D-Link®
Building Networks for People

DNS-1200-05

Version 1.2

# ShareCenter Pro™

# User Manual

Business Class Networking

# Table of Contents

# Introduction

The D-Link ShareCenter Pro 1200 (DNS-1200-05) unified network storage device addresses the ever-growing data storage requirements for small and medium business (SMB) users. The need for data consolidation and data sharing make this enclosure an ideal solution for SMBs looking for a central storage location for sharing or backing up data. SMBs will appreciate the ease of use of the NAS file server feature as well as the fast access performance of iSCSI. The ShareCenter Pro 1200 is a hybrid NAS/iSCSI storage enclosure that offers concurrent NAS/iSCSI functionality.

The included CD contains D-Link's Easy Search Utility. This utility allows you to locate the ShareCenter Pro on the network and map drives to your computer. Backup software is also included on the CD. This software allows you to back up your files from a computer to the ShareCenter Pro manually, by a schedule, or in real-time. Real-time backups are a great way to safeguard against unfortunate accidents that may result in the loss of important files.

# Product Overview

## Package Contents

- D-Link ShareCenter Pro 1200
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Cord
- Cat5 Ethernet Cable
- Front Panel Lock Key

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

**Note:** The ShareCenter Pro 1200 should only be maintained by the authorized server manager or IT administrator. The ShareCenter Pro 1200 should be locked using the Front Panel Key. Only certified staff who have the Key are allowed to unlock it.

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

# System Requirements

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

- Computer with: 1Ghz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer version 6.0 or Mozilla Firefox 1.0 and above
- Windows® XP (with Service Pack 2) or Vista™
- 3.5" SATA Hard Drive(s)

# Features

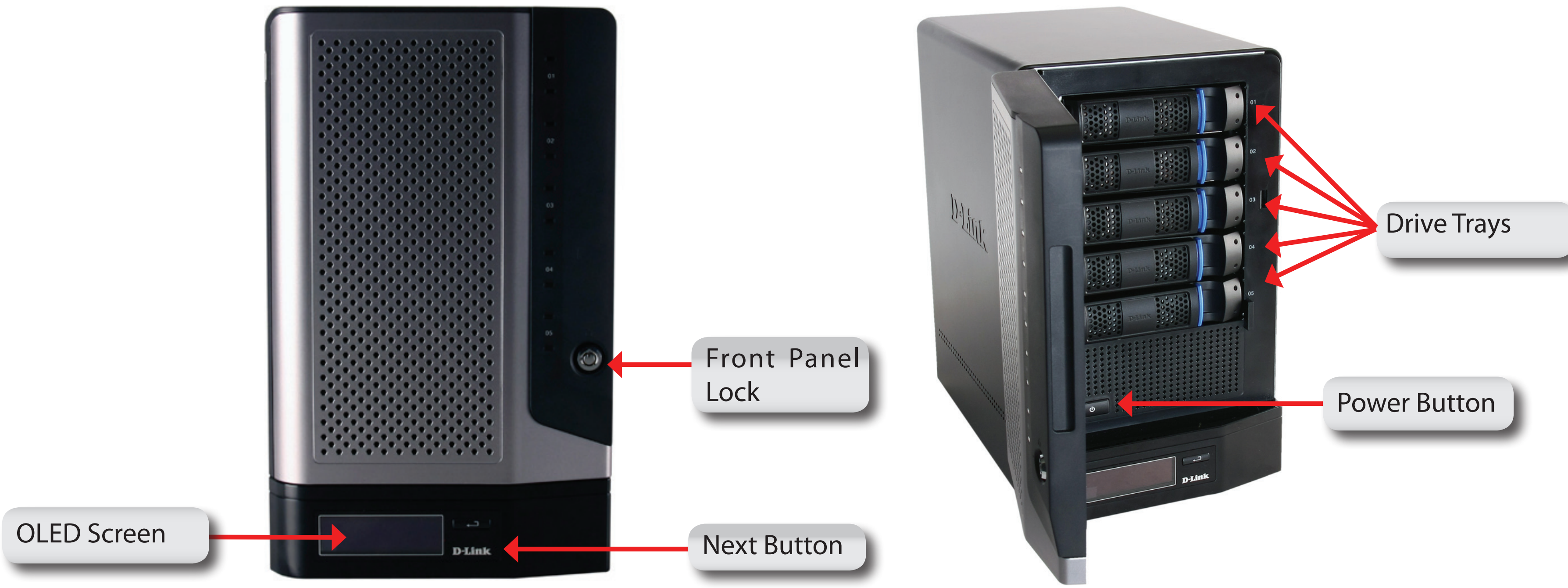
The ShareCenter Pro 1200 unified network device is packed with a wide variety of features geared toward the small and medium business environment. Some of these features are listed below:

- Five 3.5-inches SATA Standard Drive with capacity support up to 3 TB
- 2 Gigabit Ethernet ports
- 2 USB 2.0 ports
- UPS, printer, and external storage support
- Concurrent iSCSI/NAS: Offering solutions for supporting both file sharing by NAS function and access performance by iSCSI block device
- Data Protection: Supports RAID 0/1/5/5+Spare/6/JBOD and S.M.A.R.T. disk diagnostic.
- Ease of Use: iSCSI targets appear as a local drive on your client PC. Access NAS files via the easy-to-use Web file manager.
- Accessibility: Share files across the network or over the Internet via FTP or the Web file manager.
- Security: Create users, groups, and iSCSI targets with password authentication.
- Account management: Manage users/groups and Read/Write permission
- iSNS
- Virtual Disks
- Thin-provisioning
- DDNS
- Volume Snapshot
- Up to 64 iSCSI Targets
- SNMP (D-View 6.0 compatible)
- CHAP
- Link Aggregation
- Fail-over/Fail-back
- VLAN tag Support
- DFS Support
- AES Support
- FTP / FXP w/ TLS/SSL
- NFS
- ADS support
- Backup
- Remote backup
- Local backup
- External backup
- PC client to NAS backup
- Web File Manager
- Print server
- Scheduled downloads from Web or FTP sites.
- Power management to conserve energy and extend hard drive life.
- Schedule power on/off
- Hard disk hibernation
- SMART for hard disk health scan
- D-Link Green Ethernet
- Resource Monitor
- Multi-LUNs per Target
- Supports LUN Mapping & LUN Masking

- Supports MPIO
- Supports MC/S
- Supports Windows Server 2008 Hyper-V
- Network access by service
- AFP support
- Syslog server
- Network UPS
- ISO mount
- WebDAV
- Amazon S3
- IPv6
- Connection Status
- Port Forwarding

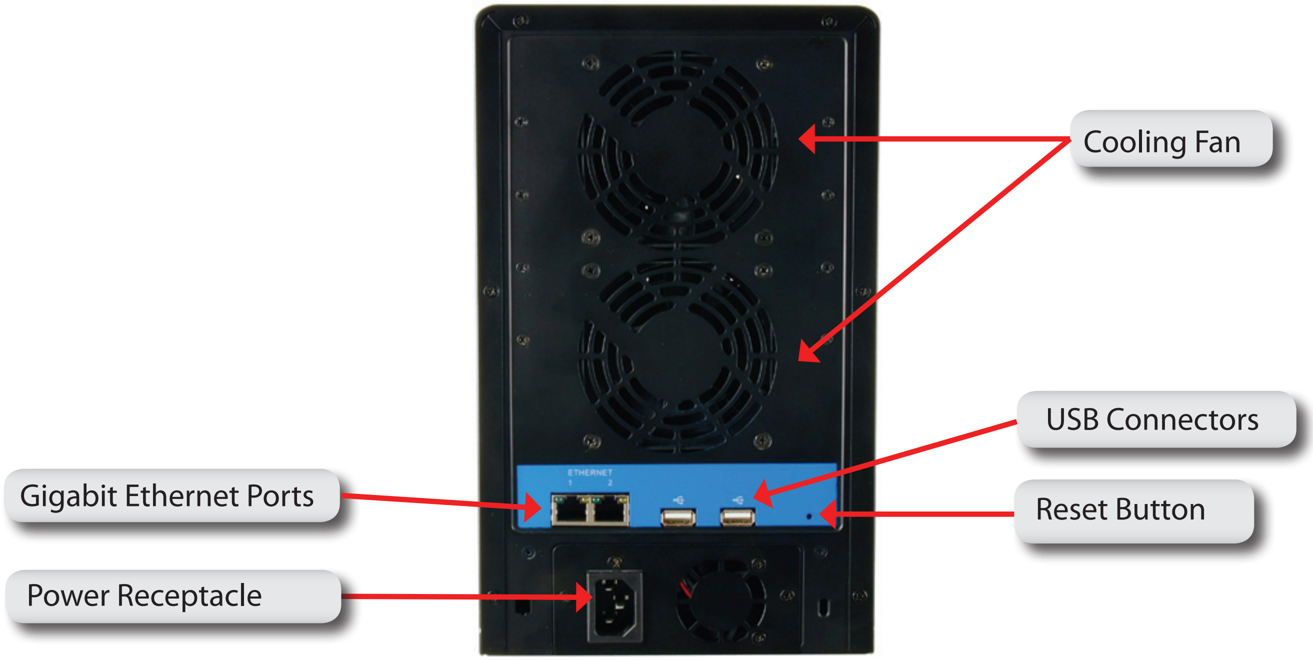
# Hardware Overview

## Front Panel




| COMPONENT | DESCRIPTION |
|---|---|
| Front Panel Lock | Turn key to up position to unlock. Turn key to left position to lock. |
| OLED Screen | This screen displays detailed information about the following:<br>System Information, HD Volume Information and Error Messages |
| Next Button | Use this button to display the System Information, HD Volume Information, and Error Messages on the OLED.<br>Press the button once to alternate between the different Status screens. |
| Drive Trays | Use the screws to fasten the SATA hard drives with the trays and insert to the ShareCenter Pro |
| Power Button | Use this button to switch the device on or off.<br>To switch on the device press the button once.<br>To switch off the device hold the button down for 5 seconds. |

# Rear Panel (Connections)




| COMPONENT | DESCRIPTION |
|---|---|
| Gigabit Ethernet Port | Use the Gigabit Ethernet Port to connect the ShareCenter Pro to the local network. |
| Power Receptacle | Connect the supplied power cord to the receptacle. |
| USB Connector | Two USB 2.0 (Type A) connectors. The USB Host ports are for Print Servers, USB memory disks or USB UPS monitoring. |
| Reset Button | Press this button for more than 5 seconds to reset the unit to factory defaults. |
| Cooling Fan | The cooling fan is used to cool the hard drives and feature speed control. When the unit is first powered on the fans rotate at a low speed and rotate at a high speed when the temperature rises above 36 °C. |

# Using the OLED

The ShareCenter Pro features an OLED that enables the administrator to easily view information about the ShareCenter Pro. The OLED display screen displays the system information, hard drive volume information and error messages. The OLED has three different screens:

- **System Information**- This screen shows the following information:
    - The hostname of the ShareCenter Pro
    - The IP address of the ShareCenter Pro
    - The hard drive slots information

- **Hard Drive Volume information**- This screen shows the following information:
    - The percentage of space used on the hard drives.

- **Error Messages**- This screen shows error messages when there is any system failure.

Press the  button once to alternate between the different **Status** screens.

# Installation

## Hardware Setup

Follow the instructions below to install a hard drive, connect to the network and power on the ShareCenter Pro. Open the shipping carton for the ShareCenter Pro and carefully remove and unwrap its contents. Follow the instructions below to setup the ShareCenter Pro. If this is the first time using the ShareCenter Pro or if a new hard disk is installed, use the Easy Search utility located on the Installation CD and follow the instructions for setting up, configuring and formatting the new drive.

To install ShareCenter Pro on your local network, refer to the steps below:

1. Put a 3.5" SATA hard drive into a drive tray and use screws to fasten the hard drive with the tray. There are four holes for fastening the screws. Two holes are circled in red in the image, and the other two holes are on the other side of the drive tray.

2. Open the faceplate to access the drive bays.

3. Insert the tray into a bay.

4. Depress the blue button to lock it into place.

5. Connect an Ethernet cable to the available Ethernet port. This cable should connect the ShareCenter Pro to your local network via a router or switch, or directly to a computer for configuration.

6. Connect the supplied power adapter to the power receptacle.

# Configuration

# Easy Search Utility

When first powered on, during the initial boot sequence, the ShareCenter Pro will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned IP address in the range of 169.254.0.0 to 169.254.255.255. It is recommended to use the included D-Link Easy Search Utility when accessing and configuring the ShareCenter Pro for the first time. If you want to change the IP address before logging in or are unable to connect to the ShareCenter Pro IP address, you can use the Easy Search Utility provided on the product CD to locate the device on your network and make any needed changes.

**Network Storage Device** The Easy Search Utility displays any ShareCenter Pro devices it detects on the network here.

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

**Configuration** Click **Configuration** to access the Web based configuration of the ShareCenter Pro

**LAN** Configure the LAN Settings for the ShareCenter Pro here.

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

**iSCSI Drive Mapping** Displays the available iSCSI targets on ShareCenter Pro.

**Connect** Click **Connect** to connect to the iSCSI target.

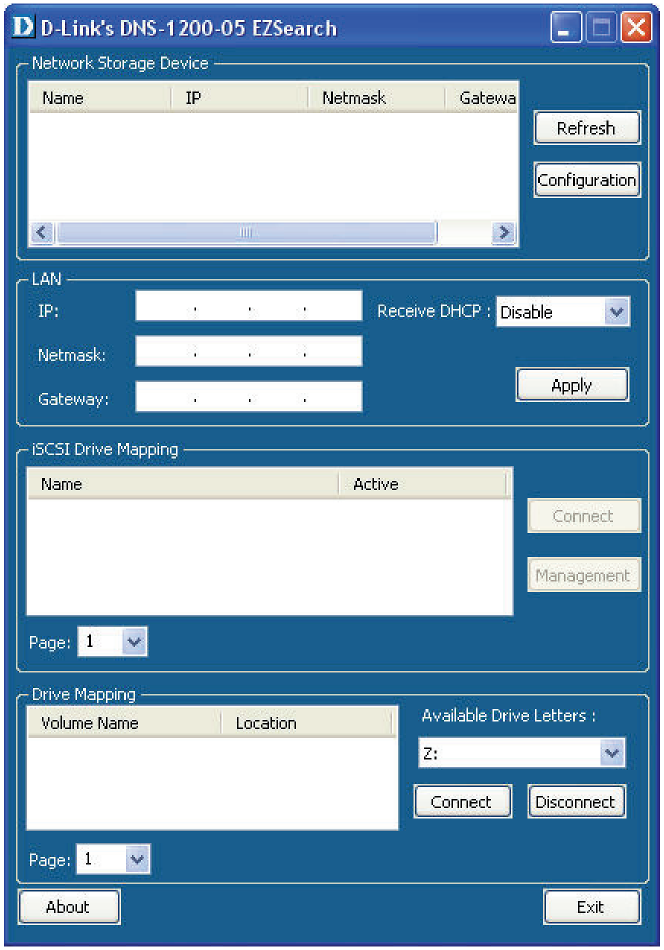
**Management** Click **Management** to edit the information.

**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.

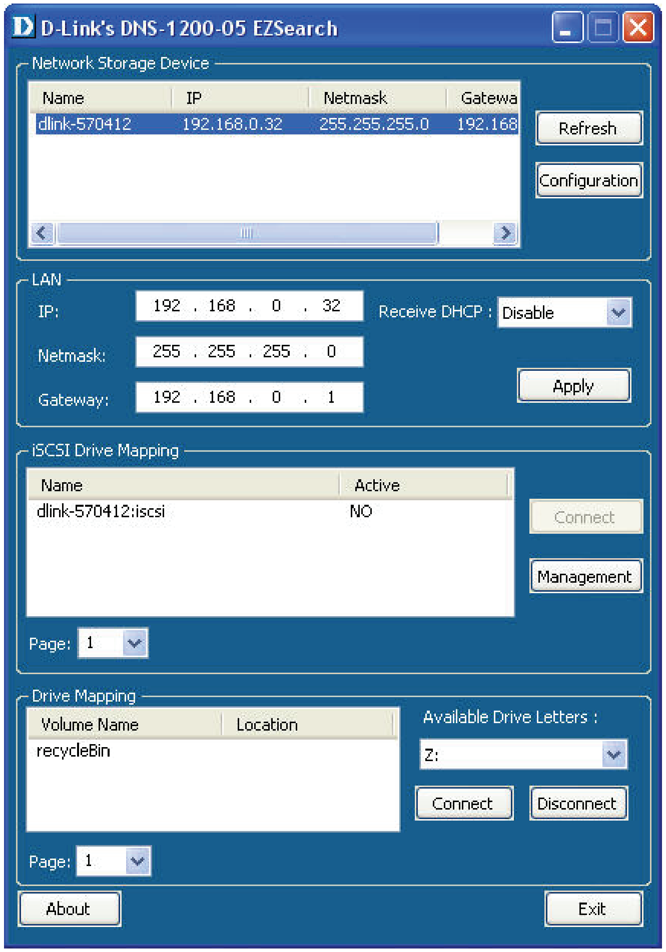


# Getting Started

To run the Easy Search Utility, insert the ShareCenter Pro CD into your CD-ROM drive:

Click Easy Search Utility.

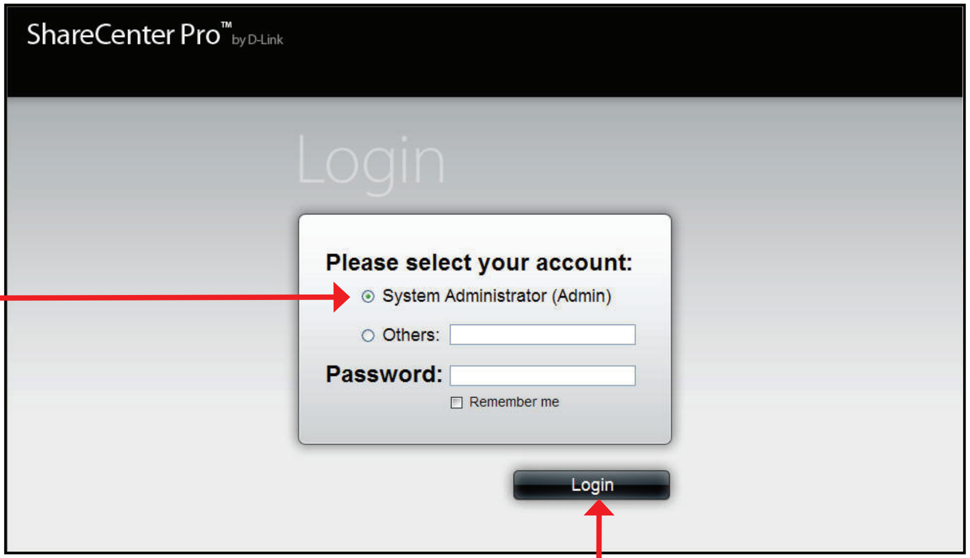
Select the listed ShareCenter Pro and click the **Configuration** button. This will launch the computer's default web browser and direct it to the IP address listed for the device. Make sure the browser is not configured to use a proxy server.




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

The Login screen will appear:

Select **System Administrator** and leave the password field blank.

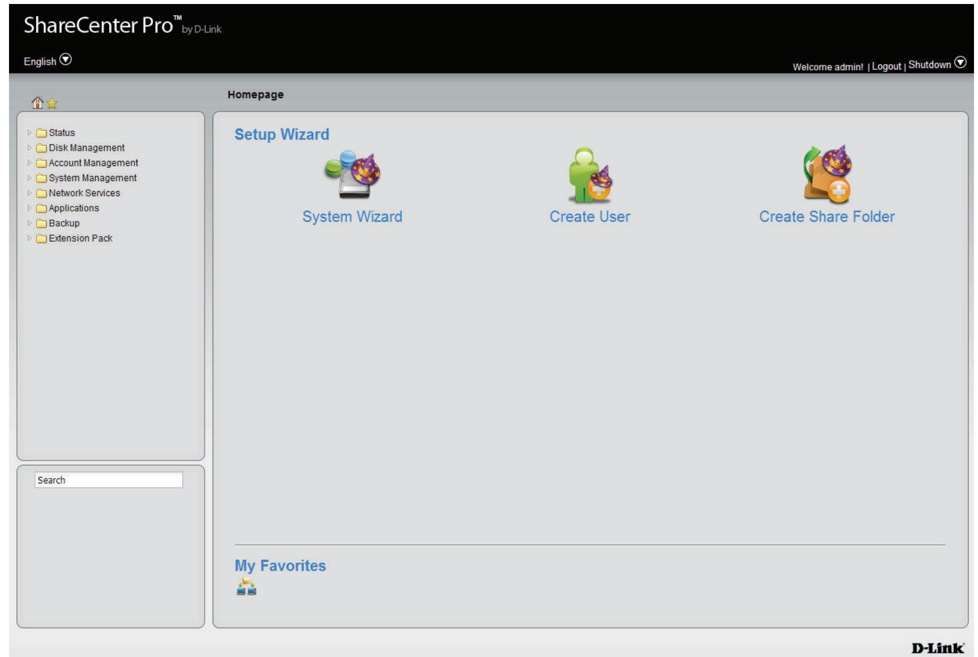



Click **Login.**

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

# Web UI

The ShareCenter Pro Web UI defaults to the Create Volume page, if there is no hard disk volume has been created. Once a volume has been created, the web UI defaults to the Homepage (). The main categories for configuration are located in the folders at the left of the page. Click the folder icon to see the categories of the folder. The categories available for configuration include:




- **Homepage-** Contains the System Wizard, Create User, Create Share Folder and My Favorites.
- **Status-** Contains the System Status and Hard Drive Status.
- **Disk Management-** Allows the ShareCenter Pro administrator to create or configure the Volume, iSCSI Target Virtual and Volume, and perform Disk Diagnostic.
- **Account Management-** Allows the ShareCenter Pro administrator to configure Admin Password, Users, Groups and Share Folders
- **System Management-** Contains Network, Time and Date, System Settings, Power Management, Email Alerts, Firmware Upgrade and Logs.
- **Network Services-** Contains File Sharing, Dynamic DNS, SNMP and Network Discovery Services.
- **Applications-** Contains Web File Manager and Download Management.
- **Backup-** Contains Volume Snapshot, Local Backup, Remote Backup and External Backup.

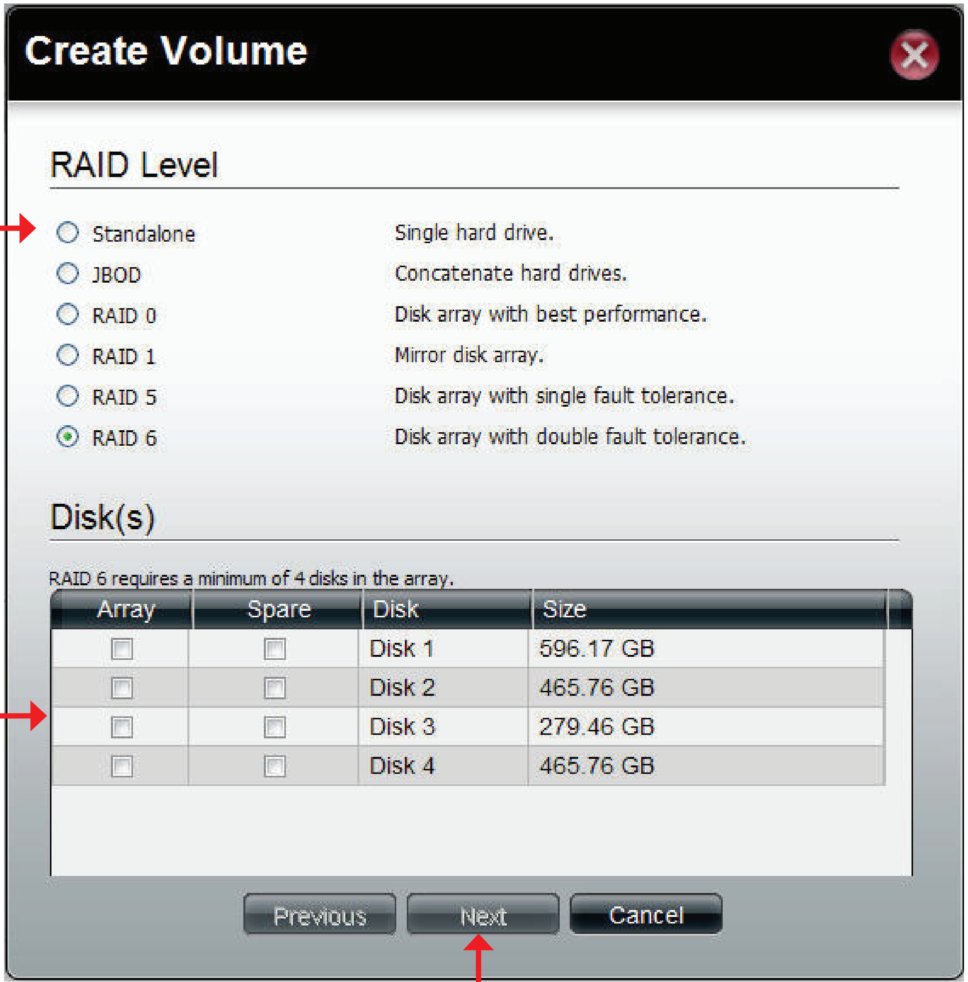
These pages and their configuration options will be discussed in detail in the following pages of this manual.

**Note:** After logging in to the ShareCenter Pro for the first time it is recommended to add a password to the admin account.

This screen appears when new hard drive(s) is inserted and no RAID has been configured.

Select the configuration type of the volume, **Standard**, **JBOD**, **RAID 0**, **RAID1**, **RAID5** or **RAID 6**.

Tick the corresponding check box to select the hard disk(s) in the array and spare.

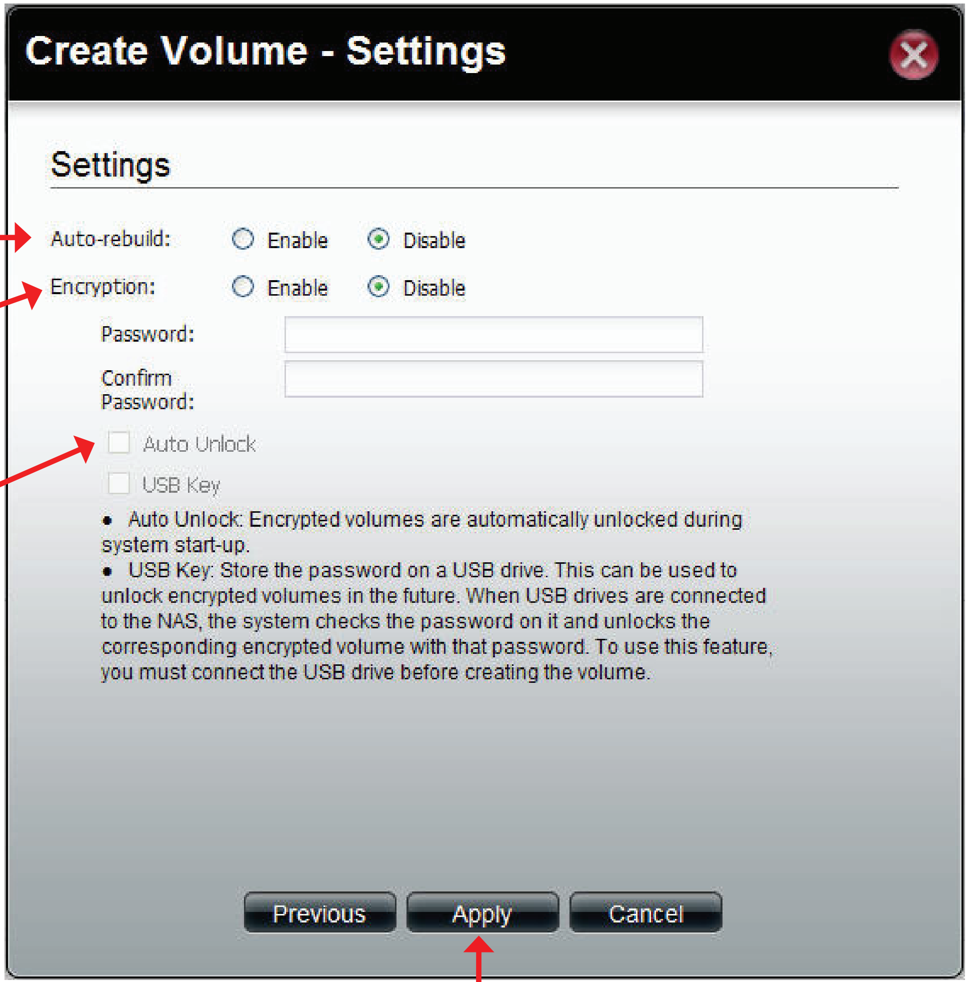



Click **Next** to continue.

Select to enable or disable the auto-rebuild function of RAID 1, RAID 5, or RAID 6.

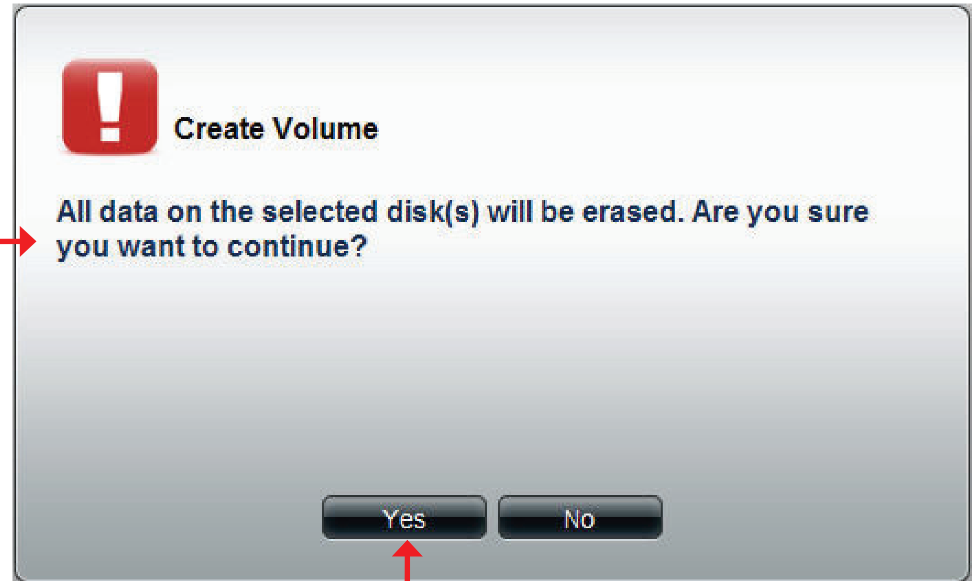
Click the **Enable** radio button to encrypt the volumes. Enter a password in the **Password** and **Confirm Password** fields.

Tick the **Auto Unlock** check box to automatically unlock the volume when the system starts. Tick the **USB Key** check box to save the password to a USB drive.



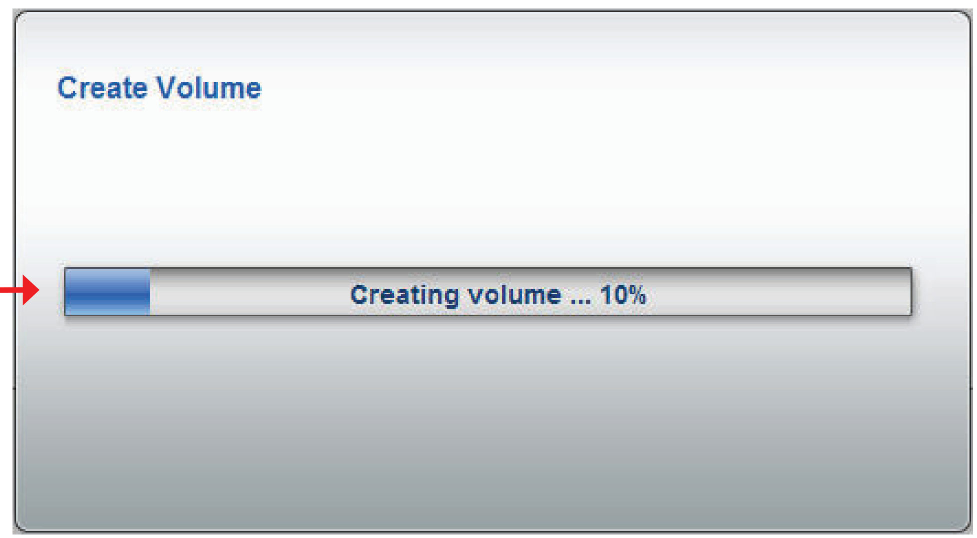

Click **Apply** to continue.

A warning message appears before starting to create the volume.

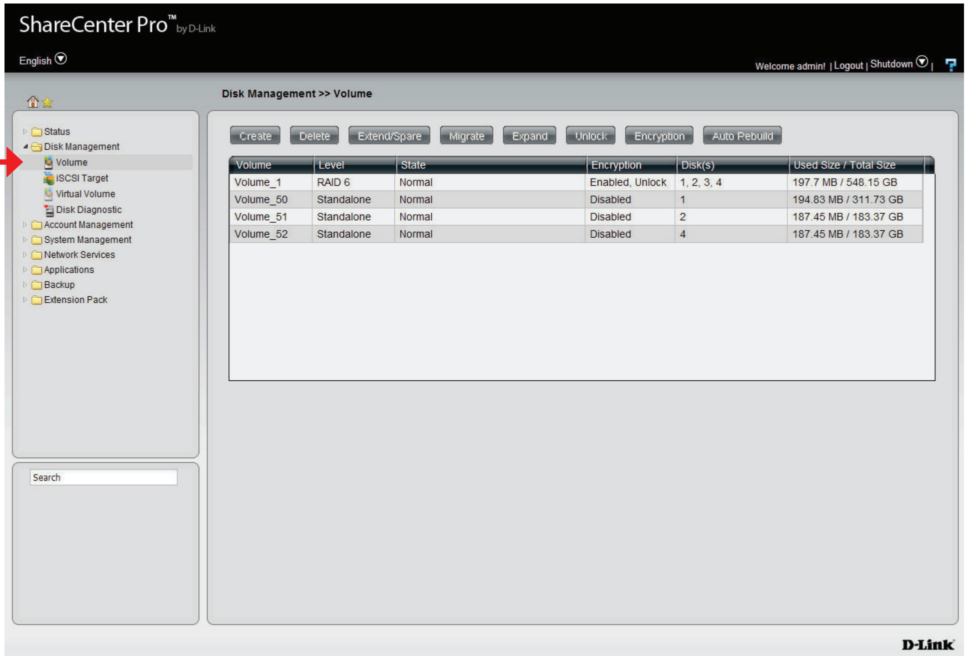



Click **Yes** to continue.

The volume is being created. The status bar displays the percentage of completion in real time.

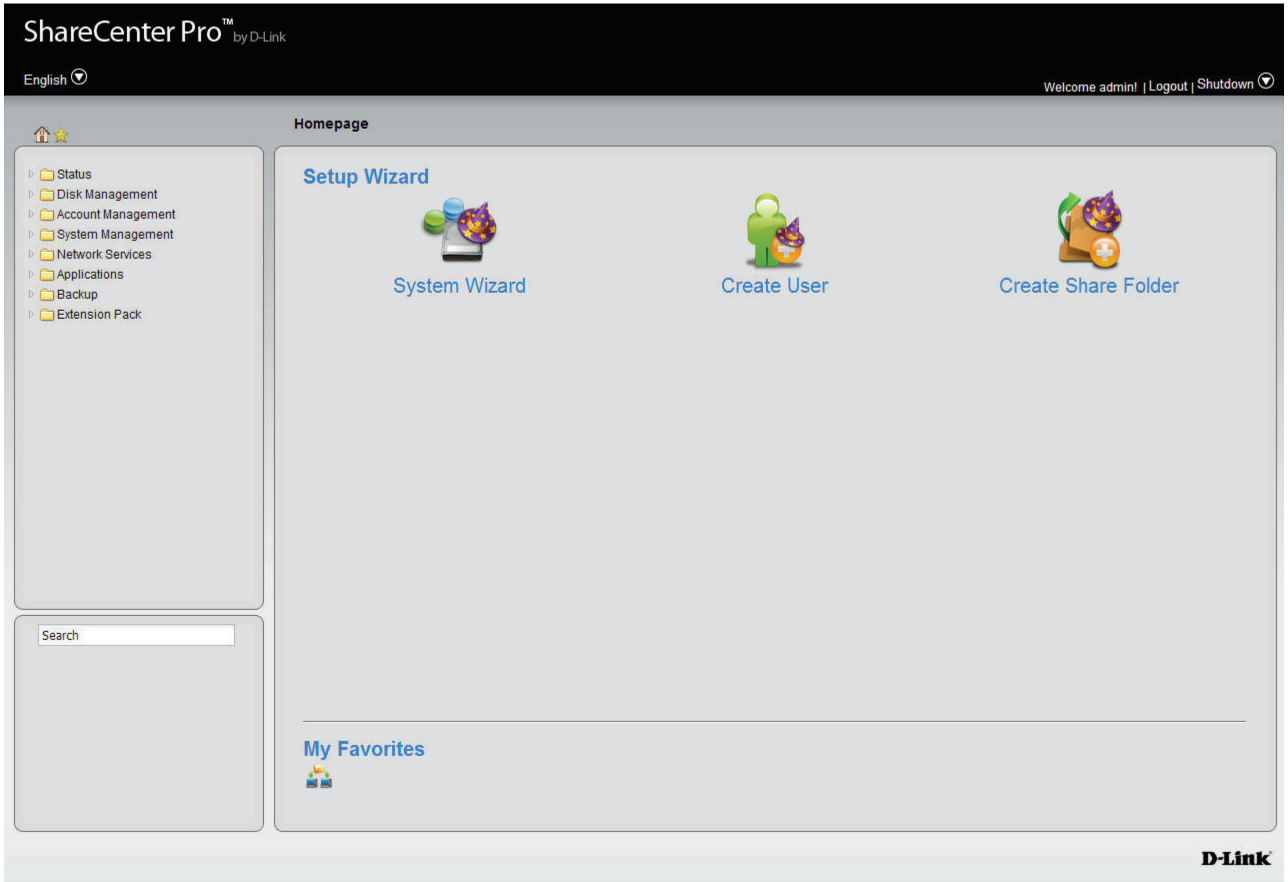


Once the volume is created, the Volume page opens to show the information.



# Homepage

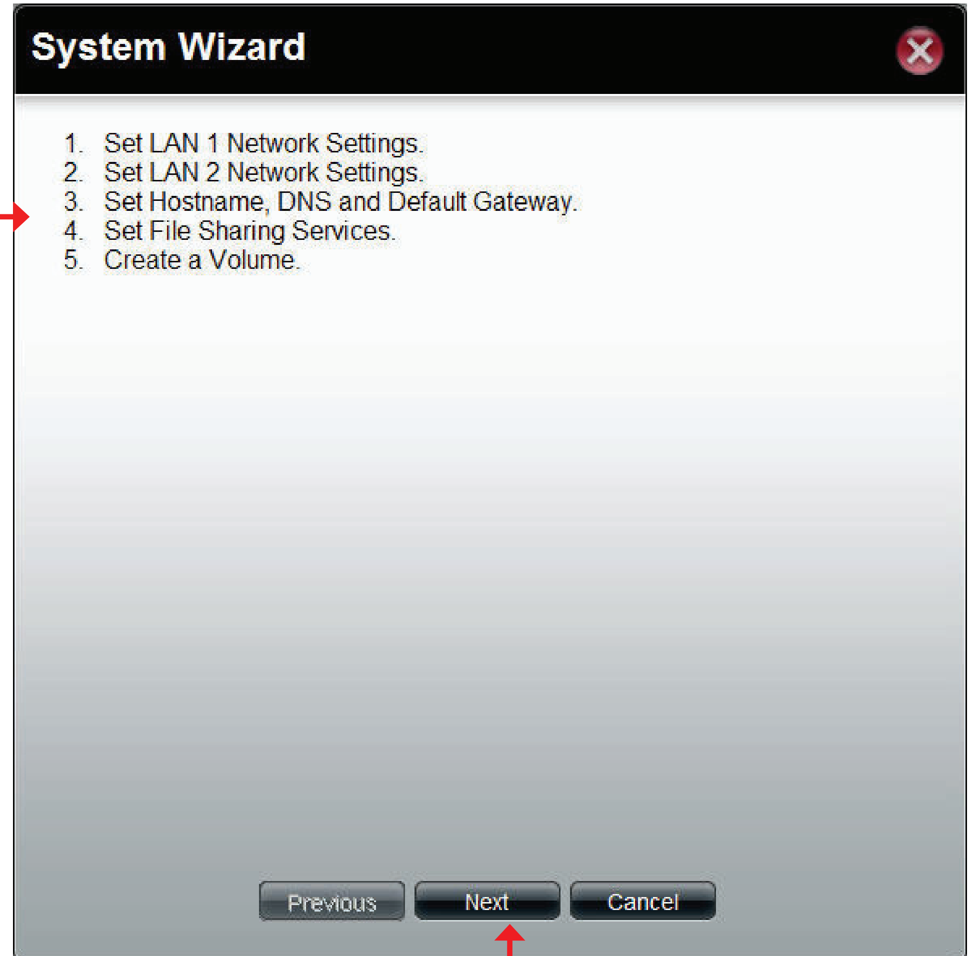
This page contains the System Wizard, Create User, Create Share Folder and My Favorite. Click the  (Homepage) icon to see the subcategories. This window provides quick access to the Setup Wizard and the My Favorites section. Users can add the most frequently used functions to My Favorites and quickly access these functions by clicking the icon or selecting from the  (My Favorites) drop-down list.



# System Wizard

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

When running the ShareCenter Pro System Wizard, the welcome screen details the five steps of the wizard.




Click **Next** to continue.

This window can configure the LAN 1 settings.


Click **Next** to continue.

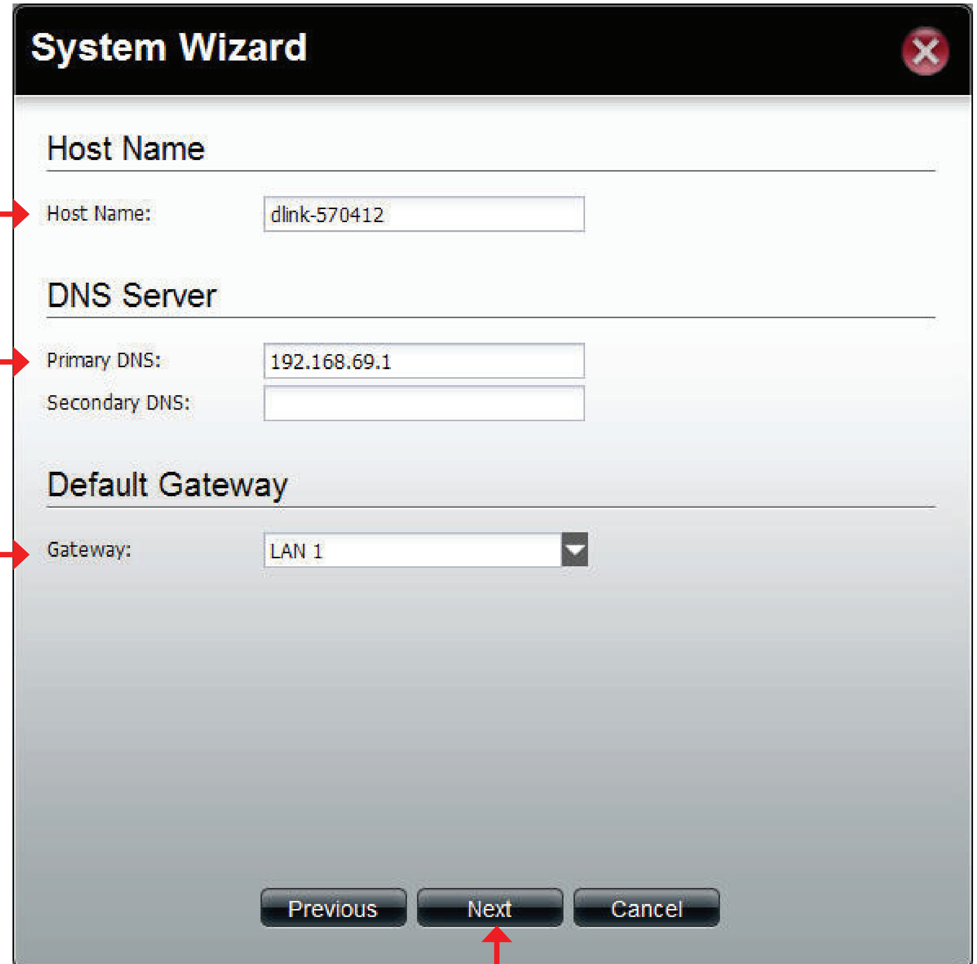
This window can configure the LAN 2 settings.


Click **Next** to continue.

Enter the host name of the ShareCenter Pro.

Enter the primary and secondary DNS server address in the fields.

Use the drop-down menu to select the LAN interface.



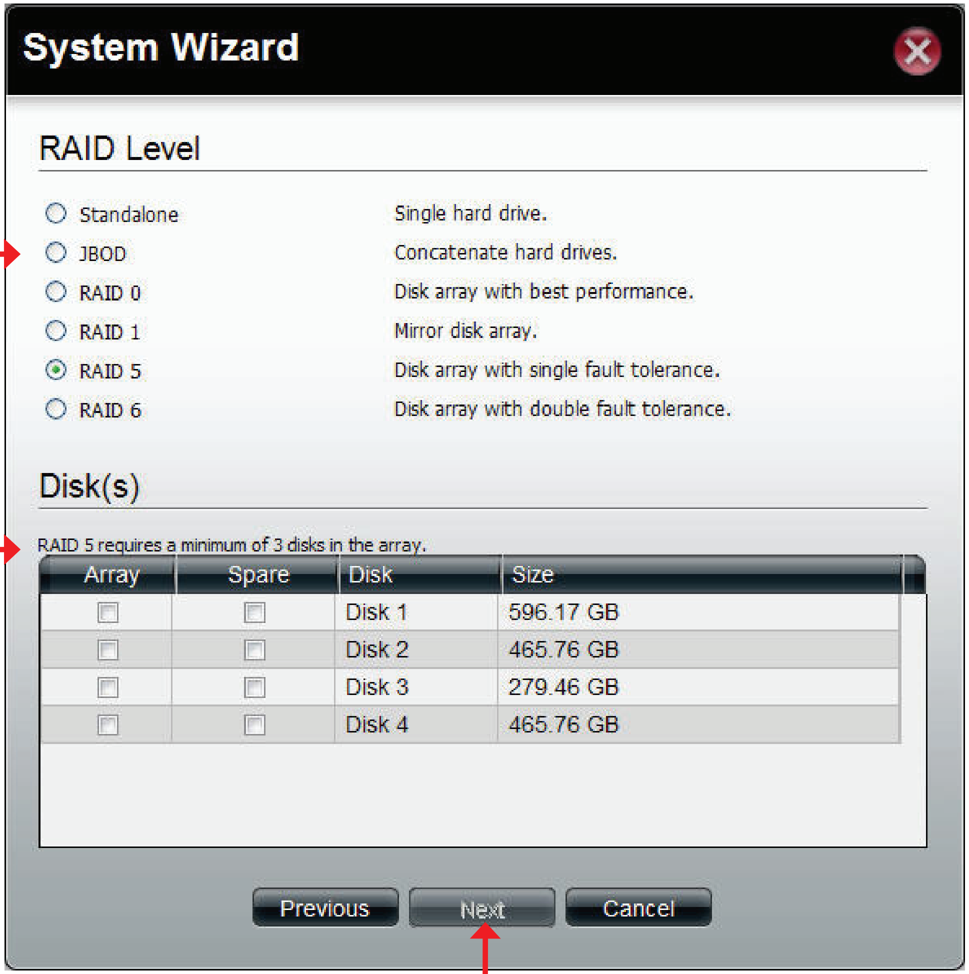

Click **Next** to continue.

This window can enable or disable various the file sharing method.


Click **Next** to continue.

Select the configuration type of the volume, **Standard**, **JBOD**, **RAID 0**, **RAID1**, **RAID5** or **RAID 6**.

Tick the corresponding check box to select the hard disk(s) in the array and spare.




Click **Next** to continue.

Select to enable or disable the auto-rebuild function of RAID 1, RAID 5, or RAID 6.

Click the **Enable** radio button to encrypt the volumes. Enter a password in the **Password** and **Confirm Password** fields.

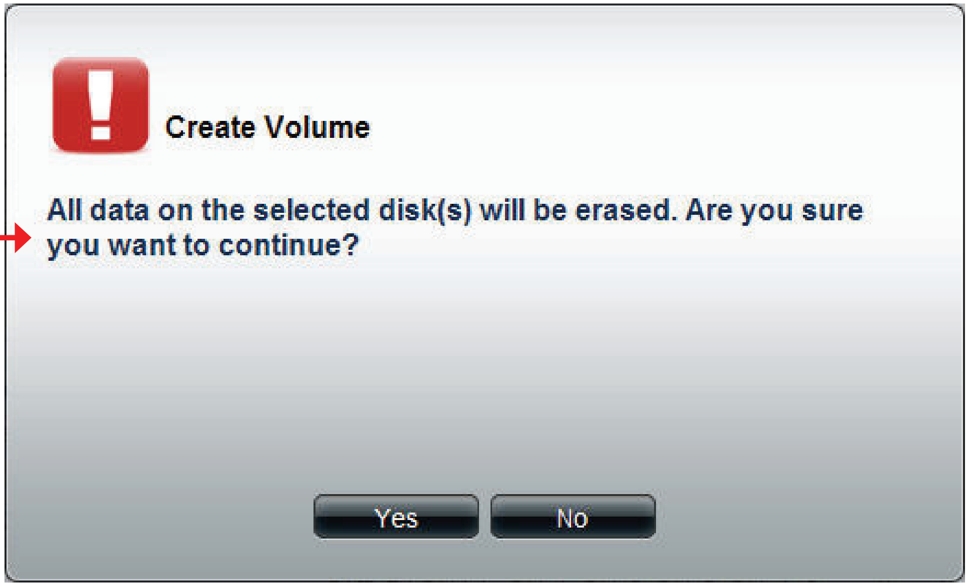
Tick the **Auto Unlock** check box to automatically unlock the volume when the system starts. Tick the **USB Key** check box to save the password to a USB drive.


Click **Next** to continue.

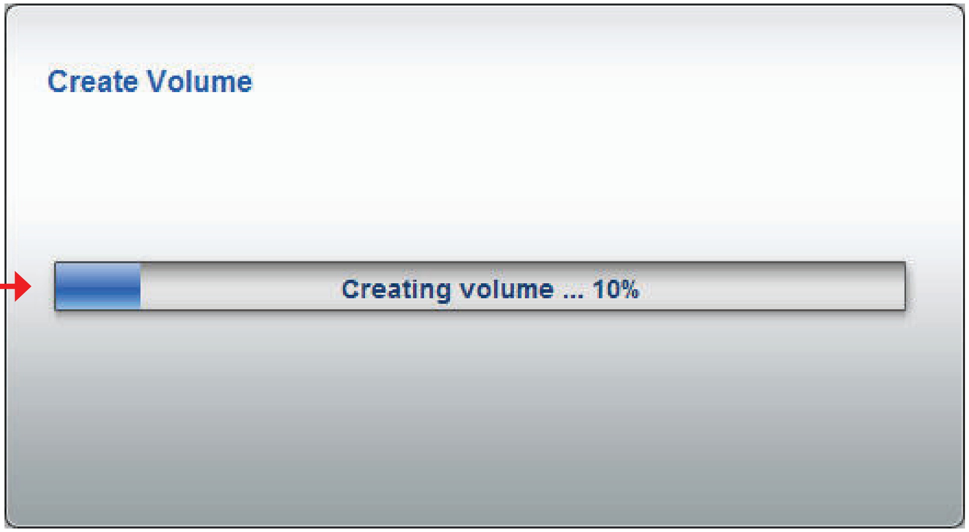
This window displays the information you configured in System Wizard.


Click **Apply** to continue.

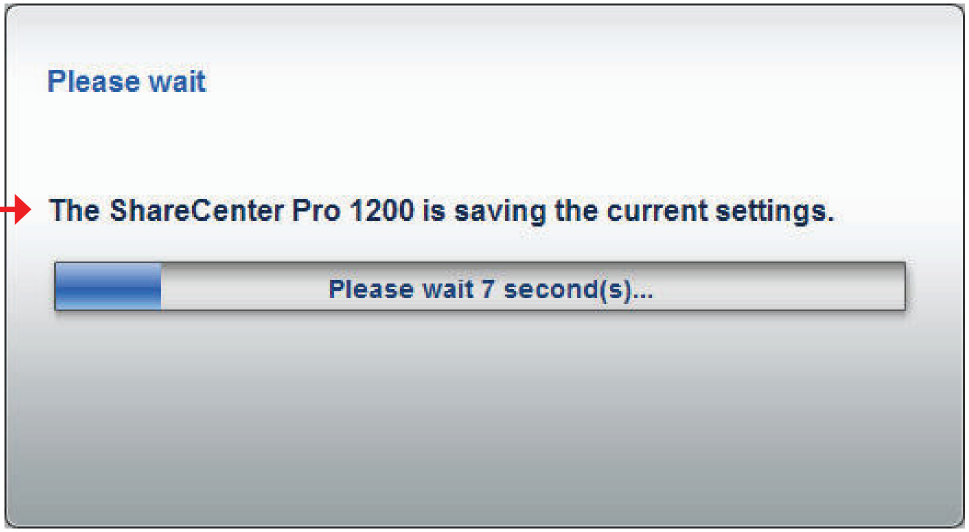
A warning message appears before starting to create the volume.




The volume is being created. The status bar displays the percentage of completion in real time.



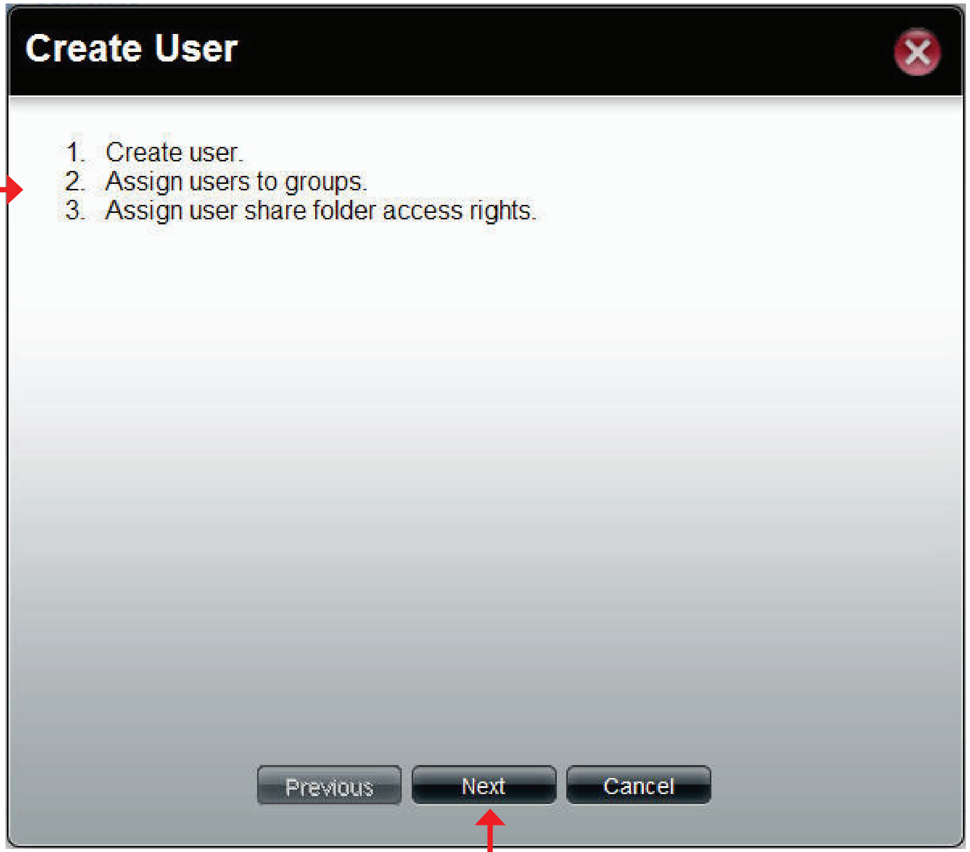
The ShareCenter Pro is saving the settings. After saving the settings, the Homepage window will appear.



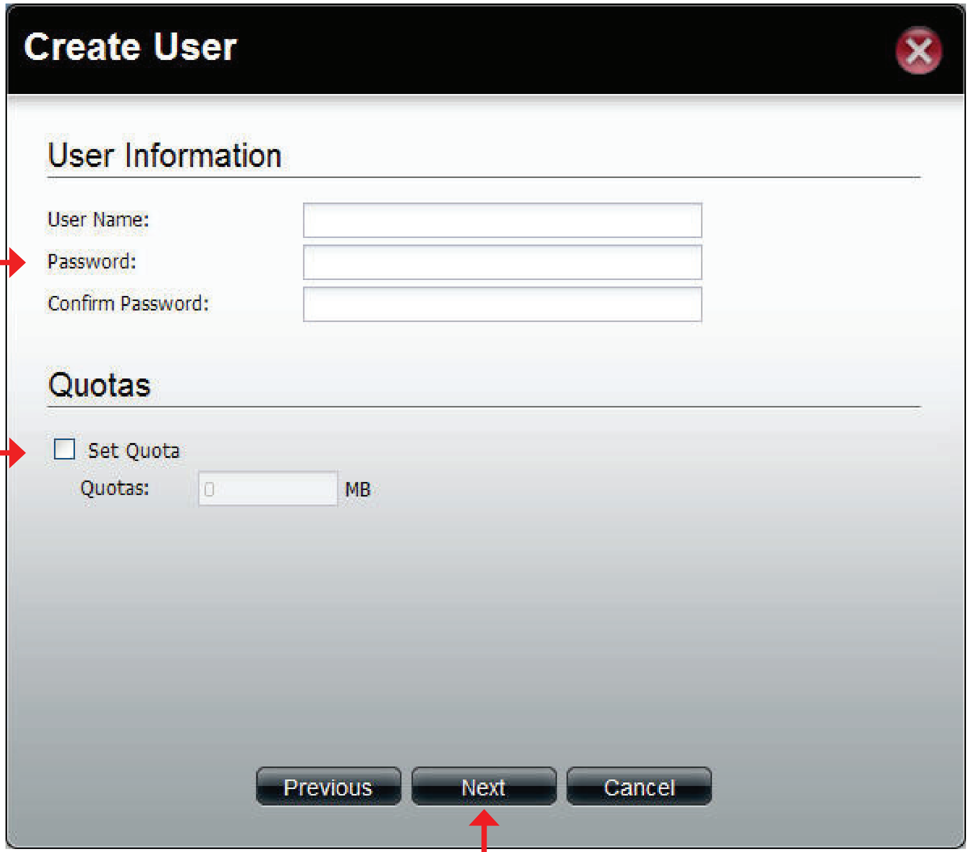
# Create User

The Create User wizard icon directly links to the Create User function.

Click the Create User icon in the Homepage window and the Create User window appears.




Click **Next** to continue.

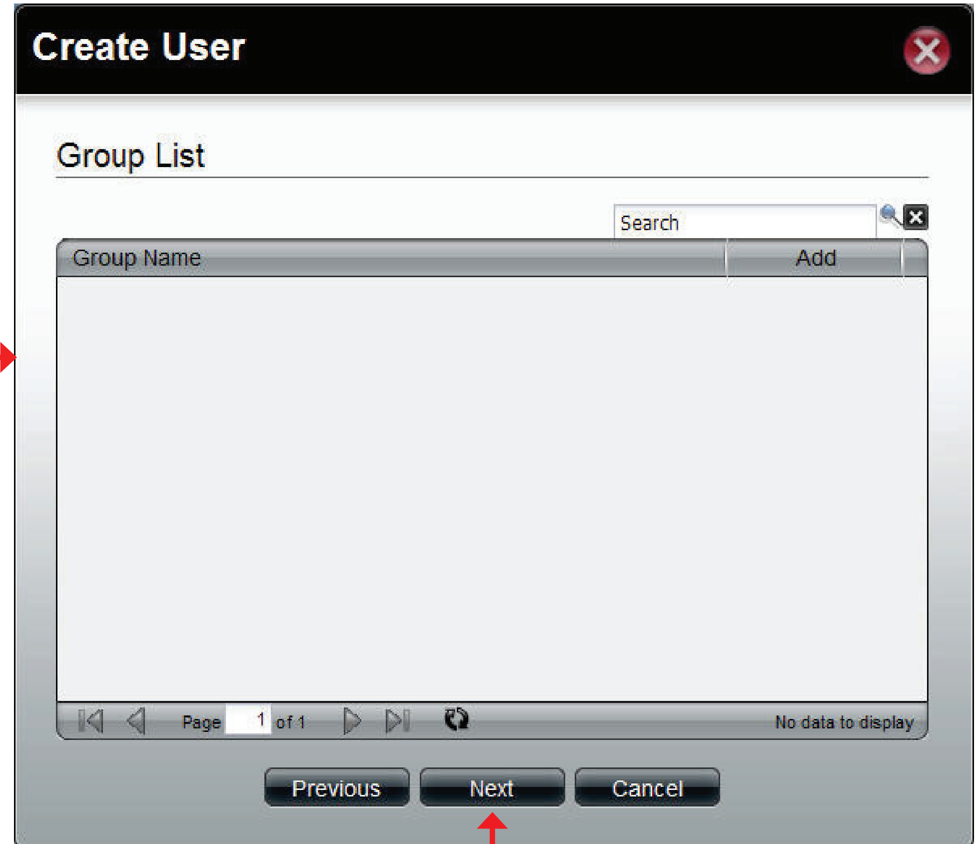



Enter a name in **User Name**, and a password in **Password** and **Confirm Password**.

If setting a specific storage quota for the user, tick the **Set Quota** check box and enter the storage quota in megabytes (MB).

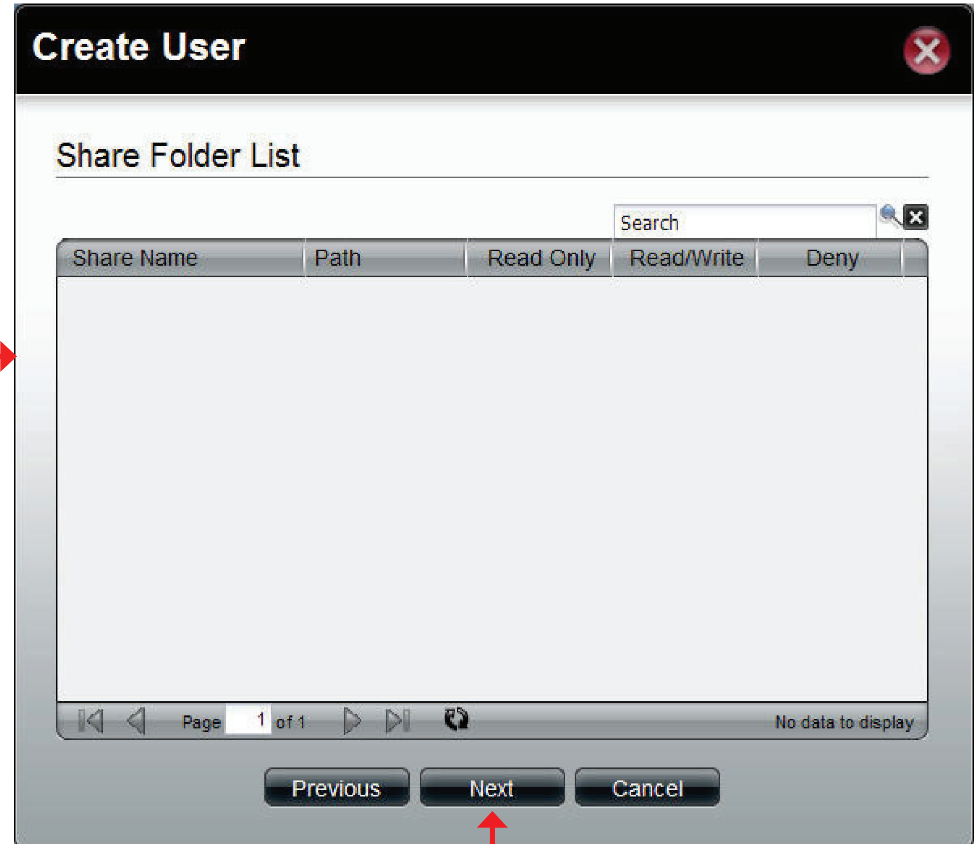
Click **Next** to continue.

Select a group list from the list. If there is no entry in the list, you can go to **Account Management** > **User** to update the information after a group has been created.



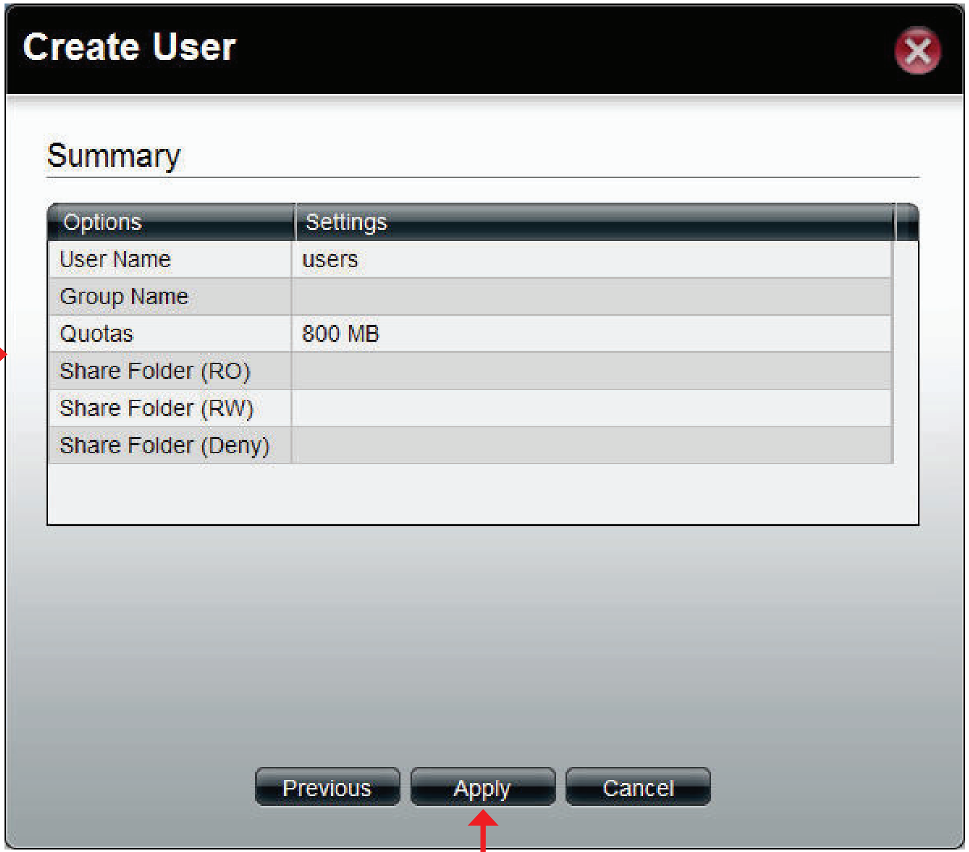

Click **Next** to continue.

Select a share folder from the list. If there is no entry in the list, you can go to **Account Management** > **User** to update the information after a share folder is created.




Click **Next** to continue.

This window displays the information that has been configured.

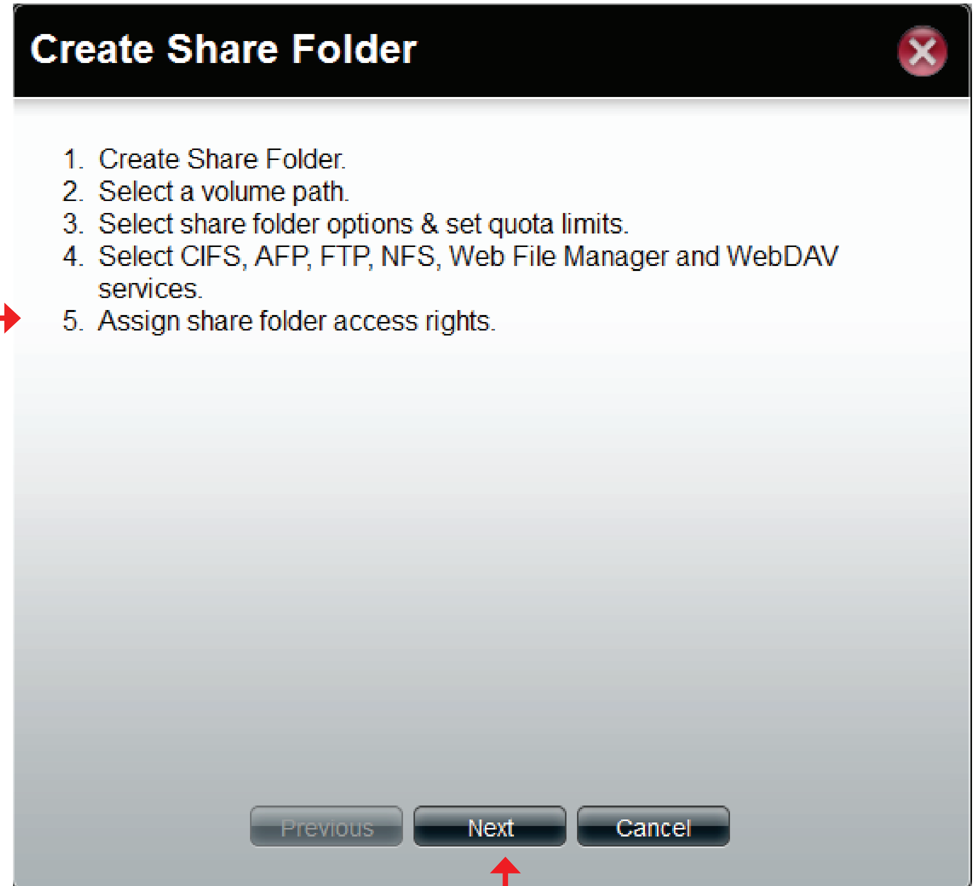



Click **Apply** to save the settings.

# Create Share Folder

The Create Share Folder wizard icon directly links to the Create Share Folder function.

Click the Create Share Folder icon in the Homepage window and the Create Share Folder window appears.

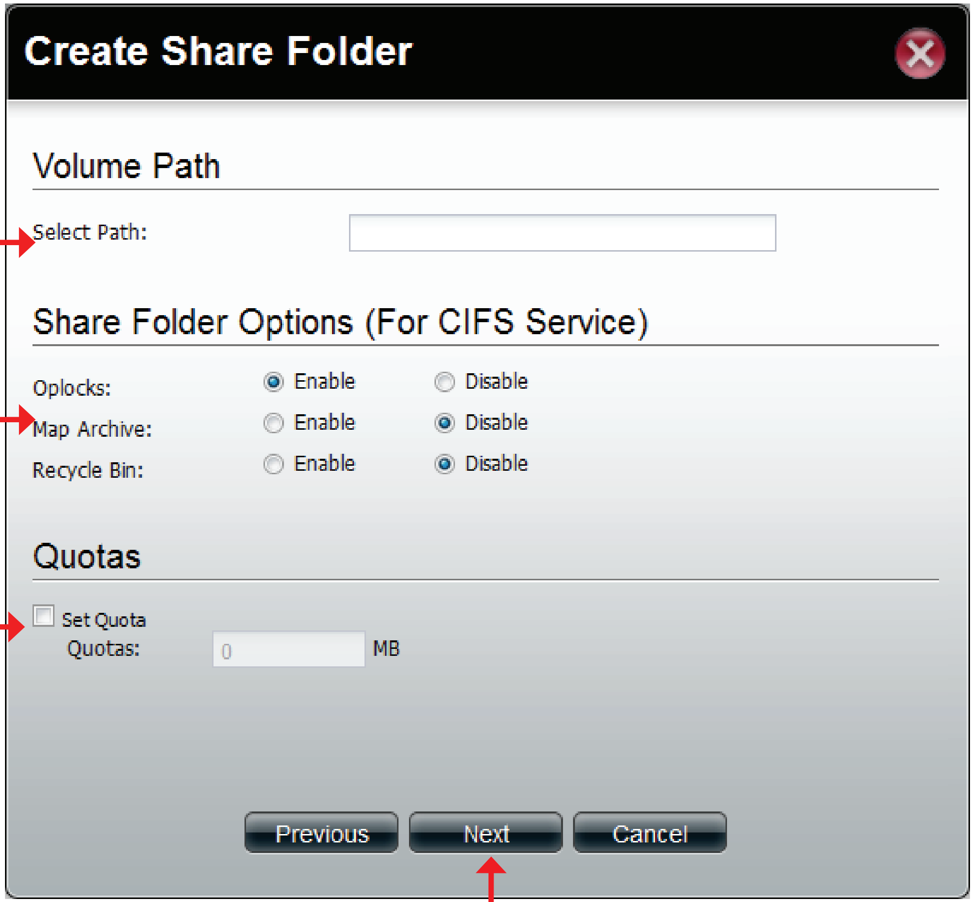



Click **Next** to continue.

Click the **Select Path** field to choose the path of a folder.

Click the radio buttons to configure the folder options.

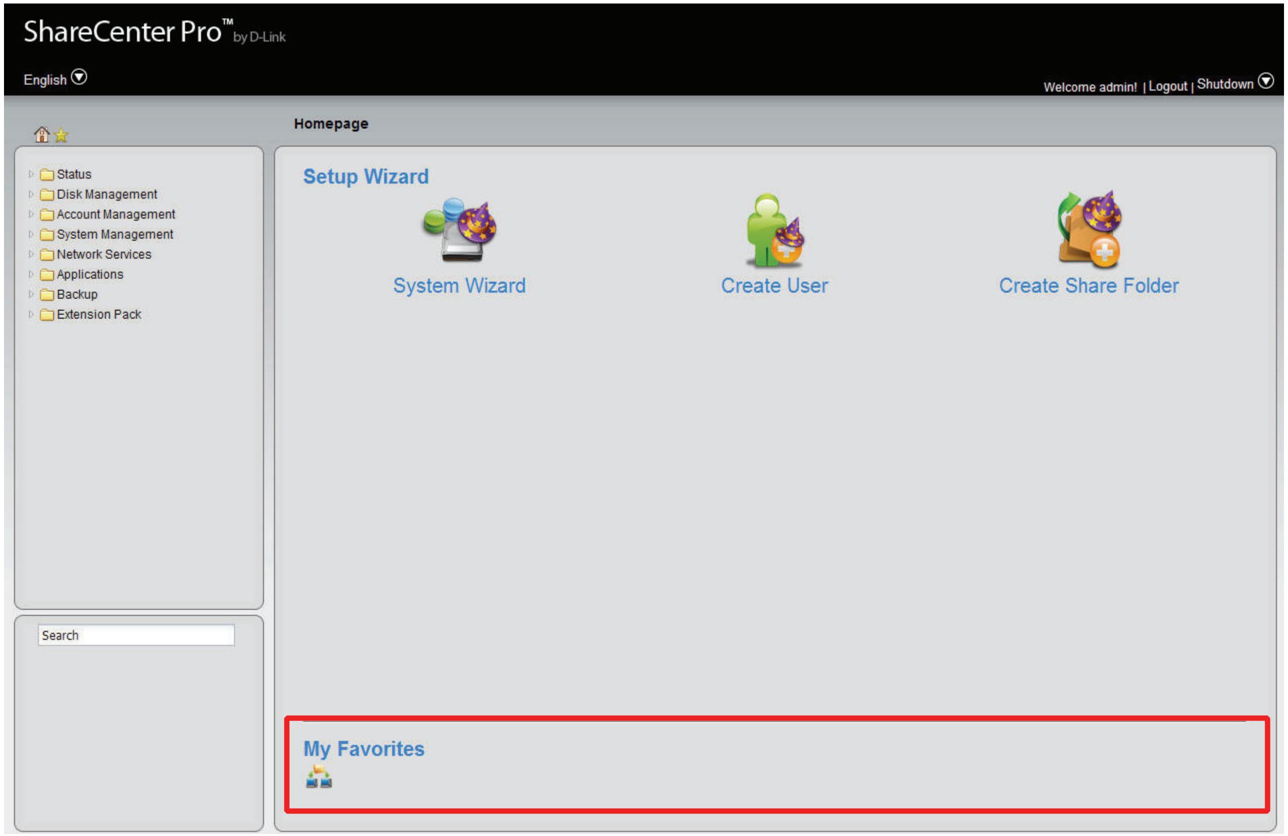
If setting a specific storage quota for the share folder, tick the **Set Quota** check box and enter the storage quota in megabyte (MB).




Click **Next** to continue.

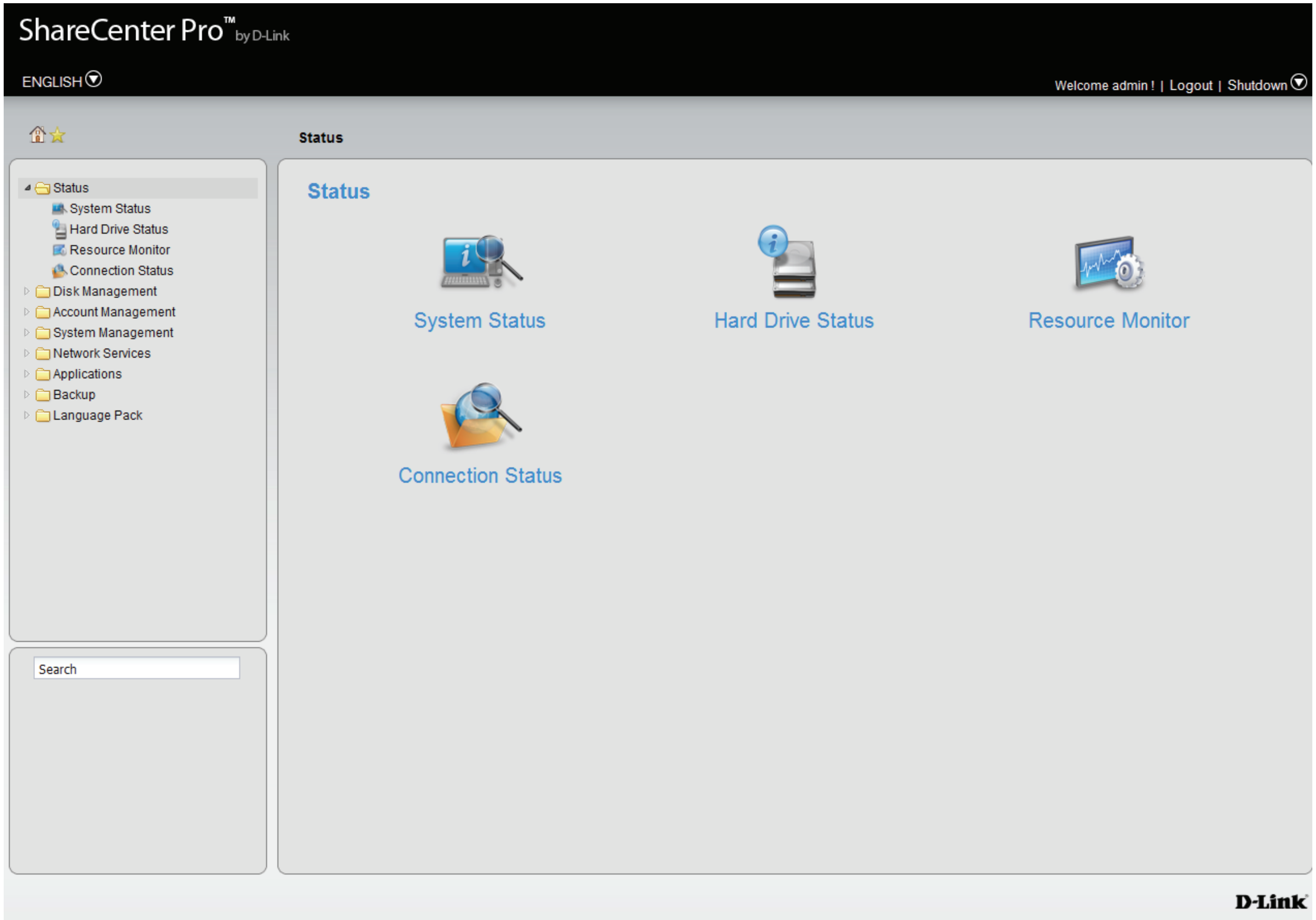
# My Favorites

Click the (Homepage) icon to see the My Favorites field at the lower half of the window. To add a category in My Favorites, click an arrow key next to a folder icon to display all categories within the folder in the left window, and drag the category to the My Favorites field. To delete a category in My Favorites, drag the category in My Favorites field to the left window. Once the category is added to My Favorites, click the icon to see the category in the list. Click to directly link to the window of the category.



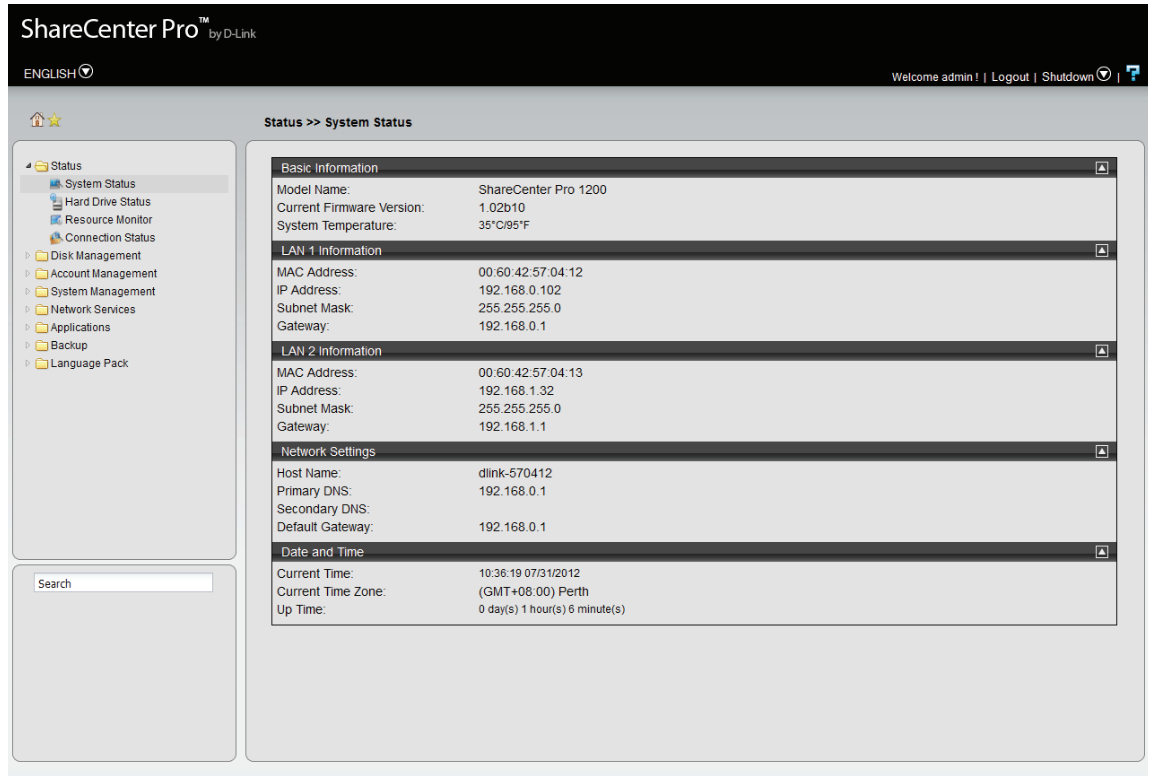
# Status

This folder contains System Status, Hard Drive Status, Resource Monitor, and Connection Status. Click each folder to see the subcategories.



# System Status

Click the System Status icon in the Status window or the System Status link in the left window to view System Status.




**Basic Information** Displays the model name, current firmware version and current temperature of the ShareCenter Pro.

**LAN Info** Displays the local network settings of the ShareCenter Pro

**Network Settings** Displays the host name, and DNS information of the ShareCenter Pro

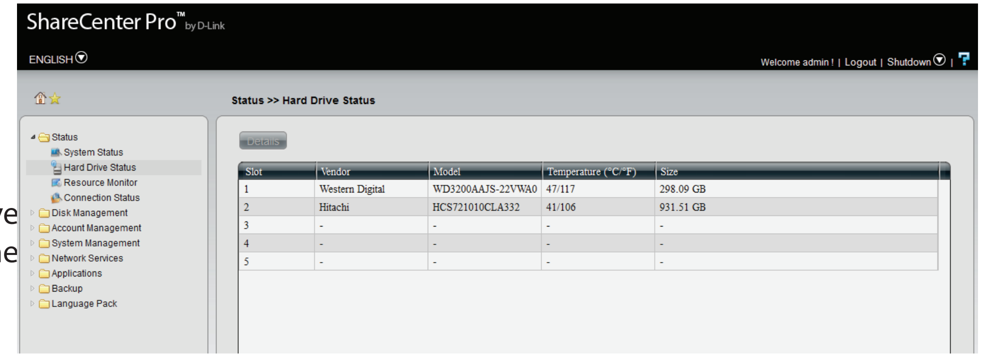
**Date and Time** Displays the current date and time settings of the ShareCenter Pro.

**USB Disk Information** Displays information for a connected USB printer, memory disk or UPS. Click the **Unmount** button to remove the device from the ShareCenter Pro.

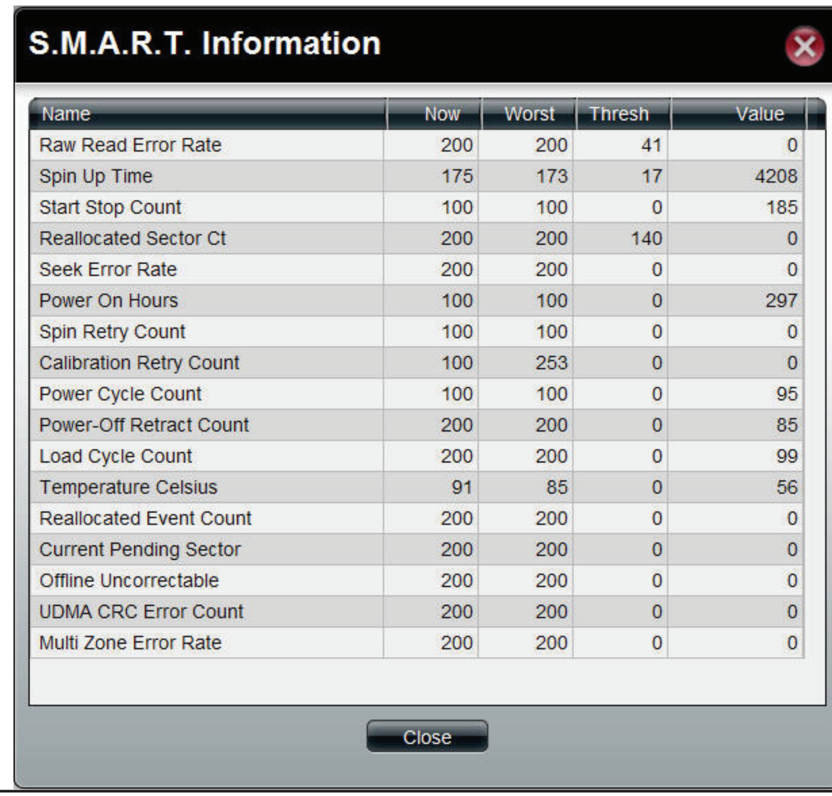
Hard Drive Status

This window displays the Vendor, Model name, Temperature, and Size of the Hard Disks installed in the ShareCenter Pro, along with the slot they are installed in. You can view the S.M.A.R.T. information for each hard disk installed in the ShareCenter Pro (if the hard disk supports the S.M.A.R.T. feature).

**Hard Drive Status** To see the S.M.A.R.T. information of a hard disk, select a hard disk and click the **Details** button.



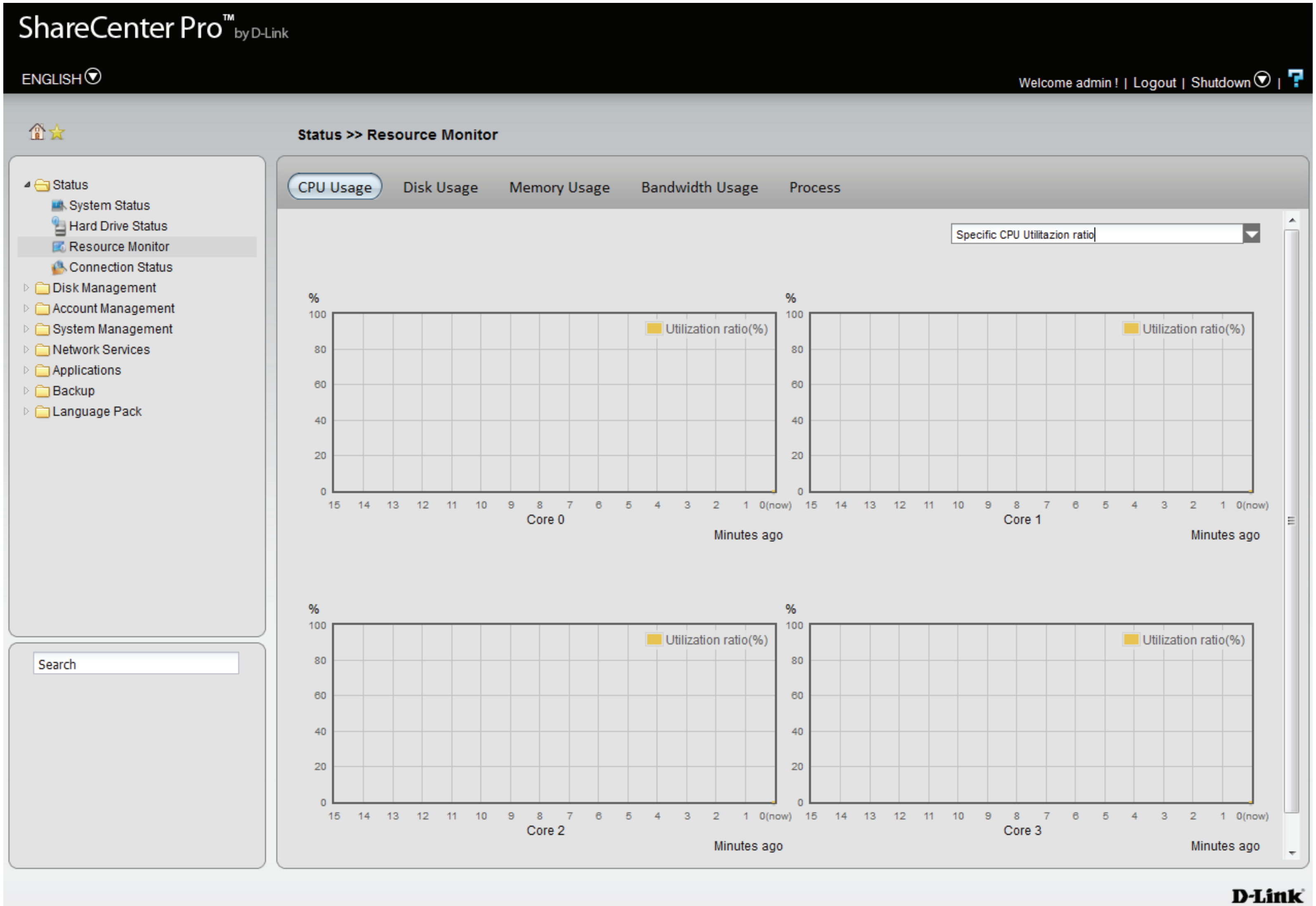

**S.M.A.R.T. Information** The S.M.A.R.T. test results for the selected hard drive is displayed. Click the **Close** button to go back to the Hard Drive Status window.




| Name | Now | Worst | Thresh | Value |
|---|---|---|---|---|
| Raw Read Error Rate | 200 | 200 | 41 | 0 |
| Spin Up Time | 175 | 173 | 17 | 4208 |
| Start Stop Count | 100 | 100 | 0 | 185 |
| Reallocated Sector Ct | 200 | 200 | 140 | 0 |
| Seek Error Rate | 200 | 200 | 0 | 0 |
| Power On Hours | 100 | 100 | 0 | 297 |
| Spin Retry Count | 100 | 100 | 0 | 0 |
| Calibration Retry Count | 100 | 253 | 0 | 0 |
| Power Cycle Count | 100 | 100 | 0 | 95 |
| Power-Off Retract Count | 200 | 200 | 0 | 85 |
| Load Cycle Count | 200 | 200 | 0 | 99 |
| Temperature Celsius | 91 | 85 | 0 | 56 |
| Reallocated Event Count | 200 | 200 | 0 | 0 |
| Current Pending Sector | 200 | 200 | 0 | 0 |
| Offline Uncorrectable | 200 | 200 | 0 | 0 |
| UDMA CRC Error Count | 200 | 200 | 0 | 0 |
| Multi Zone Error Rate | 200 | 200 | 0 | 0 |

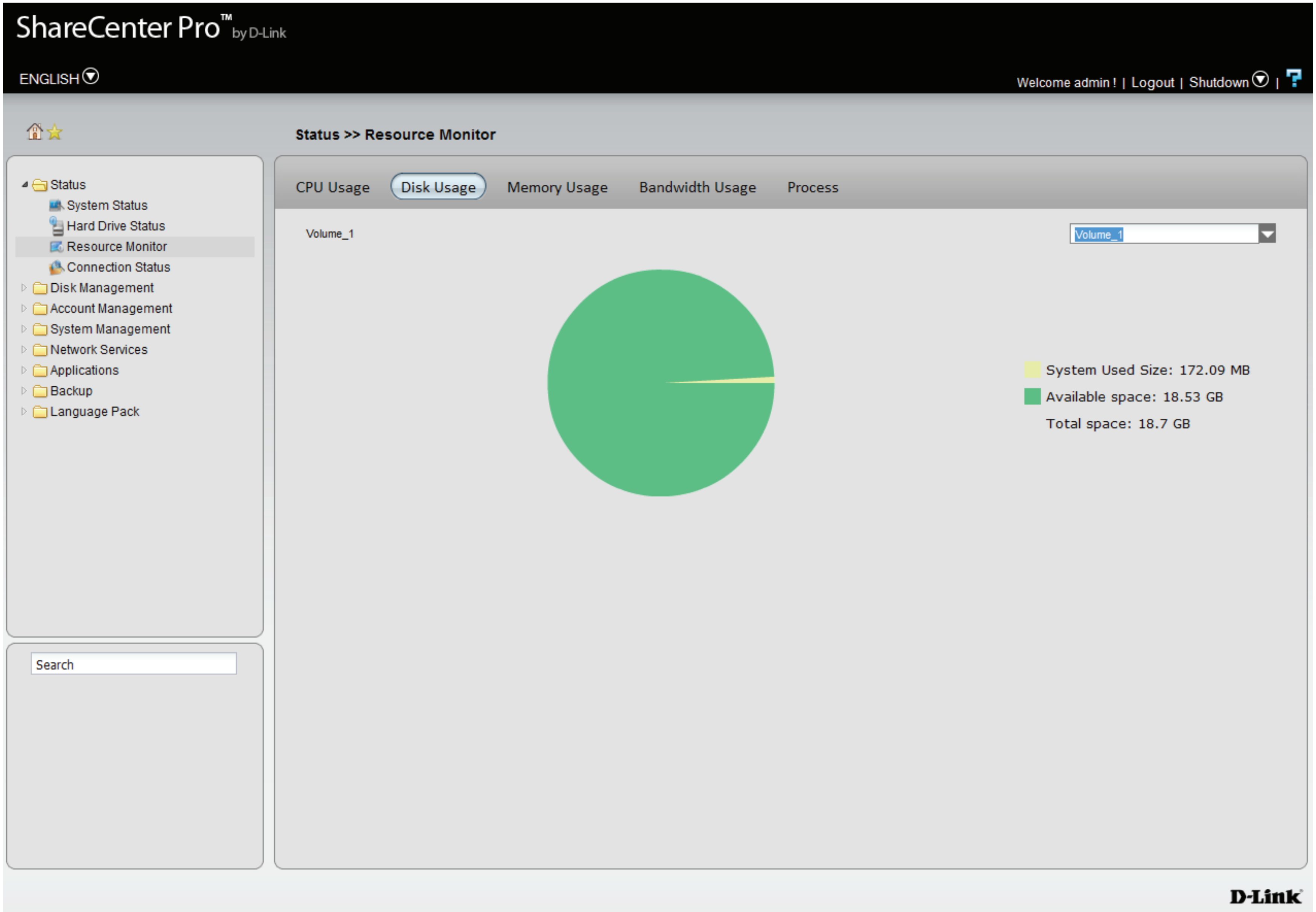
# Status - Resource Monitor - CPU Usage

The Resource Monitor screen provides detailed information on CPU Usage, Disk Usage, Memory Usage, Bandwidth Usage and Process streams. CPU Usage is illustrated in System CPU Utilization Ratio.



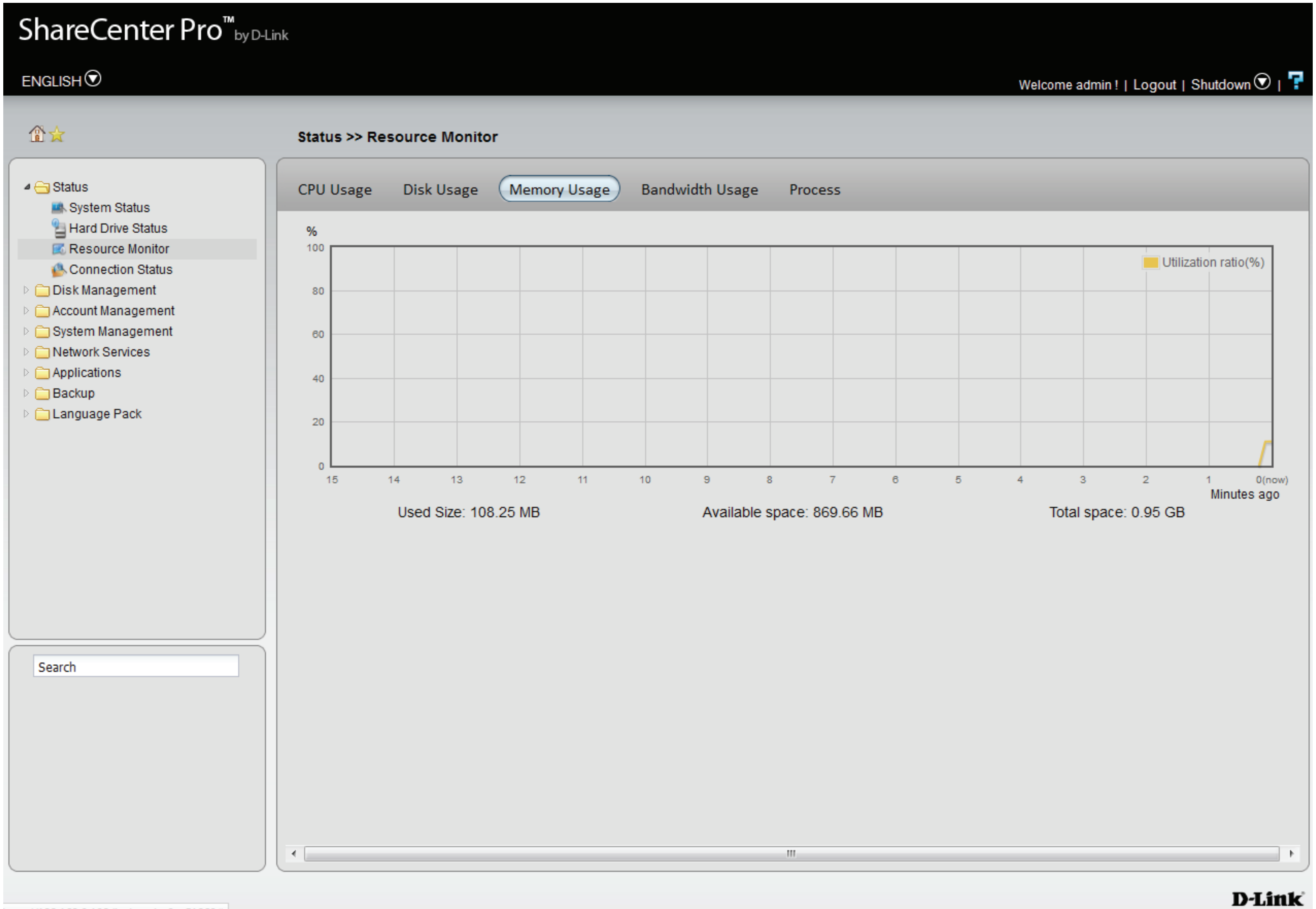
# Status - Resource Monitor - Disk Usage

Disk Usage depicts the System Used size, Available Disk Space, and the Total Disk Space .



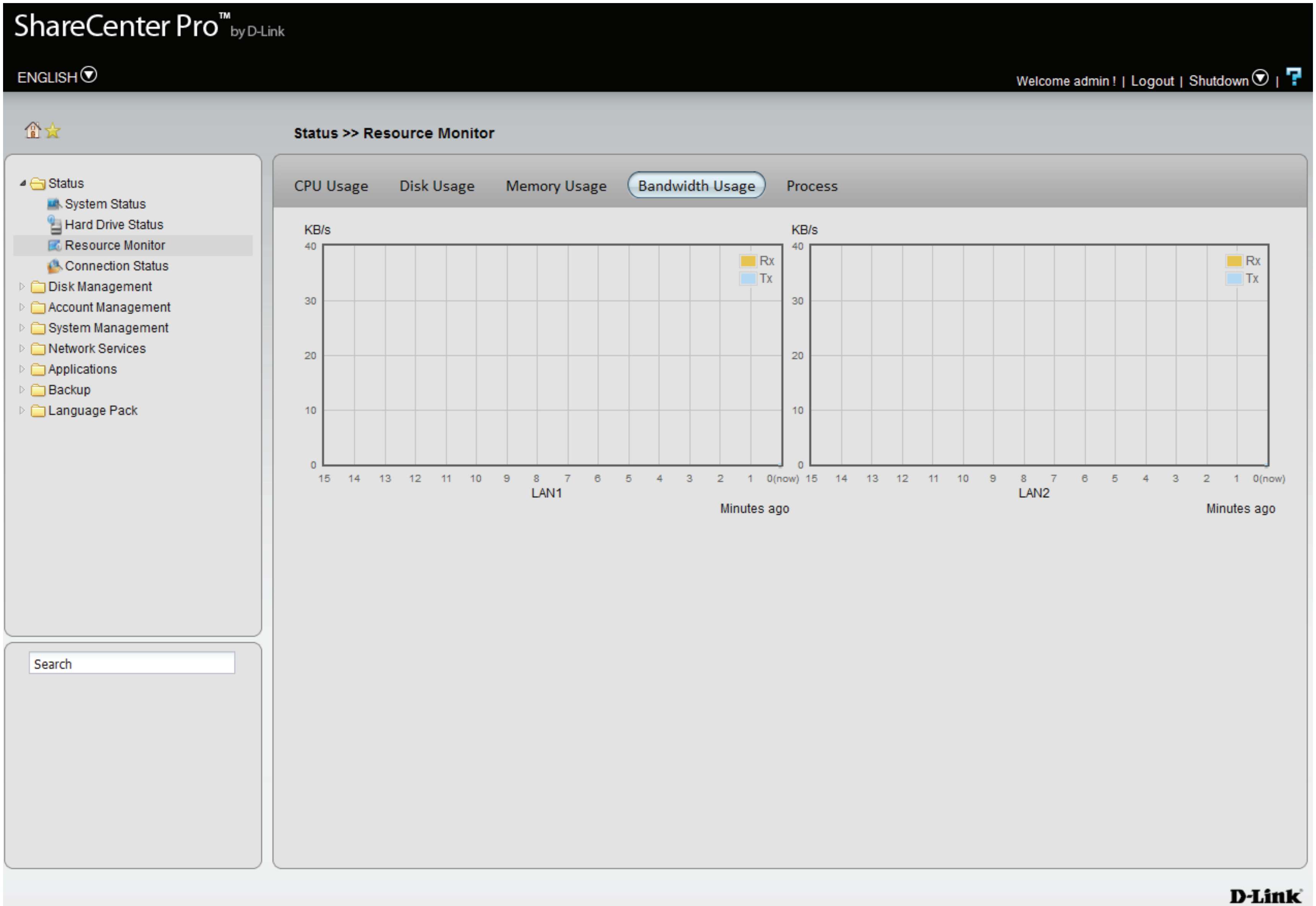
# Status - Resource Monitor - Memory Usage

The Memory Usage chart shows the Used Size, Available Space, and Total Space per Utilization ratio in minutes.



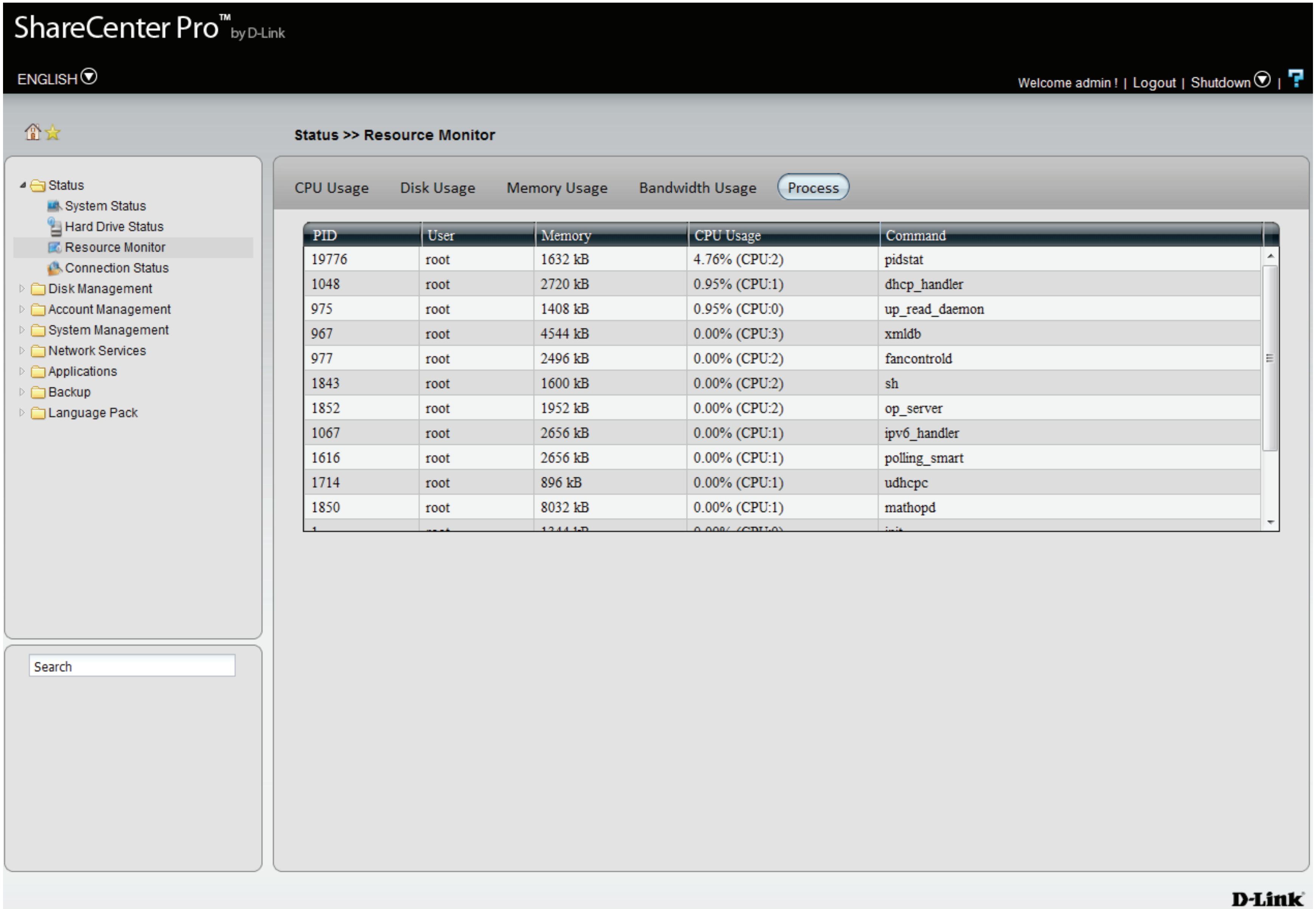
# Status - Resource Monitor - Bandwidth Usage

The Bandwidth Usage chart shows bandwidth usage for both Ethernet Ports in KB/s.



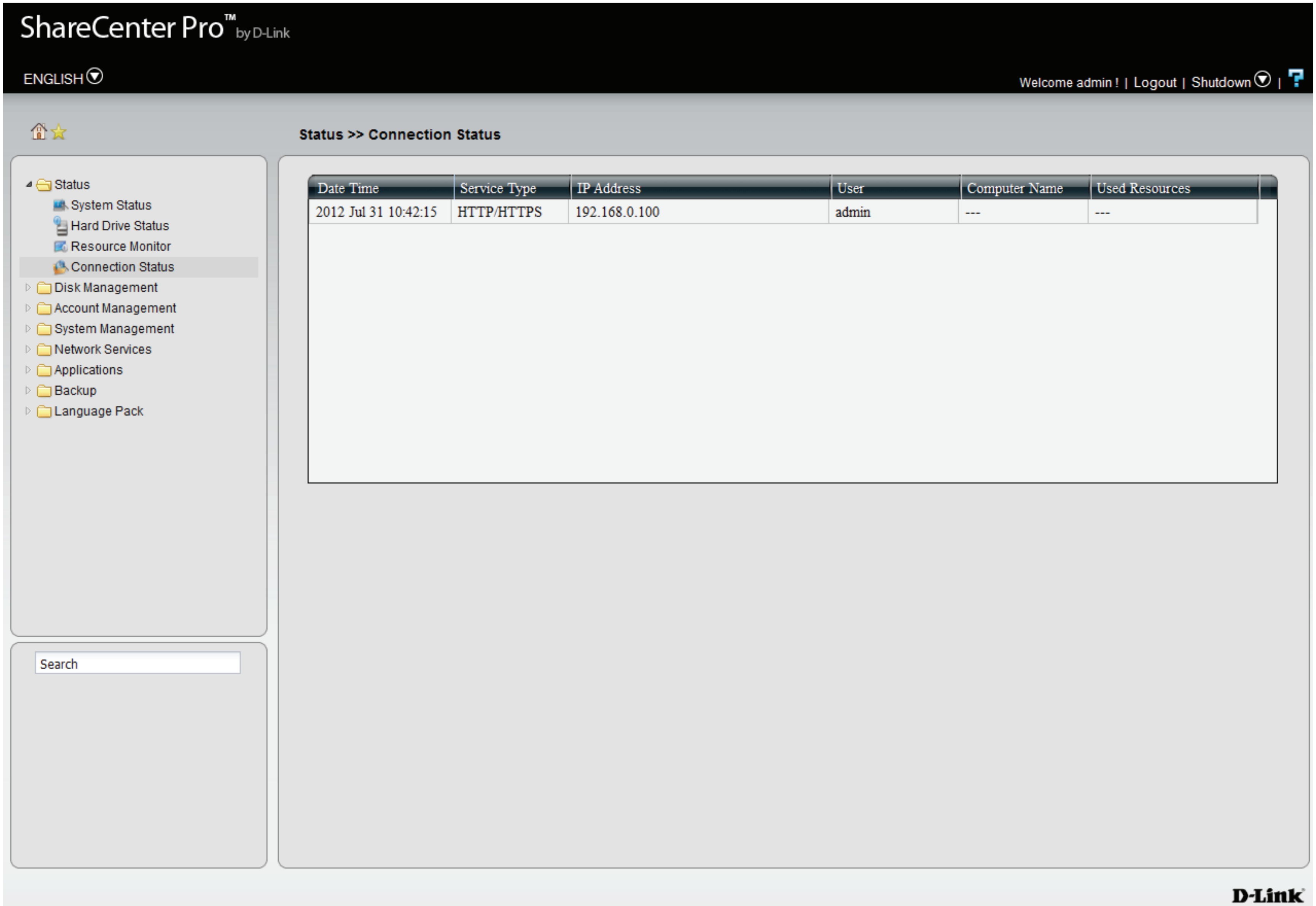
# Status - Resource Monitor - Process

The Process table shows PID, User, Memory, CPU Usage, and Command data information. Scroll down to monitor each process.



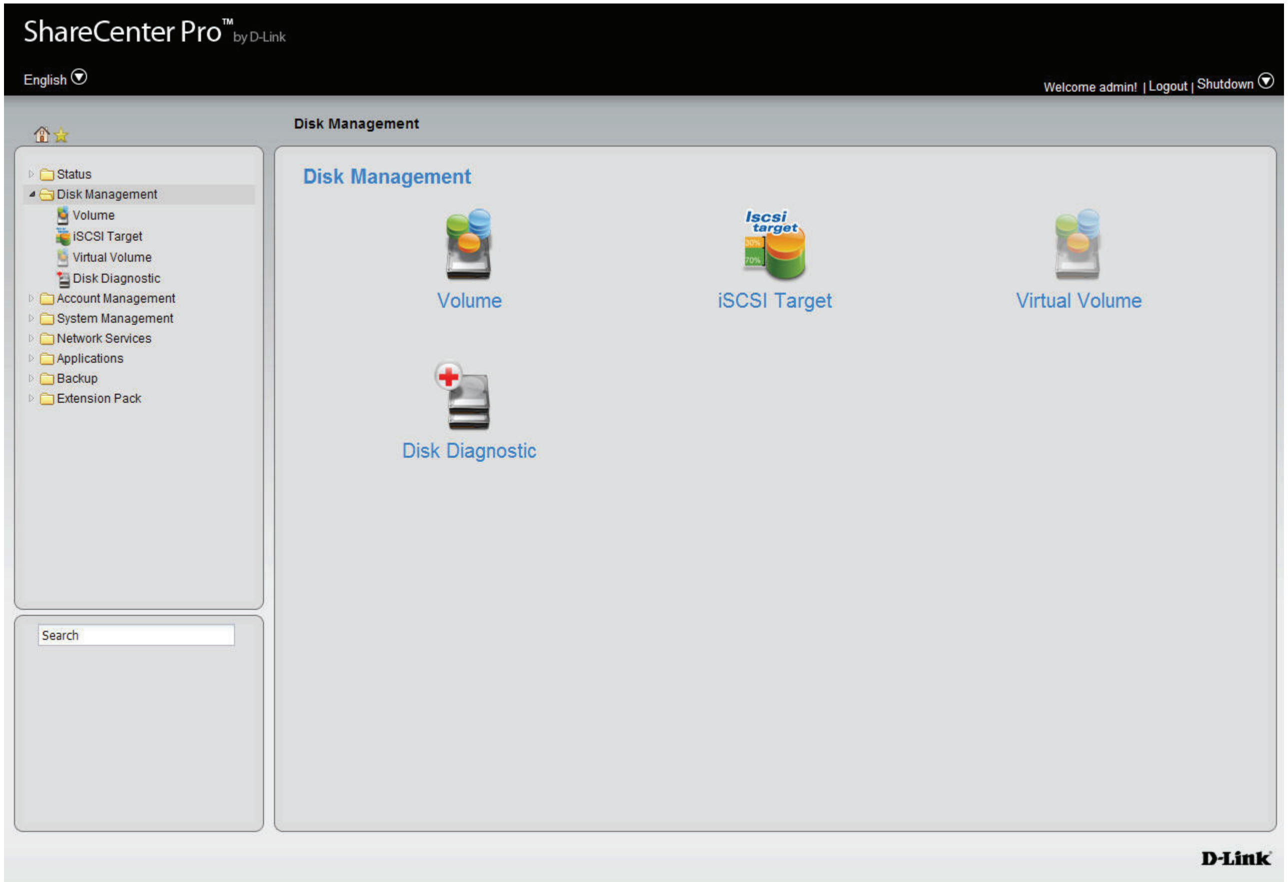
# Status - Connection Status

The Connection Status Table illustrates the current online users' data information. It has information on Date/ Time, Server Type, IP Address, the User accessing the system, the Computer Name, and the Resources being used.



# Disk Management

This folder contains the Volume, iSCSI Target, Virtual Volume and Disk Diagnostic. Click the folder to see the subcategories.



## Volume

**Click the Volume icon in the Disk Management window or the Volume link in the left window to view and edit the volumes.**

**The ShareCenter Pro supports six different volume configuration types: Standalone, JBOD, RAID 0, RAID 1, RAID 5 and RAID 6.**

**Create** Click this button to create a new volume when using an unused hard drive.

**Delete** Click this button to delete a volume.

**Extend/Spare** Click to enlarge a volume by adding one or more hard drive(s), or set spare hard drives for a volume

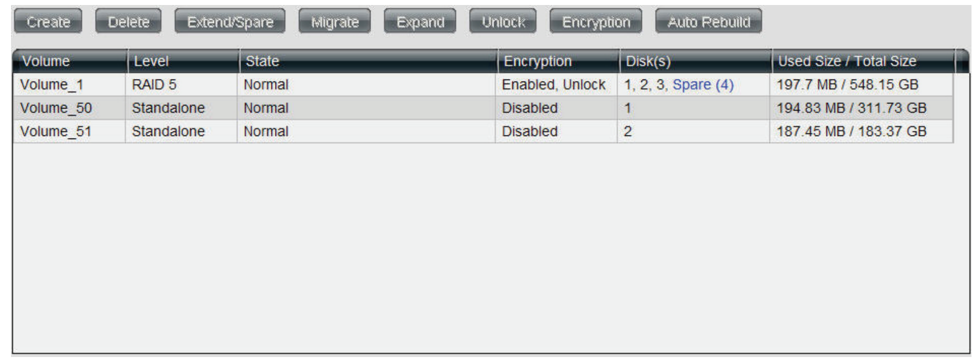
**Migrate** Click to change the RAID level of a volume.

**Expand** Click to enlarge a volume by replacing one of the existing hard drive with a larger capacity hard drive.

**Unlock** Click to unlock an encrypted volume

**Encryption** Click to configure the encryption settings of an encrypted volume.

**Auto Rebuild** Click to enable or disable the auto-rebuild function.



# Create a new Volume

Click the **Create** button to see the following window.

**Standalone** Standalone requires only one hard drive in the array. Each hard drive is its own volume.

**JBOD** JBOD requires a minimum of two hard drives, concatenates the hard drives in a linear fashion, and creates one large volume geared towards maximum available space.

**RAID 0** RAID requires a minimum of two hard drives. The data is stored in a striped fashion and geared towards maximum available space and performance. CAUTION: RAID 0 does not provide data redundancy.

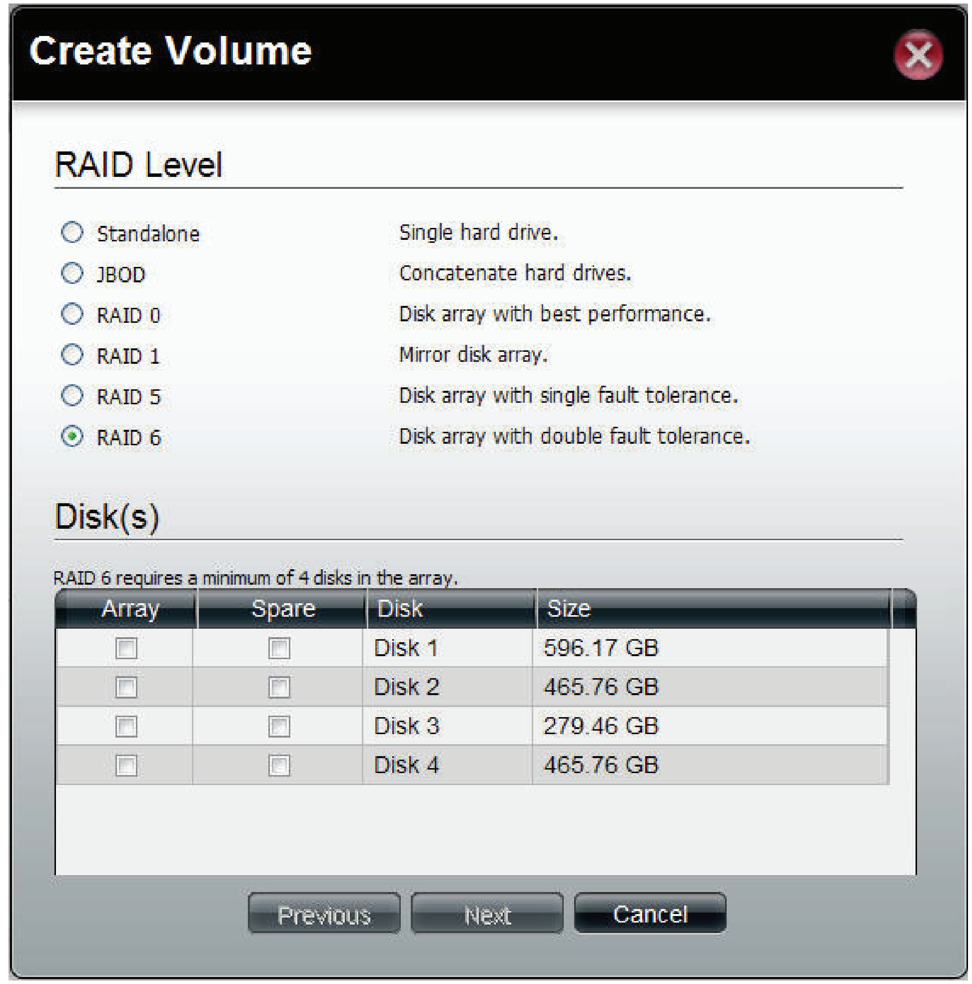
**RAID 1** RAID 1 requires a minimum of two hard drives and mirrors the hard drives for data redundancy.

**RAID 5** RAID 5 requires a minimum of three hard drives and provides data striping with distributed parity.

**RAID 6** RAID 6 requires a minimum of four hard drives, and stripes data and double-parity information across all of the member drives.

**Array** Tick the check box to select the corresponding hard drive to be part of volume.

**Spare** Tick the check box to select the corresponding hard drive as a spare for the volume.




Click **Next** to continue.

**Auto-rebuild** Click the radio buttons to enable or disable auto-rebuild setting. Only RAID 1, RAID 5 and RAID 6 can configure this setting.

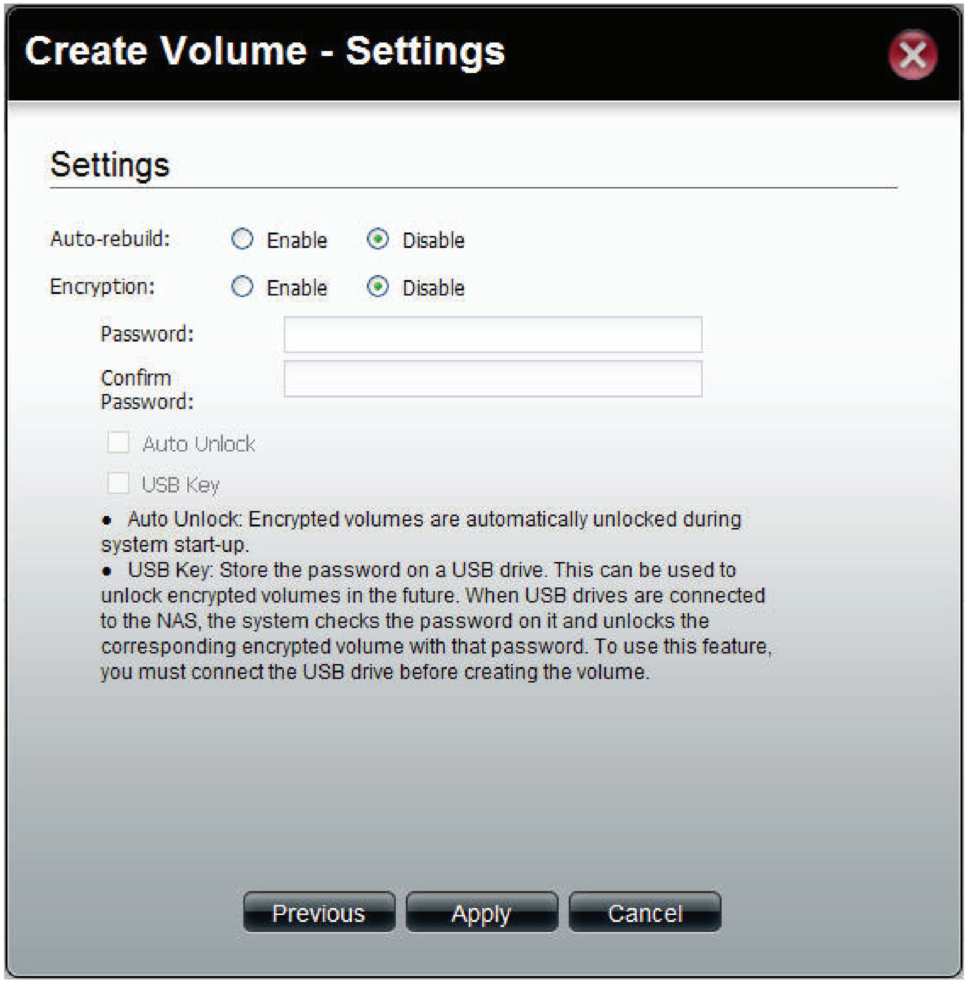
**Encryption** Click the radio buttons to enable or disable encryption settings.

**Password** When encryption is enabled, enter a password in the field. A minimum of 5 digits is required.

**Confirm Password** Retype the password in the field.

**Auto Unlock** Tick the check box to automatically unlock the volume when the system starts.

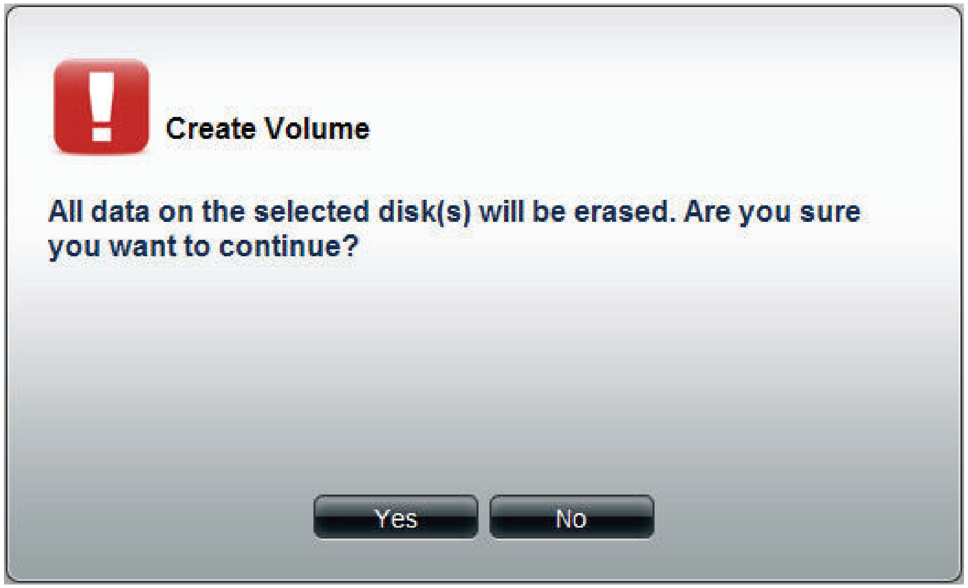
**USB Key** Tick the check box to save the password to a USB drive.



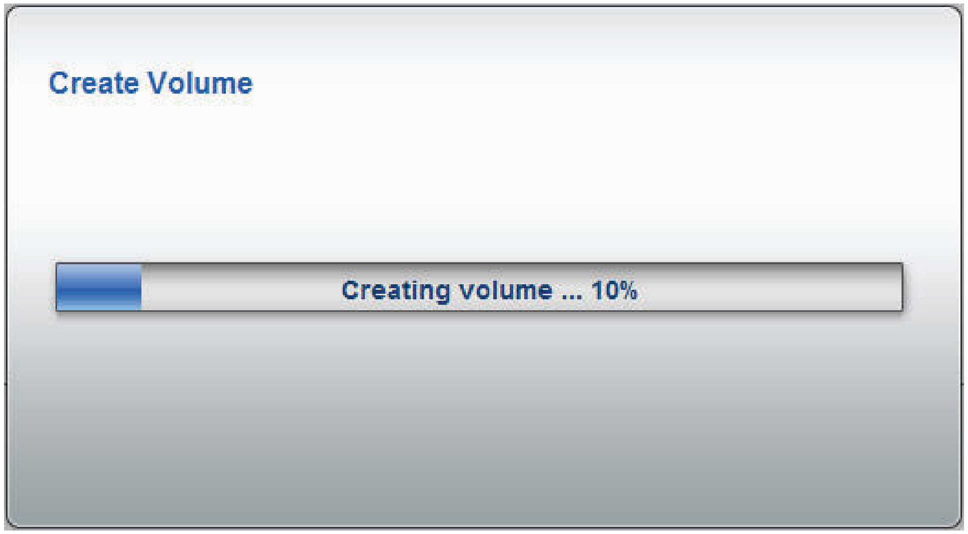

Click **Apply** to continue.

A warning message appears before starting to create the volume.

Click **Yes** to continue.




The volume is being created. The status bar displays the percentage of completion in real time. Once the volume is created successfully, the Volume window appears.

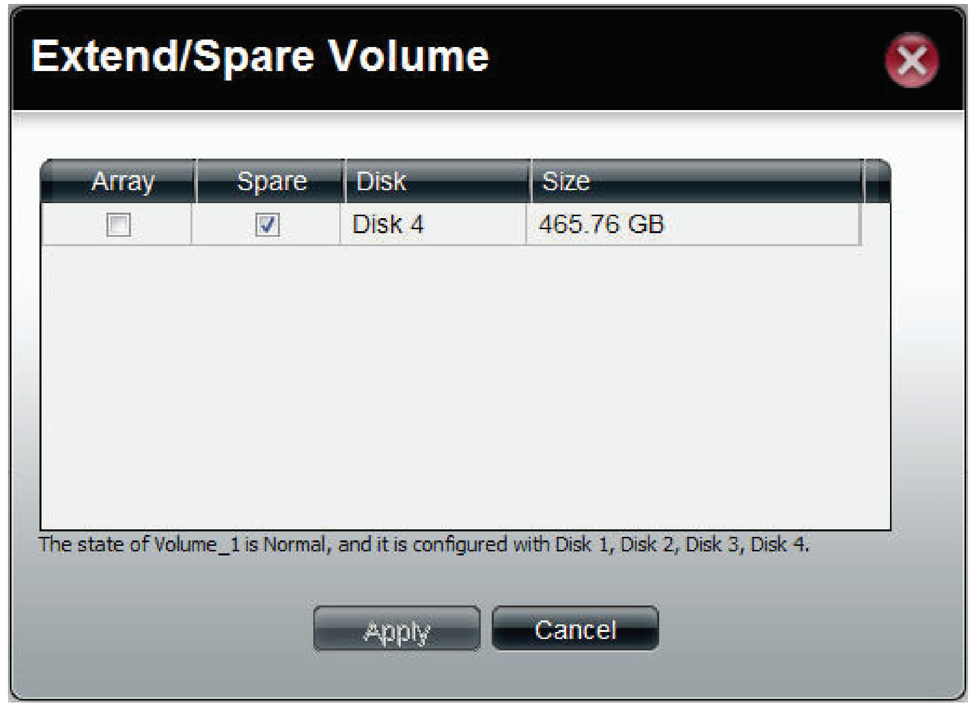


# Extend/Spare a Volume

Only JBOD, RAID 0/1/5/6 supports volume extentions and only RAID 1/5 and 6 supports spare disk settings. Apart from RAID 1, the ShareCenter Pro will extend the volume capacity after the extension is complete. Click a volume and the **Extend/Spare** button to see the following window.

| | |
|---|---|
| **Array** | Tick the check box to extend the volume. |
| **Spare** | Tick the check box to select the disk to be a spare disk. |
| **Disk** | Displays the configured disk number. |
| **Size** | Displays the size of the hard disk. |

Click **Apply** to save the settings.



# Migrate a Volume

Click a volume and the **Migrate** button to see the following window.

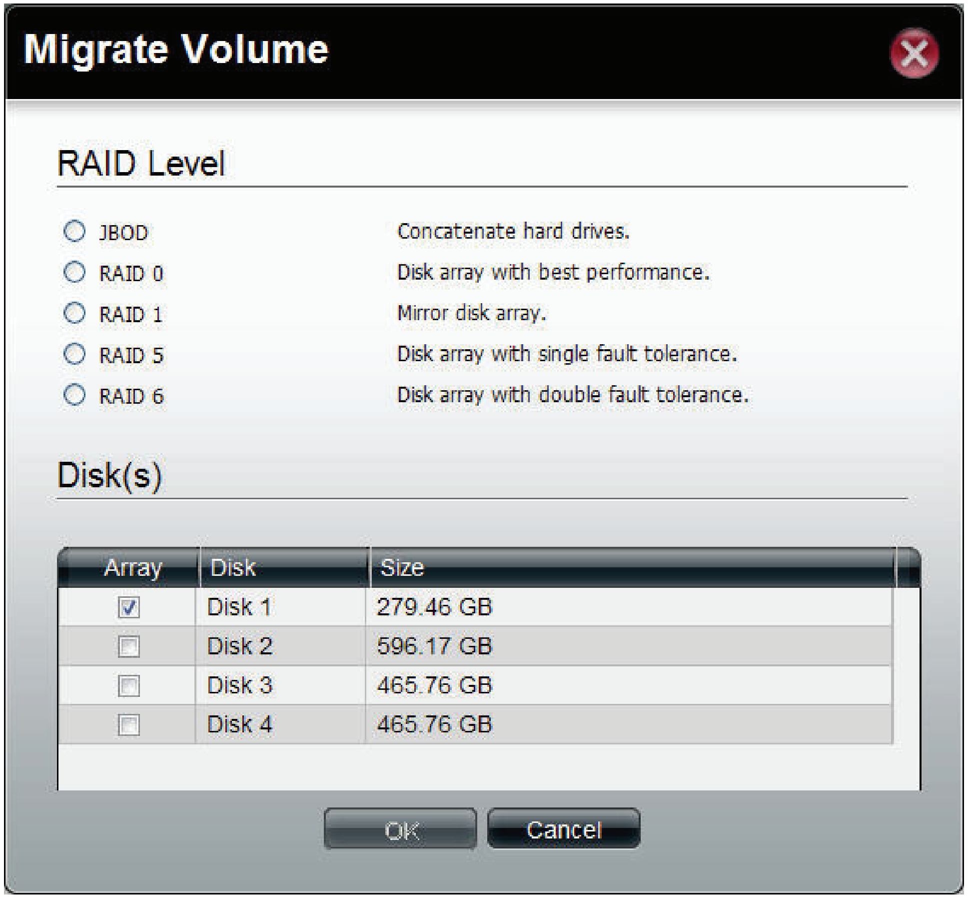
The wizard allows you to change the volume RAID level. Choose a RAID level and select the hard disks to be used in the migration.

To migrate a volume to another RAID level, the ShareCenter Pro requires a volume's disk array and one or more unused disks to do the migration. The ShareCenter Pro software will extend the volume capacity after the migration is complete.

Migration can only take place in the following instances:

Standalone to JBOD
Standalone to RAID 0/1/5/6
RAID 1 to JBOD
RAID 1 to RAID 0/5, and 6

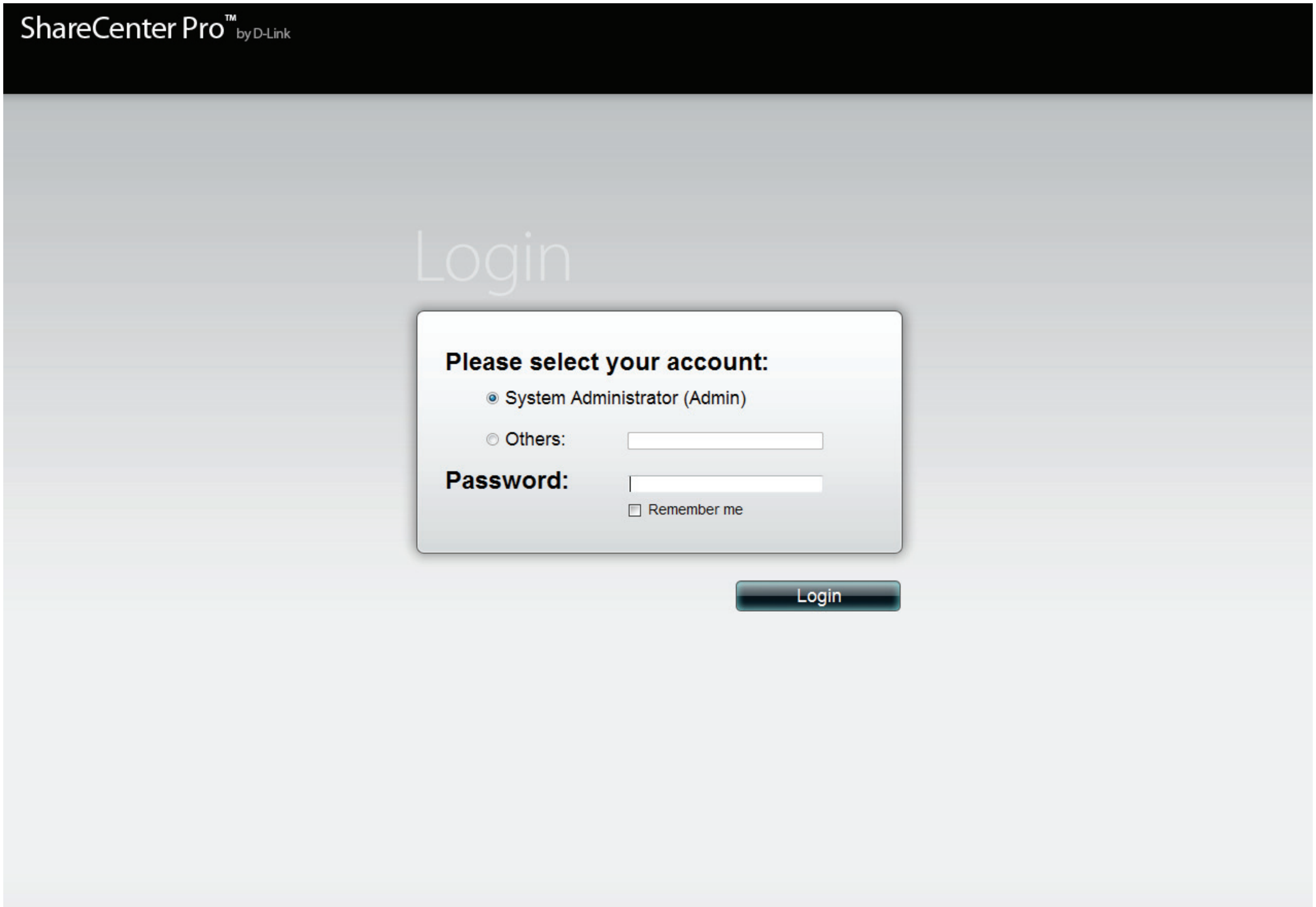
Click **OK** to save the settings.



# Migrate a Volume after updating the Firmware

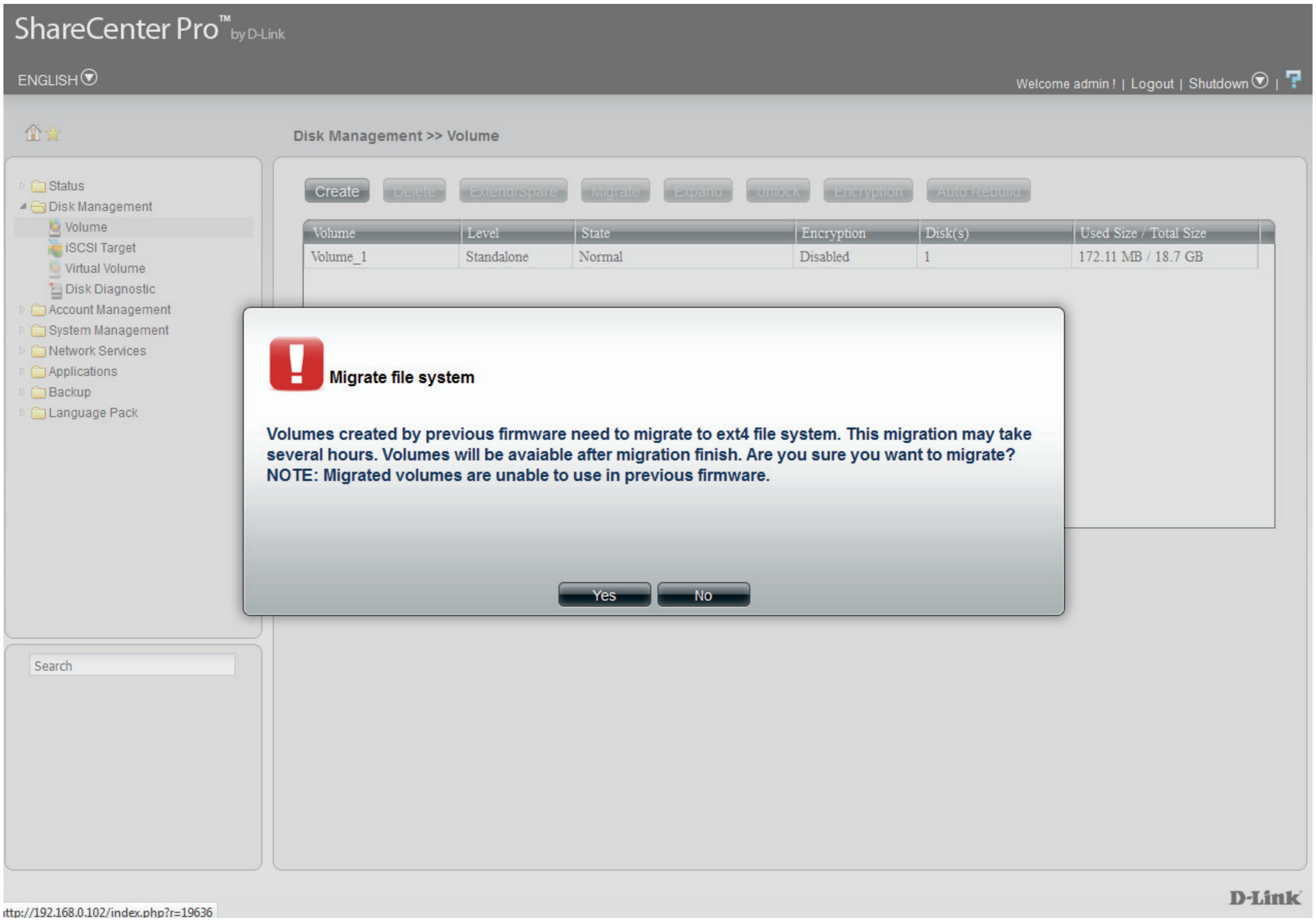
Once you have updated your firmware, the data volumes you've created from the previous firmware release, needs to be updated. The DNS-1200-05 then checks every volume and informs you if one or more volume(s) needs updating. The information below is an example of what takes place during and after this process.

Log in to your system.



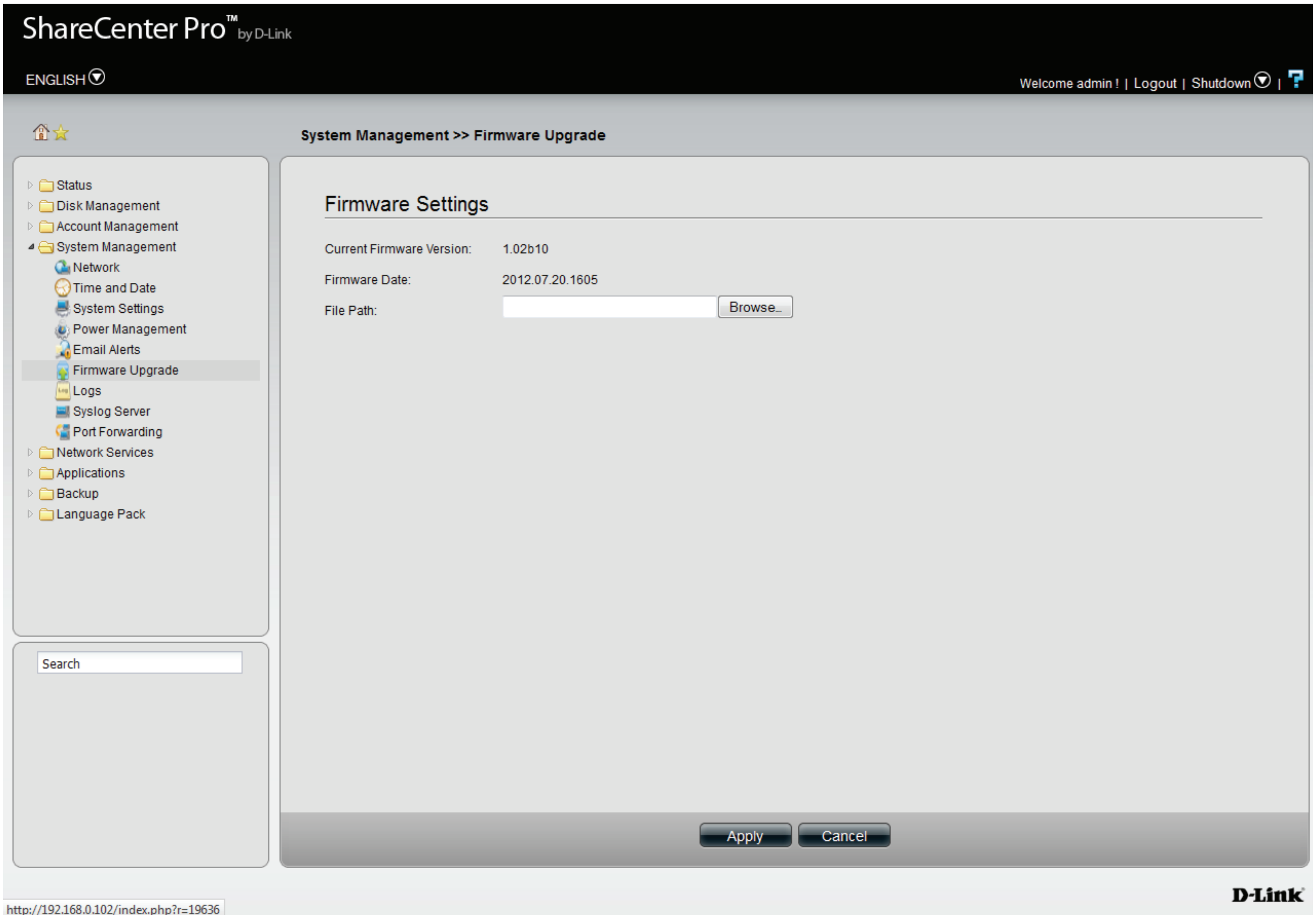
As soon as you log into the system a warning message appears. Please read the instructions carefully. Note that when you upgrade your firmware, the migrated volumes will not be able to read the old firmware, so migrating the volume is critical. Also make sure you backup all data first.

Click **Yes** to update, **No** to cancel.

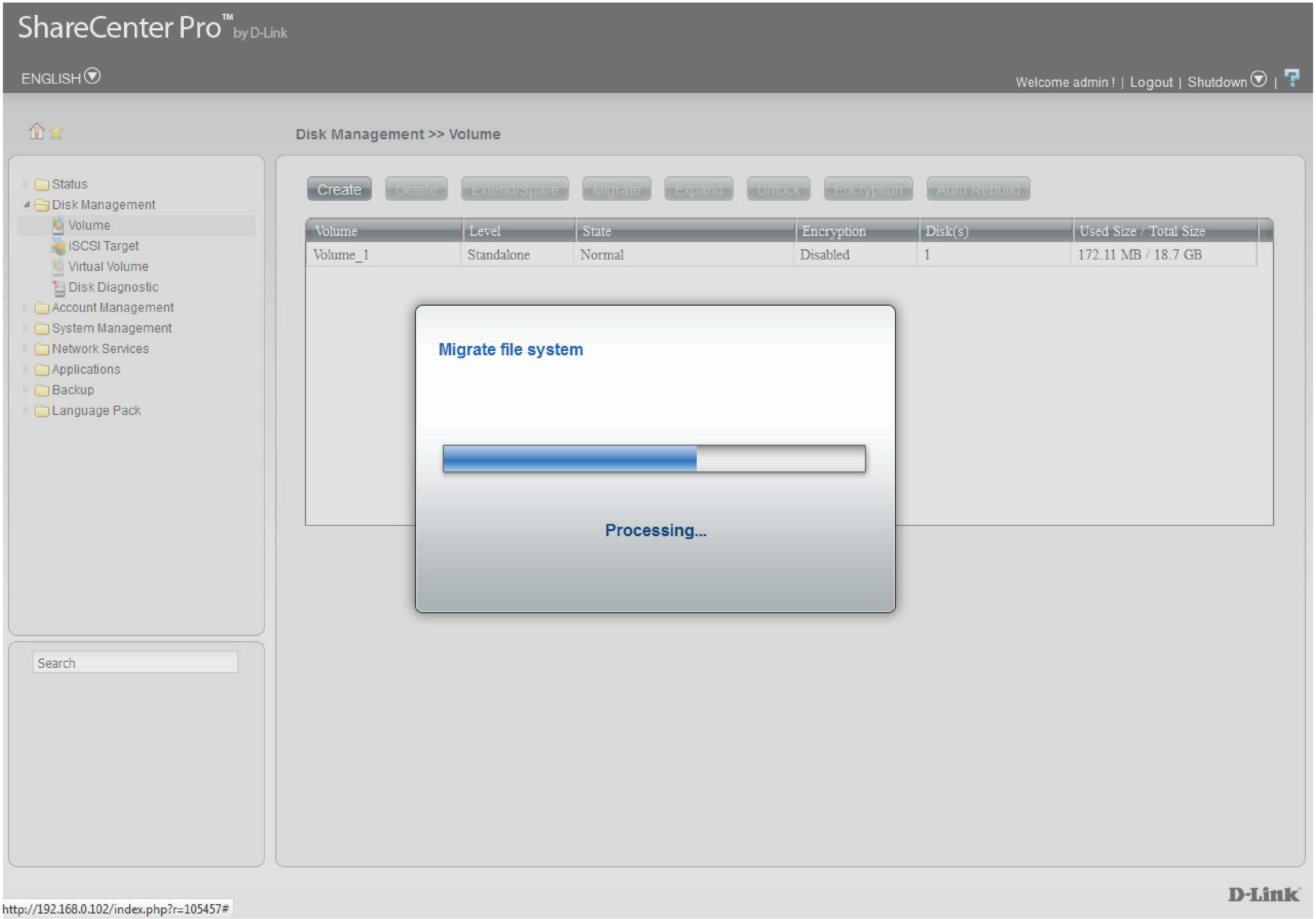


**Firmware Settings**:Note the following details:

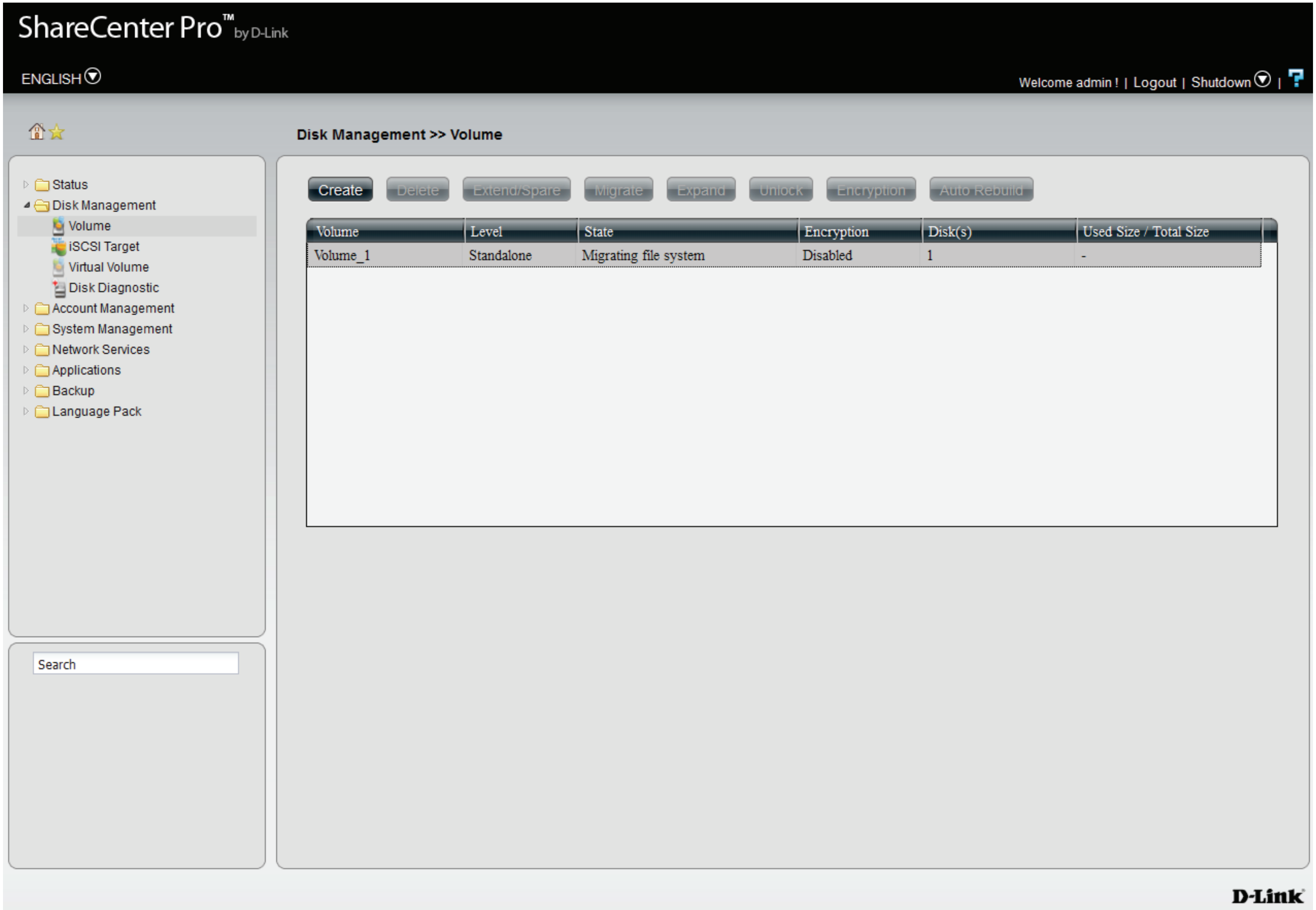
**The current firmware version number**.
**The current firmware date**.
**File Path**, Click the **Browse** button to update the new firmware. Click **Apply** to continue.



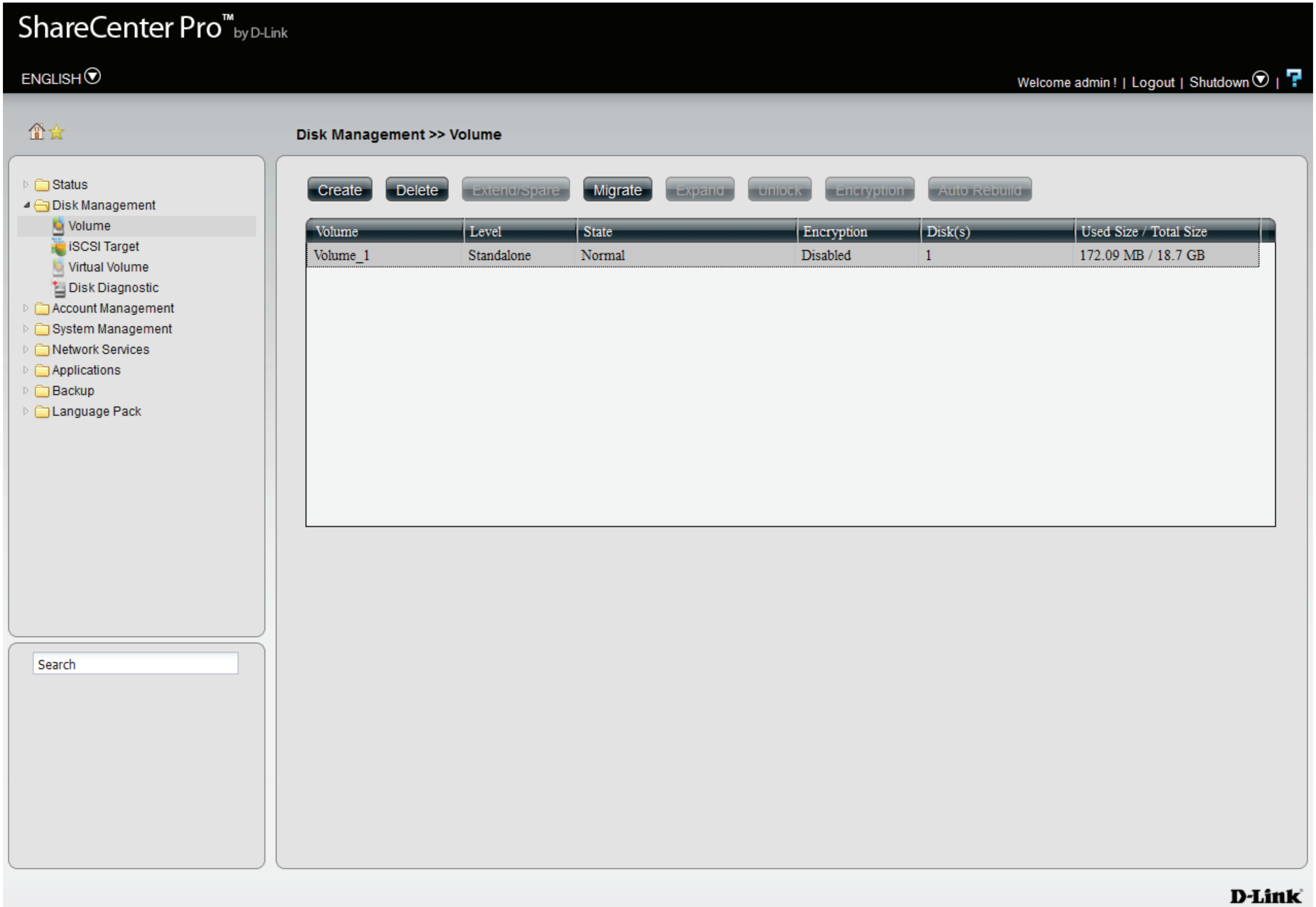
Migration in progress.



The **Disk Management**, **Volume Table** directory shows the migration taking place. See the **Status** tab for details.



The migration process is complete. See the **Status** tab for details.



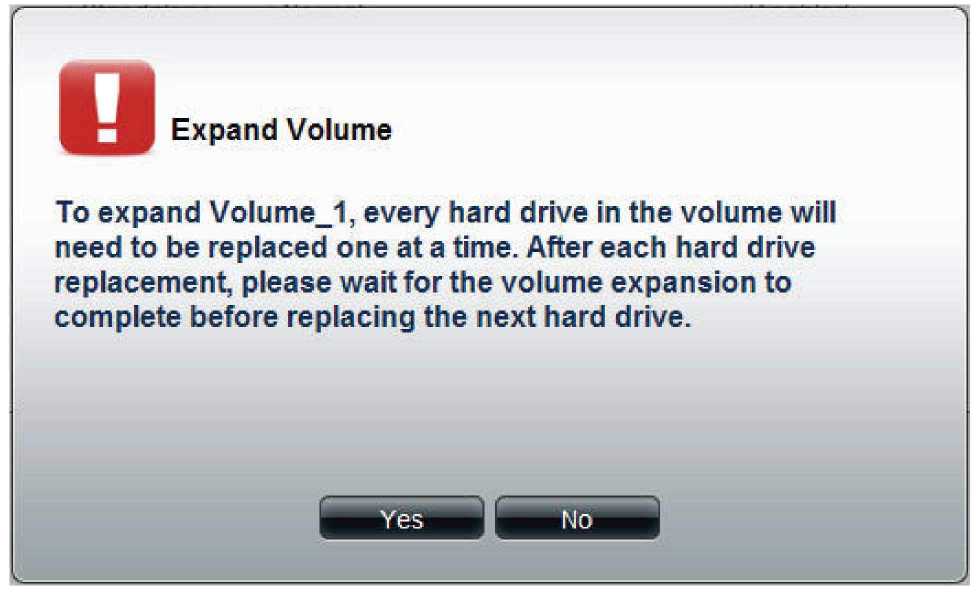
# Expand a Volume

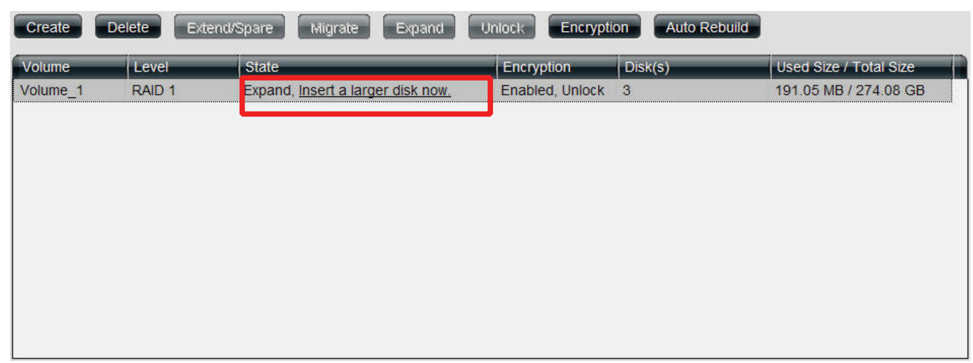
1. To expand a volume you need several larger capacity hard drives.
2. Replace all the disks of this volume with larger disks, one at a time.
3. Once you have replaced each disk, it takes a while for the volume to recover.
4. Once the disks of the volume is replaced, ShareCenter Pro extends the volume capacity.

ONLY RAID 1, 5 and RAID 6 supports volume expansion.

Click the **Expand** button to see the following window.

Click **Yes** to continue.




Follow the instruction in the State column to expand the volume.

# Change the Encryption Settings

Click the **Encryption** button to see the following window.

The Encryption window appears and there are four tabs in the window. This window displays the settings in the **Change** tab.


| | |
|---|---|
| **Change Password** | Tick the check box and enter the new password in **New Password** and **Confirm Password** fields. |
| **Auto Unlock** | Tick the check box to automatically unlock the volume when the system starts. |
| **USB Key** | Tick the check box to save the password to a USB drive. |

Click **Apply** to save the settings.

This window displays the setting in the **Save** tab.

Click **Save** to save the password to local.


This window displays the settings in the **Load** tab.

| | |
|---|---|
| **Load password from local** | Click the Browse button to locate the path of the password that is saved to the local computer. |


Click the **Load** button to get the password from local to unlock this volume.

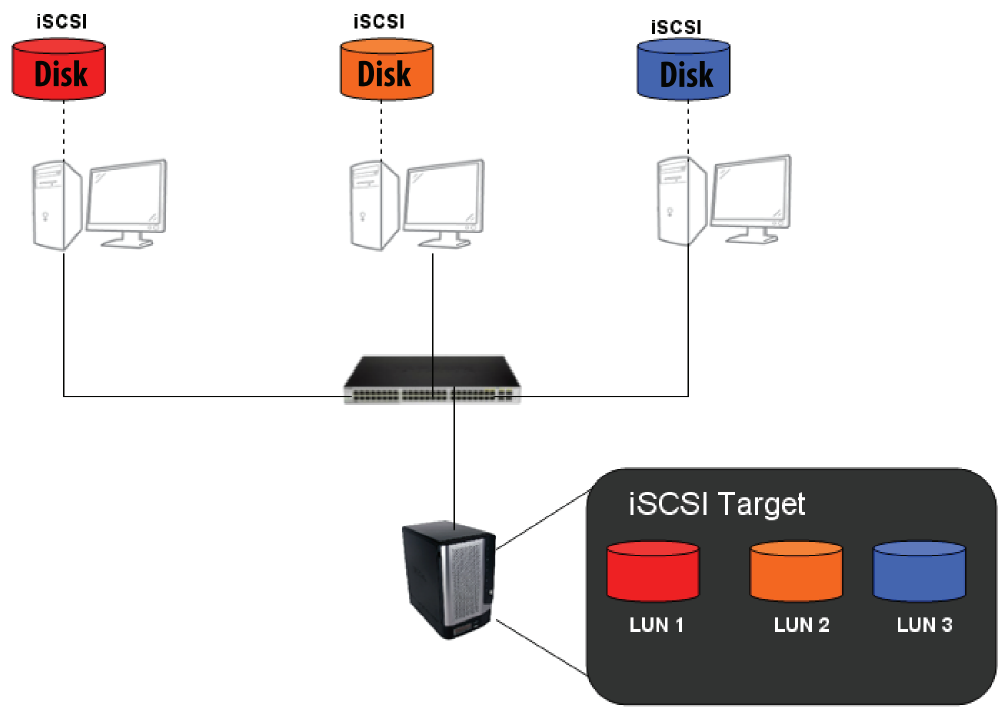
This window displays the setting in the **Mail** tab.

Click **Mail** to send the password to the administrator.

This has been setup in the Email Account Settings under System Management, Email Alerts.

# iSCSI Target

Your ShareCenter Pro supports multiple iSCSI targets and logical unit numbers (LUN) for storage expansion and backup destination of servers. Before applying an iSCSI LUN, make sure at least one iSCSI LUN has been created on the NAS. iSCSI is a Client-Server based protocol, except that the client process requesting data is called an "initiator" and the server process serving the data is called a "target". In an iSCSI implementation, the storage that is offered by the target appears as local disk to the initiator. The client can make block-based operations on that storage. Since this involves formatting the disk, partitioning, creating a file system on the disk, no more than one initiator can have read/write access to the specific iSCSI LUN at a time. However, it is possible that you can mount a iSCSI LUN as read-only on multiple initiators.



**Things to know before we start**
Between your computer and your storage device lies an initiator. Its called this because it initiates a connection to the device called a target. Do not connect 2 different clients to the same iSCSI LUN at the same time. This will lead to data loss and system crash.

**Create an iSCSI Target using the iSCSI Manager**
Login to your ShareCenter Pro as an administrator. Follow the instructions on the next page.

# iSCSI Target supports IPv6

The main addressable, discoverable entity in iSCSI is an iSCSI Node. An iSCSI node can be either an initiator, a target, or both. The rules for constructing an iSCSI name are specified. Both targets and initiators require names for the purpose of identification, so that iSCSI storage resources can be managed regardless of location (address). An iSCSI name is the unique identifier for an iSCSI node, and is also the SCSI device name of an iSCSI device. The iSCSI name is the principal object used in authentication of targets to initiators and initiators to targets. This name is also used to identify and manage iSCSI storage resources. Furthermore, iSCSI names are associated with iSCSI nodes instead of with network adapter cards to ensure the free movement of network HBAs between hosts without loss of SCSI state information and authorization configuration. An iSCSI node also has one or more addresses. An iSCSI address specifies a single path to an iSCSI node and consists of the iSCSI name, plus a transport (TCP) address which uses the following format:

<domain-name>[:<port>]

Where <domain-name> is one of the options below

- **IPv4** address, in dotted decimal notation. Assumed if the name contains exactly four numbers, separated by dots (.), where each number is in the range 0..255.

- **IPv6** address, in colon-separated hexadecimal notation, as specified in [RFC3513] and enclosed in "[" and "]" characters, as specified in [RFC2732].

- **Fully Qualified Domain Name** (host name). Assumed if the <domain-name> is neither an IPv4 nor an IPv6 address.

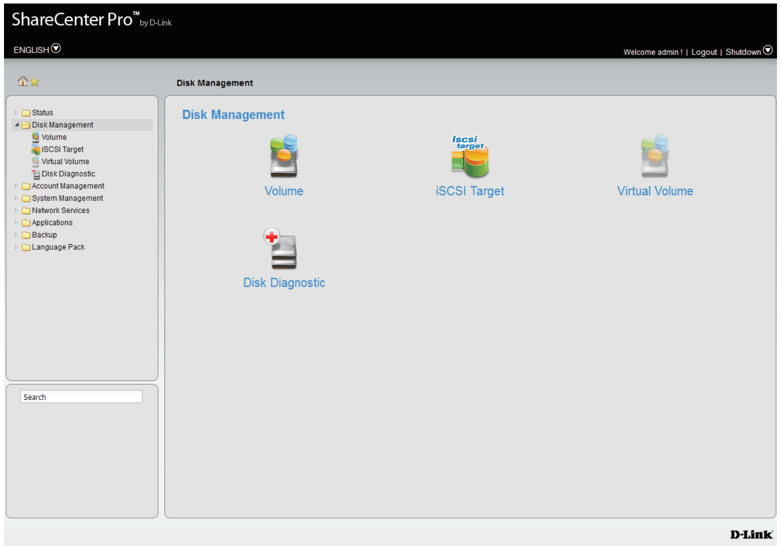
For iSCSI targets, the <port> in the address is optional; if specified, it is the TCP port on which the target is listening for connections. If the <port> is not specified, the default port 3260.

Examples of addresses:
192.0.2.2
192.0.2.23:5003
[FEDC:BA98:7654:3210:FEDC:BA98:7654:3210]
[1080:0:0:0:8:800:200C:417A]
[3ffe:2a00:100:7031::1]
[1080::8:800:200C:417A]
[1080::8:800:200C:417A]:3260
[::192.0.2.5]
mydisks.example.com , moredisks.example.com:5003

# iSCSI Target - iSCSI Manager

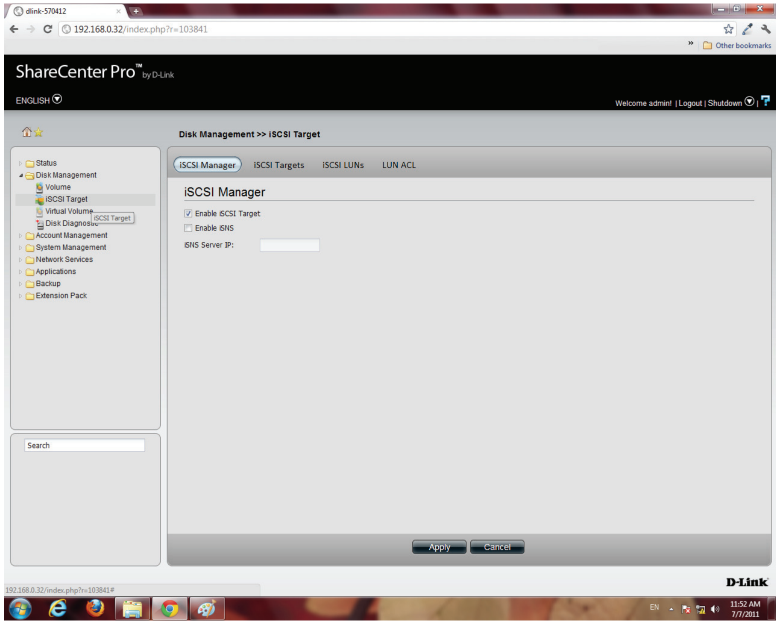
The iSCSI Target should not be confused with iSCSI which is a protocol, iSCSI Target is a storage server instance. iSCSI is a dedicated network connected hard disk storage device, like the DNS-1200-05. The 1200 provides distinct iSCSI targets for numerous clients.

1




Click Disk Management on the left pane.

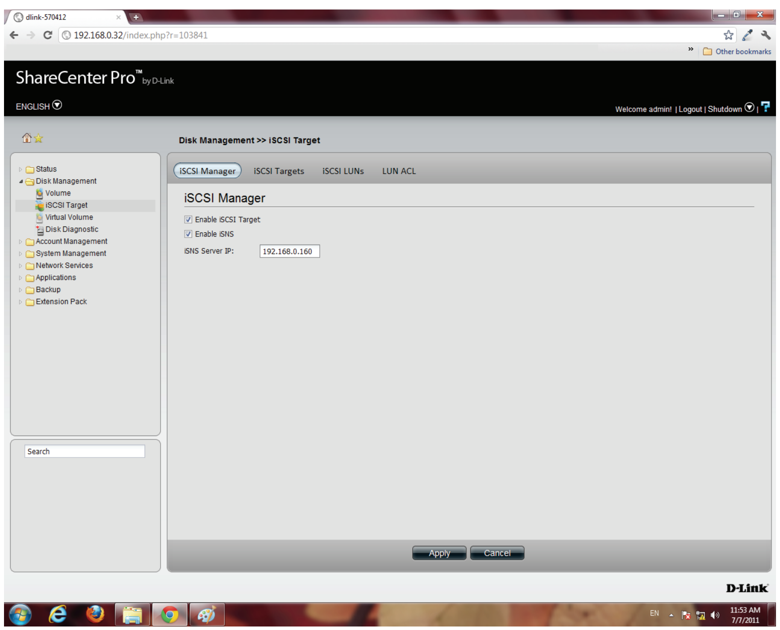
2




Click iSCSI Target.

The right pane displays the iSCSI Manager

3

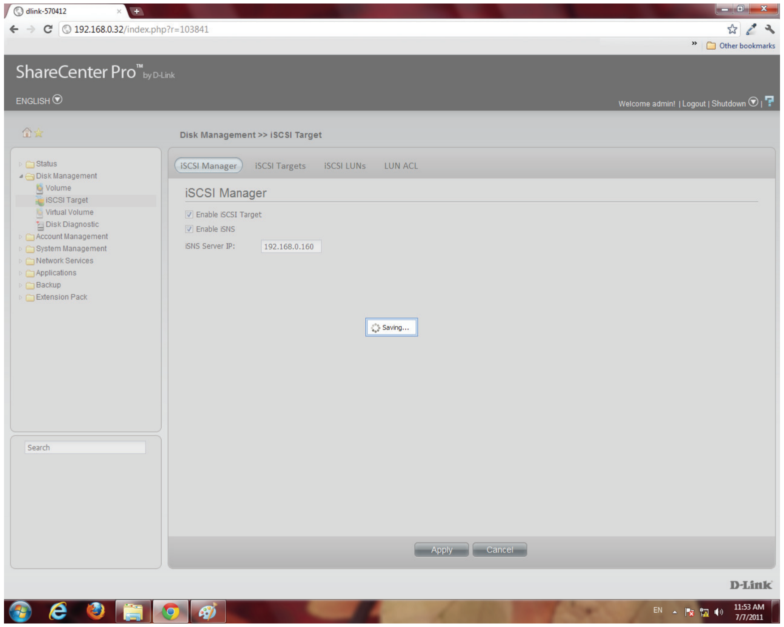



Click the Enable iSCSI Target checkbox to enable this function.

Click Enable iSNS and enter the iSNS server IP address.

Click Apply to continue

4

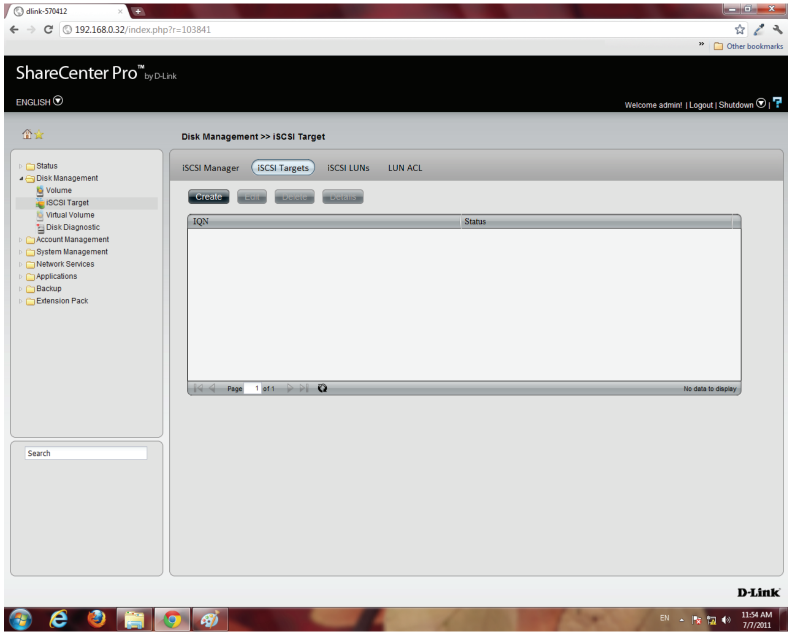



The program saves all configurations.

# iSCSI Target - Creating iSCSI Targets

Follow these instructions to create a new iSCSI Target.

1



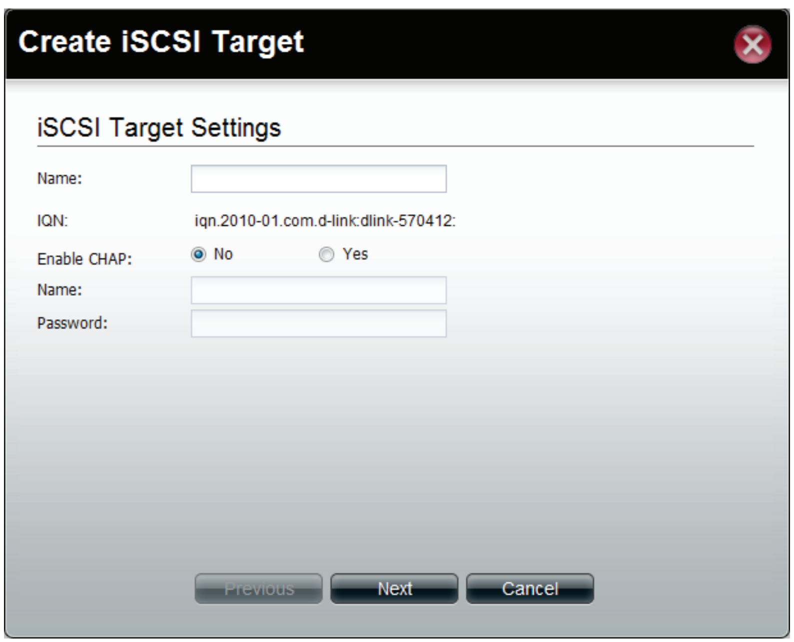

Click Disk Management on the left pane

Click iSCSI Target, then the iSCSI Targets button

Click Create.

NB: In order to run this, you must enable iSCSI Target under iSCSI Manager.

2

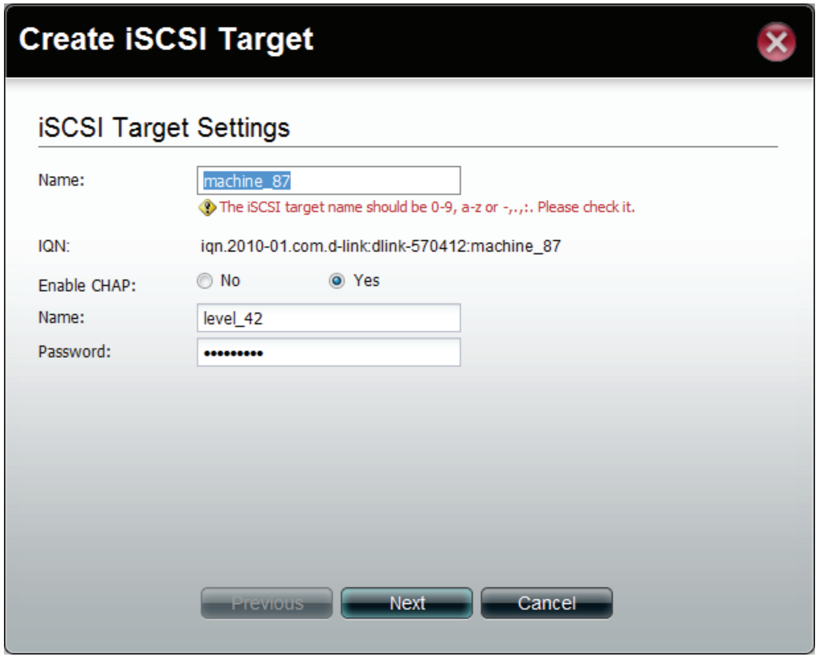



The Create iSCSI Target window opens.

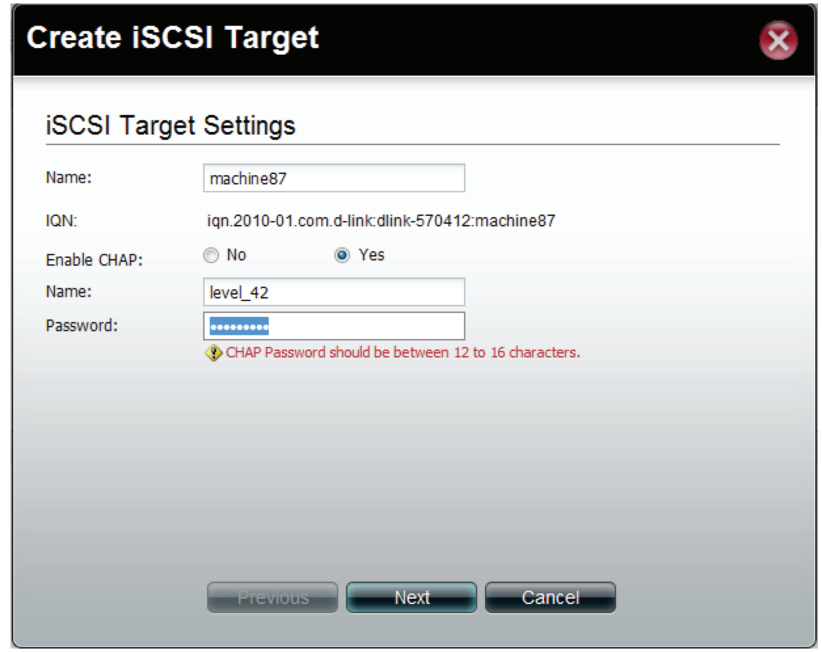
Under the iSCSI Target Settings enter a name for the iSCSI Target. The name will be the suffix of this target's iSCSI Qualified Name (IQN).

IQN is the acronym used to recognise this iSCSI Target. On the ShareCenter Pro , it will be constructed to "iqn.2010-01.com.d-link:" + the device's hostname + ":" + enter the name here.
Check the No or Yes radio button to disable or activate CHAP services

Enter a name and password for CHAP services.



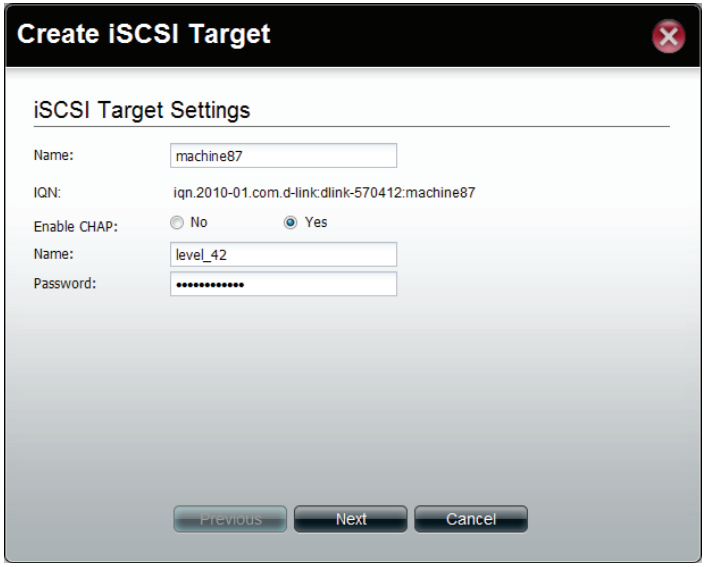

**Note:** The iSCSI Target name can contain numbers, letters of the alphabet and some symbol like dash '-', colon ':' and dot '.'.




**Note:** The CHAP name must be between 1 to 8 characters.
The CHAP password must be between 12 to 16 characters.
Both of them can accepts English letters, numbers, and underscore '_'.

**Note:** Both CHAP name and password can accepts English letters, numbers, and underscore '_'

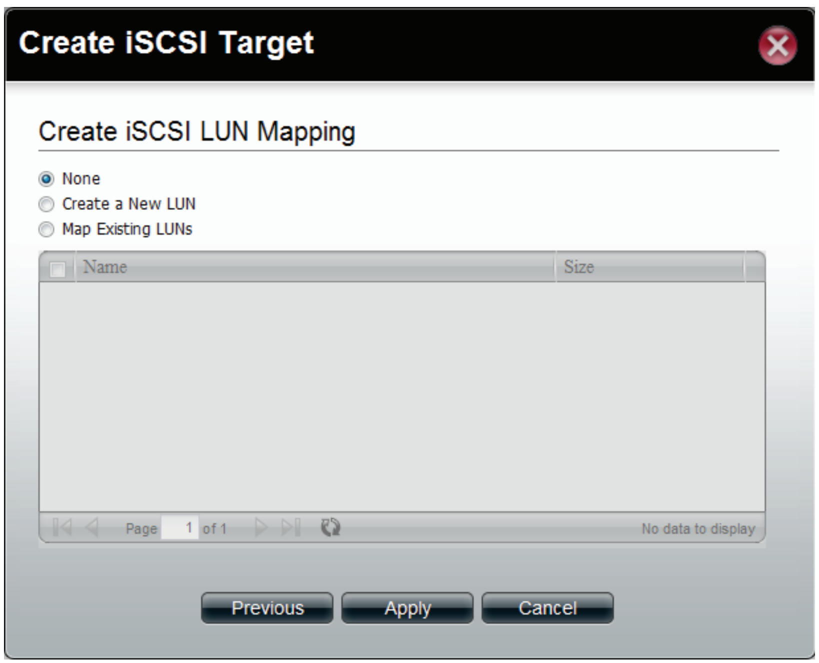
3




Enter the appropriate fields.

Click Next to continue.

4



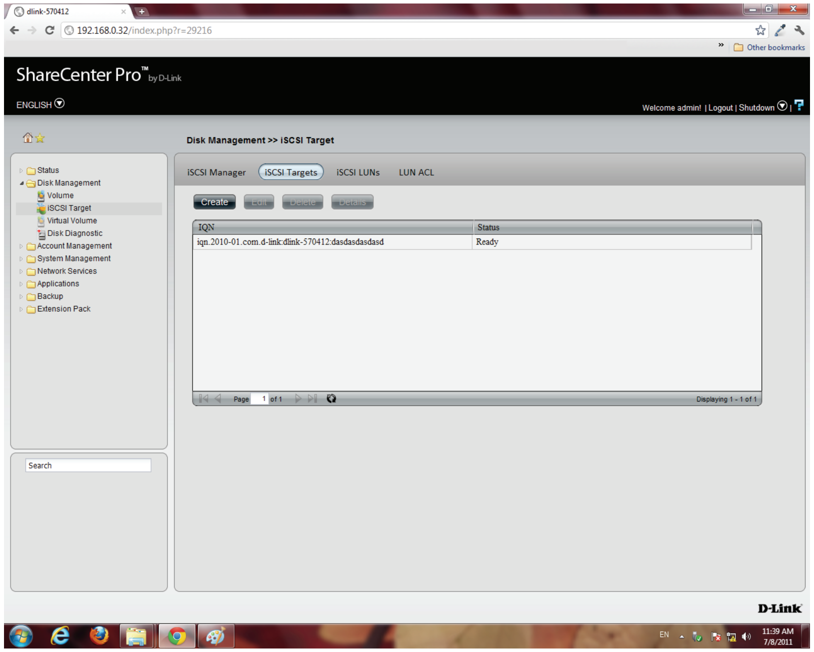

Select None, if you do not wish to create LUN Mapping here

Click Apply

Map the LUNs to this iSCSI target. You can specify the iSCSI LUN to map, or just create an iSCSI Target.
NB: iSCSI Target must map one iSCSI LUN at least.

1. None: no map LUN to this target. You can map it later.
2. Create a New LUN: create a new LUN and map it to this iSCSI target.
3. Map Existing LUNs: map existing LUNs to this target.

5



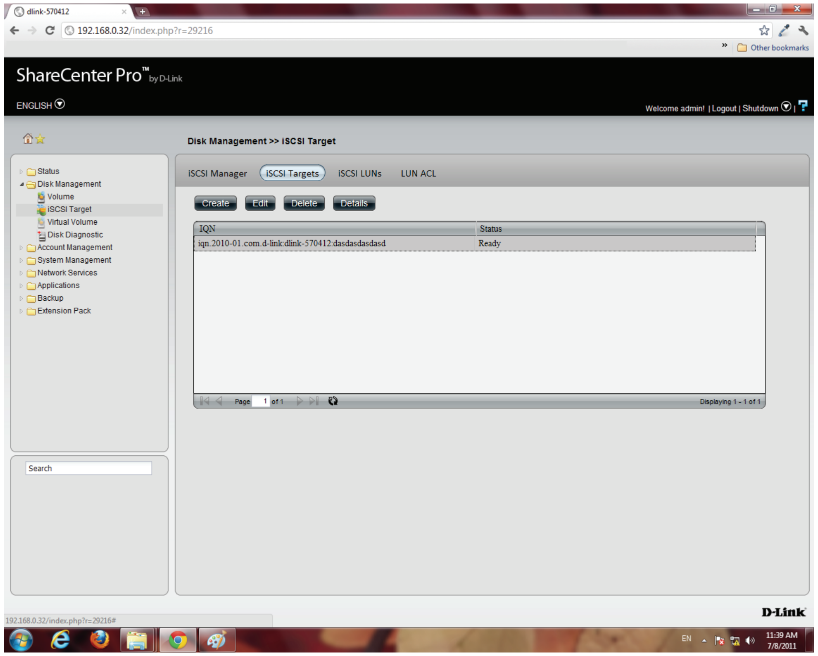

The newly created iSCSI Target appears in the iSCSI Target table.

The connection status will show in the “**Status**” column.

# iSCSI Target - Editing iSCSI Targets

Follow these instructions to edit an iSCSI Target.

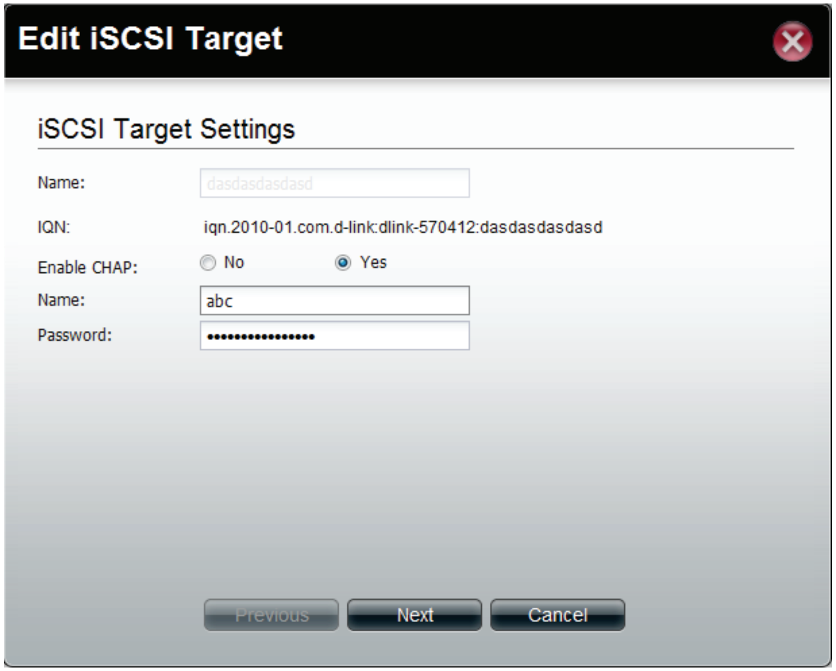
1




Under iSCSI Targets, click the iSCSI Target entry you wish to edit.

Click Edit.

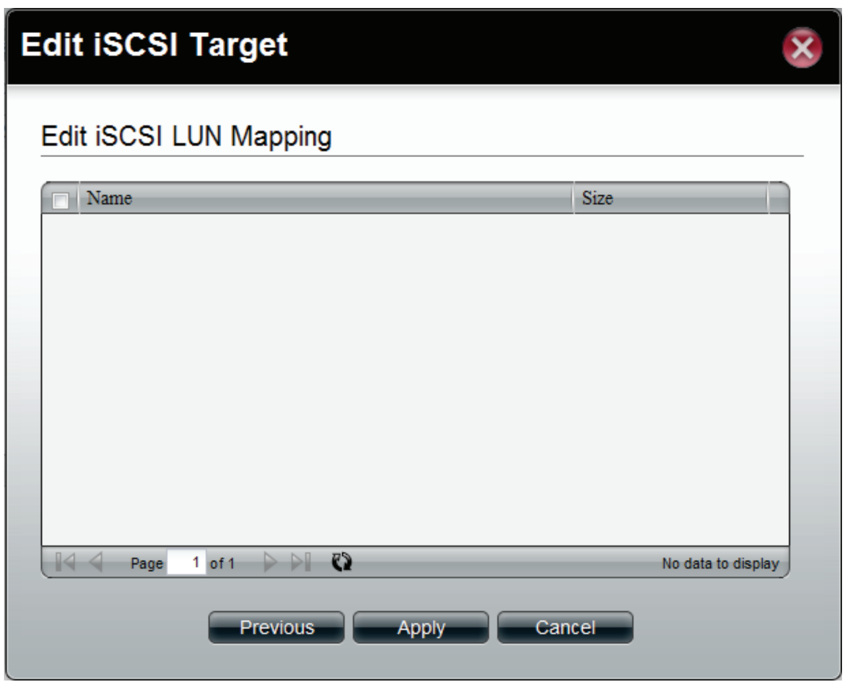
2




The Edit iSCSI Target window appears. Editing the iSCSI Target Settings is limited to the CHAP settings.

Choose to enable or disable CHAP settings or change the CHAP name and password settings.

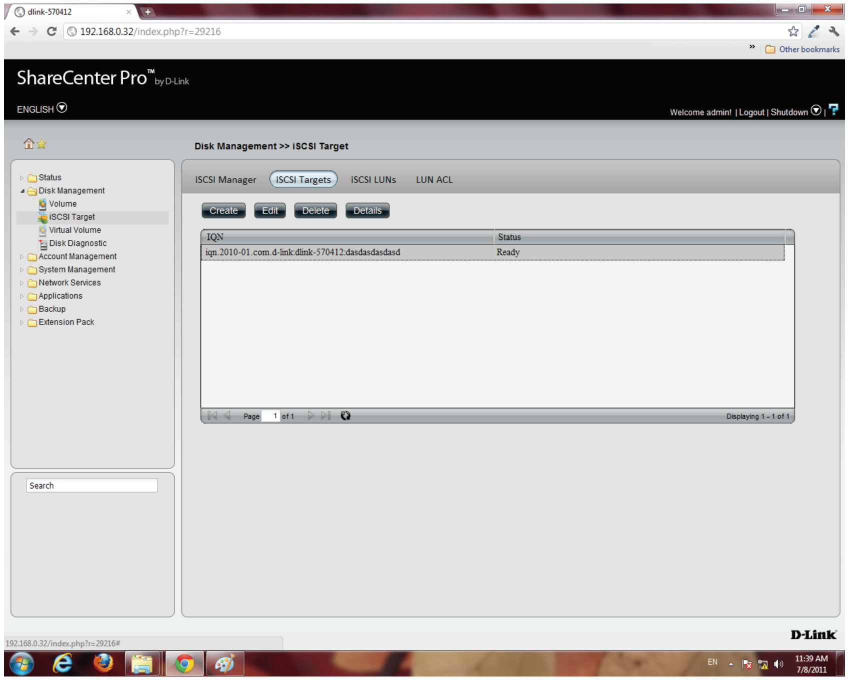
3




The next window asks you to edit the iSCSI LUN Mapping.

You can re-map any existing LUN to this iSCSI target. If this window doesn't show any data, go to iSCSI LUNs to create a new one.

4

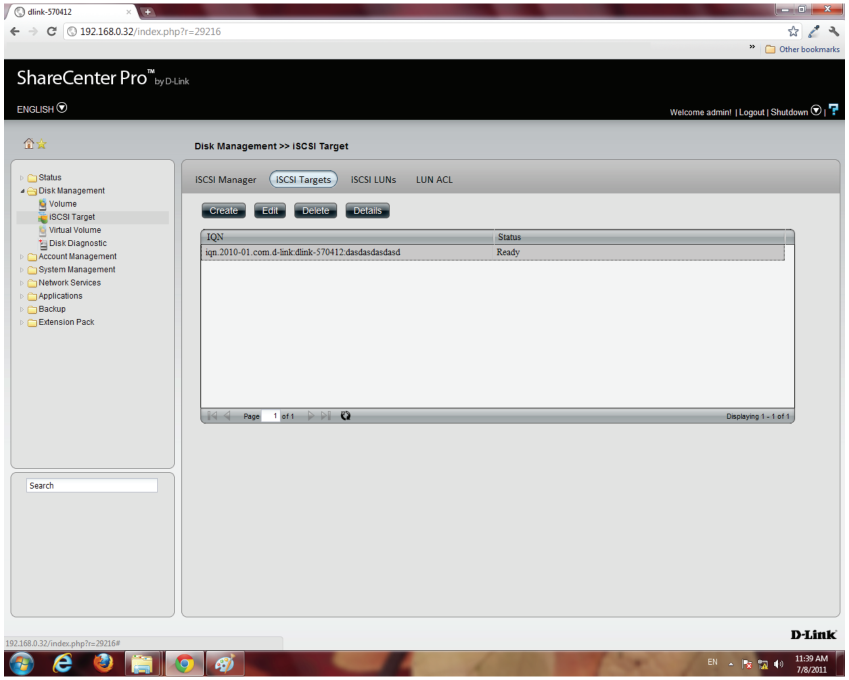



The iSCSI Targets window returns to the table.

# iSCSI Target - Deleting iSCSI Targets

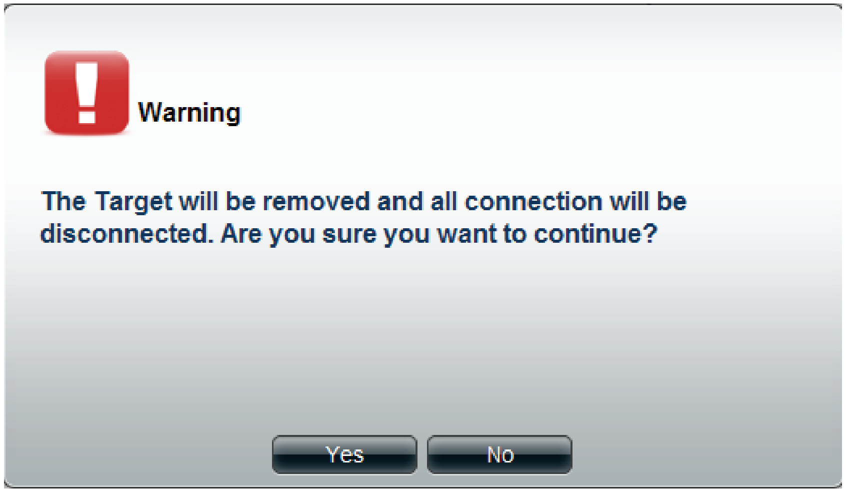
Follow these instructions to delete an iSCSI Target.

1



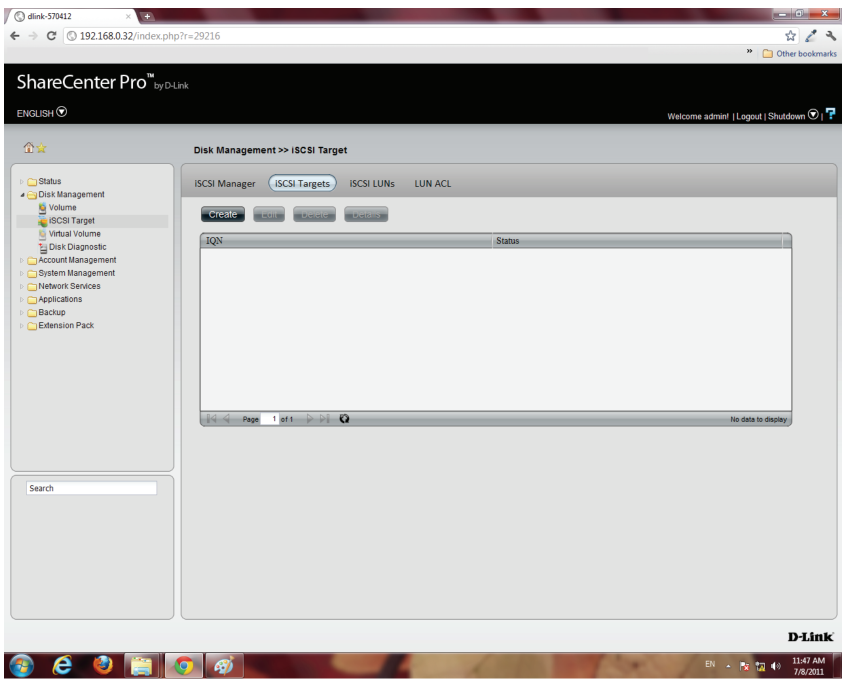

Select the iSCSI Target

2




The Warning message indicates that the iSCSI Target will be deleted.

3

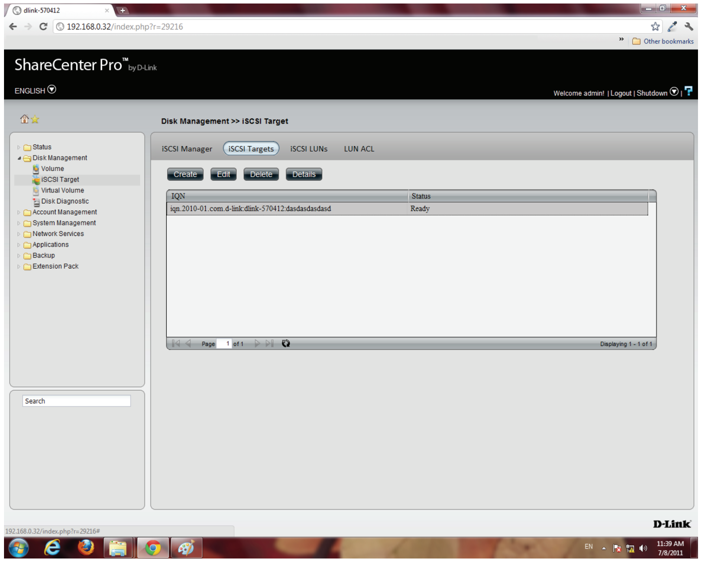



The items in the iSCSI Targets table no longer exists.

# iSCSI Target - Details of an iSCSI Targets

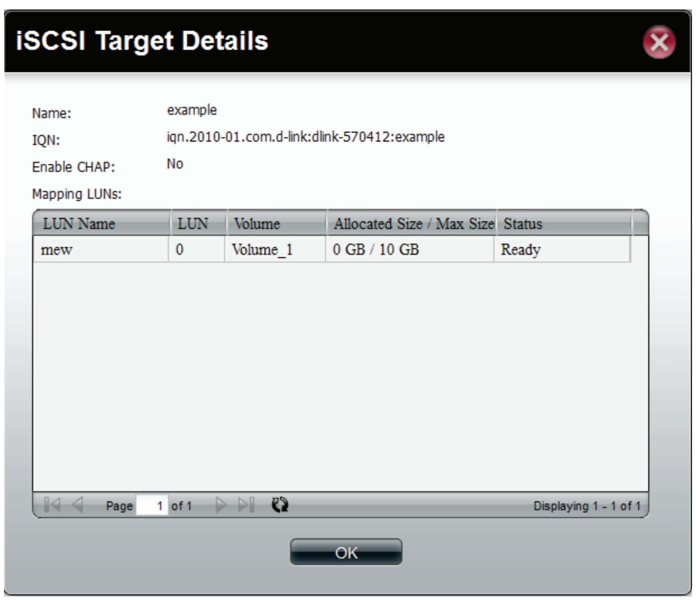
Follow these instructions to view details of an iSCSI Target.

1




Select the iSCSI Target

2




Click the Details button to show all details on the iSCSI Target.

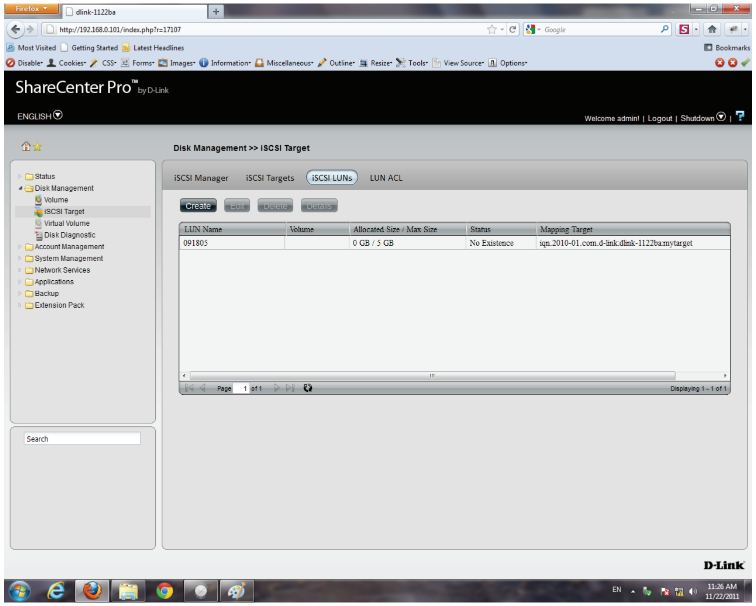
# iSCSI Target - iSCSI LUN

**Introduction**:
In an iSCSI environment, LUNs are essentially numbered disk drives. An initiator negotiates with a target to establish connectivity to a LUN; the result is an iSCSI connection that emulates a connection to a SCSI hard disk. The LUN can be created by the following two methods.

**Thin provisioning**:
The space is allocated only when needed. Advantages of Thin Provisioning on the ShareCenter Pro are as follows. With thin provisioning, you can flexibly allocate disk space (on the iSCSI LUN) to the server applications allowing the storage capacity to expand at any time regardless of the current storage size. The addition of storage space on the servers can easily be completed for different operating systems each using their own iSCSI initiator. Thin provisioning allows efficient storage management since the system administrator only has to monitor the storage capacity of the single ShareCenter Pro server rather than multiple hard drives or tapes on other sub-storage systems. Also, over-allocation of space is allowed since the storage capacity of the NAS can be expanded.

**Pre-Allocate**:
The space will be allocated now. If you create a 50 GB LUN, then 50 GB will be immediately reserved for that LUN. (Note that the creation will also take more time because of that process).

1




Click Disk Management, iSCSI Target

Click the iSCSI LUN button to see the LUN configuration.

Click the Create button to start to create an iSCSI LUN.

2


Enter the basic iSCSI LUN settings

Name: The LUN name, you can use english letters, numbers and some symbols like dash '-' , colon ':' and dot '.'.

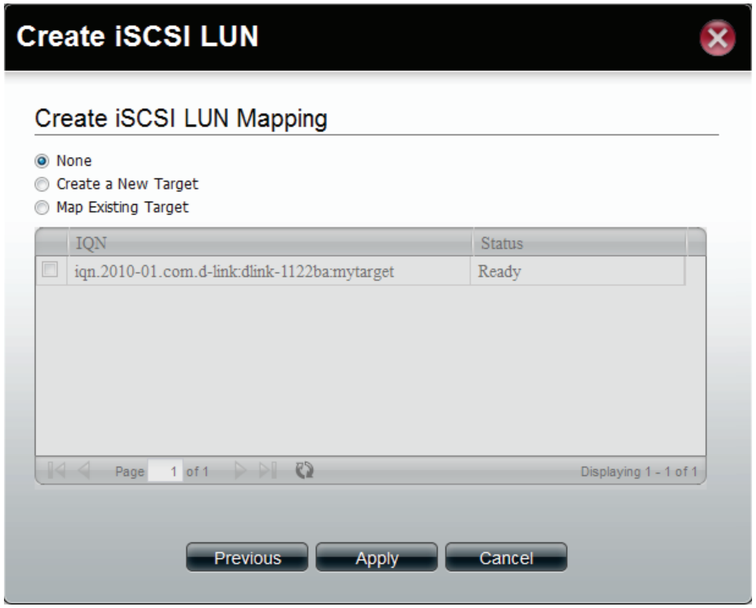
Pre-allocate: Select "Yes" to allocate volume space as the iSCSI LUN needs; Select "No" to do Thin Provisioning. This has been introduce in a previous section.

Volume: This is the Volume where the iSCSI LUN will be stored.

Size: The size of the iSCSI LUN is in Gigabytes. If you chose Pre-allocate as "Yes", you can enter a size from 1 to the maximun free size of the volume. Otherwise, you can enter a size from 1 to the volume size. The upper bound of the possible maximun LUN size is 2043 GB.

Click Next to continue.

3



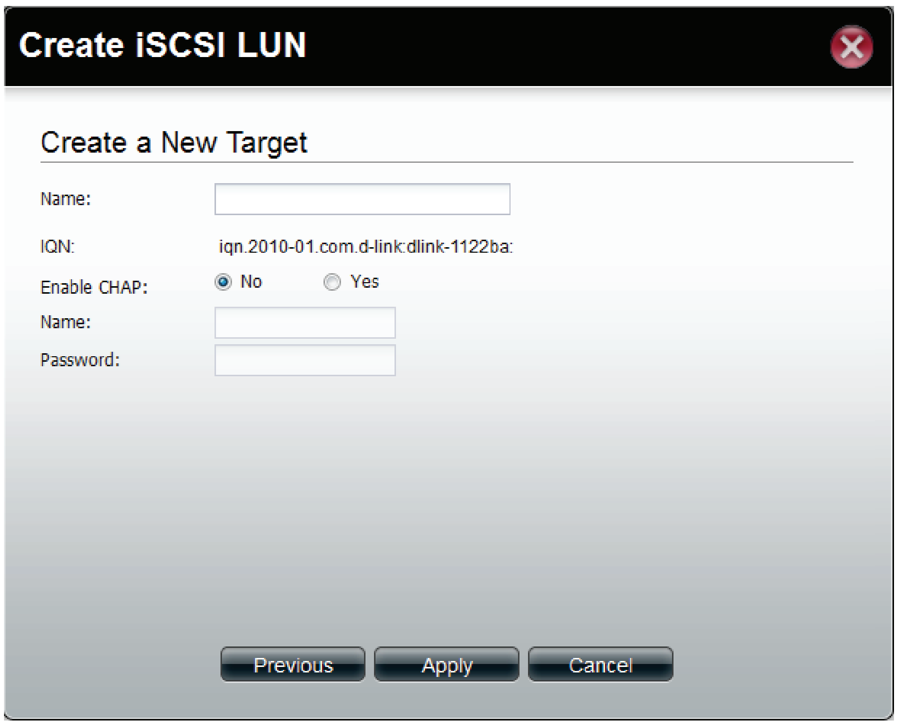

Specify an iSCSI Target to map from the iSCSI LUN you just created.

None: no iSCSI Target will be mapped to this LUN.

Create a New Target: Create a new iSCSI Target in the next step, and this LUN will be mapped to it.

Map Existing Target: This maps this LUN to an iSCSI Target that has been created before.

4




Enter the basic Target settings.

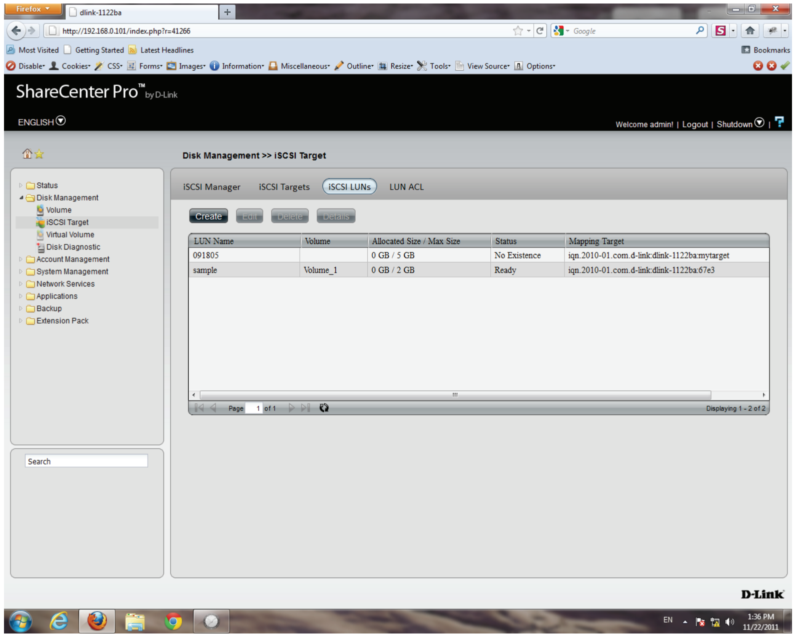
In the Name field, enter the suffix of the Target's IQN.

Under Enable CHAP, select Yes, if you wish to have authentication to login to the Target. Click No, if you do not want authentication.

In the Name field, enter the CHAP name.

In the Password field, enter the CHAP password.

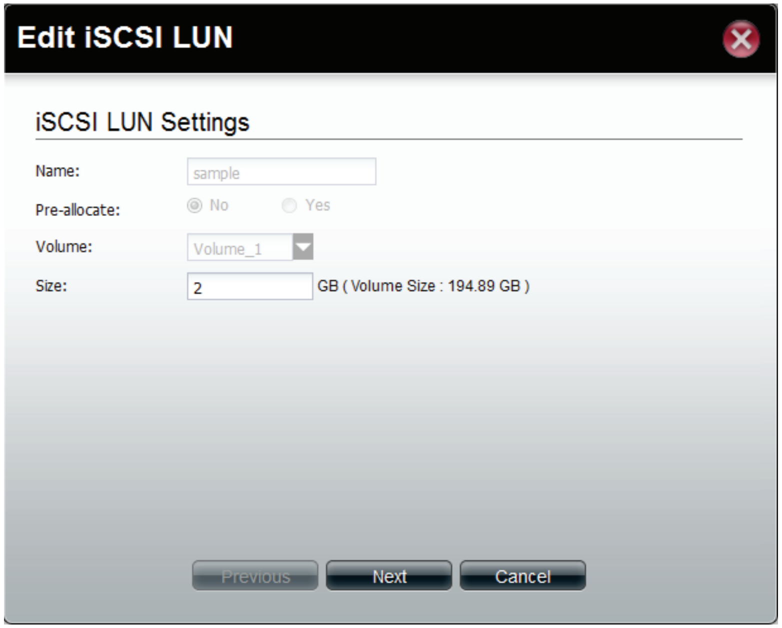
5




The new iSCSI LUN shows up in the iSCSI LUN table.

# Edit an iSCSI LUN

1

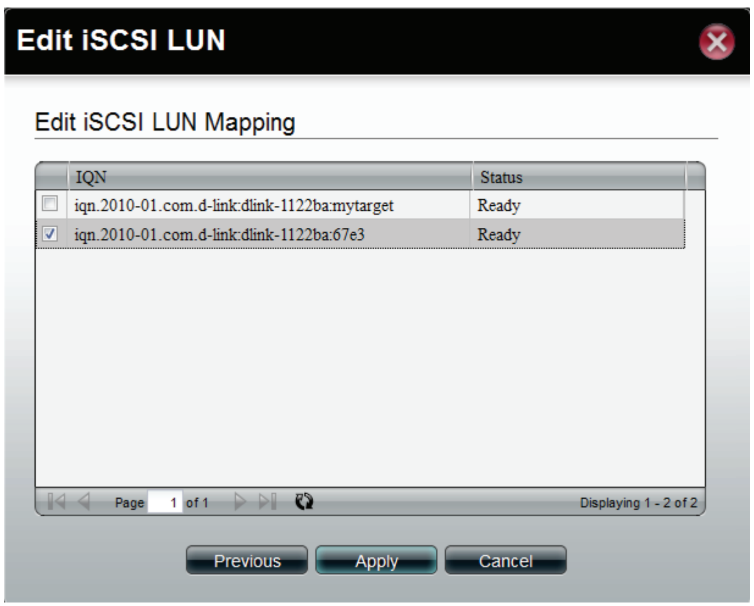



Select an iSCSI LUN.

Click the edit button

Change the LUN size if the LUN is in thin-provisioning settings

2

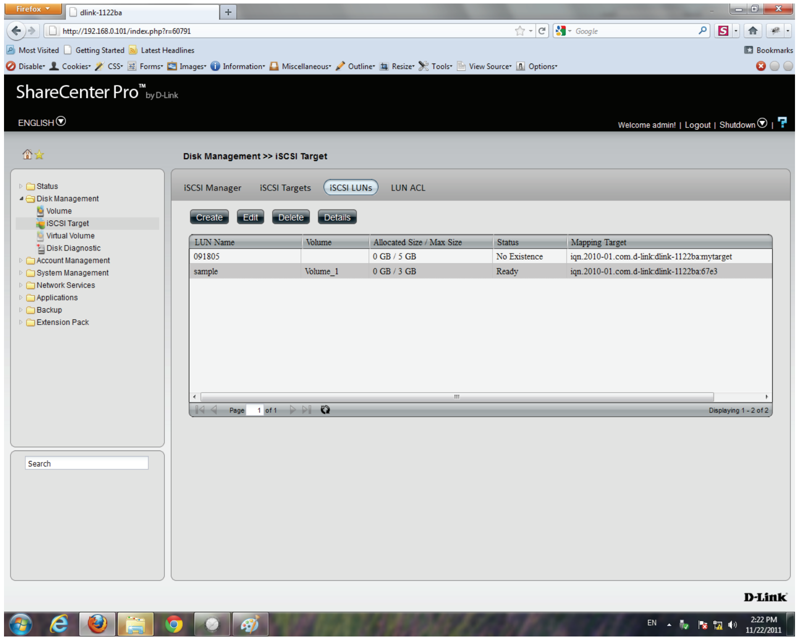



Change the LUN Mapping settings here.

Click Apply to save settings.

# View details of an iSCSI LUN

1

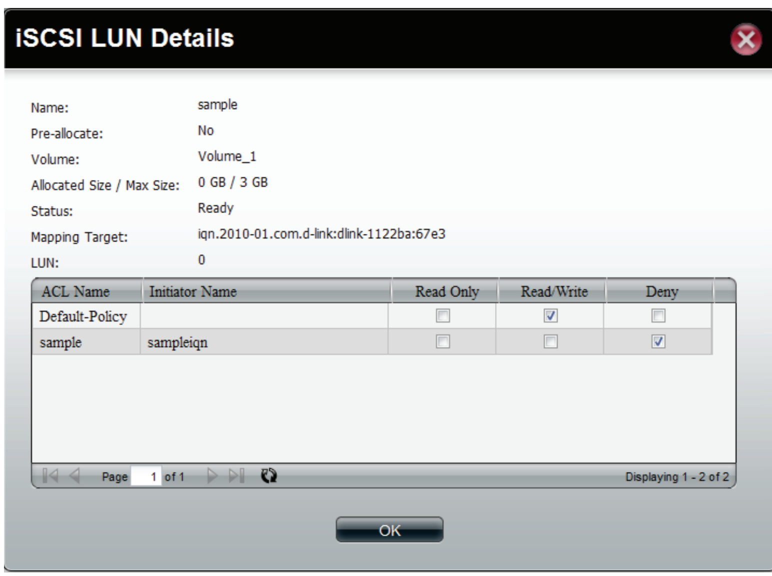



Select an iSCSI LUN.

Click the Details button

The Details window shows the basic settings of an iSCSI LUN and its ACL settings in the ACL table.

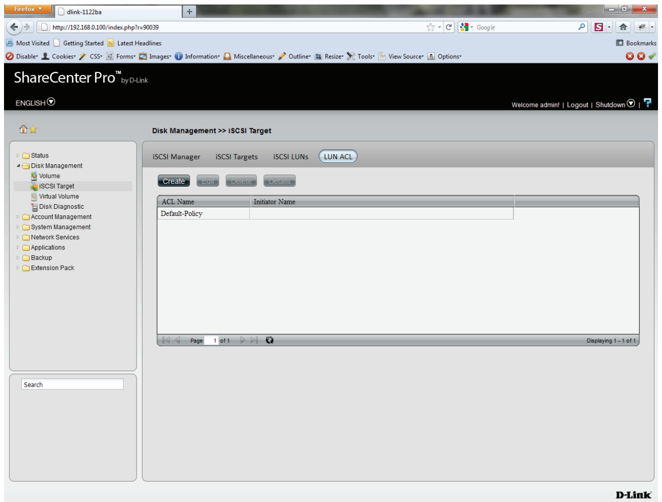
2



# iSCSI Target - LUN ACL

LUN ACL(LUN Access Control List) defines the access permission for the initiators to the LUNs. When you need to create an access control rule for an initiator, you need to create a new LUN ACL for it to operate. The Default Policy will be applied if the initators are not on the list. The Default Policy is read/write in iSCSI LUN. You also can edit the Default Policy to Read Only or Deny.

1




The Default Policy will always be first ACL on the LUN ACL table when the iSCSI Target service is enabled.

Click the Create button to create a new LUN ACL for the initiator

2


Create the iSCSI LUN ACL

Enter the policy name and the initiator IQN

Change the LUNs' access rights for this initiator to Read Only, Read/ Write, or Deny

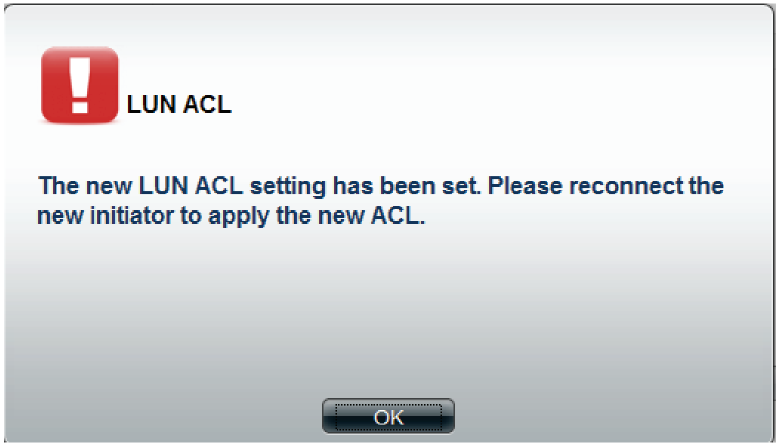
Read Only: The initiator will grant Read access rights to the LUN.

Read/Write: The initiator will grant Read and Write access rights to the LUN.

Deny: The initiator will not see the LUN.

Click Apply to continue

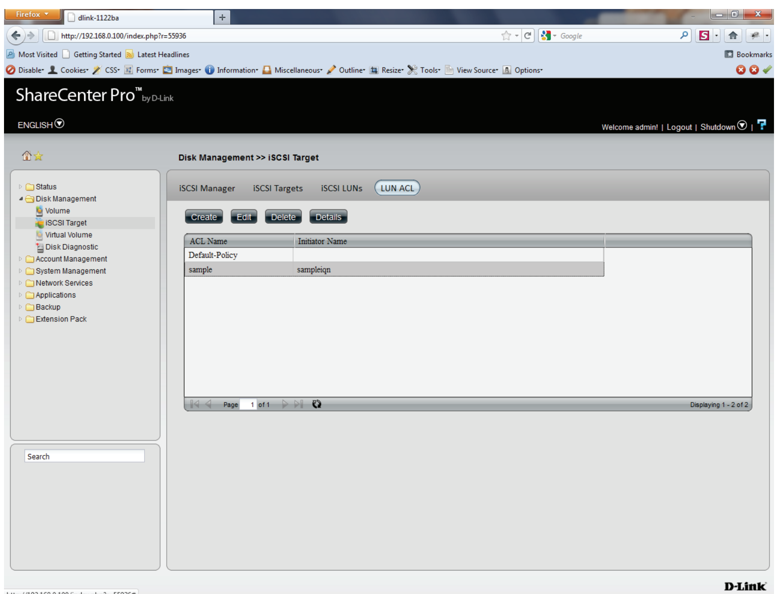
3




A warning message appears asking you to reconnect to the initiator.

Click OK to continue.

4




The created LUN ACL will appear here.

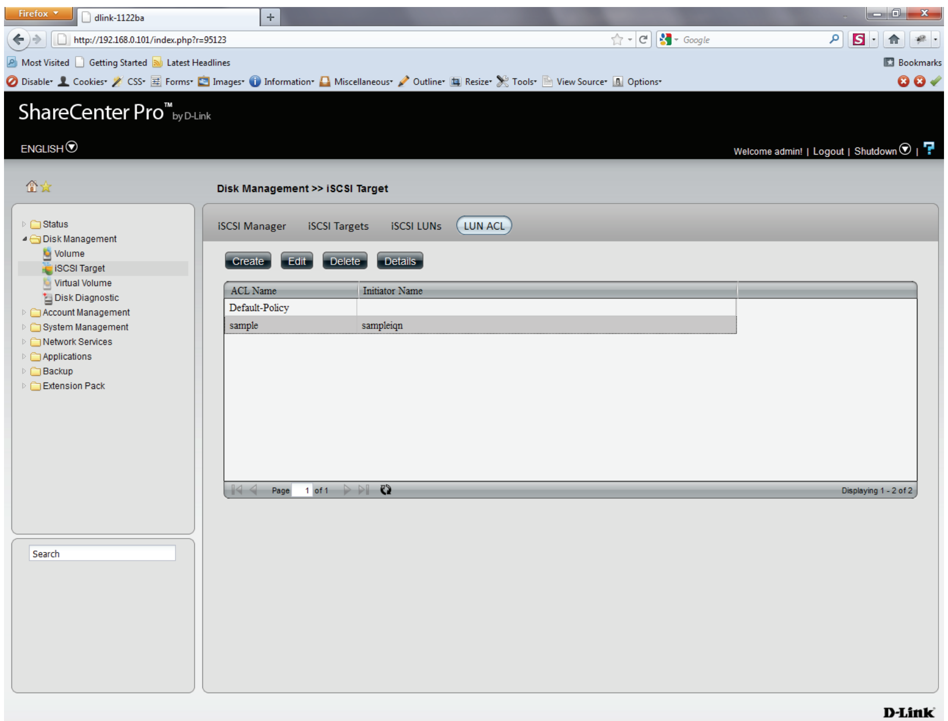
# Editing the LUN ACL

You can edit the LUN ACL at your convenience.

**Caution:** Disconnect the iSCSI initiator from the ShareCenter Pro before editing the LUN ACL. Failure to do so can cause system problems.

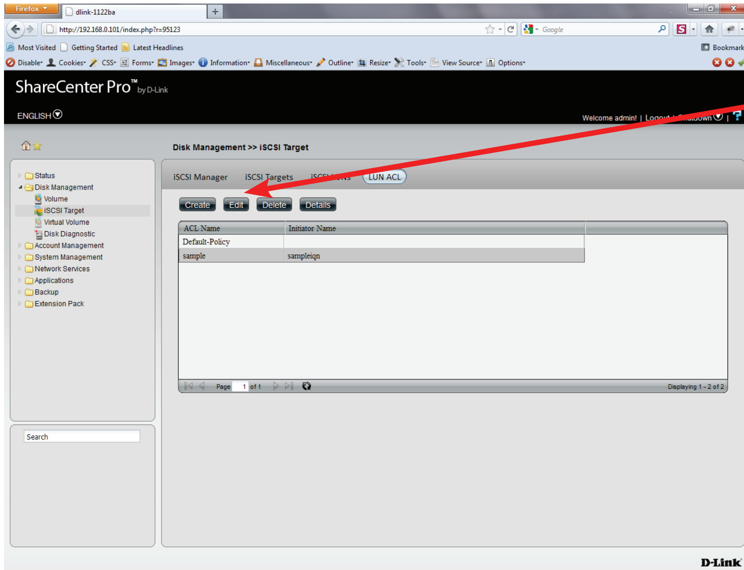
Follow these instructions to edit the LUN ACL.

1




Select the LUN ACL you want to modify

2




Select the LUN ACL entry and click the Edit button.

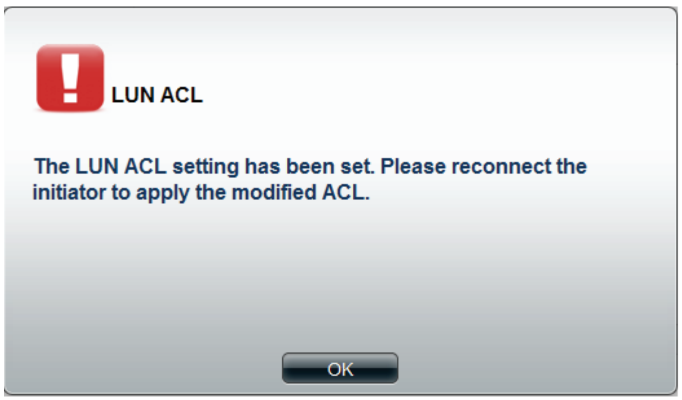
3


Change the LUN access permissions on the initiator. Select either Read Only, Read/Write or Deny

4


Press the Apply button, and the modified rule will be applied.

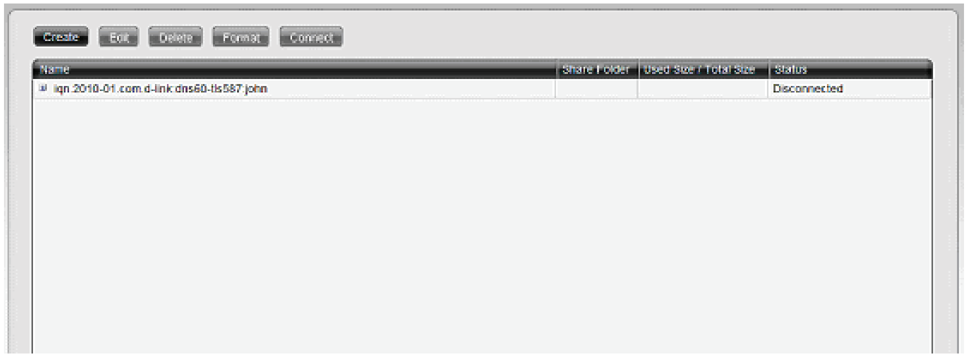
5




A LUN warning message appears asking that you reconnect the initiator to apply the modified ACL.

# Virtual Volume

Click the **Virtual Volume** icon in the Disk Management window or the Virtual Volume link in the left window to configure the virtual volume. The Virtual Volume allows the ShareCenter Pro to expand its iSCSI capacity. By utilizing the built-in iSCSI initiator, the ShareCenter Pro will be able to connect to other iSCSI targets on the network and convert them into virtual volumes. These virtual volumes are seen as multiple single volumes on the ShareCenter Pro. Up to 8 virtual volumes can be stacked. The ShareCenter Pro acts as the storage stack master server. Virtual Volumes can be used to store and backup data, just like a local volume.




**Create** Click the button to add a virtual volume.

**Edit** Select a target and click the button to change the settings.

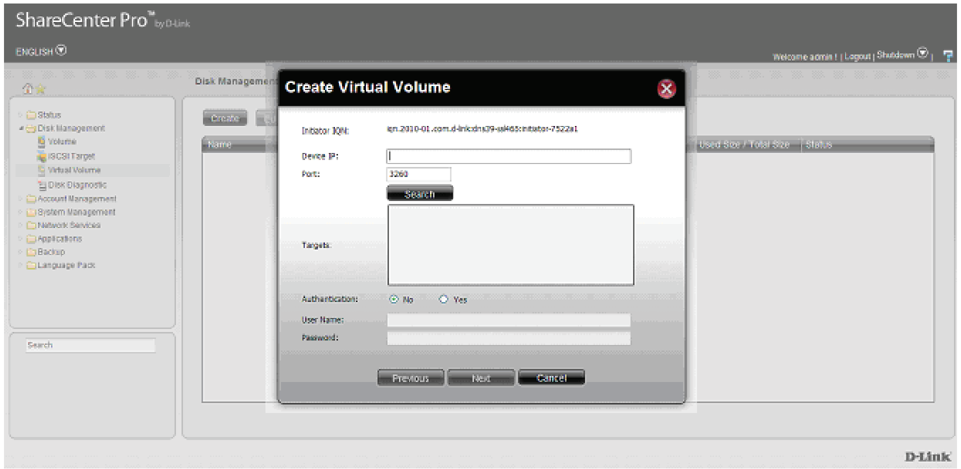
**Delete** Select a target and click the button to remove a virtual volume or a target from the list.

**Format** When using the virtual volume for the first time, the volume must be formatted before mounting to the ShareCenter Pro.

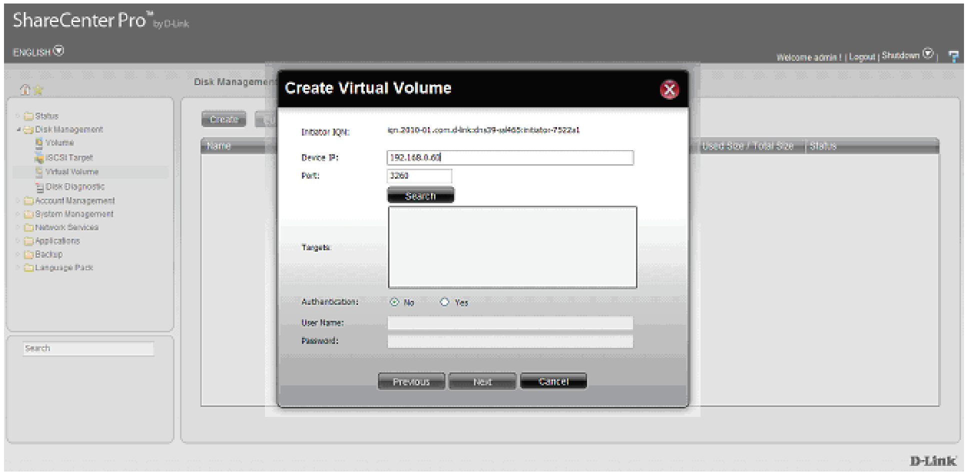
**Connect/ Disconnect** Click **Connect** to link to a virtual volume. Click **Disconnect** to terminate the connection.

Click **Create**. Enter the following details in the fields provided:

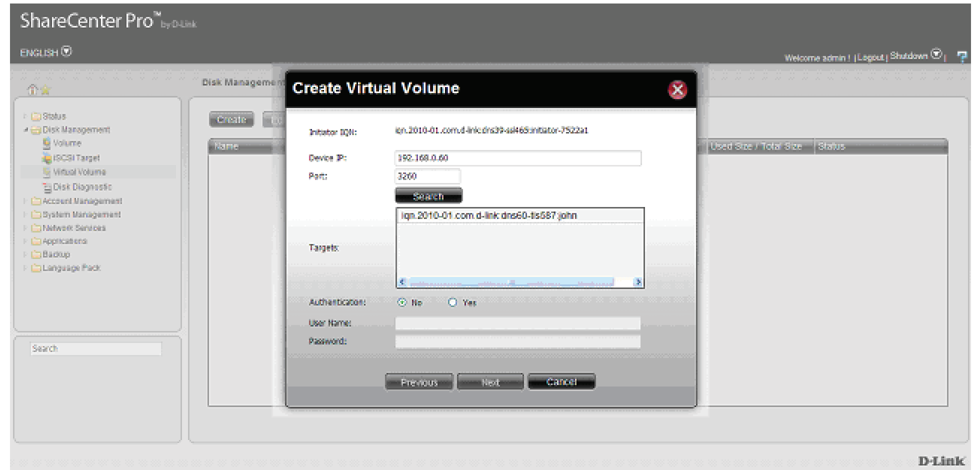
**Initiator IQN**: This field is already populated
**Device IP**: Enter an IPv4 or an IPv6 IP address.
**Port**: The default is 3260
**Target**: This field is populated once the server is found.
**Authentication**: Click Yes or No depending on your setup
**Username**: Enter a username for authenticating
**Password**: Enter a password for authenticating



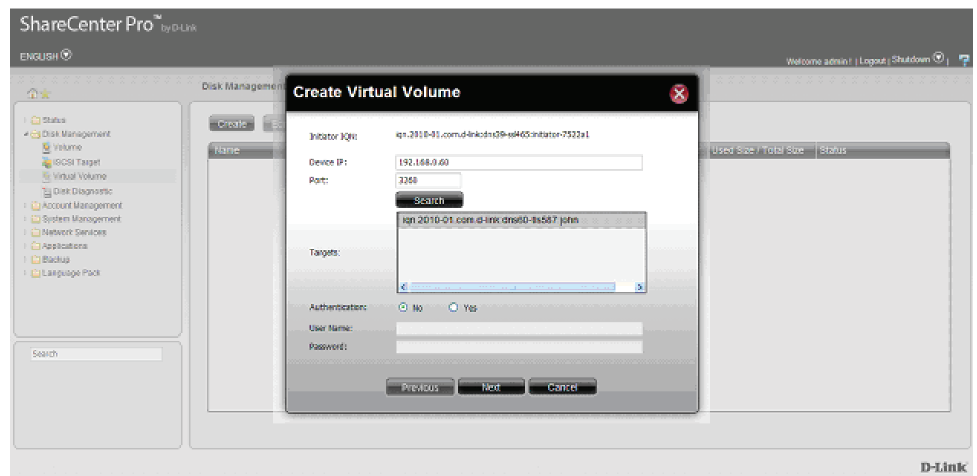

Under **Device IP**, enter the IP address of the **iSCSI Target**. This can either be an **IPv4** or **IPv6** address. Click the **Search** button



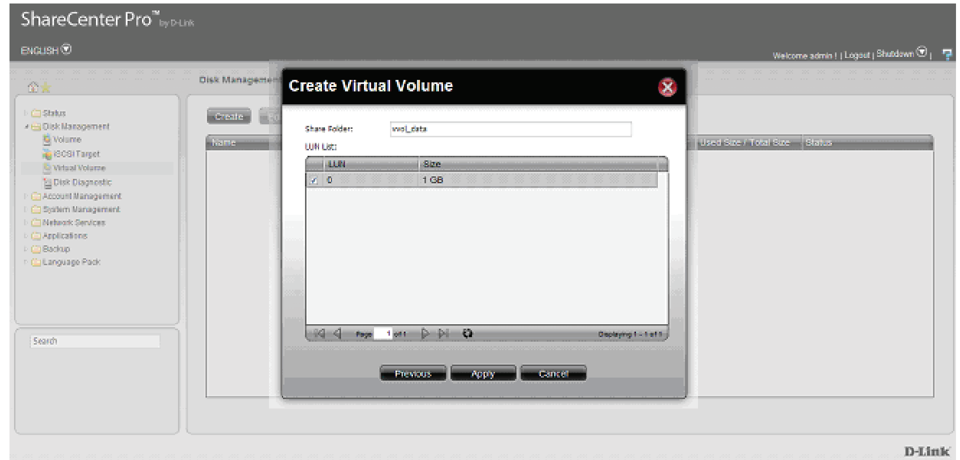
The **search** utility finds the IQN location based on the IP address.



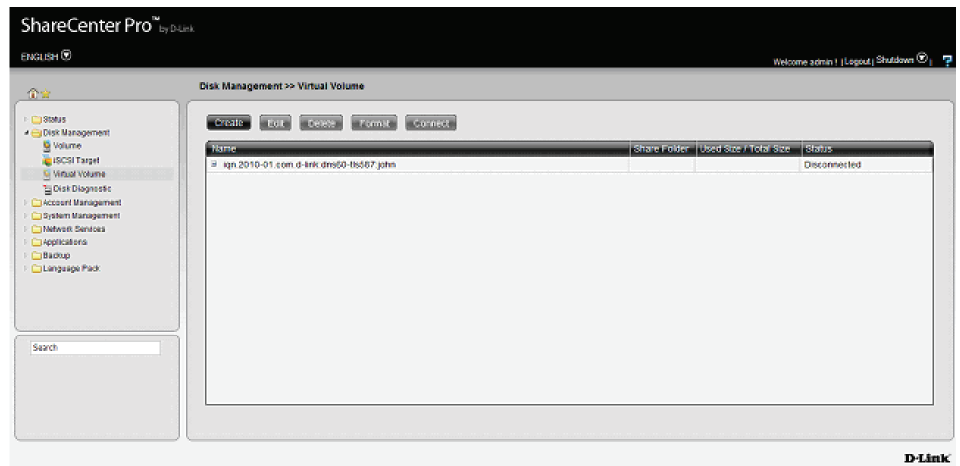

Select the **iSCSI Target** and click **Next**.



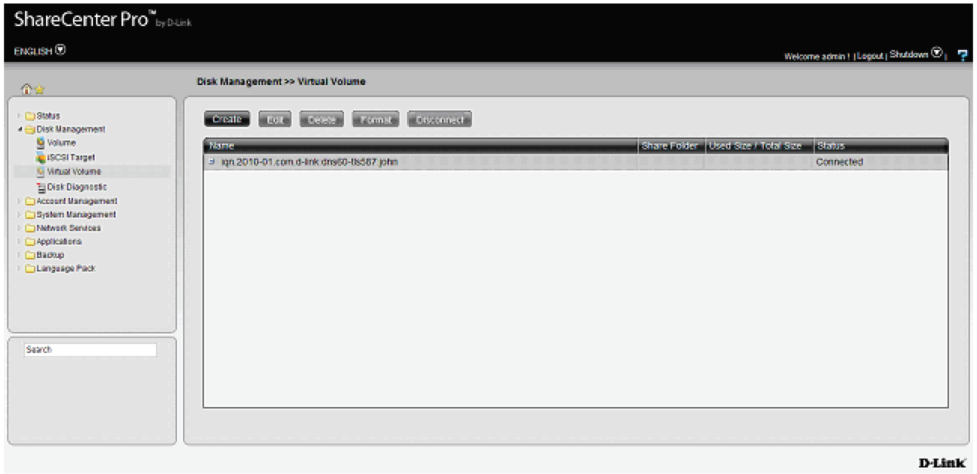
Under **Share Folder**, enter a relevant name. The “**vvol_**” extension is generated automatically. Add to this extension. Click **Apply** to continue.



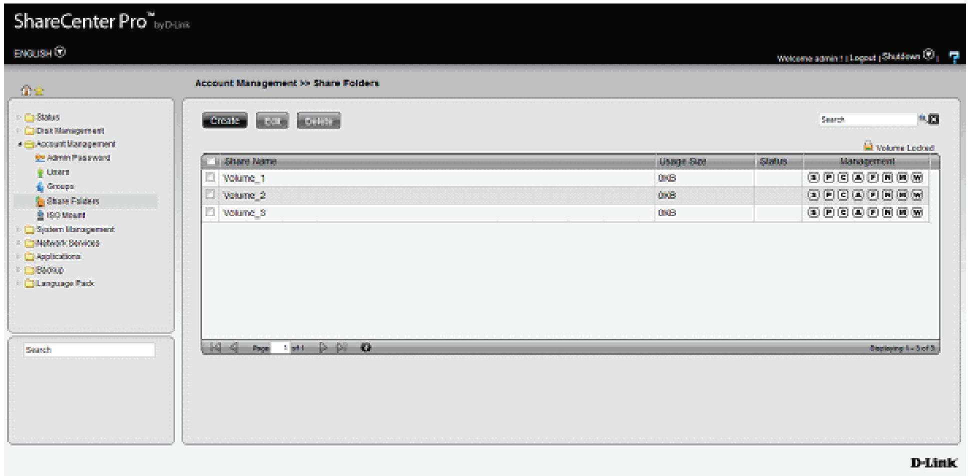

The **Virtual Volume Table** is populated with the new share. However, it shows the virtual volume as **disconnected**. Select the **Virtual Volume** and click the **Connect** button.



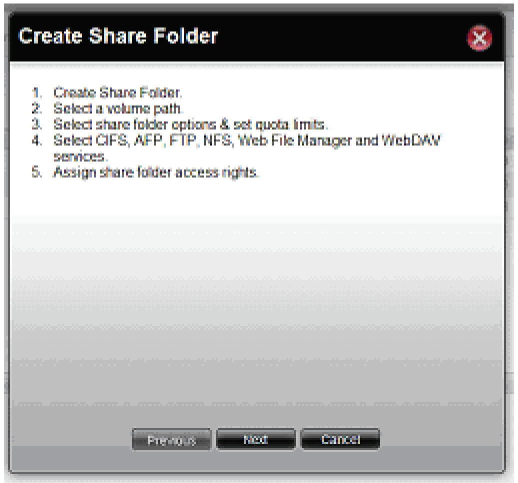
The **Status** is updated to show **Connected**.



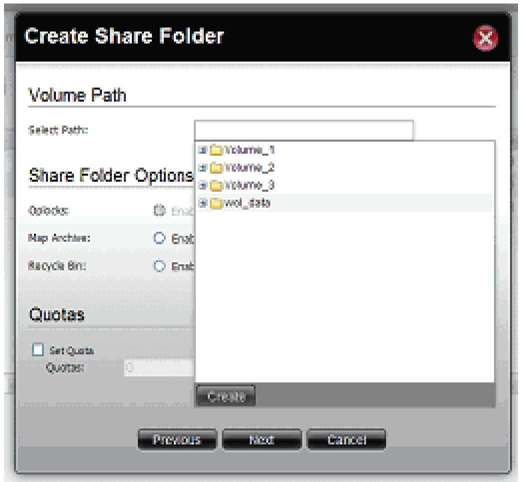

The **Virtual Volume** remains inaccessable until you go to **Account Management**, **Share Folder**.



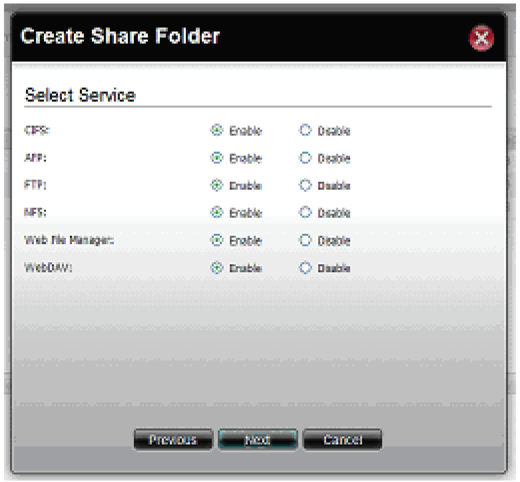
Click **Create** to make a new Share Folder. The **Share Folder** wizard appears. Read the instructions and follow the procedure. Click **Next** to continue.



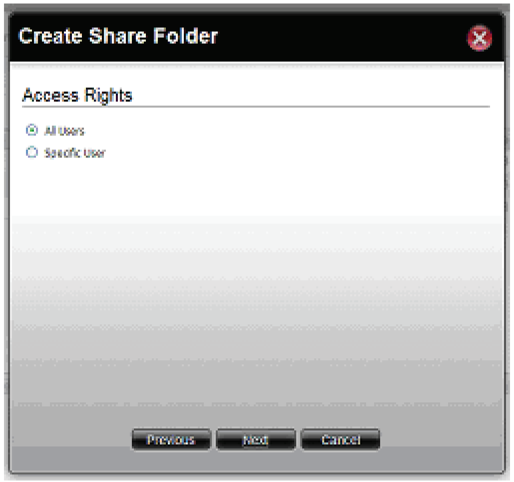

Under **Volume Path**, enter the **Path** directory, a drop-down list appears of the **Volumes** on the NAS. Select your desired virtual volume.



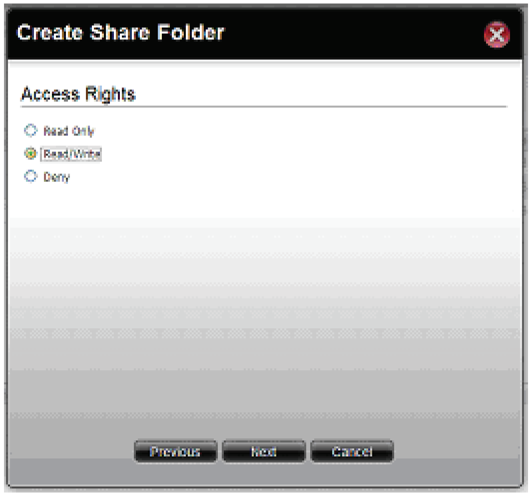
Select the **Service** you want to assign to the **Volume**. Click any of the radio buttons to select a service. Click Next to continue.




Select the **User Access Rights** you want to assign to this folder, **All Users**, or **Specific Users**. Click **Next** to continue

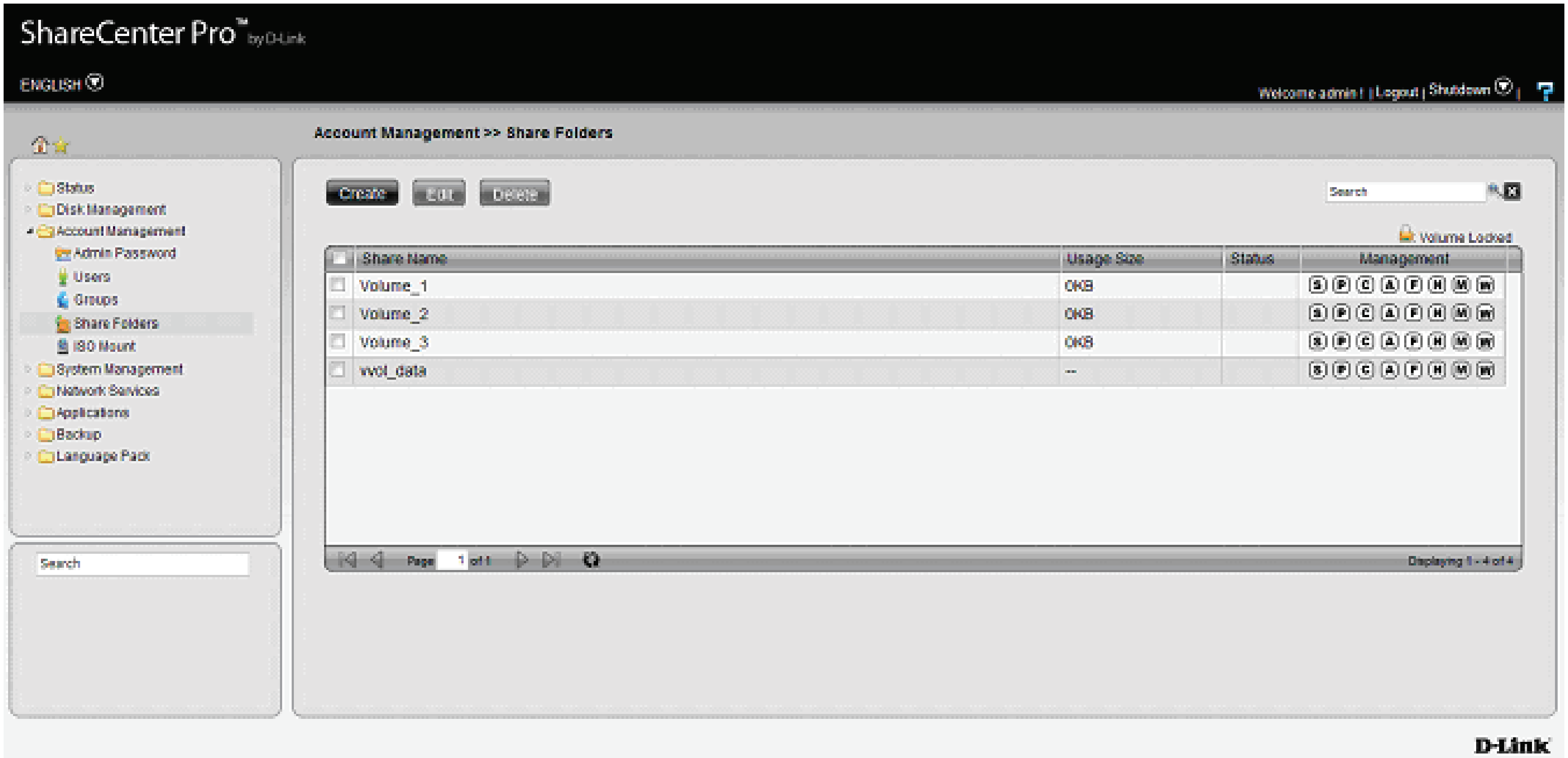


Select the **Access Rights** you want to assign to this folder, **Read Only, Read/Write,** or **Deny.** Click **Next** to continue.



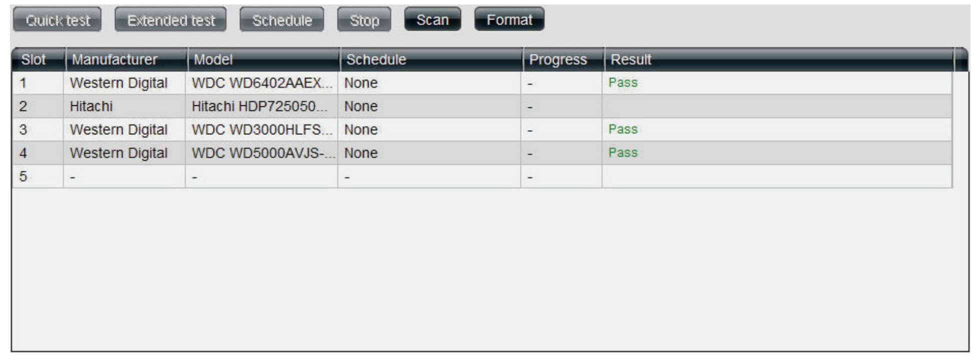

The **Summary** window appears. Click **Next** to continue.

The **Share Folder** updates with the new shared folder. The new Virtual Volume is now fully operational.



# Disk Diagnostic

Click the **Disk Diagnostic** icon in the Disk Management window or the Disk Diagnostic link in the left window to configure the Disk Diagnostic. This window is used to run a SMART (Self-Monitoring Analysis, and Reporting Technology) or Scan test. The hard drive is grayed out if it does not support SMART.




**Quick test** Click to run a quick SMART test. The test checks the electrical, mechanical, and read performance of the hard drive.

**Extended test** Click to run an extended SMART test. This takes longer time, but checks more thoroughly and complete than the quick test.

**Schedule** Click to configure a scheduled test for the selected hard drive.

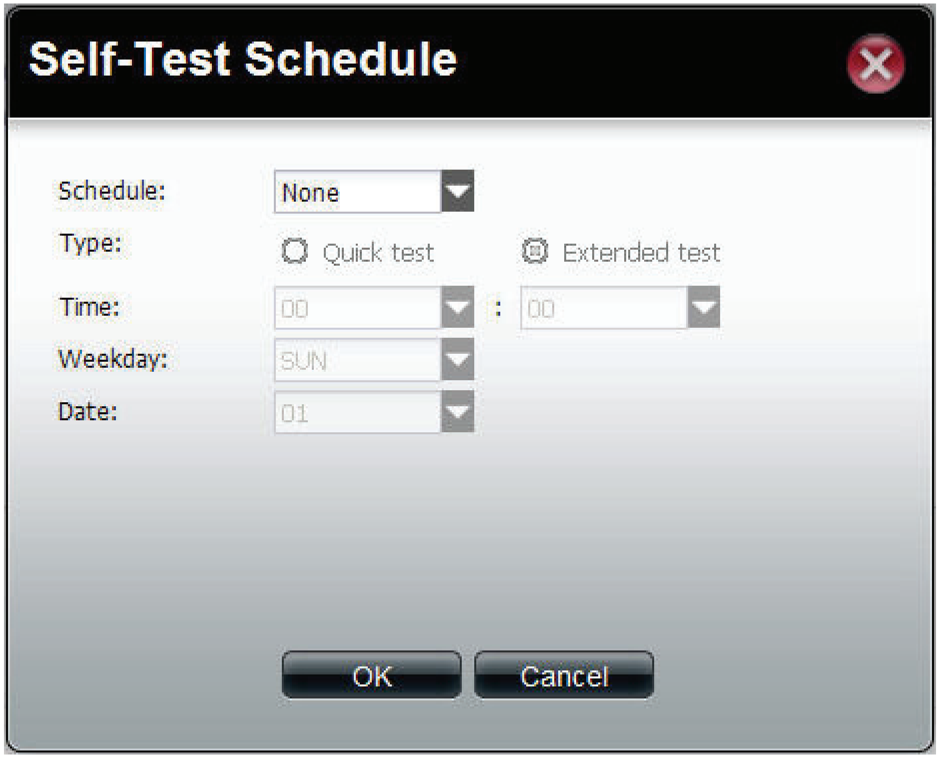
**Stop** Click to stop a test

**Scan** Click to scan if there are any errors or there is any corruption for the file system.

**Format** Click to format a volume. All data on the volume will be deleted.

# Schedule Disk Diagnostic

Click the **Schedule** button to see this window.




**Schedule** Use the drop-down menu to select the frequency of the self-test schedule.

**Type** Click the radio buttons to select the type of the test.

**Time** Use the drop-down menu to select hour and minute of the day.

**Weekday** Use the drop-down menu to select which day of the week.

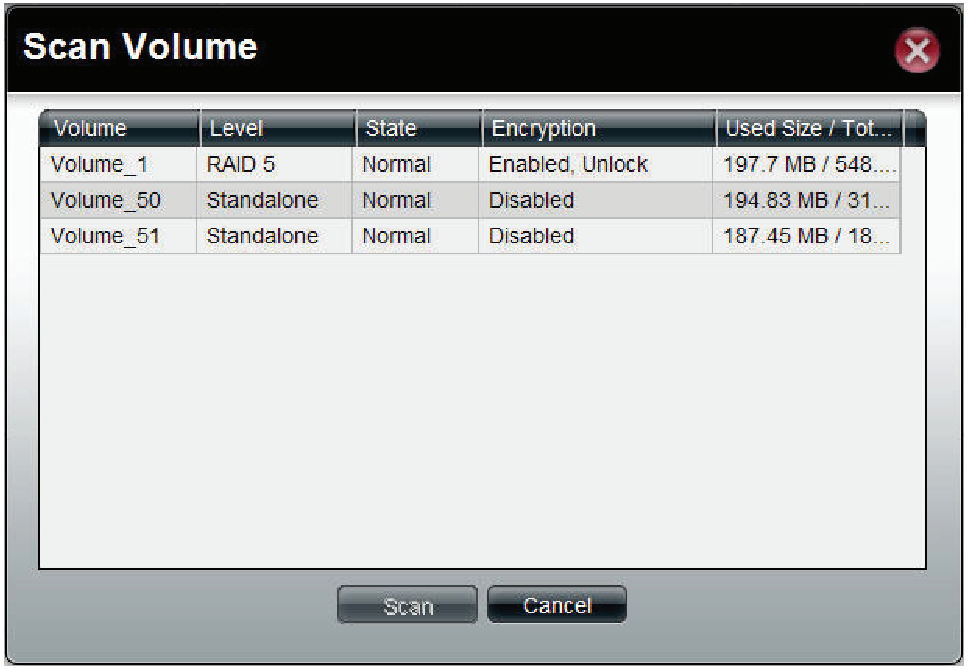
**Date** Use the drop-down menu to select a date.

Click **OK** to save the settings.

# Scan a Volume

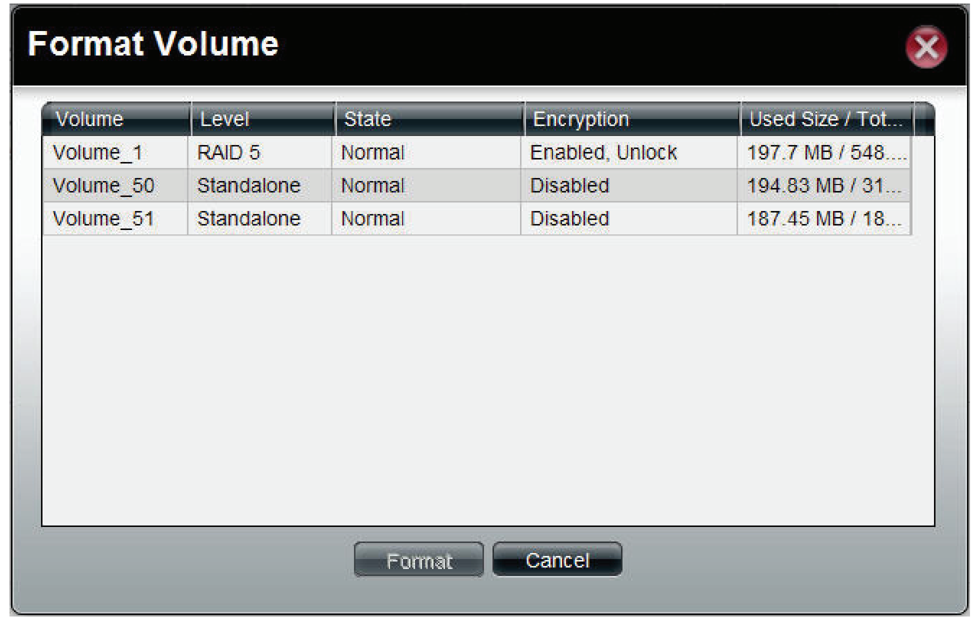
Click the **Scan** button to see this window.

Select a volume and click **Scan** to start to check the file system.



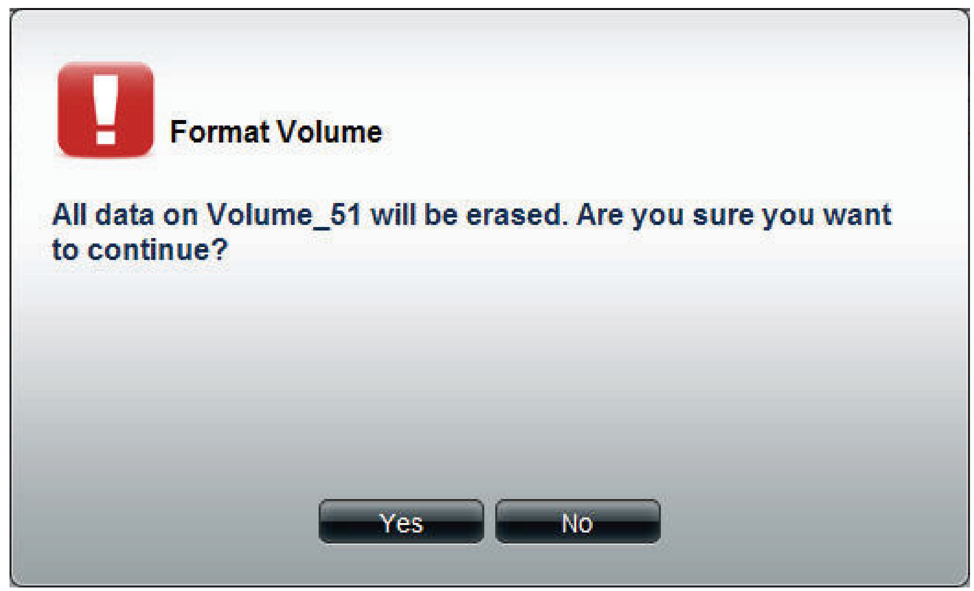
# Format a Volume

Click the **Format** button to see this window.



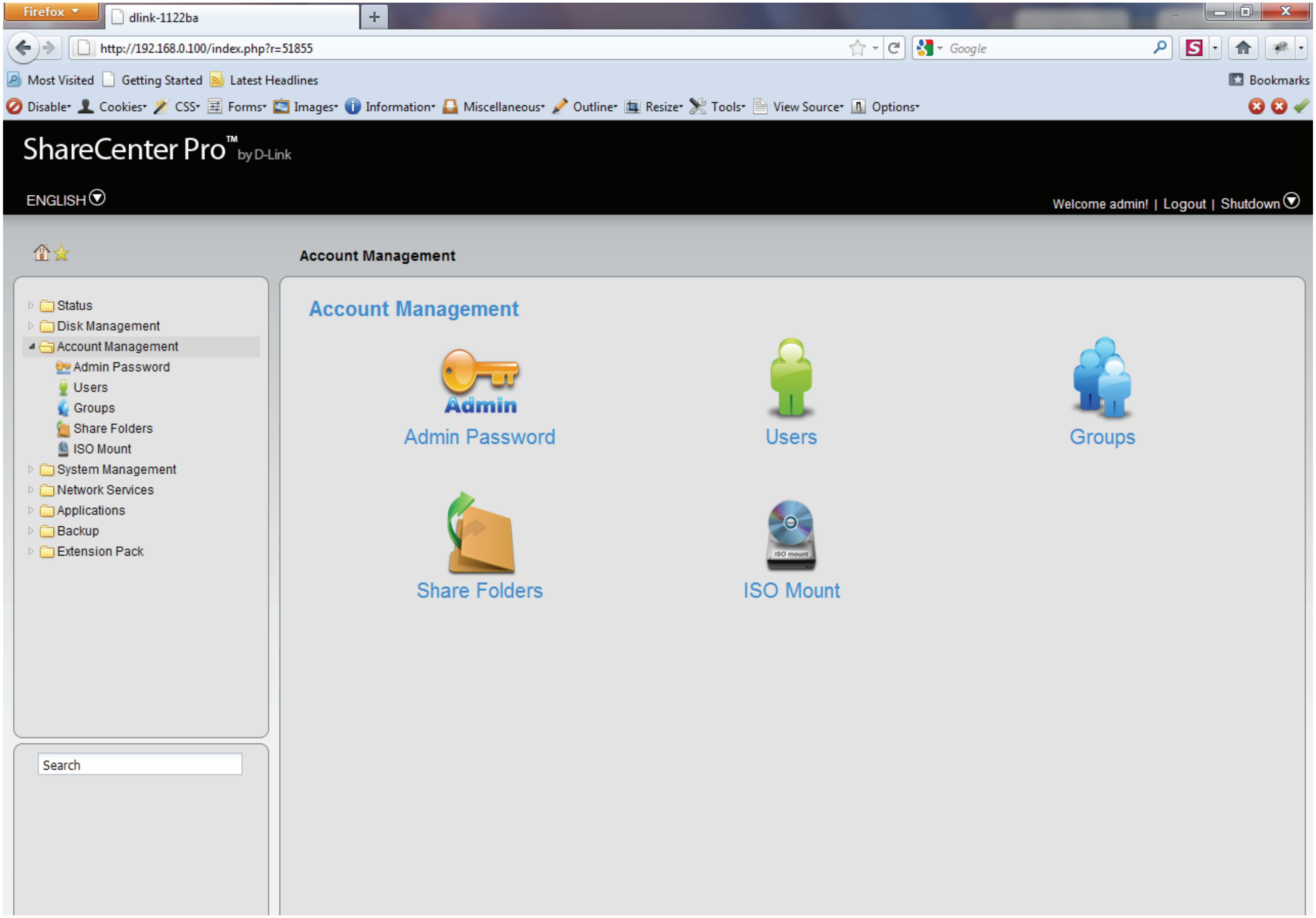

Select a volume and click **Format** to format the volume.

A warning message appears to double confirm if the formatting will proceed. Click **Yes** to proceed.



# Account Management

This folder contains the Admin Password, Users, Groups and Share Folders. Click the folder to see the subcategories.



# Admin Password

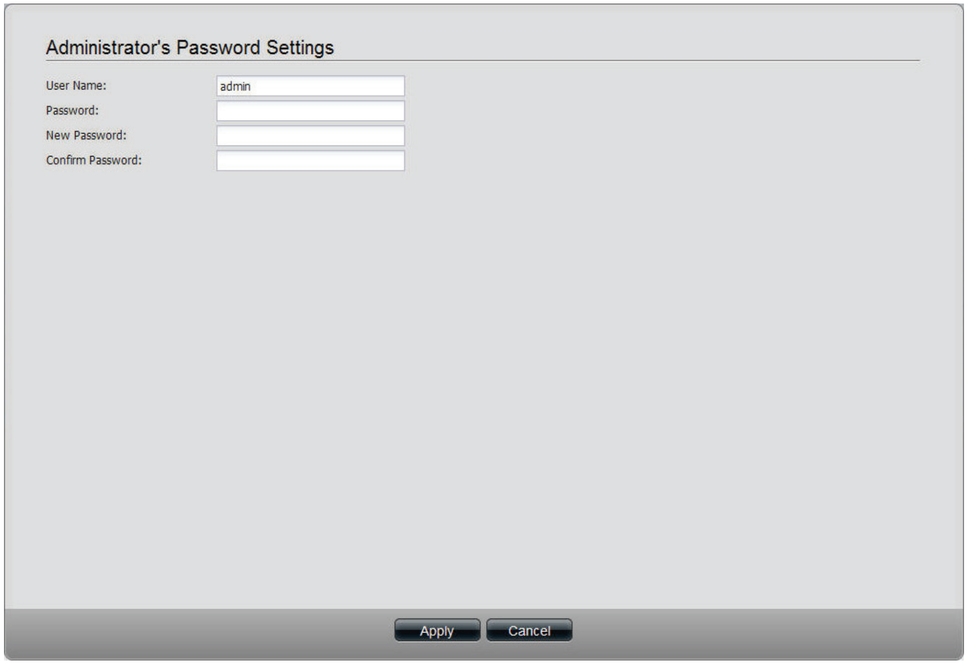
Click the **Admin Password** icon in the Account Management window or the Admin Password link in the left window to configure the Admin Password. This window is used to change the administrator's password.

**User Name** Displays administrator's user name.

**Password** Enter the original password.

**New Password** Enter a new password.

**Confirm Password** Retype the new password.




Click **Apply** to save the settings.

# Users

Click the **Users** icon in the Account Management window or the Users link in the left window to create, edit or delete users. This window also can assign users to various groups.

**Create** Click the button to create a new user.

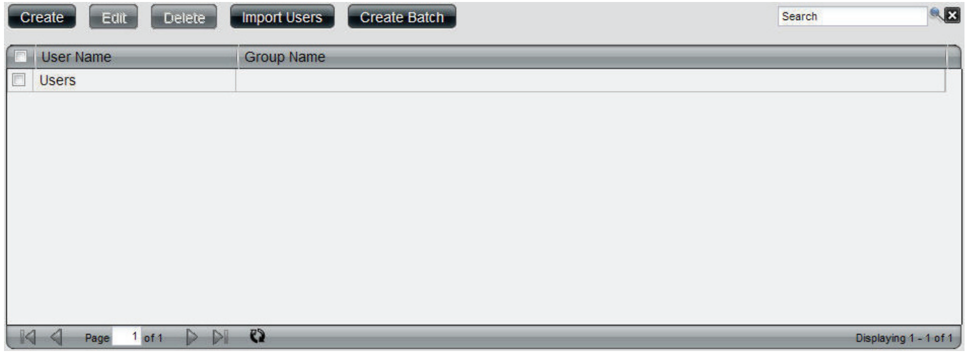
**Edit** Select a user and click the button to configure the user's information.

**Delete** Select a user and click the button to remove the user from the list.

**Import Users** Click the button to import a file with a list of users.

**Create Batch** Click the button to create multiple users at one time.

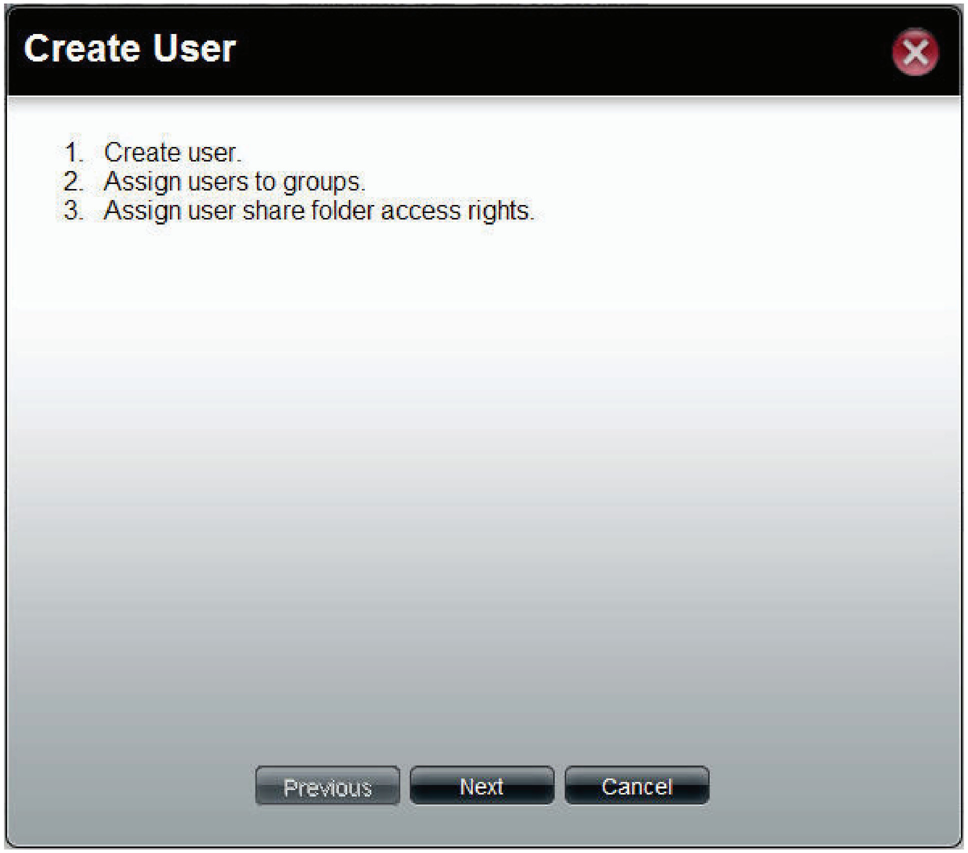
**Search** Enter the search keyword and click to search for the user. Click to clear the search field and all users' information appears.



# Create a User

Click the **Create** button to see the welcome window.

Click **Next** to continue.

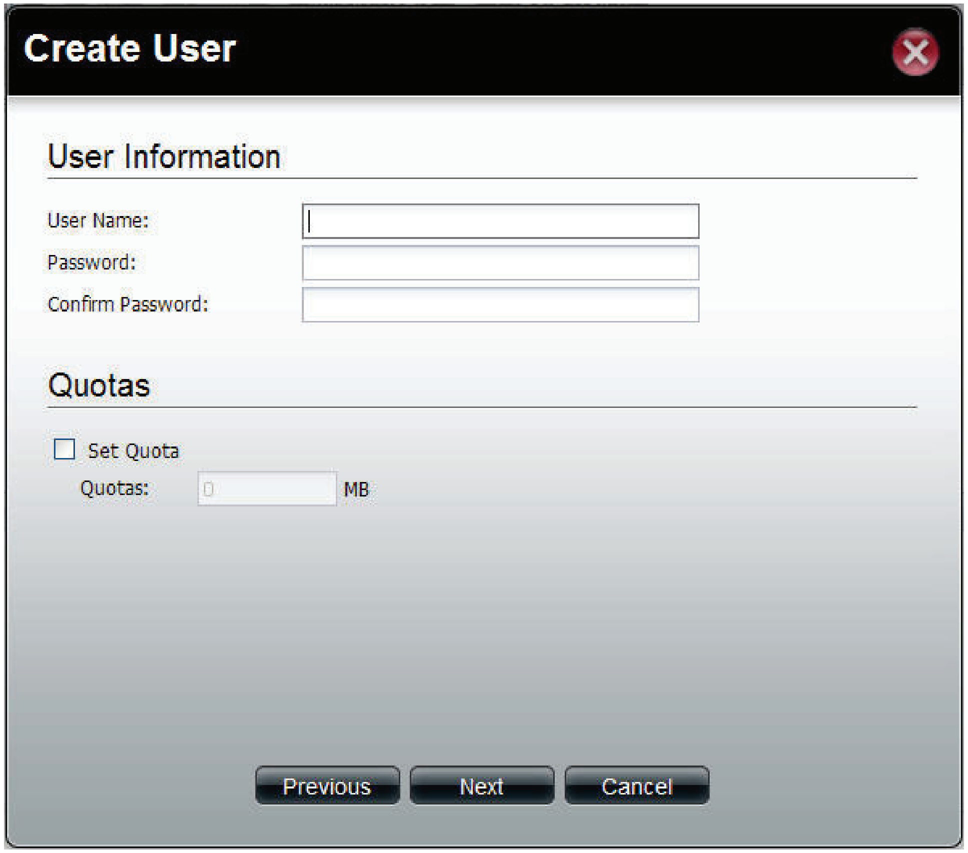


**User Name** Enter the name of a user.

**Password** Enter the password of the user.

**Confirm Password** Retype the password.

**Set Quota** Tick the **Set Quota** check box to limit the storage capacity in megabyte for the user. The value of 0 means an unlimited quota size.




Click **Next** to continue.

This window is used to add the user to a group. If there is no entry in the list, you can go to **Account Management** > **Groups** to create a group.

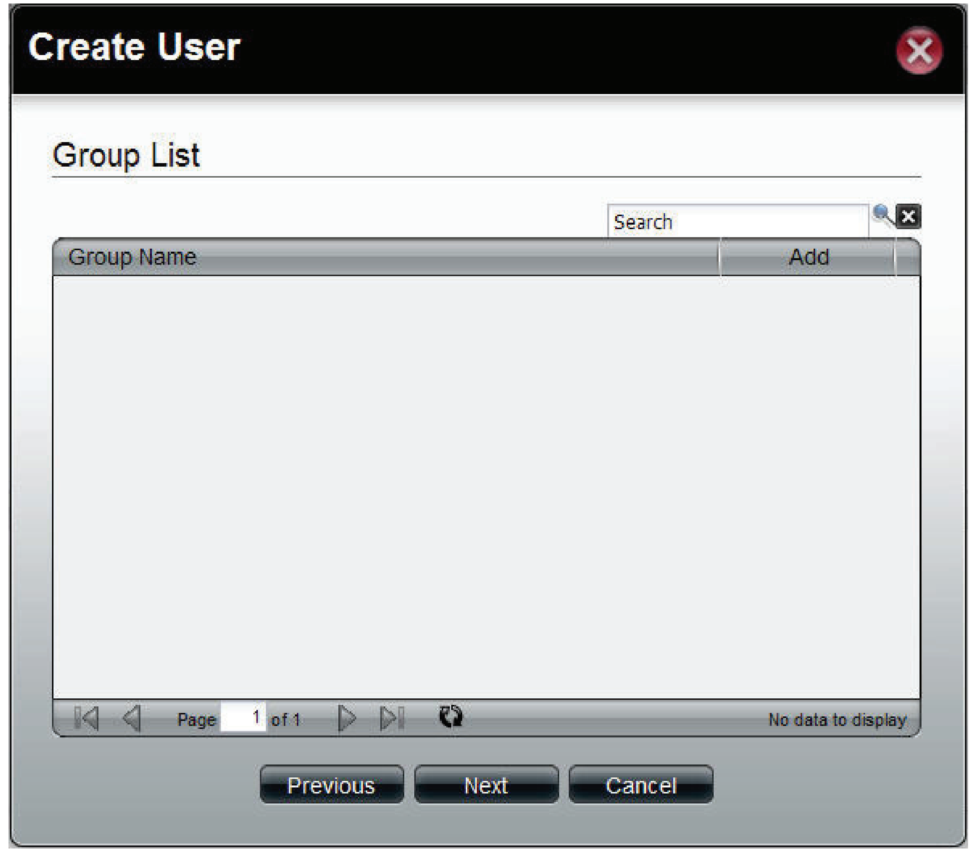
**Search** Enter the search keyword and click to search for the group. Click to clear the search field and all of the group's information appears.

**Add** Tick the corresponding check box to add the user to the group.

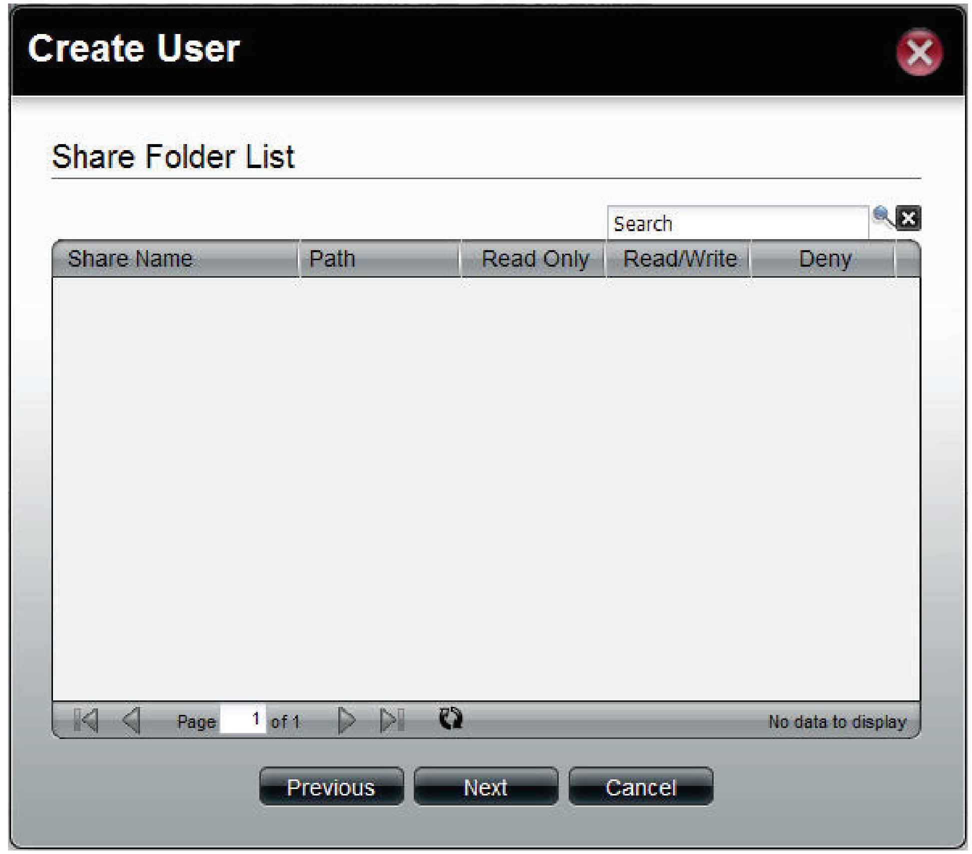
**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click to update the group list.

Click **Next** to continue.



This window is used to assign access rights to the user for the corresponding share folder(s). If there are no entries in the list, you can go to **Account Management** > **Share Folders** to create share folders.




**Search** Enter the search keyword and click to search for the folder. Click to clear the search field and all folders appear.

**Read Only** Tick the check box for read only access right.

**Read/Write** Tick the check box for both read and write access rights.

**Deny** Tick the check box for no access right.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

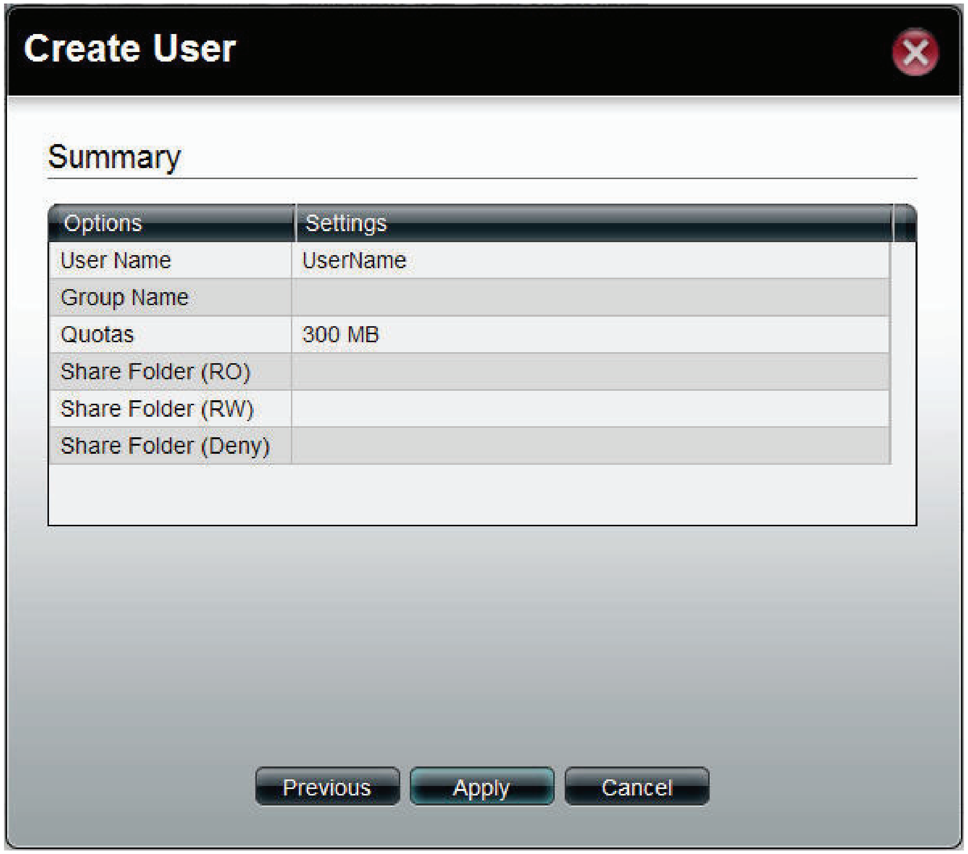
**Refresh** Click to update the folder list.

Click **Next** to continue.

This window displays a summary of the configured information.

Click **Previous** to modify the settings.

Click **Apply** to save the settings.

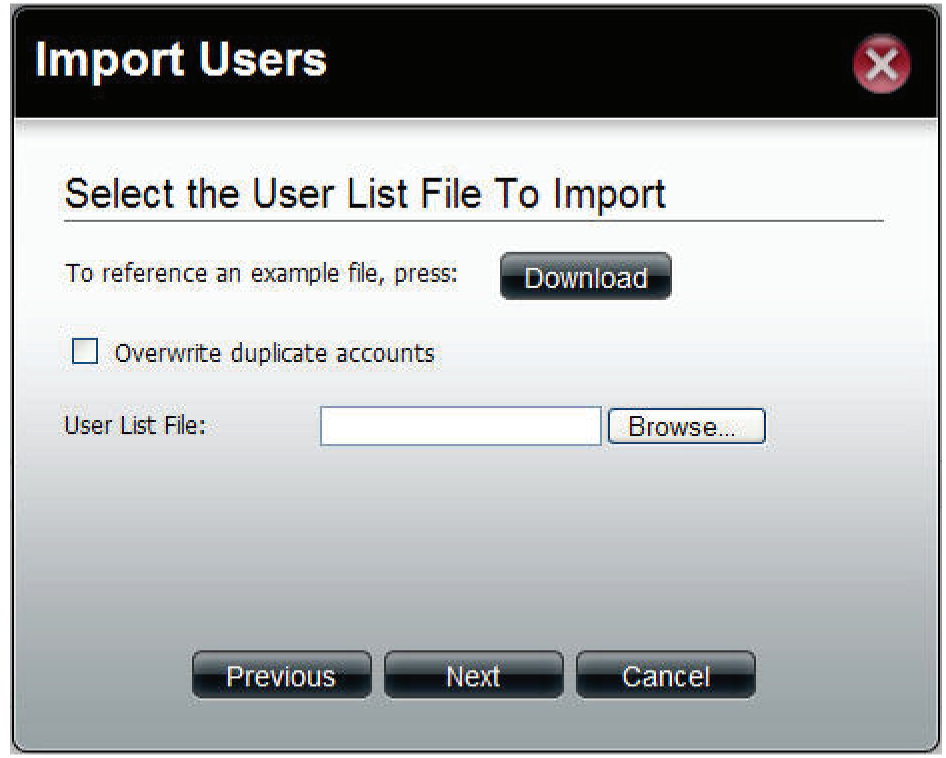


# Import Users

Click the **Import Users** button to see the welcome window.

Click **Next** to continue.

This window allows you to import a user list file.




**Download** Click this button to see the example for listing the users in the file.

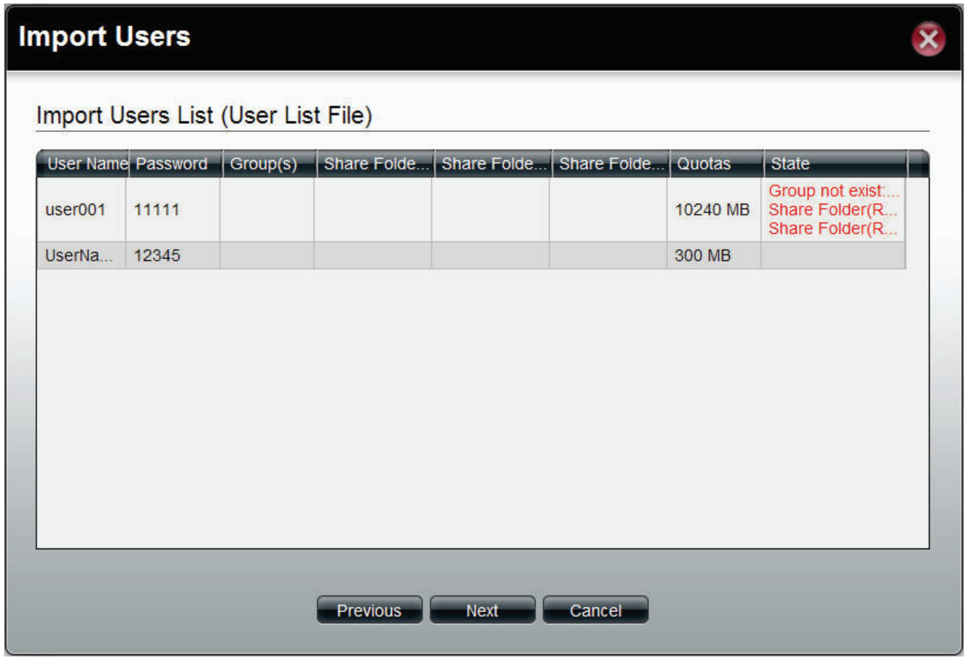
**Overwrite duplicate accounts** Tick the check box to replace duplicate accounts.

**User List File** Click the **Browse** button to locate the file.

Click **Next** to continue.

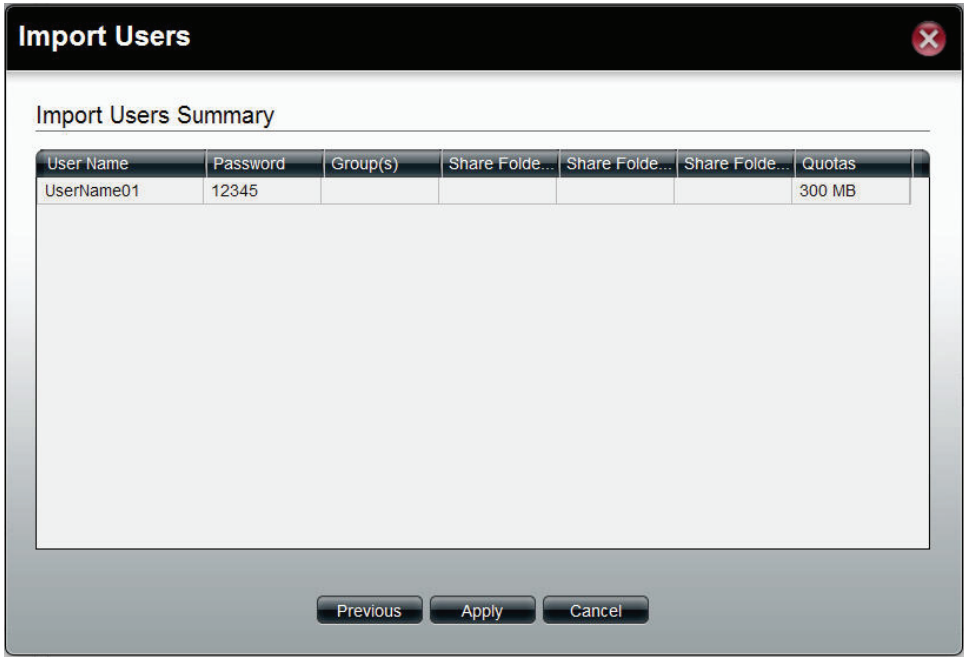
This window displays all the users in the file. If there are any error warnings in the State filed, the user will not be able to go to the next window.

Click **Next** to continue.




The window displays the final results of importing users to the ShareCenter Pro.

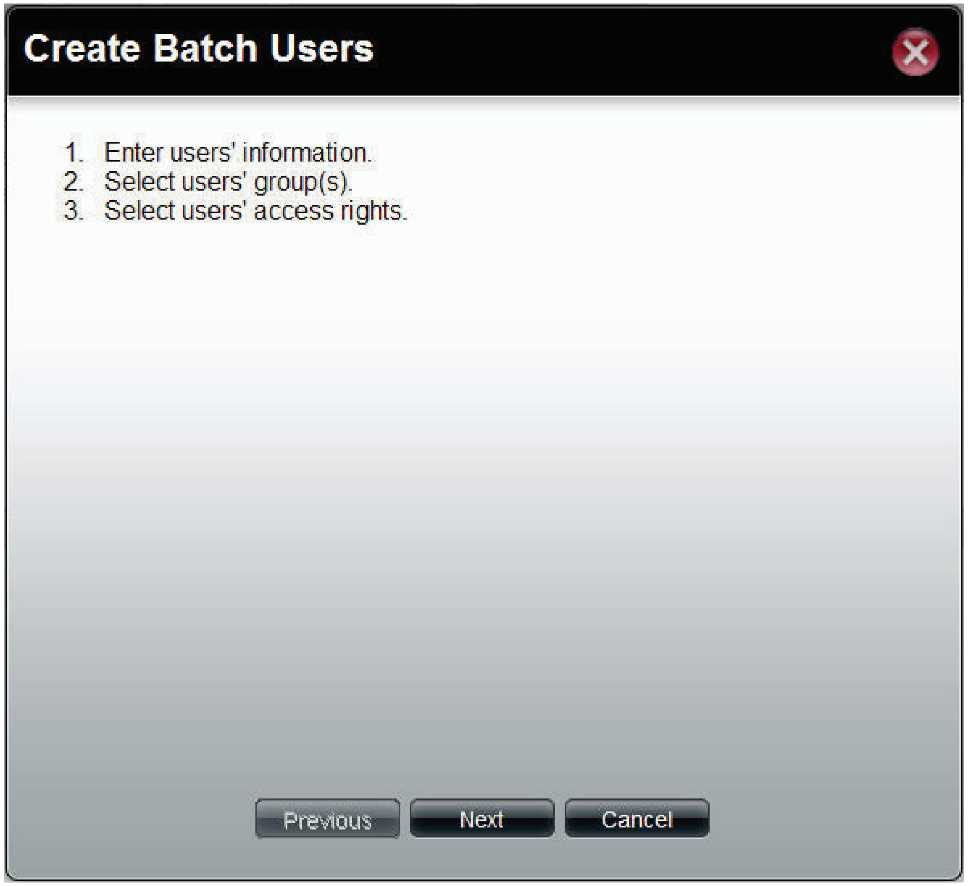
Click **Apply** to save the settings.



# Create Batch Users

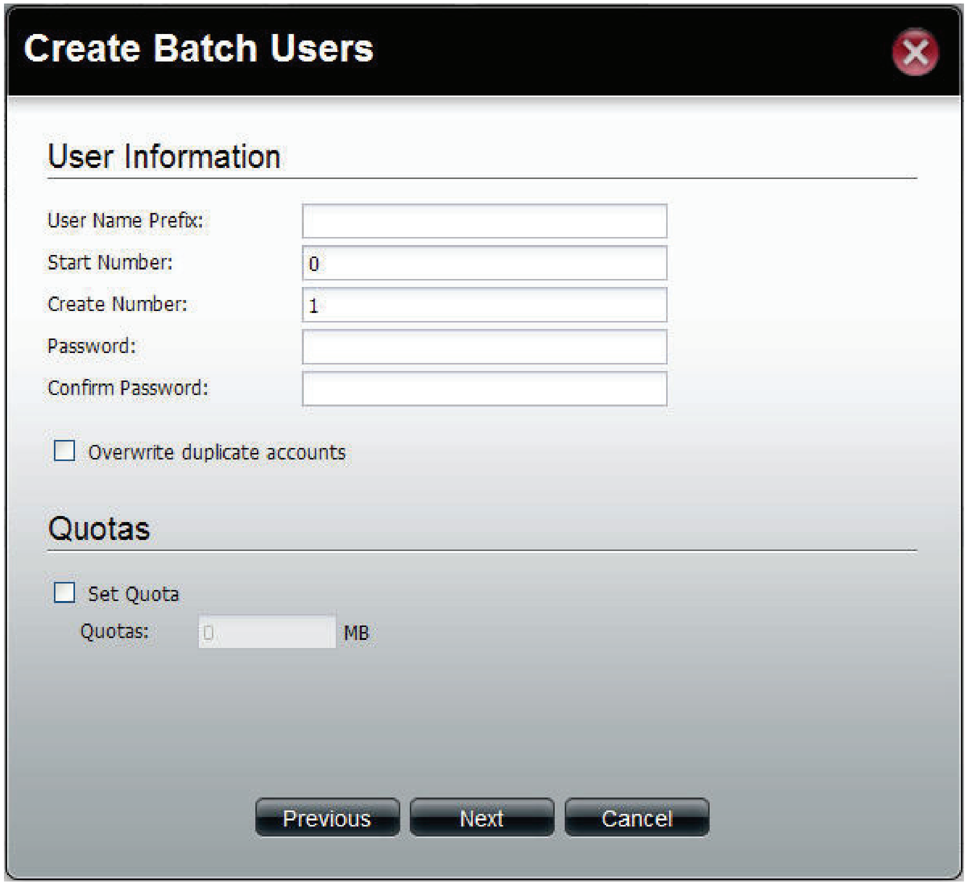
Click the **Create Batch** button to see the welcome window.

Click **Next** to continue.



This window allows you to create multiple users.

| | |
|---|---|
| **User Name Prefix** | Enter the prefix of the users |
| **Start Number** | Enter the start number of the users. |
| **Create Number** | Enter the total number of users. |
| **Password** | Enter the password of the users |
| **Confirm Password** | Retype the password |
| **Overwrite duplicate Accounts** | Tick the check box to replace duplicate accounts. |
| **Set Quota** | Tick the **Set Quota** check box to limit the storage capacity (in megabyte) for the user. The value of 0 means an unlimited quota size. |




Click **Next** to continue.

This window is used to add the users to groups. If there is no entry in the list, you can go to **Account Management** > **Groups** to create groups.

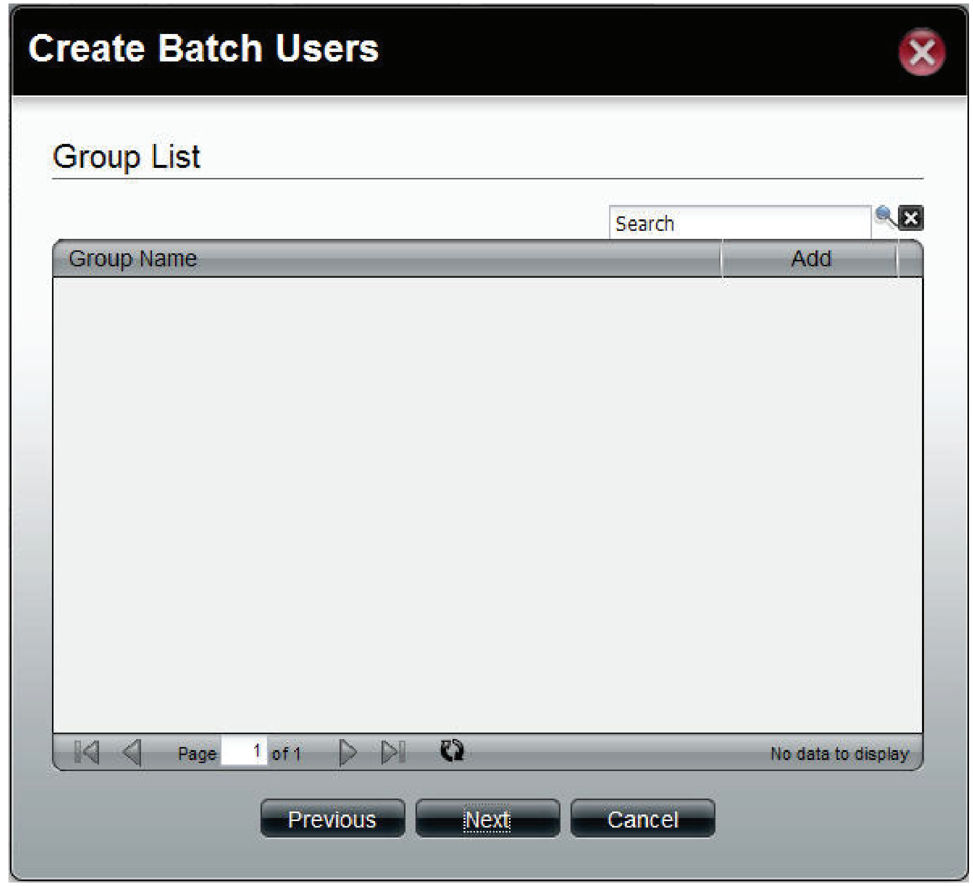
**Search** Enter the search keyword and click to search for the group. Click to clear the search field and all of the group's information appears.

**Add** Tick the corresponding check box to add the users to the groups.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page (), Previous Page (), Next Page () or Last page () to search for the group.

**Refresh** Click to update the group list.

Click **Next** to continue.



This window is used to assign access rights to the users for the corresponding share folder(s) to the share folders. If there is no entry in the list, you can go to **Account Management** > **Share Folders** to create share folders.


**Search** Enter the search keyword and click to search for the folder. Click to clear the search field and all folders appear.

**Read Only** Tick the check box for read only access right.

**Read/Write** Tick the check box for both read and write access rights.

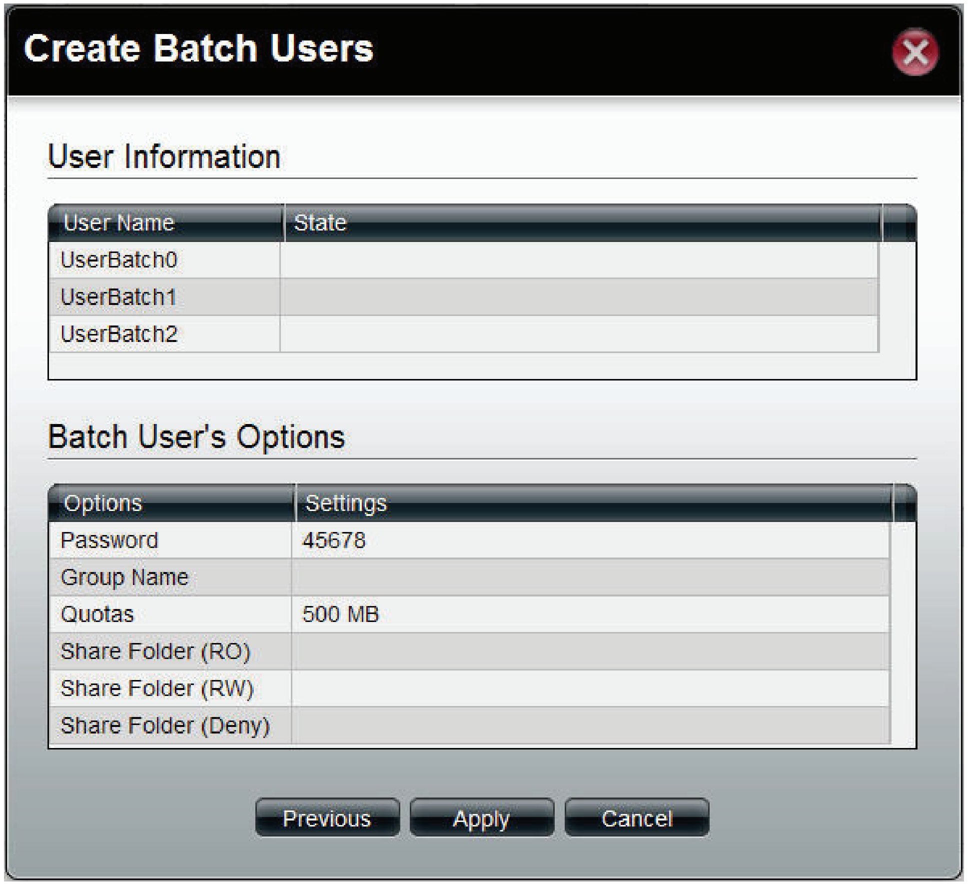
**Deny** Tick the check box for no access right.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click to update the folder list.

Click **Next** to continue.

This window displays a summary of the configured information.

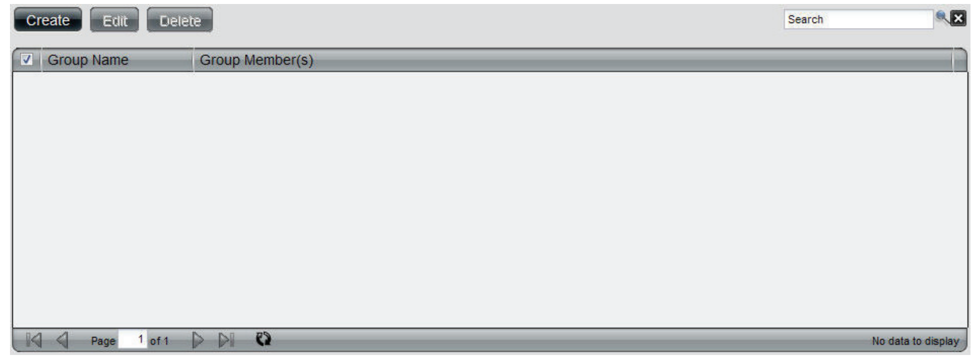



Click **Previous** to modify the settings.

Click **Apply** to save the settings. Depending on the amount of users, the procedure may take a few hours.

# Groups

Click the **Groups** icon in the Account Management window or the Groups link in the left window to create, edit or delete a group.




**Create** Click the button to create a new group.

**Edit** Select a group and click the button to configure the group's information.

**Delete** Select a group and click the button to remove the group from the list.

**Search** Enter the search keyword and click to search for the group. Click to clear the search field and all groups' information appears.

# Create a Group

Click the **Create** button to see the welcome window.

**Group Name** Enter a name of the group

Click **Next** to continue.

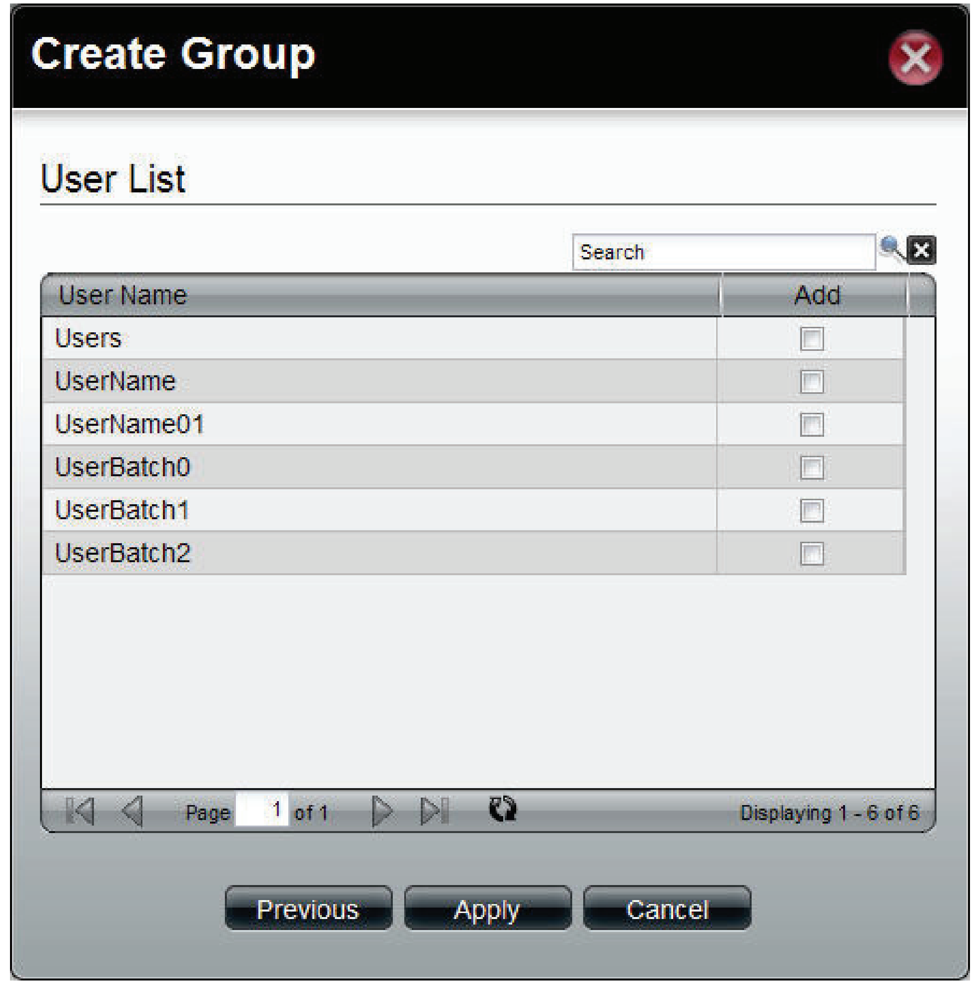
This window is used to add the users to the group. If there is no entry in the list, you can go to **Account Management** > **Users** to create users.

**Search** Enter the search keyword and click to search for the user. Click to clear the search field and all users' information appears.

**Add** Tick the corresponding check box to add the user to the group.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click to update the group list.

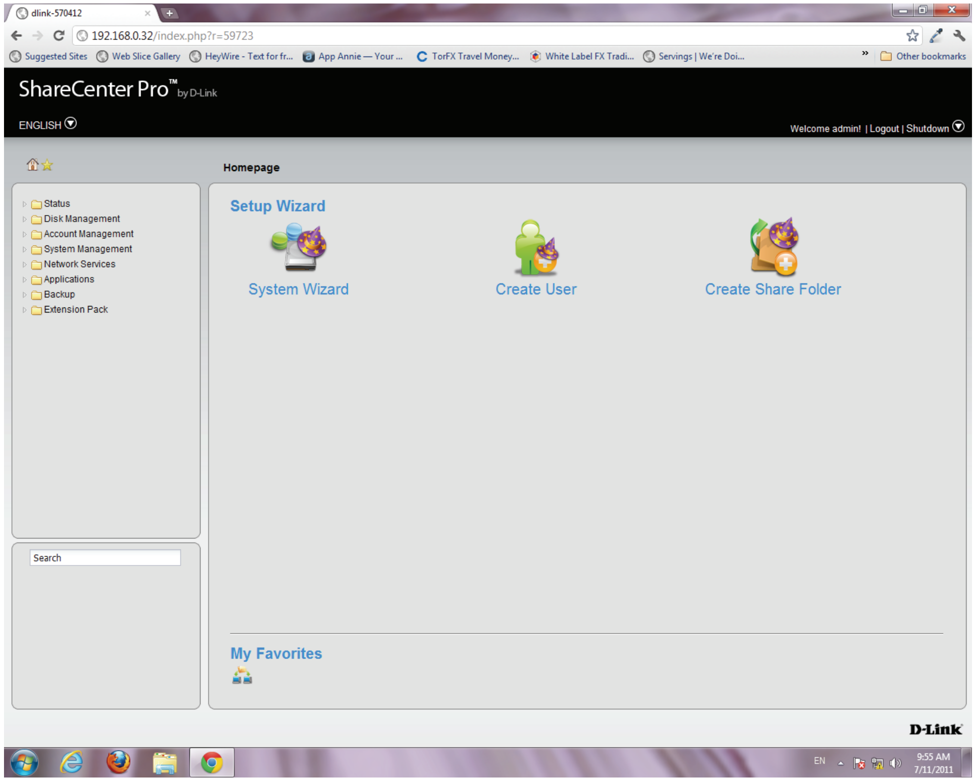



Click **Apply** to save the settings.

# Shared Folders

Shared Folders creates folders users can share over the network. These folders can be created, edited or deleted.

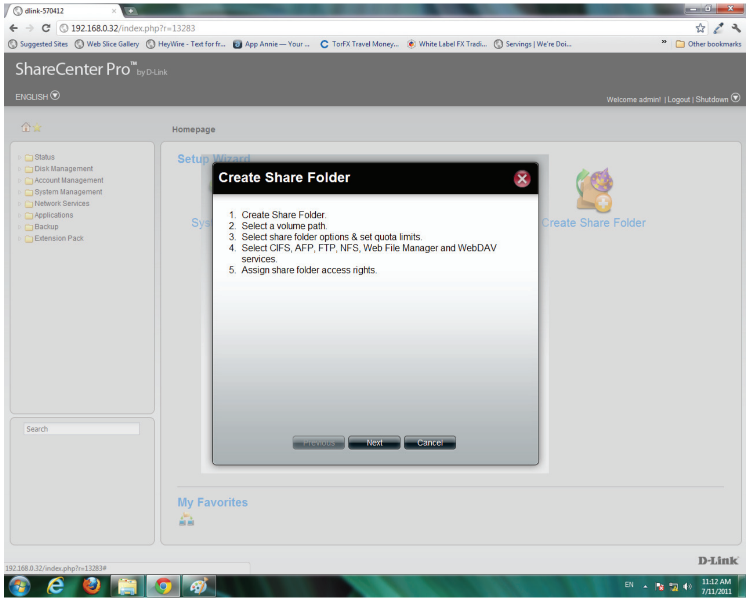
1




Log into the system.

Click Create Shared Folder

2

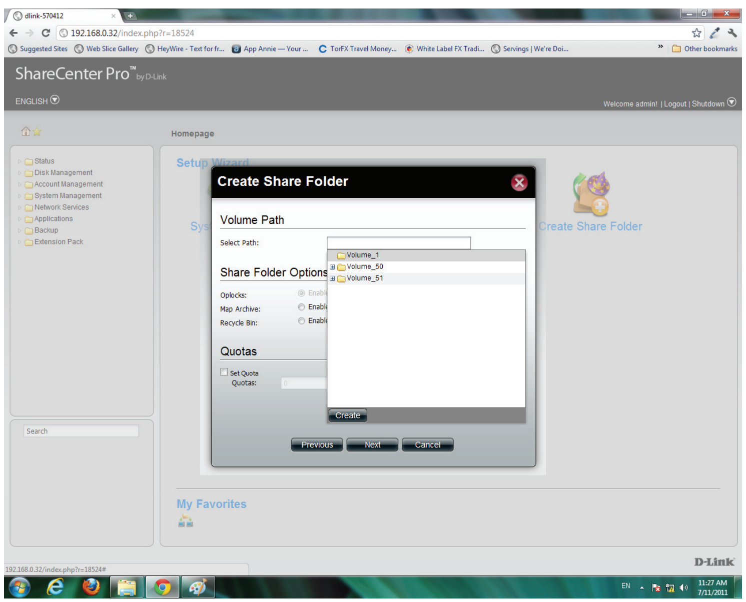



The “Create Share Folder” window pops up. Here you can:

• Create a Shared Folder
• Select a volume path where that folder will go
• Set share folder options and size
• Set other services like: CIFS,AFP, FTP, NFS, Web • File Manager, and WebDAV
• Set shared folder access rights

Click Next to continue

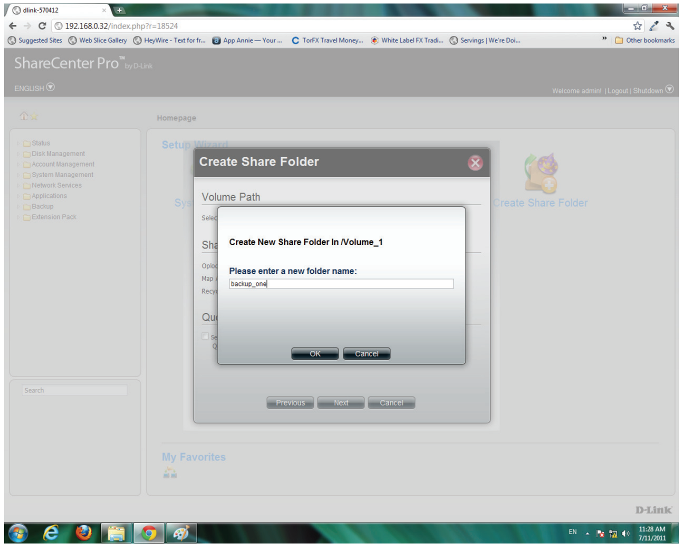
3




Under Volume Path, select the path by clicking once on the open field. A drop down menu appears of the drives on your NAS.

Click Create to make a new folder

4



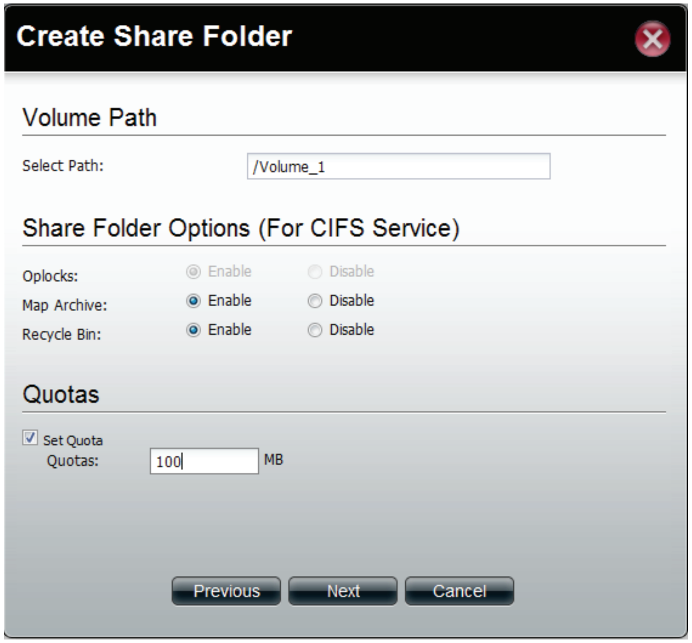

Enter a name for your new folder and click OK.

5


Once you have entered the volume path, select the Share Folder Option

Select to enable or disable the Map Archive, or Recycle Bin

6



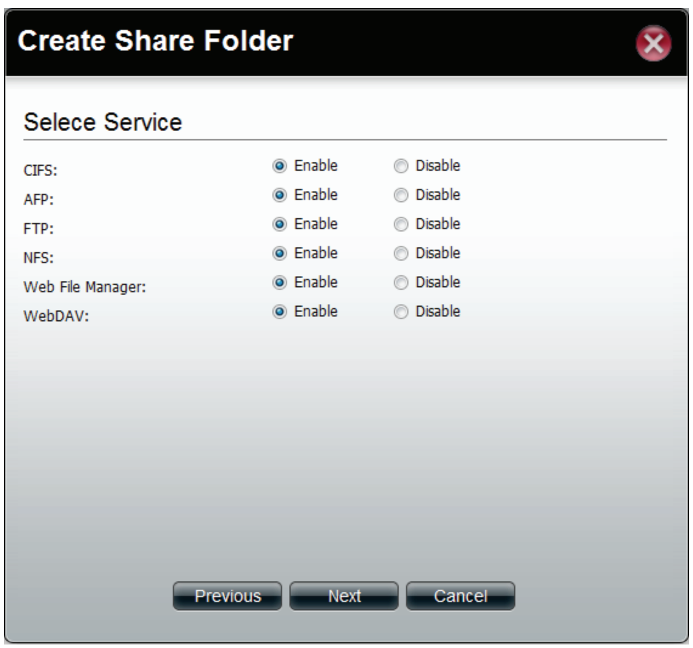

Select to Enable the CIFS Services, Map Archive and Recycle Bin

Select the Set Quota checkbox.

Enter a Quota. The Quota is the number of MB you wish to designate the Shared Folder.

Click Next to continue.

7



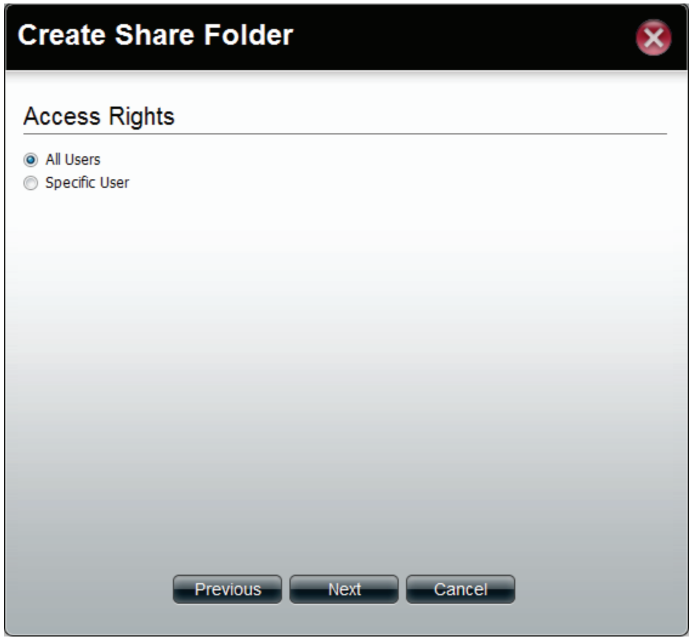

Select the Service you wish to incorporate onto the NAS.

Choose from CFS, AFP, FTP,NFS, Web File Manager, or WebDAV.

Click Enable to authenticate it or Disable to stop the service.

Click Next to continue.

8



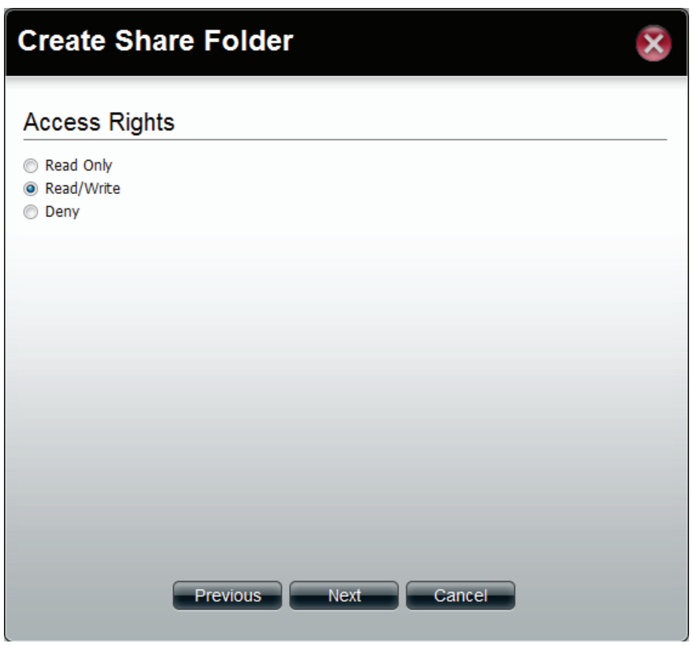

Select who you would like to access this Shared Folder.

Select All Users to give all users access to the Shared Folder

Select Specific User to choose a user from your list or enter details of a user.

Click Next to continue.

9




Select the Access Rights of the Shared Folder.

Select either Read Only, Read/Write, or Deny access.

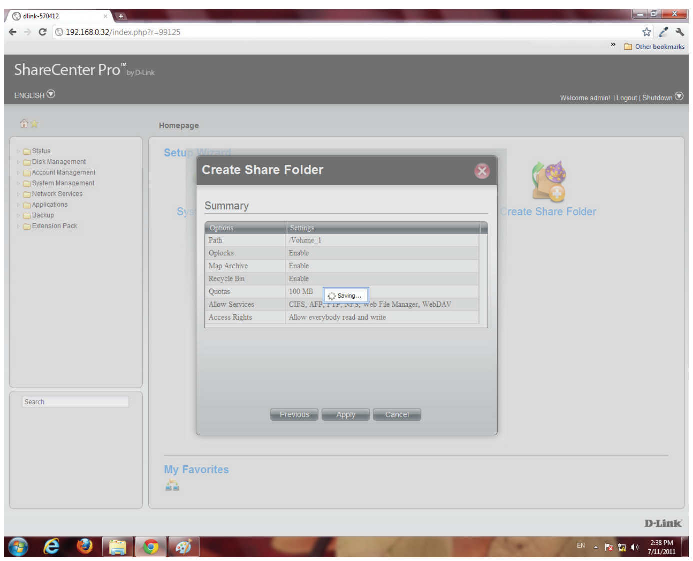
Click Next to continue.

10


The final screen shows a summary of the configuration options just carried out. Read through the settings you have just made.

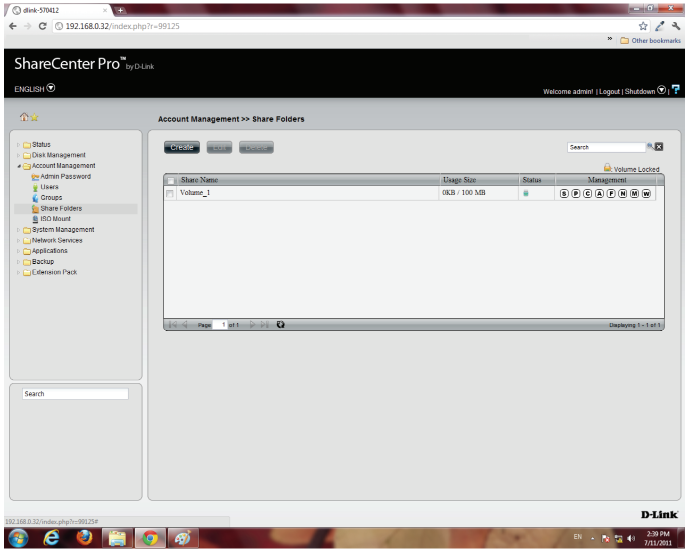
Click Apply to finish the Shared Folder configuration settings.

11




ShareCenter Pro starts to save your settings.

12



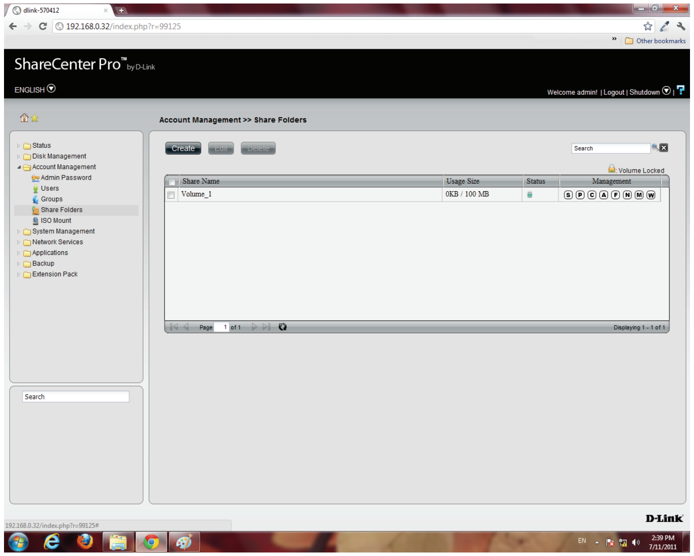

ShareCenter Pro returns you to Accounts Management, Share Folders.

The table displays the Shared Folder created with size, status, and management functions.

# Shared Folders - Editing a Shared Folder

Edit a Shared Folder within ShareCenter Pro.

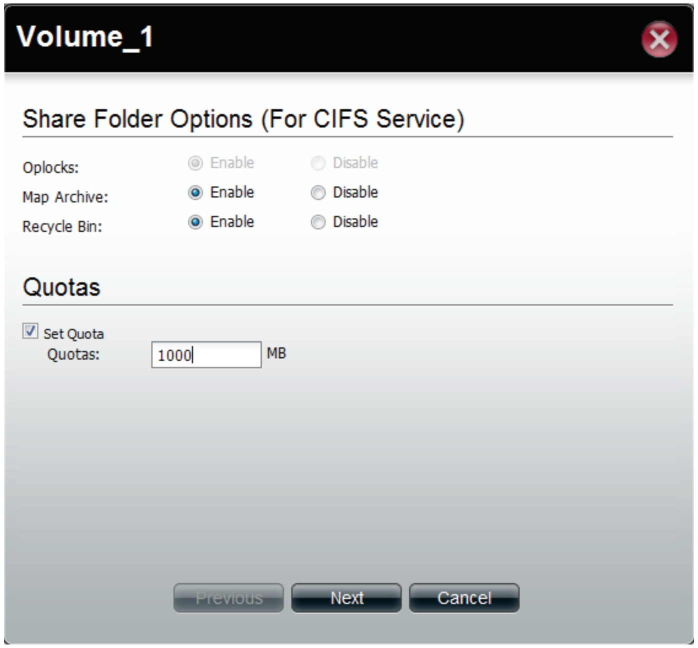
1




Select the Shared Folder you wish edit.

Click Edit.

2




The Volume is selected. Edit the Share Folder Options (services) and Quota accordingly.

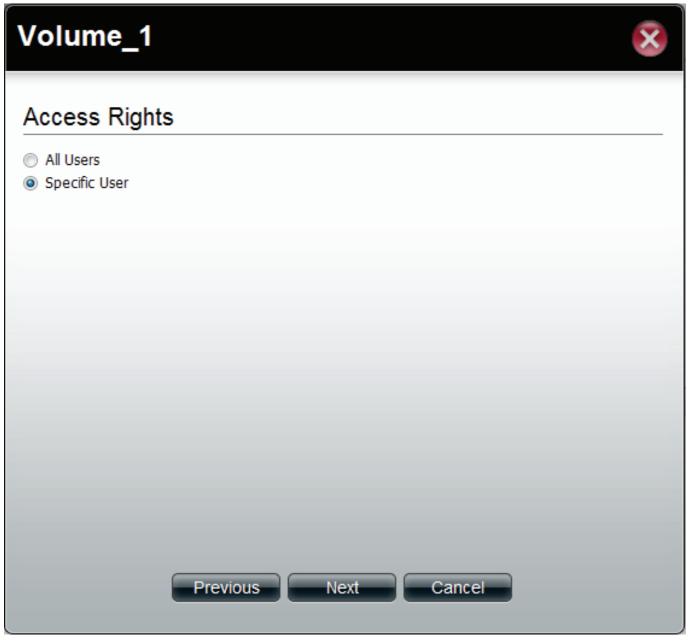
Click Next to continue.

3


Edit the Services manually according to your needs.

Click Next to continue.

4




Edit the Access Rights in the Shared Folder for all users or specific users.

Click Next to continue

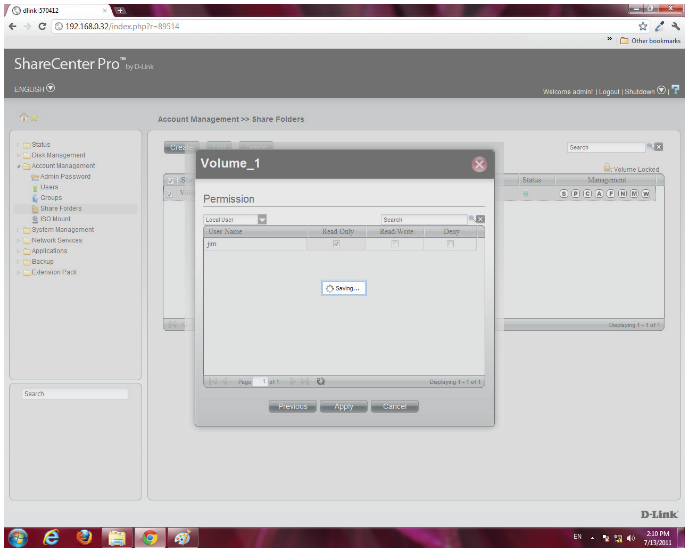
5


Now select the Permissions. The permissions can be for a local user or a local group.

Select the user and select the Permission for the user

Click Apply to continue.

6




ShareCenter Pro saves your configuration and returns you to the Share Folder Table.

# Shared Folders - Management

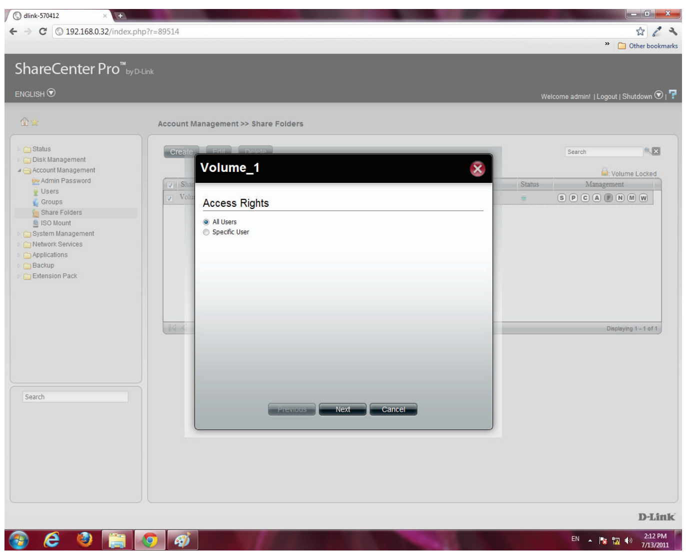
Manage the Shared Folder from a few icons on the table

1


Click the S button under Management to provide details on the Share Path.

Click OK to exit.

2

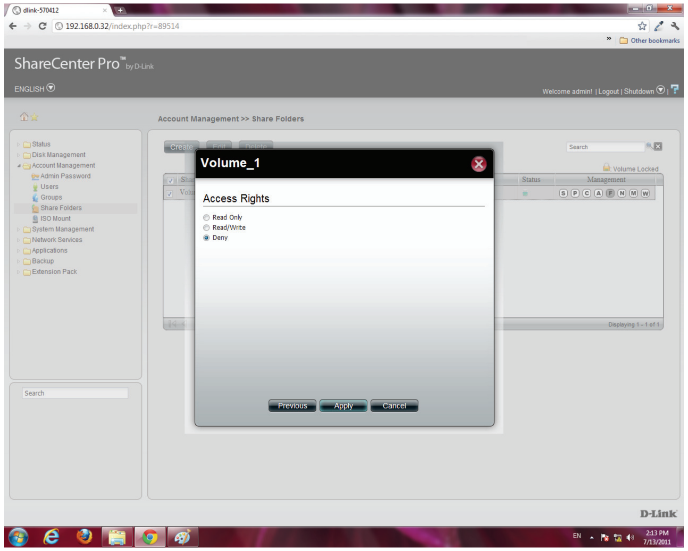



Click the P button to change the Access Rights.

Select between All Users or Specific Users.

Click Next to continue.

3

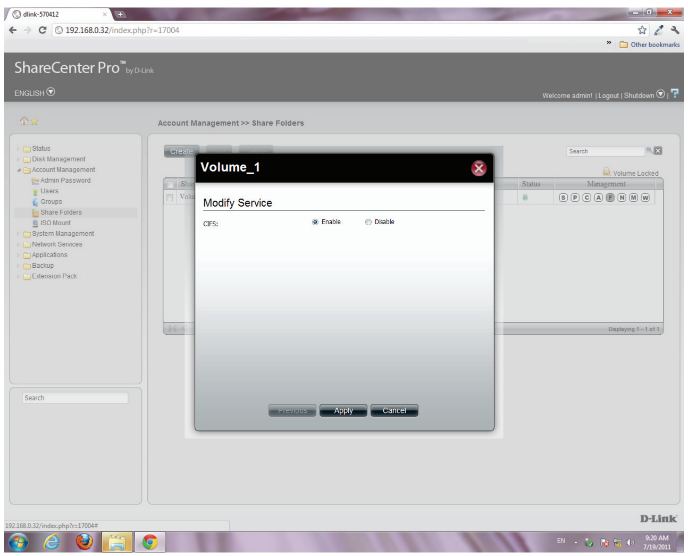



Select the Access Rights for the volume.

Read Only, Read/Write, or Deny.

Click Apply to complete the changes.

4

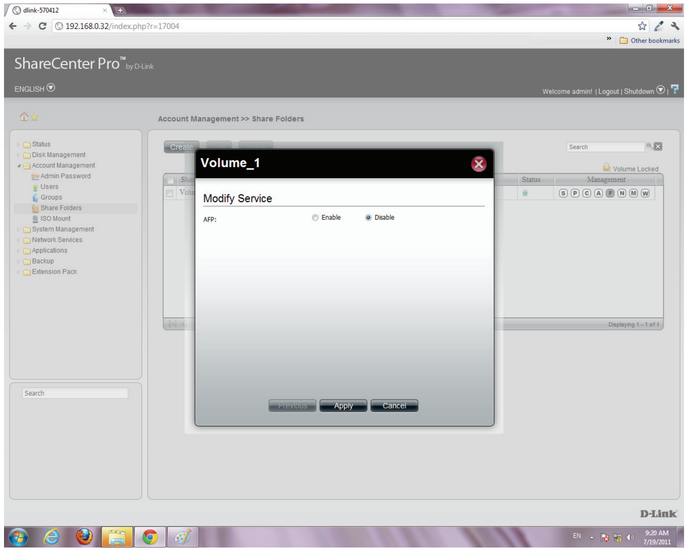



Click the C button to change CIFS services.

Select between Enable (activate) or Disable (deactivate).

Click Apply to continue.

5



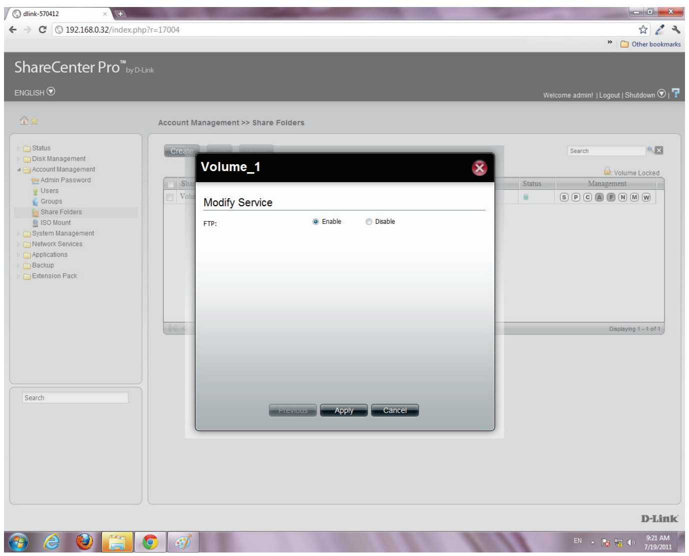

Click the A button to change AFP services.

Select between Enable (activate) or Disable (deactivate).

Click Apply to continue.

Clicking Disable changes the color of the letter to indicate that the service has been deactivated.

6



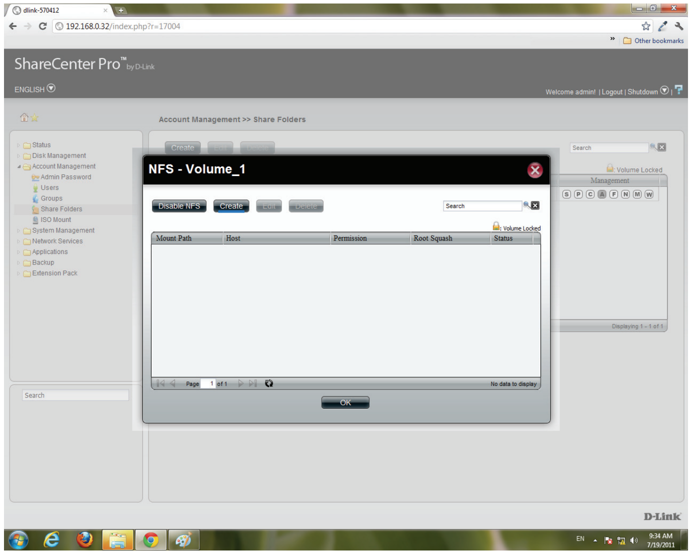

Click the F button to change FTP services.

Select between Enable (activate) or Disable (deactivate).

Click Apply to continue.

Clicking Disable changes the color of the letter to indicate that the service has been deactivated.

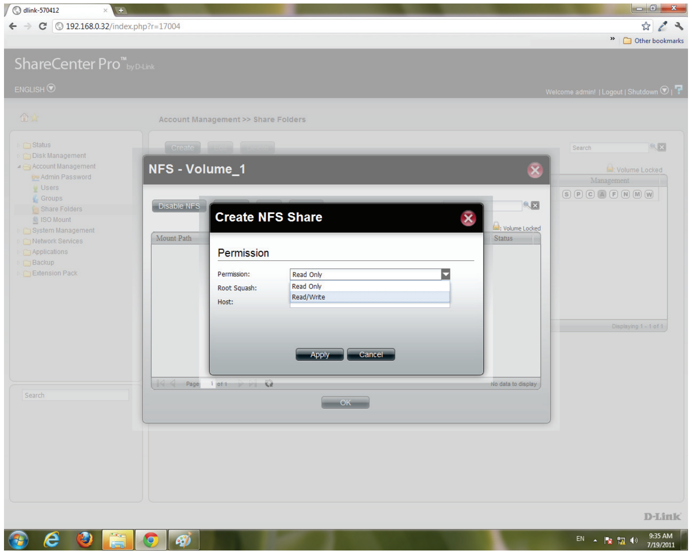
7




For NFS settings, the configuration window allows you to Disable NFS or Create a new rule.

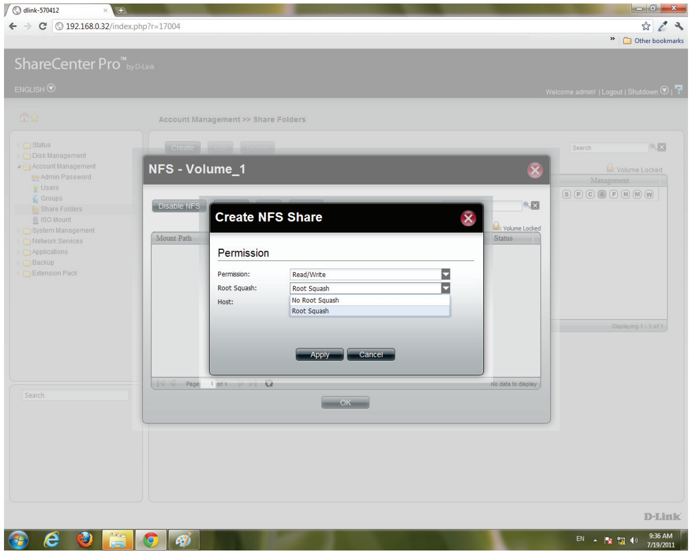
To Create a new rule click Create.

8



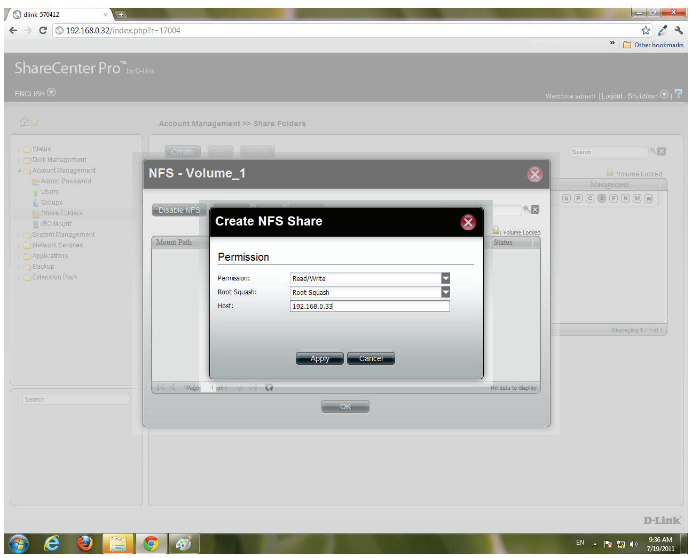

Under Create NFS Share, select the Permission level. There are two choices: Read Only & Read/Write.

9




Under Root Squash, select to activate Root Squash or not.

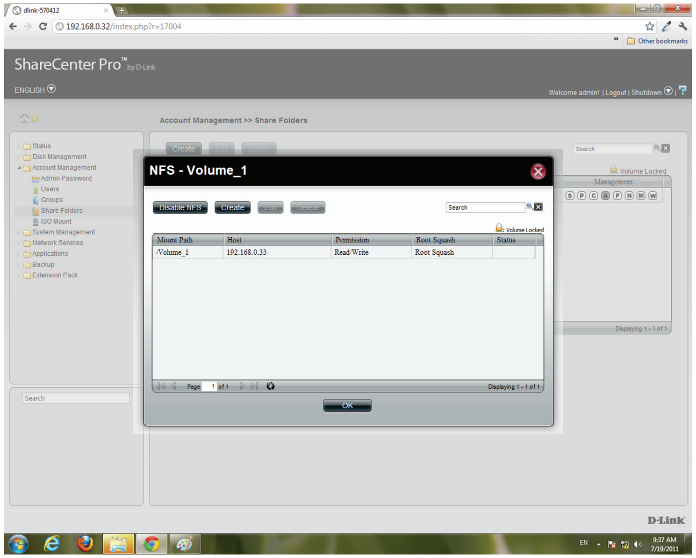
10




Enter the Host address.

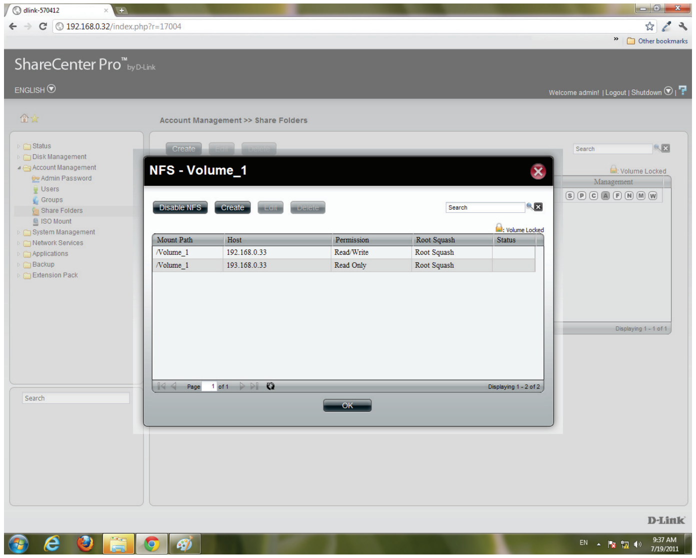
Click Apply.

11




The NFS table now shows the changes made.

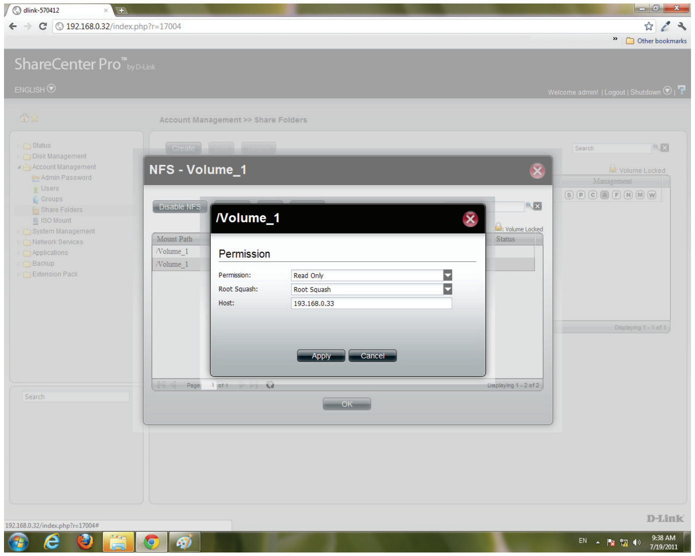
12




To Edit

Select the volume you wish to edit, click Edit.

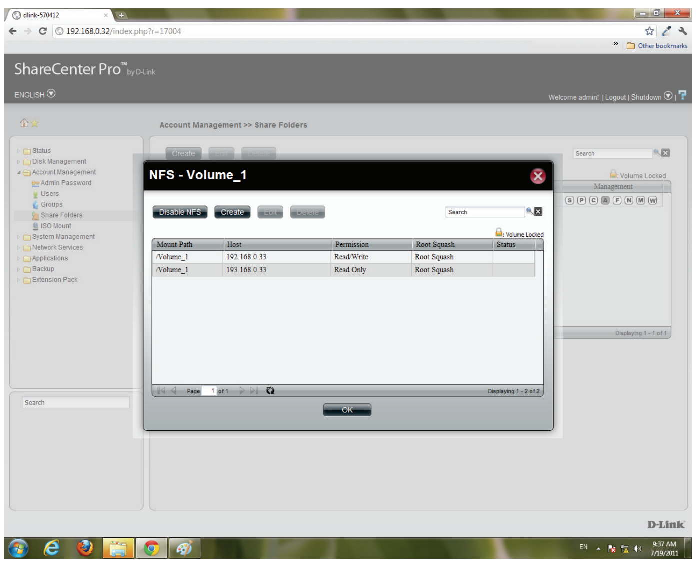
13




Users can edit the Permissions of a volume in this section. Once complete.

Click Apply.

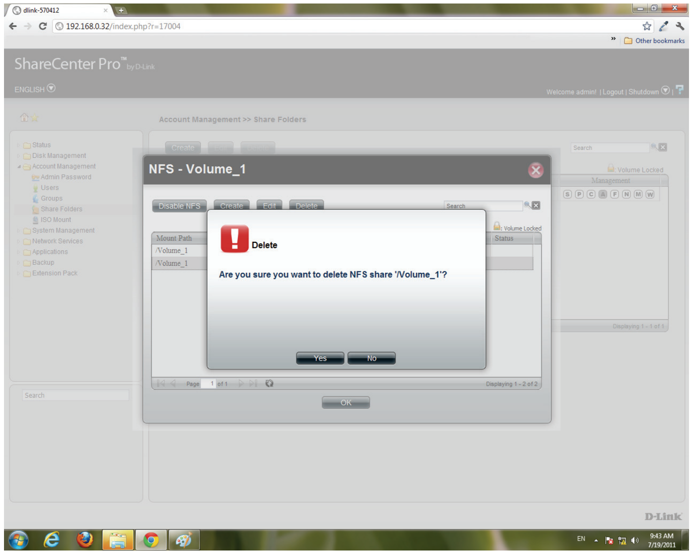
14




Delete an NFS volume by clicking the volume.

Then, click Delete.

**15**

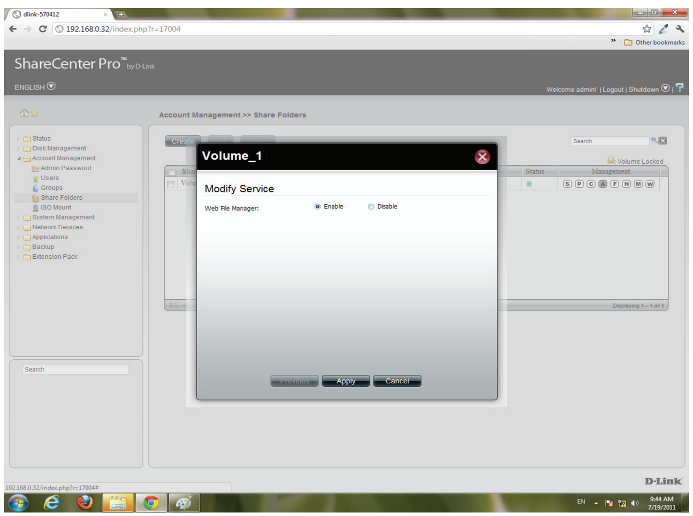



A warning message prompts you to verify your selection.

Click Yes to delete the NFS volume.

Click No to return to your original settings.

**16**



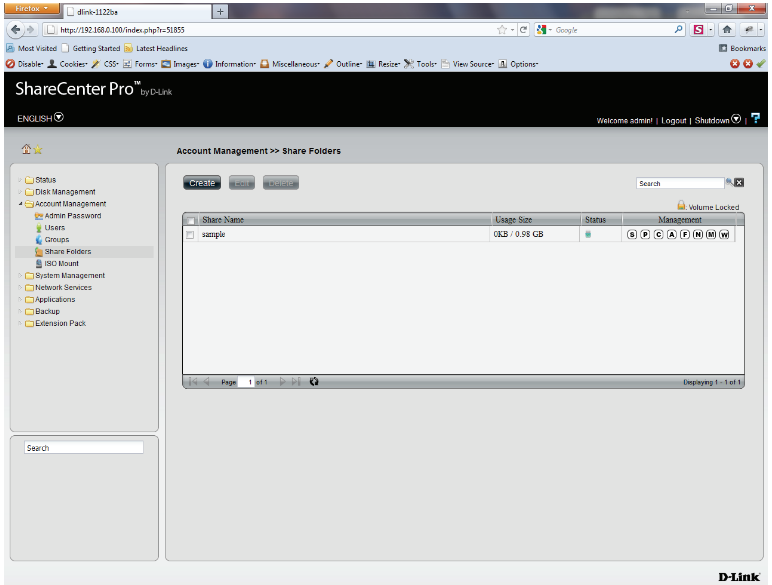

Click the M button to modify the Web File Manager.

Select between Enable (activate) or Disable (deactivate).

Click Apply to continue.

Clicking Disable changes the color of the letter to indicate that the service has been deactivated.

17



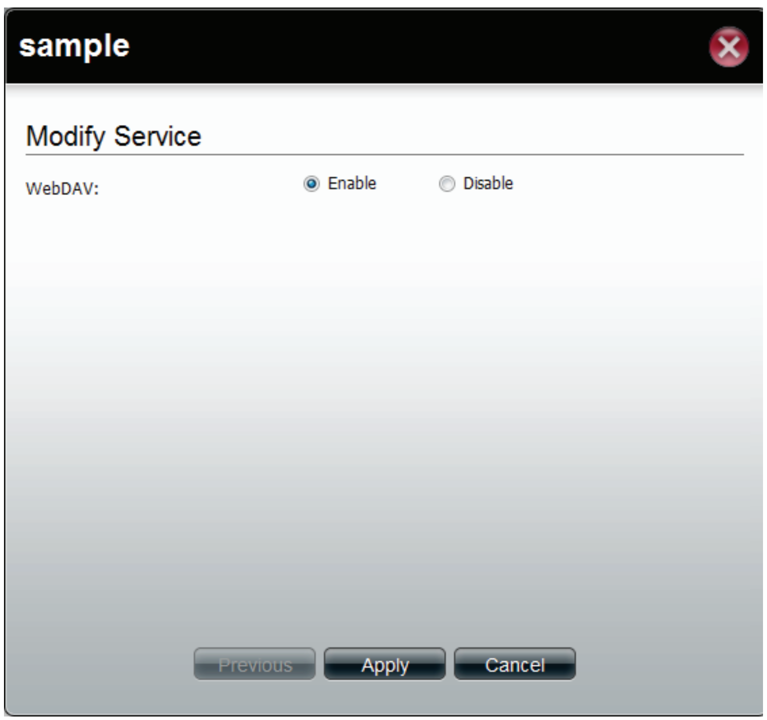

Click the **W** button to modify the WebDAV Services

Select between Enable (activate) or Disable (deactivate).

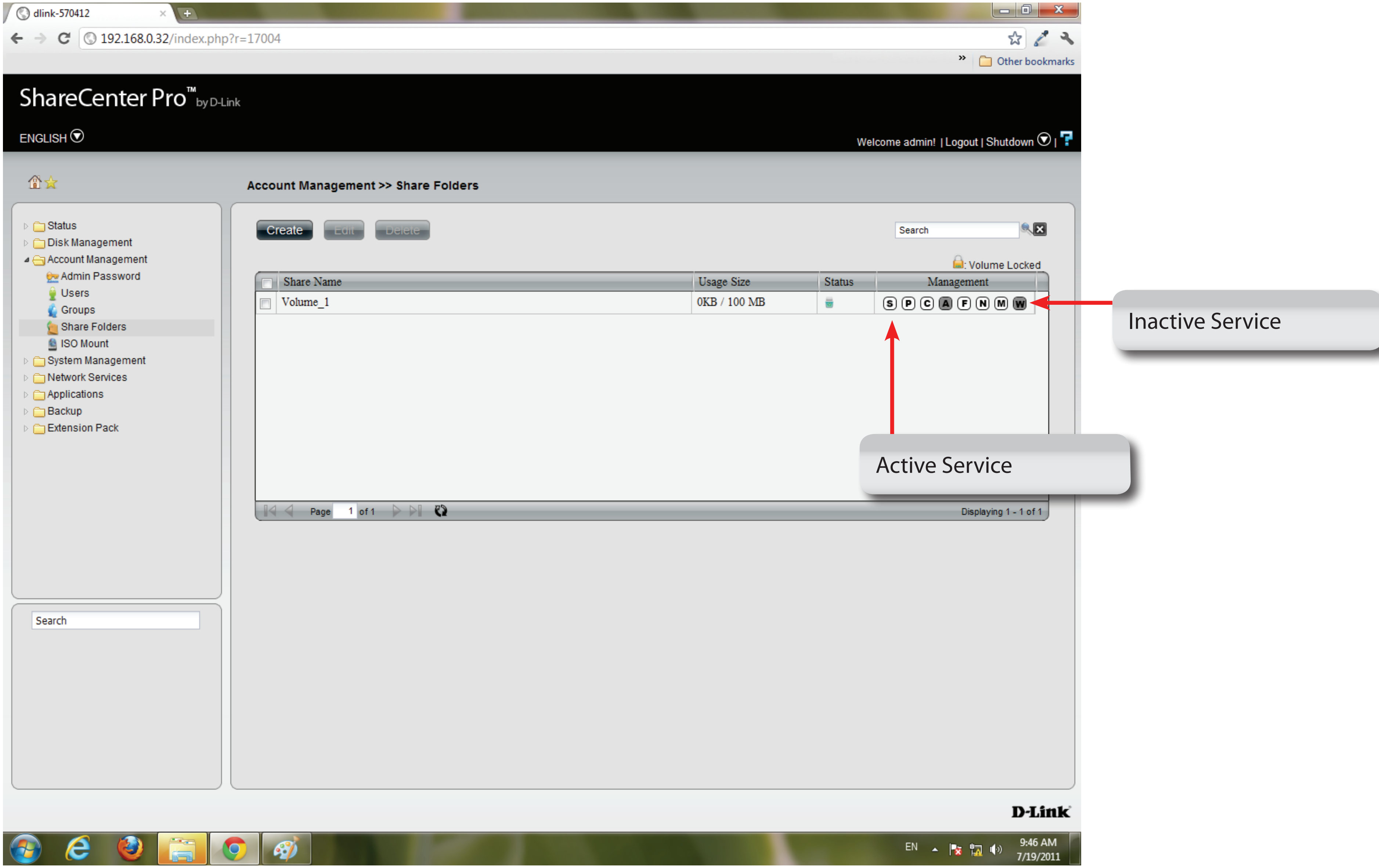
Click Apply to continue.

Clicking Disable changes the color of the letter to indicate that the service has been deactivated.

18



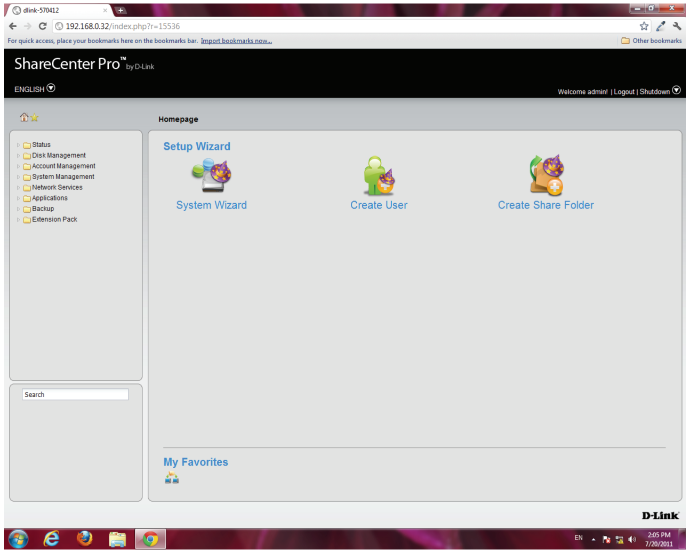
# Accounts Management - Shared Folders



# ISO Mounts

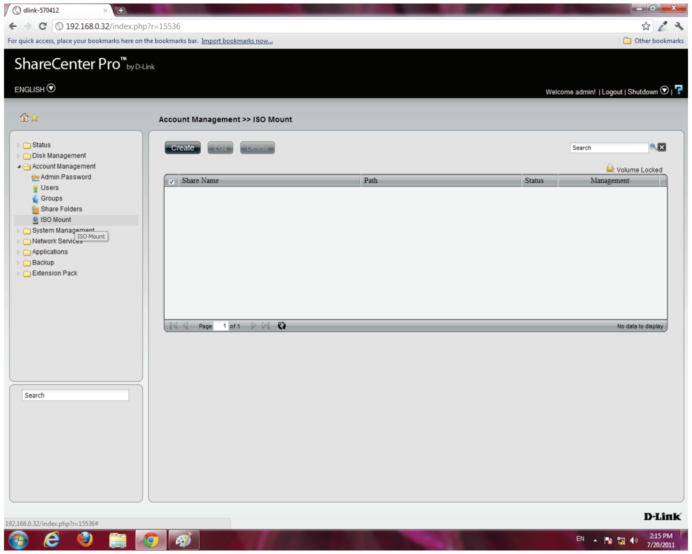
Follow these steps to mount and save an ISO file.

1




Log into the system.

2



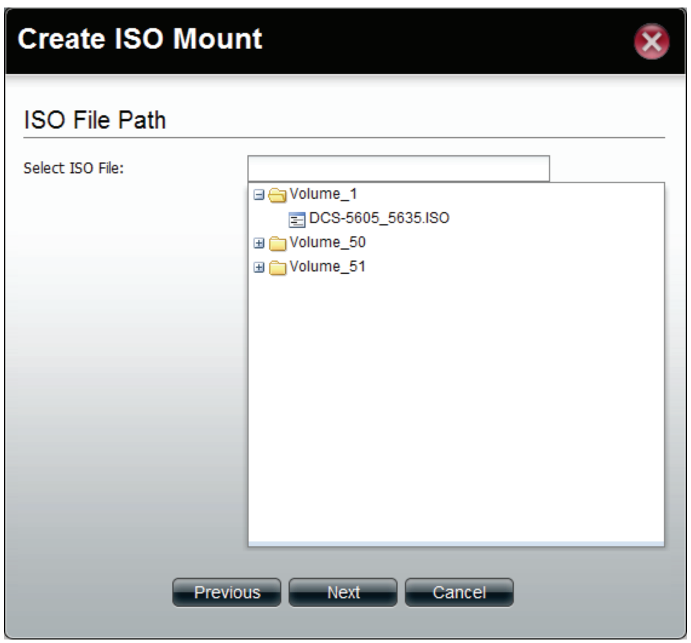

Click Accounts Management

Click ISO Mount

3


Click Create, the Create ISO Mount window appears. Read the instructions and click Next.

4




Click the empty field to browse to the ISO File Path.

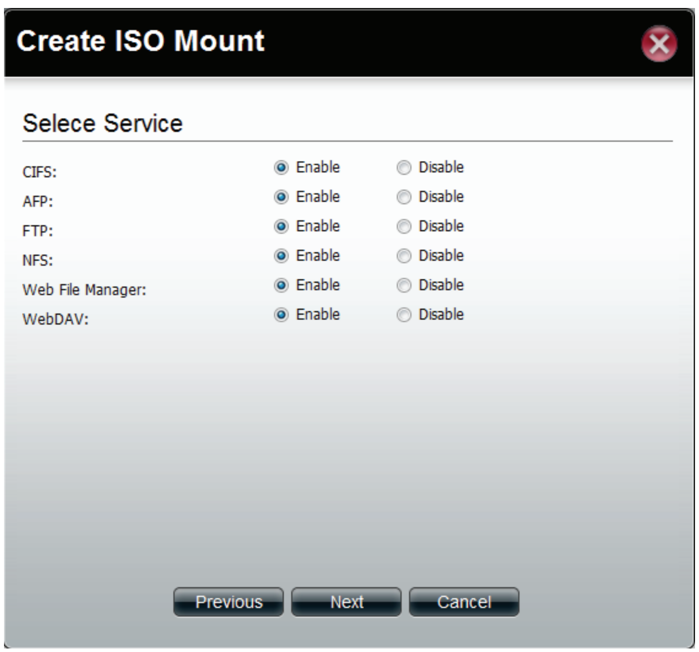
The ISO File must be located on the NAS to authenticate this procedure.

The ISO file cannot be on a volume. Click the volume to extend your search.

5


Click Next to continue

6

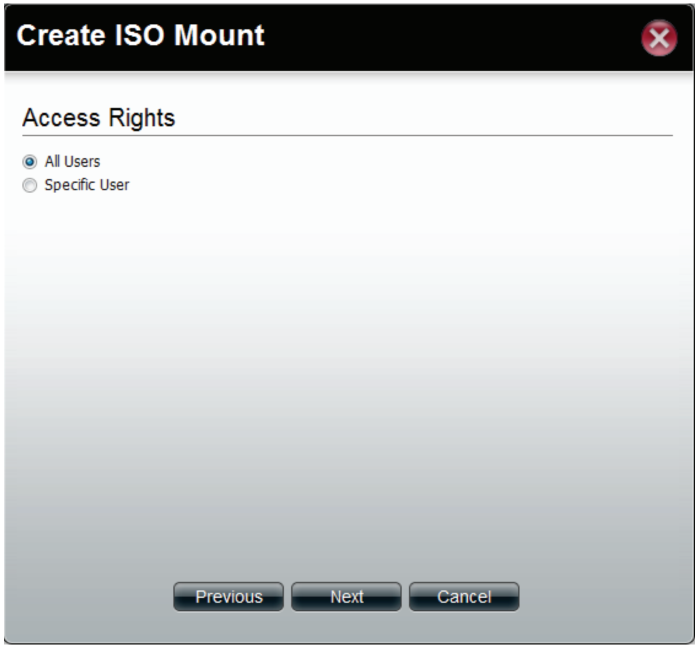



Select the Service by using one of the radio buttons

The choices include: CIFS, AFP, FTP, NFS, Web File Manager, and WebDAV.

Click Next to continue.

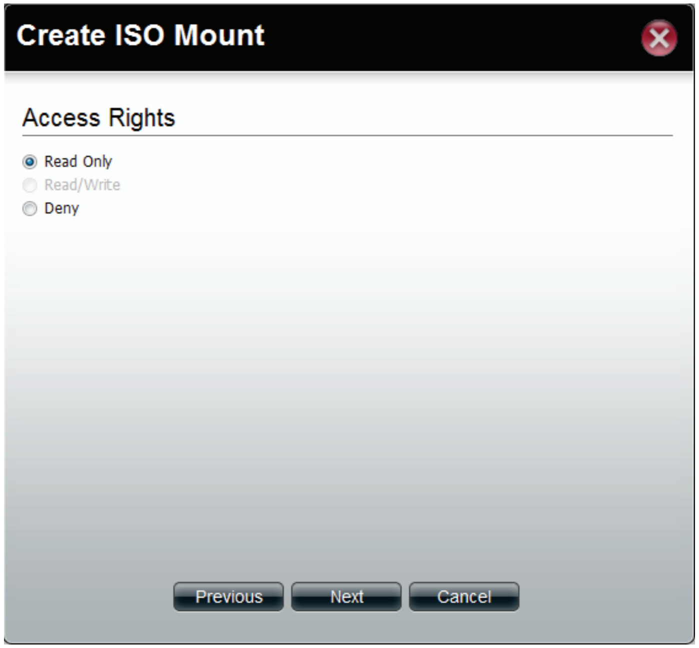
7




Under Access Rights specify the user - All Users or Specific Users.

Click Next to continue

8




Select which Access Rights you want to assign a user.

Choose either Read Only or Deny.

Click Next to continue.

9

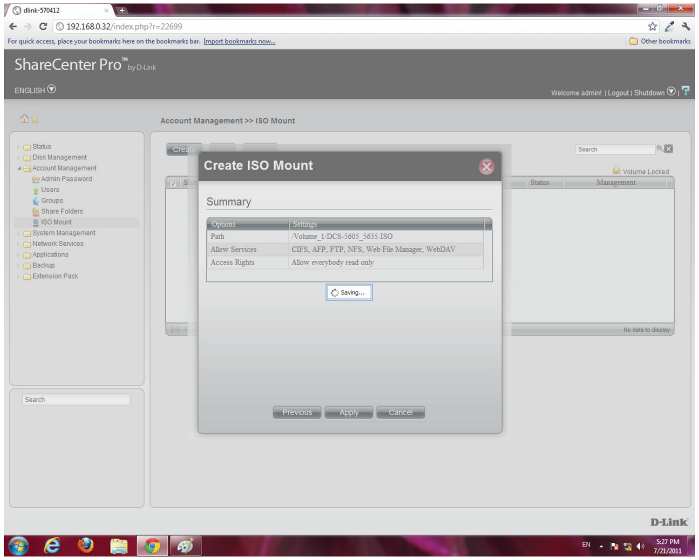

The final step is a summary. The summary displays the Path, Allowed Services, and Access Rights.

Click Apply to accept the configuration changes or click Cancel.

# ISO Mounts - Editing an ISO Mount

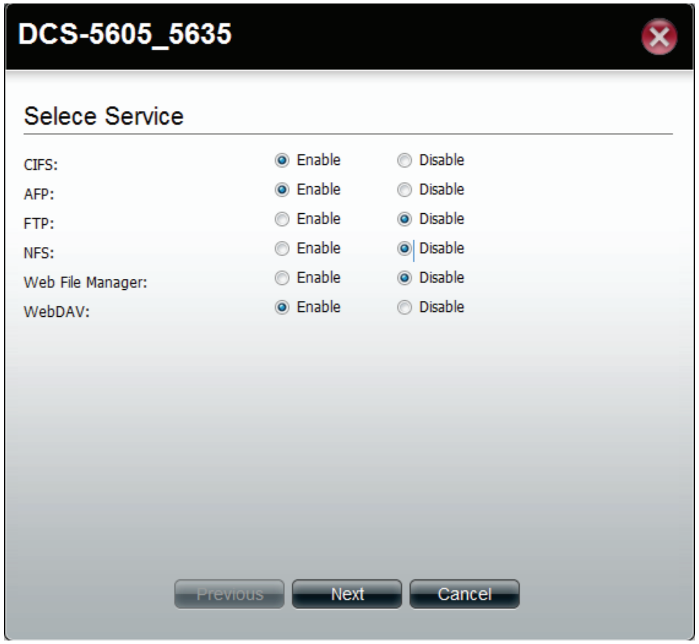
Follow these steps to edit an ISO file.

1




Once the configuration is saved and you need to edit your settings once again, click Edit.

2



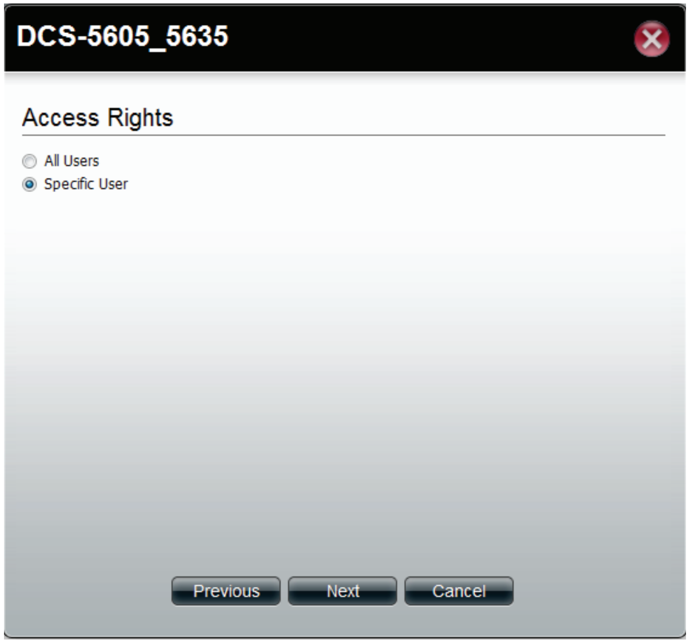

Select the Services you want.

Click Enable to activate the services.

Click Disable to deactivate the Service

Click Next to continue

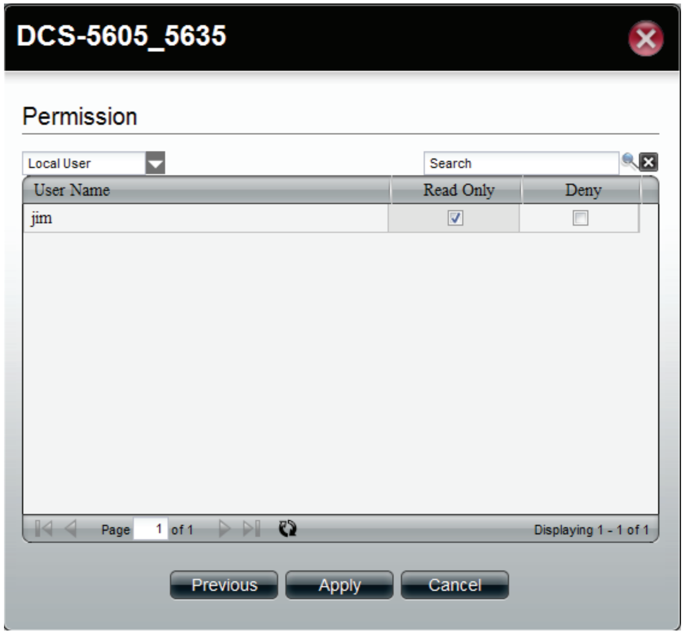
3




Select the User you wish to assign or edit.

Click Next.

4

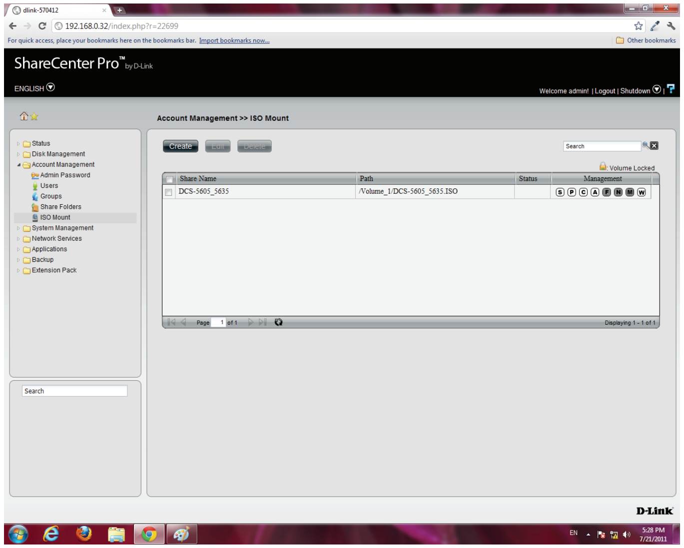



Selecting a Specific User.

Under Permissions, select the specific user, check the permission you want to set for this user.

Click Apply

5

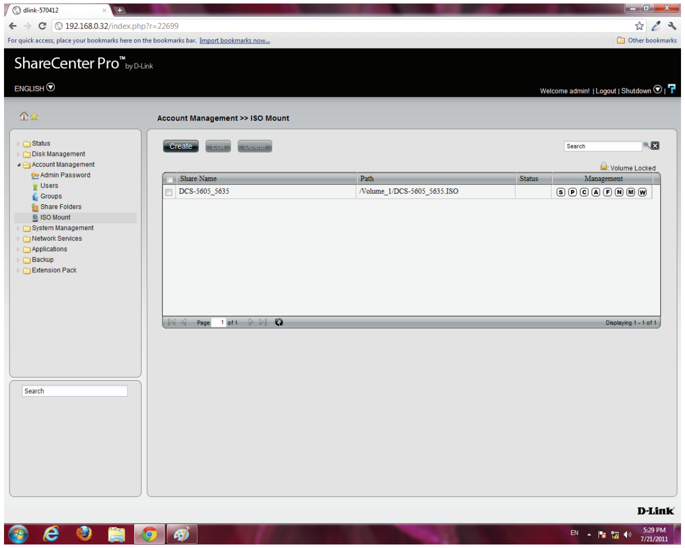



Once you have clicked Apply, the screen reverts back to the ISO Mount table.

# ISO Mounts - Deleting an ISO Mount

Follow these steps to delete an ISO mount setting. Please note: The ISO file will not be deleted.

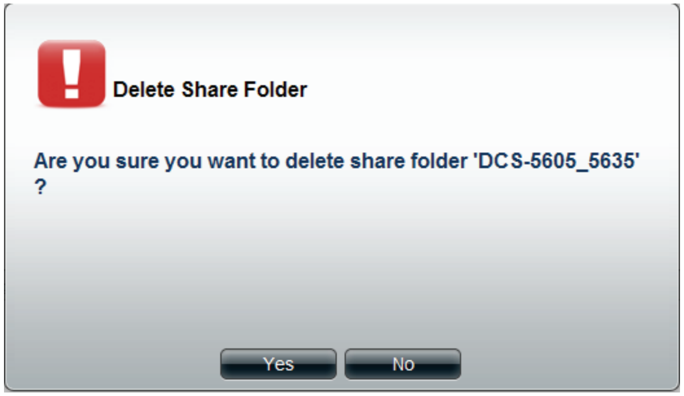
1




Select the ISO Mount you wish to delete

Click the Delete button

2

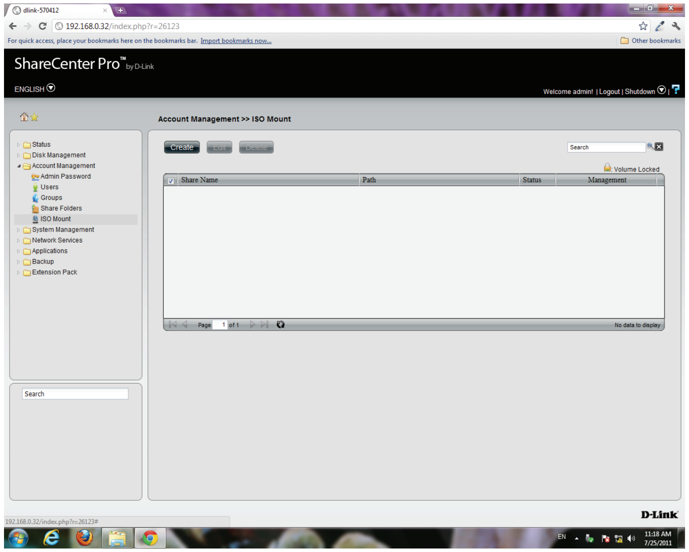



A warning message appears verifying if you want to delete the shared folder.

Click Yes to confirm the delete instruction

Click No to exit this instruction

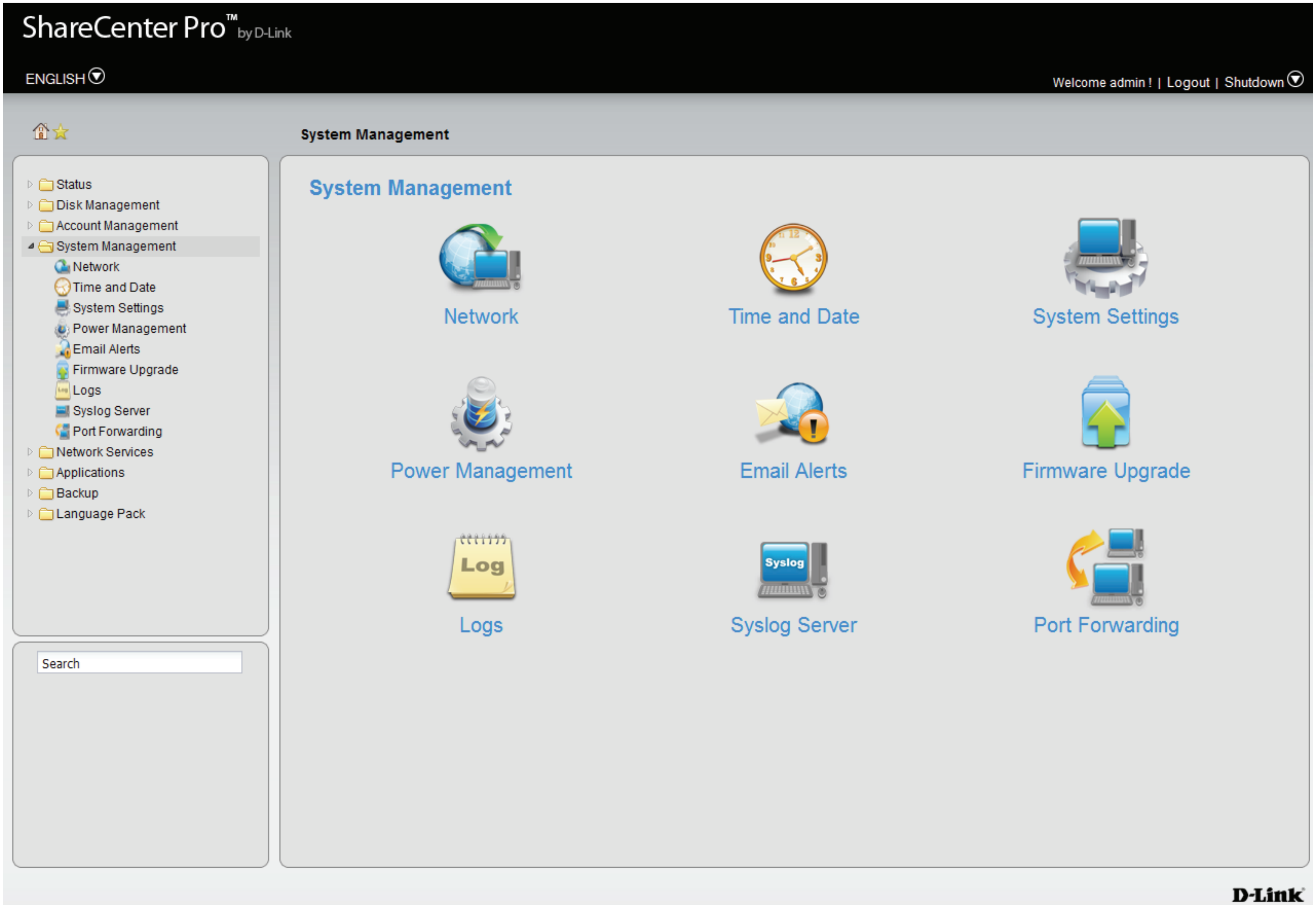
3




The folder is deleted and the ISO Mount directory is empty.

# System Management

This folder contains the Network, Time and Date, System Settings, Power Management, Email Alerts, Firmware Upgrade, Logs, Syslog Server and Port Forwarding. Click the folder to see the subcategories

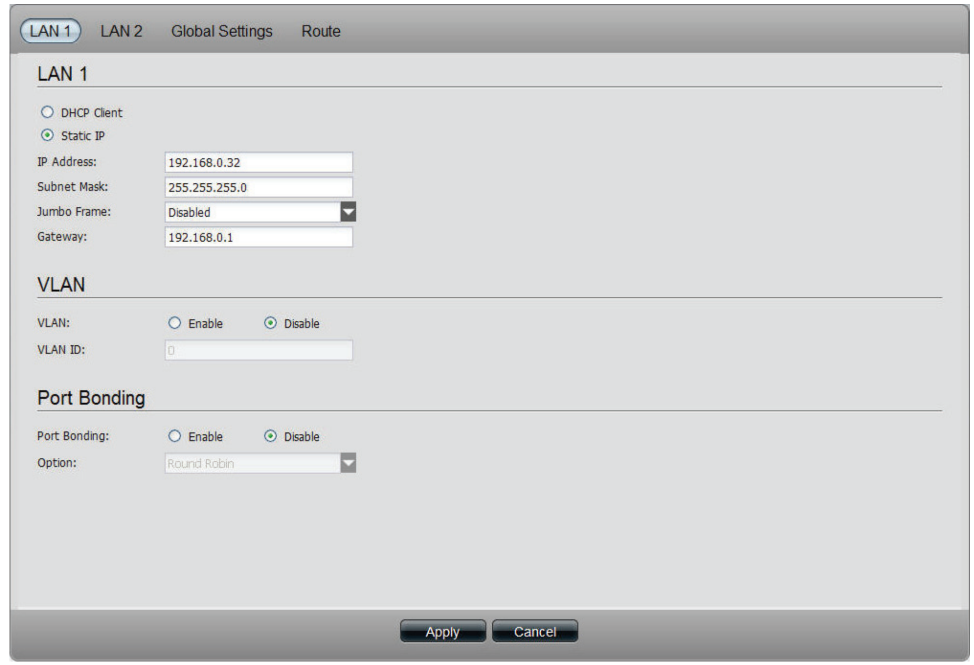


# Network

Click the **Network** icon in the System Management window or the Network link in the left window to configure the Network.

## LAN 1

Click the **LAN 1** tab to see the following window.




**DHCP Client** Click the radio button to obtain the IP address from a DHCP server.

**Static IP** Click the radio button to assign a static IP address to the ShareCenter Pro.

**IP Address** Enter a static IP address.

**Subnet Mask** Enter the subnet mask for the IP address.

**Jumbo Frame** Use the drop-down menu to select the larger frame size than standard Ethernet frame size.

**Gateway** Enter the gateway IP address for the ShareCenter Pro.

**VLAN** Enable or disable the VLAN.

**VLAN ID** Enter a VLAN ID when VLAN is enabled.

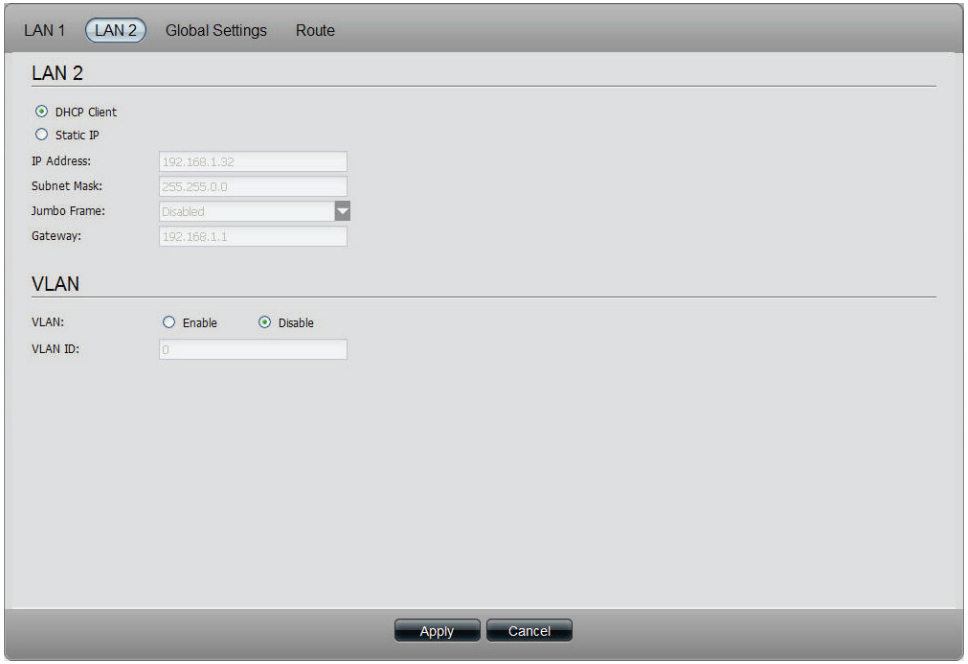
**Port Bonding** Enable or disable port bonding which is also known as port trunking.

**Option** Use the drop-down menu to select the port bonding method. Available methods are Round Robin, Active Backup, XOR, Broadcast, 802.3ad, Adaptvie Transmit Load Balancing, and Adaptive Load Balancing.

Click **Apply** to save the settings.

# LAN 2

Click the **LAN 2** tab to see the following window.




**DHCP Client** Click the radio button to obtain the IP address from a DHCP server.

**Static IP** Click the radio button to assign a static IP address to the ShareCenter Pro.

**IP Address** Enter a static IP address.

**Subnet Mask** Enter the subnet mask for the IP address.

**Jumbo Frame** Use the drop-down menu to select the larger frame size than standard Ethernet frame size.

**Gateway** Enter the gateway IP address for the ShareCenter Pro.

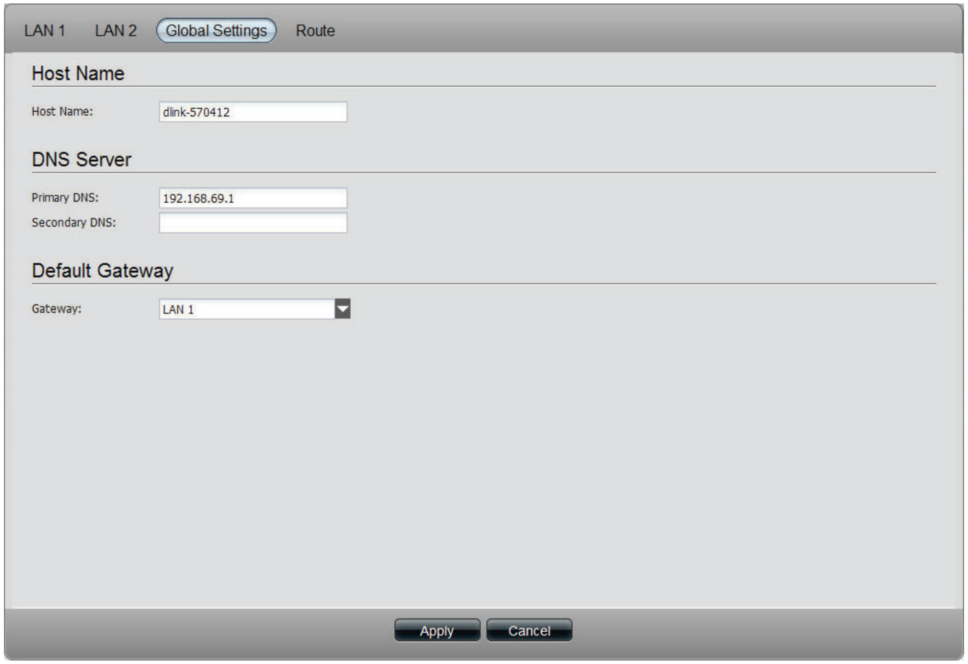
**VLAN** Enable or disable the VLAN.

**VLAN ID** Enter a VLAN ID when VLAN is enabled.

Click **Apply** to save the settings.

# Global Settings

Click the **Global Settings** tab to see the following window.




**Host Name** Enter the name of the ShareCenter Pro

**Primary DNS** Enter the main DNS address for the ShareCenter Pro.

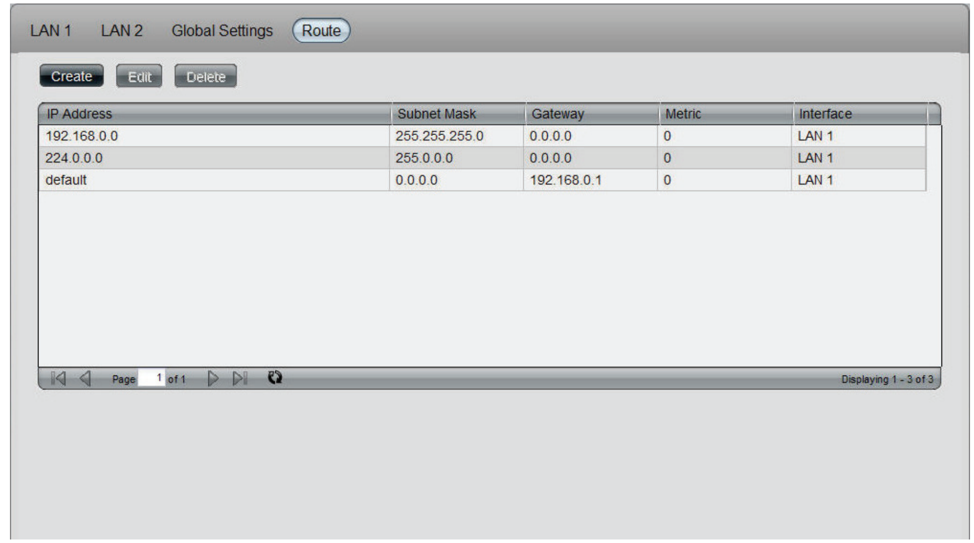
**Secondary DNS** Enter the secondary DNS address for the ShareCenter Pro.

**Gateway** Use the drop-down menu to select the LAN interface.

Click **Apply** to save the settings.

# Route

Click the **Route** tab to see the following window.




**Create** Click to create a new routing path.

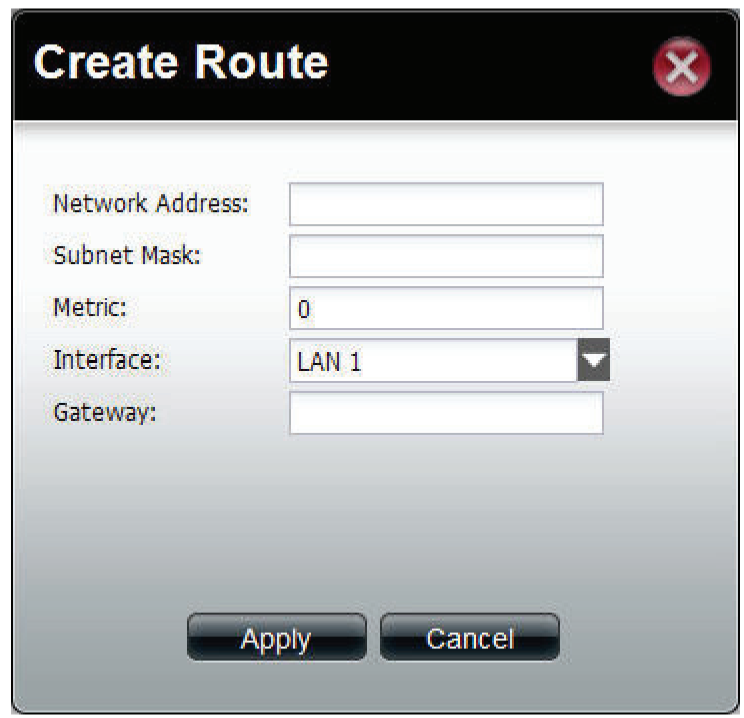
**Edit** Select a routing path and click the button to edit the routing path.

**Delete** Select a routing path and click the button to remove the entry from the list.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click  to update the group list.

Click the **Create** button under the Route tab to see the window.




**Network Address** Enter an IP address of the routing path.

**Subnet Mask** Enter the subnet mask for the IP address.

**Metric** Enter an integer cost metric for the route.

**Interface** Use the drop-down menu to select the interface.

**Gateway** Enter the forwarding or next hop IP address.

Click **Apply** to save the settings.

# IPv6

Click the **IPv6** tab to access the IPv6 settings. Click Enable to activate the settings or Disable to deavtivate it.

## LAN 1

Under **LAN 1** see the following window.

| | |
|---|---|
| **IPv6 Setup** | Select from the drop-down list the appropriate configuration settings (Auto, DHCP, Static) |
| **IPv6 Address** | This field is automatically populated if your router supports IPv6 (Auto, DHCP), or enter your Static IP address details. |
| **Prefix Length** | Depending on IPv6 configuration. |
| **Subnet Mask** | Enter the subnet mask for the IP address. |
| **Default Gateway** | Enter the default Gateway address. |

## LAN 2

Under **LAN 2** see the following window.

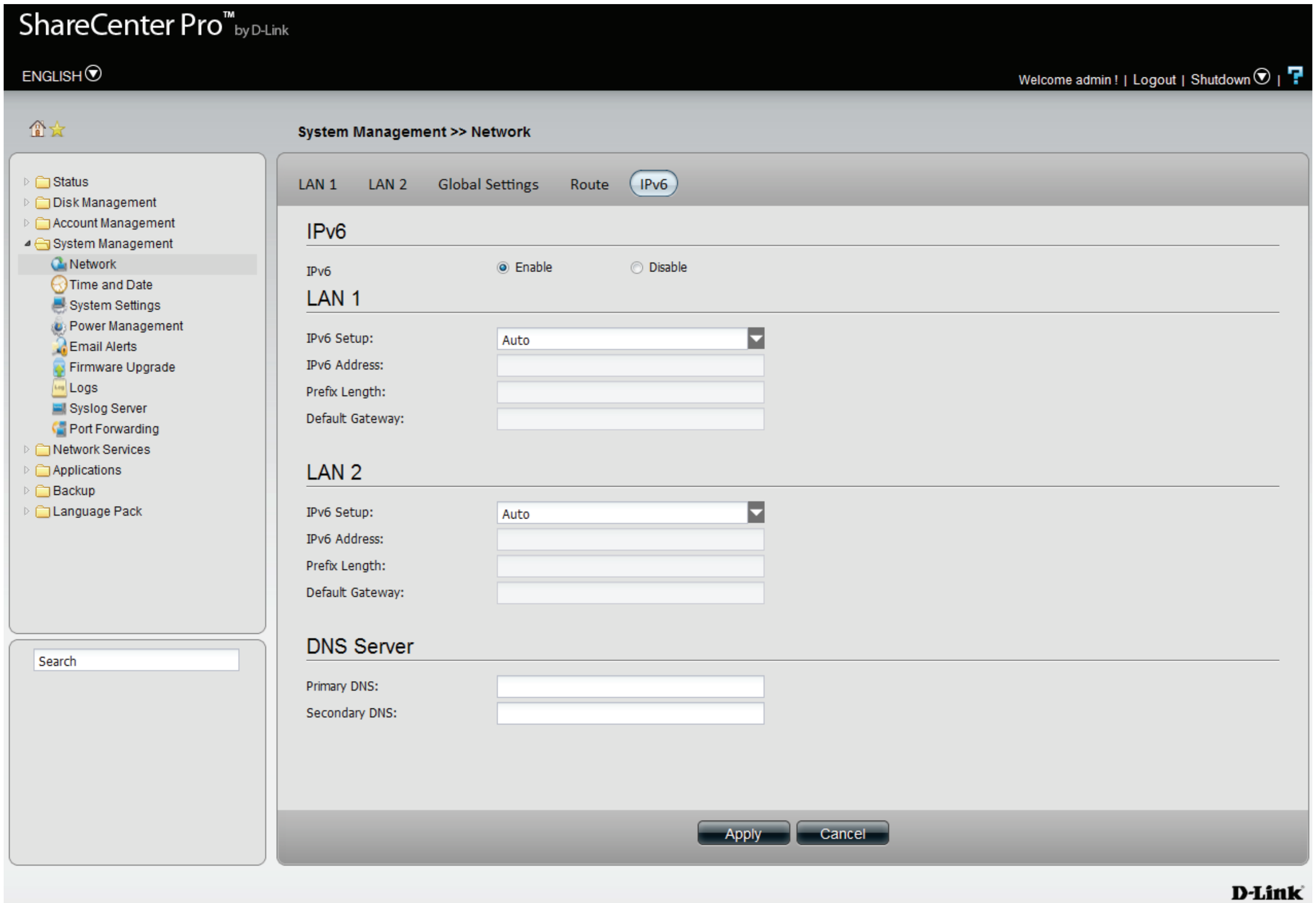
| | |
|---|---|
| **IPv6 Setup** | Select from the drop-down list the appropriate configuration settings (Auto, DHCP, Static) |
| **IPv6 Address** | This field is automatically populated if your router supports IPv6, otherwise get the details from your network administrator. |
| **Prefix Length** | Depending on IPv6 configuration. |
| **Subnet Mask** | Enter the subnet mask for the IP address. |
| **Default Gateway** | Enter the default Gateway address. |

# DNS Server

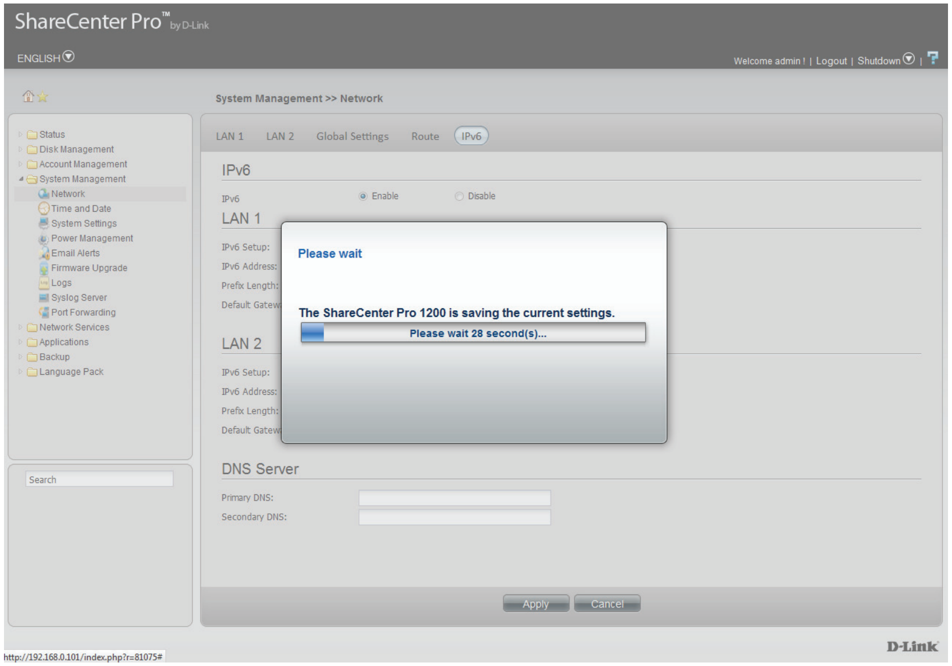
**Primary DNS** Enter the Primary DNS server on your network.

**Secondary DNS** Enter the Secondary DNS server settings on your network.

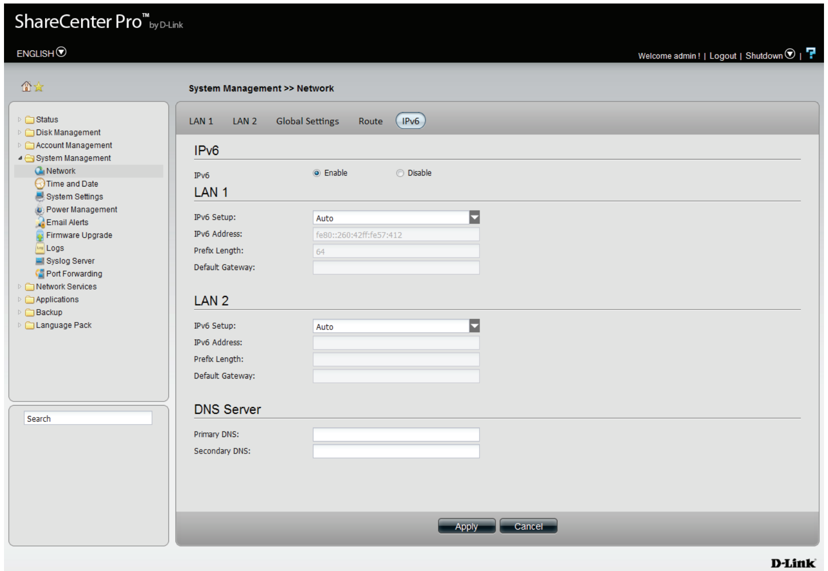
Click **Apply** to complete the **IPv6** configuration.



The system updates.




The **IPv6** tab is populated with the new IPv6 IP address .



# Time and Date

Click the **Time and Date** icon in the System Management window or the Time and Date link in the left window to configure the time and date of the ShareCenter Pro.

**Current Time** Displays the current time of the ShareCenter Pro.

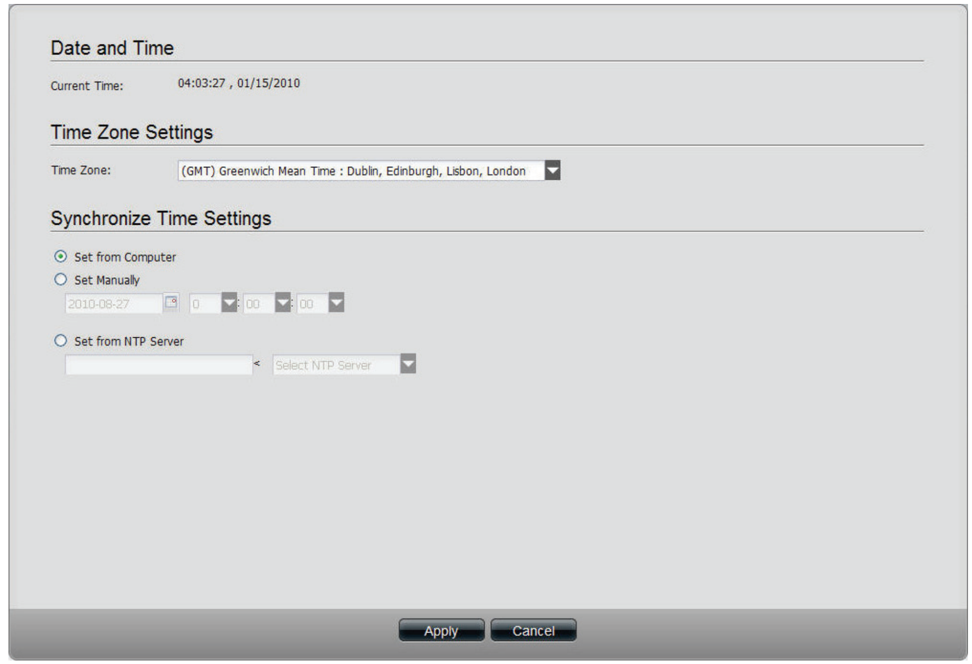
**Time Zone** Use the drop-down menu to select the time zone of your area.

**Set from Computer** Click the radio button to synchronize the ShareCenter Pro's time with your computer.

**Set Manually** Click the radio button to set the time and date manually.

**Set from NTP Server** Click the radio button and select a NTP server to synchronize the ShareCenter Pro's time with the NTP server.

Click **Apply** to save the settings.



# System Settings

Click the **System Settings** icon in the System Management window or the System Settings link in the left window to configure the system settings.

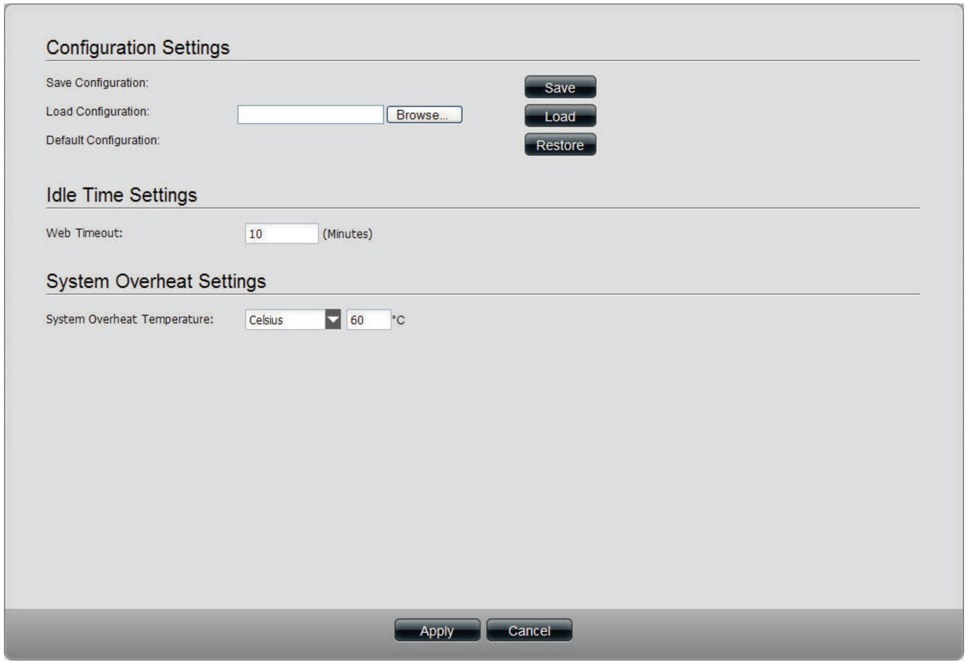
**Save Configuration** Click the **Save** button to save the current settings to the selected location.

**Load Configuration** Click the **Browse** button to locate the path for the configuration file and click **Load** to load the file.

**Default Configuration** Click **Restore** to reset the ShareCenter Pro back to the factory default settings.

**Web Timeout** Enter a period of time. If the web is idle longer than the time, it will be automatically logged out.

**System Overheat Temperature** Toggle between Celsius and Fahrenheit and enter a temperature. Once the system temperature is over the entered temperature;, the ShareCenter Pro will automatically shut down.




Click **Apply** to save the settings.

# Power Management

Click the **Power Management** icon in the System Management window or the Power Management link in the left window to configure the system power settings.

## Power Saving Settings

Click the **Power Saving Settings** tab to see the following window.

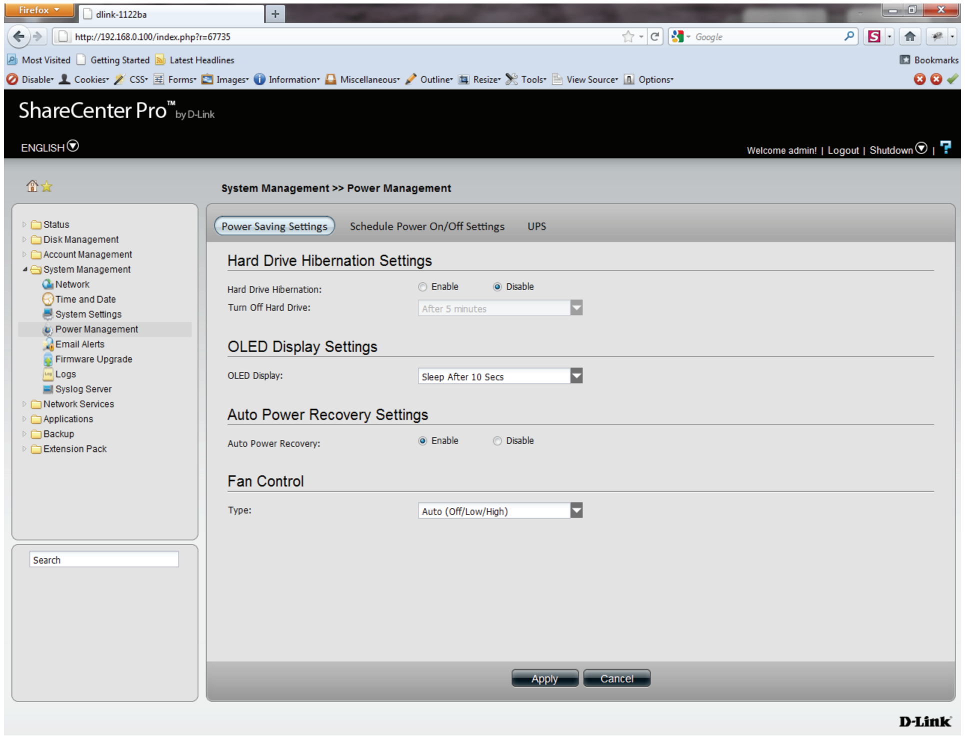
**Hard Drive Hiberation** Click **Enable** to enable the function.

**Turn Off Hard Drive** Use the drop-down menu to select an idle time, after which the hard drives will enter into hibernation mode.

**OLED Display** Use the drop-down menu to select an idle time, after which the OLED will be turned off.

**Auto Power Recovery** Click **Enable** to have the power restored when encountering a power failure.

**Type** Use the drop-down menu to select a fan speed mode. Available choices are Auto (Off/Low/High), Auto (Low/High) and Manual (Always on High).



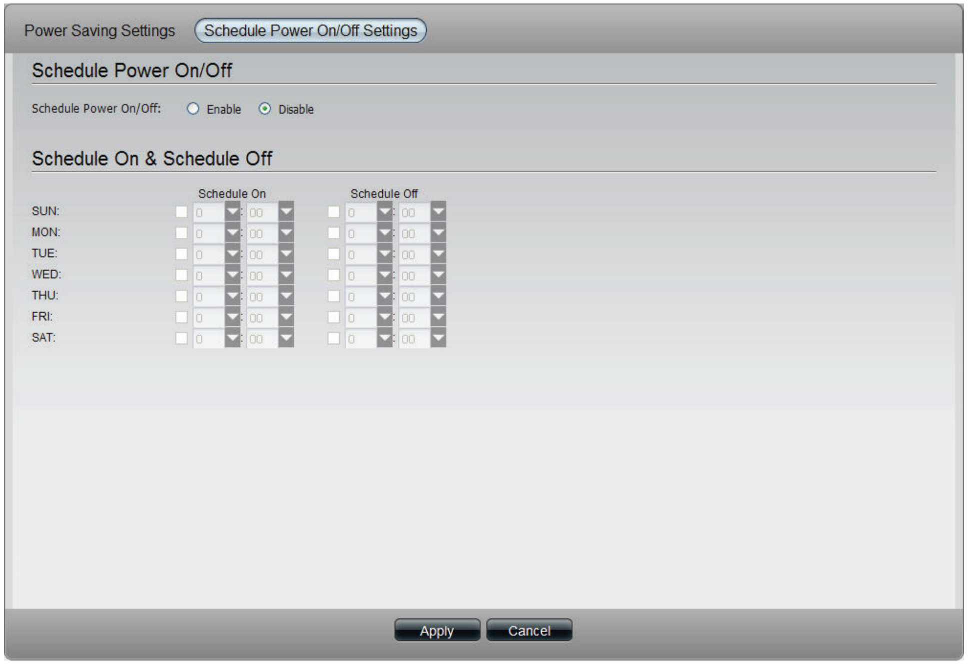

Click **Apply** to save the settings.

# Schedule Power On/Off Settings

Click the **Schedule Power On/Off Settings** tab to see the following window. This function will be deactivated if the schedule is configured at the same time as the firmware update.

**Schedule Power On/Off** Click **Enable** to set a schedule for automatic system power on and off.

**Schedule On & Schedule Off** Use the drop-down menus to select the time of system power on and off.

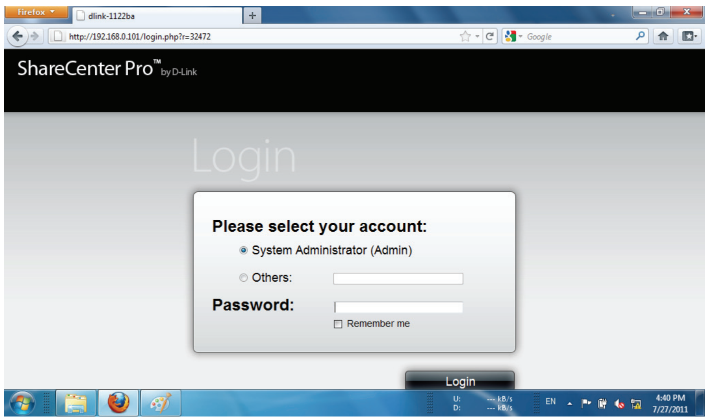



Click **Apply** to save the settings.

# System Management - Power Management - UPS

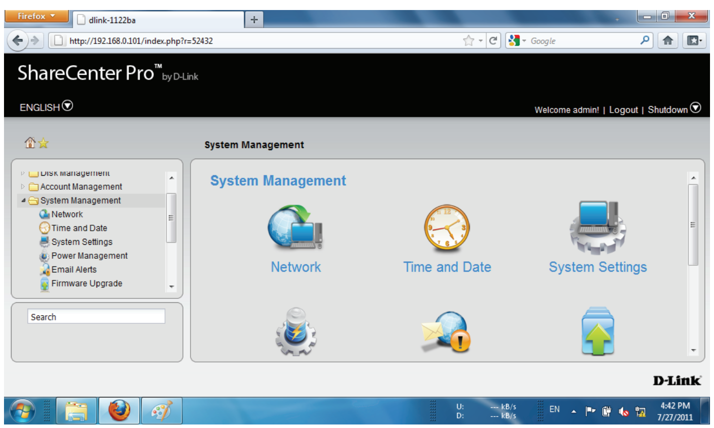
Follow these steps to configure a UPS device to the NAS. This function provides a way for the NAS to monitor the UPS status through the network. This device plays the role of the master and standalone if its connected with a USB cable. If it is not connected in this way, the device will play the role as the slave. In the slave role it will monitor the UPS status through the network.

1



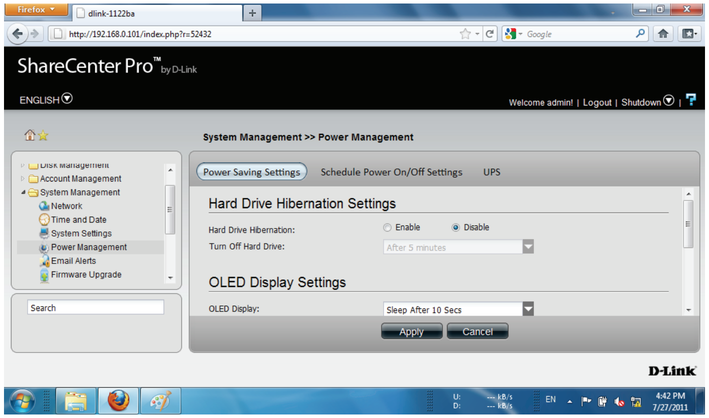

Log-in to the NAS

2



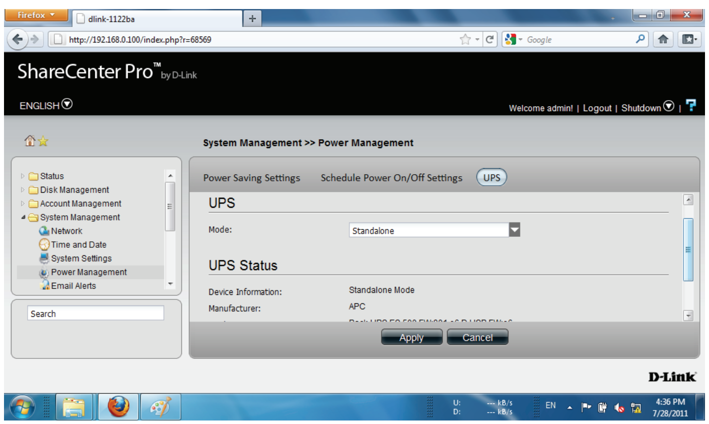

Click System Management

3




Click Power Management

4

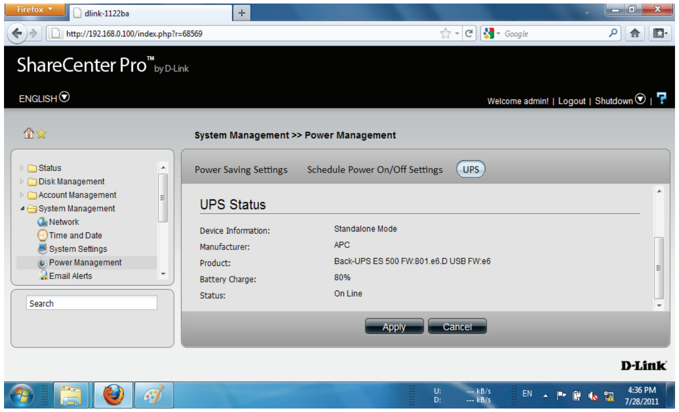



Click UPS

UPS has two modes, Master and Standalone

From the drop-down list select Standalone

5

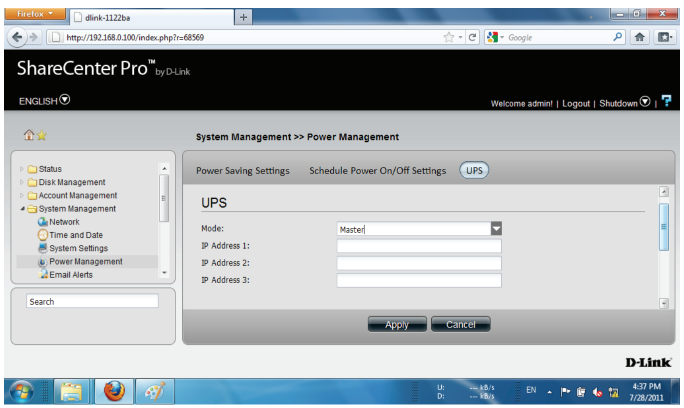



Once you have selected Standalone mode, scroll down to UPS Status

The UPS Status provides Device Information, Manufacturer, Product, Battery Charge, and Status.

Click Apply to continue

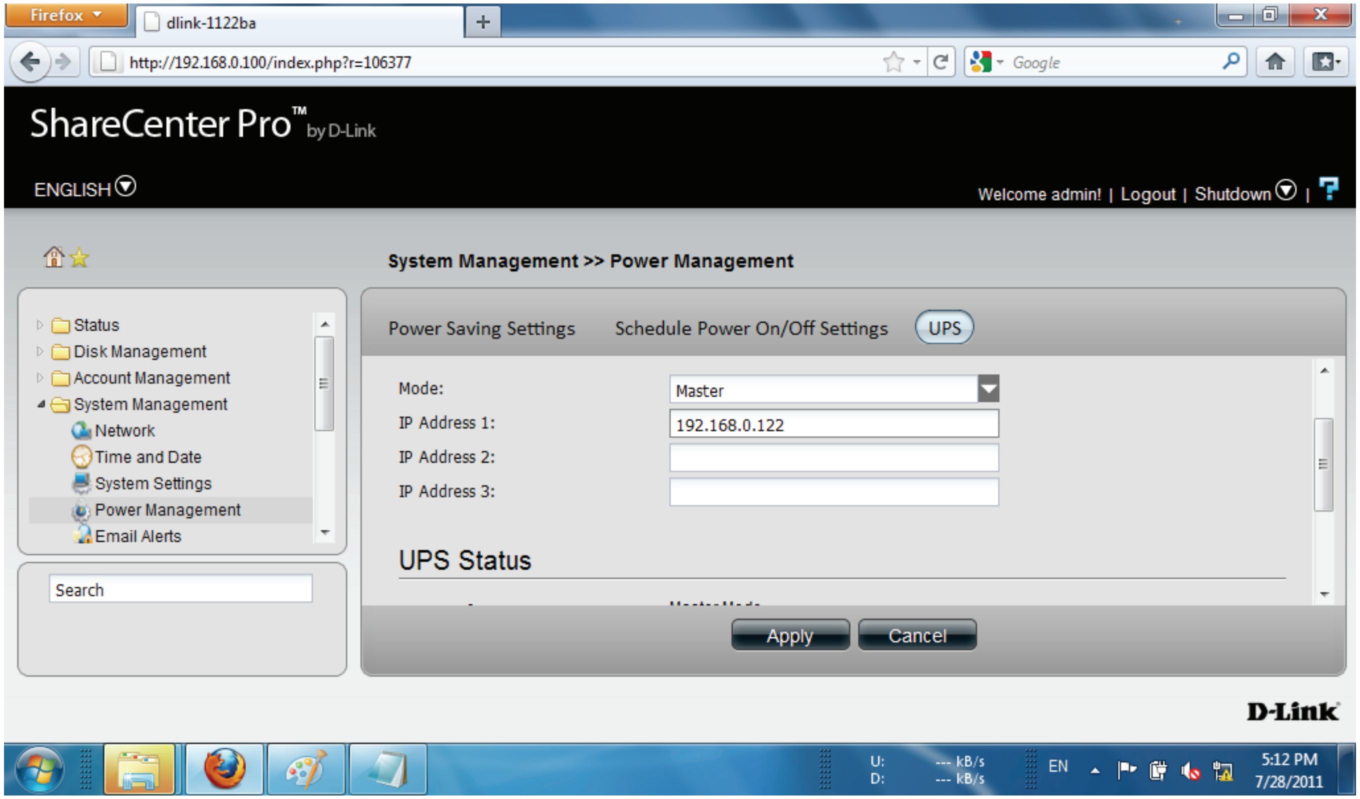
6




The alternative is to select Master UPS mode.

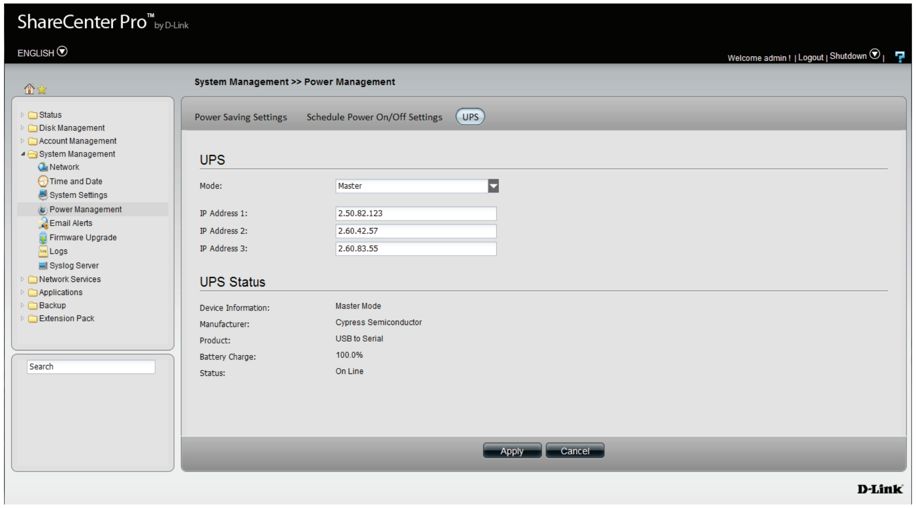
The Master UPS mode has three slave device IP address inputs.

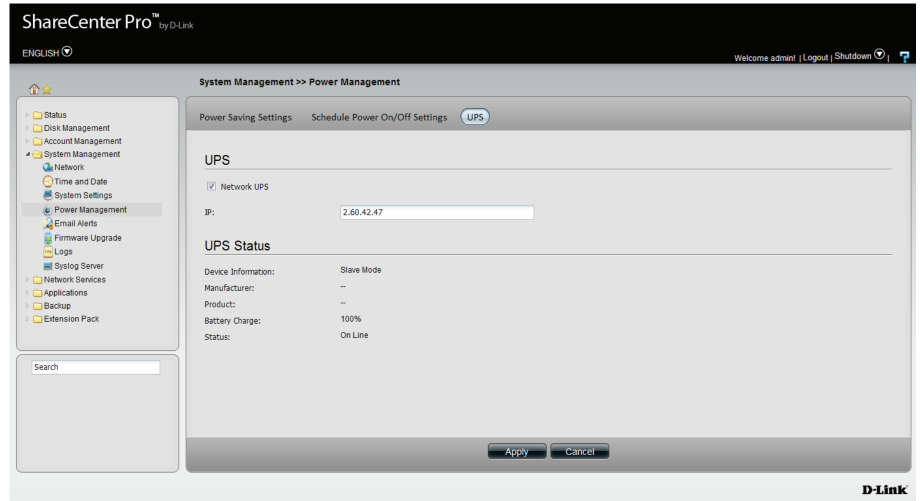
7




Enter an IP address into the field.

Click Apply to submit the changes.



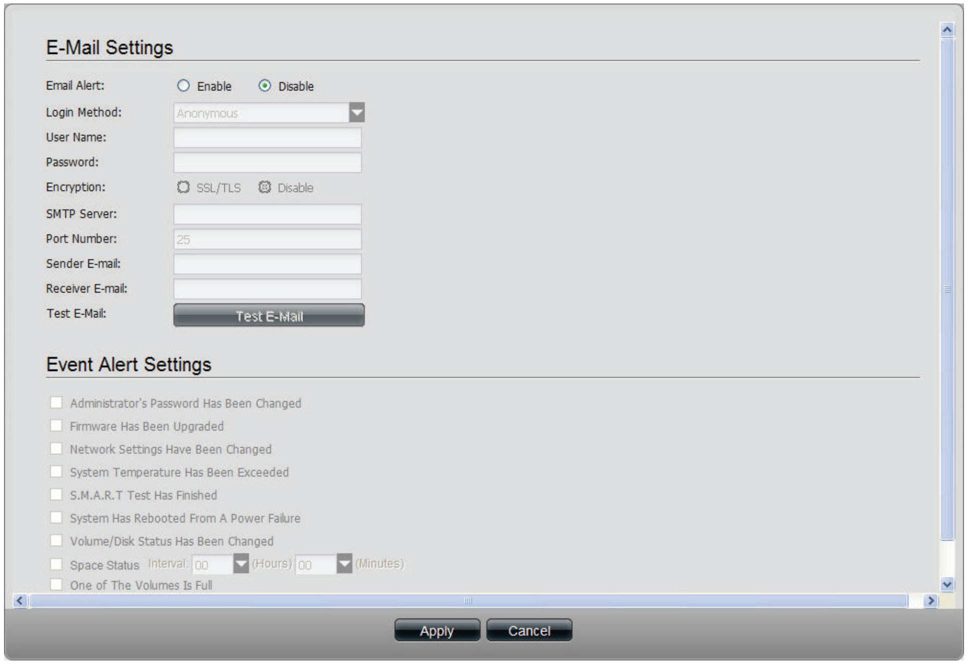

A network UPS slave communicates with network UPS master to receive the UPS status. To set up your NAS with UPS as network slave mode, follow the steps below:

1. Make sure the NAS is connected to the same physical network as the network UPS master.
2. Select the option "Enable Network UPS".
3. Enter the IP address of the network UPS master.
4. Click "Apply" to confirm.

**Note:** Configuring network UPS is not the default configuration. Ask a systems administrator to assist you with all configuration operations. This feature is ideal for SOHO and medium size businesses that use more than one UPS and NAS. Make sure your network supports network UPS alerts.

# Email Alerts

Click the **Email Alerts** icon in the System Management window or the Email Alerts link in the left window to configure the e-mail alert settings.




| | |
|---|---|
| **Email Alert** | Click the radio buttons to enable or disable the e-mail alert function. |
| **Login Method** | Use the drop-down menu to select the login method. If the SMTP server requires authentication, select **Login**. If not, select **Anonymous**. |
| **User Name** | If **Login** is selected in **Login Method**, enter the user name of the e-mail account. |
| **Password** | If **Login** is selected in **Login Method**, enter the password of the e-mail account. |
| **Encryption** | Select **SSL/TLS** if the SMTP server requires authentication. |
| **SMTP Server** | Enter the IP address of the SMTP server. |
| **Port Number** | Enter the port number of the SMTP server. |
| **Sender E-mail** | Enter the sender's e-mail address. |
| **Receiver E-mail** | Enter the e-mail address that the e-mail alert sends to. |
| **Test E-mail** | Click the **Test E-Mail** button to send a test e-mail. |
| **Event Alert Settings** | Tick the check boxes to select the situation that will cause the e-mail alert to be sent out. |

Click **Apply** to save the settings.

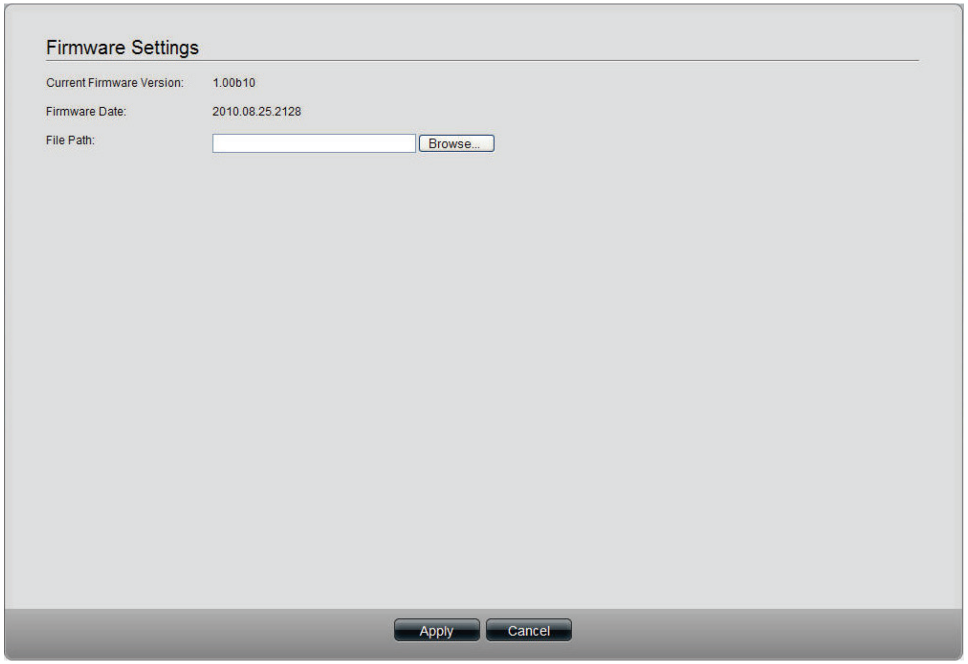
# Firmware Upgrade

Click the **Firmware Upgrade** icon in the System Management window or the Firmware Upgrade link in the left window to update the firmware.

**Current Firmware Version** Displays the current firmware in the system.

**Firmware Date** Displays the date of the firmware.

**File Path** Click the **Browse** button to locate the firmware. You must save the firmware to the local hard drive of your computer before upgrading the firmware.



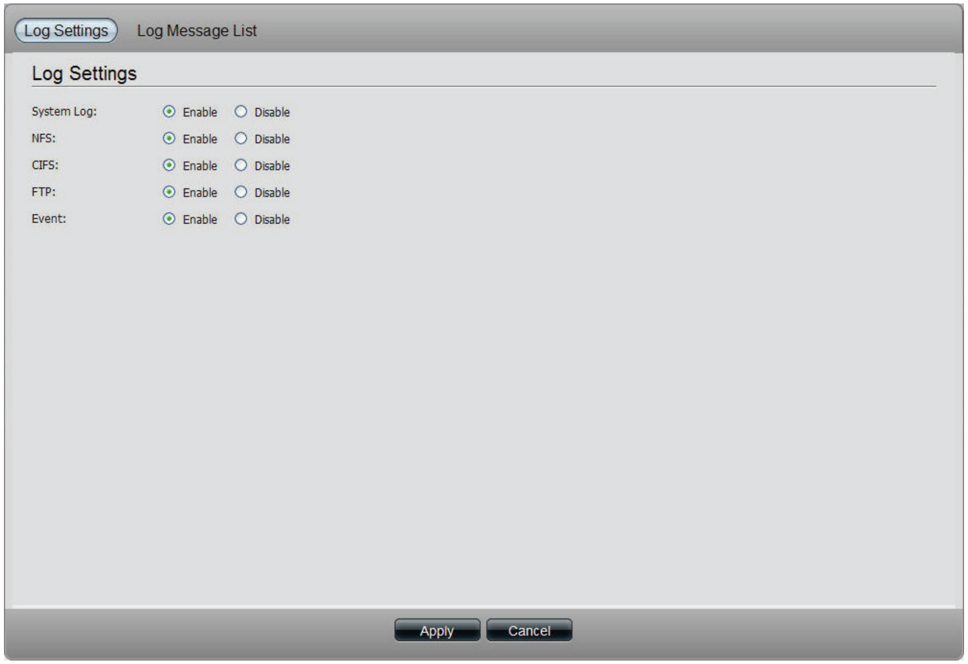

Click **Apply** to start updating the firmware.

# Log Settings

Click the **Log Settings** icon in the System Management window or the Log Settings link in the left window to configure the log settings.

## Log Settings

Click the **Log Settings** tab to see the following window.

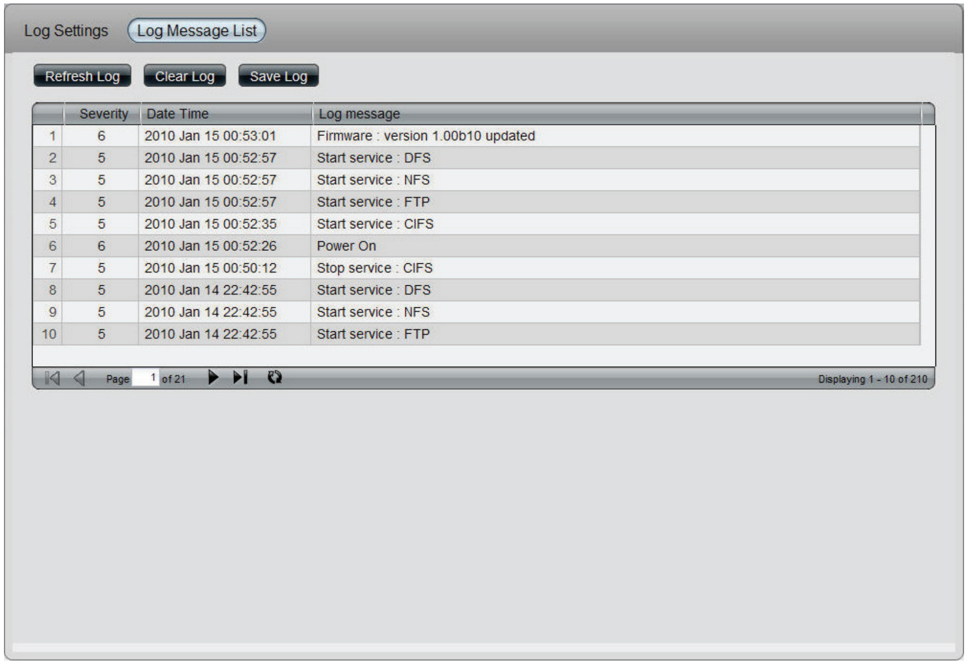



**Log Settings** Click the radio buttons to enable various situations which will be recorded in the logs.

Click **Apply** to save the settings.

# Log Message List

Click the **Log Message List** tab to see the following window.




**Refresh Log** Click the button to update the log message list.

**Clear Log** Click the button to delete all the logs.

**Save Log** Click the button to save the logs to the local computer.

**Severity** The numbers below represent different levels of severity.
0: Emergency
1: Critical
2: Alert
3: Error
4: Warning
5: Notice
6: Info
7: Debug

**Date Time** Displays the time and date for the log.

**Log Message** Displays detail information about the log.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

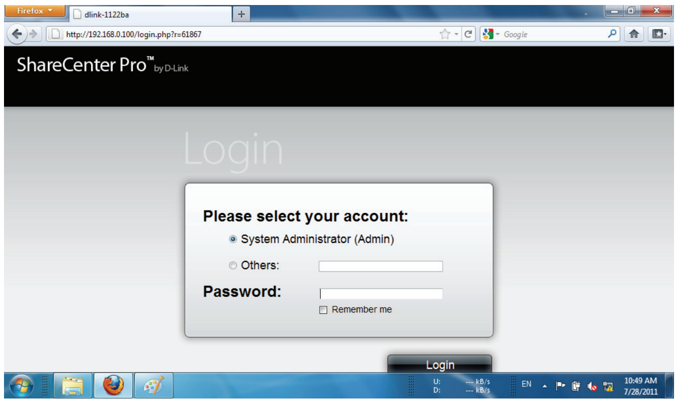
**Refresh** Click  to update the group list.

Click **Apply** to save the settings.

# System Management - Syslog Server

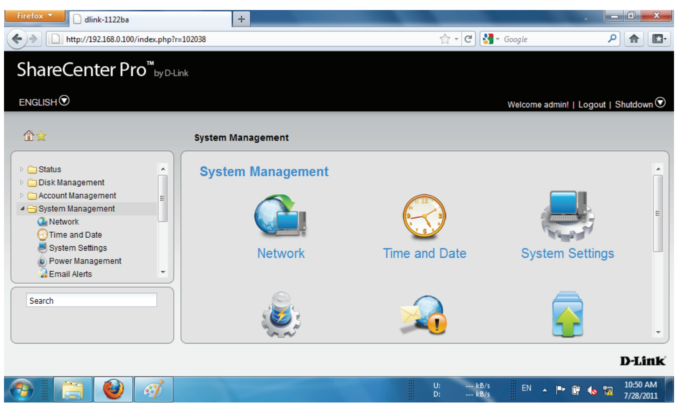
Follow these steps to view the Syslog Server

1



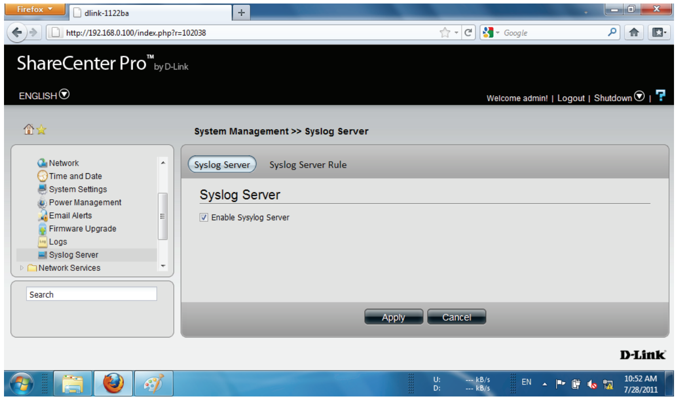

Log in to your NAS

2




Click System Management

3



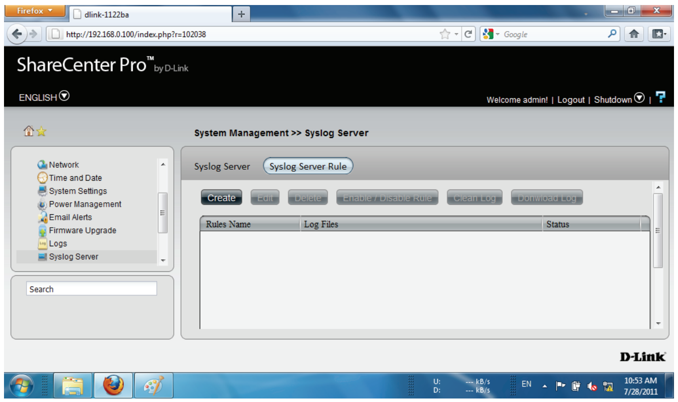

Under System Management, Syslog Server, click Enable Syslog Server

Click Apply

# System Management - Syslog Server Rule

Follow these steps to create a Syslog Server Rule

1




Under System Management, Syslog Server, click Syslog Server Rule

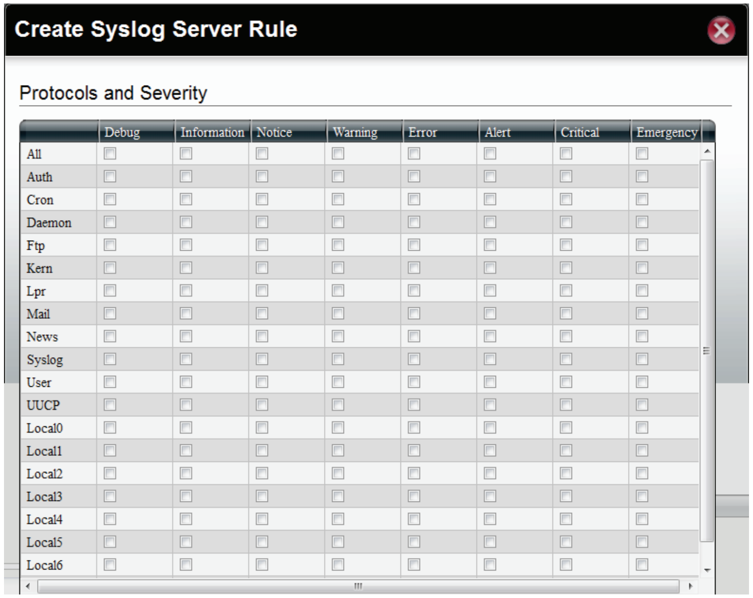
Click Create

2


Under Create Syslog Server Rule, create a Rule Name

Click Next

3



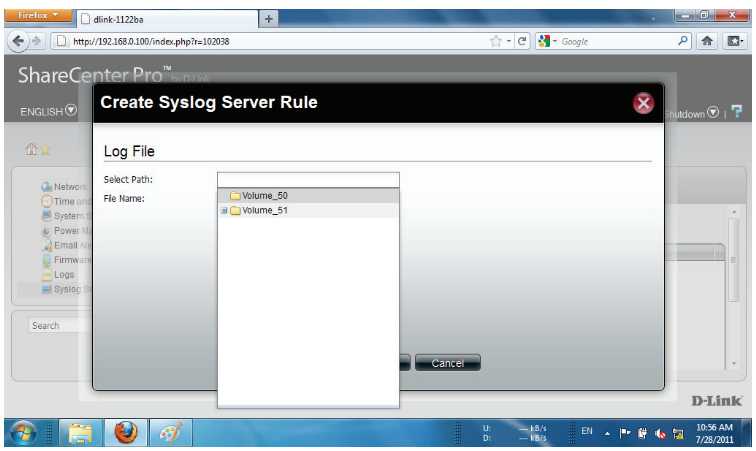

Under Protocols and Severity, select from the options available.

Facility:- Auth, Crons, Daemon, FTP, Kern, LPR, Mail, News, Syslog

Severity:- Debug, Information, Notice, Warning, Error, Alert, Critical, Emergency

Click Next

4



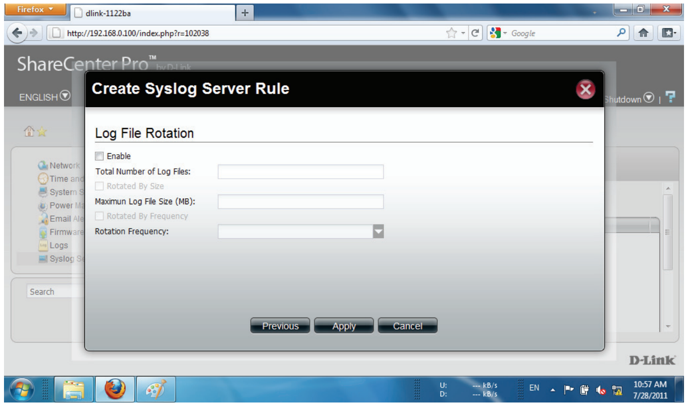

Under Log File, browse to the path where you want to save the file.

Type a File Name

5


Click Next to continue

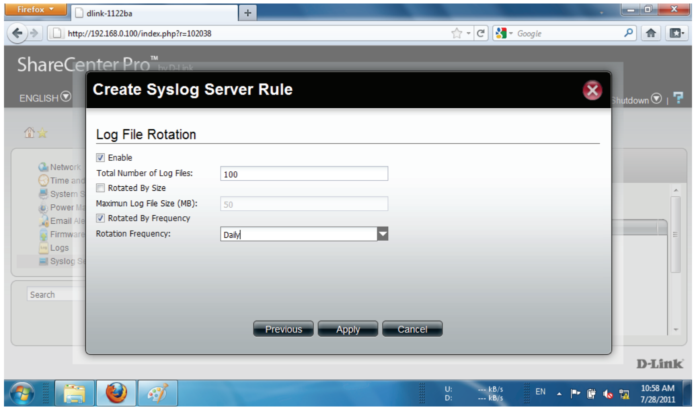
6




Under Log File Rotation

Click Enable

7




Enter the Number of Log Files

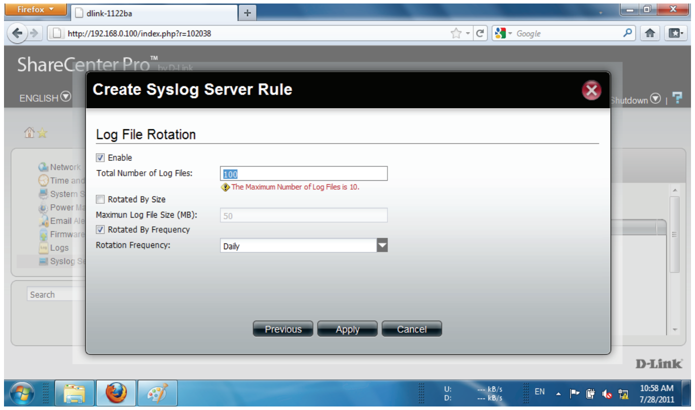
Click Rotate by Size. Enter the Maximum Log File Size in "MB"

Click Rotate by Frequency.

Rotation Frequency is Daily, Weekly, or Monthly

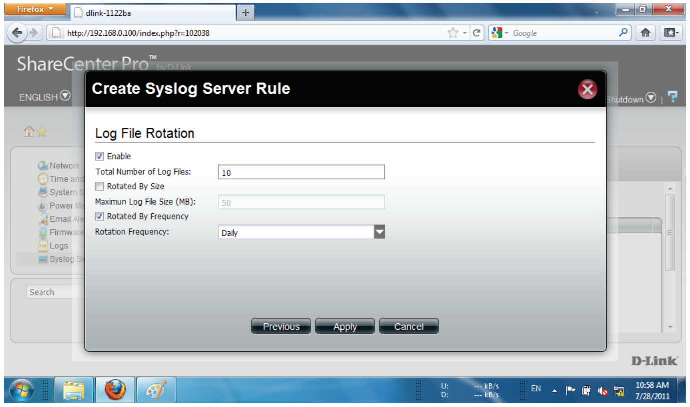
Click Apply

8




The Total Number of Log Files cannot exceed "10". The warning message prompts you change your configuration.

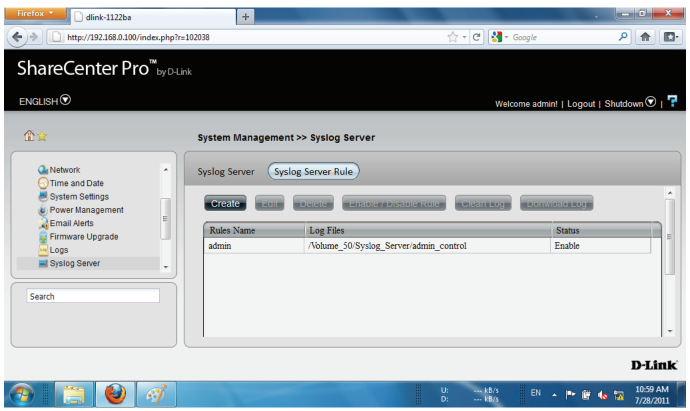
9




Enter the Log File amount

Click Apply

10

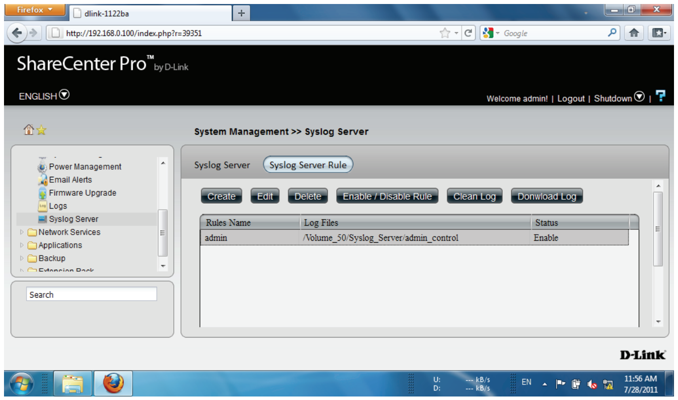



The Rule now appears in Syslog Server Rule table.

# System Management - Edit a Syslog Server Rule

Follow these steps to edit a Syslog Server Rule

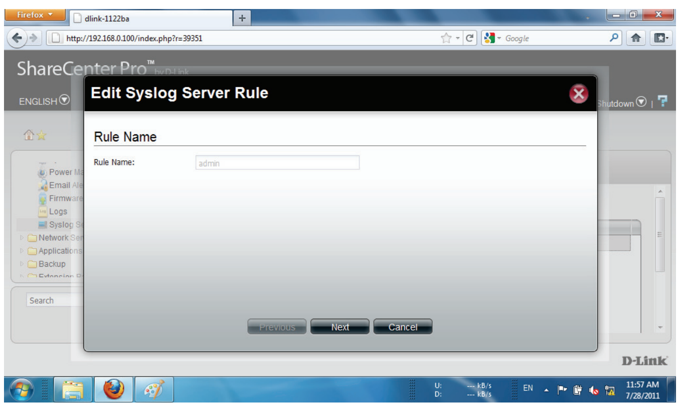
1




Select the Server Rule you wish to edit

Click Edit

2

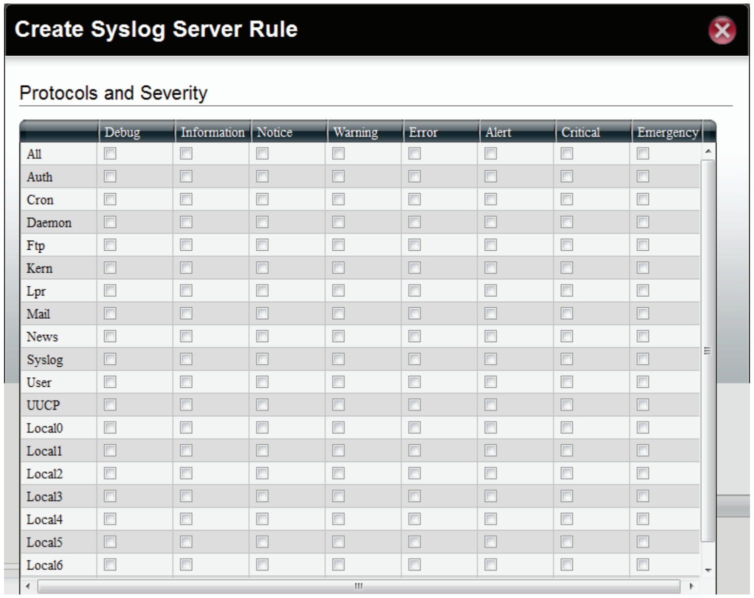



The Rule Name window is first.

However, the Rule Name cannot be edited.

Click Next to continue.

3




Under Protocols and Severity, select from the options available.

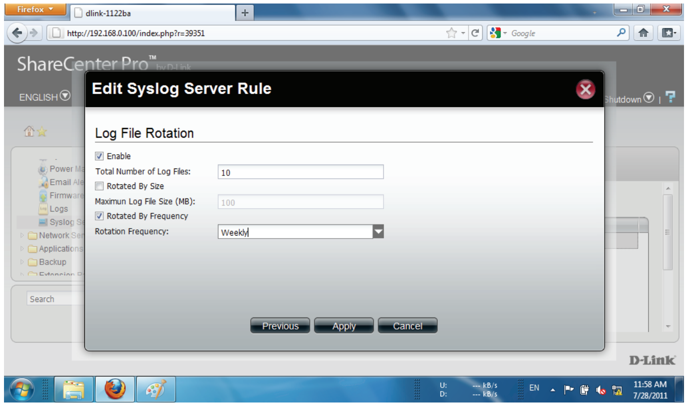
Select or deselect the options you want to edit

Click Next

4


Edit the Log File, the path and/or File Name.

5




Edit the Log File Rotation according to your requirements.

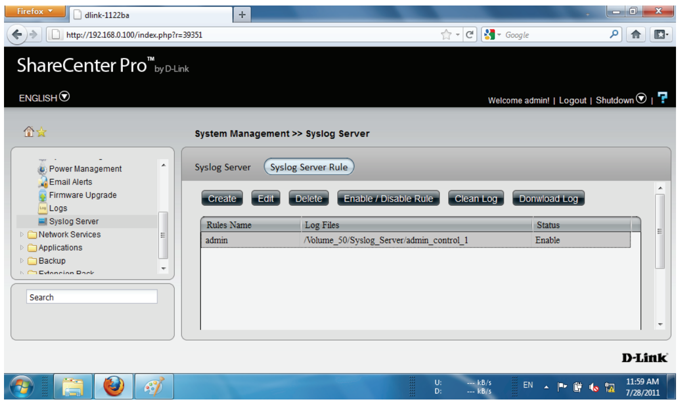
Click Apply

The changes take effect immediately.

# System Management - Delete a Syslog Server Rule

Follow these steps to edit a Syslog Server Rule

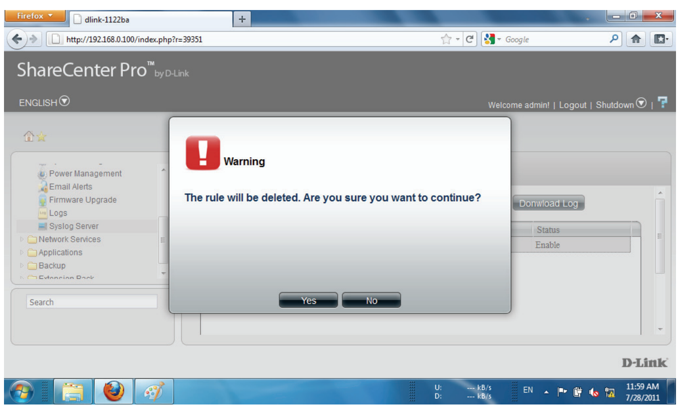
1




Select the Server Rule you wish to delete

Click Delete

2



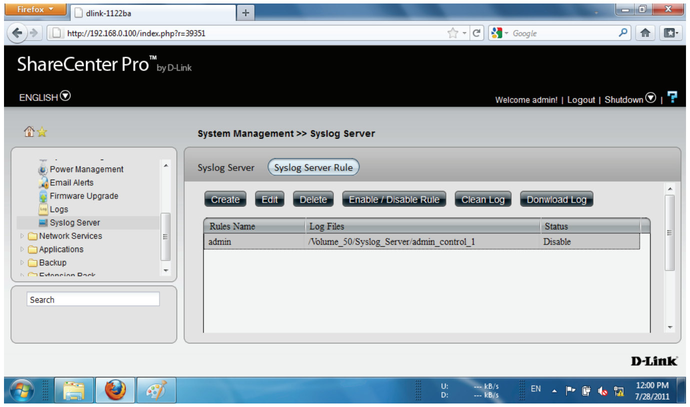

A warning message asks you to confirm your selection.

Click Yes to delete the Rule

Click No to cancel your configuration

# System Management - Enable/Disable a Syslog Server Rule

Follow these steps to toggle between enabling and disabling a Syslog Server Rule




Select the Server Rule you wish to enable or disable

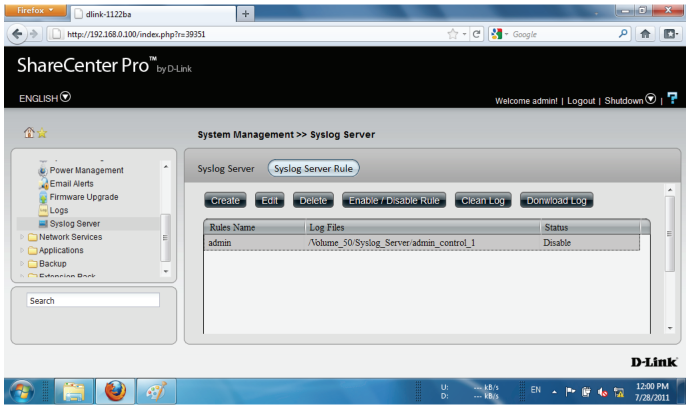
Click the Enable/Disable Rule button to toggle between the two.

The Status column will indicate whether the device is enabled or disabled.

# System Management - Clearing a Syslog Server Log

Follow these steps to clear a Syslog Server Log File

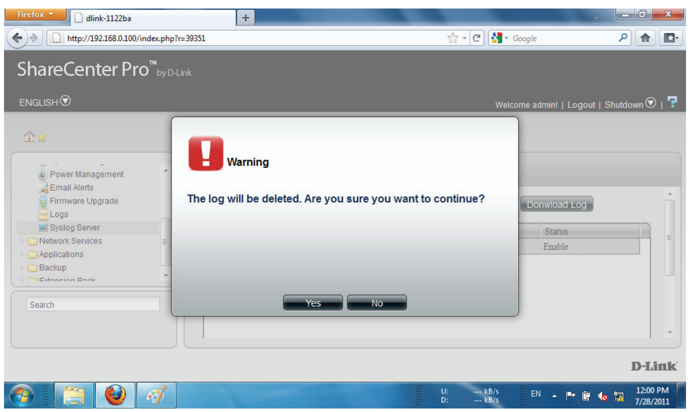
1




Select the Server Log you wish to clear

Click Clean Log

2




A warning message appears to notify you that the log will be deleted.

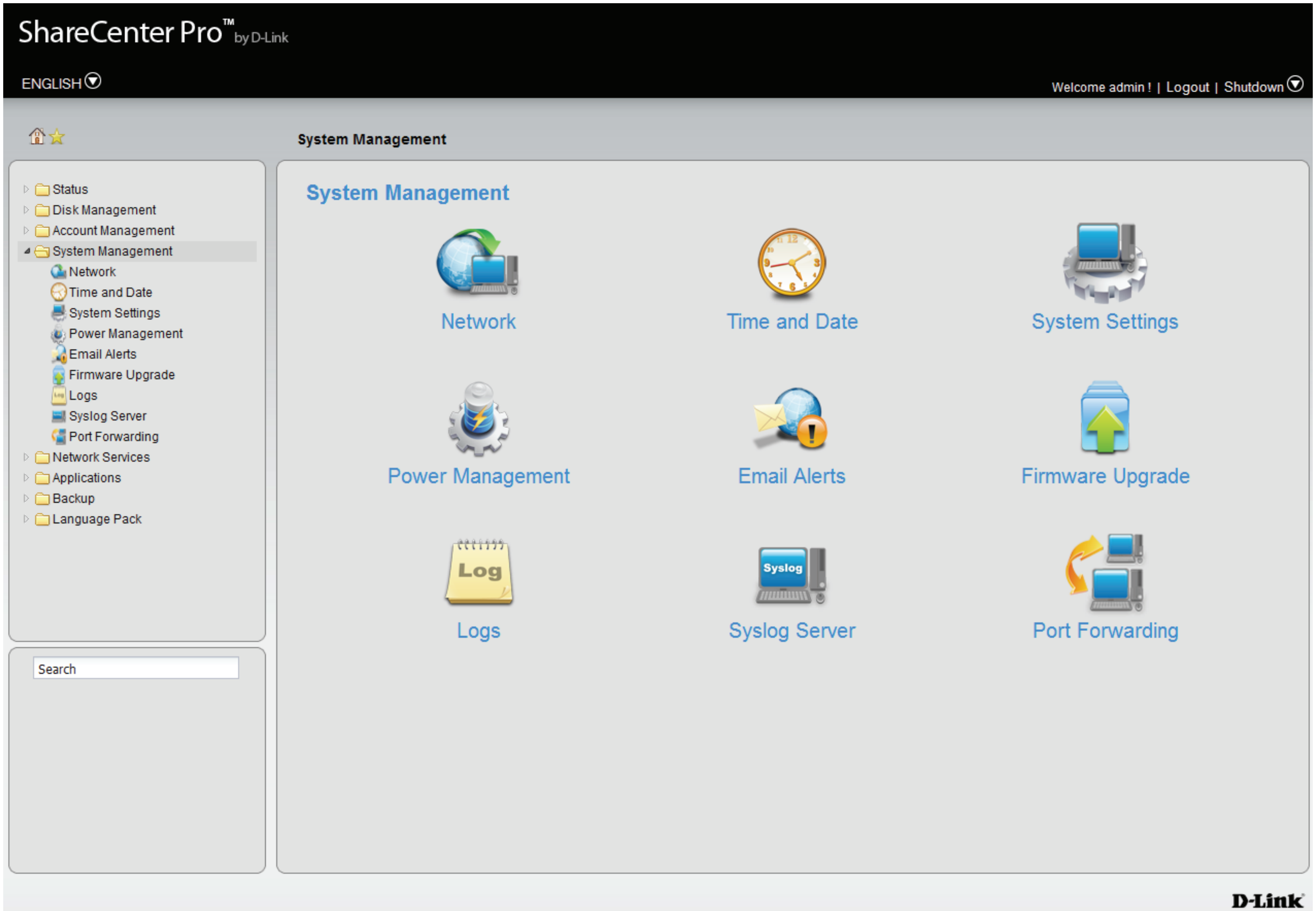
Click Yes to clear the Log file

Click No to make no changes

Click the Download Log button to download the log

# System Management - Port Forwarding

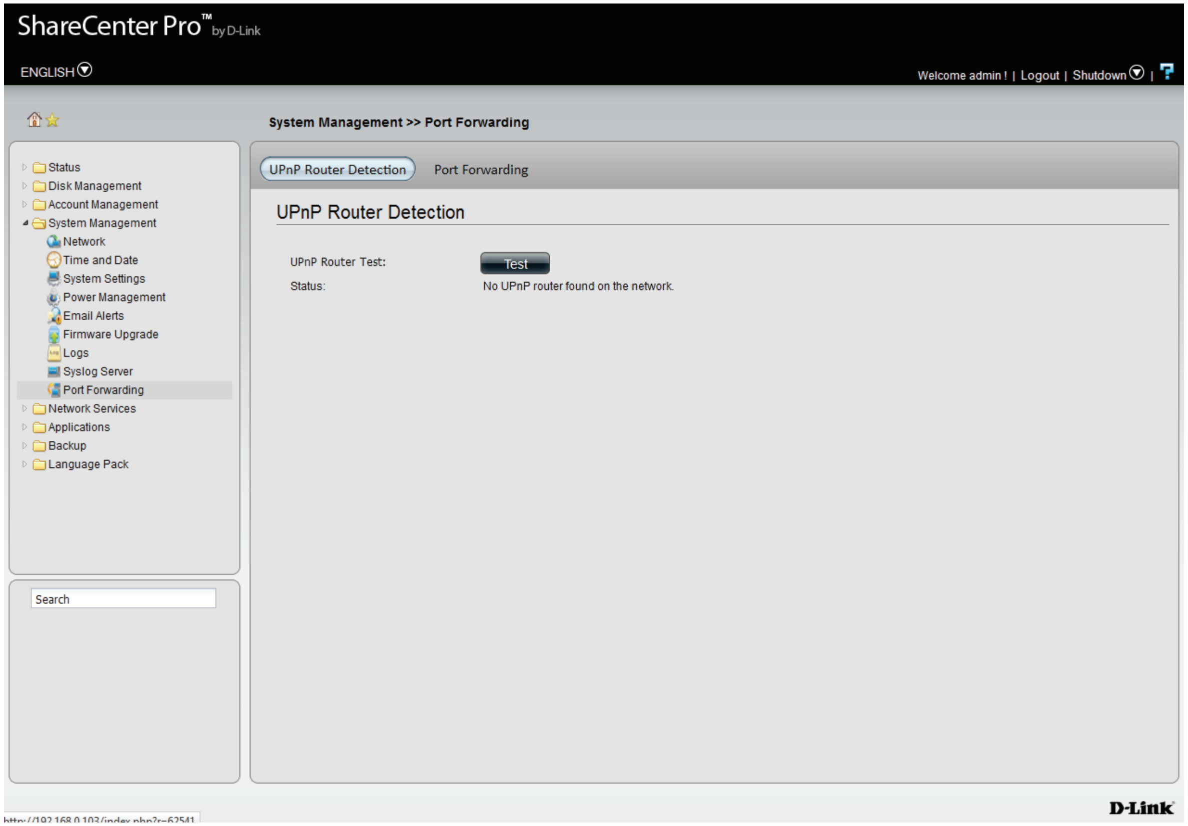
The DNS 1200-05 offers two setup options under Port Forwarding - UPnP Router Detection and Port Forwarding.



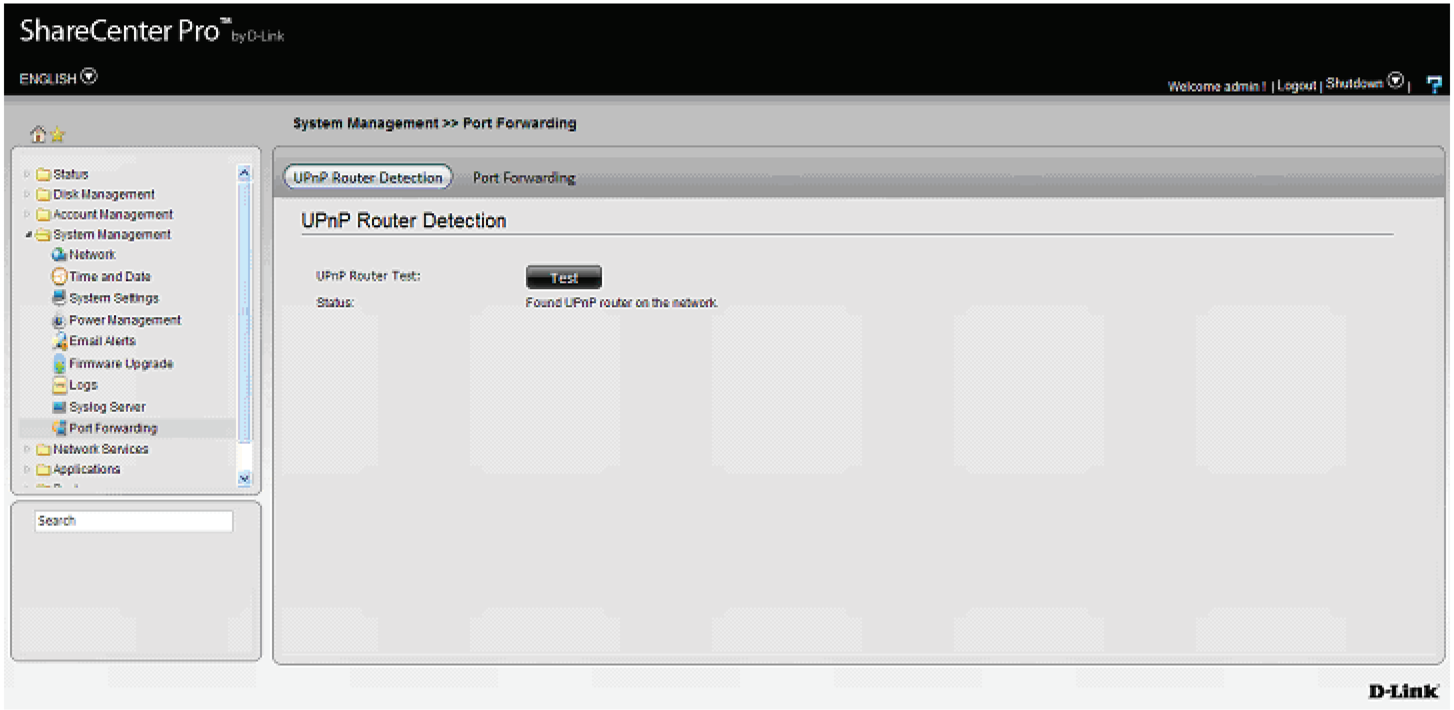
# System Management - Port Forwarding UPnP Router Detection

The UPnP feature can only work if you have a Universal Plug and Play router. Universal Plug and Play is supported by many broadband routers. It automates the process of mapping an incoming TCP/UDP port from the internet to the NAS. The internet or your LAN works using two main address units: the IP Address and the port. when your computer makes a call on the LAN, It starts by asking the IP address of the device but it cannot only ask for an IP address, it also needs a port number. Your NAS instructs the response to be sent back to your IP address on some port that you opened to receive that data. By using ports, your NAS can keep track of which stream of data belongs to what.

Click System Management, Port Forwarding. The NAS software automatically searches for the UPnP router. If it cannot detect a router, the test comes back with “No UPnP router found on the network”. Click Test if you want to scan your network again.



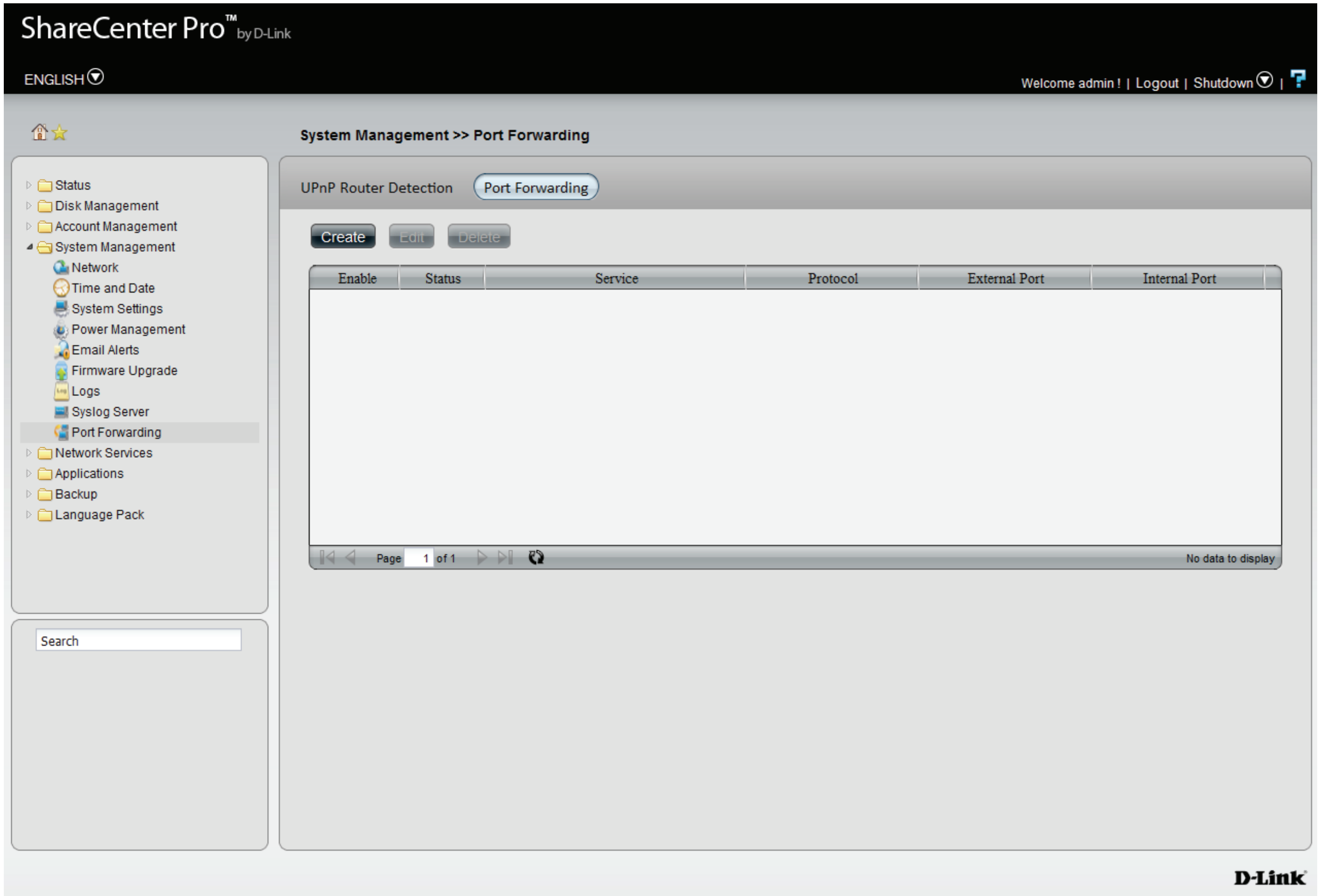
When the DNS1200-05 finds the UPnP router, it shows, “Found UPnP router on the network.



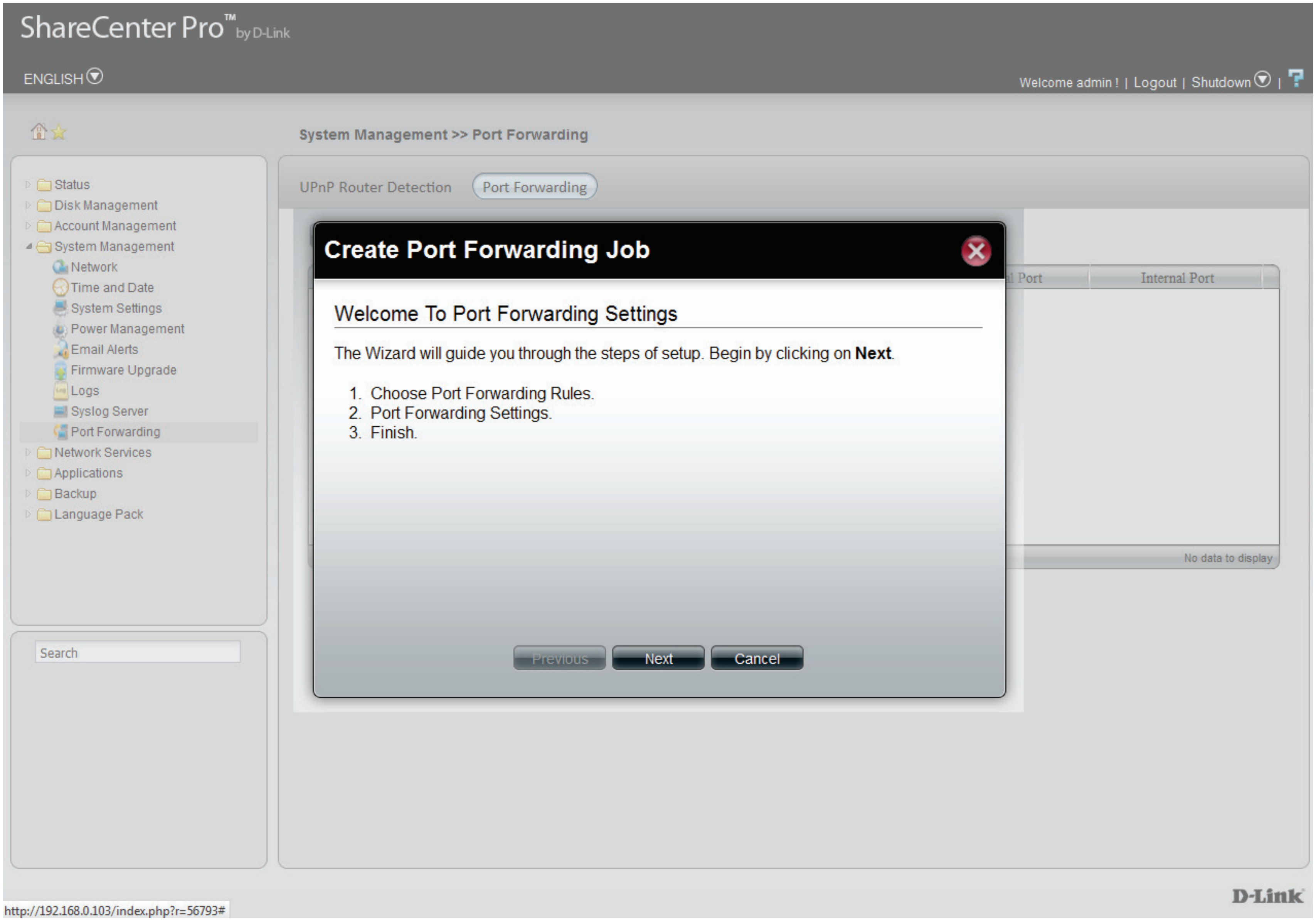
# System Management - Port Forwarding Port Forwarding

This section allows you to create and configure Port Forwarding on the NAS. Port Forwarding is generally considered when you manually define a rule in the router to send all data received on some range of ports on the internet side (WAN Jack) to a port and IP address on the LAN side (LAN Jacks or Wireless Antennas). You will need to do this whenever your NAS opens a port to receive connections without first connecting to a machine on the internet. This happens if the NAS is running a Web server (80), or FTP Server (21), that you would like to be visible on the internet.

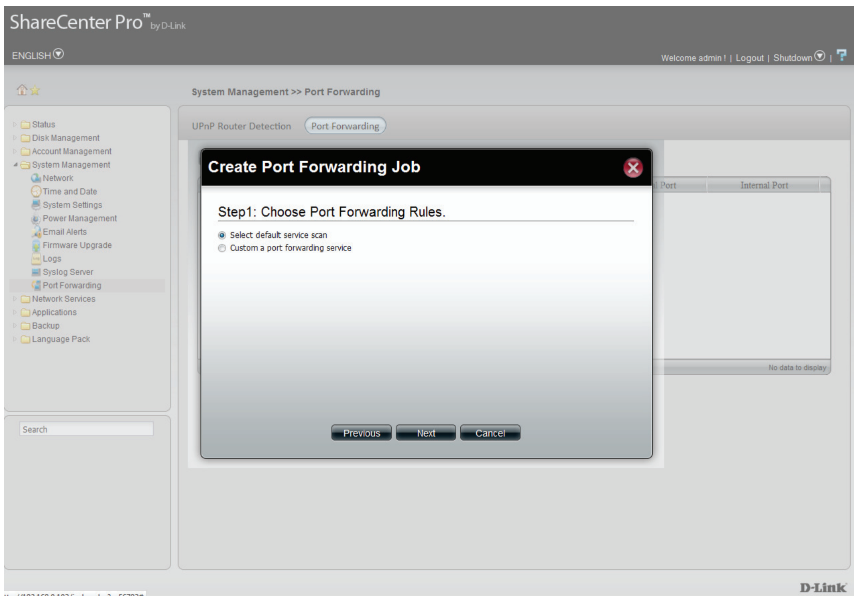
To do this, click **System Management**, **Port Forwarding**, click the **Port Forwarding** button. Then click the **Create** button.

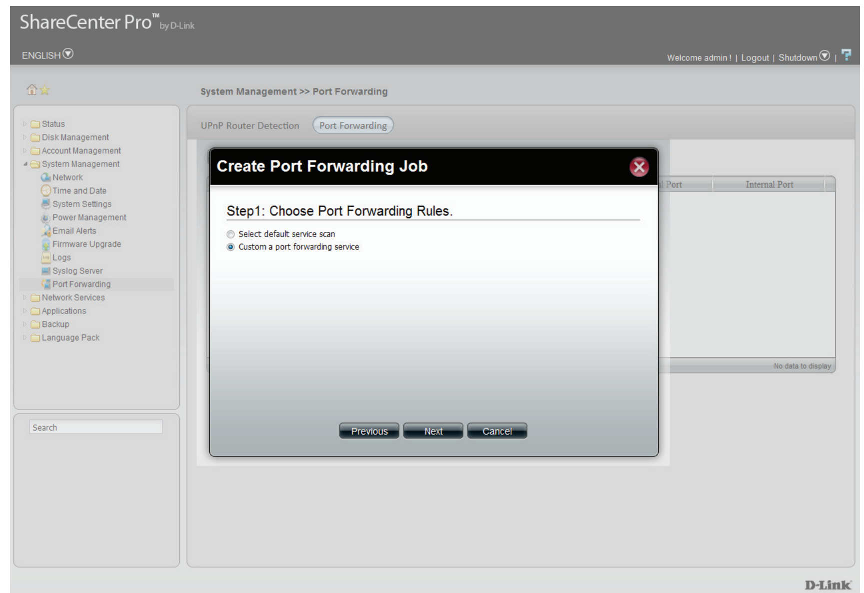


The **Port Settings Wizard** will guide you through the basic **Port Forwarding** setup. Read the instructions and click **Next** to continue.

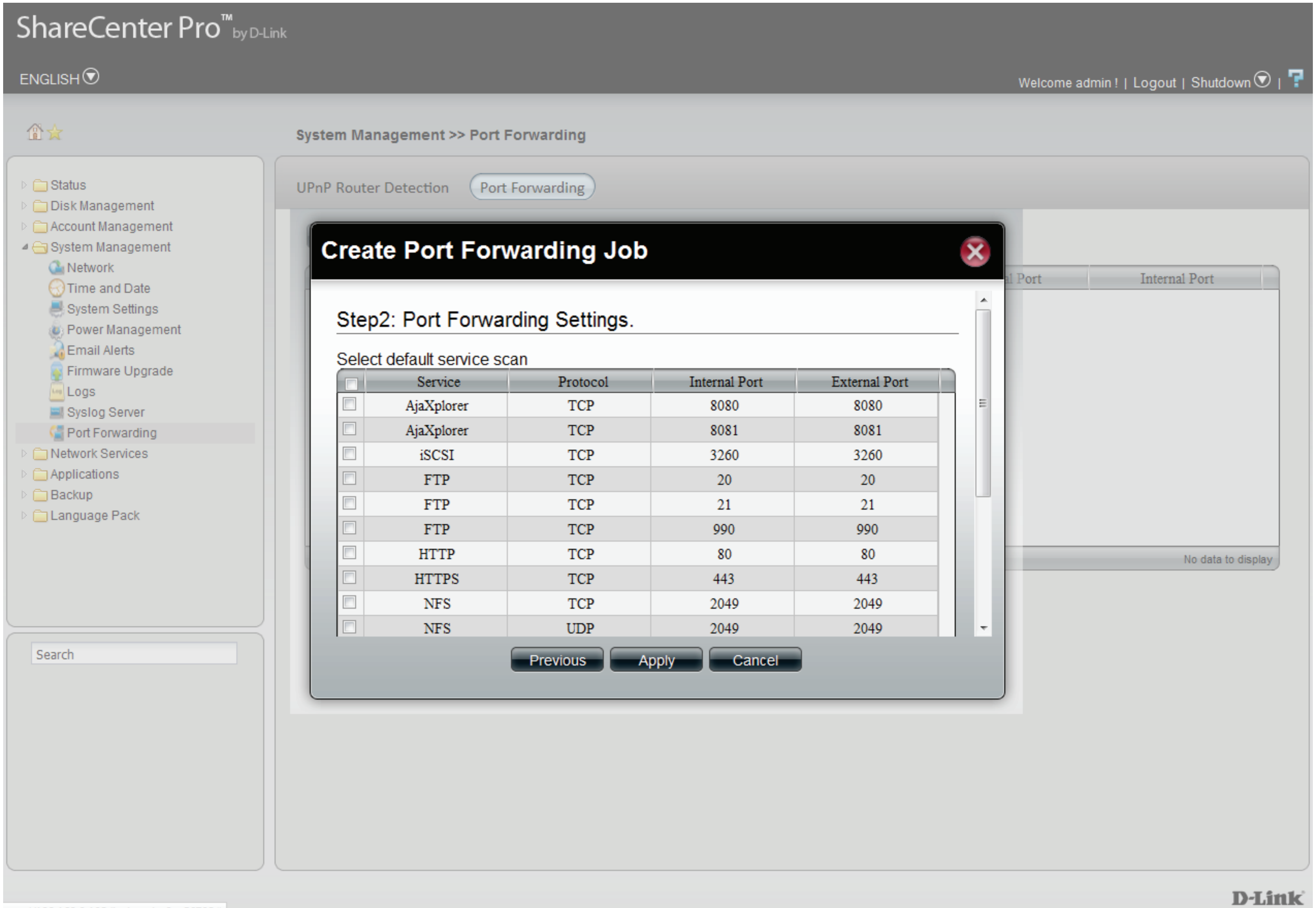


In **Step 1**, select the **Port Forwarding Rules**. Select between a **Default Service Scan** and **Custom a Port Forwarding service** configuration. The main difference between the two options is the **Default Service Scan** provides the basic **DNS-1200-05 Port List** whereas **Custom a Port Forwarding service** allows you to custom configure the **Application Ports**. Select the appropriate option and click **Next**.

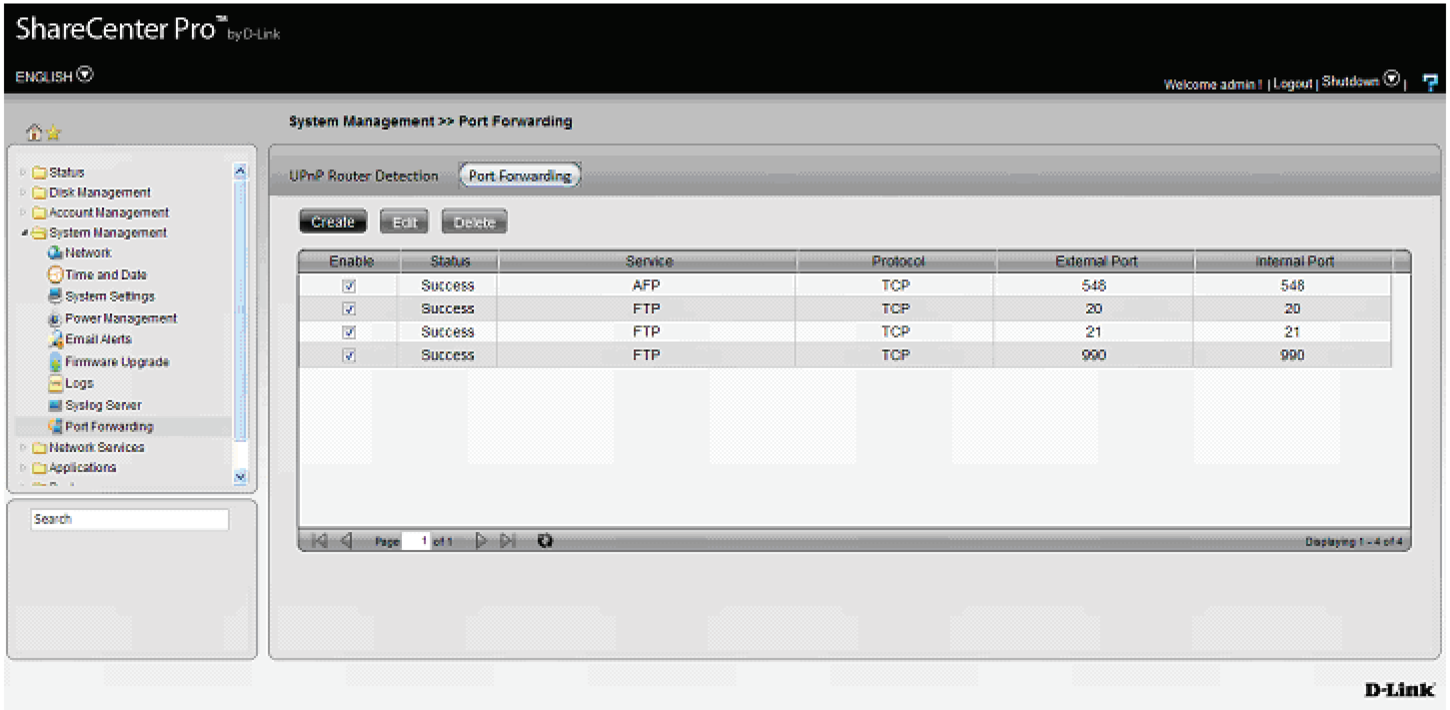


In **Step 2**, select one or many ports from the **default service scans** by clicking the **checkbox** next to the appropriate service. **Click Apply to continue.**

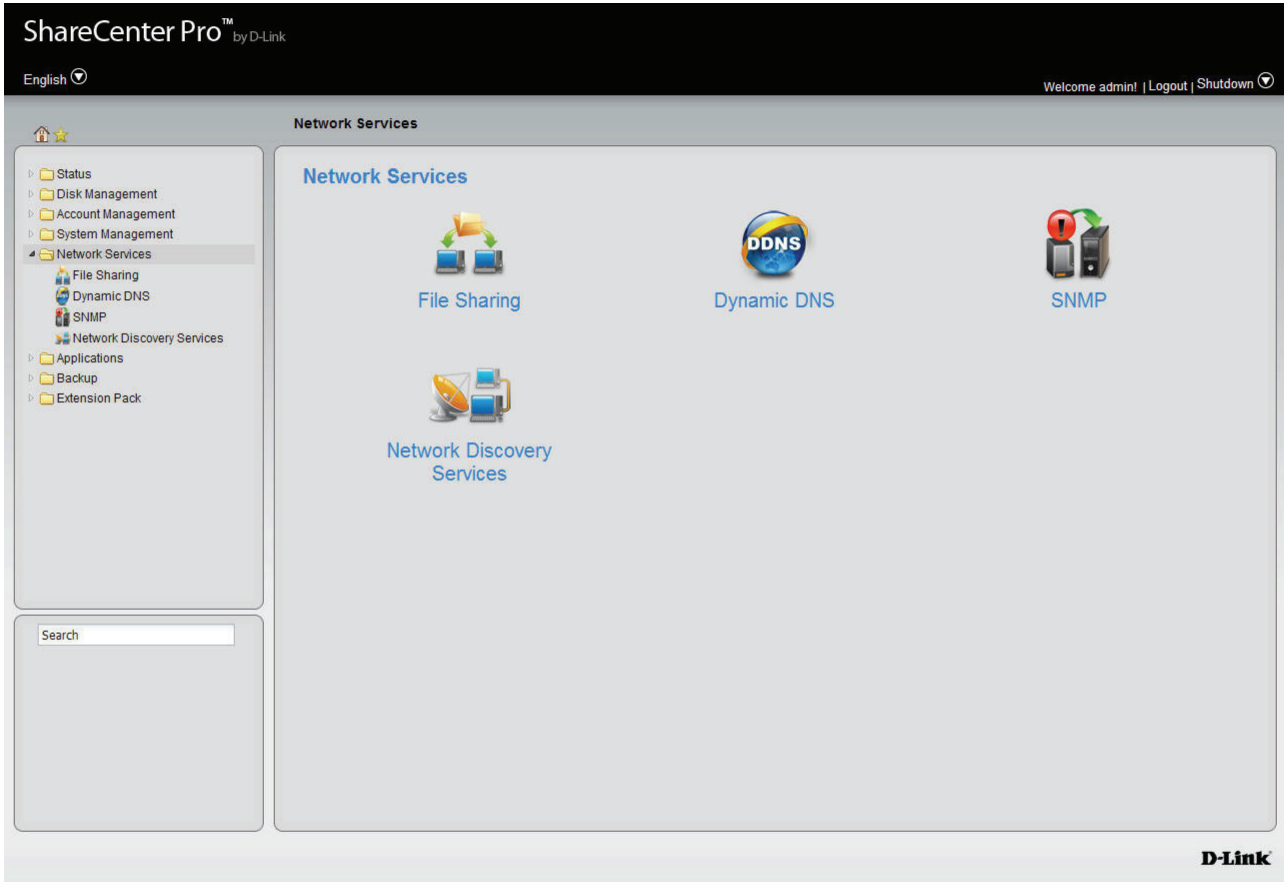


The final process reveals the Port Forwarding table. Make sure the checkboxes are checked to enable each service. The table provides the internal and external port information.



# Network Services

This folder contains File Sharing, Dynamic DNS, SNMP and Network Discovery Services. Click the folder to see the subcategories.



# File Sharing

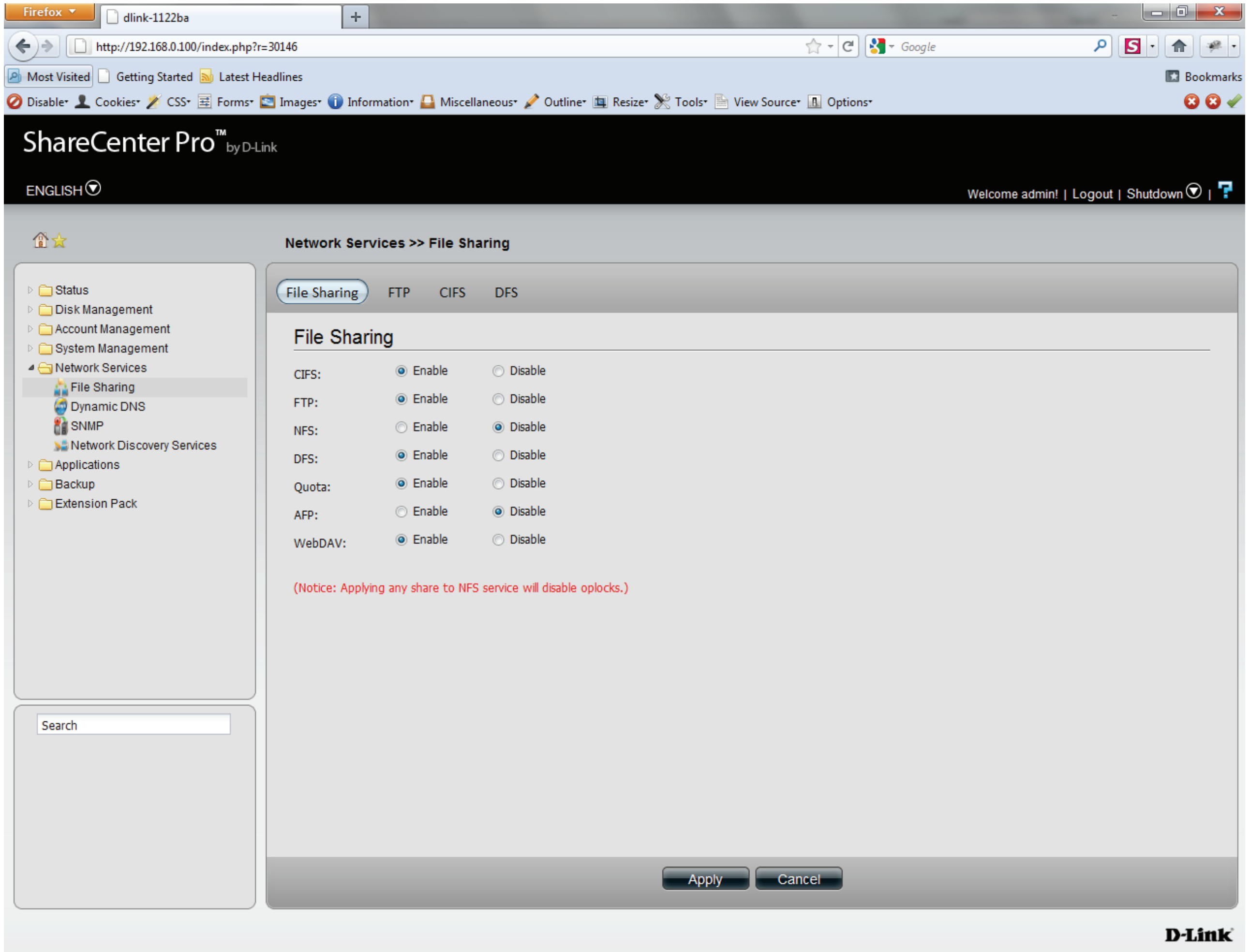
Click the **File Sharing** icon in the Network Services window or the File Sharing link in the left window to configure the network services.

## File Sharing

Click the **File Sharing** tab to see the following window.

**File Sharing** Click the radio buttons to enable various network services.

Click **Apply** to save the settings.



# FTP

Click the **FTP** tab to see the following window.

**Control Port**: The default port for FTP is 21. Enter a port number in the range of 1025 to 3688, 3690 to 49999, and 65501 to 65535.

**Port Range of Passive FTP**: The default port range for passive FTP is from 55536 to 55663. Click the **Use the following port range** radio button and manually enter the port range from 1025 to 65535.

**Respond with external IP address for Passive mode**: Click **Enable** to respond with an external IP address for the passive FTP connection request.

**Client Language**: Use the drop-down menu to select the supported language for the FTP clients.

**Max Connections**: Use the drop-down menu to select the maximum number of concurrent FTP connections.

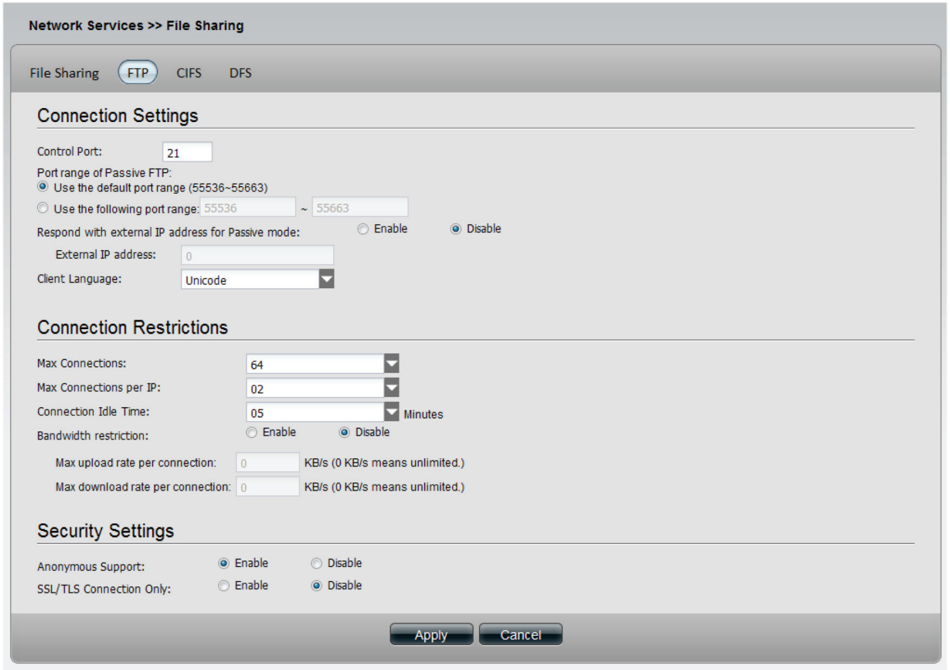
**Max Connections per IP**: Use the drop-down menu to select the maximum number of concurrent FTP connections per IP address.

**Connection Idle Time**: Use the drop-down menu to select the time that the FTP server logs out the user after this period of idle time.

**Bandwidth Restriction**: Click **Enable** to restrict the bandwidth of each FTP connection. Enter the number in KB/s for the maximum speed of upload and download.

**Anonymous Support**: Click **Enable** to allow anonymous FTP to log in.

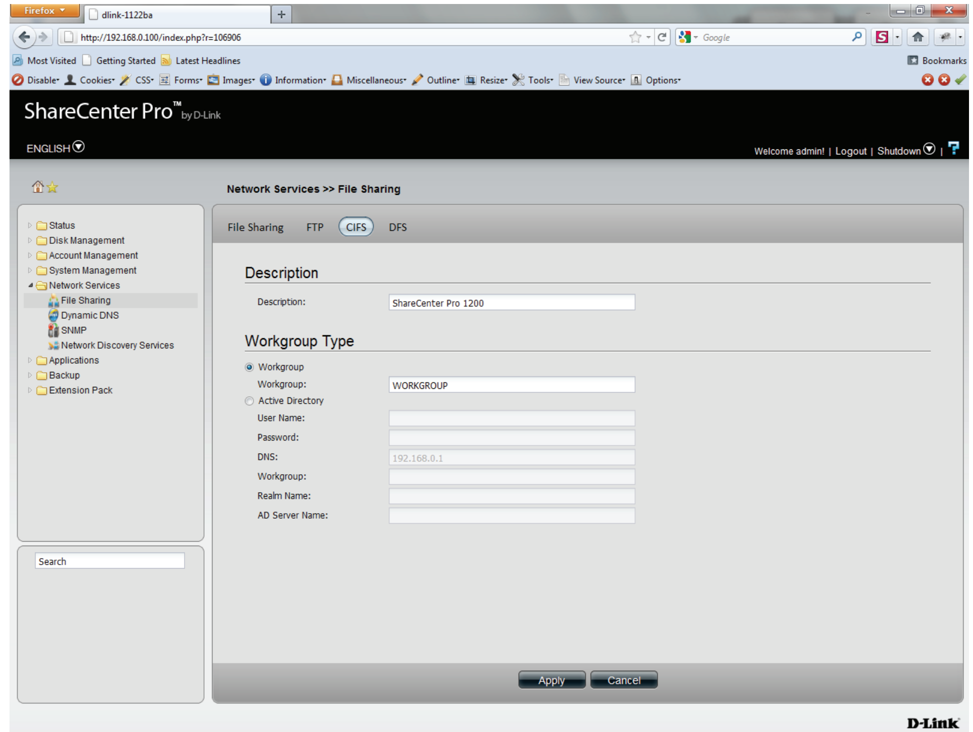
**SSL/TLS Connection Only**: Click **Enable** to only allow SSL or TLS connection requests from the FTP clients.




Click **Apply** to save the settings.

# CIFS

Click the **CIFS** tab to see the following window.




**Description** Enter the description of your device.

**Workgroup** Click the radio button to choose the system to be in a workgroup. Enter the name of the workgroup in the field.

**Active Directory** Click the radio button to choose the system to be in an Active Directory (AD).

**User Name** Enter the AD server account name.

**Password** Enter the AD server account password.

**DNS** Enter a DNS IP address to analyze the domain name of the AD server.

**Workgroup** Etner the name of the workgroup which should be the same as the computers on the network.

**Realm Name** Enter the AD server domain name.

**AD Server Name** Enter the AD server hostname.

Click **Apply** to save the settings.

# DFS

Click the **DFS** tab to see the following window.

**Create** Click to add a new DFS share.

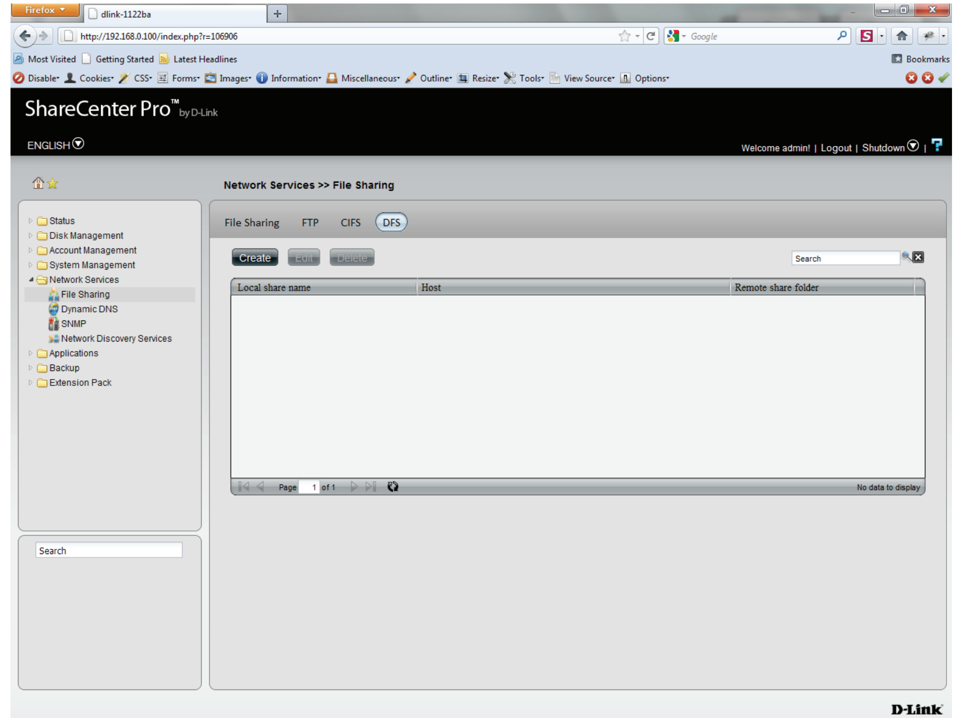
**Edit** Select a local share name and click the button to edit the DFS share.

**Delete** Select a local share name and click the button to remove the entry from the list.

**Search** Enter the search keyword and click to search for the DFS share. Click to clear the search field and see all the entries.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page (), Previous Page (), Next Page () or Last page () to search for the group.

**Refresh** Click to update the group list.

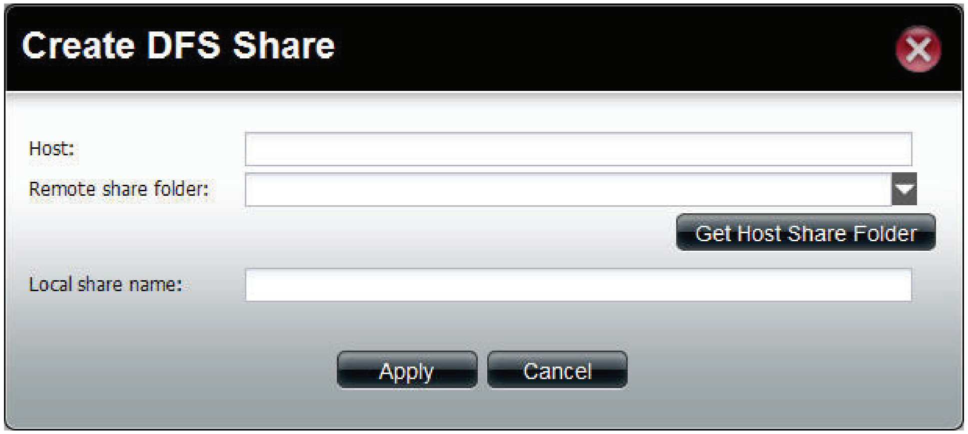


Click the **Create** button to see this window to add a new DFS share.

**Host** Enter an IP address, a host name or a URL in the field.

**Remote share folder** Enter a remote share folder location manually, or click the **Get Host Share Folder** button to search for one.

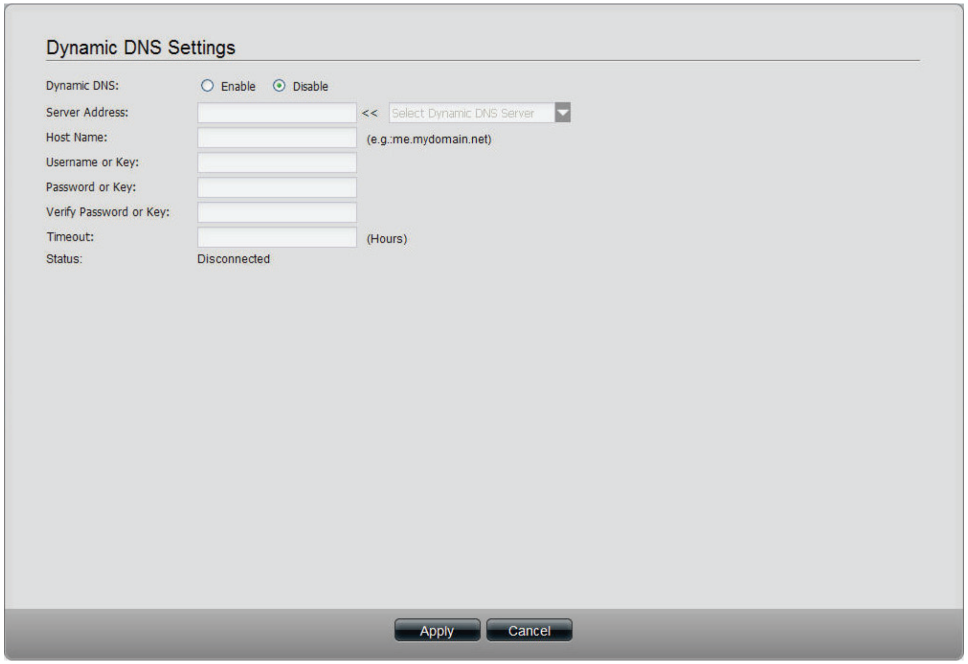
**Local share name** Enter the local share name in the field.




Click **Apply** to save the settings.

# Dynamic DNS

Click the **Dynamic DNS** icon in the Network Services window or the Dynamic DNS link in the left window to configure the dynamic DNS.




**Dynamic DNS** Click the radio button to enable or disable the dynamic DNS function.

**Server Address** Use the drop-down menu to select a dynamic DNS service provider.

**Host Name** Enter the host name.

**Username or Key** Enter the username or key provided by the dynamic DNS service provider.

**Password or Key** Enter the password or key provided by the dynamic DNS service provider.

**Verify Password or Key** Re-type the password or key.

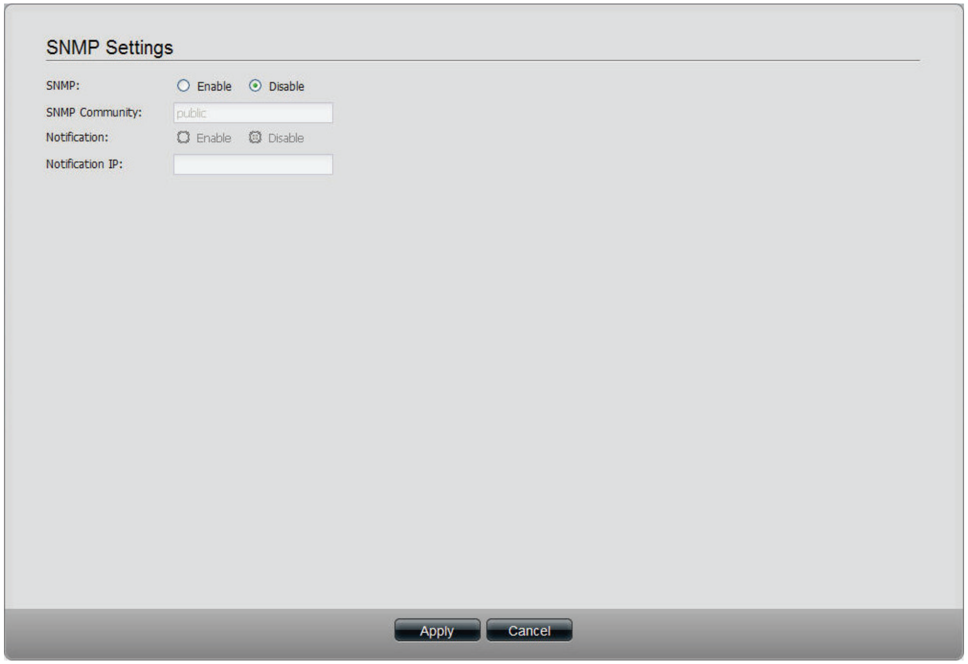
**Timeout** Enter a time in hours for periodic updates from the dynamic DNS provider.

**Status** Displays the current status to the server.

Click **Apply** to save the settings.

# SNMP

Click the **SNMP** icon in the Network Services window or the SNMP link in the left window to configure the SNMP settings. Simple Network Management Protocol (SNMP) is used to monitor the conditions of the network-attached devices.




**SNMP** — **Enable** or **Disable** SNMP.

**SNMP Community** — Enter the name of the SNMP community.

**Notification** — **Enable** or **Disable** trap support.

**Notification IP** — Enter the IP address that will receive the notification.

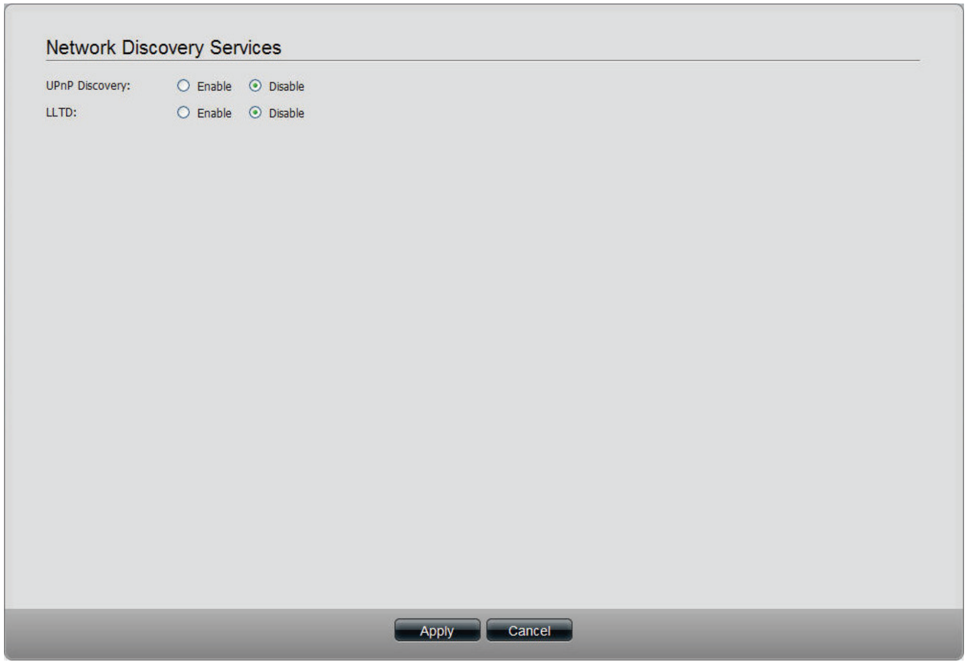
Click **Apply** to save the settings.

# Network Discovery Services

Click the **Network Discovery Services** icon in the Network Services window or the Network Discovery Services link in the left window to configure the settings.

**UPnP Discovery** Click **Enable** to allow the ShareCenter Pro to be discovered on a network via the UPnP discovery protocol.

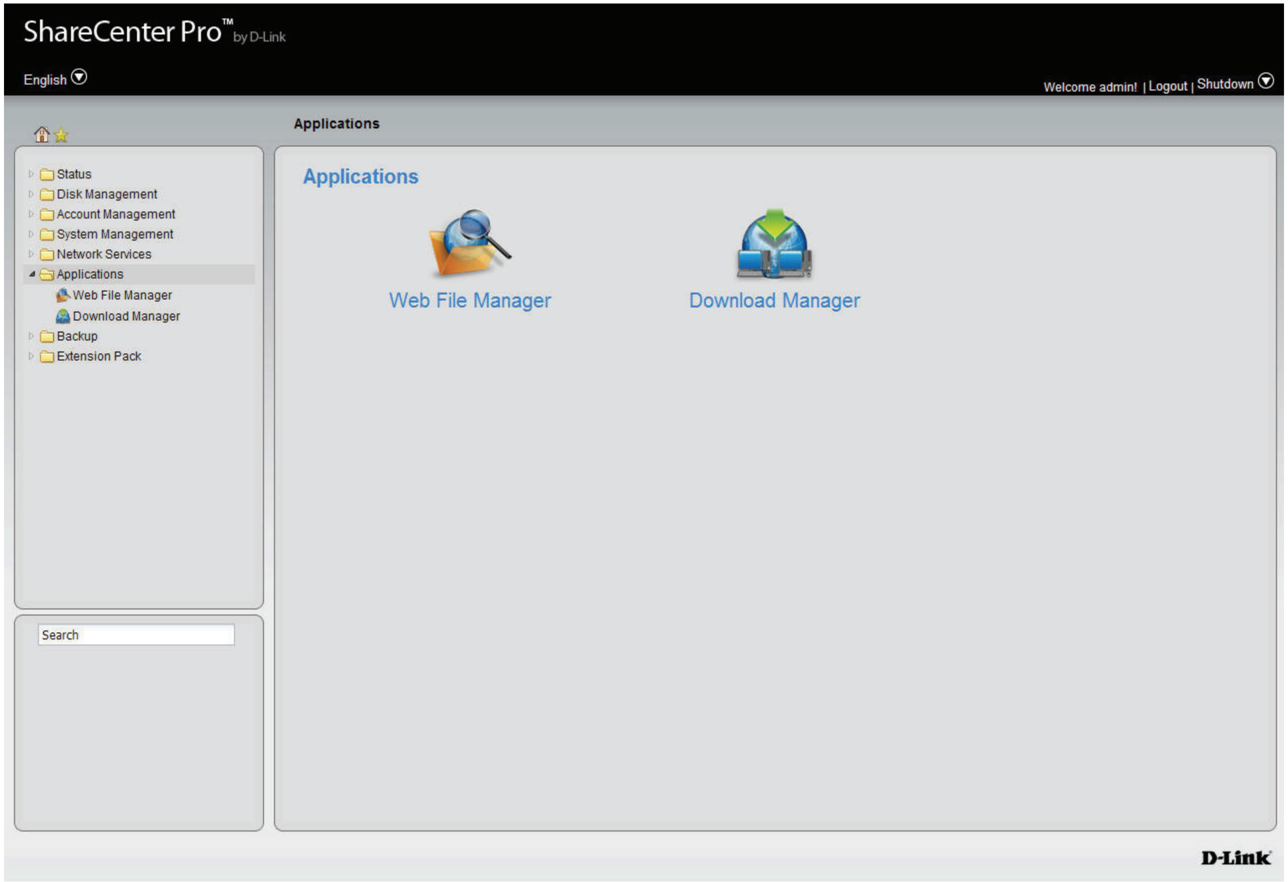
**LLTD** Click **Enable** to allow the ShareCenter Pro to be discovered by the network map under Windows Vista or Windows 7.




Click **Apply** to save the settings.

# Applications

This folder contains the Web File Manager and Download Manager. Click the folder to see the subcategories.



# Web File Manager

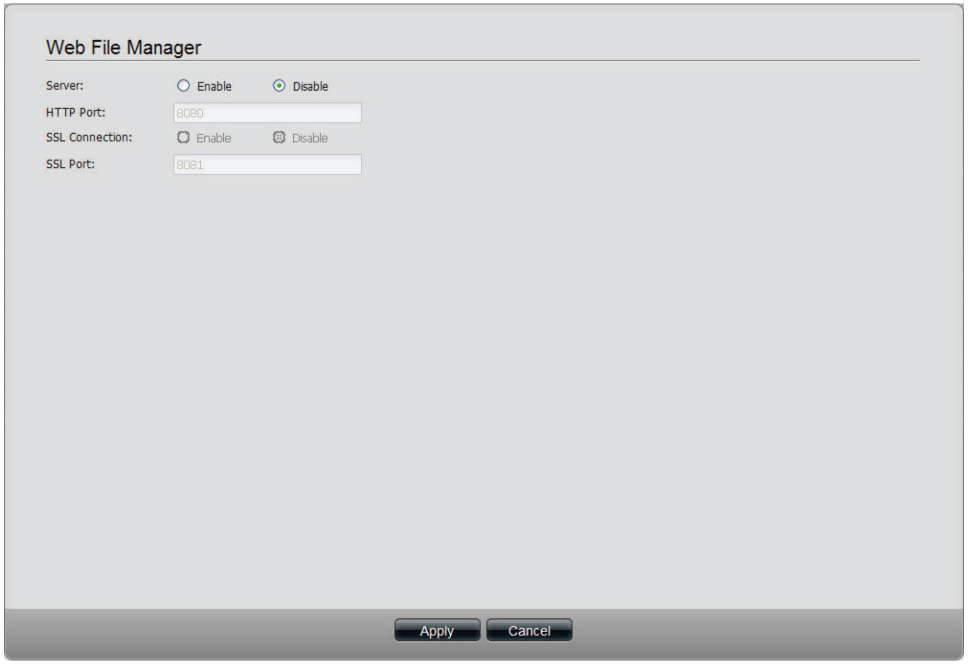
Click the **Web File Manager** icon in the Applications window or the Web File Manager link in the left window to configure the settings. This window is used to start a web server for users to upload and download files through the web browser.

**Server** Click the radio buttons to enable or disable the server.

**HTTP Port** Enter the port number for the function. Port 80 cannot be used as it is used for administration purposes.

**SSL Connection** Click the radio buttons to enable or disable the HTTPS connection.

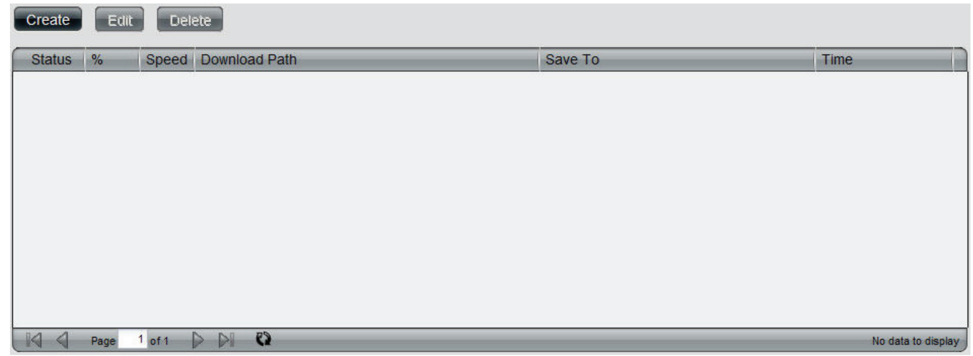
**SSL Port** Enter the port number for the HTTPS connection.




Click **Apply** to save the settings.

# Download Manager

Click the **Download Manager** icon in the Applications window or the Download Manager link in the left window to configure the settings. This window is used to schedule downloading files from FTP or HTTP sites.




**Create** Click to add a new download job.

**Edit** Select an entry and click the button to edit.

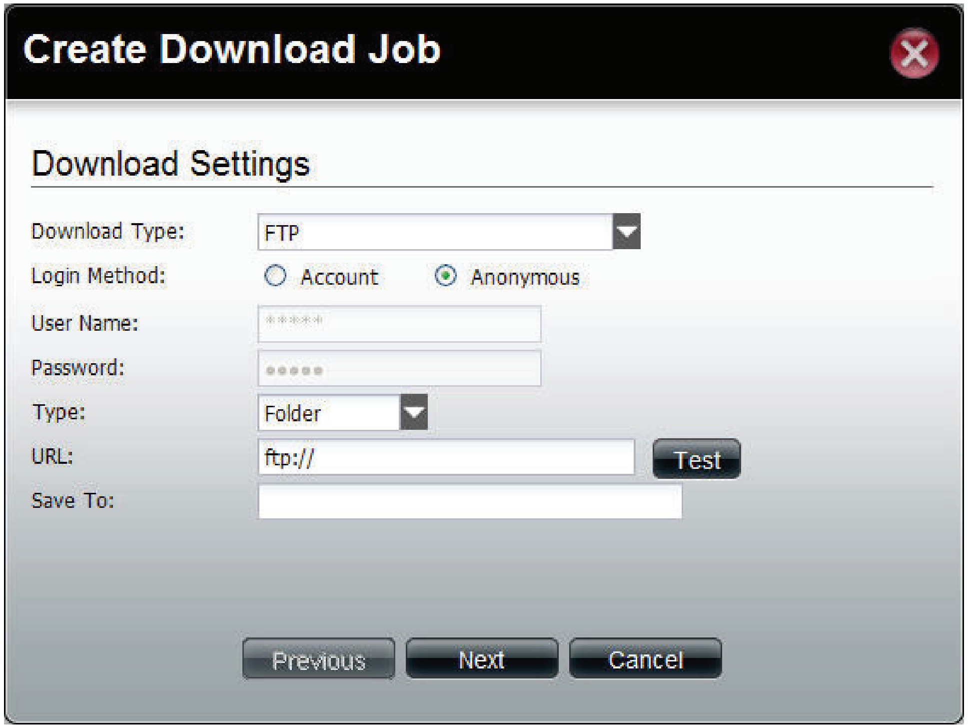
**Delete** Select an entry and click the button to remove the entry from the list.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click to update the group list.

# Create a Downloading Job

Click the **Create** button to see the window.




**Download Type** Toggle between the FTP or HTTP download methods.

**Login method** Click the **Account** radio button when a password is required for downloading files. Click the **Anonymous** where there is no password required for downloading files.

**User Name** Enter a user name for downloading.

**Password** Enter a password for downloading.

**Type** Toggle between File or Folder to download the specific file or all files in a specific folder.

**URL** Enter the FTP, HTTP or local site address for the scheduled download. Click the **Test** button to see if the URL can be connected.

**Save To** Click the field to show the available folders. Click the **Create** button to add a new folder. Double-click a folder to select it.

Click **Next** to continue.

This window is used to set the schedule for downloading.

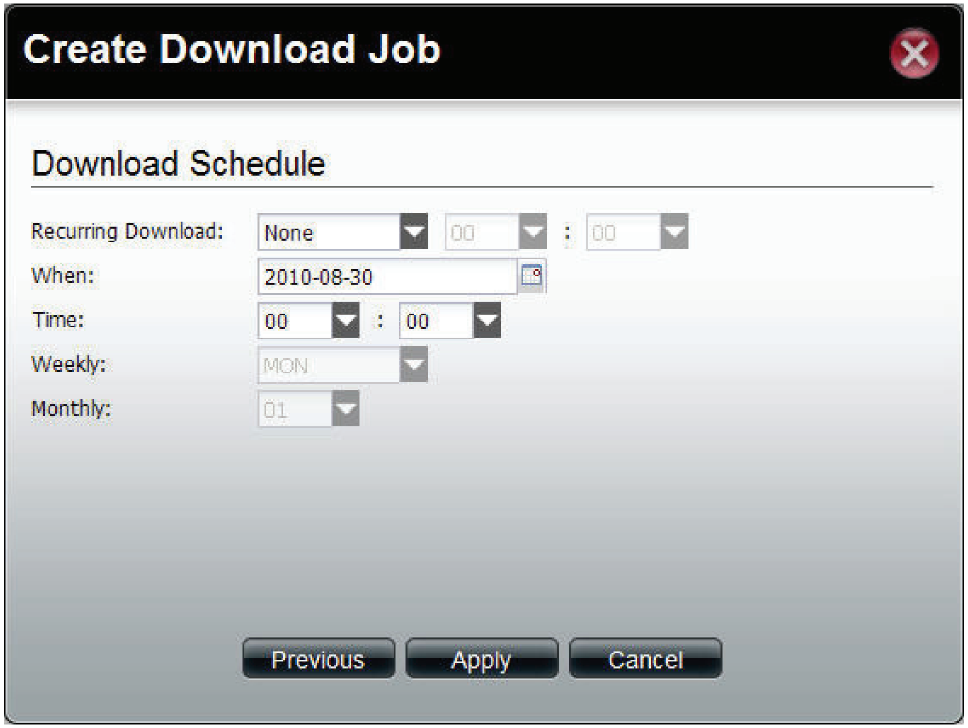
**Recurring Download** Use the drop-down menu to have repeated scheduled download time every day, week or month. Select **None** to disable the recurring download.

**When** Click to select year and date for downloading.

**Time** Use the drop-down menu to select downloading time.

**Weekly** Select a day of the week for recurring download.

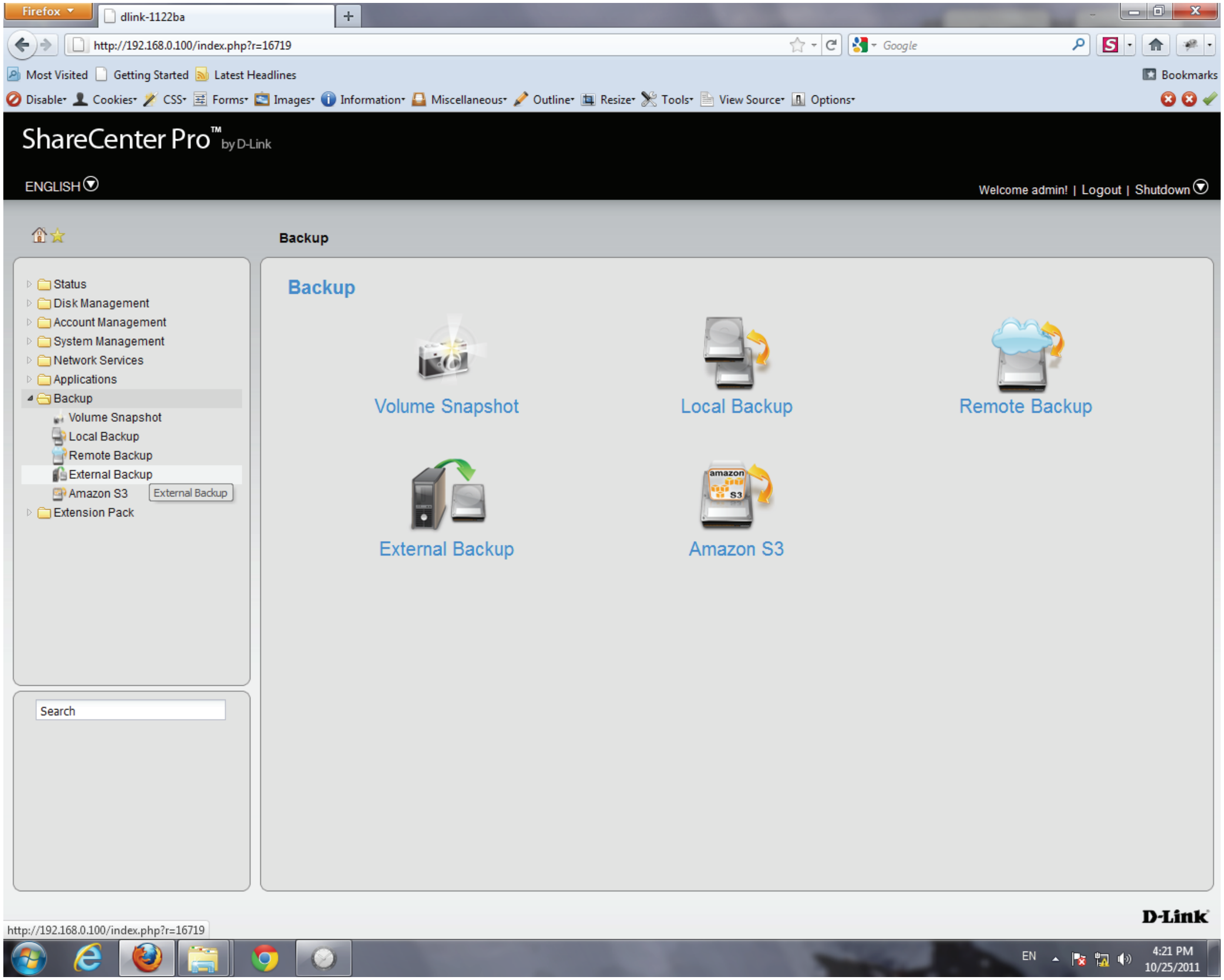
**Monthly** Select the month for recurring download.




Click **Apply** to save the settings.

# Backup

This folder contains the Volume Snapshot, Local Backup, Remote Backup, External Backup, and Amazon S3. Click the folder to see the subcategories.



# Volume Snapshot

Click the **Volume Snapshot** icon in the Backup window or the Volume Snapshot link in the left window to configure the settings. This window is used to create, edit or delete a snapshot job. It also allows you to take a snapshot of a volume. The ShareCenter Pro supports up to 10 snapshot jobs and each job can have maximum 20 snapshots.

**Create** Click to add a new snapshot job.

**Edit** Select an entry and click the button to edit.

**Delete** Select an entry and click the button to remove the entry from the list.

**Take snapshot** Click the button to take a snapshot of a volume.

**Show snapshot** Click the button to show the calendar indicating on which dates a snapshot had been taken.

# Create a Snapshot Job

Click the **Create** button to see the window.


**Folder** Click the field to show the available folders. Click a folder to see the sub-folders. Double-click a folder to select it.

**Count** Use the drop-down menu to select the number of snapshots for this job.

**Schedule** Use the drop-down menu to select manually schedule the job, or schedule to take the snapshot on a daily, weekly or monthly basis.

**Time** Use the drop-down menus to select hour and minute of the day.

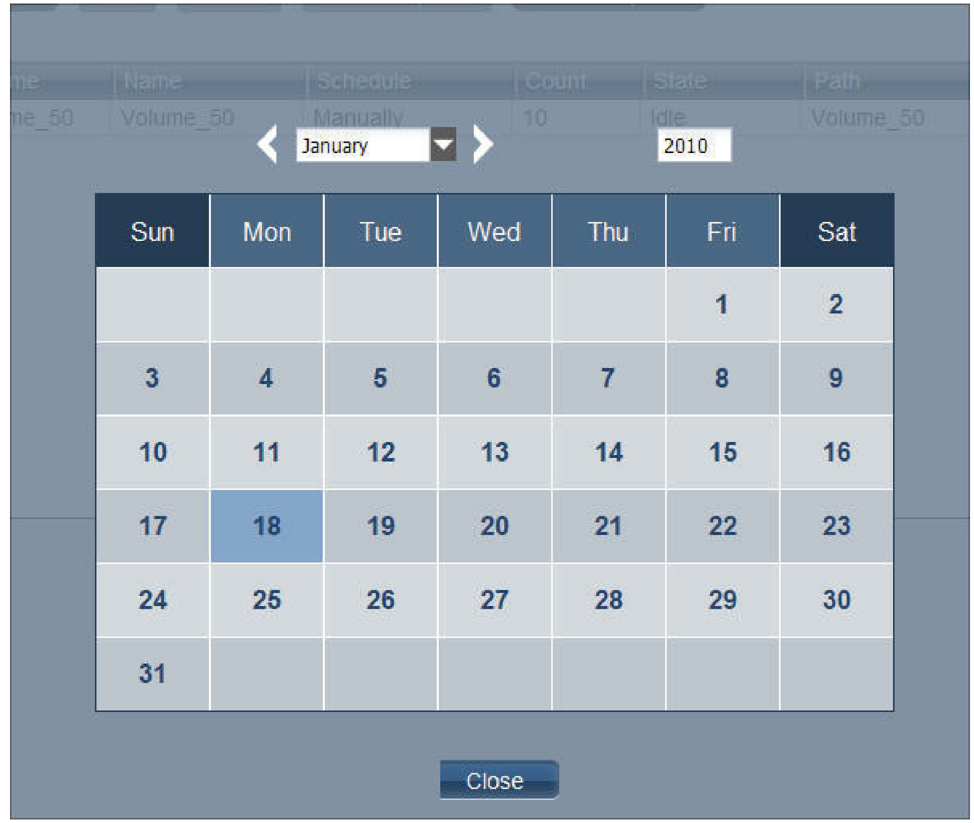
**Weekday** Use the drop-down menu to select the day of the week.

**Date** Use the drop-down menu to select the day of the month.

Click **Apply** to save the settings.

# Show Snapshot

Click the **Show Snapshot** button to see the calendar.




**Calendar** Find the year and month of the snapshot on that day. The date cell is highlighted when there are snapshots on that day. Click the cell to view details of the volume's snapshot(s).

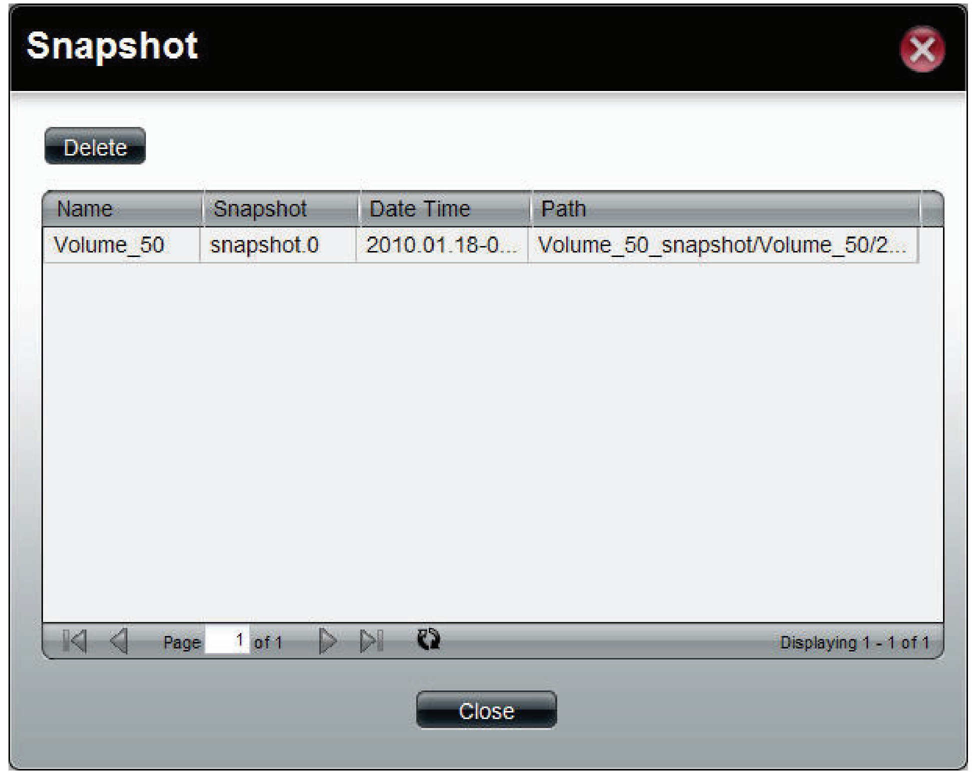
Click **Close** to go back to the Volume Snapshot window.

The window displays the volume's snapshot(s) information.

**Delete** Select an entry and click the button to remove the entry from the list.

**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page (), Previous Page (), Next Page () or Last page () to search for the group.

**Refresh** Click  to update the group list.




Click **Close** to go back to the previous window.

# Local Backup

Click the **Local Backup** icon in the Backup window or the Local Backup link in the left window to configure the settings. This window allows files and folders to be backed up to local folders.

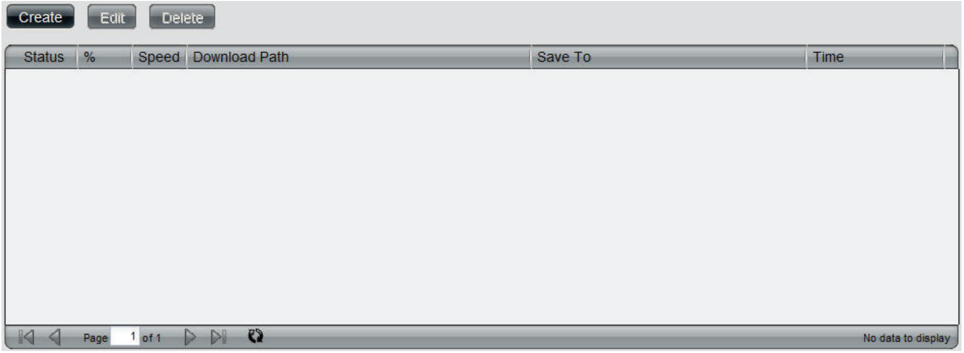
**Create** Click to add a new backup job.

**Edit** Select an entry and click the button to edit.

**Delete** Select an entry and click the button to remove the entry from the list.

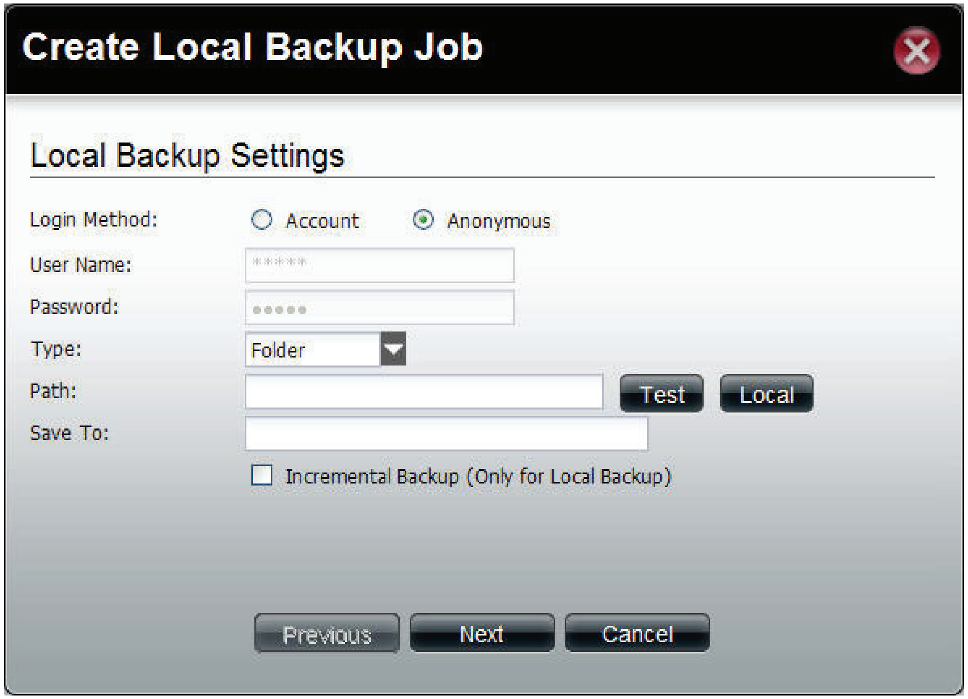
**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Refresh** Click to update the group list.



# Create a Local Backup Job

Click the **Create** button to see the window.




**Login Method** Click the **Account** radio button when a password is required for the procedure. Click the **Anonymous** where there is no password required for the procedure.

**User Name** Enter a user name for backup.

**Password** Enter a password for backup.

**Type** Toggle between File or Folder to download the specific file or all files in a specific folder.

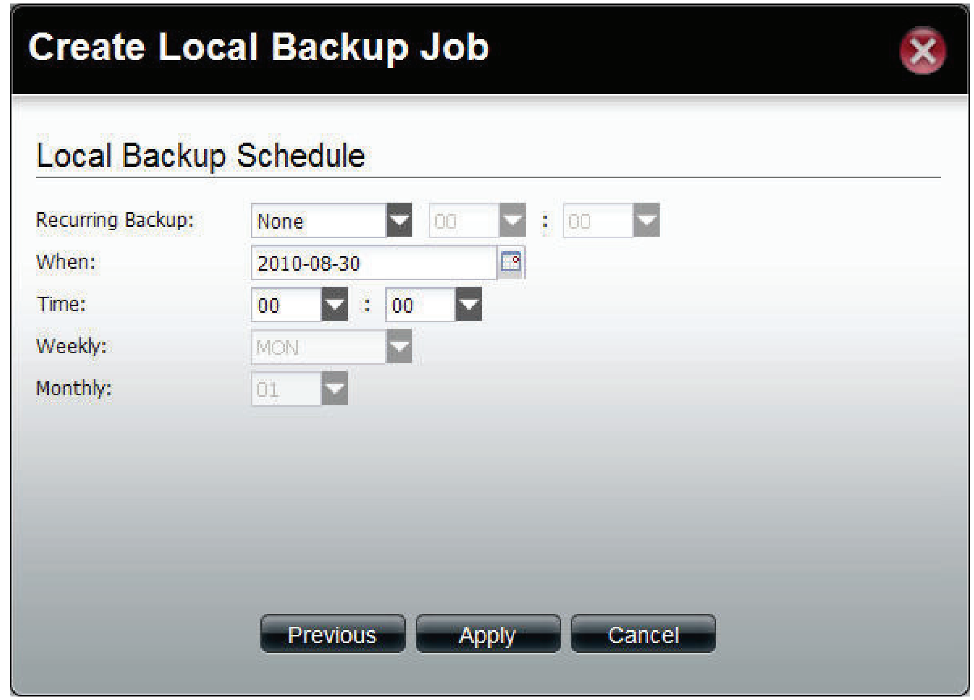
**Path** Enter the path manually, or click **Local** to locate the path. Click the **Test** button to see if the path can be connected to.

**Save To** Click the field to show the available folders. Click the **Create** button to add a new folder. Double-click a folder to select it.

**Incremental Backup** Tick the check box to enable the incremental backup method. All backups after the first full backup will be on an incremental basis. Only the changes since the last backup will be backed up.

Click **Next** to continue.

This window is used to set the schedule for local backup jobs.




**Recurring Backup** Use the drop-down menu to enable a recurring backup. This can be done on a daily, weekly or monthly basis. Select **None** to disable the recurring backup.

**When** Click to select year and date for backup.

**Time** Use the drop-down menu to select the time for backup.

**Weekly** Select a day of the week for recurring backup.

**Monthly** Select the month for recurring backup.

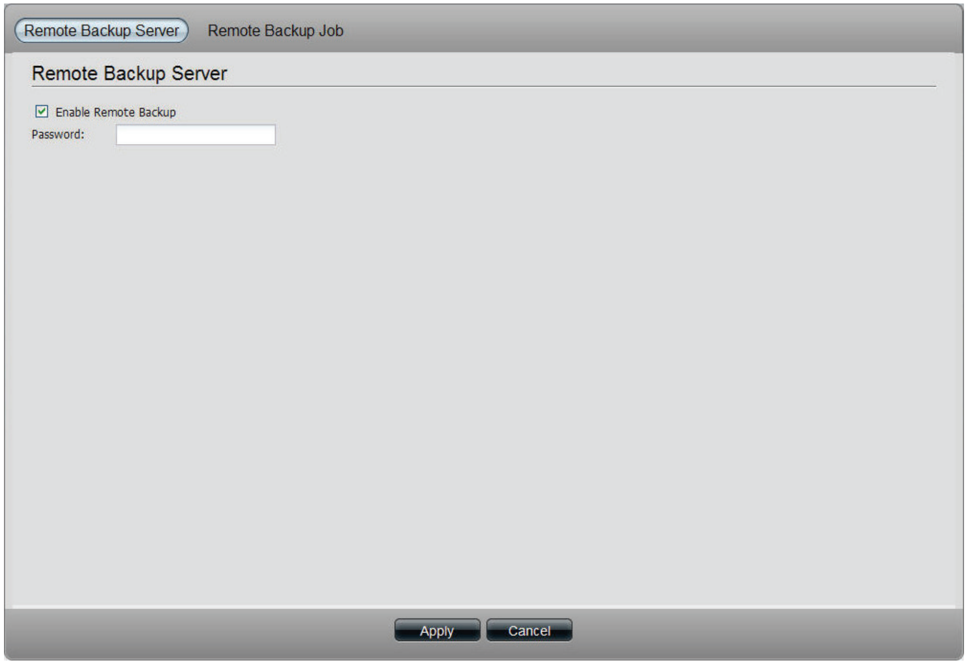
Click **Apply** to save the settings.

# Remote Backup

Click the **Remote Backup** icon in the Backup window or the Remote Backup link in the left window to configure the remote backup.

## Remote Backup Server

Click the **Remote Backup Server** tab to see the following window.



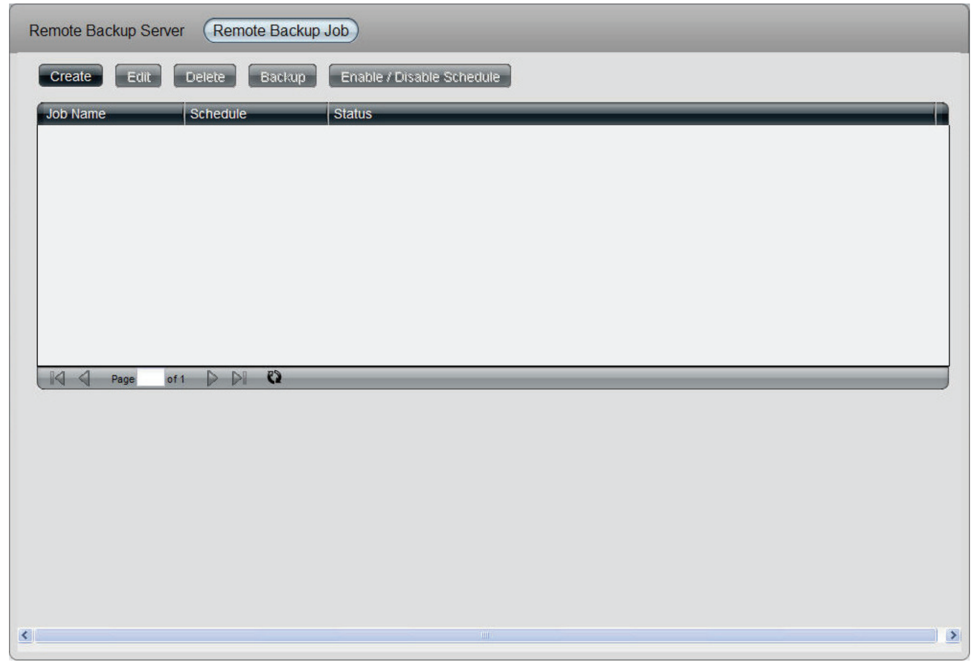

**Enable Remote Backup** Tick the check box to enable the function.

**Password** Enter the password for backing up files and folders from or to the ShareCenter Pro. This is the remote backup password. The password for the remote NAS should be the same as the password of the ShareCenter Pro.

Click **Apply** to save the settings.

# Remote Backup Job

Click the **Remote Backup Job** tab to see the following window.




**Create** Click to add a new remote backup job.

**Edit** Select an entry and click the button to edit.

**Delete** Select an entry and click the button to remove the entry from the list.

**Backup** Click the button to back up.

**Enable/Disable Schedule** Click the button to enable or disable the schedule remote backup function.

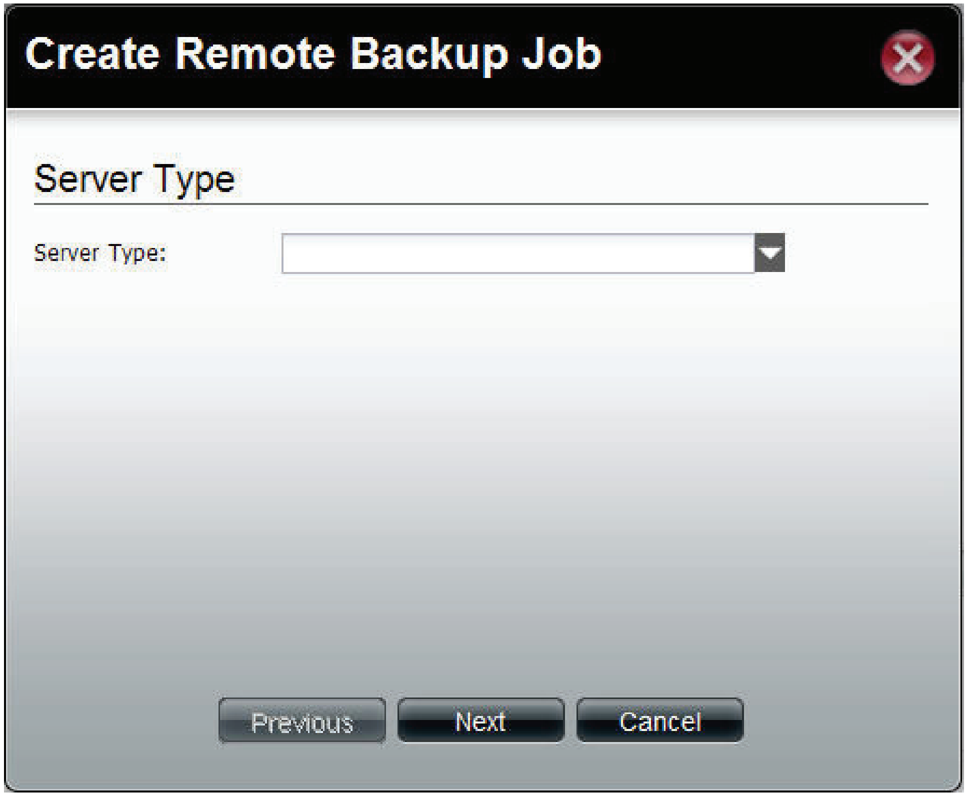
**Page** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page (), Previous Page (), Next Page () or Last page () to search for the group.

**Refresh** Click  to update the group list.

Click **Create** to see the window.

**Server Type** Use the drop-down menu to select between D-Link NAS Server or Rsync Server.

Click **Next** to continue.

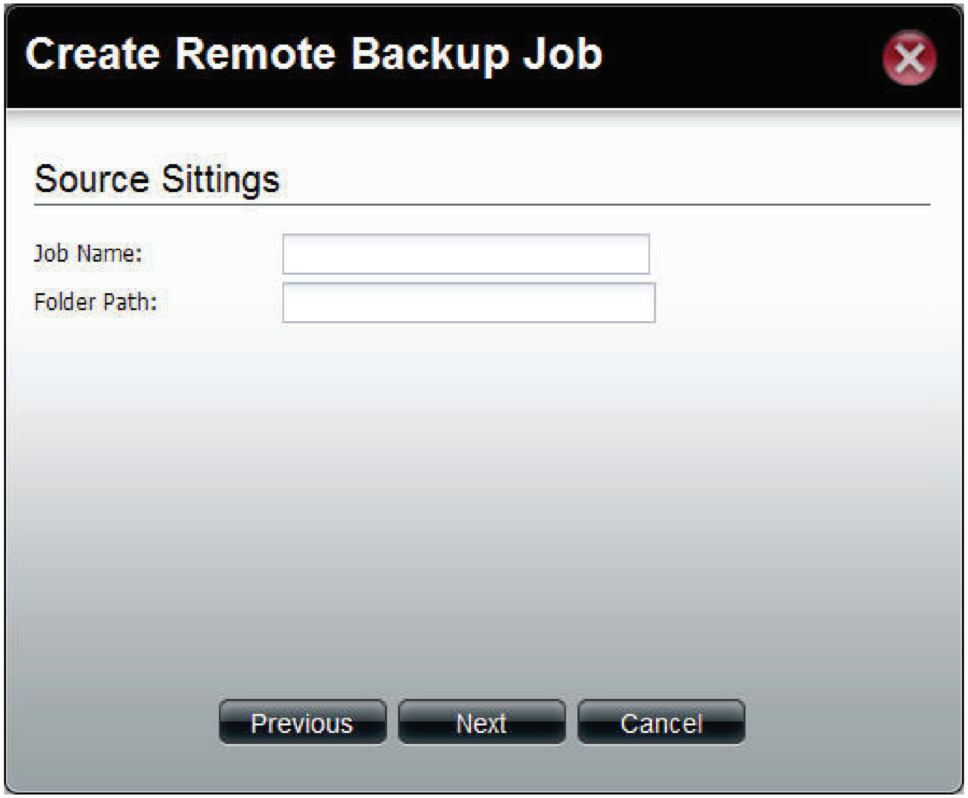


This window allows you to configure the source settings.

**Job Name** Enter the name of the remote backup job.

**Folder Path** Click the field to select the source file/folder to be backed up remotely.

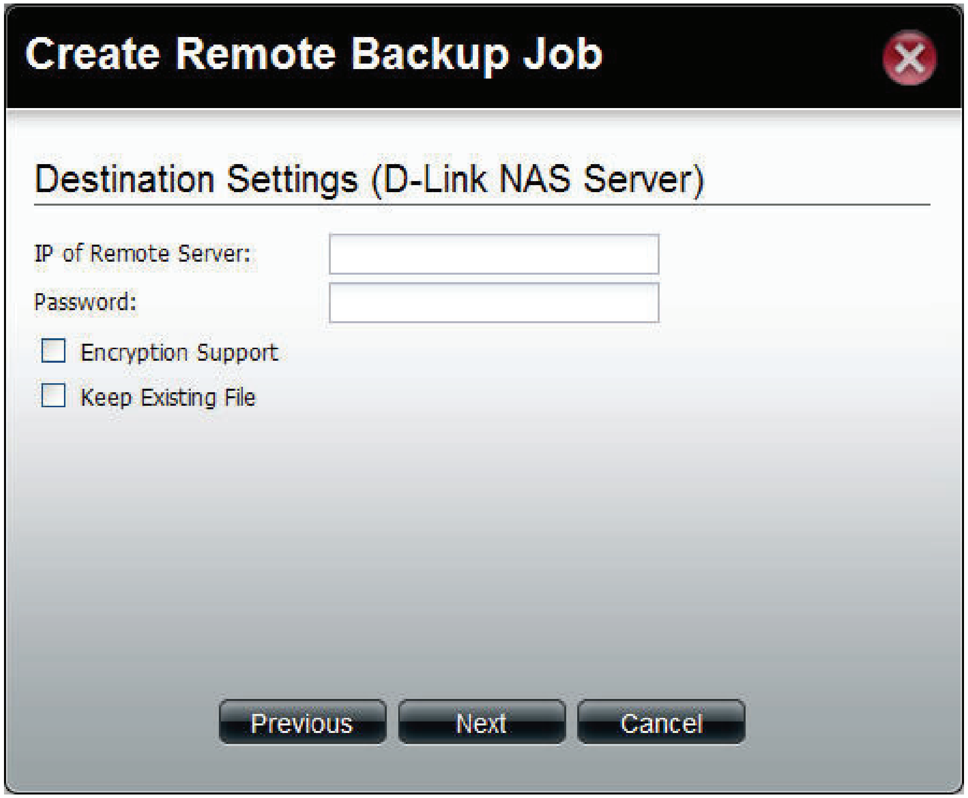
Click **Next** to continue.



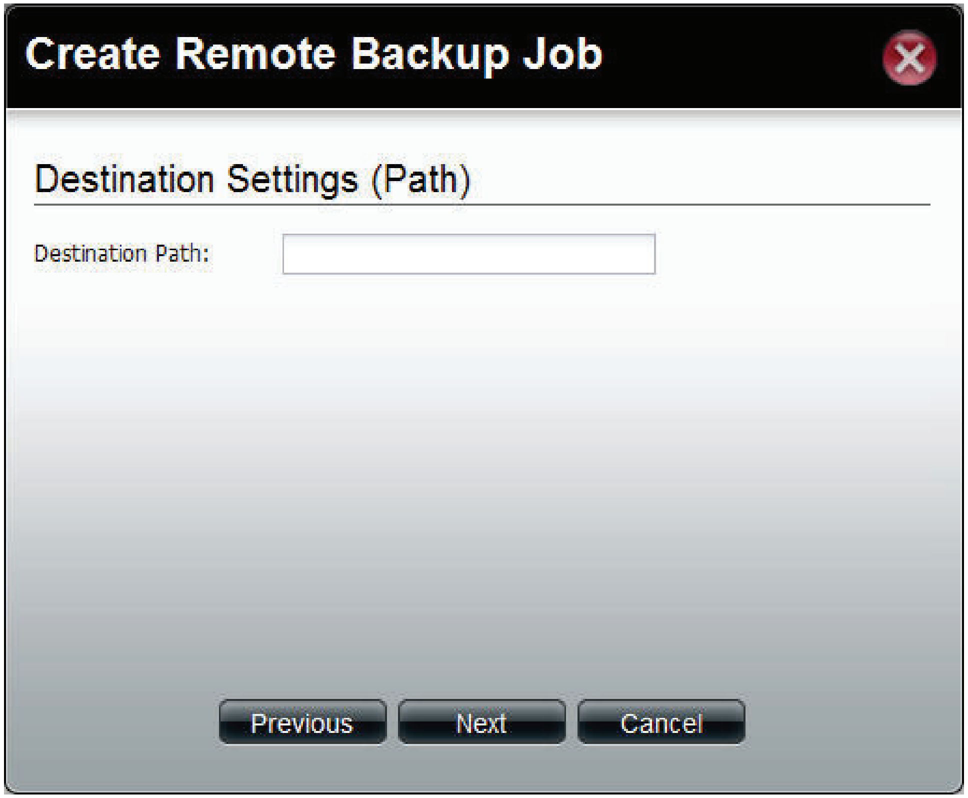
This window is used to configure the destination settings.

| | |
|---|---|
| **IP of Remote Server** | Enter the IP address of the server. |
| **Password** | Enter the password of the destination server. |
| **Encryption Support** | Tick the check box to enable SSH encryption. |
| **Keep Existing File** | Tick the check box to keep the existing file with the same name at the remote server and create another copy for backup. |

Click **Next** to continue.



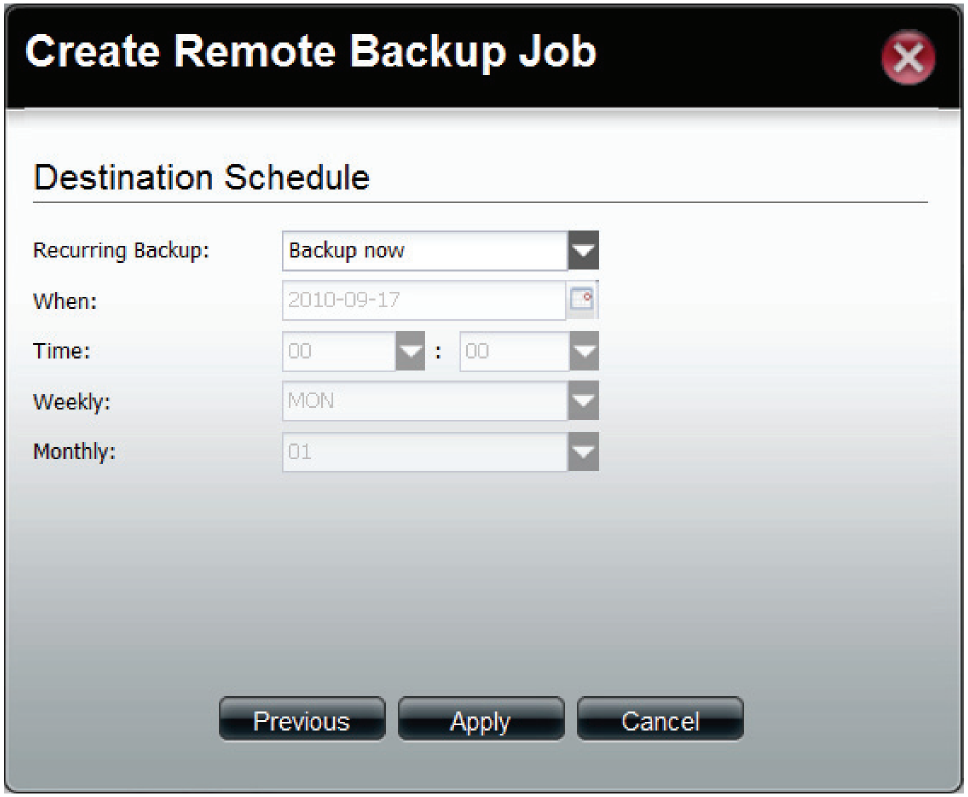
This window is used to configure the destination path.




**Destination Path** Click the field to select the destination path.

Click **Next** to continue.

This window is used to schedule the remote backup job.




**Recurring Backup** Use the drop-down menu to enable a recurring remote backup. This can be done on a daily, weekly or monthly basis. Select **Backup now** to start the backup.

**When** Click to select year and date for backup.

**Time** Use the drop-down menu to select the time for backup.

**Weekly** Select a day of the week for recurring backup.

**Monthly** Select the month for recurring backup.

Click **Apply** to save the settings.

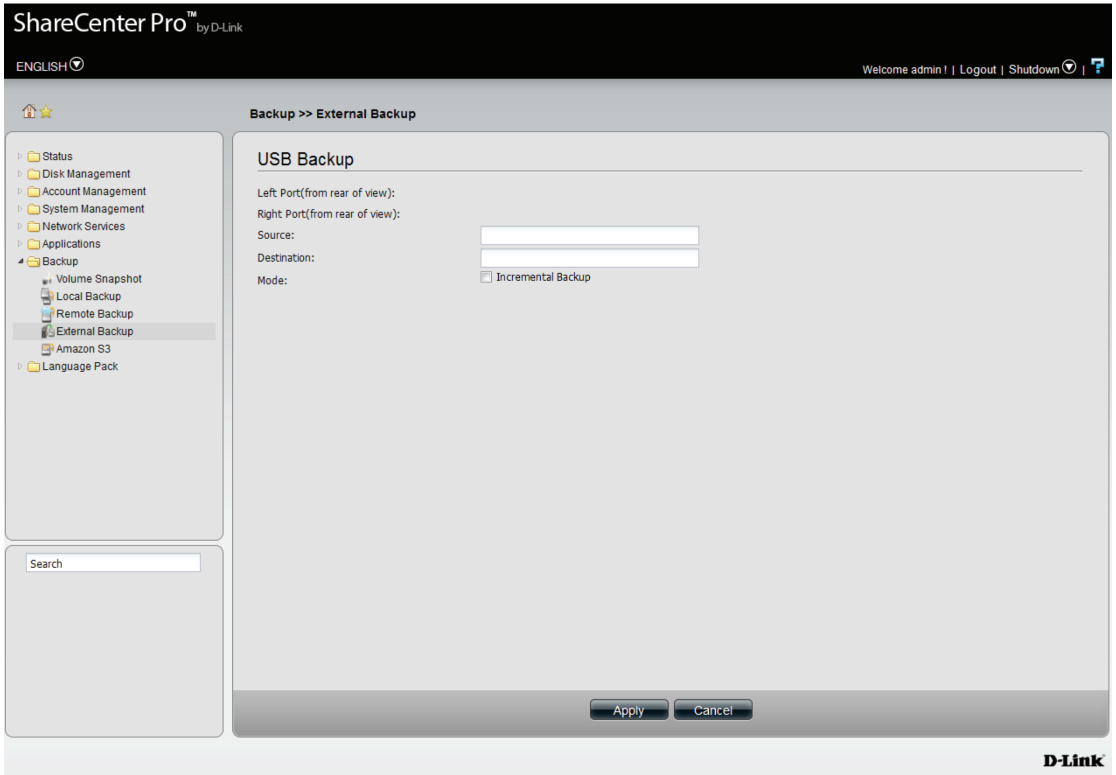
# External Backup

Click the **External Backup** icon in the **Backup** window or the External Backup link in the left window to configure the settings. This window is used to back up data to external devices.

**Source (Left/ Right)** Click the USB port that is connected to an external USB storage device.

**Source** Click the field to show the available folders. Click the **Create** button to add a new folder. Double-click a folder to select it.

**Mode** Tick the **Incremental Backup** check box to enable the incremental backup method. All backups after first full backup will be on an incremental basis. Only the changes since the last backup will be backed up.



# Amazon S3

Amazon S3 (Simple Storage Service) is an online storage web service offered by AWS (Amazon Web Services), and 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, you can easily upload the data from your ShareCenter Pro to Amazon S3 or download the data from Amazon S3 to your NAS.

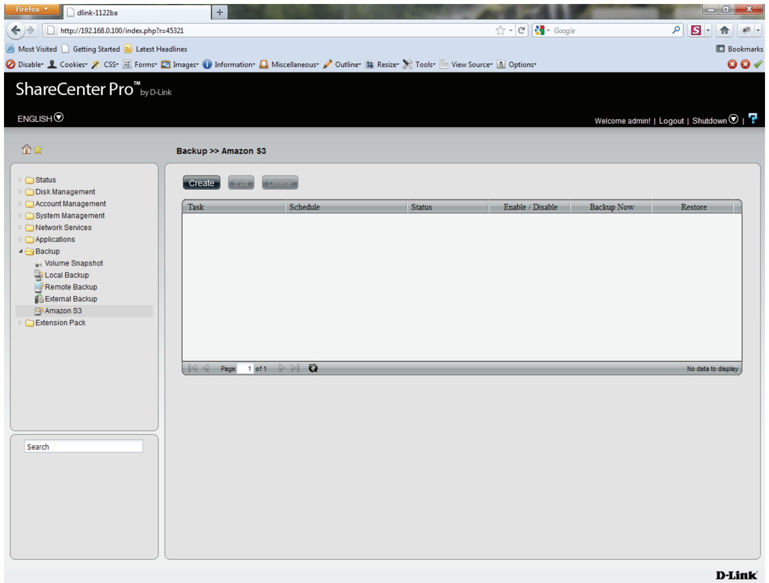
This Amazon S3 How-To will show you how to:

- Create your AWS Account with which you can use to access the Amazon S3 services.
- Create a bucket on the Amazon S3 Server where you can upload or download your ShareCenter Pro data to/from.
- Create an Amazon S3 Scheduled Backup on your ShareCenter Pro to automatically upload any ShareCenter Pro Network Share to the Amazon S3 service.

# Amazon S3

Follow these steps to setup Amazon S3

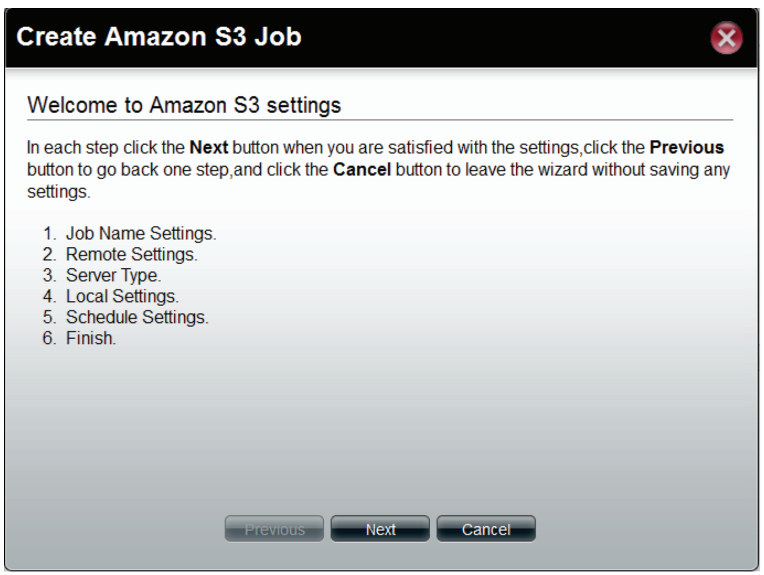
1




Log in. Click Backup, Amazon S3

Click Create

2

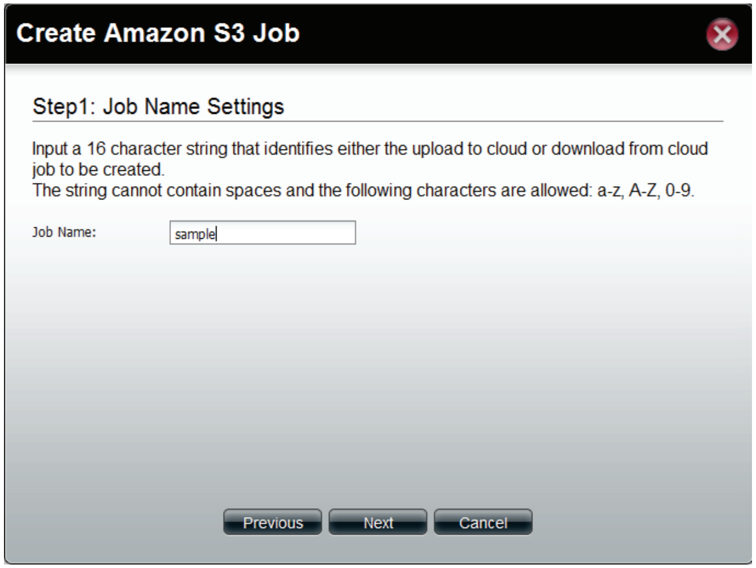



The Create Amazon S3 Job wizard appears providing the following details:

Job Name Settings
Remote Settings
Server Type
Local Settings
Schedule Settings
Finish

Click Next to continue

3

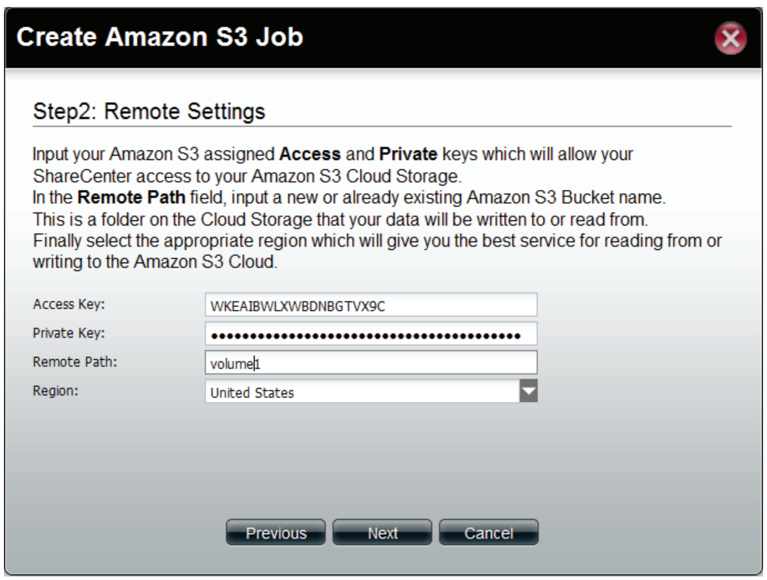



Step 1

Enter a Job Name

Click Next to continue

4



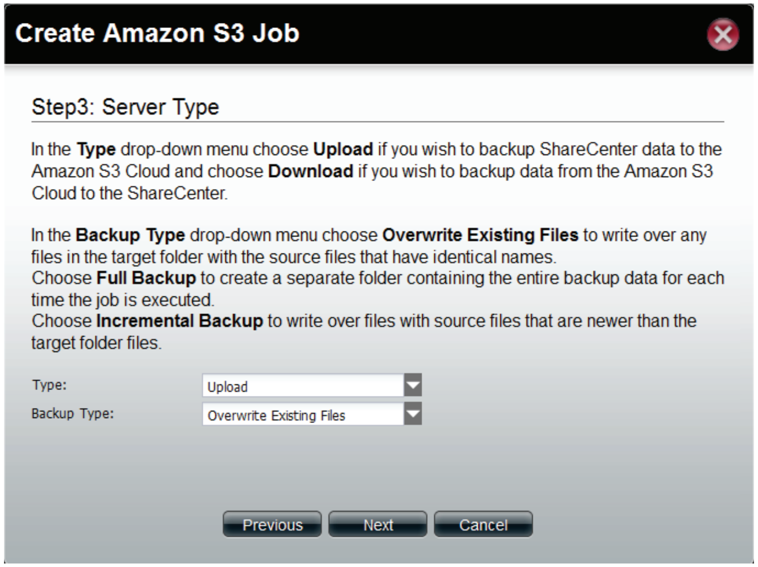

Step 2

Remote Settings

Enter the Access Key, Private Key, Remote Path and Region supplied my Amazon

Click Next to continue

5



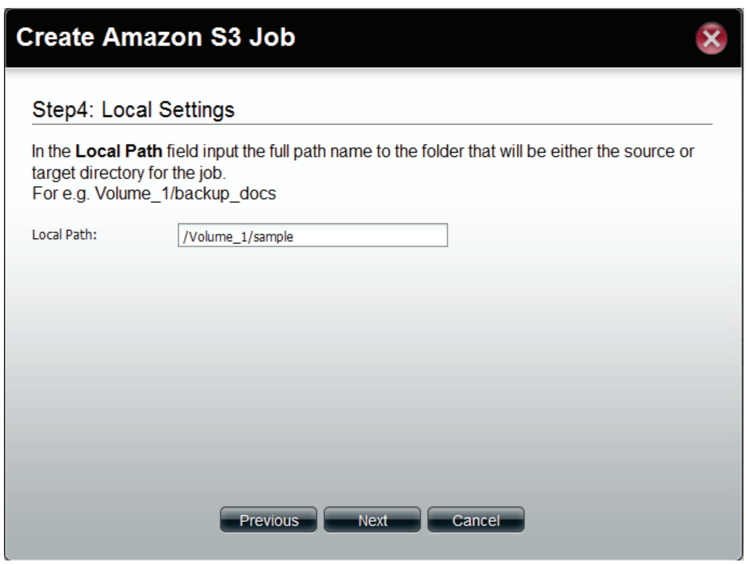

Step 3

Select whether you want to upload files or download files from the drop-down list

Select the Backup Type under the next drop-down list

Click Next to continue

6



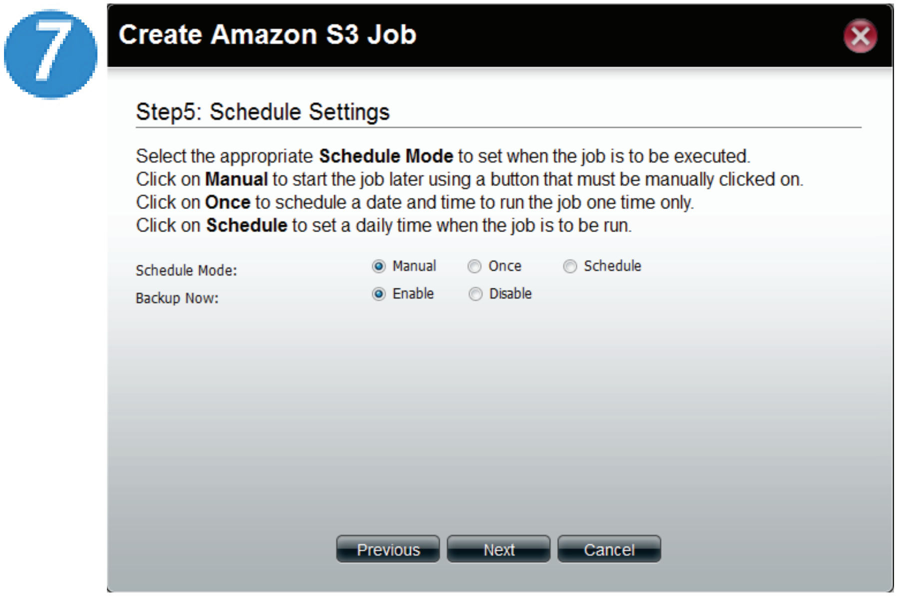

Step 4

Select the Local Path settings for your backup

Click in the Local Path area. Your NAS drive should appear.

Locate the path of your drive

Click Next to continue



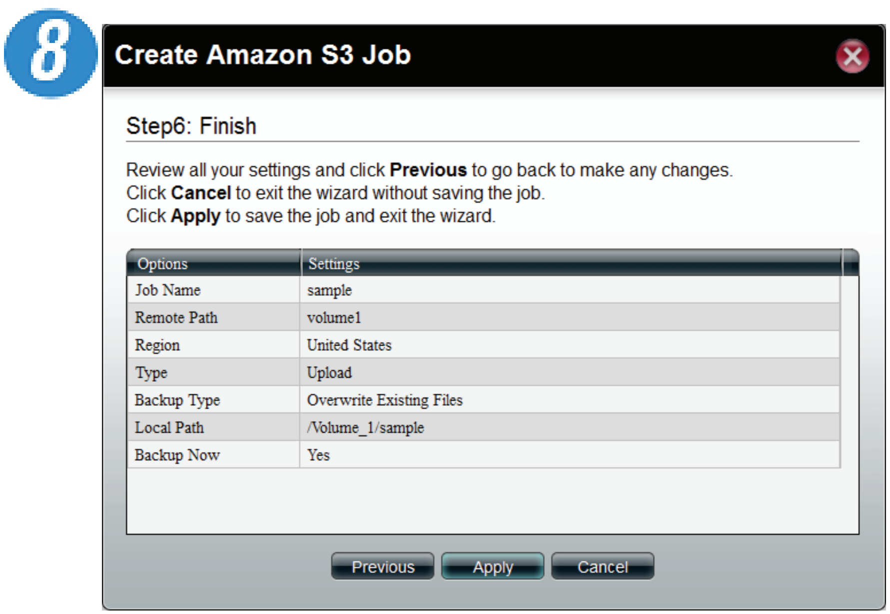

In Step 5

Select the Schedule Settings

Under Schedule Mode you can select Manual setup, Once (once clicked the time settings appear), and Schedule (the daily, weekly, and monthly options appear

You can also setup to Backup Now

Click Enable or Disable to set these settings

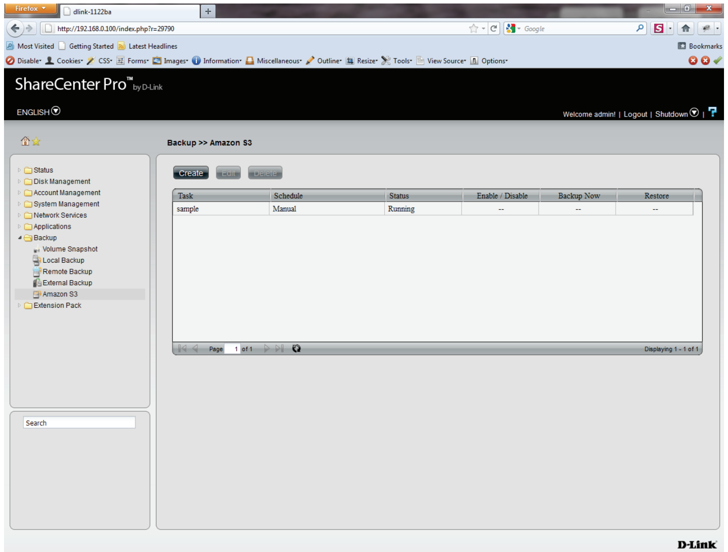



In Step 6

A summary of the configuration just completed is displayed. This is the final step in the wizard.

Click Apply to end the wizard or Previous to back and make changes. Click cancel to exit and make no changes.

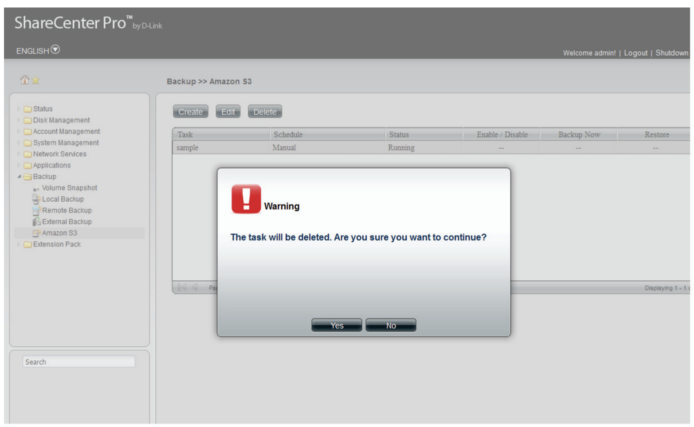
9




Once you have applied the settings and return to the main Amazon S3 screen, the results of your configuration is highlighted and depending on your configuration is "running"

Highlighting your Amazon S3 setup and clicking the Edit button allows you to make changes to your configuration.

Click the Edit button to make changes. You are returned to the Amazon S3 wizard. Make relevant changes.




Highlighting the task you wish to delete

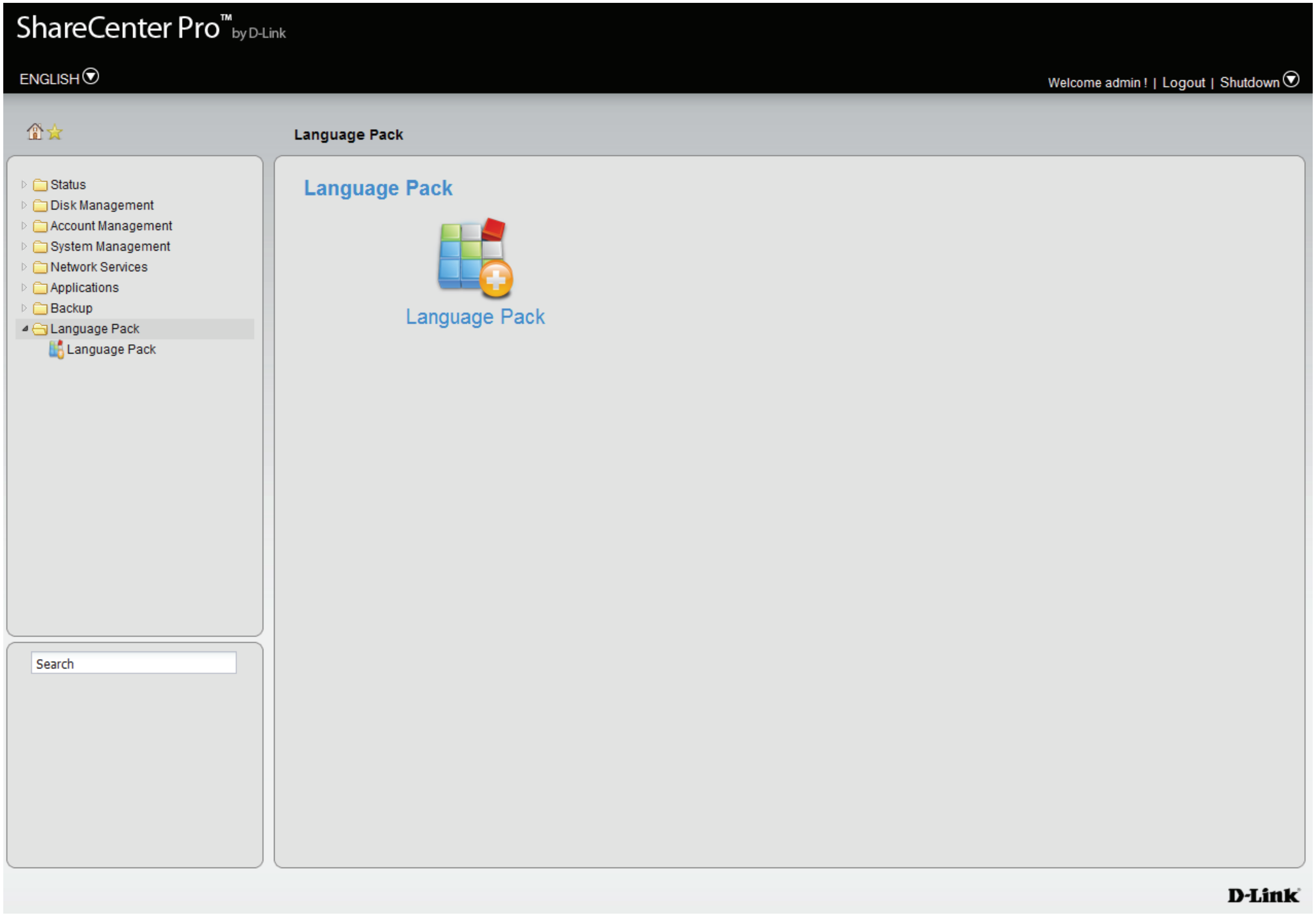
A warning message will appear asking you if you wish to delete the task.

Click Yes to delete

Click No to return back to the previous page

# Language Pack

The Language Pack allows users to add different languages to the NAS. This gives users the ability to see the interface in their own language and configure the NAS appropriately.




Please Note: Currently, the Language Pack only supports the Multi-Language pack.

# Language Pack

Click the **Language Pack** icon in the Language Pack window or the Language Pack link in the left window to configure the add-ons.

**File Path** Click the **Browse** button to locate the file. Click **Apply** to add the file to the Language Pack list.

**Language Pack List** Displays a list of all language add-on modules.

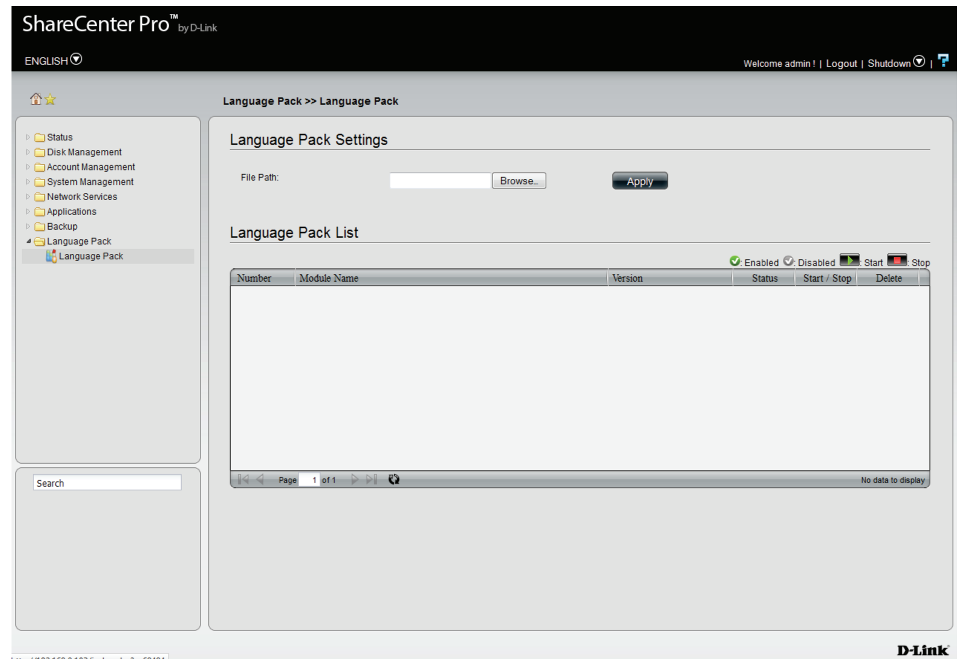
**Status** Displays if the module is currently activated (Enabled) or deactivated (Disabled).

**Start/Stop** Activate/Deactivate the module.

**Delete** Remove the add-on module from the list.

**Refresh** Displays number of pages. You can enter a page number in the field to jump to the specific page. Click First Page ( ), Previous Page ( ), Next Page ( ) or Last page ( ) to search for the group.

**Page** Click  to update the group list.



# Knowledge Base

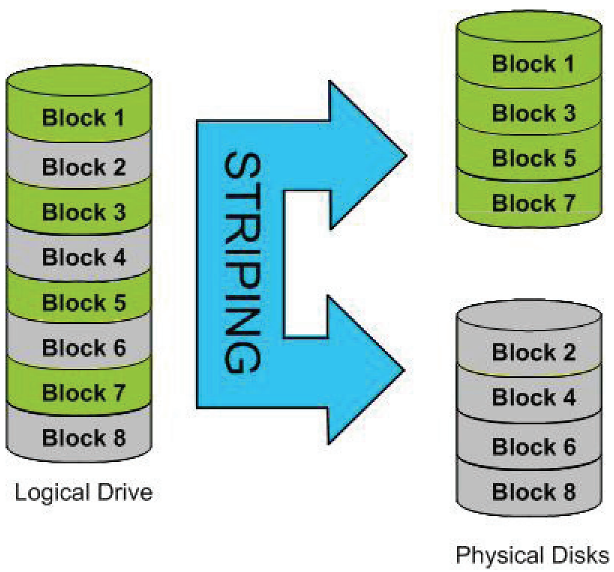
## What is RAID?

RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each one providing a different method of sharing or distributing data among the drives. The ShareCenter Pro supports **JBOD**, **RAID 0**, **RAID 1**, **RAID 5**, **RAID 6** and **Standalone**.

**RAID 0**

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

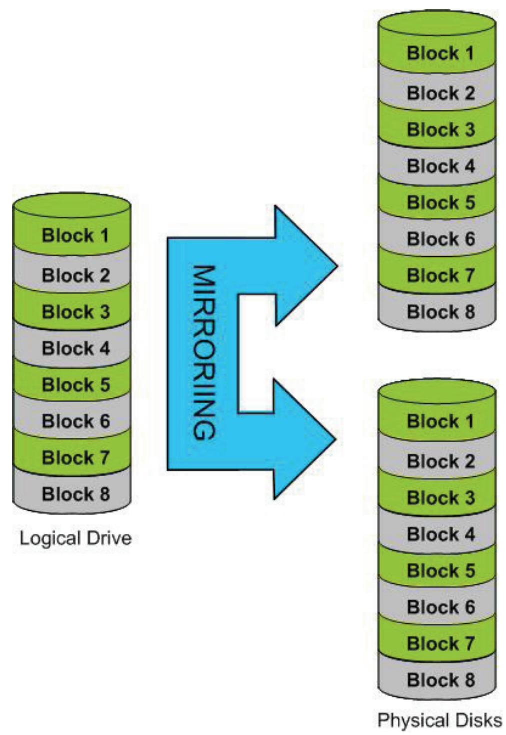
Although performance is improved, the lack of fault tolerance means that if one drive fails, all data in the array will be lost.




**RAID 1**

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

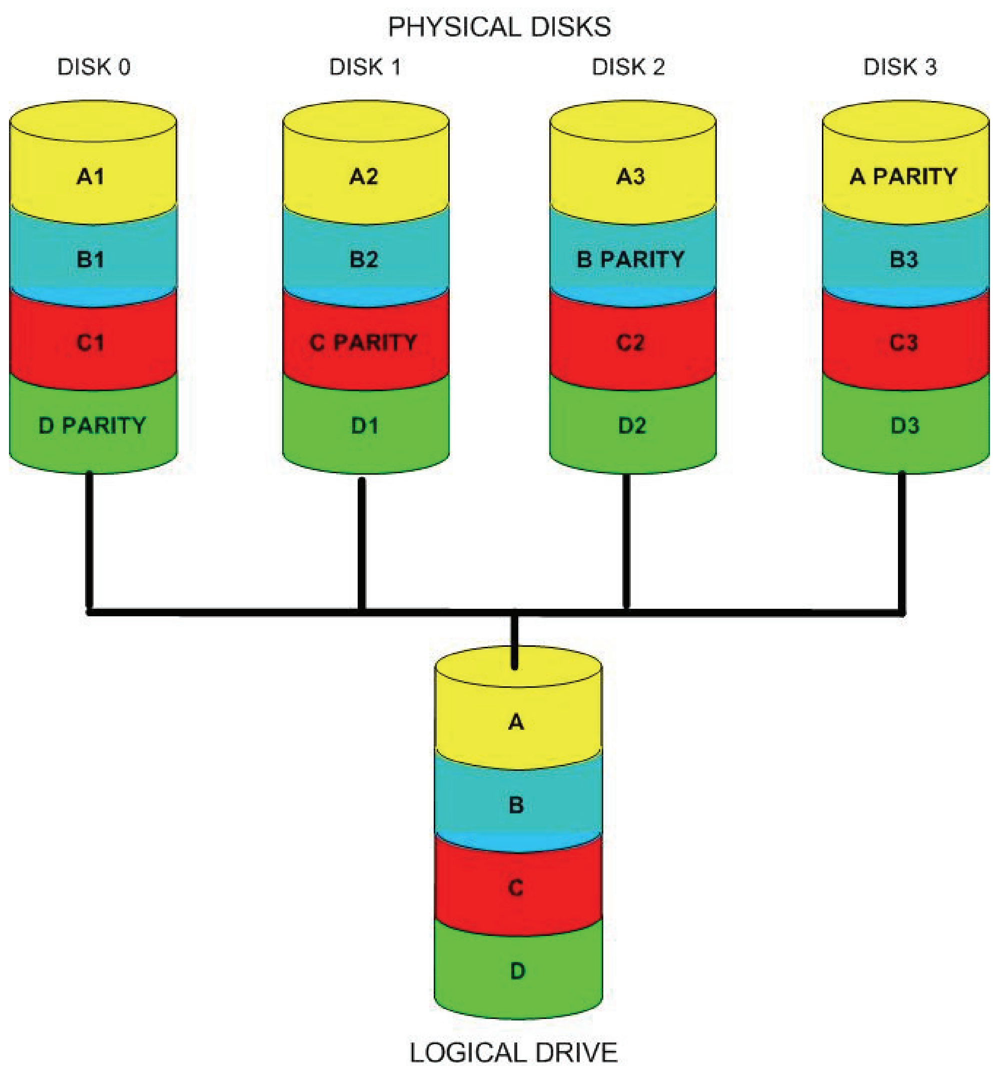
Because the data is stored on multiple disks,
RAID 1 provides fault tolerance and protection, in addition to performance advantages.



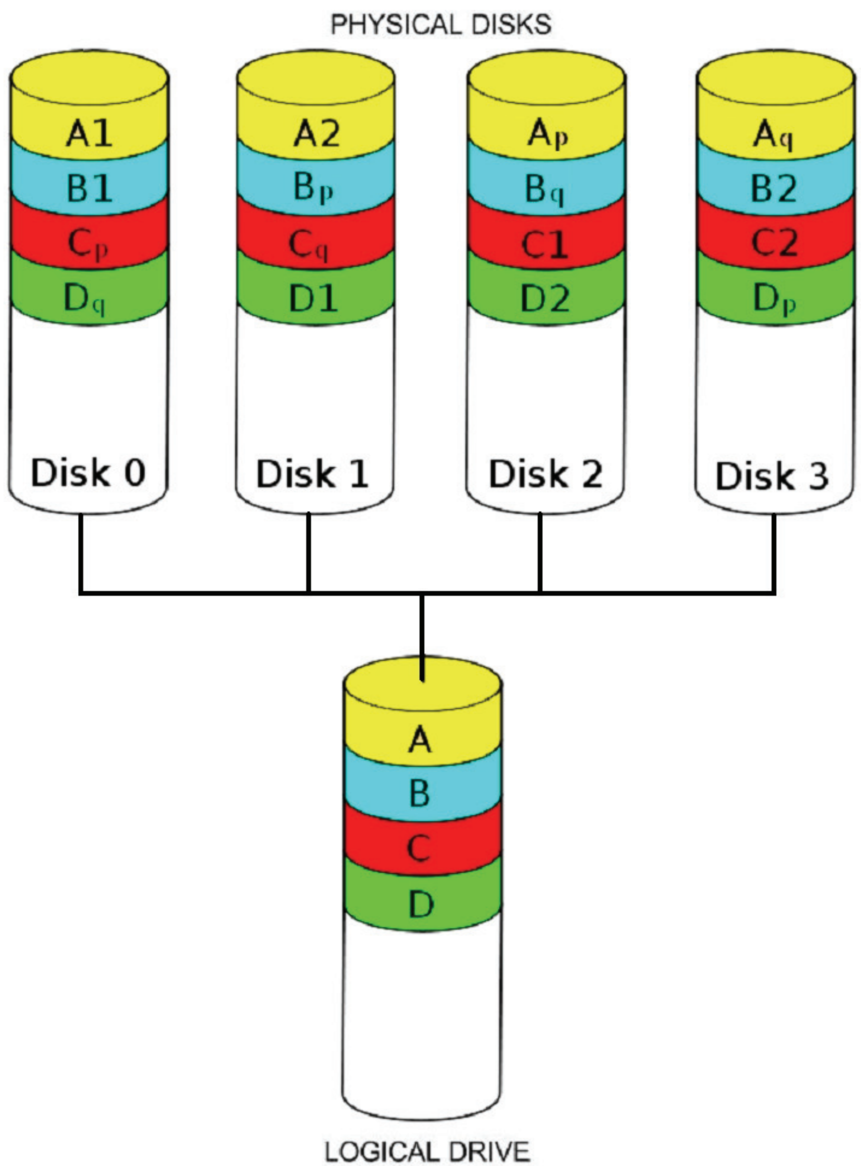
**RAID 5** RAID 5 provides data striping with distributed parity, which stores information that can be used to reconstruct data. A RAID 5 array will be the size of all the combined disks capacity less the capacity of one disk, e.g. If there are 4x 80GB disks in the array, the arrays capacity will be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

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

The diagram below indicates the operation of RAID 5:



**RAID 6** RAID 6 is an extension of RAID 5. It adds an additional parity block by using block-level striping with two parity blocks distributed across all the member disks.
RAID 6 allows the array to continue operating even if two of the disks fail.
The diagram below indicates the operation of RAID 6:



# Mapping a Drive

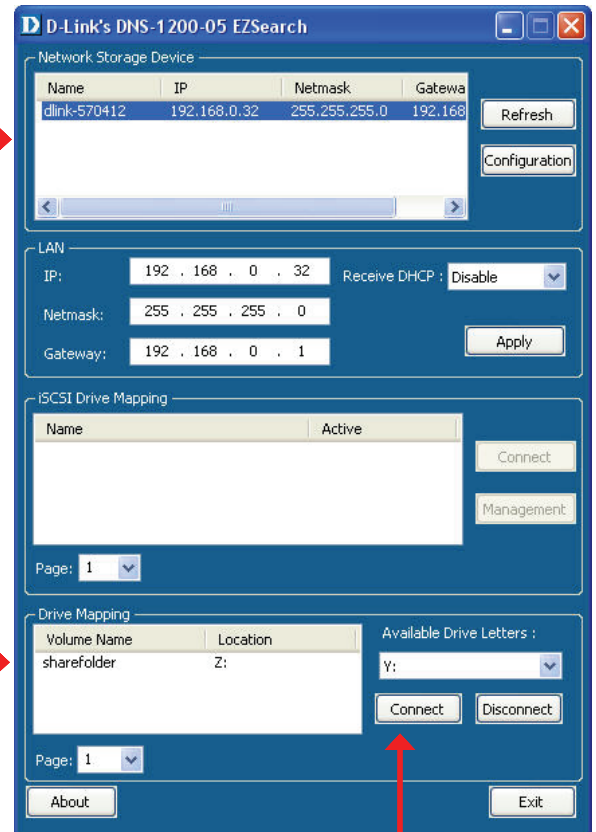
You can use the D-Link Easy Search Utility to map drives to your computer. Insert the ShareCenter Pro CD into your CD-ROM drive.

Click Easy Search Utility.


The Easy Search Utility will load and detect any ShareCenter Pro devices that are on the local network.

If the ShareCenter Pro you are working with does not show up in the device list, click **Refresh**.

Highlight an available ShareCenter Pro

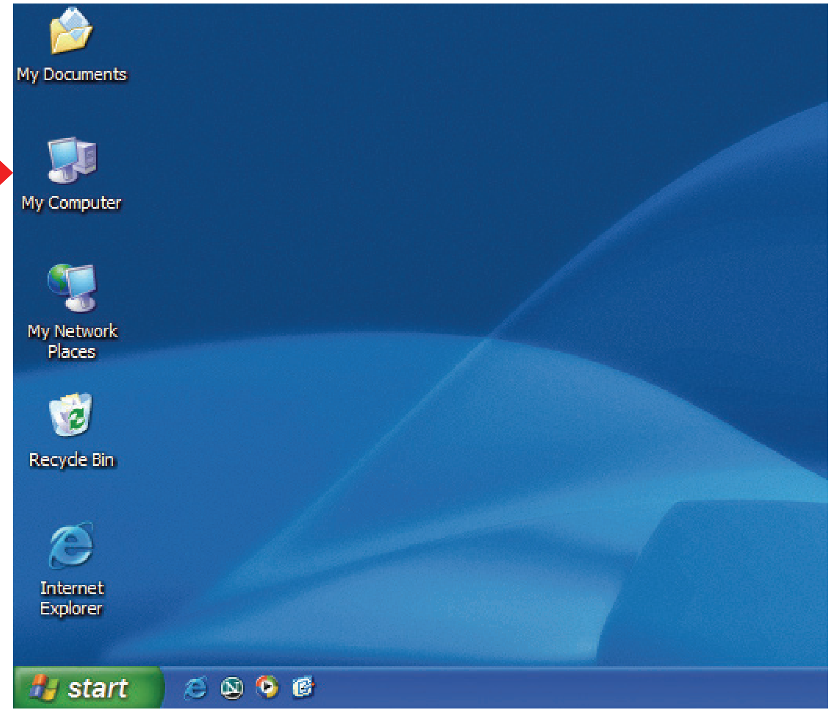



Available volumes will be displayed under Drive Mapping. Highlight the volume you want to map.

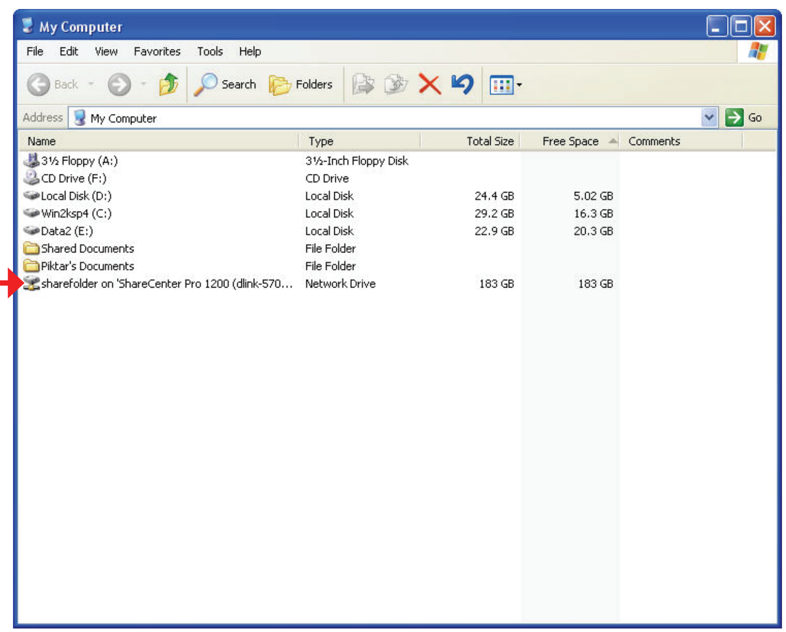
Select an available drive letter from the drop-down menu and click **Connect**.

Once connected, your mapped drive(s) will appear in My Computer.

Double-click the My Computer icon on your desktop.




Double-click the mapped drive to access the files and folders.



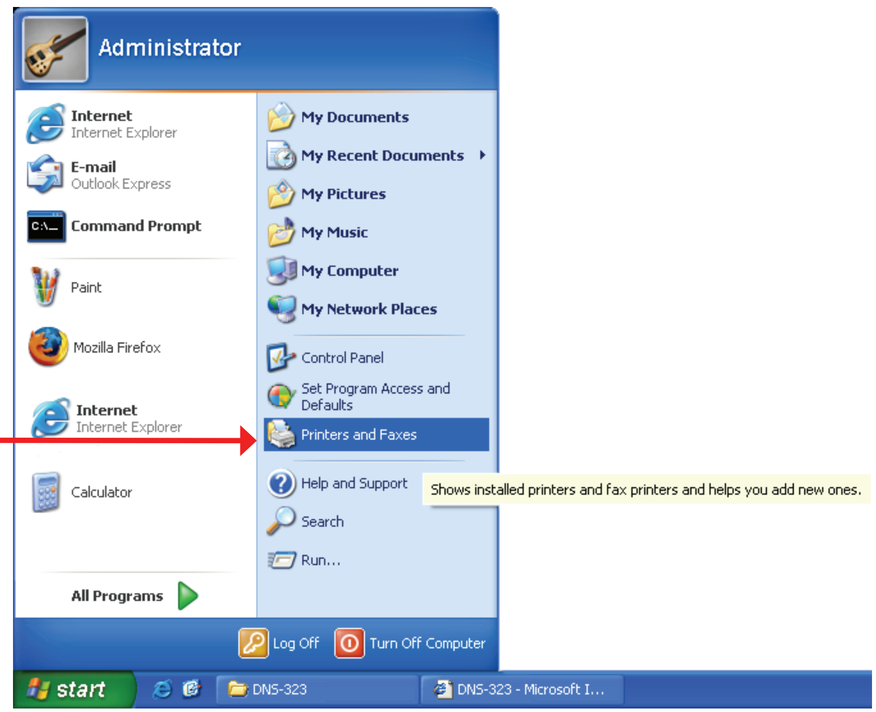
# USB Print Server

The ShareCenter Pro 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 ShareCenter Pro. It is important to ensure that any of the printer manufacturer's drivers are already installed on any computer you want to print from.

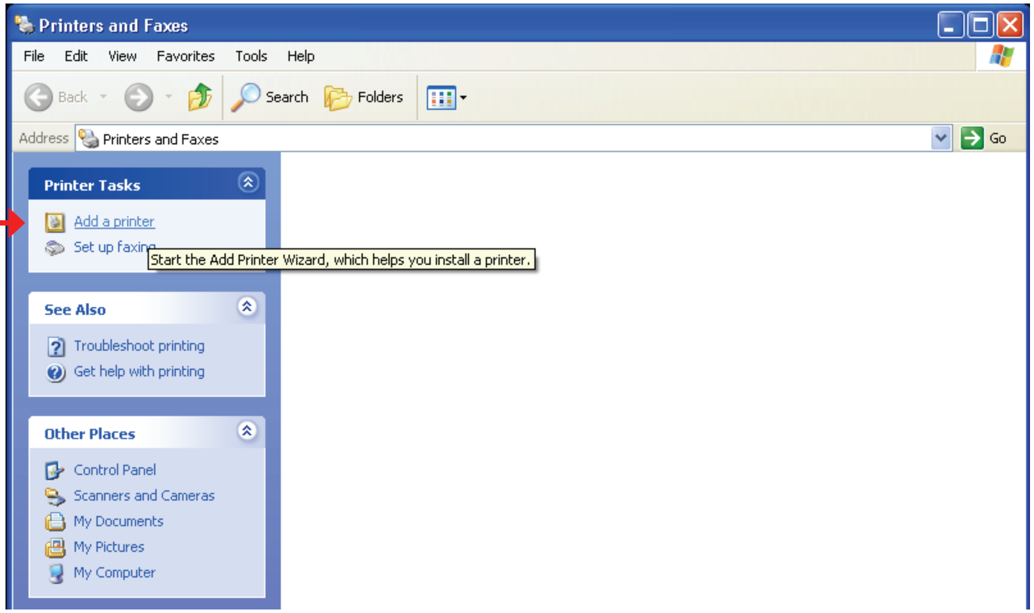
**Note: The print function is supported in Microsoft Windows OS only. The device does not support the copy and scan functions of Multi-Function Printers either.**

To add a printer:

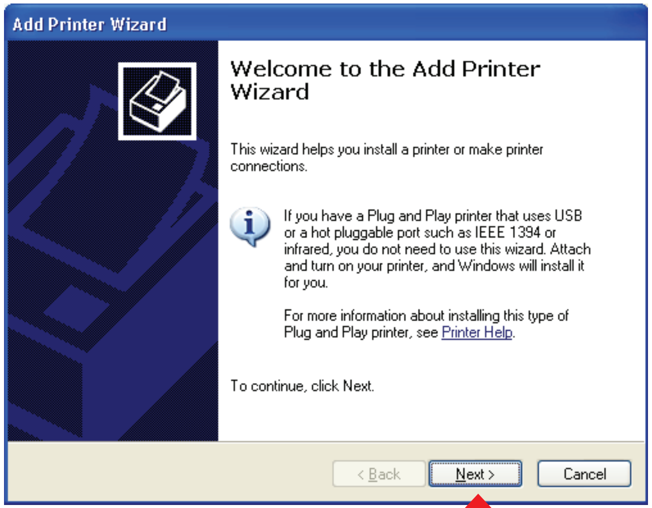
Click **Start** and select **Printers and Faxes**.



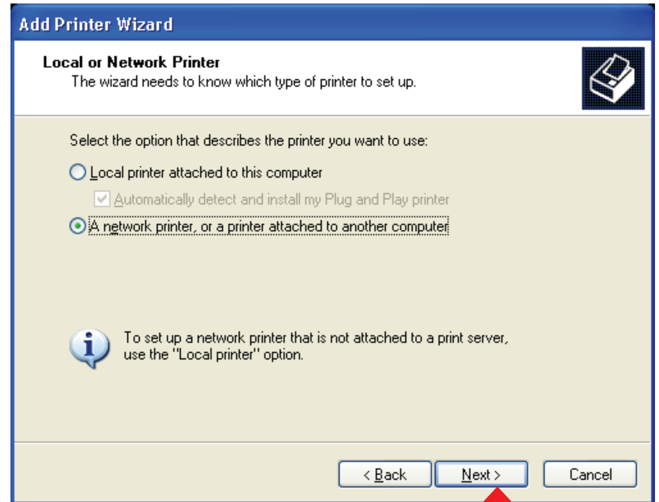
Select **Add a printer**.




The Windows® Add Printer Wizard will launch:

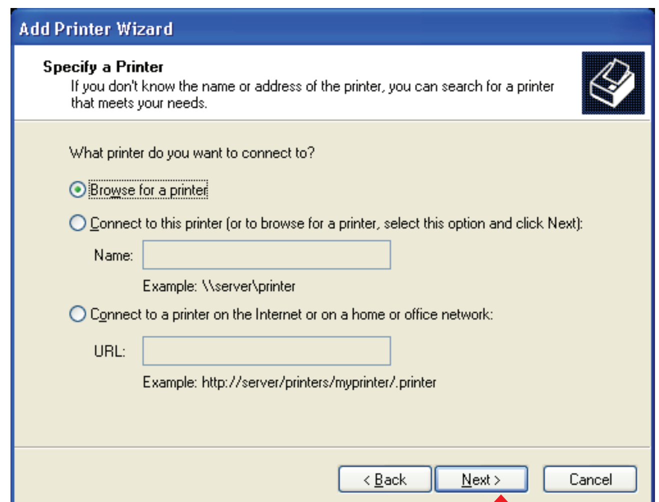



Click **Next** to continue.

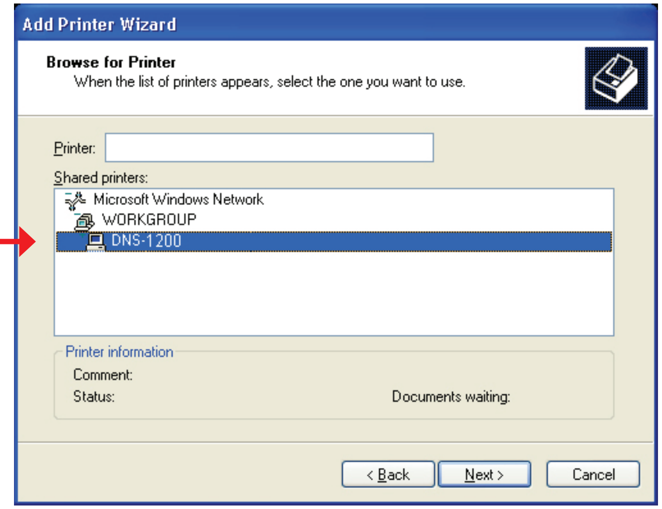



When prompted to choose a local, or network printer, select **"A network printer, or a printer attached to another computer."**

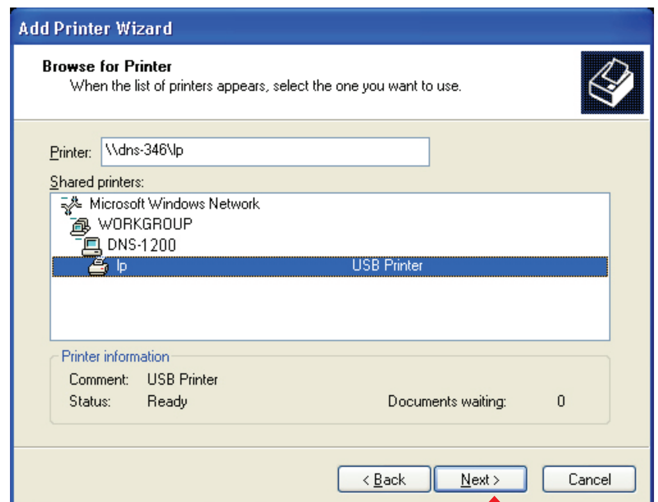
Click **Next** to continue.




Select **"Browse for a printer"** and click **Next** to continue.



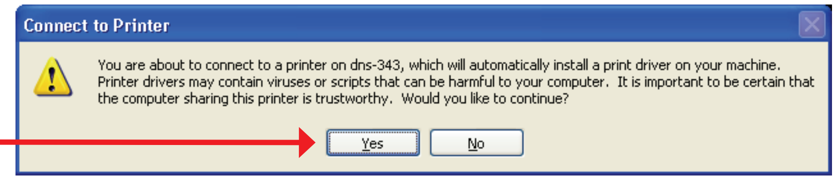

Select Double-click **DNS-1200** from the Shared Printers list to expand the tree.



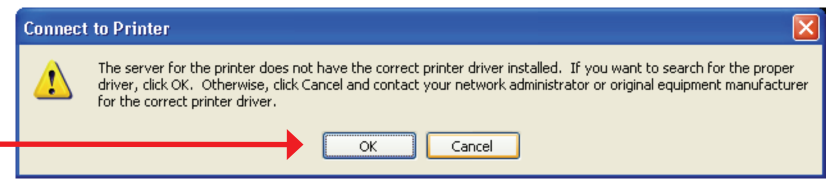

Select the available USB printer, and click **Next** to continue.

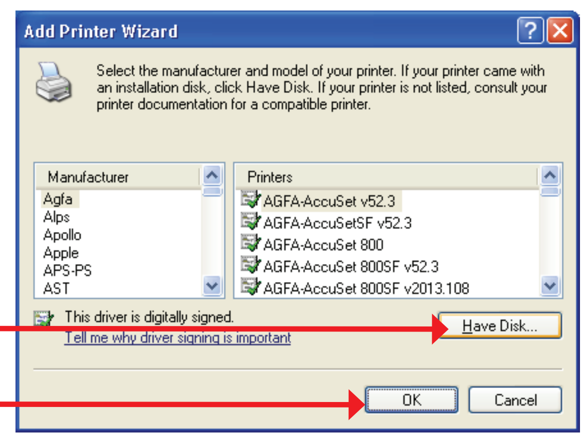
The following printer driver messages will appear:

Click **Yes** to continue.



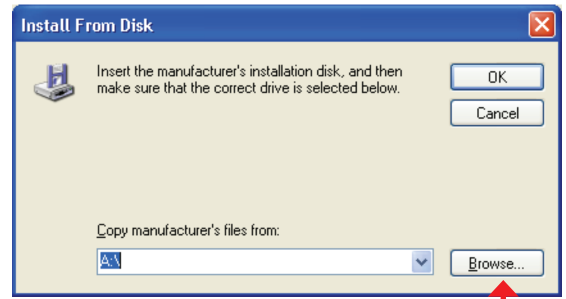

Click **OK** to continue and select a printer driver.



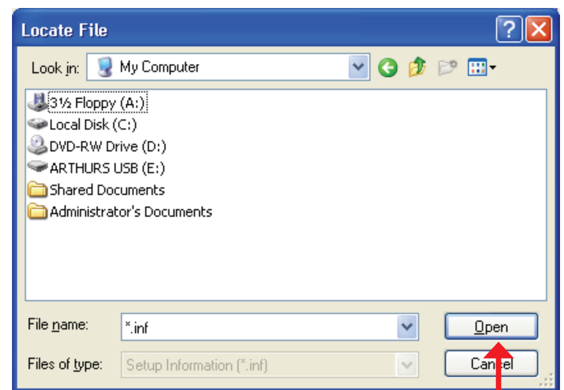




Select the appropriate printer driver from the list and click **OK** to complete the wizard. If the driver is not in the list, select **Have Disk**.

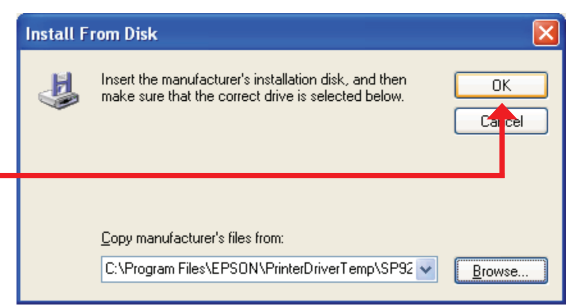
Insert the print driver CD or browse to the appropriate directory.

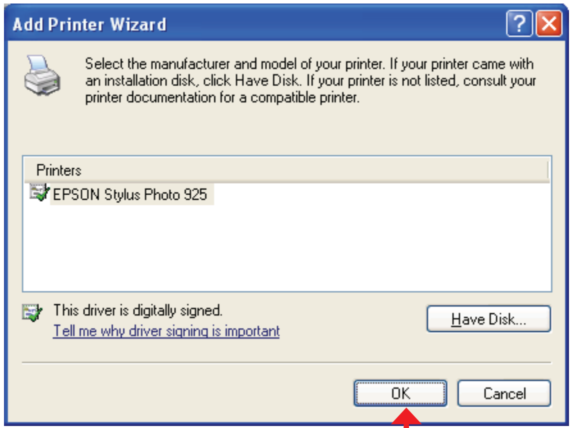



Select the appropriate driver file, and click **Open** to continue.

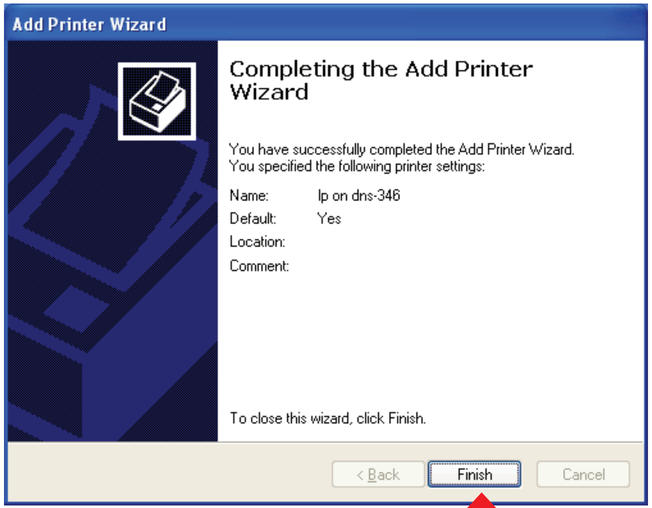



Click **OK** to continue.



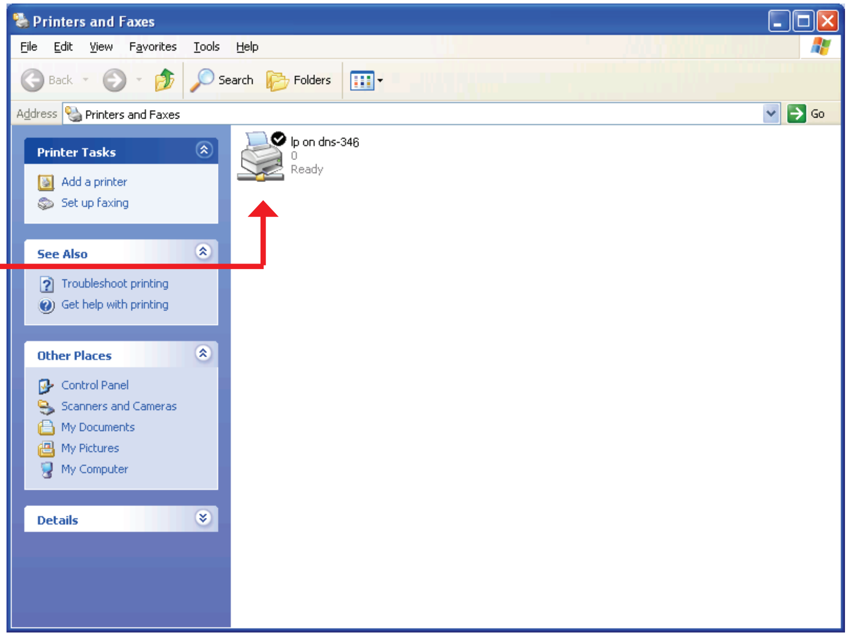



Verify the driver is correct, and click **OK** to continue.




The wizard will install the printer drivers, and return a completion screen. Click **Finish**.

The printer should now appear as an available printer.



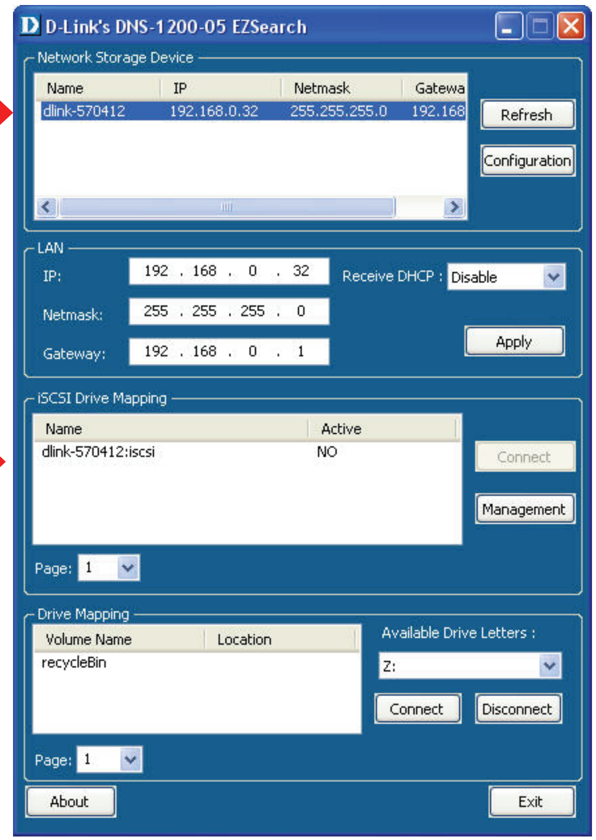
# iSCSI Drive Mapping

The iSCSI Drive Mapping is used to manage the iSCSI settings on the ShareCenter Pro.

Carry out the following to configure the iSCSI settings:

1. Click the listed ShareCenter Pro

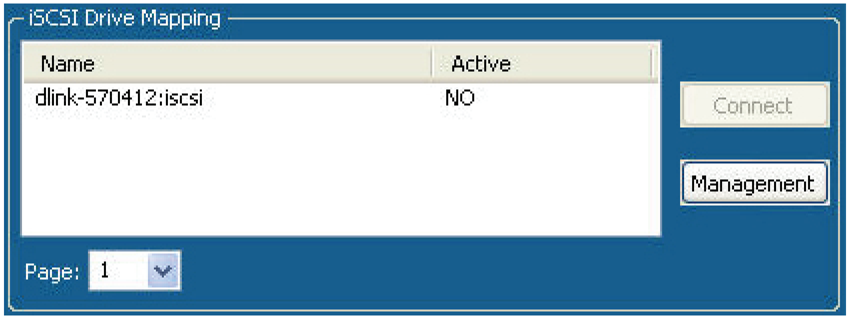
2. The available iSCSI target names in the iSCSI Drive Mapping section appear.




***Note:*** If you cannot see the latest list, click the **Refresh** button to update the status.

***Note:*** *You will need to create iSCSI volume in the* ***Disk Management*** *->* ***iSCSI Target****. Click the* ***iSCSI Targets*** *tab to see the iSCSI target name in this section.*

The different parameters in the iSCSI Drive Mapping section are described below:




**Name** Displays the names of the available iSCSI targets on the ShareCenter Pro.

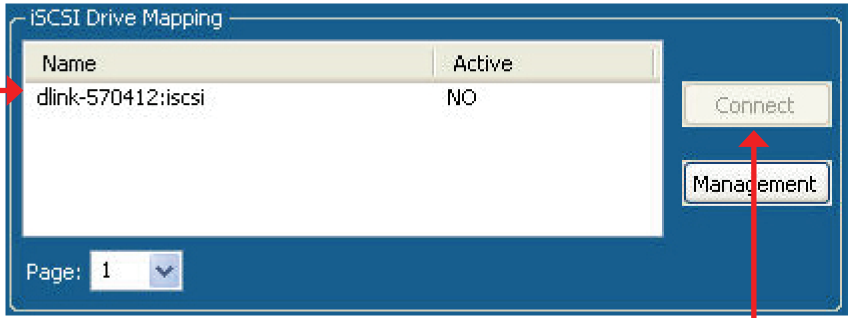
**Active** Displays *Yes* if the target is active. Displays *No* if the target is not active.

**Connect/Disconnect** Choose a target from the list and click the **Connect**/**Disconnect** button to activate/deactivate the Target. If CHAP authentication has been enabled, then a username and password will be required.

**Management** Click the button to see the Management window. The window allows you to add, delete, mount and unmount the partition.

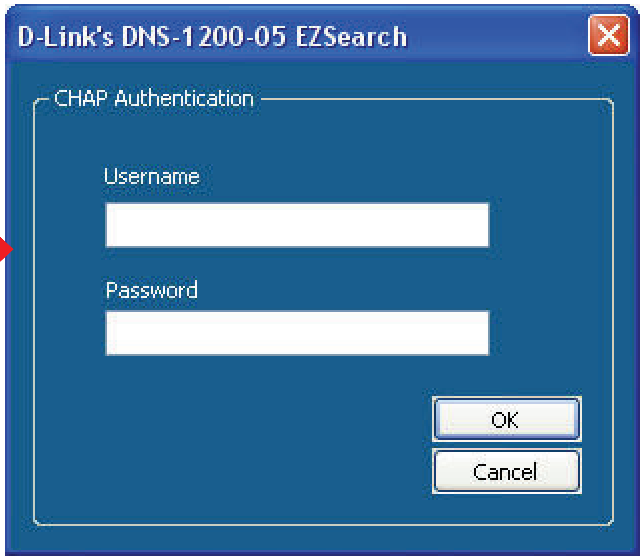
## *Configuring Targets*

1. When attempting to connect a target for the first time, choose the target from the list

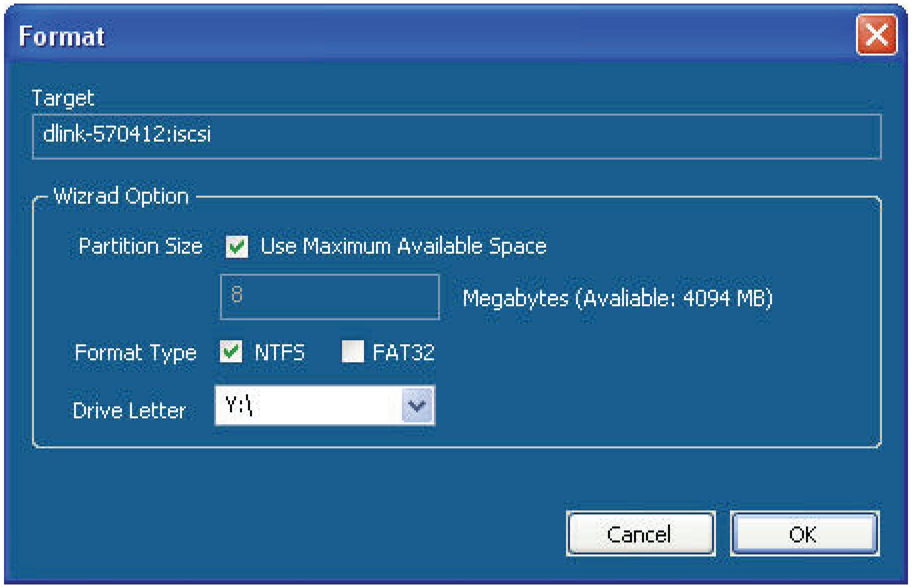



2. Click the **Connect** button.

3. If the CHAP is enabled, you will see this window appears requesting CHAP User and Password.



You will see the Format window.




The different parameters in the Format window are described below:

**Target** Displays the iSCSI target name you chose.

**Partition Size** Tick the **Use Maximum Available Space** check box to specify that the maximum available space on the disk will be used to create the new partition. To specify a size, un-tick the check box and type in the capacity of size of the partition (in megabytes) in the **Megabytes** field.

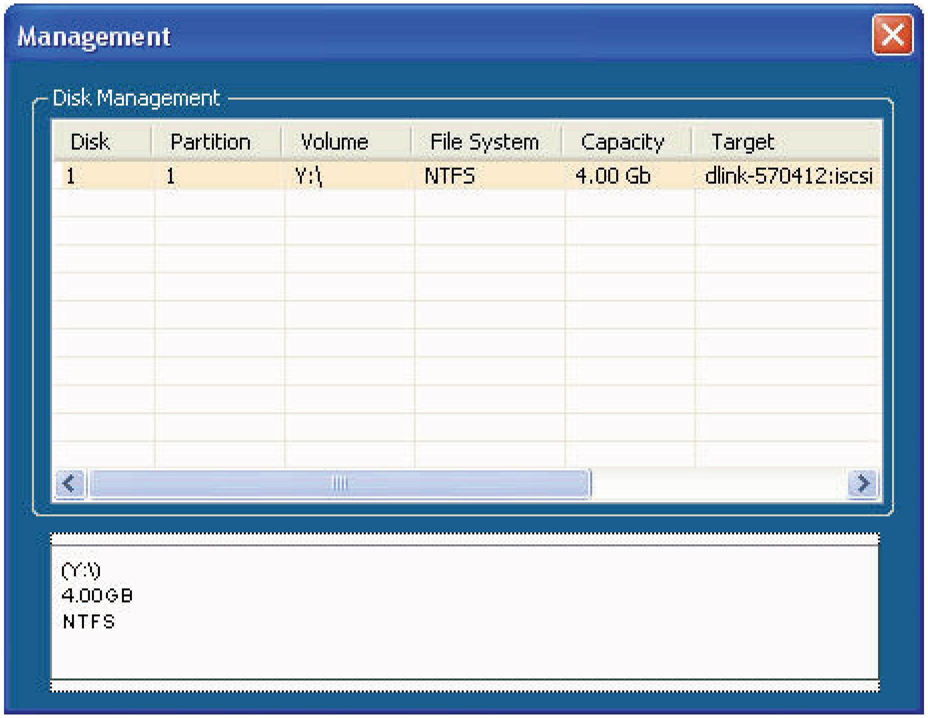
**Format Type** Choose whether to format the new partition with *NTFS* or *FAT32* by ticking the appropriate checkbox.

**Drive Letter** Choose the drive letter that you want to allocate to the iSCSI partition from the drop-down menu.

When you have finished configuring the Target Settings, click the **Format** button to see the window below

### *Configuring Disks*

This window appears after clicking the **Format** button. Or, select a target in the iSCSI Drive Mapping list and click the **Management** button to see the window.




The Management window allows you to manage partition on the disks installed in the ShareCenter Pro and Mount / Unmount the disks installed in the ShareCenter Pro.

The Disk Management section displays the following parameters:

**Disk** Displays the ID number of the disk installed in the ShareCenter Pro.

**Partition** Displays the partition number of the disks partition.

**Volume** Displays the drive letter that the partition is mapped to on the client machine.

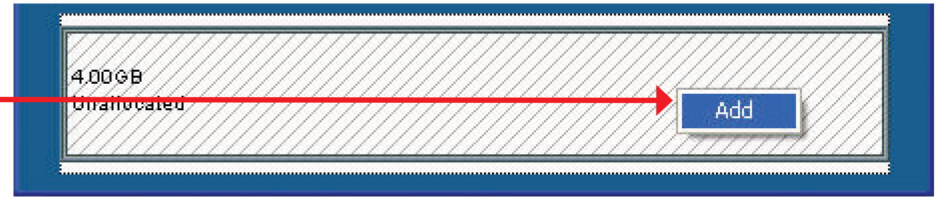
**File System** Displays the File System that the partition was formatted with.

**Capacity** Displays the total capacity of the partition.

**Target** Displays the iSCSI target name of the partition.

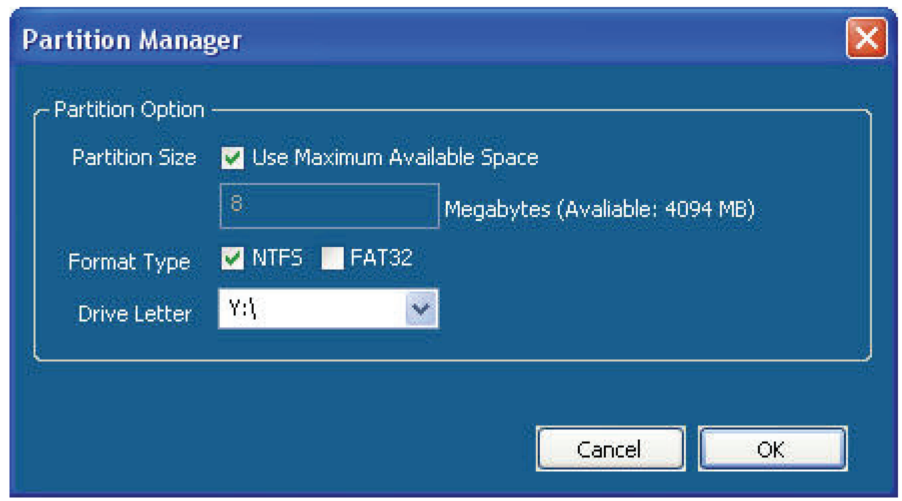
### *Adding a new partition*

Right-click an unallocated partition and click **Add**.




The Partition Manager window opens:

To add a partition, configure the parameters as explained below:




**Partition Size** Tick the **Use Maximum Available Space** check box to specify that the maximum available space on the disk will be used to create the new partition. To specify a size, un-tick the check box and type in the capacity of size of the partition (in megabytes) in the **Megabytes** field.

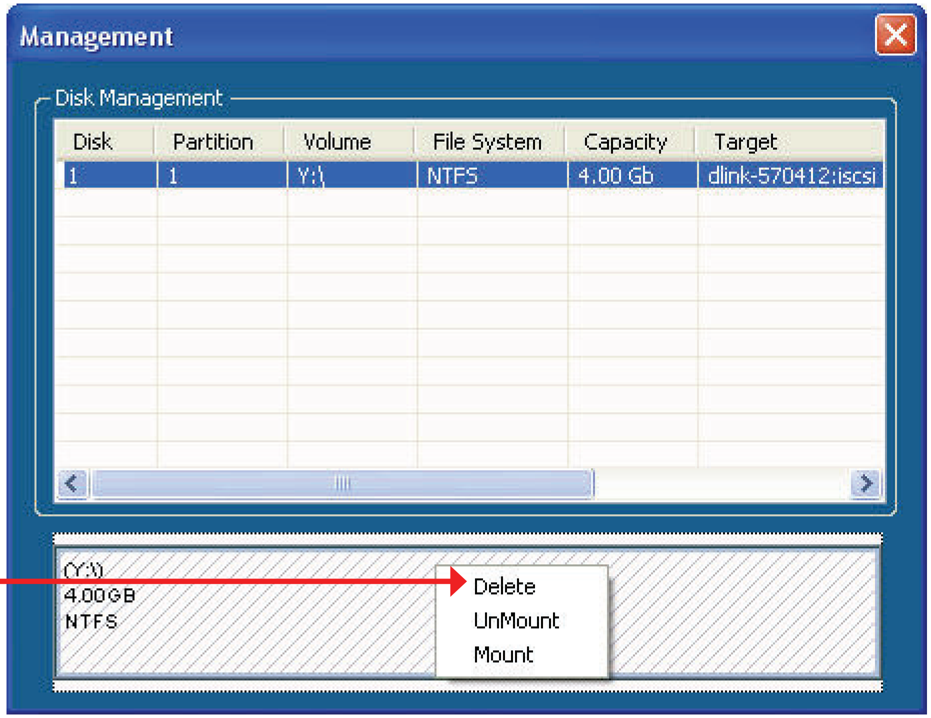
**Format Type** Choose whether to format the new partition with *NTFS* or *FAT32* by ticking the appropriate checkbox.

**Drive Letter** Choose the drive letter that you want to allocate to the iSCSI partition from the drop-down menu.

When you have finished configuring the partition settings, click the **Format** button to add the new partition.

### *Deleting an existing partition*

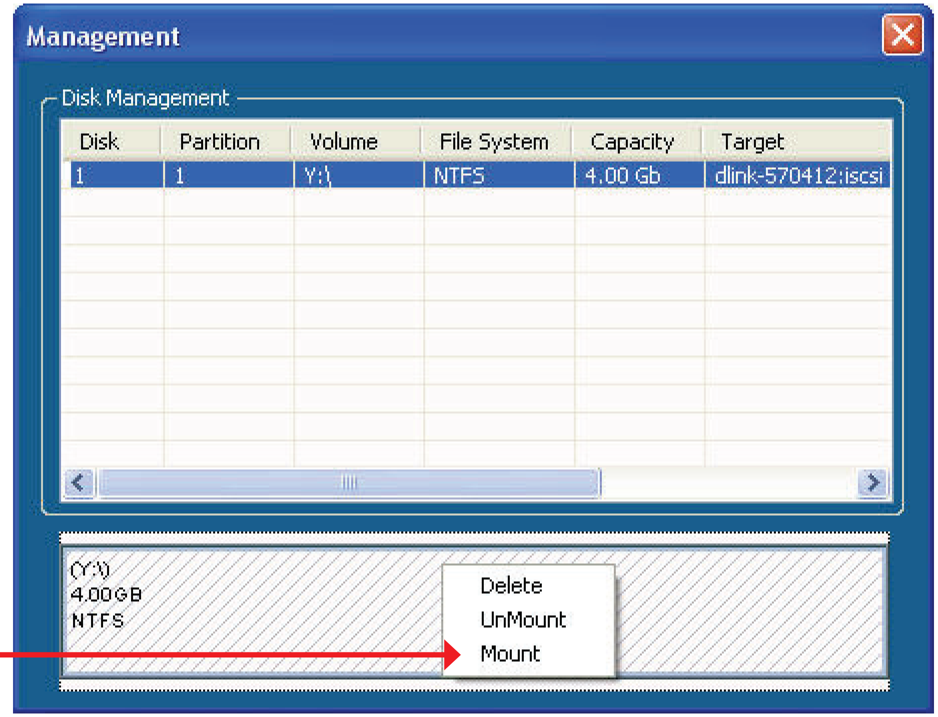
Right-click an existing partition and click **Delete**.



## *Mounting Disks*

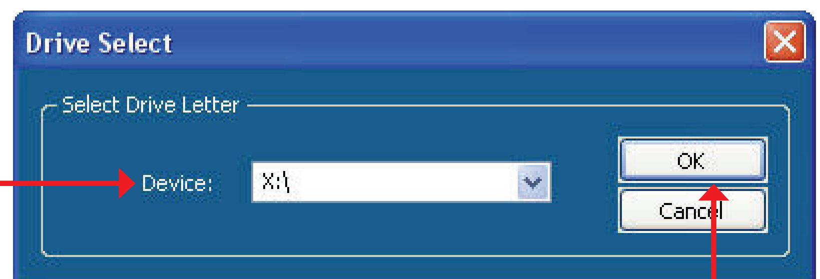
When a partition is not mounted, a * (start) symbol will appear in the Volume column in the **Disk Management** list.

Carry out the following steps to mount a disk:




1. Right-click an unmounted partition and click **Mount**.

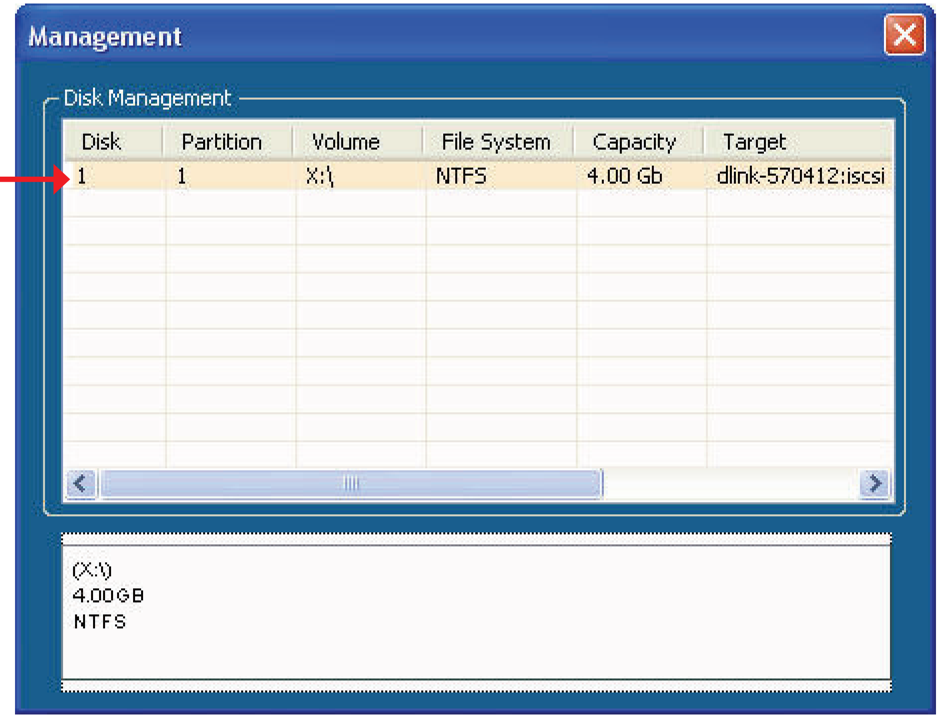
The Drive Select window appears.



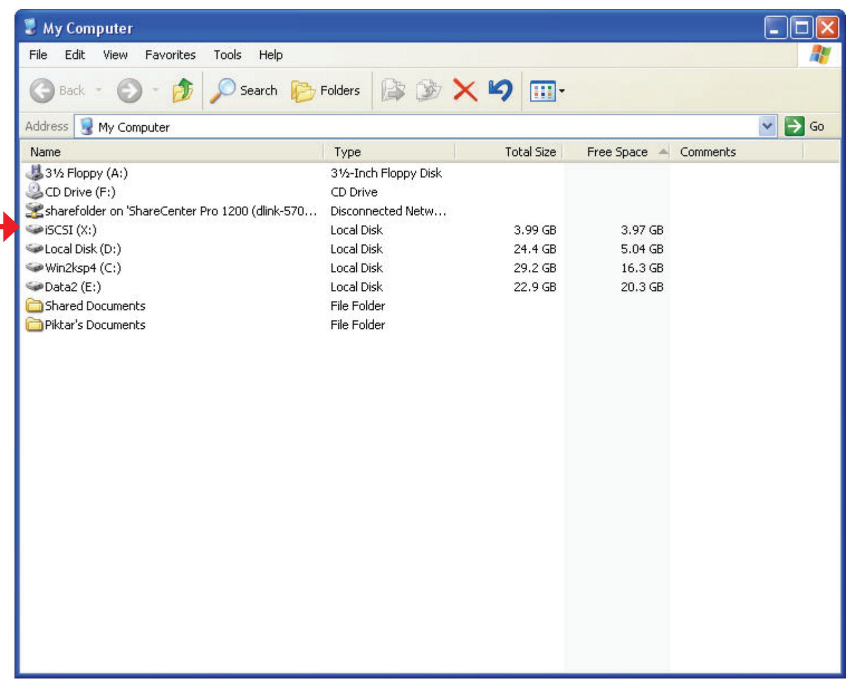

2. Select the drive letter in the **Device** drop-down list.

3. Click the **OK** button.

4. The mounted disk is displayed in the **Disk Management** list.




3. The newly mounted disk is displayed in the My Computer window and can be used as if it was a locally attached disk.



# Hot-swap Function

The ShareCenter Pro supports hot-swap drive trays. You can eject or insert 3.5" SATA hard drive(s) when the ShareCenter Pro is operating.

However, if the hard drives are created into various levels of RAID, you cannot hot swap all the hard drives at the same time. Hot swapping all the hard drives will cause a loss of data, and the RAID volume will need to be re-created again. Different levels of RAID required various numbers of hard drives remaining in the ShareCenter Pro.

**Standalone/JBOD/RAID O:** The data will be lost and the volume will crash, if any of the hard drives are hot swapped.

**RAID 1:** You can hot swap the hard drives as long as one of the hard drives in the mirror is still in the ShareCenter Pro. Removal of all hard drives will result in a loss of all data and volume will have crashed.

**RAID 5:** In a RAID 5 volume, it is only possible to hot swap 1 hard drive at a time without losing all data. This is because a RAID 5 volume can only tolerate the loss of 1 hard drive and still continue to work. After hot swapping a hard drive, the volume must first be rebuilt before another hard drive can be hot swapped, otherwise this will also result in a loss of all data and the RAID volume will have crashed.

**RAID 6:** In a RAID 6 volume, it is possible to hot swap 2 hard drive at a time without losing all data. This is because a RAID 6 volume can only tolerate the loss of 2 hard drive and still continue to work. After hot swapping 1 or 2 hard drives, the volume must first be rebuilt before another hard drive can be hot swapped, otherwise this will also result in a loss of all data and the RAID volume will have crashed.

You can check the RAID configuration from the **Disk Management** -> **Volume** page on the Web UI. When hot swapping hard drives, you will see the changes in the **Disk(s)** column. Hot swap one of the hard drives, make sure the Disk number has disappeared from the **Disk(s)** column, and then hot swap the next hard drive.

# Storing non-English Character Files

By default the ShareCenter Pro will support Unicode which is an industry standard allowing computers to consistently represent and manipulate text expressed in most of the world’s writing formats.