

DNS-1100-04

Version 1.00

ShareCenter Pro[™]

User Manual

Business Class Networking

Table of Contents

Product Overview	1	Status > System Status	32
Introduction	1	Status > Hard Drive Status	33
Package Contents	2	Disk Management.....	35
System Requirements	2	Disk Management > Volume.....	35
Features	3	Disk Management > iSCSI Target	39
Hardware Overview	4	Disk Management > Virtual Volumes.....	42
Front Panel	4	Disk Management > Disk Diagnostic	44
Rear Panel (Connections)	6	Account Management.....	47
Using the OLED Display	7	Account Management > Admin Password.....	47
Hardware Setup	8	Account Management > Users	48
Installing Hard Drives	8	Account Management > Groups	58
Connecting To The Network.....	11	Account Management > Shared Folders	60
Powering On The Device Initially.....	13	System Management.....	64
Software Setup	14	System Management > Network.....	64
Default IP Address.....	14	System Management > Time and Date	68
Running The EZSearch Utility	15	System Management > System Settings.....	69
Getting Started	17	System Management > Power Management... ..	70
Connecting To The Web UI	17	System Management > Email Alerts.....	72
Using the Setup Wizard.....	19	System Management > Firmware Upgrade	74
Configuring Additional Hard Drives	26	System Management > Logs	75
Using The Web UI	30	Network Services.....	77
Overview Of The Web UI.....	30	Network Services > File Sharing.....	77
My Favorites	31	Network Services > Dynamic DNS	82
Status	32	Network Services > SNMP	83
		Network Services > Network Discovery	
		Services	84

Applications	85
Applications > Web File Manager	85
Applications > Download Manager	86
Backup	88
Backup > Volume Snapshot	88
Backup > Local Backup	91
Backup > Remote Backup	94
Backup > External Backup	98
Extension Packs	99
Remote User Access	100
Accessing The ShareCenter Pro Remotely	100
Remote User Access > Changing your Password	101
Remote User Access > Web File Manager....	102
Appendix A: What Is RAID?.....	107
Appendix B: Mapping a Drive.....	109
Appendix C: Setting Up a USB Print Server	112
Appendix D: iSCSI Drive Mapping	120
Appendix E: Hot-Swapping	129
Appendix F: Using Non-English Character Files..	130
Appendix G: Safety Declarations.....	131

Product Overview

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. Additionally, the DNS-1100-04 supports a wide array of features and functions that help you access and archive the files you need.

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 set up 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 data stored on the server without requiring software installation, and thanks to a powerful feature set, sensitive data can be securely managed.

Package Contents

- D-Link ShareCenter Pro 1100
- 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 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 at least: 1 Ghz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer 7, Firefox 3.0, Safari, Chrome 3, Opera 10 or higher
- Windows 7/Vista/XP (SP3)
- 3.5" SATA hard drive(s)

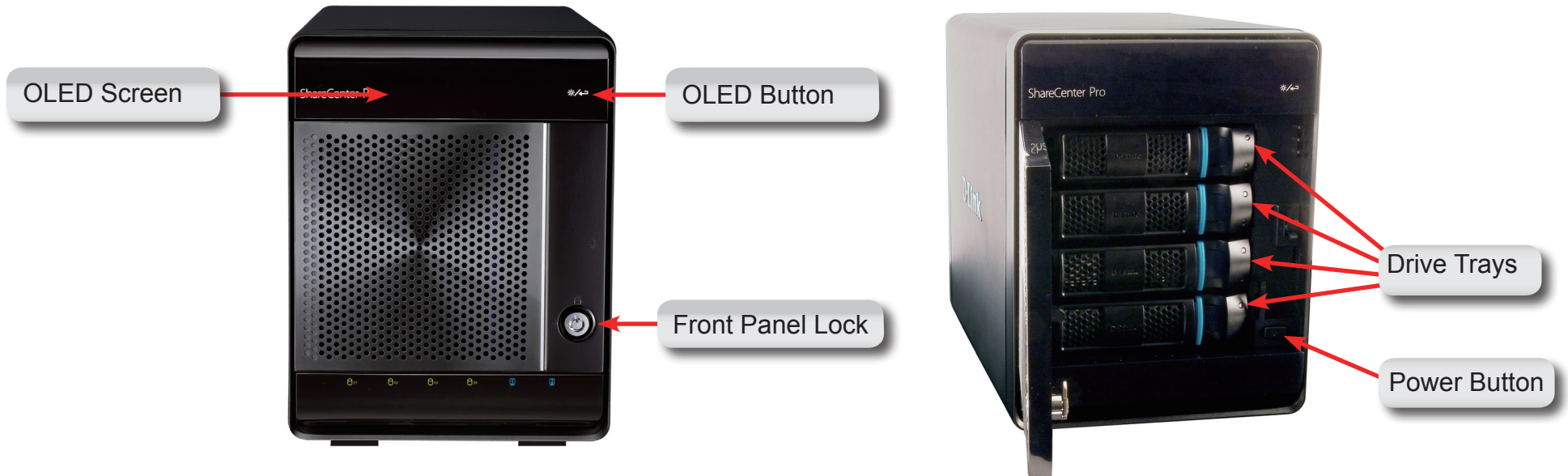
Features

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 drive bays for 3.5-inch SATA hard drives, supports capacities of 3 TB and higher
- 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/ 1/10/5/5+Spare/ JBOD and S.M.A.R.T. disk diagnostics
- 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
- Scheduled downloads from web or FTP sites.
- Power management to conserve energy and extend hard drive life
 - Scheduled power on/off
 - Hard disk hibernation
 - Smart Fan Speed Control
 - D-Link Green Ethernet

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	The drive trays allow you to easily install and change 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 System Information, HD Volume Information, and Error Messages.

Hardware Overview

Front Panel



Component	Color	Status	Description
Disk LED	Green	Static	Disk is ready
		Blinking	Disk is being accessed
		Off	No disk installed in this bay
	Red	Static	Disk error Cannot read/write
LAN LED	Blue	Static	A network connection is available
		Blinking	The network is active
		Off	The network is inactive

Rear Panel (Connections)



Component	Description
Gigabit Ethernet Ports	Two Gigabit Ethernet Ports connect the ShareCenter Pro 1100 to the local network.
Power Connector	Connect the included power adapter to the power connector.
USB Ports	The USB ports can be connected to print servers, USB storage drives, or a UPS for monitoring.
Reset Button	Press this button with an unfolded paperclip for more than 5 seconds to reset the unit back to the factory default setting.
Cooling Fan	The cooling fan is used to cool the hard drives, and features speed control.

Using the OLED Display

The ShareCenter Pro 1100 features an OLED display that enables the administrator to easily view information about the ShareCenter Pro.

The OLED screen displays system information, hard drive volume information, and error messages:

- **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 percentage of space used on the hard drives.
- **Error Messages** - This screen shows error messages from the ShareCenter Pro.

Press the  button to cycle between the different **Status** screens.

Hardware Setup

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

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.

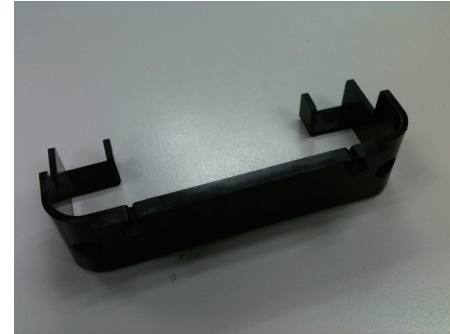
To install a hard drive, refer to the following steps:

Step 1: Remove a hard drive cage from the enclosure.



Installing Hard Drives (cont.)

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



Step 3: Place a 3.5" SATA hard drive into the drive tray, and screw it into place using the four holes on the sides of the drive tray.



Step 4: Slide the drive tray into the enclosure.



Installing Hard Drives (cont.)

Step 5: Swing the drive tray door closed until it clicks to secure the drive tray in the enclosure.

Follow this process for all the hard drives you wish to install.



Connecting To The Network

Step 1: Plug in one end of the included CAT5e cable into one of the Gigabit Ethernet ports.



Step 2: Plug the other end of the CAT5e cable into your network router or switch.



Connecting Power

Step 1: Plug the power adapter into the power connector on the back of the ShareCenter Pro.



Step 2: Plug the other end of the power adapter into a power outlet.

Powering On The Device Initially

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

Step 1: The first time you power on, eject all hard drives from the ShareCenter Pro.



Step 2: Press the Power button on front of the ShareCenter Pro and wait for the OLED screen to display **Welcome to ShareCenter Pro**.

After the device has successfully powered on, you can insert and lock the hard drives.

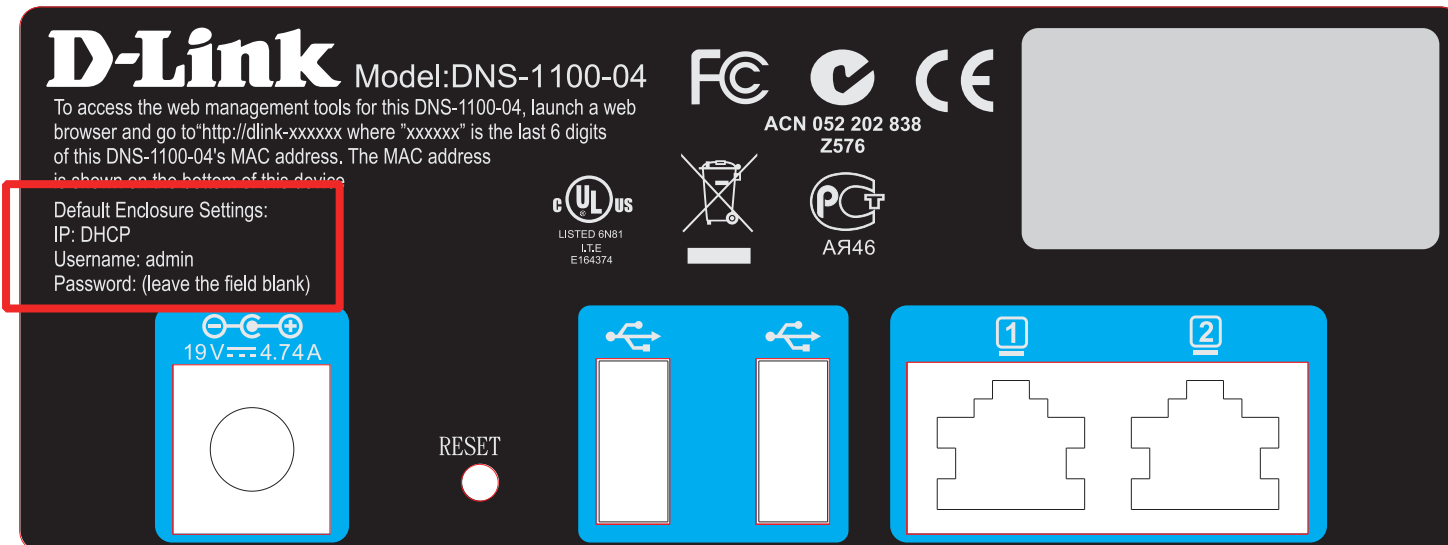


Software Setup

Installing, configuring, and creating shares on the fly is easy with the ShareCenter Pro; let's take a closer look.

Default IP Address

During the initial boot sequence, the ShareCenter Pro waits to be assigned a DHCP IP address. If it does not receive a DHCP assigned IP address, the ShareCenter Pro reverts to its Auto-IP address. The Auto-IP address information is located on the label located on the back of the device. The Auto-IP address will look similar to 169.254.xxx.xxx. The default Username and Password information is just below the IP address information.

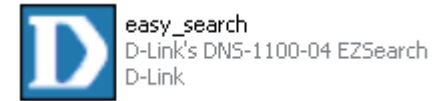


It is recommended that you use the D-Link EZ Search Utility when accessing and configuring the ShareCenter Pro for the first time, as it will be able to automatically find the ShareCenter Pro on your network and allows you to manually set its IP address. If you want to change the IP address before logging in or are unable to connect to the ShareCenter Pro's IP address, you can use the EZ Search Utility provided on the included CD to locate the device on your network and make any changes.

Running The EZSearch Utility

To use the EZSearch utility, place the included CD into your computer's CD-ROM drive, and open it.

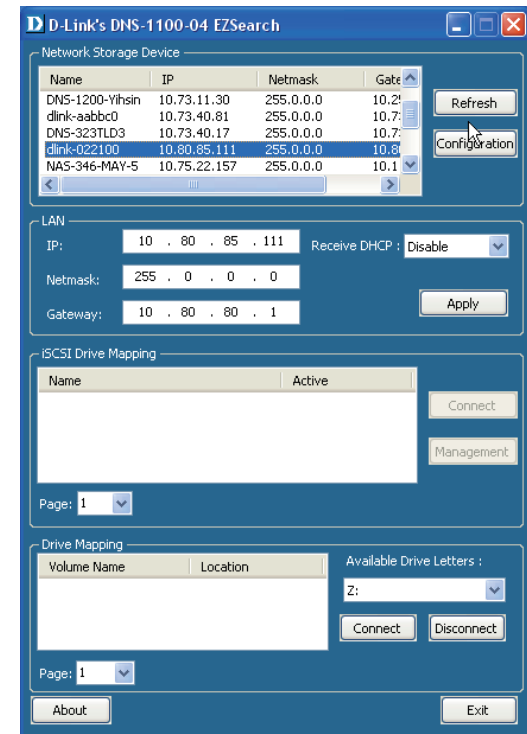
Step 1: Double-click the **easy_search** file to start the EZSearch utility.



Step 2: Select the device you want to configure, then click the **Configuration** button. This will launch your default web browser and go to the IP address listed for the device. Make sure your browser is not configured to use a proxy server.

Alternatively, open your web browser and type in the IP address of your ShareCenter Pro.

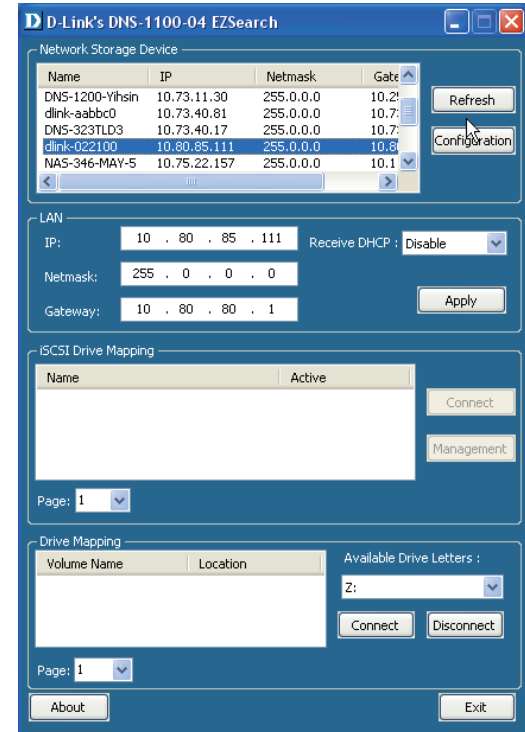
Note: The computer used to access the web-based configuration manager must be on the same subnet as the ShareCenter Pro. If your network is using a DHCP server and the computer receives IP settings from the DHCP server, the ShareCenter Pro will automatically be in the same subnet.



Running The EZSearch Utility (cont.)

Here is a closer look at the EZ Search Utility:

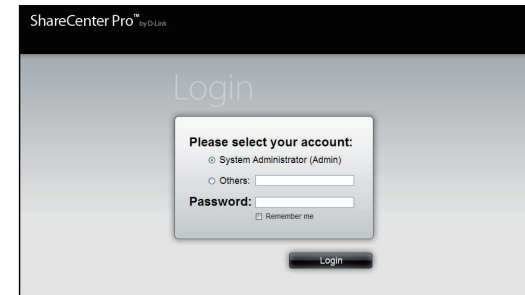
- Network Storage Device Refresh Configuration** The EZ Search Utility displays all detected D-Link NAS or ShareCenter Pro devices on the network here. Click Refresh to refresh the device list. Click Configuration to access the Web based configuration of the ShareCenter Pro.
- LAN Apply** Configure the LAN Settings for the ShareCenter Pro here. Click Apply to save changes to the LAN Settings.
- iSCSI Drive Mapping Connect Management** Displays the available iSCSI targets on the ShareCenter Pro. Click Connect to connect to the iSCSI target. Click Management to edit the information.
- Drive Mapping Available Drive Letters** Volumes available for mapping are displayed here. 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.



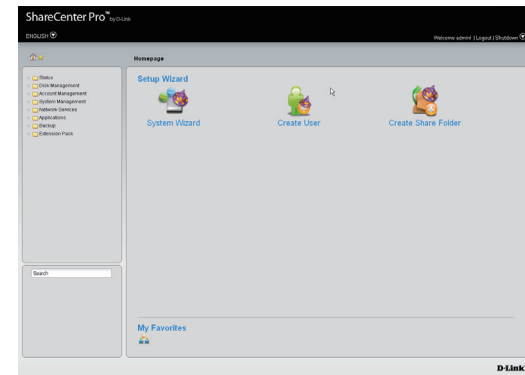
Getting Started

Connecting To The Web UI

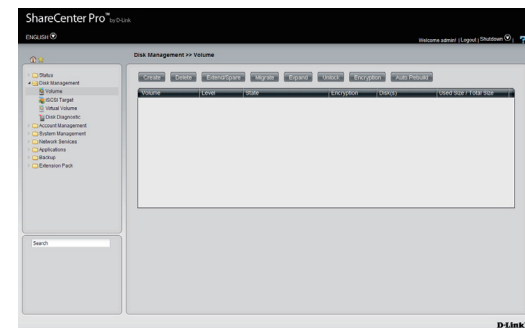
Log in to the ShareCenter Pro by selecting **System Administrator (Admin)** and leaving the **Password** field blank, then click the **Login** button.



After logging in, the default Web UI homepage will open.



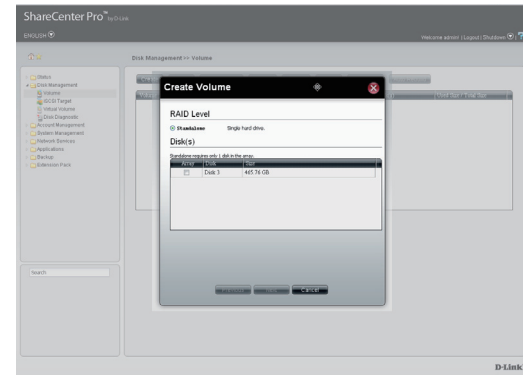
If there are no drives installed, the **Disk Management > Volume** page will open.



Connecting To The Web UI (cont.)

If you have new drives installed, the **Create Volume** window will appear. The ShareCenter Pro will detect the capacity of the drive(s) and will prompt you to select a RAID level. Please refer to **Creating Your First Volume** in the next section for more information.

Note: If there is only one drive installed in the system, no RAID volume can be created and the hard drive will act as a standalone volume.

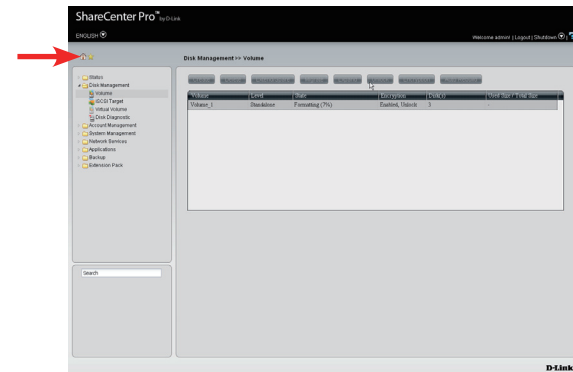


Using the Setup Wizard

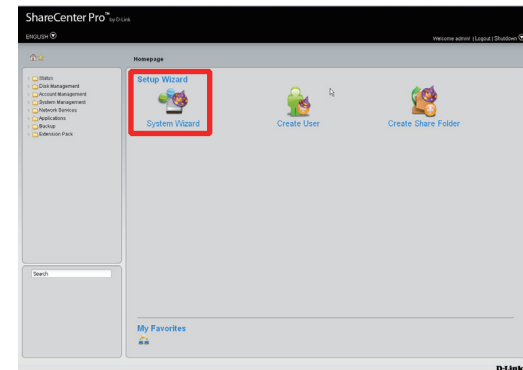
The Setup Wizard is the easiest and fastest way to set up your ShareCenter Pro. Once you have entered your IP address into the browser, follow these steps to get started:

Note: If the Create Volume window is open, close it before continuing.

Step 1: Return to the Web UI homepage by clicking the  icon at the top left.



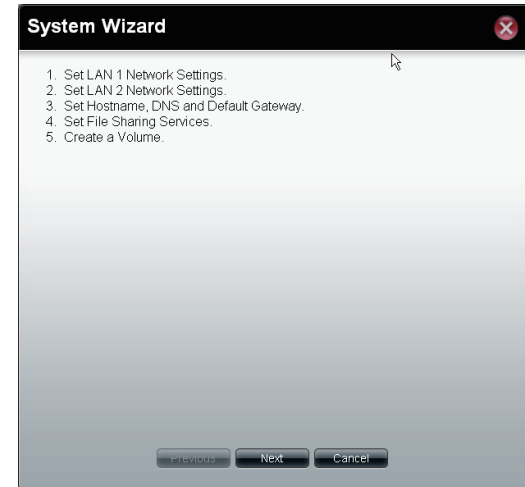
Step 2: Click the Setup Wizard icon.



Using the Setup Wizard (cont.)

Step 3: The ShareCenter Pro System Wizard will start.

Click **Next** to continue.



Step 4: Enter the settings for your LAN 1 connection.

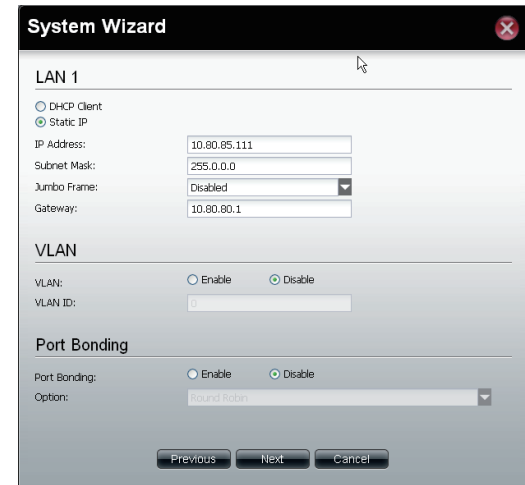
Select **DHCP Client** if your network environment uses DHCP.

Otherwise, select **Static IP** and enter the **IP Address**, **Subnet Mask**, **Jumbo Frame**, and **Gateway** details provided by your system administrator. Leave **Jumbo Frame** as **Disabled** if your network does not support it.

Set up the VLAN settings according to your virtual LAN.

Enable Port Bonding according to your specified needs.

Click **Next** to continue.



Using the Setup Wizard (cont.)

Step 5: Enter the settings for your LAN 2 connection.

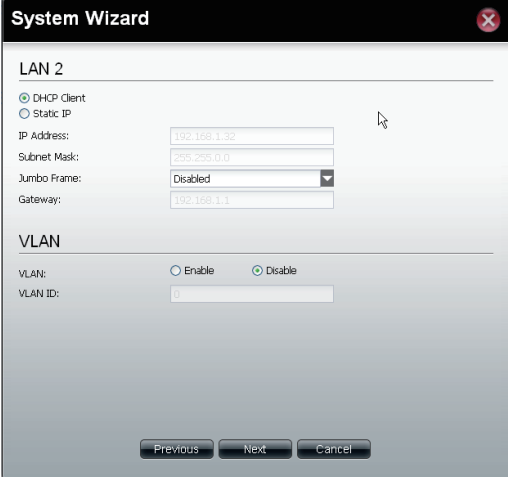
Select **DHCP Client** if your network environment uses DHCP.

Otherwise, select **Static IP** and enter the **IP Address**, **Subnet Mask**, **Jumbo Frame**, and **Gateway** details provided by your system administrator. Leave **Jumbo Frame** as **Disabled** if your network does not support it.

Set up the VLAN settings according to your virtual LAN.

Click **Next** to continue.

Note: If you are not configuring the ShareCenter Pro to use the LAN 2 port, just select **DHCP Client** and click **Next** to continue.



The screenshot shows the 'System Wizard' window for 'LAN 2' configuration. It has two radio buttons: 'DHCP Client' (selected) and 'Static IP'. Below are input fields for '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). Under the 'VLAN' section, there are radio buttons for 'Enable' and 'Disable' (selected), and a 'VLAN ID' input field. At the bottom are 'Previous', 'Next', and 'Cancel' buttons.

Step 6: Enter the **Host Name**, **Primary DNS**, **Secondary DNS**, and **Default Gateway** LAN connection you wish to use.

Click **Next** to continue.



The screenshot shows the 'System Wizard' window for 'Host Name', 'DNS Server', and 'Default Gateway' configuration. It has a 'Host Name' input field with 'dlrk-022100'. Under 'DNS Server', there are 'Primary DNS' (192.168.0.1) and 'Secondary DNS' input fields. Under 'Default Gateway', there is a dropdown menu set to 'LAN 1'. At the bottom are 'Previous', 'Next', and 'Cancel' buttons.

Using the Setup Wizard (cont.)

Step 7: Choose whether you want to enable or disable the following file sharing features:

- CIFS:** Common Internet File System provides shared access to files, printers, and serial ports.
- FTP:** File Transfer Protocol provides a way to transfer files to and from remote computers.
- 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:** This allows you to set disk and network quotas.

Click **Next** to continue.



Using the Setup Wizard (cont.)

Step 8: The System Wizard automatically detects the number of hard drives present and creates a table to select which drives you want to use, and in what RAID configuration. Different RAID configurations will be available based on the number of drives installed.

Select a RAID level, use the checkboxes to decide which drives to include in the RAID array, then click **Next** to continue.

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.

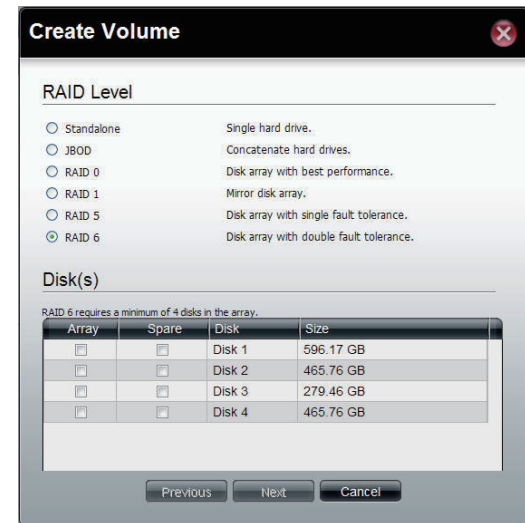
RAID 1 RAID 1 requires a minimum of two hard drives and mirrors the hard drives for data redundancy.

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.



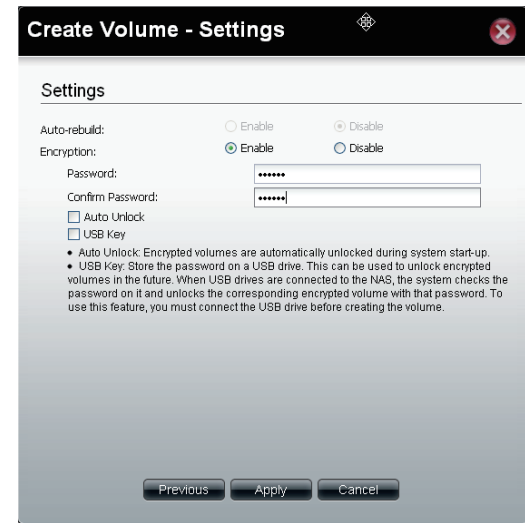
Using the Setup Wizard (cont.)

Step 9: If you are using a RAID 1, 5, or 6 array, select whether you want to enable the Auto-rebuild function, which will automatically rebuild the RAID when a failed drive has been replaced with a new one.

Select whether you want to enable drive encryption. If you enable this feature, enter a password to use in both of the text boxes. Tick **Auto Unlock** to unlock the hard drive automatically when the ShareCenter Pro is powered on, or select **USB Key** to save the password on an external USB drive, which must then be inserted into the ShareCenter Pro in order to unlock the corresponding encrypted volume.

Click **Apply** to save your settings and continue.

Note: You can only select **Auto Unlock** or **USB Key**; you cannot enable both.



Step 10: A summary screen of your changes will appear.

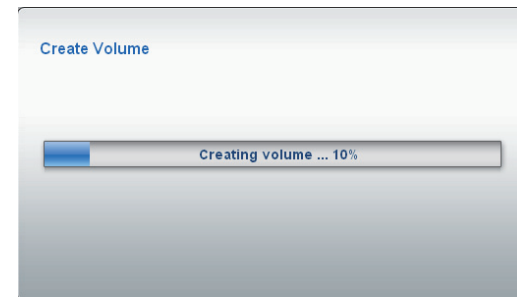
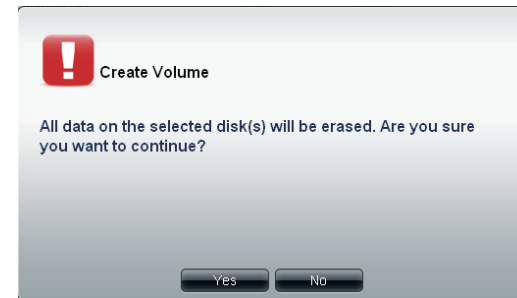
Click **Apply** to save your changes and continue, or click **Previous** to go back and change your settings.



Using the Setup Wizard (cont.)

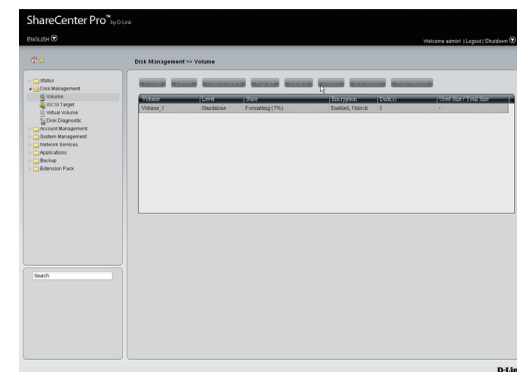
Step 11: A confirmation screen will appear to ensure that you want to delete all data on the disks selected for your new volume.

If you are sure you want to continue, click **Yes** to continue. The new volume will be created, and may take a while to complete.



Step 12: After creating the volume, the volume will be formatted, and may take a while to complete.

Setup of the ShareCenter Pro is complete, and you can start using it, or you can adjust advanced settings by using the Web UI.



Configuring Additional Hard Drives

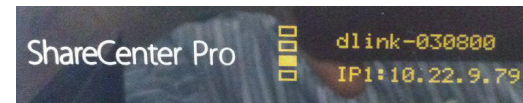
You can install up to four hard drives in the ShareCenter Pro 1100. The drives can be individually configured and configured into a RAID volume. Once a new drive is installed, a volume will be created and formatted according to your specifications. Once the hard drives are installed in the ShareCenter Pro 1100, the drives can be formatted and configured.

Step 1: Install your additional hard drives as detailed in “Installing Hard Drives” on page 8.

Step 2: Open a web browser and go to the IP Address displayed on the ShareCenter Pro’s OLED screen, and log in to the Web UI.

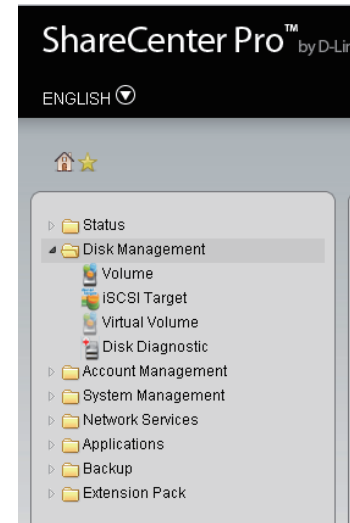
If you cannot see the IP information on the top OLED screen, press the OLED button to the right of the display until it appears.

Note: For more information on connecting to the Web UI, please refer to “Using the Setup Wizard” on page 19.

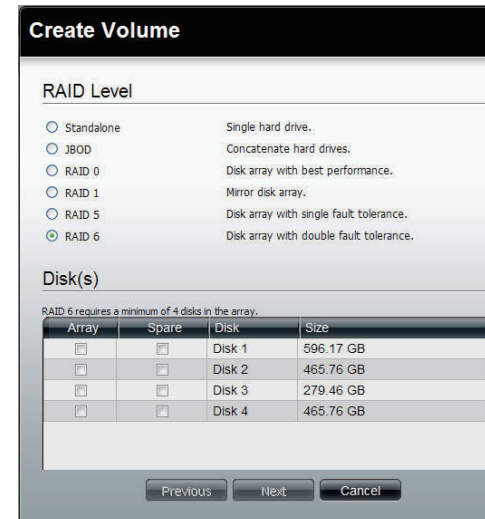


Configuring Additional Hard Drives (cont.)

Step 3: Click **Disk Management** on the left, then click **Volume**.



Step 4: In the window that appears, select the RAID level you want to use for the volume, and select the drives you want to use for the volume. Click **OK** to continue.



Configuring Additional Hard Drives (cont.)

Step 5: If you are using a RAID 1, 5, or 6 array, select whether you want to enable the Auto-rebuild function, which will automatically rebuild the RAID when a failed drive has been replaced with a new one.

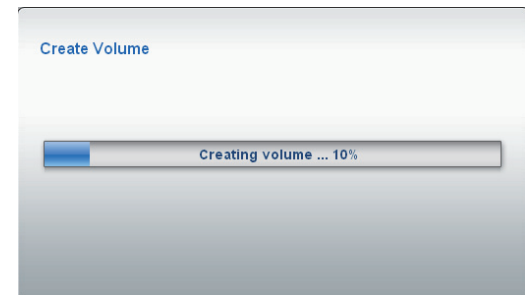
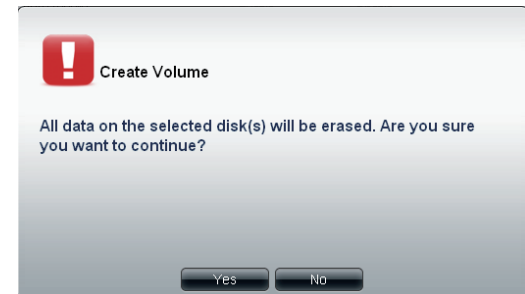
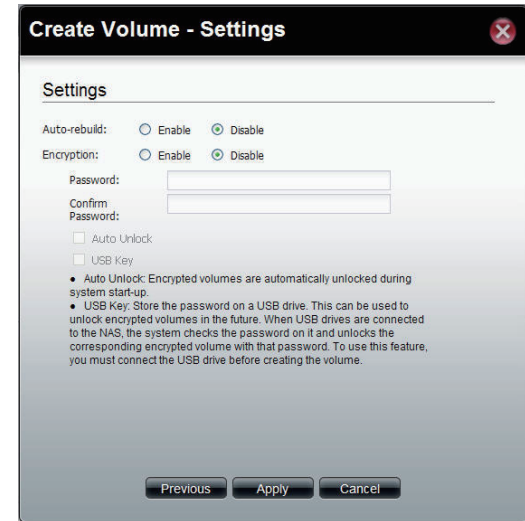
Select whether you want to enable drive encryption. If you enable this feature, enter a password to use in both of the text boxes. Tick **Auto Unlock** to unlock the hard drive automatically when the ShareCenter Pro is powered on, or select **USB Key** to save the password on an external USB drive, which must then be inserted into the ShareCenter Pro in order to unlock the corresponding encrypted volume.

Click **Apply** to save your settings and continue.

Note: You can only select **Auto Unlock** or **USB Key**; you cannot enable both.

Step 6: A confirmation screen will appear to ensure that you want to delete all data on the disks selected for your new volume.

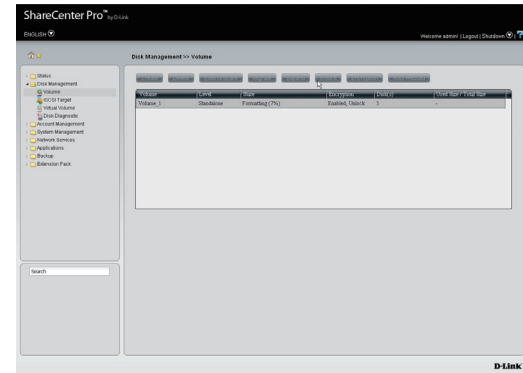
If you are sure you want to continue, click **Yes** to continue. The new volume will be created, and may take a while to complete.



Configuring Additional Hard Drives (cont.)


Step 7: After creating the volume, the volume will be formatted, and may take a while to complete.

Setup of the ShareCenter Pro is complete, and you can start using it, or you can adjust advanced settings by using the Web UI.

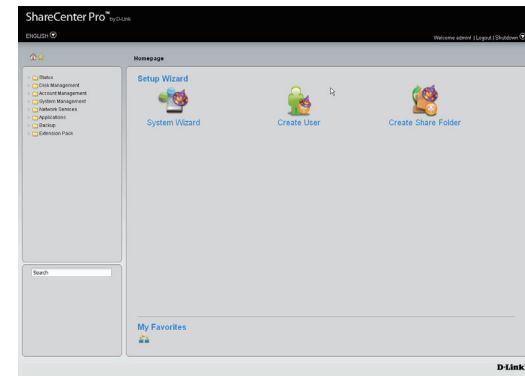


Using The Web UI

Overview Of The Web UI

On the Web UI homepage (which you can access directly by clicking the  icon at the top-left), you can see the main categories for configuring the ShareCenter Pro on the left side of the page. Click the folder icon for each category to show links to more detailed settings. The categories available for configuration include:



- Status** Contains the System Status and Hard Drive Status.
- Disk Management** Allows the ShareCenter Pro administrator to Create/Configure a Volume, iSCSI Targets, Virtual Volume, and perform Disk Diagnostics.
- Account Management** Allows the ShareCenter Pro administrator to configure the Admin Password, Users, Groups and Share Folders.
- System Management** Contains settings for Network, Time and Date, System Settings, Power Management, Email Alerts, Firmware Upgrade, and Logs.
- Network Services** Contains settings for File Sharing, Dynamic DNS, SNMP, and Network Discovery Services.
- Applications** Contains settings for the Web File Manager and Download Management.
- Backup** Contains settings for Volume Snapshot, Local Backup, Remote Backup and External Backup.
- Extension Pack** Allows the ShareCenter Pro administrator to add more applications to the device.

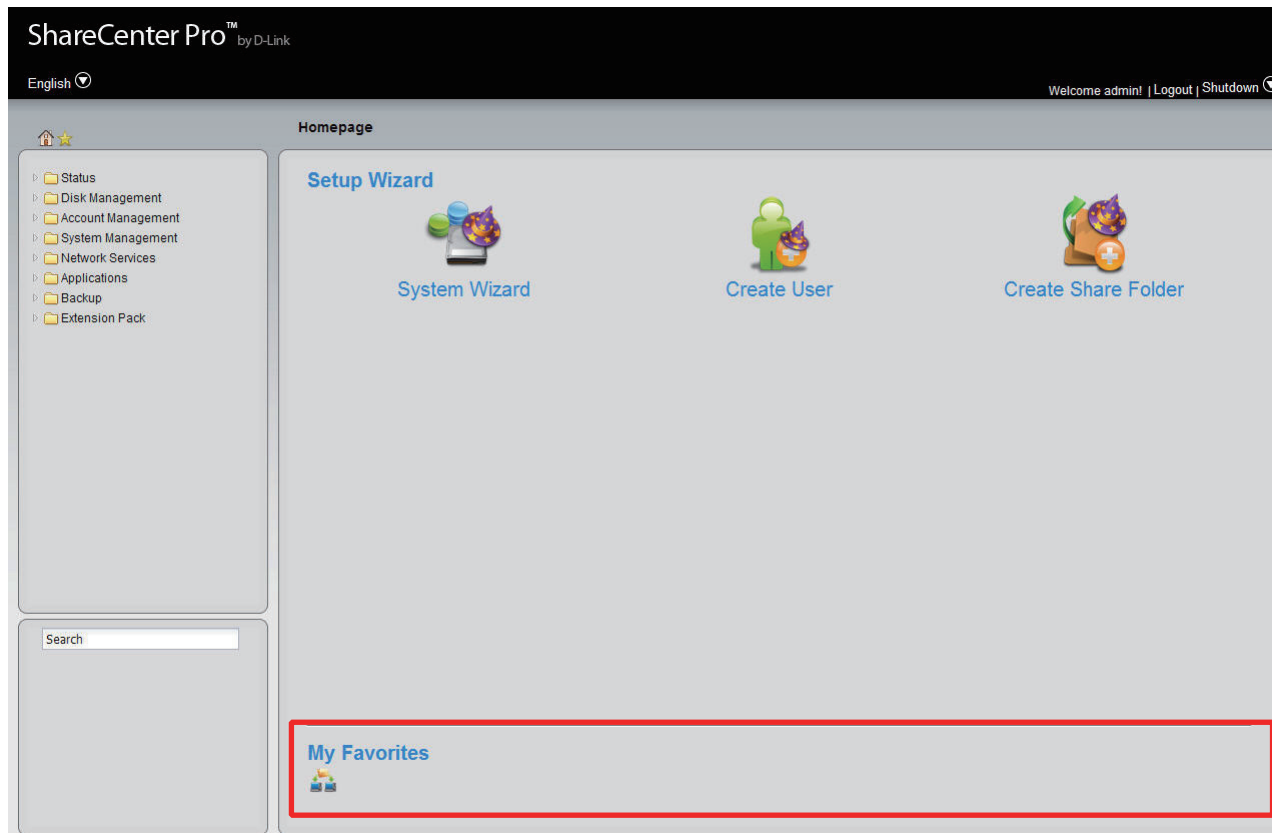


These pages and their configuration options will be discussed in detail in the following pages of this manual.

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

My Favorites

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

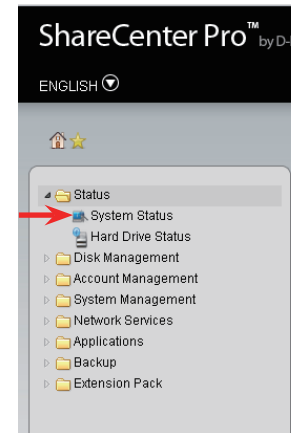


Status

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

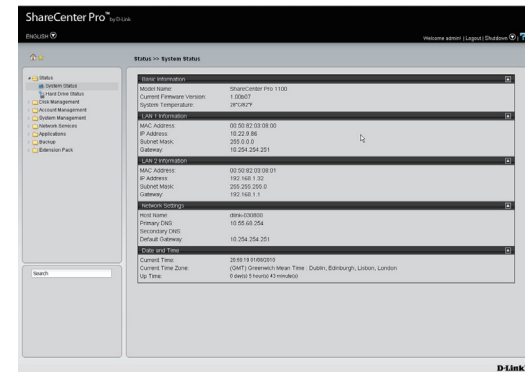
Status > System Status

Step 1: Click on the **Status** folder in the left pane of the ShareCenter Pro, then click on **System Status**.



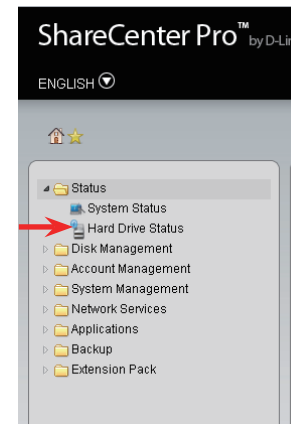
Step 2: Here, you can find various information about the current status of the ShareCenter Pro.

- Basic Information** Displays the model name, current firmware version and current temperature of the device.
- LAN 1/2 Info** Displays the local network settings of the LAN 1 and 2 ports.
- Network Settings** Displays the host name and DNS information.
- Date and Time** Displays the current date and time settings.
- USB Disk Information** Displays information for a connected USB printer, USB storage drive, or UPS. Click the **Unmount** button to remove the device from the ShareCenter Pro.

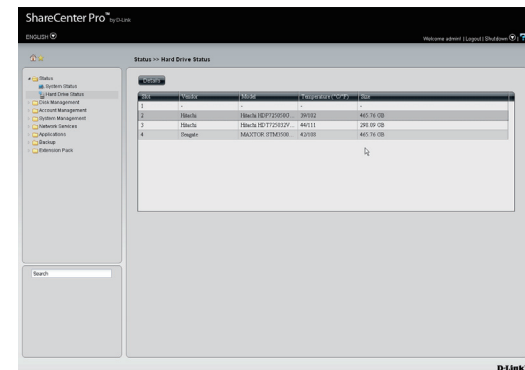


Status > Hard Drive Status

Step 1: Click on the **Status** folder in the left pane of the ShareCenter Pro, then click on **Hard Drive Status**.




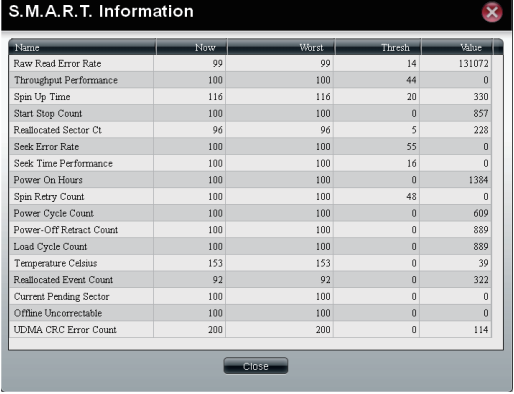
Step 2: This window displays information about the vendor, model name, temperature, and size of each hard disk installed in the ShareCenter Pro, along with the slot they are installed in.



Status > Hard Drive Status (cont.)

Step 3: Double-click a hard drive to open a window that displays its S.M.A.R.T. information.

Click the Close or  button to go back to the Hard Drive Status window.



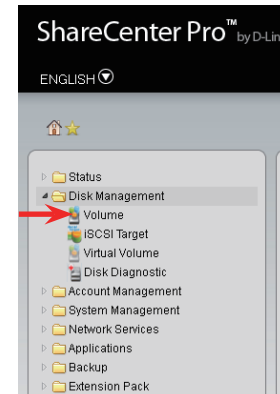
Name	Now	Worst	Thresh	Value
Raw Read Error Rate	99	99	14	131072
Throughput Performance	100	100	44	0
Spin Up Time	116	116	20	330
Start Stop Count	100	100	0	857
Reallocated Sector Ct	96	96	5	228
Seek Error Rate	100	100	55	0
Seek Time Performance	100	100	16	0
Power On Hours	100	100	0	1384
Spin Retry Count	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

Disk Management

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

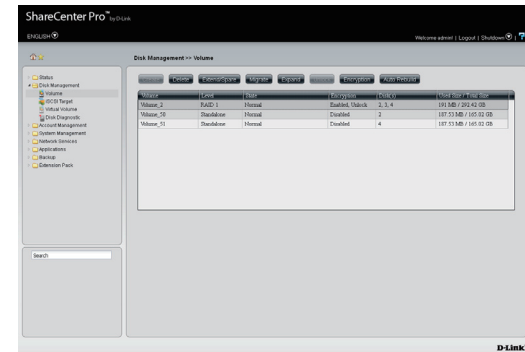
Disk Management > Volume

Step 1: Click on the **Disk Management** folder in the left pane of the ShareCenter Pro, then click on **Volume**.



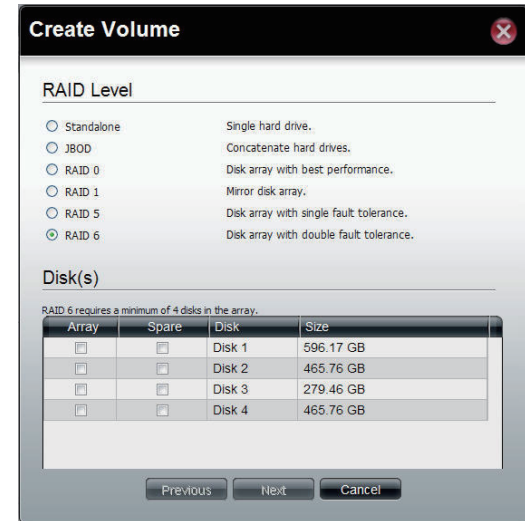
Step 2: Here, you can view information about the volumes set up on your ShareCenter Pro. You can click the buttons above the table to perform various actions:

- 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.



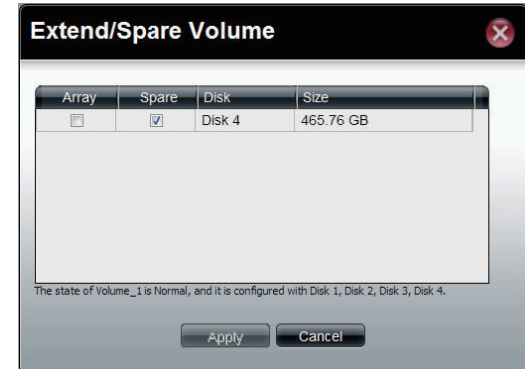
Disk Management > Volume (cont.)

Create: Please refer to “Using the Setup Wizard” on page 19 .



Extend/Spare: Click a volume and the Extend/Spare button to see the following window.

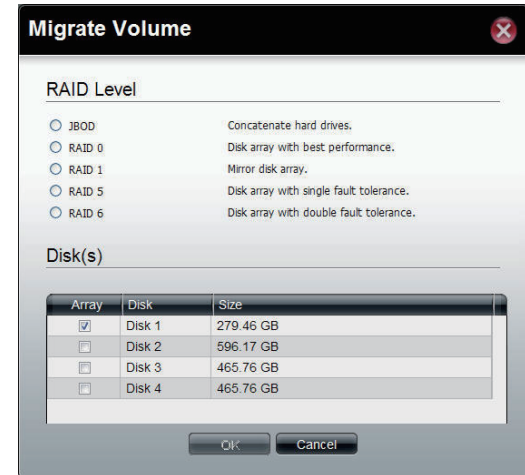
- Array** Tick the check box to extend the volume.
- Spare** Tick the check box to select the disk to be a spare disk.
- Disk** Displays the configured disk number.
- Size** Displays the size of the hard disk.



Disk Management > Volume (cont.)

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

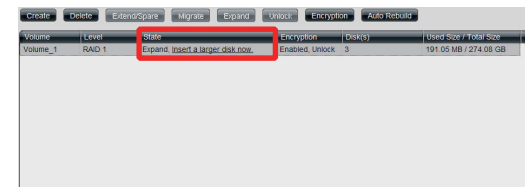
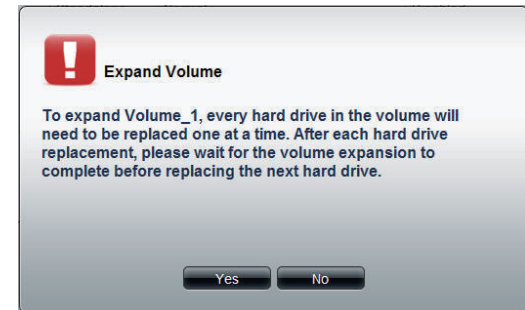
The windows allows you to change the RAID level of the volume. Choose a RAID level and select the hard disks to be used in the migration.



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

Click **Yes** to continue.

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



Disk Management > Volume (cont.)

Encryption: 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.

This window displays the setting in the Save tab.

Click Save to save the password to local.

This window displays the setting in the Load tab. Click the Load button to get the password from the local.

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



The screenshot shows the 'Encryption' window with the 'Change' tab selected. It contains four tabs: 'Change', 'Save', 'Load', and 'Mail'. Under the 'Change' tab, there is a checkbox for 'Change Password'. Below it are two text input fields labeled 'New Password:' and 'Confirm Password:'. There are also checkboxes for 'Auto Unlock' and 'USB Key'. At the bottom, there are 'Apply' and 'Cancel' buttons.



The screenshot shows the 'Encryption' window with the 'Save' tab selected. It contains four tabs: 'Change', 'Save', 'Load', and 'Mail'. Under the 'Save' tab, there is a checkbox labeled 'Save password to local.'. At the bottom, there are 'Save' and 'Cancel' buttons.



The screenshot shows the 'Encryption' window with the 'Load' tab selected. It contains four tabs: 'Change', 'Save', 'Load', and 'Mail'. Under the 'Load' tab, there is a text input field labeled 'Load password from local.' followed by a 'Browse...' button. At the bottom, there are 'Load' and 'Cancel' buttons.

Disk Management > Volume (cont.)

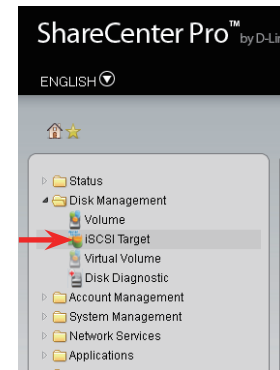
This window displays the setting in the Mail tab.

Click Mail to send the password to the administrator.



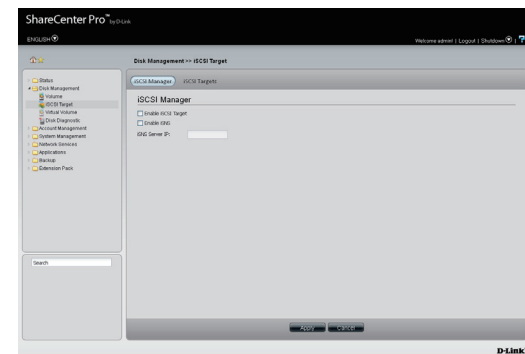
Disk Management > iSCSI Target

Step 1: Click on the **Disk Management** folder in the left pane of the ShareCenter Pro, then click on **iSCSI Target**.



Step 2: Click the **iSCSI Manager** tab to see the following window.

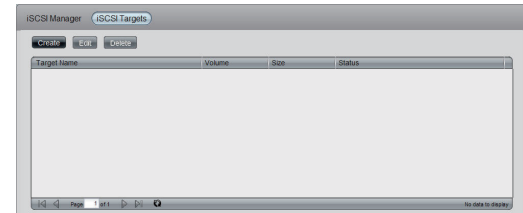
- Enable iSCSI Target** Tick the check box to enable the iSCSI function.
- Enable iSNS** Tick the check box to enable the Internet Storage Name Service function.
- iSNS Server IP** Enter the iSNS server IP address in the field.



Disk Management > iSCSI Targets (cont.)

Step 3: Click the **iSCSI Target** tab to see the following window. An iSCSI target shares its storage capacity with the iSCSI initiator.

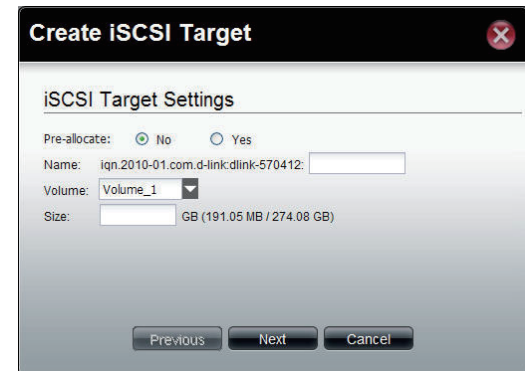
- Create** Click the button to add a new target.
- Edit** Select a target and click the button to change the settings.
- Delete** Select a target and click the button to remove the target from the list.



Step 4: Click the **Create** button.

- Pre-allocate** Click the **Yes** radio button to reserve a certain amount of capacity on the target in advance. Click **No** that enables thin provisioning to provide just enough storage space for immediate use.
- Name** Enter a name in the text box to identify the new iSCSI Target.
- Volume** Use the drop-down list to select the volume for the target.
- Size** Specify the size of the iSCSI target in gigabytes.

Click **Next** to continue to continue.



Disk Management > iSCSI Targets (cont.)

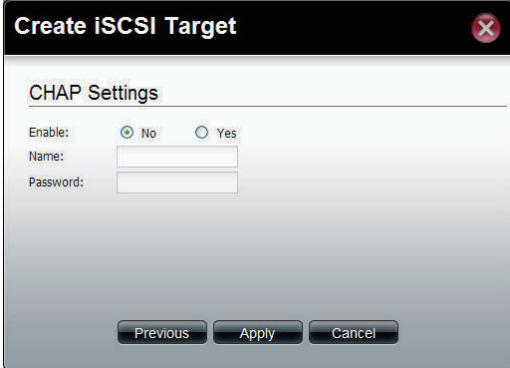
Step 5: After clicking Next, the CHAP Settings screen will appear.

Enable If the iSCSI initiator supports Challenge Handshake Authentication Protocol (CHAP), click the **Yes** radio button. Click the **No** radio button to disable it.

Name If enabling CHAP, enter the CHAP username in the field.

Password If enabling CHAP, enter the CHAP password in the field.

Click **Apply** to save the settings.

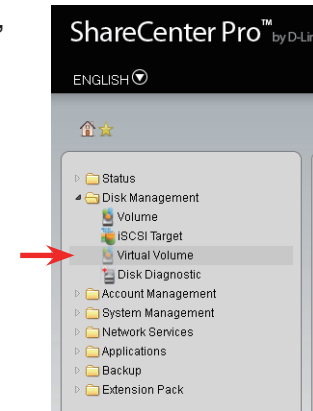


The screenshot shows a dialog box titled "Create iSCSI Target" with a close button in the top right corner. Inside the dialog, there is a section titled "CHAP Settings". Under "Enable:", there are two radio buttons: "No" (which is selected) and "Yes". Below the radio buttons are two text input fields: "Name:" and "Password:". At the bottom of the dialog, there are three buttons: "Previous", "Apply", and "Cancel".

Disk Management > Virtual Volumes

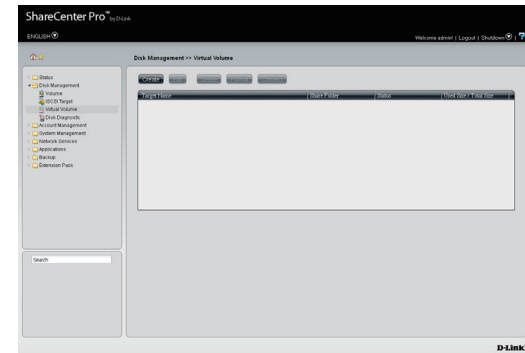
The Virtual Volume allows the ShareCenter Pro to expand its iSCSI capacity. By utilizing the built-in iSCSI initiator, the ShareCenter Pro will be able to connect to other iSCSI targets on the network and convert them into virtual volumes. These virtual volumes are seen as multiple single volumes on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

Step 1: Click on the **Disk Management** folder in the left pane of the ShareCenter Pro, then click on **Virtual Volumes**.



Step 2: The Virtual Volumes screen will list the current virtual volumes, and has buttons for the following functions:

- 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.



Disk Management - Virtual Volumes (cont.)

Create: Click the **Create** button to open the **Create Virtual Volume** window.

Device IP Enter the IP address of the device.

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

The screenshot shows a 'Create Virtual Volume' dialog box. At the top, there are input fields for 'Device IP' and 'Port' (set to 3260), followed by a 'Search' button. Below this is a 'Targets' section with an empty list box. Underneath is a 'Share Folder' field containing 'vol_'. The 'Authentication' section has two radio buttons, 'No' and 'Yes', with 'No' selected. Below that are 'User Name' and 'Password' input fields. At the bottom of the dialog are 'Apply' and 'Cancel' buttons.

Click **Apply** to save the settings.

Disk Management > Disk Diagnostic

Step 1: Click on the **Disk Management** folder in the left pane of the ShareCenter Pro, then click on **Disk Diagnostic**.



Step 2: 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.

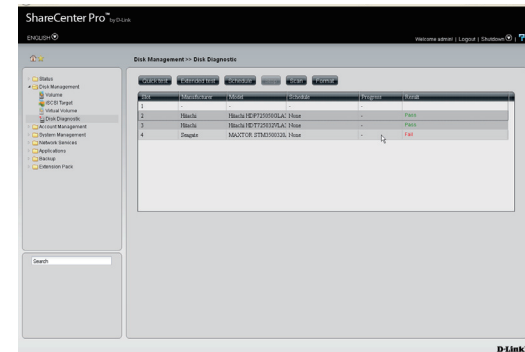
Extended test Click to run an extended SMART test. This takes longer time, but checks more thoroughly and complete than the quick test.

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 if there is any corruption on the file system.

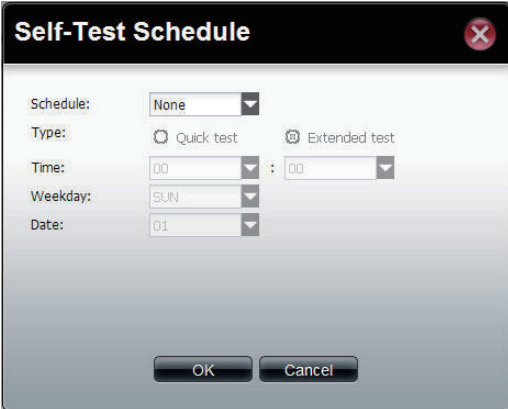
Format Click to format a volume. All data on the volume will be deleted.



Disk Management - Disk Diagnostic (cont.)

Schedule: Click the **Schedule** button to open this window. Click **OK** to save your changes.

- 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.



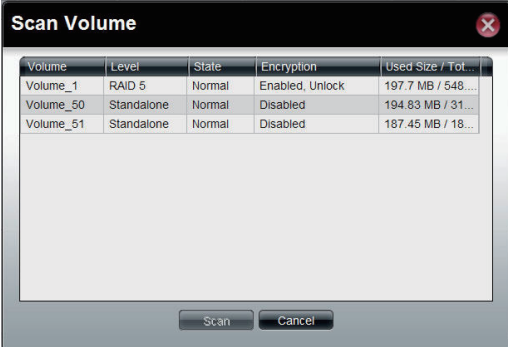
The 'Self-Test Schedule' dialog box contains the following fields:

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

Buttons for 'OK' and 'Cancel' are located at the bottom.

Scan: Click the Scan button to see this window.

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



The 'Scan Volume' dialog box displays a table with the following data:

Volume	Level	State	Encryption	Used Size / Tot...
Volume_1	RAID 5	Normal	Enabled, Unlock	197.7 MB / 548...
Volume_50	Standalone	Normal	Disabled	194.83 MB / 31...
Volume_51	Standalone	Normal	Disabled	187.45 MB / 18...

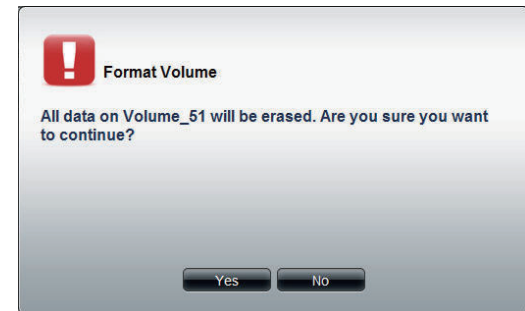
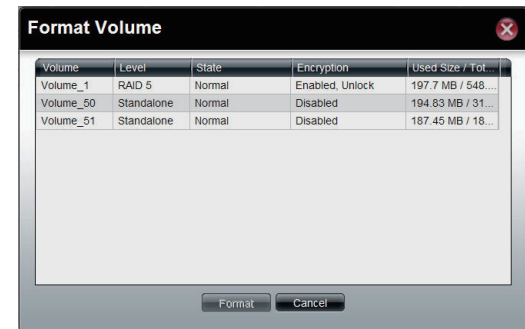
Buttons for 'Scan' and 'Cancel' are located at the bottom.

Disk Management - Disk Diagnostic (cont.)

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

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

A warning message appears to make sure you know that all data will be erased on the volume you wish to format. To format the volume, click **Yes** to continue.

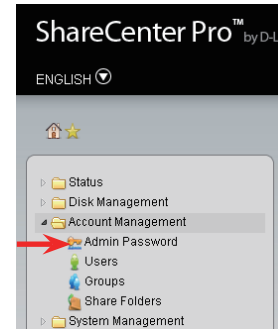


Account Management

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

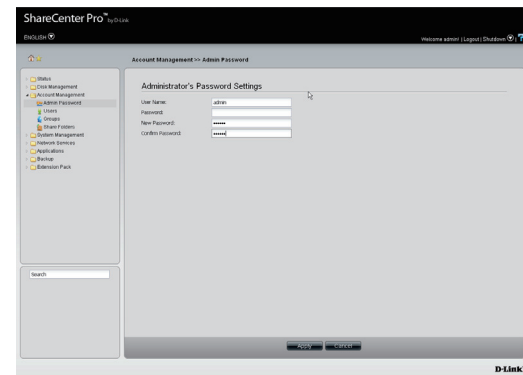
Account Management > Admin Password

Step 1: Click on the **Account Management** folder in the left pane of the ShareCenter Pro, then click on **Admin Password**.

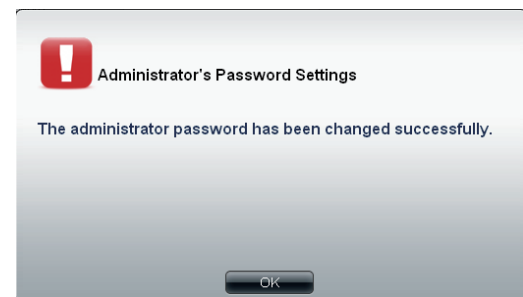


Step 2: Enter the administrator user name and the original password, then type the new password in both the New Password and Confirm Password text boxes.

Click **Apply** to continue.

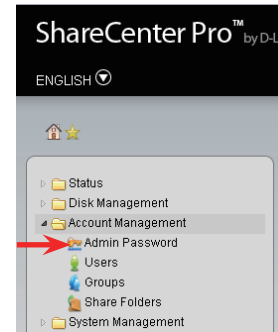


Step 3: A confirmation window will appear to inform you that the changes have been saved. Click **OK** to continue.



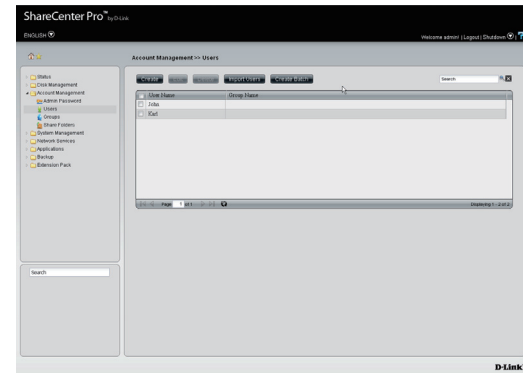
Account Management > Users

Step 1: Click on the **Account Management** folder in the left pane of the ShareCenter Pro, then click on **Users**.



Step 2: The Users screen shows a list of the users currently created on the ShareCenter Pro.

- Create** Create a new user.
- Edit** Edit an existing user.
- Delete** Delete a user.
- Import Users** Import users from a list.
- Create Batch** Create users automatically by creating them through a batch process.



Account Management > Users (cont.)

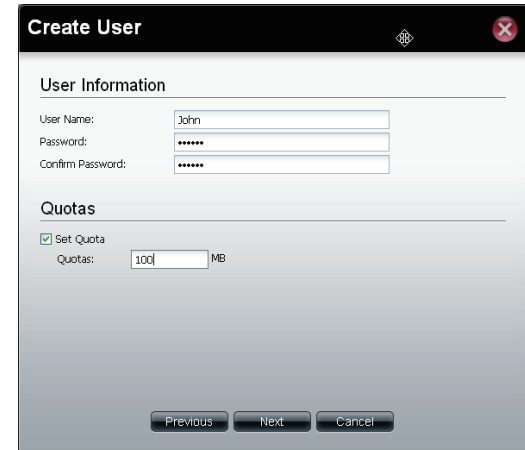
Create: The **Create User** window will appear.

Click **Next** to continue.



Enter the User Name and Password you want to use for your new user. If you want to set a quota for the user, tick the **Set Quota** user checkbox and enter a quota in megabytes.

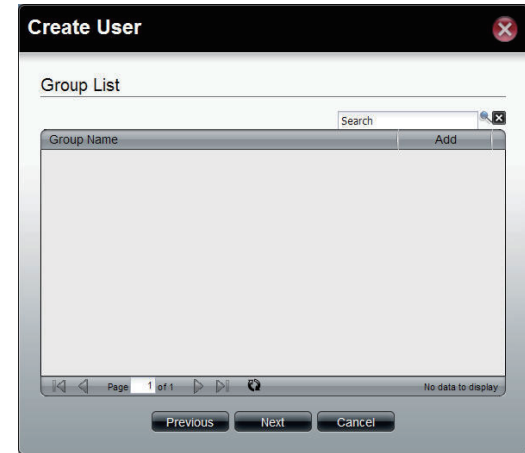
Click **Next** to continue.



Account Management > Users (cont.)

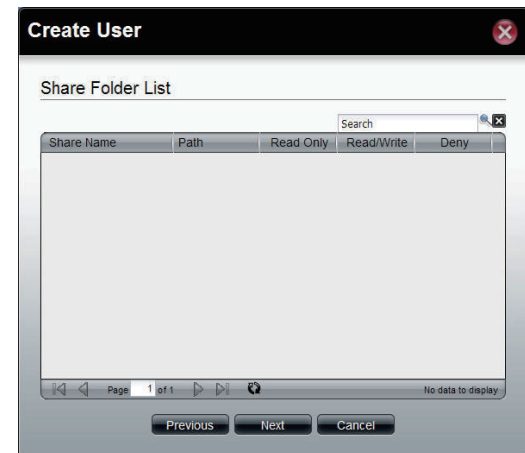
Select the groups you want to add the user to.

Click **Next** to continue.



Select the share folders you want the user to have access to.

Click **Next** to continue.



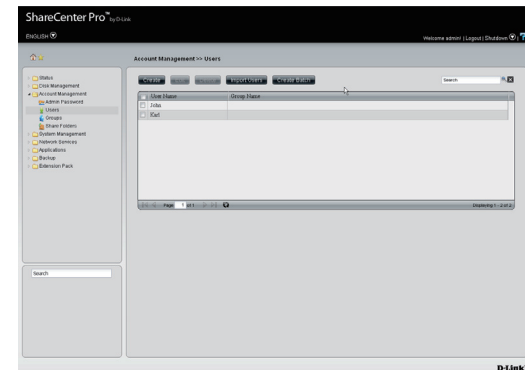
Account Management > Users (cont.)

A summary screen will show you all the details of the user you just created.

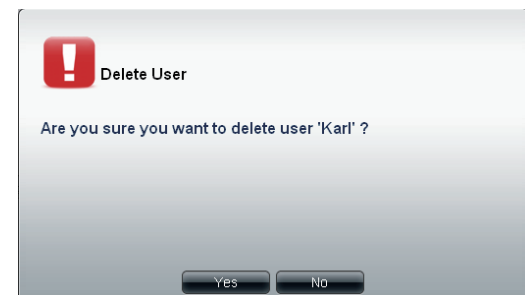
Click **Apply** to save your settings.



Delete: To delete users, click the checkbox next to the users you want to delete, then click the **Delete** button.



Confirm that you want to delete the selected users from the User List, then click **Yes**.



Account Management > Users (cont.)

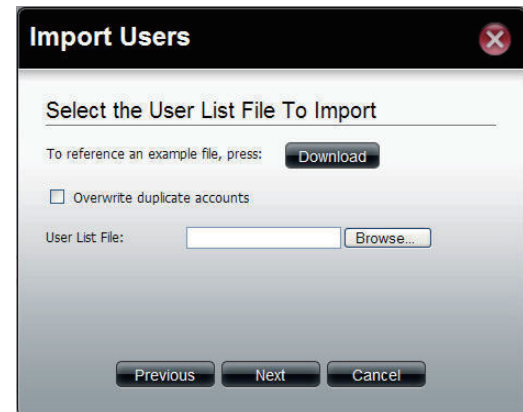
Import Users: Click the **Import Users** button to start the Import Users wizard. Click **Next** to continue.



Click **Browse...**, and select the user list text file you want to import. Tick the checkbox next to **Overwrite duplicate accounts** if you want to overwrite any existing accounts with those in the file you are importing from.

Click **Next** to continue.

Note: Click the **Download** button to see an example user list .txt file. If you are not sure how to create this file, consult a systems administrator or a programmer to design the script for this file.

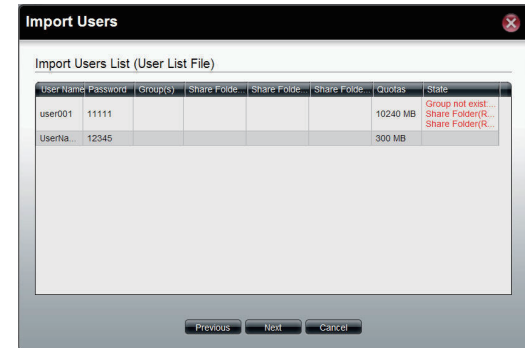


Account Management > Users (cont.)

A window will appear with all the users from the file.

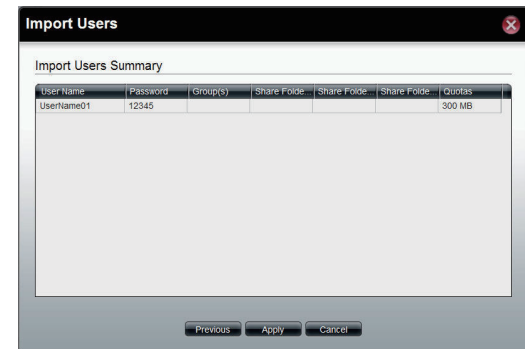
Click **Next** to continue.

Note: If there are any problems with the users detected from the user list file, you will see error messages in the **State** column, and you will need to fix the problems with the file before you can continue.



A window will appear showing you a summary of the users that were imported.

Click **Apply** to save the settings and finish the import.



Account Management > Users (cont.)

Create Batch: Click the Create Batch button to start the Create Batch Users wizard. Click **Next** to continue.










The Create Batch Users wizard allows you to create multiple users automatically through a batch process.

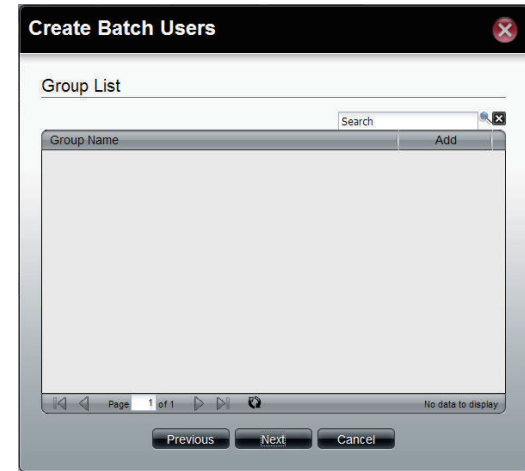
- User Name Prefix** Enter the prefix of the users
- Start Number** Enter the start number of the users.
- Create Number** Enter the total number of the users.
- Password** Enter the password of the users
- Confirm Password** Retype the password
- Overwrite duplicate Accounts** Tick the check box to 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

Account Management > Users (cont.)

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.

Account Management > Users (cont.)





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 a folder. Click  to clear the search field and show all folders.

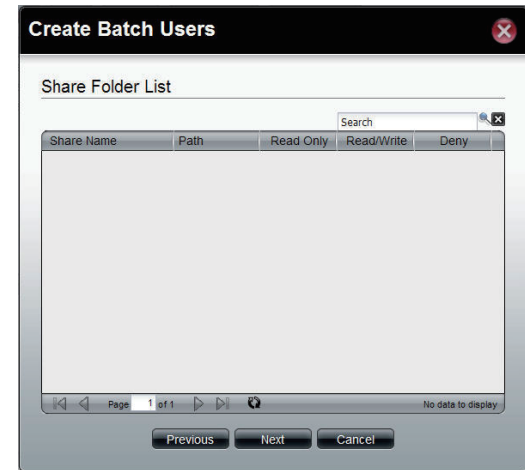
Read Only Tick this check box for read-only access rights to the selected folder

Read/Write Tick this check box for both read and write access rights for the selected folder.

Deny Tick this check box to deny access to the selected folder.

Page If there are more shared folders than the window can display, they will be shown across multiple 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 browse the shared folder list.

Refresh Click  to update the folder list.



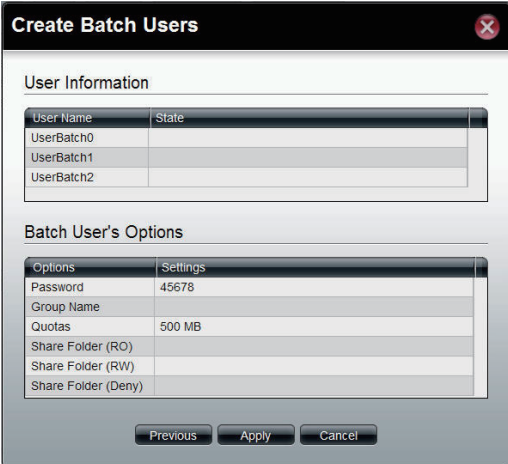
Click **Next** to continue.

Account Management > Users (cont.)

This window displays a summary of the configured information.

Click **Previous** to modify the settings.

Click **Apply** to save the settings. Depending on the number 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

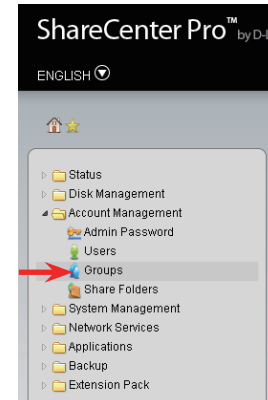
Options	Settings
Password	45678
Group Name	
Quotas	500 MB
Share Folder (RO)	
Share Folder (RW)	
Share Folder (Deny)	

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

Account Management > Groups

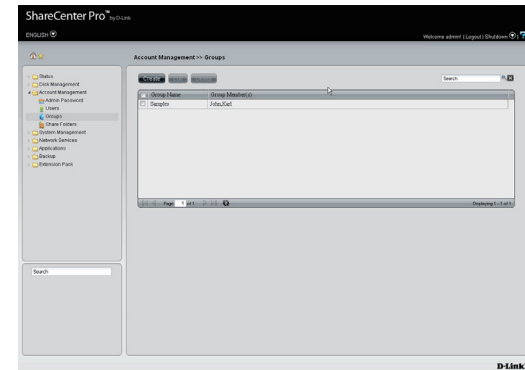
The D-Link ShareCenter Pro 1100 allows you to create groups for users/shared folders to access. Let's take a look.

Step 1: Click on the **Account Management** folder in the left pane of the ShareCenter Pro, then click on **Groups**.



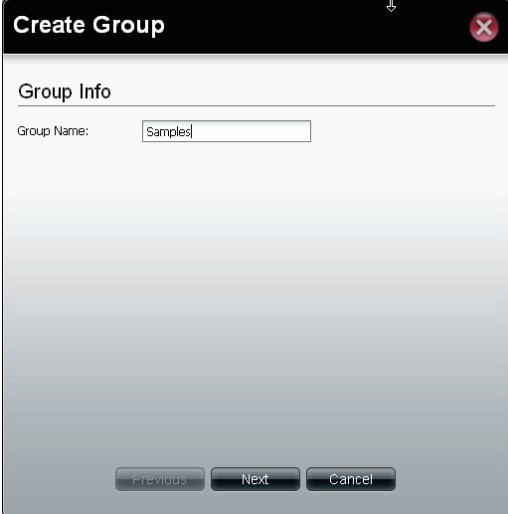
Step 2: Here you can manage the configured groups for the ShareCenter Pro.

- Create** Create a new group.
- Edit** Edit an existing group.
- Delete** Delete an existing group.



Account Management > Groups (cont.)

Create: After clicking the Create button, the Create Group wizard will appear. Under Group Name, type in the name of the group you want to create and click **Next** to continue.



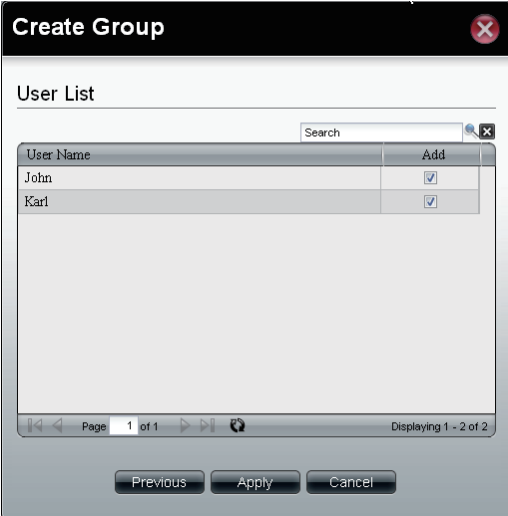
Create Group

Group Info

Group Name:

Previous Next Cancel

Tick the checkboxes next to the users you want to add to the group, then click **Apply**. The new group will now appear in the group list.



Create Group

User List

Search

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

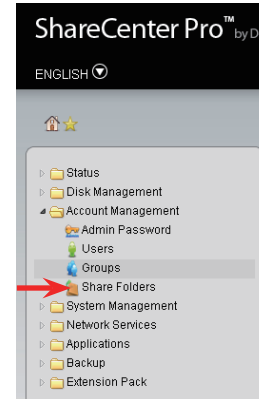
Page 1 of 1 Displaying 1 - 2 of 2

Previous Apply Cancel

Account Management > Shared Folders

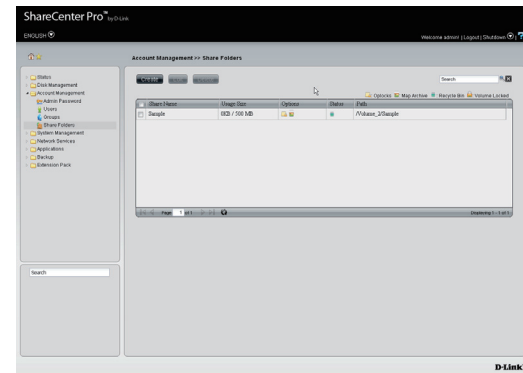
The D-Link ShareCenter Pro 1100 allows you to create shared folders for users to access. Let's take a look.

Step 1: Click on the **Account Management** folder in the left pane of the ShareCenter Pro, then click on **Shared Folders**.



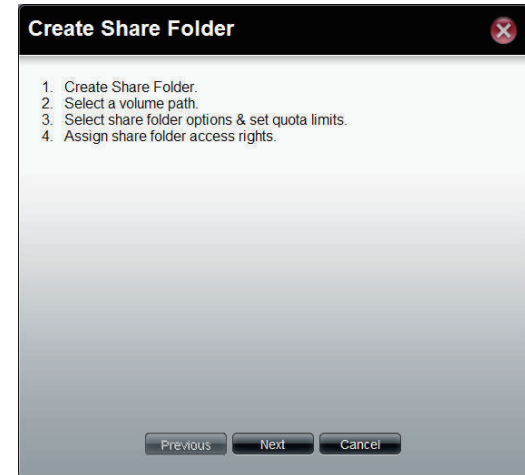
The Shared Folders list shows the shared folders currently configured on your ShareCenter Pro.

- Create** Create a new shared folder.
- Edit** Edit an existing shared folder.
- Delete** Delete an existing shared folder.



Account Management > Shared Folders (cont.)

Create: Clicking the **Create** button will start the **Create Share Folder** wizard. Click **Next** to continue.



Select a folder to share by using the **Select Path** dropdown box and double-click it to use it as your share folder. If you want to create a new folder, click the **Create** button and enter a name for the folder. Choose whether you want to enable or disable the following options:

Oplocks When enabled, will allow clients to locally cache files that are to be written to the ShareCenter in order to increase performance. If you save and access database files on the ShareCenter, you should disable this option.

Map Archive When enabled, this will automatically set the “archive” attribute on files stored on the ShareCenter.

Recycle Bin When enabled, deleted files will be moved to a recycle bin. If this is disabled, deleted files will be deleted immediately, and cannot be recovered.

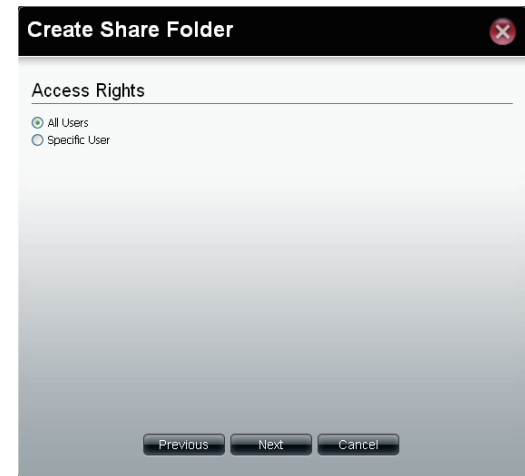
Quota: If the checkbox is ticked, the share folder will be limited to the quota size specified in the text box.



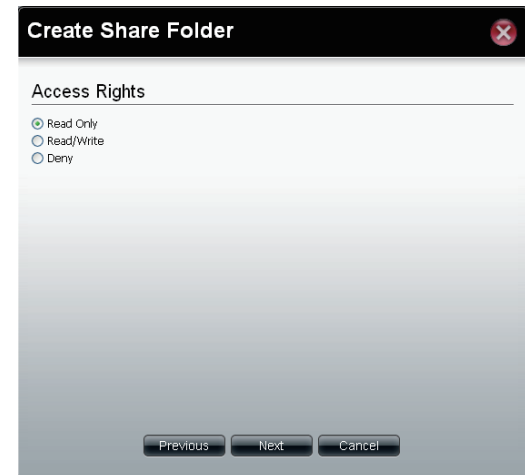
After making your changes, click **Next** to continue.

Account Management > Shared Folders (cont.)

Select whether you want all users to be able to use the shared folder or only specific users, then click **Next** to continue.



For the selected users, select what access rights they should have for the shared folder you are creating, then click **Next** to continue.



Account Management > Shared Folders (cont.)

A summary window will show you the shared folder settings you configured. Click **Apply** to save your changes. The new shared folder will now appear in your shared folder list.

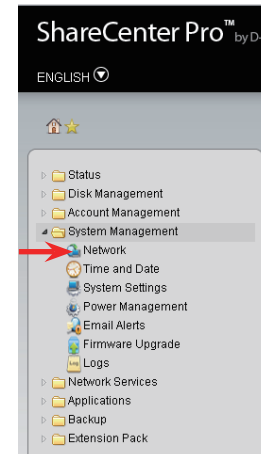


System Management

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

System Management > Network

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Network**.



System Management > Network (cont.)

Step 2: The System Management, Network window previews all the network settings.

LAN 1 / LAN 2: You can configure the network settings of the LAN 1 and LAN 2 port by clicking their respective tabs.

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.

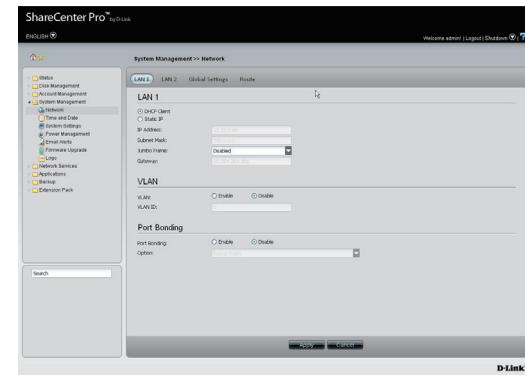
Gateway Enter the gateway IP address for the ShareCenter Pro.

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. (LAN 1 screen only)

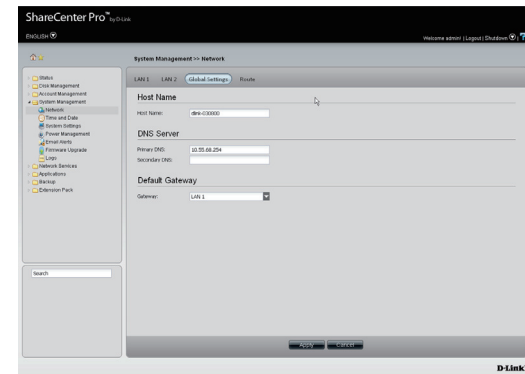
Option Use the drop-down menu to select the port bonding method. Available methods are Round Robin, Active Backup, XOR, Broadcast, 802.3ad, Adaptive Transmit Load Balancing, and Adaptive Load Balancing. (LAN 1 screen only)




System Management > Network (cont.)

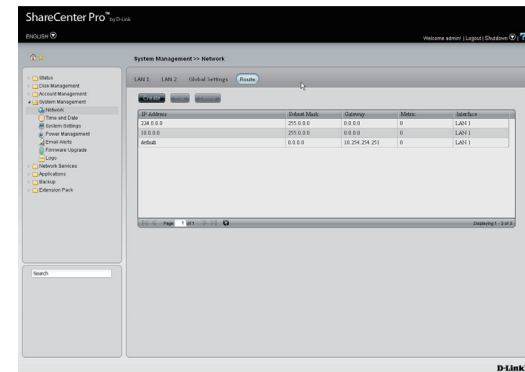
Global Settings: Click Global Settings to enter host name, DNS, and gateway information for your ShareCenter Pro.

- 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.



Route: Click Route to view the Route window.

- Create** Click to create a new routing path.
- Edit** Select a routing path and click the button to edit the routing path.
- Delete** Select a routing path and click the button to remove the entry from the list.
- Page** If there are more routes than the window can display, they will be shown across multiple 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 browse the route list.
- Refresh** Click  to update the route list.



System Management > Network (cont.)

Route > Create: Click the Create button to create a new routing path. After you finish entering the details of the new routing path, click **Apply** to save the new routing path.

Network Address Enter the 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:

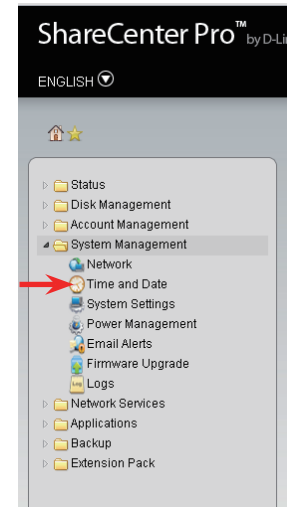
Interface:

Gateway:

Apply Cancel

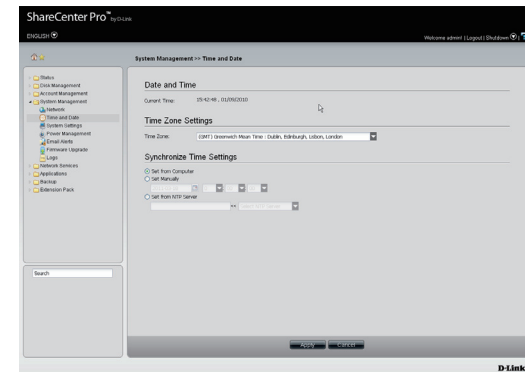
System Management > Time and Date

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Time and Date**.



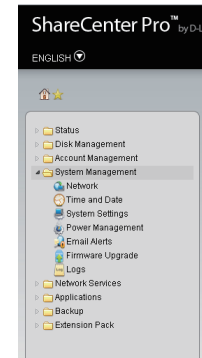
Step 2: This screen lets you set the time and date of your ShareCenter Pro, which is important for status logs and scheduling.

- 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.



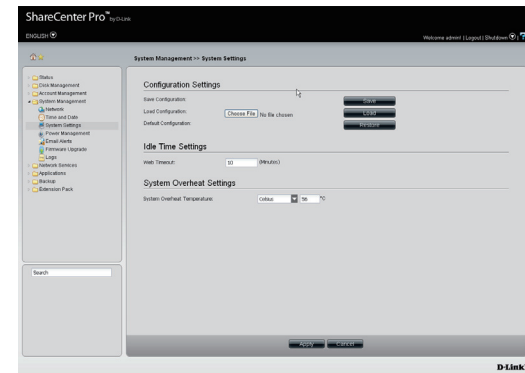
System Management > System Settings

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **System Settings**.



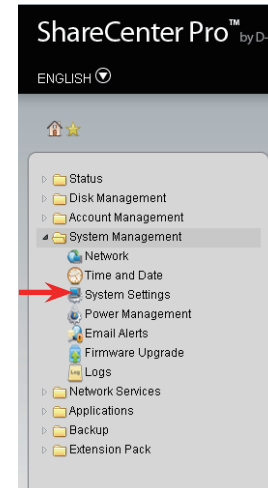
Step 2: The System Settings window pane provides configuration options for:

- 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.



System Management > Power Management

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Power Management**.



Step 2: Power Saving Settings: Here, select the preferences that best suit your needs.

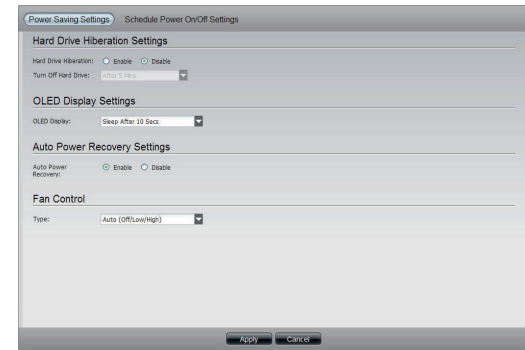
Hard Drive Hibernation Click **Enable** to enable the function.

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.

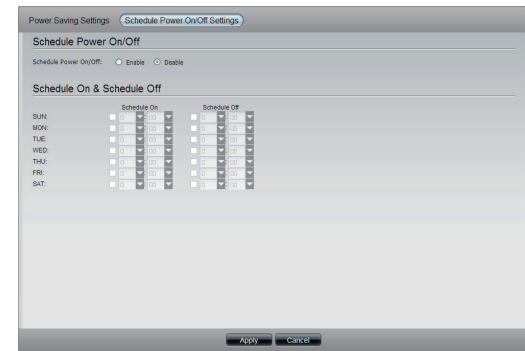
Type Use the drop-down menu to select the fan speed modes. Available choices are Auto (Off/Low/High), Auto (Low/High) and Manual (Always on High).



System Management > Power Management (cont.)

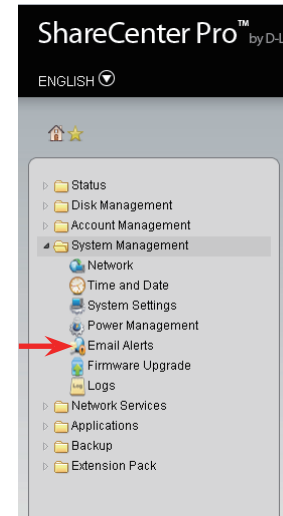
Schedule Power On/Off Settings: Click the Schedule Power On/Off Settings tab to open this window, where you can configure schedule for turning the ShareCenter Pro on and off automatically. This function will be deactivated if the scheduled power off time is configured for the same time as a firmware update. After changing your settings, click **Apply** to save your settings.

- Schedule Power On/Off** Click **Enable** to set a schedule for automatic system power on and off.
- Schedule On & Schedule Off** Use the checkboxes to select days to run scheduled power on/off for, then use the drop-down menus to select the times to turn the device on and off.



System Management > Email Alerts

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Email Alerts**.



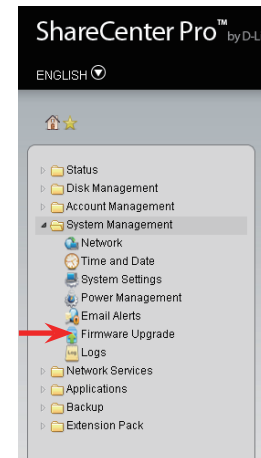
System Management > Email Alerts (cont.)

Step 2: This screen lets you configure the ShareCenter Pro to send you e-mail alerts about various events. When you are finished making changes, click **Apply** to save your changes.

- 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 e-mail address to include as the sender e-mail address for e-mail notifications.
- Receiver E-mail** Enter the e-mail address that the e-mail alerts should be sent to.
- Test E-mail** Click the **Test E-Mail** button to send a test e-mail using the settings specified.
- Event Alert Settings** Use the check boxes to select events you want e-mail alerts to be sent out for.

System Management > Firmware Upgrade

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Firmware Upgrade**.

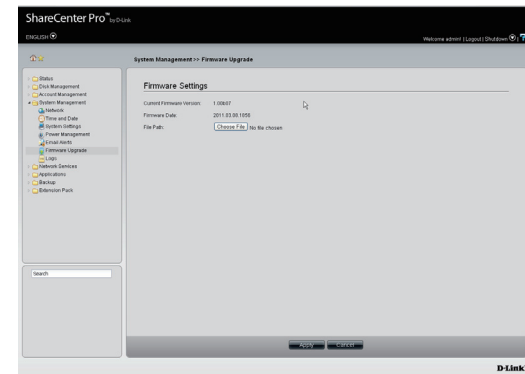


Step 2: Here, you can update the firmware of your ShareCenter Pro. Click **Choose File**, select the firmware file you want to use, then click **Apply** to update your firmware.

Current Firmware Version Displays the version of the firmware currently installed on the ShareCenter Pro.

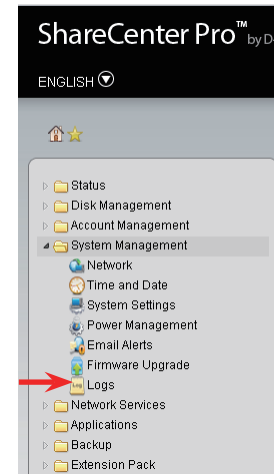
Firmware Date Displays the date of the firmware.

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.



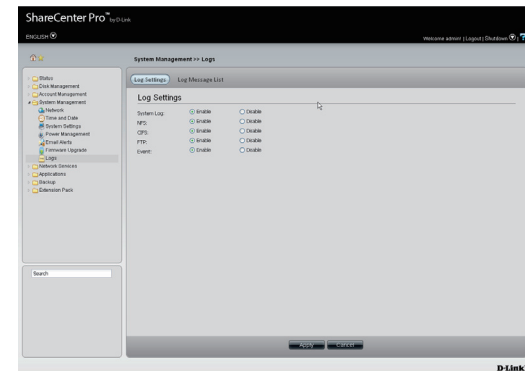
System Management > Logs

Step 1: Click on the **System Management** folder in the left pane of the ShareCenter Pro, then click on **Logs**.




Step 2: Log Settings: Here, you can configure the log settings based on your needs. You can enable the following logs:

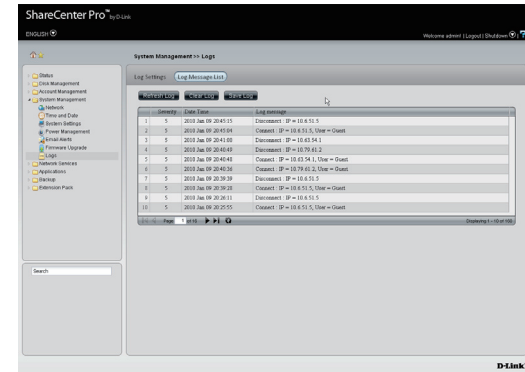
- System Log** Keeps a log of your system stats.
- NFS** Enable Network File Systems to access files over the network.
- CIFS** Provides shared access to files.
- FTP** File transfer Protocol to setup file transfer.
- Event** To monitor your events on your NAS.



System Management > Logs (cont.)

Log Message List: Here, you can view the system log.

- Refresh Log** Refresh the log.
- Clear Log** Clear the log.
- Save Log** Save the log to a local file.
- Page** If there are more log entries than the window can display, they will be shown across multiple 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 browse the log entries.
- Refresh** Click  to update the route list.

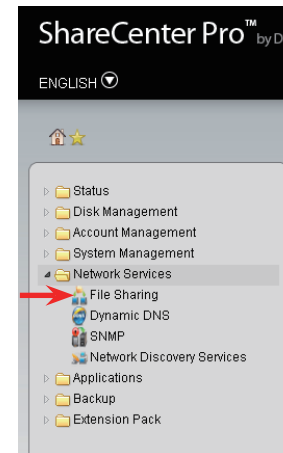


Network Services

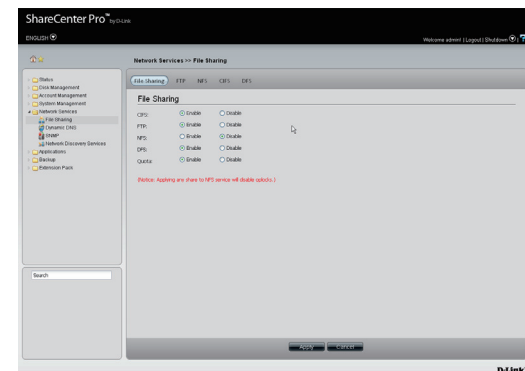
The D-Link ShareCenter Pro 1100 allows you to monitor and configure Network Services. Let's take a look.

Network Services > File Sharing

Step 1: Click on the **Network Services** folder in the left pane of the ShareCenter Pro, then click on **File Sharing**.



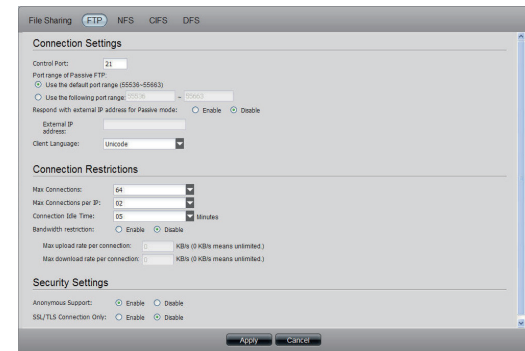
Step 2: File Sharing: Here, you can configure how the ShareCenter Pro does file sharing. You can enable or disable CIFS, FTP, NFS, DFS, and Quotas by using the radio buttons. After making your changes, click **Apply** to save your changes.



Network Services > File Sharing (cont.)








FTP: Here you can configure the ShareCenter Pro's FTP server:

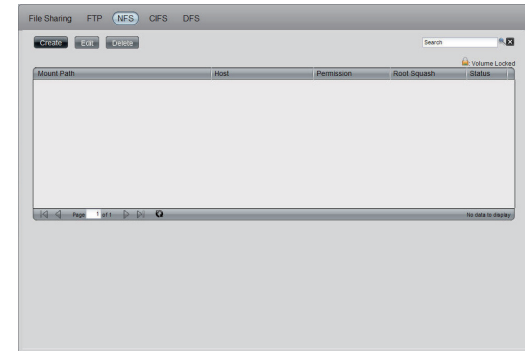
- Control Port** The default port for FTP is 21. Enter a port number in the range of 1025 to 3688, 3690 to 49999, and 65501 to 65535.
- Port Range of Passive FTP** The default port range for passive FTP is from 55536 to 55663. Click the **Use the following port range** radio button and manually enter 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 FTP clients.
- Max Connections** Use the drop-down menu to select the maximum number of concurrent FTP connections.
- Max Connections per IP** Use the drop-down menu to select the maximum number of concurrent FTP connections per IP.
- 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 to set the maximum upload and download speeds.
- Anonymous Support** Click **Enable** to allow anonymous FTP users to log in.
- SSL/TLS Connection Only** Click **Enable** to only allow SSL or TLS connection requests from FTP clients.










Network Services > File Sharing (cont.)

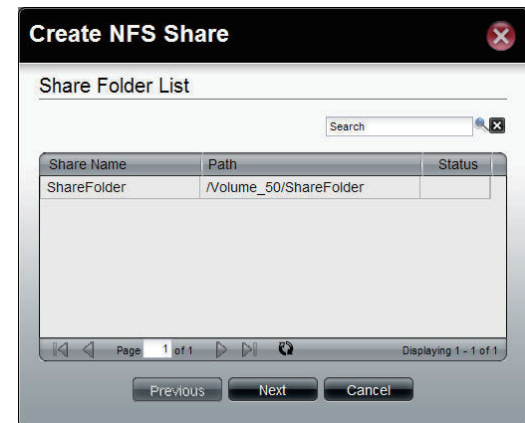
NFS: Here, you can configure NFS file sharing:

- Create** Click this to add a new mount path.
- Edit** Click this to edit the currently selected mount path.
- Delete** Click this to delete the currently selected share folder.
- Search** Enter the search keyword and click  to search for a specific share folder. Click  to clear the search field and see all share folders.
- Page** If there are more mount points than the window can display, they will be shown across multiple 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 browse the mount points.
- Refresh** Click  to update the group list.



NFS > Create: Click the **Create** button to create a new NFS share. Select a share folder, then click **Next**.

- Search** Enter the search keyword and click  to search for the specific entry. Click  to clear the search field and see all the entries.
- Page** If there are more share folders than the window can display, they will be shown across multiple 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 browse through the share folders.
- Refresh** Click  to update the group list.



Network Services > File Sharing (cont.)

NFS > Create (cont.): Configure the permissions of the NFS share you want to create, then click **Apply** to save your settings and create the NFS share.

Permission Use the drop-down menu to allow Read-Only or Read/Write rights for the share folder.

Root Squash Select **Root Squash** to have the system map requests from uid/gid 0 to the anonymous uid/gid.

Host Enter the host name for the NFS share.

CIFS: The CIFS tab allows you to configure the CIFS settings:

Description Enter the description for your device.

Workgroup Select this if the device will be part of a workgroup. Enter the name of the workgroup in the field.

Active Directory Select this if the device will be part of 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 computer's on the network.

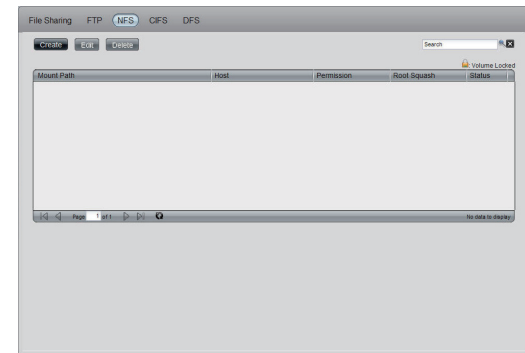
Realm Name Enter the AD server domain name.

AD Server Name Enter the AD server hostname.

Network Services > File Sharing (cont.)

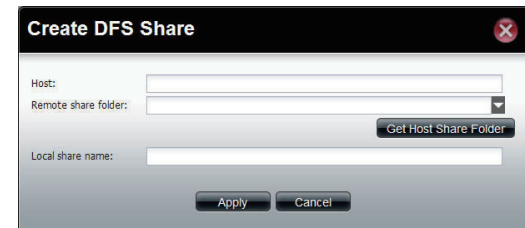
DFS: Click the DFS tab to configure DFS sharing.

- Create** Click to add a new DFS share.
- Edit** Select a local share name and click this to edit the DFS share.
- Delete** Select a local share name and click this 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** If there are more shares than the window can display, they will be shown across multiple 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 browse through the shares.
- Refresh** Click  to update the group list.



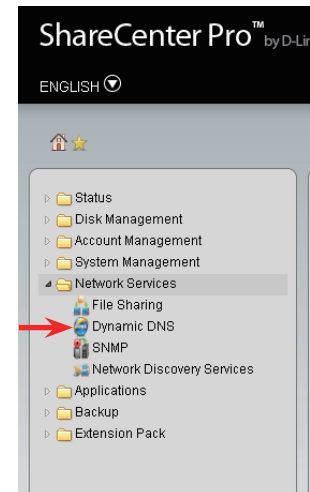
DFS > Create: Click the create button to add a new DFS share.

- 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.



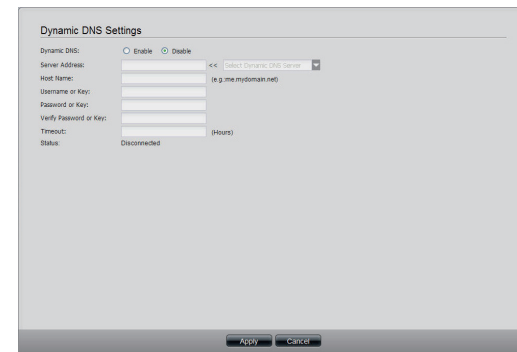
Network Services > Dynamic DNS

Step 1: Click on the **Network Services** folder in the left pane of the ShareCenter Pro, then click on **Dynamic DNS**.



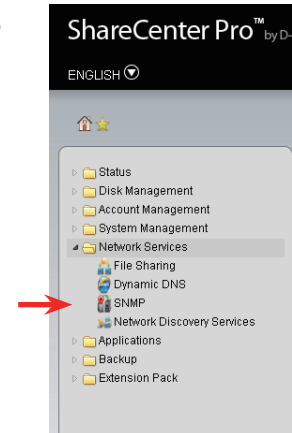
Step 2: This screen allows you to set up the ShareCenter Pro's Dynamic DNS settings, which allows you to automatically update your dynamic DNS service with your current IP address.

- 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.



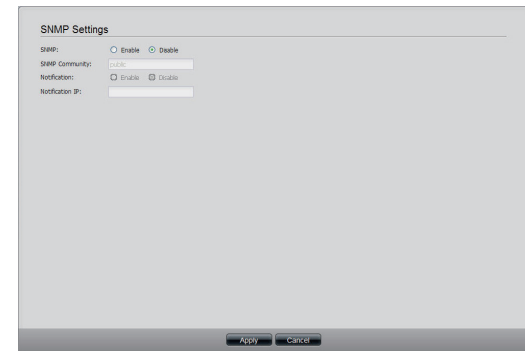
Network Services > SNMP

Step 1: Click on the **Network Services** folder in the left pane of the ShareCenter Pro, then click on **SNMP**.



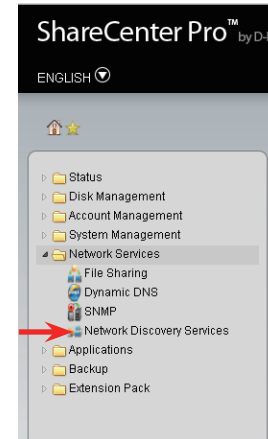
Step 2: Here you can configure the ShareCenter Pro's SNMP settings. SNMP is used to monitor the conditions of network-attached devices.

- SNMP** Enable or Disable SNMP.
- SNMP Community** Enter the name of the SNMP community.
- Notification** Enable or Disable SNMP notifications.
- Notification IP** Enter the IP address to send SNMP notifications to.



Network Services > Network Discovery Services

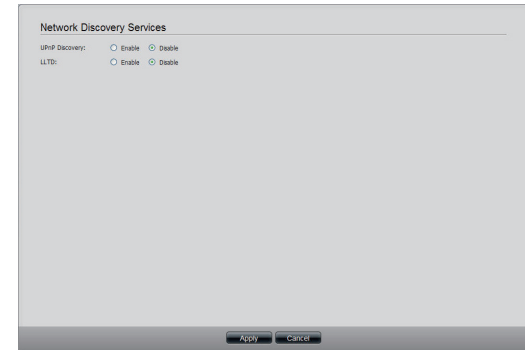
Step 1: Click on the **Network Services** folder in the left pane of the ShareCenter Pro, then click on **Network Discovery Services**.



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 function on Windows Vista or Windows 7.

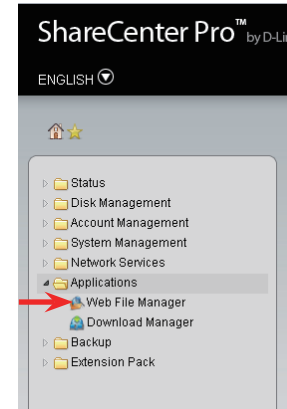


Applications

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

Applications > Web File Manager

Step 1: Click on the **Applications** folder in the left pane of the ShareCenter Pro, then click on **Web File Manager**.



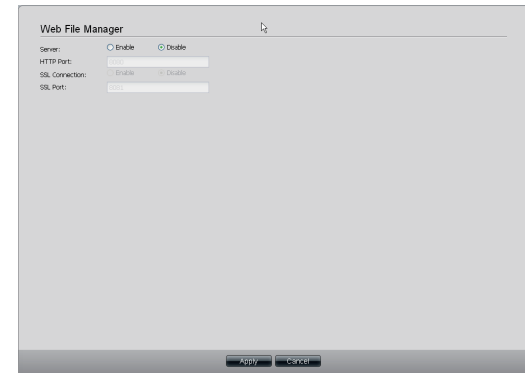
Step 2: You can configure the Web File Manager to start a web server for users to upload and download files through a web browser.

Server Select whether you want to enable or disable the web file server.

HTTP Port Enter the port number for the web file server to use. Port 80 cannot be used as it is used for administration purposes.

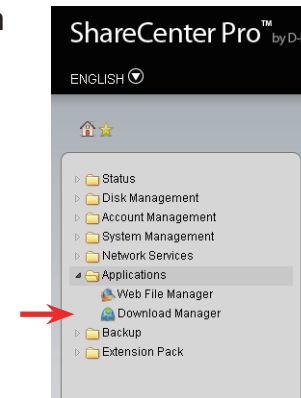
SSL Connection Choose whether to enable or disable HTTPS connection for the web file server.

SSL Port Enter the port number to use for the HTTPS connections to the web file server.



Applications > Download Manager

Step 1: Click on the **Applications** folder in the left pane of the ShareCenter Pro, then click on **Download Manager**.



Step 2: The Download Manager is used to schedule downloading files from FTP or HTTP sites.

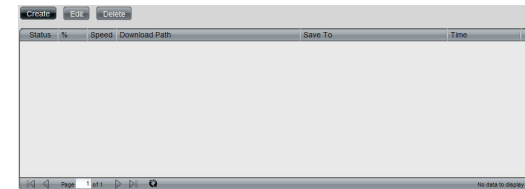
Create Click to add a new download job.

Edit Select an entry and click the button to edit.

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

Page If there are more downloads than the window can display, they will be shown across multiple 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 browse through downloads.

Refresh Click  to update the group list.



Software - Applications - Download Manager (cont.)

Create: Click the Create button to start the Create Download Job wizard. After entering the details, click **Next** to continue.

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.

On the next screen, specify the download schedule for the job, then click **Apply** to save your changes and create the download job.

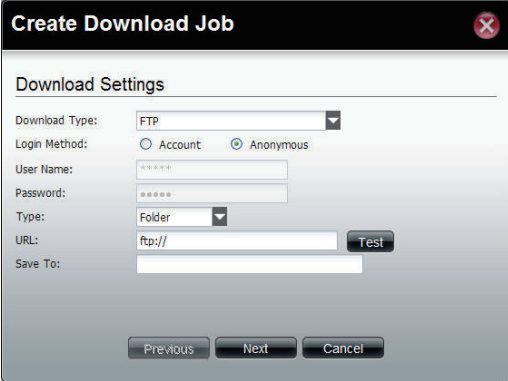
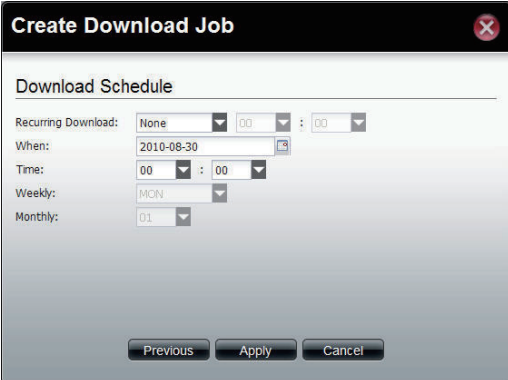
Recurring Download Use the drop-down menu to schedule a recurring download time every day, week, or month. Select **None** to disable recurring download of the job.

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.

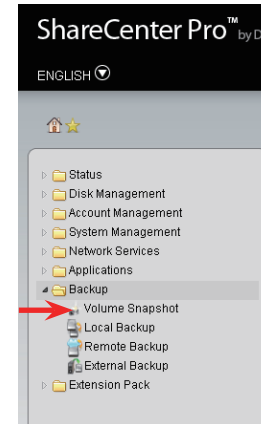



Backup

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

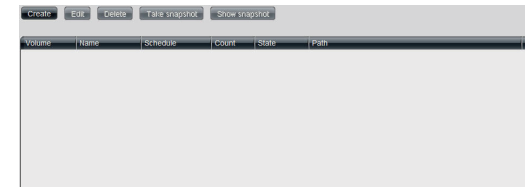
Backup > Volume Snapshot

Step 1: Click on the **Backup** folder in the left pane of the ShareCenter Pro, then click on **Volume Snapshot**.



Step 2: The Volume Snapshot page 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 has been taken.



Backup > Volume Snapshot (cont.)

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

Folder Click the field to show available folders. Click a folder to see its 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 whether to manually schedule the job, or schedule 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.

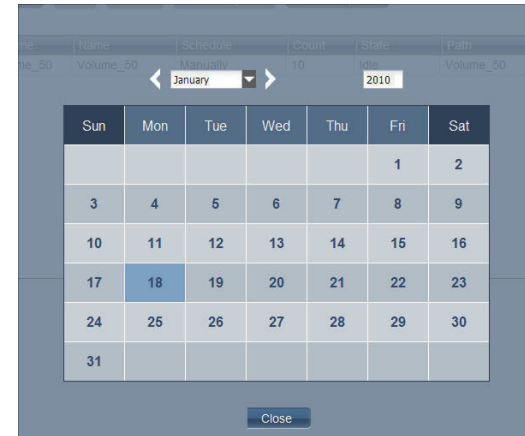


The screenshot shows a dialog box titled "Create Snapshot Job" with a close button in the top right corner. The dialog contains the following fields and controls:

- Folder:** A text input field.
- Count:** A dropdown menu with "10" selected.
- Schedule:** A dropdown menu with "Manually" selected.
- Time:** Two dropdown menus, both showing "00".
- Weekday:** A dropdown menu with "SUN" selected.
- Date:** A dropdown menu with "01" selected.
- Buttons:** "Apply" and "Cancel" buttons at the bottom.

Software - Backup - Volume Snapshot (cont.)

Show Snapshot: Click the Show Snapshot button to see a calendar with links to your snapshots. You can use the dropdown box to select a month, and enter a year in the text box. Highlighted days indicate that a snapshot was saved on that day; click the cell to view the details of the snapshots taken on that day. When you are finished, click **Close** to go back to the Volume Snapshot window.



After selecting a day from the calendar, the Snapshot window will appear. You can browse through available snapshots on this page. When you are finished, click the **Close** button.

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

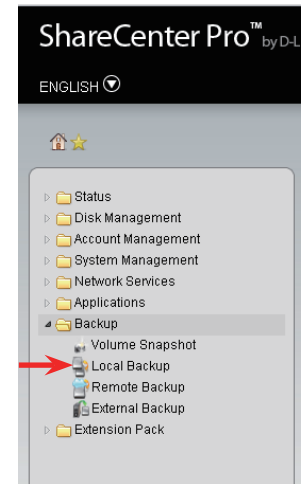
Page If there are more snapshots than the window can display, they will be shown across multiple pages. You can enter a page number in the field to jump to the specific page. Click First Page (⏪), Previous Page (⏩), Next Page (⏪) or Last page (⏩) to browse through snapshots.

Refresh Click  to update the group list.



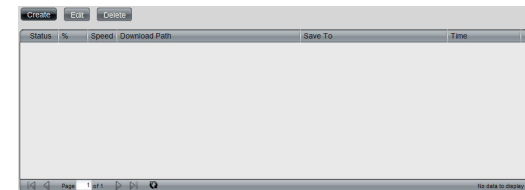
Backup > Local Backup

Step 1: Click on the **Backup** folder in the left pane of the ShareCenter Pro, then click on **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** If there are more backup jobs than the window can display, they will be shown across multiple 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 browse through backup jobs.
- Refresh** Click (🔄) to update the group list.



Backup > Local Backup (cont.)

Create: Click the Create button to create a Local Backup Job. After specifying the details of the backup job, click **Next** to continue.

Login Method Select **Account** if a user name and password is required for the backup job. Select **Anonymous** if this is not required for the procedure.

User Name Enter a user name to log in with for the backup.

Password Enter a password to log in with for the backup.

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


Path Enter the path manually, or click **Local** to locate the file/folder to be backed up. Click the **Test** button to check to make sure the file/folder is accessible.

Save To Select a folder to save backups to by clicking the field to show 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 incremental backups; all backups after the first full backup will be on an incremental basis, which minimizes the amount of data that needs to be backed up. Only files changed since the last backup will be backed up.

Backup > Local Backup (cont.)

Set a schedule for local backup job, then click **Apply** to save your changes and create the new backup job.

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



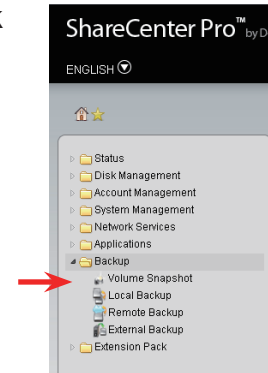
The screenshot shows a dialog box titled "Create Local Backup Job" with a close button (X) in the top right corner. Inside the dialog, there is a section titled "Local Backup Schedule". Below this title, there are several configuration options:

- Recurring Backup:** A dropdown menu set to "None", followed by two time selection fields (hour and minute) both set to "00".
- When:** A date selection field showing "2010-08-30" with a calendar icon to its right.
- Time:** Two time selection fields (hour and minute) both set to "00".
- Weekly:** A dropdown menu set to "MON".
- Monthly:** A dropdown menu set to "01".

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

Backup > Remote Backup

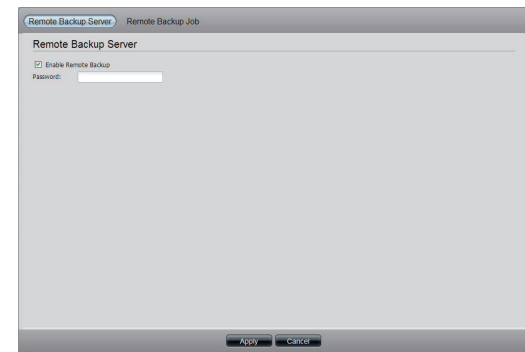
Step 1: Click on the **Backup** folder in the left pane of the ShareCenter Pro, then click on **Remote Backup**.



Step 2: Remote Backup Server: The Remote Backup Server tab allows you to enable the remote backup server function of the ShareCenter Pro. After making any changes, click **Apply** to save your changes.


Enable Remote Backup Tick the check box to enable the remote backup server function.

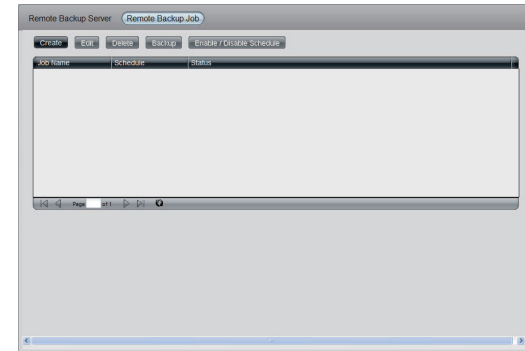
Password Enter the password for backing up files and folders to or from the ShareCenter Pro. This will be the remote backup password. The password for the remote NAS should be the same as the password of the ShareCenter Pro.



Backup > Remote Backup (cont.)

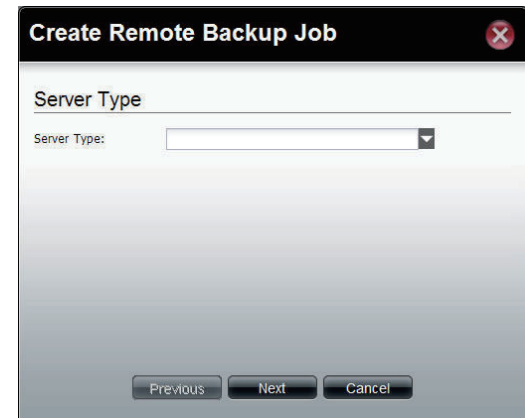
Remote Backup Job: This tab allows you to create and manage remote backup jobs.

- Create** Click to create a new remote backup job.
- Edit** Select an entry and click the button to edit the job.
- Delete** Select an entry and click the button to remove a backup job from the list.
- Backup** Click the button to start the selected backup job.
- Enable/Disable Schedule** Click the button to enable or disable the scheduled remote backup function.
- Page** If there are more backup jobs than the window can display, they will be shown across multiple 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 browse through backup jobs.
- Refresh** Click  to update the list.



Remote Backup Job > Create: Clicking the Create button will open the Create Remote Backup Job wizard. Select a server type, then click **Next** to continue.

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



Backup > Remote Backup (cont.)

Remote Backup Job > Create (cont.): Enter the Job Name and Folder Path, then click **Next** to continue.

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.

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 "Source Settings" and contains two input fields: "Job Name:" and "Folder Path:". At the bottom of the dialog, there are three buttons: "Previous", "Next", and "Cancel".

Enter the Destination Settings, then 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 files (do not overwrite) if there are duplicates, and create backup copies instead.

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)" and contains three input fields: "IP of Remote Server:", "Password:", and two checkboxes: "Encryption Support" and "Keep Existing File". At the bottom of the dialog, there are three buttons: "Previous", "Next", and "Cancel".


Software - Backup - Remote Backup (cont.)

Remote Backup Job > Create (cont.): Enter the Destination Path and click **Next** to continue.

Destination Path Click the field to select a destination path.

Enter the Destination Schedule details, including where to place recurring backups. When you are finished, click **Apply** to save your changes and create the new remote backup job.

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

When Click  to select the year and date to run the backup.

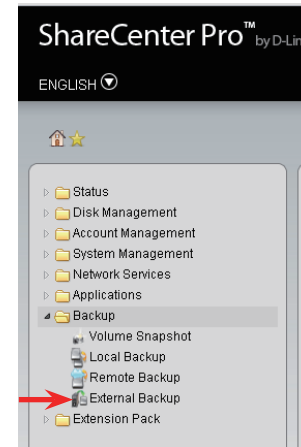
Time Use the drop-down menu to select the time for the backup.

Weekly Select a day of the week for recurring backup.

Monthly Select the month for recurring backup.

Backup > External Backup

Step 1: Click on the **Backup** folder in the left pane of the ShareCenter Pro, then click on **External Backup**.

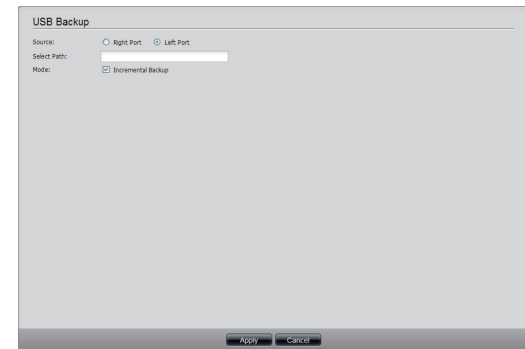


Step 2: USB Backup allows you to automatically back up a USB storage device connected to the ShareCenter Pro. Insert your device into the USB port on the back of the NAS, select the USB port your storage device is connected to, and select the path you want to back up your files to then click **Apply** to start the backup.

Source Select the USB port that you connected your USB storage drive to.

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

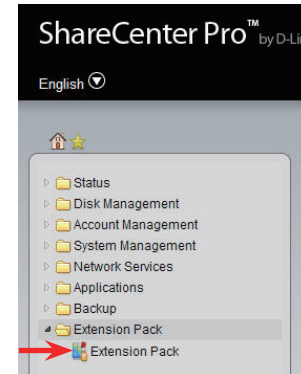
Mode Tick the **Incremental Backup** check box to enable incremental backups; all backups after the first full backup will be on an incremental basis, and only files changed since the last backup will be backed up.



Extension Packs

This page helps you manage your Extension Packs, which allow you to extend the functionality of your ShareCenter Pro. Check the D-Link website from time to time to see if new extension packs have been released for your device.

Step 1: Click on the **Extension Pack** folder in the left pane of the ShareCenter Pro, then click on **Extension Pack**.



Step 2: Click on the **Extension Pack** folder in the left pane of the ShareCenter Pro, then click on **Extension Pack**.

File Path Click the **Browse** button to change the file path to your extension packs, then click **Apply**.

Add-ons List Displays a list of all available add-on modules.

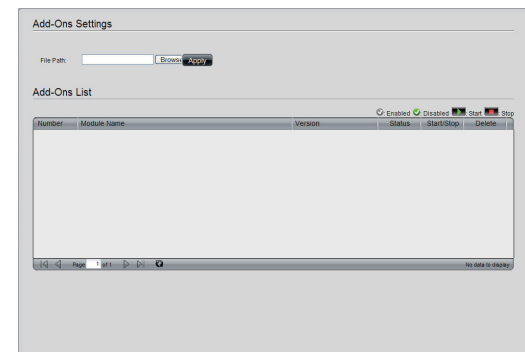
Status Displays if the module is currently enabled or disabled.

Start/Stop You can start or stop individual modules by clicking on their start/stop buttons.

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

Refresh If there are more extension packs than the window can display, they will be shown across multiple 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 browse through extension packs.

Page Click  to update the list.



Remote User Access

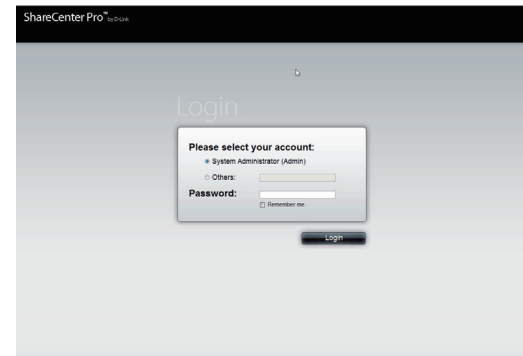
The D-Link ShareCenter Pro 1100 allows users to access the DNS-1100-04 from any location. Let's take a look.

Accessing The ShareCenter Pro Remotely

Step 1: Open your browser and enter the IP address of your ShareCenter Pro.

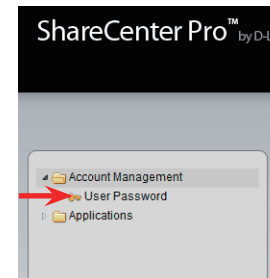
Step 2: Enter your account name and password, then click the **Login** button.

Note: If you do not know your account name and password please contact your system administrator.

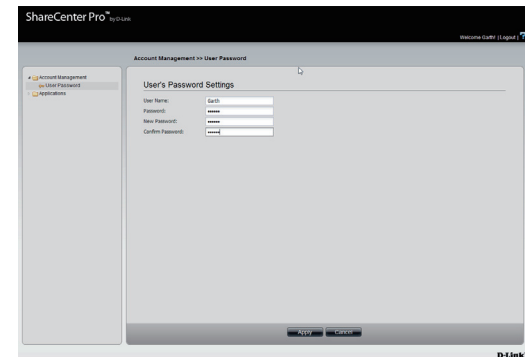


Remote User Access > Changing your Password

Step 1: Click on the **Account Management** folder in the left pane of the ShareCenter Pro, then click on **User Password**.



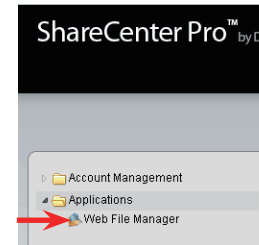
Step 2: To change your password, enter your user name and current password, then enter your new password in the **New Password** and **Confirm Password** text boxes, then click **Apply**.



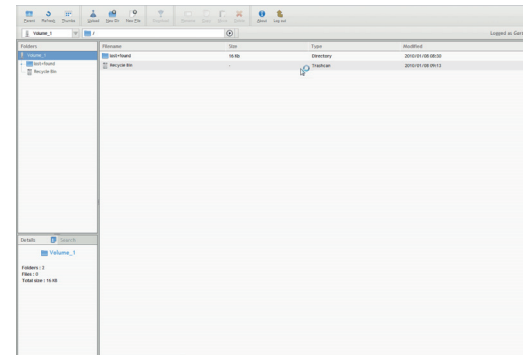
Remote User Access > Web File Manager

Step 1: Click on the **Applications** folder in the left pane of the ShareCenter Pro, then click on **Web File Manager**.

Note: You must have the Web File Manager feature enabled. For more information, refer to “Applications > Web File Manager” on page 85.

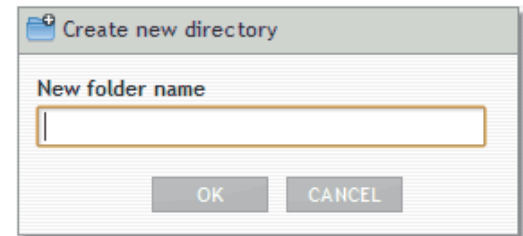
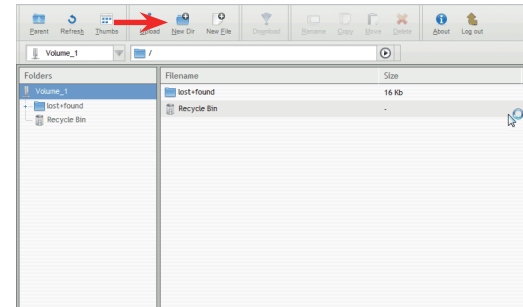


Step 2: The AjaXplorer interface will open. This interface allows you to access the Shared Folders from your web browser.

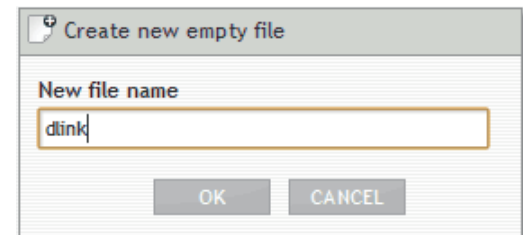
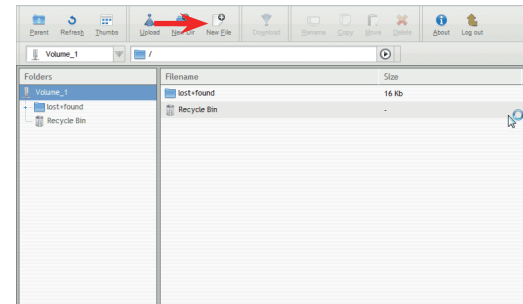


Remote User Access - Web File Manager (cont.)

Creating A New Directory: In the browser window click the **New Dir** icon and enter a name for your directory and click **OK**.

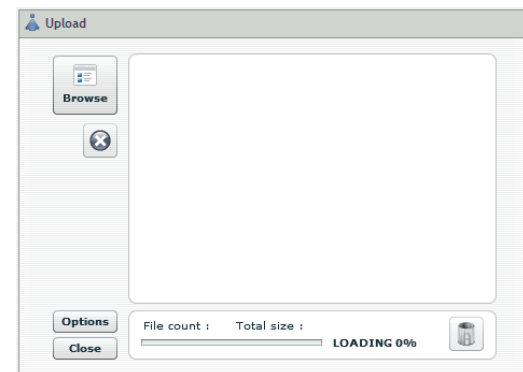
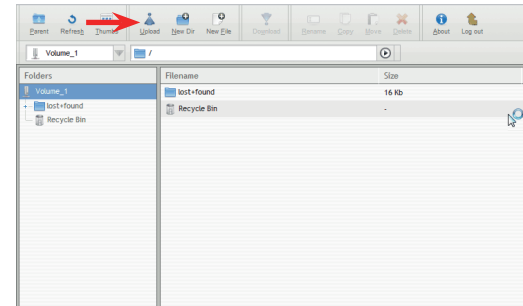


Creating A New File: To create a new empty file, click the **New File** icon and enter a name for your file and click **OK**.

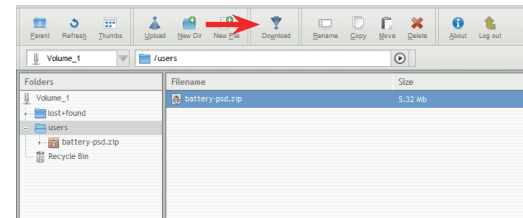


Remote User Access - Web File Manager (cont.)

Uploading files: Click the **Upload** icon, then click the **Browse** button and select the files you want to upload.

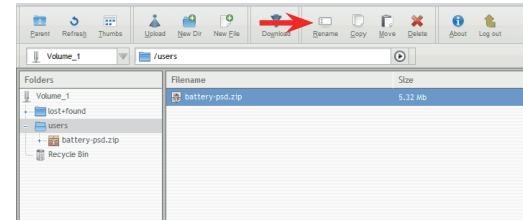


Downloading Files: To download files, click the file you want to download, then click the **Download** button.

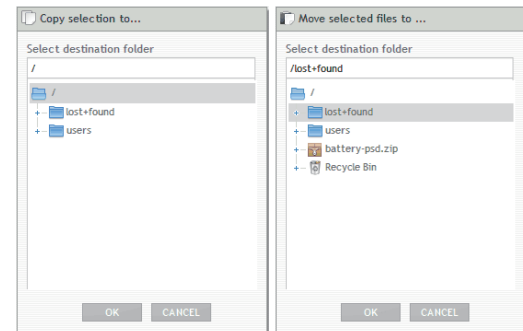
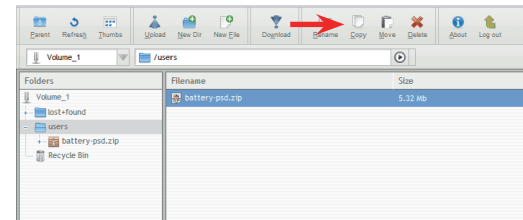


Remote User Access - Web File Manager (cont.)

Renaming Files: To rename a file, click the file you want to rename, then click the **Rename** button. Enter the new name for the file, then click **OK**.

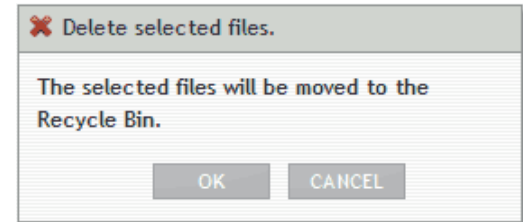
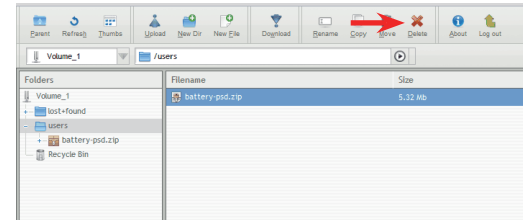


Copying/Moving Files: To copy or move a file to another location, click the file you want to copy/move, then click the **Copy** or **Move** button. Select the location you want to copy or move the file to, then click **OK**.

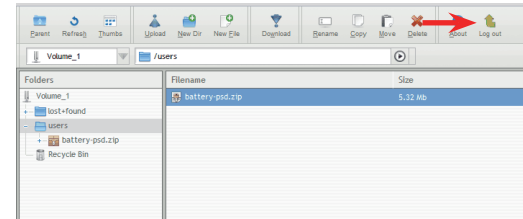


Remote User Access - Web File Manager (cont.)

Deleting Files: Select the file you want to delete, then click the **Delete** button. Click **OK** to confirm that you want to delete the file.



Logging Out: To log out of the web file manager, click the **Log Out** button.

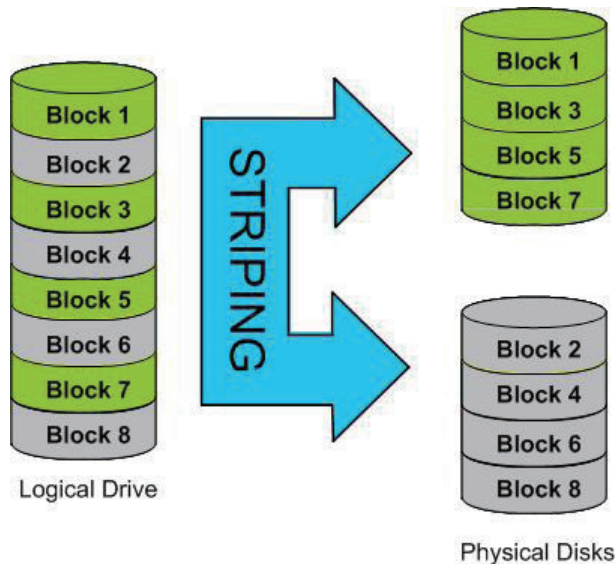


Appendix A: What Is RAID?

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**.

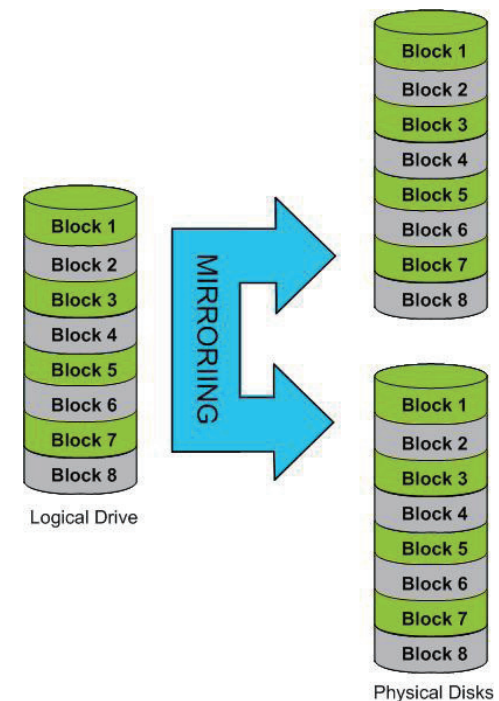
RAID 0 RAID 0 provides data striping, which spreads out blocks of data over all drives, but does not provide data redundancy.

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.

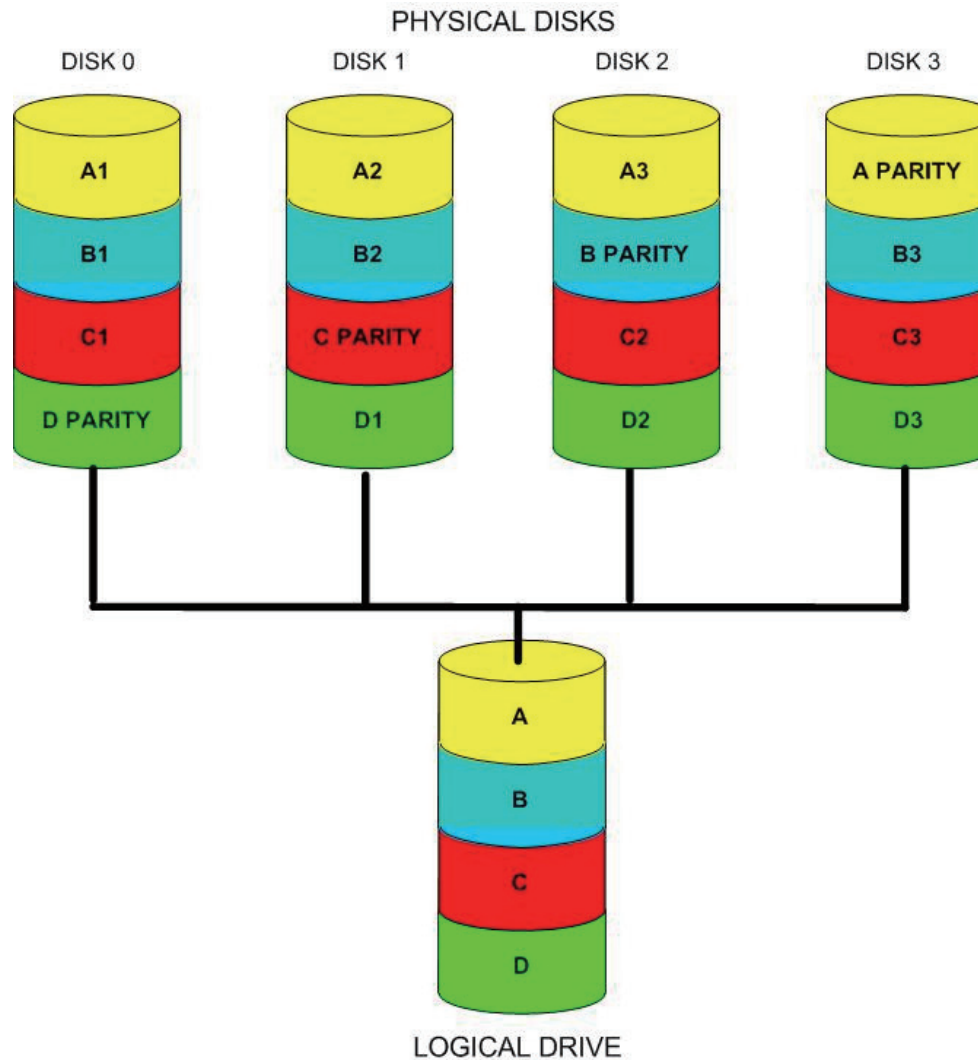
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



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).

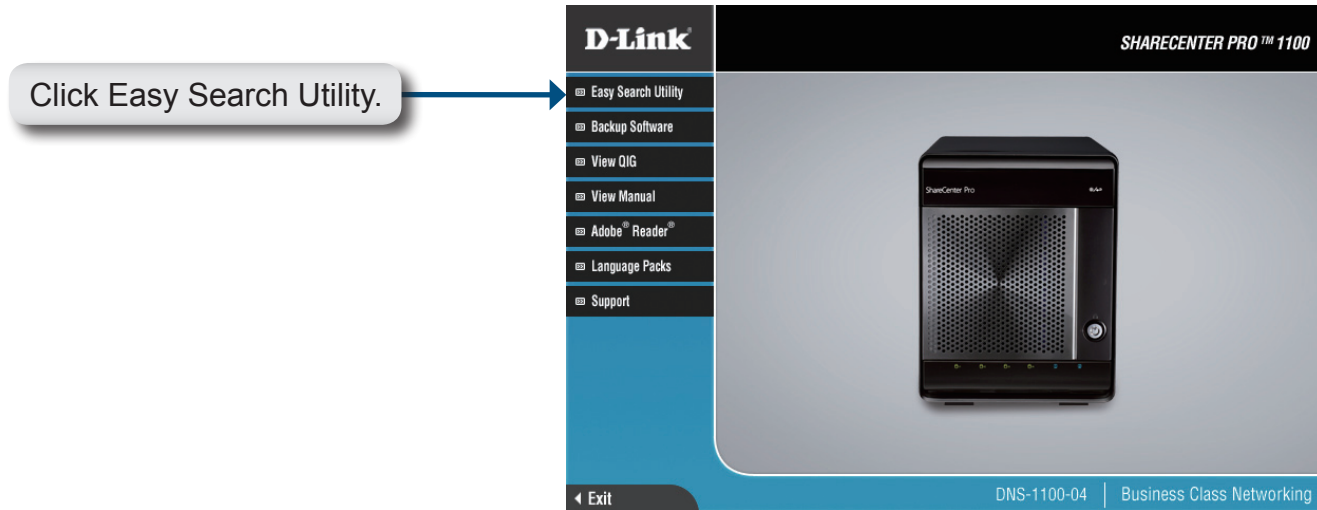
Implementing RAID 5 on the ShareCenter Pro allows it to continue operating even if one of the disks fails.

The diagram below indicates the operation of RAID 5:



Appendix B: 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**.

The screenshot shows the 'D-Link's DNS-1100-04 EZSearch' window. It features a table of Network Storage Devices, a LAN configuration section, an iSCSI Drive Mapping section, and a Drive Mapping section. Three callout boxes with red arrows point to specific elements: 'Highlight an available ShareCenter.' points to the 'Alpha_tsv_nas' row in the table; 'Available volumes will be displayed under Drive Mapping. Highlight the volume you want to map.' points to the 'Sample' volume in the Drive Mapping table; 'Select an available drive letter from the drop-down menu and click **Connect**.' points to the 'Z:' dropdown and the 'Connect' button.

Network Storage Device

Name	IP	Netmask	Gate
SDDSRV01	10.49.15.253	255.0.0.0	10.1
Alpha_tsv_nas	10.254.254.249	255.0.0.0	10.1
DNS-323TLD3	10.73.40.17	255.0.0.0	10.7
NAS-346-MAY-5	10.75.22.157	255.0.0.0	10.1

LAN

IP: 10 . 22 . 9 . 80 Receive DHCP: Enable

Netmask: 255 . 0 . 0 . 0

Gateway: 10 . 254 . 254 . 251

iSCSI Drive Mapping

Name	Active
------	--------

Drive Mapping

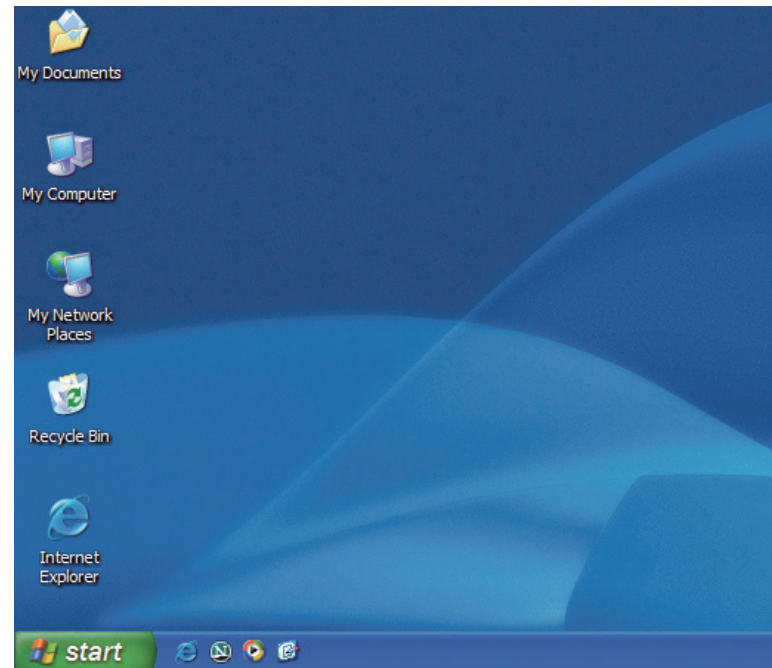
Volume Name	Location
Sample	

Available Drive Letters : Z: [dropdown]

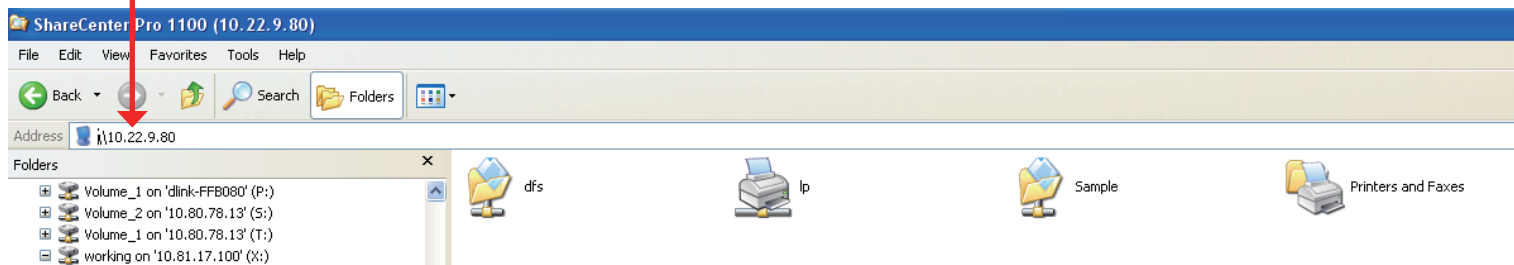
Connect Disconnect

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.

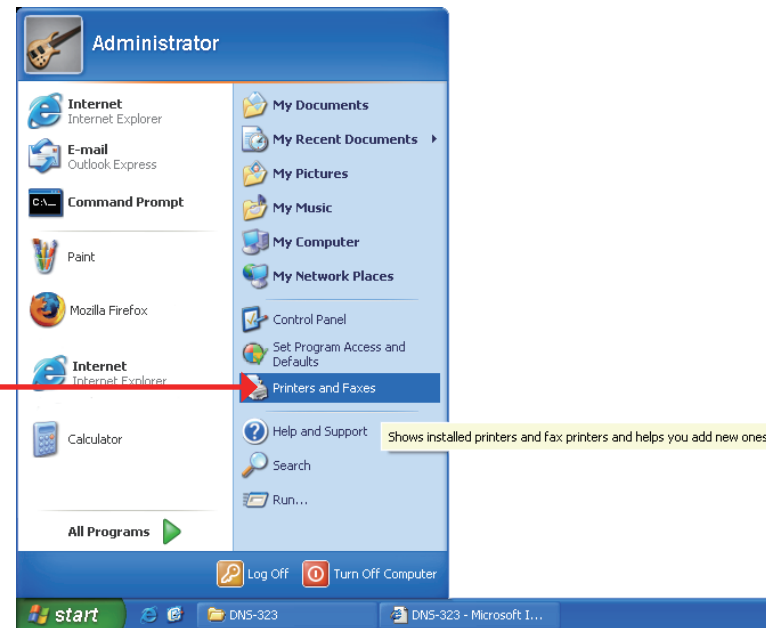


Appendix C: Setting Up a USB Print Server

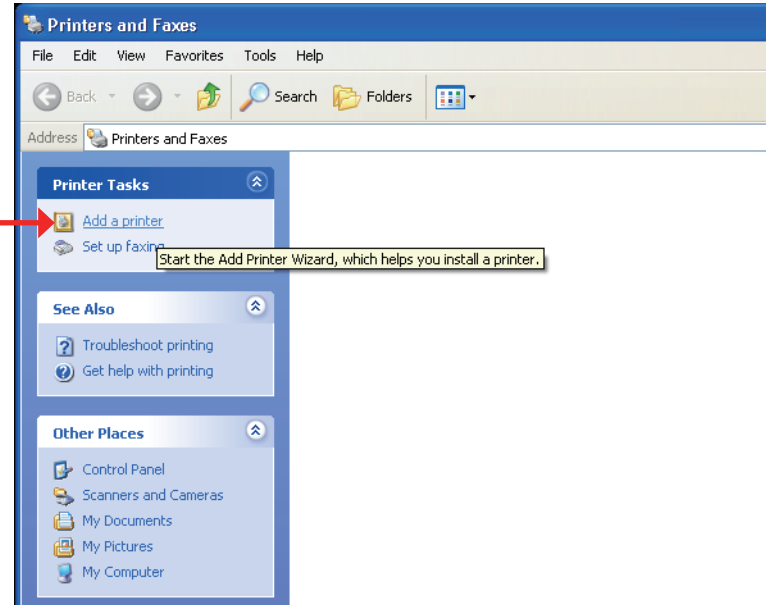
The ShareCenter Pro features a built-in USB print server, giving users the ability to share a printer on their local network. Connect a USB printer to the USB port on the back of the ShareCenter Pro. It is important to ensure that any of the printer manufacturer's drivers are already installed on any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

To add a printer:

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

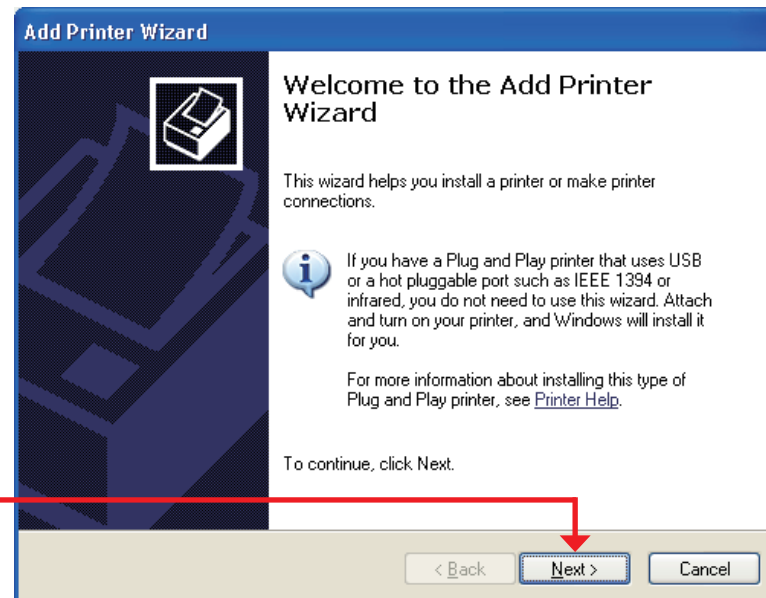


Select **Add a printer**.



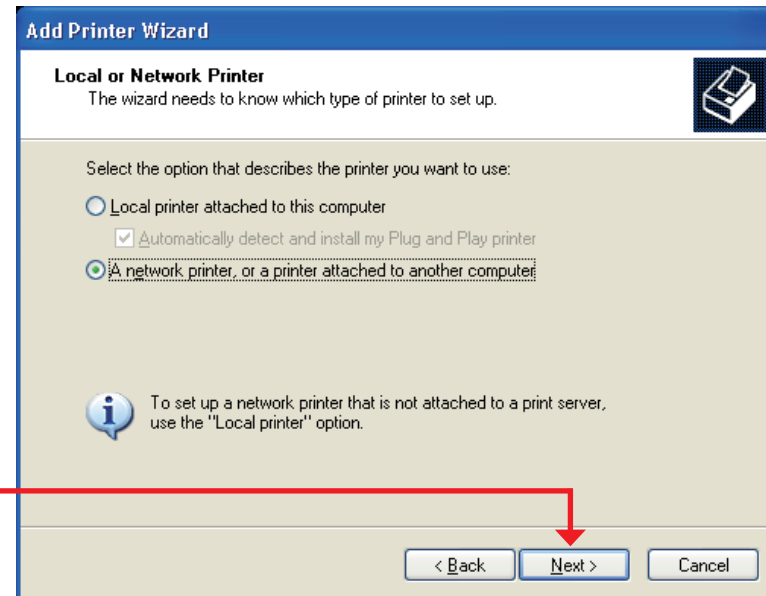
The Windows® Add Printer Wizard will launch:

Click **Next** to continue.

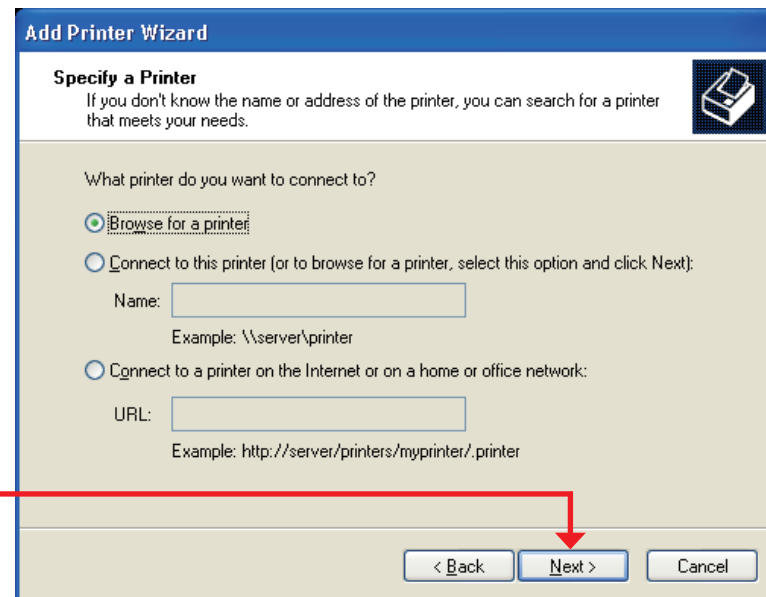


When prompted to choose a local, or network printer, select **“A network printer, or a printer attached to another computer.”**

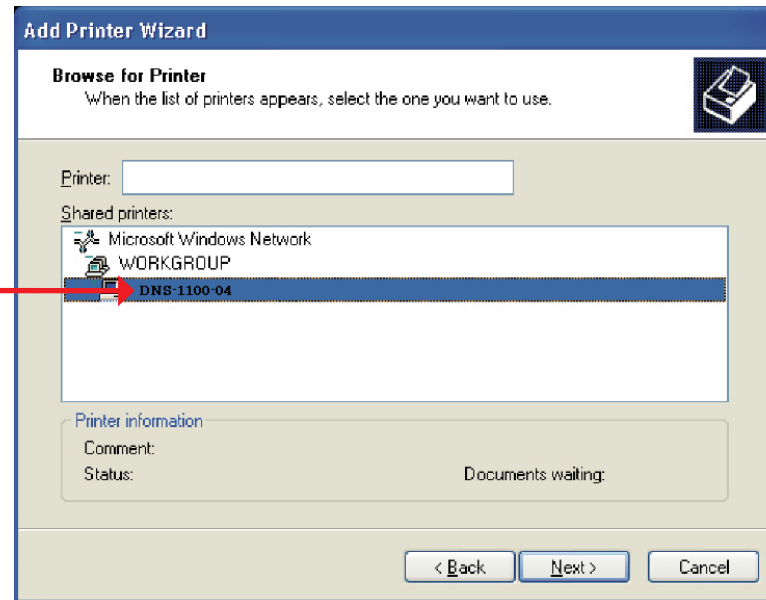
Click **Next** to continue.



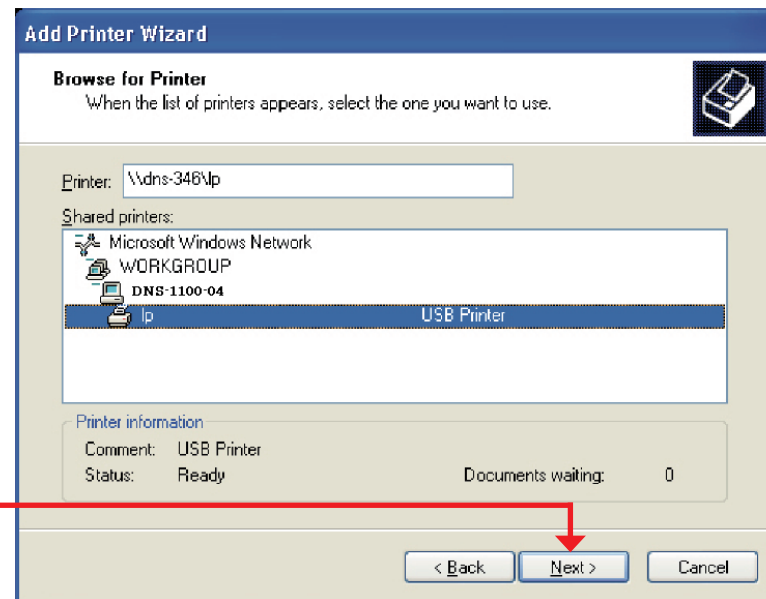
Select **“Browse for a printer”** and click **Next** to continue.



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

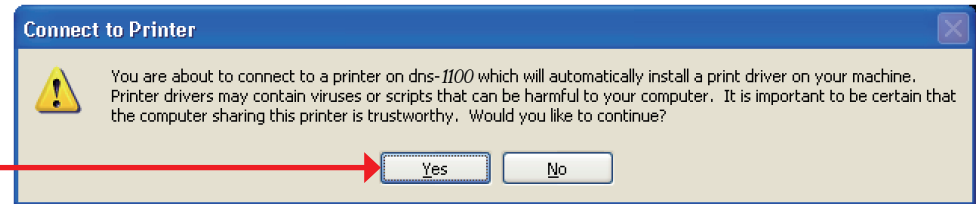


Select the available USB printer, and click **Next** to continue.

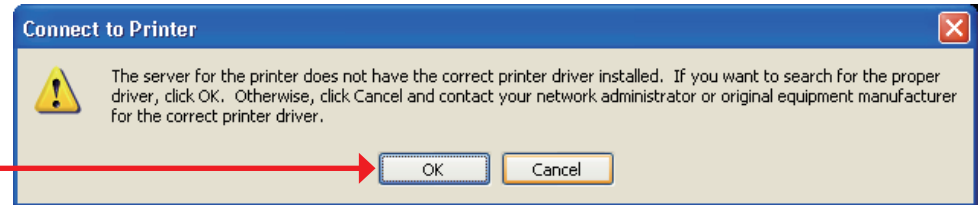


The following printer driver messages will appear:

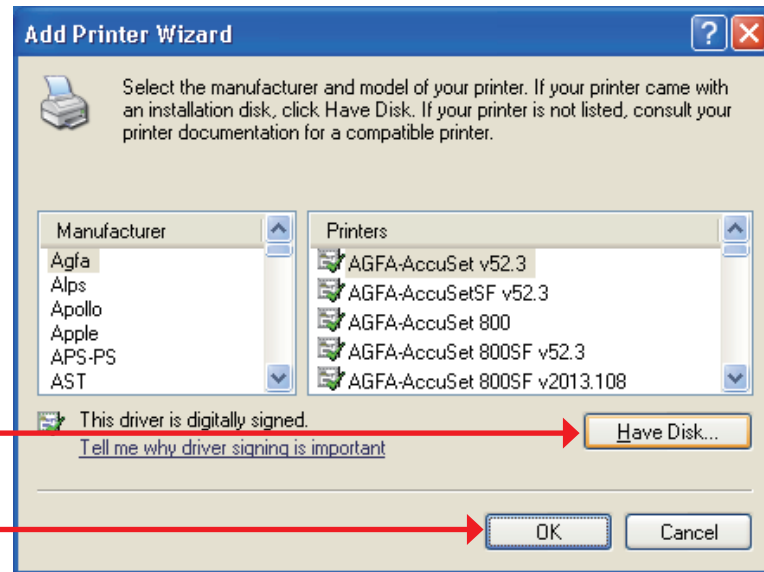
Click **Yes** to continue.



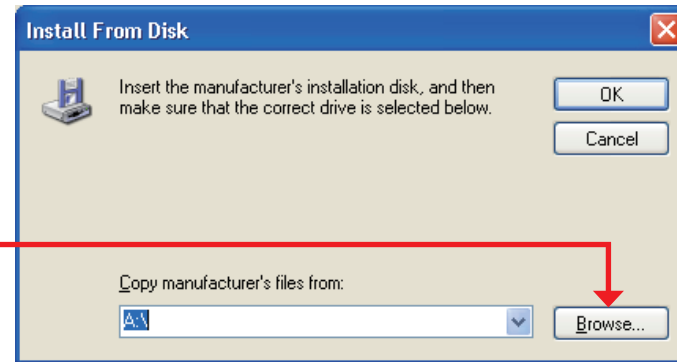
Click **OK** to continue and select a printer driver.



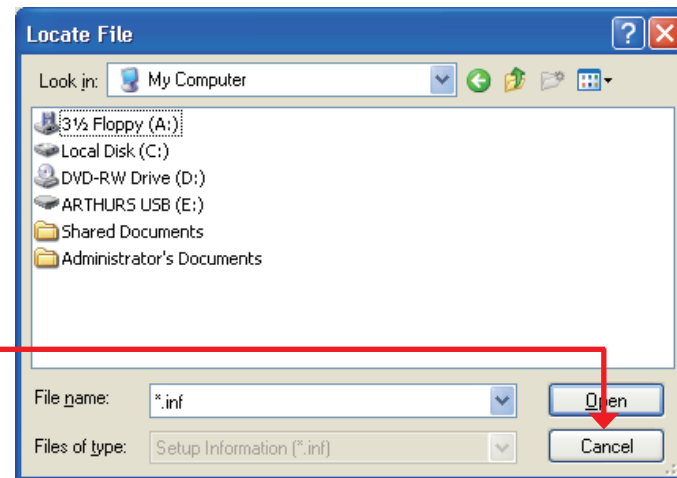
Select the appropriate printer driver from the list and click **OK** to complete the wizard. If the driver is not in the list, select **Have Disk**.



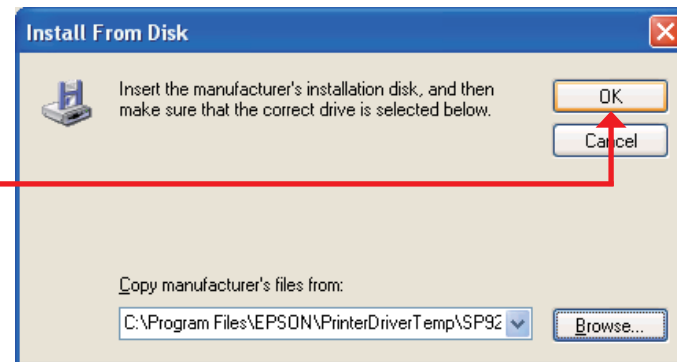
Insert the print driver CD or browse to the appropriate directory.



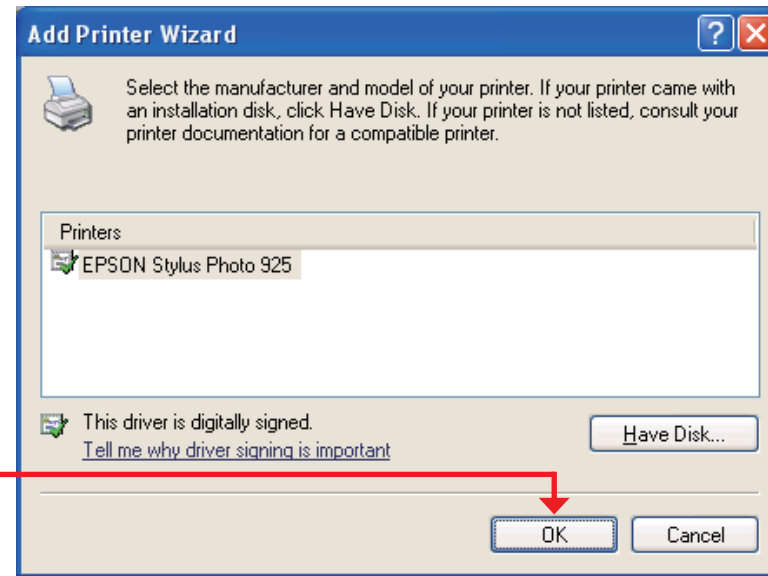
Select the appropriate driver file, and click **Open** to continue.



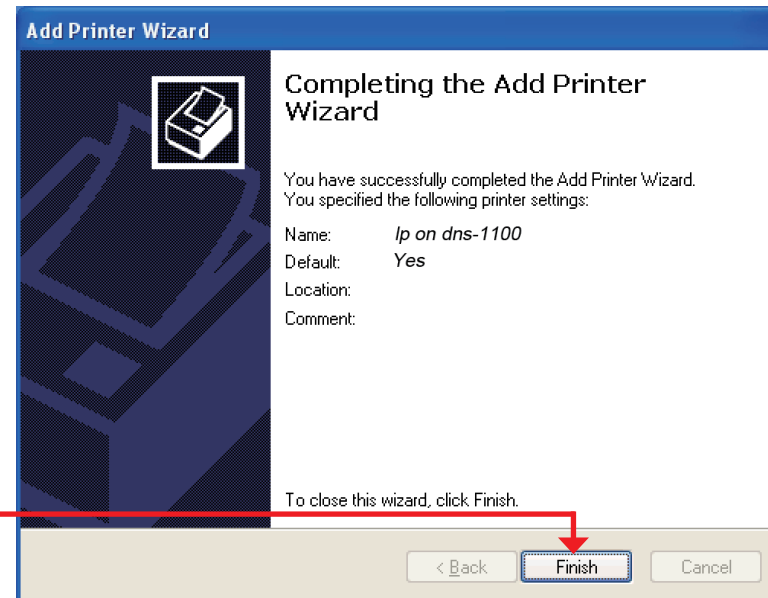
Click **OK** to continue.



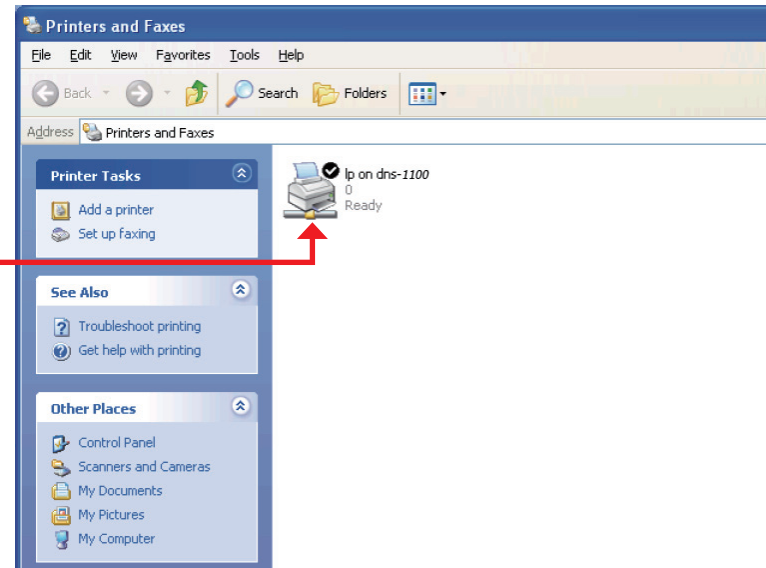
Verify the driver is correct, and click **OK** to continue.



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



The printer should now appear as an available printer.



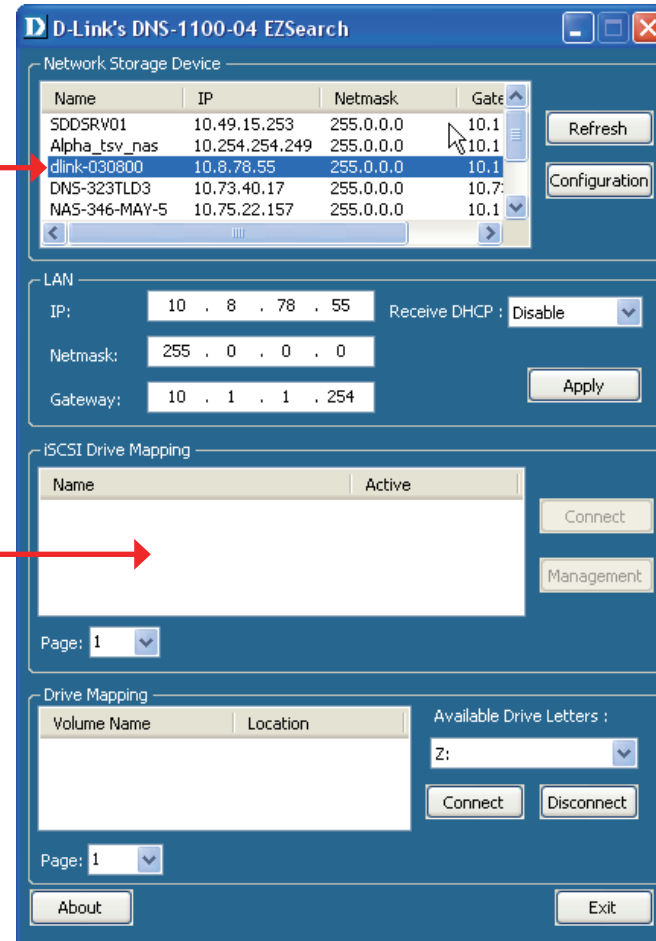
Appendix D: iSCSI Drive Mapping

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.

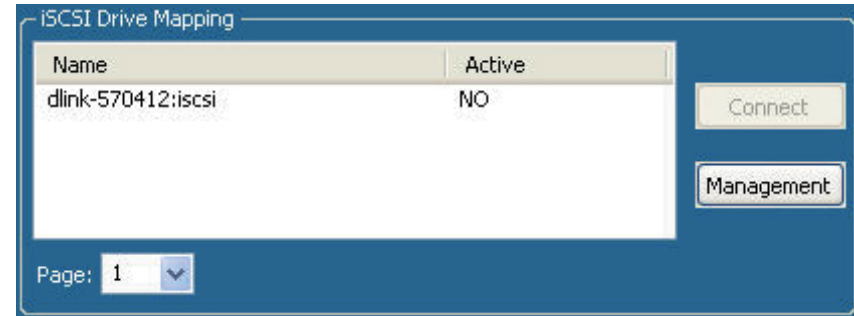
The different parameters in the iSCSI Drive Mapping section are described below:

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.

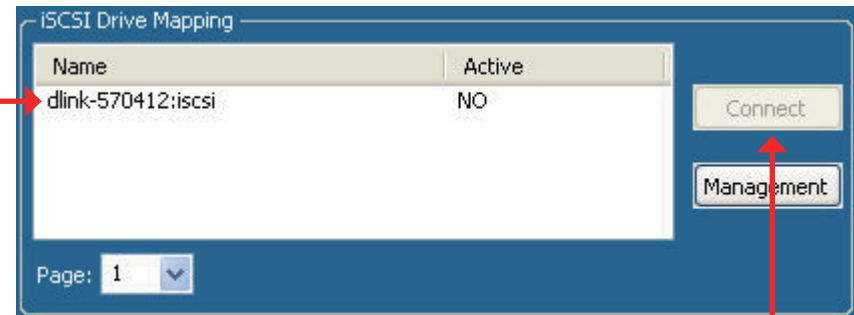
Connect/Disconnect Choose a target from the list and click the **Connect/Disconnect** button to activate/deactivate the Target. If CHAP authentication has been enabled, then a username and password will be required.

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



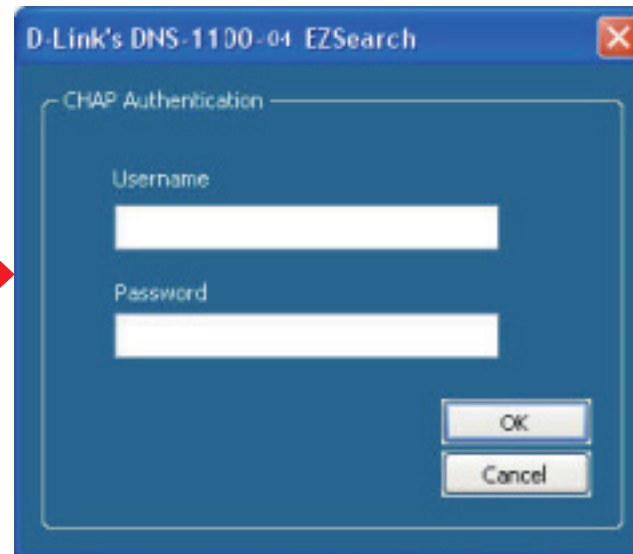
Configuring Targets

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



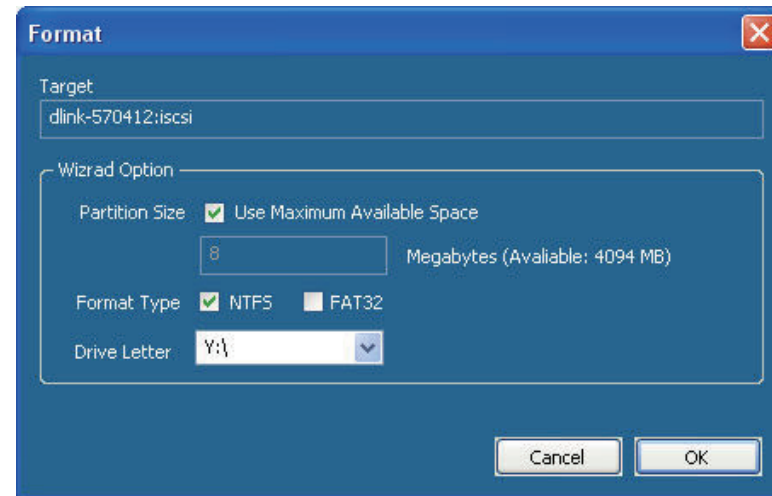
2. Click the **Connect** button.

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



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.

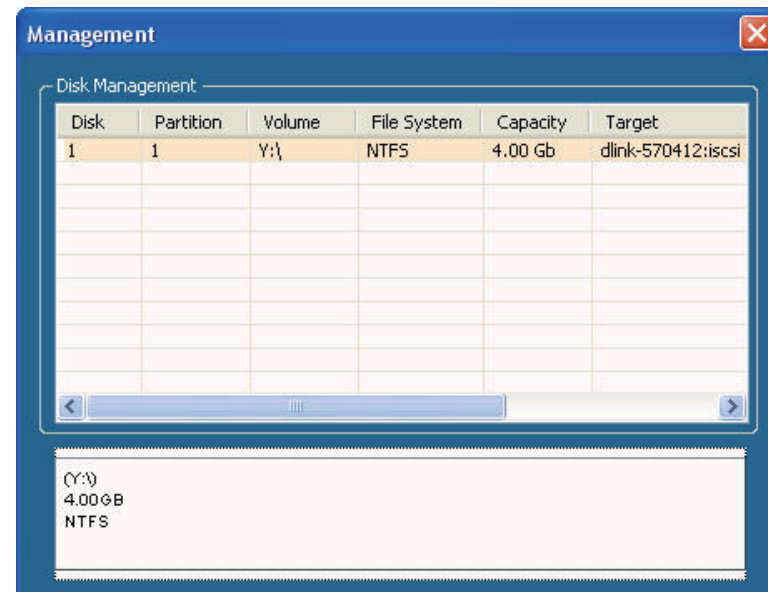
Configuring Disks

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.

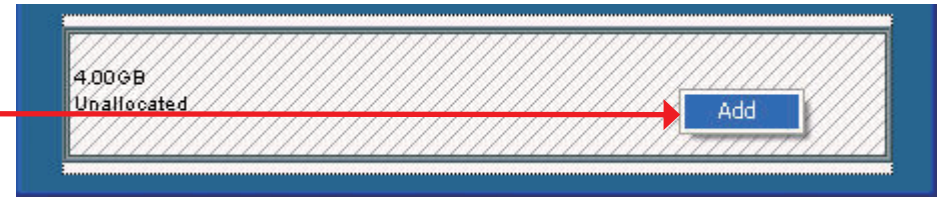
The Disk Management section displays the following parameters:

- 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**.



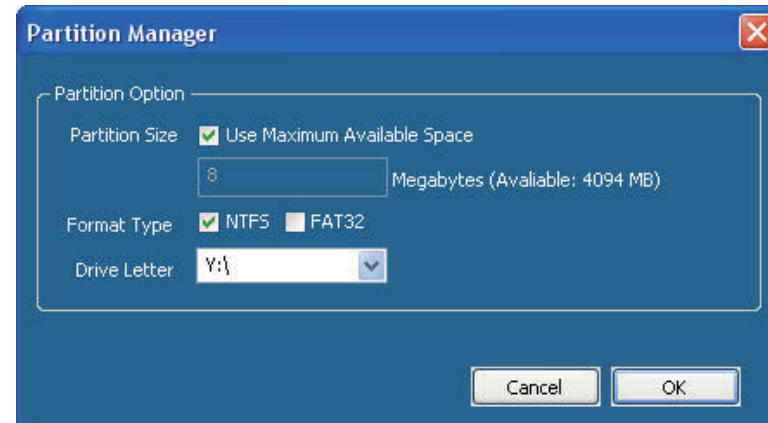
The Partition Manager window opens:

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.

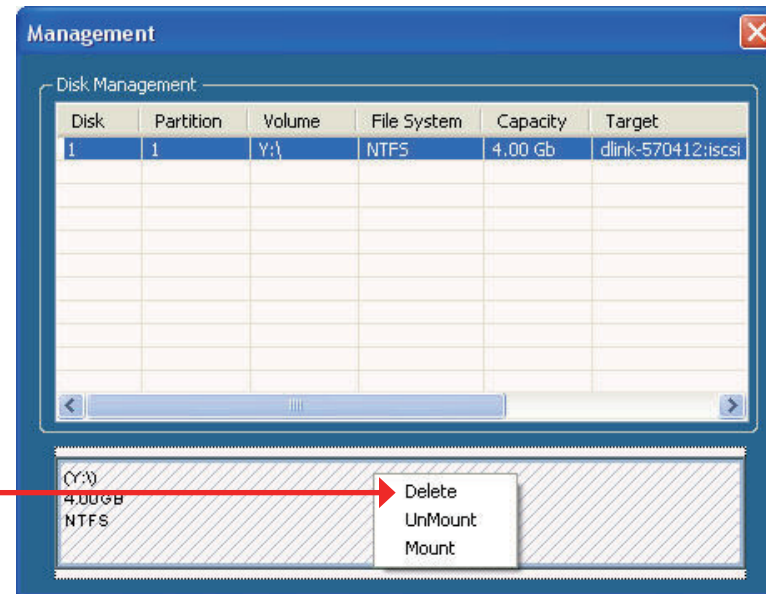
Drive Letter Choose the drive letter that you want to allocate to the iSCSI partition from the drop-down menu.



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**.



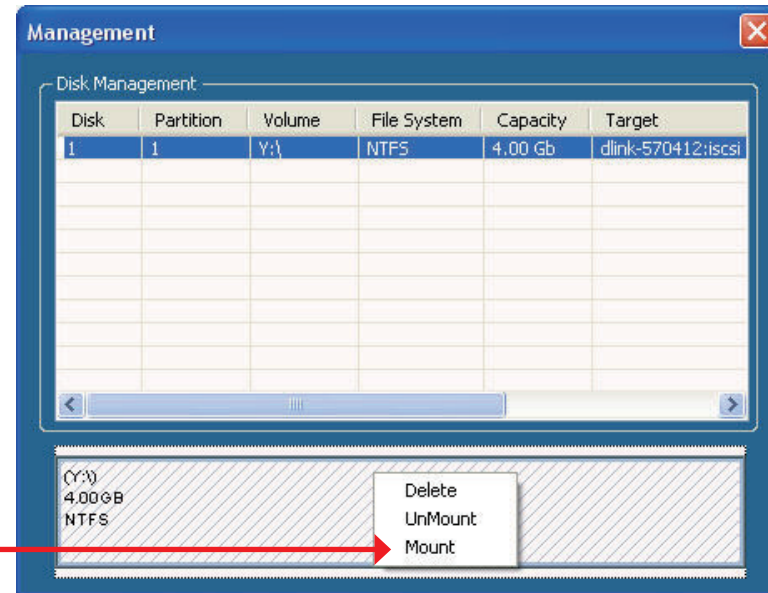
Mounting Disks

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

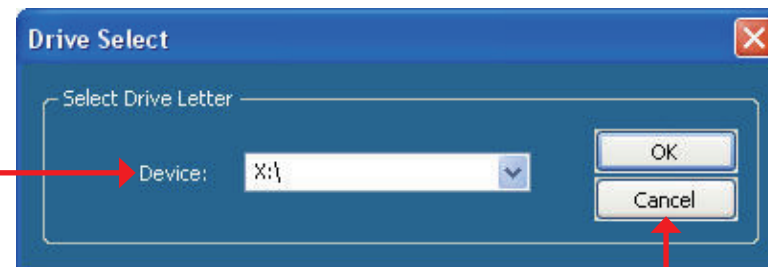
Carry out the following steps to mount a disk:

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

The Drive Select window appears.

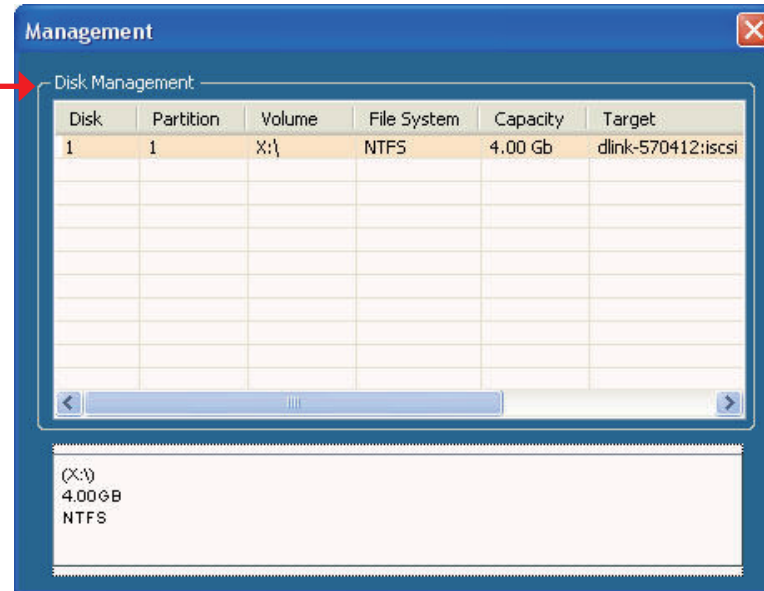


2. Select the drive letter in the **Device** drop-down list.

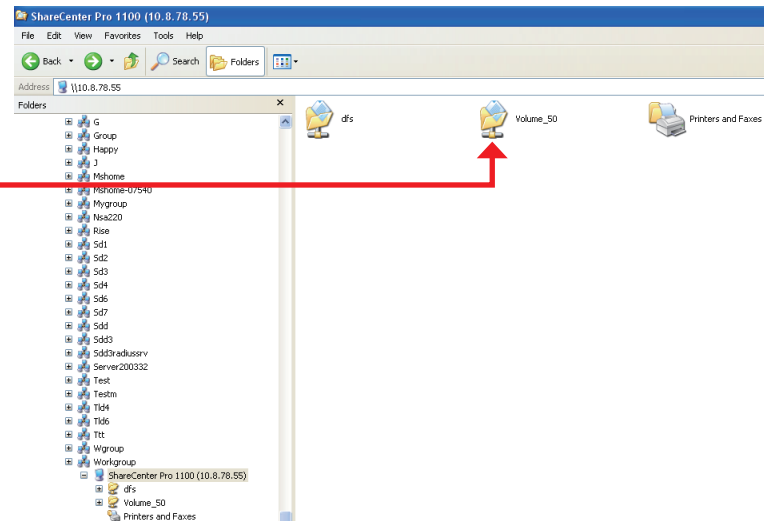


3. Click the **OK** button.

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



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



Appendix E: Hot-Swapping

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.

Appendix F: Using Non-English Character Files

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

Appendix G: Safety Declarations

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.