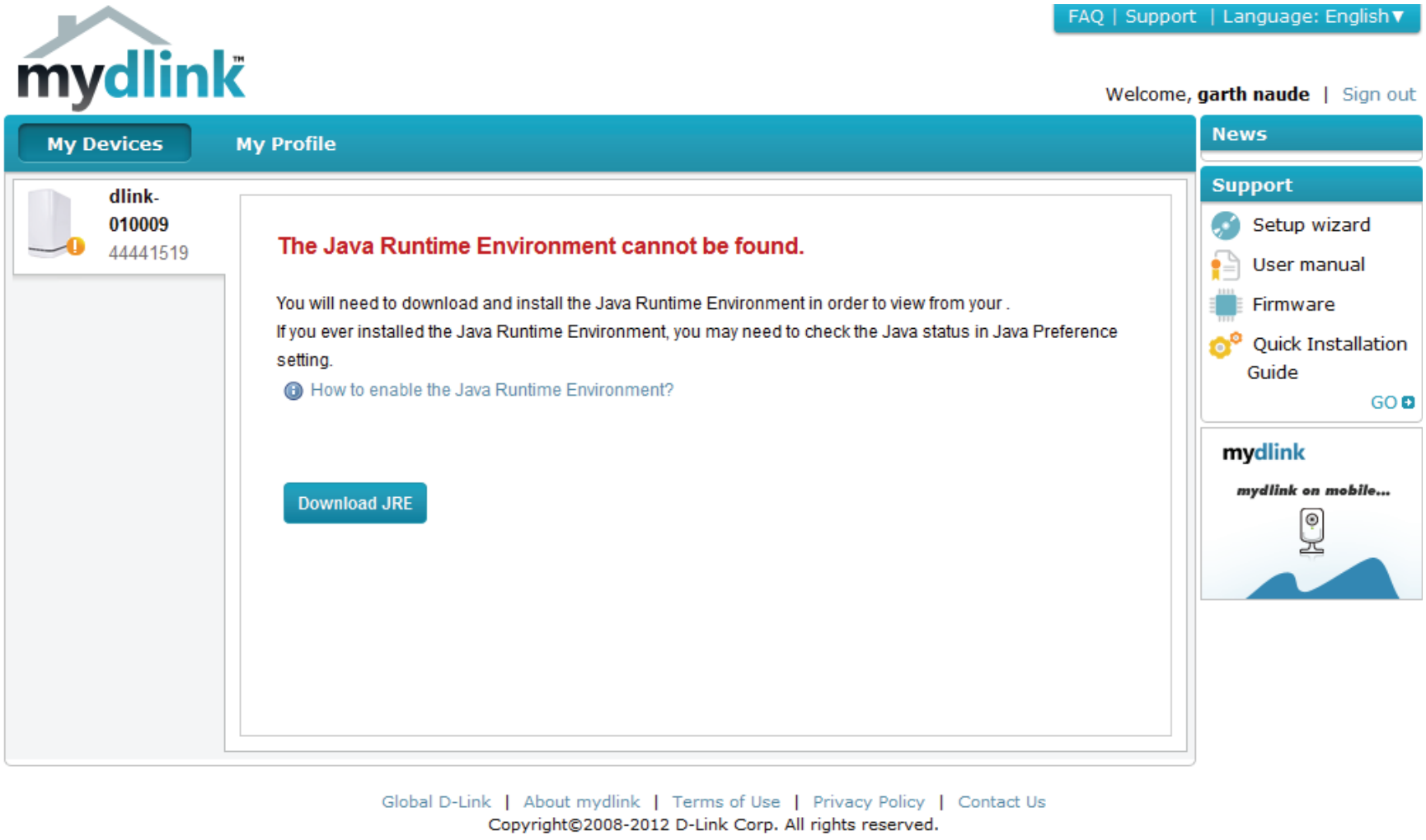
Global D-Link | About mydlink | Terms of Use | Privacy Policy | Contact Us

Your mydlink account will be verified and your profile information will be shown.

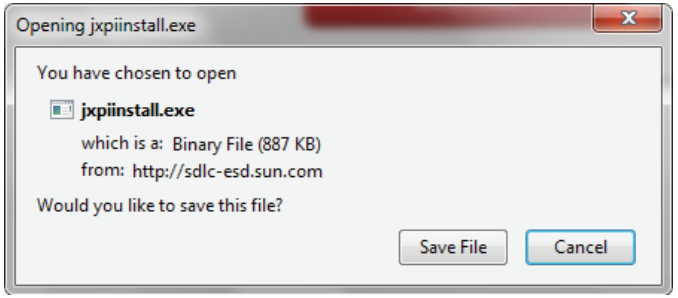


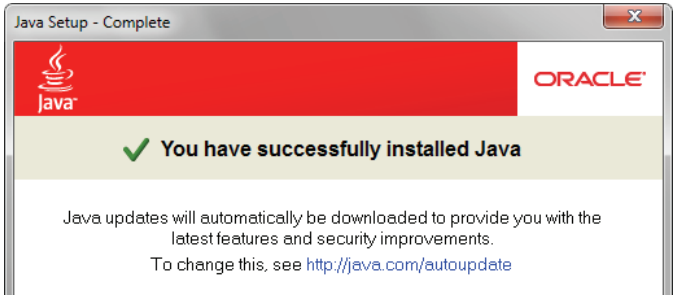
mydlink Java Runtime Environment

Once you log into your account, you will need to install the Java Runtime environment. The screen provides directions in order for you to download it.

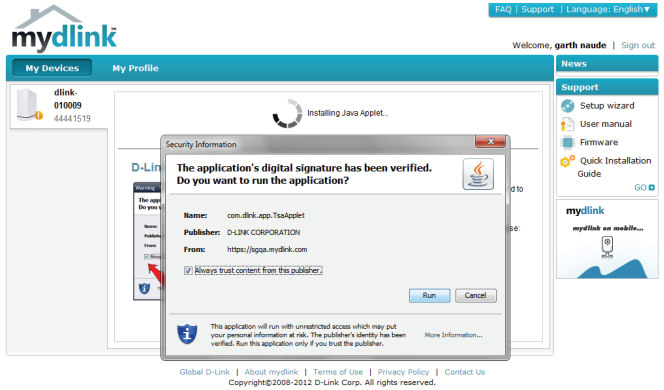


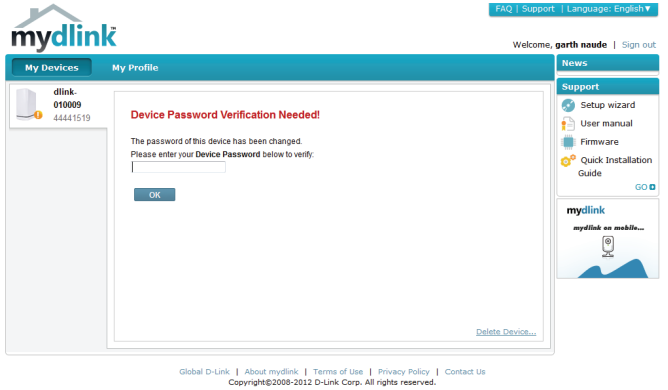
The Java Runtime environment takes a few steps. Follow the instructions:





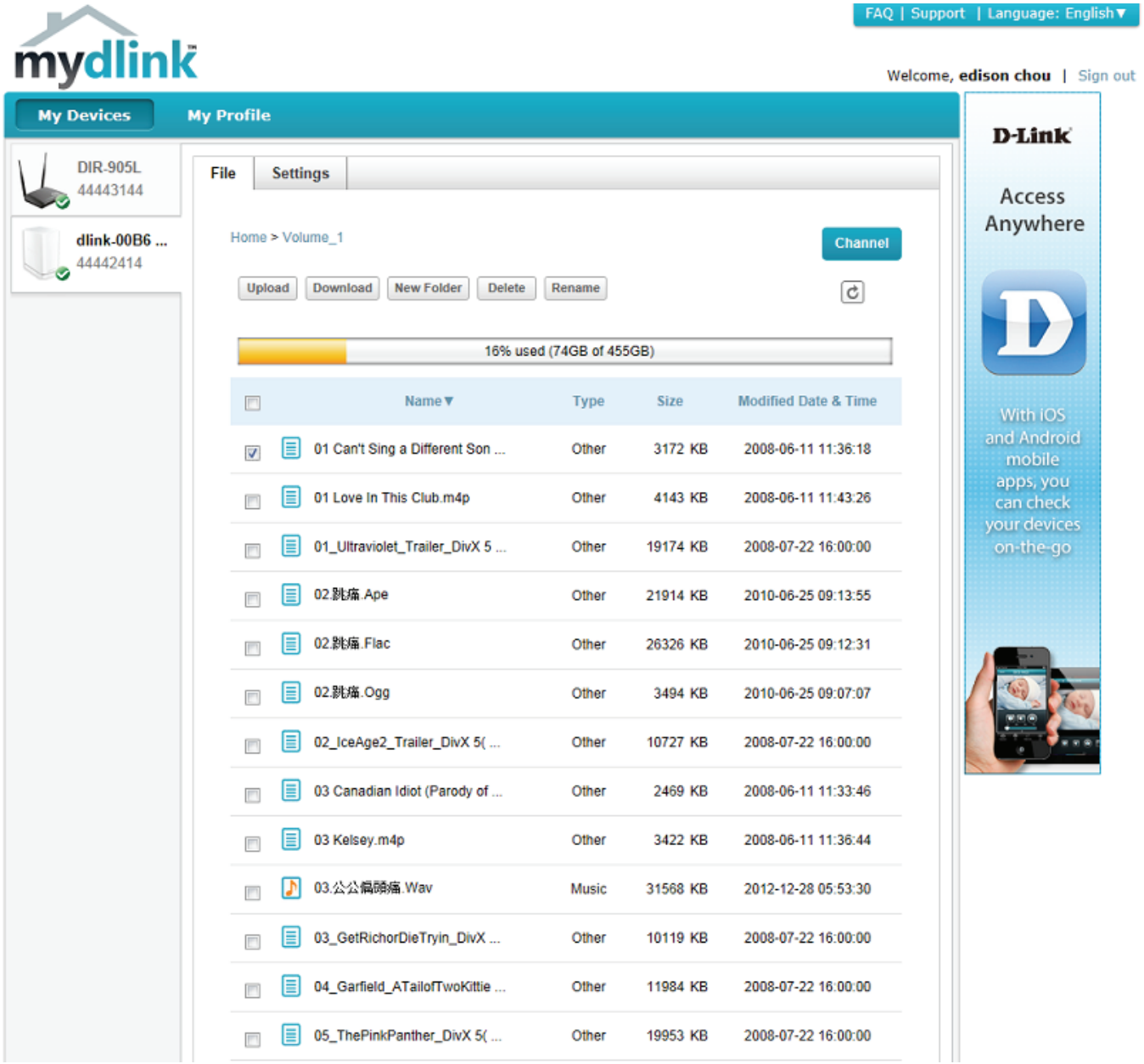
After the Java Runtime environment has been installed, run the mydlink application and enter your device password.





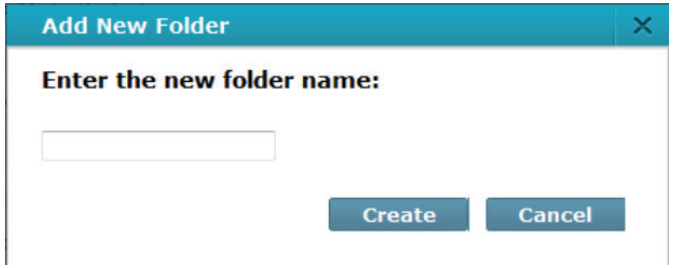
Once you are connected you can view your existing storage on the cloud and the DNS-320L. You can also upload, download files using your browser, create new folders, rename folders and delete folders.

Click **Volume 1** to see its contents. Here you can create a **New Folder**, **Upload and Download files**, **Delete** and **Rename** files.

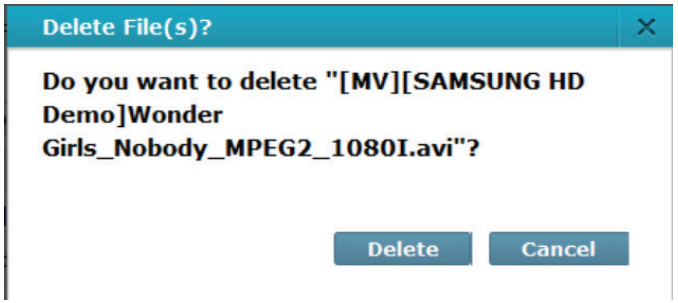


Creating a New Folder

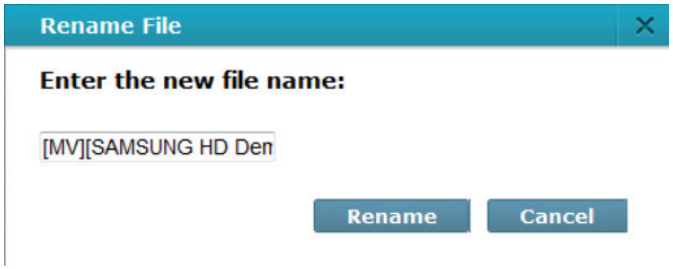
Click the **New Folder** button to create a new folder. Enter a name for the folder and click **Create**.



To delete a folder, click the checkbox next to the file you wish to delete. Click the **Delete** button. A confirmation window will appear for you to confirm the deletion. Click **Delete** to proceed.

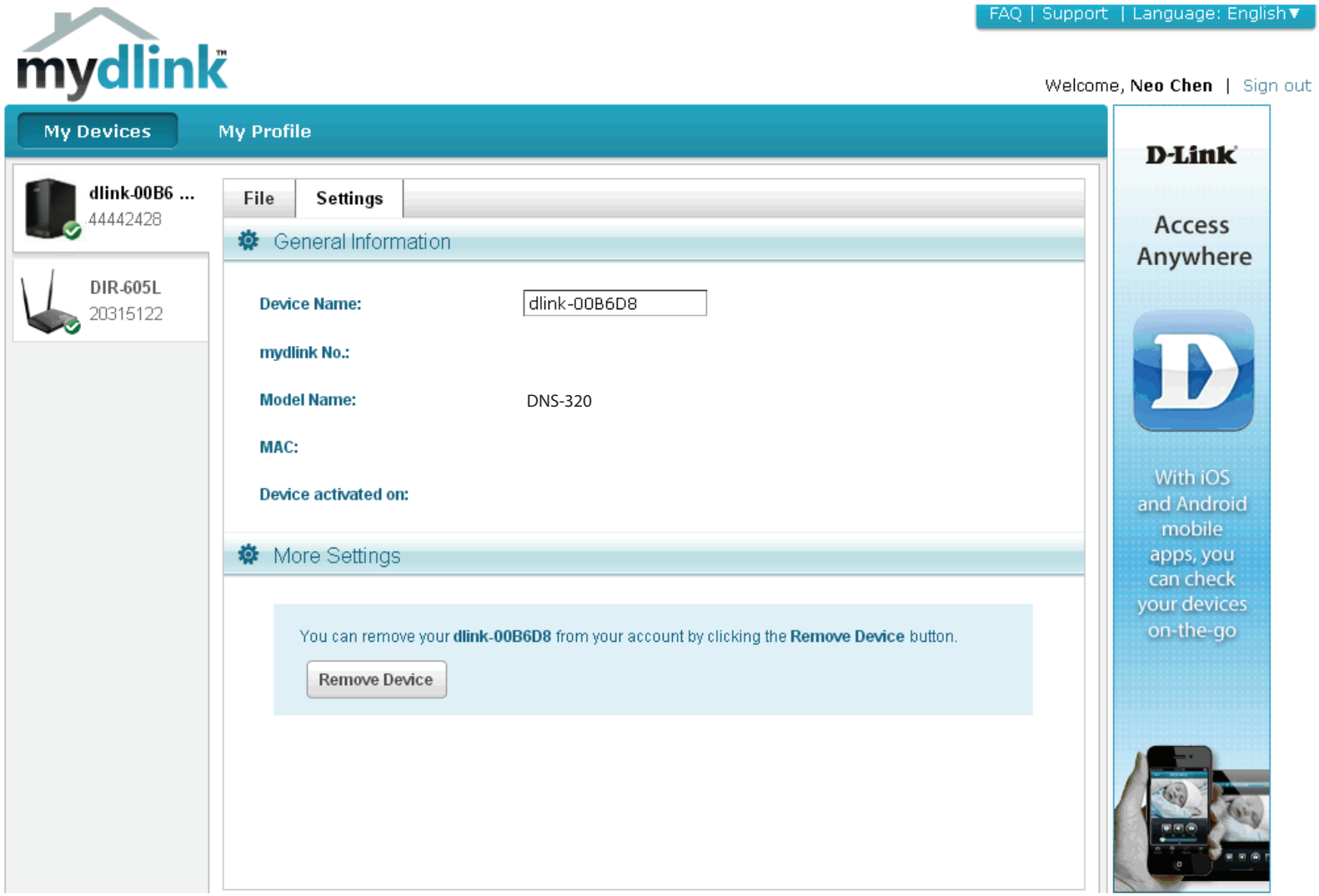


To rename a file or folder, click the checkbox next to the file/folder you wish to rename. Click the **Rename** button. A confirmation window will appear for you to rename the file. Enter a new name and click **Rename**.



mydlink Settings Details

Under General Information you can view the properties of your NAS. On display is the Device Name, mydlink Number, Model Name, MAC address (which is associated with your account and NAS), and Activation time and date. Also viewable is the router you are using and file settings.



ShareCenter NAS Status

Here you can see the online status of your ShareCenter NAS when connected to mydlink. Your online status might be one of the following:

A green checkmark indicates that your ShareCenter NAS is online and ready for use.

A yellow exclaimation point indicates that your ShareCenter NAS is online, but the mydlink password has changed. You will need to enter your new mydlink password to access your ShareCenter NAS again.

A red x indicates that your ShareCenter NAS is offline and currently cannot be accessed remotely.

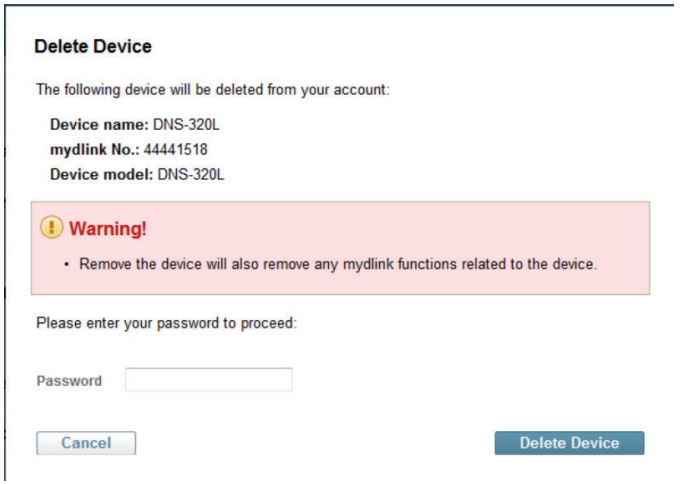
If your ShareCenter is offline, try the following:

- Check to make sure that the internet connection to your ShareCenter NAS is working properly.
- Try restarting your internet router.
- Check your ShareCenter NAS cable connections and make sure they are secure.
- Check to make sure that the LED on your ShareCenter NAS is lit solid blue.

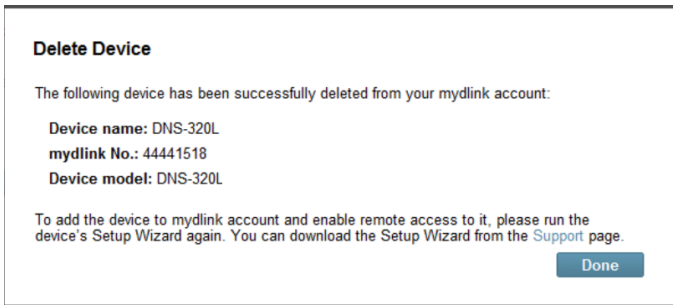
If you still cannot access your ShareCenter, reset your device and run the DNS-320L Setup Wizard again from the CD-ROM included in your package.

Deleting a mydlink device

Select the device you wish to delete. A warning message appears for you to verify your deletion.

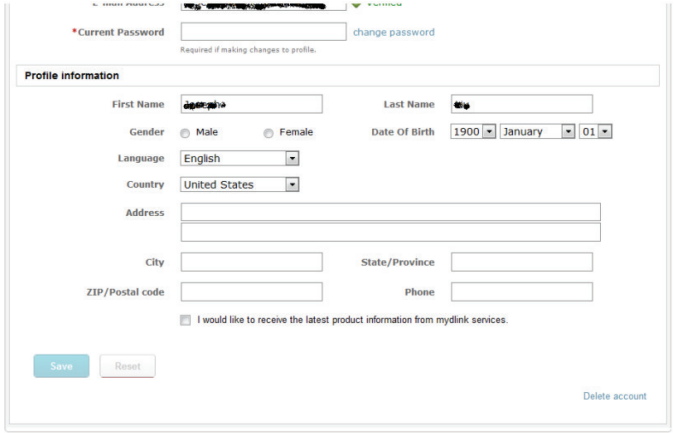


Enter your admin password to delete the device. Click **Delete Device** to proceed. An acknowledgement message appears to confirm the deletion.

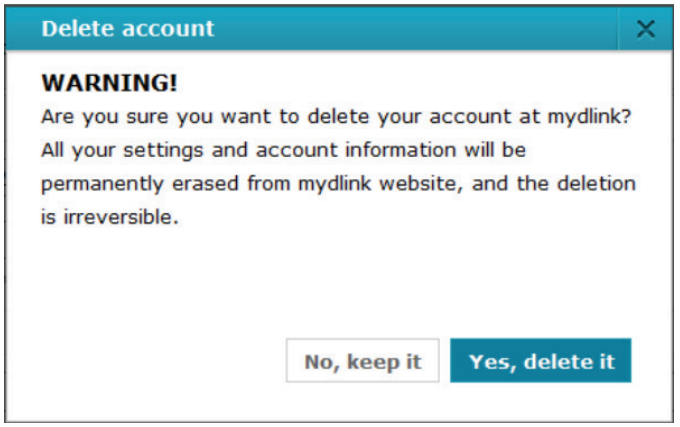


Deleting a mydlink account

Under Profile Information, click the **Delete Account** link at the bottom.

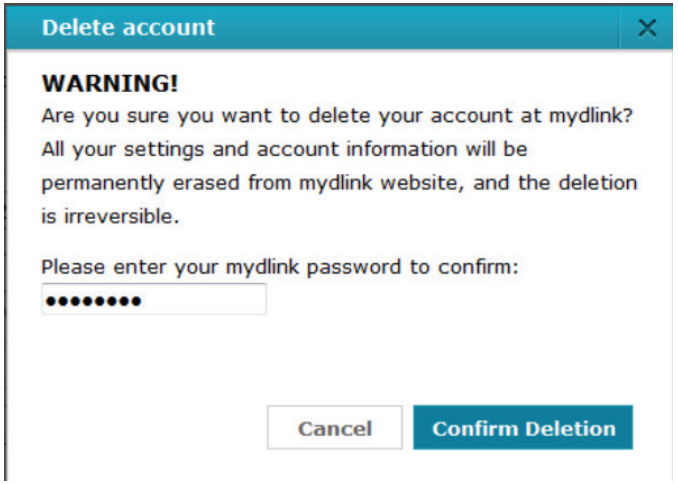


A warning message appears to ask you if you want to delete the account. Select **No, keep it** to do nothing or click **Yes, delete it** to delete the account.

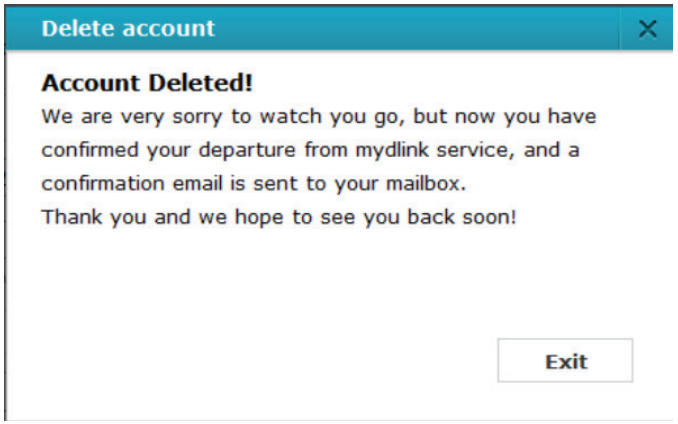


In order to delete the mydlink account you need to enter your password details. Enter your details and then click **Confirm Delete**.

Click **Cancel** to revert back and keep your account.



A confirmation will appear when the account has been deleted.



The mydlink Access NAS App

Access your files anytime, anywhere with your mydlink-enabled ShareCenter NAS and the mydlink Access-NAS app. Stream your stored photos, documents, music, and movies directly to your iPhone, iPad, iPod touch or Android devices using your mobile data connection or Wi-Fi.

The mydlink Access NAS App - Features

The mydlink Access-NAS app enables you to remotely connect to your ShareCenter Cloud NAS over the Internet to open your documents, browse your photo albums, listen to your music collection, or watch your videos at home or on the road. Download files directly to your mobile device for offline access, or back up your photos and videos to your ShareCenter. The mydlink Access-NAS app makes it easy to access and manage your files no matter where you are.

iOS Features:

- Access files stored on your ShareCenter through the Internet
- Stream music and movie files to your iOS device
- Browse through your photos, or view a slideshow of all your images
- Open documents such as Microsoft Office files and PDFs
- Save files to your mobile device for offline playback
- Back up photos and images from your Camera Roll to your ShareCenter Cloud NAS
- Search for specific files on your ShareCenter or on your iOS device
- Rename and delete your files
- Supports "Open in" option to open your files with different apps
- Supports AirPlay for playback of your media on other devices
- Supports AirPrint to print out your documents
- Monitor disk usage and status

Android Features:

- Access files stored on your ShareCenter
- Stream music and movie files
- Browse through your photos, or view slideshows
- Open Office files and PDFs
- Save files to your Android device for offline playback
- Back up photos and images to your ShareCenter
- Search your ShareCenter or Android device for files
- Rename and delete files
- Open files in different apps
- Monitor disk usage and status

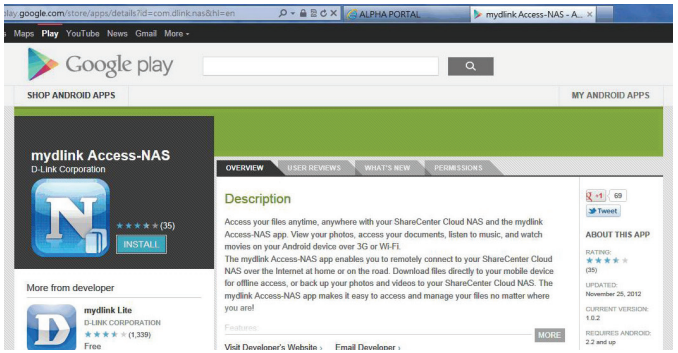
The mydlink Access NAS App - Compatibility

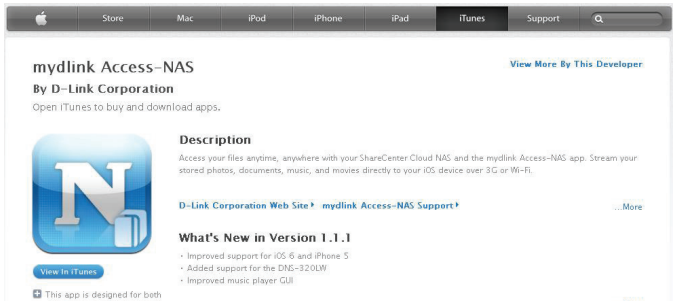
mydlink Access-NAS is compatible with the following models:

- DNS-320 ShareCenter 2-Bay Cloud Network Storage Enclosure
- DNS-320W ShareCenter 2-Bay Cloud Network Storage Enclosure
- DNS-327L ShareCenter 2-Bay Cloud Network Storage Enclosure
- More coming soon!

Note: If you are using a DNS-325 or DNS-345, please use the mydlink Cloud app.

To download the mydlink Access-NAS app, simply search for “mydlink access-NAS” on the iTunes App Store℠ or Google Play™.





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-320L supports Standard, JBOD, RAID 0, and RAID 1.

Standard Standard provides a single volume for each drive.

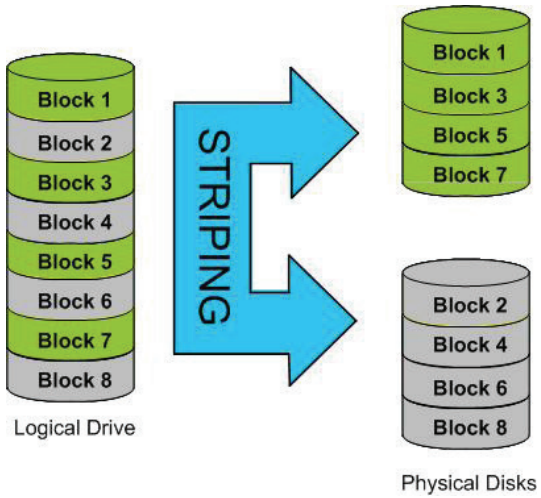
Although performance is improved, the lack of any RAID or mirroring means that if one drive fails, all data on the volume will be lost.

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

It offers no redundancy and limited data protection.

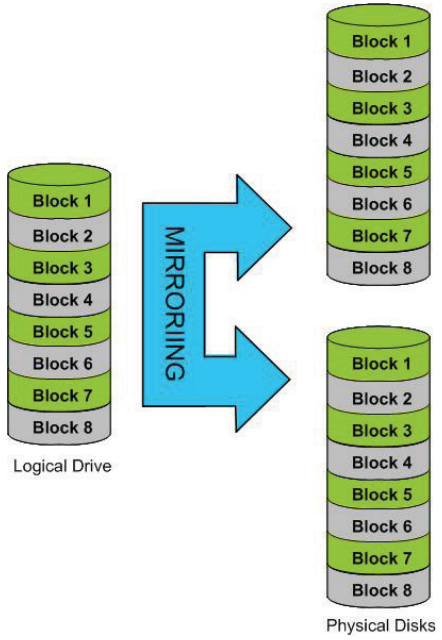
RAID 0 provides data striping, which spreads out blocks of data over all the drives, but does not provide data redundancy.

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

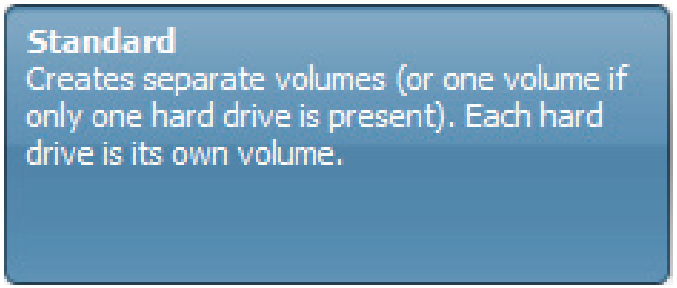
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



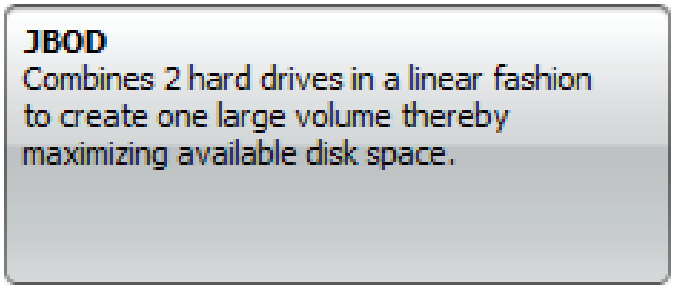
RAID Options

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

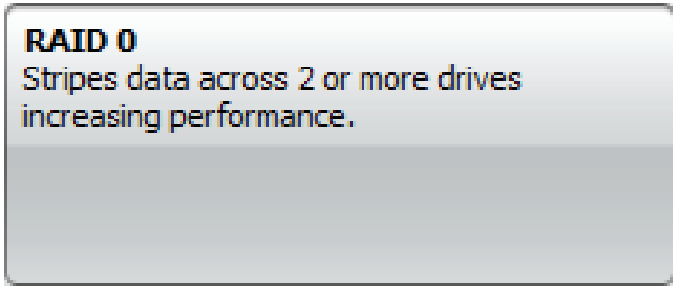
Standard RAID - creates a single volume for one drive or more drives.



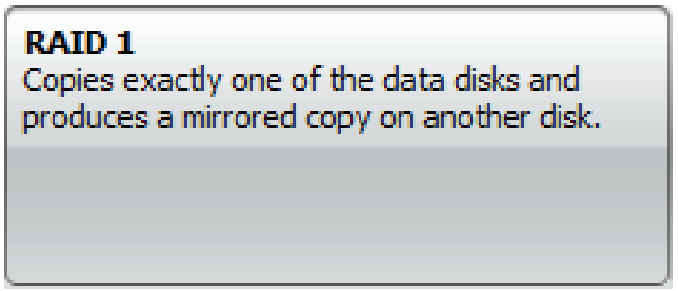
JBOD - allows you to create a large virtual disk drive by concatenating two or more smaller drives together. The individual hard drives that makes up a JBOD RAID can be different sizes and manufacturers. The total size of the JBOD RAID is the combined total of all the individual drives in the set.



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.

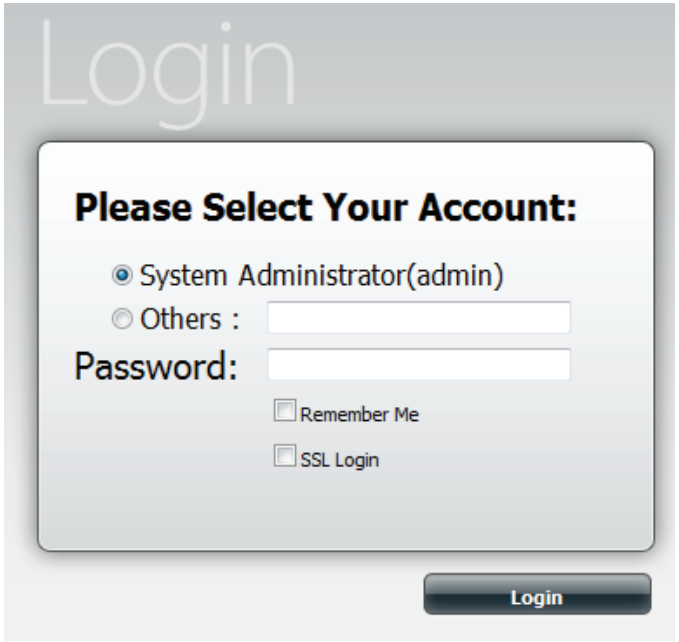


UPS Connectivity

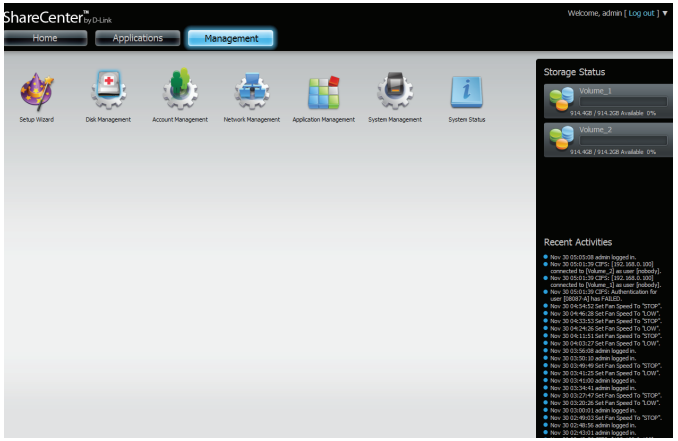
The DNS-320L supports USB UPS, giving users the ability to share the UPS on their local network and protect from an abnormal shutdown due to a power failure. Follow these instructions to connect a UPS to the USB port on the back of the ShareCenter.

Standalone and Network Master Mode:

Log into the DNS-320L.



Click **Management**.

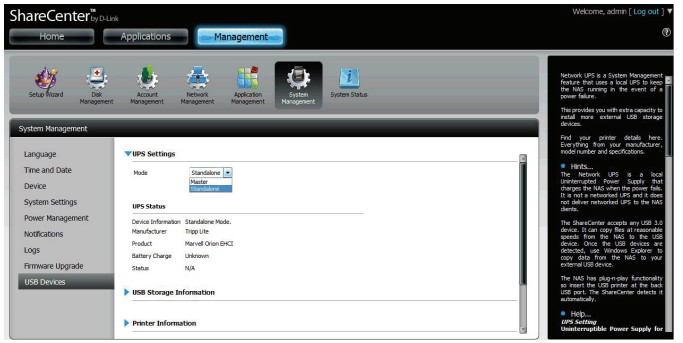


Click **System Management**>>**USB Devices.**

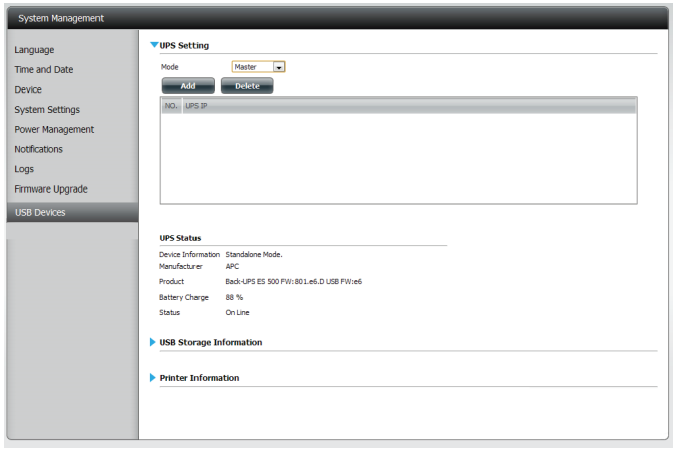
Click the blue arrow next to UPS Settings. There are two modes - **Standalone** and **Master**.

Select **Standalone** to use the UPS only on the DNS-320L, 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**.

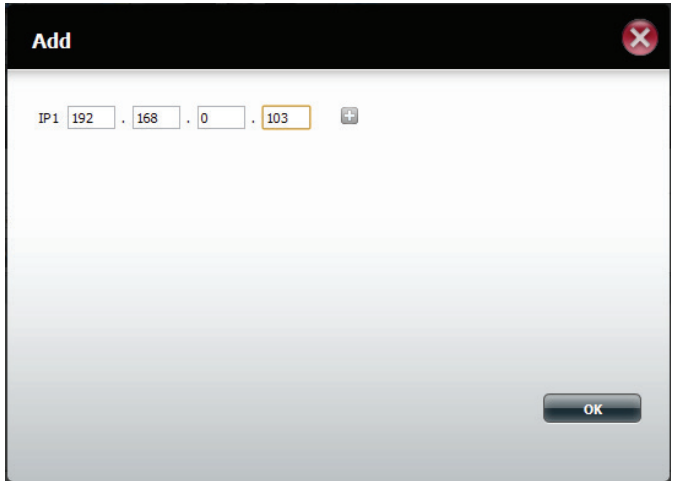


Enter the IP address of the other UPS slave on the network.

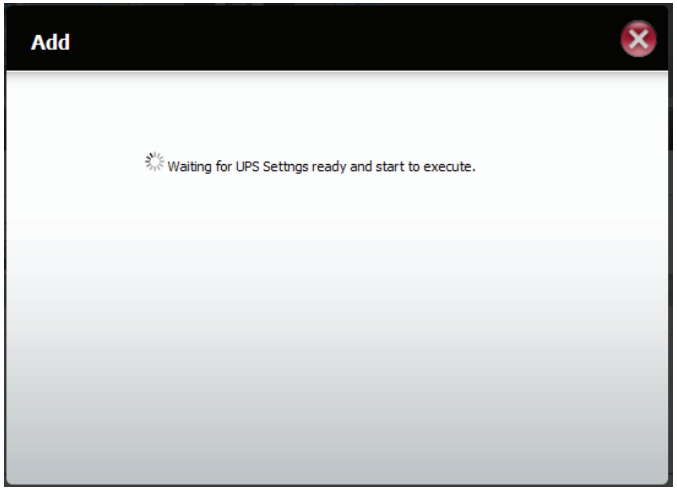
Click the **+** button to add more IP addresses.

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

Click **OK** to continue.

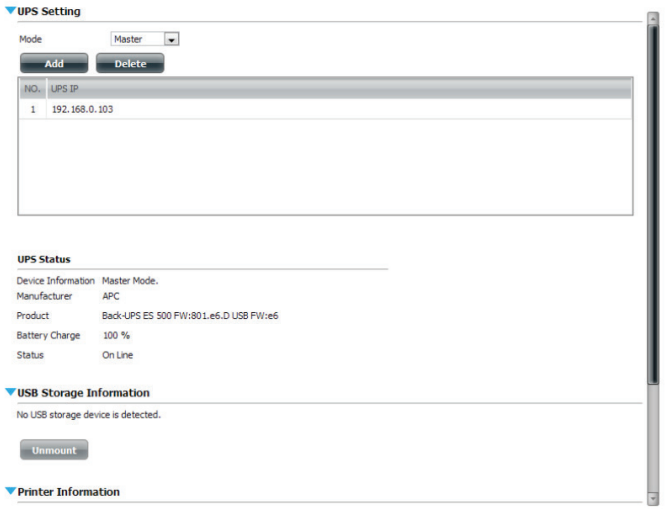


Once you have entered an IP address, the system will check its database for IP address records.



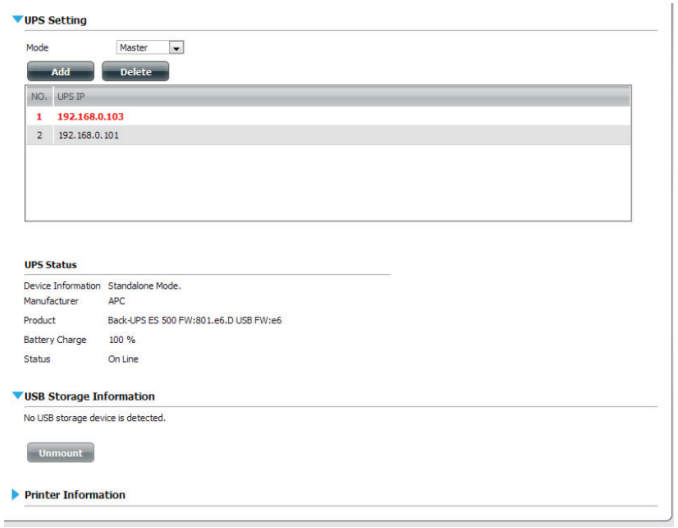
The UPS Settings table will display the IP address(es) you added.

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



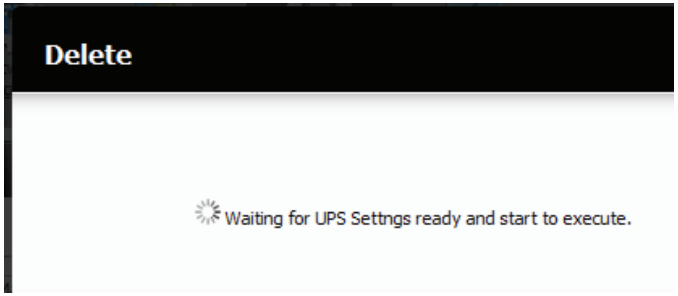
Deleting a UPS Slave

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



Click **Delete**.

The DNS-320L will process your request.



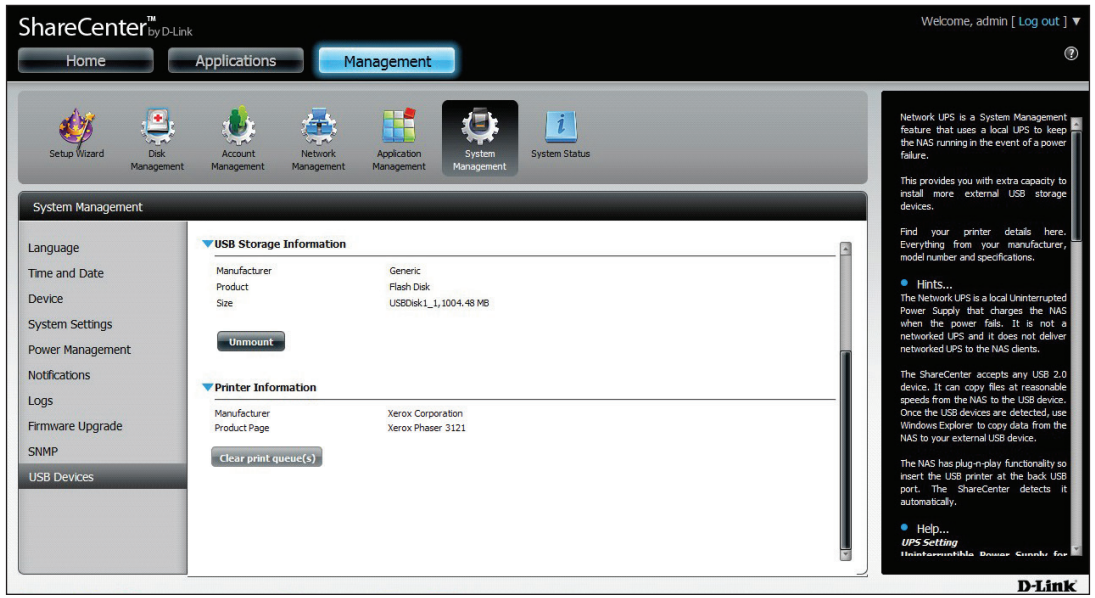
The IP address will no longer be listed in the table.

USB Print Server

The DNS-320L 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.

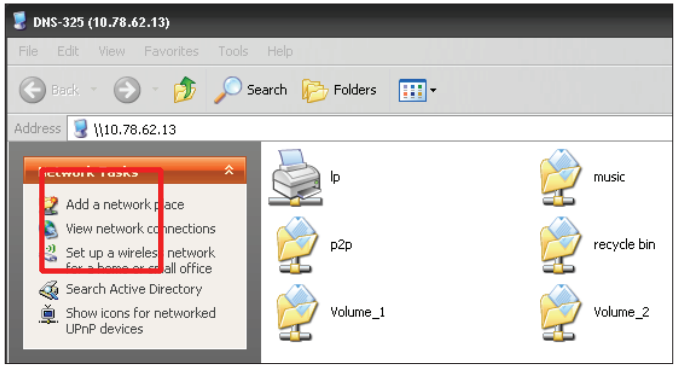
Note: Only the print function is supported. The device does not support the copy and scan functions of multi-function printers.

To add a printer, connect your printer via USB cable to the USB port on the back of the Sharecenter:

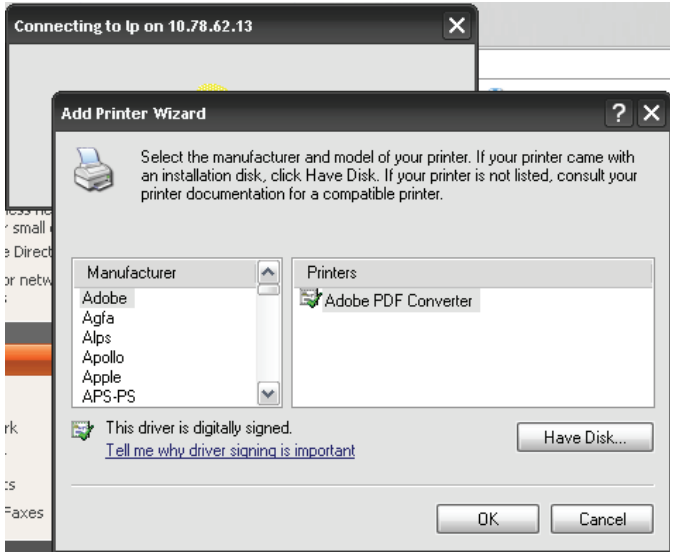


The printer should appear in the USB Devices menu of the System Management tab.

Using Windows Explorer, locate the DNS-320L. The printer should appear as a location on the Sharecenter. Double-click the printer to initiate the installation.



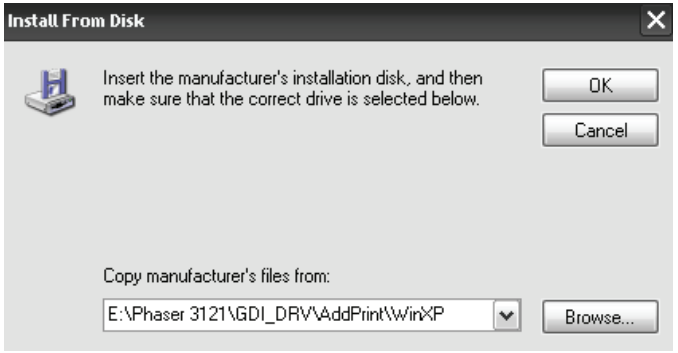
The Windows® Add Printer Wizard will launch:



Select the printer driver from the installed Manufacturer list or use the **Have Disk** button to browse for the printer driver file if you have them on your local hard disk or a CD-ROM.

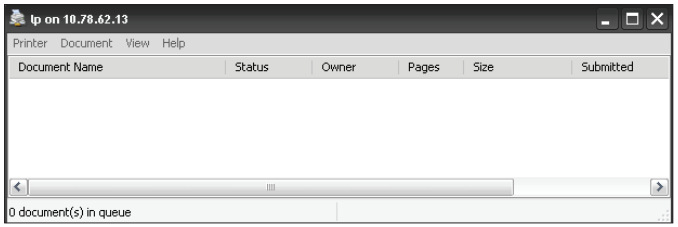
Click **OK** to continue.

If you choose *Have Disk*, you will need to locate the installation file. Click **Browse** to locate the file.



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.

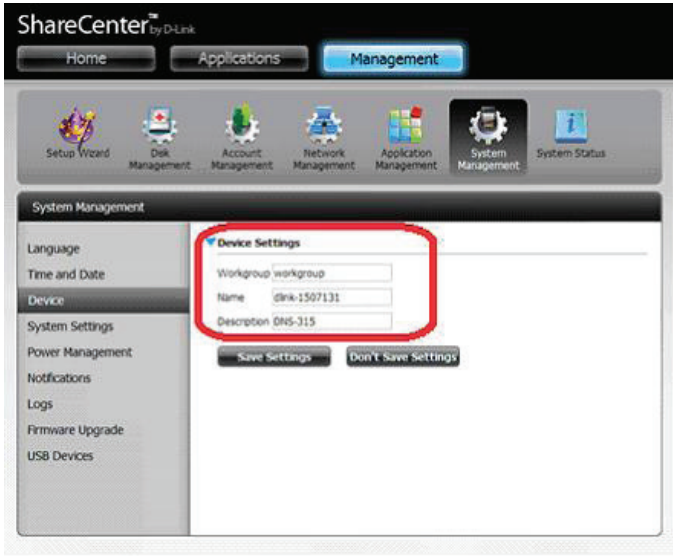


Setting up a Printer Using Mac OS 10.8

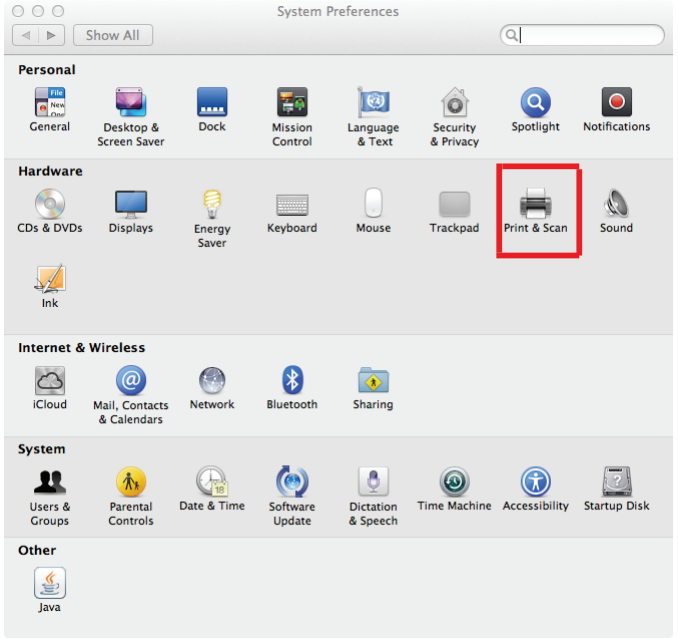
Go to **Management>>System Management>>USB Devices** to view the printer attached to your NAS.

Check the device settings under **System Management>>Device>>Device Settings**.

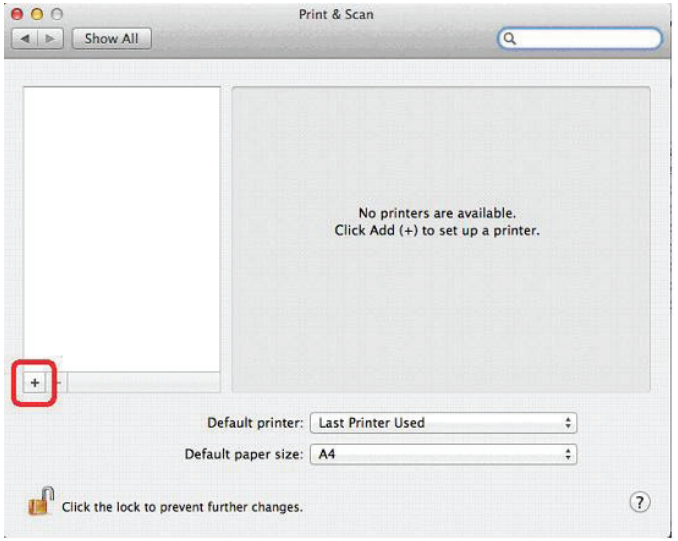
Download the printer manufacturer's drivers, or install them from the CD that came with your printer. You must ensure that you use the correct Mac OS 10.8 drivers. Install these drivers on your Mac.



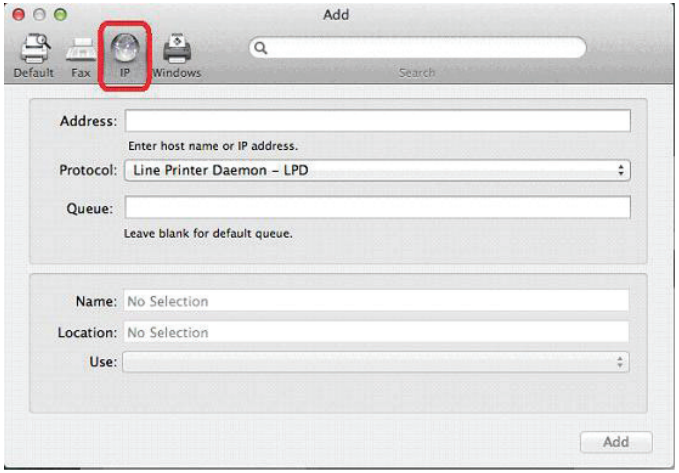
Go to System Preferences>>Print & Scan.



Under **Print & Scan**, click the plus sign.

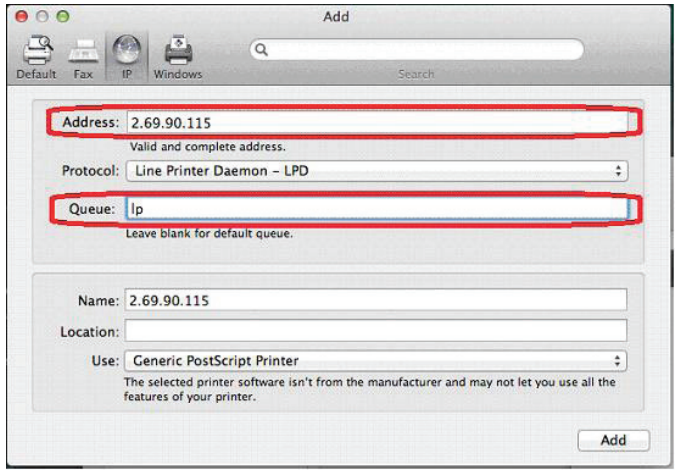


Under **Add Printer,** click the **IP** tab to add the shared printer which is connected to the NAS.

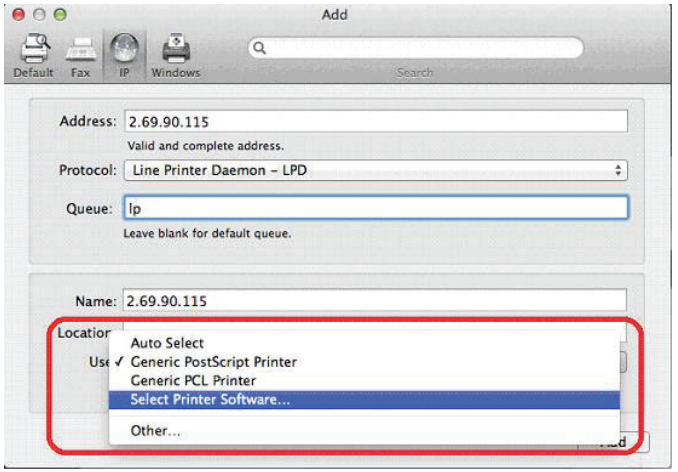


Enter the IP address of the printer and the Queue configuration.

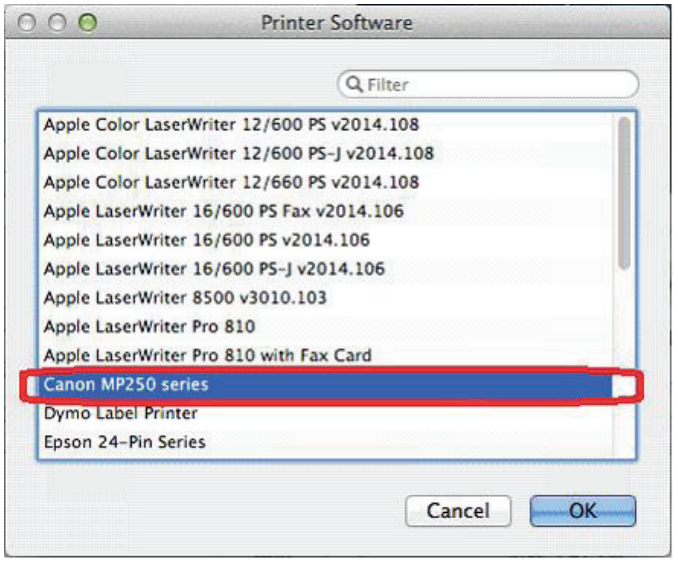
Note: Under the Queue section, enter "lp", (where "lp" stands for Line Printer).



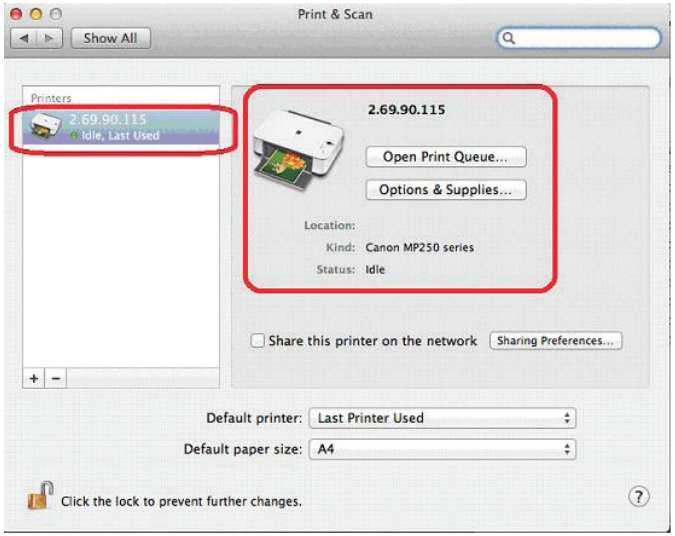
Under Location, choose **Select Printer Software**.



Select your specific printer. (If you cannot find a driver for your printer, please download the driver from the manufacturer's web site and install it.)



The IP printer now appears under Print & Scan. The IP address is clearly visible in the configuration settings.



Technical Specifications

Standards
- IEEE 802.3
- IEEE 802.3ab
- IEEE 802.3u
- TCP/IP
- CIFS/SMB
- NFS
- AFP
- DHCP Client
- DDNS
- NTP
- FTP over SSL/TLS, FXP
- HTTP/HTTPS
- LLTD
- PnP-X
- UPnP AV
- USB 2.0
- Bonjour
- WebDAV

Hard Drive Support
- 3.5" Internal SATA I/II – Support Hard Drive Capacity 4 TB (or above)

Device Interfaces
- 10/100/1000 Gigabit Ethernet port
- 1 USB 2.0 host port

LEDs
- Power
- USB
- HDD 1
- HDD 2
- LAN (on LAN port)

Disk Management Features
- Multiple Hard Drive Configurations
  - RAID 0
  - RAID 1
  - JBOD
  - Standard
- RAID migration from Standard to RAID 1
- Hard Drive Format: EXT4
- Scandisk
- SMART Test
- Supports Advanced Format HDD
- AES-based Volume Encryption(DNS-327L, DNS-340L)
- HDD Hot Swappable

Account Management
- User Account Management
- Group Account Management
- User/Group Quota Management
- Network Access Management
- ISO Mount Management
- mydlink Account Management

Download Management
- HTTP/FTP Schedule Download
- Peer to Peer (P2P) client

Backup Management
- Schedule Backup from PC to NAS (D-Link ShareCenter Sync)
- Schedule Local Backups
- Schedule Remote Backup
- Apple Time Machine support
- USB Backup
- Cloud Backup (Amazon S3, Google Drive, D-Link Vault)

Device Management
- Web-based management utility
- System Setup Wizard (Win / Mac)
- D-Link Storage Utility (Win / Mac)
- Email Notifications
- SMS Notifications
- System/FTP log
- Print Server Functionality
- System Service Management

Power Management
- Power Saving Mode
- Auto Power Recovery
- Schedule Power Off
- Smart Fan Control
- Supports Connection to a UPS (through USB)

File Sharing
- Max. User Accounts: 256 Users
- Max. Groups: 32
- Max. Shared Folders: 128 (without BT)
- Max. Concurrent Samba Connections: 64
- Max. Concurrent FTP Connections: 10

Remote File Sharing
- Web File Server
- FTP Server
- WebDAV
- Mobile Device Access
- mydlink Portal Access

Power
- Input: DC 12 V/3 A
- Consumption:
  - Normal Mode: 25.8 W
  - Sleep Mode: 7 W

Temperature
- Operating: 0 to 40 ˚C (32 to 104 ˚F)
- Storage: -20 to 70 ˚C (-4 to 158 ˚F)

Operating Humidity
- 5% to 90% non-condensing

Dimensions
- (W x D x H): 90 mm x 144.3 mm x 193.3 mm (3.54 x 5.68 x 7.61 inches)

Weight
- 640 grams (1.41 lbs)

Multilingual Support
- Samba: Unicode

- FTP Server:
  - Unicode
  - Korean
  - Turkish
  - Croatian
  - Cyrillic (Kyrgyz Republic)
  - Czech
  - Danish
  - Dutch
  - English
  - Finnish
  - French
  - German
  - Greek
  - Hungarian
  - Italian
  - Norwegian
  - Polish
  - Portuguese
  - Romanian
  - Russian
  - Simplified Chinese
  - Slovenian
  - Spanish
  - Swedish
  - Traditional Chinese
  - Turkish
  - Korean
  - Hebrew