

DNS-1100-04

Version 1.1

ShareCenter[®] Pro 1100
4-Bay Network Attached Storage

User Manual

Business Class Networking

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Introduction

The D-Link ShareCenter Pro 1100 (DNS-1100-04) 4-Bay Network Attached Storage handles the ever-growing data storage requirements for households/SOHO and SMB users. The need for data consolidation and data sharing makes the DNS-1100-04 an ideal storage solution. Its iSCSI capability delivers blistering transfer rates and provides an extra layer of stability.

The DNS-1100-04 CD contains the D-Link's EZ Search Utility. This utility allows you to locate the ShareCenter Pro 1100 automatically and map drives to your computer on the fly. The D-Link EZ Storage Utility allows you to configure the device and set IP addresses.

Once setup and configured on your network, the DNS-1100-04, acts as a FTP, Web, Music, and Multimedia server. Windows™, MAC, and Linux computers on the network can access any data off the server without adding new software locally and because of its stable and powerful feature set sensitive data can be securely managed.

Product Overview

Package Contents

- D-Link ShareCenter Pro 1100-04
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Cord
- Cat5E Ethernet Cable
- Front Panel Lock Key



Note: Use the power supply that came with your device. Failure to do so might damage the unit and void the warranty.

Note: The ShareCenter Pro 1100-04 should only be maintained by authorized staff or an IT administrator. The front panel key locks the device and keeps intruders from tampering with the device.

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 access the ShareCenter Pro:

- Computer with: 1Ghz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer version 7.0, Mozilla Firefox 3.0, Apple Safari, Google Chrome 3, Opera 10
- Windows® XP (with Service Pack 2), Windows® Vista™ Windows® 7
- 3.5" SATA Hard Drive(s)

Features

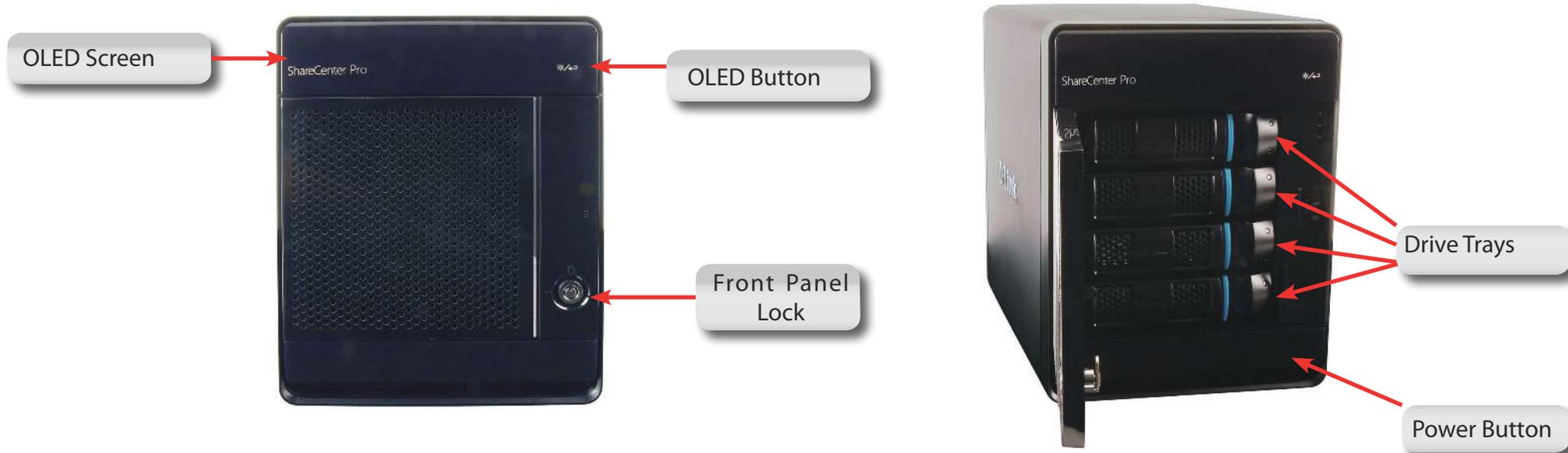
The D-Link ShareCenter Pro 1100 is packed with a wide variety of features geared toward the small and medium business environment. Some of these features are listed below:

- Four 3.5-inch SATA Hard Drives with support for 3TB and above
- 2 Gigabit Ethernet ports
- 2 USB 2.0 ports
 - UPS, printer, and external storage support
- Concurrent NAS/iSCSI: Supports file sharing and iSCSI block devices
- Data Protection: Supports RAID 0/1/5/6/5+Spare/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 w/ TLS/SSL
- NFS
- ADS support
- Backup
 - Remote backup
 - Local backup
 - External backup
 - PC client to NAS backup
- Web File Manager
- Print server
- 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

Hardware Overview

Front Panel



COMPONENT	DESCRIPTION
Front Panel Lock	Turn the key to the up position to unlock. Turn key to left position to lock.
OLED Button	This button switches the OLED screen to display System, HD Volume Information and Error Messages.
Drive Trays	Unclip the bays to remove the cage and install the hard drives
Power Button	Use this button to switch the device on or off. To switch on the device press the button once. To switch off the device hold the button down for 5 seconds.
OLED Screen	This screen displays detailed information about the following: System Information, HD Volume Information and Error Messages

Hardware Overview

Front Panel



Component	Color	Status	Description
4 Disk LED's	Green	Static	Disk Ready
		Blinking	Disk being accessed
		Off	No internal disk
	Red	Static	Disk error. Cannot Read/ Write

Component	Color	Status	Description
2 LAN LED's	Blue	Static	A network connection is available
		Blinking	The network is active
		Off	The network is inactive

Rear Panel (Connections)



COMPONENT	DESCRIPTION
Gigabit Ethernet Port	Two Gigabit Ethernet Ports to connect the ShareCenter Pro 1100-04 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.

Using the OLED

The ShareCenter Pro 1100-04 features an OLED that enables the administrator to easily view information about the ShareCenter Pro. The OLED 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 used space on the hard drives.
- **Error Messages**- This screen shows error messages during system failures

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

Chapter 1 - Hardware

The D-Link ShareCenter Pro 1100-04 is a solid NAS. It can hold four hot-swappable drives, provides auto encryption and has dual Ethernet ports. Let's take a closer look.

Hardware Setup - Installing Hard Drives

The D-Link ShareCenter Pro 1100 takes four 3.5" hard disk drives. The hard drives do not have to be the same size. However, to create a RAID, it would be preferable to have all hard drives the same size. In this guide we show how to take the hard drive cases apart, install the drives and turn on the device.

To install the Hard Drives, refer to the steps below:

Step 1: Remove the hard drive cages from the enclosure.



Hardware Setup - Removing Brackets

Step 2: Remove the plastic bracket inside the hard drive cage.



Hardware Setup - Attaching the Hard Drive to the Hard Drive Tray

Step 3: Place a 3.5" SATA hard drive into the drive tray, and screw it into place. There are four holes on either side of the drive tray.



Step 4: Slide the drive trays into the enclosure.



Hardware Setup - Installing Hard Drives

Step 5: Depress the blue clip in place to shut the drive tray in the enclosure.



Network Setup - Plugging in the Network Cables

- Step 1:** Plug in one end of the CAT5E cable (provided in the box) into one of the Gigabyte ports at the back of the ShareCenter Pro.



Network Setup - Plugging in the Cables

Step 2: Plug the other end of the CAT5E cable into a router or switch.



Power Cable Setup - Plugging in the Cables

Step 1: Plug the power cord into the back of the ShareCenter Pro 1100-04.

Step 2: Plug the other end into the wall socket and power up the device.



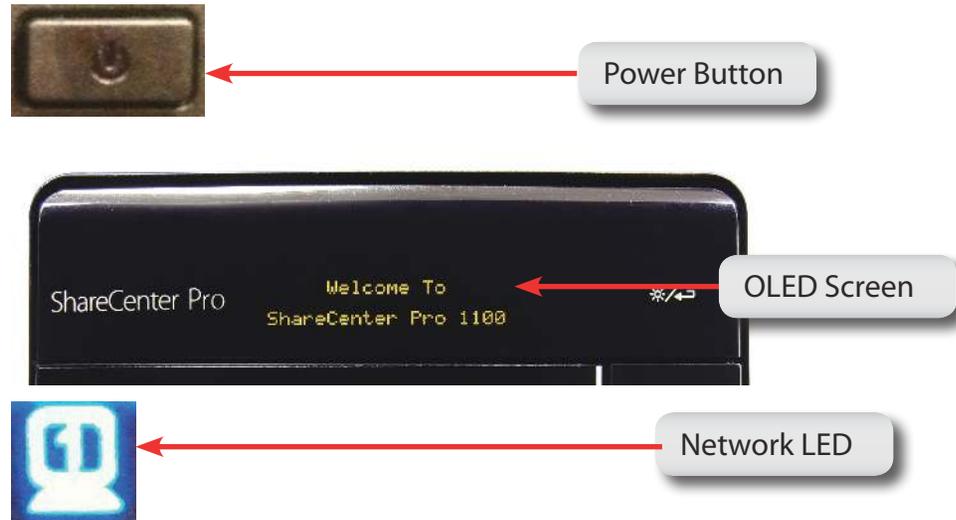
Powering on the Device

Before connecting to the ShareCenter Pro 1100-04, test to see if the device is powered on correctly.

Step 1: Do not slot any of the hard drive bays into the ShareCenter Pro.



Step 2: Press the "On" button in front of the ShareCenter Pro and wait for the OLED screen to display "Welcome to ShareCenter Pro 1100". There will also be a blinking blue network LED that indicates the device is connected to the network.

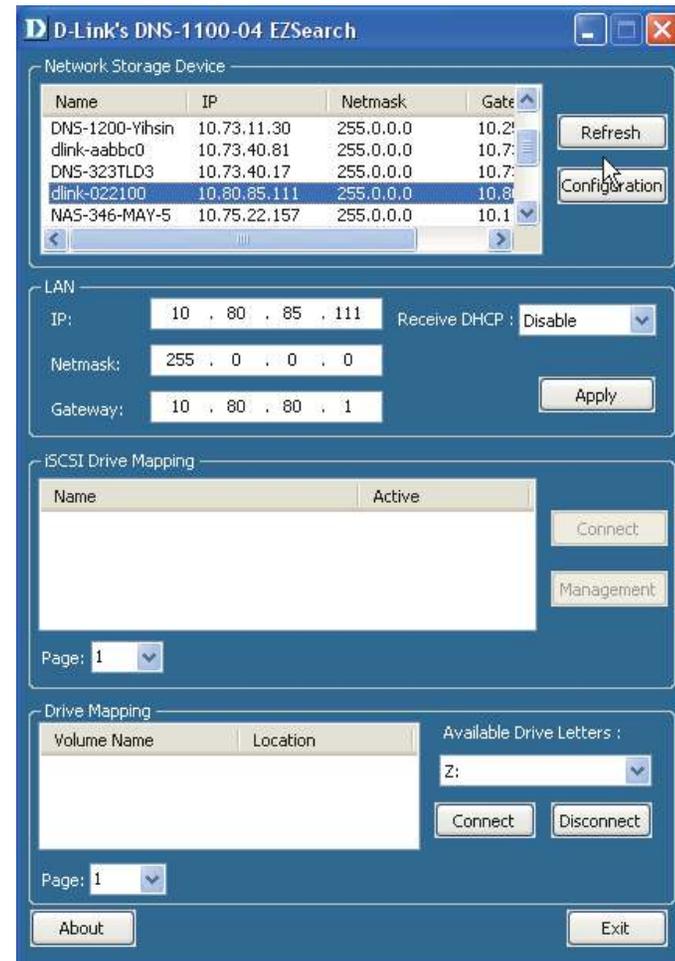


Powering on the Device - Software

Step 3: Place the accompanied CD-ROM into your CD-ROM drive and browse to D-Link's DNS-1100-04 EZSearch. Double-click the icon to activate the program.



Step 4: This starts the EZSearch utility. The EZSearch utility locates the ShareCenter Pro 1100-04 and its IP address.

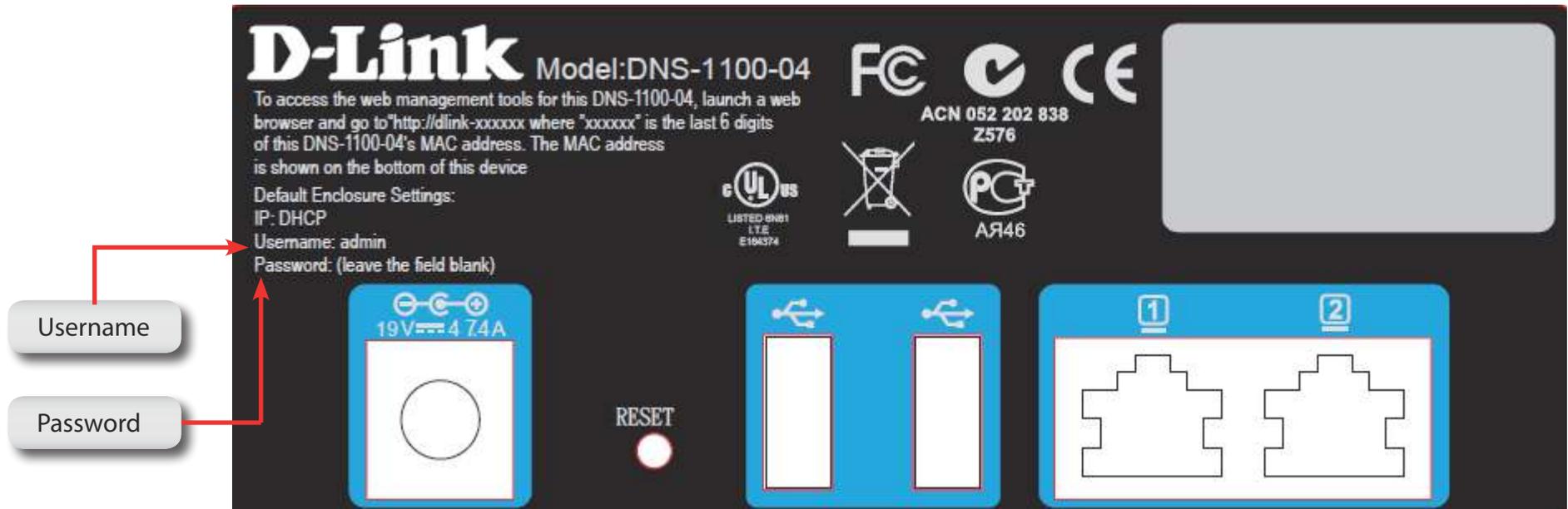


Chapter 2 - Software Installation

The D-Link ShareCenter Pro 1100-04 is a solid NAS. Installing, configuring, and creating shares on the fly is the ShareCenter Pro's strengths. Let's take a closer look.

Software Setup - Default IP Address Location

During the initial boot sequence, the ShareCenter Pro 1100-04 awaits to be assigned a DHCP IP address. If it does not receive a DHCP assigned IP address, the ShareCenter Pro 1100 reverts to its Auto-IP address. The Auto-IP address will look similar to (eg. 169.254.x.x). The Username and Password information is just below the IP address information.

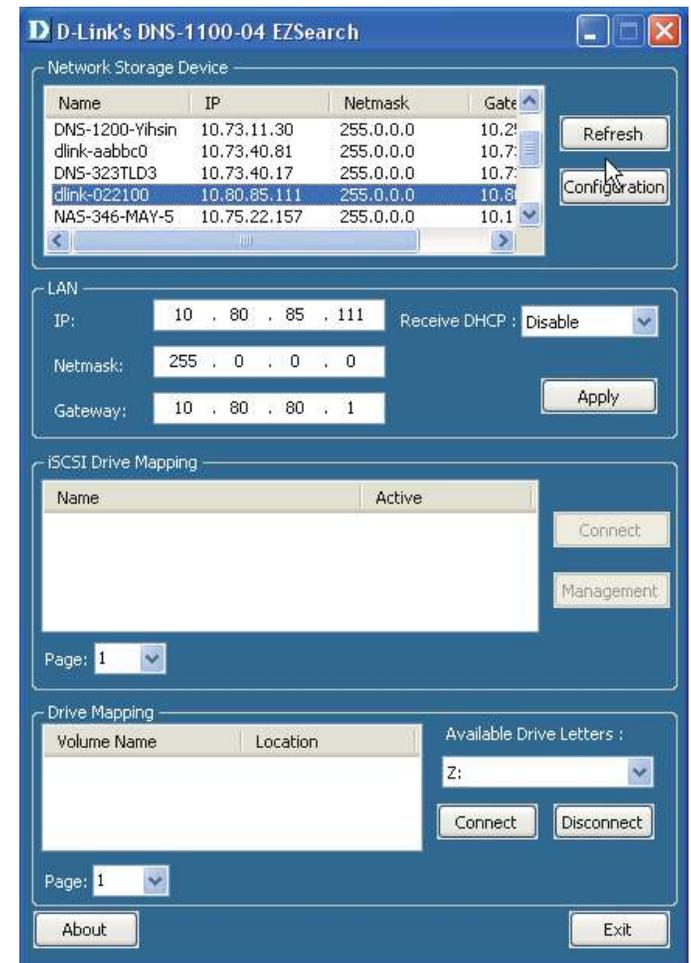


It is recommended to use the D-Link EZ Search Utility when accessing and configuring the ShareCenter Pro for the first time. If you want to change the IP address before logging in or are unable to connect to the ShareCenter Pro's IP address, you can use the EZ Search Utility provided on the product CD to locate the device on your network and make any changes.

Software Setup - EZ Search Utility

Here is a closer look at the EZ Search Utility

- Network Storage Device** The EZ Search Utility displays any D-Link NAS or ShareCenter Pro device 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 the 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 EZ Search Utility, insert the ShareCenter Pro CD into your CD-ROM drive:

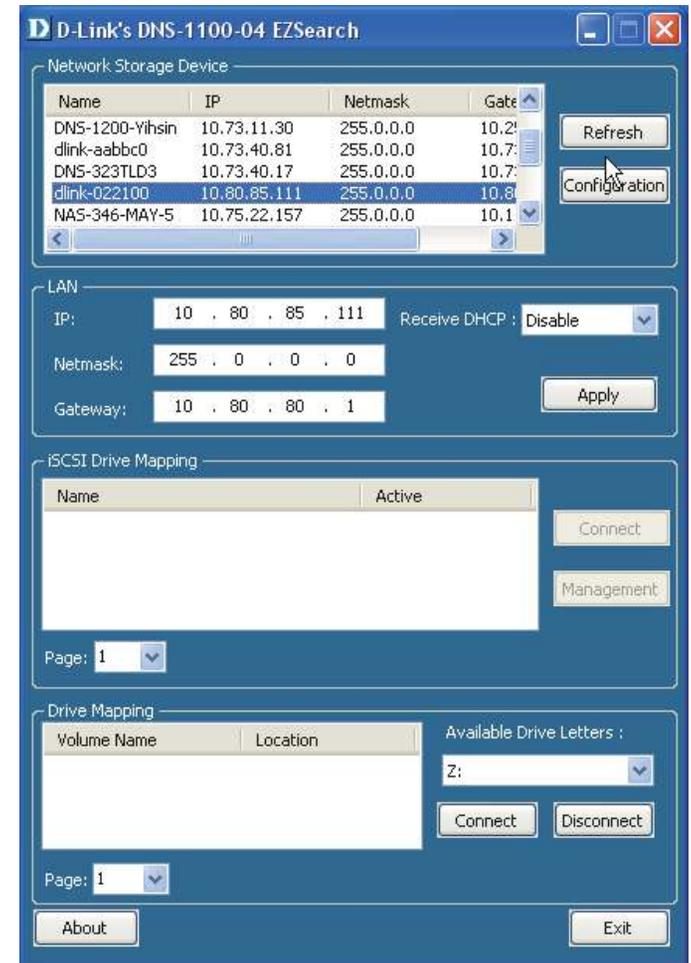
Step 1: Click the **EZ Search Utility** link.



Step 2: Click **Configuration** to the right of the Network Storage Device.

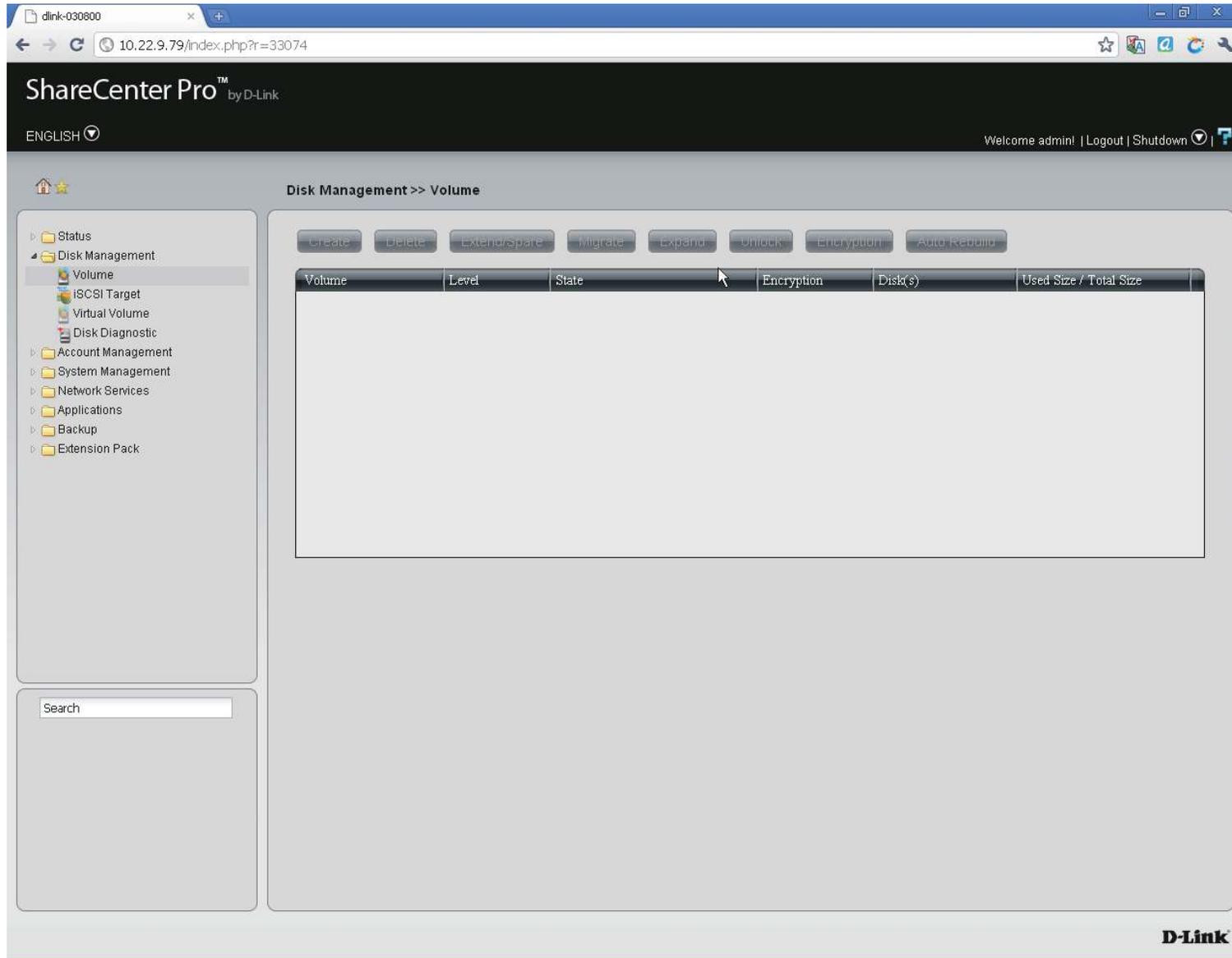
The **Configuration** button launches your computer's default web browser and directs it to the IP address listed for the device. Make sure your browser is not configured to use a proxy server.

Note: The computer used to access the 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 the DHCP server, the ShareCenter Pro will automatically be in the same subnet.



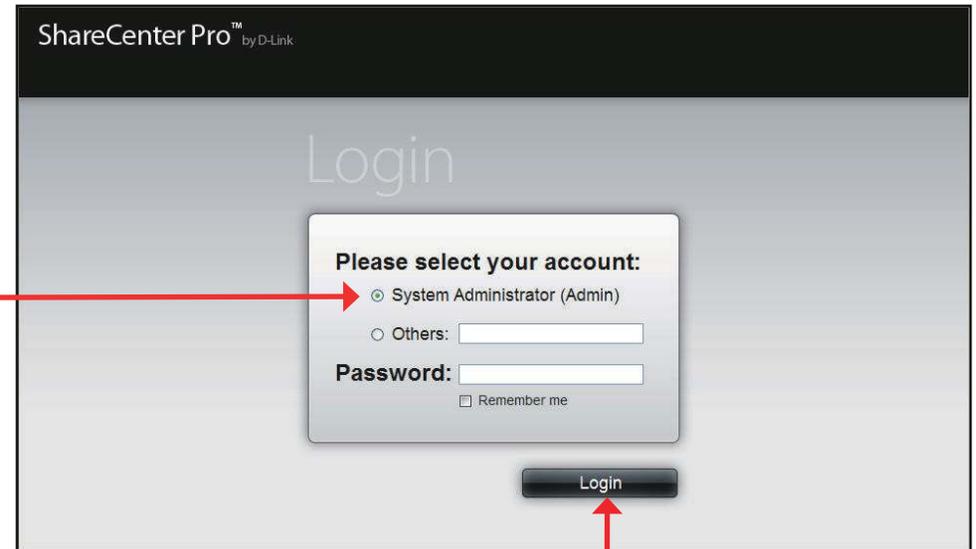
Getting Started - Browser Setup

Alternatively, open your default browser and type in the IP address of your ShareCenter Pro 1100-04.



The Login screen will appear:

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



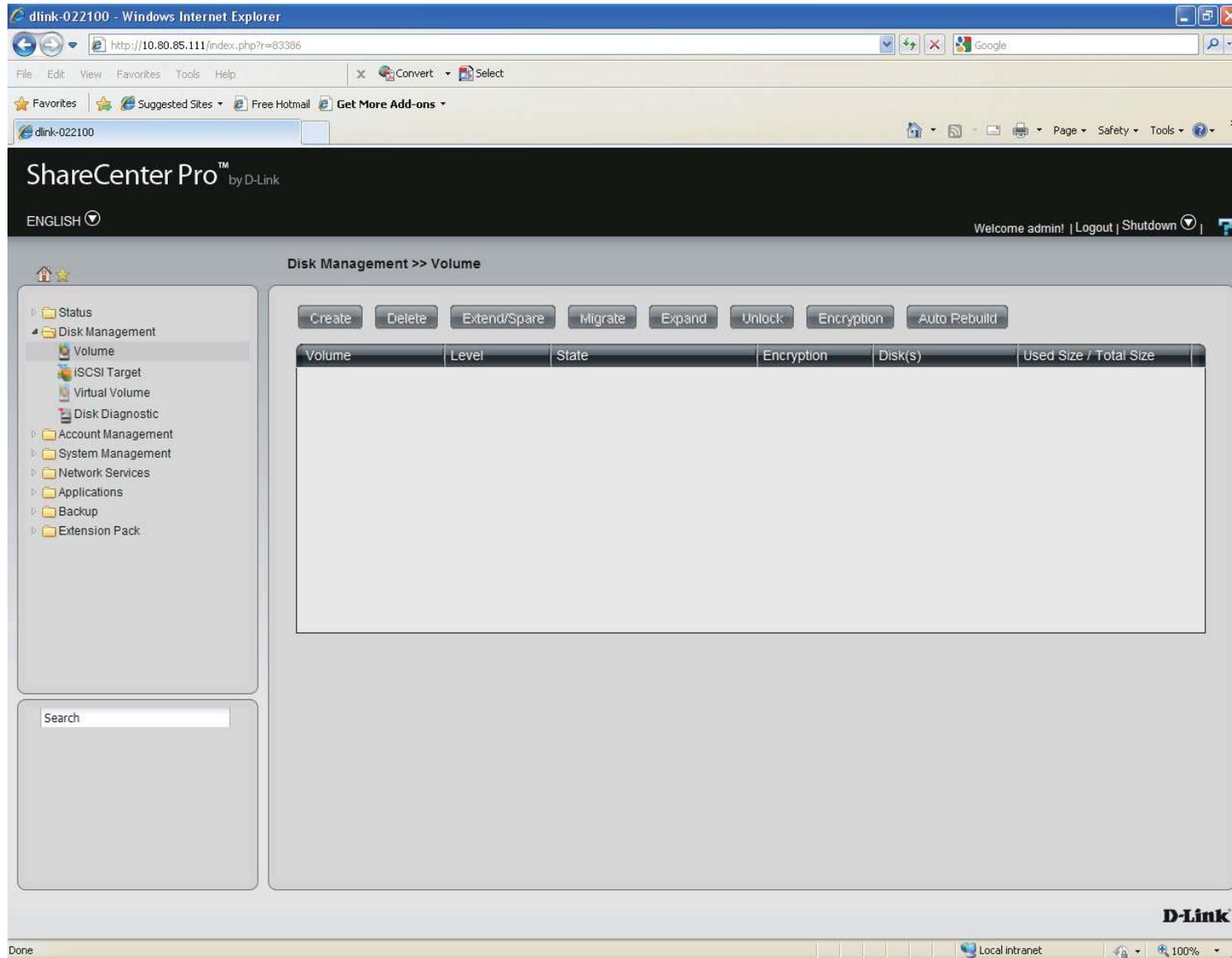
Click **Login**.

Note: The computer used to access the 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 the DHCP server, the ShareCenter Pro will automatically be in the same subnet.

Step 3: Click the button next to **System Administrator**, leave the **Password** field blank and click **Login**.

Using the Web UI

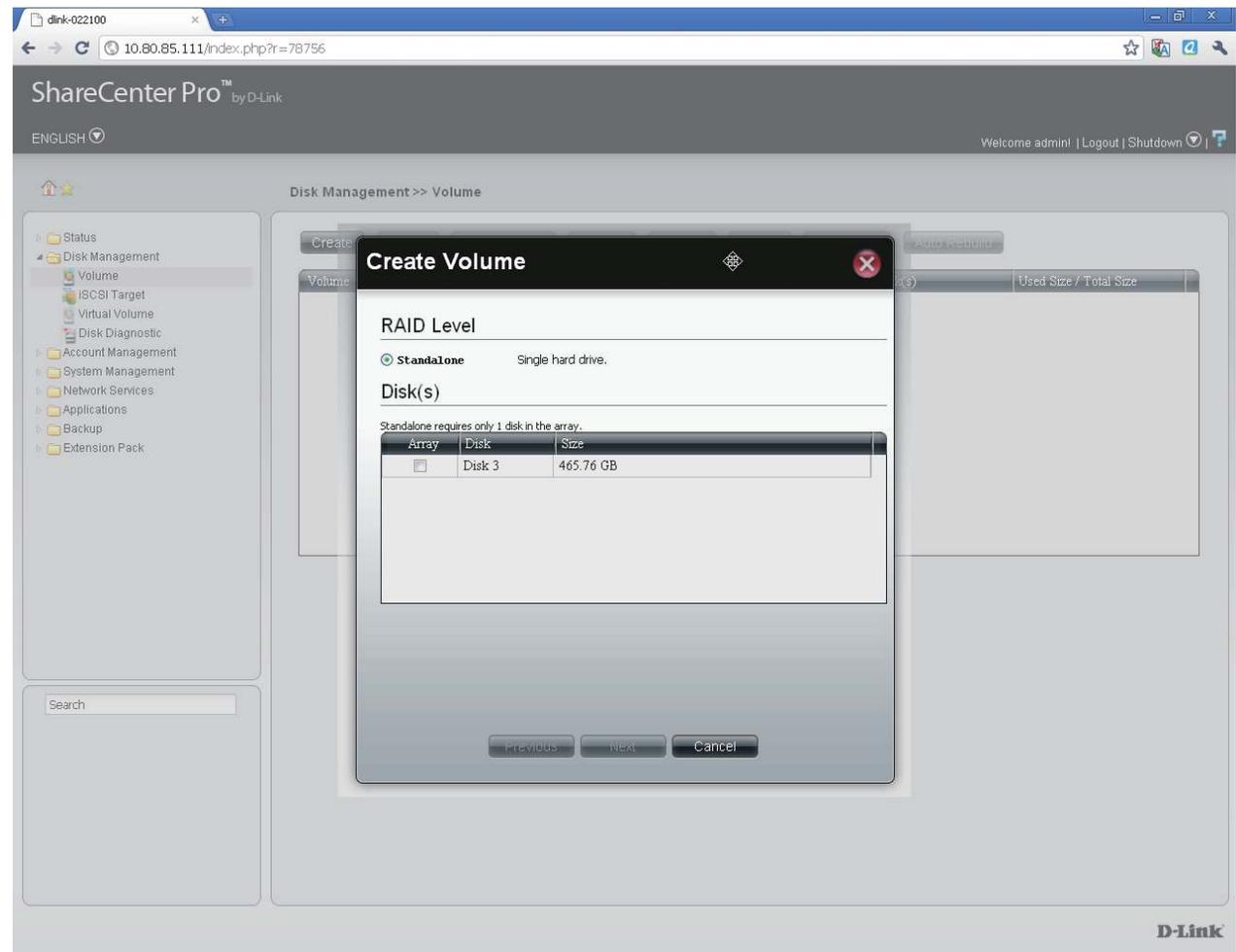
The screen loads to the default page. If there are no drives, the browser loads to the Disk Management, Volumes page.



Using the Web UI Part II

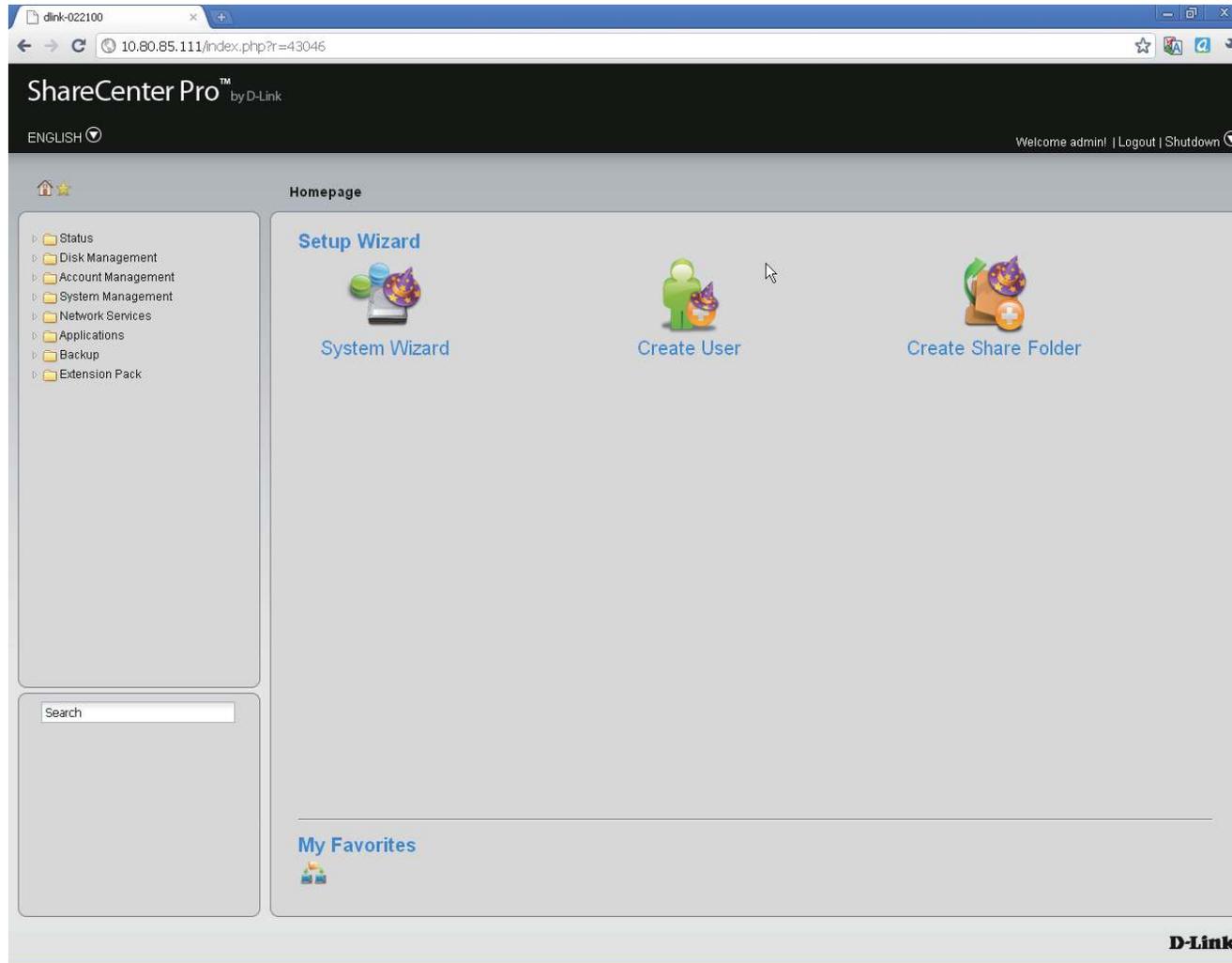
Load the hard drives into the bays. Once the bays are installed, the **Create Volume** window appears but this only occurs if no RAID has been created. The ShareCenter Pro 1100-04 immediately recognizes the capacity of the drive(s) and prompts you to select a RAID level. See **Creating Your First Volume** in the next section. You can also close this window and use the Setup Wizard to configure the ShareCenter Pro 1100-04.

Note: *If there is only one drive installed into the system, the device will act as a standalone drive as no RAID can be created.*



Understanding the Web UI

Once a volume has been created, the Web UI defaults to the Homepage (🏠). The main categories for configuring the ShareCenter Pro 1100-04 are located in the folders at the left of the page. Click the icon to see the categories of each folder. The categories available for configuration include: Homepage, Status, Disk Management, Account Management, System Management, Network Services, Applications, Backup and Extension Pack.



Understanding the WEB UI Part II

The following is a short explanation of the Web UI:

- **Homepage-** Contains the System Wizard, Create User, Create Share Folder and My Favorites.
- **Status-** Contains the System Status, Hard Drive Status, and Resource Monitor.
- **Disk Management-** Allows the ShareCenter Pro administrator to create/configure a Volume, iSCSI Target, Virtual 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.
- **Extension Pack-** Allows the ShareCenter Pro administrator to add more applications to the device and supports several Multi-language packs.

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.

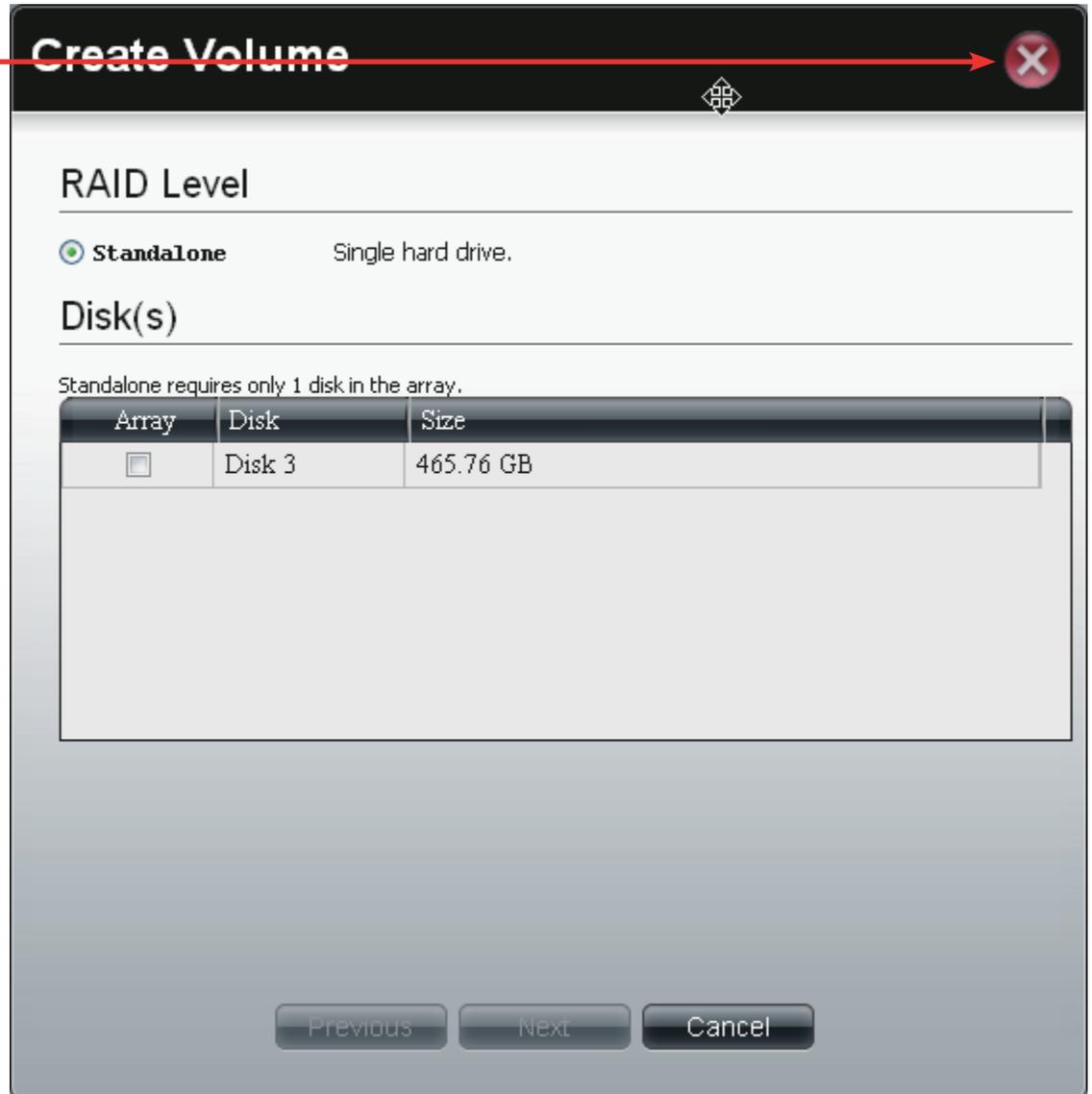
Chapter 3 - Setup Wizard

The ShareCenter Pro 1100-04 provides a Setup Wizard to easily configure the DNS-1100-04. This chapter shows you how to create volumes and format drives.

Using the Setup Wizard for the First Time

The Setup Wizard is the easiest and fastest way to setup your ShareCenter Pro 1100-04. Once you have entered your IP address into the browser, follow these few steps to get started:

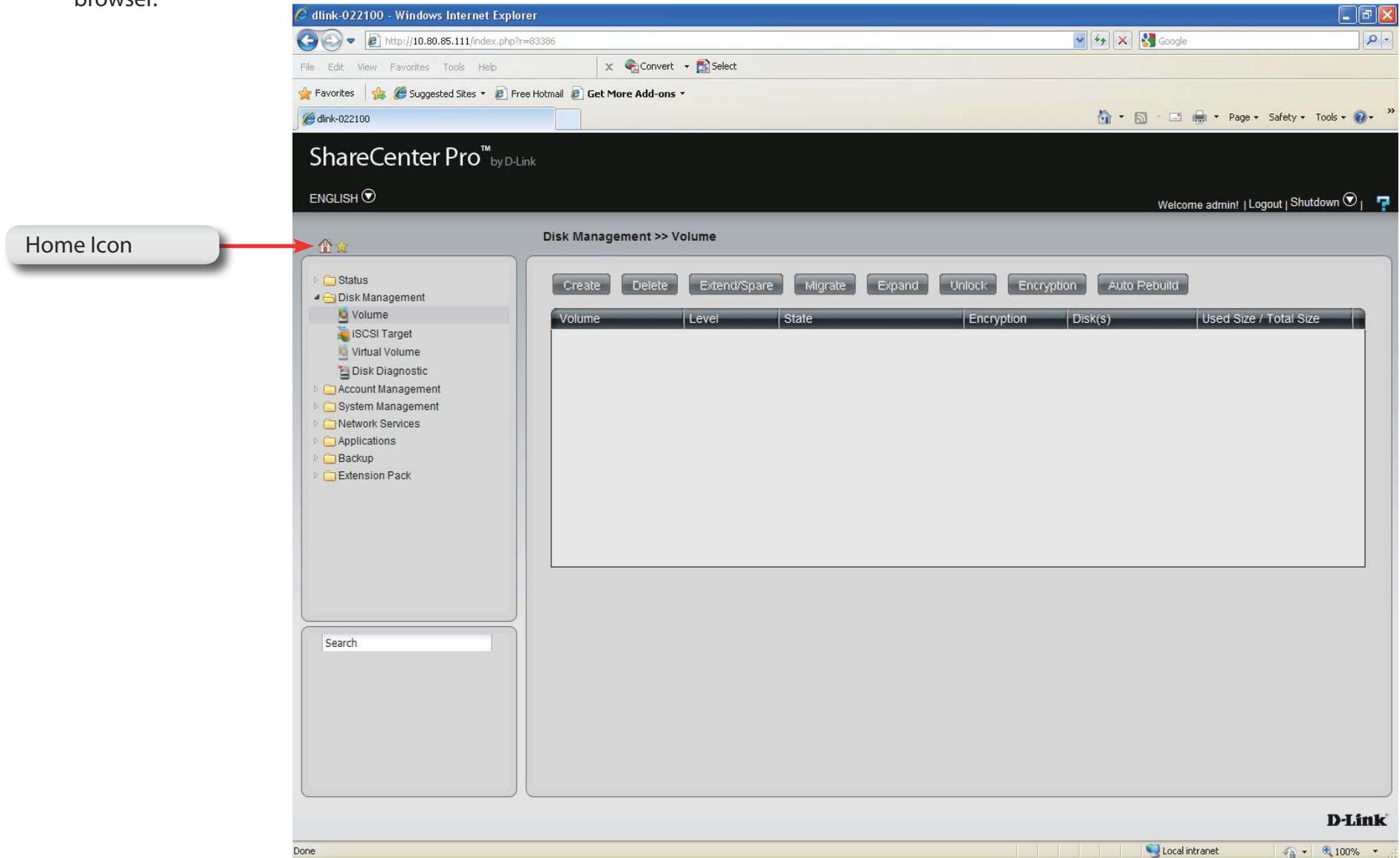
Create Volume (close)



Step 1: Close the Create Volume window.

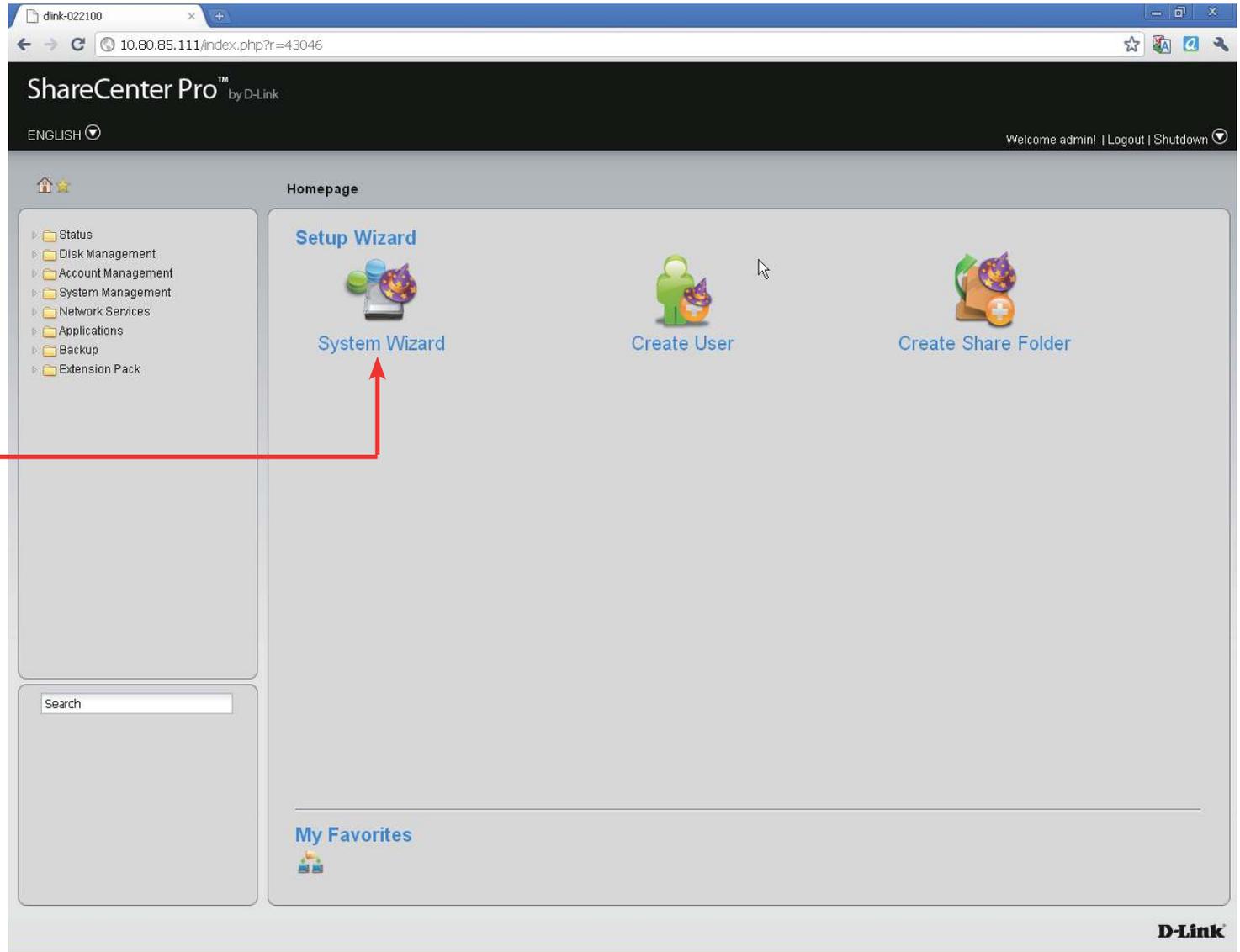
Using the Setup Wizard for the First Time

Step 2: Click the **Home** icon at the top right of the browser.



Using the Setup Wizard for the First Time

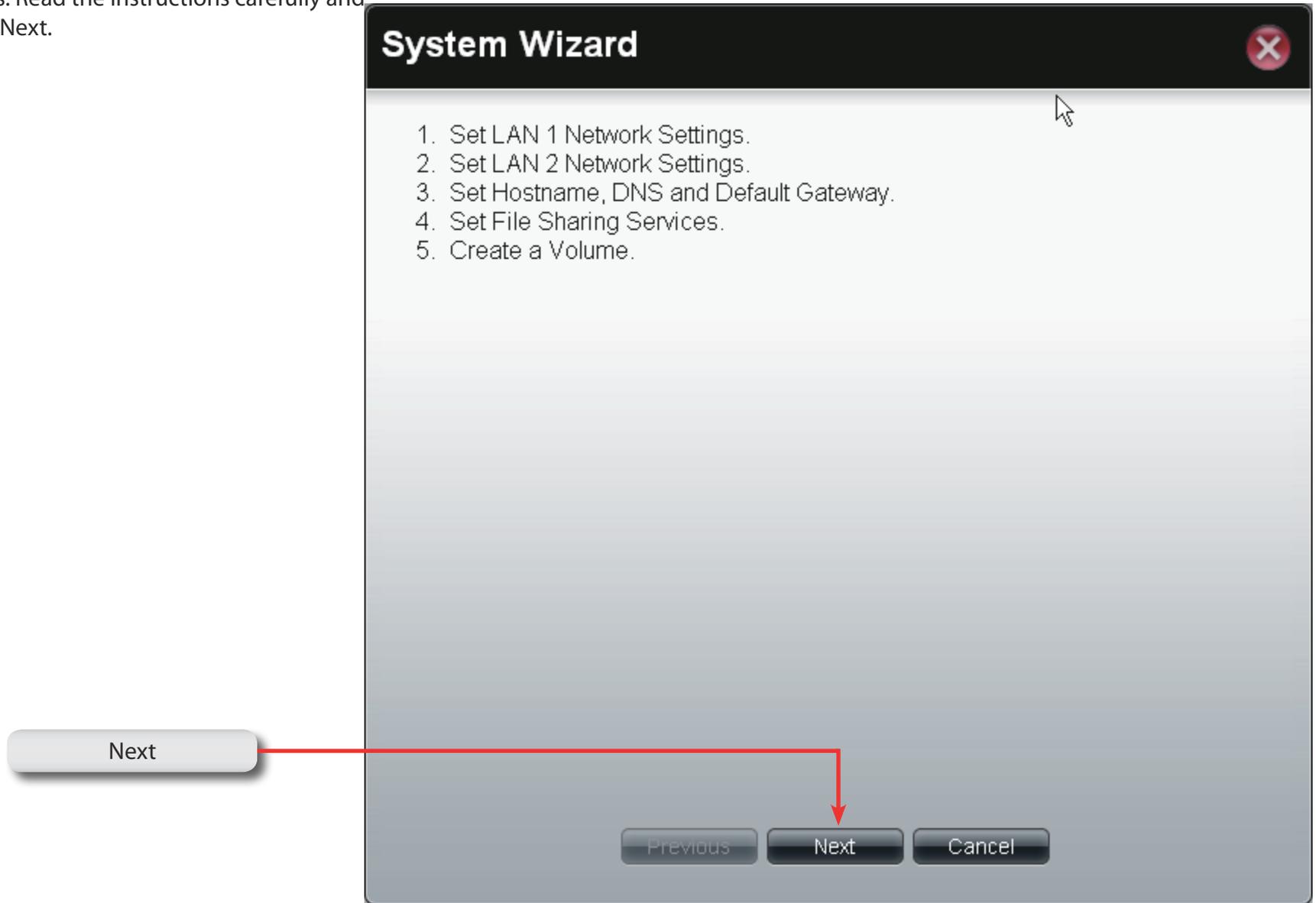
Step 3: Click the **Setup Wizard** icon on the main Homepage



System Wizard Icon

Using the Setup Wizard for the First Time

Step 4: The ShareCenter Pro 1100-04 System Wizard starts. Read the instructions carefully and click Next.



Using the Setup Wizard for Static IP Addresses

Step 5: The ShareCenter Pro 1100-04 System Wizard provides information on setting up your local LAN, VLAN, and Port Bonding.

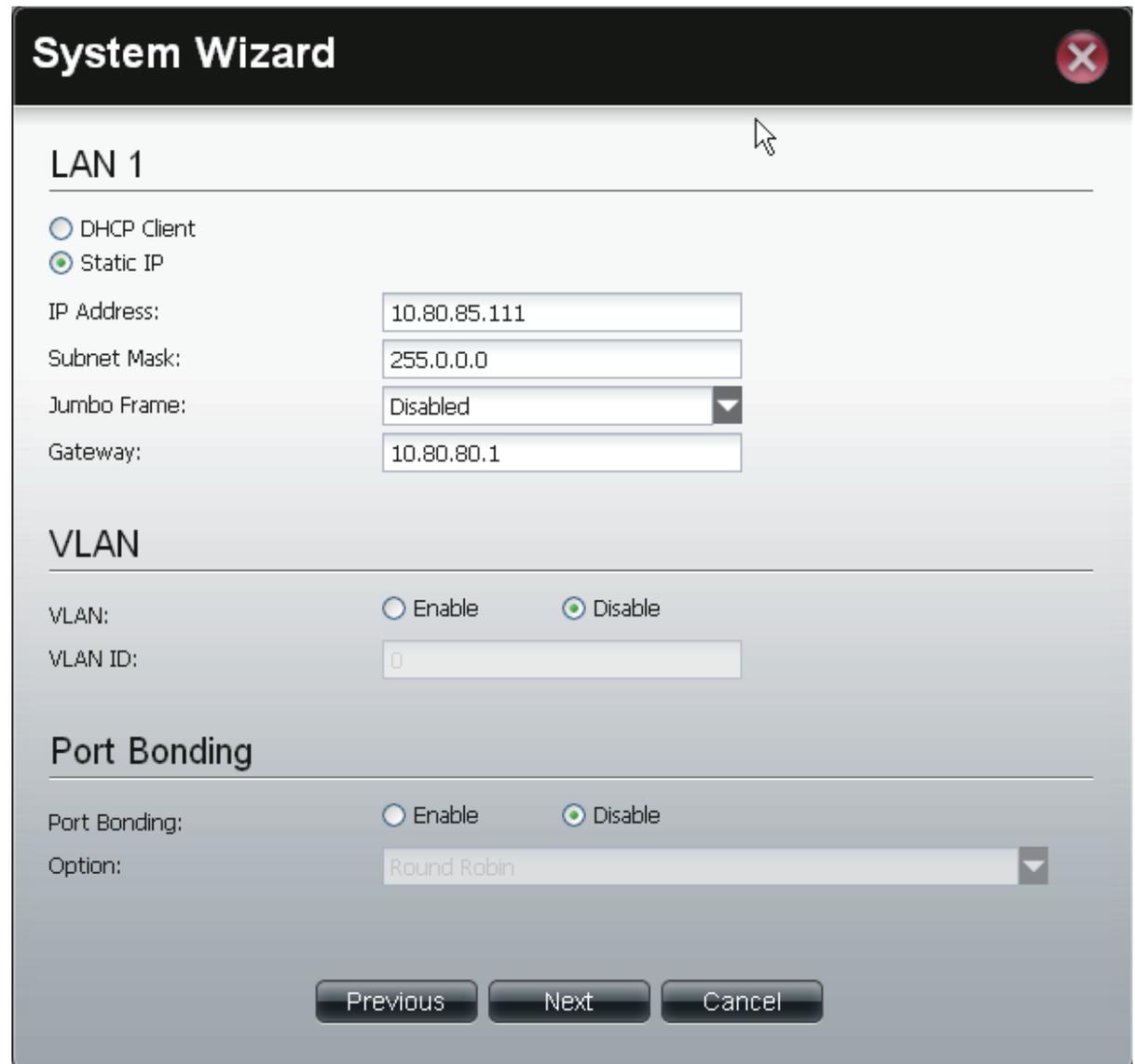
Enter the **Static IP address, Subnet Mask, Jumbo Frame, and Gateway** details provided by your systems administrator. Leave **Jumbo Frame Disabled** if your Service Provider does not support it.

Setup the **VLAN** settings according to your virtual LAN.

Enable **Port Bonding** according to your specified needs.

Click **Next** to continue.

Note: *If your network environment is setup with DHCP, select DHCP. If, however, you are setting up your network environment using your own set of IP addresses, select Static IP.*



The screenshot shows the 'System Wizard' window with the following configuration options:

- LAN 1**
 - DHCP Client
 - Static IP
 - IP Address: 10.80.85.111
 - Subnet Mask: 255.0.0.0
 - Jumbo Frame: Disabled
 - Gateway: 10.80.80.1
- VLAN**
 - VLAN: Enable Disable
 - VLAN ID: 0
- Port Bonding**
 - Port Bonding: Enable Disable
 - Option: Round Robin

Navigation buttons: Previous, Next, Cancel

Using the Setup Wizard for Static IP Addresses

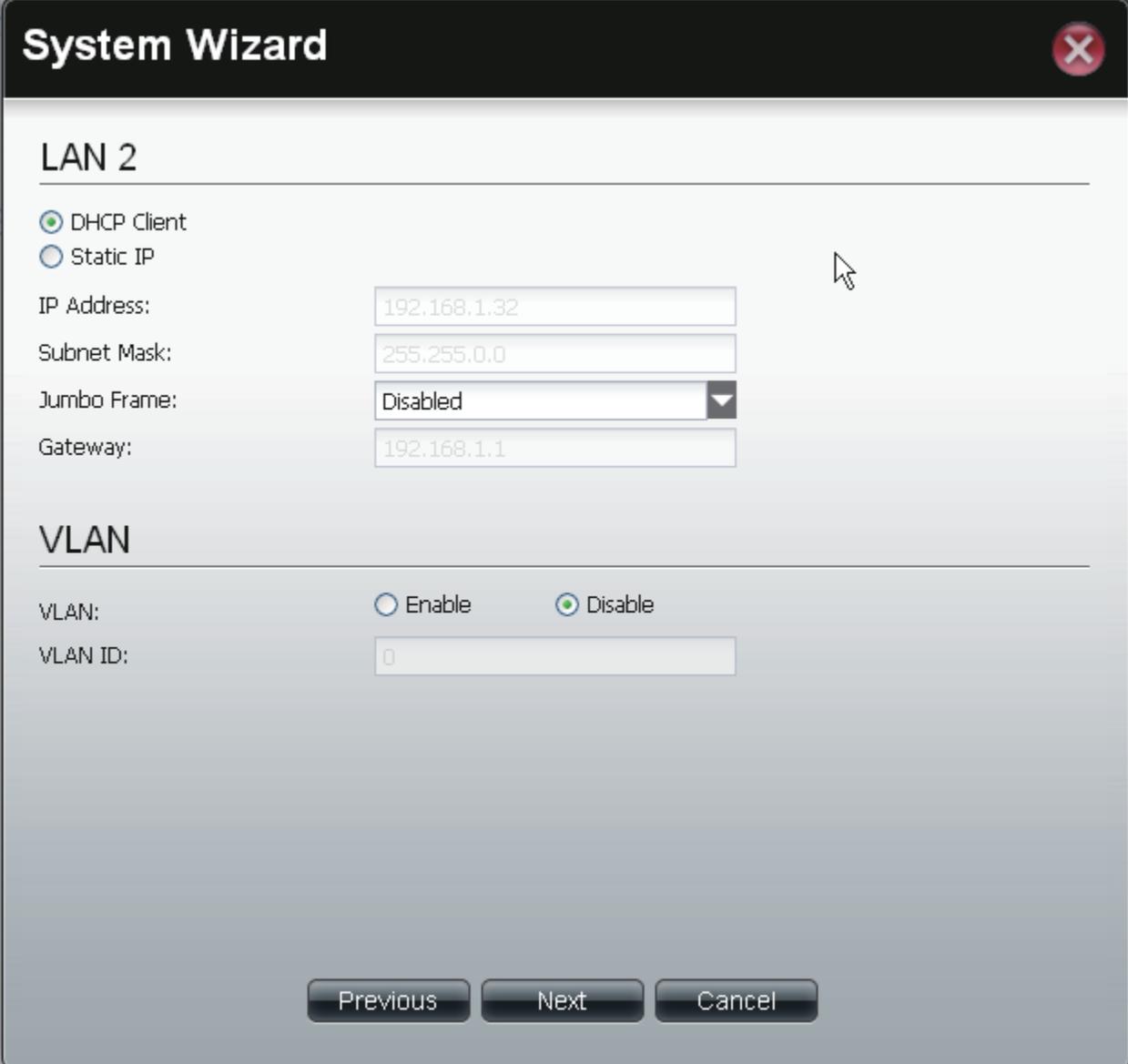
Step 6: The ShareCenter Pro 1100-04 **System Wizard** provides information on setting up your second local LAN, VLAN, and Port Bonding too.

Enter the **Static IP address**, **Subnet Mask**, **Jumbo Frame**, and **Gateway** details provided by your systems administrator. Leave **Jumbo Frame Disabled** if your Service Provider does not support it.

Setup the VLAN settings according to your virtual LAN.

Click **Next** to continue.

Note: If you are not configuring the ShareCenter Pro to use the second LAN port, click **DHCP Client**.



The screenshot shows the 'System Wizard' window for 'LAN 2'. It has a title bar with a close button (X) in the top right corner. The window is divided into two main sections: 'LAN 2' and 'VLAN'. In the 'LAN 2' section, there are two radio buttons: 'DHCP Client' (selected) and 'Static IP'. Below these are four input fields: 'IP Address' (192.168.1.32), 'Subnet Mask' (255.255.0.0), 'Jumbo Frame' (a dropdown menu set to 'Disabled'), and 'Gateway' (192.168.1.1). In the 'VLAN' section, there are two radio buttons: 'Enable' and 'Disable' (selected). Below them is a 'VLAN ID' input field containing the number '0'. At the bottom of the window, there are three buttons: 'Previous', 'Next', and 'Cancel'.

Using the Setup Wizard for Host Names

Step 7: The ShareCenter Pro 1100-04 **System Wizard** allows you to change the hostname. Enter the **Host Name**, **Primary DNS** and **Secondary DNS**, and the **Default Gateway** for either LAN card.

Click **Next** to continue.



The screenshot shows a window titled "System Wizard" with a close button in the top right corner. The window is divided into three sections:

- Host Name:** A text input field containing "dlink-022100".
- DNS Server:** Two text input fields. The "Primary DNS:" field contains "192.168.0.1", and the "Secondary DNS:" field is empty.
- Default Gateway:** A dropdown menu showing "LAN 1".

At the bottom of the window, there are three buttons: "Previous", "Next", and "Cancel".

Using the Setup Wizard for File Sharing

Step 8: The ShareCenter Pro 1100-04 **System Wizard** allows you to select the file sharing protocols. Click **Enable** or **Disable** to activate or deactivate these share options.

CIFS: Common Internet File System, provides shared access to files, printers, and serial ports.

FTP: File Transfer Protocol, provides is used to copy a file from one host to another.

NFS: Network File System, allows a client computer to access files over the network as if the device is part of local storage.

DFS: Distributed File System, is a remote file access protocol that provides faster performance over slower networks.

Quota: Provides disk and network quotas based on user's setting.

AFP: Apple Filing Protocol, is a network protocol that offers file services for Mac OS X and previous Mac OS's.

WebDAV: Web-based Distributed Authoring and Versioning, is a set of methods based on the Hypertext Transfer Protocol (HTTP).

Click **Next** to continue.



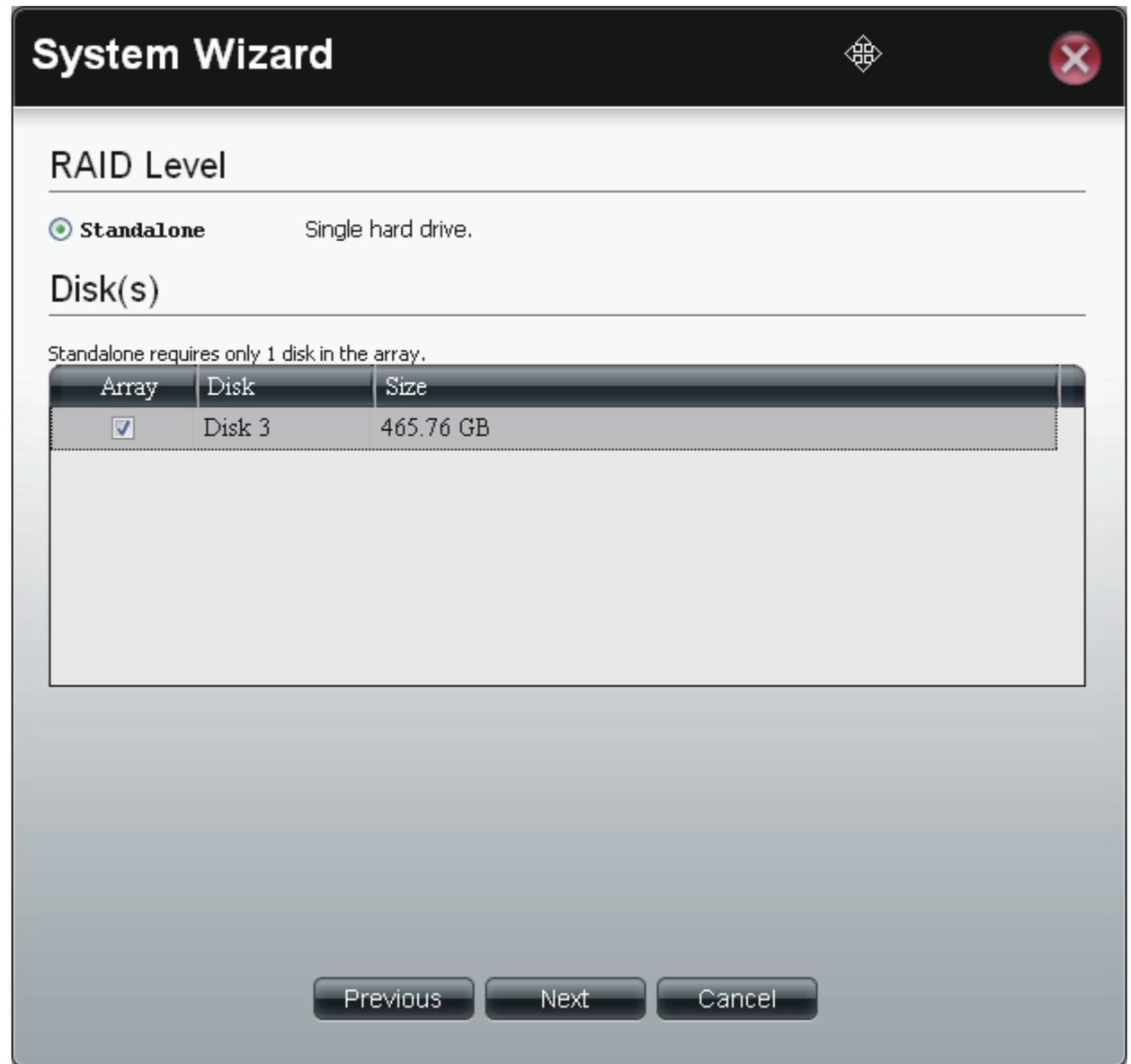
Using the Setup Wizard for RAID Levels

Step 9: The ShareCenter Pro 1100-04 **System Wizard** automatically detects the amount of hard drives present and creates a table to select which drives you want.

In our example, we inserted one drive.

The **RAID** level is automatically selected (standalone).

Select the **Disk Array** and click **Next**.



Encrypting your Drive

Step 10: Under **Create Volume, Settings** choose to encrypt your hard drive. Enter a **Password** and re-enter to confirm your Password.

Select **Auto Unlock** to unlock the hard drive on powering the NAS or select **USB Key** to save the password on an external USB drive. Click **Apply**.

Note: Select either **Auto Unlock** or **USB Key**. You cannot select both.

Auto Unlock Checkbox

USB Key Checkbox

Create Volume - Settings

Settings

Auto-rebuild: Enable Disable

Encryption: Enable Disable

Password:

Confirm Password:

Auto Unlock

USB Key

- Auto Unlock: Encrypted volumes are automatically unlocked during system start-up.
- USB Key: Store the password on a USB drive. This can be used to unlock encrypted volumes in the future. When USB drives are connected to the NAS, the system checks the password on it and unlocks the corresponding encrypted volume with that password. To use this feature, you must connect the USB drive before creating the volume.

Previous Apply Cancel

Setup Wizard Summary

Step 11: The ShareCenter Pro 1100-04 now provides a summary of all the stages you completed.

LAN 1

LAN 2



The screenshot shows a 'System Wizard' window with a dark header and a light gray body. The title bar contains the text 'System Wizard', a small icon, and a red close button. The main content is divided into sections for 'LAN 1' and 'LAN 2', each with a list of configuration parameters. At the bottom, there are three buttons: 'Previous', 'Apply', and 'Cancel'. A vertical scrollbar is visible on the right side of the content area.

LAN 1	
Network Type:	Static IP
IP Address:	10.80.85.111
Subnet Mask:	255.0.0.0
Jumbo Frame:	1500
Gateway:	10.80.80.1
VLAN:	Disable
Port Bonding:	Disable

LAN 2	
Network Type:	DHCP Client
IP Address:	192.168.1.32
Subnet Mask:	255.0.0.0
Jumbo Frame:	1500
Gateway:	192.168.1.1
VLAN:	Disable

Global Settings

Previous Apply Cancel

Setup Wizard Summary Part II

Step 12: The ShareCenter Pro 1100-04 now provides a summary of all the stages you completed.

Global Settings

File Sharing

Create Volume

Click **Apply** to continue.



System Wizard

Global Settings

Host Name:	dlink-022100
DNS Server:	192.168.0.1
Default Gateway:	LAN 1

File Sharing

Enable Services.:	CIFS, FTP, NFS, DFS, Quota
Disable Services.:	

Create Volume

Level:	Standalone	Single hard drive. (Disk(s) : Disk 3, Spare: None)
Auto-rebuild:	Enable	
Encryption:	Enable	
Auto-unlock:	Enable	
Store password to USB drive.:	Disable	

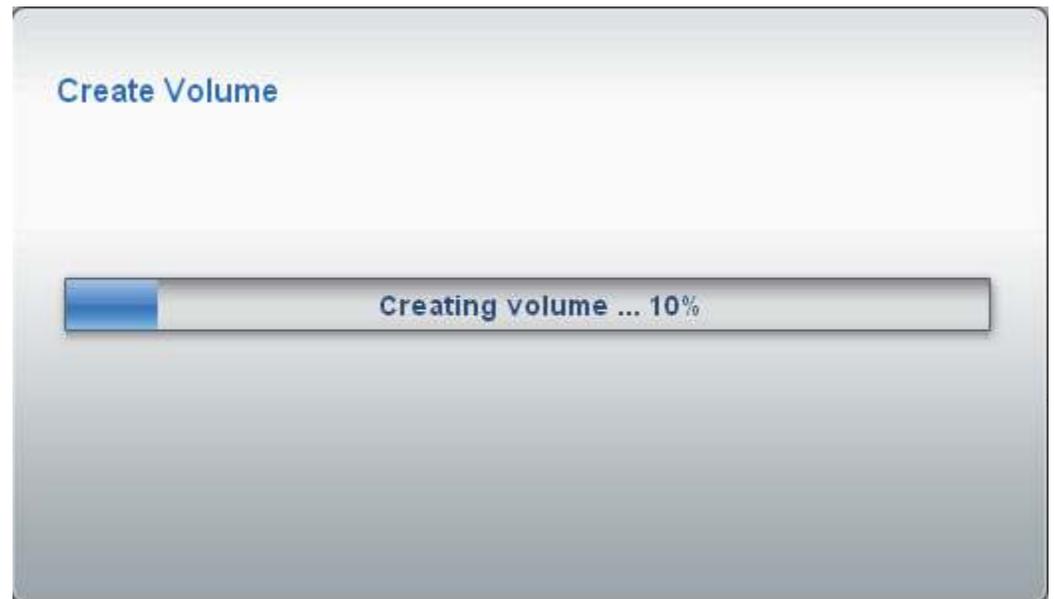
Previous Apply Cancel

Creating a Clean Volume

Step 13: Click **Yes** to create a new **Volume** on the drive. All data on the selected disk will be erased.

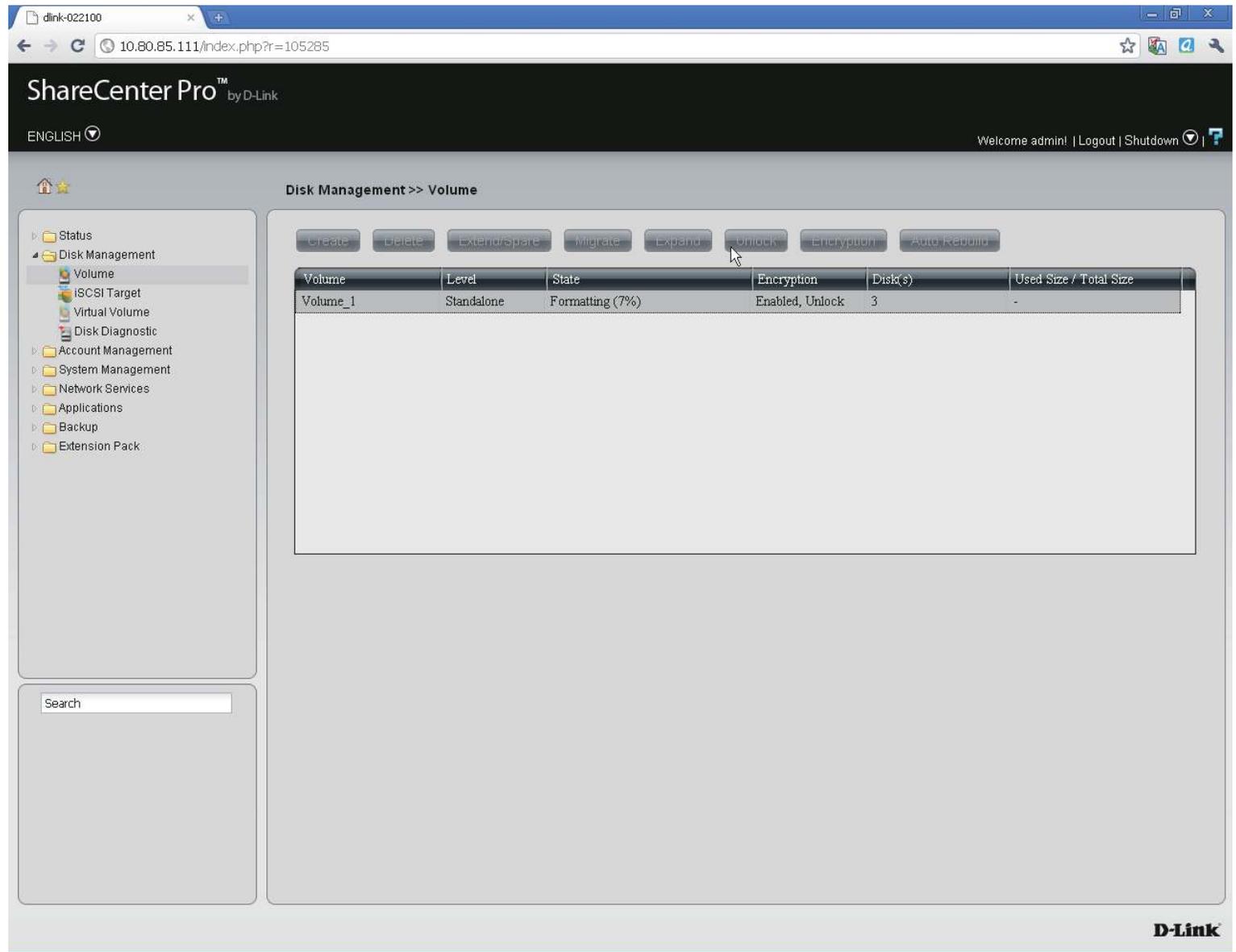


Step 14: The ShareCenter Pro 1100-04 now creates a volume for the hard drive.



Formatting a Volume

Step15: Once the Volume is created, the ShareCenter Pro 1100-04 will format the drive. (As shown below)



The screenshot displays the D-Link ShareCenter Pro 1100-04 web interface. The browser address bar shows the URL `10.80.85.111/index.php?r=105285`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin!".

The main content area is titled "Disk Management >> Volume". It features a toolbar with buttons: Create, Delete, Extend/Spare, Migrate, Expand, Unlock, Encryption, and Auto Rebuild. Below the toolbar is a table with the following data:

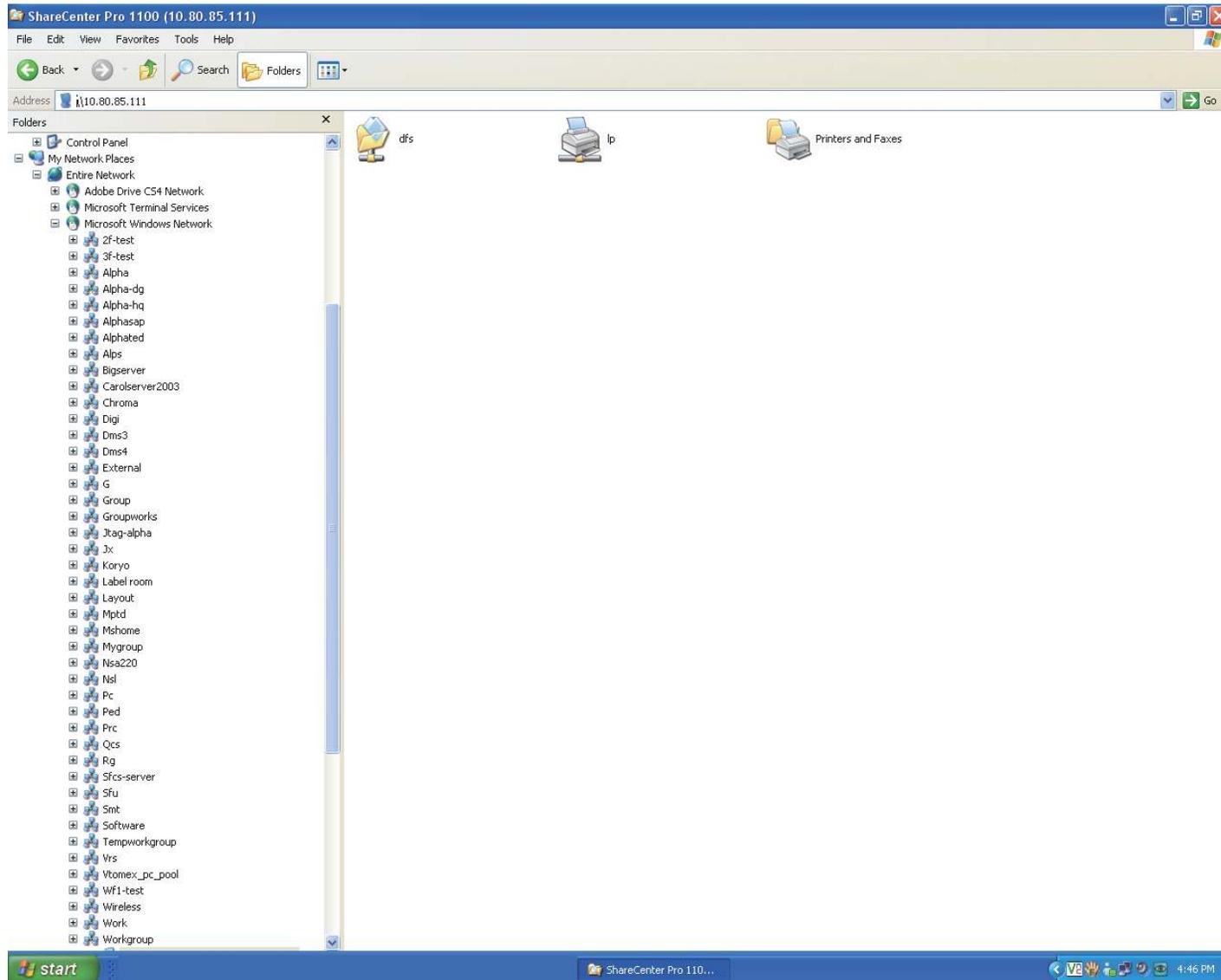
Volume	Level	State	Encryption	Disk(s)	Used Size / Total Size
Volume_1	Standalone	Formatting (7%)	Enabled, Unlock	3	-

The left sidebar contains a navigation menu with the following items: Status, Disk Management (expanded), Volume (selected), iSCSI Target, Virtual Volume, Disk Diagnostic, Account Management, System Management, Network Services, Applications, Backup, and Extension Pack. A search box is located at the bottom of the sidebar.

The D-Link logo is visible in the bottom right corner of the interface.

Accessing the Drive for the First Time

When the **Setup Wizard** is complete, use your Windows Explorer to access the drives on the ShareCenter Pro 1100-04.



Chapter 4 - Hardware - Installing more Drives

The D-Link ShareCenter Pro 1100-04 can take up to four hard drives. All these hard drives can be individually configured and grouped in an array for RAID. Let's take a look further.

Hardware - Installing more Drives

Installing new hard drives in the ShareCenter Pro 1100 is convenient and funtional. Let's take a look at this in more detail.

Step1: When you first purchase the ShareCenter Pro 1100, there are no drives in it. The Setup Wizard will prompt you to install drives (as seen below).

Click **OK** and install the drives.

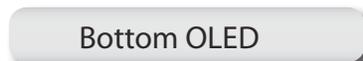


Hardware - Installing more Drives

Step 2: Install the first drive



Step 3: The top OLED indicates the position of the drive on the ShareCenter Pro, while the bottom OLED displays the active drive number in green.



Hardware - Installing more Drives

Step 4: Install the second drive

Hard Drive Installation



Step 5: As you install the second drive, the ShareCenter Pro automatically recognizes the drives and displays the information on the OLED screens.

Top OLED showing two drives



Bottom OLED showing drive numbers

Chapter 5 - Software - Creating Volumes & Formatting

The D-Link ShareCenter Pro 1100-04 handles each drive differently. Once a new drive is installed the WEB UI creates a volume and formats the drive according to the user's requirements. Let's take a closer look.

Software - Installing more Drives

Once the hard drives are installed in the ShareCenter Pro 1100-04, the drives can be formatted and configured.

Step1: Open your default browser and type in the **IP Address** displayed on the OLED screen.



Browser window



LED IP Address

If you cannot see the top OLED screen click the icon on the right side of the ShareCenter Pro.

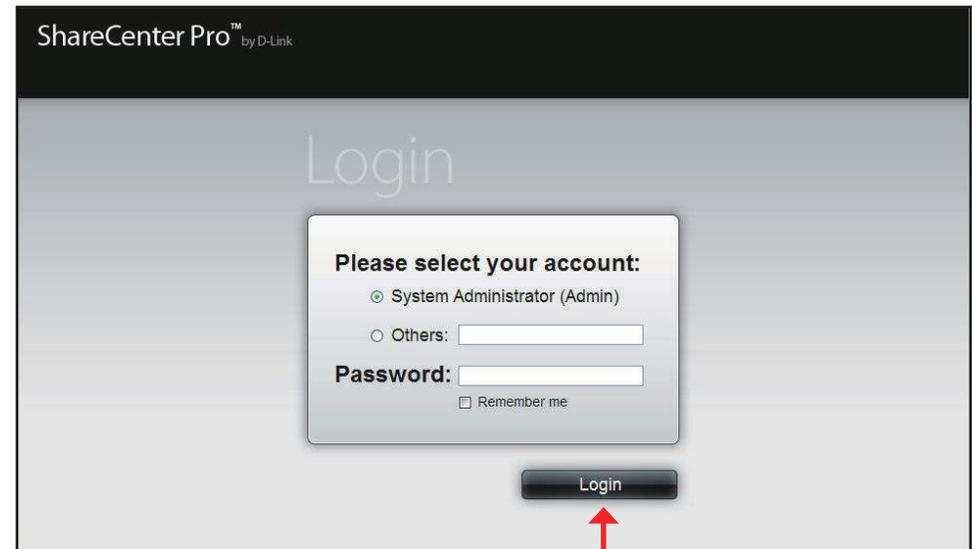


Touch Display

Software - Configuring more than one drive

Step 2: The Login screen will appear:

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



Click Login.

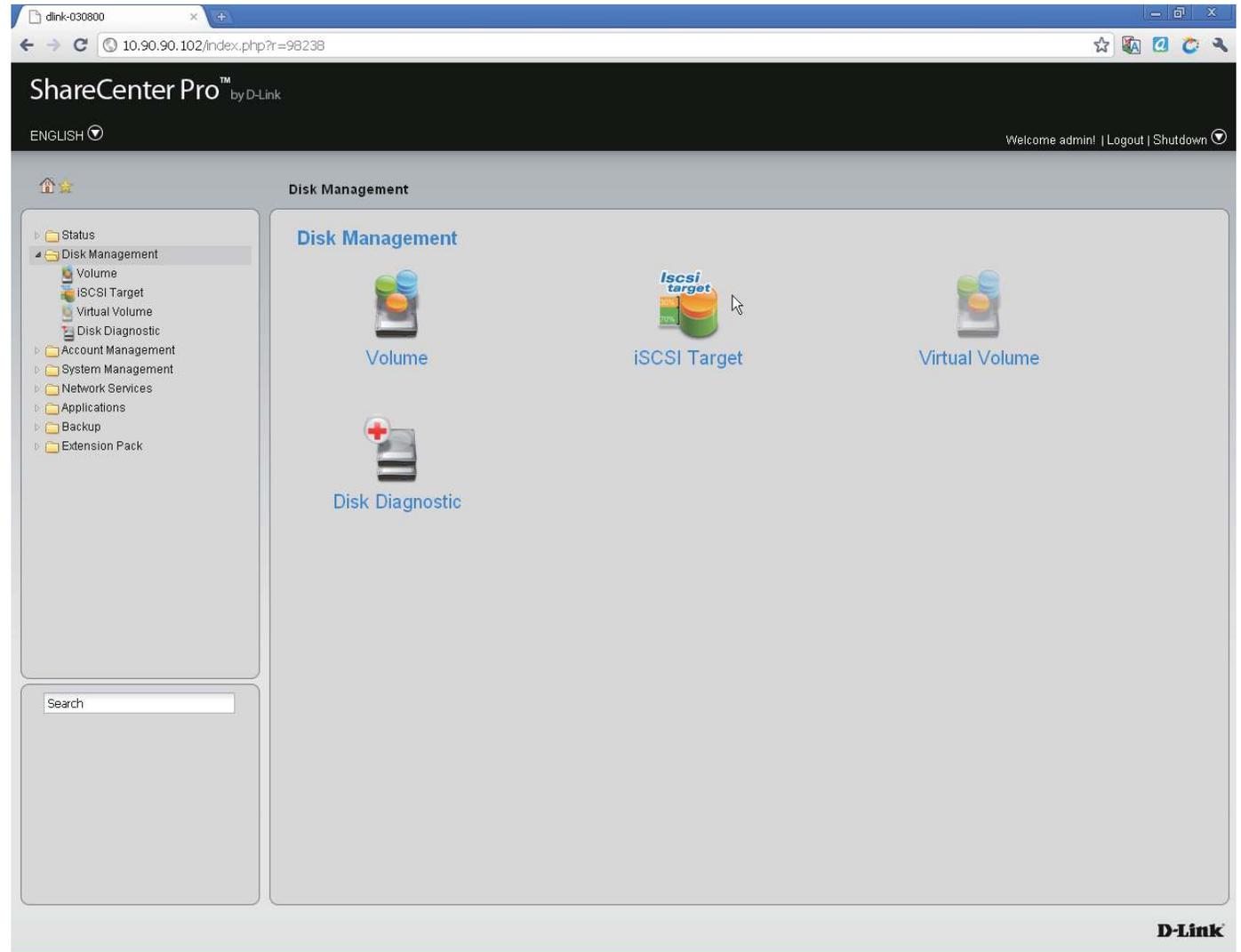
Note: The computer used to access the web-based configuration manager must be on the same subnet as the ShareCenter Pro. If your network is using a DHCP server and the computer receives IP settings from the DHCP server, the ShareCenter Pro will automatically be in the same subnet.

Step 3: Click the button next to **System Administrator**, leave the **Password** field blank and click Login.

Software - Configuring more than one drive

Step 4: Click Disk Management, Disk Diagnostics

Disk Diagnostics shows all the drives placed in the NAS (formatted or unformatted)

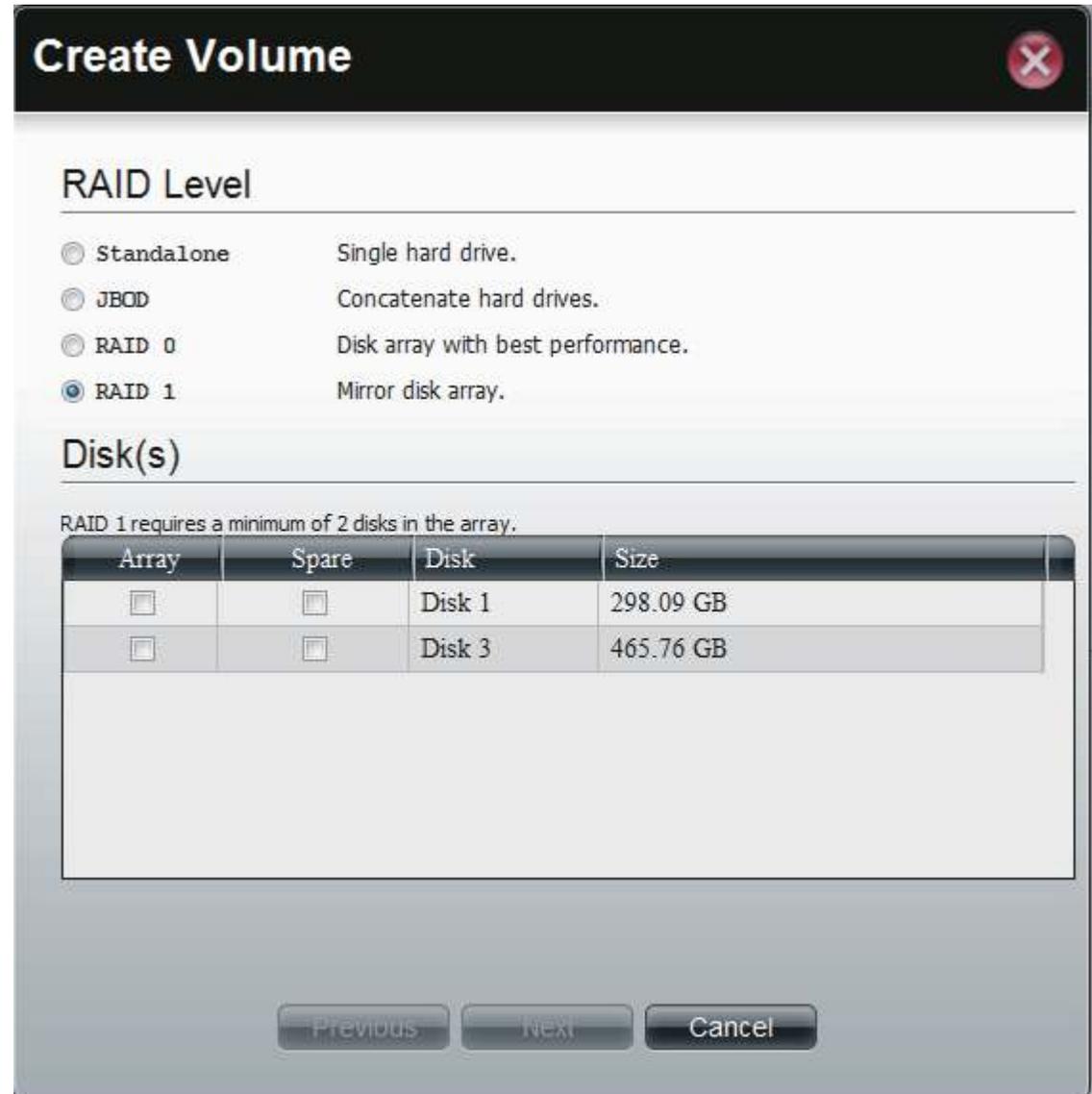


Software - Creating RAID

Step 5: Under **Disk Management** click **Volume**. The **Create Volume** window appears.

Step 6: Under **Create Volume**, select the RAID Level best suited for your purpose. (See More About RAID in other chapters)

Step 7: Select the Array you wish to use and click Next.



The screenshot shows the 'Create Volume' window with the following content:

Create Volume

RAID Level

- Standalone Single hard drive.
- JBOD Concatenate hard drives.
- RAID 0 Disk array with best performance.
- RAID 1 Mirror disk array.

Disk(s)

RAID 1 requires a minimum of 2 disks in the array.

Array	Spare	Disk	Size
<input type="checkbox"/>	<input type="checkbox"/>	Disk 1	298.09 GB
<input type="checkbox"/>	<input type="checkbox"/>	Disk 3	465.76 GB

Buttons: Previous, Next, Cancel

Software - Encryption Settings

The ShareCenter Pro 1100-04 offers bootup encryption and remote encryption via a USB stick drive. Select the method that best suits your needs.

Step 8: Select **Auto-rebuild** to automatically unlock the volume on startup.

Select **Encryption** to encrypt the device

Type a **Password** for encryption.

Step 9: Click **Apply** to continue.

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.

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

Create Volume - Settings

Settings

Auto-rebuild: Enable Disable

Encryption: Enable Disable

Password:

Confirm Password:

Auto Unlock

USB Key

- Auto Unlock: Encrypted volumes are automatically unlocked during system start-up.
- USB Key: Store the password on a USB drive. This can be used to unlock encrypted volumes in the future. When USB drives are connected to the NAS, the system checks the password on it and unlocks the corresponding encrypted volume with that password. To use this feature, you must connect the USB drive before creating the volume.

Previous Apply Cancel

Click **Apply** to continue.

Software - Creating the Volume

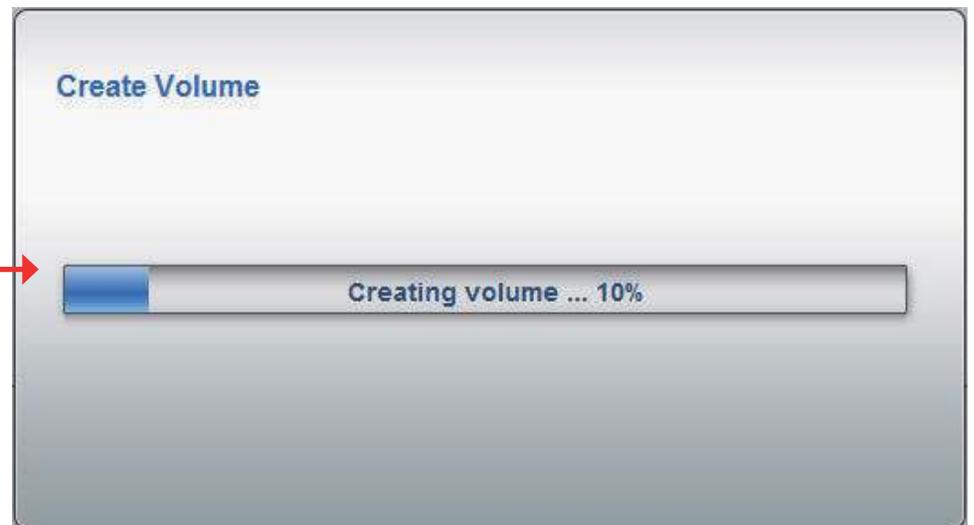
Step 10: Click **Yes** to create the Volume.

A warning message appears before starting to create the volume.



Click **Yes** to continue.

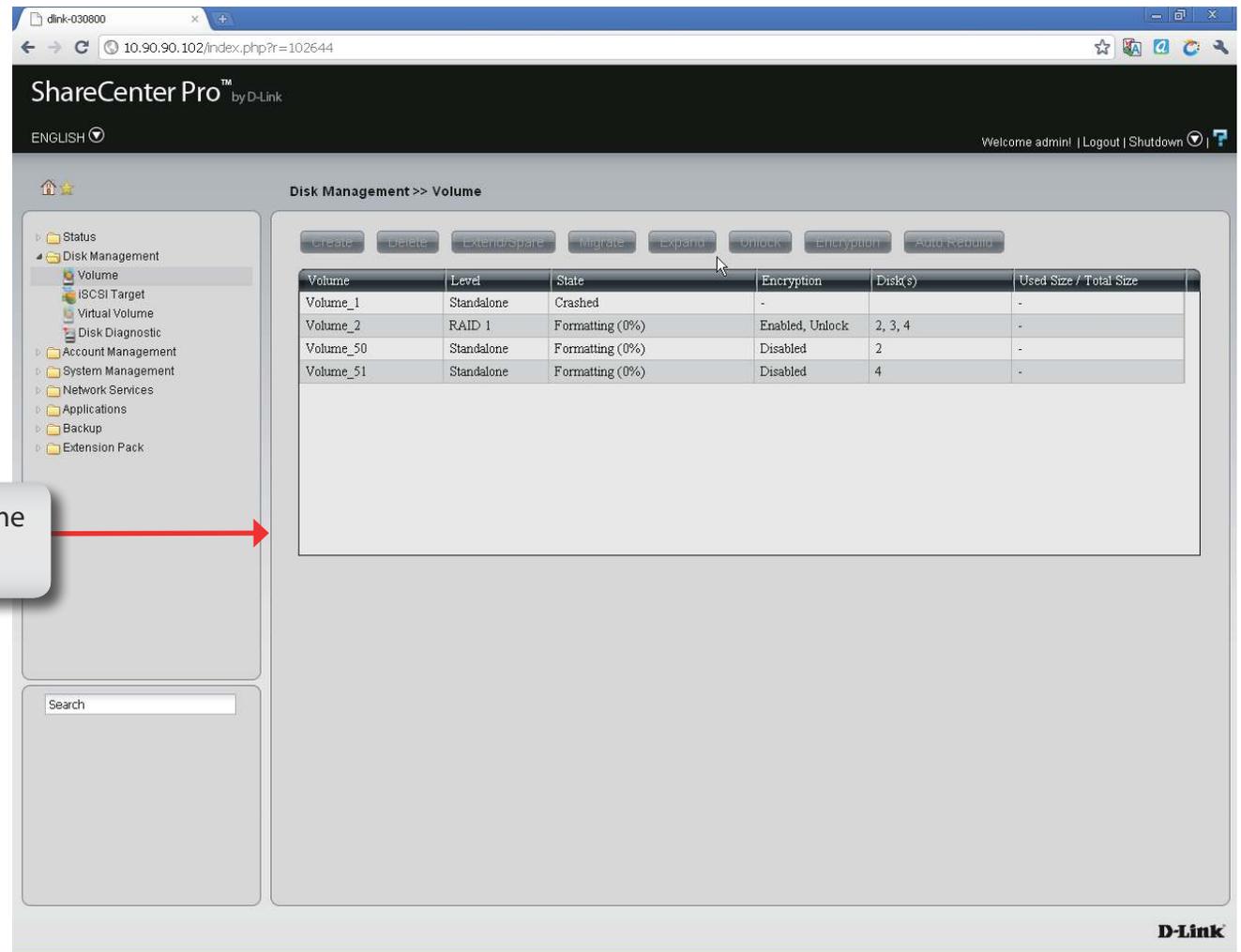
The volume is being created. The status bar displays the percentage of completion in real time.



Software - Creating the RAID & Formatting

Step 11: Once the **Volume** is created, the ShareCenter Pro 1100-04 formats the drives and creates the RAID.

Note: The ShareCenter Pro 1100-04 will automatically create the Volume, a Standalone Volume, if the size of the hard drives are different.



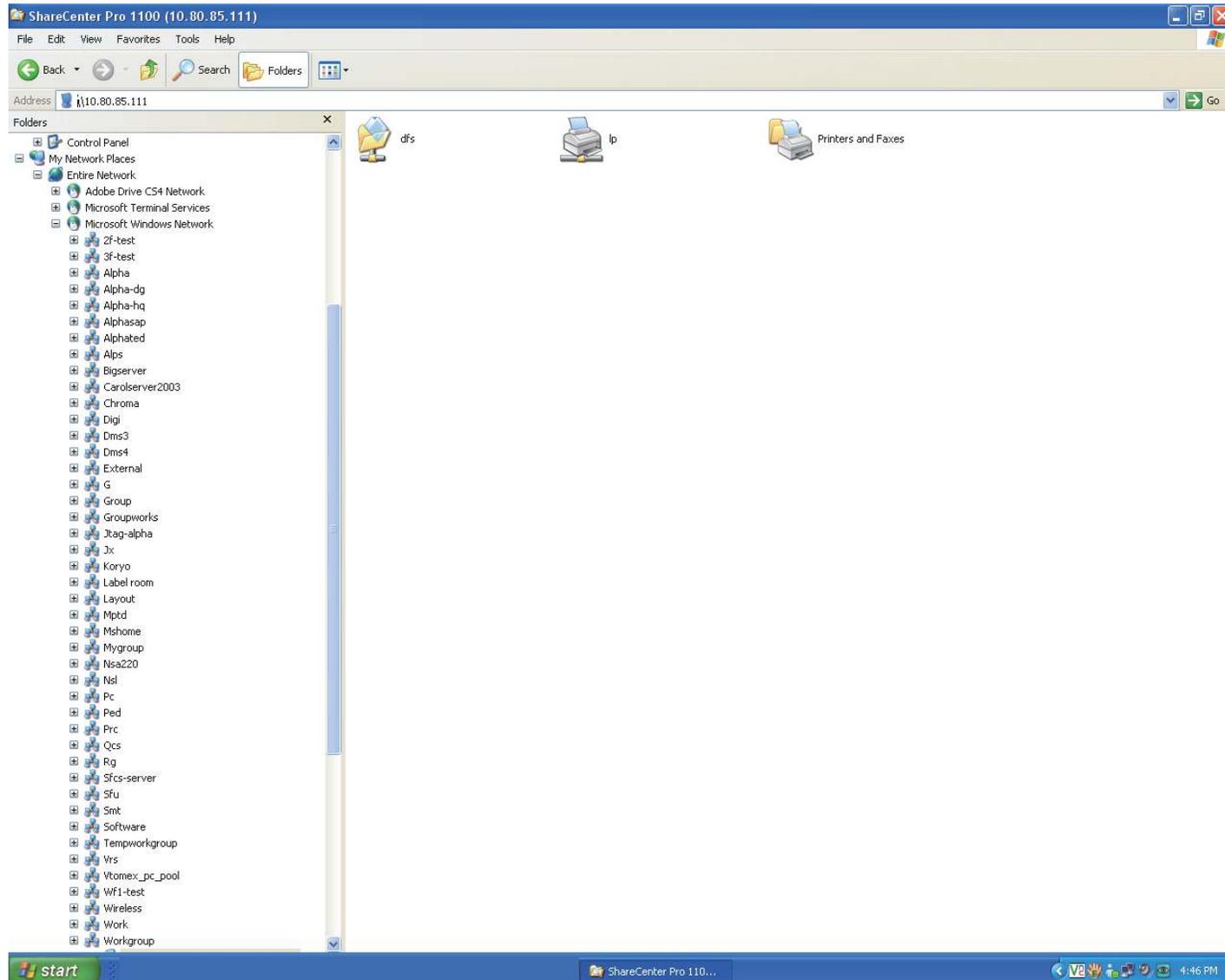
The screenshot shows the ShareCenter Pro 1100-04 web interface. The browser address bar shows the URL `10.90.90.102/index.php?r=102644`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin1". The main content area is titled "Disk Management >> Volume". It features a navigation menu on the left with options like Status, Disk Management, Volume, ICSI Target, Virtual Volume, Disk Diagnostic, Account Management, System Management, Network Services, Applications, Backup, and Extension Pack. The main area contains a table of volumes and a set of action buttons (Create, Delete, Expand/Repair, Migrate, Expand, Unlock, Encryption, Auto Rebuild).

Volume	Level	State	Encryption	Disk(s)	Used Size / Total Size
Volume_1	Standalone	Crashed	-	-	-
Volume_2	RAID 1	Formatting (0%)	Enabled, Unlock	2, 3, 4	-
Volume_50	Standalone	Formatting (0%)	Disabled	2	-
Volume_51	Standalone	Formatting (0%)	Disabled	4	-

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

Software - Volume & RAID Created

The ShareCenter Pro 1100-04 creates a Volume and configures the RAID. Windows Explorer can see the share but users on the network cannot access it unless a shared folder is created.



Chapter 6 - Software - Creating Users

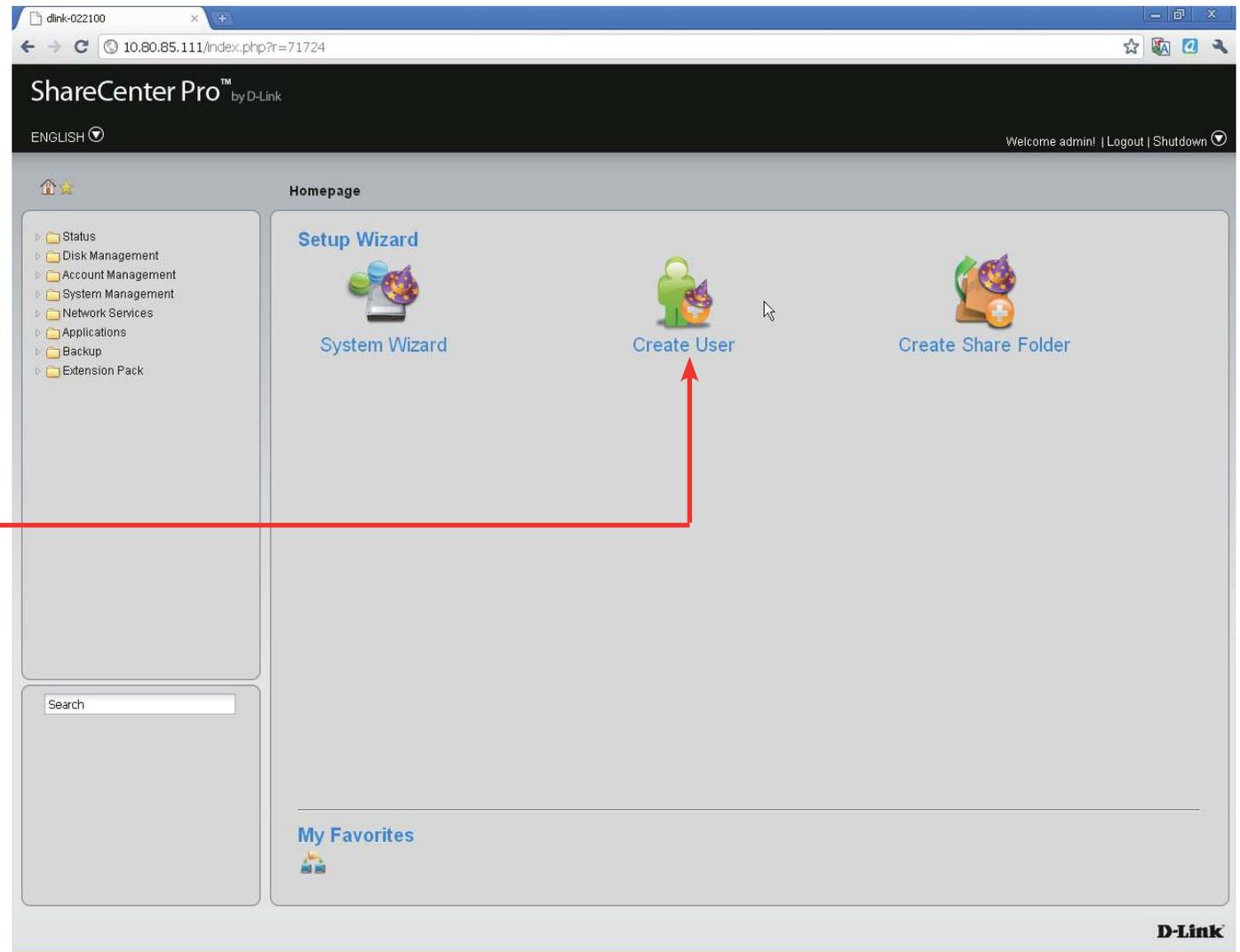
The D-Link ShareCenter Pro 1100-04 allows you to create individual accounts or group accounts accordingly. Let's take a look.

Software - Creating Users

Step 1: Once you have logged into the Web UI, click the **Home** icon on the left side of the browser.

Click the **Create User** icon.

Click Create User



Software - Creating Users

Step 2: The “Create User” wizard appears.

Click **Next** to proceed.

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



Click **Next** to continue.

Software - User Information

Step 3: Enter the **User Name** and **Password** in the fields provided.

Confirm the **Password** entered.

Step 4: Enter a storage size in megabytes if you wish to limit a user's storage quota.

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).

If you use 0 in the Quota it represents unlimited disk space.

Click **Next** to continue.

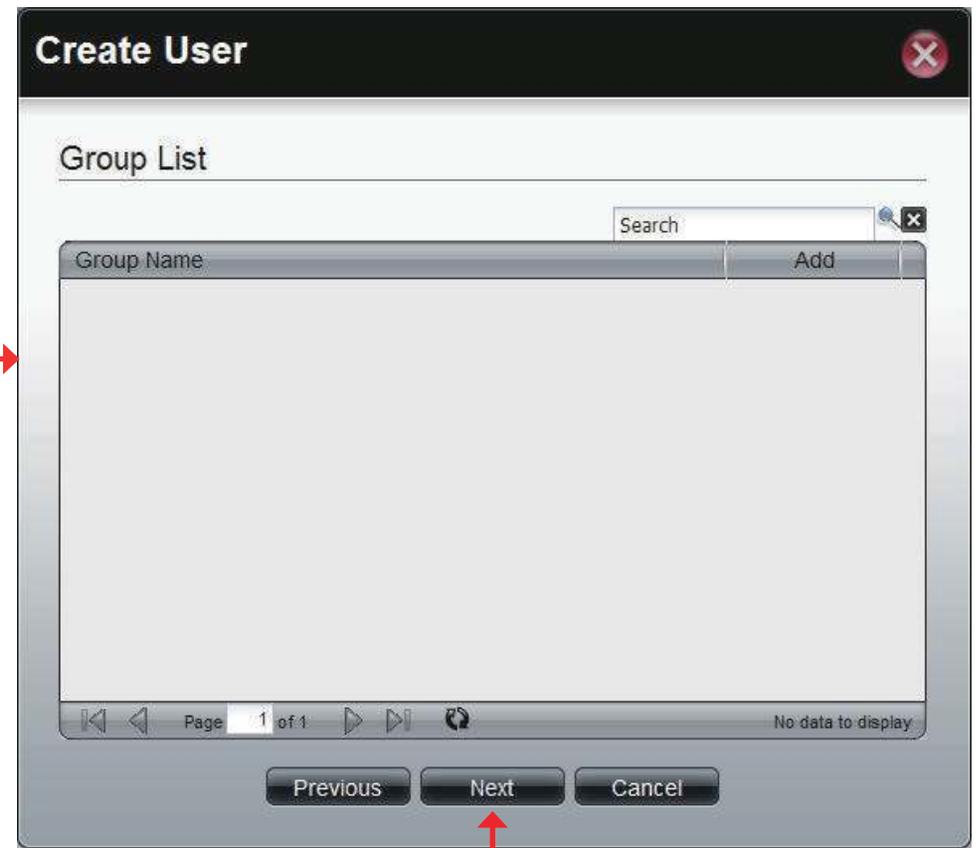
Software - Creating Groups

Step 5: Under **Group List**, view the groups you wish the user to belong to.

Click **Next** to continue.

If there is no **Group List** just click **Next** and you can add **Groups** at a later stage

Select a group 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.



The screenshot shows a 'Create User' dialog box with a 'Group List' section. The list is empty, and the 'Next' button is highlighted. A red arrow points from the 'Next' button to a callout box that says 'Click Next to continue.' Another red arrow points from the callout box to the 'Group List' section.

Click **Next** to continue.

Software - Creating Share Folder Lists

Step 6: Under **Share Folder List**, view the **shared folder** you wish the user to belong to.

Click **Next** to continue.

If there is no **Share Folder List** just click **Next** and you can add the Folder at a later stage.

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.



The screenshot shows a 'Create User' dialog box with a 'Share Folder List' section. The list is empty, and the 'Next' button is highlighted. A red arrow points from the 'Next' button to a callout box that says 'Click Next to continue.' Another red arrow points from the callout box to the 'Share Folder List' section.

Share Name	Path	Read Only	Read/Write	Deny
------------	------	-----------	------------	------

Page 1 of 1 No data to display

Previous Next Cancel

Click **Next** to continue.

Software - User Summary

Step 7: Under **Summary**, view details about the user you have just created.

Click **Apply** to save the settings.

This window displays the information that has been configured.

Options	Settings
User Name	John
Group Name	
Quotas	100 MB
Share Folder (RO)	
Share Folder (RW)	
Share Folder (Deny)	

Click **Apply** to save the settings.

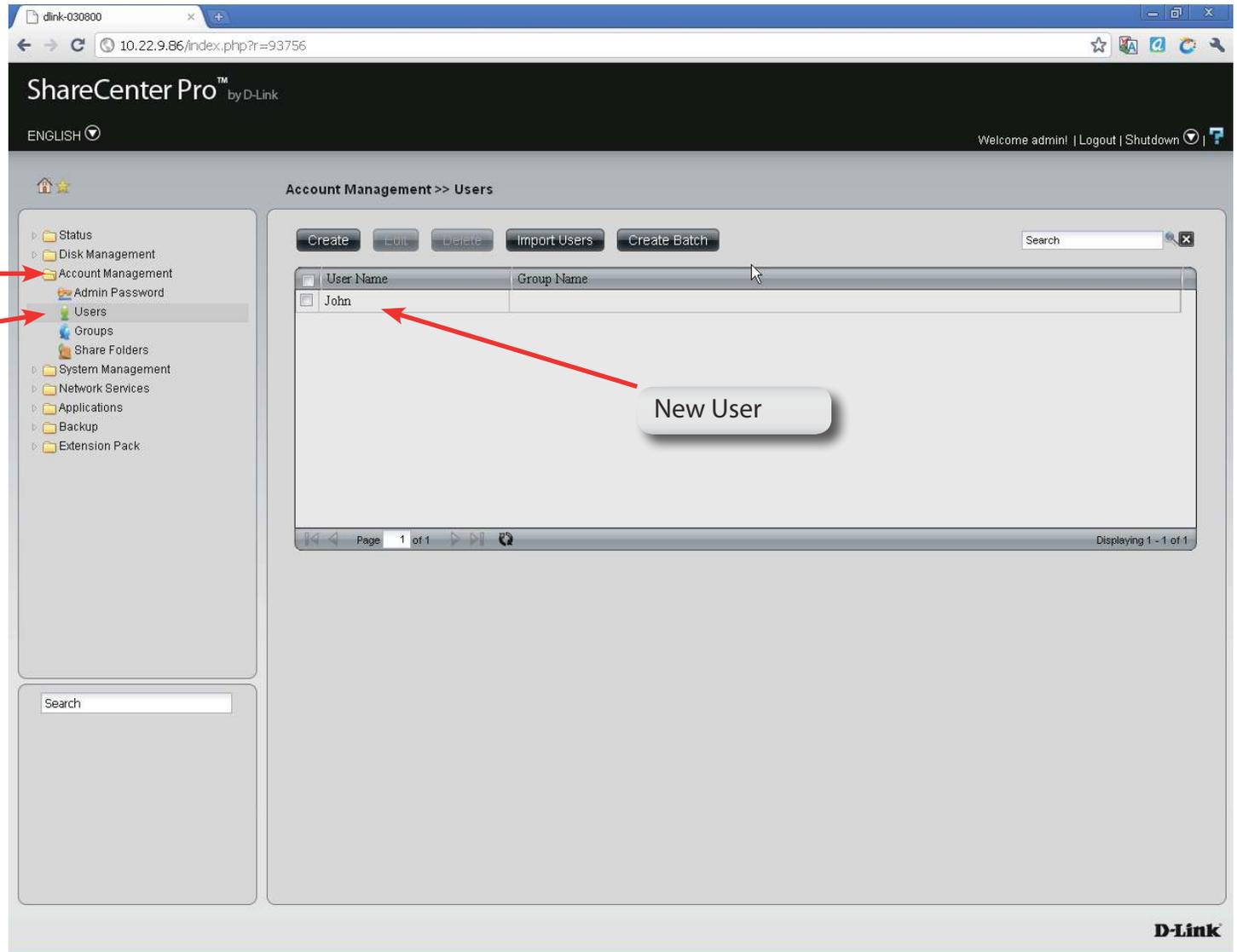
Software - User Information

Step 8: Click **Account Management, Users.**

There you will find the **New User** that you have created.

Account Manager

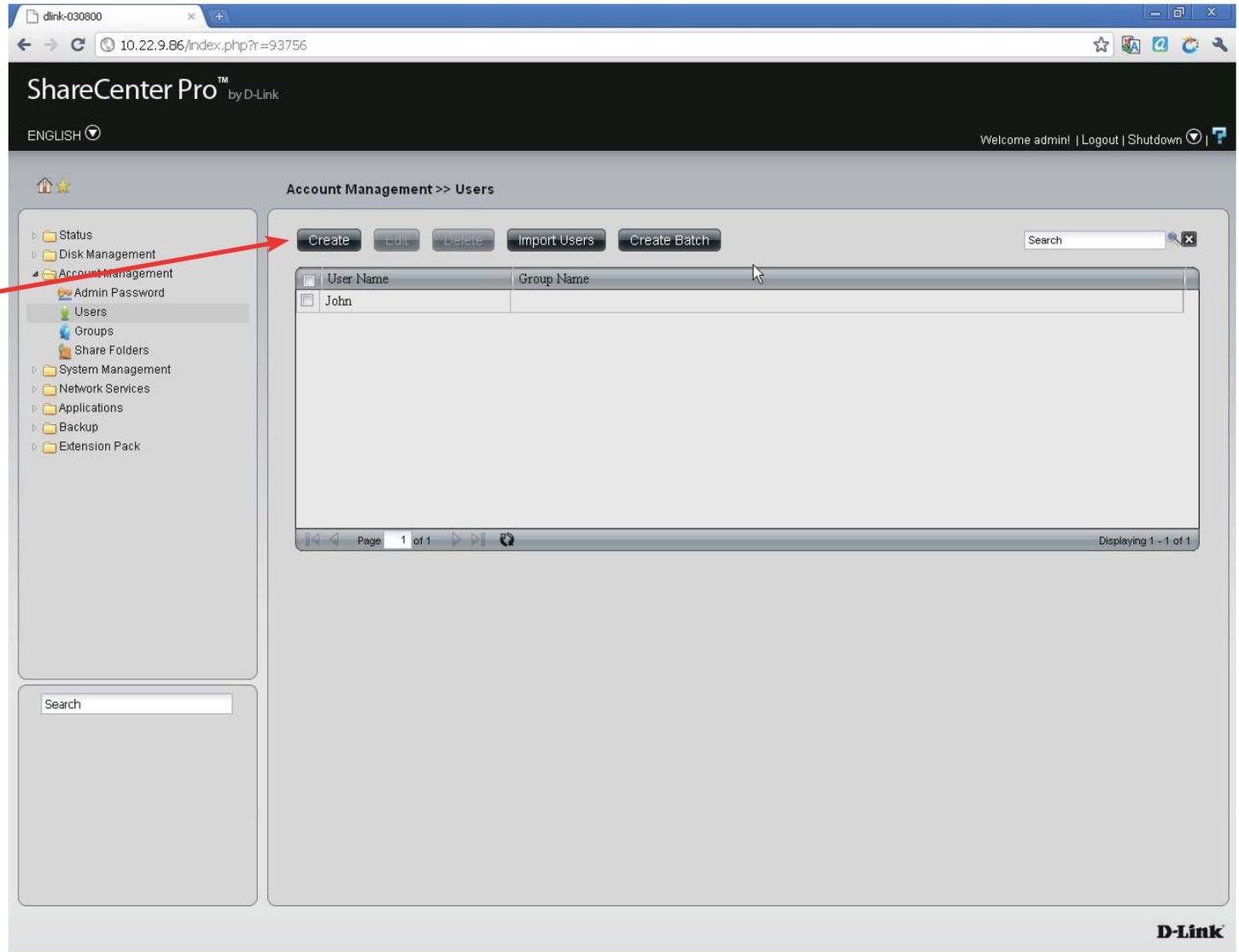
Users



Software - Creating more than One User

Step 1: Once you have the **Account Management** window open, simply click **Create** at the top of the right window pane.

Create



Software - Creating more than One User

Step 2: Enter the details of the new user and click **Next**.

Create User

User Information

User Name: Karl

Password:

Confirm Password:

Quotas

Set Quota

Quotas: 200 MB

Previous Next Cancel

New User details

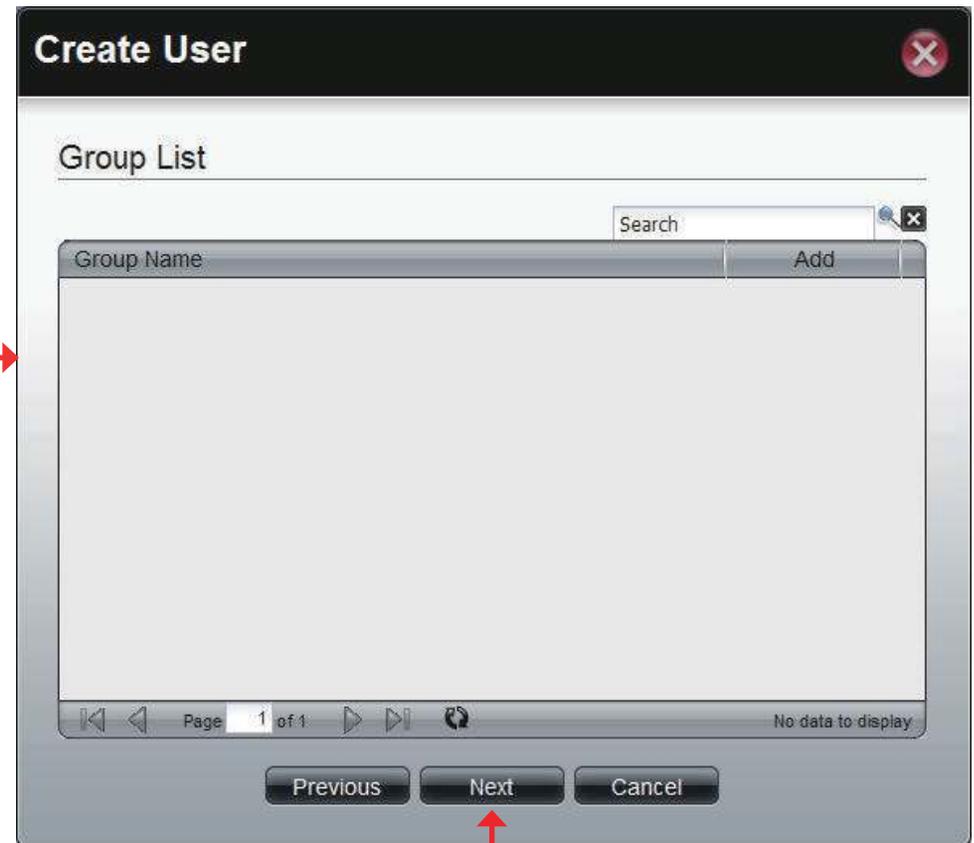
Software - Creating more than One User

Step 3: Under **Group List**, view the groups you wish the user to belong to.

Click **Next** to continue.

If there is no **Group List** just click **Next** and you can add Groups at a later stage

Select a group 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.

Software - Creating more than One User

Step 4: Under **Share Folder List**, view the **shared folder** you wish the user to belong to.

Click **Next** to continue.

If there is no **Share Folder List** just click **Next** and you can add the Folder at a later stage

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.

Software - User Summary

Step 5: Under **Summary**, view details about the user you have just created.

Click **Apply** to save the settings.

This window displays the information that has been configured.

Options	Settings
User Name	Karl
Group Name	Guests
Quotas	200 MB
Share Folder (RO)	
Share Folder (RW)	
Share Folder (Deny)	

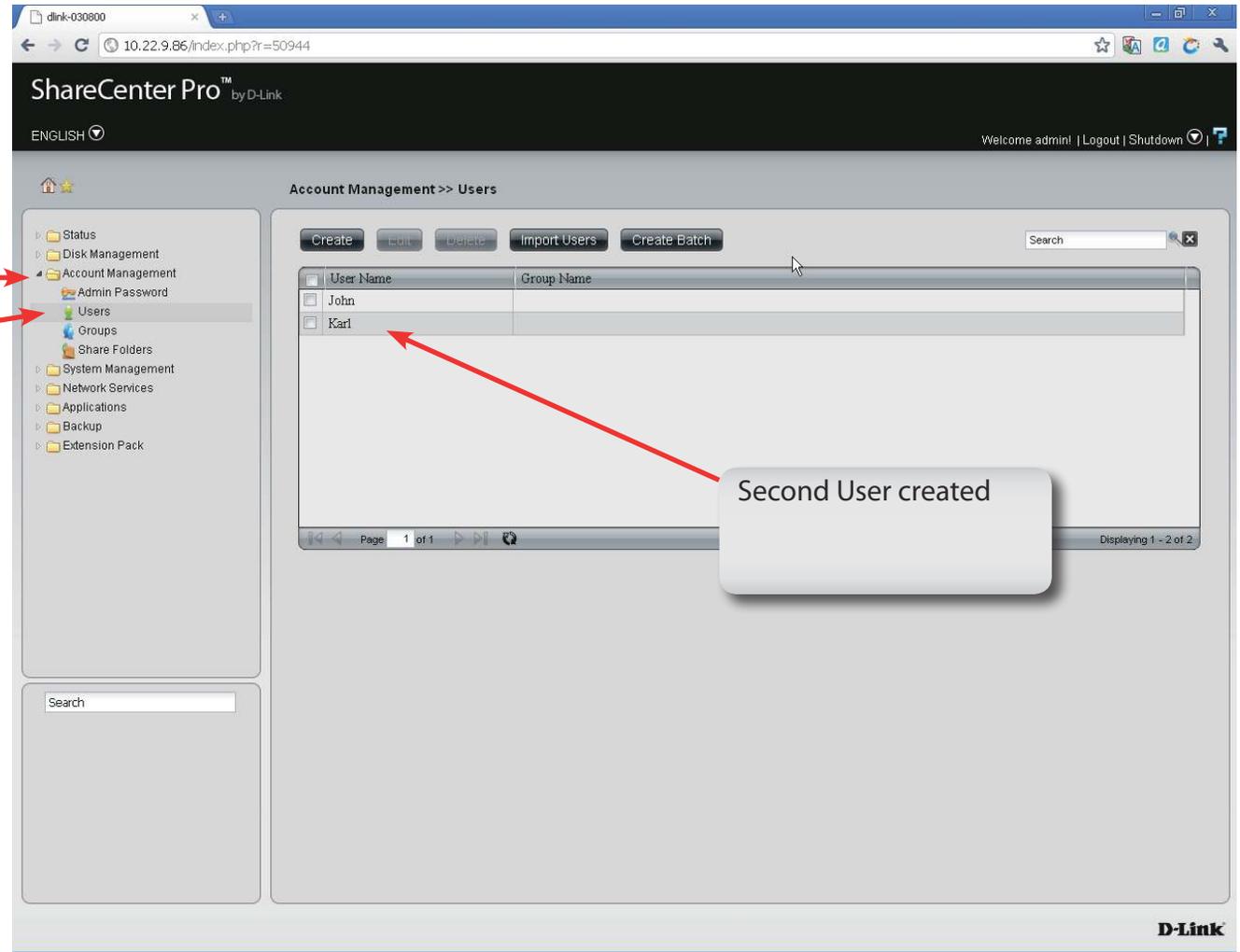
Click **Apply** to save the settings.

Software - User Information

Step 6: Click **Account Management, Users.**

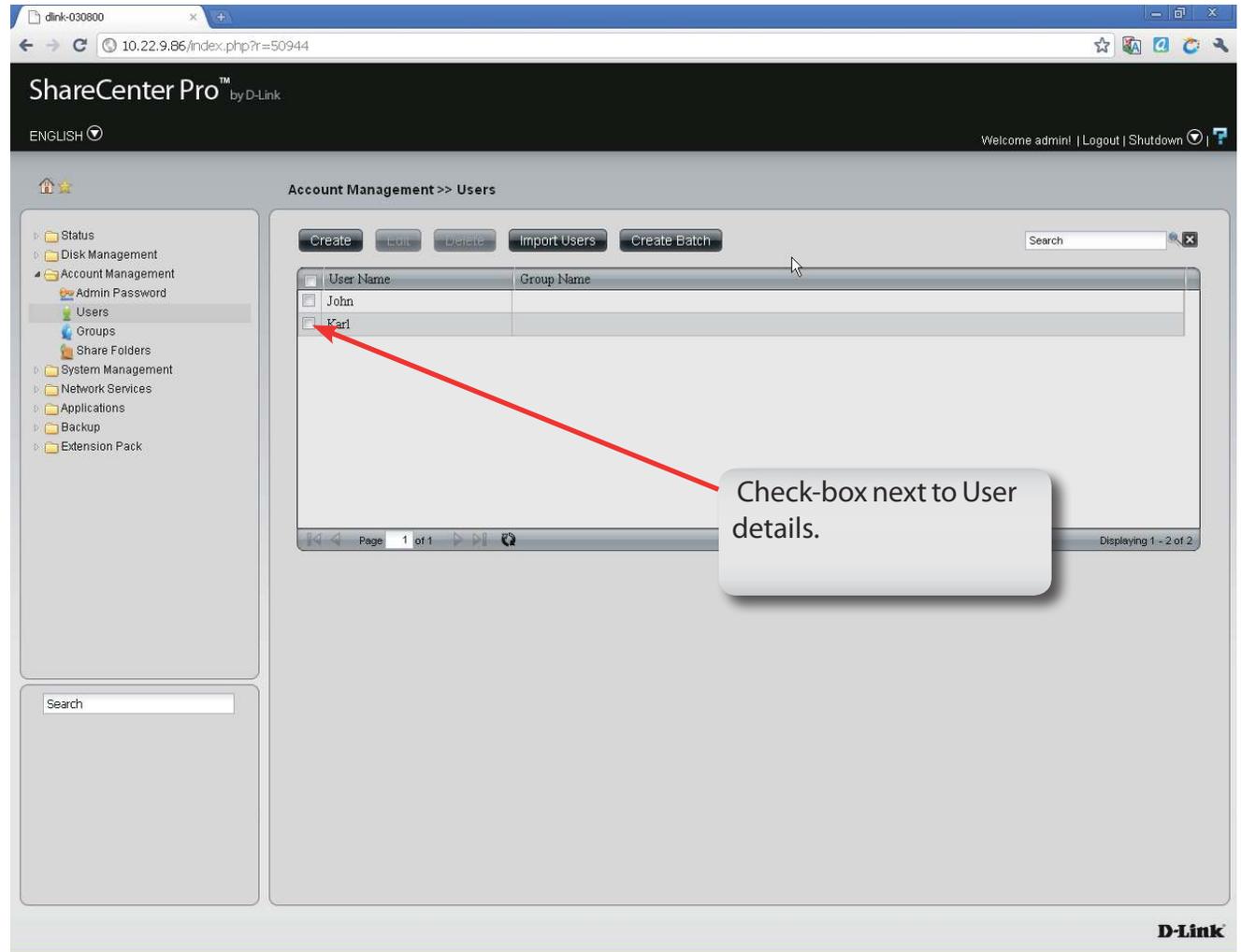
There you will find the **New User** that you have created.

Account Manager
Users



Software - Deleting a User

Step 1: Click the **check-box** next to the **User's** name and click **Delete**.



Software - Deleting a User

Step 2: Confirm that you want to delete the User from the **User List** and click **Yes**.



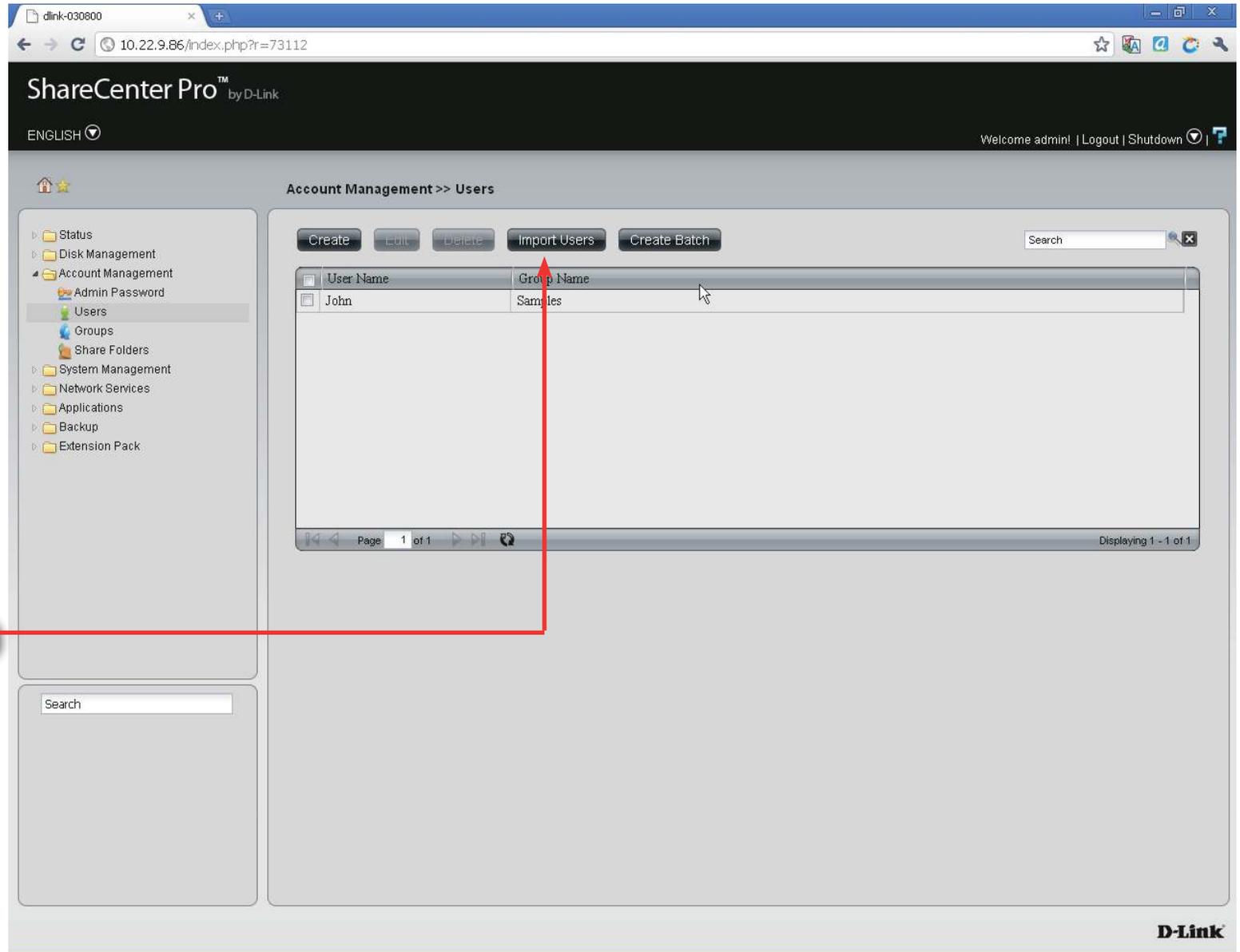
Step 3: The User no longer exists in the **User List**.

<input type="checkbox"/>	User Name	Group Name
<input type="checkbox"/>	John	Samples

Page 1 of 1 Displaying 1 - 1 of 1

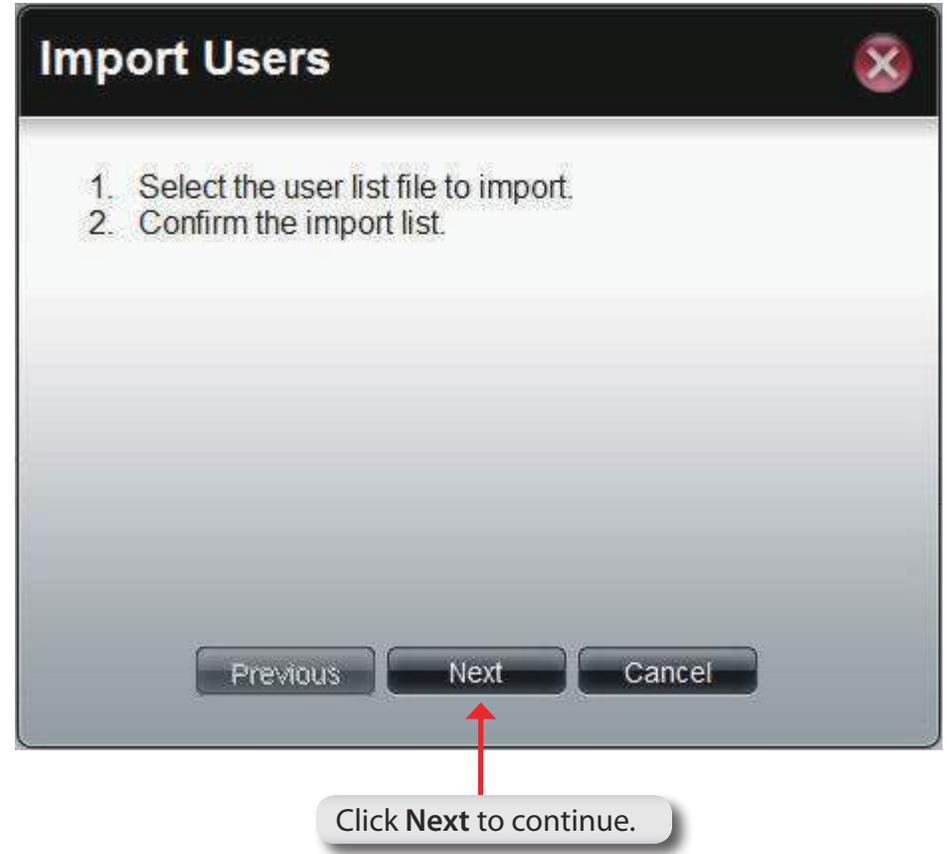
Software - Importing Users

Step 1: Click the **Import Users** button at the top of the **Account Management, Users** window.



Software - Importing Users

Step 2: The welcome window is displayed. Click **Next** to continue.



Software - Importing Users - Creating a User List

Step 3: Click the Download button to see an example .txt file. The file looks similar to this:

```
#user name;user password;user groups;  
shared folder(rw); shared folder(ro); shared  
folder(deny);user quota  
user001;11111;Group1,Group2;Volume_1,Volume  
_50;B,Volume_51;;10240
```

Note: Consult a systems administrator or a programmer to design the script for this file.

Note: The ShareCenter Pro only accepts "txt" files at the moment.

Step 4: Click the check box next to **Overwrite duplicate accounts** to write over user accounts you already have in the ShareCenter Pro.

Step 5: Click the **Browse** button to locate the file you created and click Next.

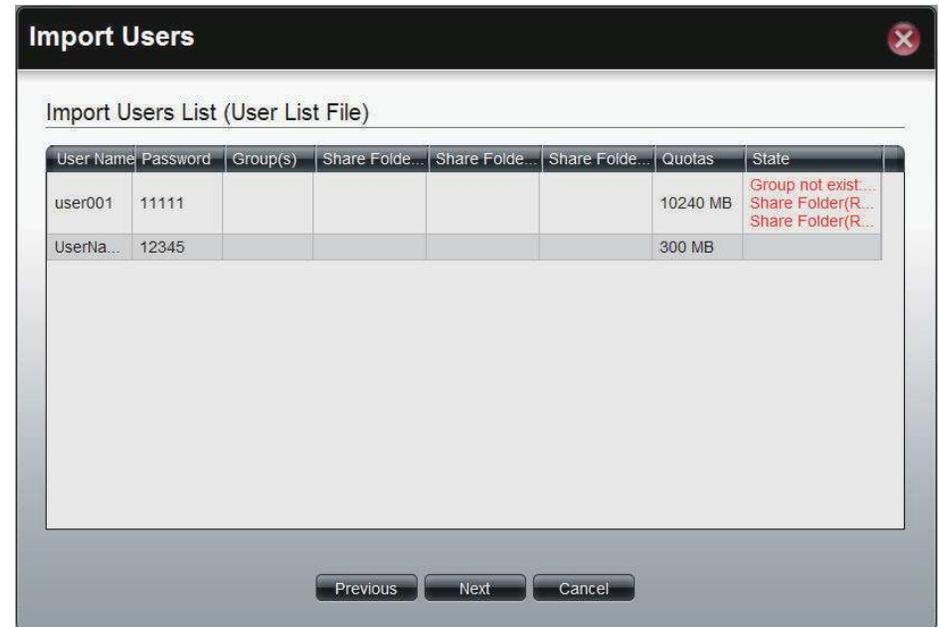


Click **Next** to continue.

Software - Importing Users - Checking the User List

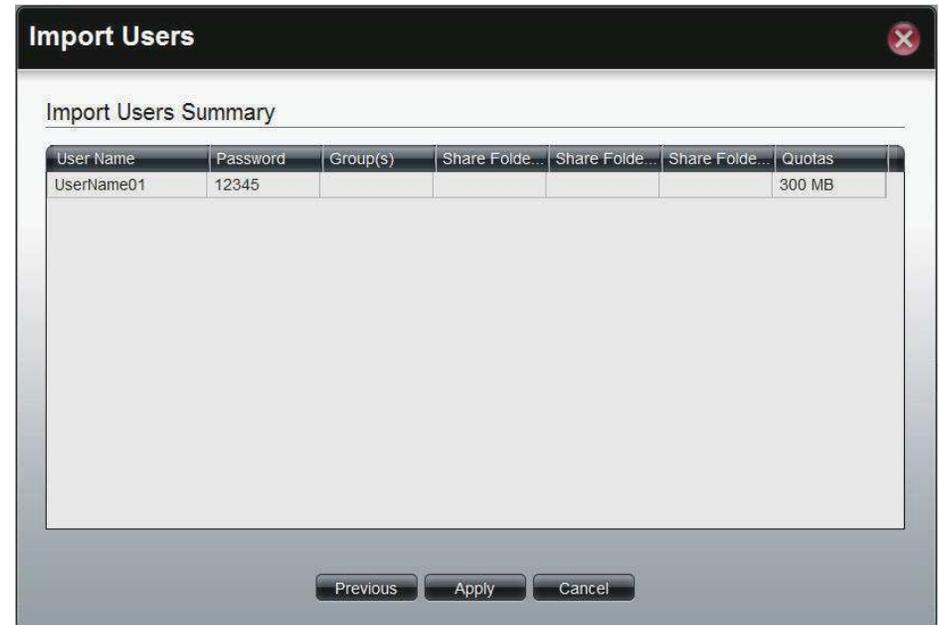
Step 6: This window displays all the users in the file. If there are any error warnings in the **State** field, the user will not be able to go to the next window.

Click **Next** to continue.



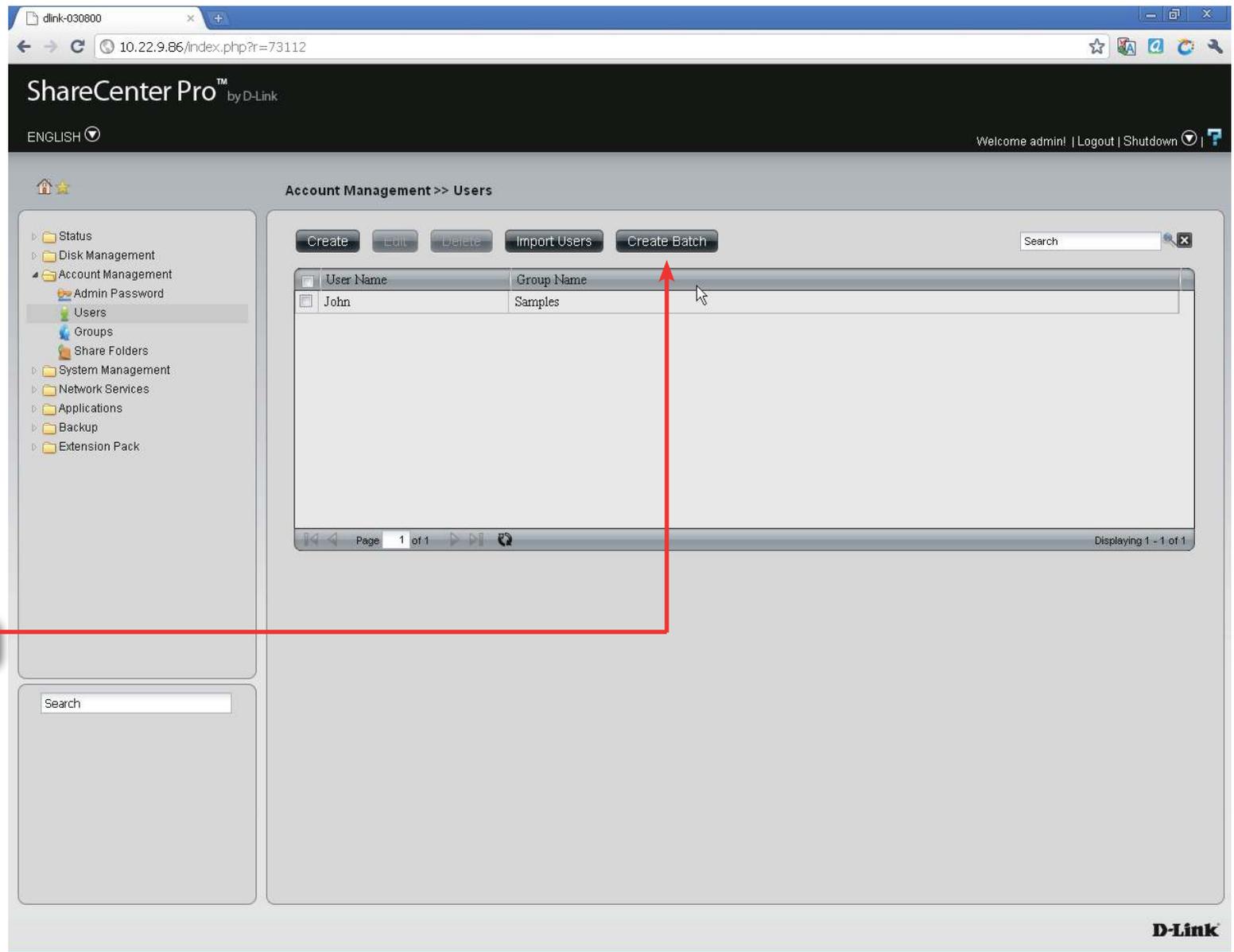
Step 7: The window displays the final results of importing users to the ShareCenter Pro.

Click **Apply** to save the settings.



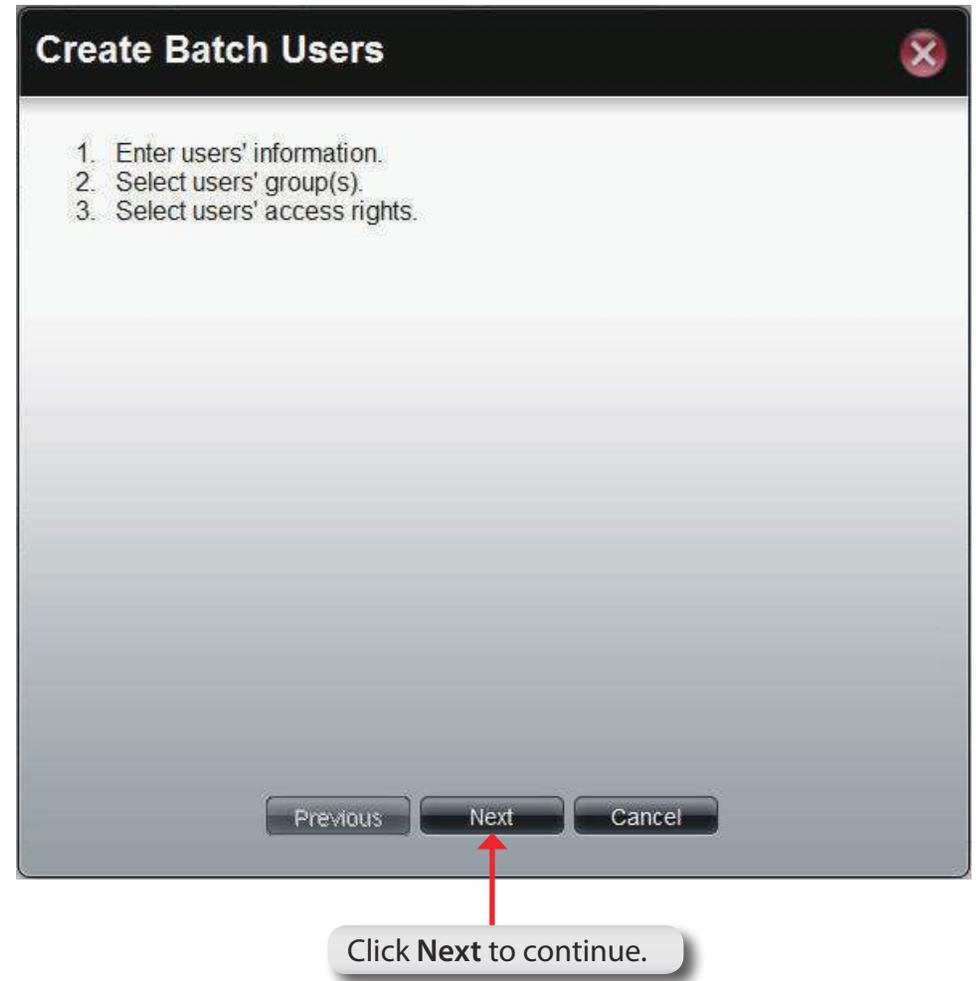
Software - Creating a Batch User List

Step 1: Click the **Create Batch** button at the top of the **Account Management, Users** window.



Software - Creating a Batch User List

Step 2: The welcome window appears. Click **Next** to continue.



Software - Creating a Batch User List

Step 3: 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 the 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

Create Batch Users

User Information

User Name Prefix:

Start Number:

Create Number:

Password:

Confirm Password:

Overwrite duplicate accounts

Quotas

Set Quota

Quotas: MB

Previous Next Cancel

Click **Next** to continue.

Software - Creating a Batch User List

Step 4:

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 groups' 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.



Software - Creating a Batch User List

Step 5:

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.



Click **Next** to continue.

Software - Creating a Batch User List

Step 6:

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.

User Name	State
UserBatch0	
UserBatch1	
UserBatch2	

Options	Settings
Password	45678
Group Name	
Quotas	500 MB
Share Folder (RO)	
Share Folder (RW)	
Share Folder (Deny)	

Click **Apply** to save the settings.

Chapter 7 - Software - Creating a Shared Folder

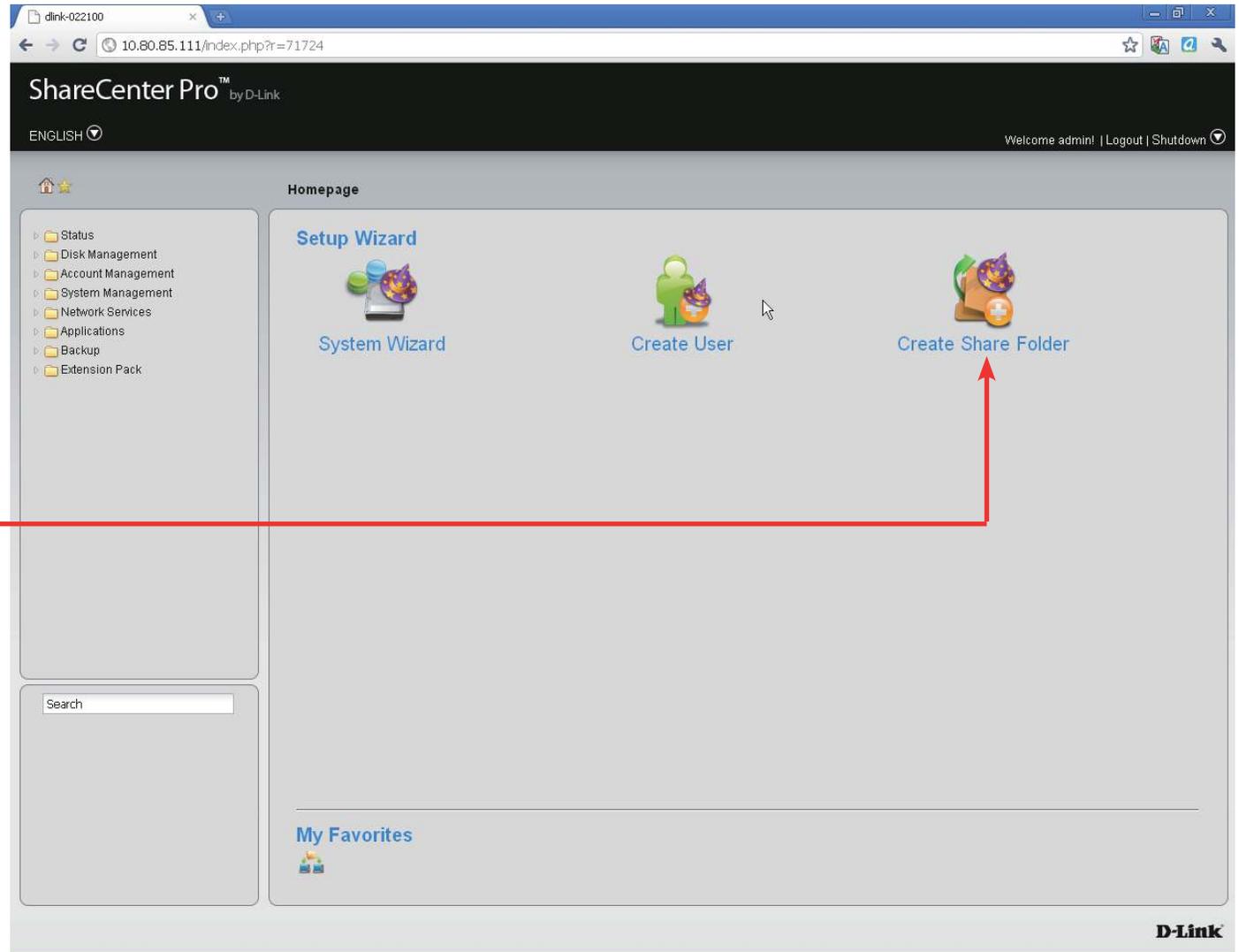
The D-Link ShareCenter Pro 1100-04 allows you to create shared folders for users to access. Let's take a look.

Software - Creating a Shared Folder

Step 1: Once you have logged into the Web UI, click the **Home** icon on the left side of the browser.

Click the **Create Share Folder** icon.

Click **Create Share Folder**



Create Share Folder

Step 2: The **Create Share Folder** introduction window appears. Click **Next** to continue.

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



Click **Next** to continue.

Create Share Folder - Volumes & Quotas

Step 3: Under **Volume Path**, click on the **Select Path** field to choose a folder.

Step 4: Choose the **Volume** you wish to use by double-clicking or click **Create**.

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

Click **Create**



Create Share Folder - Volumes & Quotas

Step 5: Enter a **Share Folder** name in the field provided and click **OK**.



Create Share Folder - Volumes & Quotas

Step 6: Once the **Share Folder** name is chosen, select one or all of the **Share Folder Options**.

Click the radio buttons to configure the folder options.

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

Select **Enable** or **Disable** according to your choice.

Create Share Folder

Volume Path

Select Path: /Volume_2/Sample

Share Folder Options

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota

Quotas: 0 MB

Previous Next Cancel

Create Share Folder - Volumes & Quotas

Step 6: Map Archive: means that backed up data is kept in a file that lists what files were backed up and on what dates. It compares file modification dates and maps data to that archive.

Click the **Set Quota** box and enter a number in Megabytes

Create Share Folder

Volume Path

Select Path:

Share Folder Options

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota
Quotas: MB

Previous Next Cancel

Create Share Folder - Volumes & Quotas

Step 6: **Recycle Bin is:** means that any files within the **Share Folders** can be deleted and placed in the Recycle Bin. If this is disabled then a user cannot delete an item into the **Recycled Bin**.

Click the **Set Quota** box and enter a number in Megabytes

Create Share Folder

Volume Path

Select Path:

Share Folder Options

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota
Quotas: MB

Previous Next Cancel

Create Share Folder - Volumes & Quotas

Step 7: Click the **Set Quota** check box and type the storage amount in megabytes.

Click **Next** to continue.

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

Create Share Folder

Volume Path

Select Path:

Share Folder Options

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota
Quotas: MB

Previous Next Cancel

Click **Next** to continue.

Create Share Folder - Select Service

Step 8: Select the Service you wish to enable.
There are six services: CIFS, AFP, FTP, NFS,
Web File Manager, and WebDAV.



Click **Next** to continue.

Create Share Folder - Access Rights

Step 8: Select **All Users** or **Specific User**. Click **Next** to continue.



Use the radio button to select **All Users** or **Specific User**

Click **Next** to continue.

Create Share Folder - Access Rights

Step 9: Select the **Access Rights** of the folder.

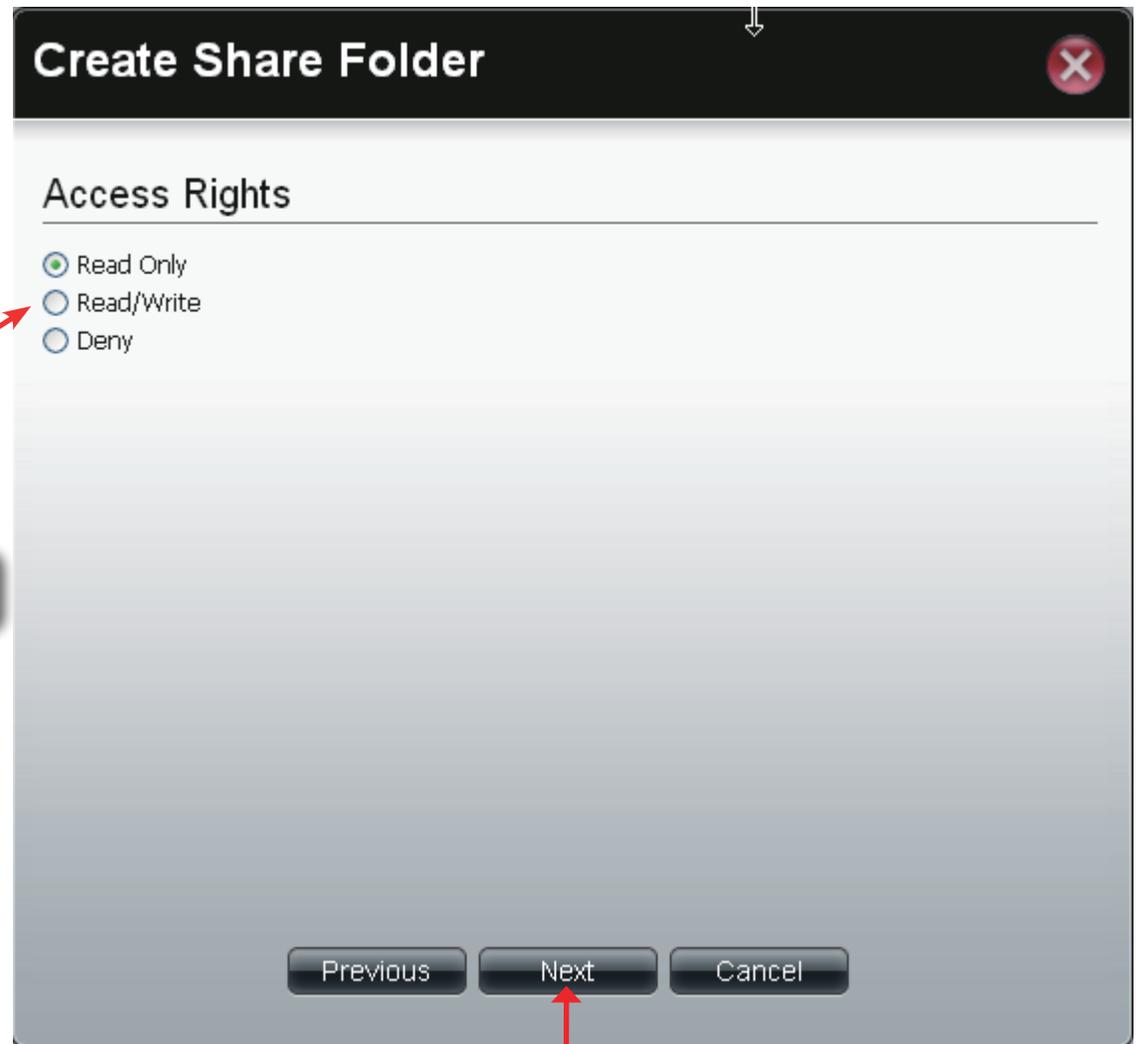
Read Only: Give the users read only access.

Read/Write: Give the users read and write access to the folder

Deny: Deny the user from accessing the shared folder.

Click **Next** to continue.

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



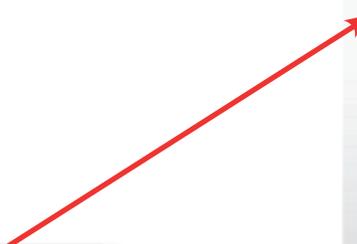
Click **Next** to continue.

Shared Folders

Step 10: The **Summary** window appears detail the events you just configured.

Click **Apply** when done.

Summary Report



Click **Apply** to continue.



Create Share Folder - Summary

Step 11: Click **Account Management**, **Shared Folders**. The newly created **Shared Folder** appears in the right-hand pane.

Shared Folder

Usage/Size

Status Options

Management

The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar displays '192.168.0.101/index.php?r=28650'. The page title is 'ShareCenter Pro™ by D-Link'. The user is logged in as 'admin'. The main content area is titled 'Account Management >> Share Folders'. On the left, a navigation tree shows 'Share Folders' selected. The main area contains a table with the following data:

Share Name	Usage Size	Status	Management
sample	0KB / 500 MB		S P C A F N M W

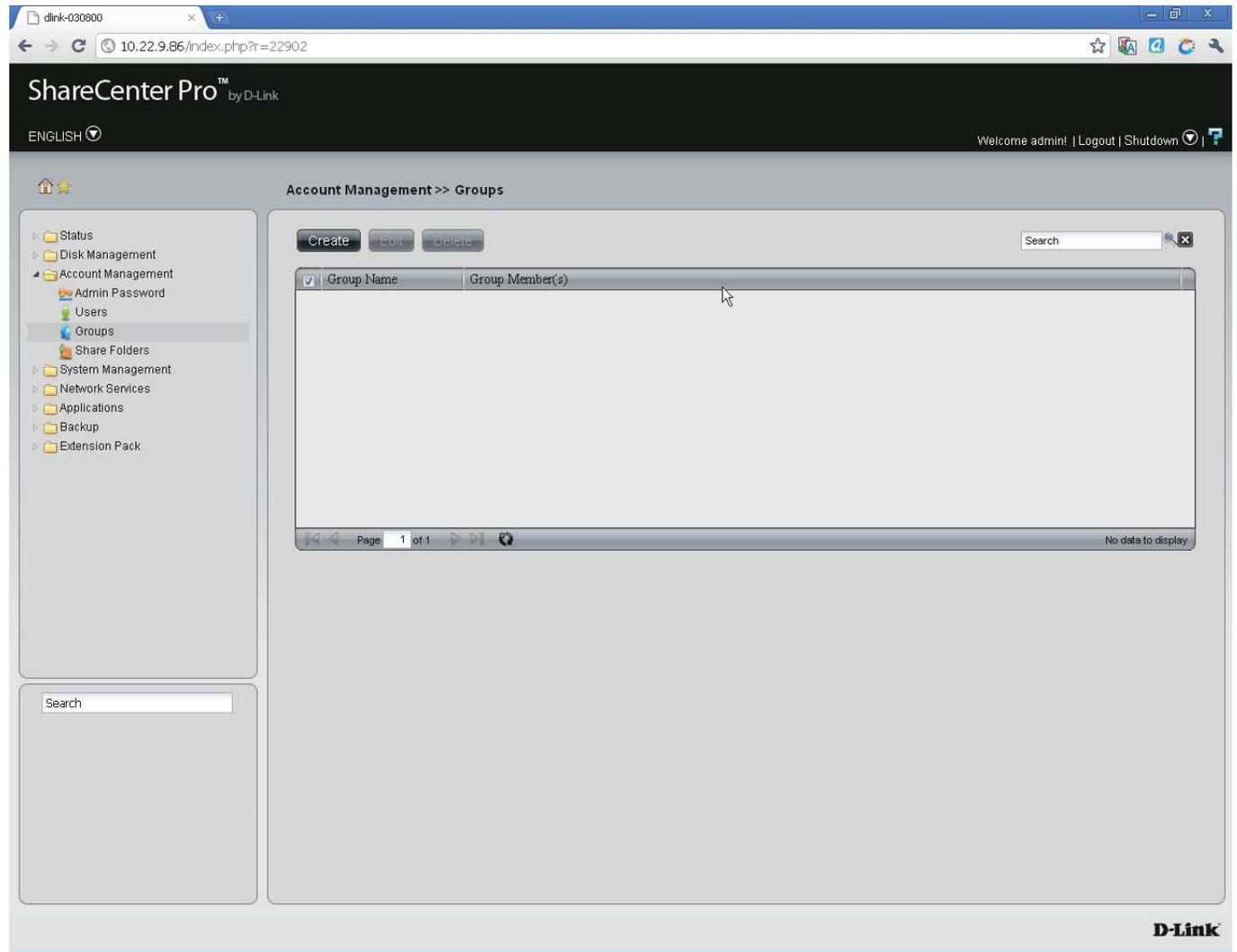
Red arrows point from the callout boxes on the left to the corresponding cells in the table: 'sample', '0KB / 500 MB', the status icon, and the management icons.

Chapter 8 - Software - Creating a Group

The D-Link ShareCenter Pro 1100-04 allows you to create groups for users/shared folders to access. Let's take a look.

Software - Creating a Group

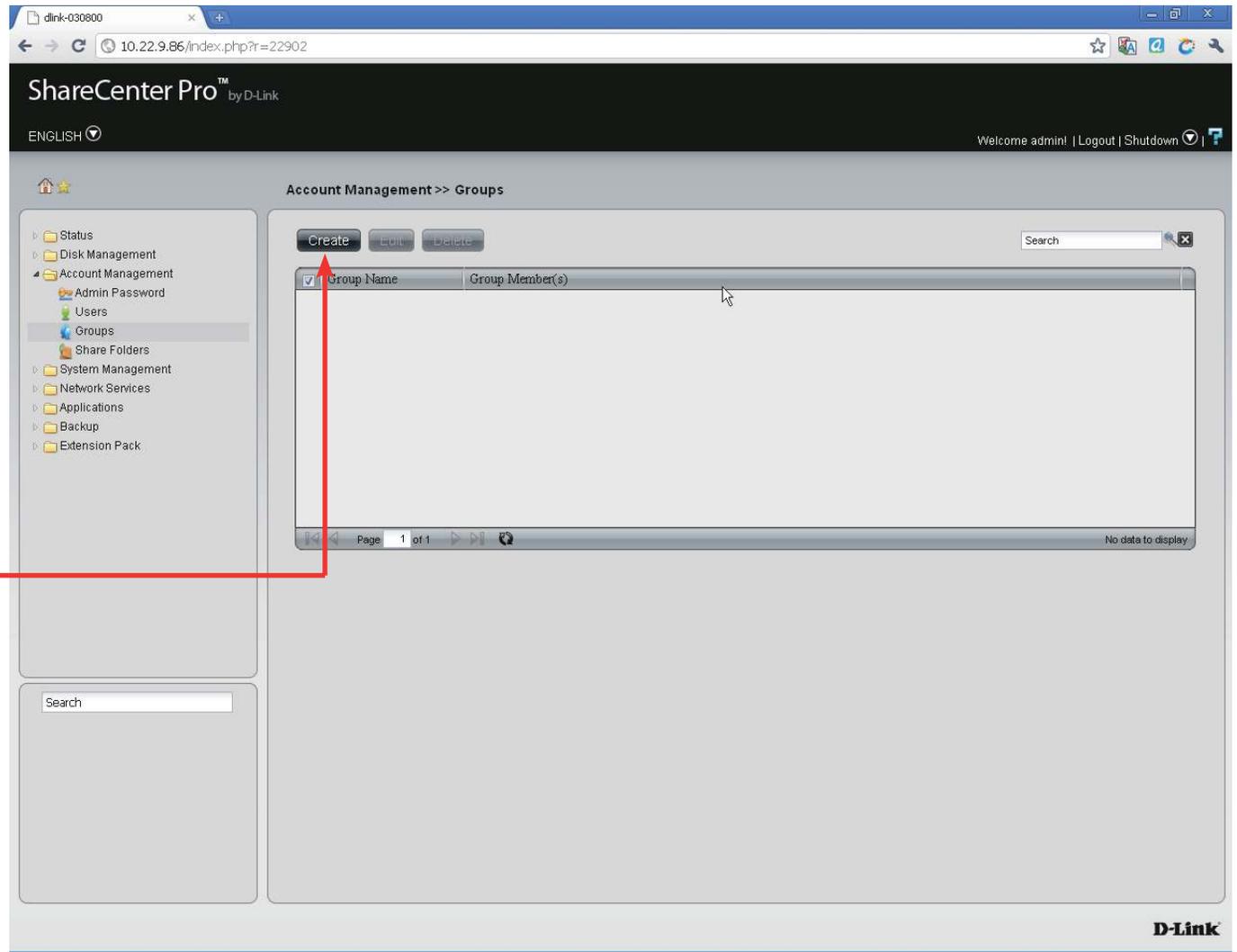
Step 1: Once logged in click **Account Management**, then **Groups**.



Software - Creating a Group

Step 2: Click Create.

Click Create



Software - Creating a Group

Step 3: Under **Group Name** type in the name of the group and click **Next**

Enter a **Group Name**

Create Group

Group Info

Group Name:

Previous Next Cancel

Click **Next** to continue

Software - Adding Users to a Group

Step 4: Add **Users** to the Group. Click the check-box next to the name of the user.

Add a **User** to the Group

Create Group

User List

Search

User Name	Add
John	<input checked="" type="checkbox"/>
Karl	<input checked="" type="checkbox"/>

Page 1 of 1 Displaying 1 - 2 of 2

Previous **Apply** Cancel

Click **Apply** to save the changes.

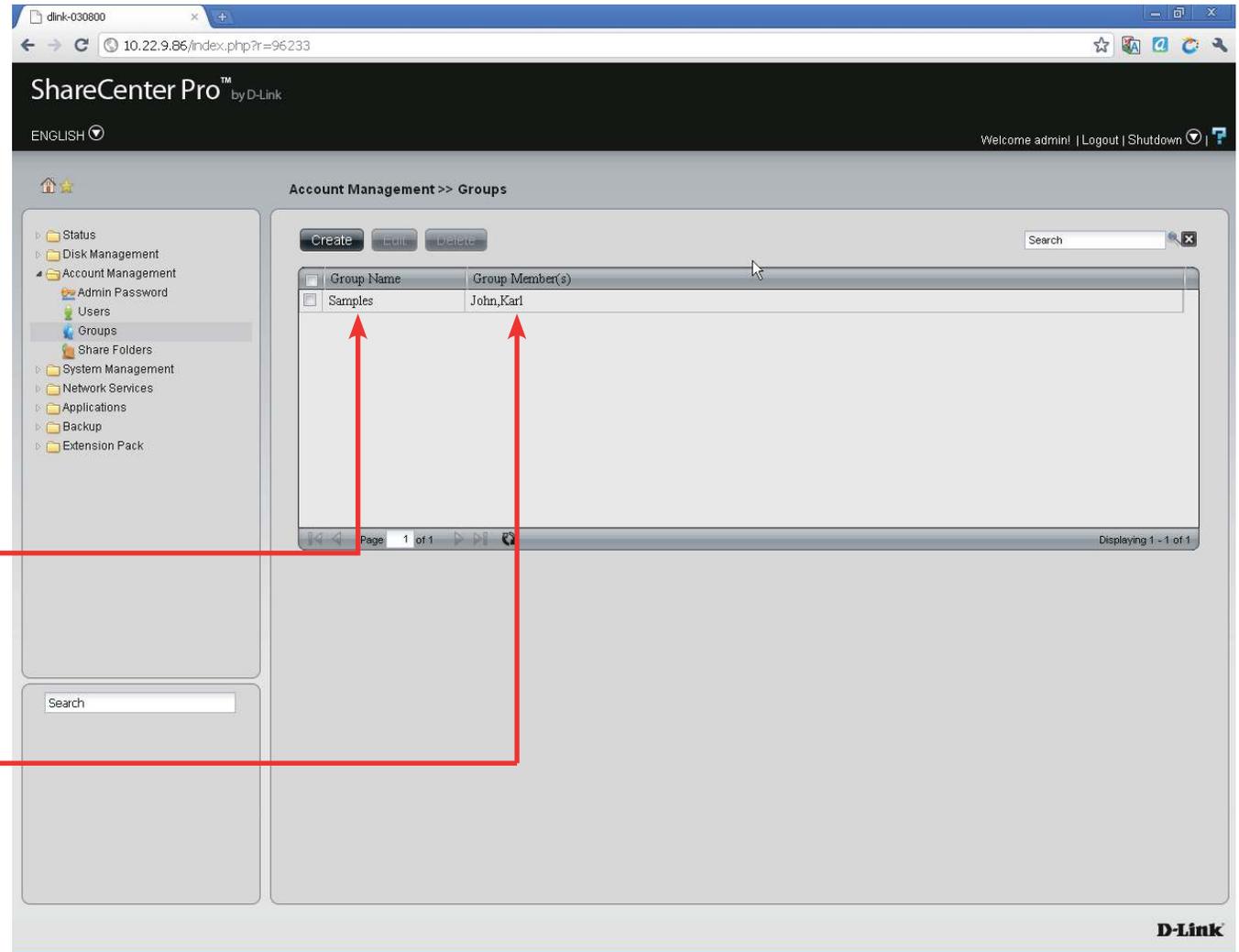
Software - Adding Users to a Group

Step 5: After the changes are applied, the ShareCenter Pro reverts back to the **Accounts Management, Groups** window.

The new **Group** is created with information on the users

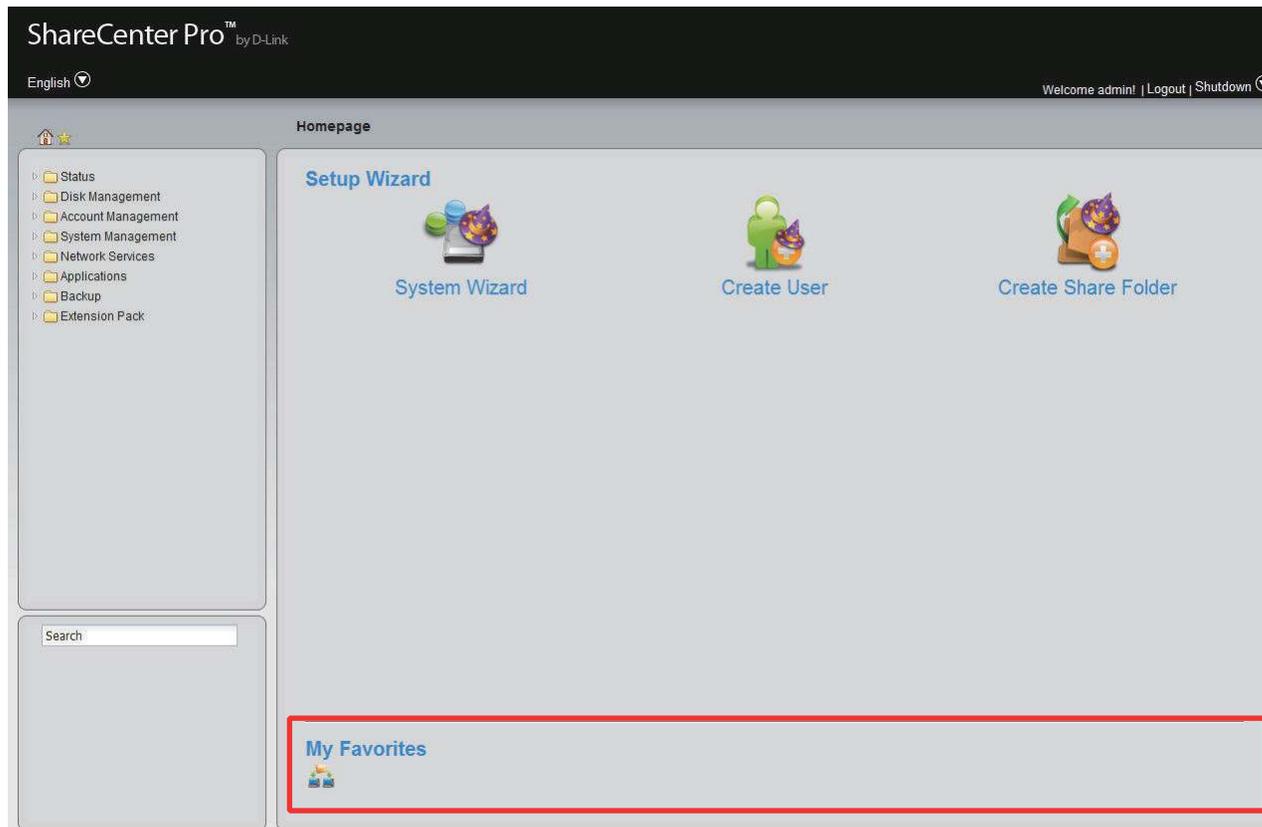
Group Name

Users added to the Group



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.

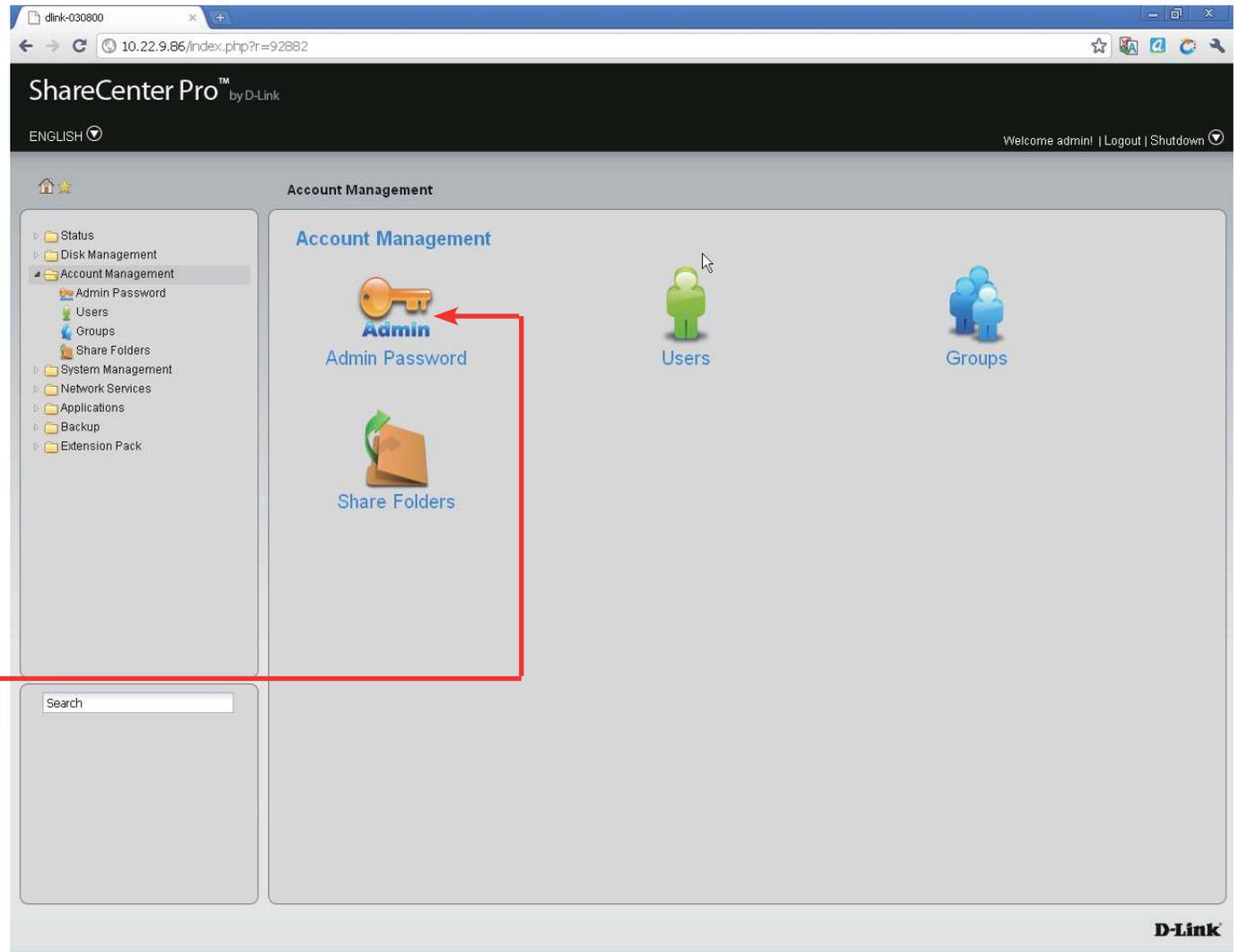


Chapter 9 - Software - Admin Password

The D-Link ShareCenter Pro 1100-04 allows you to create and change the Administrator Password. Let's take a look.

Software - Admin Password

Step 1: Log into the ShareCenter Pro. Click **Account Management**, then click **Admin Password**.



Click Admin Password

Software - Admin Password

Step 2: Enter a **Username**, the original password. Then the **New Password** and retype that password again in the fields provided.

- 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 continue.

The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `10.22.9.86/index.php?r=98648`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin". The main content area is titled "Account Management >> Admin Password" and contains the "Administrator's Password Settings" form. The form has four input fields: "User Name" (containing "admin"), "Password" (empty), "New Password" (masked with "*****"), and "Confirm Password" (masked with "*****"). At the bottom right of the form are "Apply" and "Cancel" buttons. A red arrow points from a callout box to the "Apply" button.

Click **Apply** to save the changes

Software - Admin Password

Step 3: A confirmation window appears to inform you that the changes have been saved.

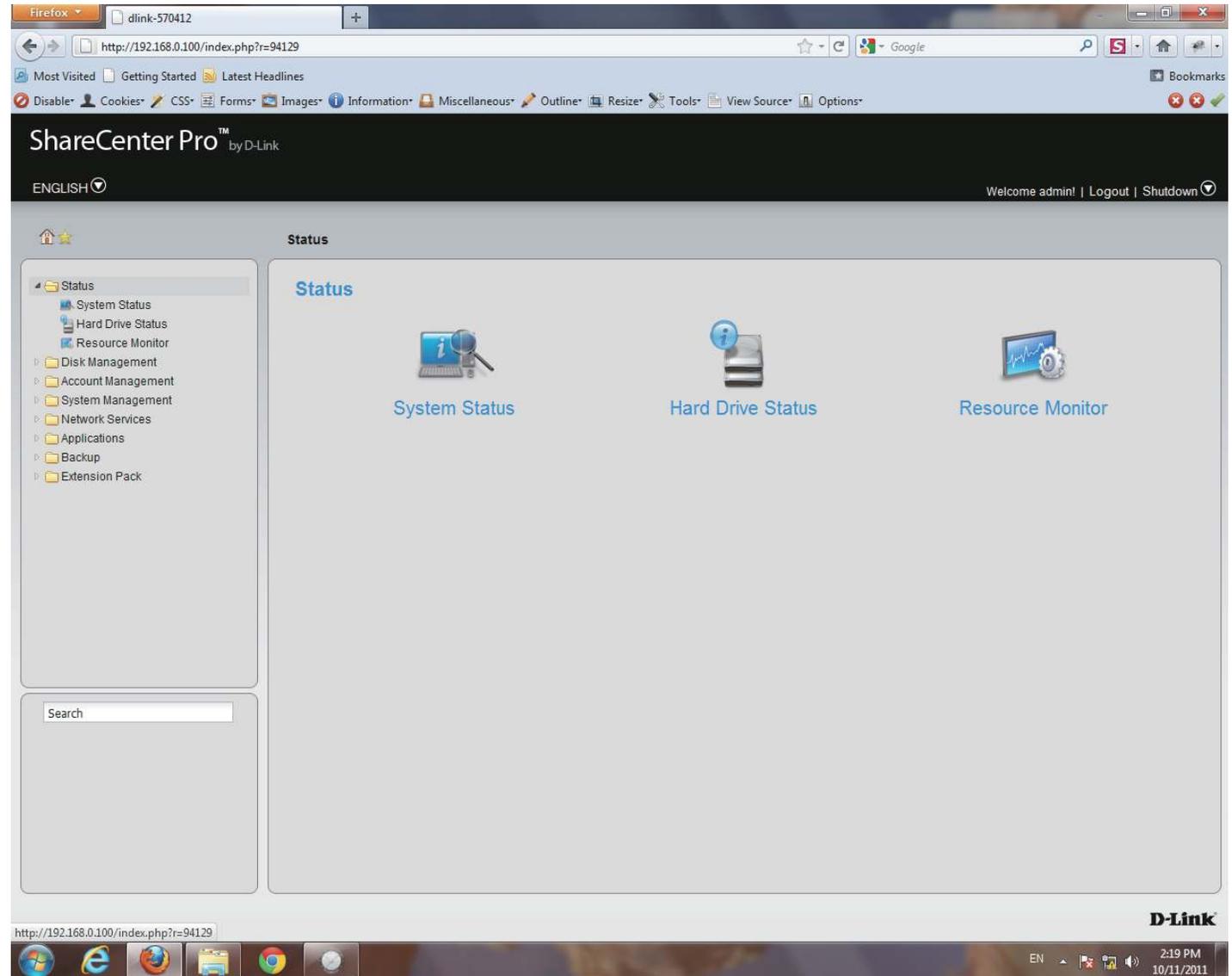


Chapter 10 - Software - System & Hard Drive Status

The D-Link ShareCenter Pro 1100-04 allows you to check the status of your machine through the web UI. Let's take a look.

Software - Status Management

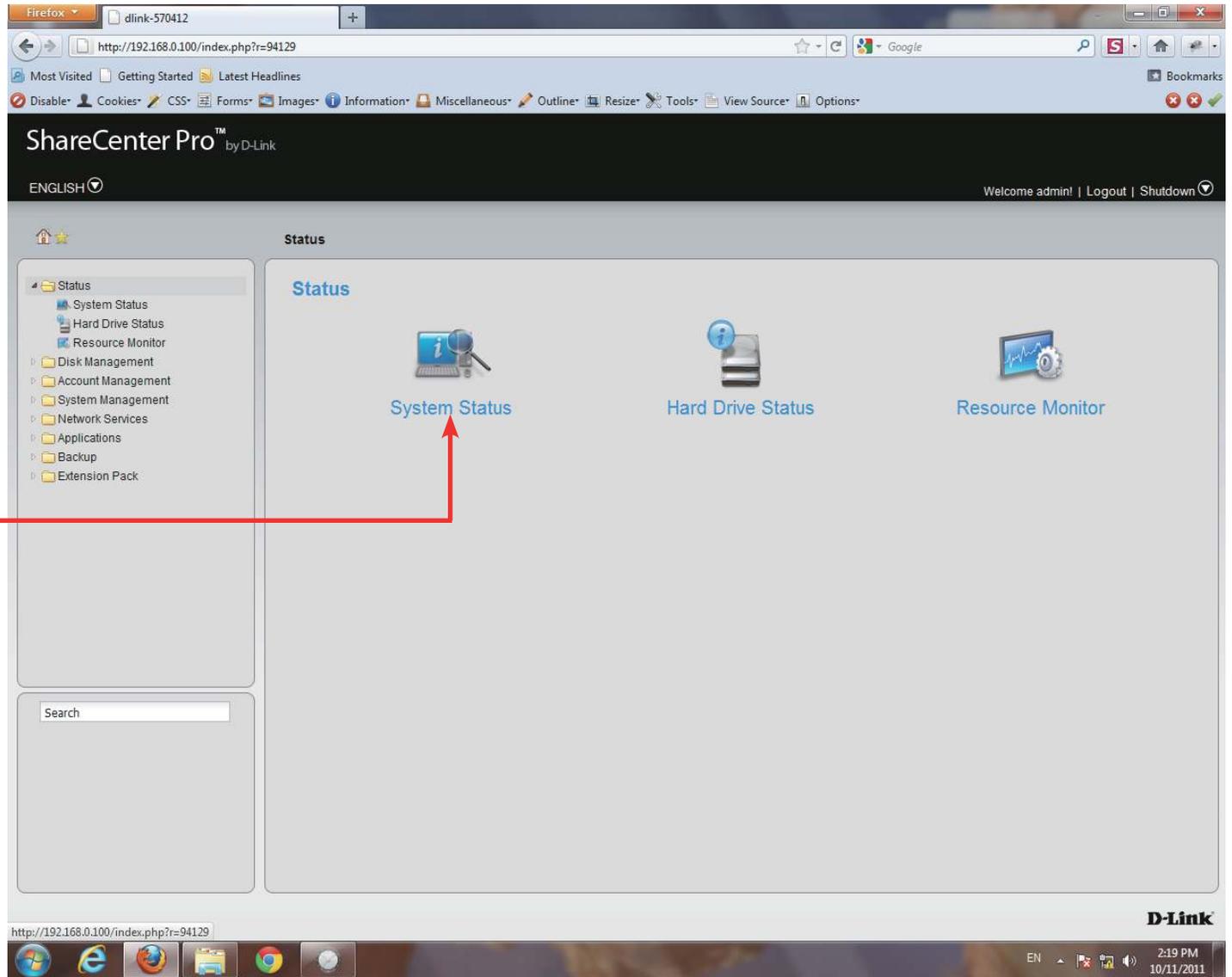
Step 1: Click the **Status Folder** icon in the left pane of the ShareCenter Pro 1100-04. It reveals System Status, Hard Drive Status, and Resource Monitor.



Software - System Status

Step 2: Click the **System Status** icon.

Click the **System Status** icon



Software - System Status

Step 3: The Status, System Status information window pane provides **Basic Information**, **LAN 1 & 2** information, **Network Settings**, and **Date and Time Settings**.

Basic Information	
Model Name:	ShareCenter Pro 1200
Current Firmware Version:	1.01b11
System Temperature:	33°C/91°F
LAN 1 Information	
MAC Address:	00:60:42:57:04:12
IP Address:	192.168.0.100
Subnet Mask:	255.255.255.0
Gateway:	192.168.0.1
LAN 2 Information	
MAC Address:	00:60:42:57:04:13
IP Address:	192.168.1.32
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.1
Network Settings	
Host Name:	dlink-570412
Primary DNS:	192.168.0.1
Secondary DNS:	
Default Gateway:	192.168.0.1
Date and Time	
Current Time:	14:24:25 10/11/2011
Current Time Zone:	(GMT+08:00) Taipei
Up Time:	0 day(s) 2 hour(s) 8 minute(s)
USB Disk Information (Left Port, from rear of view)	
Manufacturer:	ChipBank
Product:	SD/MM Reader
Size:	0.95 GB
Detail:	USBDisk1_1 File System: NTFS Unused size: 928.66 MB

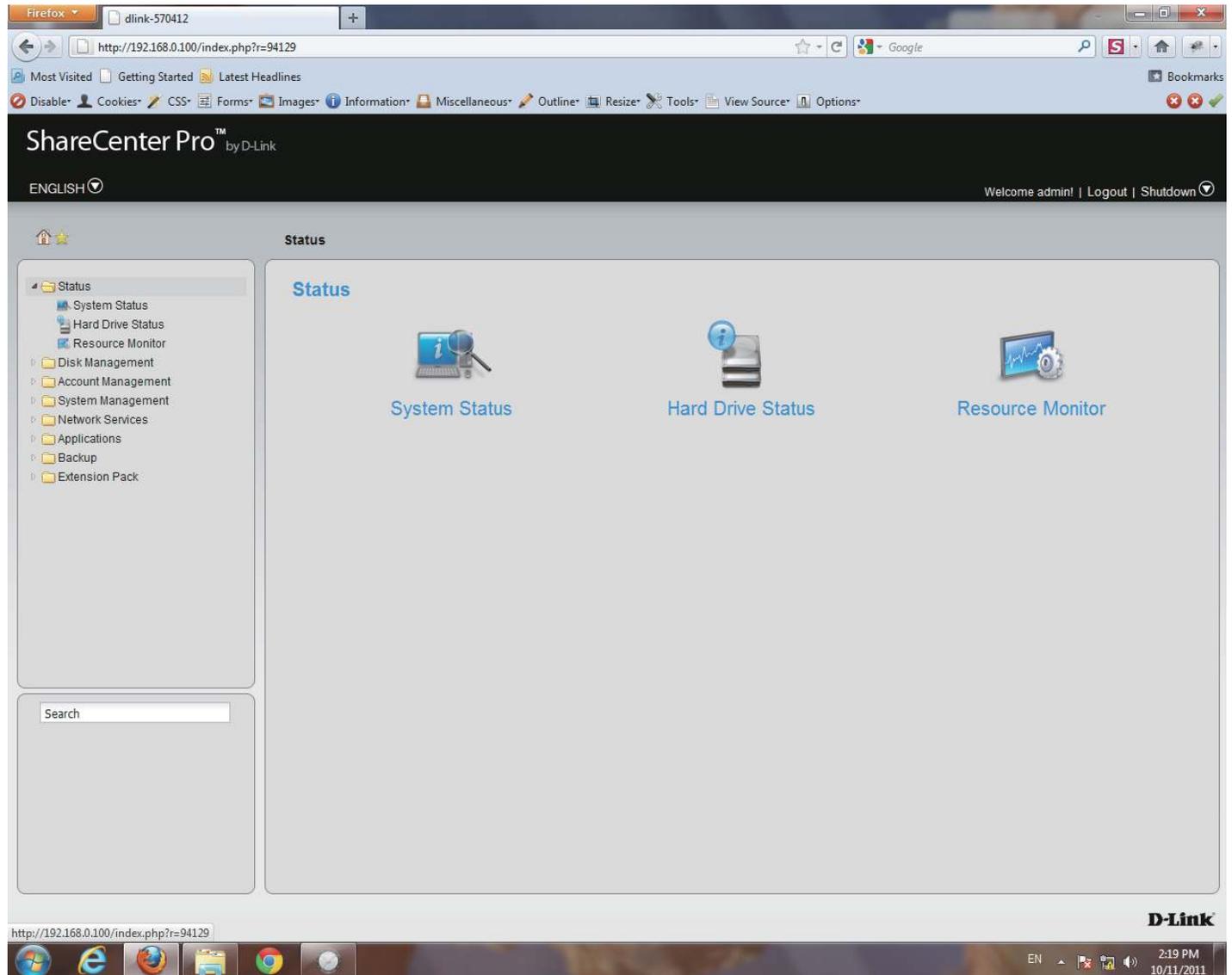
System Status

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.

Basic Information	
Model Name:	ShareCenter Pro 1200
Current Firmware Version:	1.01b11
System Temperature:	33°C/91°F
LAN 1 Information	
MAC Address:	00:60:42:57:04:12
IP Address:	192.168.0.100
Subnet Mask:	255.255.255.0
Gateway:	192.168.0.1
LAN 2 Information	
MAC Address:	00:60:42:57:04:13
IP Address:	192.168.1.32
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.1
Network Settings	
Host Name:	dlink-570412
Primary DNS:	192.168.0.1
Secondary DNS:	
Default Gateway:	192.168.0.1
Date and Time	
Current Time:	14:24:25 10/11/2011
Current Time Zone:	(GMT+08:00) Taipei
Up Time:	0 day(s) 2 hour(s) 8 minute(s)
USB Disk Information (Left Port, from rear of view)	
Manufacturer:	ChipBank
Product:	SD/MM Reader
Size:	0.95 GB
Detail:	USBDisk1_1 File System: NTFS Unused size: 928.66 MB

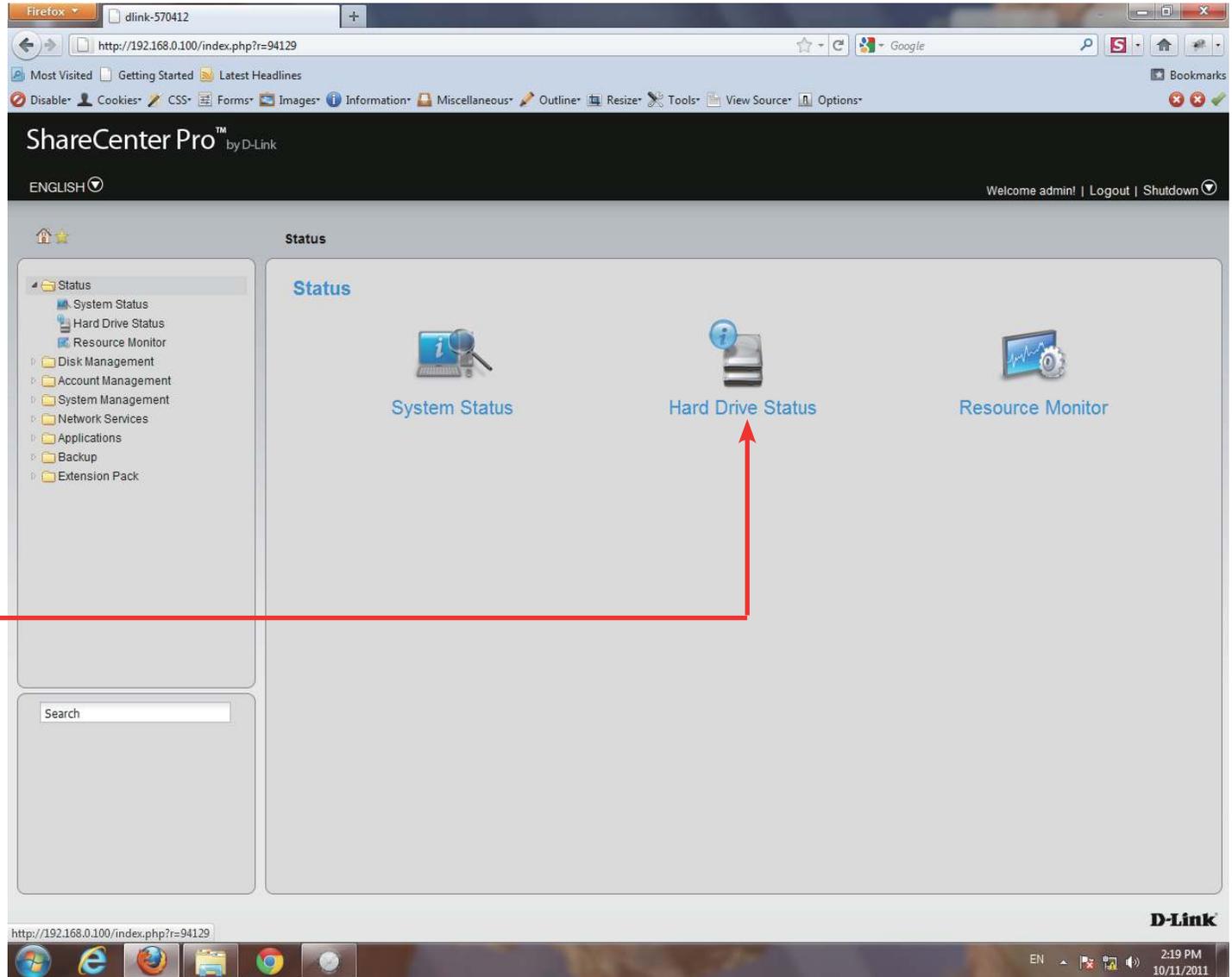
Software - Hard Drive Status

Step 1: Click the **Status** Folder icon in the left pane of the ShareCenter Pro 1100-04



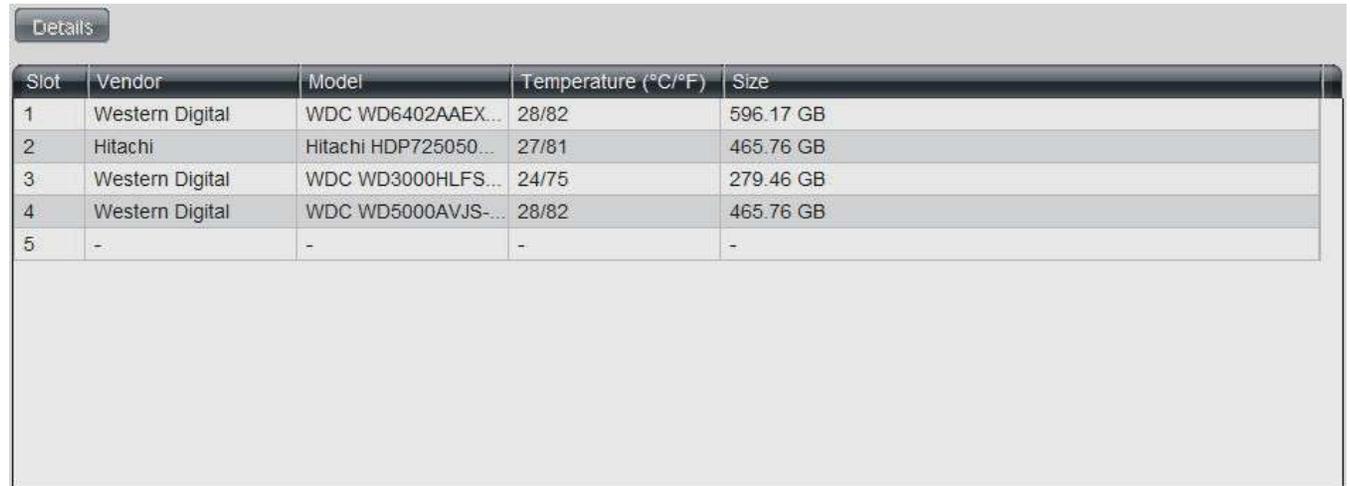
Software - Hard Drive Status

Step 2: Click the **Hard Drive Status** icon in the right pane



Software - Hard Drive Status

Step 3: 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.



Slot	Vendor	Model	Temperature (°C/°F)	Size
1	Western Digital	WDC WD6402AAEX...	28/82	596.17 GB
2	Hitachi	Hitachi HDP725050...	27/81	465.76 GB
3	Western Digital	WDC WD3000HLFS...	24/75	279.46 GB
4	Western Digital	WDC WD5000AVJS...	28/82	465.76 GB
5	-	-	-	-

Software - Hard Drive Status

Step 4: Double-click each hard drive to view the **S.M.A.R.T. information**

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

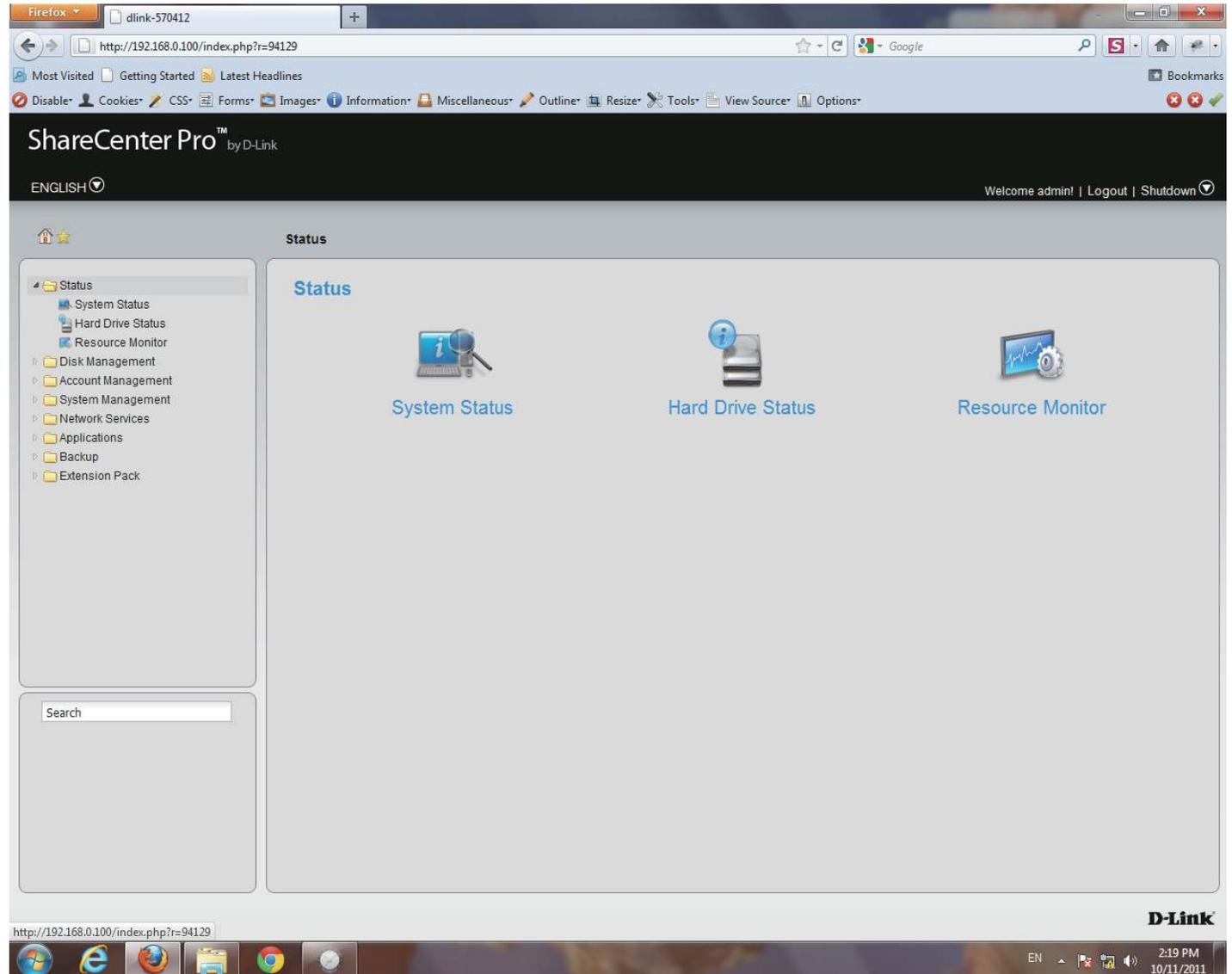
Click the  to close the window.

S.M.A.R.T. Information X

Name	Now	Worst	Thresh	Value
Raw Read Error Rate	99	99	14	131072
Throughput Performance	100	100	44	0
Spin Up Time	116	116	20	330
Start Stop Count	100	100	0	857
Reallocated Sector Ct	96	96	5	228
Seek Error Rate	100	100	55	0
Seek Time Performance	100	100	16	0
Power On Hours	100	100	0	1384
Spin Retry Count	100	100	48	0
Power Cycle Count	100	100	0	609
Power-Off Retract Count	100	100	0	889
Load Cycle Count	100	100	0	889
Temperature Celsius	153	153	0	39
Reallocated Event Count	92	92	0	322
Current Pending Sector	100	100	0	0
Offline Uncorrectable	100	100	0	0
UDMA CRC Error Count	200	200	0	114

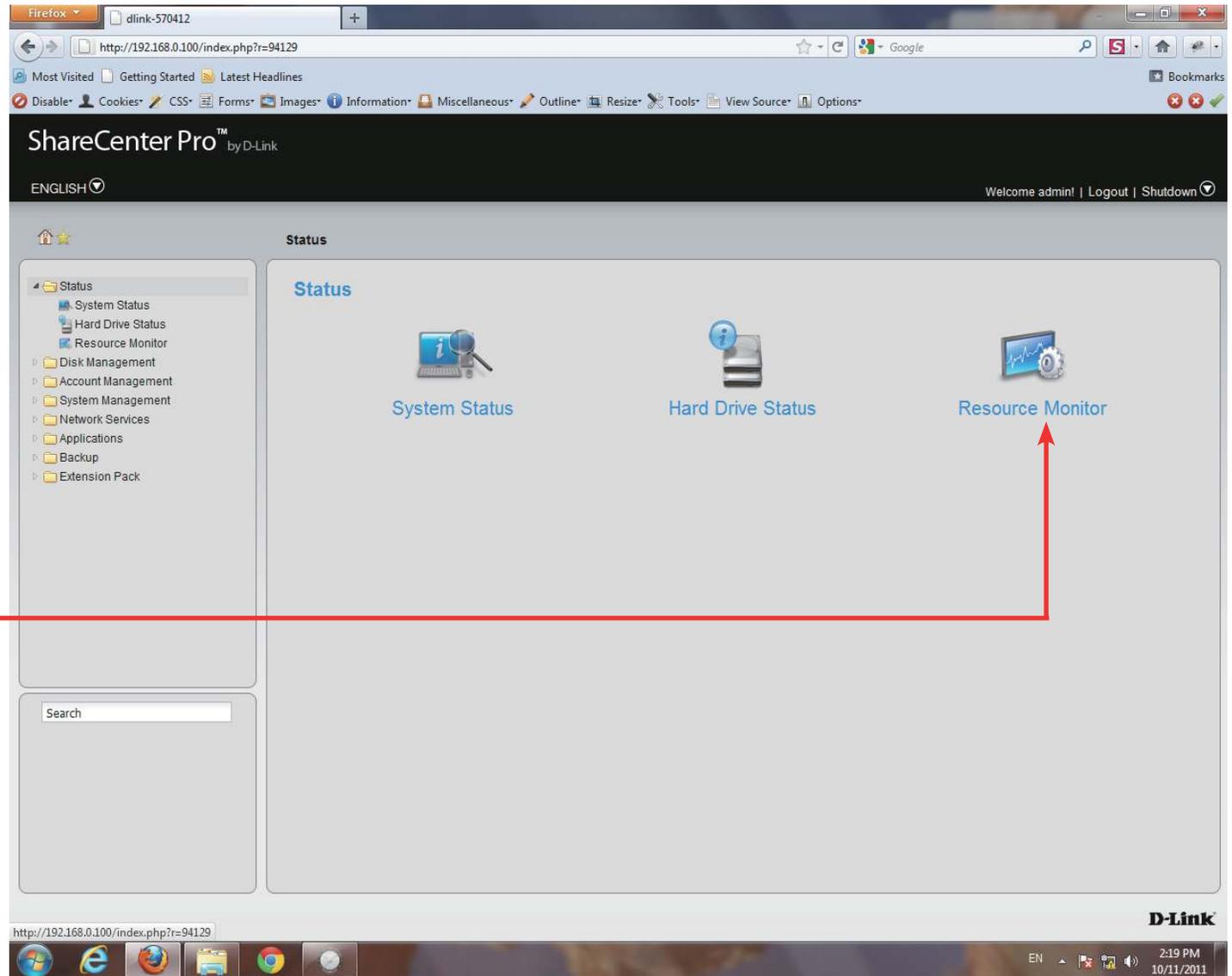
Software - Resource Monitor

Step 1: Click the **Status** Folder icon in the left pane of the ShareCenter Pro 1100-04



Software - Resource Monitor

Step 2: Click the **Resource Monitor** icon in the right pane.

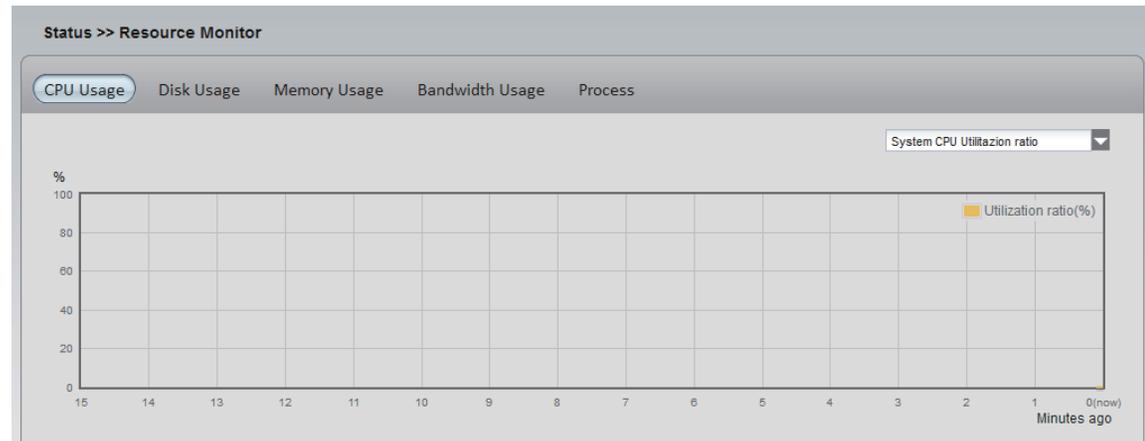


Click the **Resource Monitor** icon

Software - Resource Monitor

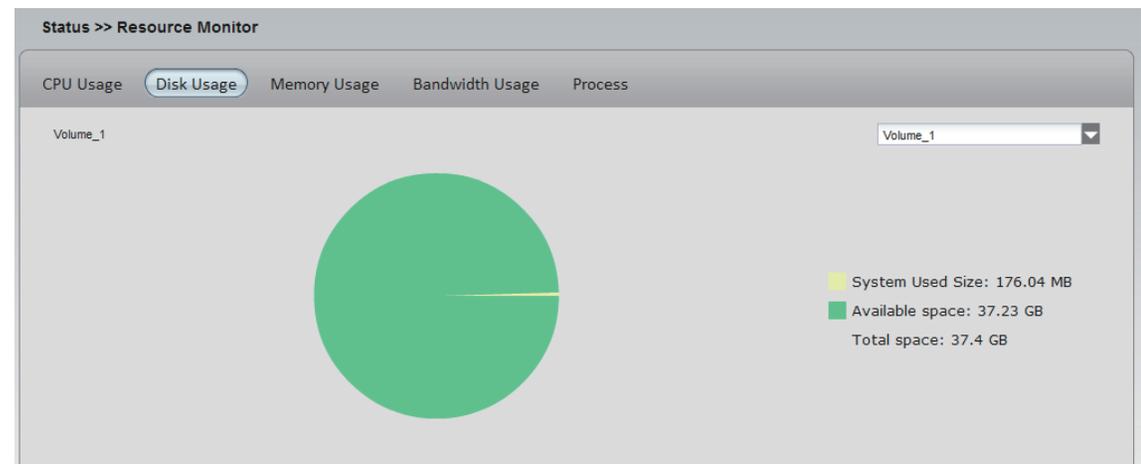
Step 3: Another Status utility is the **Resource Monitor**. It has five informational screens: **CPU Usage**, **Disk Usage**, **Memory Usage**, **Bandwidth Usage**, and **Process**.

CPU Usage Shows what percentage of data is being used for the CPU.



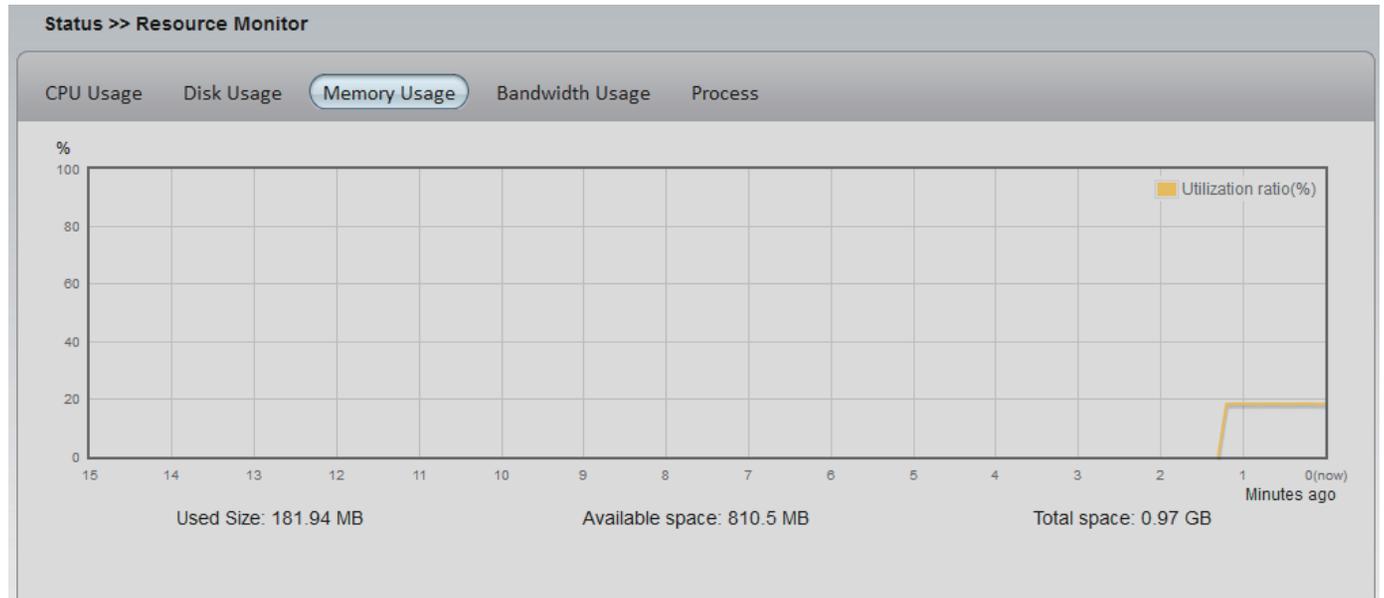
Disk Usage Shows the used space, the available space, and the total space.

The iSCSI Target Used Size will be displayed when iSCSI LUNs are created

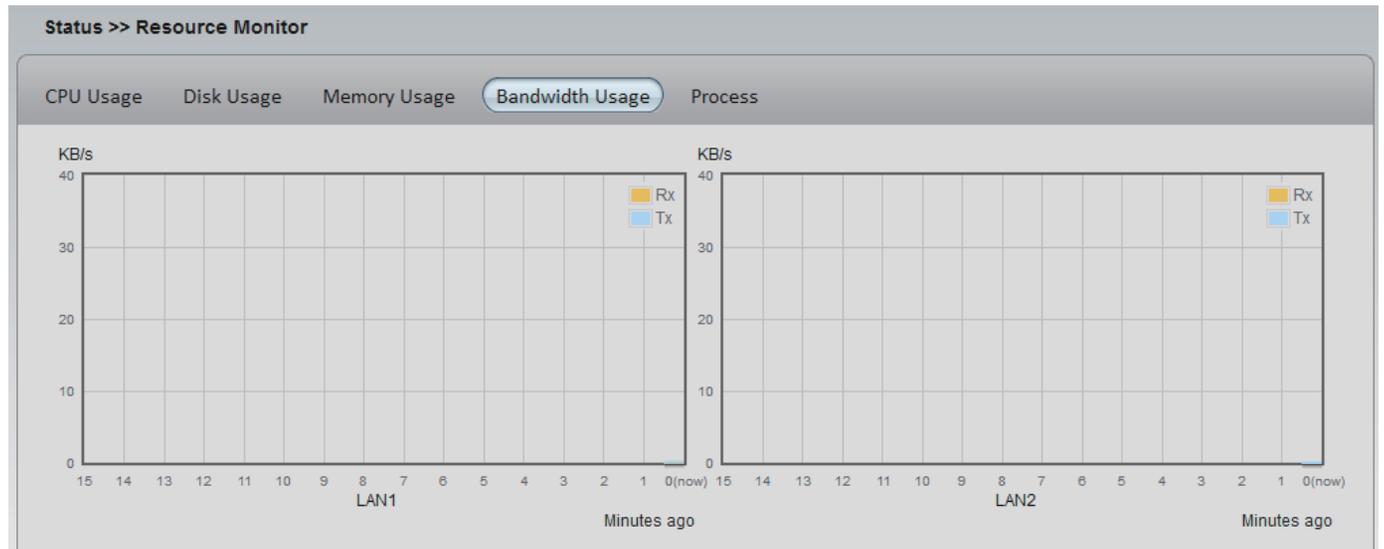


Software - Resource Monitor

Step 4: Memory Usage Shows how much memory is being consumed.

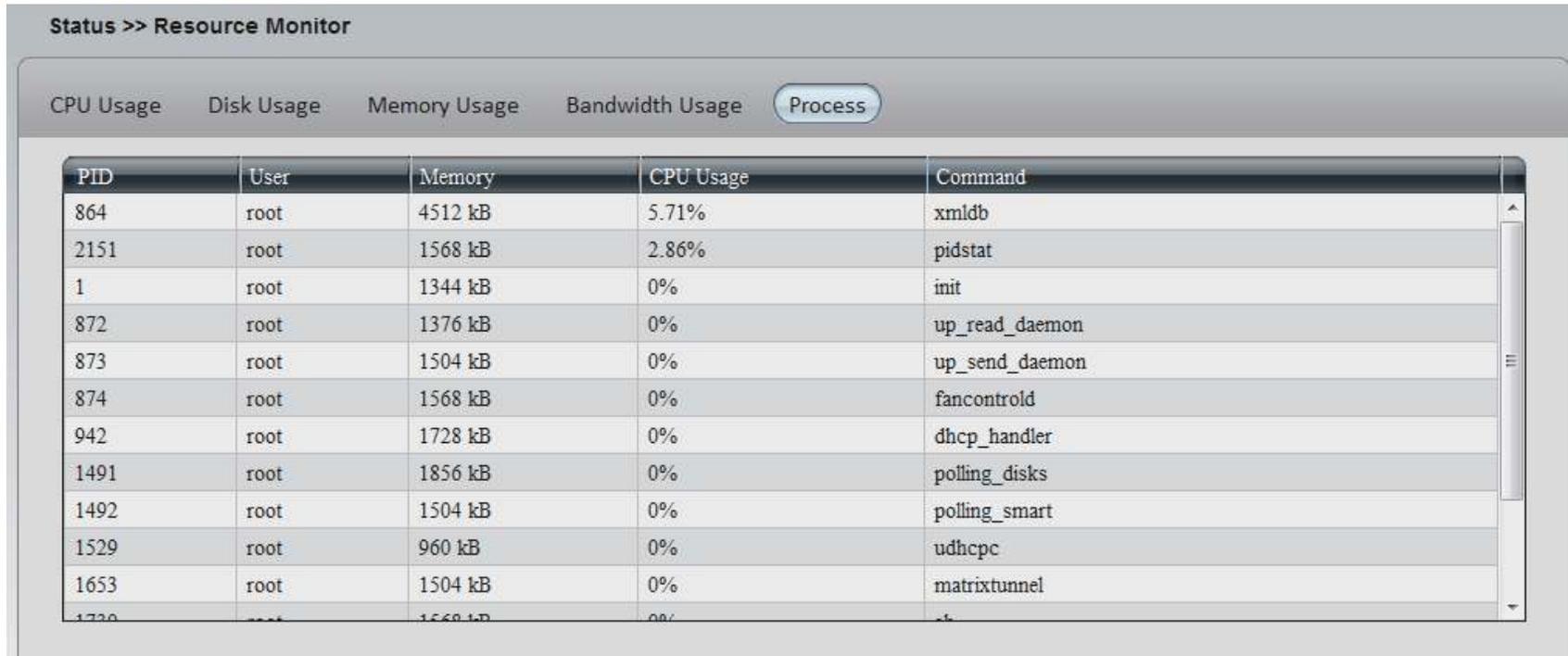


Bandwidth Usage Shows data transfer on 2 LAN ports.



Step 5:

Process This table shows PID, User, Memory, CPU Usage, and Command data information.



The screenshot shows the 'Resource Monitor' window with the 'Process' tab selected. The table below displays the following data:

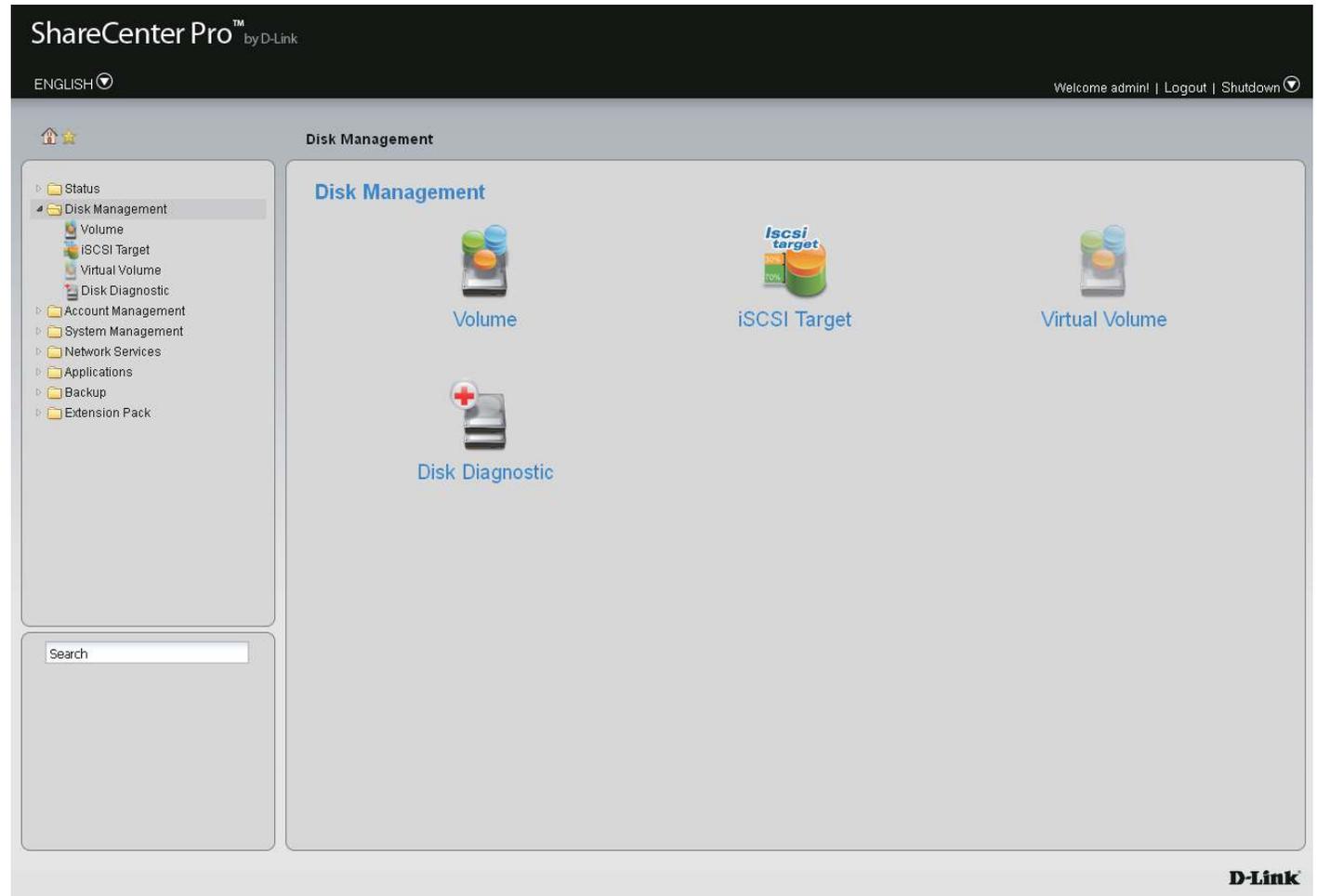
PID	User	Memory	CPU Usage	Command
864	root	4512 kB	5.71%	xmldb
2151	root	1568 kB	2.86%	pidstat
1	root	1344 kB	0%	init
872	root	1376 kB	0%	up_read_daemon
873	root	1504 kB	0%	up_send_daemon
874	root	1568 kB	0%	fancontrold
942	root	1728 kB	0%	dhcp_handler
1491	root	1856 kB	0%	polling_disks
1492	root	1504 kB	0%	polling_smart
1529	root	960 kB	0%	udhcpc
1653	root	1504 kB	0%	matrixtunnel
1730	root	1568 kB	0%	st

Chapter 11 - Software - Disk Management

The D-Link ShareCenter Pro 1100-04 allows you to manage various aspects of the machine - primarily the disks. Let's take a look.

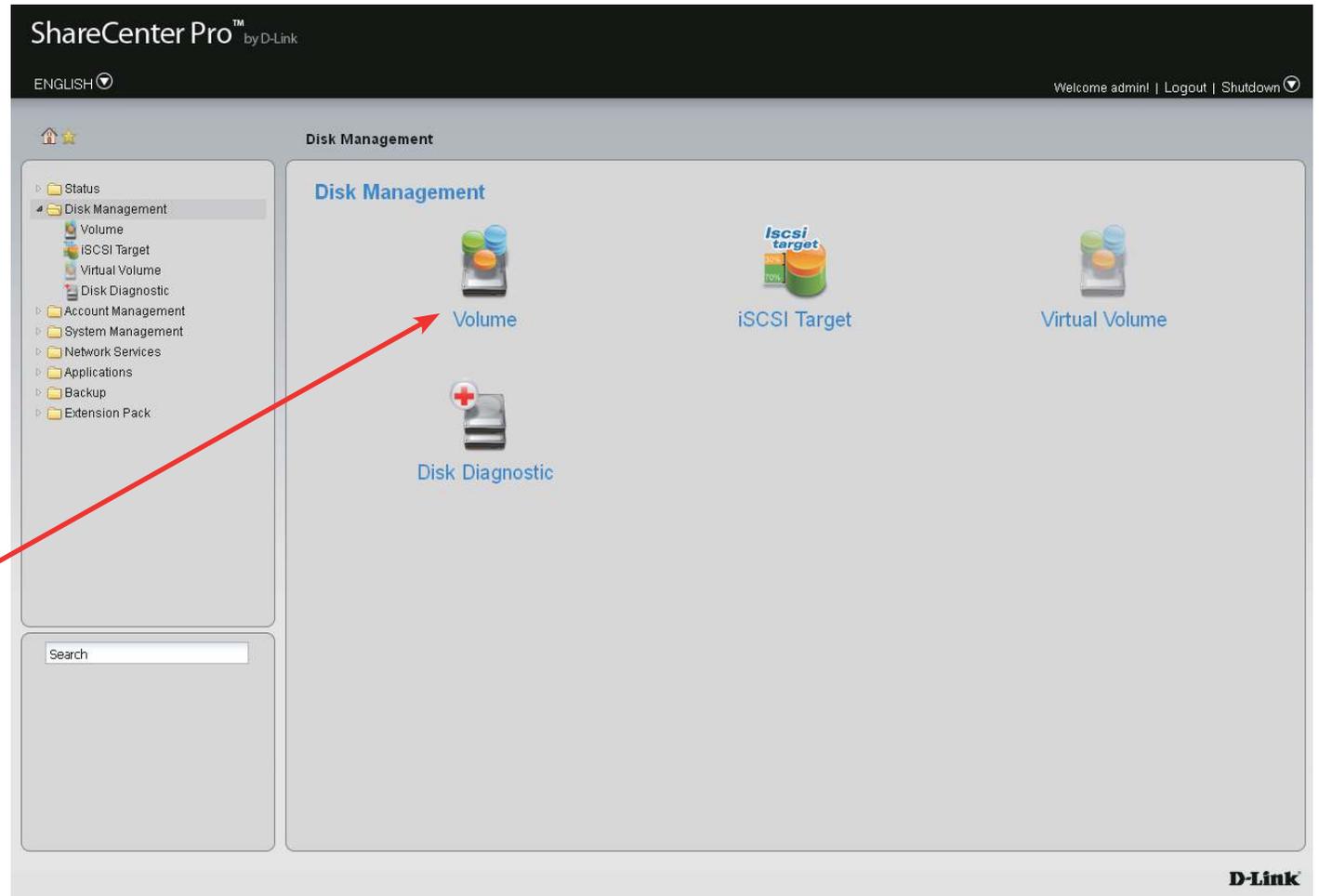
Software - Disk Management

Step 1: Click the **Disk Management** Folder icon in the left pane of the ShareCenter Pro 1100-04



Software - Disk Management

Step 2: Click the **Volume** icon.



Software - Disk Management - Volume

Step 3: When you click a volume the ShareCenter Pro 1100-04 provides different volume configuration types. Click a volume and the choices are alight.

Create Click this button to create a **new volume**.

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

Extend/Spare Click to add a hard drive(s) to extend a volume, or set a spare 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 the volume.

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

Volume	Level	State	Encryption	Disk(s)	Used Size / Total Size
Volume_1	RAID 5	Normal	Enabled, Unlock	1, 2, 3, Spare (4)	197.7 MB / 548.15 GB
Volume_50	Standalone	Normal	Disabled	1	194.83 MB / 311.73 GB
Volume_51	Standalone	Normal	Disabled	2	187.45 MB / 183.37 GB

Software - Disk Management - Create a Volume

Step 4: Click **Create** to create a new volume. The following choices are provided.

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

Create Volume

RAID Level

- Standalone Single hard drive.
- JBOD Concatenate hard drives.
- RAID 0 Disk array with best performance.
- RAID 1 Mirror disk array.
- RAID 5 Disk array with single fault tolerance.
- RAID 6 Disk array with double fault tolerance.

Disk(s)

RAID 6 requires a minimum of 4 disks in the array.

Array	Spare	Disk	Size
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Disk 1	596.17 GB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Disk 2	465.76 GB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Disk 3	279.46 GB
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Disk 4	465.76 GB

Previous Next Cancel

Click Next to continue

Software - Disk Management - Create a Volume

Step 5: Optional settings available are:

- 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.

Create Volume - Settings

Settings

Auto-rebuild: Enable Disable

Encryption: Enable Disable

Password:

Confirm Password:

Auto Unlock

USB Key

- Auto Unlock: Encrypted volumes are automatically unlocked during system start-up.
- USB Key: Store the password on a USB drive. This can be used to unlock encrypted volumes in the future. When USB drives are connected to the NAS, the system checks the password on it and unlocks the corresponding encrypted volume with that password. To use this feature, you must connect the USB drive before creating the volume.

Previous Apply Cancel

Click **Apply** to save the changes

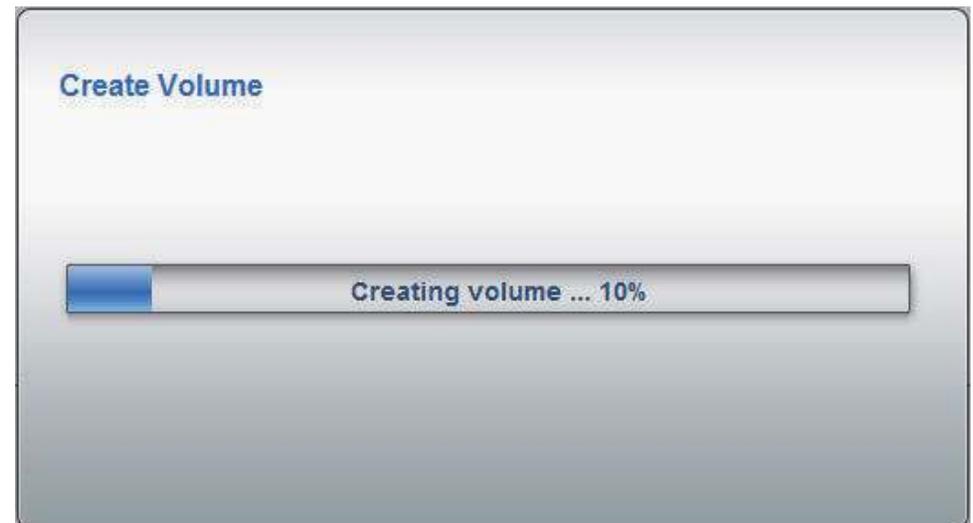
Software - Disk Management - Create a Volume

Step 6: 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.

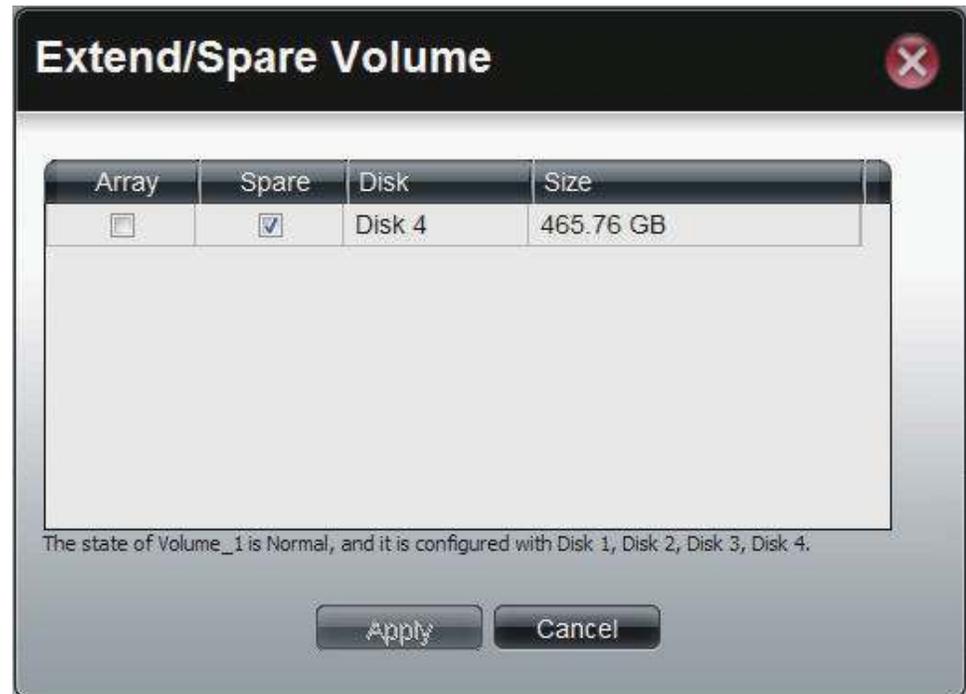


Software - Disk Management - Extend/Spare a Volume

Step 7: 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**.

Note: Only JBOD, RAID 0/1/5/6 supports volume extensions and only RAID 1/5 and 6 supports spare disk settings.



Software - Disk Management - Migrate a Volume

Step 7: Click a volume and the **Migrate** button to see the following window.

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

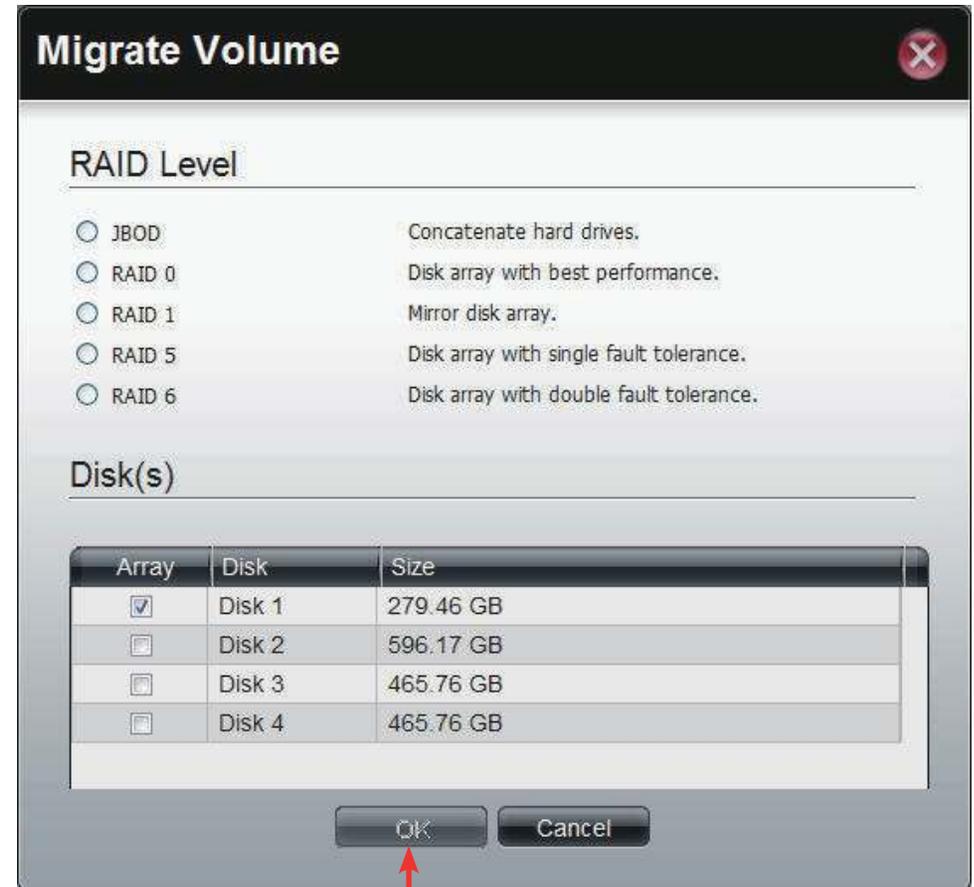
The wizard allows you to change the volume **RAID level**. Choose a **RAID level** and select the hard disks to be used in the migration.

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.



Click **OK** to save the changes

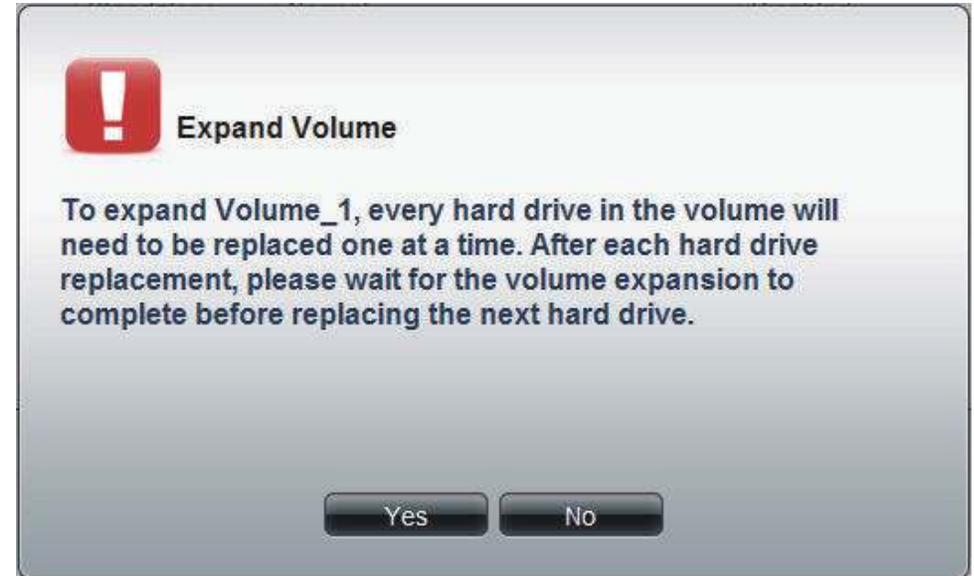
Software - Disk Management - Expand a Volume

- Step 8:**
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.



Volume	Level	State	Encryption	Disk(s)	Used Size / Total Size
Volume_1	RAID 1	Expand, insert a larger disk now.	Enabled, Unlock	3	191.05 MB / 274.08 GB

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

Disk Management - Change the Encryption Settings

Step 9: 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 **OK** to save the changes

Disk Management - Change the Encryption Settings

Step 10: This window displays the setting in the **Save** tab.

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



Step 11: This window displays the setting 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.



Disk Management - Change the Encryption Settings

Step 10: This window displays the setting in the **Mail** tab.

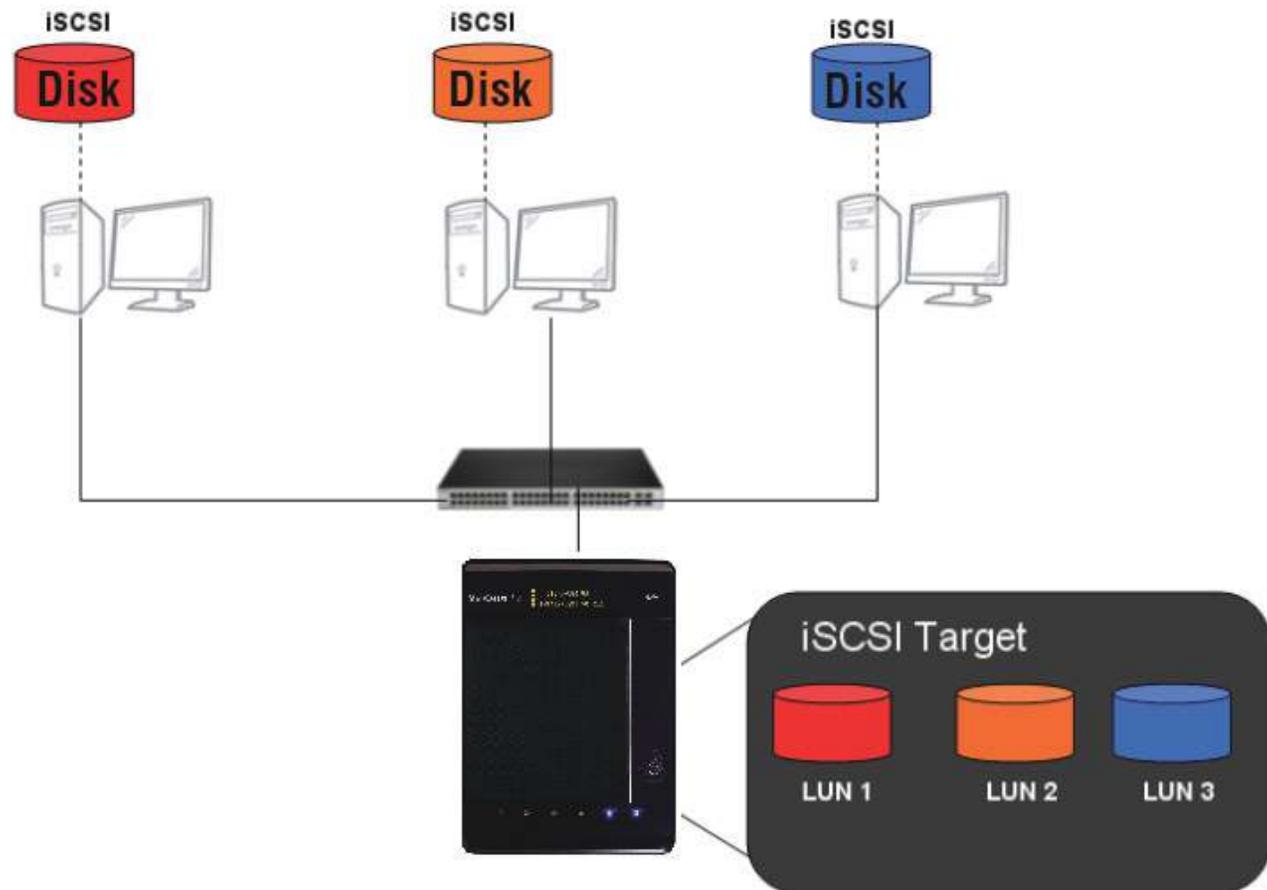
Click **Mail** to send the password to the administrator.



Click Mail

iSCSI Target

Your ShareCenter NAS 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 device at a time. However, it is possible that you can mount a iSCSI device 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 target at the same time. This will lead to data loss and system crash.

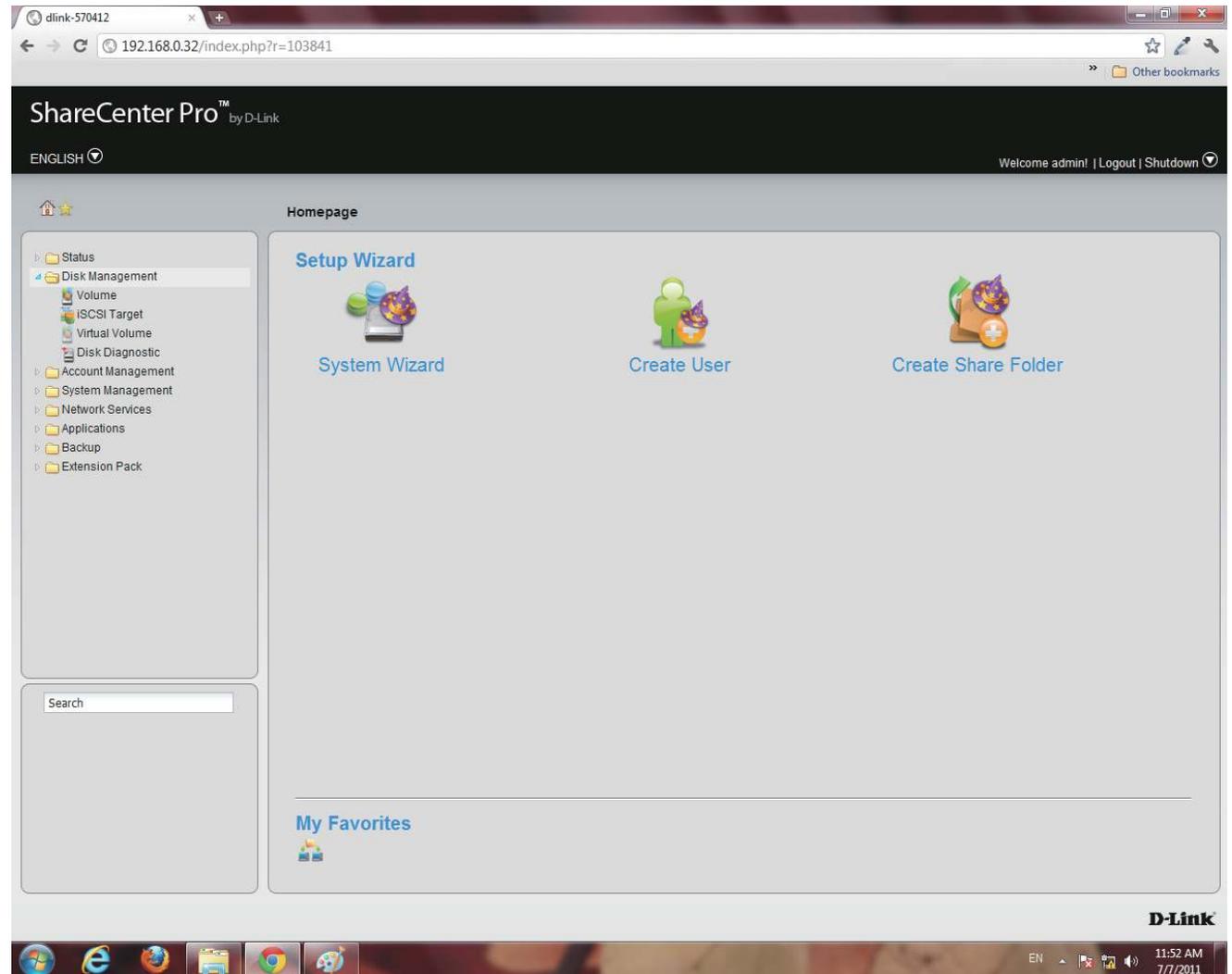
Create an iSCSI Target using the iSCSI Manager

Login to your ShareCenter Pro 1100-04 as an administrator. Follow the instructions on the next page.

iSCSI Target - iSCSI Manager

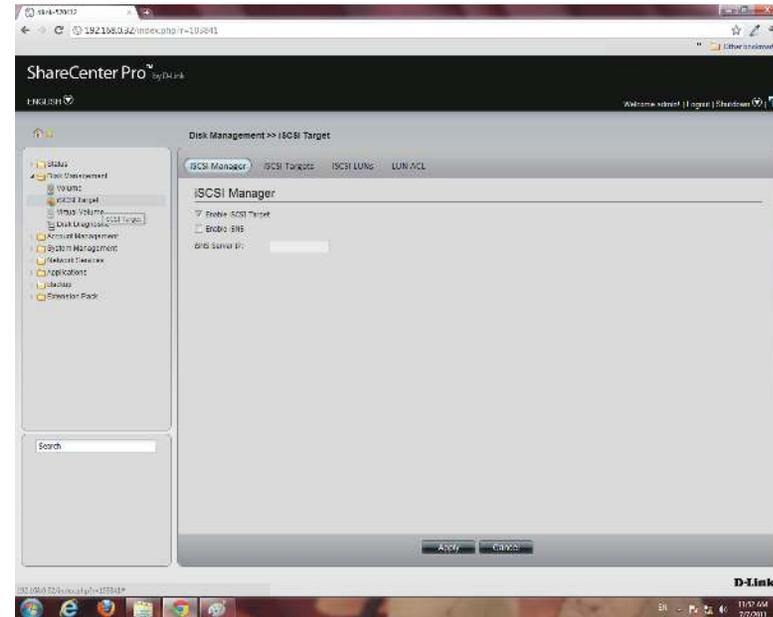
The iSCSI Target should not be confused with iSCSI which is a protocol, iSCSI Target is a storage server instance. iSCSI is a dedicated network connected hard disk storage device, like the DNS-1100-04. The 1100-04 provides distinct iSCSI targets for numerous clients.

Step 1: Click **Disk Management** on the left pane.



Step 2: Click iSCSI Target.

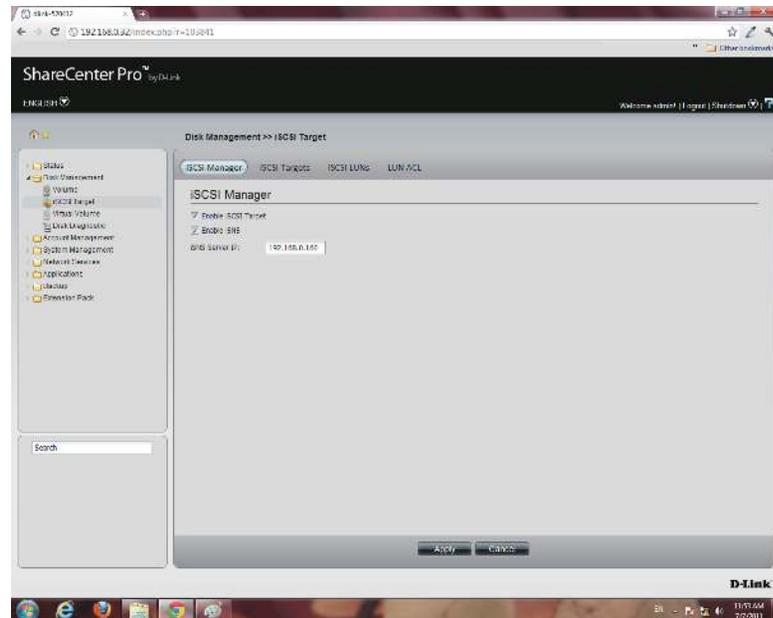
The right pane displays the iSCSI Manager.



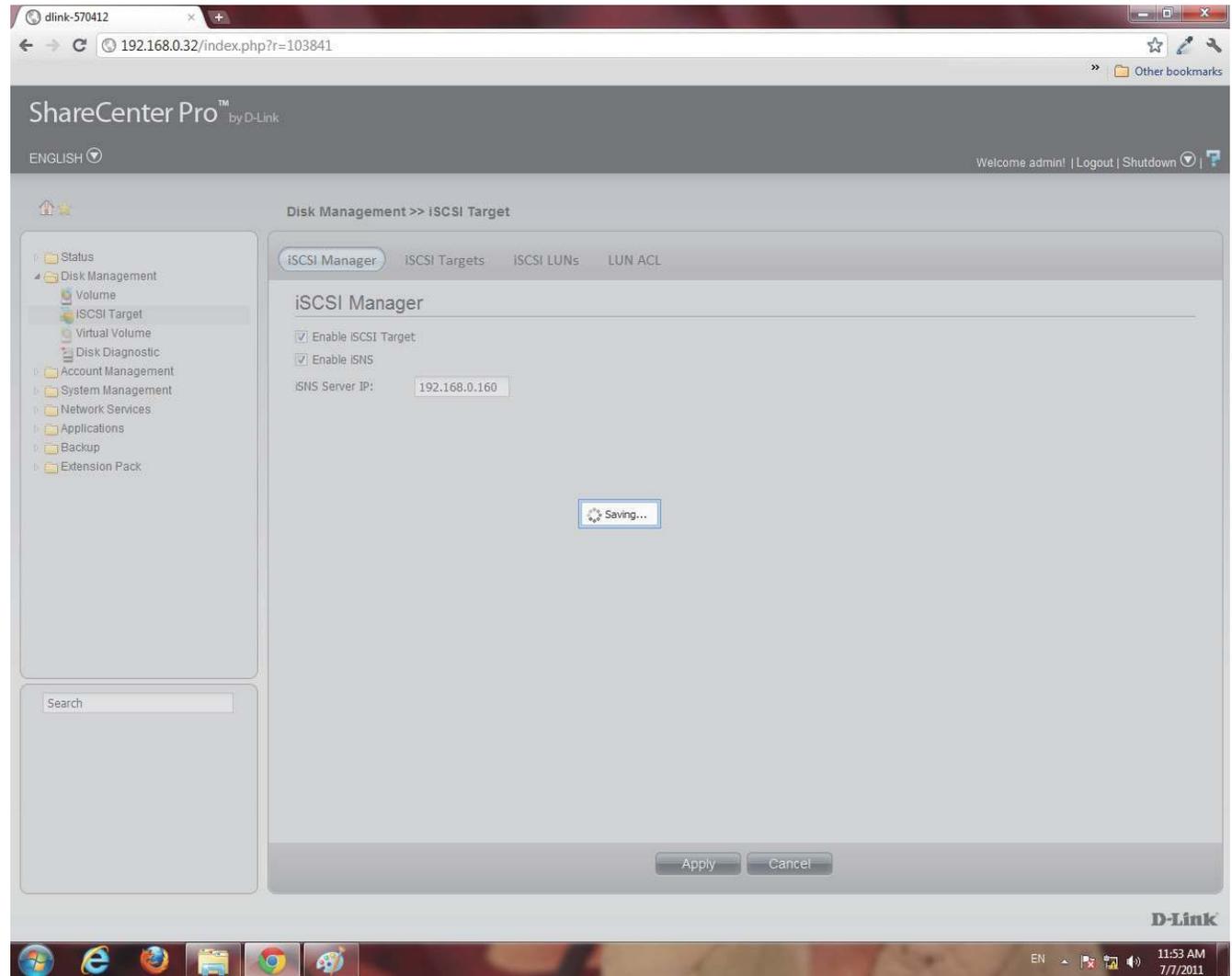
Step 3: Click the Enable iSCSI Target checkbox to enable this function.

Click **Enable iSNS** and enter the iSNS server IP address.

Click **Apply** to continue.



Step 4: The program saves all configurations.



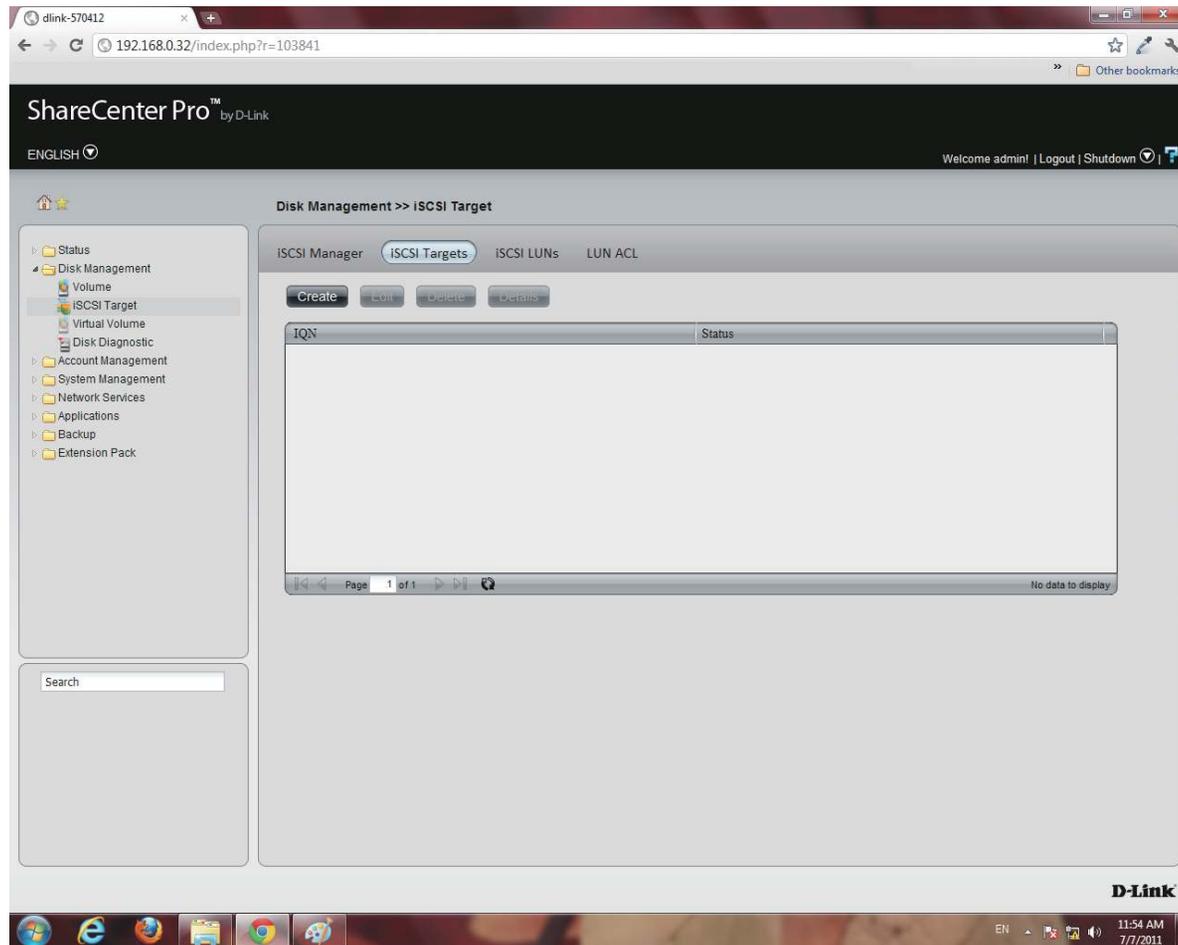
iSCSI Target - iSCSI Targets

Step 1: Click **Disk Management** under the main category window.

Click **iSCSI Target**, then the **iSCSI Targets** button

Click **Create**.

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

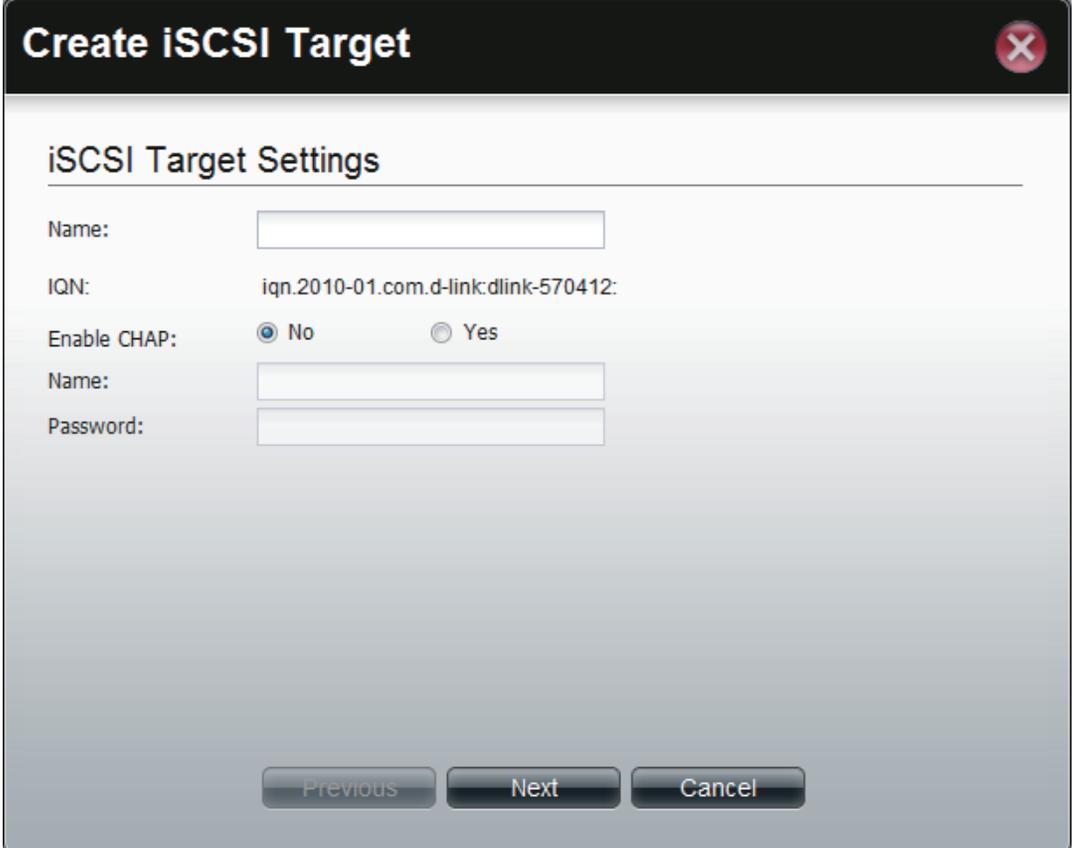


Step 2: The **Create iSCSI Target** window opens.

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.



The screenshot shows a window titled "Create iSCSI Target" with a close button in the top right corner. Below the title bar is a section titled "iSCSI Target Settings". The settings are as follows:

- Name:** An empty text input field.
- IQN:** The value "iqn.2010-01.com.d-link:dlink-570412:" is displayed.
- Enable CHAP:** Two radio buttons are present: "No" (selected) and "Yes".
- Name:** An empty text input field.
- Password:** An empty text input field.

At the bottom of the window, there are three buttons: "Previous", "Next", and "Cancel".

Create iSCSI Target

iSCSI Target Settings

Name:
⚠ The iSCSI target name should be 0-9, a-z or -,.,: . Please check it.

IQN: iqn.2010-01.com.d-link:dlink-570412:machine_87

Enable CHAP: No Yes

Name:

Password:

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

Create iSCSI Target

iSCSI Target Settings

Name:

IQN: iqn.2010-01.com.d-link:dlink-570412:machine87

Enable CHAP: No Yes

Name:

Password:
⚠ CHAP Password should be between 12 to 16 characters.

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 accept English letters, numbers, and underscore '_'.

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

Step 3: Enter the appropriate fields.

Click **Next** to continue.



The image shows a 'Create iSCSI Target' dialog box with a title bar containing a close button. The main content area is titled 'iSCSI Target Settings' and contains the following fields and controls:

- Name:** A text input field containing 'machine87'.
- IQN:** A text input field containing 'iqn.2010-01.com.d-link:dlink-570412:machine87'.
- Enable CHAP:** Two radio buttons, 'No' (unselected) and 'Yes' (selected).
- Name:** A text input field containing 'level_42'.
- Password:** A text input field containing ten asterisks '*****'.

At the bottom of the dialog, there are three buttons: 'Previous' (disabled), 'Next' (active), and 'Cancel'.

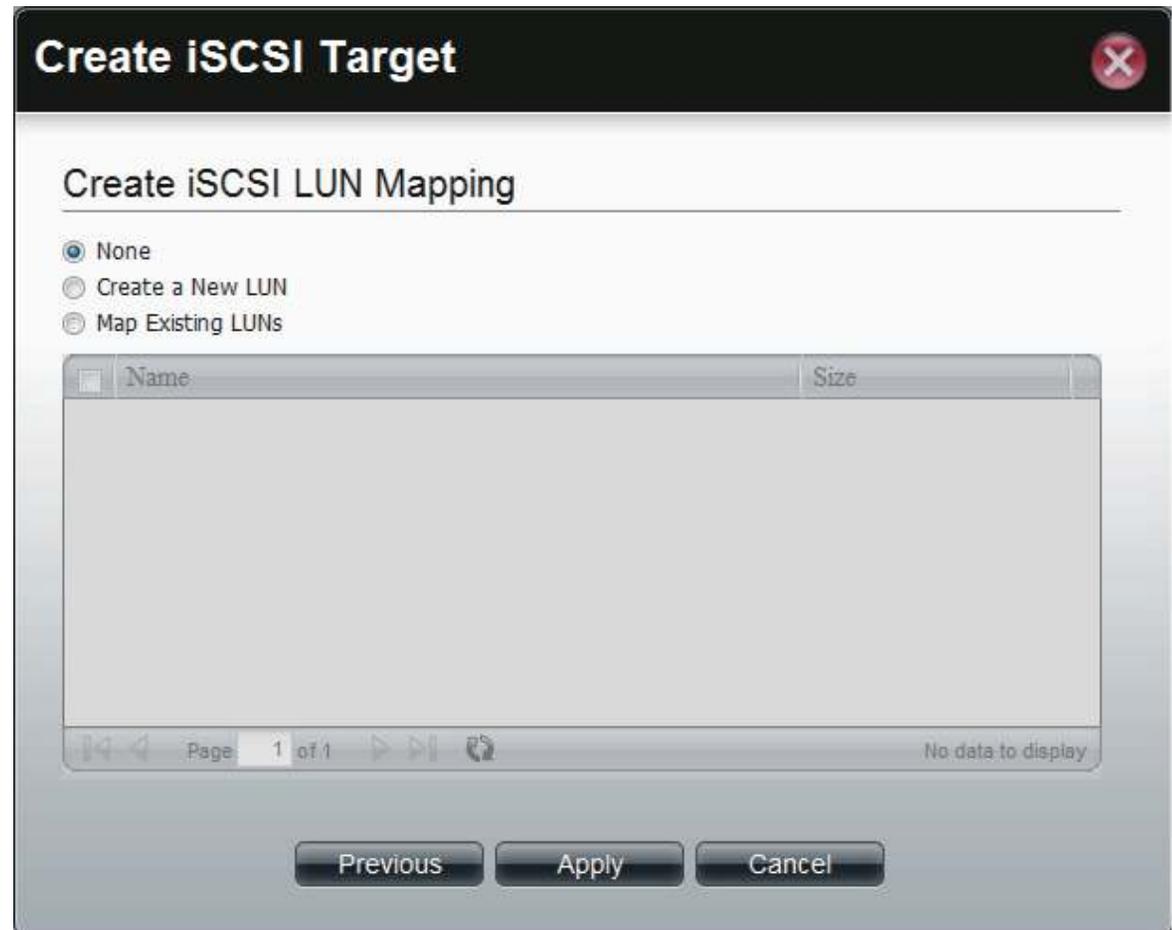
Step 4: Select **None**, if you do not wish to create LUN Mapping here

Click **Apply**.

Map the **LUNs** to this **iSCSI** target. You can specify the **iSCSI LUN** to map, or just create an **iSCSI Target**.

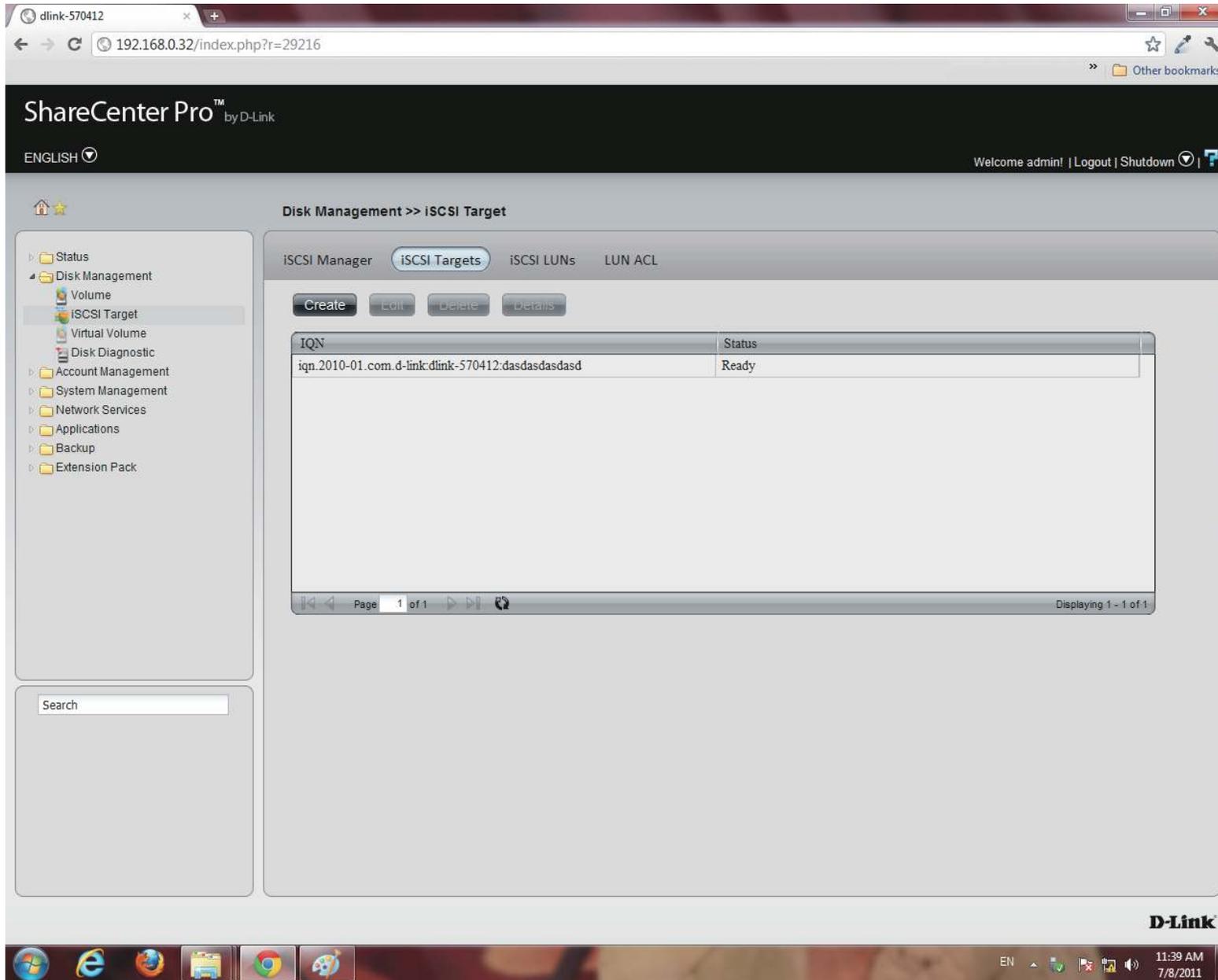
NB: **iSCSI Target** must map one **iSCSI LUN** at least.

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.



Step 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.

Step 1: Under **iSCSI Targets**, click the **iSCSI Target** entry you wish to edit.

Click **Edit**.

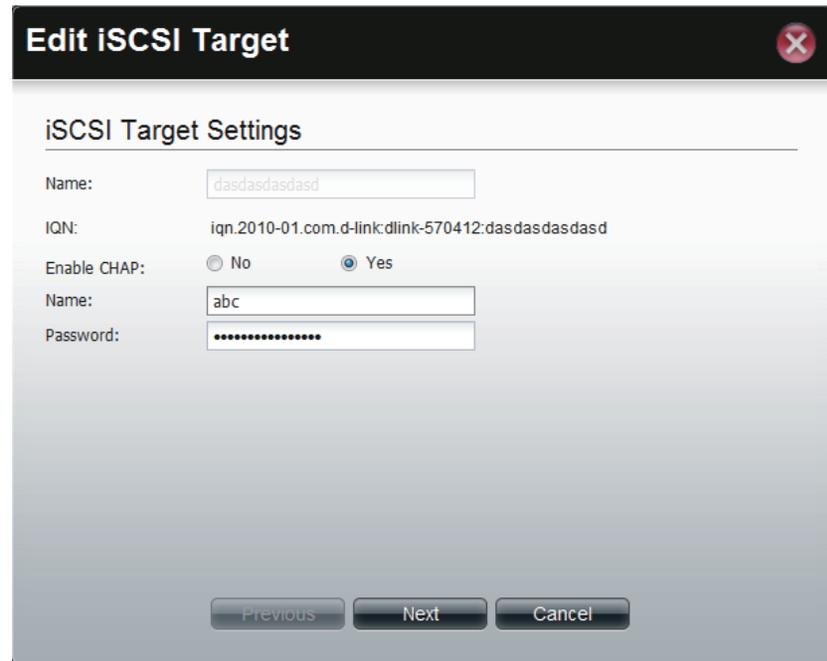
The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar displays "192.168.0.32/index.php?r=29216". The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin!". The main navigation menu includes Status, Disk Management, Virtual Volume, Disk Diagnostic, Account Management, System Management, Network Services, Applications, Backup, and Extension Pack. The "Disk Management" section is expanded to show "iSCSI Target". The "iSCSI Targets" tab is selected, displaying a table with one entry:

IQN	Status
iqn.2010-01.com.d-link:dlink-570412:dasdasdasd	Ready

The table has a pagination bar at the bottom showing "Page 1 of 1" and "Displaying 1 - 1 of 1". The D-Link logo is visible in the bottom right corner of the interface.

Step 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.



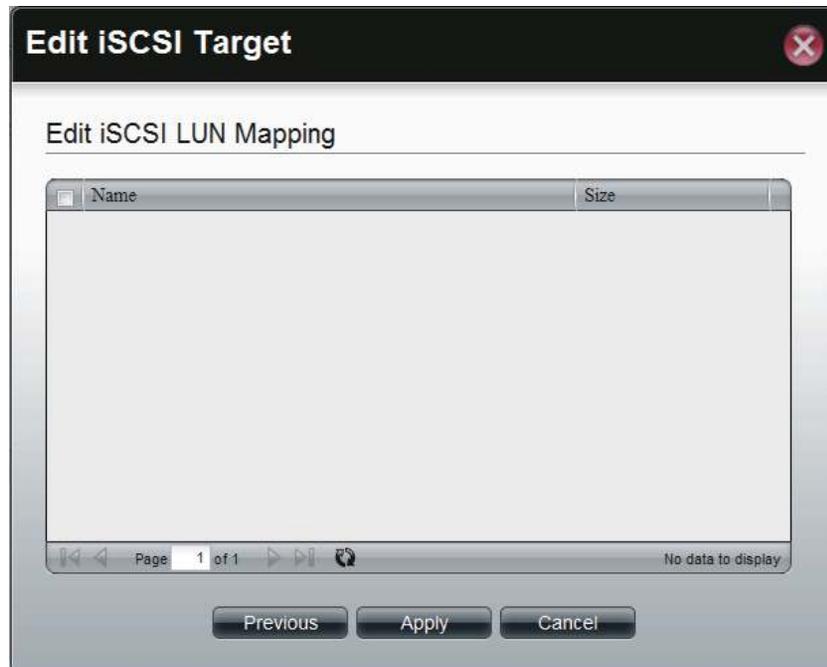
The screenshot shows the "Edit iSCSI Target" window with the following settings:

- Name:** dasdasdasdasd
- IQN:** iqn.2010-01.com.d-link:dlink-570412:dasdadasdasd
- Enable CHAP:** No Yes
- Name:** abc
- Password:** [Redacted]

Buttons at the bottom: Previous, Next, Cancel.

Step 3: The next window asks you to edit the **iSCSI LUN Mapping**.

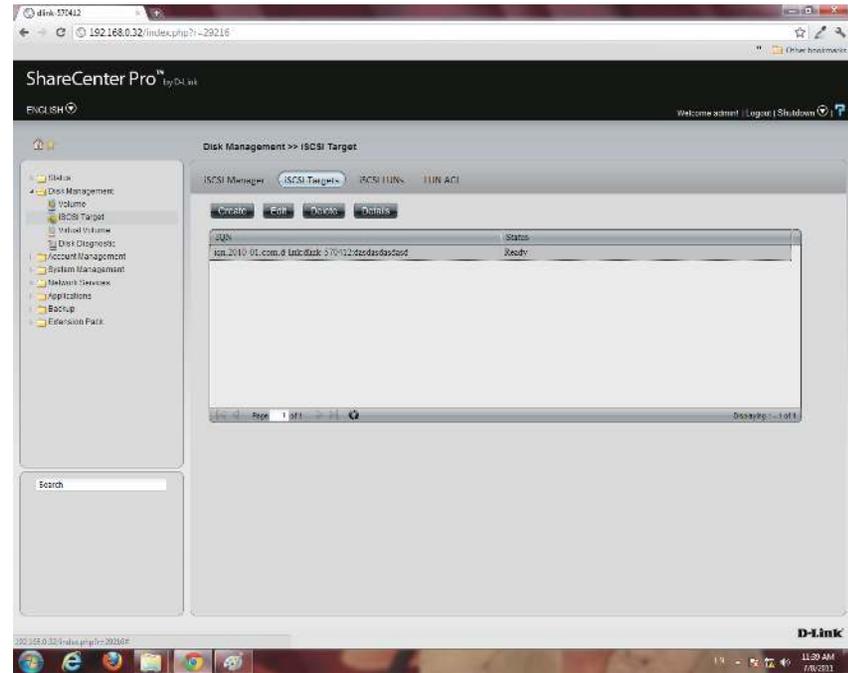
You can re-map any existing **LUN** to this **iSCSI** target. If this window doesn't show any data, go to **iSCSI LUNs** to create a new one.



The screenshot shows the "Edit iSCSI Target" window with the "Edit iSCSI LUN Mapping" section. It features a table with columns "Name" and "Size". The table is currently empty, and the status at the bottom right says "No data to display".

Buttons at the bottom: Previous, Apply, Cancel.

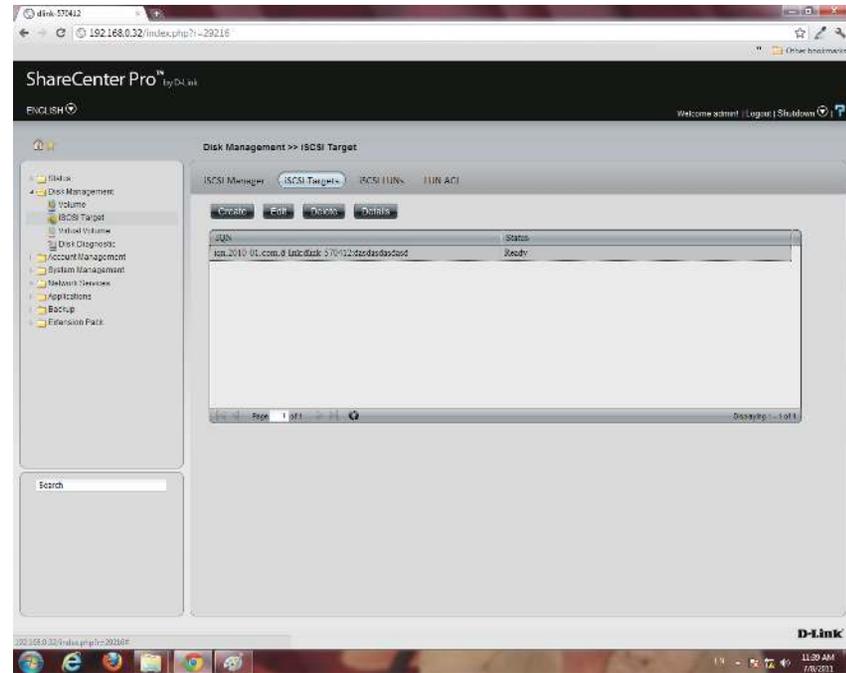
Step 4: The iSCSI Targets window returns to the table.



iSCSI Target - Deleting iSCSI Targets

Follow these instructions to delete an iSCSI Target.

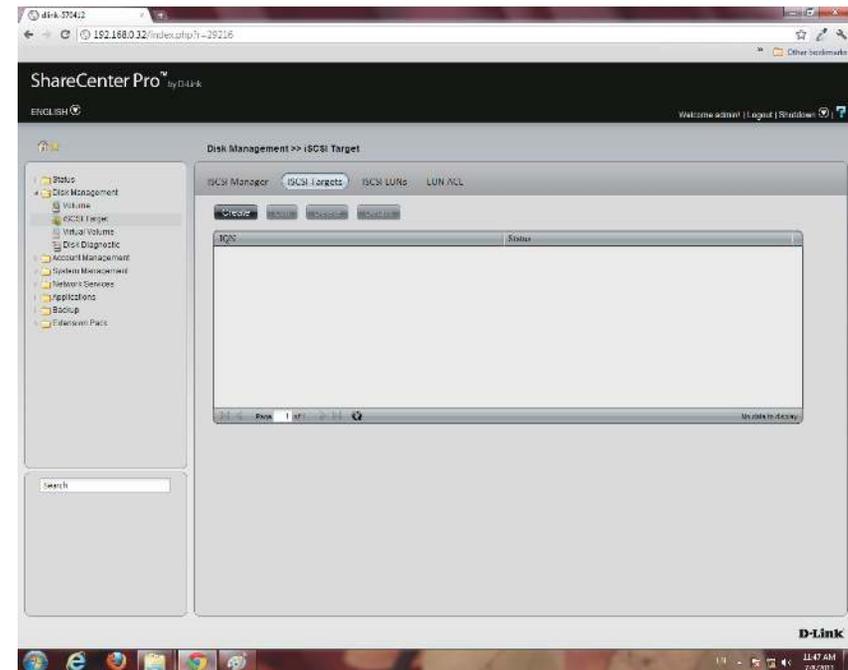
Step 1: Select the iSCSI Target



Step 2: The **Warning** message indicates that the **iSCSI Target** will be deleted.



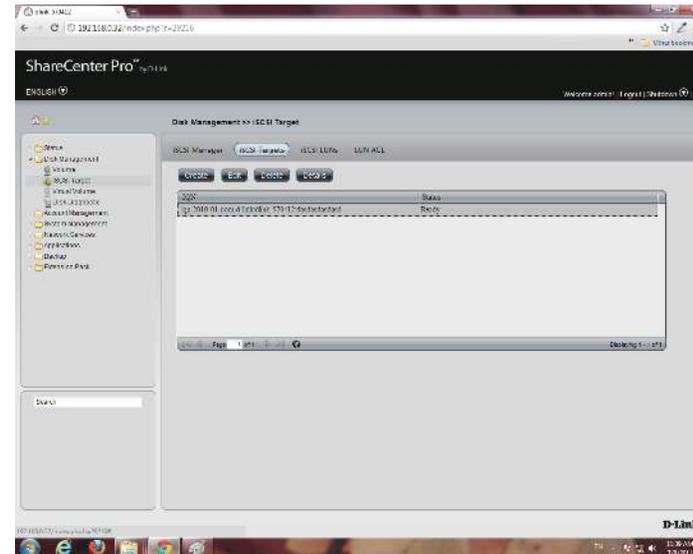
Step 3: The items in the **iSCSI Targets** table no longer exists.



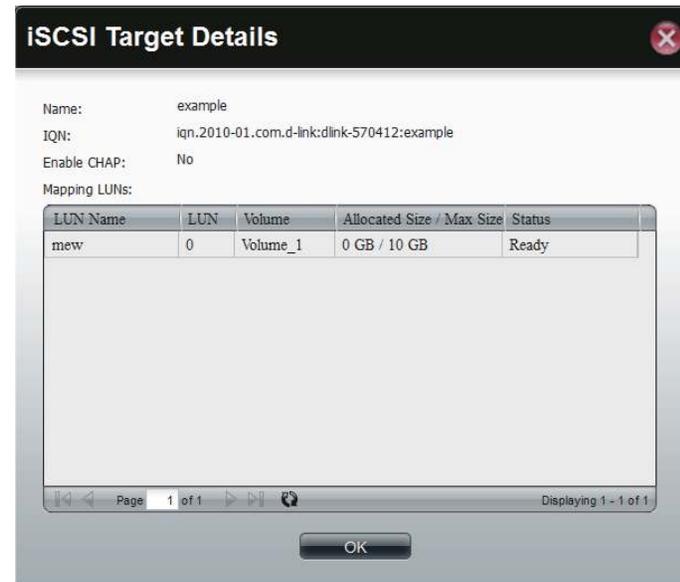
iSCSI Target - Details of an iSCSI Targets

Follow these instructions to view details of an iSCSI Target.

Step 1: Select the iSCSI Target.



Step 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 using the following two methods.

Thin provisioning:

The space is allocated only when needed. Advantages of Thin Provisioning on the ShareCenter Pro. With thin provisioning, you can flexibly allocate the disk space (on iSCSI LUN) to the server applications to expand the storage capacity anytime regardless of their current storage size. The adding of the storage space on the servers can be easily done on different operation systems by the iSCSI initiator. Thin provisioning allows efficient storage management since the system administrator has to monitor only the storage capacity of one single server (ShareCenter Pro) rather than extra hard drives or tapes on other sub-storage systems. Over-allocation is allowed since the storage capacity of the NAS can be expanded.

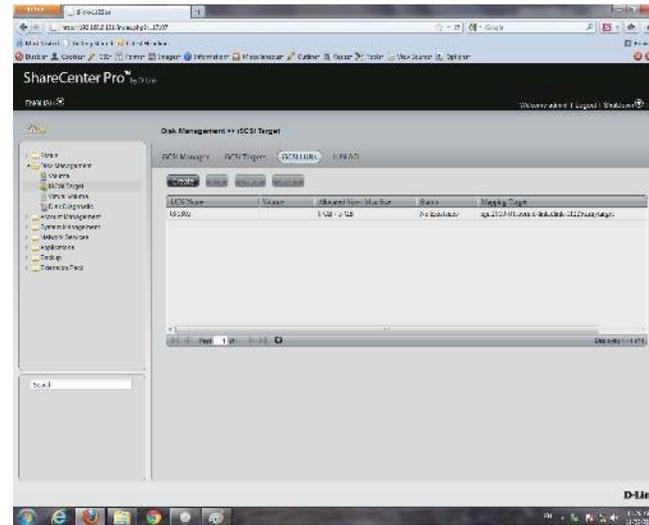
Pre-Allocate:

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).

Step 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**.

**Step 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 introduced 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 choose Pre-allocate as "Yes", you can enter a size from 1 to the maximum free size of the volume. Otherwise, you can enter a size from 1 to the volume size. The upper bound of the possible maximum LUN size is 2043 GB.

Click **Next** to continue.

Create iSCSI LUN

iSCSI LUN Settings

Name:

Pre-allocate: No Yes

Volume:

Size: GB (Volume Size : 194.89 GB)

Previous Next Cancel

Step 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.



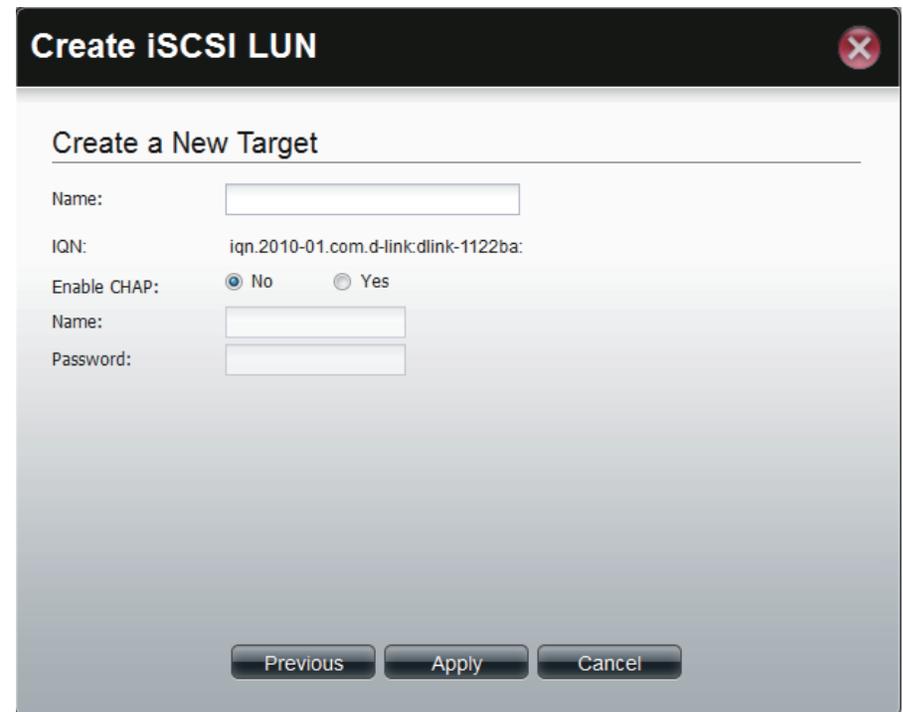
Step 4: Enter the basic **Target** settings.

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

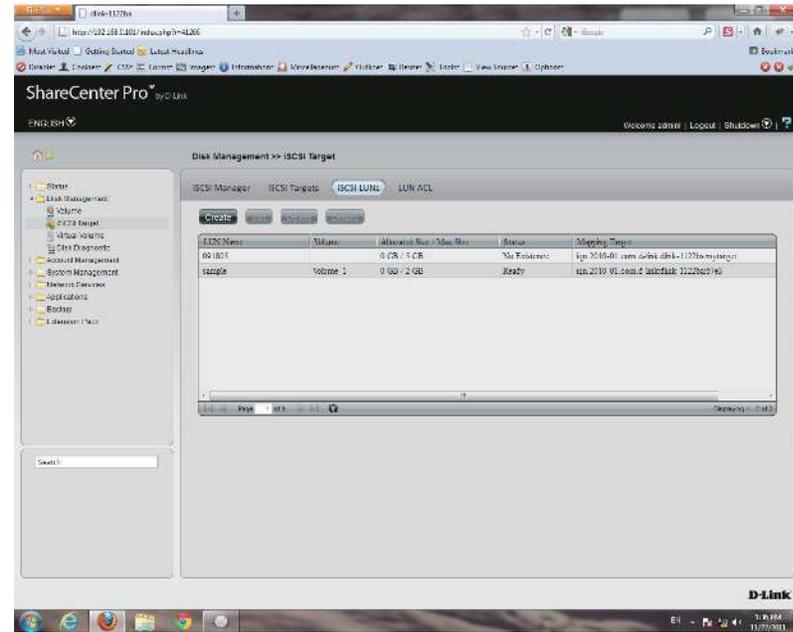
Under **Enable CHAP**, select **Yes**, if you wish to have authentication to login to the **Target**. Click **No**, if you do not want authentication.

In the **Name** field, enter the **CHAP** name.

In the **Password** field, enter the **CHAP** password.



Step 5: The new iSCSI LUN shows up in the iSCSI LUN table.



Edit an iSCSI LUN

Step 1: Select an iSCSI LUN.

Click the **edit** button

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



The screenshot shows the 'Edit iSCSI LUN' dialog box. It has a title bar with a close button. The main content area is titled 'iSCSI LUN Settings' and contains the following fields:

- Name:
- Pre-allocate: No Yes
- Volume: (dropdown arrow)
- Size: GB (Volume Size : 194.89 GB)

At the bottom, there are three buttons: 'Previous', 'Next', and 'Cancel'.

Step 2: Change the LUN Mapping settings here.

Click **Apply** to save settings.



The screenshot shows the 'Edit iSCSI LUN Mapping' dialog box. It has a title bar with a close button. The main content area is titled 'Edit iSCSI LUN Mapping' and contains a table with the following data:

IQN	Status
<input type="checkbox"/> iqn.2010-01.com.d-link:dlink-1122ba:mytarget	Ready
<input checked="" type="checkbox"/> iqn.2010-01.com.d-link:dlink-1122ba:67e3	Ready

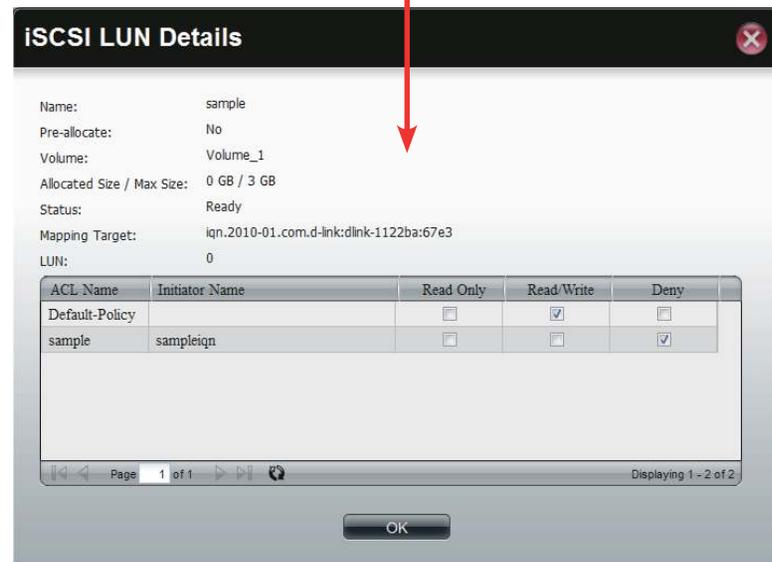
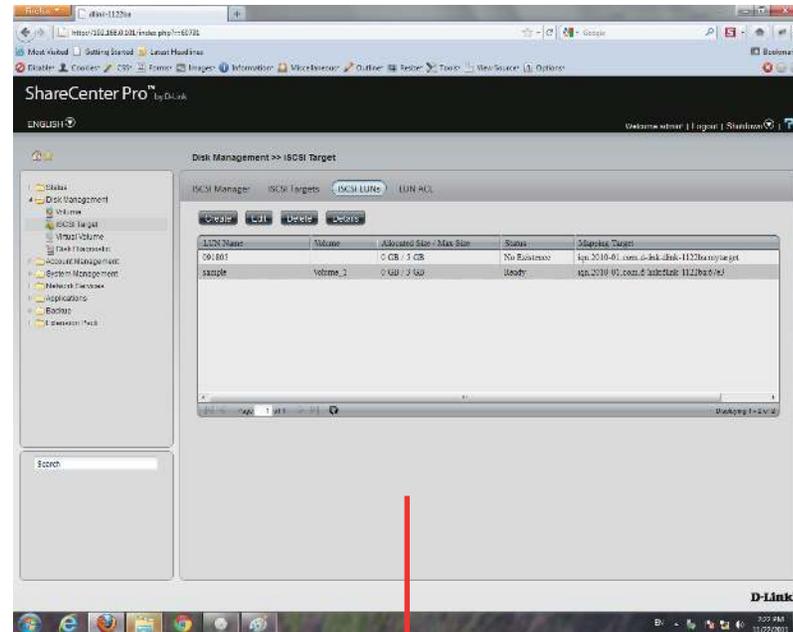
At the bottom, there are three buttons: 'Previous', 'Apply', and 'Cancel'. The status bar at the bottom right indicates 'Page 1 of 1' and 'Displaying 1 - 2 of 2'.

View details of an iSCSI LUN

Step 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.

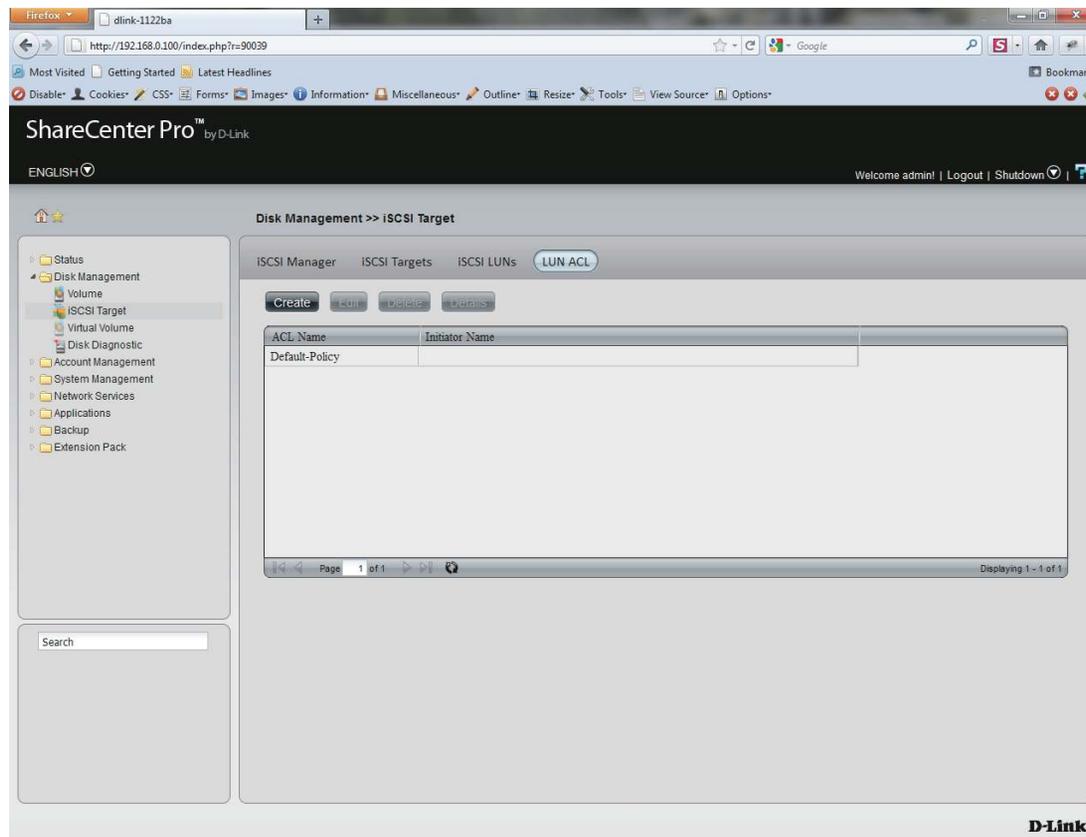


iSCSI Target - LUN ACL

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 initiators 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**.

Step 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.



Step 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.

Create iSCSI LUN ACL

ACL Name:

Initiator Name (IQN):

LUN ACL:

LUN Name	Read Only	Read/Write	Deny
091805	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

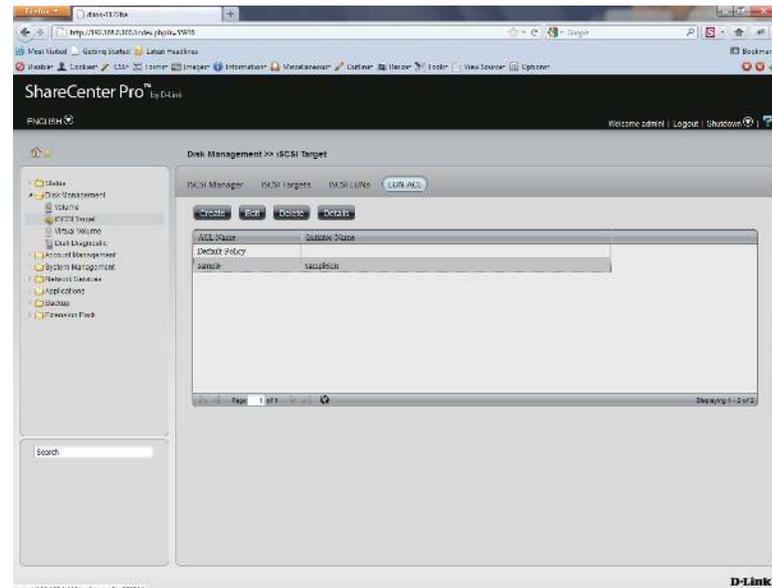
Page 1 of 1 Displaying 1 - 1 of 1

Step 3: A warning message appears asking you to reconnect to the initiator.

Click **OK** to continue.



Step 4: The created LUN ACL will appear here.



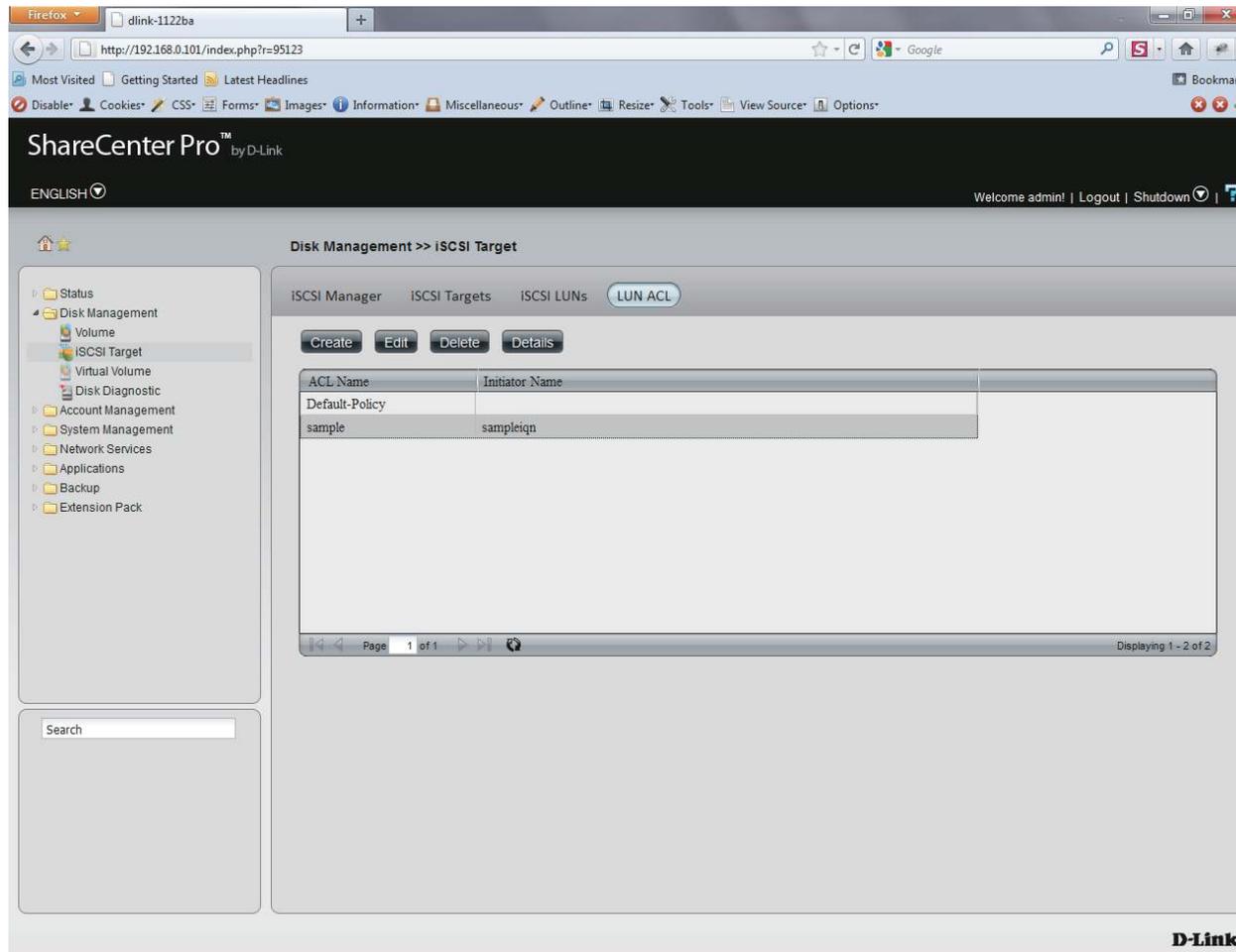
Editing the LUN ACL

You can edit the LUN ACL at your convenience.

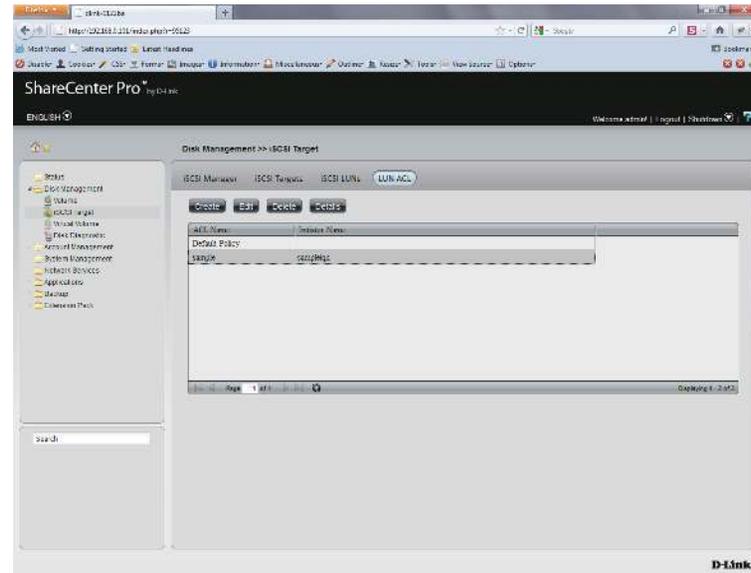
Caution: Disconnect the iSCSI initiator from the ShareCenter Pro before editing the LUN ACL. Failure to do so can cause system problems.

Follow these instructions to edit the LUN ACL.

Step 1: Select the LUN ACL you want to modify.



Step 2: Select the LUN ACL entry and click the **Edit** button.



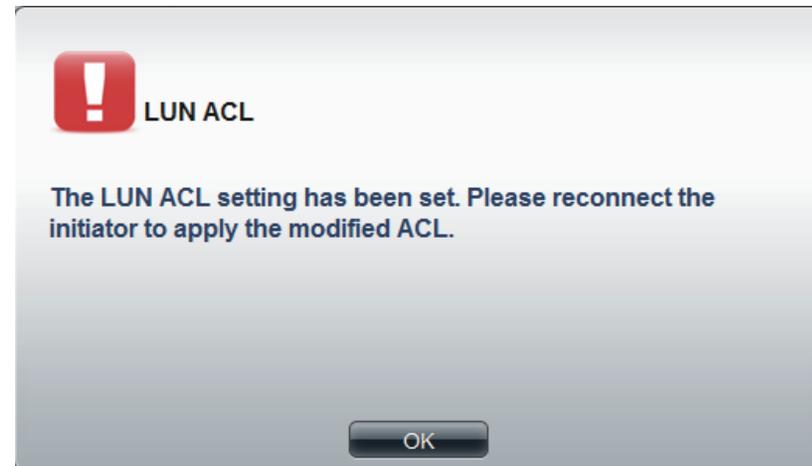
Step 3: Change the LUN access permissions on the initiator. Select either **Read Only**, **Read/Write** or **Deny**.



Step 4: Press the Apply button, and the modified rule will be applied.



Step 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 1100-04 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 the virtual volume 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.



Create a Virtual Volume

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

Device IP Enter the IP address of the device you want connected to the iSCSI Target

Port Enter the port for the device.

Search Click the button to search for the iSCSI targets on the network.

Targets Displays the available iSCSI targets.

Share Folder Enter a name for the share folder to access.

Authentication Click the **Yes** radio button to enable the authentication function.

User Name Enter the user name for authentication.

Password Enter the password for authentication

Click **Apply** to save the settings.

Create Virtual Volume

Initiator IQN: iqn.2010-01.com.d-link:dlink-1122ba:initiator-1122ba

Device IP: Port: **Search**

Targets:

Share Folder:

Authentication: No Yes

User Name:

Password:

Apply **Cancel**

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.



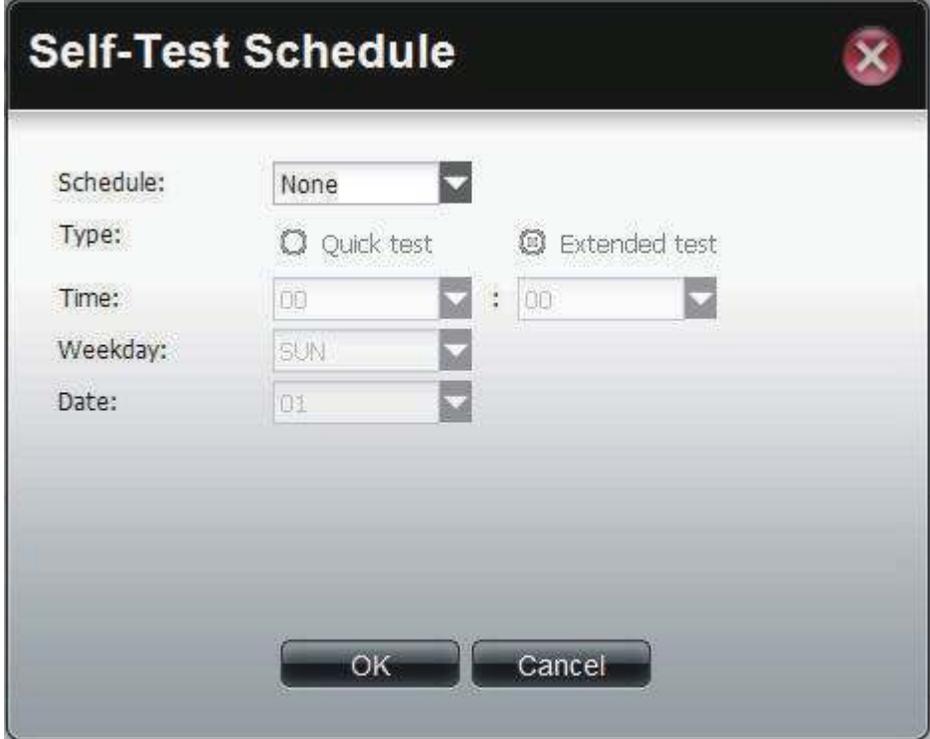
Slot	Manufacturer	Model	Schedule	Progress	Result
1	Western Digital	WDC WD6402AAEX...	None	-	Pass
2	Hitachi	Hitachi HDP725050...	None	-	
3	Western Digital	WDC WD3000HLFS...	None	-	Pass
4	Western Digital	WDC WD5000AVJS...	None	-	Pass
5	-	-	-	-	

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.



The image shows a dialog box titled "Self-Test Schedule" with a close button (X) in the top right corner. The dialog contains the following settings:

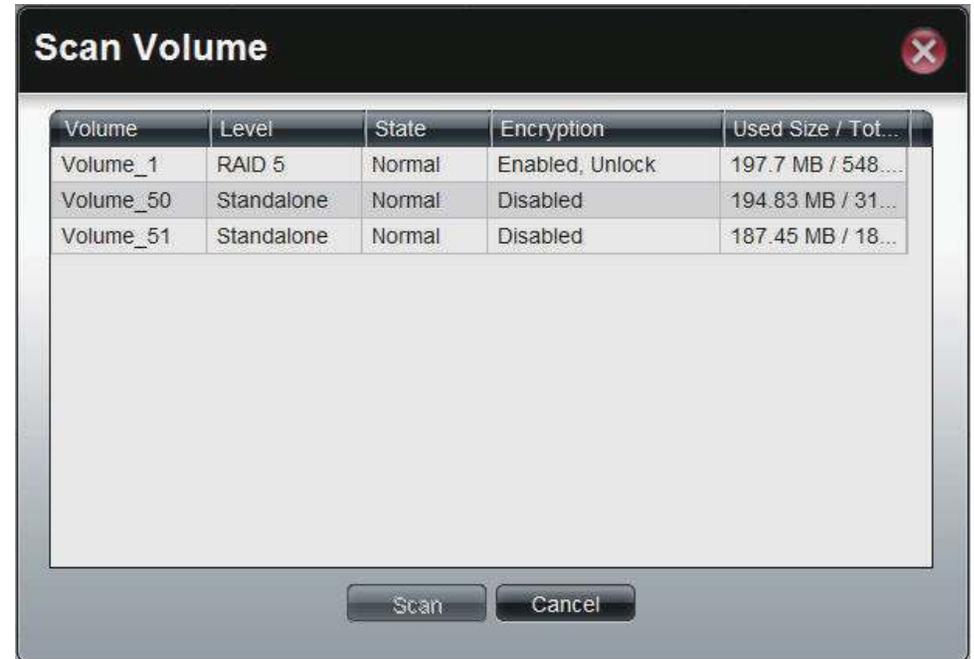
- Schedule:** None (dropdown menu)
- Type:** Quick test (radio button) and Extended test (radio button)
- Time:** 00 (hour dropdown) and 00 (minute dropdown)
- Weekday:** SUN (dropdown menu)
- Date:** 01 (dropdown menu)

At the bottom of the dialog are two buttons: **OK** and **Cancel**.

Scan a Volume

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

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



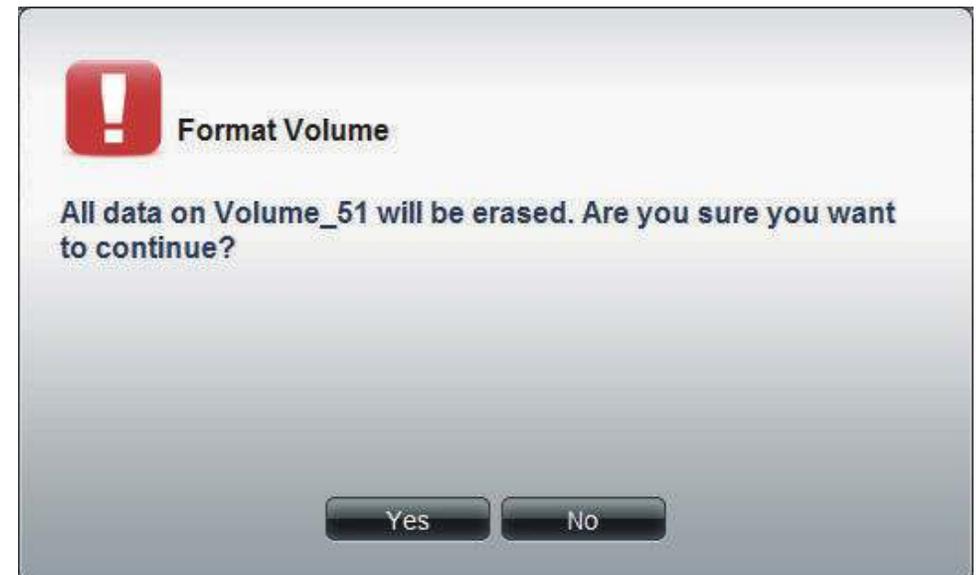
Format a Volume

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.

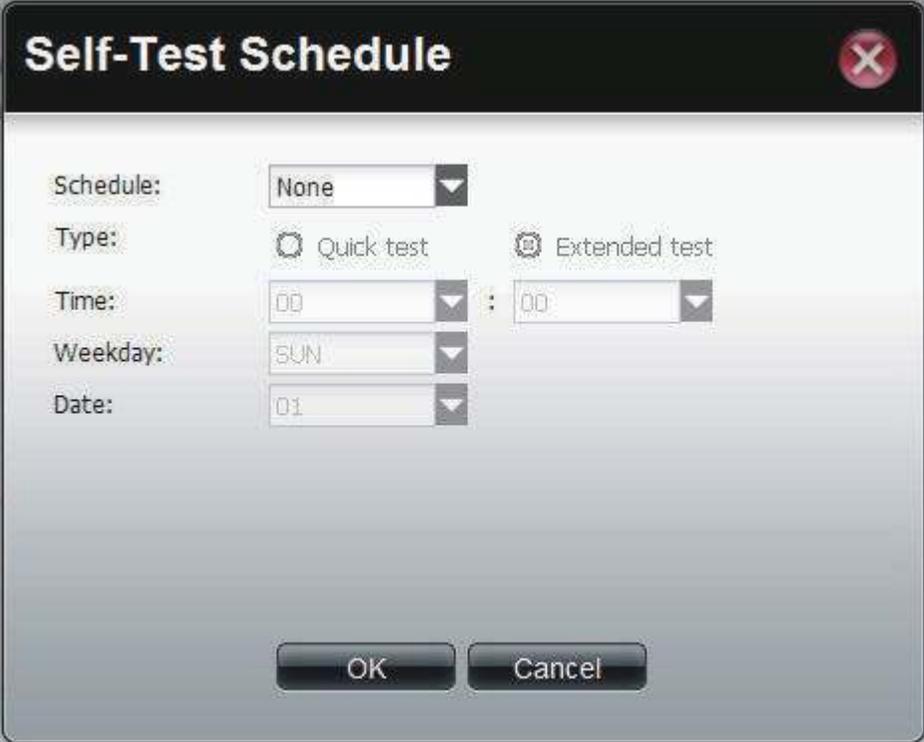


Disk Management - Scheduling a Disk Diagnostics

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



The image shows a dialog box titled "Self-Test Schedule" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

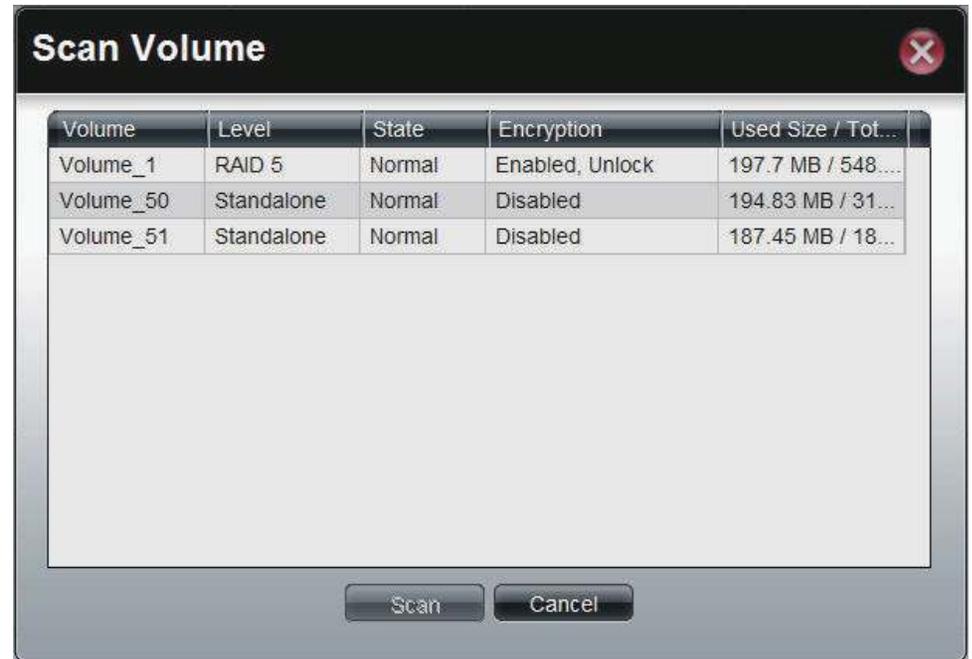
- Schedule:** A drop-down menu currently set to "None".
- Type:** Two radio buttons: "Quick test" (unselected) and "Extended test" (selected).
- Time:** Two drop-down menus for hour and minute, both currently set to "00".
- Weekday:** A drop-down menu currently set to "SUN".
- Date:** A drop-down menu currently set to "01".

At the bottom of the dialog are two buttons: "OK" and "Cancel".

Disk Management - Scan a Volume

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

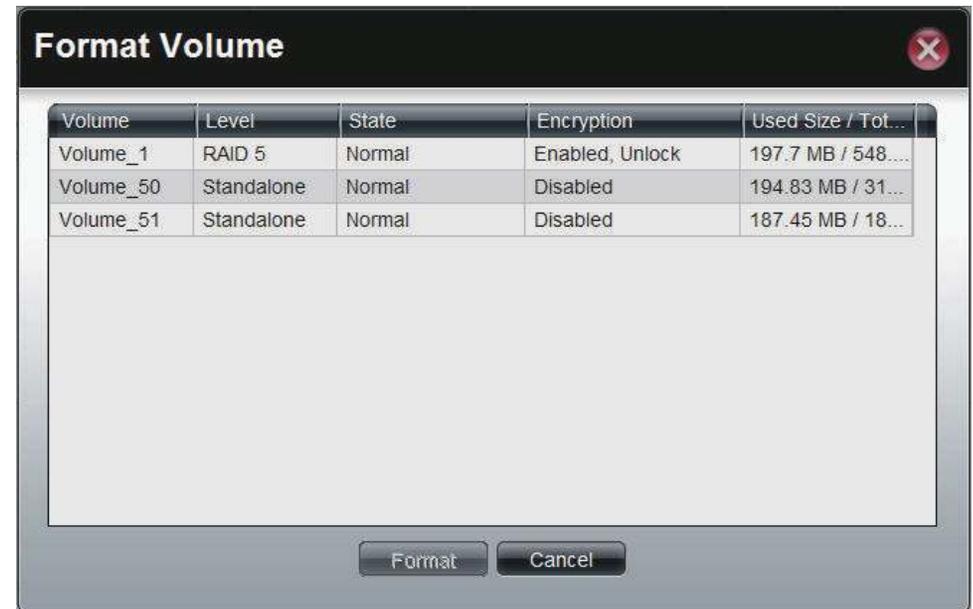
Select a volume and click **Scan** to start to check the file system.



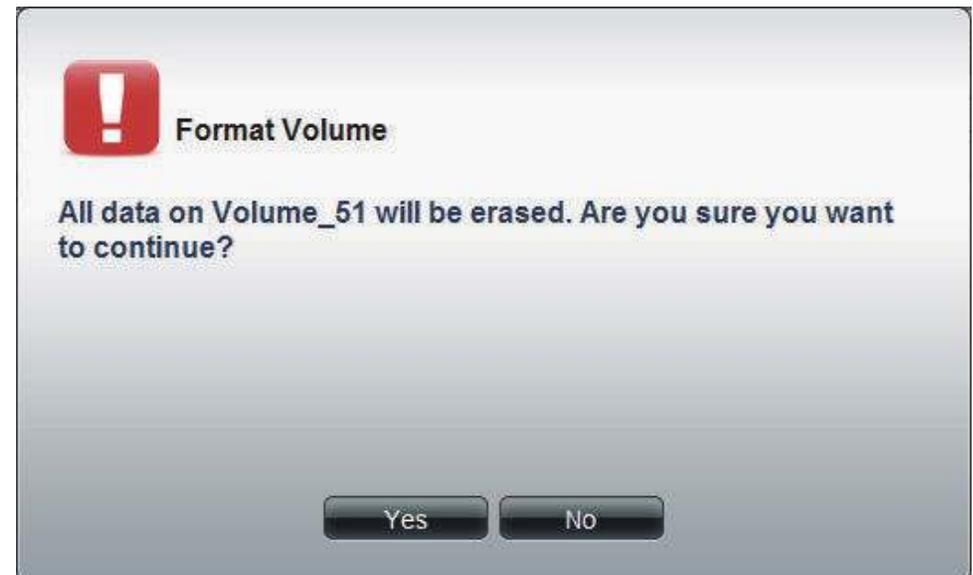
Disk Management - Format a Volume

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

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

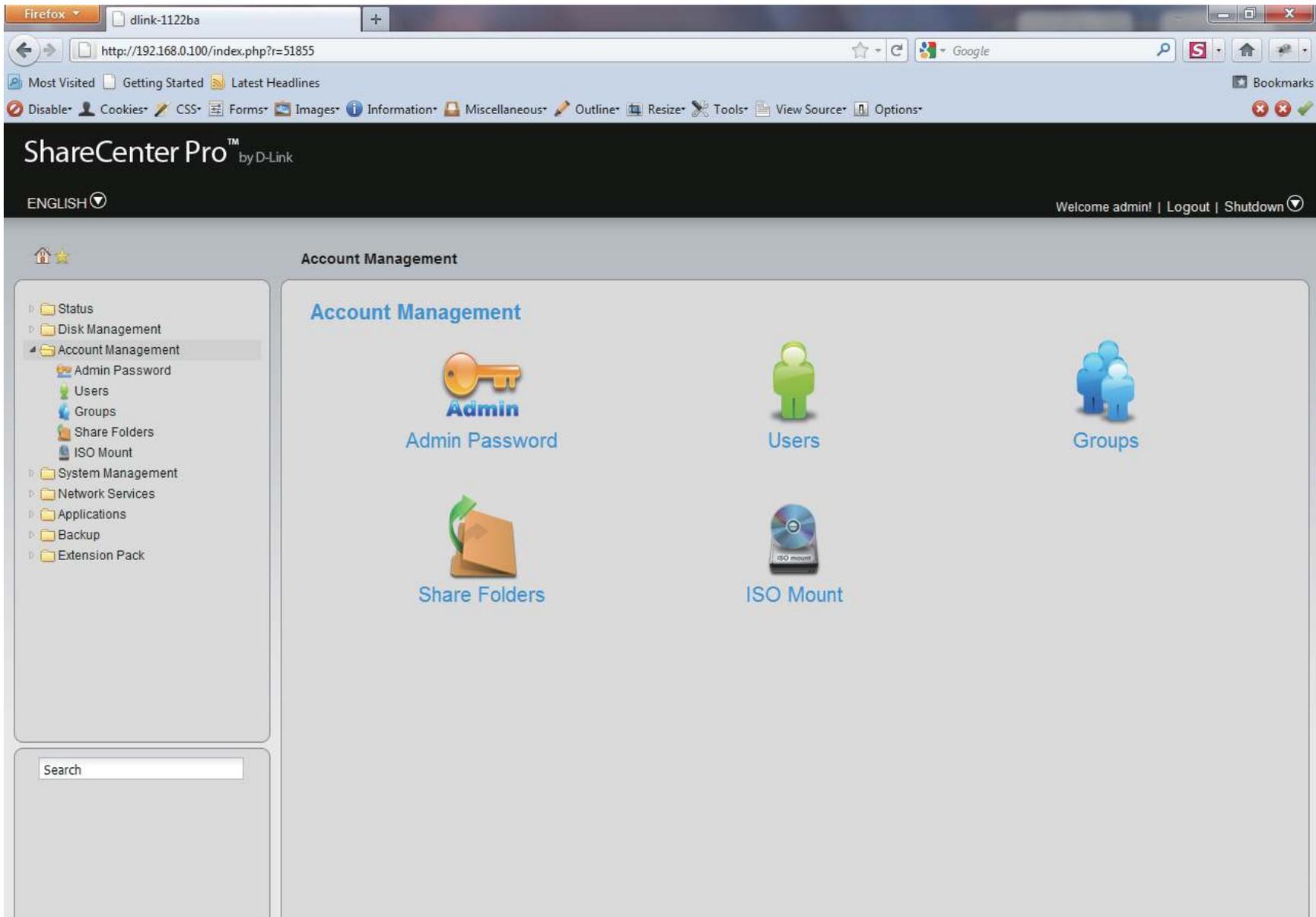


A warning message appears to double confirm if the formatting will proceed. Click **Yes** to proceed.



Account Management

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

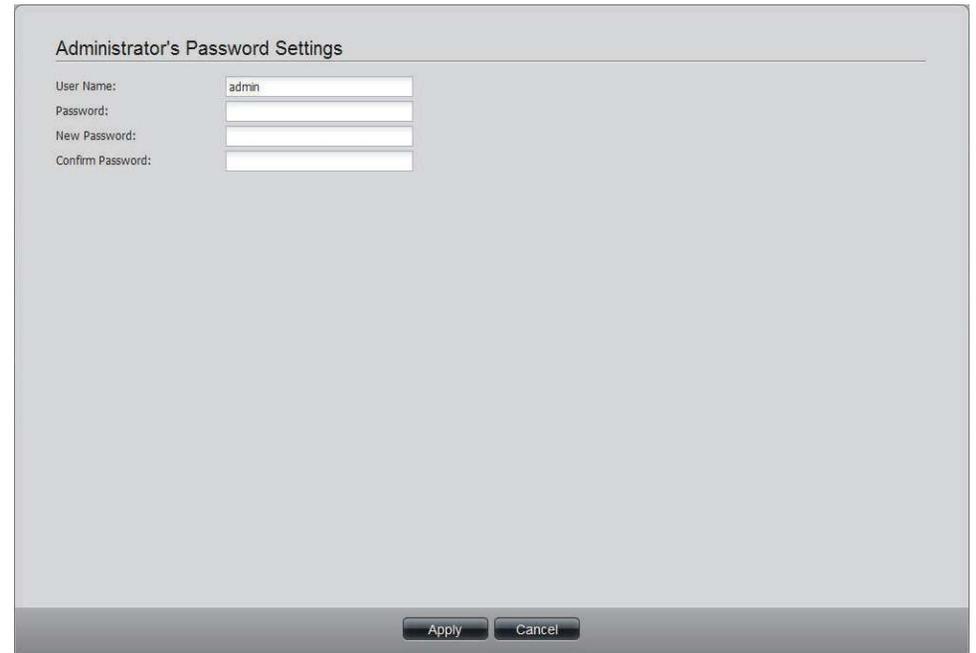


Admin Password

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.

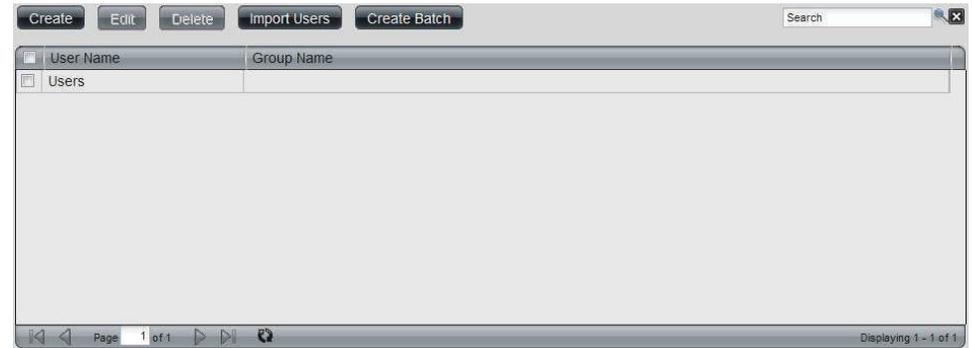


The image shows a dialog box titled "Administrator's Password Settings". It contains four input fields: "User Name" with the value "admin", "Password", "New Password", and "Confirm Password". At the bottom of the dialog box, there are two buttons: "Apply" and "Cancel".

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.



The image shows a 'Create User' dialog box with a dark header and a light body. The header contains the title 'Create User' and a close button (red X). The dialog is divided into two sections: 'User Information' and 'Quotas'. Under 'User Information', there are three input fields: 'User Name:', 'Password:', and 'Confirm Password:'. Under 'Quotas', there is a checkbox labeled 'Set Quota' which is currently unchecked. Below the checkbox is a text input field for 'Quotas:' with the value '0' and the unit 'MB'. At the bottom of the dialog, there are three buttons: 'Previous', 'Next', and 'Cancel'.

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.

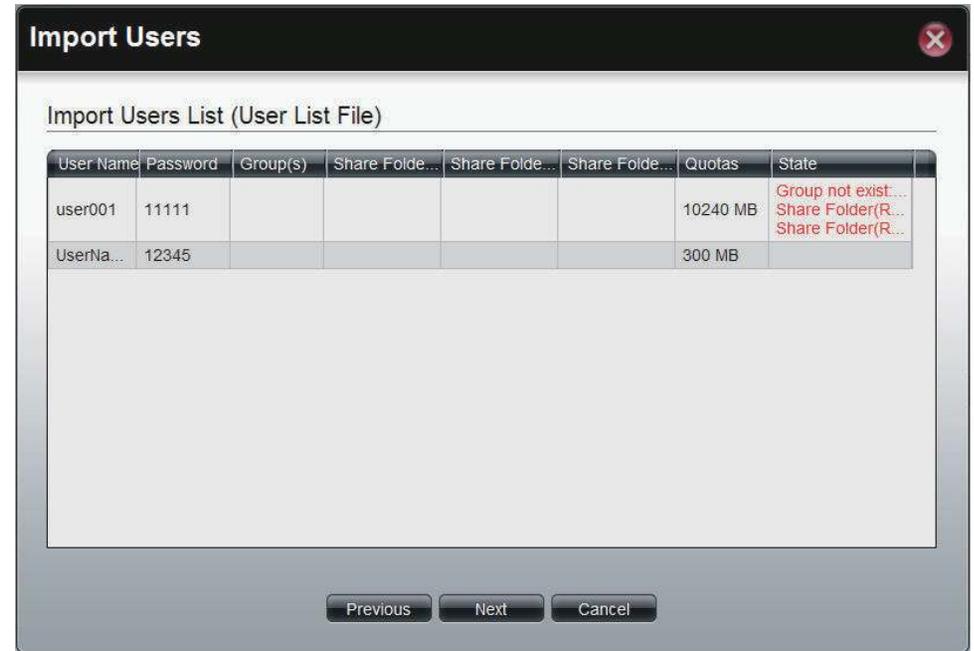
- Download** Click this button to see the example for listing the users in the file.
- Overwrite duplicate accounts** Tick the check box to replace duplicate accounts.
- User List File** Click the **Browse** button to locate the file.

Click **Next** to continue.



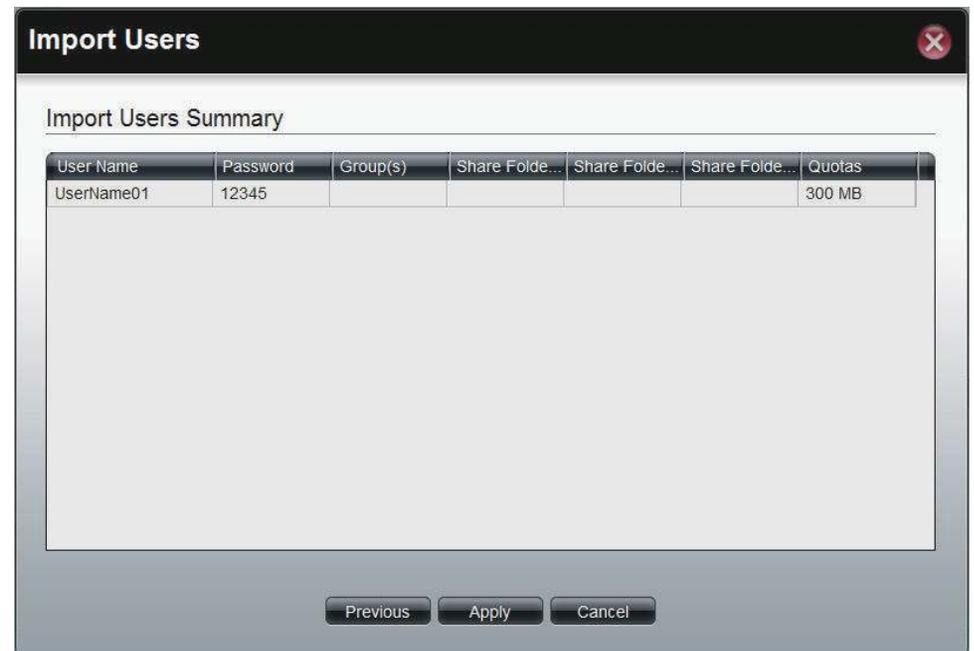
This window displays all the users in the file. If there are any error warnings in the State field, the user will not be able to go to the next window.

Click **Next** to continue.



The window displays the final results of importing users to the ShareCenter 1100-04.

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 the 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.

Create Batch Users

User Information

User Name Prefix:

Start Number:

Create Number:

Password:

Confirm Password:

Overwrite duplicate accounts

Quotas

Set Quota

Quotas: MB

Previous Next Cancel

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.



The screenshot shows a window titled "Create Batch Users" with a close button in the top right corner. The window is divided into two main sections: "User Information" and "Batch User's Options".

User Information

User Name	State
UserBatch0	
UserBatch1	
UserBatch2	

Batch User's Options

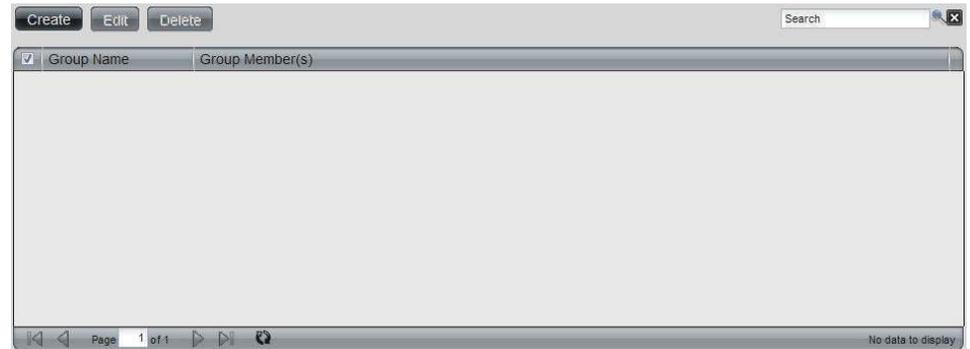
Options	Settings
Password	45678
Group Name	
Quotas	500 MB
Share Folder (RO)	
Share Folder (RW)	
Share Folder (Deny)	

At the bottom of the window, there are three buttons: "Previous", "Apply", and "Cancel".

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.



Create Group

Group Info

Group Name:

Previous Next Cancel

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.



Create Group

User List

Search  

User Name	Add
Users	<input type="checkbox"/>
UserName	<input type="checkbox"/>
UserName01	<input type="checkbox"/>
UserBatch0	<input type="checkbox"/>
UserBatch1	<input type="checkbox"/>
UserBatch2	<input type="checkbox"/>

Page 1 of 1  Displaying 1 - 6 of 6

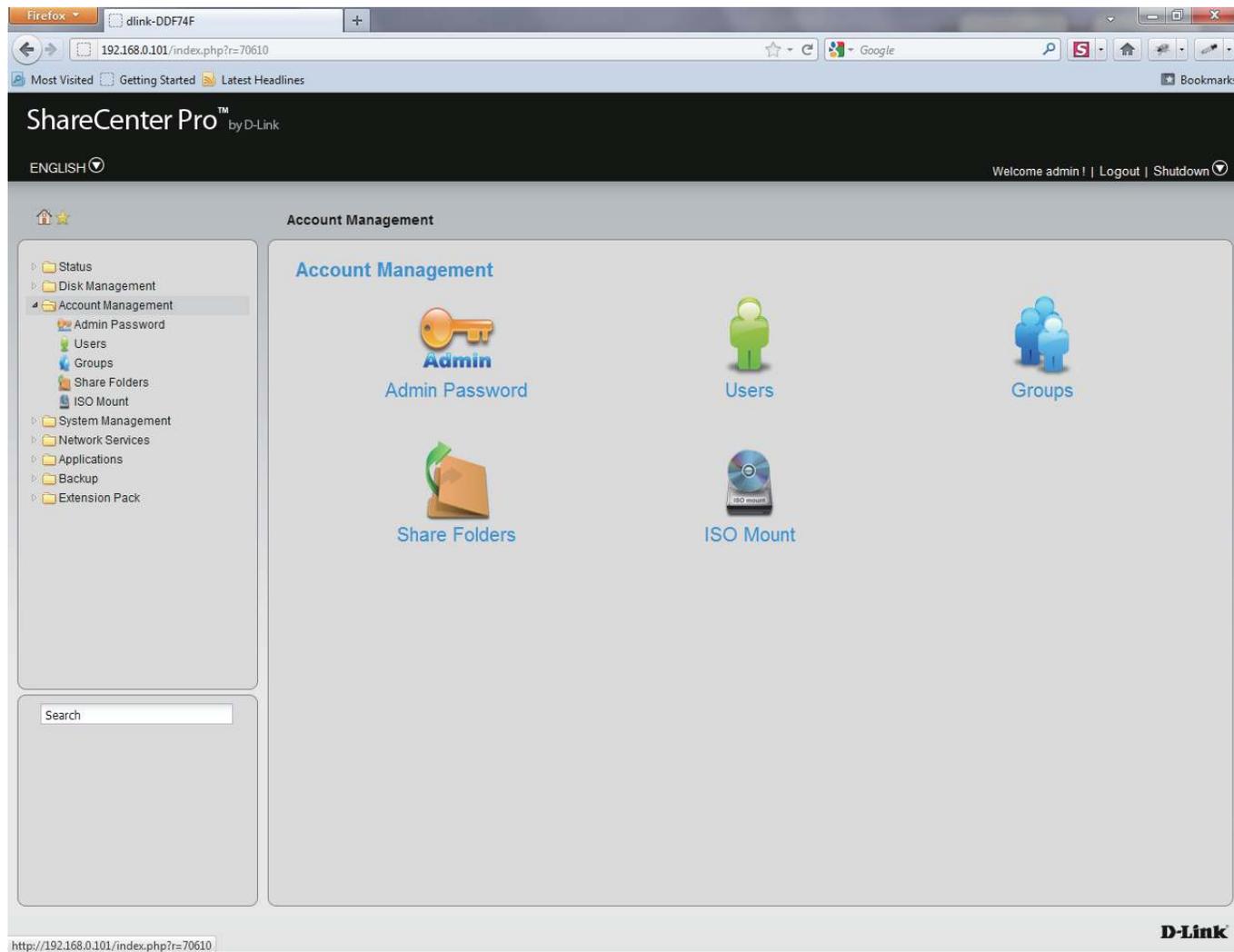
Previous Apply Cancel

Shared Folders

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

Step 1: Log into the system.

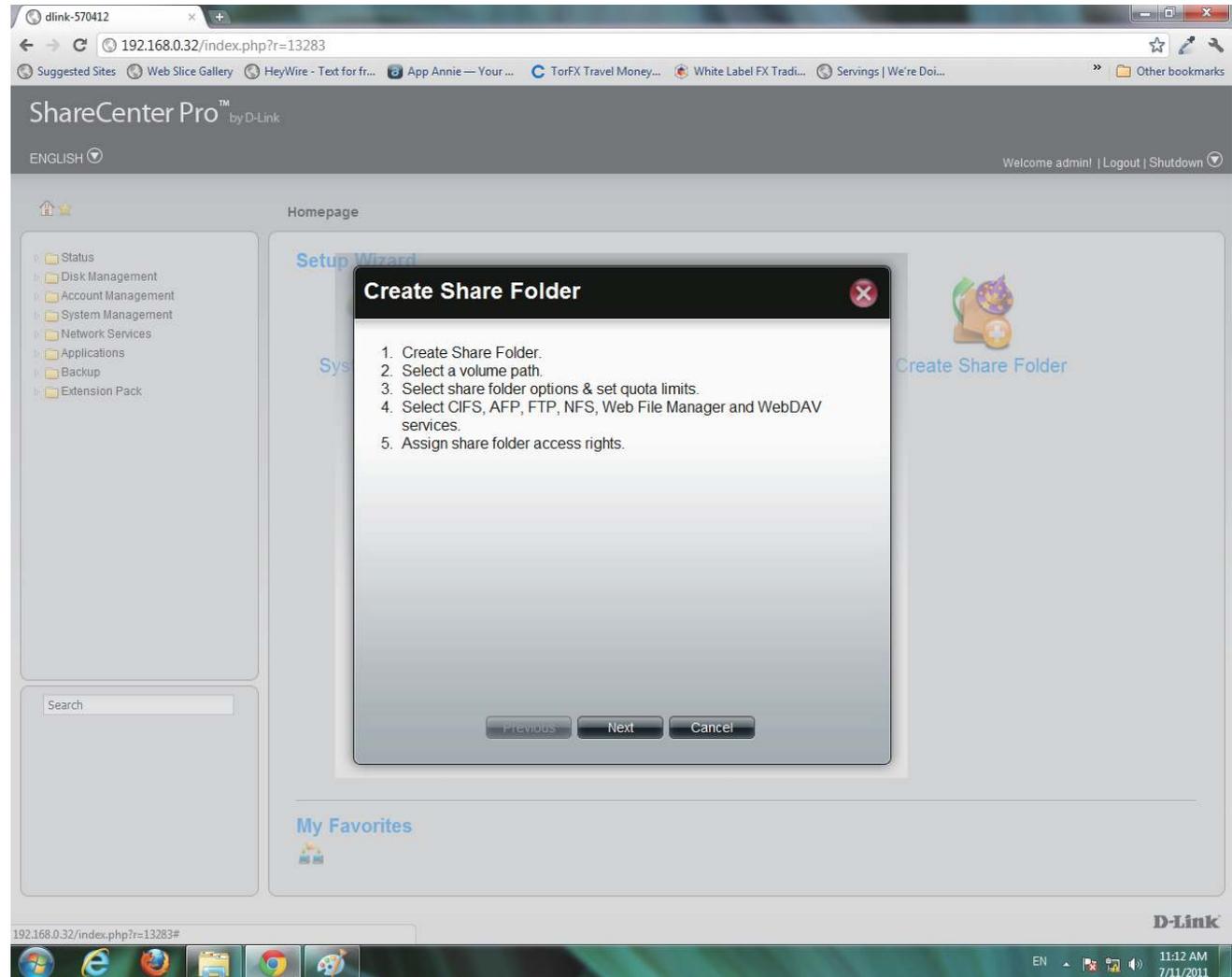
Click **Create Shared Folder**.



Step 2: The “Create Share Folder” window pops up. Here you can:

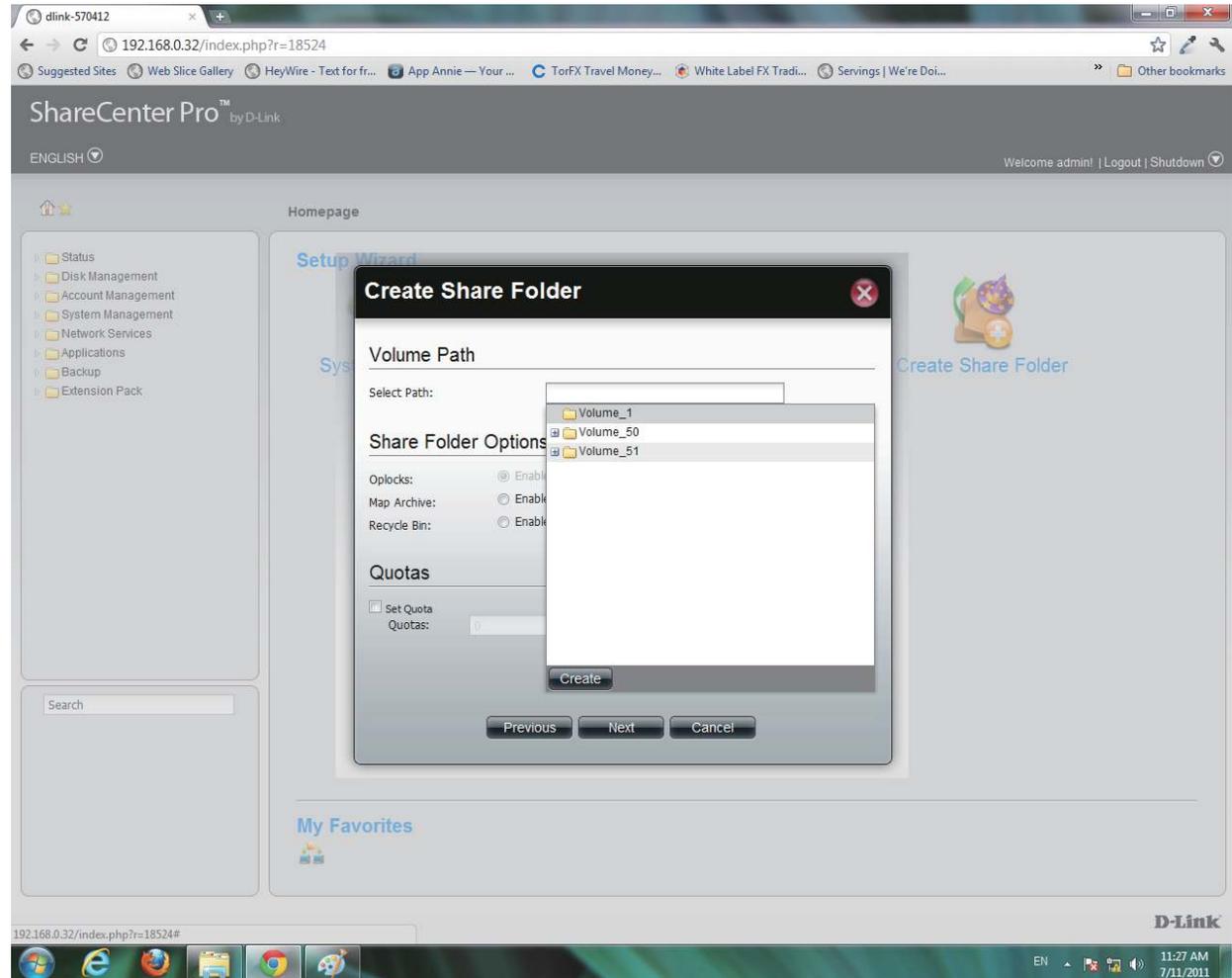
- Create a Shared Folder
- Select a volume path where that folder will go
- Set share folder options and size
- Set other services like: CIFS,AFP, FTP, NFS, Web, File Manager, and WebDAV
- Set shared folder access rights

Click **Next** to continue.

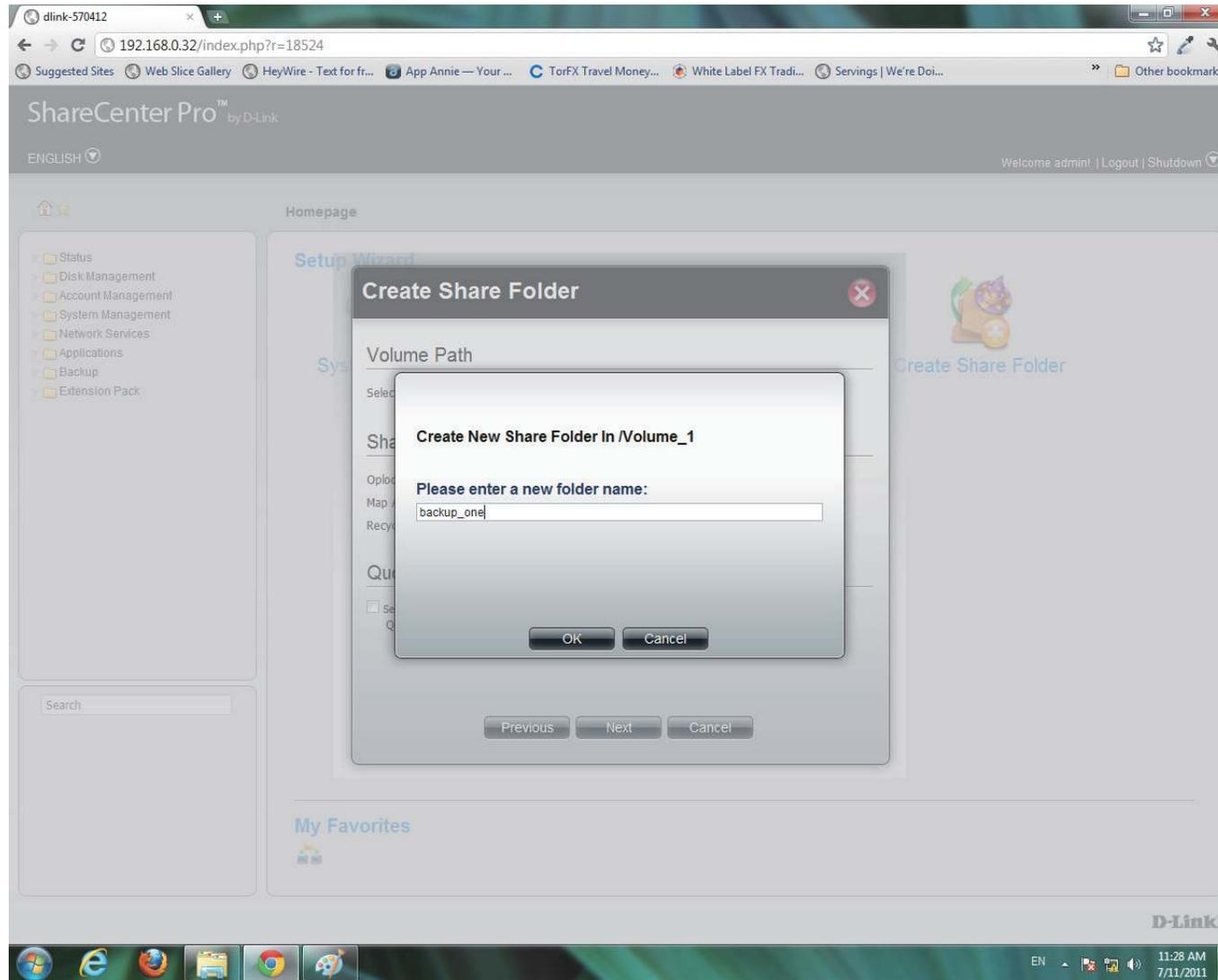


Step 3: Under **Volume Path**, select the path by clicking once on the open field. A drop down menu appears of the drives on your NAS.

Click **Create** to make a new folder.



Step 4: Enter a name for your new folder and click **OK**.



Step 5: Once you have entered the volume path, select the Share Folder Option

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

Create Share Folder

Volume Path

Select Path:

Share Folder Options (For CIFS Service)

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota
Quotas: MB

Previous Next Cancel

Step 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.

Create Share Folder

Volume Path

Select Path: /Volume_1

Share Folder Options (For CIFS Service)

Oplocks: Enable Disable

Map Archive: Enable Disable

Recycle Bin: Enable Disable

Quotas

Set Quota

Quotas: 100 MB

Previous Next Cancel

Step 7: Select the **Service** you wish to incorporate onto this share folder.

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

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

Click **Next** to continue.



Step 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.

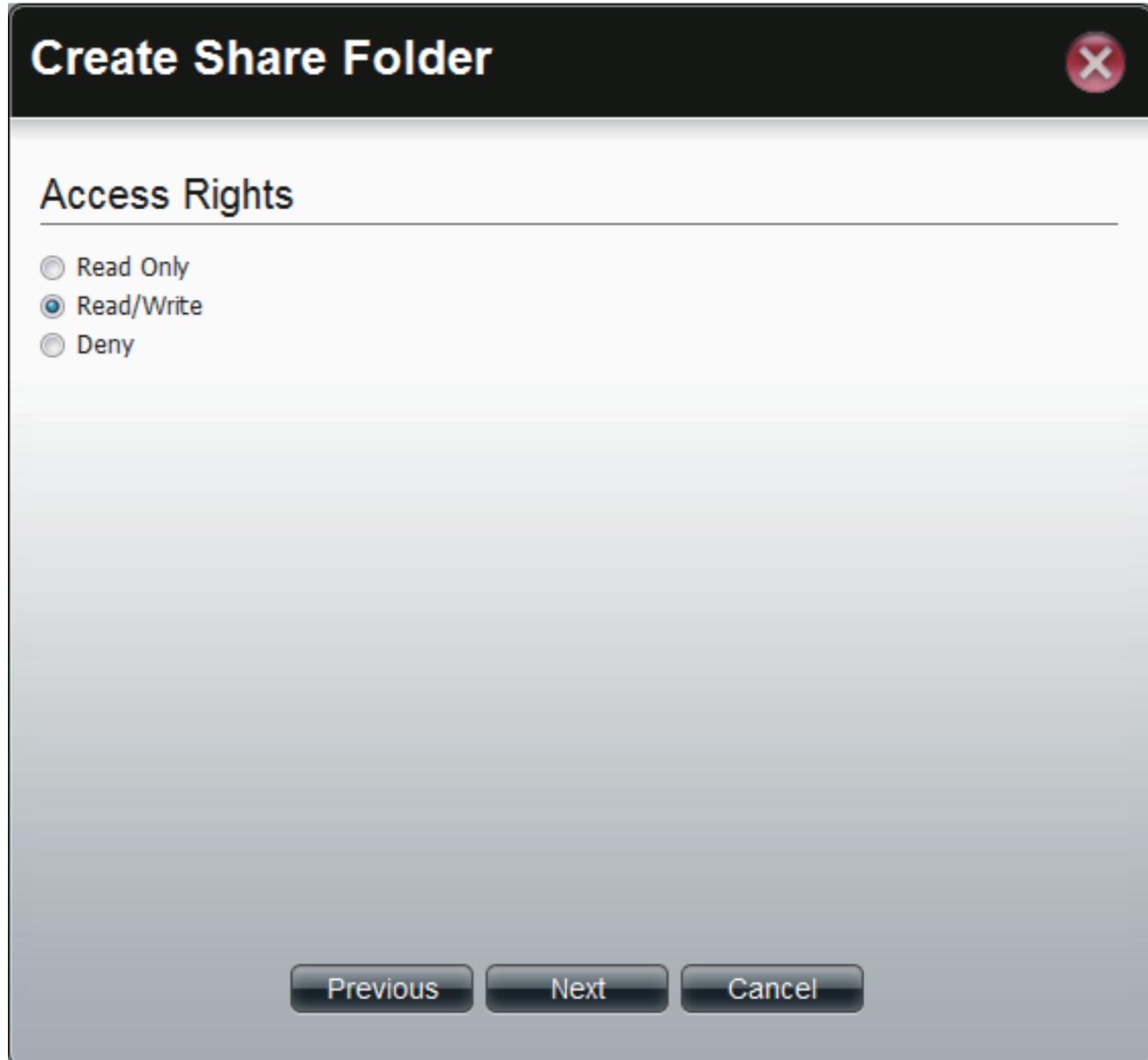
Click **Next** to continue.



Step 9: Select the **Access Rights** of the Shared Folder.

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

Click **Next** to continue.

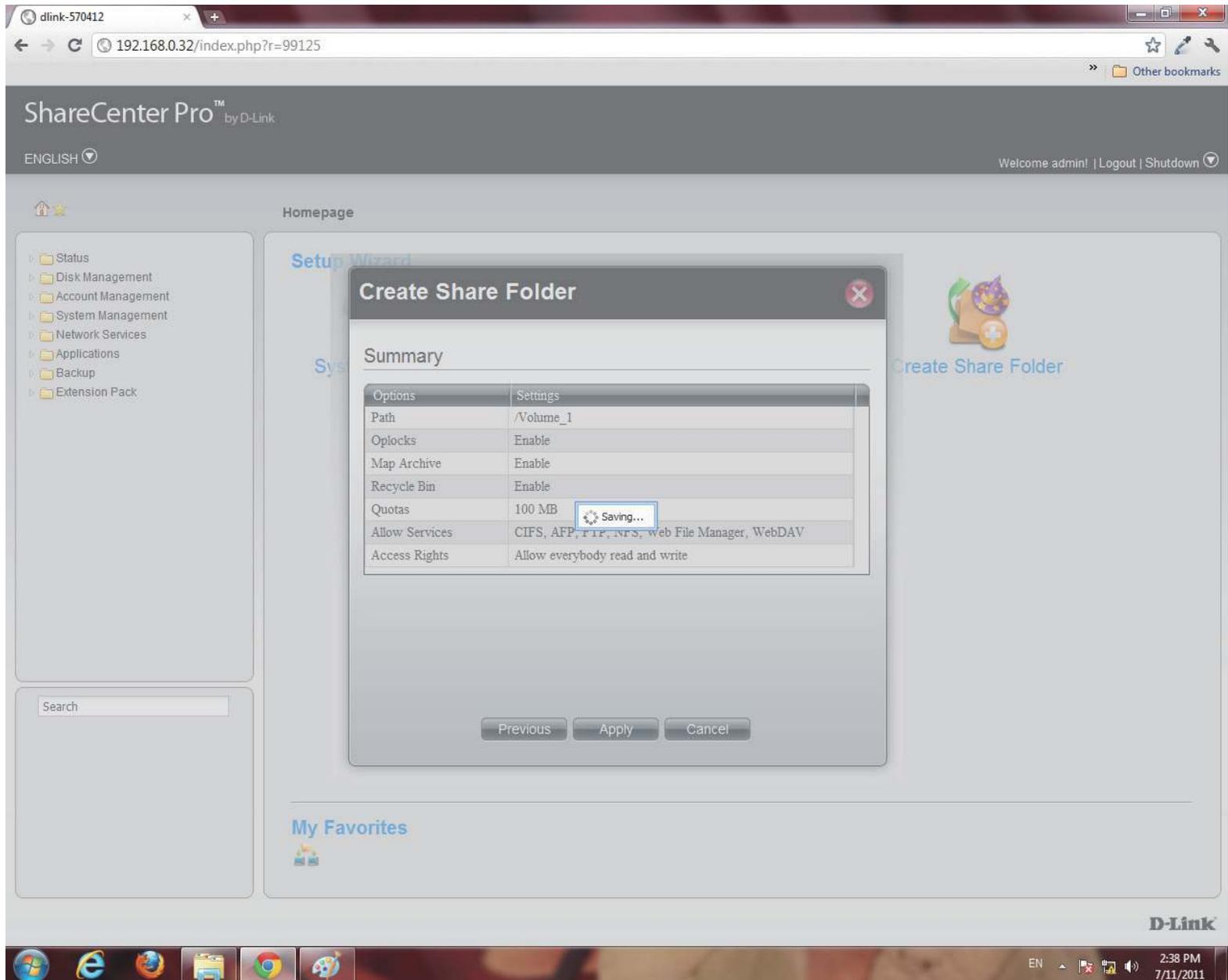


Step 10: The final screen shows a summary of the configuration options just carried out. Read through the settings you have just made.

Click **Apply** to finish the **Shared Folder** configuration settings.

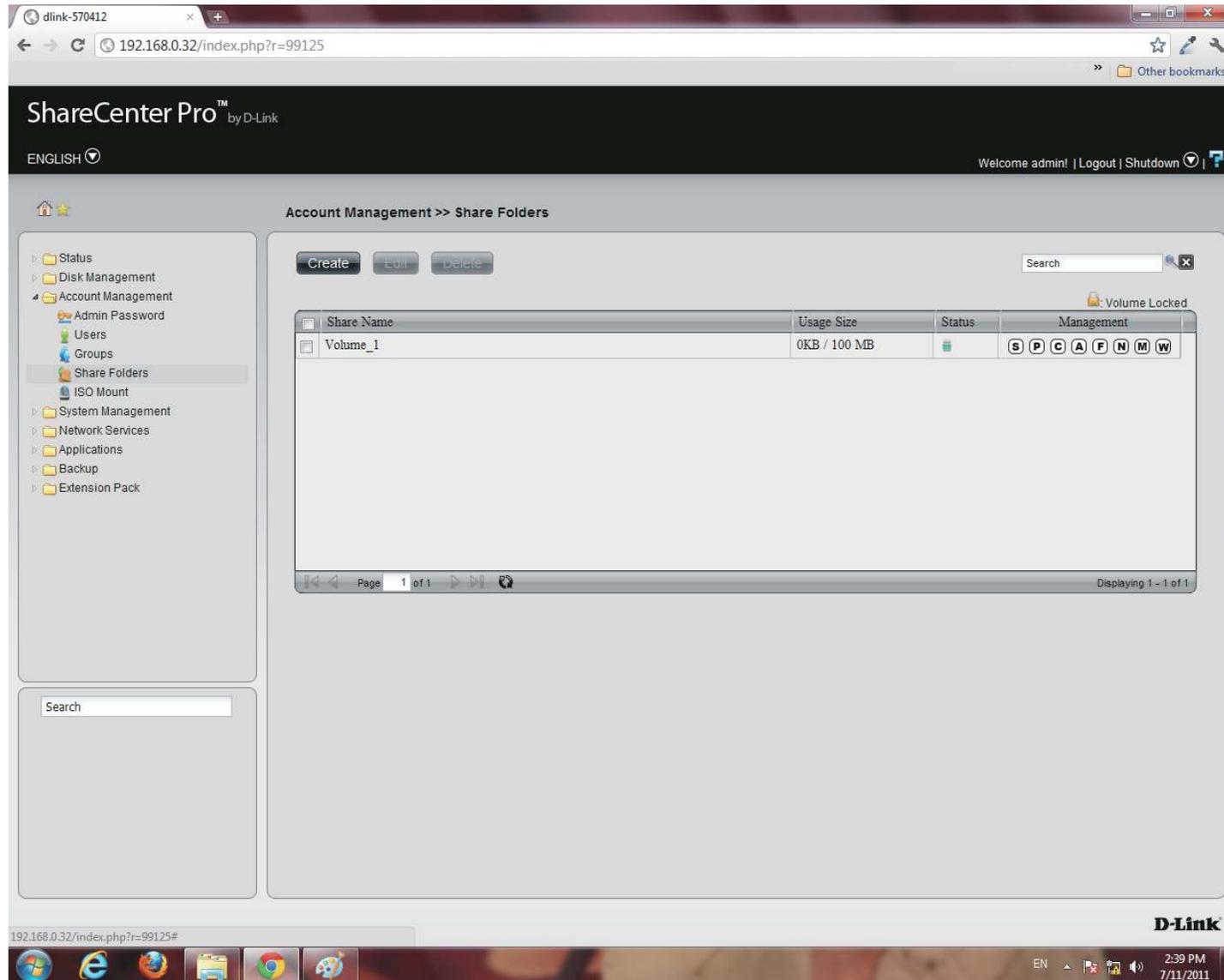


Step 11: ShareCenter 1100-04 starts to save your settings.



Step 12: ShareCenter 1100-04 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 1100-04.

Step 1: Select the **Shared Folder** you wish edit.

Click **Edit**.

The screenshot displays the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `192.168.0.32/index.php?r=99125`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin!". The main content area is titled "Account Management >> Share Folders". It features a table with the following data:

Share Name	Usage Size	Status	Management
Volume_1	0KB / 100 MB	OK	S P C A F N M W

The "Management" column contains icons for various actions: S (Share), P (Permissions), C (Cache), A (Attributes), F (Folders), N (Network), M (Mount), and W (Work). The "Edit" button is highlighted in the top navigation bar. The bottom of the page shows the D-Link logo and system information like "Page 1 of 1" and "Displaying 1 - 1 of 1".

Step 2: The **Volume** is selected. Edit the **Share Folder Options** (services) and **Quota** accordingly.

Click **Next** to continue.

The screenshot shows a configuration window titled "Volume_1" with a close button in the top right corner. The window is divided into two main sections: "Share Folder Options (For CIFS Service)" and "Quotas".

Share Folder Options (For CIFS Service)

Oplocks:	<input type="radio"/> Enable	<input type="radio"/> Disable
Map Archive:	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable
Recycle Bin:	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable

Quotas

Set Quota
Quotas: MB

At the bottom of the window, there are three buttons: "Previous", "Next", and "Cancel".

Step 3: Edit the **Services** manually according to your needs.

Click **Next** to continue.



Step 4: Edit the **Access Rights** in the **Shared Folder** for all users or specific users.

Click **Next** to continue.



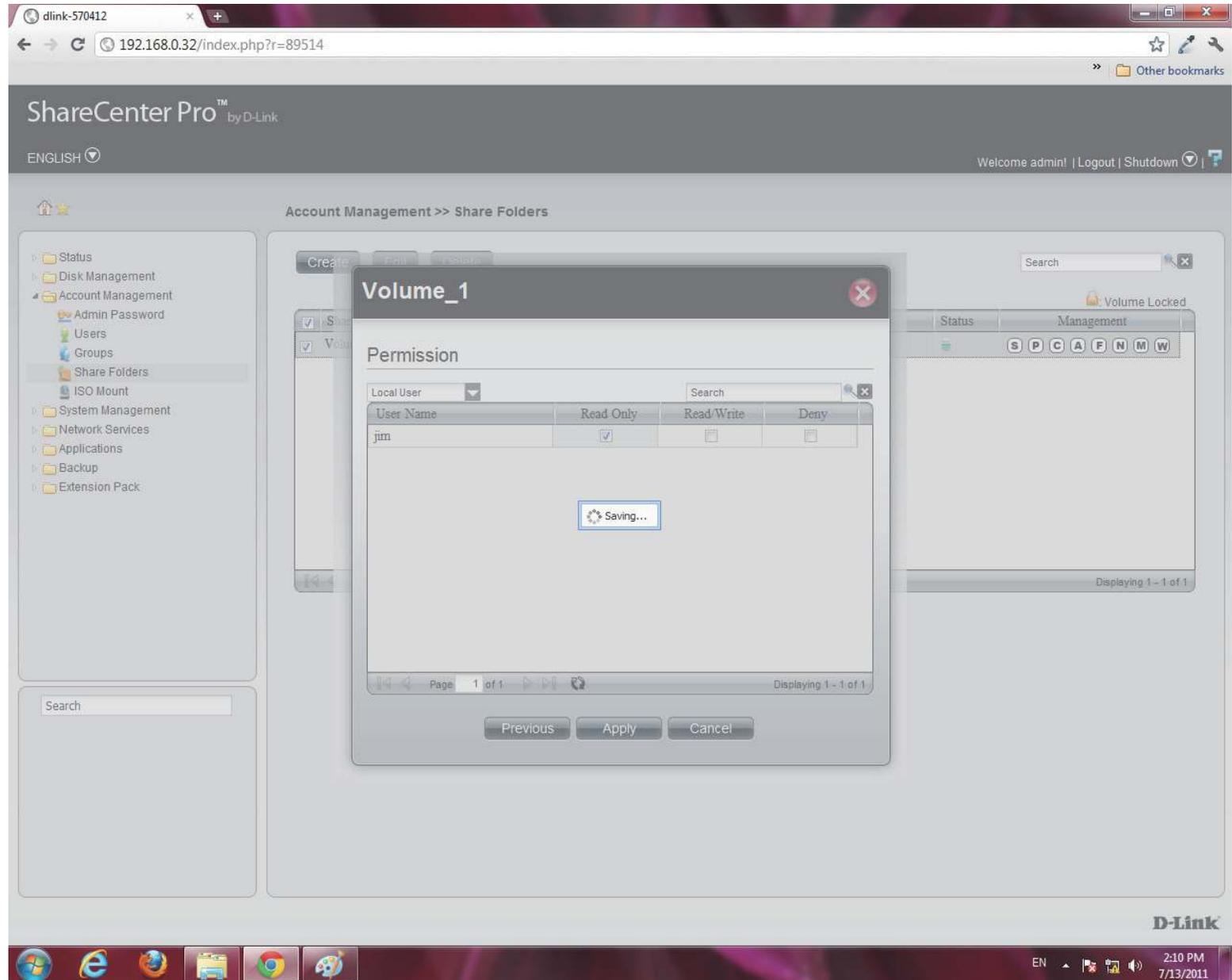
Step 5: Now select the **Permissions**. The permissions can be for a local user or a local group.

Select the user and select the **Permission** for the user

Click **Apply** to continue.



Step 6: ShareCenter 1100-04 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

Step 1: Click the **S** button under **Management** to provide details on the **Share Path**.

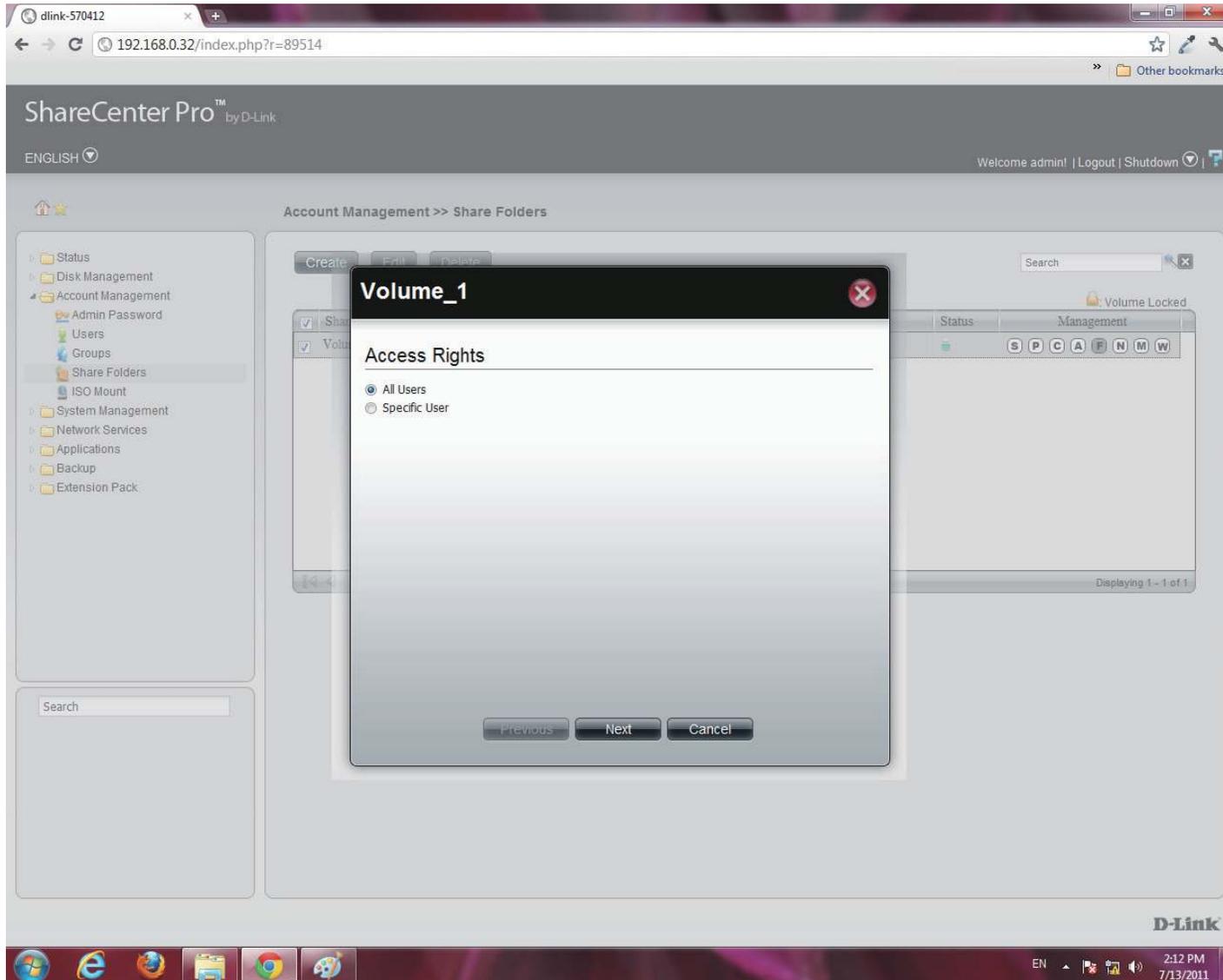
Click **OK** to exit.



Step 2: Click the **P** button to change the **Access Rights**.

Select between **All Users** or **Specific Users**.

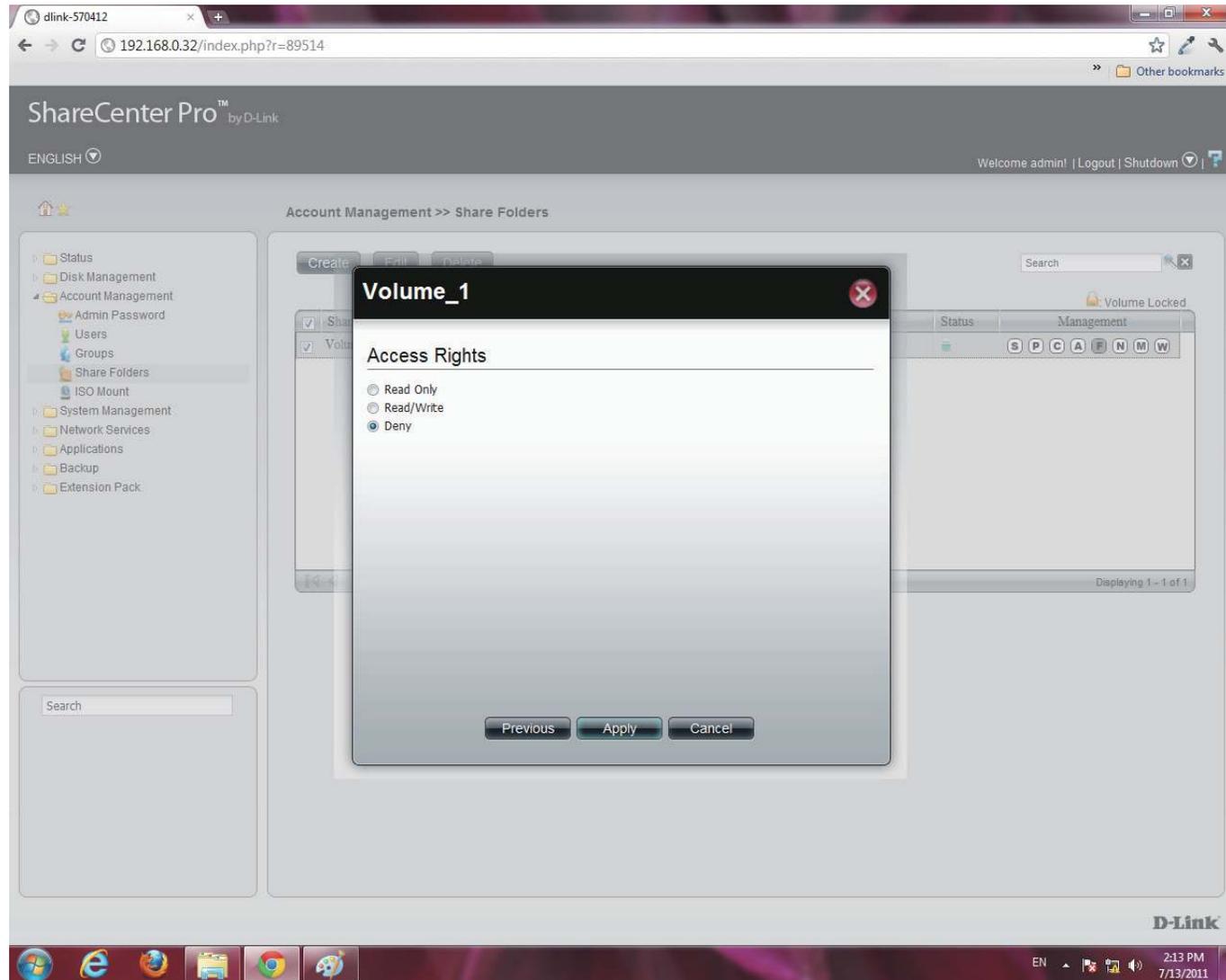
Click **Next** to continue.



Step 3: Select the **Access Rights** for the volume.

Read Only, Read/Write, or Deny.

Click **Apply** to complete the changes.

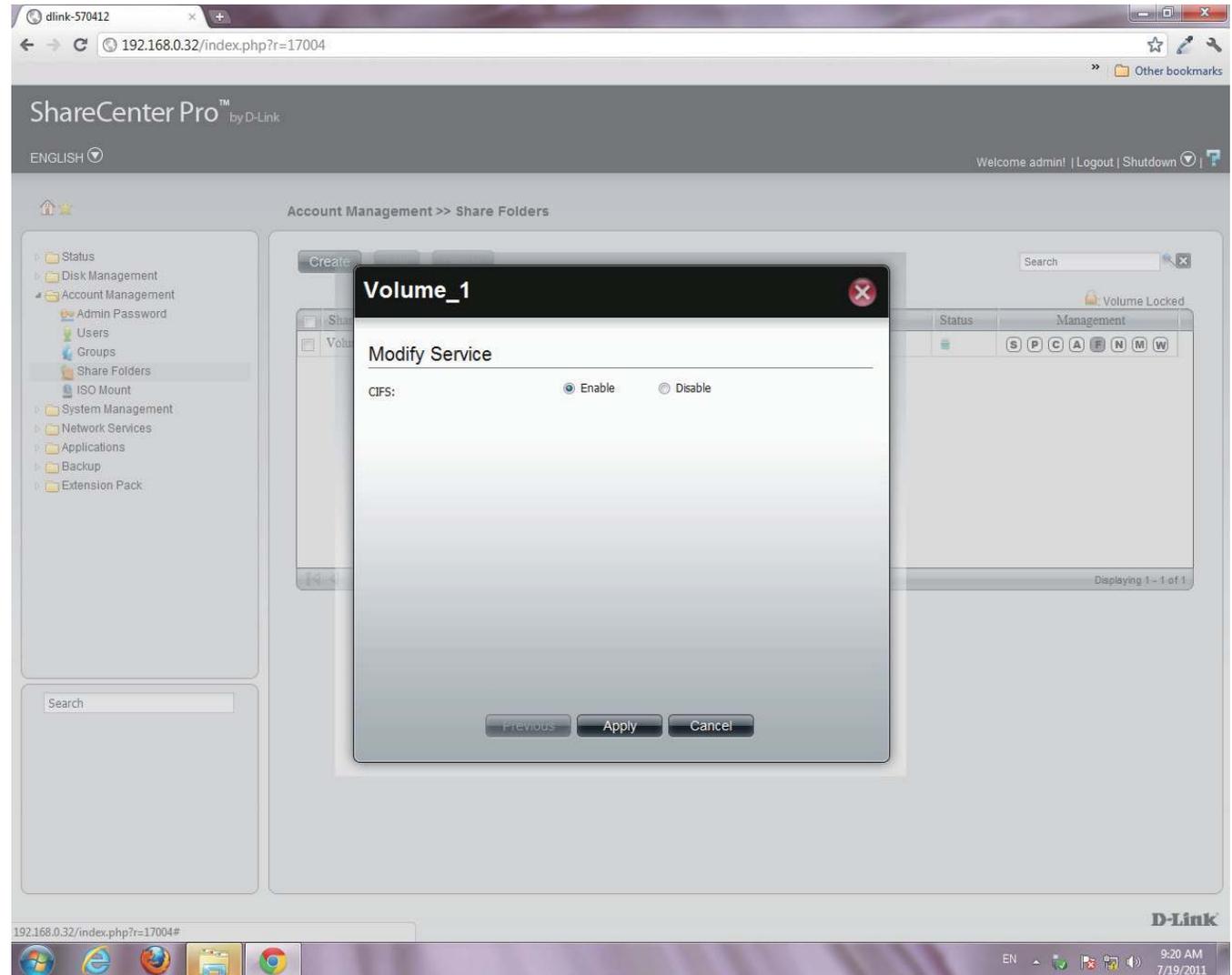


Step 4: Click the **C** button to change **CIFS** services.

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.

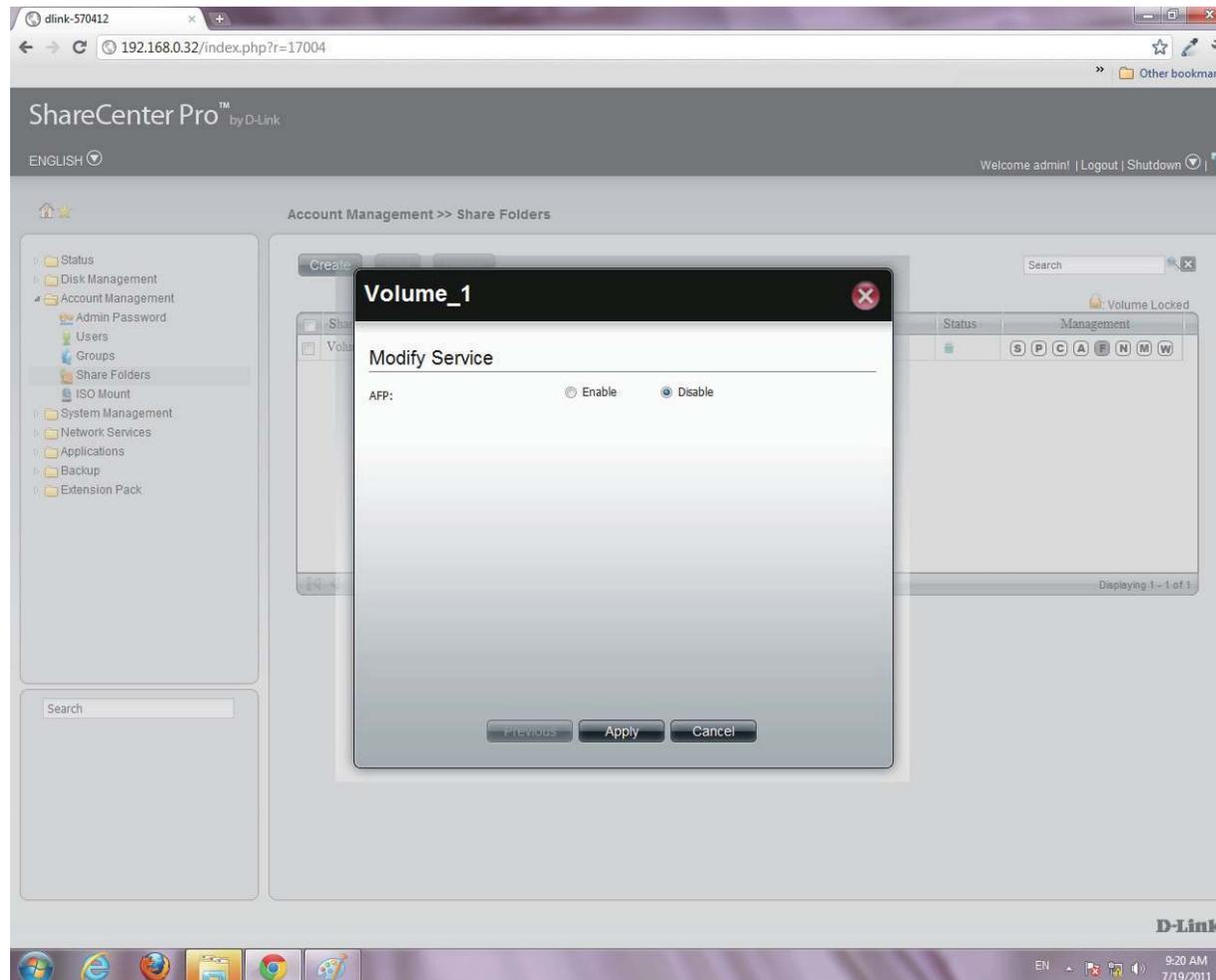


Step 5: Click the **A** button to change **AFP** services.

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.

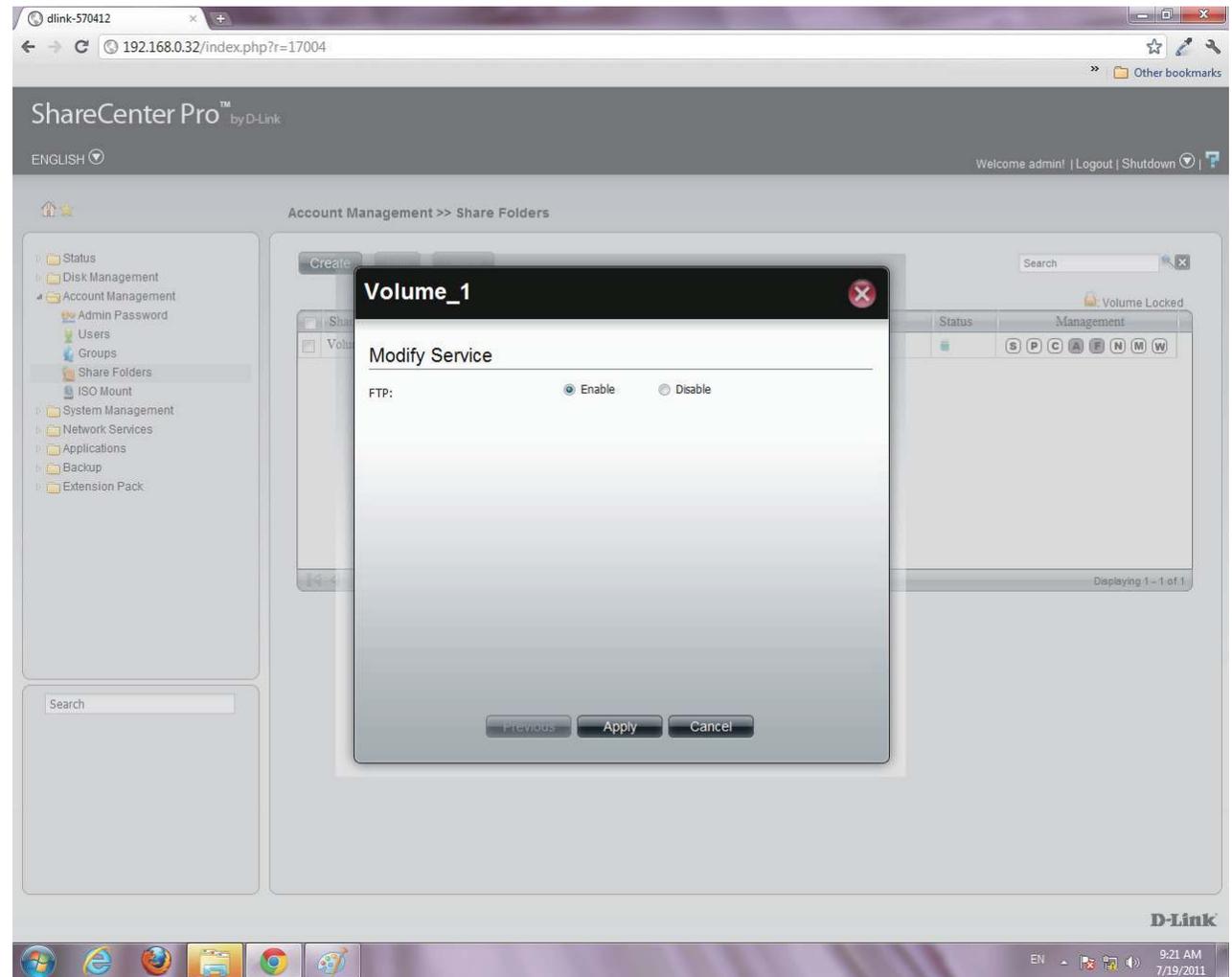


Step 6: Click the **F** button to change **FTP** services.

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

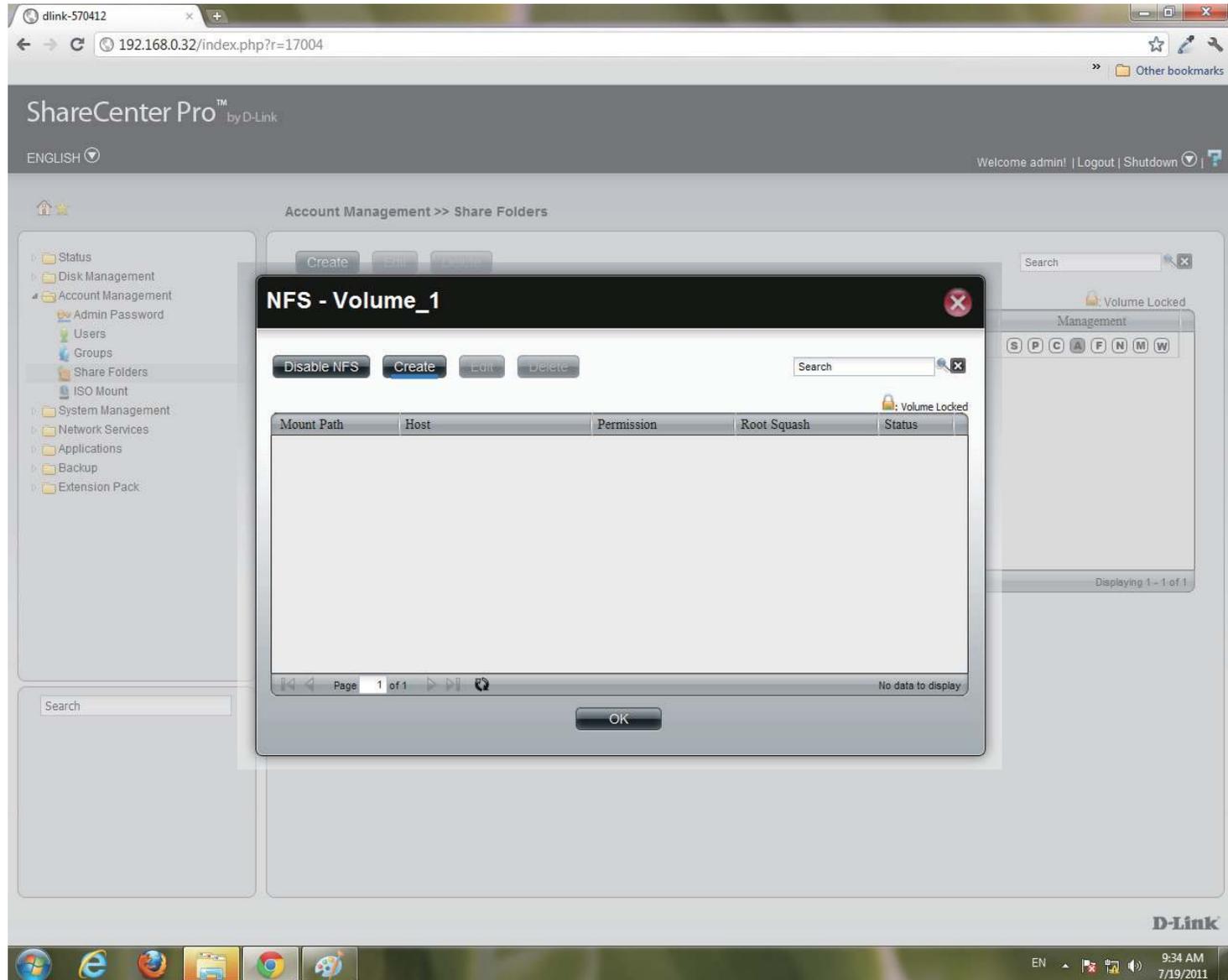
Click **Apply** to continue.

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

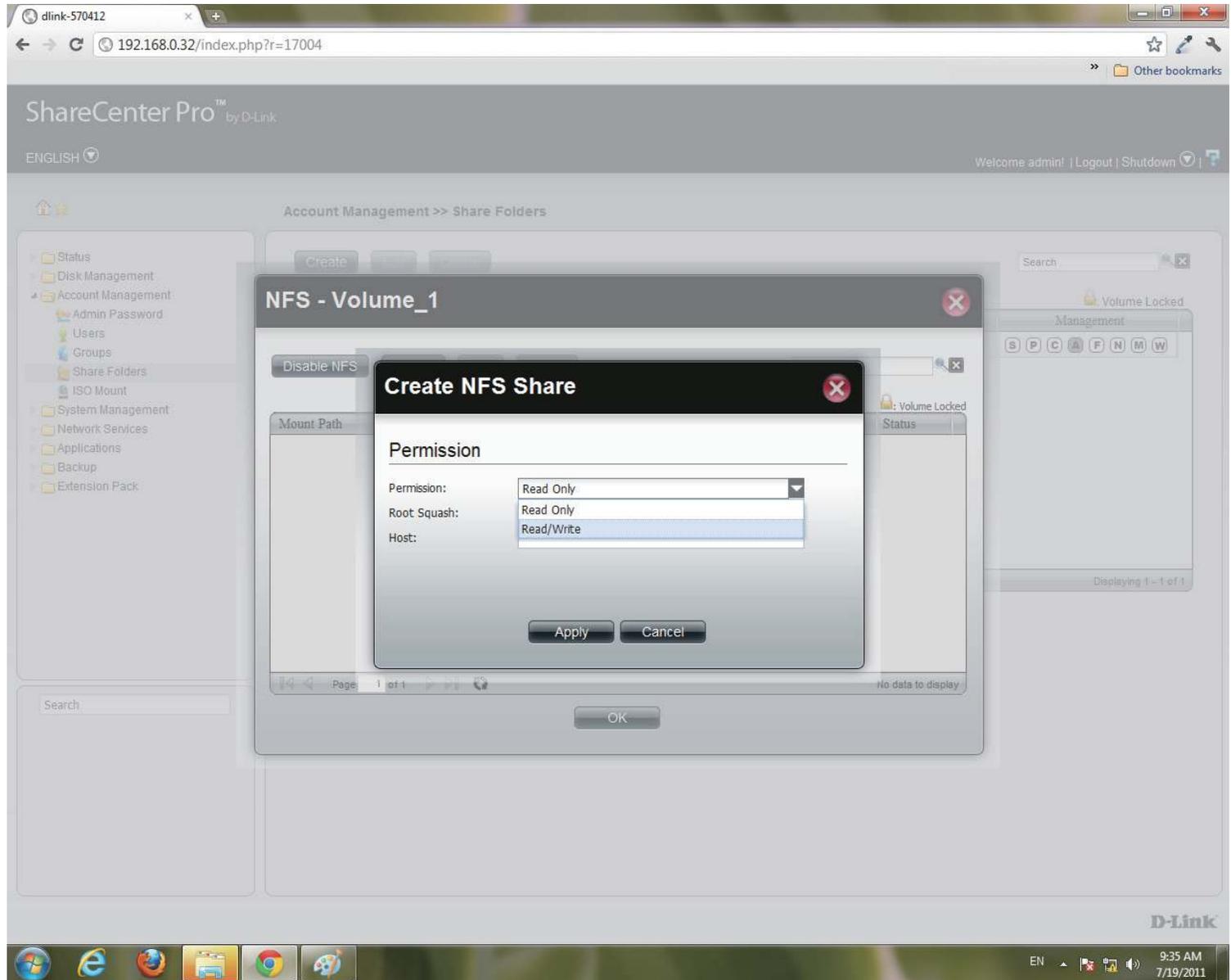


Step 7: For NFS settings, the configuration window allows you to **Disable NFS** or **Create** a new rule.

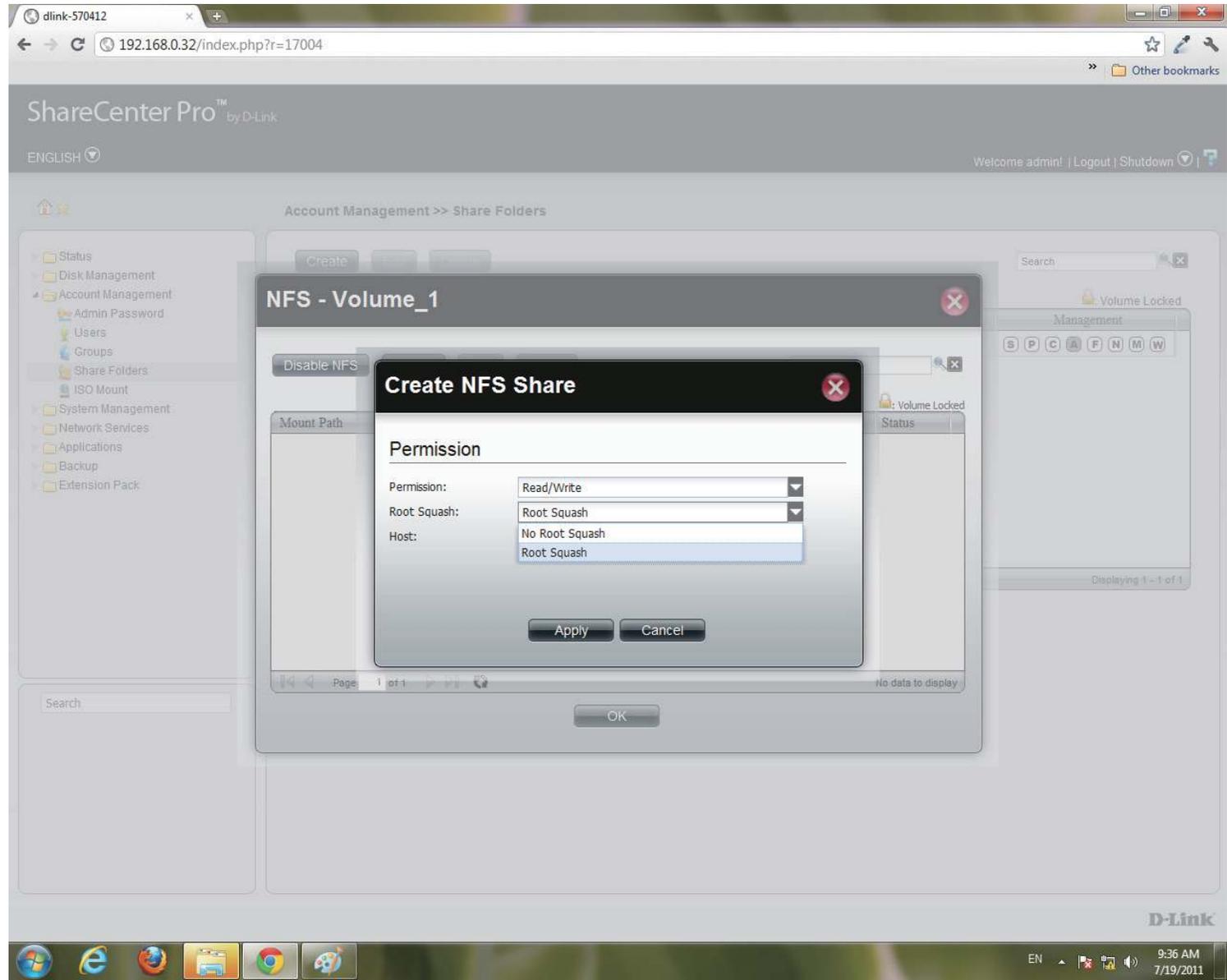
To **Create** a new rule click **Create**.



Step 8: Under **Create NFS Share**, select the **Permission** level.
There are two choices: **Read Only** & **Read/Write**.

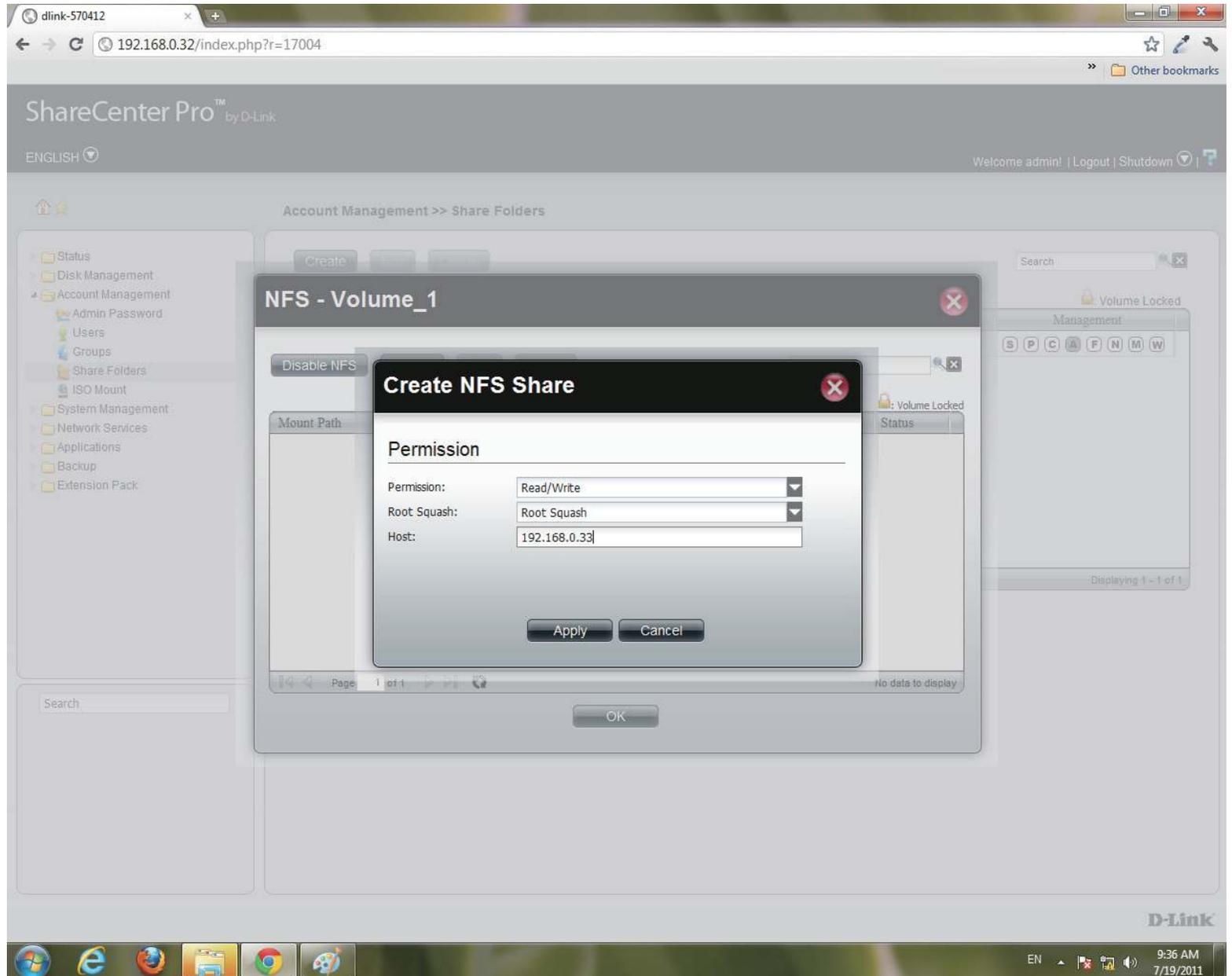


Step 9: Under **Root Squash**, select to activate **Root Squash** or not.



Step 10: Enter the **Host** address.

Click **Apply**.



Step 11: The NFS table now shows the changes made.

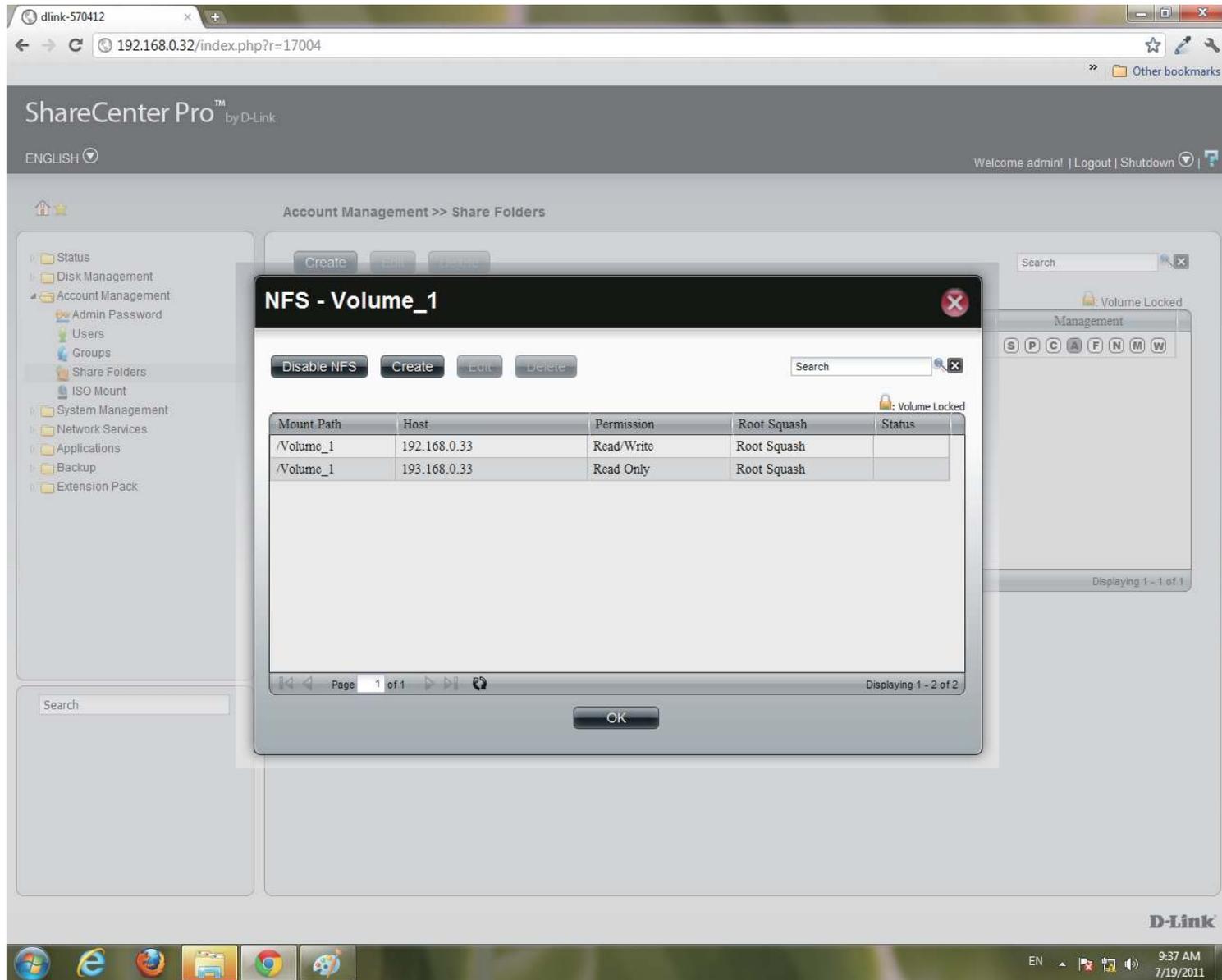
The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar displays '192.168.0.32/index.php?r=17004'. The page title is 'ShareCenter Pro™ by D-Link'. The user is logged in as 'admin!'. The main navigation menu includes 'Status', 'Disk Management', 'Account Management', 'Admin Password', 'Users', 'Groups', 'Share Folders', 'ISO Mount', 'System Management', 'Network Services', 'Applications', 'Backup', and 'Extension Pack'. The 'Share Folders' section is active, showing 'Account Management >> Share Folders'. A modal window titled 'NFS - Volume_1' is open, displaying a table with the following data:

Mount Path	Host	Permission	Root Squash	Status
/Volume_1	192.168.0.33	Read/Write	Root Squash	

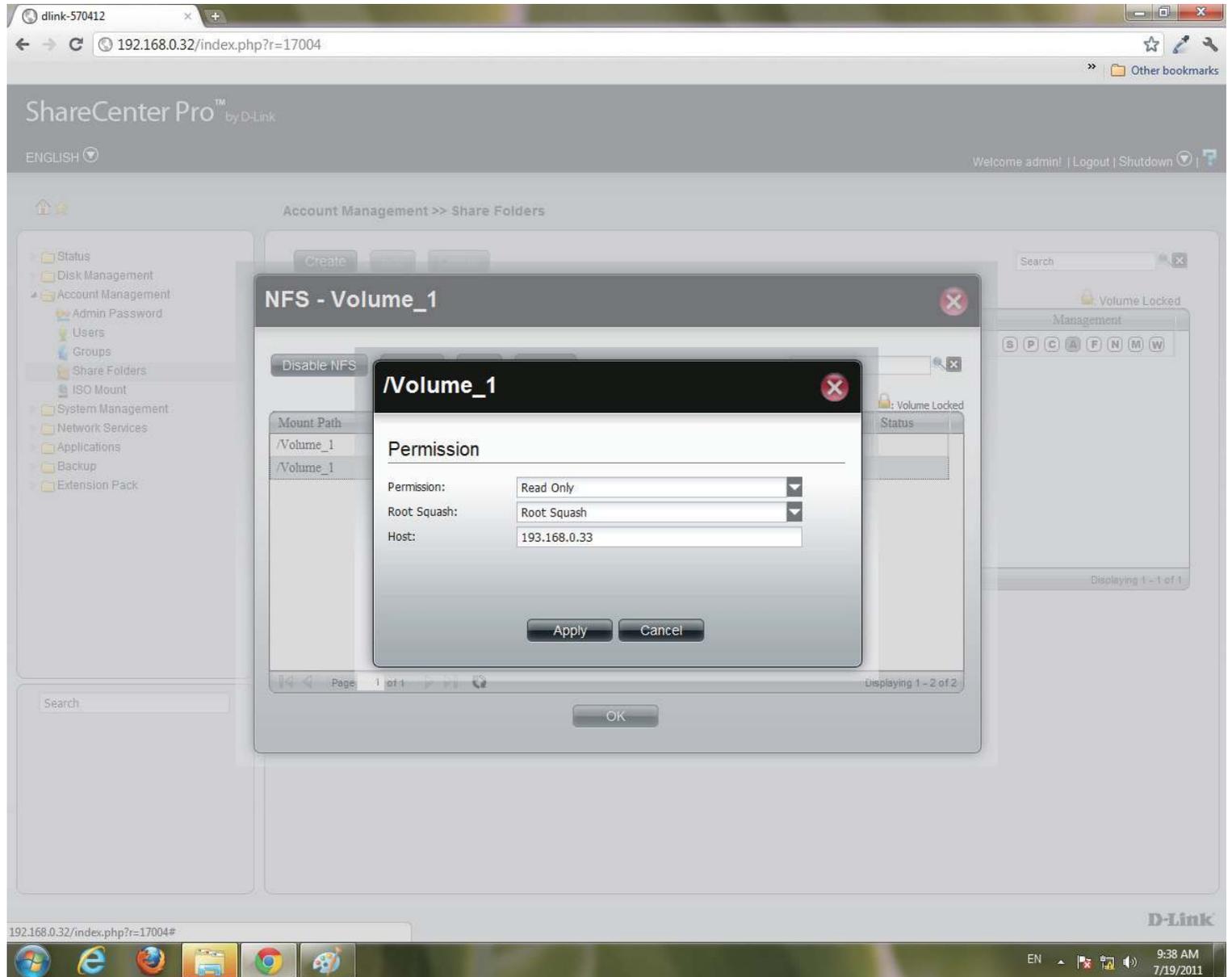
The modal window also includes buttons for 'Disable NFS', 'Create', 'Edit', and 'Delete', and a search field. The status bar at the bottom of the modal indicates 'Page 1 of 1' and 'Displaying 1 - 1 of 1'. The D-Link logo is visible in the bottom right corner of the interface.

Step 12: To Edit

Select the volume you wish to edit, click **Edit**.

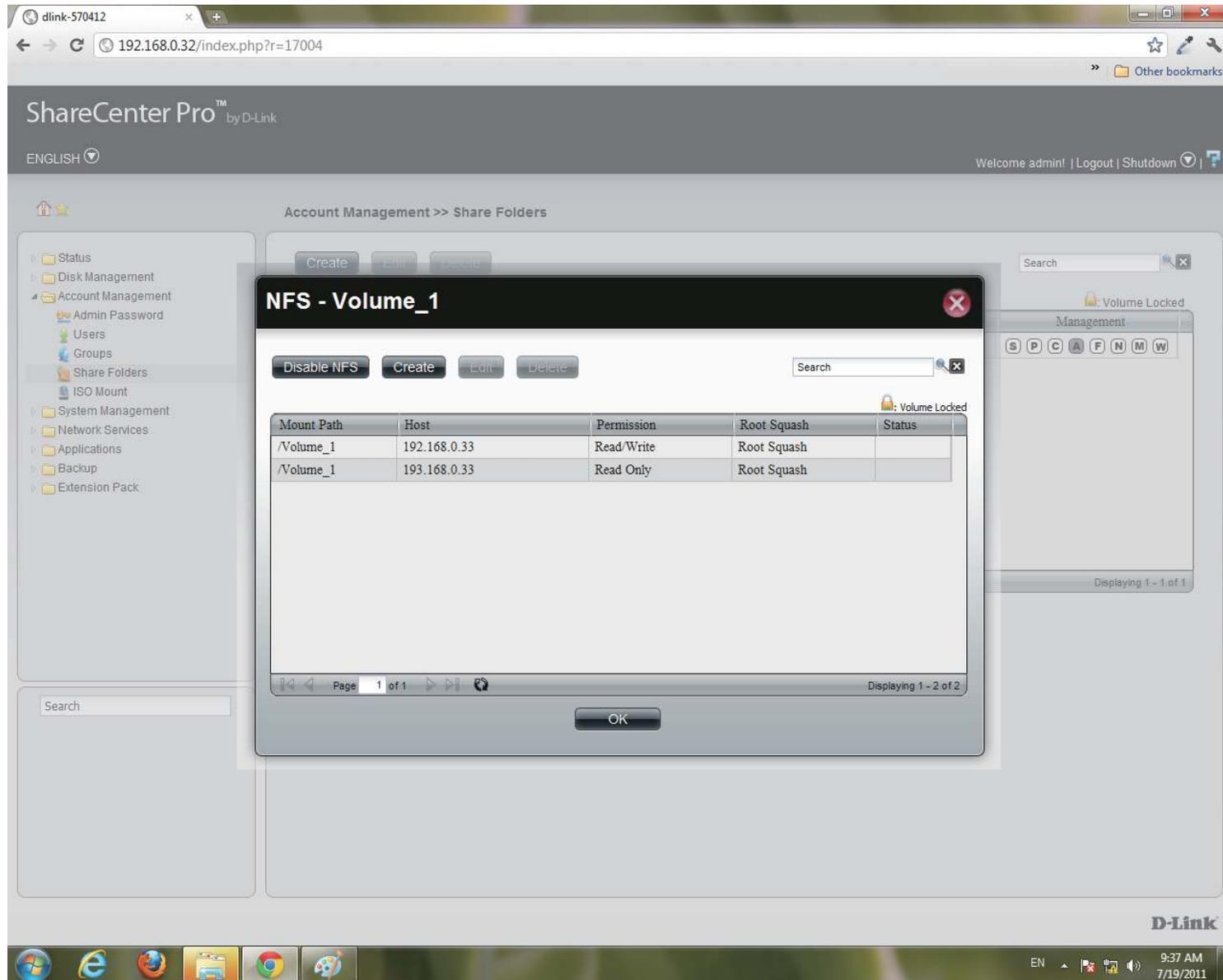


Step 13: Users can edit the **Permissions** of a volume in this section.
Once complete. Click **Apply**.



Step 14: Delete an NFS volume by clicking the volume.

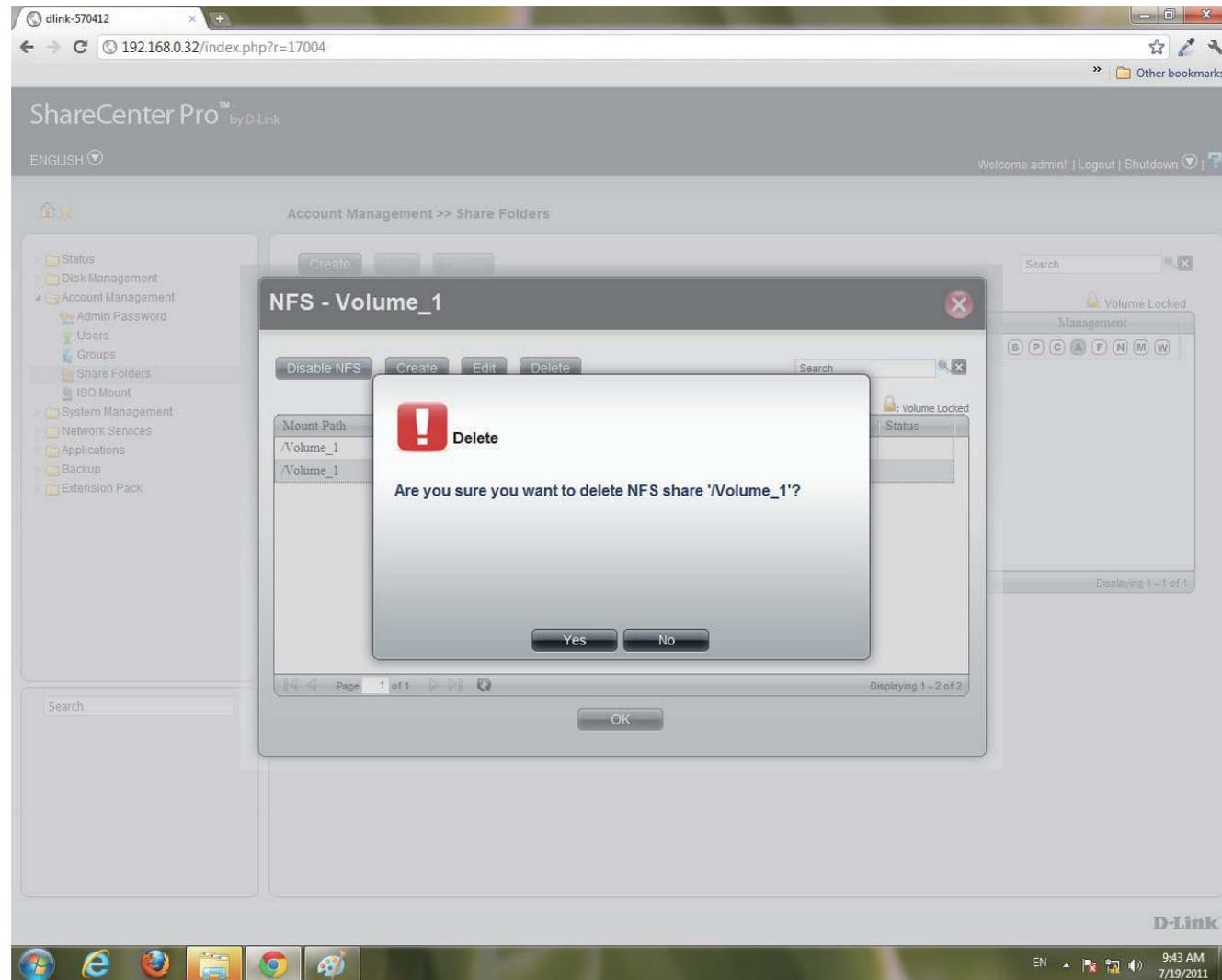
Then, click **Delete**.



Step 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.

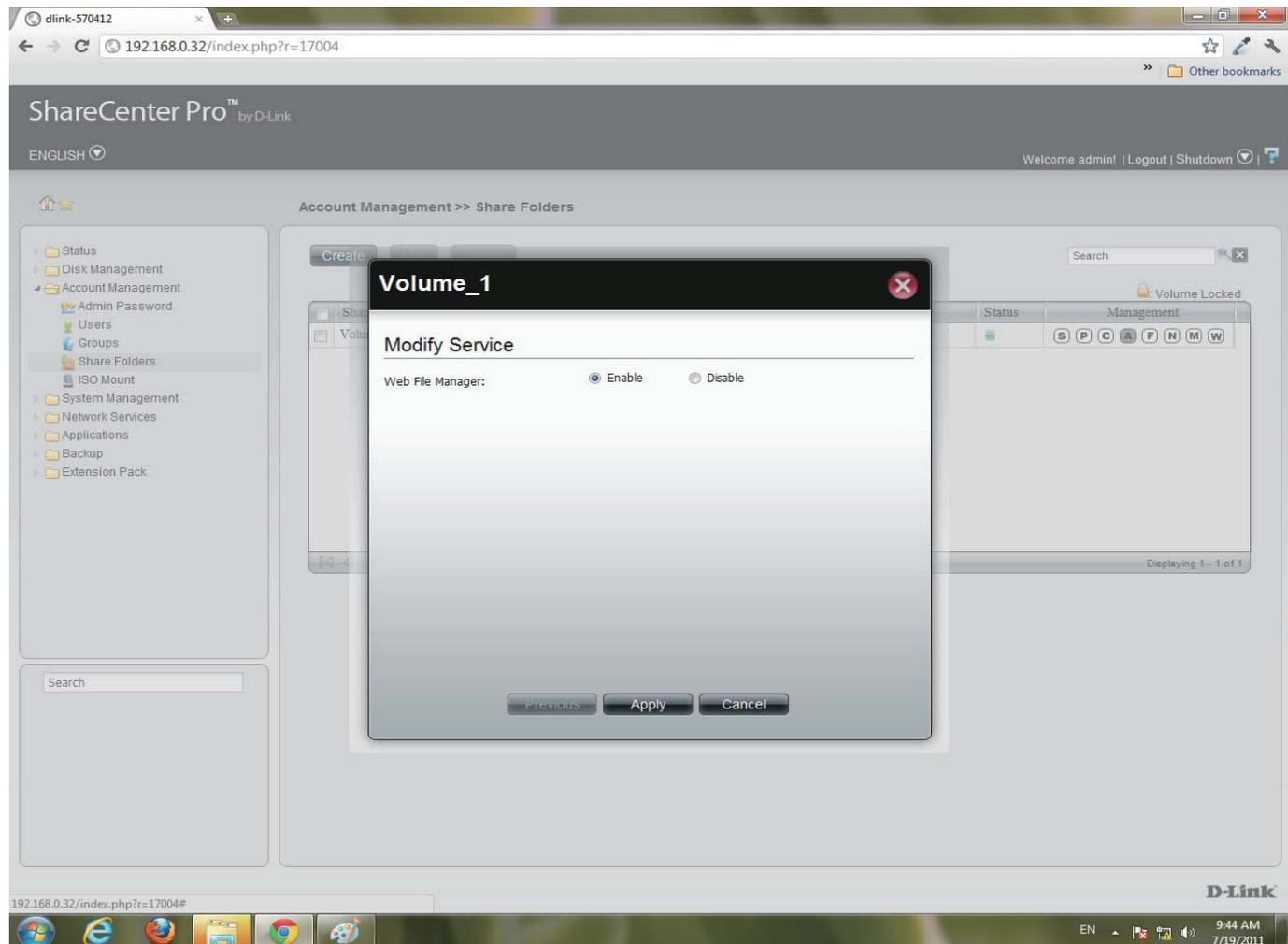


Step 16: Click the **M** button to modify the **Web File Manager**.

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.

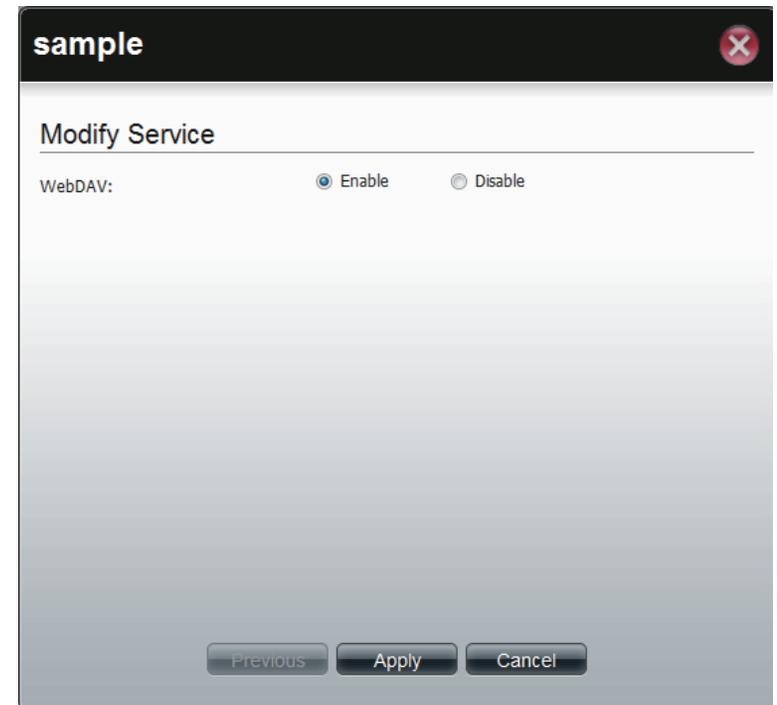
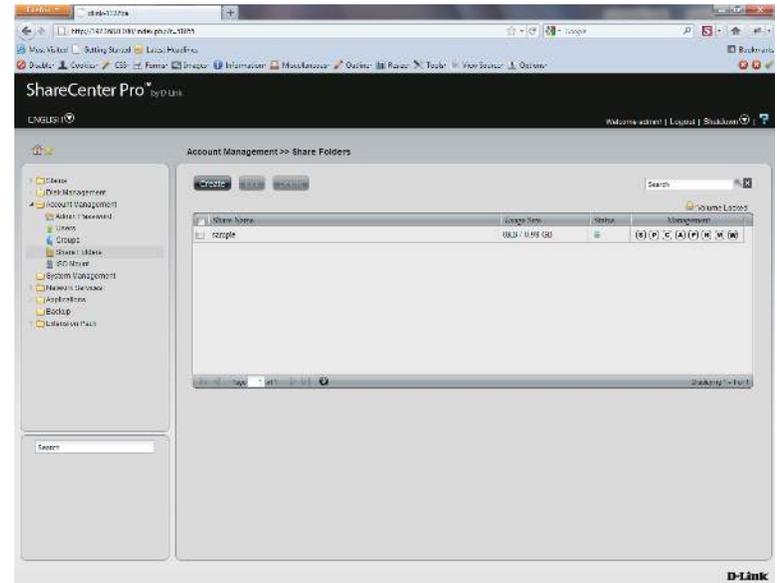


Step 17: Click the **W** button to modify the **WebDAV** Services

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.



Accounts Management - Shared Folders

ShareCenter Pro™ by D-Link

ENGLISH

Welcome admin! | Logout | Shutdown

Account Management >> Share Folders

Create Edit Delete

Search

Share Name	Usage Size	Status	Management
Volume_1	0KB / 100 MB		S P C A F N M W

Volume Locked

Page 1 of 1

Displaying 1 - 1 of 1

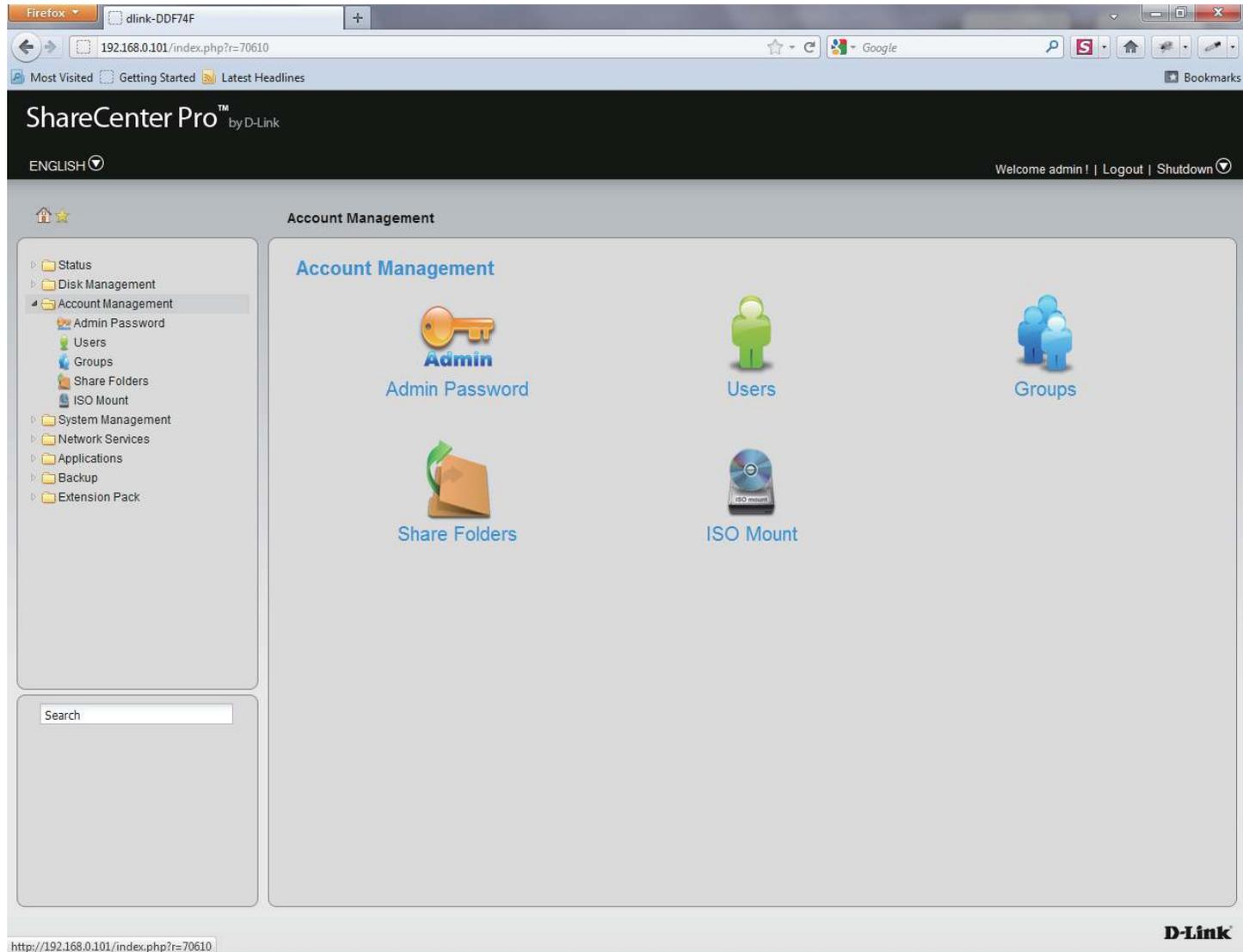
D-Link

9:46 AM
7/19/2011

ISO Mounts

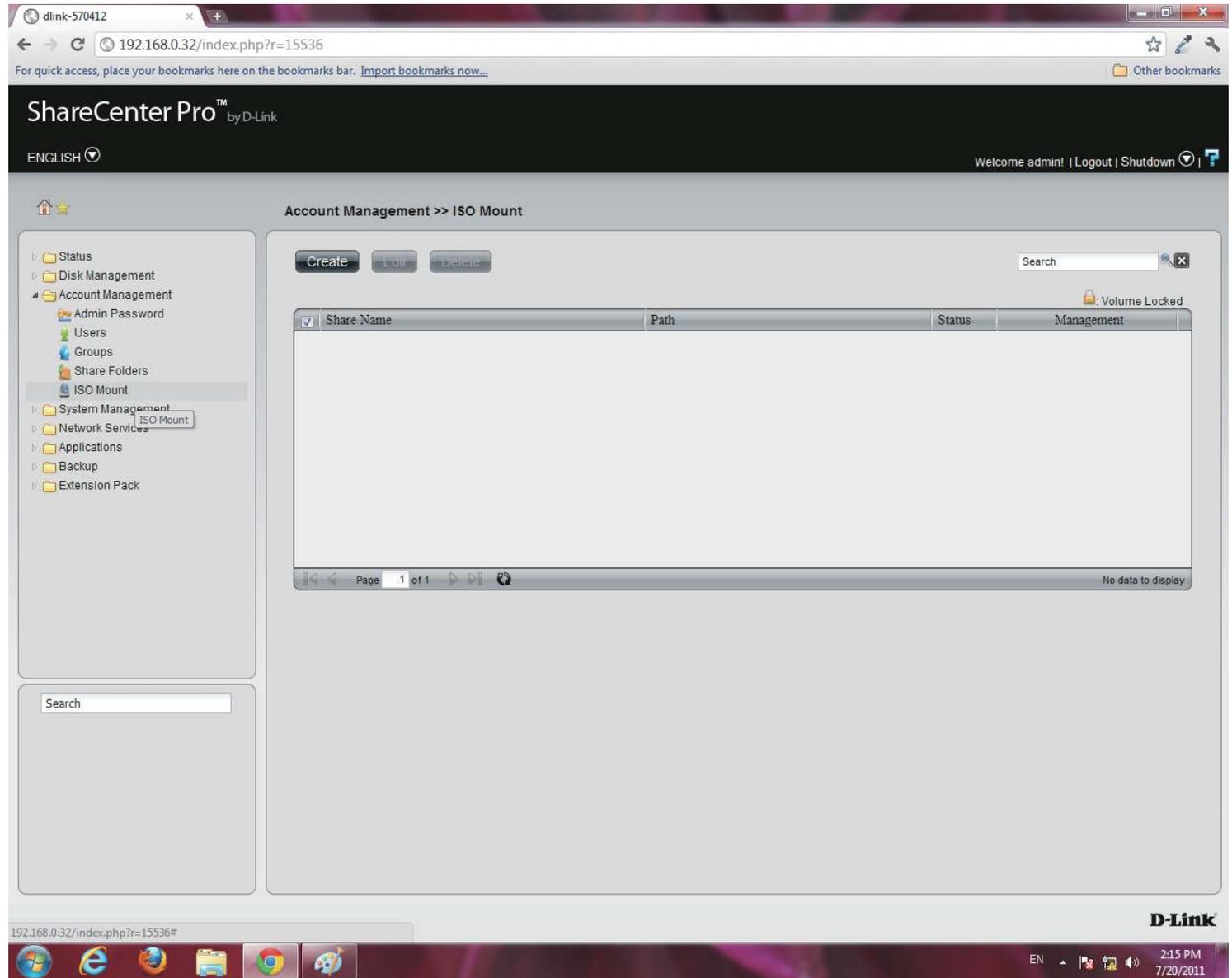
Follow these steps to mount and save an ISO file.

Step 1: Log into the system.



Step 2: Click Accounts Management

Click ISO Mount.



Step 3: Click **Create**, the **Create ISO Mount** window appears.
Read the instructions and click **Next**.



Step 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.



Step 5: Click **Next** to continue



Step 6: Select the **Service** by using one of the radio buttons

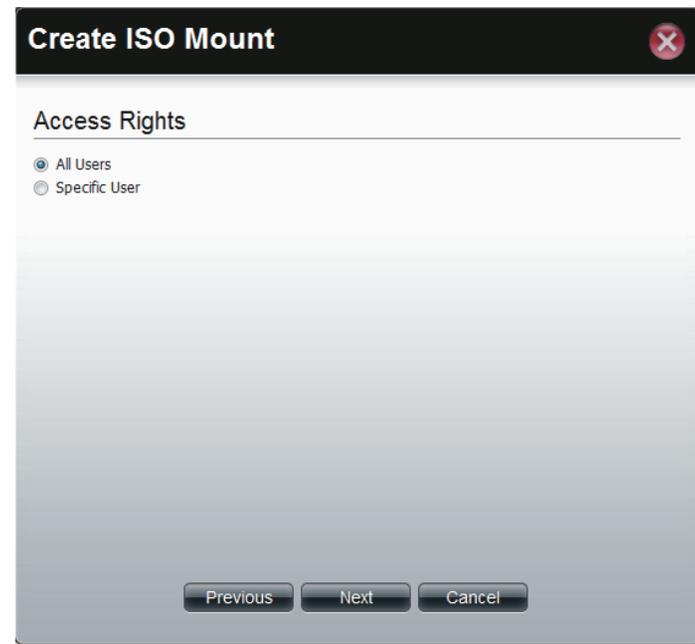
The choices include: **CIFS**, **AFP**, **FTP**, **NFS**, **Web File Manager**, and **WebDAV**.

Click **Next** to continue.



Step 7: Under **Access Rights** specify the user - **All Users** or **Specific Users**.

Click **Next** to continue



Step 8: Select which **Access Rights** you want to assign a user.

Choose either **Read Only** or **Deny**.

Click **Next** to continue.



Step 9: The final step is a summary. The summary displays the **Path**, **Allowed Services**, and **Access Rights**.

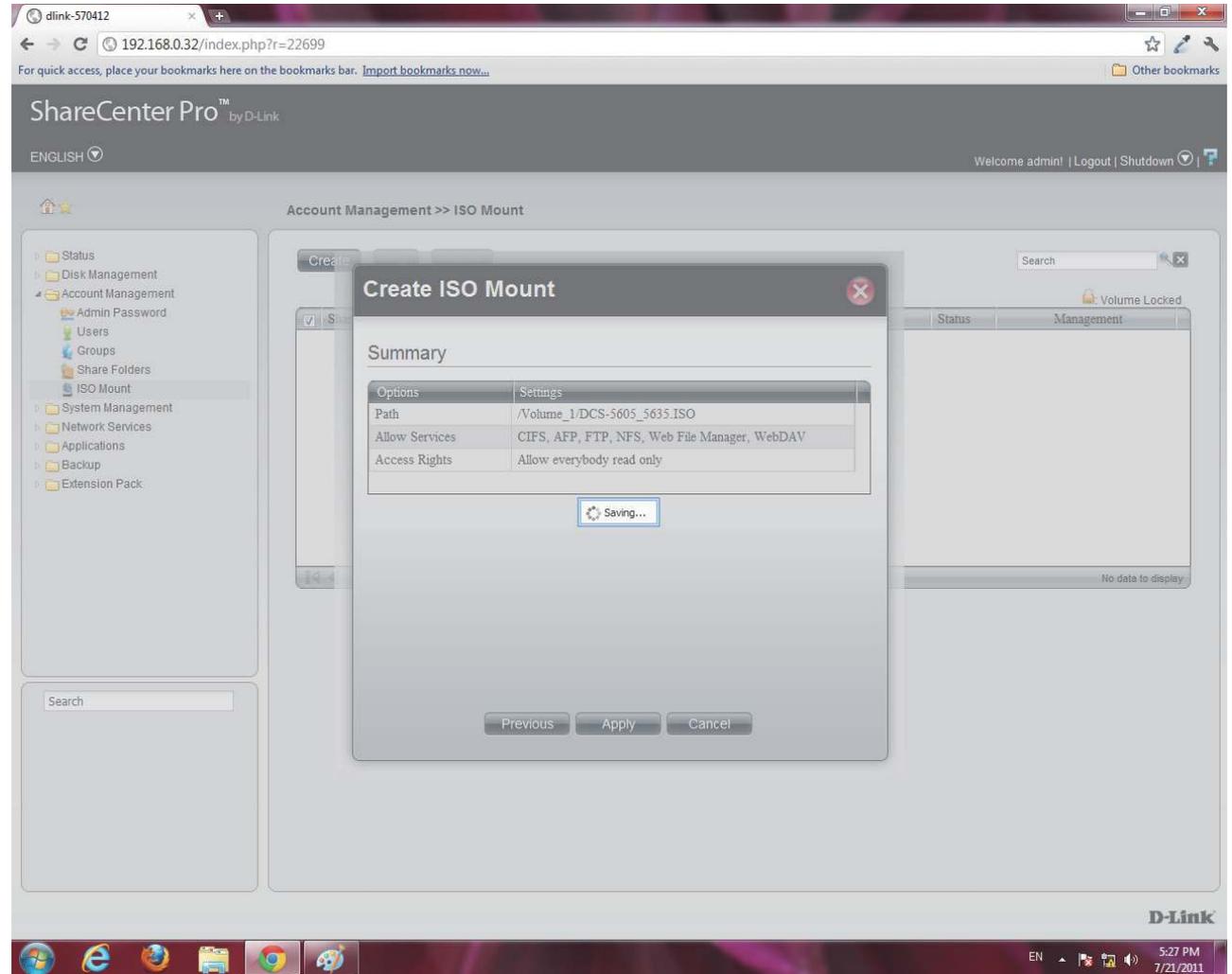
Click **Apply** to accept the configuration changes or click **Cancel**.



ISO Mounts - Editing an ISO Mount

Follow these steps to edit an ISO file.

Step 1: Once the configuration is saved and you need to edit your settings once again, click **Edit**.



Step 2: Select the **Services** you want.

Click **Enable** to activate the services.

Click **Disable** to deactivate the services.

Click **Next** to continue.



Step 3: Select the **User** you wish to assign or edit.

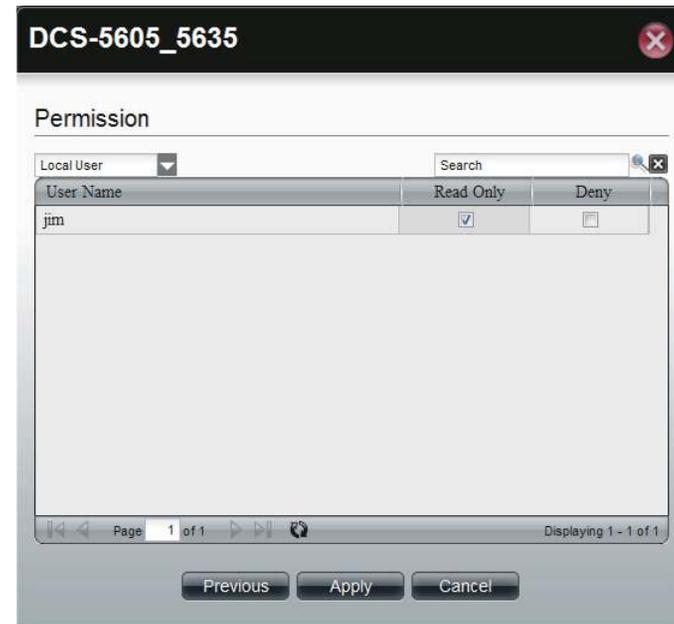
Click **Next**.



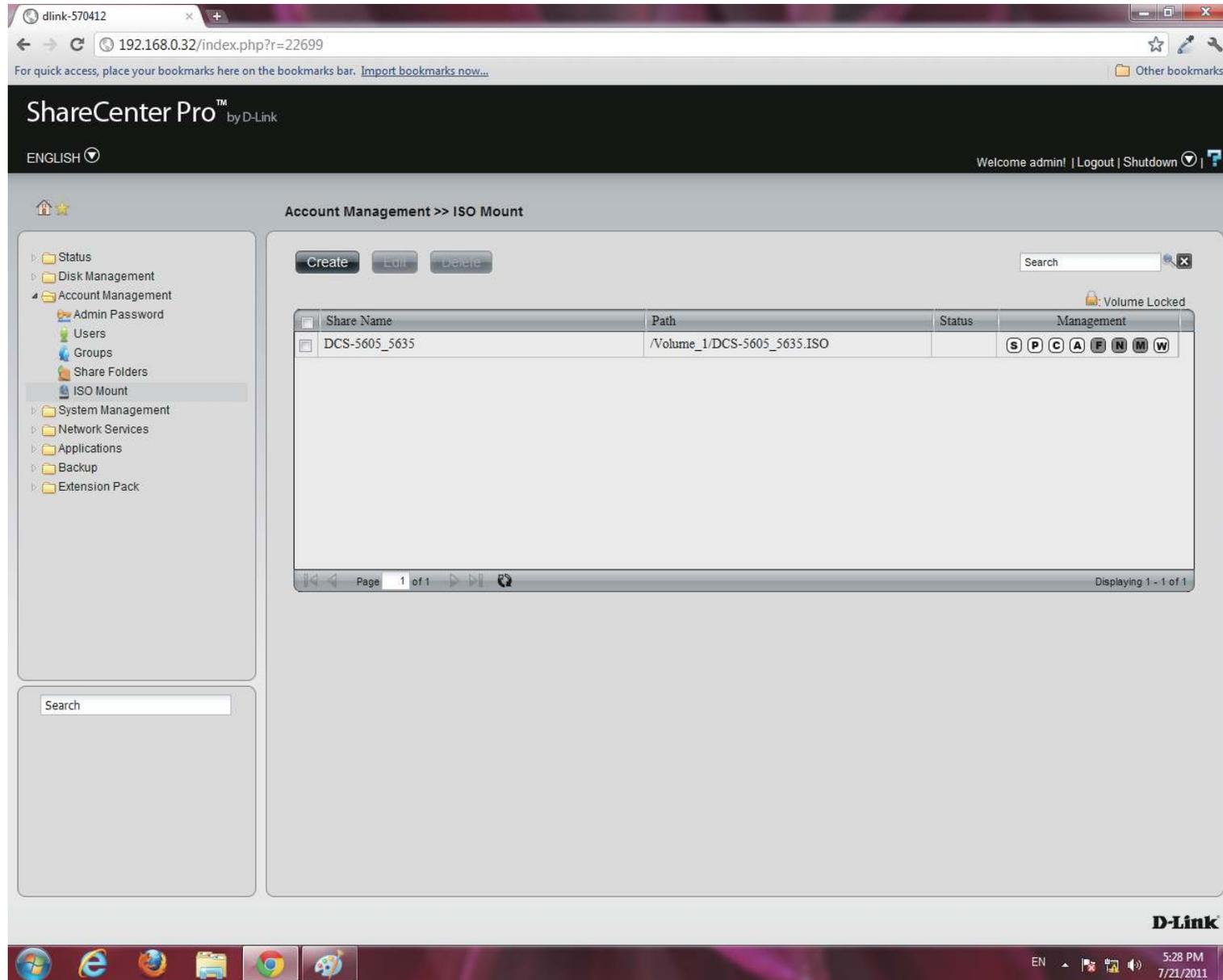
Step 4: Selecting a **Specific User**.

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

Click **Apply** to continue.



Step 5: Once you have clicked **Apply**, the screen reverts back to the **ISO Mount** table.

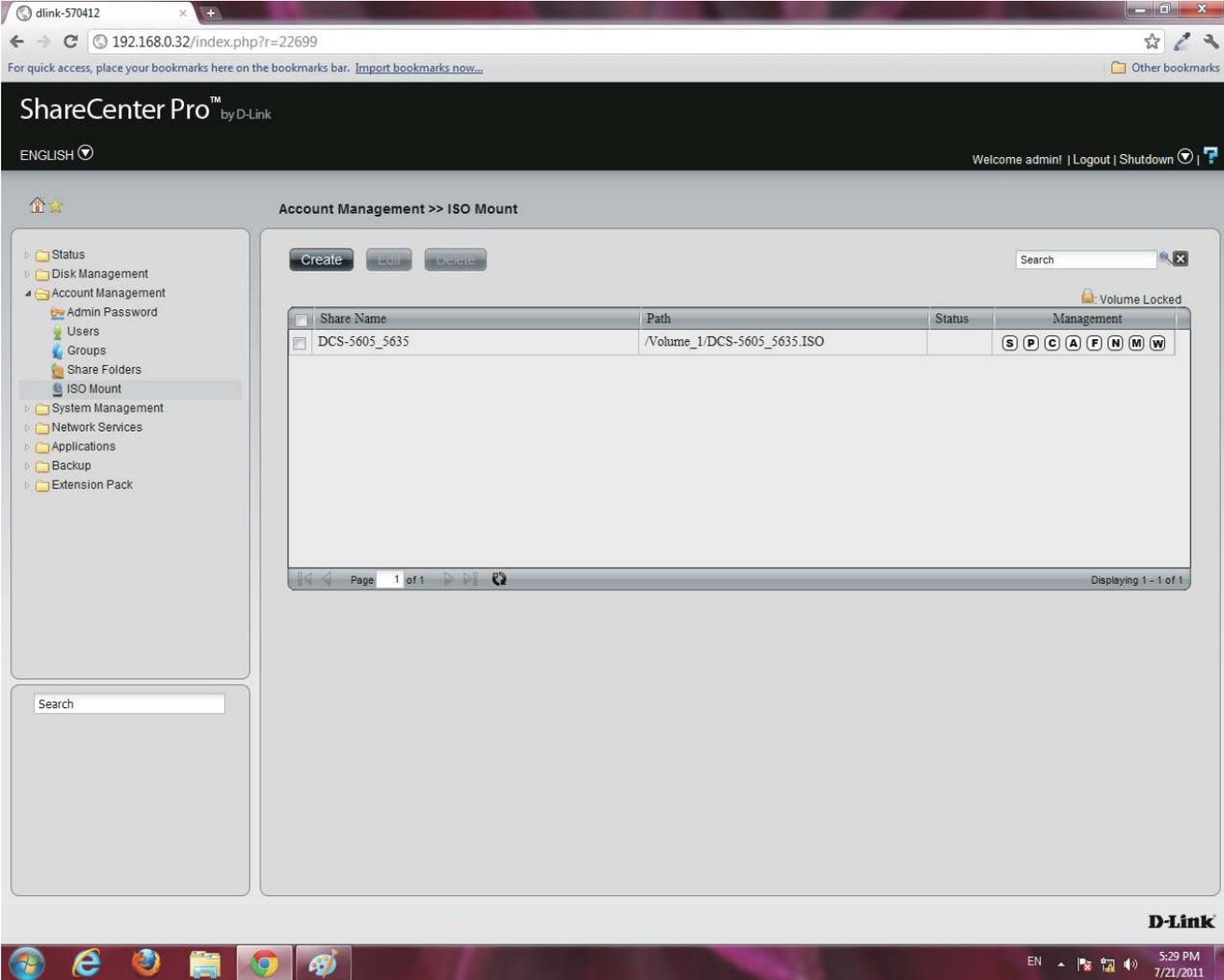


ISO Mounts - Deleting an ISO Mount

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

Step 1: Select the **ISO Mount** you wish to delete

Click the **Delete** button.



The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `192.168.0.32/index.php?r=22699`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin!". The navigation menu on the left includes "Status", "Disk Management", "Account Management", "System Management", "Network Services", "Applications", "Backup", and "Extension Pack". The "Account Management" section is expanded, showing "Admin Password", "Users", "Groups", "Share Folders", and "ISO Mount". The "ISO Mount" page is displayed, showing a table with one entry:

Share Name	Path	Status	Management
DCS-5605_5635	/Volume_1/DCS-5605_5635.ISO		S P C A F N M W

The "Delete" button is highlighted in the "Management" column. The page also shows a search bar, a "Volume Locked" warning, and a "Page 1 of 1" indicator.

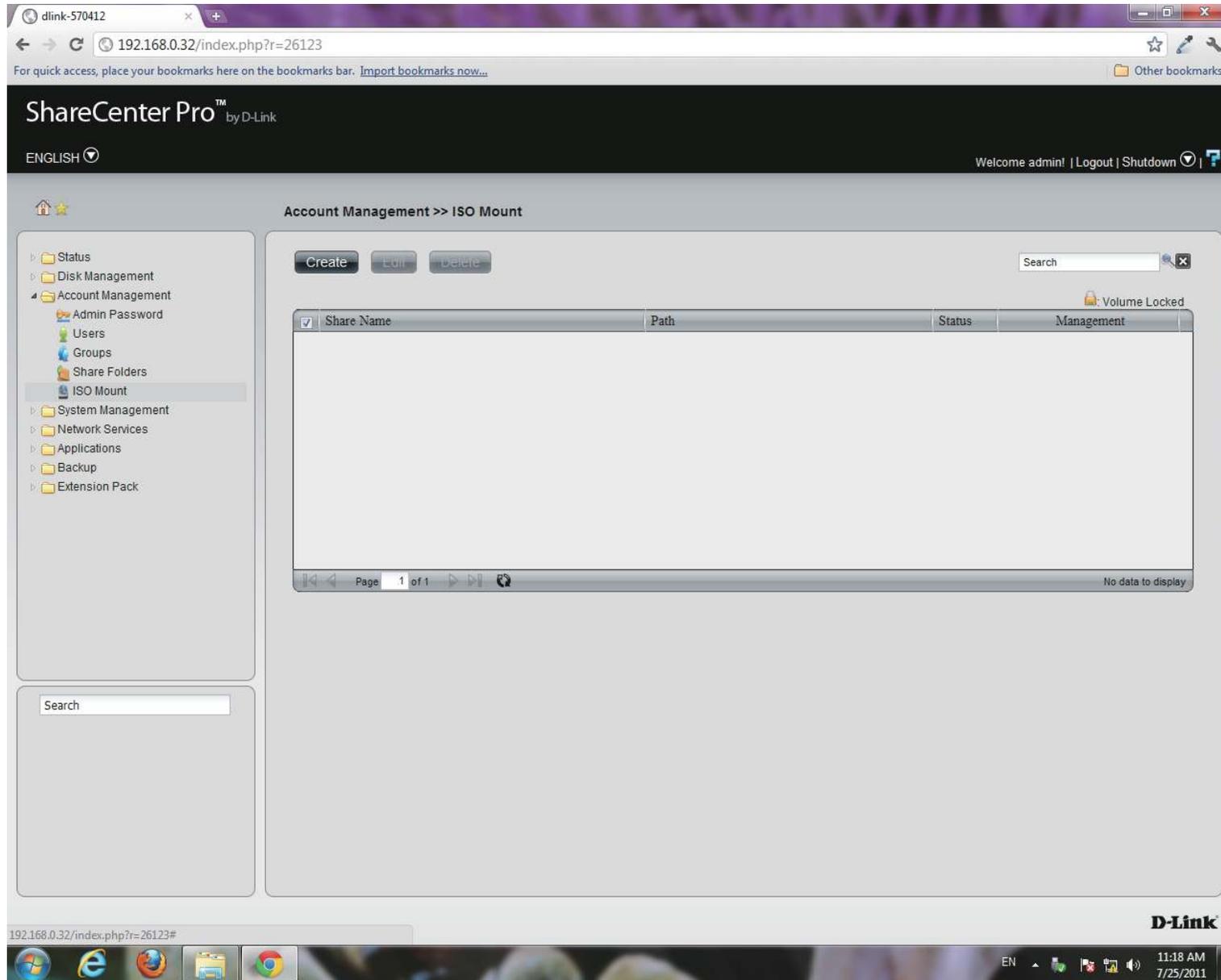
Step 2: A warning message appears verifying if you want to delete the shared folder.

Click **Yes** to confirm the delete instruction

Click **No** to exit this instruction



Step 3: The folder is deleted and the **ISO Mount** directory is empty.

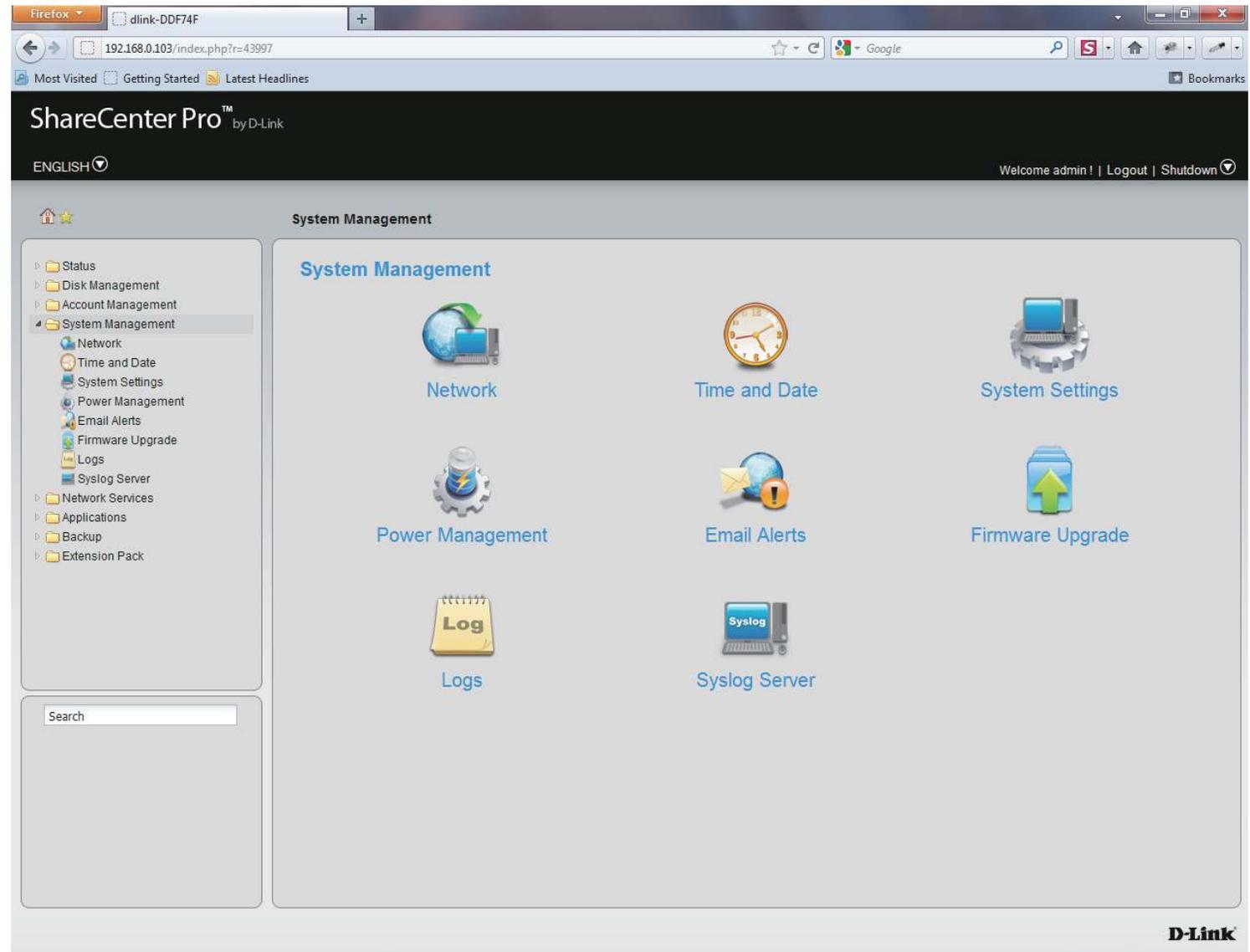


Chapter 12 - Software - System Management

The D-Link ShareCenter Pro 1100-04 allows you to manage key system functions of your NAS. Let's take a look.

Software - System Management - Network Settings

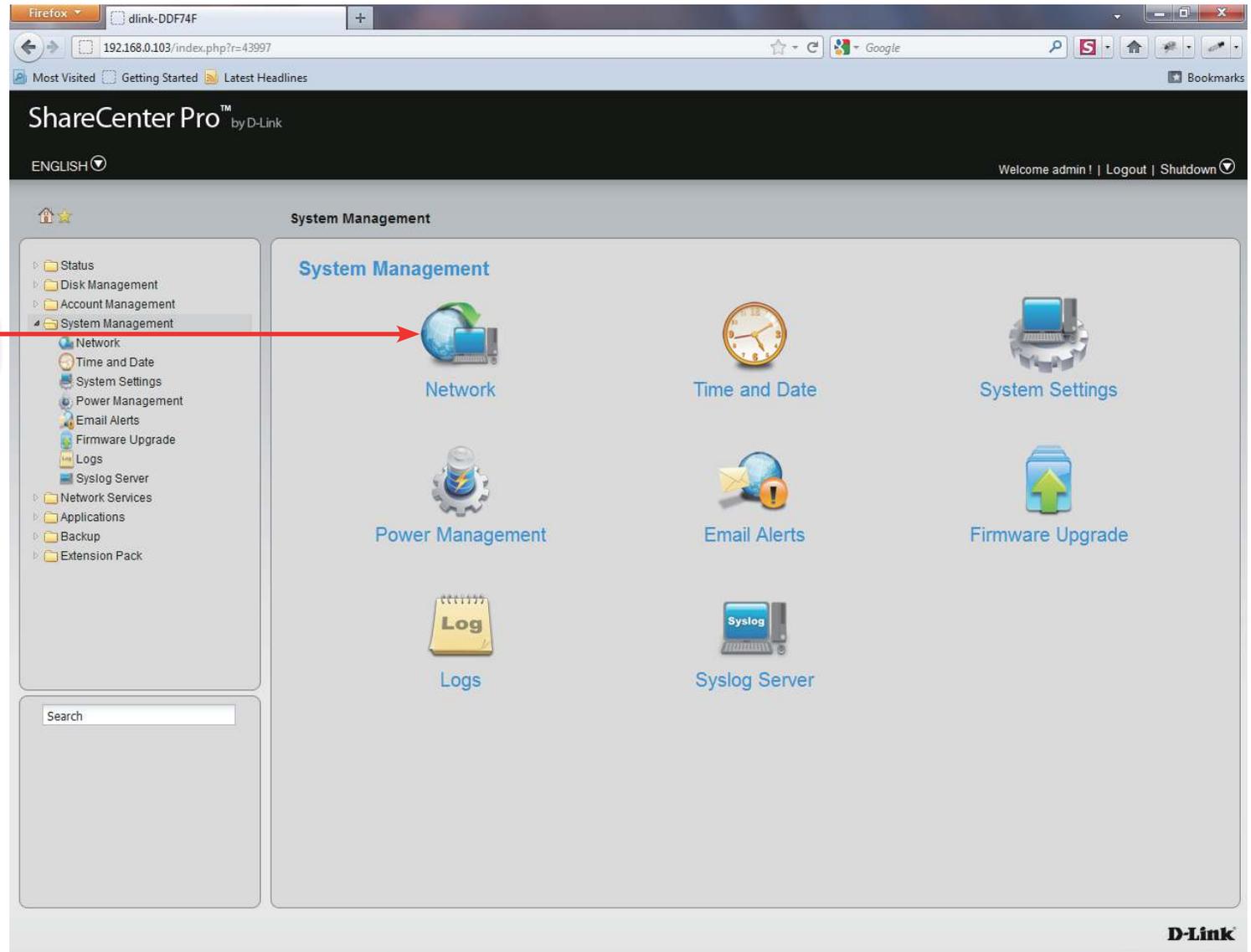
Step 1: Open your browser and click **System Management**.



Software - System Management - Network Settings

Step 2: Click the **Network** icon

Click the **Network** icon

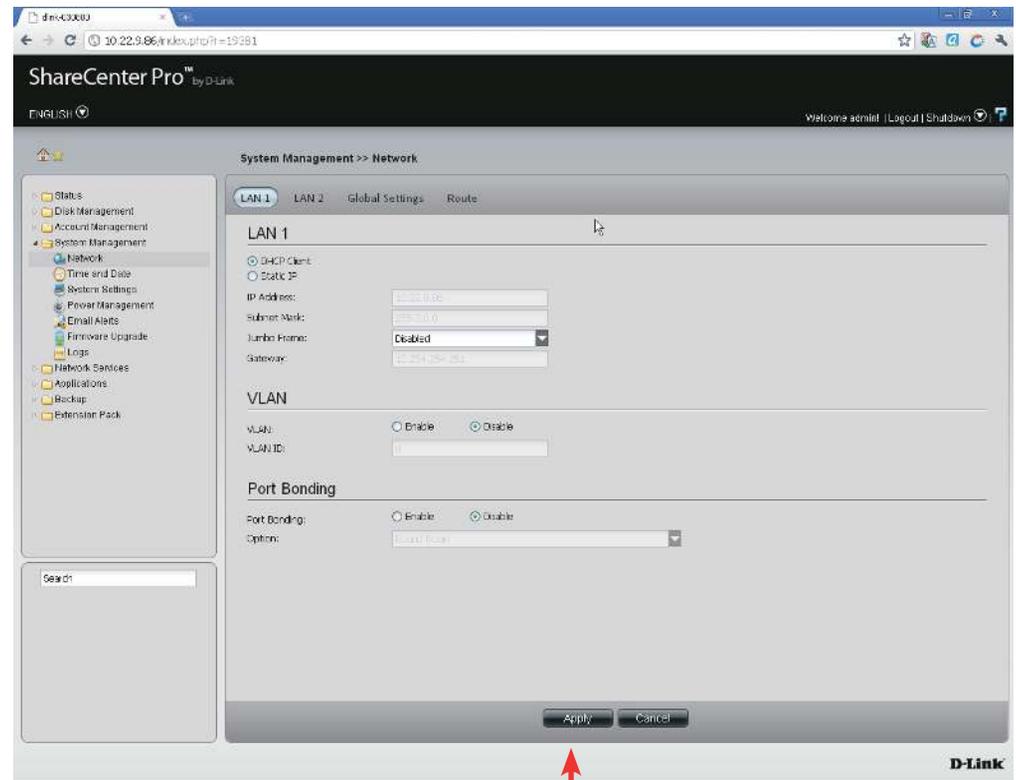


System Management - Network Settings - LAN 1

Step 3: The **System Management, Network** window previews all the network settings.

The main set of network functions appear at the top of the window. Below are their properties.

- 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, Adaptive Transmit Load Balancing, and Adaptive Load Balancing.

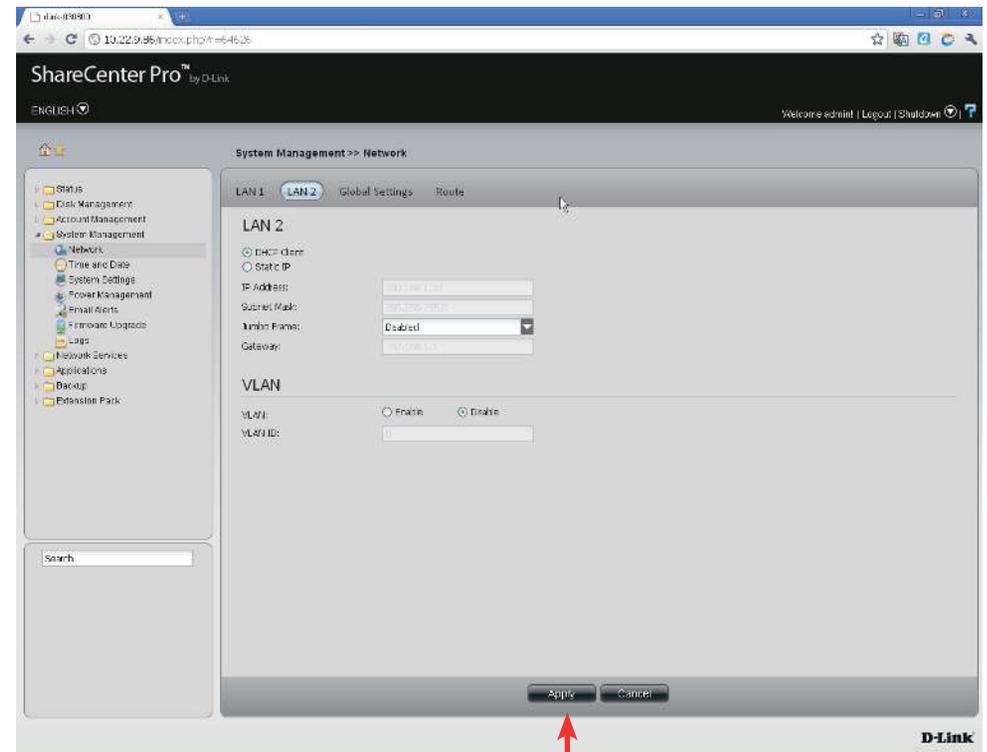


Click **Apply** to save the changes

System Management - Network Settings - LAN 2

Step 4: Click LAN 2 button to preview settings for the second LAN installed on the 1100-04.

- 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 changes

System Management - Network Settings - Global Settings

Step 5: Click **Global Settings** to provide an network identity for the ShareCenter Pro.

- 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.

The screenshot displays the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `10.22.9.86/index.php?r=30065`. The page title is "ShareCenter Pro™ by D-Link". The navigation menu on the left includes "System Management" >> "Network". The "Global Settings" tab is selected, showing the following configuration:

- Host Name:** dlink-030800
- DNS Server:** Primary DNS: 10.55.68.254; Secondary DNS: (empty)
- Default Gateway:** LAN 1

A red arrow points from a callout box to the "Apply" button at the bottom right of the settings area.

Click **Apply** to save the changes

System Management - Network Settings - Route

Step 6: Click **Route** to view the Route pane.

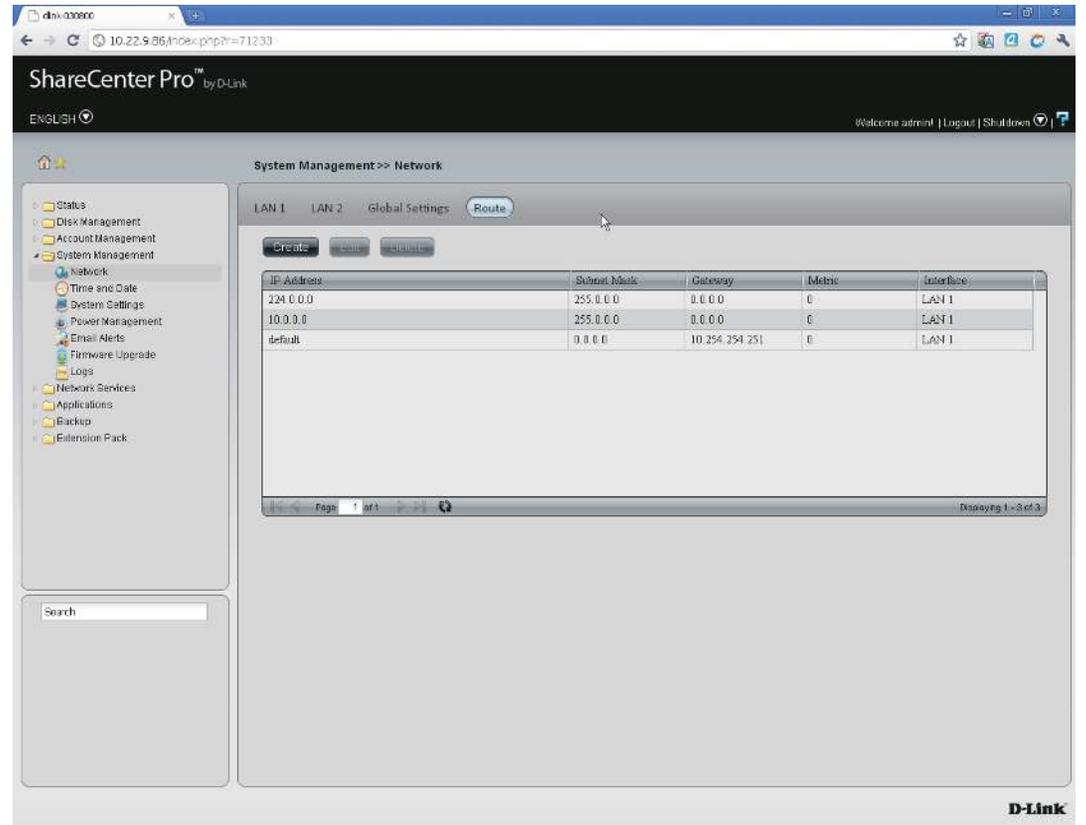
Create Click to create a new routing path.

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.



ShareCenter Pro™ by D-Link

ENGLISH

System Management >> Network

LAN 1 LAN 2 Global Settings **Route**

Create Edit Delete

IP Address	Subnet Mask	Gateway	Metric	Interface
224.0.0.0	255.0.0.0	0.0.0.0	0	LAN 1
10.0.0.0	255.0.0.0	0.0.0.0	0	LAN 1
Default	0.0.0.0	10.254.254.251	0	LAN 1

Page: 1 of 1

Displaying 1 - 3 of 3

D-Link

System Management - Network Settings - Route

Step 7: Click the **Create** button to create a new routing path.

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.

Create Route

Network Address:

Subnet Mask:

Metric:

Interface:

Gateway:

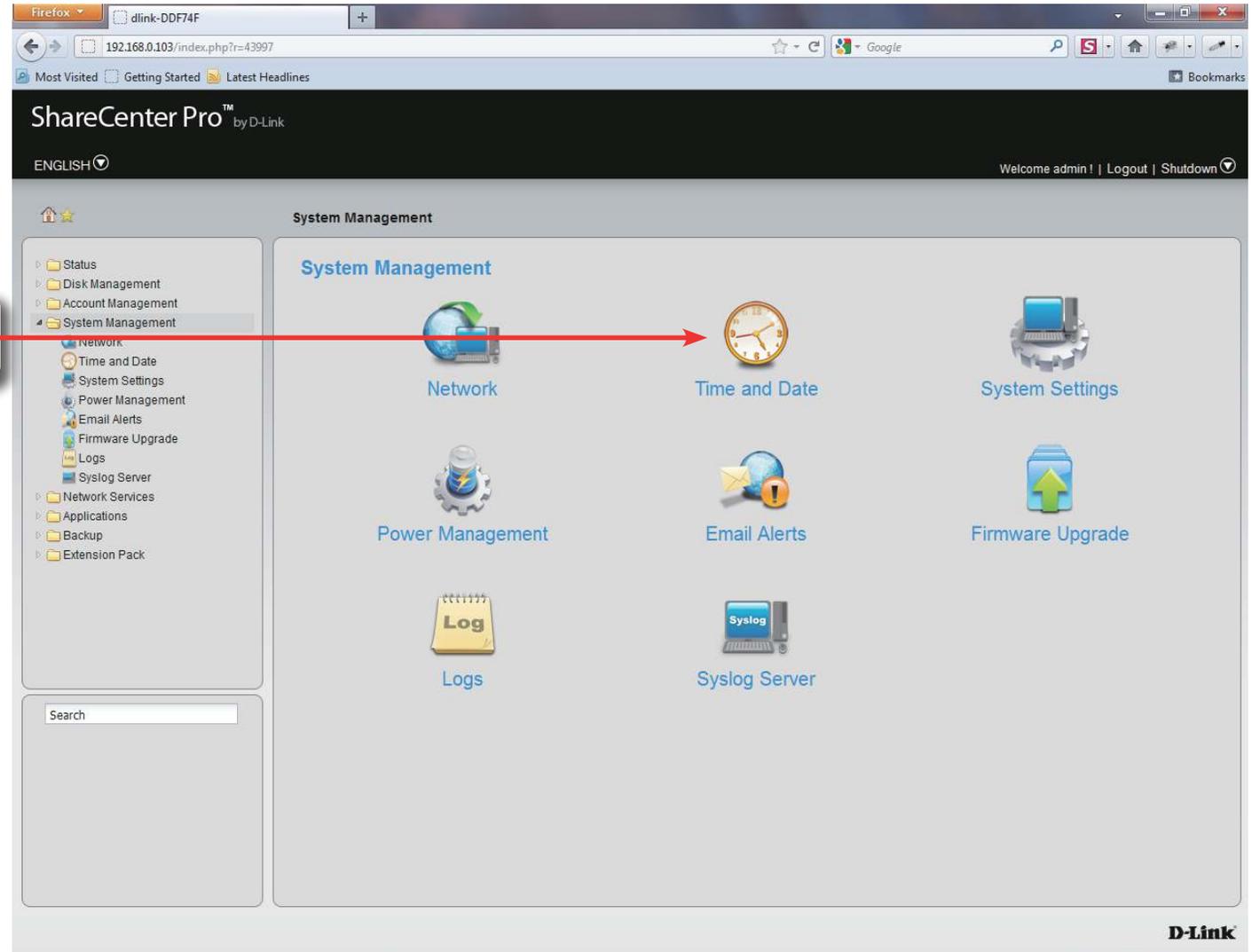
Apply **Cancel**

Click **Apply** to save the changes

System Management - Time and Date Settings

Step 8: Click the **Time and Date** icon to configure these settings.

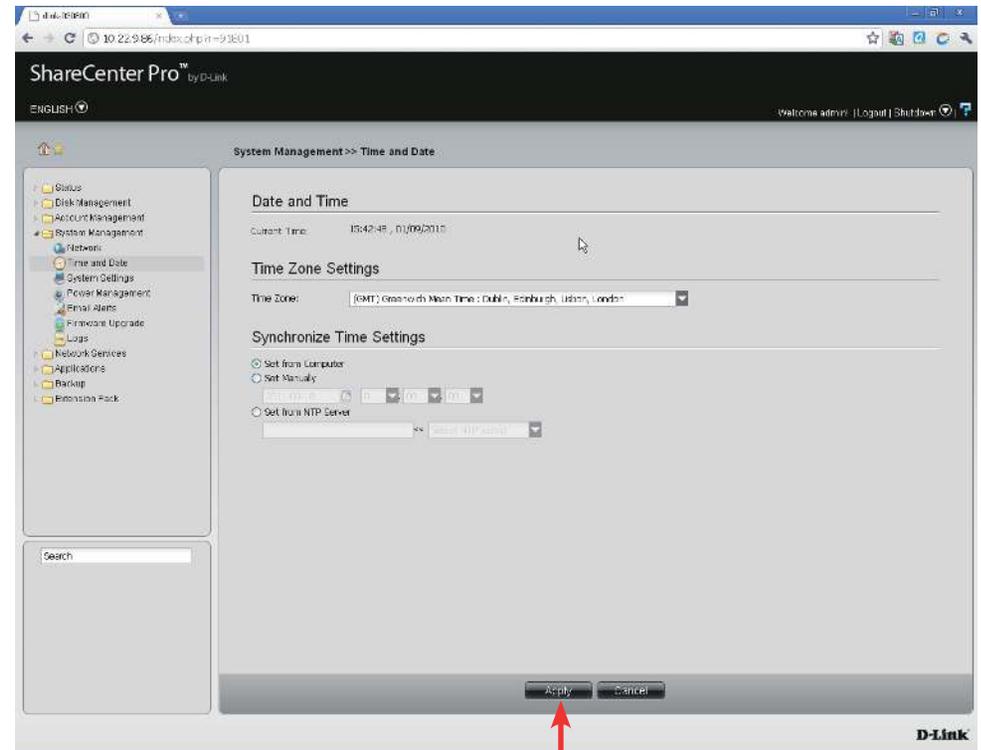
Click the **Time and Date** icon



System Management - Time and Date Settings

Step 9: Click the **Time and Date** icon to configure these settings.

- 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.

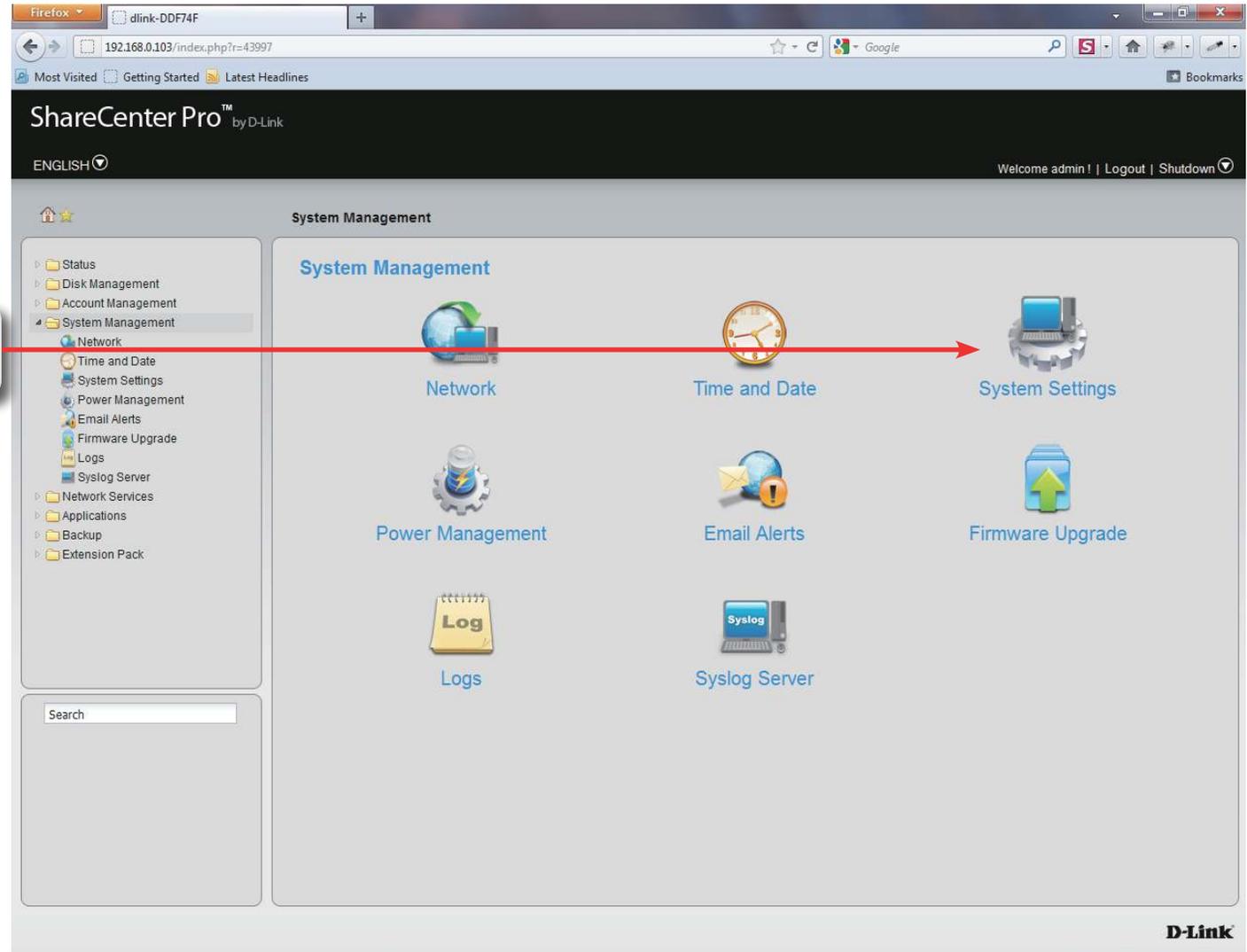


Click **Apply** to save the changes

System Management - System Settings

Step 10: Click the System Settings icon

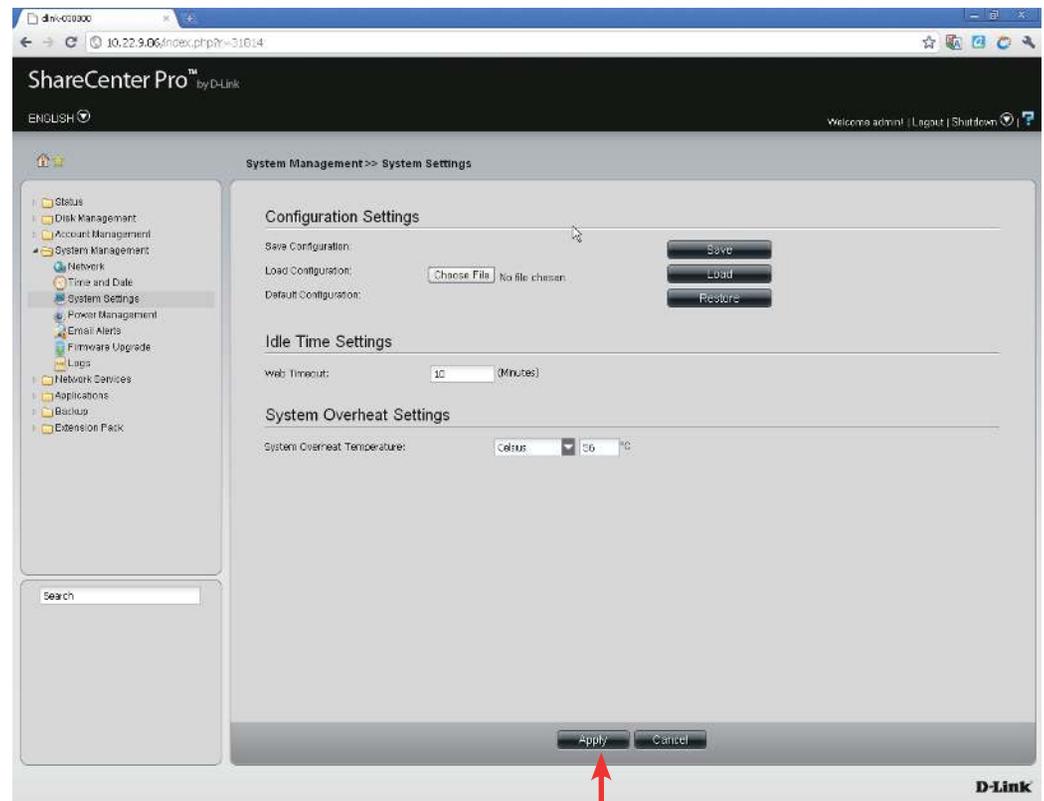
Click the System Settings icon



System Management - System Settings

Step 11: The System Settings
window pane provides
configuration options for:

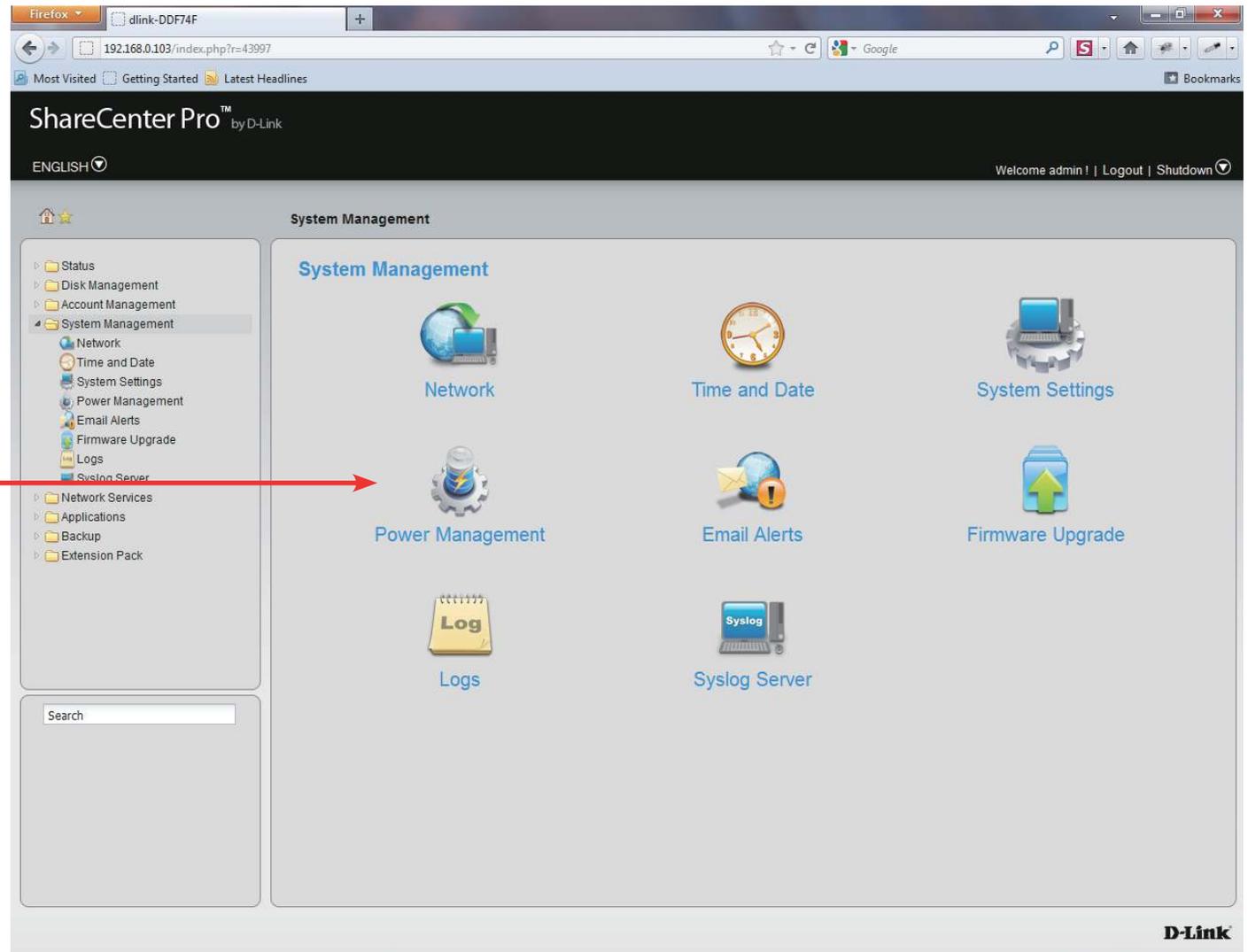
- Save Configuration** Click the **Save** button to save the current settings to the selected location.
- Load Configuration** Click the **Browse** button to locate the path for the configuration file and click **Load** to load the file.
- Default Configuration** Click **Restore** to reset the ShareCenter 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 changes

System Management - Power Management

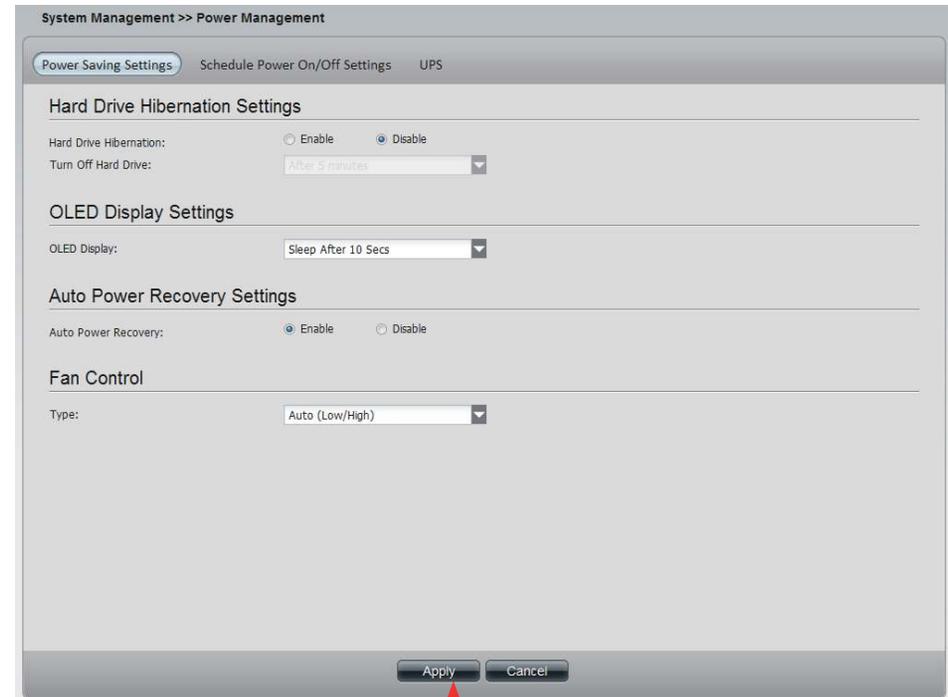
Step 12: Click the Power Management icon



System Management - Power Management

Step 13: Under **Power Saving Settings**, select the preferences that best suite your needs.

- Hard Drive Hibernation** 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 changes

System Management - Schedule Settings

Step 14: 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.

System Management >> Power Management

Power Saving Settings Schedule Power On/Off Settings UPS

Schedule Power On/Off

Schedule Power On/Off: Enable Disable

Schedule On / Schedule Off

	Schedule On		Schedule Off	
SUN:	<input checked="" type="checkbox"/>	6:00	<input type="checkbox"/>	0:00
MON:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00
TUE:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00
WED:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00
THU:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00
FRI:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00
SAT:	<input type="checkbox"/>	0:00	<input type="checkbox"/>	0:00

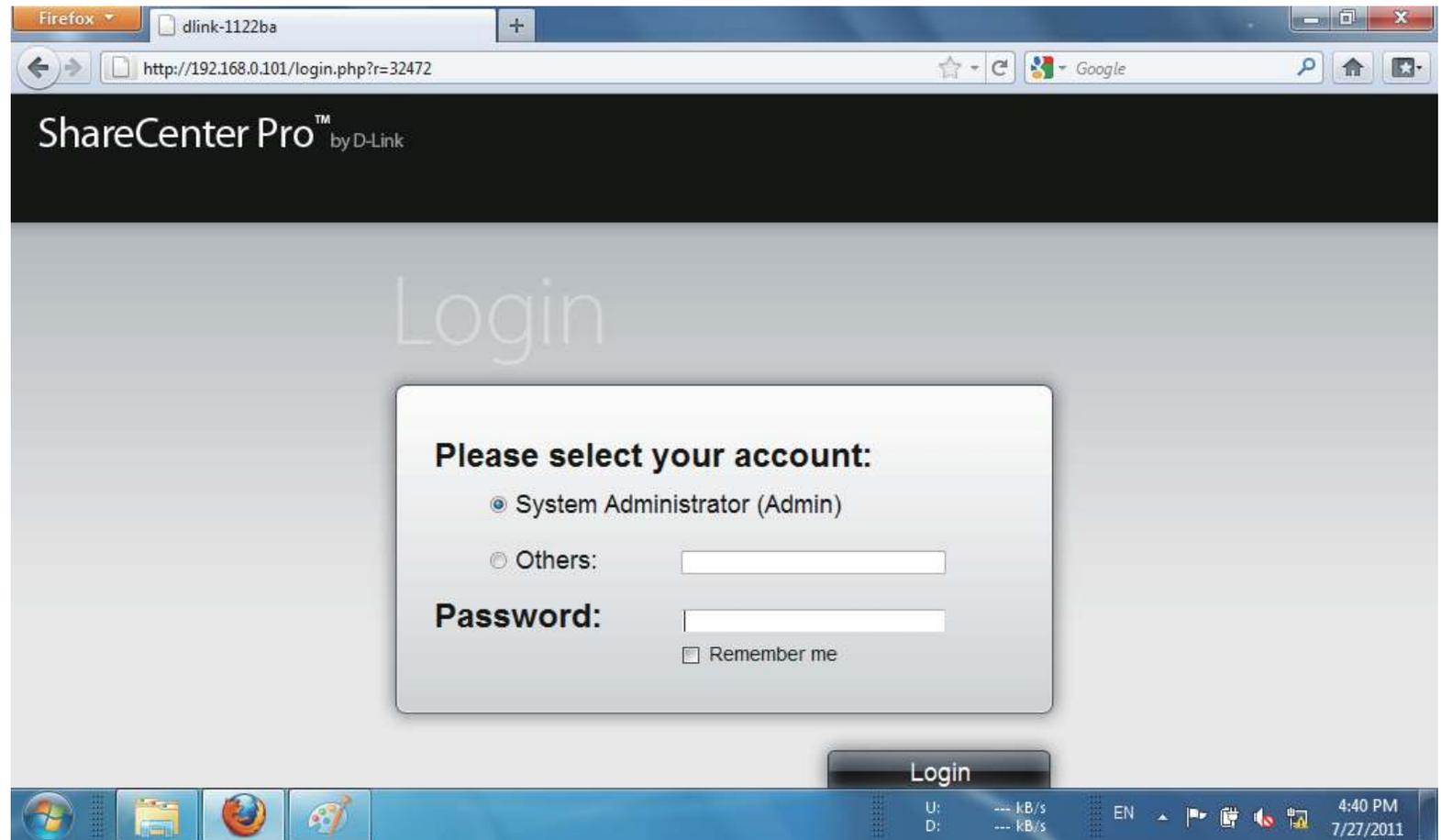
Apply Cancel

Click **Apply** to save the changes

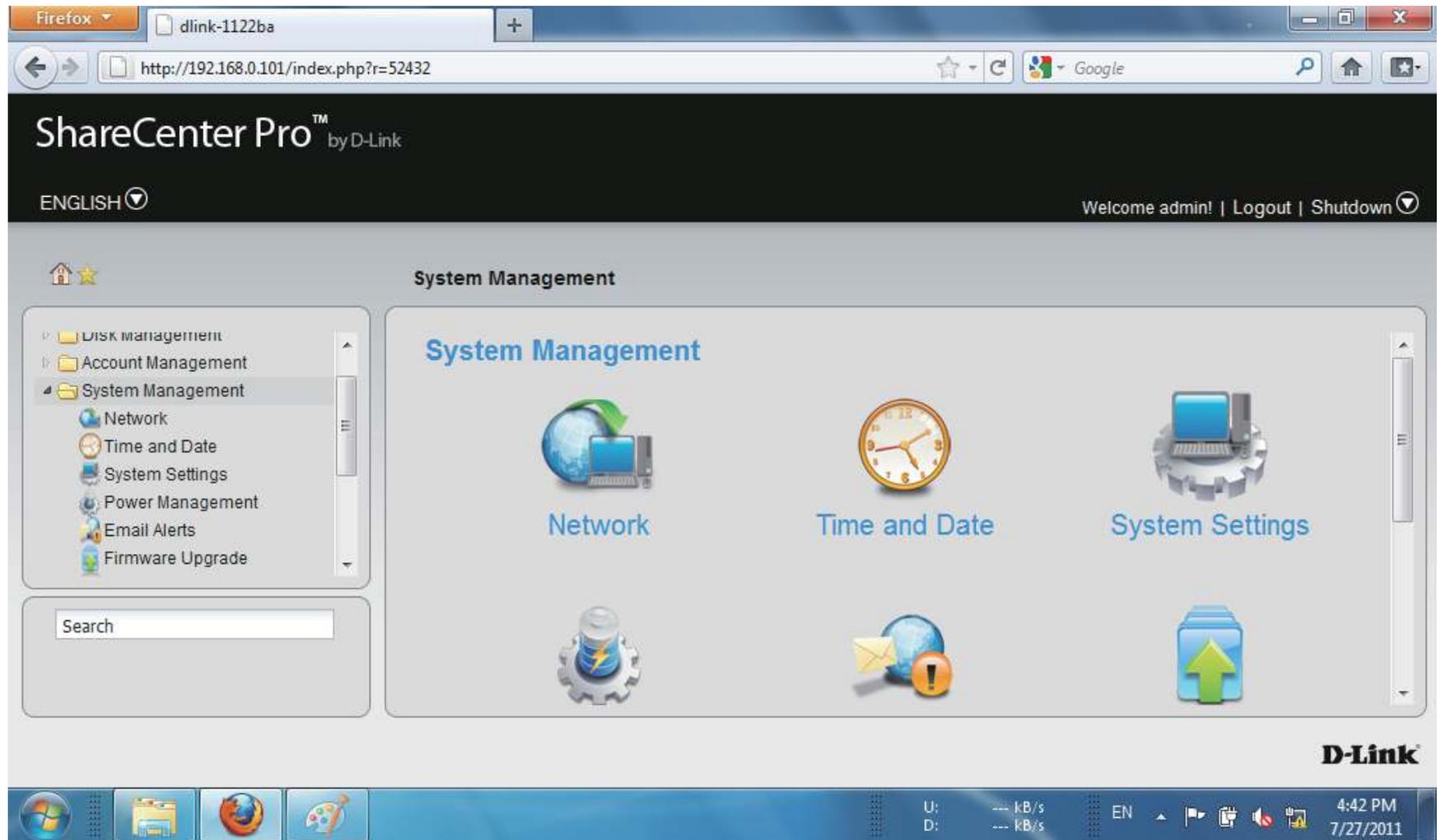
System Management - Power Management - UPS

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.

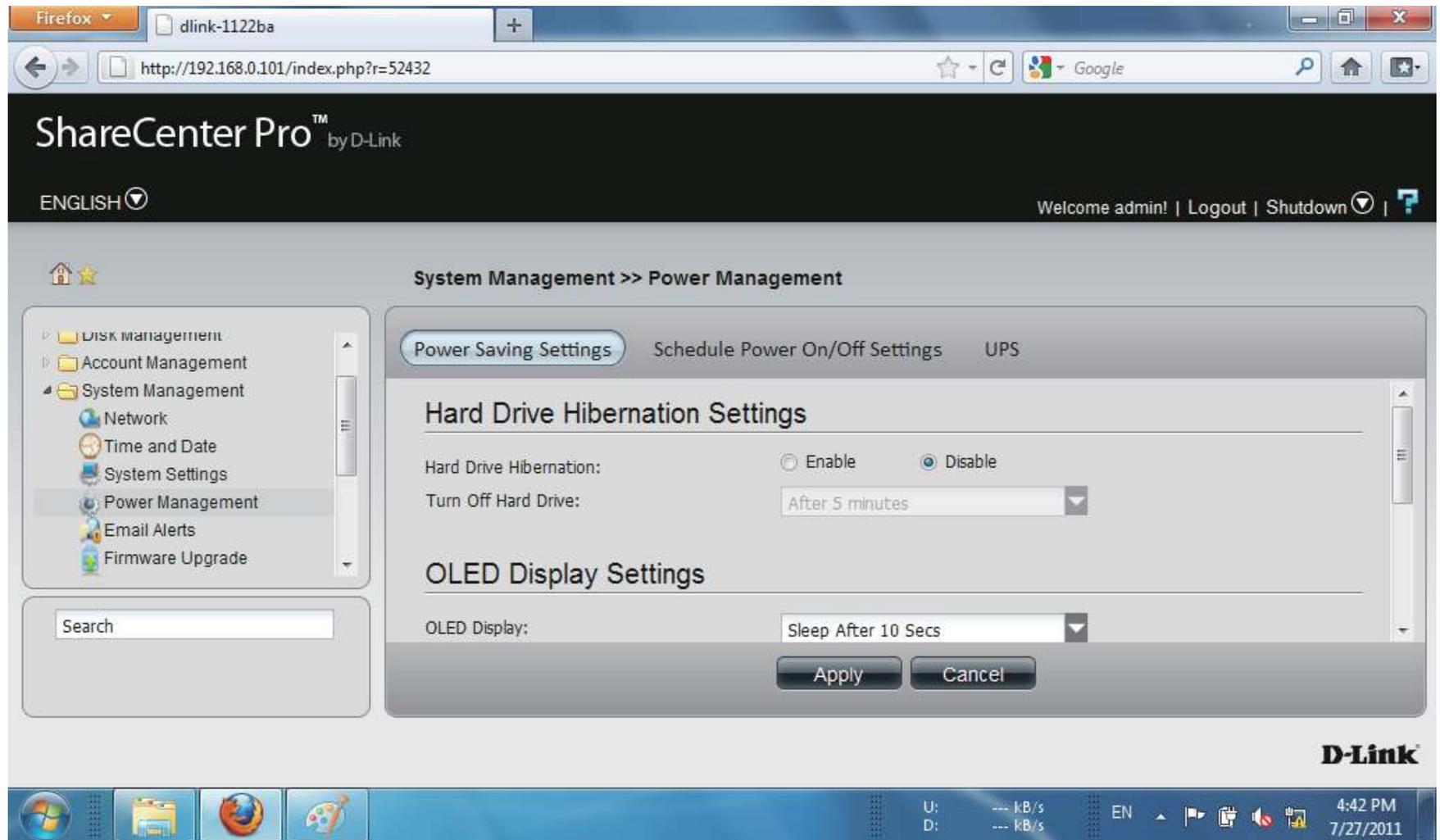
Step 1: Log-in to the NAS.



Step 2: Click System Management



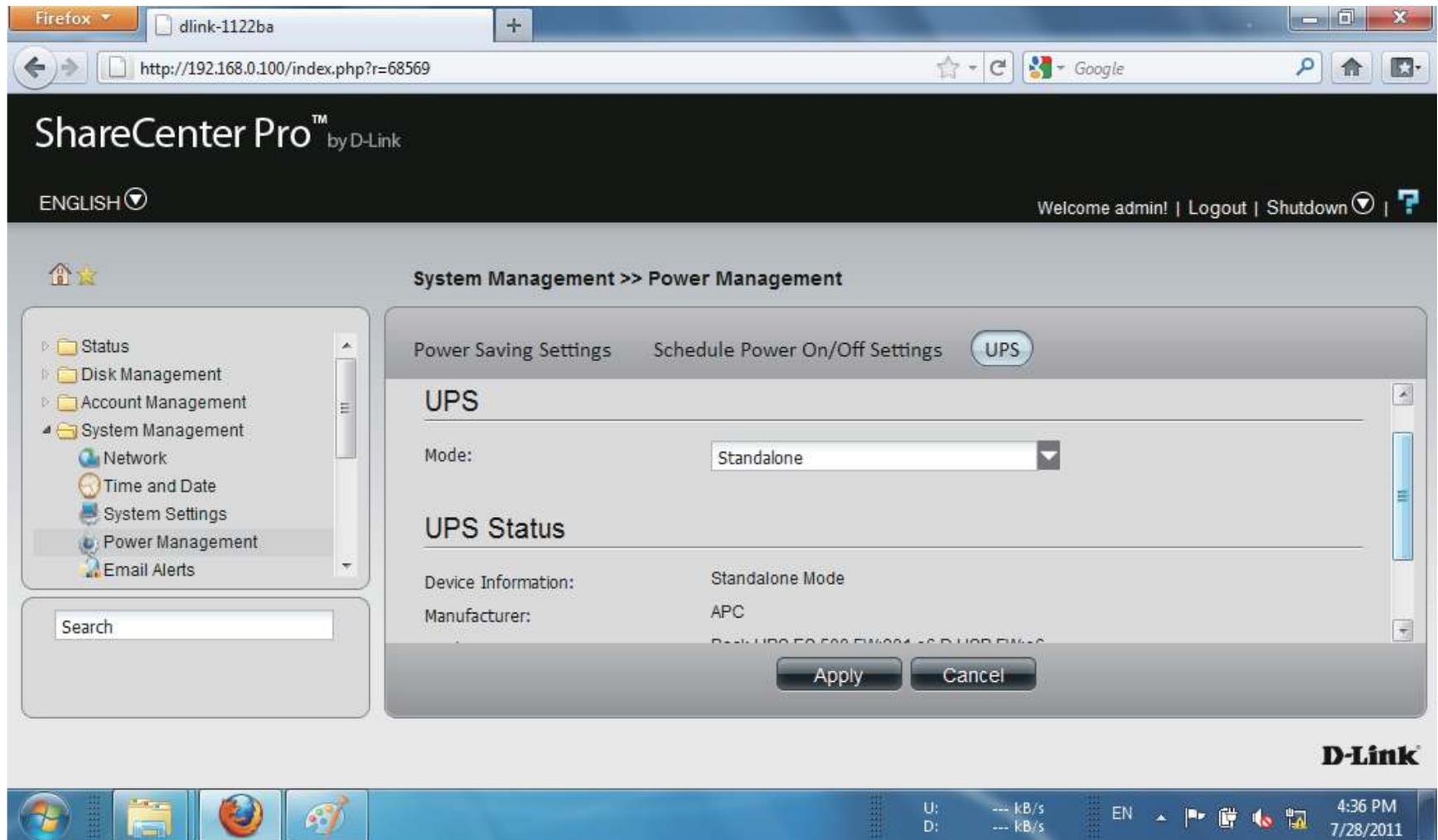
Step 3: Click Power Management



Step 4: Click **UPS**

UPS has two modes, **Master** and **Standalone**

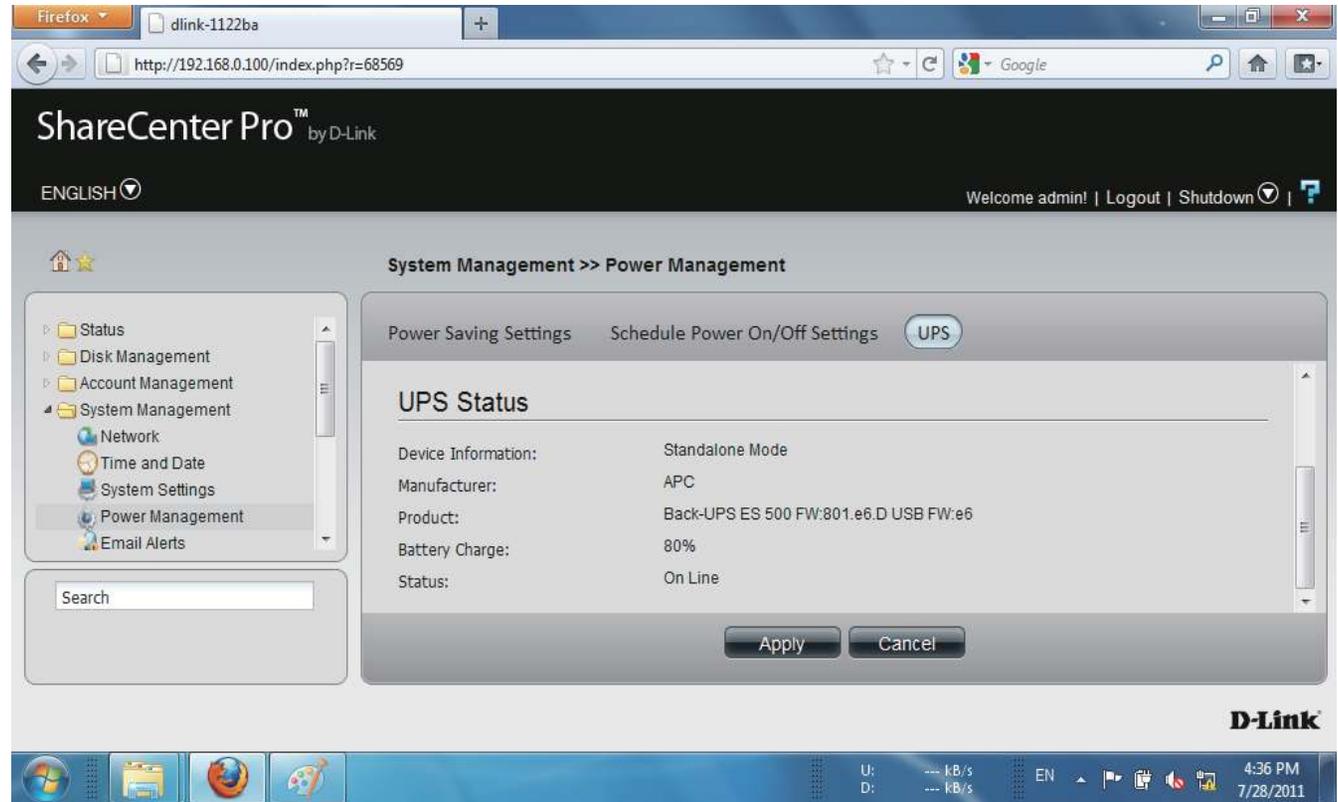
From the drop-down list select **Standalone**



Step 5: Once you have selected **Standalone** mode, scroll down to **UPS Status**.

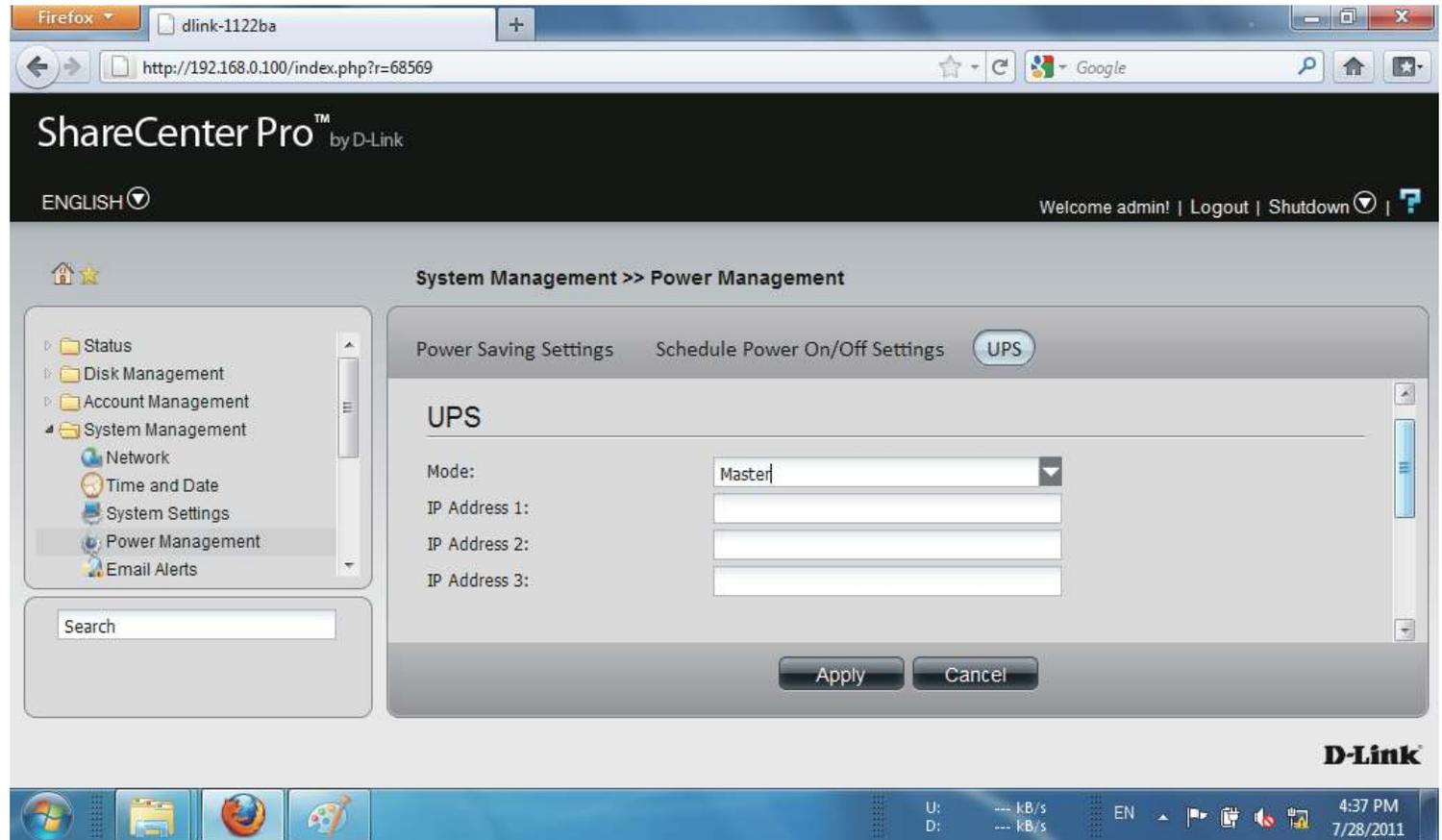
The **UPS Status** provides **Device Information, Manufacturer, Product, Battery Charge, and Status**.

Click **Apply** to continue



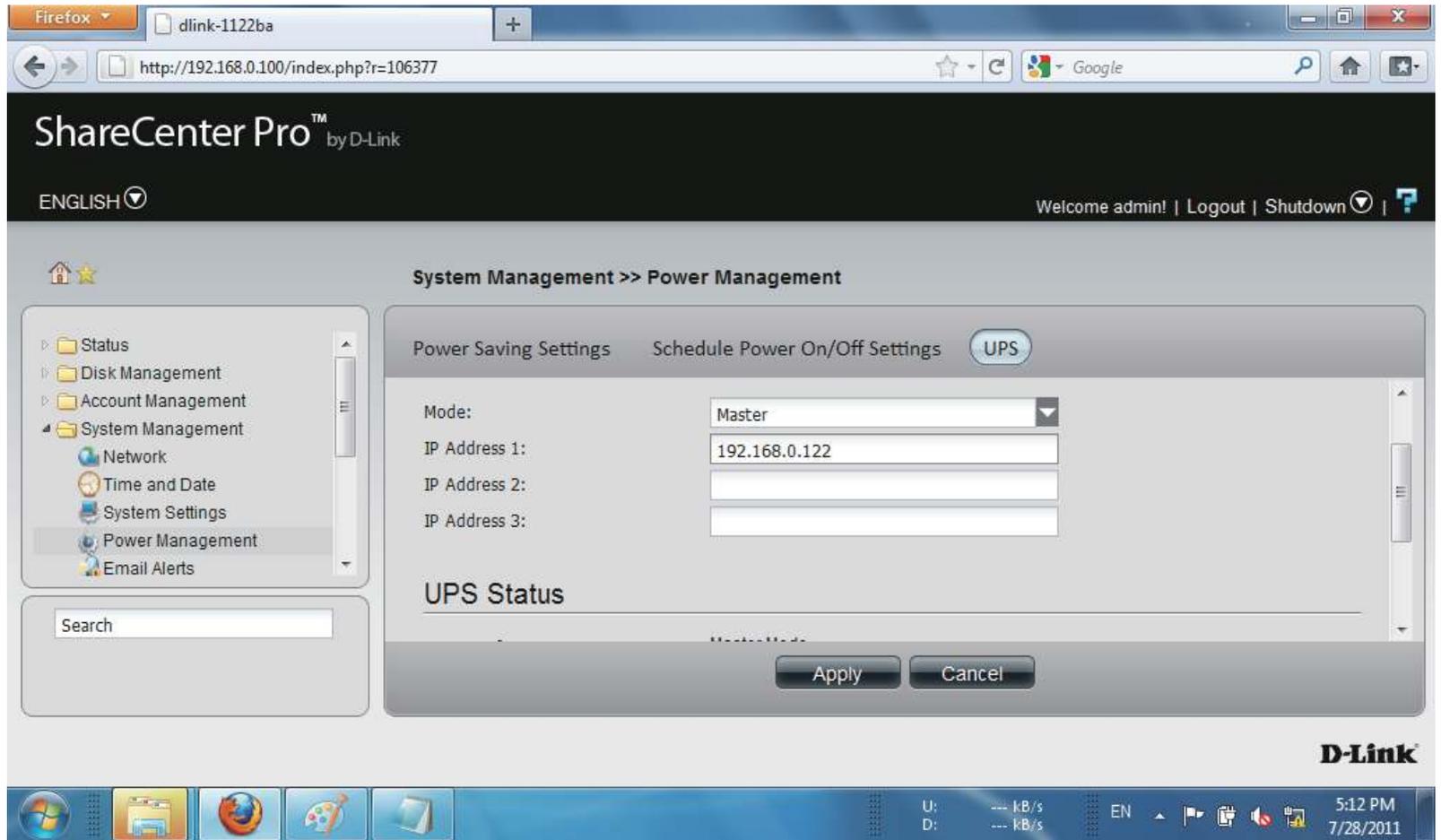
Step 6: The alternative is to select **Master UPS mode**.

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



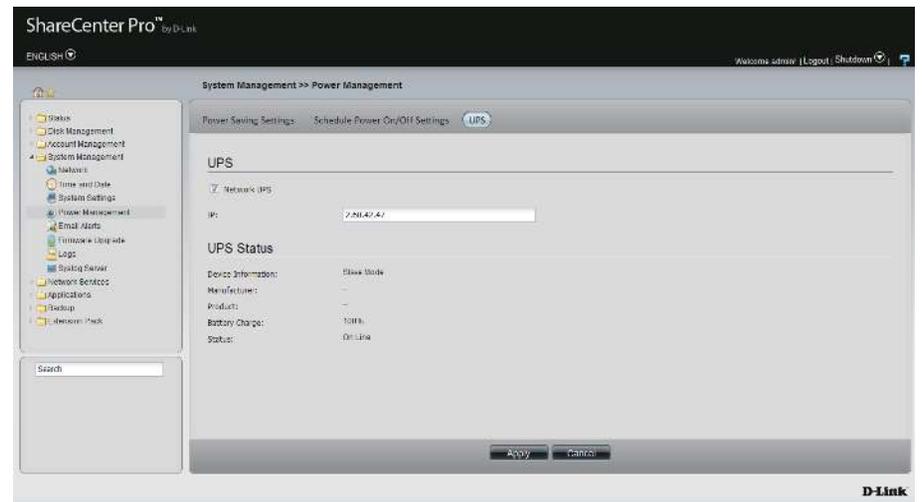
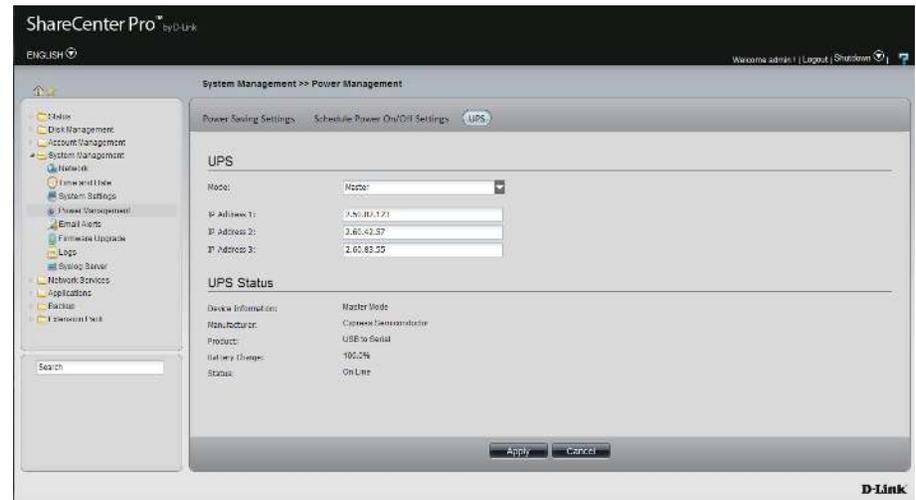
Step 7: Enter an IP address into the field provided.

Click **Apply** to submit the changes.



Step 8: 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:

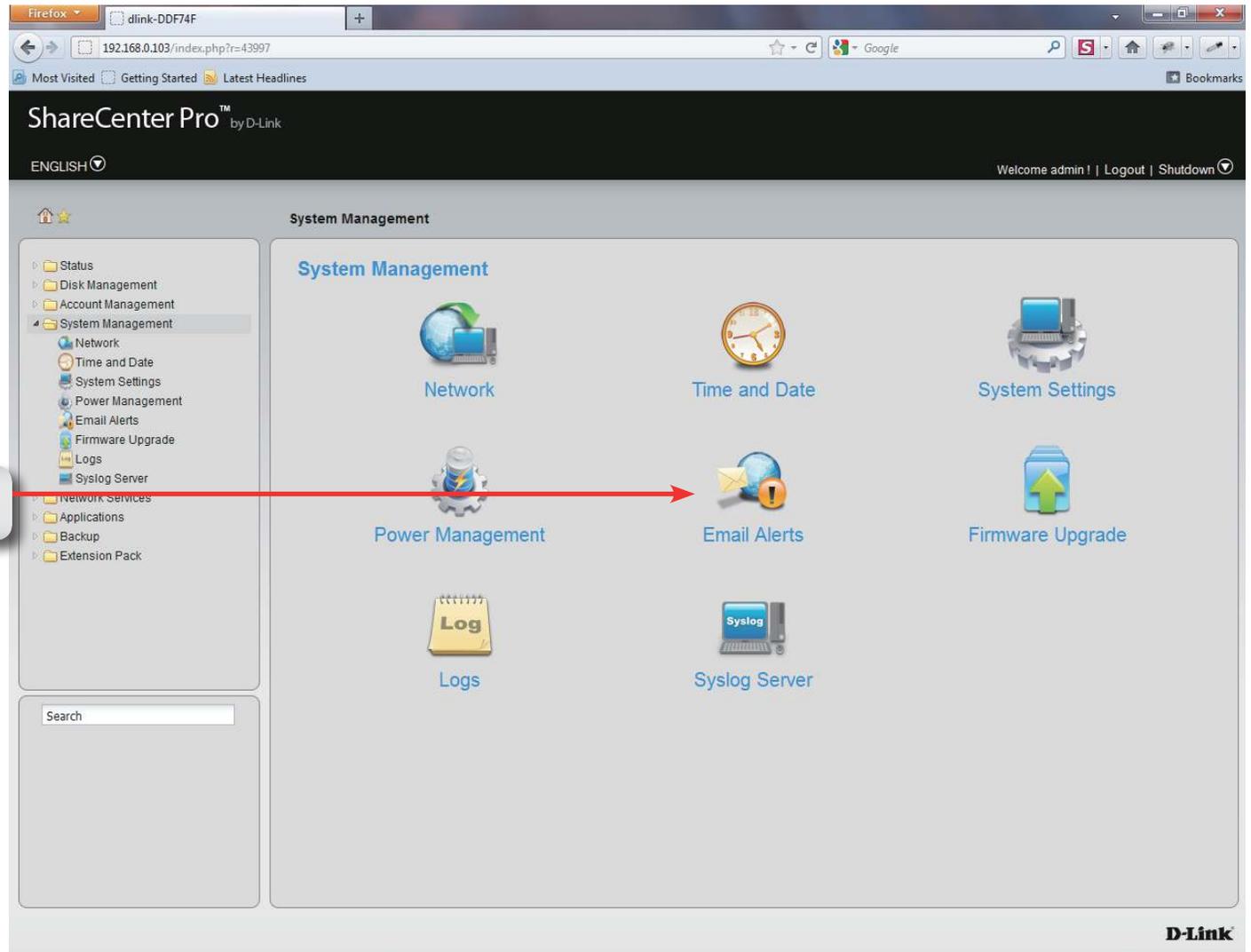
1. Make sure the NAS is connected to the same physical network as the network UPS master.
2. Select the option “Enable Network UPS”.
3. Enter the IP address of the network UPS master.
4. Click “Apply” to confirm.



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.

System Management - Email Alerts

Step 15: Click the **Email Alerts** icon.



System Management - Email Alerts

Step 16: Click the **Email Alerts** icon to configure the email 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.

E-Mail Settings

Email Alert: Enable Disable

Login Method: Anonymous

User Name:

Password:

Encryption: SSL/TLS Disable

SMTP Server:

Port Number: 25

Sender E-mail:

Receiver E-mail:

Test E-Mail:

Event Alert Settings

Administrator's Password Has Been Changed

Firmware Has Been Upgraded

Network Settings Have Been Changed

System Temperature Has Been Exceeded

S.M.A.R.T Test Has Finished

System Has Rebooted From A Power Failure

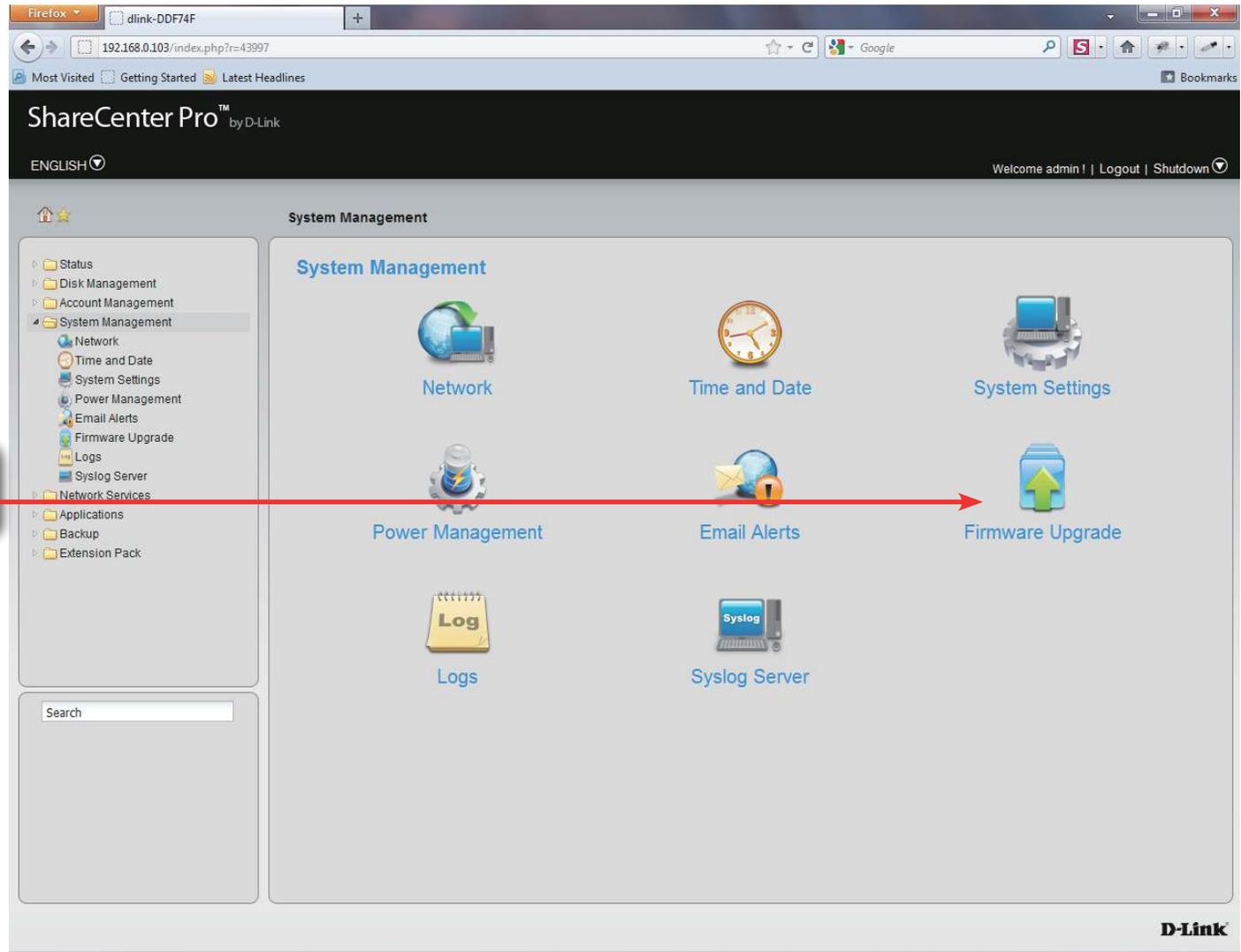
Volume/Disk Status Has Been Changed

Space Status Interval: 00 (Hours) 00 (Minutes)

One of The Volumes Is Full

System Management - Firmware Upgrade

Step 17: Click the Firmware Upgrade icon.



Click the **Firmware Upgrade** icon

System Management - Firmware Upgrade

Step 18: Under **Choose File**, select a file 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.

The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar displays '10.22.9.86/index.php?r=58872'. The page title is 'ShareCenter Pro™ by D-Link'. The user is logged in as 'admin!'. The main content area is titled 'System Management >> Firmware Upgrade'. On the left, a navigation menu lists various system management options, with 'Firmware Upgrade' selected. The 'Firmware Settings' section contains the following information:

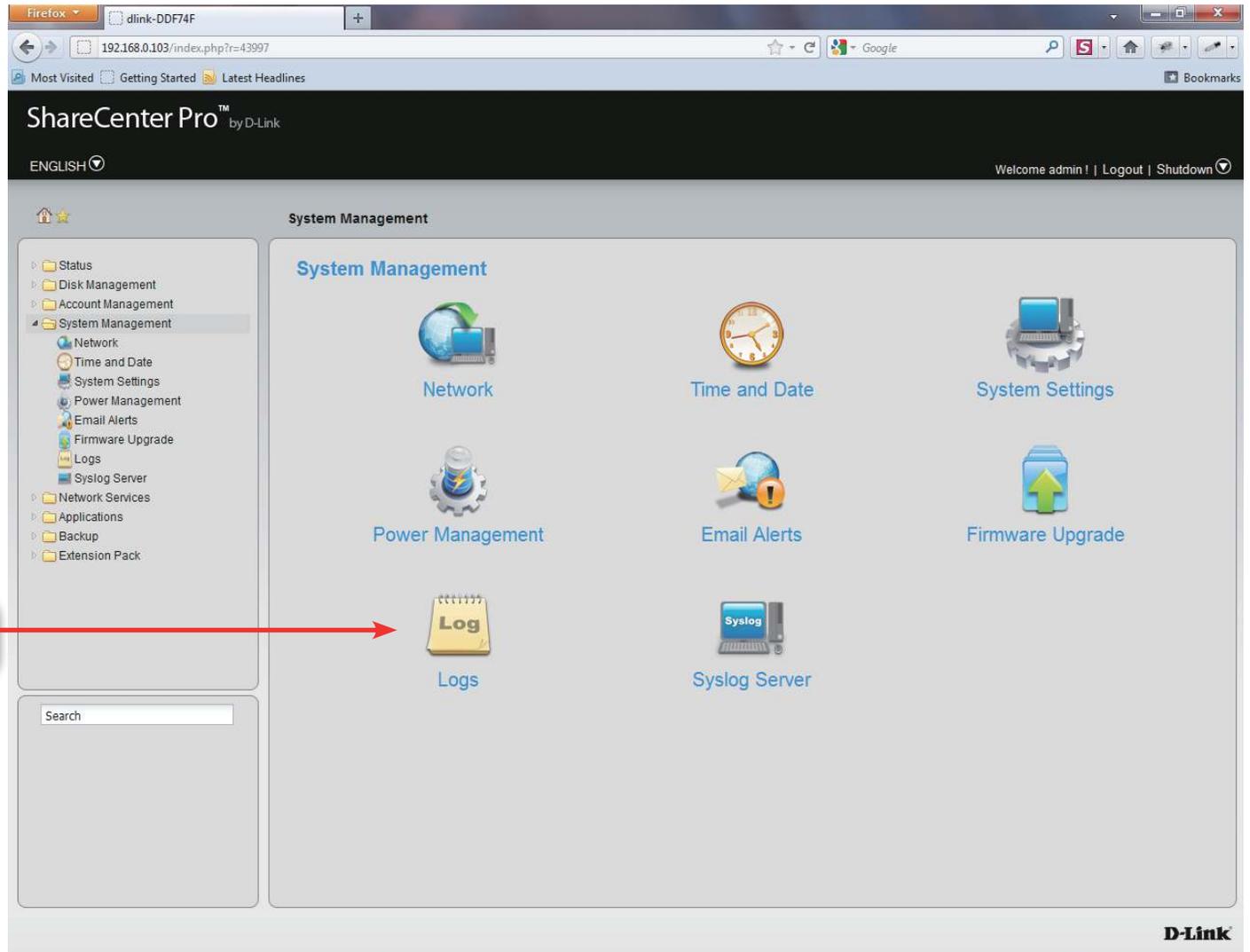
Current Firmware Version:	1.00b07
Firmware Date:	2011.03.08.1856
File Path:	<input type="button" value="Choose File"/> No file chosen

At the bottom of the page, there are 'Apply' and 'Cancel' buttons. A red arrow points from a callout box to the 'Apply' button.

Click **Apply** to save the changes

System Management - Logs

Step 19: Click the **Logs** icon



Click the **Logs** icon

System Management - Logs

Step 20: Configure the **log** settings based on your needs. The list includes:

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

System Log: Keeps a log of your system stats.

NFS: Enable Network File Systems to access files over the network.

CIFS: Provides shared access to files.

FTP: File transfer Protocol to setup file transfer.

Event: To monitor your events on your NAS.

Log Settings

The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar displays '10.22.9.86/index.php?r=85727'. The page title is 'ShareCenter Pro™ by D-Link'. The language is set to 'ENGLISH'. The user is logged in as 'admin!'. The main content area is titled 'System Management >> Logs' and contains two tabs: 'Log Settings' (selected) and 'Log Message List'. The 'Log Settings' tab displays a list of log categories with radio buttons for 'Enable' and 'Disable':

Log Category	Enable	Disable
System Log:	<input checked="" type="radio"/>	<input type="radio"/>
NFS:	<input checked="" type="radio"/>	<input type="radio"/>
CIFS:	<input checked="" type="radio"/>	<input type="radio"/>
FTP:	<input checked="" type="radio"/>	<input type="radio"/>
Event:	<input checked="" type="radio"/>	<input type="radio"/>

At the bottom of the page, there are 'Apply' and 'Cancel' buttons. A red box highlights the 'Log Settings' section, and a red line connects it to a callout box labeled 'Log Settings' on the left. The D-Link logo is visible in the bottom right corner.

System Management - Logs

Step 21: Click the **Log Message List** to monitor the activity on your system.

You can refresh logs, clear a log, or save a log.

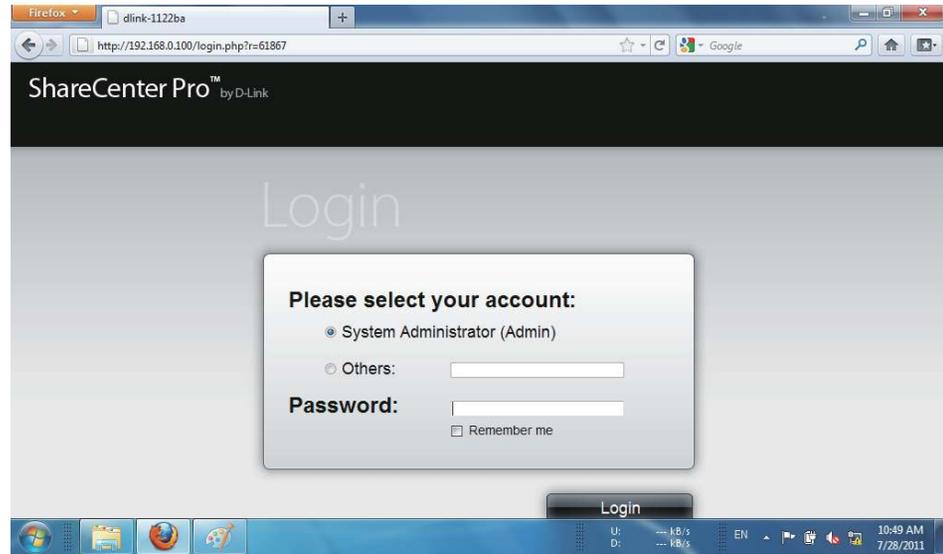
The screenshot displays the 'Log Message List' interface in the D-Link ShareCenter Pro 1100-04 System Management. The page title is 'System Management >> Logs'. The interface includes a search bar, a table of log messages, and navigation buttons for 'Refresh Log', 'Clear Log', and 'Save Log'. The table shows 10 log entries with the following data:

Severity	Date Time	Log message
5	2010 Jan 09 20:45:15	Disconnect : IP = 10.6.51.5
5	2010 Jan 09 20:45:04	Connect : IP = 10.6.51.5, User = Guest
5	2010 Jan 09 20:41:00	Disconnect : IP = 10.63.54.1
5	2010 Jan 09 20:40:49	Disconnect : IP = 10.79.61.2
5	2010 Jan 09 20:40:48	Connect : IP = 10.63.54.1, User = Guest
5	2010 Jan 09 20:40:36	Connect : IP = 10.79.61.2, User = Guest
5	2010 Jan 09 20:39:39	Disconnect : IP = 10.6.51.5
5	2010 Jan 09 20:39:28	Connect : IP = 10.6.51.5, User = Guest
5	2010 Jan 09 20:26:11	Disconnect : IP = 10.6.51.5
5	2010 Jan 09 20:25:55	Connect : IP = 10.6.51.5, User = Guest

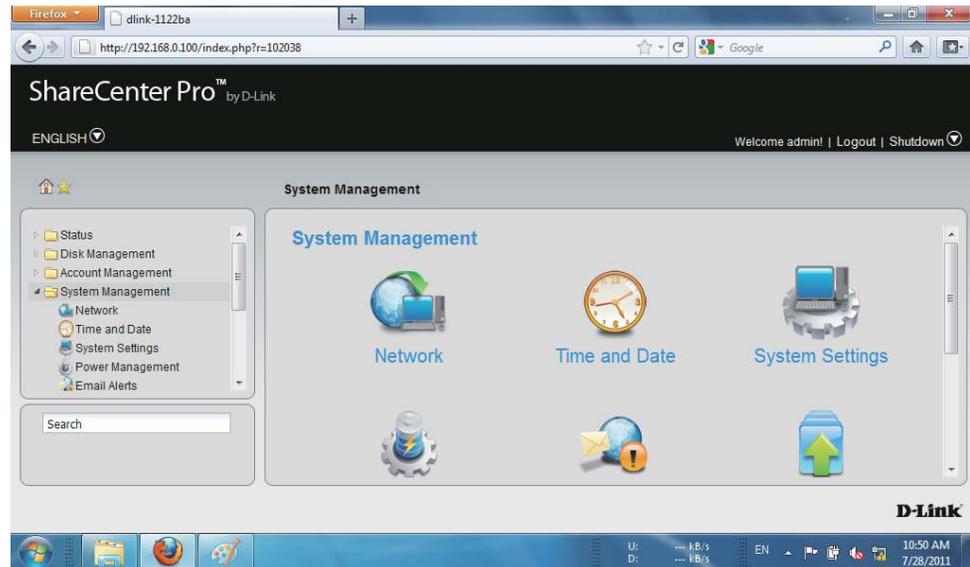
The page also features a search bar at the bottom left and a footer with the D-Link logo. The status bar at the bottom indicates 'Page 1 of 16' and 'Displaying 1 - 10 of 160'.

System Management - Syslog Server

Step 22 Log in to your NAS.

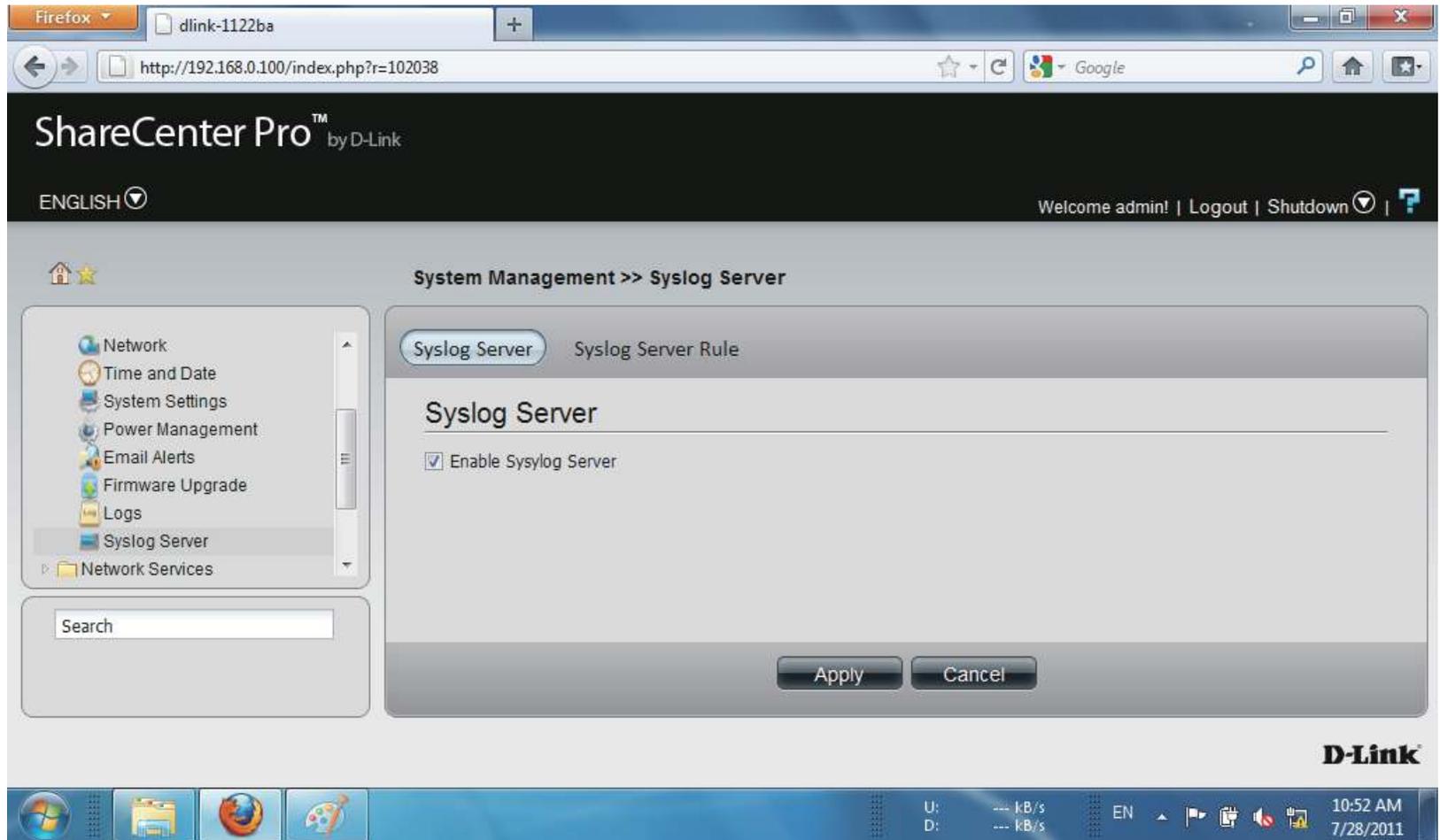


Step 23 Click System Management.



Step 24 Under **System Management, Syslog Server**, click **Enable Syslog Server**.

Click **Apply** to continue.

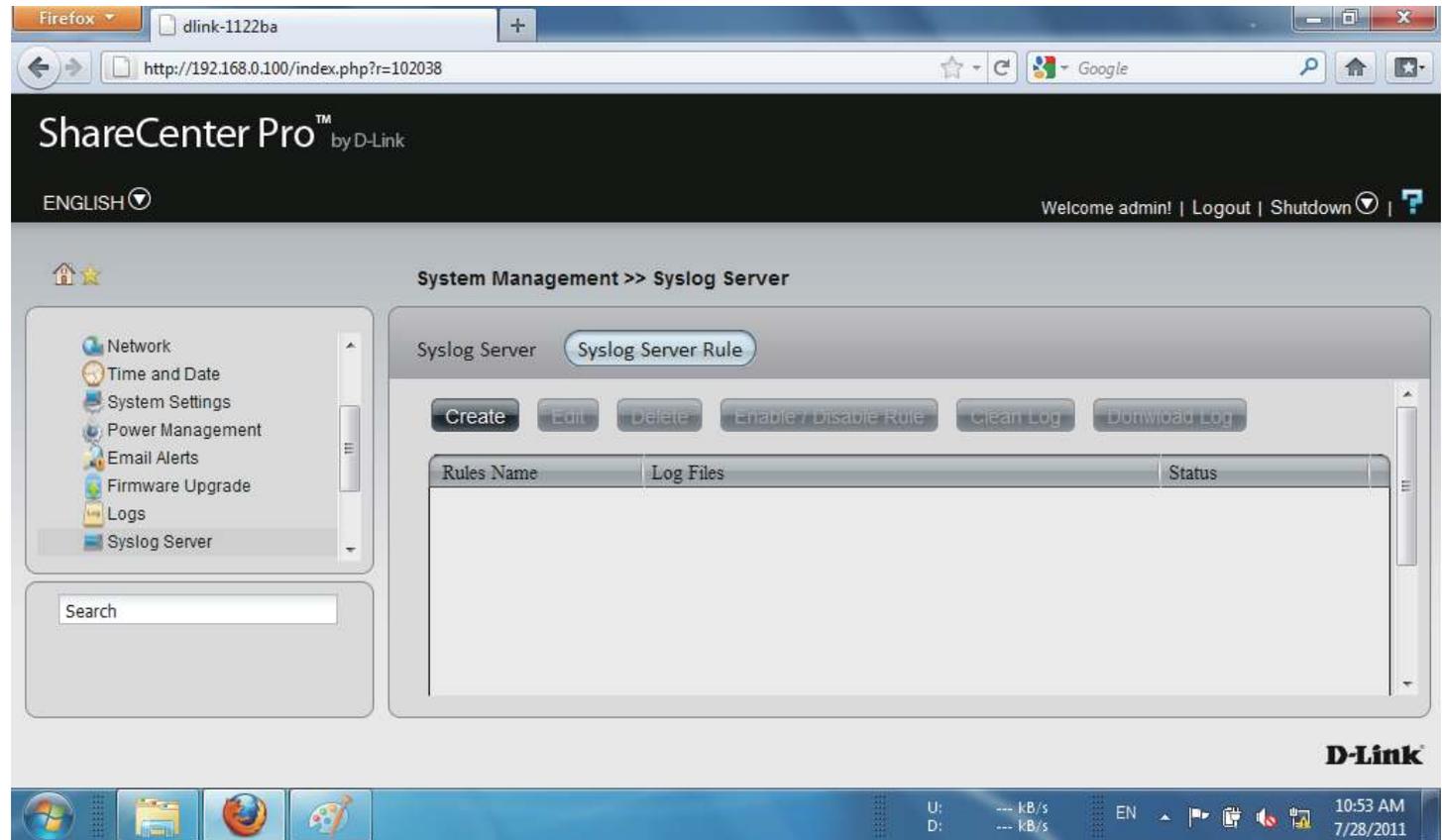


System Management - Syslog Server Rule

Follow these steps to create a **Syslog Server Rule**.

Step 1 Under **System Management**, **Syslog Server**, click **Syslog Server Rule**.

Click **Create**.



Step 2 Under **Create Syslog Server Rule**, create a **Rule Name**

Click **Next** to continue.



Step 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** to continue.

Create Syslog Server Rule
✕

Protocols and Severity

	Debug	Information	Notice	Warning	Error	Alert	Critical	Emergency
All	<input type="checkbox"/>							
Auth	<input type="checkbox"/>							
Cron	<input type="checkbox"/>							
Daemon	<input type="checkbox"/>							
Ftp	<input type="checkbox"/>							
Kern	<input type="checkbox"/>							
Lpr	<input type="checkbox"/>							
Mail	<input type="checkbox"/>							
News	<input type="checkbox"/>							
Syslog	<input type="checkbox"/>							
User	<input type="checkbox"/>							
UUCP	<input type="checkbox"/>							
Local0	<input type="checkbox"/>							
Local1	<input type="checkbox"/>							
Local2	<input type="checkbox"/>							
Local3	<input type="checkbox"/>							
Local4	<input type="checkbox"/>							
Local5	<input type="checkbox"/>							
Local6	<input type="checkbox"/>							

Step 4 Under **Log File**, browse to the path where you want to save the file.

Type a **File Name**



Step 5: Click **Next** to continue.



Step 6: Under **Log File Rotation**,
Click **Enable**.



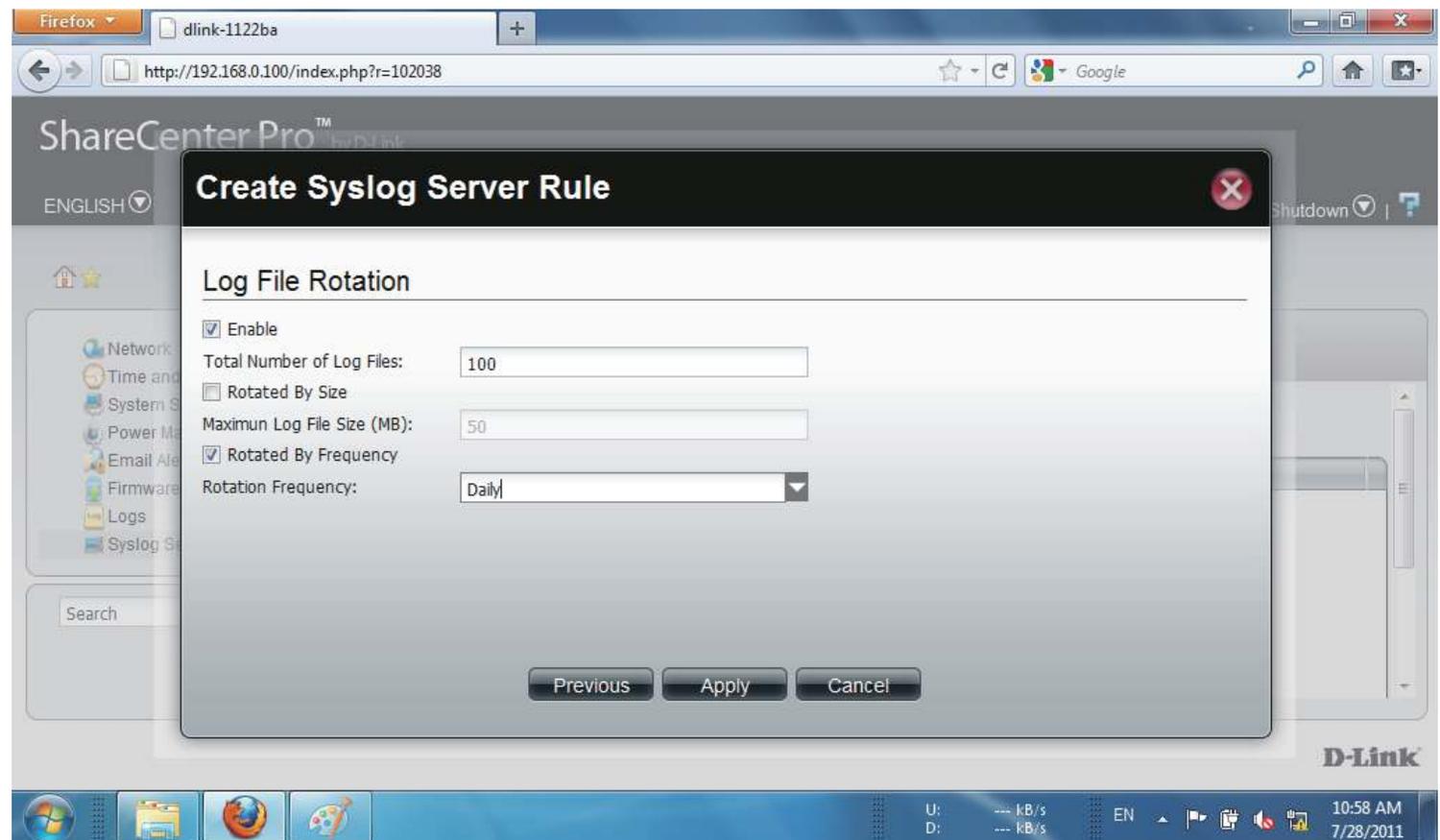
Step 7: Enter the Number of Log Files

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**.

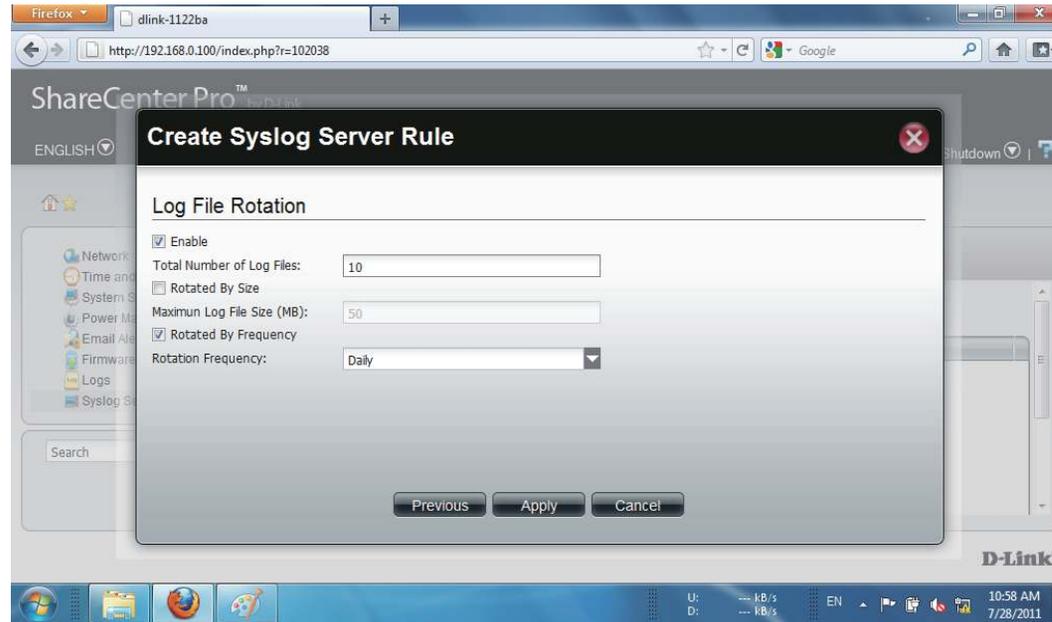


Step 8: The Total Number of Log Files cannot exceed "10".
The warning message prompts you change your configuration.

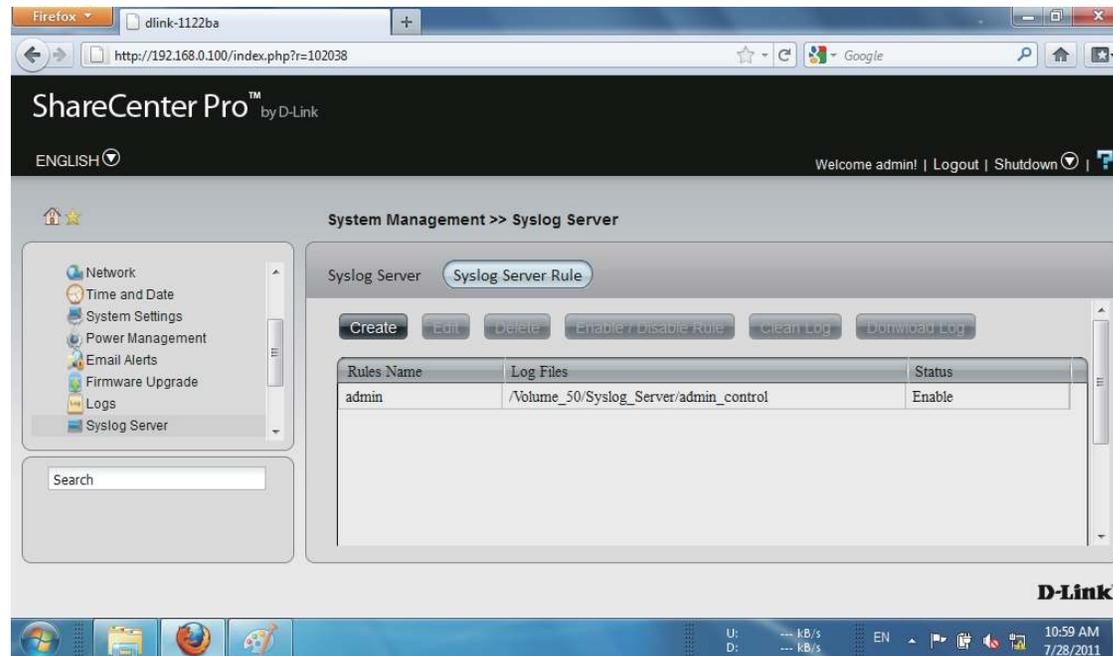


Step 9: Enter the **Log File** amount.

Click **Apply**.



Step 10: The **Rule** now appears in **Syslog Server Rule** table.

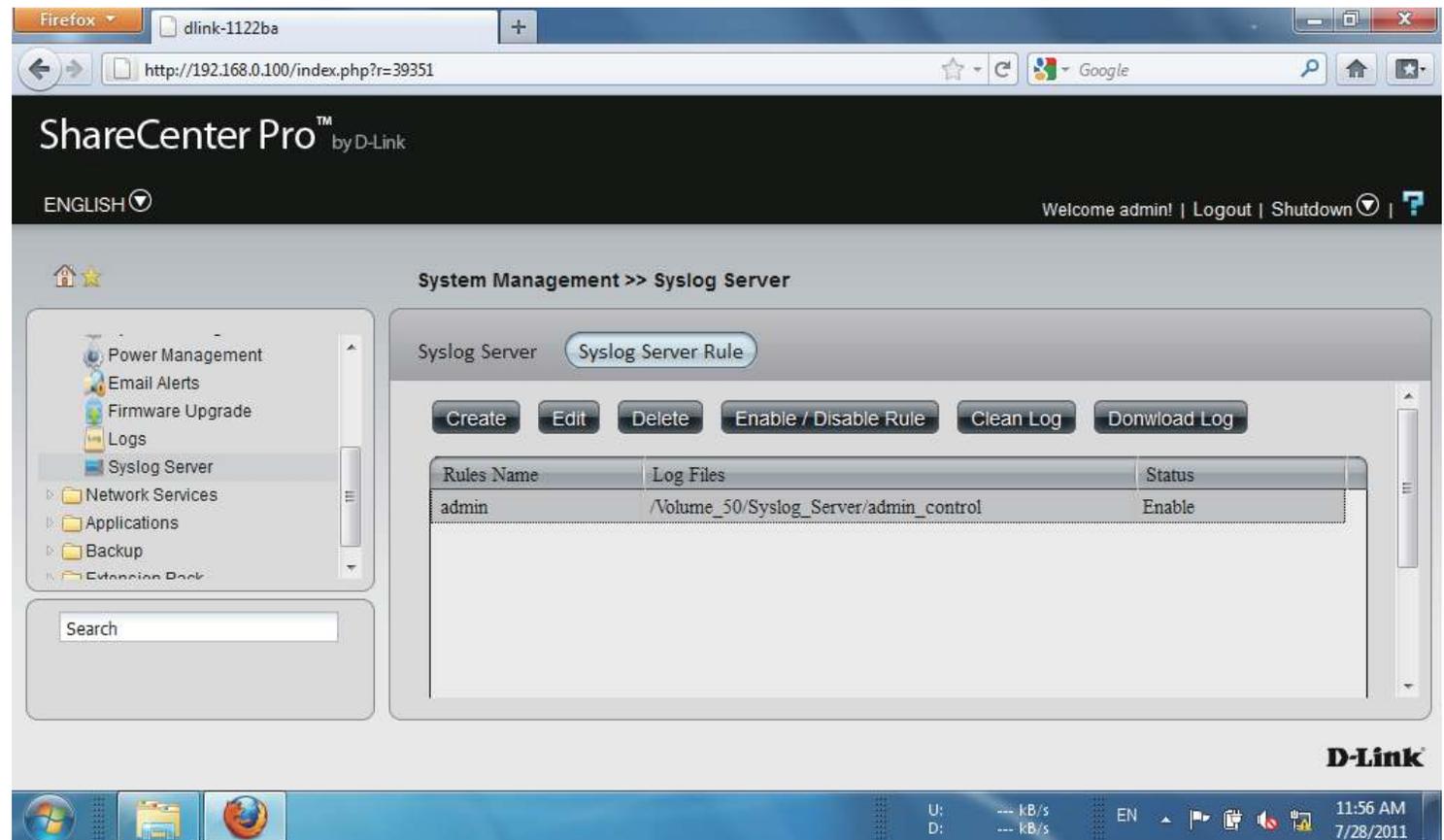


System Management - Edit a Syslog Server Rule

Follow these steps to edit a **Syslog Server Rule**:

Step 1: Select the **Server Rule** you wish to edit

Click **Edit**.



The screenshot shows the D-Link ShareCenter Pro web interface in a Firefox browser window. The address bar shows the URL `http://192.168.0.100/index.php?r=39351`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin" and is viewing the "System Management >> Syslog Server" page. The "Syslog Server Rule" tab is selected. The page contains a table with one rule named "admin" and a status of "Enable".

Rules Name	Log Files	Status
admin	/Volume_50/Syslog_Server/admin_control	Enable

Step 2: The **Rule Name** window is first.

However, the **Rule Name** cannot be edited.

Click **Next** to continue.



Step 3: Under **Protocols and Severity**, select from the options available.

Select or deselect the options you want to edit

Click **Next** to continue.

Create Syslog Server Rule ✕

Protocols and Severity

	Debug	Information	Notice	Warning	Error	Alert	Critical	Emergency
All	<input type="checkbox"/>							
Auth	<input type="checkbox"/>							
Cron	<input type="checkbox"/>							
Daemon	<input type="checkbox"/>							
Ftp	<input type="checkbox"/>							
Kern	<input type="checkbox"/>							
Lpr	<input type="checkbox"/>							
Mail	<input type="checkbox"/>							
News	<input type="checkbox"/>							
Syslog	<input type="checkbox"/>							
User	<input type="checkbox"/>							
UUCP	<input type="checkbox"/>							
Local0	<input type="checkbox"/>							
Local1	<input type="checkbox"/>							
Local2	<input type="checkbox"/>							
Local3	<input type="checkbox"/>							
Local4	<input type="checkbox"/>							
Local5	<input type="checkbox"/>							
Local6	<input type="checkbox"/>							

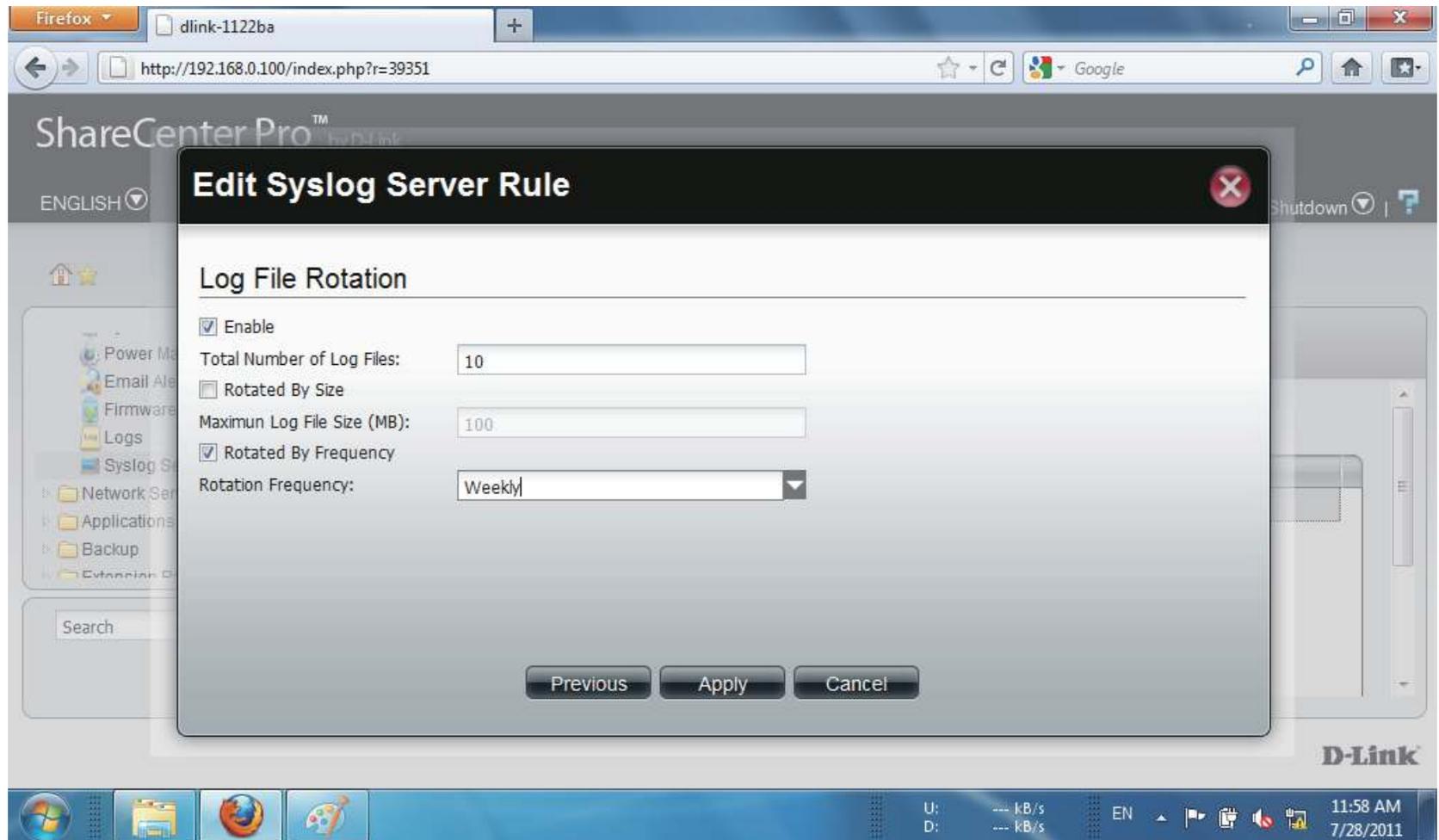
Step 4: Edit the **Log File**, the **path** and/or **File Name**.



Step 5: Edit the **Log File Rotation** according to your requirements.

Click **Apply**.

The changes take effect immediately.

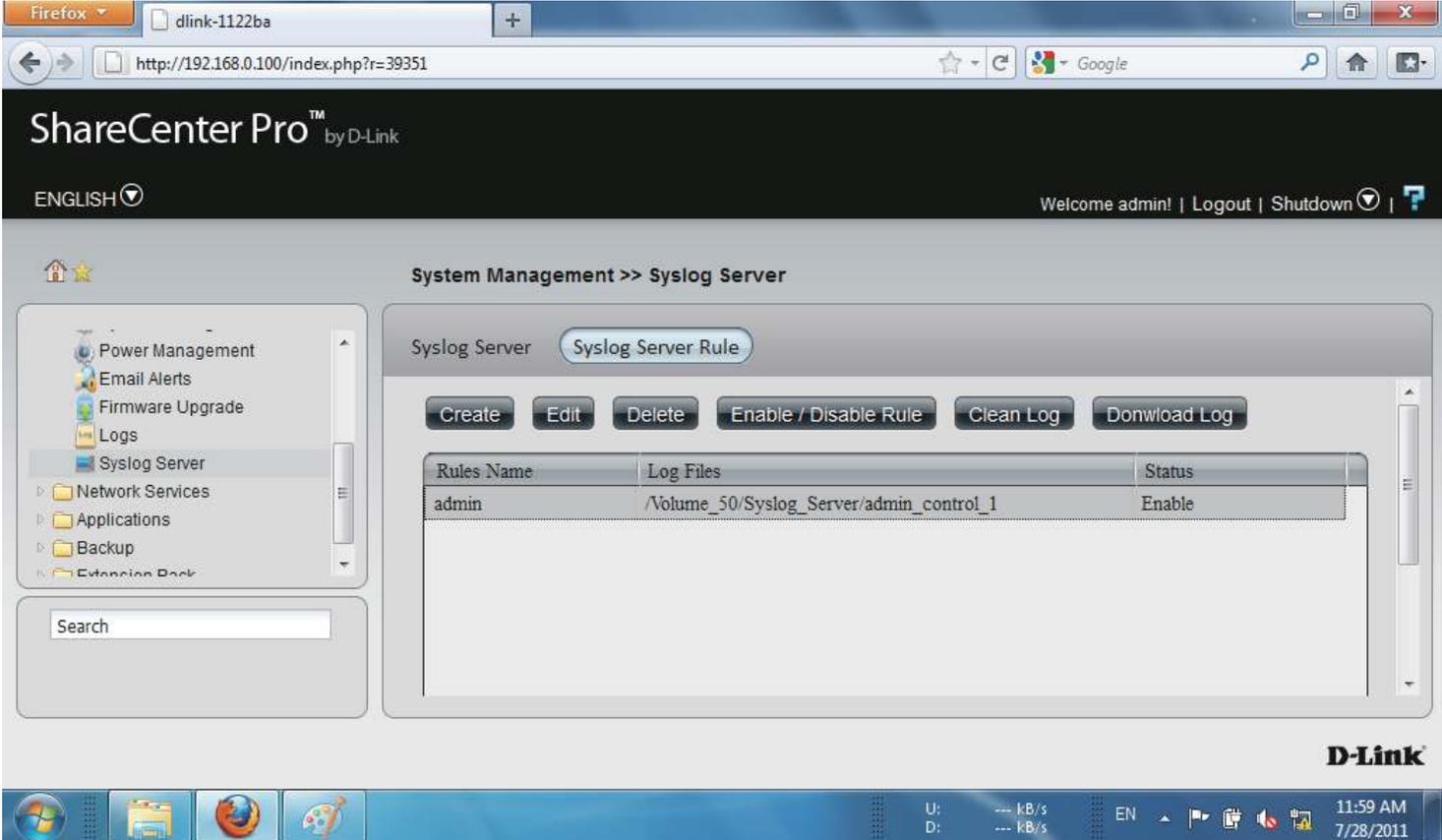


System Management - Delete a Syslog Server Rule

Follow these steps to edit a **Syslog Server Rule**.

Step 1: Select the **Server Rule** you wish to delete

Click **Delete**.



The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `http://192.168.0.100/index.php?r=39351`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin". The main content area is titled "System Management >> Syslog Server". Below this, there is a "Syslog Server" section with a "Syslog Server Rule" tab. A table lists the rules:

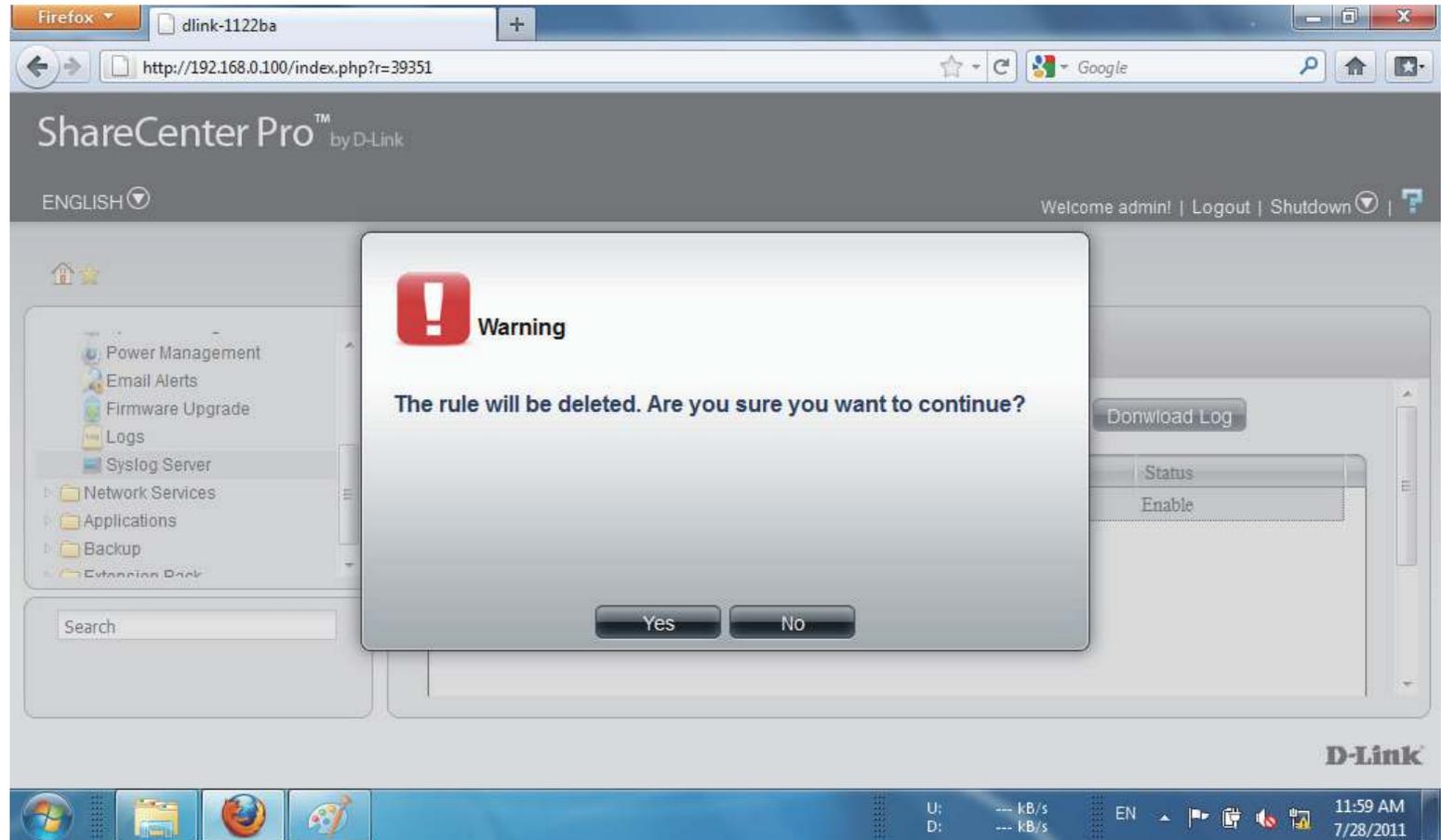
Rules Name	Log Files	Status
admin	/Volume_50/Syslog_Server/admin_control_1	Enable

Buttons for "Create", "Edit", "Delete", "Enable / Disable Rule", "Clean Log", and "Download Log" are located above the table. The D-Link logo is visible in the bottom right corner of the interface.

Step 2: A warning message asks you to confirm your selection.

Click **Yes** to delete the **Rule**.

Click **No** to cancel your configuration.



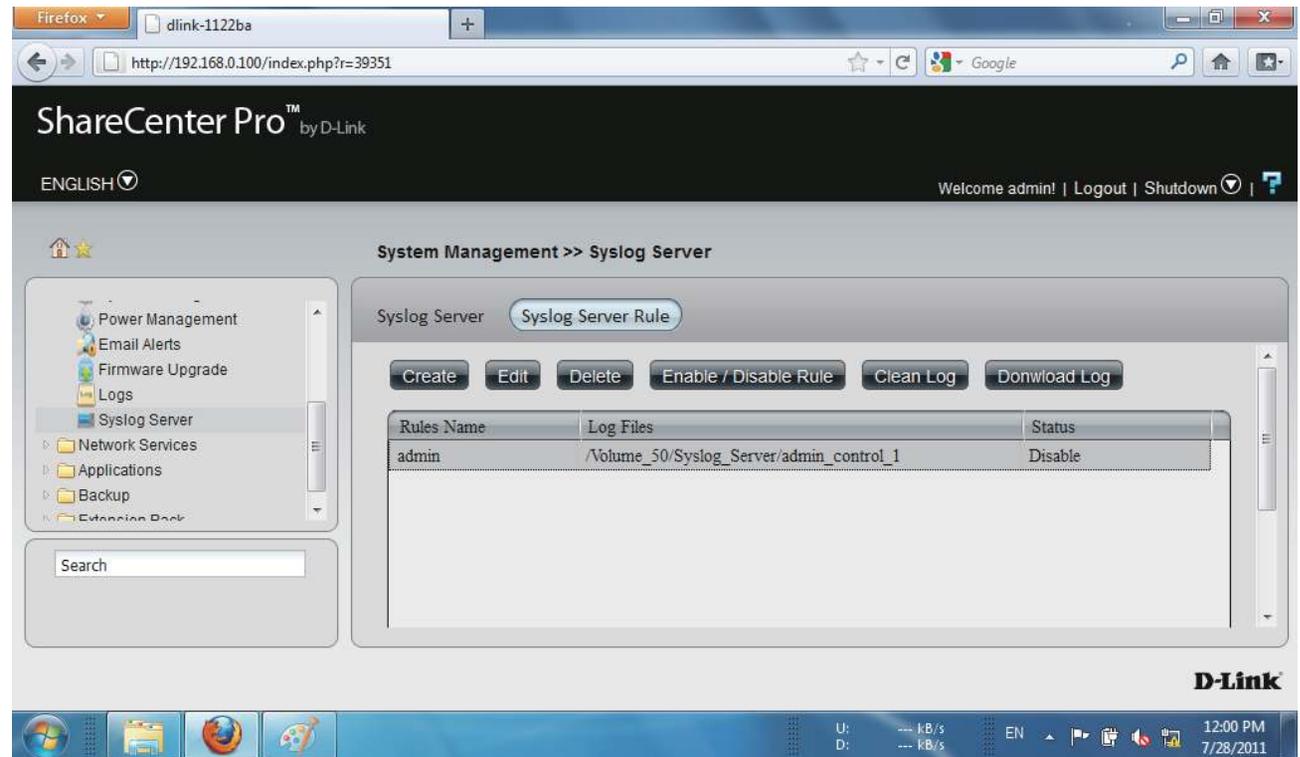
System Management - Enable/Disable a Syslog Server Rule

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

Step 1: 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.



The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar shows the URL `http://192.168.0.100/index.php?r=39351`. The page title is "ShareCenter Pro™ by D-Link". The user is logged in as "admin". The main content area is titled "System Management >> Syslog Server". Under "Syslog Server", the "Syslog Server Rule" tab is selected. There are buttons for "Create", "Edit", "Delete", "Enable / Disable Rule", "Clean Log", and "Download Log". A table displays the following data:

Rules Name	Log Files	Status
admin	/Volume_50/Syslog_Server/admin_control_1	Disable

System Management - Clearing a Syslog Server Log

Follow these steps to clear a Syslog Server Log File:

Step 1: Select the **Server Log** you wish to clear.

Click **Clean Log**.

The screenshot displays the D-Link ShareCenter Pro web interface. The browser window shows the URL `http://192.168.0.100/index.php?r=39351`. The page title is "System Management >> Syslog Server". The main content area features a table with the following data:

Rules Name	Log Files	Status
admin	/Volume_50/Syslog_Server/admin_control_1	Disable

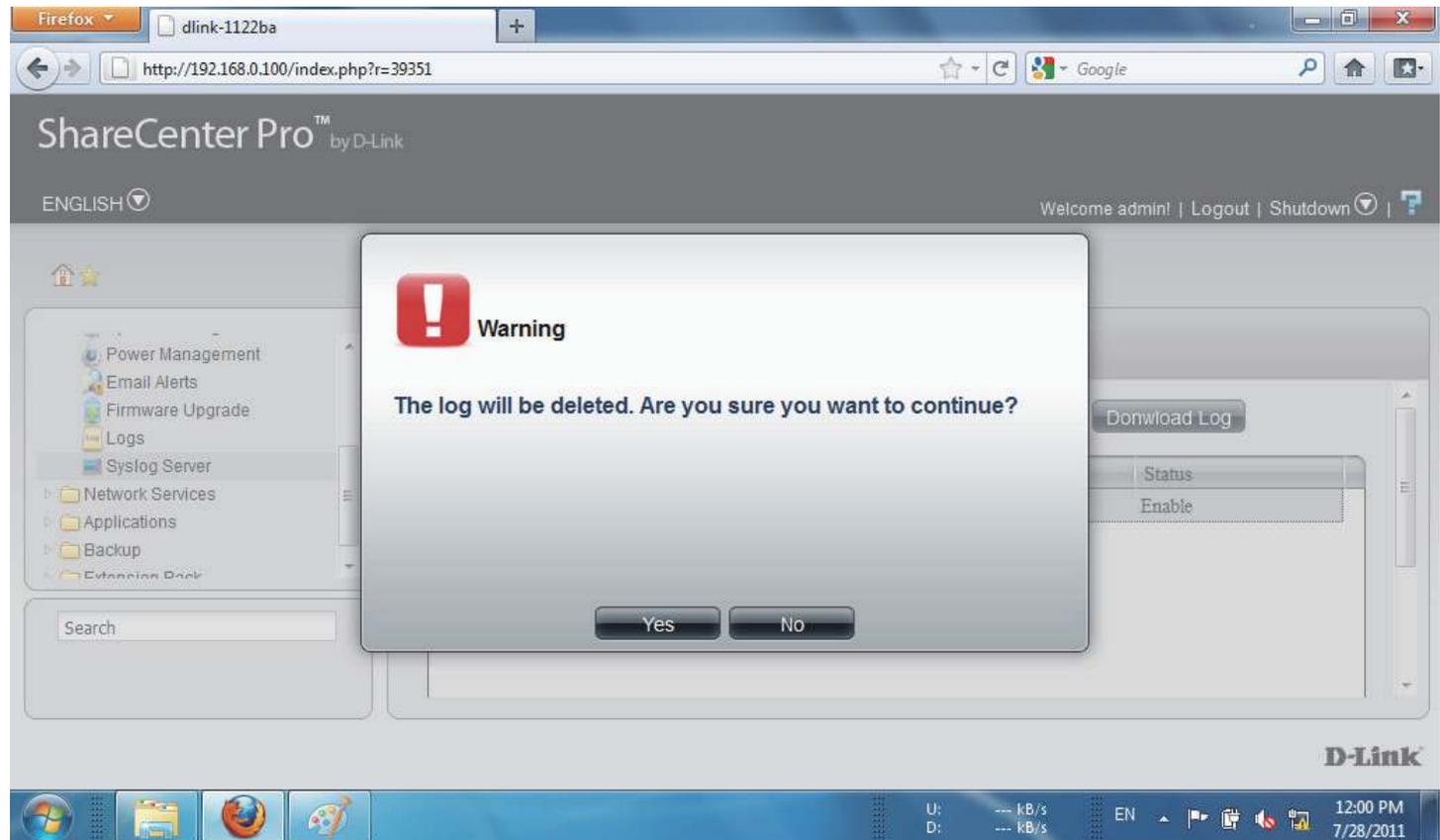
Buttons for "Create", "Edit", "Delete", "Enable / Disable Rule", "Clean Log", and "Download Log" are visible above the table. The left sidebar contains a navigation menu with "Syslog Server" selected. The top of the page shows "ShareCenter Pro by D-Link" and "Welcome admin! | Logout | Shutdown". The bottom of the page shows the D-Link logo and system status information.

Step 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.



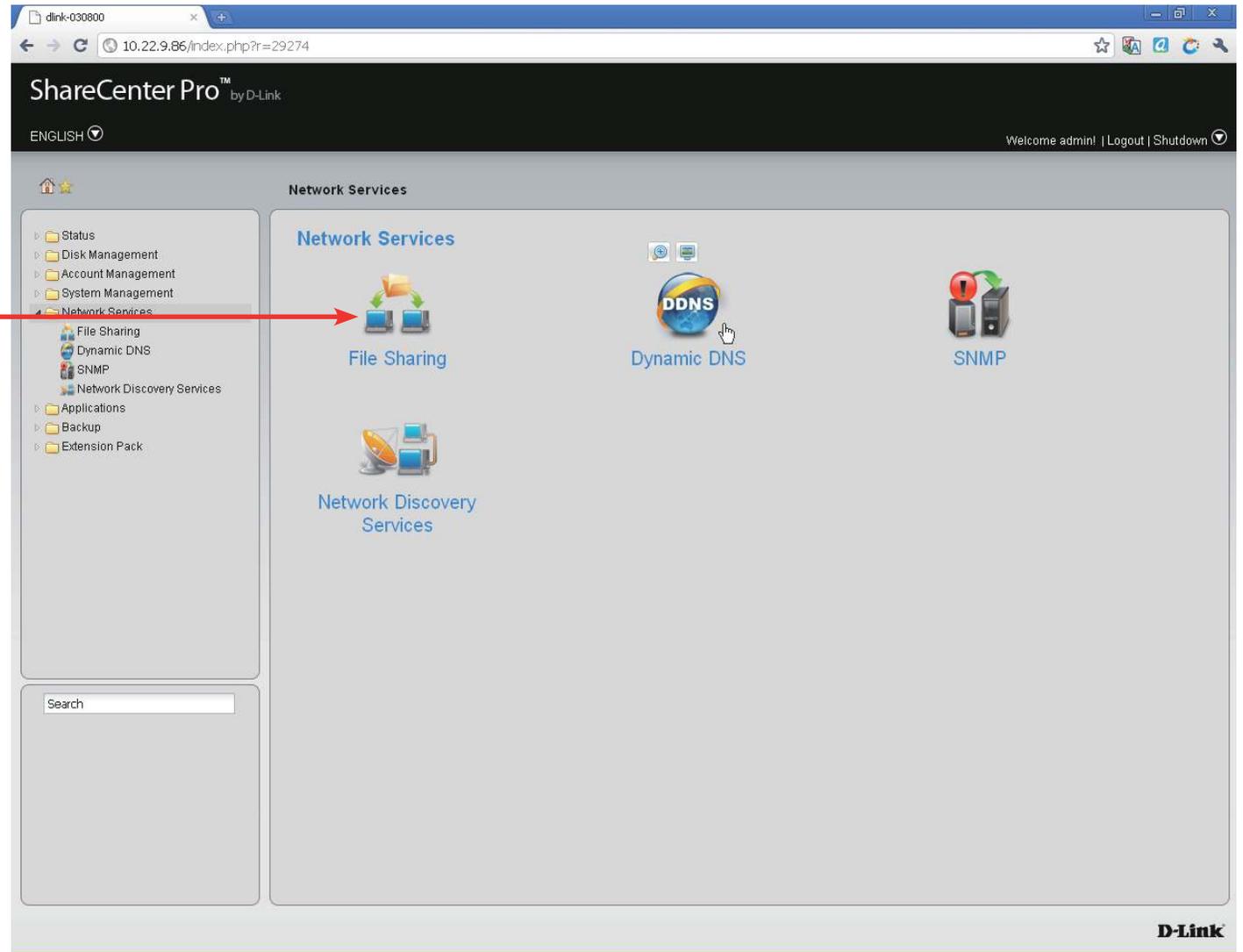
Chapter 13 - Software - Network Services

The D-Link ShareCenter Pro 1100-04 allows you to monitor and configure Network Services. Let's take a look.

Software - Network Services

Step 1: Click the **Network Services** folder to the right. Click **File Sharing**.

Click the **File Sharing** icon



Software - Network Services - File Sharing

Step 2: The **File Sharing** configuration window offers five important protocol options.

CIFS:

FTP:

NFS:

DFS:

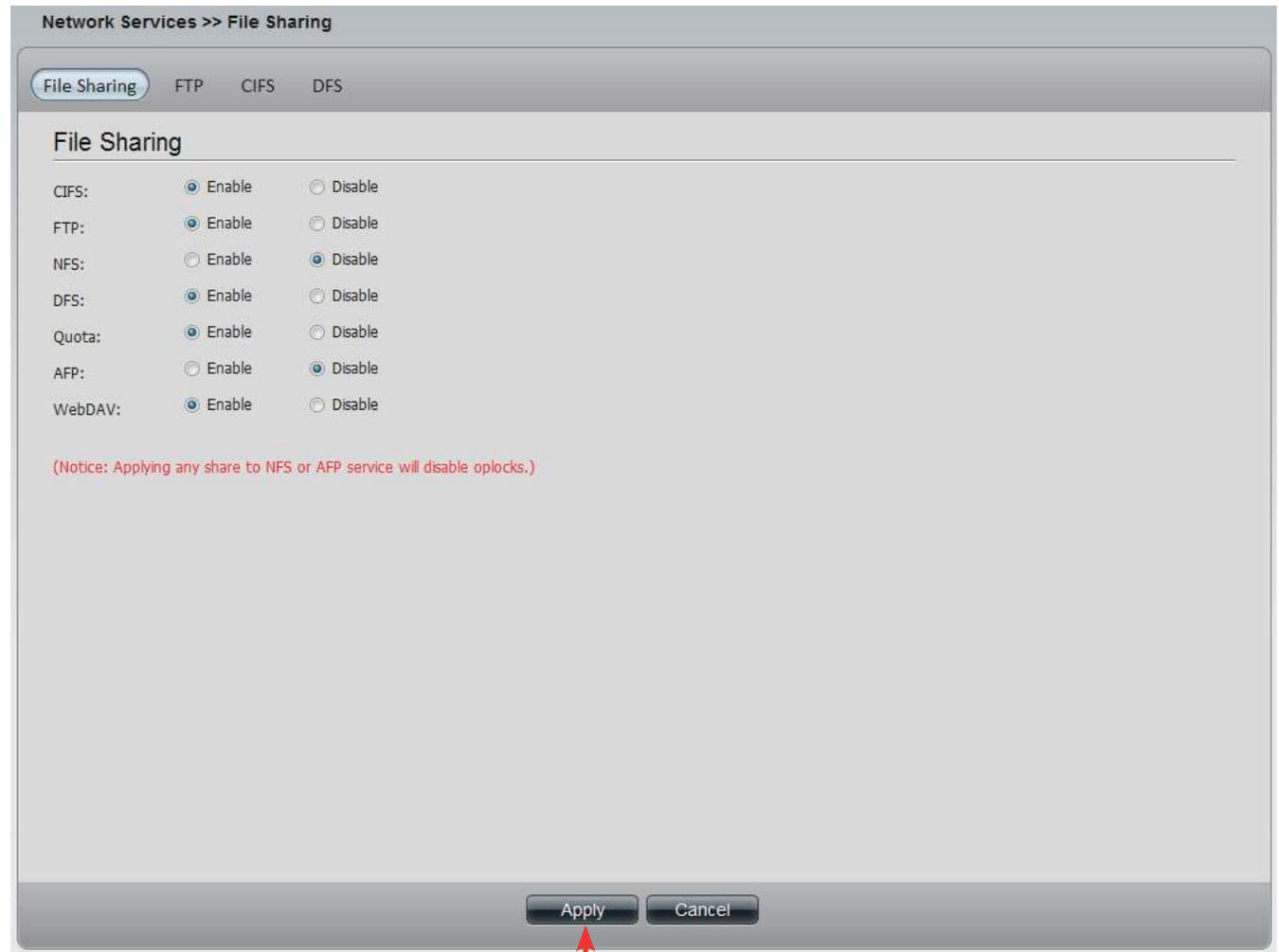
Quota:

AFP:

WebDAV:

Each of these protocols can be configured.

Select the choices you want to enable and click **Apply**.



Click **Apply** to save the changes

Software - Network Services - File Sharing - FTP

Step 3: Click the FTP tab

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

Network Services >> File Sharing

File Sharing **FTP** CIFS DFS

Connection Settings

Control Port: 21

Port range of Passive FTP:

Use the default port range (55536-55663)

Use the following port range: 55536 ~ 55663

Respond with external IP address for Passive mode: Enable Disable

External IP address: []

Client Language: Unicode

Connection Restrictions

Max Connections: 64

Max Connections per IP: 02

Connection Idle Time: 05 Minutes

Bandwidth restriction: Enable Disable

Max upload rate per connection: [] KB/s (0 KB/s means unlimited.)

Max download rate per connection: [] KB/s (0 KB/s means unlimited.)

Security Settings

Anonymous Support: Enable Disable

SSL/TLS Connection Only: Enable Disable

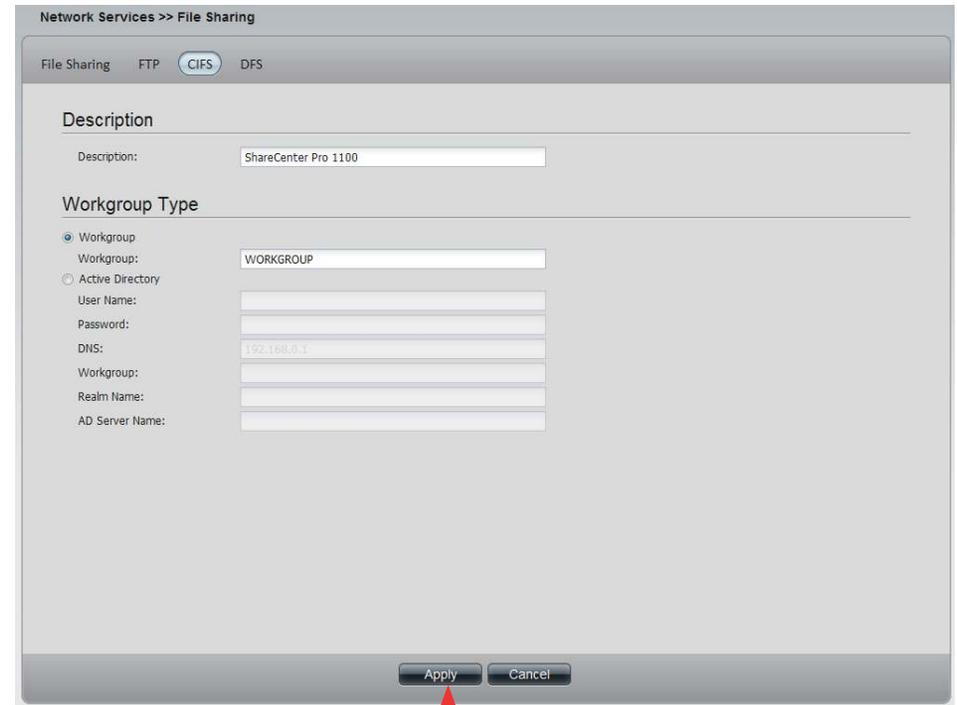
Apply Cancel

Click **Apply** to save the changes

Software - Network Services - File Sharing - CIFS

Step 4: Click the **CIFS** tab to configure this protocol

- 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** Enter 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.

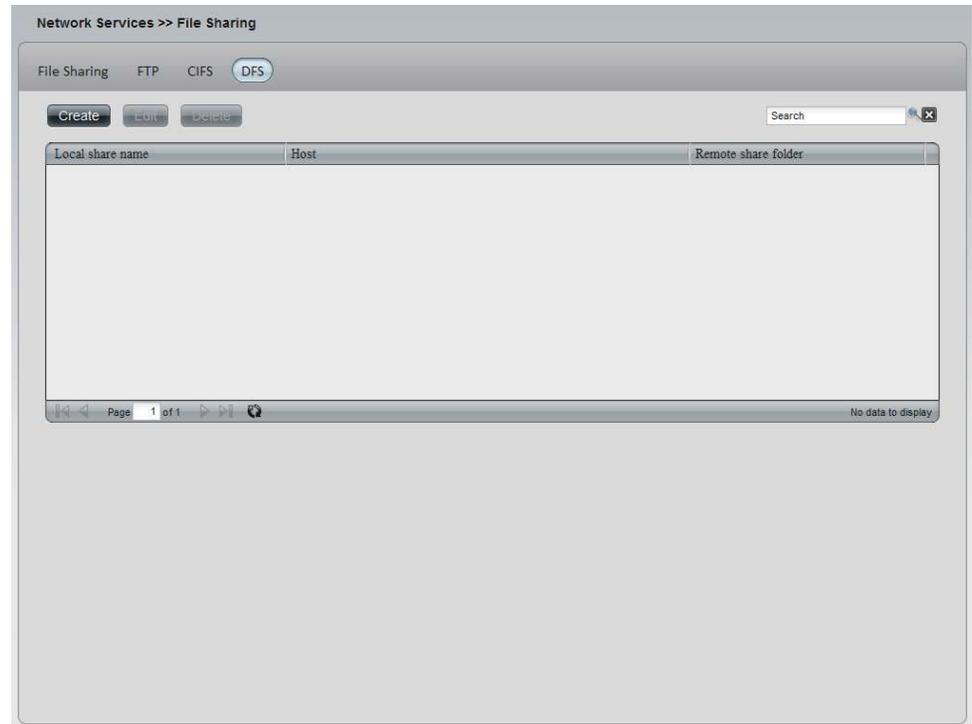


Click **Apply** to save the changes

Software - Network Services - File Sharing - DFS

Step 5: Click the **DFS** tab to configure this protocol

- 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.



Software - Network Services - File Sharing - DFS

Step 6: Click the **Create** button 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.



The screenshot shows a 'Create DFS Share' dialog box with the following fields and buttons:

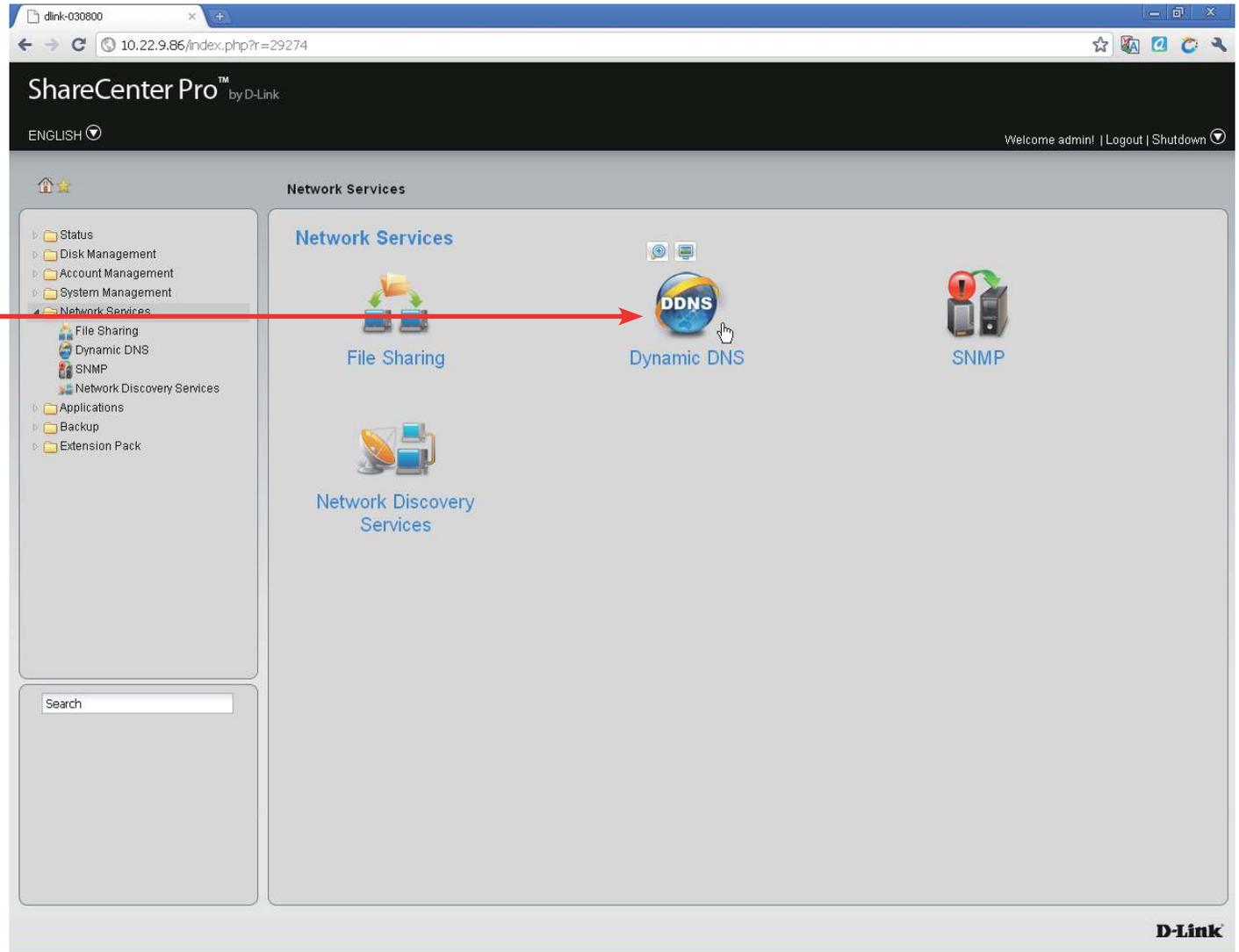
- Host:** A text input field.
- Remote share folder:** A text input field with a dropdown arrow and a **Get Host Share Folder** button to its right.
- Local share name:** A text input field.
- Apply** and **Cancel** buttons at the bottom.

Click **Apply** to save the changes.

Software - Network Services - Dynamic DNS

Step 1: Click the Dynamic DNS folder

Click the Dynamic DNS icon



Software - Network Services - Dynamic DNS

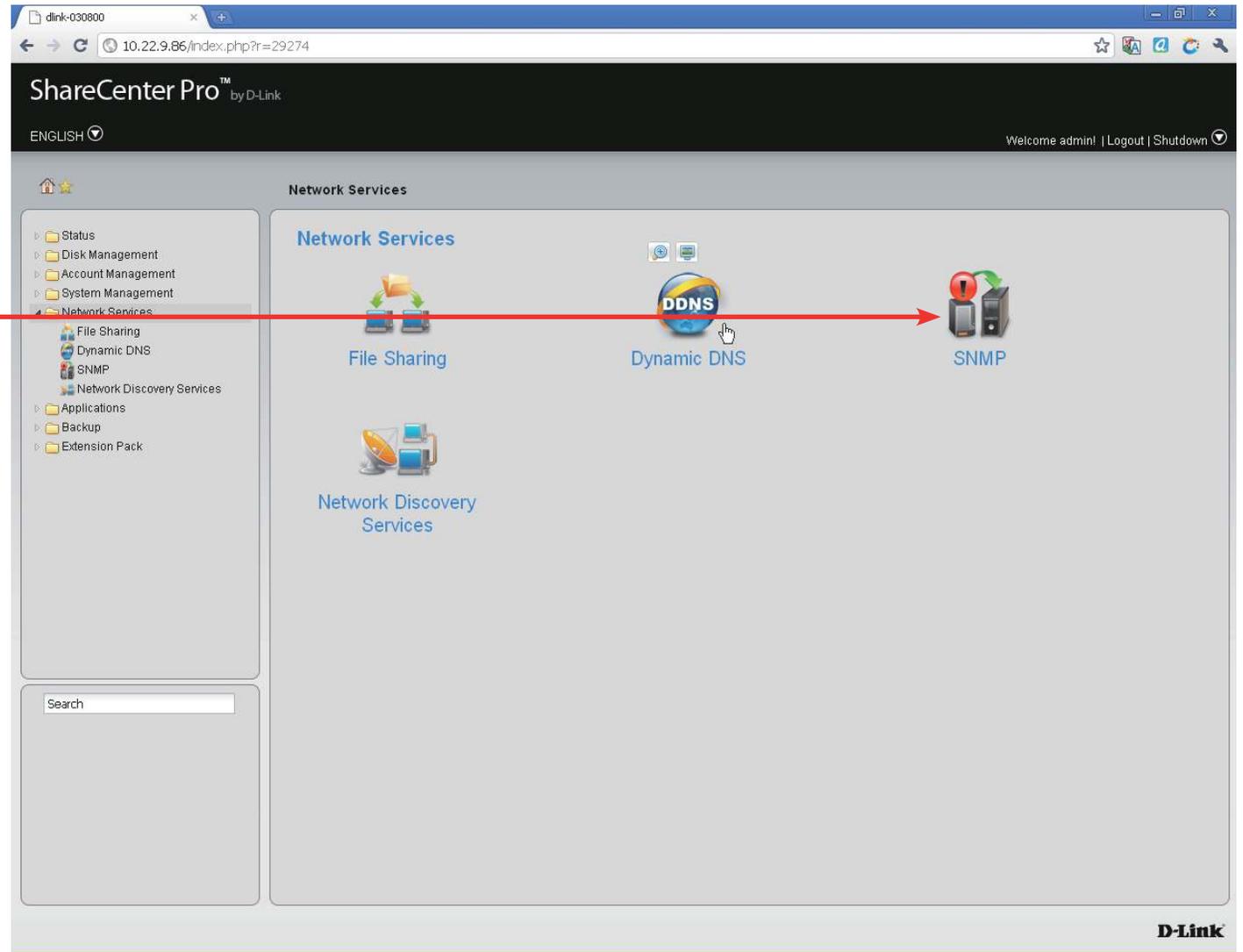
Step 2: Click the **Dynamic DNS** folder

- 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 changes

Software - Network Services - SNMP

Step 1: Click the **SNMP** folder.



Software - Network Services - SNMP

Step 2: Configure the **SNMP** settings. **SNMP** is used to monitor the conditions of the network-attached devices.

SNMP Enable or Disable SNMP.

SNMP Enter the name of the SNMP community.

Community

Notification Enable or Disable trap support.

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

SNMP Settings

SNMP: Enable Disable

SNMP Community:

Notification: Enable Disable

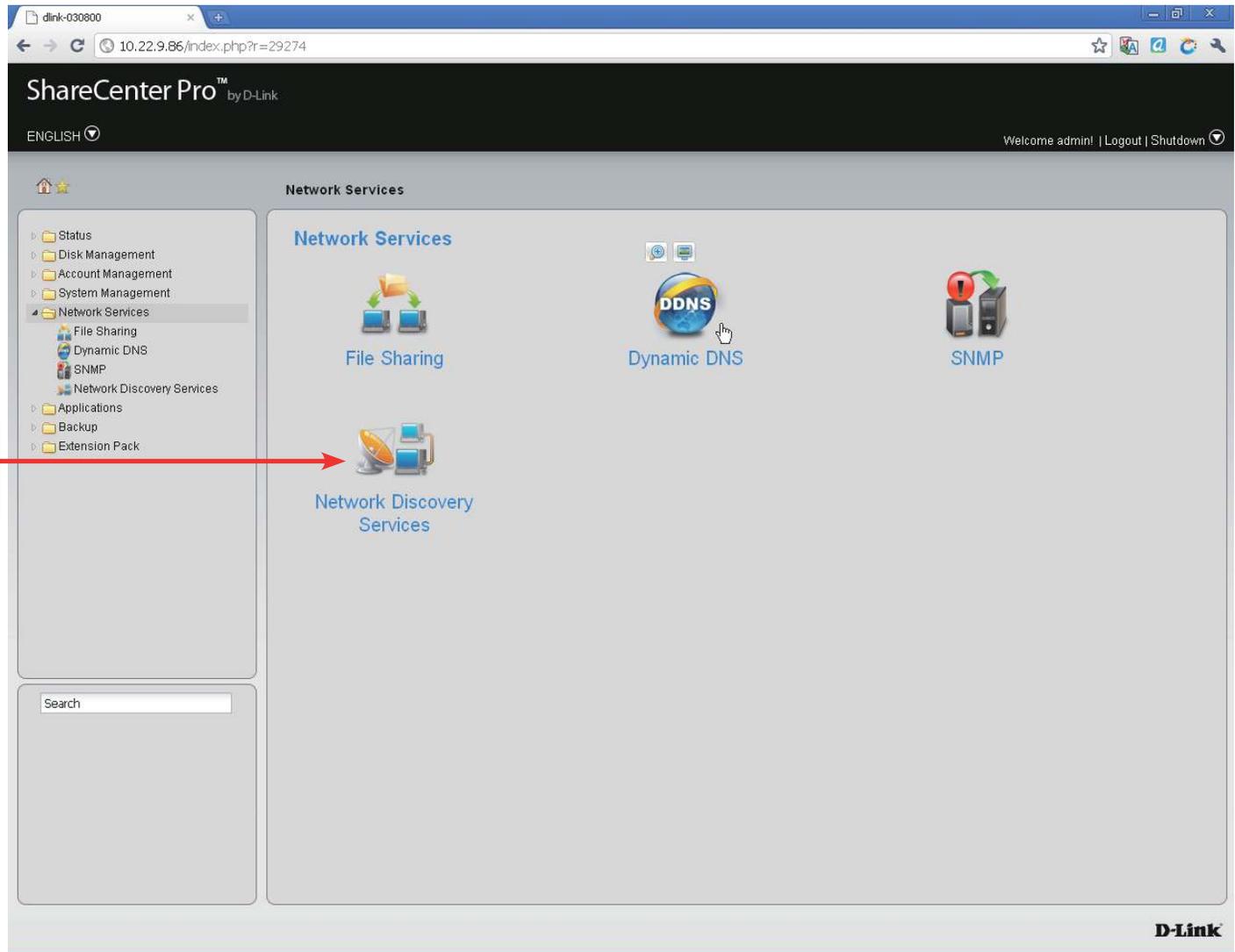
Notification IP:

Apply Cancel

Click **Apply** to save the changes.

Software - Network Services - Network Discovery Services

Step 1: Click the **Network Discovery Services** folder



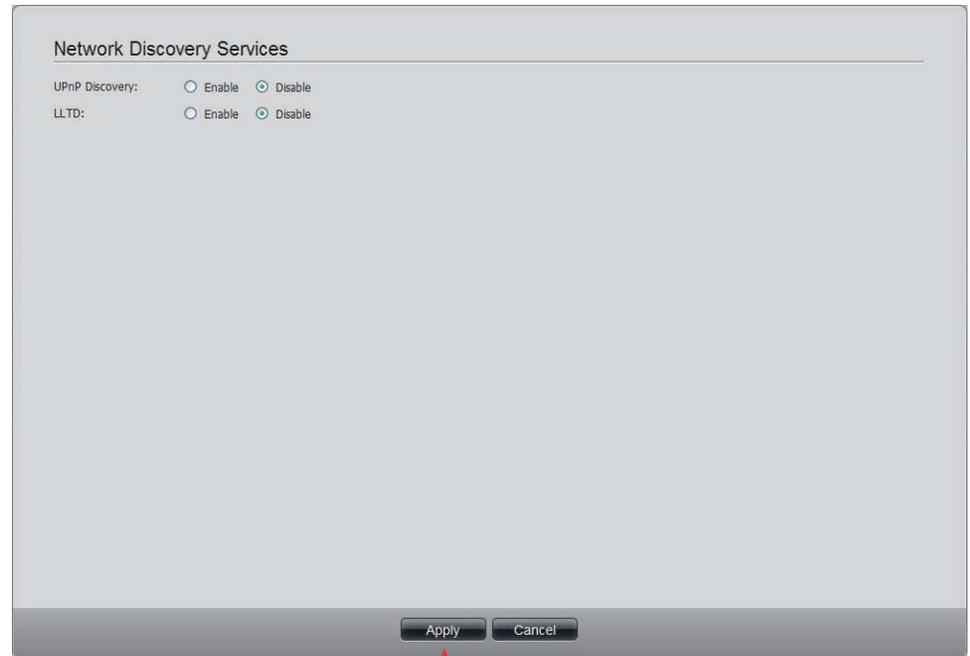
Click the **Network Discovery Services** icon

Software - Network Services - Network Discovery Services

Step 2: The Network Discovery Services settings are as follows:

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 changes.

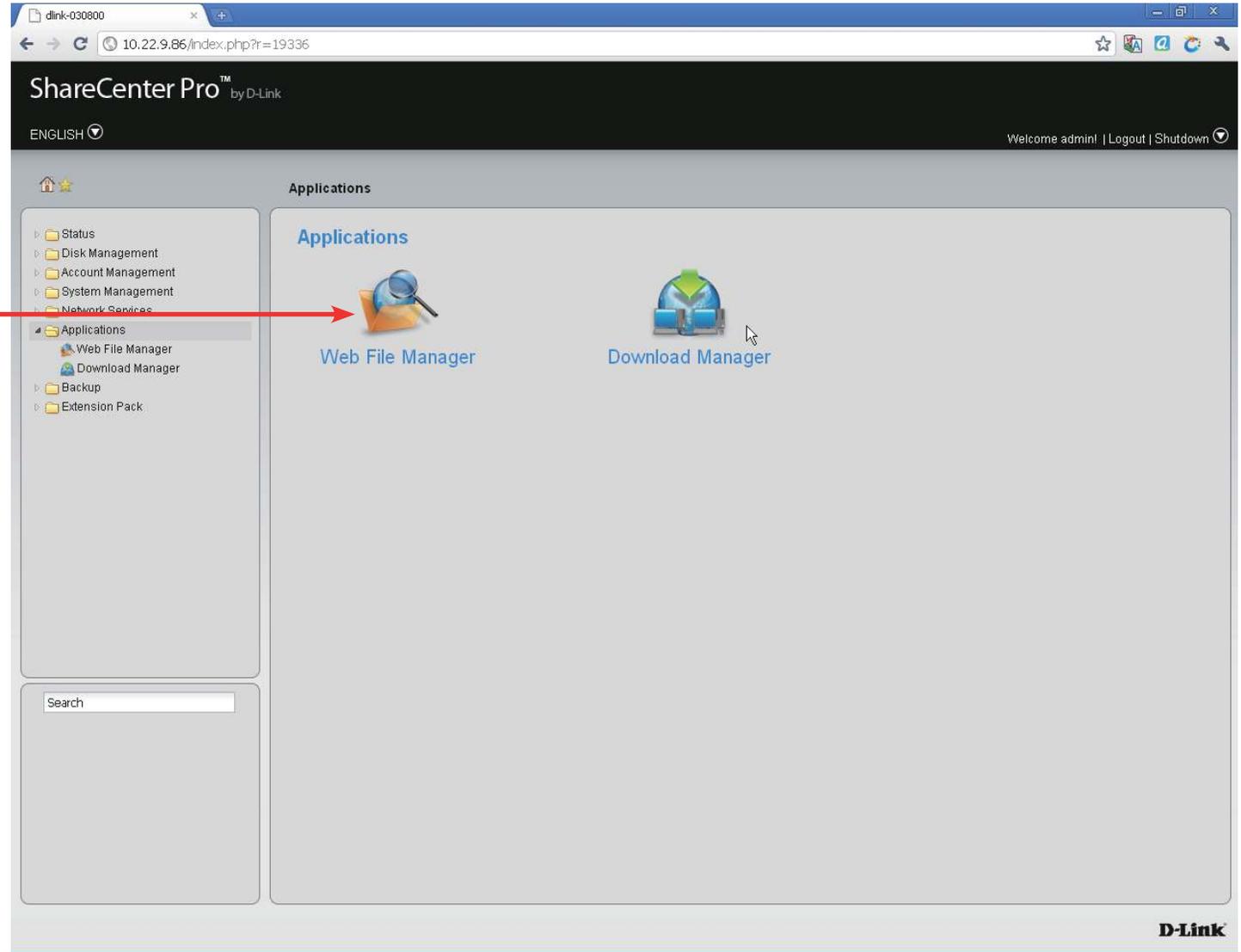
Chapter 14 - Software - Applications

The D-Link ShareCenter Pro 1100-04 allows you to configure a Web File Manager and Download Manager. Let's take a look.

Software - Applications - Web File Manager

Step 1: Click the Web File Manager folder

Click the Web File Manager icon



Software - Applications - Web File Manager

Step 2: Configure the **Web File Manager** 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.

Web File Manager

Server: Enable Disable

HTTP Port:

SSL Connection: Enable Disable

SSL Port:

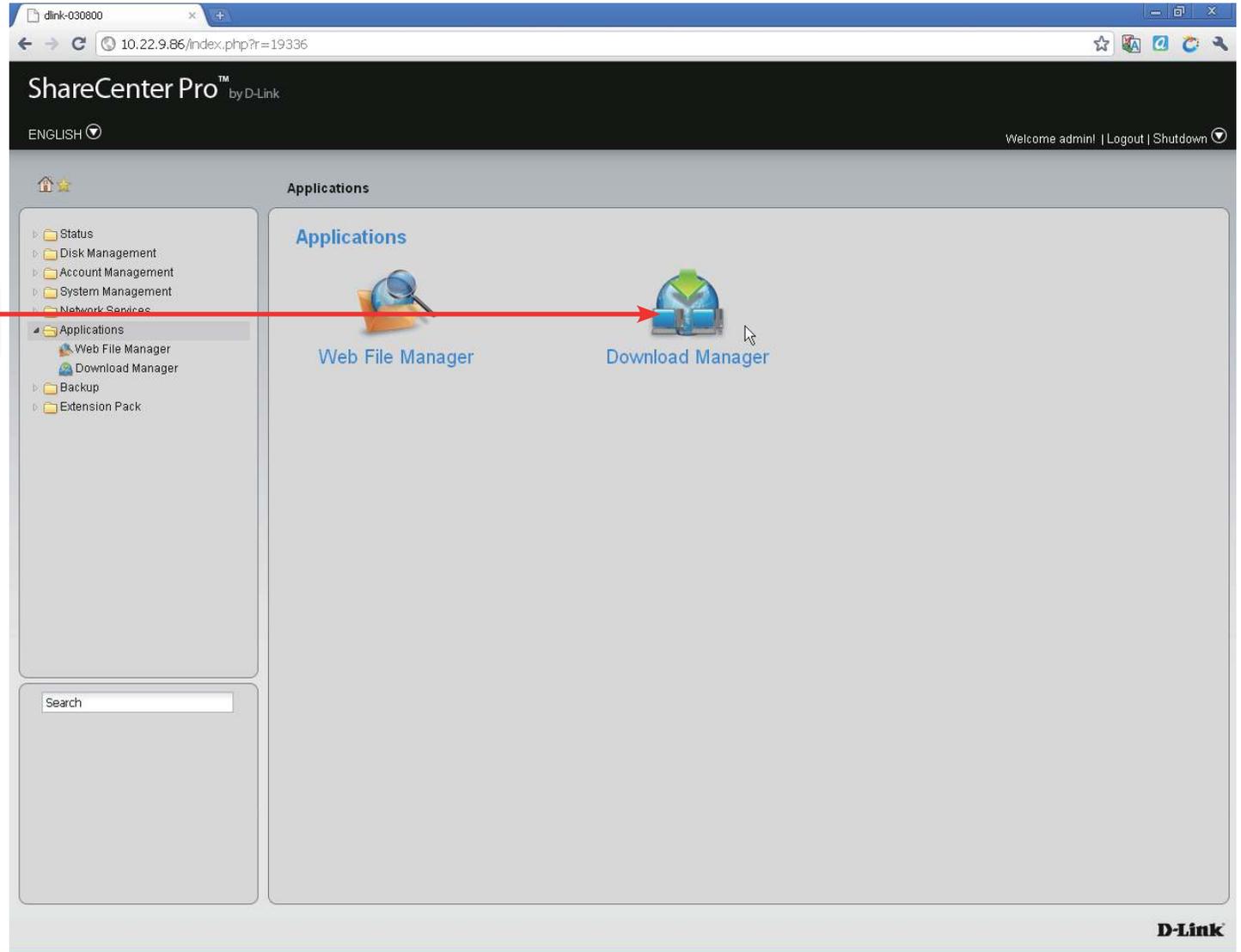
Apply Cancel

Click **Apply** to save the changes.

Software - Applications - Download Manager

Step 3: Click the **Download Manager** folder

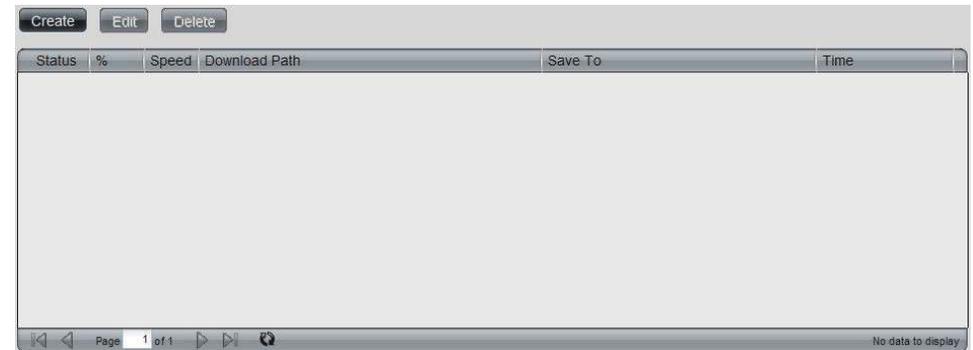
Click the **Download Manager** icon



Software - Applications - Download Manager

Step 4: The **Download Manager** is used to schedule downloading files from the 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.



Software - Applications - Download Manager

Step 5: Click the **Create** button to create a downloading Job.

- 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.

Create Download Job

Download Settings

Download Type: FTP

Login Method: Account Anonymous

User Name: *****

Password: *****

Type: Folder

URL: ftp:// **Test**

Save To: _____

Previous **Next** **Cancel**

Click Next

Software - Applications - Download Manager

Step6: To schedule a new **Download** job.

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.



Create Download Job

Download Schedule

Recurring Download: None 00 : 00

When: 2010-08-30

Time: 00 : 00

Weekly: MON

Monthly: 01

Previous Apply Cancel

Click **Apply** to save the changes.

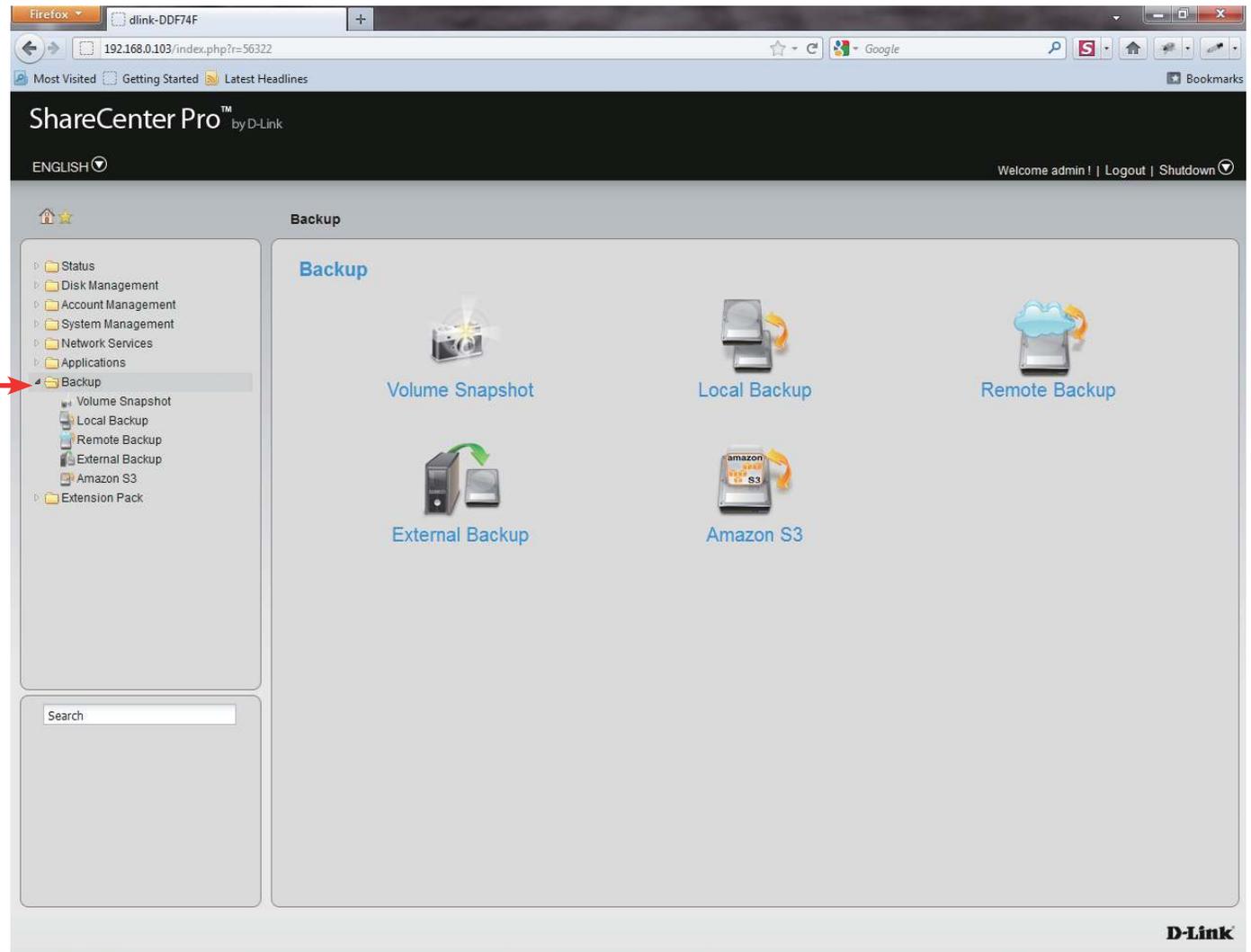
Chapter 15 - Software - Backup

The D-Link ShareCenter Pro 1100-04 allows you to configure a Backup service for your NAS. Let's take a look.

Software - Backup

Step 1: Click the **Backup** folder on the left pane

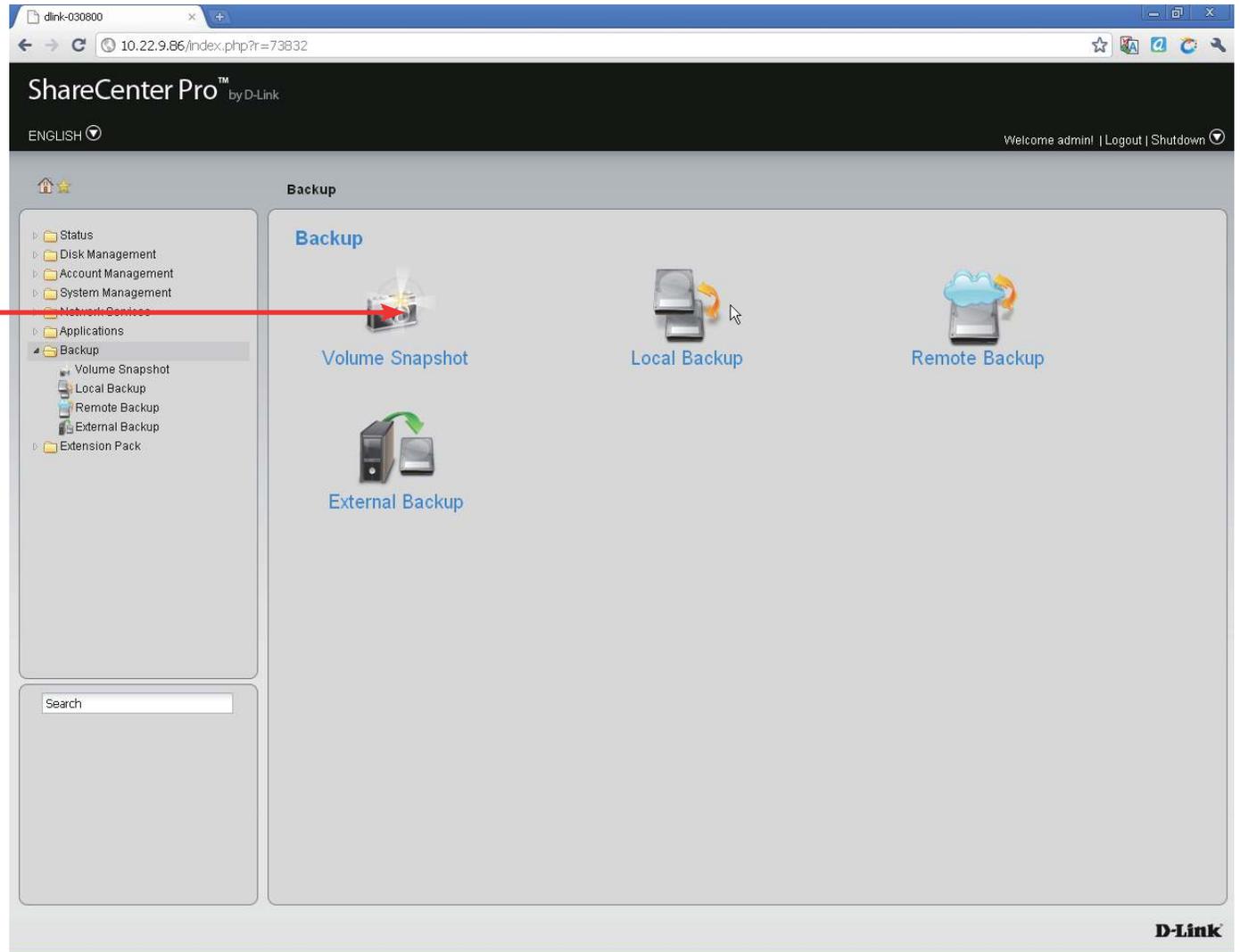
Click the **Backup** Folder



Software - Backup - Volume Snapshot

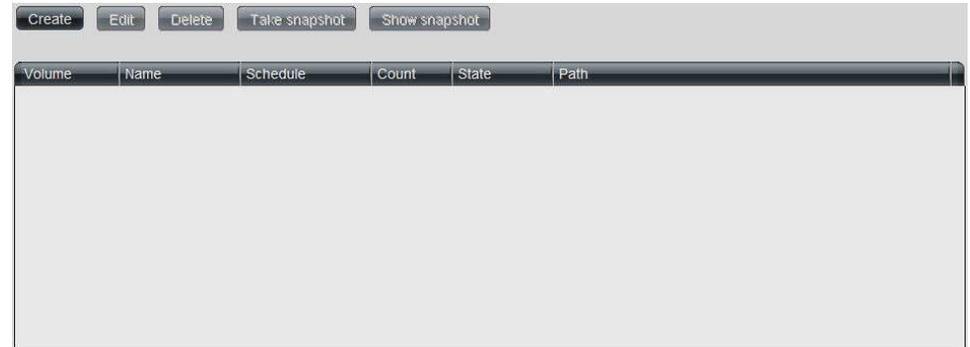
Click the **Volume Snapshot**.

Click the **Volume Snapshot** icon.



Software - Backup - Volume Snapshot

Step 2: The **Volume Snapshot** 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 snapshots and each job can have a maximum of 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.

Software - Backup - Volume Snapshot

Step 3: Click the **Create** button to create a Snapshot job.

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.

Create Snapshot Job

Folder:

Count: 10

Schedule: Manually

Time: 00 : 00

Weekday: SUN

Date: 01

Apply Cancel

Click **Apply** to save the changes.

Software - Backup - Volume Snapshot

Step 4: 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.



Click Close.

Software - Backup - Volume Snapshot

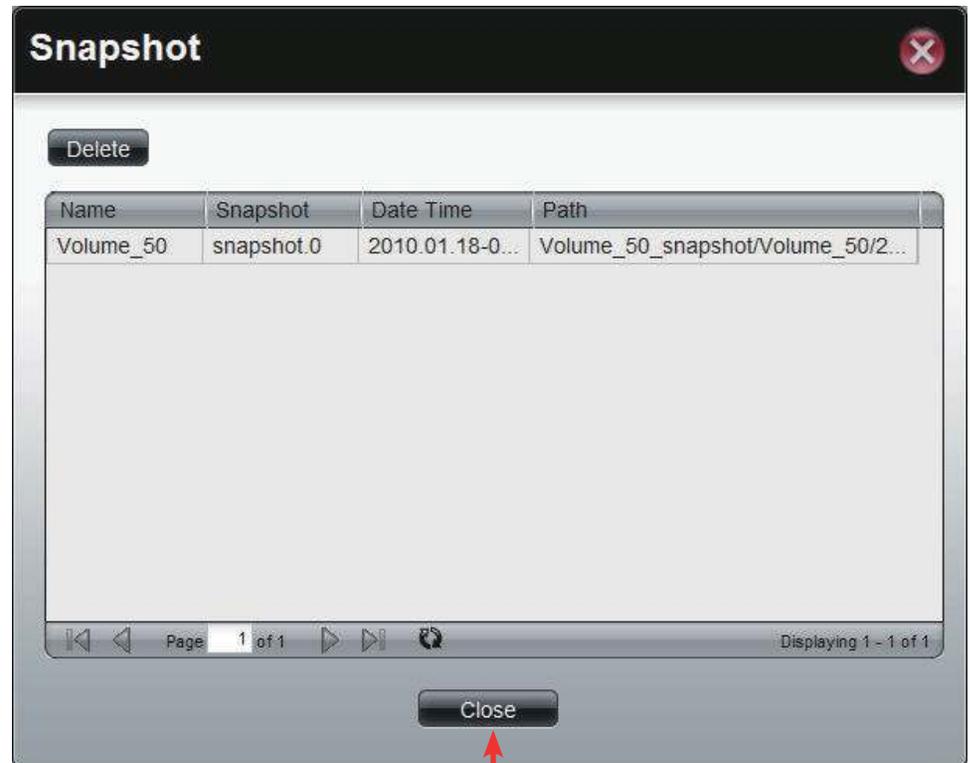
Step 5: After the calendar is closed the ShareCenter Pro 1100-04 provides snapshot information.

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.

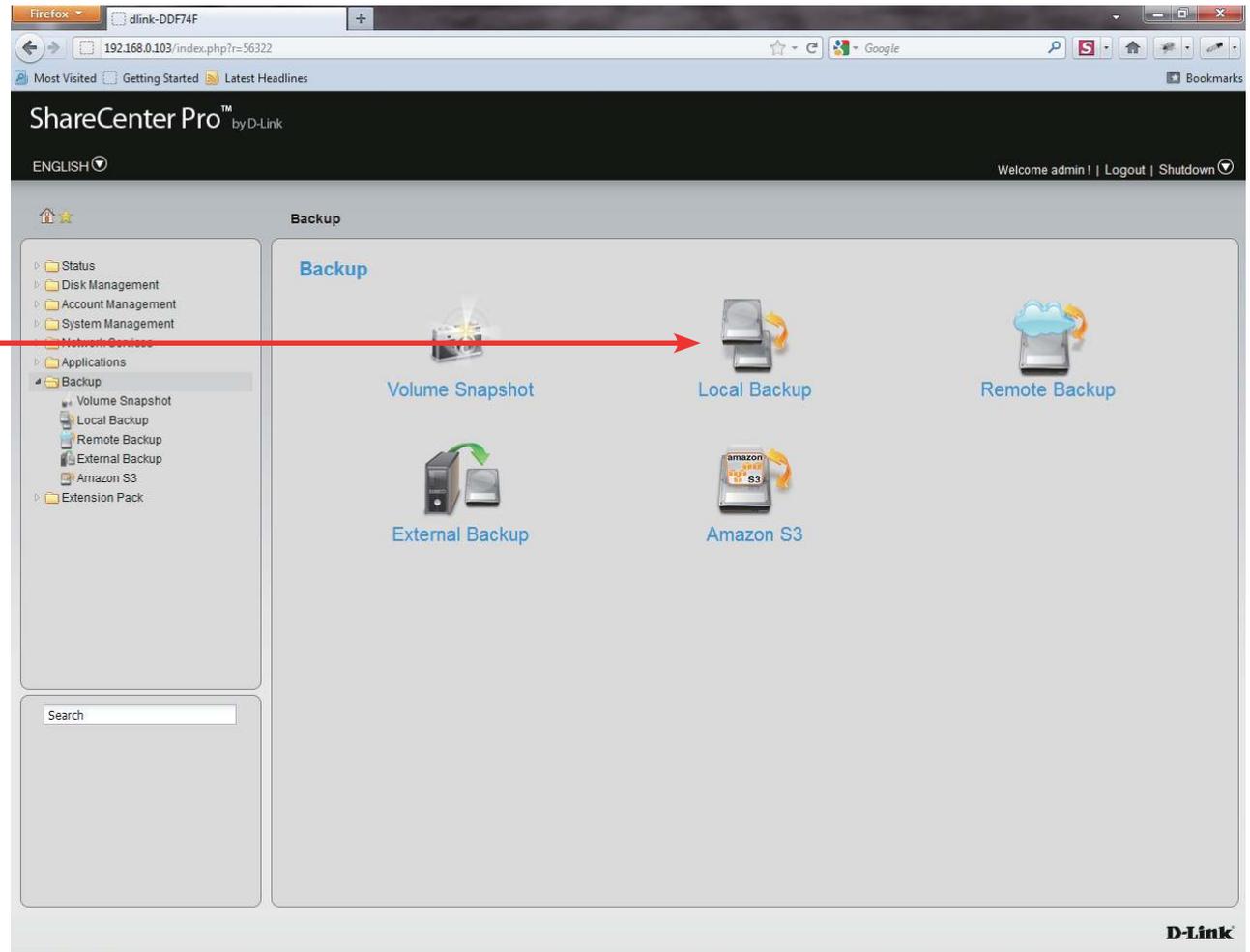


Click Close.

Software - Backup - Local Backup

Step 1: Click the **Local Backup** icon

Click the **Local Backup** icon



Software - Backup - Local Backup

Step 2: **Local Backup** allows files and folders to be backed up to local folders.

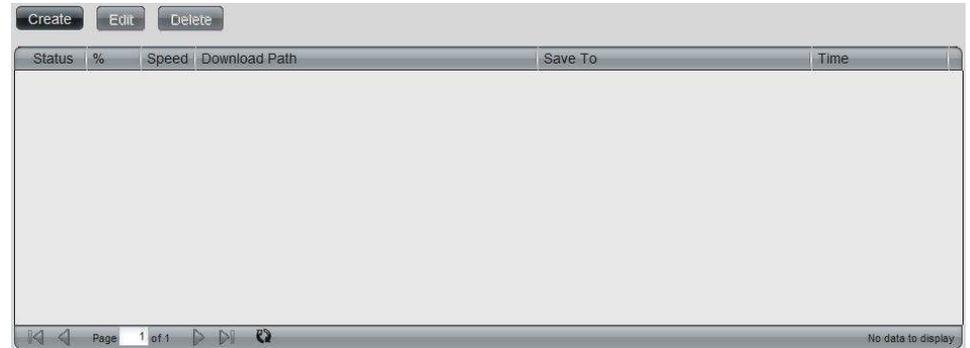
Create Click to add a new backup job.

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.



Software - Backup - Local Backup

Step 3: Click the **Create** button to create a **Local Backup Job**.

- 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.

Software - Backup - Local Backup

Step 4: Set the schedule for local backups by doing:

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.



Create Local Backup Job

Local Backup Schedule

Recurring Backup: None

When: 2010-08-30

Time: 00 : 00

Weekly: MON

Monthly: 01

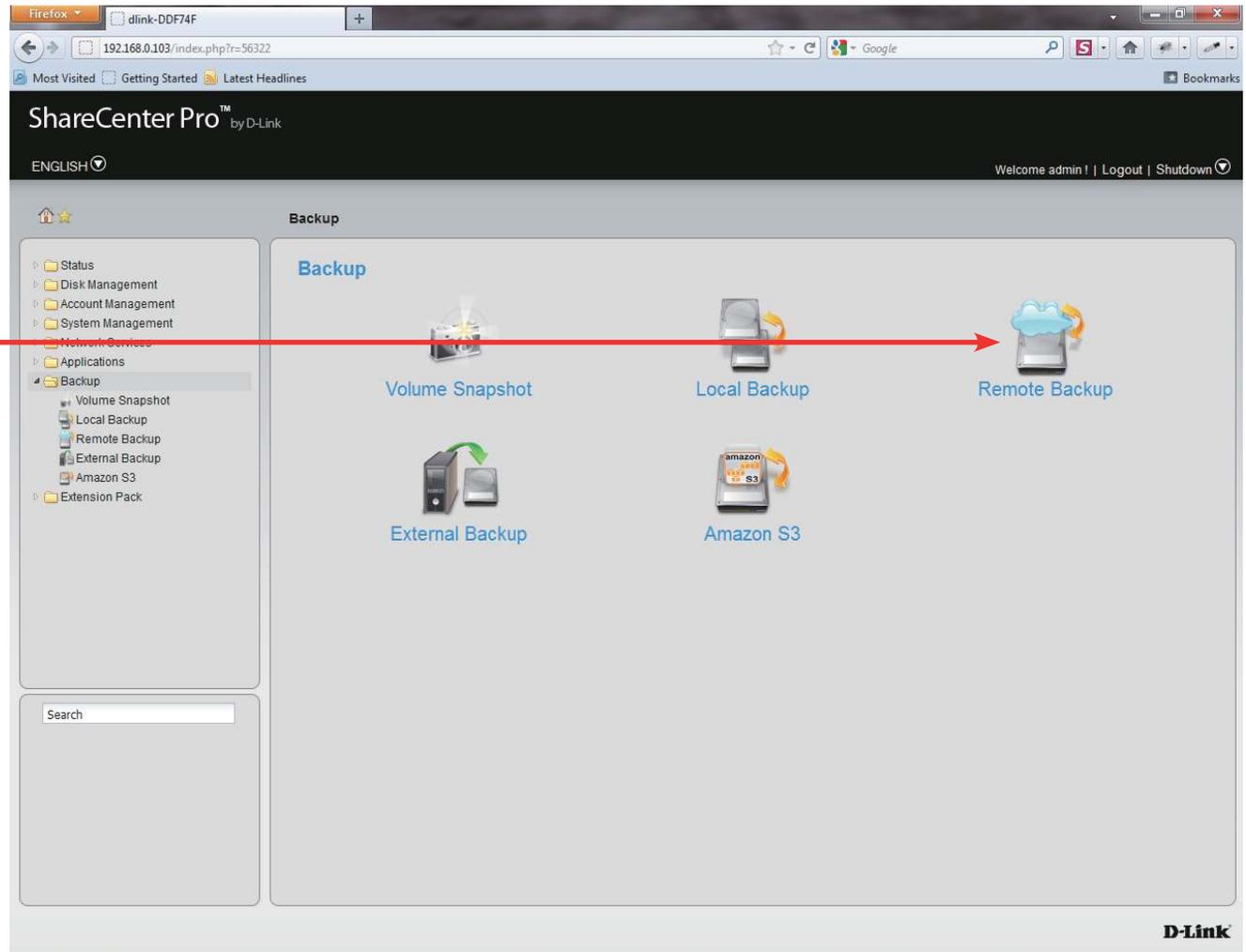
Previous Apply Cancel

Click **Apply** to save the changes.

Software - Backup - Local Backup

Step 1: Click the **Remote Backup** icon.

Click the **Remote Backup** icon.



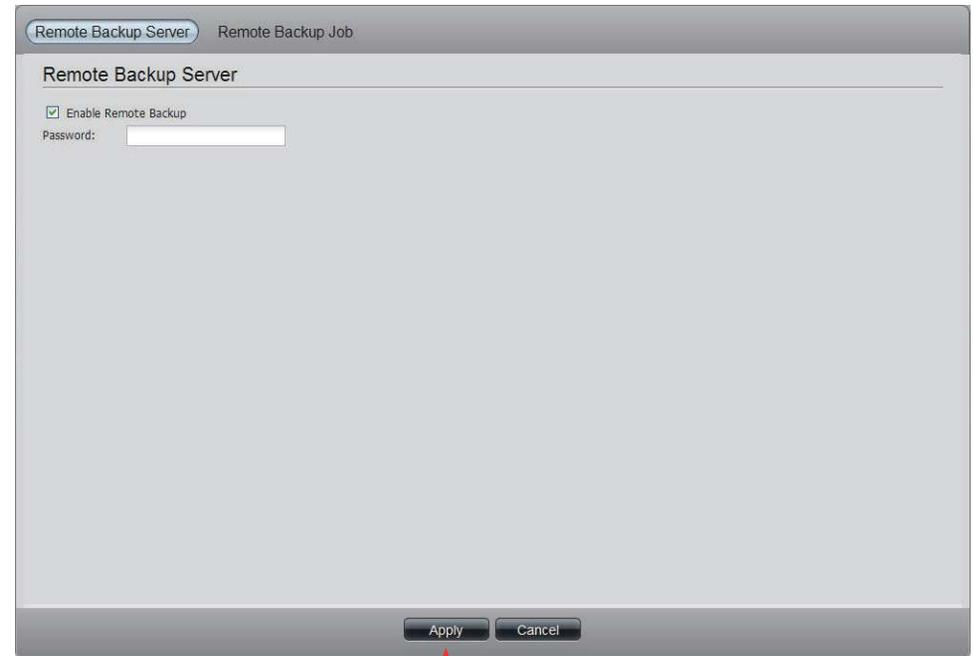
Software - Backup - Remote Backup Server

Step 2: Click the **Remote Backup Server** tab to see this window and the options available.

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.

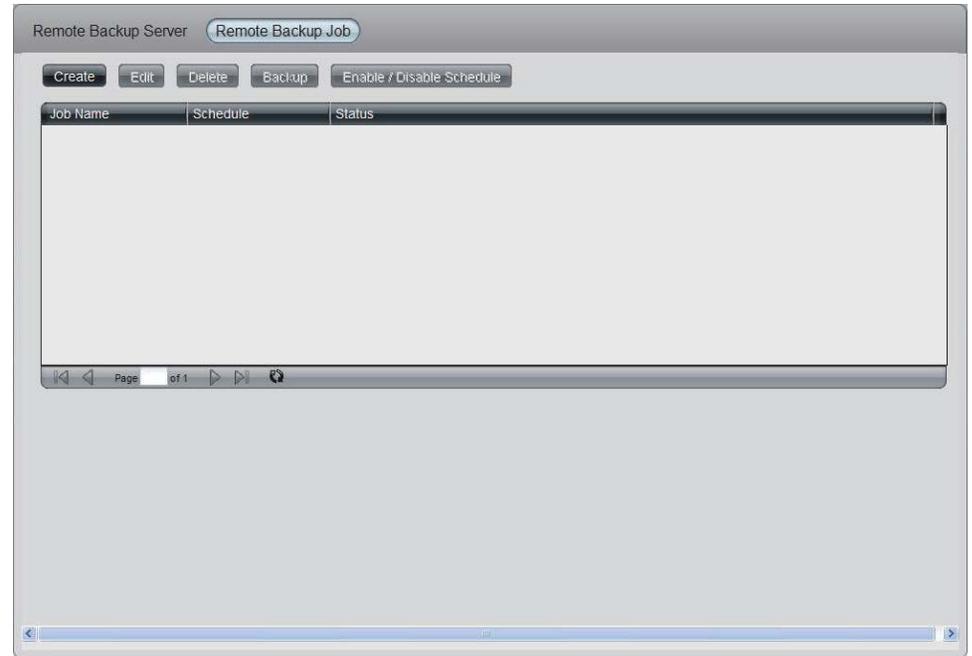


Click **Apply** to save the changes.

Software - Backup - Remote Backup Job

Step 3: Click the Remote Backup Job

- 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.
- Schedule**
 - 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.

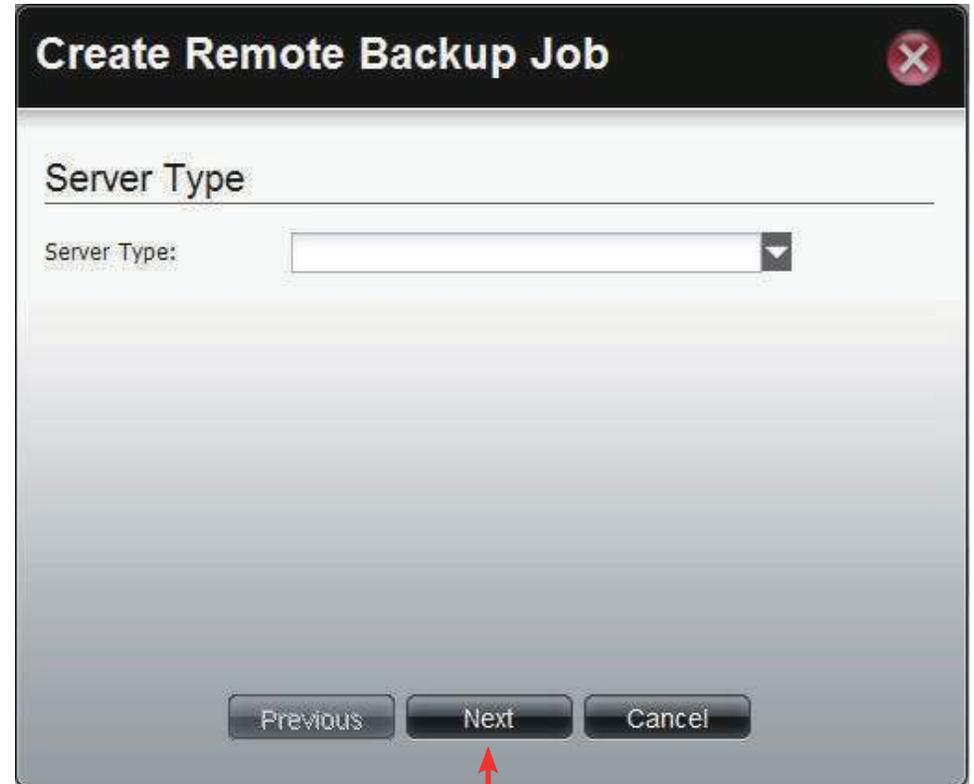


Software - Backup - Remote Backup Job

Step 4: Click **Create**.

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

Click **Next** to continue.



Create Remote Backup Job

Server Type

Server Type:

Previous Next Cancel

Click **Next** to continue.

Software - Backup - Remote Backup Job

Step 5: Enter the Job Name and Folder Path.

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.

Create Remote Backup Job

Source Settings

Job Name:

Folder Path:

Previous Next Cancel

Click **Next** to continue.

Software - Backup - Remote Backup Job

Step 6: Enter the **Destination Settings** and click **Next**.

- 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.



The screenshot shows a dialog box titled "Create Remote Backup Job" with a close button (X) in the top right corner. The main content area is titled "Destination Settings (D-Link NAS Server)". It contains the following fields and options:

- IP of Remote Server:** A text input field.
- Password:** A text input field.
- Encryption Support
- Keep Existing File

At the bottom of the dialog box, there are three buttons: "Previous", "Next", and "Cancel".

Software - Backup - Remote Backup Job

Step 7: Enter the **Destination Path** and click **Next**.

Destination Path Click the field to select the destination path.



Create Remote Backup Job

Destination Settings (Path)

Destination Path:

Previous Next Cancel

Software - Backup - Remote Backup Job

Step 8: Enter the **Destination Schedule** details, including where to place recurring backups.

Click **Apply** to continue.

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.



Create Remote Backup Job

Destination Schedule

Recurring Backup: Backup now

When: 2010-09-17

Time: 00 : 00

Weekly: MON

Monthly: 01

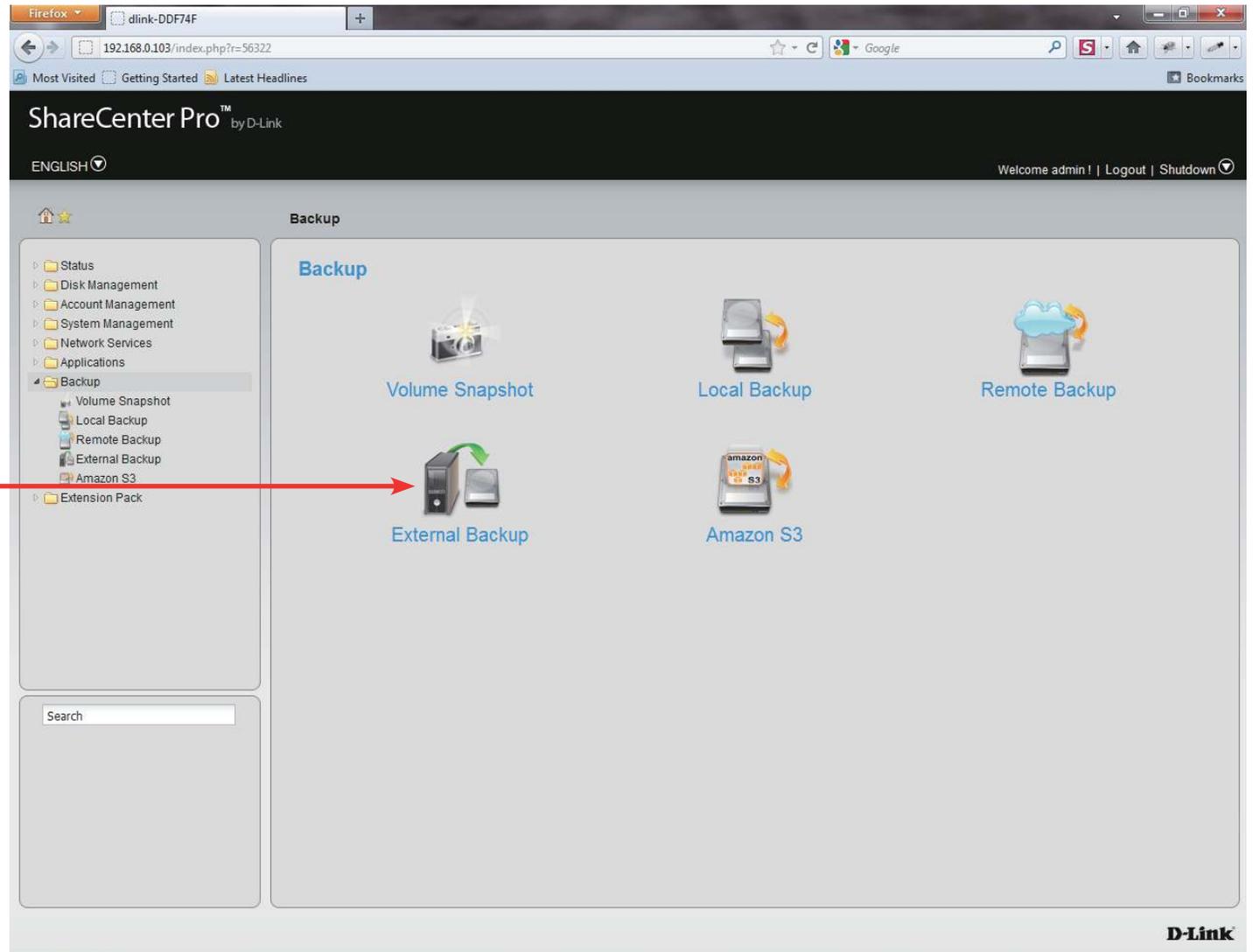
Previous Apply Cancel

Click **Apply** to save the changes.

Software - Backup - External Backup

Step 1: Click the External Backup icon

Click the External Backup icon



Software - Backup - External Backup

Step 2: Insert your device into the USB slot at the back of the NAS and select the path and USB port you want to backup your information to.

Source Click the USB port that is connected to an external USB storage device.

Select Path 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.

Backup >> External Backup

USB Backup

Source: Left Port(from rear of view) Right Port(from rear of view)

Destination:

Mode: Incremental Backup

Apply Cancel

Software - Backup - External Backup

Step 1: Click the **Amazon S3** icon.

The screenshot shows the D-Link ShareCenter Pro web interface. The browser address bar shows '192.168.0.103/index.php?r=56322'. The page title is 'ShareCenter Pro™ by D-Link'. The main content area is titled 'Backup' and contains five icons: 'Volume Snapshot', 'Local Backup', 'Remote Backup', 'External Backup', and 'Amazon S3'. A red arrow originates from a callout box on the left that says 'Click the Amazon S3 icon.' and points directly to the 'Amazon S3' icon. The 'External Backup' icon is also visible, showing a server and a disk. The 'Amazon S3' icon features the Amazon logo and 'S3' text. The D-Link logo is in the bottom right corner.

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:

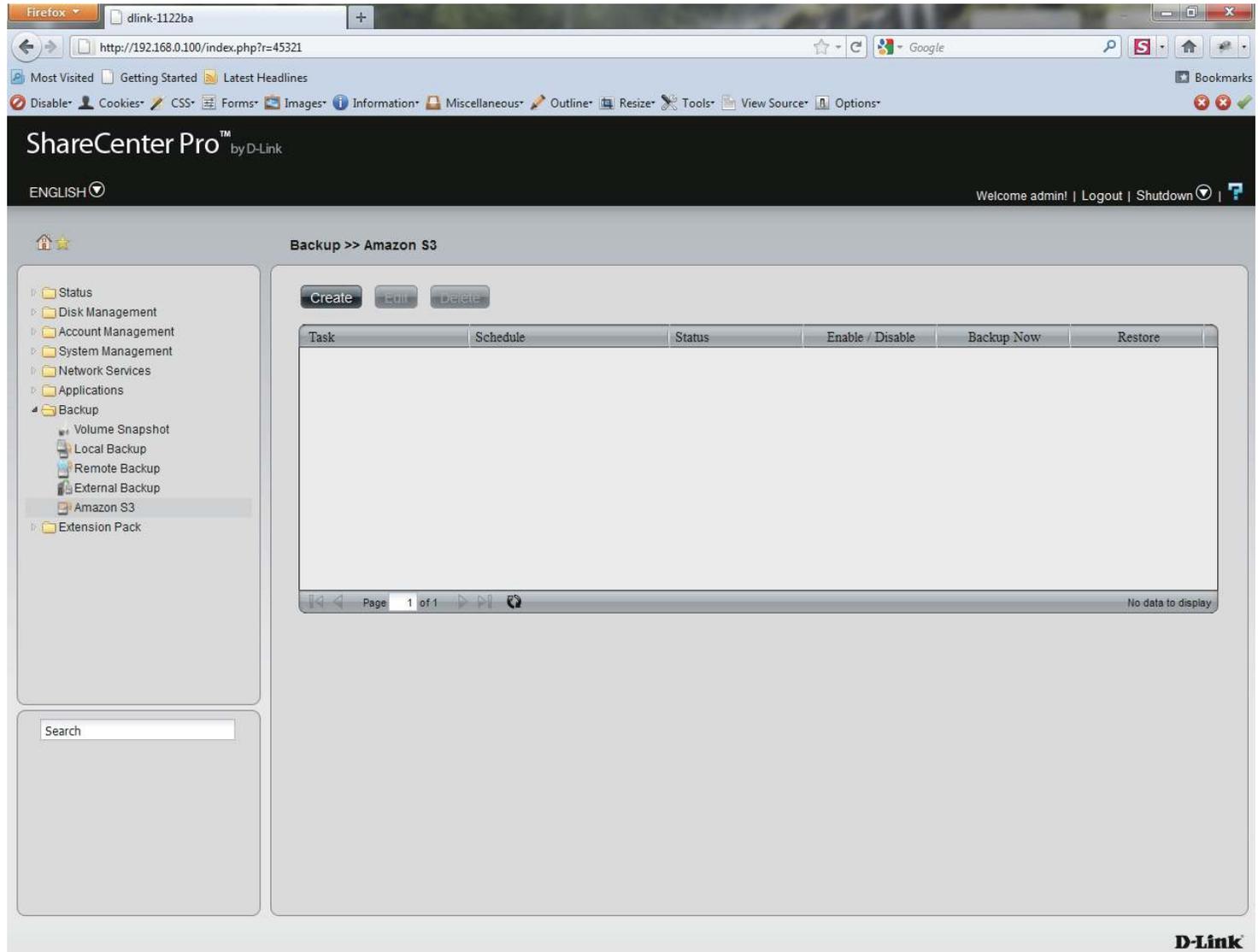
- Create your AWS Account with which you can use to access the Amazon S3 services.
- Create a bucket on the Amazon S3 Server where you can upload or download your ShareCenter Pro data to/from.
- Create an Amazon S3 Scheduled Backup on your ShareCenter Pro to automatically upload any ShareCenter Pro Network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

Amazon S3

Follow these steps to setup Amazon S3:

Step 1: Log in. Click **Backup, Amazon S3**.

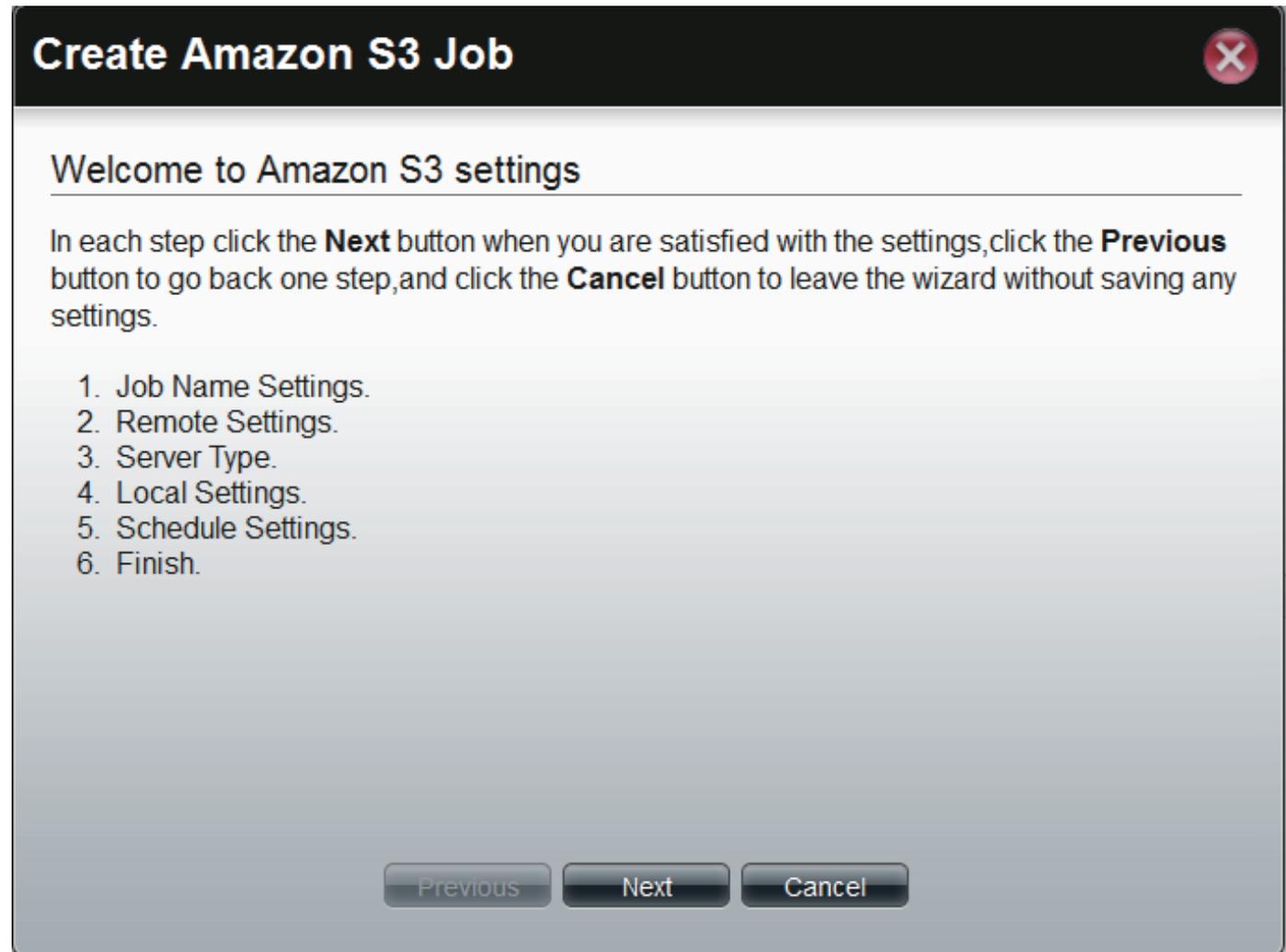
Click **Create**.



Step 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.



Step 3: Enter a Job Name

Click **Next** to continue.

The screenshot shows a dialog box titled "Create Amazon S3 Job" with a close button in the top right corner. The main heading is "Step1: Job Name Settings". Below this, there is instructional text: "Input a 16 character string that identifies either the upload to cloud or download from cloud job to be created. The string cannot contain spaces and the following characters are allowed: a-z, A-Z, 0-9." A text input field labeled "Job Name:" contains the text "sample". At the bottom of the dialog, there are three buttons: "Previous", "Next", and "Cancel".

Step 4: Remote Settings

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

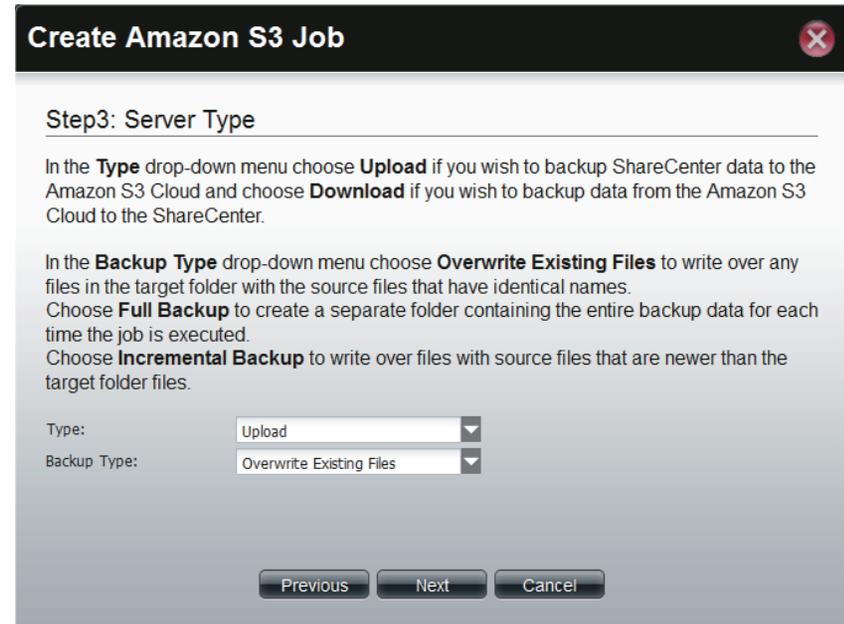
Click **Next** to continue.

The screenshot shows a dialog box titled "Create Amazon S3 Job" with a close button in the top right corner. The main heading is "Step2: Remote Settings". Below this, there is instructional text: "Input your Amazon S3 assigned **Access** and **Private** keys which will allow your ShareCenter access to your Amazon S3 Cloud Storage. In the **Remote Path** field, input a new or already existing Amazon S3 Bucket name. This is a folder on the Cloud Storage that your data will be written to or read from. Finally select the appropriate region which will give you the best service for reading from or writing to the Amazon S3 Cloud." There are four input fields: "Access Key:" with the value "WKEAIBWLXWBDNBGTVX9C", "Private Key:" with a masked value of dots, "Remote Path:" with the value "volume1", and "Region:" with a dropdown menu showing "United States". At the bottom of the dialog, there are three buttons: "Previous", "Next", and "Cancel".

Step 5: Select whether you want to upload files or download files from the dropdown list.

Select the **Backup Type** under the next drop-down list.

Click **Next** to continue.

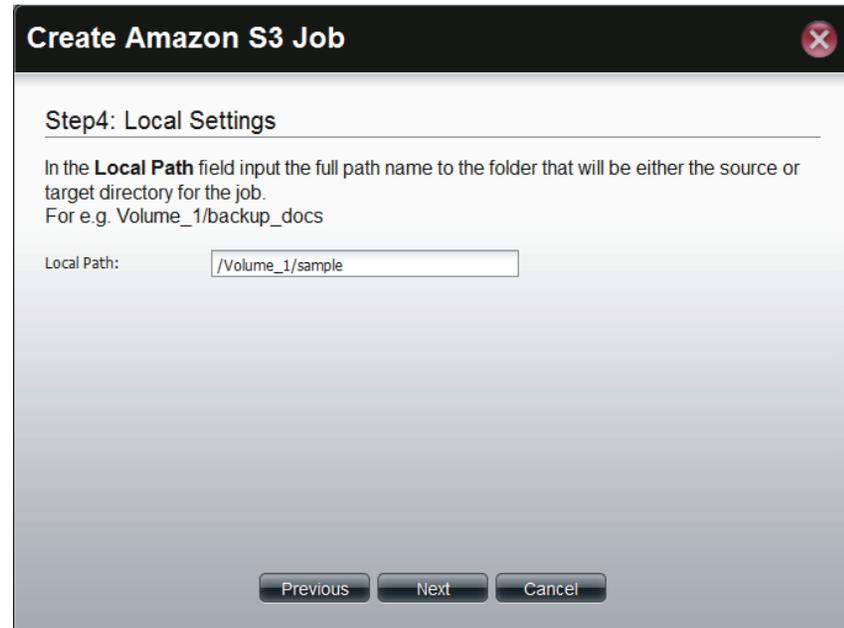


Step 6: Select the **Local Path** settings for your backup

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

Locate the path of your drive.

Click **Next** to continue.

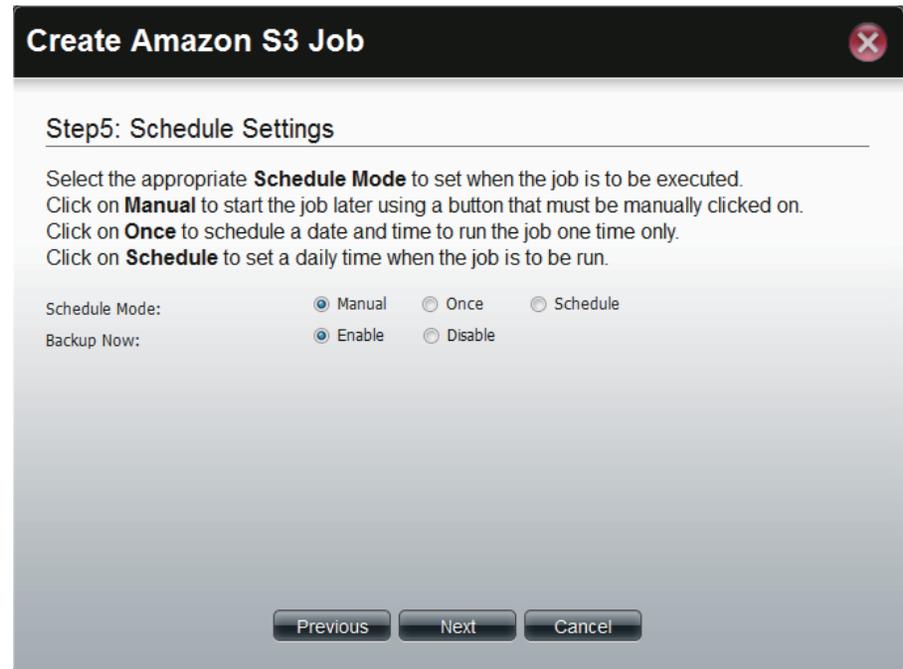


Step 7: Select the **Schedule Settings**.

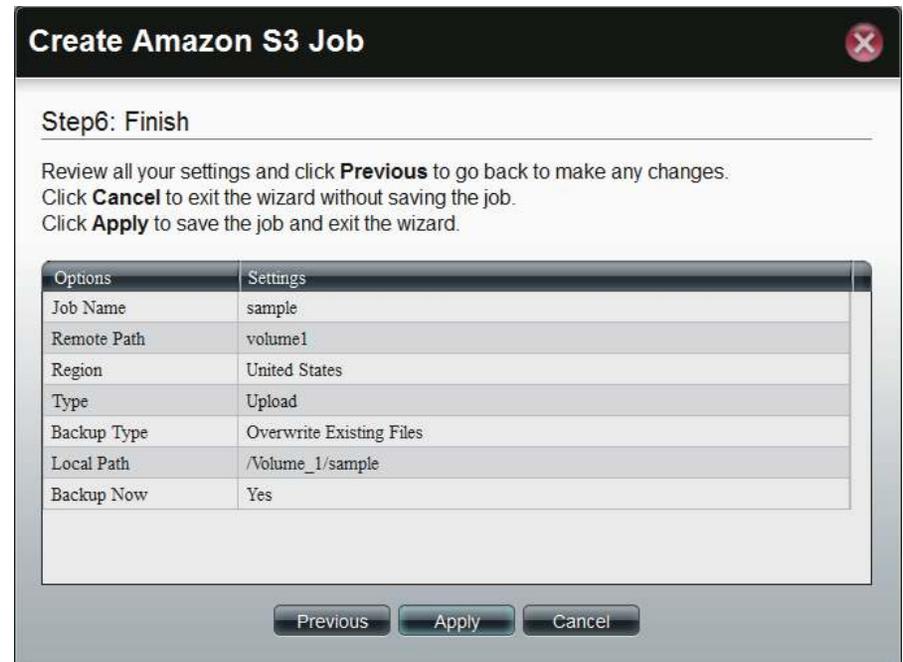
Under **Schedule Mode** you can select **Manual setup**, **Once** (once clicked the time settings appear), and **Schedule** (the daily, weekly, and monthly) options appear

You can also setup to **Backup Now**.

Click **Enable** or **Disable** to set these settings.

**Step 8:** A summary of the configuration just completed is displayed. This is the final step in the wizard.

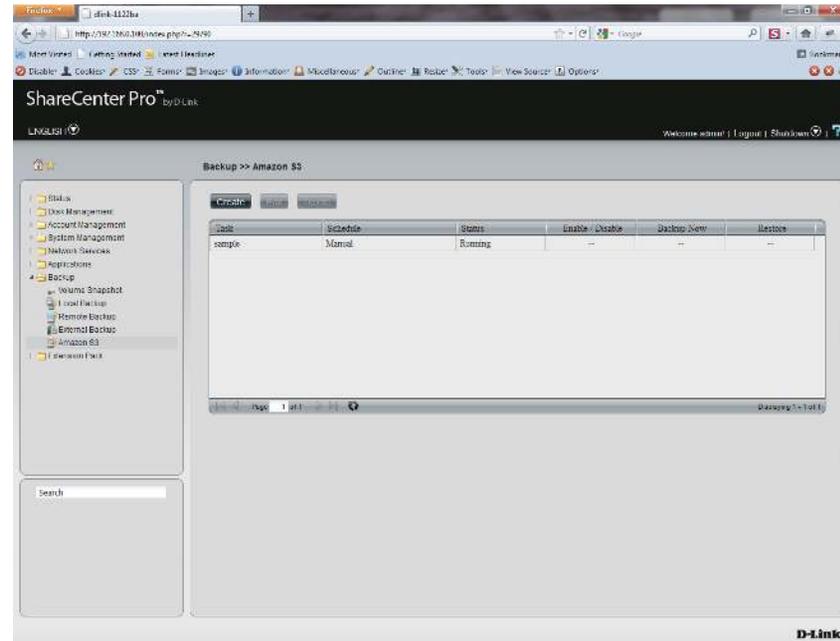
Click **Apply** to end the wizard or **Previous** to back and make changes. Click **cancel** to exit and make no changes.



Step 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.

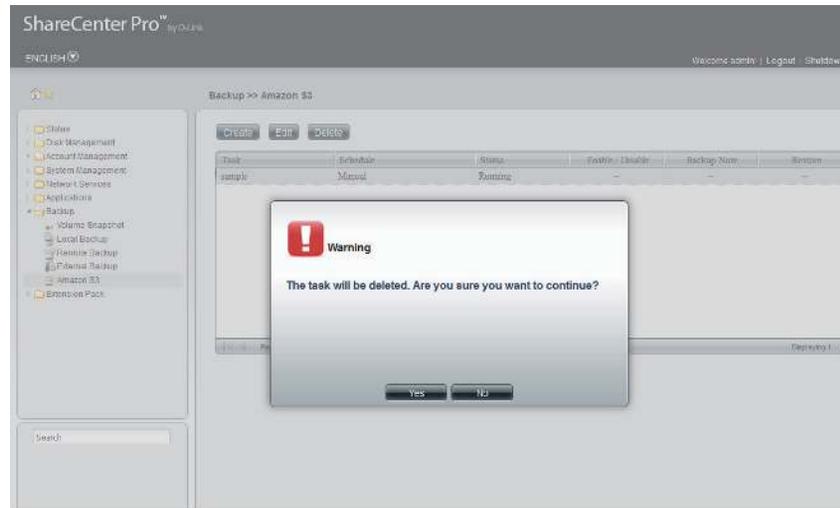


Highlighting the task you wish to delete.

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.



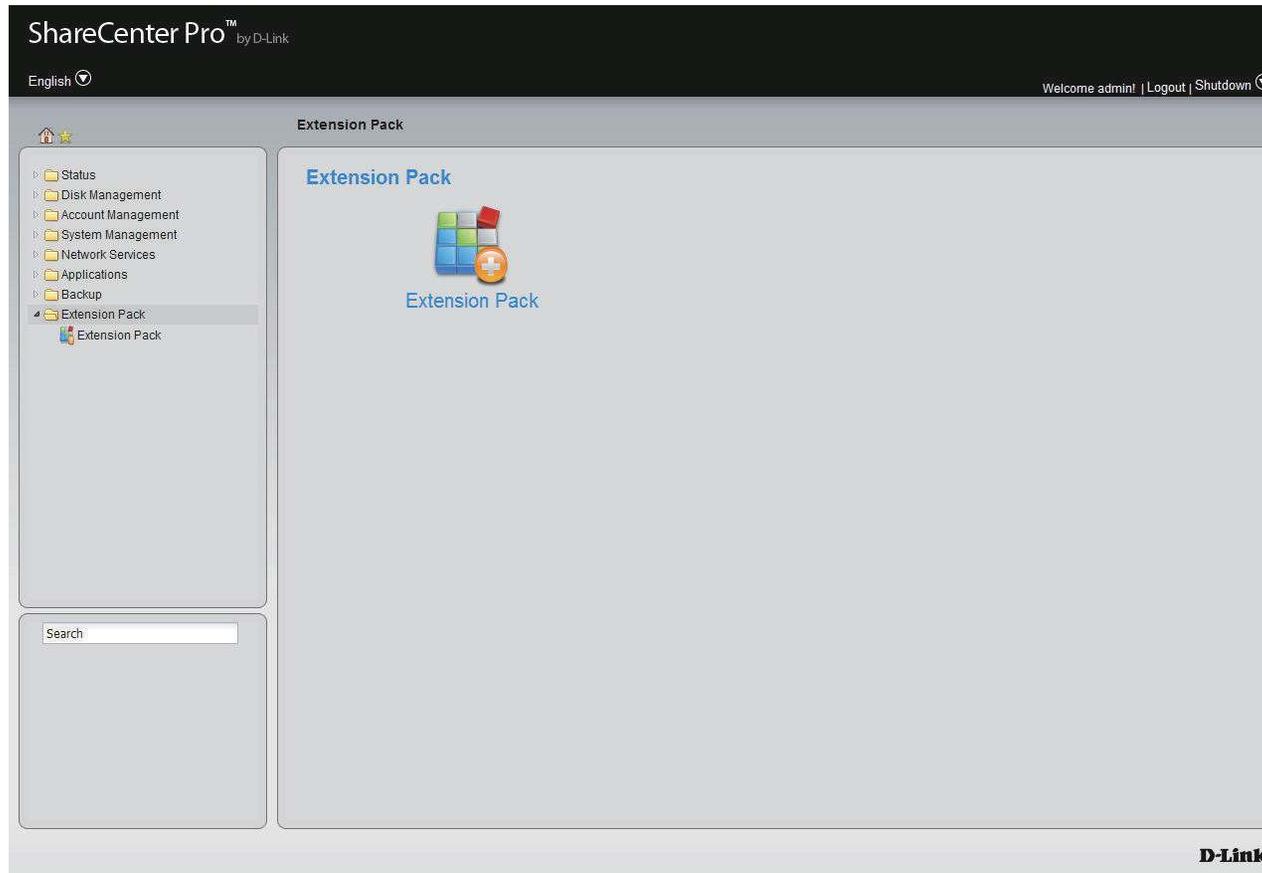
Chapter 18 - Software - Extension Pack

The D-Link ShareCenter Pro 1100-04 allows you to configure extension features for your NAS. Let's take a look.

Note: The Extension Pack only supports the Multi-Language package.

Extension Pack

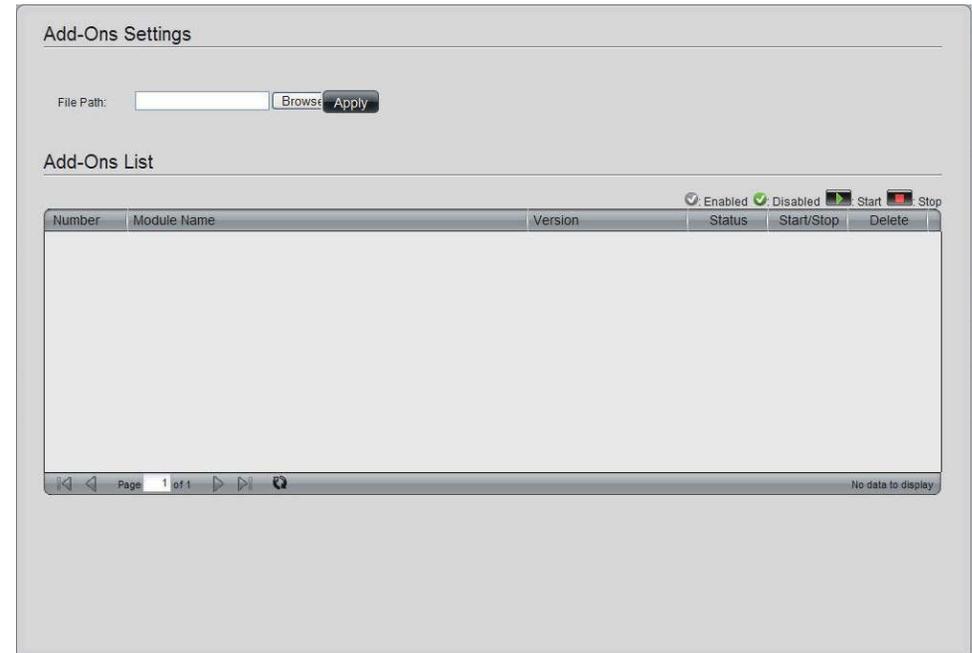
This folder contains the Extension Pack. Click the folder to see the subcategories.



Extension Pack

Click the **Extension Pack** icon in the Extension Pack window or the Extension 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 Add-ons list.
- Add-ons List** Displays a list of all 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.



Chapter 19 - Appendix

The D-Link ShareCenter Pro 1100-04 knowledge base is a helpful link to technological terms within this manual.

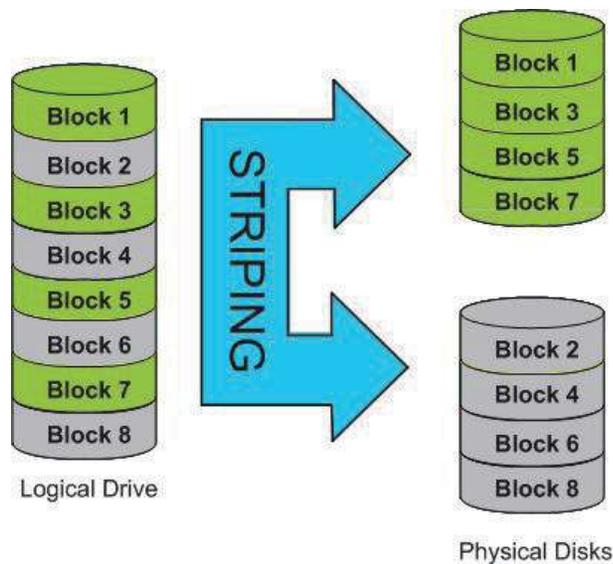
Knowledge Base

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**, and **Standalone**.

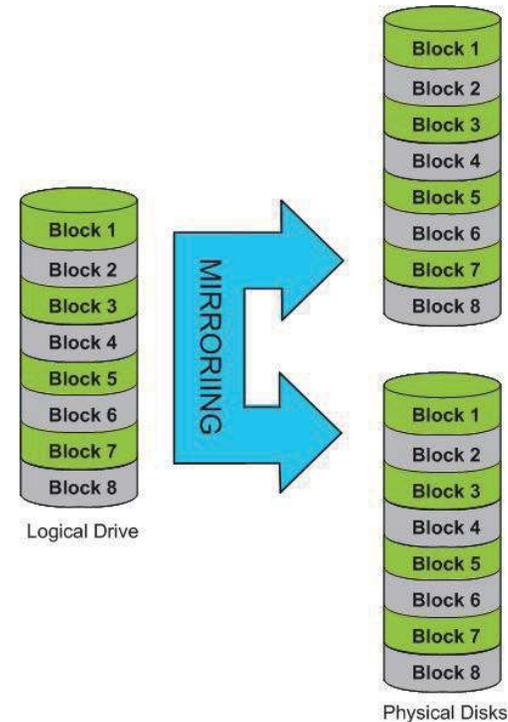
RAID 0 RAID 0 provides data striping, which spreads out blocks of data over all drives, but does not provide data redundancy.

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.

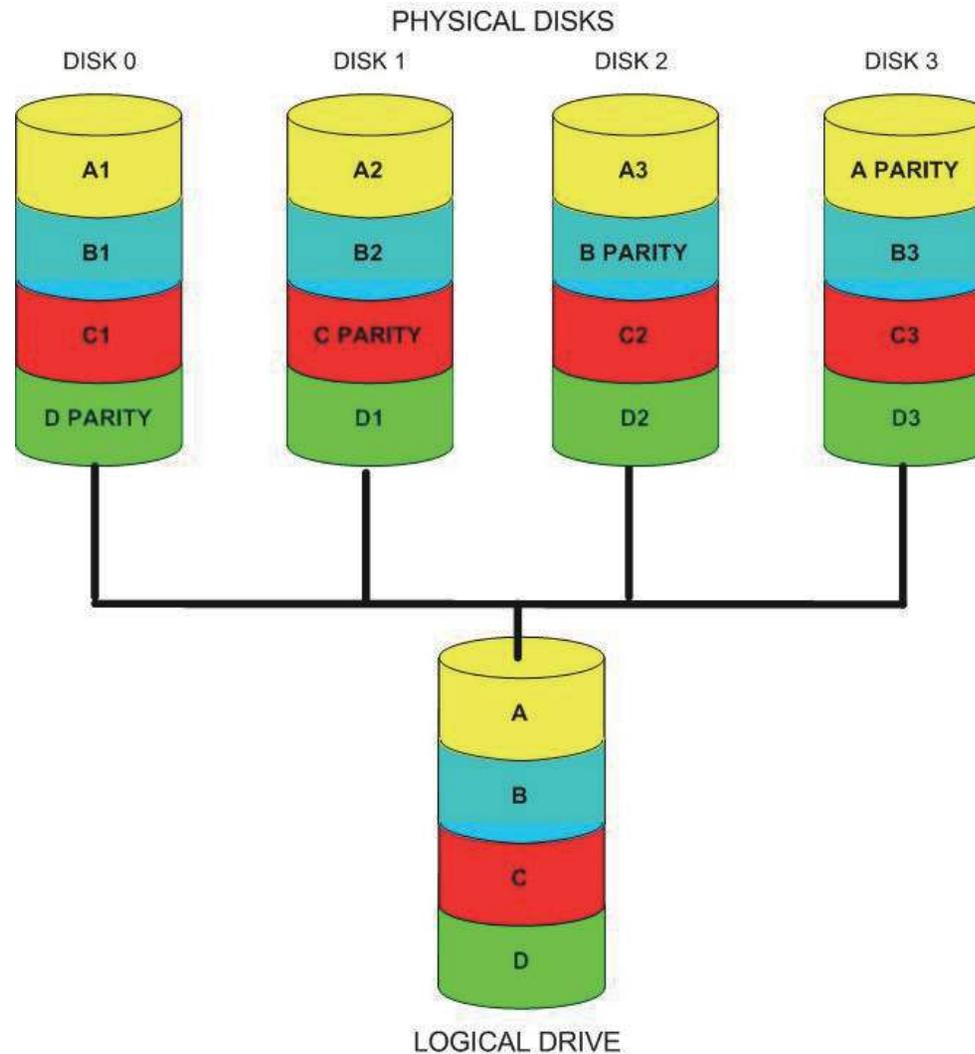
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



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:



Mapping a Drive

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



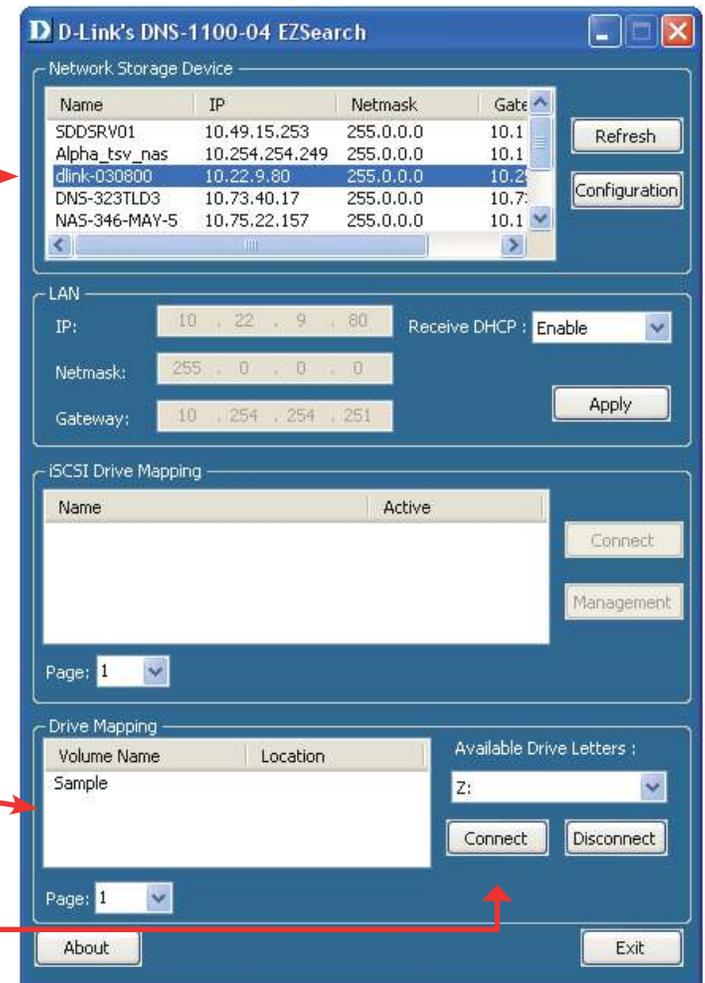
The EZ Search Utility will load and detect any ShareCenter Pro devices that are on the local network.

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

Highlight an available ShareCenter.

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**.

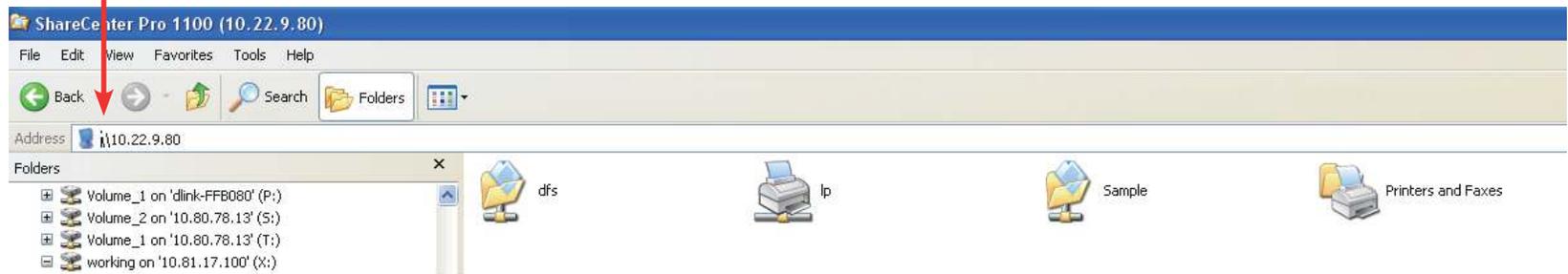


Once connected, your mapped drive(s) will appear in My Computer.

Double-click the My Computer icon on your desktop.



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

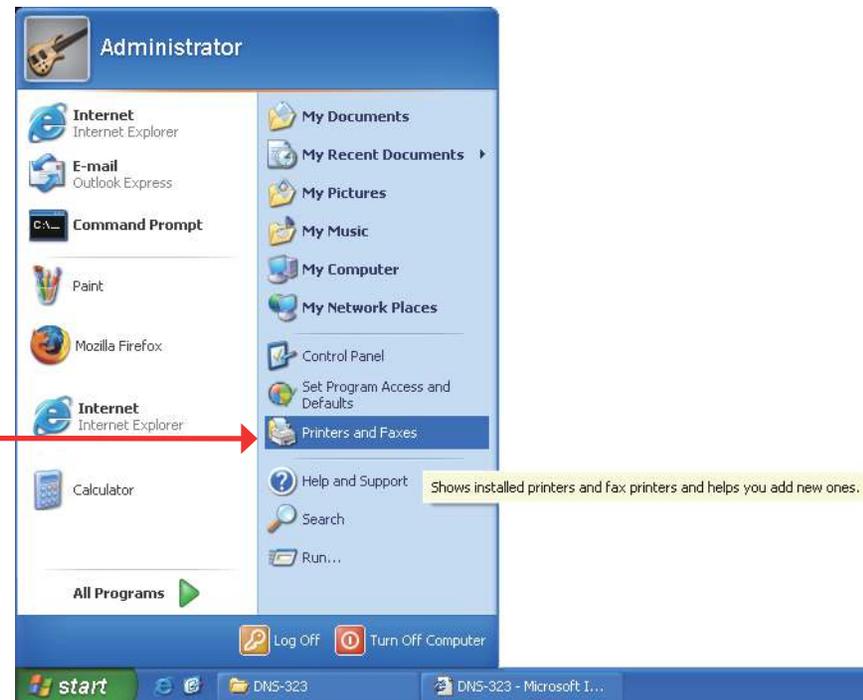


USB Print Server

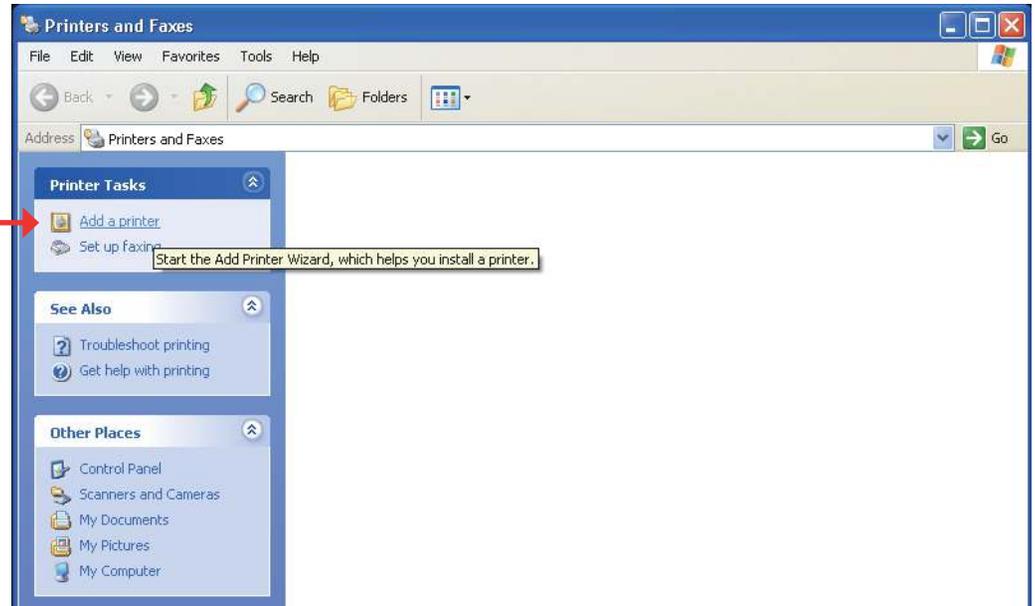
The ShareCenter Pro features a built-in USB print server, giving users the ability to share a printer on their local network. Connect a USB printer to the USB port on the back of the ShareCenter Pro. It is important to ensure that any of the printer manufacturer's drivers are already installed on any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

To add a printer:

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



Select Add a printer.



The Windows® Add Printer Wizard will launch:



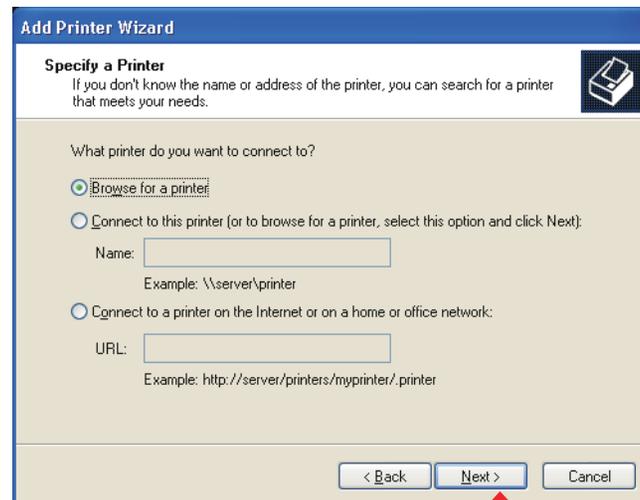
Click Next to continue.

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

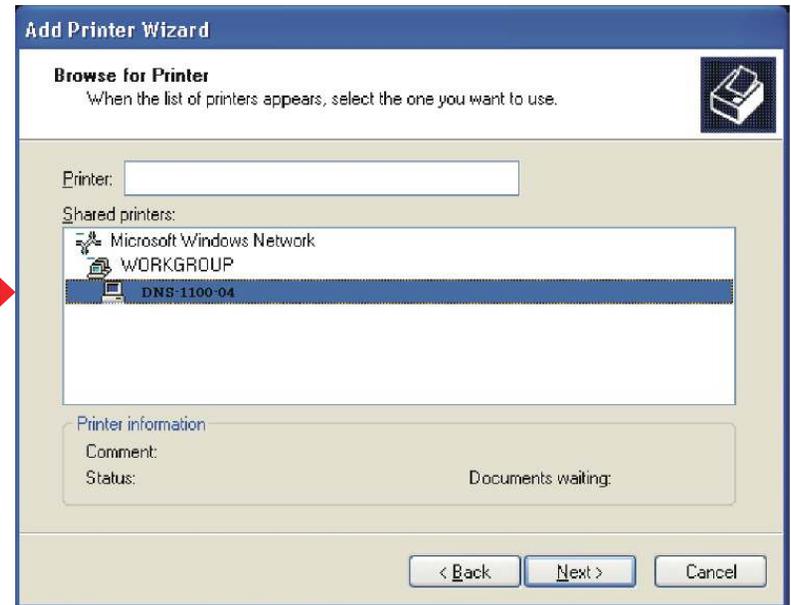
Click **Next** to continue.



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



Select Double-click **DNS-1100-04** from the Shared Printers list to expand the tree.

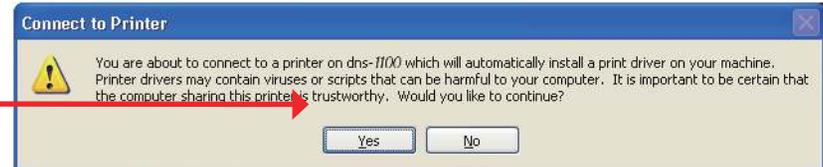


Select the available USB printer, and click **Next** to continue.

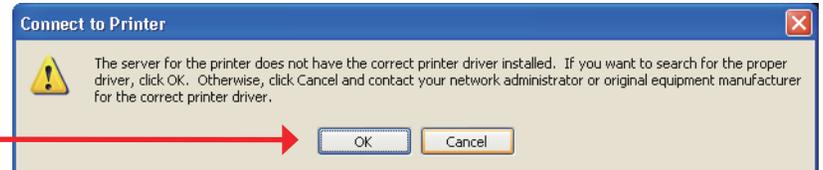


The following printer driver messages will appear:

Click **Yes** to continue.



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



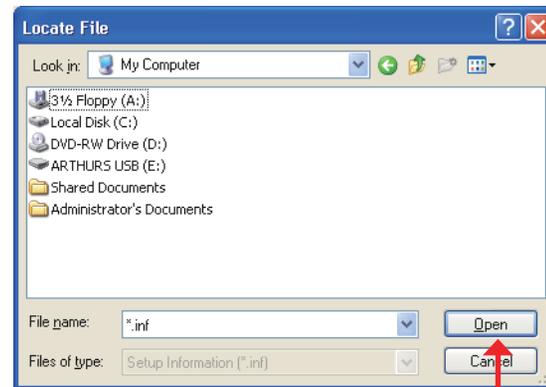
Select the appropriate printer driver from the list and click **OK** to complete the wizard. If the driver is not in the list, select **Have Disk**.



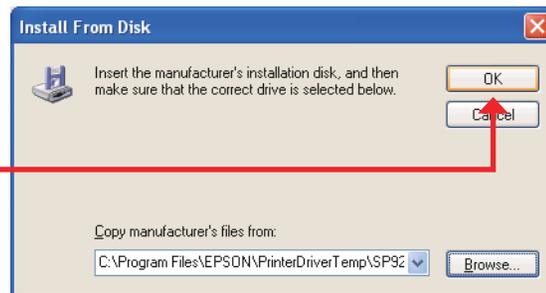
Insert the print driver CD or browse to the appropriate directory.

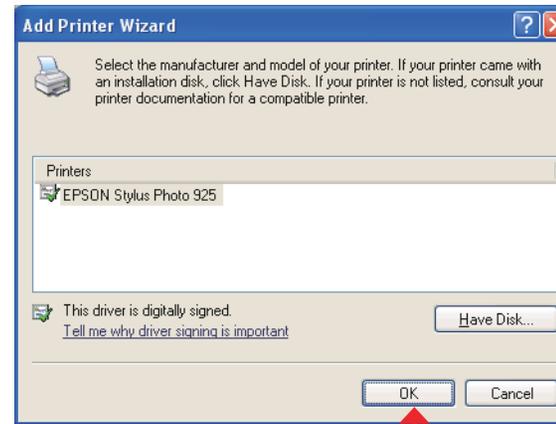


Select the appropriate driver file, and click **Open** to continue.



Click **OK** to continue.



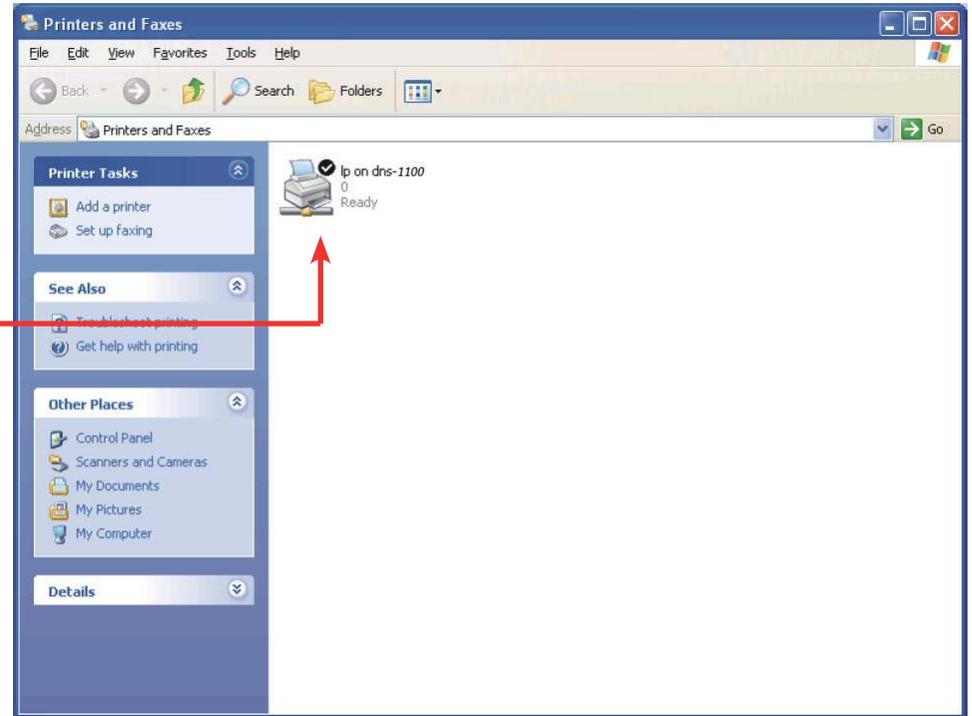


Verify the driver is correct, and click **OK** to continue.



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

The printer should now appear as an available printer.



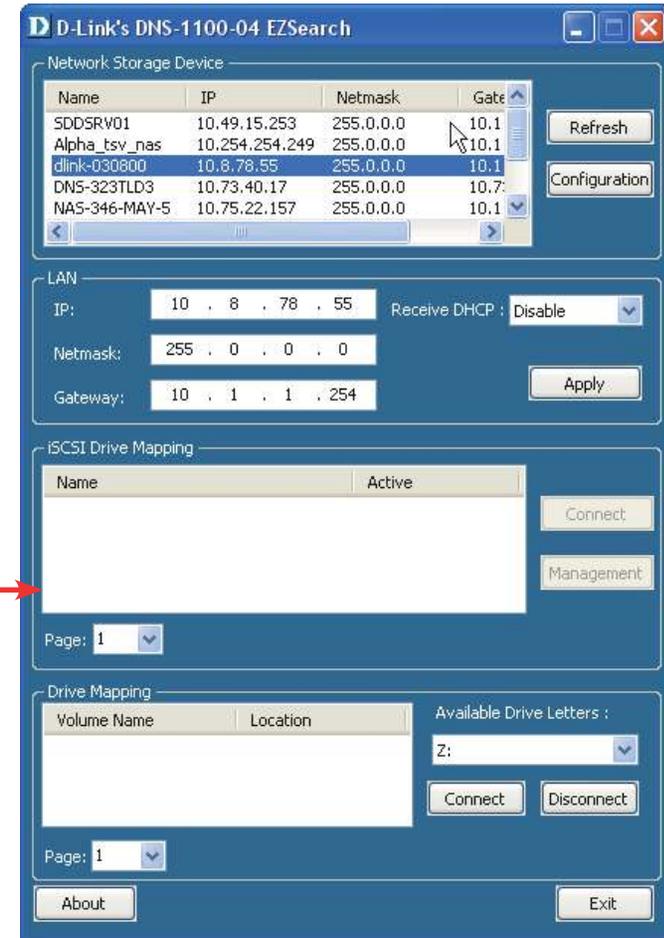
iSCSI Drive Mapping

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.

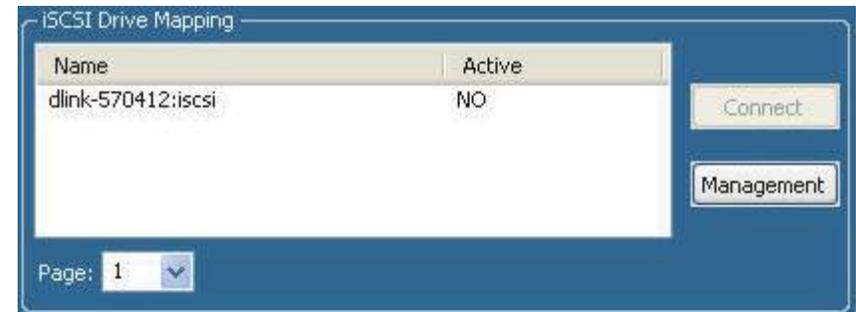


Note: If you cannot see the latest list, click the **Refresh** button to update the status.

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.

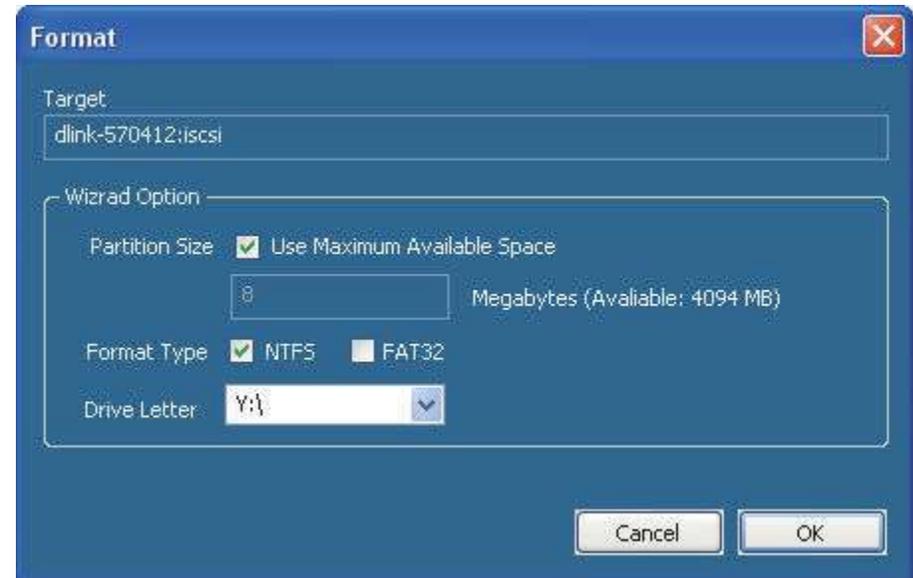


You will see the Format window.

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** checkbox 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 checkbox and type in the capacity 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.

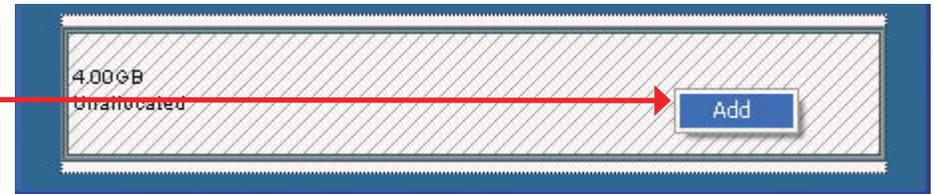
The Disk Management section displays the following parameters:

- 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.

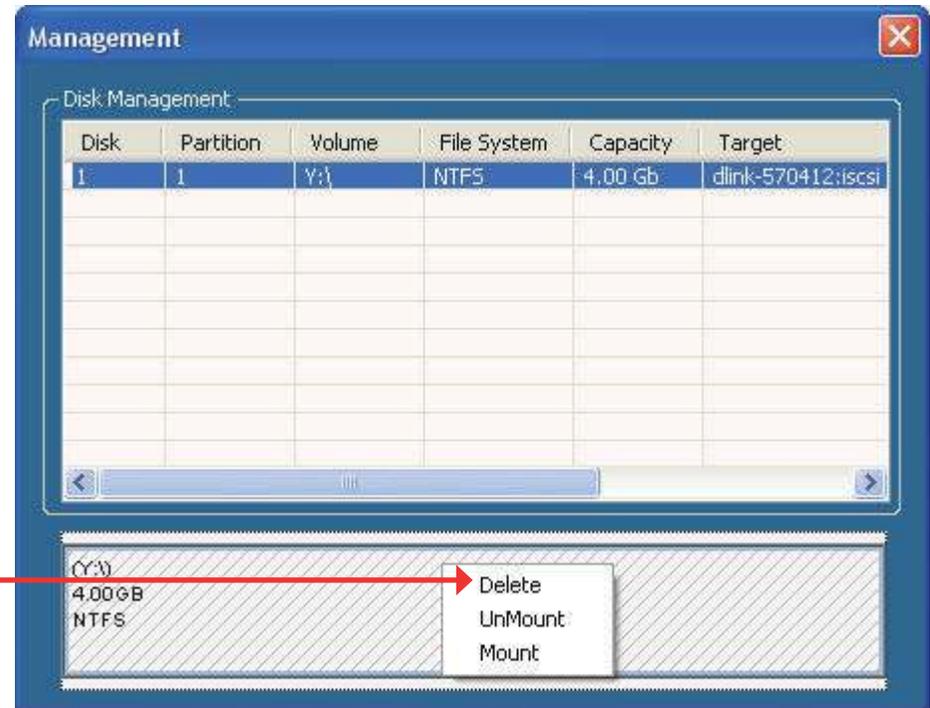
Drive Letter Choose the drive letter that you want to allocate to the iSCSI partition from the drop-down menu.



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 * (star) symbol will appear in the Volume column in the **Disk Management** list.

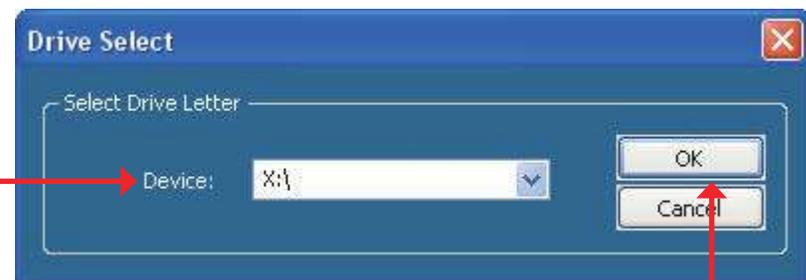
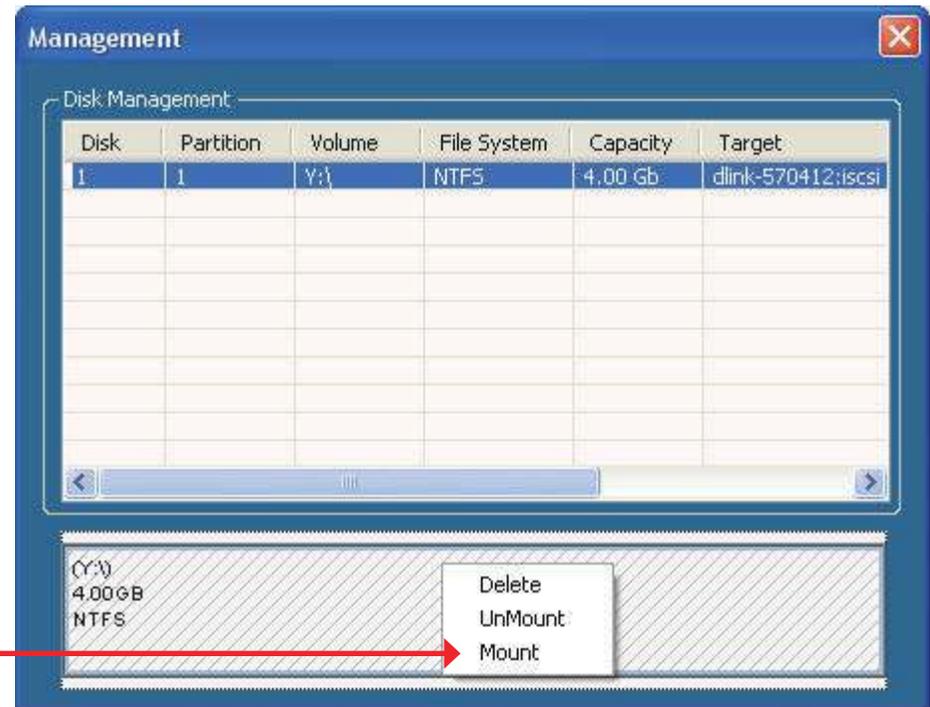
Carry out the following steps to mount a disk:

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.

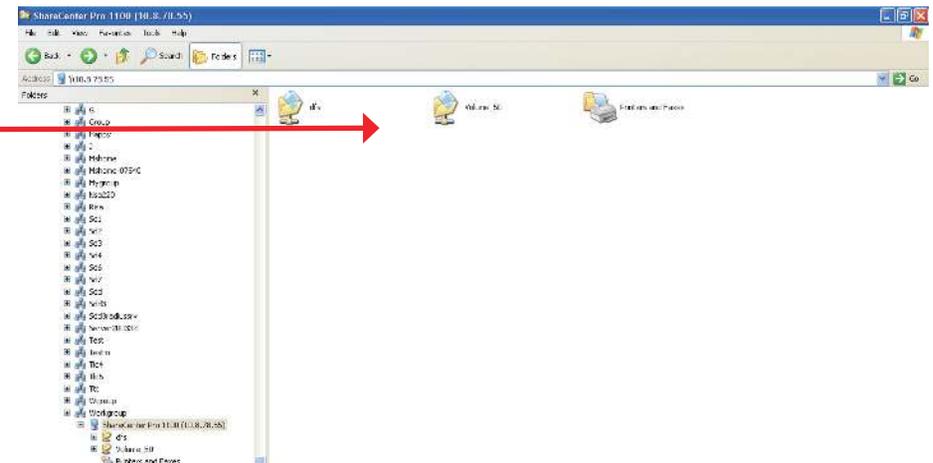
3. Click the **OK** button.



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

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 0: 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.

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.

CE Mark Warning:

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement:

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

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

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