# USER MANUAL DNS-343

VERSION 1.6







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# Product Overview Package Contents

- DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter (19V / 4.74A)
- Power Cord
- CAT5 Ethernet Cable





### Please Note:

Using a power supply with a different voltage than the one included with the DNS-343 will cause damage and void the warranty for this product.

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

# **System Requirements**

For best results, the following system requirements are recommended:

- 3.5" SATA Hard Drive(s) for the DNS-343
- Computer with: 1GHz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer 6 or Mozilla Firefox 1.0 or higher
- Windows<sup>®</sup> XP SP2 or higher, Windows Vista<sup>®</sup>, or Windows<sup>®</sup> 7

# Introduction

The D-Link DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure shares your documents, photos, music, and videos across your network and over the Internet (via a secure FTP server) so family members, friends, or employees can access them. This device, which can hold four 3.5" SATA hard drives of any capacity<sup>1</sup>, creates a central network point for backing up valuable files.

The DNS-343 shares files over the Internet via the built-in secure FTP server<sup>2</sup>. Users and groups can be created and assigned to folders with either read or read/write permissions. Quotas can be set per user or group to restrict space usage. In addition, the DNS-343 can be used to stream photos, music, and videos to UPnP AV compatible network media players<sup>3</sup> or to game consoles such as an Xbox 360 or Playstation 3.

The included CD contains D-Link's Easy Search Utility. This utility allows you to locate the DNS-343 on the network and map drives to your computer. Backup software is also included on the CD. This software allows you to back up your files from a computer to the DNS-343 manually, by a schedule, or in real-time. Real-time backups are a great way to safeguard against unfortunate accidents that may result in the loss of important files.

Combining ease of use with practical, high performance features, the DNS-343 is an organized solution for any network. Free up drive space on computers and centralize data on your network with the DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure!

The DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure also includes new features like USB print serving, which allows users to use the DNS-343 as a print server for their network. The USB port can also be used for UPS monitoring to help keep your DNS-343 running in the event in event of a power outage. Another feature is Remote Replication. This feature allows users to back up their files remotely, quickly, and reliably.

1 Hard Drive(s) not included.

2 Note that use of an FTP server to access files over the Internet does not guarantee secure or encrypted transmissions.

3 D-Link cannot guarantee full compatibility or proper playback with all codecs. Playback capability depends on the codec support of the UPnP<sup>TM</sup> AV media player.

# **Features**

The DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure is an easy to install data storage platform used for remote access through a private network or from the Internet. The DNS-343 supports up to 4 SATA hard drives and includes the product features listed below:

- Four hard drive bays for 3.5 inch SATA hard drives of up to 2TB capacity each (this may increase as hard drive sizes increase)
- Single volume support for up to 8TB disk capacity
- Simplified hard drive installation process no tools required
- Five hard drive configurations: Standard, JBOD (Linear), RAID 0, RAID 1, and RAID 5<sup>-1</sup>
- High performance Gigabit Ethernet connectivity <sup>2</sup>
- Informative OLED display screen
- Equipped with aluminium housing and smart FAN speed control
- USB port supports Printer server and UPS monitoring
- Power Management for Conserving Energy and Extending Hard Drive Life
- Built-in secure FTP Server for File Access over the Internet
- UPnP AV Server for streaming music, photos, and video to compatible network media players, including the Xbox 360 and Playstation 3<sup>3</sup>
- Automatic e-mail notifications of device status
- Supports HTTPS management functions
- iTunes will be able to automatically find and play music directly from the DNS-343
- Users and Groups can be assigned to folders with read or read/write per missions
- Supports quotas for users and groups

- Supports group assignment for network sharing and FTP server
- Supports DHCP server
- Supports configuration file save/load
- Supports DDNS
- Supports Jumbo Frames
- Supports auto power recovery function
- Supports Active Directory <sup>4</sup>
- Supports multi-language file names
- Supports scheduled downloads
- Supports Easy Search Utility
- Full or incremental backups
- Recover your computer using the bundled backup software
- Supports Yahoo! Widgets
- Supports UPnP for Windows XP
- Supports PnP-X / LLTD
- Supports remote NAS to NAS backup (Remote Replicate)
- Supports system logging/FTP logging
- Supports add-on software and multi-language packages
- Supports NFS server
- FTP server supports FTP over SSL/TLS, and FXP
- Peer-to-Peer download engine powered by BitTorrent <sup>4</sup>

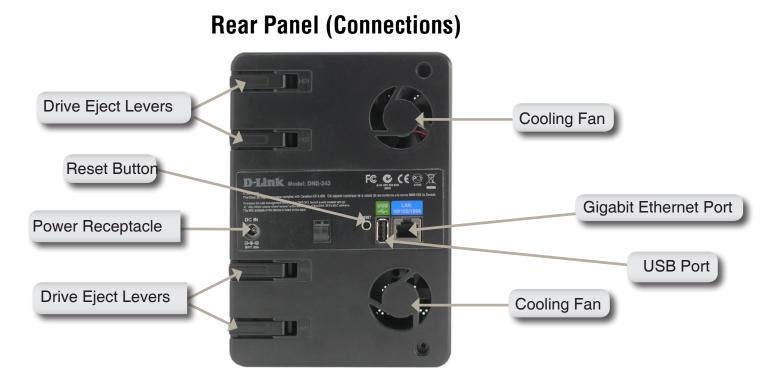
- 1. RAID 1 mirroring requires the use of 2 internal SATA drives; and RAID 5 requires the use of at least 3 internal SATA drives.
- 2. Speed results will vary depending on the benchmark utility, hard drive configuration, and the network environment used for testing.
- 3. D-Link cannot guarantee full compatibility or proper playback with all codecs. Playback capability depends on the codec support of the UPnP AV media player.
- 4. For this feature to be enabled the user has to install the Add-on package for this device.

# Hardware Overview Front View



COMPONENT	DESCRIPTION
OLED Screen	This screen displays detailed information about the following: System Information HD Status Server Status
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.
Next Button	Use this button to display the System Information (system state), HD Status (hard drive state) and Server Status (server status status state) on the OLED. Press the button once to alternate between the different Status screens.

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COMPONENT	DESCRIPTION
Drive Eject Levers	Use the provided levers to eject the SATA hard drives.
Reset Button	Press this button for over 5 seconds to reset the unit to factory defaults.
Power Receptacle	Connect the 19V / 4.74A power supply to the receptacle.
USB Connector	1 x USB 2.0 (Type A) connector. USB Host port for Print Server or USB UPS monitoring.
Gigabit Ethernet Port	Use the Gigabit Ethernet Port to connect the DNS-343 to the local network.
Cooling Fans	The cooling fans are used to cool the hard drives and feature speed control. When the unit is first powered on the fans rotate at a low speed and rotate at a high speed when the temperature rises above 49 °C.



Warning: Only power cords are allowed to be inserted into the EUT socket-outlet, no other direct plug-in equipment.

# Using the OLED

The DNS-343 ShareCenter<sup>™</sup> Quattro 4-Bay Network Storage Enclosure features an OLED that enables the administrator to easily view information about the DNS-343. The OLED display screen displays information about the network connection status and the number of hard drives installed and the bay ID's they are installed in. The OLED has three different screens:

System Information- This screen shows the following information:

- The host name of the DNS-343.
- The Firmware version.
- The IP address of the DNS-343.
- The operating temperature.

Hard Drive Status- This screen shows the following information:

• The percentage of space used on the hard drives.

**Server Status**- This screen shows the following information:

- Whether a printer is connected to the server
- The status of the UPnP AV server
- The status of the iTunes server
- The status of the FTP Server

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

# Installation Hardware Setup

This section provides unpacking and installation information for the DNS-343. Open the shipping carton for the DNS-343 and carefully unpack its contents. If this is the first time using the DNS-343 or if a new hard disk is installed, use the Easy Search utility located on the Installation CD and follow the instructions for setting up, configuring and formatting the new drive.



1. Access the drive bays by sliding the faceplate up until it unlatches from the device.



2. Once the faceplate is unlatched, pull it off the device, exposing the drive bays.



3. Insert a 3.5" SATA hard drive into each available drive bay. Make sure to align the drive connectors to the SATA connectors on the bottom edge inside the drive bay of the DNS-343. Gently push the drive in until it connects. When a drive is inserted properly, you will feel it "seat" into the connector. Some hard drives that are thin or oddly shaped may need to be guided carefully into position.



5. Connect an Ethernet cable to the available Ethernet port. This cable should connect the DNS-343 to your local network via a router or switch, or directly to a computer for configuration.



4. Attach the faceplate to the front of the device.



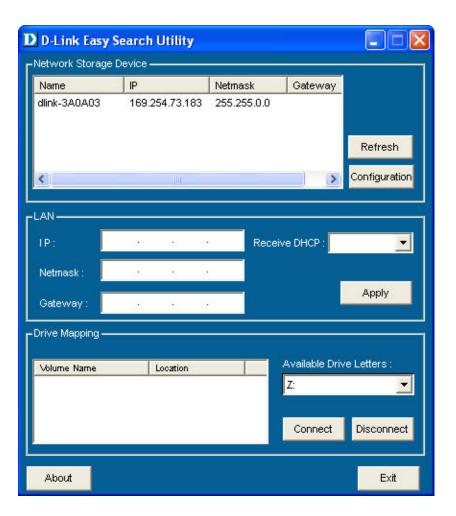
6. Connect the supplied power adapter to the power receptacle.7. Connect a USB printer. (Optional)

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# **Configuration** Easy Search Utility

When first powered on, during the initial boot sequence, the DNS-343 will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned auto IP address of 169.254.x.x. It is recommended to use the included D-Link Easy Search Utility when accessing and configuring the DNS-343 for the first time. If you want to change the IP address before logging in or are unable to connect to the DNS-343 IP address, you can use the Easy Search Utility provided on the product CD to locate the device on your network and make any needed changes.

	The Easy Search Utility displays any DNS-343 devices it detects on the network here.
Refresh	Refreshes the device list.
Configuration Refresh	Click Configuration to access the Web based configuration of the DNS-343.
LAN	Configure the LAN Settings for the DNS-343 here.
Apply	Click Apply to save changes to the LAN Settings.
Drive Mapping	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**

To run the Easy Search Utility, insert the DNS-343 CD into your CD-ROM drive:

Step 1 - Click Easy Search Utility.

**Step 2** - Select the listed DNS-343 and click the Configuration button. This will launch the computer's default web browser and direct it to the IP address listed for the device. Make sure the browser is not configured to use a proxy server.

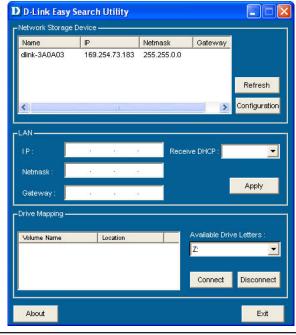
The first window that appears will require the user to login for Configuration or Application menus. The Applications menu is described later in this guide in the section titled Applications on page 80.



### **Please Note:**

The computer, used to access the DNS-343 web-based configuration, manager must be on the same subnet as the DNS-343. If your network is using a DHCP server and the computer receives IP settings from DHCP, the DNS-343 will automatically be in the same subnet.





**Step 3** - The Login screen will appear:

Type 'admin' for the username and leave the password field blank. Click Configuration.

If the web browser is unable to connect to the web manager of the DNS-343. For example, if there is no DHCP server active, your computer will need an IP address in the 192.168.0.0 subnet. Your computer should have an IP address of 192.168.0.x where x equals a number from 1 to 31 or 33 to 254.

When logging into the DNS-343 for the first time, you will be asked to choose a drive configuration (Basic or Custom) and format the drives.

**Step 4** - Basic Configuration offers four options: Standard, JBOD, RAID 1 and RAID 5. Standard configures each disk as a separate volume, while JBOD combines all disks into a single volume.

Custom Configuration offers three combination methods: RAID 0 + JBOD, RAID 1 + JBOD and RAID 5 + JBOD.

When prompted to configure the Hard Drive Settings: Select from one of the basic types of hard drive configurations below:

- Standard
- JBOD
- RAID 1
- RAID 5

or select Custom Configuration and then click Next.

Note: All data will be erased off the hard drives installed in the DNS-343 during the format process!

**Step 5** - A warning message appears informing you that your drives will be formatted and all data erased. Click OK to continue.

Link		DNS-34	43
User Nar	me:		
Passwor	d:		
	Configuration	Applications	
	STOR	IGE	
Link		DNS-3	43
	CONFIGURATION:		
	l drive configuration or format t our data will be erased during		ive
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Notice that y WDC WDC WDC WDC WDC Basic Confit Select a	our data will be erased during Model WD7500AYYS-01RCA WD5000AAKS-22YGA WD5000AAKS-22YGA WD5000AAKS-22YGA guration : RAID type: Standard (Indi JBOD (Linear - RAID 1 (Mirror RAID 1 (Mirror RAID 5 (Stripir	the process. Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748 Wdual Disks) Combines All Disks) ing - Keeps Data Safe)	Size 750 GB 750 GB 750 GB 750 GB
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).Notice that y sk Vendor WDC WDC WDC Basic Config Select a Custom Co	our data will be erased during Model WD750DAYYS-01RCA WD50DDAAKS-22YGA WD50DDAAKS-22YGA WD500DAAKS-22YGA guration : • Standard (Indi • JBOD (Linear - • RAID 1 (Mirror • RAID 1 (Mirror • RAID 5 (Stripir nfiguration :	the process. Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748 Wdual Disks) Combines All Disks) ing - Keeps Data Safe) ng with Rotating Parity)	Size 750 GB 750 GB 750 GB 750 GB

D-Link	
DIANK	DNS-343
HARD DRIVE CONFIGURATION:	
Select file system:	EXT 2 (Best Performance)

**Step 6** - Choose whether to use the EXT2 or EXT3 file system on the DNS-343 from the drop-down.

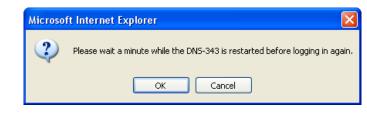
Click Next to continue.

D-Link			
FORMAT RESULTS			
Volume Name	File System	Format Result	
Volume_1	EXT2	SUCCESS	
Volume_2	EXT2	SUCCESS	
Volume_3	EXT2	SUCCESS	
Volume_4	EXT2	SUCCESS	
		Restart	
STORAGE			

**Step 8** - When formatting of the drive completes, the DNS-343 will display the results of the disk formatting: Click Restart to restart the DNS-343.

D-Link	DNS-343
FORMAT DISK:	
Please wait a moment	
2%	

**Step 7** - The following window appears to indicate the progress of the disk formatting.



**Step 9** - A warning message informs you that it will take a minute for the DNS-343 to restart.

Click OK to restart the DNS-343.

The DNS-343 is restarting. Please v	vait a moment.
117	

**Step 10** - When the restart is complete, the login screen will appear: Note: After logging in to the DNS-343 for the first time it is recommended to add a password to the admin account. (See Step 3)

# Web User Interface

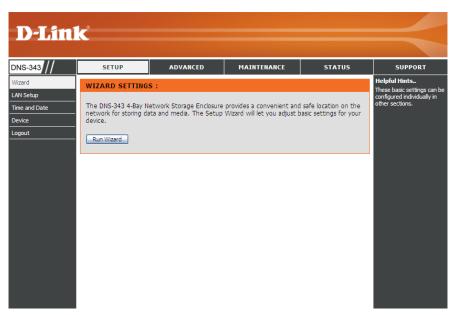
The DNS-343 web UI defaults to the Setup page. The main categories for configuration are located in the menu tabs at the top of the page. These categories include:

- Setup Contains the DNS-343 setup Wizard, LAN Setup, Time and Date settings and Device settings.
- Advanced Allows the DNS-343 administrator to configure RAID options, Users, groups of users and their storage quotas. The FTP Server, UPnP AV server, iTunes server, LLTD, DHCP Server, LLTD and Remote Backup settings are also contained here.
- **Maintenance** Allows the DNS-343 administrator to reset the Admin Password, perform System maintenance tasks, carry out Firmware Upgrades, configure e-mail alerts, configure Power Management options, configure Dynamic DNS, change the OLED Display settings and get diagnostic information about the installed Hard Disks.
- Status Shows current information about the LAN configuration, Device, Printer and Hard drives installed.
- **Support** Contains help files for your DNS-343.

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

# **Setup Section**

- Wizard: The DNS-343 4-Bay Network Storage Enclosure provides a convenient and safe location on the network for storing data and media. The Setup Wizard will let you adjust basic settings for your device.
- LAN Setup: The LAN Settings allow you to configure the Link Speed and to configure the IP address as a DHCP client or Static IP.
- **Time and Date:** The Time configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server to periodically update your system time from the NTP Server. You can also copy your computer's time as the system time.
  - **Device:** Workgroup and Active Directory configuration can be done here.



# **Wizard Page**

The DNS-343 has a setup Wizard that allows you to quickly configure some of the basic device settings.



1. When running the DNS-343 setup wizard, the welcome screen details the five steps of the wizard. Click Next to continue.



3. Set the appropriate Time Zone and click Next to continue.

D-Link	
DNS-34	3
SET PASSWORD:	
You may change the <b>admin</b> account password by entering in a new password. Click <b>Next</b> to continue.	
New Password	
Confirm Password	
Back Next Exit	

2. It is recommended you set an admin password here. Enter the new password and re-enter it for confirmation. Click Next to continue.

D-Link	500 212
SELECT LAN CONNECTIO	DNS-343
Select your connection type a Click <b>Next</b> to continue.	nd fill out the IP information if necessary.
⊙ DHCP Client ○ Static IP	
IP Address	192.168.0.32
Subnet Mask	255.255.255.0
Gateway IP Address	192.168.0.1
DNS1	
DNS2	
	Back Next Exit

4. Edit or change the DNS-343 LAN information, or to keep the current settings, click Next to continue.

D-Link	
	DNS-343
SET ADDITIONAL INFORMATION:	
Enter your Workgroup, Name, and Description for the DNS-343 if necessary. Otherwise you may accept the default values and click N continue.	lext to
Network Type 💿 Workgroup 🔘 Active Directory	
Workgroup workgroup Name dlink-9f31bb Description DNS-343	
Back Next E	×it

5. The following screen allows you to choose your network type.

D-Link		
		DNS-340
SET ADDITIONAL INF	ORMATION :	
		for the DN5-343 if necessary. and click <b>Next</b> to continue.
Network Type 🔘 Workgr	roup 🛞 Active Direct	tory
User Name		
Password		
DNS1		
DNS2		
	dink-9f31bb	
Workgroup		
Realm Name		
AD Server Name		Bade Next Exit

7. If your DNS-343 will be connected to an Active Directory network, click the Active Directory radio button. Enter the information about your Active Directory. Click Next to continue.

D-Link	
DIMIK	DNS-343
SET ADDITIONAL INFORMATION:	
Enter your Workgroup, Name, and Description for the DNS-343 if necessary. Otherwise you may accept the default values and click continue.	
Network Type 💿 Workgroup 🔿 Active Directory	
Workgroup workgroup Name dlink-9f31bb	
Description DNS-343	
Back Next	Exit

6. If your network is configured as a workgroup, click the Workgroup radio button. Enter the Workgroup, Name and Description for your DNS-343, or leave the default values. Click Next to continue.



8. When the wizard completes, click Back to go back and make changes or click Completed to save the current settings.



DLink
DNS-343
User Name:
Password:
Configuration
Applications
STORAGE

10. The DNS-343 will restart.

11. When the login prompt appears, login using the new administrator password.

# LAN Page

The Local Area Network settings for the DNS-343 are configured on the LAN Setup page.

- Link Speed: The LAN Link Speed is set to Auto by default, but can be manually set to 100Mbps or 1000Mbps.
- **DHCP Client:** Selecting DHCP Client will cause the DNS-343 to obtain an IP address from the local DHCP server.
  - **Static IP:** Selecting Static IP requires you to assign the IP information for the DNS-343 manually.
- Jumbo Frames: The DNS-343 can support Jumbo Frames that are between 3000 and 9000 bytes in size. In order to enable Jumbo Frames on the DNS-343, click the Enable radio button and select the MTU size from the drop-down menu. Click the Apply button to save any changes made.

### LAN SETTINGS :

The LAN Settings allow you to configure the Link Speed and to configure the  $\rm IP$  address as a DHCP client or Static  $\rm IP.$ 

Enabling Jumbo Frames allows you to increase the Frame size from 3,000 to 9000 bytes which increase network throughput and performance. Standard Ethernet Frames are 1,500 bytes in size.

Save Settings Don't Save Settings

LAN	SETTINGS :	
	Speed 100 Mbps	
	Link Speed 💿 Auto 🔘 1	00 01000 Apply
	O DHCP Client	
	<ul> <li>Static IP</li> </ul>	
	IP Address :	192.168.69.32
	Subnet Mask :	255.255.255.0
	Gateway :	192.168.69.1
	DNS1:	
	DNS2:	
JUM	BO FRAME SETTINGS	:
	Status :	○ Enable ④ Disable
		Apply

# **Time and Date Page**

The Time and Date of the DNS-343 can be set manually or be configured automatically using an NTP Server.

# **Time Zone:** Choose the Time Zone of where you are located from the drop-down menu.

**NTP Server:** Tick the Enable NTP Server check box to enable NTP. Network Time Protocol (NTP) synchronizes the DNS-343 with an Internet time server.

Set the Date and<br/>Time Manually:Type the URL of the NTP Server in the NTP<br/>Server check box or use the drop-down menu<br/>to choose one of the two time servers that D-Link<br/>provides for your convenience.

To set the date and time manually, ensure that the Enable NTP Server is deselected and select the Date and Time using the drop-down menus.

### SYSTEM TIME SETTINGS :

The Time configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server to periodically update your system time from the NTP Server. You can also copy your computer's time as the system time.

Current Time : 05:37:58 07/15/09

Current Time Zone : GMT Casablanca, Monrovia

Save Settings Don't Save Settings

TIME ZONE :	
Time Zone :	GMT Casablanca, Monrovia
NTP SERVER :	
Enable NTP Server	: 🗸
NTP Server :	< Select NTP Server
SET THE DATE	AND TIME MANUALLY :
Date and Time :	Month 07 Vay 15 Vear 2009 V
	Hour 05 V Minute 37 V Second 56 V
	Set Time From My Computer

# **Device Page - Workgroup**

The device settings page allows you to configure the Workgroup or Active Directory settings of your network on the DNS-343.

If your network is configured as a Workgroup, click the Workgroup radio button. Configure the parameters as described below:

- **Workgroup:** The Workgroup is used by Microsoft® Windows Network to organize available network groups within the same network.
  - **Name:** The unique Name appears for other network services including shared libraries on iTunes® and other media players.

The name can be used to access your device from a web browser instead of using an IP address, for example, http://dlink-xxxxxx. This is useful when there is more then one DNS-343 on the network.

By default the device name is d-link-xxxxx, where xxxxx is the last six digits of the MAC Address.

**Description:** Assigns a device description to help identify the DNS-343 in the workgroup.

Click the Save Settings button when you have finished configuring the Workgroup settings.

### **DEVICE SETTINGS**:

Enter a workgroup, name, and description.

Save Settings Don't Save Settings

# DEVICE SETTINGS : Network Type ③ Workgroup ③ Active Directory Workgroup workgroup Name dlink-9f31a6 Description DNS-343

# **Device Page - Active Directory**

If your network is configured in an Active Directory make sure the following conditions are true:

 Ensure that the Time and Date is synchronized between the DNS-343 and the Windows Active Directory server. The DNS-343 and Active Directory server will only tolerate a maximum time difference of 5 minutes.

### **DEVICE SETTINGS**:

Enter a workgroup, name, and description.

Save Settings Don't Save Settings

• Ensure that you can get the IP address of the 2003/2008 AD server from the DNS server. The DNS1 and DNS2 settings are the same as the LAN Setup. Please make sure this is working properly.

To configure the DNS-343 to use Active Directory, click the Active Directory radio button and configure the parameters as described below:

- **Username:** Input the username of an account setup on the Active Directory that requires access to the resources on the DNS-343.
- **Password:** Input the password of the chosen Active Directory user account.
- **Host Name:** Input a Domain Name Service (DNS) name for the DNS-343. If the device connecting to the DNS-343 is a browser or logon server this will be the name that these services are advertised by.

DEVICE SETTINGS :		
Network Type 🔘 Workgro	oup 💿 Active Directory	
User Name		
Password		
DNS1		
DNS2		
Host Name	dlink-9f31a6	
Workgroup		
Realm Name		
AD Server Name		

- **Workgroup:** Enter your Workgroup name here. The workgroup name should be the same as the computers on the network. Devices using the same workgroup will have additional file sharing methods available.
- Realm Name: Input the FQDN (Fully Qualified Domain Name) of the Active Directory Domain in this field. This option specifies the Kerberos realm to use.
- AD Server Name: Input the name of the Active Directory Server in this field. When the Windows user attempts to access the DNS-343 at login time, the DNS-343 will connect to the 2003 AD Server and attempt to authenticate the given user with the given password.

Click the Save Settings button when you have finished configuring the Active Directory settings.

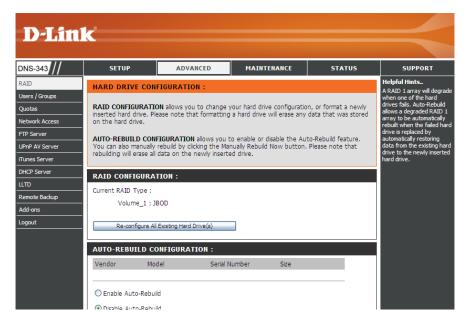


### **Please Note:**

For this feature to be enabled the user has to install the ADS Add-on available for this device.

# **Advanced Section**

- **RAID:** This option allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.
- **Users / Groups:** This option allows you to create and manage user and group accounts. There are used for user access and read / write privileges for specified folder on the network drive, or to setup FTP access and privileges.
  - Quotas: This option allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.
- **Network Access:** This option allows you to assign the access rights for your users and groups to a specific folders or volumes.



- **FTP Server:** This option contains the configuration settings for the build in FTP server.
- UPnP AV Server: This option allows you to configure the UPnP AV server function.
  - iTunes Server: This option allows you to configure the iTunes server function.
  - **DHCP Server:** This option allows you to enable the built-in DHCP server to issue IP addresses to devices on your local network.
    - **LLTD:** This option allows you to enable or disable the LLTD support.
- **Remote Backup:** This option allows you to backup files on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure. You can securely backup or recover your data over an encrypted SSH connection.
  - Add-ons: This option allows you to install application packages onto your system. In addition, you can also install language packages to suit your local language needs.

# **RAID** Page

The DNS-343 supports the following configuration types: Standard, where each drive is a unique volume, JBOD, which combines both drives in a linear fashion to create one volume, RAID 1 and RAID 5 with a Basic Configuration and a combination of RAID 0/JBOD, RAID 1/JBOD and RAID 5/JBOD for Custom Configuration.

### **RAID Configuration:** Click Set RAID Type and Re-Format to change the current drive configuration.

If you already have one drive installed and intend to install additional drives, the DNS-343 allows you to change the drive configuration from Standard to JBOD, RAID 1, RAID 5 or a combination of RAID0/ JBOD, RAID1/JBOD or RAID5/JBOD.

### **Configure Newly Inserted Hard**

If you have installed an additional hard drive and "skipped" the configuration, you will see there is an drive(s): additional option allowing you to configure the new hard drive. This will erase all the data stored on the new hard drive

Auto-Rebuild Select to enable or disable Auto-Rebuild Configuration. **Configuration:** When the DNS-343 has been configured as a RAID array the Auto-Rebuild function allows a degraded RAID array to rebuild when the failed hard drive is replaced by restoring data from the existing hard drives to the newly inserted hard drive.

Please Note: Rebuilding will erase all the data on the newly inserted drive.

### HARD DRIVE CONFIGURATION :

RAID CONFIGURATION allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.

AUTO-REBUILD CONFIGURATION allows you to enable or disable the Auto-Rebuild feature. You can also manually rebuild by clicking the Manually Rebuild Now button. Please note that rebuilding will erase all data on the newly inserted drive.

RAID CONF	IGURATION :			
Current RAID	Туре:			
Volun	ne_1:JBOD			
Re-cor	figure All Existing Ha	rd Drive(s)		
AUTO-REBU	ILD CONFIGUR	ATION :		
Vendor	Model	Serial Number	Size	
O Enable Aut	to-Rebuild			
💿 Disable Aut	to-Rebuild			
			Apply Cancel	
Manually	Rebuild Now			

Carry out the following to configure the RAID settings on the DNS-343:



Note: All data will be lost when changing the drive configuration.

The following screen appears showing the disks installed in the system. This screen also allows the administrator to choose a RAID configuration type for this device. Select either Basic Configuration or Custom Configuration.

### **Custom Configuration**



### HARD DRIVE CONFIGURATION :

**RAID CONFIGURATION** allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.

AUTO-REBUILD CONFIGURATION allows you to enable or disable the Auto-Rebuild feature. You can also manually rebuild by clicking the Manually Rebuild Now button. Please note that rebuilding will erase all data on the newly inserted drive.

### RAID CONFIGURATION :

Current RAID Type :

Volume\_1 : JBOD

Re-configure All Existing Hard Drive(s)

### **Basic Configuration**

### HARD DRIVE CONFIGURATION :

This section allows you to change the hard drive configuration or to format the newly inserted hard drive. Notice that the data stored in formatted drives will be erased during the process.

### **RAID CONFIGURATION :** Disk Vendor Model Serial Number Size 1 Hitachi HDS728080PLA380 PFDBW3SWT2VV4H 82 GB 2 Hitachi HDS728080PLA380 PFDBW3SWT68RNH 82 GB Basic Configuration: Select a RAID type: Standard (Individual Disks) JBOD (Linear - Combines All Disks) RAID 1 (Mirroring - Keeps Data Safe) RAID 5 (Striping with Rotating Parity) O Custom Configuration : Back Next

# **Users / Groups Page**

The Users/Groups menu is used to create and manage user and group accounts. These are used for user access and read/write privileges for specified folders on the network drive (using the Network Access menu), or to setup FTP access and privileges. When the DNS-343 is connected to a Workgroup up to 64 users and 10 groups can be created.

When the DNS-343 is connected to an Active Directory a combined total of 500 users and groups can be displayed. By default all users have read and write access to all folders but access rules can be created in the Network Access menu.

User and Group	This section contains required attributes for a new user,
Creation:	including group, user name and password.

Select User or Group and enter a user or group name, password and then click Add.

- **Select Group:** Select a group from the drop-down menu. Tick the All accounts check box to add all the listed users to the group.
- **Users in Group:** Users that are assigned to the selected group will be listed here.
- **List of All Users:** Displays the list of users that you may assign to the selected group.

To add a user to the selected group, click the user and then click Add >>.

To remove a user from the group, click the user and then click << Remove.

### USERS / GROUPS :

This section allows you to create and manage user and group accounts. There are used for user access and read / write privileges for specified folder on the network drive, or to setup FTP access and privileges.

Up to 64 users and 10 groups can be created.

USER AND GROUP CREATION	:	
💿 User 🛛 Group		
User Name		
Password		
Confirm Password	Add	
GROUP SETTINGS :		
GROUP SETTINGS :		
		Select Group Please select a group 💌
List of all users		Users in group
	Add >>	
	<< Remove	
	All accounts	
USER LIST :		

🕹 Local User List 💐 Local Group List

NO. User Name

Group Name

# **Quotas Page**

The DNS-343 supports storage quotas for both groups and individual users. Assigning a quota to a group or user will limit the amount of storage they are located. By default, users and groups do not have a quota.

Please see Knowledge Base Section for a Quota Configuration example.

- **User Quota Settings:** User quotas are displayed here. Quotas can be edited by clicking on the Notepad icon.
  - **Group Quota** Group quotas are displayed here. Quotas can be edited by clicking on the Notepad icon.
  - **Quota Status:** Displays the current status of the quota feature. The quota function can be started or stopped here.

### QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

### USER QUOTA SETTINGS :

NO.	User Name	Volume_1		Volur	me_2	- Edit
NO.	User Marrie	Used	Limit	Used	Limit	Euic
1	user1	Unlimited		Unlimited		
2	user2	Unlimited		Unlin	nited	
3	user3	Unlimited		Unlimited		

GROU	P QUOTA SETTI	NGS:				
	Carry Name	Volur	me_1	Volur	me_2	Edit
NO.	Group Name	Used	Limit	Used	Limit	Eaic
			<u> </u>			

QUOTA ST	ATUS :
Status: S	Started
Disabled	
Disabled	

# **Network Access Page (SMB)**

The Network Access settings allow you to assign permissions for users and groups to specific folders or volumes. By default, all volumes are open to anyone on the local network with read/write access. Before specific user or group rules can be created, the default rules must be deleted.

- **NFS Server Settings:** Choose whether or not to enable or disable NFS (Network File System).
- **Network Access Settings:** Assign permissions for users and groups on the local network here.
  - **Category:** Determines whether the access rule will apply to a group or individual user.
  - **User / Group:** Select the user or group the access rule will apply to.
    - **Folder:** Browse to and select the folder or directory you are controlling access to.
  - **Permission:** Set the user or group permission to Read Only or Read/Write.

Opportunistic locks (oplocks) are a characteristic of the LAN

**Oplocks:** Manager networking protocol implemented in the 32-Bit Windows family. Oplocks are guarantees made by a server for a shared logical volume to its clients. These guarantees inform the Client that a file's content will not be allowed to be changed by the server, or if some change is imminent, the client will be notified before the change is allowed to proceed.

### **NETWORK ACCESS SETTINGS :**

This section allows you to assign the access rights for your users and groups to a specific folders or volumes. By default, all volumes are open to anyone on the local network with read/write access. Before specific user or group rules can be created, the default rules must be deleted.

NFS SETTI	NGS :		
NFS Server	◯ Enable ⊙ Disable	Apply	
NETWORK	ACCESS SETTINGS	:	
Туре	⊙ SMB ○ NFS		
Category	💿 User 🔘 Group		
User	Please select a user 💌	All accounts	
Folder		Browse	
Permission	Read only		
Oplocks	No 💌		
Map archive	No 💌		
Comment			
		Save Settings	
SMB LIST	:		
		:Read/Write 🔲: Read only	🛛 📝 : Modify Settings 🗍 : Delete
Share	Path U	User/Group Comment	Oplocks Map archive R/W
Volume_1	Volume_1 A	ALL	No No 🇹 📝 🦷

Oplocks are designed to increase network performance when it comes to network file sharing however when using file-based database applications it is recommended to set the share oplocks to No(off). By default Vista has Oplocks enabled and can not be disabled. If you are having network performance issues with applications sharing files from the DNS-343 you may try to improve performance by setting Oplocks to No(off).

Map Archive: When enabled, the file attribute "Archive" will be copied as the file is being stored on the DNS-343. Certain backup software attach this attribute to files that are being stored as backups.

- **Comment:** Enter a comment for reference or description of the rule.
- **SMB List:** Lists all defined access rules.

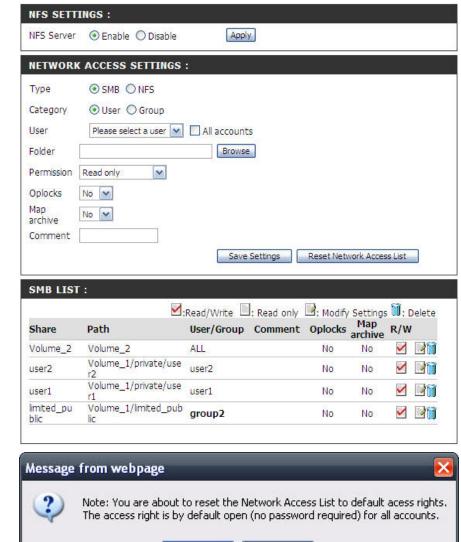
The DNS-343 support two types of Network Access Settings:

1) **User or Account Configuration** - This configuration will be triggered when one or more users are configured to connect to a folder. It will require the users to enter a username and a password when accessing the shared storage.

2) **Open Configuration** - This configuration is the default configuration of the DNS-343. It allows for open access to anyone who wants to access the shared storage without the need to enter a username and a password.

When configuring a user to connect to a specific folder, **User or Account Configuration** is trigger and a new button will be available for clicking called '**Reset Network Account List**'. When the user clicks this button, the Network Access List will be removed and the device will be returned to **Open Configuration**.

A warning message will appear to warn the user of the above mentioned action.



OK.

Cancel

# **Network Access Page (NFS)**

Network File System (NFS) is a protocol for network share folder. Go to **Advanced -> Network Access** to see NFS appears under Type in Network Access Settings section. Click NFS and enter the information below

- **Host:** Select the appropriate login method to access the files for download. If the site requires login credentials, select Account and enter a valid username and password.
- **Folder:** Click the Browse button to open and select the folder or directory you are controlling access to.
- **Permission:** Set the user or group permission to Read Only or to R/W: Read/Write.
- Root Squash: Select Yes to map the root users when accessing NFS.
  - NFS List: Lists all defined access rules. To modify an access rule, click the icon. To remove an access rule, click the icon.

### **NETWORK ACCESS SETTINGS :**

This section allows you to assign the access rights for your users and groups to a specific folders or volumes. By default, all volumes are open to anyone on the local network with read/write access. Before specific user or group rules can be created, the default rules must be deleted.

NFS SETTIN	IGS :				
NFS Server	🖲 Enable 🔘 Disa	able	Apply		
		ana an tao			
NETWORK	ACCESS SETTI	NGS:			
Туре	SMB INFS				
Host	[				
Folder			Browse		
Folder			browse		
Permission	Read only	÷			
Root squash	Yes 👻				
		ſ	Save Settings		
				5 	
NFS LIST :					
		Read/Write	e 🔲: Read only	: Modify Settin	ıgs 间: Delete
Host	Path			Root squash	R/W
192.168.32.1	Volun Real p	ne_2 oath: /mnt/HD_b	02	Yes	🔲 📝 🗻
	A 1.1546142		n Inter it		

Note: To allow NFS access to anyone on the network, enter an IP address 192.168.0.0/24 where 192.168.0.0 is the IP subnet of the network.

# **FTP Server Page**

The DNS-343 is equipped with a built in FTP Server. The server is easy to configure and allows users access to important data whether they are on the local network or at a remote location. The FTP server can be configured to allow user access to specific directories, and will allow up to 10 users to access the DNS-343 at a time.

- **Category:** Determines whether the FTP server rule will apply to an individual user or a group.
- **User / Group:** Select the user or group the FTP server rule will apply to..
  - **Folder:** Browse to and select the folder or directory you are granting FTP access to. Ticking the root check box grants access to all volumes.
- **Permission;** Use the drop-down menu to set the user or group permission to Read Only or Read/Write.
  - Max User: Sets the maximum amount of users that can connect to the FTP server.
  - Idle Time: Sets the amount of time a user can remain idle before being disconnected.
    - Port: Sets the FTP port. Default is 21.
- Flow Control: Allows you to limit the amount of bandwidth available for each user.
- **Client Language:** Most standard FTP clients like Windows FTP, only support Western European code page when transferring files. Support has been added for non standard FTP clients that are capable of supporting these character sets.



### Please Note:

To be able to use this function, the FTP port must be set. The default option is port 21.

### FTP SERVER SETTINGS :

This section contains the configuration settings for the build in FTP server. The server is easy to configure and allows up to 10 users to access the server locally or remotely at the same time.

FTP ACCOUNT S	ETTINGS :
Category	⊙ User ○ Group
User	Please select a user 💌 🗌 All accounts
Folder	Root
	Browse
Permission	Read only Add
FTP SERVER SE	TTINGS :
Max. User	
Max. User	
Max. User Idle Time	10 V 2 (1~10 Minutes)

- **Delete:** Click the Trashcan icon next to the Access List you want to delete.
- Status: Displays if the FTP server service has started or not.
  - **Port:** Displays the FTP port.
- **Max User:** Displays the maximum number of users.
- Flow Control: Displays the flow control status.
  - Idle Time: Displays the idle time before disconnecting the user.
- **Client Language:** Displays the client language set for the FTP server.

Start / Stop Ftp Click to Start or Stop the FTP server. Server:

> In order to use FXP (File Exchange Protocol) for server-to-server data transfer, please make sure to change the port from 21 to some other port as listed in the Port section of the web UI. Also, please make sure to open the corresponding port on your router and forward that port from your router to the DNS-343.

FTP ACCESS LIST :	
	🗹:Read/Write 🔲:Read only 🖻:Modify Settings 间:Delete
Path	User/Group
FTP SERVER STATU	IS :
Status	Stopped
Port	21
Max. User	10
Flow Control	Unlimited
Idle Time	2 (Minutes)
Client Language	Western European
	Start FTP Server

## **FTP Server behind a Router**

If you are behind a router, you will need to forward the FTP port from the router to the DNS-343. Additional filtering and firewall settings may need to be modified on your router to allow FTP Access to the DNS-343 from the Internet. Once the port has been forwarded on the router, users from the internet will access the FTP server through the WAN IP address of the router.

If you are using a D-Link router, such as the WBR-2310 used in the example below, your port forwarding rule should be similar to the following:

- Name: Type a name for the DNS-343 FTP server rule.
- **IP Address:** Enter the IP address of the DNS-343.
- **Public Port:** Enter the public FTP port. By default, the port is 21.
- **Private Port:** Enter the private FTP port. By default, the port is 21.
- **Traffic Type:** Set the traffic type to TCP.

<b>D</b> -Lini	ĸ						
WBR-2310		SETUP	ADVANCED	TOOLS		STATUS	SUPPORT
VIRTUAL SERVER PORT FORWARDING APPLICATION RULES NETWORK FILTER WEBSITE FILTER FIREWALL SETTINGS ADVANCED WIRELESS	The to an online	n internal LAN IP e services such a:	tion allows you to define a sing Address and Private LAN port i s FTP or Web Servers. ht Save Settings				Helpful Hints • Check the Application Name drop down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop down menu to fill out the appropriate fields.
ADVANCED NETWORK				Port	Traffic Type	Schedule	You can select your     computer from the list of
		Name DNS-343_FTP IP Address 192.168.0.32	<	Private 21	TCP 💌	Always	Computer Name drop DHCP clients in the Computer Name drop down menu, or enter the IP address manually of the computer you would like to open the specified port to.
		Name IP Address	< Application Name	Public	TCP 💌	Always	• In order to apply a schedule to a Virtual Server- Rule, you must first define a schedule on the <b>Tools&gt;Schedules</b> page.

If you use an FTP port other than 21, then users accessing the FTP server using an FTP client will have to specify the non-standard port, and users who are using a browser will have to specify the port in the URL

(e.g. ftp://ftp.dns343.com:3000, where the FTP port is 3000).

## FTP over TLS

Below we'll examine FTP over over TLS. For this example we'll use FireFTP. FireFTP is an open-source, cross platform FTP client for Mozilla Firefox users who want to use FTP or FTPS.

- **Step 1:** From the Tools menu click **FireFTP** to open the application in Mozilla Firefox.
- Step 2: Go to the Quick Connect drop down menu and choose Create an Account.

🥹 Mozilla Firefox	
<u>File E</u> dit <u>V</u> iew Hi <u>s</u> tory <u>B</u> ookmarks	Tools Help
88.8 A	Web <u>S</u> earch Ctrl+K
	Downloads Ctrl+J Add-ons
	Error <u>C</u> onsole Ctrl+Shift+J Page <u>I</u> nfo
	EreFTP
	Clear <u>P</u> rivate Data Ctrl+Shift+Del
	Options

Treate an account		: <u>E</u> dit <u>A</u> bort					Lo	)/Queue <u>T</u> ools	Help
QuickConnect		-305		Browse				🔽 C	Cha <u>n</u> ge
0	_	Name	/   Type	Date 🛱		Name	7 Type	Date	Π,
Alpha	ngs	Documents and Settings		May 19 2:23 AM					
Eyril Huang		inetpub 🗁		Jun 15 3:35 PM					
Ruru Lu		Intel		May 19 1:42 AM					
🕀 🚞 Lotus		Lotus		Jun 23 4:03 PM	-				
🗄 🛅 Program Files		🗧 🛅 Program Files		Jun 29 9:58 AM		ī			
🕀 🔂 S		i 🗁 S		Jul 1 8:39 AM	6				
🗄 🧰 temp		temp		May 20 5:38 AM					
🕀 🗁 WINDOWS		WINDOWS		Jun 26 8:27 AM	*				
		AUTOEXEC.BAT	0 bat	May 19 12:11 AM					
					•	4			

### D-Link DNS-343 User Manual

### Step 3: Account Name:

Enter a name for this FTP connection here.

### Host:

Enter the IP of the DNS-343 in here.

**Login:** Enter the user's username in here.

### Password:

Enter the user's password in here.

# Step 2: Go to the Connection Tab and set the Security function to Auth TLS (Best).

Then press **OK** to finish the setup.

Connectio	n Advanced	
Main Details	-	-
Account Nar	me: DNS-321	Category:
<u>H</u> ost:	192.168.69.32	
ID		
Login:	user1	
Password:	•••••	
	0a	
		OK Cancel

Connecti					-
Security:	-	le uth TLS (Best)	-	P <u>o</u> rt:	_ <u>I</u> Pv6 21
Prįvate K	ey;		Browse	Conv	ert
				Use C	_
Local: <u>R</u> emote:				Lose C	urrenc

**Step 5:** Firefox and FireFTP will now start a series of security confirmations.

The first warning should look like this.

Click on the "**Or you can add an exception...**" button to accept the security change.

**Step 6:** The second warning should look like this.

Click on the "**Add exception...**" button to accept the security change.

**Step 7:** The next step is to get the certificate for the connection. Click on the "**Get Certificate**" button to acquire the certificate.

2	WARNING!
~	192.168.69.32 uses an invalid security certificate.
	<ul> <li>The certificate is not trusted because the issuer certificate has expired</li> <li>The certificate does not come from a trusted source.</li> </ul>
	This could be a problem with the server's configuration, or it could be someone trying to impersonate the server.
	If you have connected to this server successfully in the past, the error may be temporary, and you can try again later.
	Cancel Or you can add an exception
<b>2</b> Y	onnection Failed! ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server.
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception Add Security Exception
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception  Add Security Exception You are about to override how Firefox identifies this site. Legitimate banks, stores, and other public sites will not ask you to do this. Server
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception Add Security Exception You are about to override how Firefox identifies this site. Legitimate banks, stores, and other public sites will not ask you to do this. Server Location: 192.168.69.32/21 Get Certificate
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception  Add Security Exception You are about to override how Firefox identifies this site. Legitimate banks, stores, and other public sites will not ask you to do this. Server
<b>2</b> Y	ou should not add an exception if you are using an internet connection that you do not trust ompletely or if you are not used to seeing a warning for this server. Get me out of here! Add exception Add Security Exception You are about to override how Firefox identifies this site. Legitimate banks, stores, and other public sites will not ask you to do this. Server Location: [192.168.69.32/21] Certificate Status

Confirm Security Exception

Cancel

Permanently store this exception

- **Step 8:** After the certificate has been acquired click on the "Confirm Security Exception" button to finish the security confirmations.
- **Step 9:** Select the newly added FTP connection and click on the Connect option if it has not already connected by itself.

If you can see your files on the right block from the DNS-343, the connection has been established successfully.

u securi	ty Exception		
		w Firefox identifies this site. , and other public sites will n	ot ask you to do thi
Location:	192.168.69.32:21		Get Certificate
Certificate	Status		
This site a	ttempts to identify itself wil	h invalid information.	View
Outdated	d Information		L -
Certificate as stolen o		impossible to verify whether this i	dentity was reported
Unknowr	n Identity		
Certificate	is not trusted, because it l	hasn't been verified by a recogniz	ed authority.
Perm	anently store this exceptio	n	
Perm	anently store this exceptio	n Confirm Security E:	ception



### **UPnP AV Server Page**

The DNS-343 features a UPnP AV Server. This server provides the ability to stream photos, music and videos to UPnP AV compatible network media players. If the server is enabled, the DNS-343 will be automatically detected by UPnP AV compatible media players on your local network.

When content is added or deleted from the available folders, click the Refresh button and the DNS-343 will scan for file updates. While the update scan is underway, the AV media will not be available for use by clients on the network.

- **UPnP AV Server:** Select Enable or Disable to enable or disable the DNS-343 UPnP AV server.
  - **Folder:** Specifies the folder or directory that will be shared by the UPnP AV server. Select root to share all files on all volumes, or click Browse to select a specific folder.

#### **UPNP AV SERVER SETTINGS :**

This section allows you to configure the UPnP AV server function. You can enable or disabled the UPnP AV server function, and specify the folder or directory that will be shared.

The DNS-343 will automatically scan for file updates when content is added or deleted from the available folders. You can also click the "Refresh" button to manually scan for file updates.

Save Settings Don't Save Settings Refresh

UPNP AV SERVER SETTINGS :				
UPnP AV Server	● Enable ○ Disable			
Folder	Root			
	dlink-9f31a6_SHARE			

### **iTunes Server Page**

The DNS-343 features an iTunes Server. This server provides the ability to share music to computers on the local network running iTunes. If the server is enabled, the DNS-343 will be automatically detected by the iTunes program and the music contained in the specified directory will be available to stream over the network.

- **iTunes Server:** Select Enable or Disable to enable or disable the DNS-343 iTunes server.
  - **Folder:** Specifies the folder or directory that will be shared by the iTunes server. Select root to share all files on all volumes, or click Browse to select a specific folder.
  - Password: Sets password for the iTunes server. (Optional)

#### **ITUNES SERVER SETTINGS :**

This section allows you to configure the iTunes server function. You can enable or disable the iTunes server function, set the password for the service, and specify the folder or directory that will be shared.

The DNS-343 will automatically scan for file updates when content is added or deleted from the available folders. You can also click the "Refresh" button to manually scan for file updates.

Save Settings Don't Save Settings Refresh

ITUNES SERVER SETTINGS :				
iTunes Server	📀 Enable 🔘 Disable			
Folder	Root			
	dlink-9f31a6_SHARE			
Password				

After enabling the iTunes server on the DNS-343, launch iTunes. When iTunes detects the DNS-343, select it and you will be prompted to enter the iTunes server password if required.

\* \* \* \*

Source III Varie Time Artist Abum Genre My Rating  Currery  Control Ukray  Contro	
Constant of the second o	
Recently Played     Top 25 Most Played     Music Library Password     The music Ibrary requires a password:	
Top 25 Most Played      Music Library Password      The music kinay requires a password	
The music library requires a password:	
Password	
Remember password	
OK Cancel	
OK Cancel	

Select the DNS-343. When prompted, enter in the iTunes server password. Click OK.

Source	Name		Time	Artist		Album		Genre	My Rating	
Library	🗹 Intro	0	0:24	Aerosmith	0	Get A Grip 🗧	D	Rock		
dlink-AD04C1 🔶	Eat The Rich	0	4:10	Aerosmith	0	Get A Grip 🗧	D	Rock		M
90's Music	🗹 Get A Grip	0	3:58	Aerosmith	0	Get A Grip 🗧	C	Rock		
My Top Rated	Fever	0	4:15	Aerosmith	0	Get A Grip 🤅	D	Rock		
Recently Added	Livin' On The Edge	0	6:07	Aerosmith	0	Get A Grip 🤅	C	Rock		41
	🗹 Flesh	0	5:56	Aerosmith	0	Get A Grip 🧲	C	Rock		
Top 25 Most Played	Walk On Down	0	3:39	Aerosmith	0	Get A Grip 🗧	C	Rock		41
- rop zo nost nayed	Shut Up And Dance	0	4:55	Aerosmith	0	Get A Grip 🗧	D	Rock		41
	🗹 Cryin'	0	5:08	Aerosmith	0	Get A Grip 🗧	C	Rock		
	🥑 Gotta Love It	0	5:58	Aerosmith	0	Get A Grip 🤅	C	Rock		
	d Crazy	Ο	5:16	Aerosmith	0			Rock		U
	🗹 Line Up	0	4:02	Aerosmith	0	Get A Grip 🤅	C	Rock		
	Amazing	Ο	5:56	Aerosmith	0			Rock		
	🥑 Boogie Man	Ο	2:17	Aerosmith	0	Get A Grip 🤅	C	Rock		
	🗹 Politik	Ο	5:18	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		
	In My Place	0	3:48	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		61
	Sod Put A Smile Upon Your Face	0	4:57	Coldplay	0	A Rush Of Blood T 🤇	C	Rock		61
	The Scientist	0	5:09	Coldplay	0	A Rush Of Blood T 🤇	C	Rock		61
	Clocks	0	5:07	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		
	🗹 Daylight	Ο	5:27	Coldplay	0	A Rush Of Blood T 🤇				
	Sreen Eyes	Ο	3:43	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		
	🥑 Warning Sign	Ο	5:31	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		
	A Whisper	Ο	3:58	Coldplay	0	A Rush Of Blood T 🤅	Ð	Rock		
	A Rush Of Blood To The Head	0	5:51	Coldplay	0	A Rush Of Blood T 🤅	C	Rock		
	Amsterdam	0		Coldplay		A Rush Of Blood T 🤇				U
	S Drive	0	4:32	R.E.M.	0	Automatic For Th	C	Rock		Ŧ

Media stored on the DNS-343 will then be available for use in iTunes.

### **DHCP Server Page**

The DNS-343 can be used as a DHCP Server. As a DHCP server, it can be used to serve IP addresses to devices on your local network, however, this feature should not be enabled if you already have a DHCP server, such as a router on your local network.

#### **DHCP SERVER SETTINGS :**

This section allows you to enable the built-in DHCP server to issue  $\ensuremath{\mathrm{IP}}$  addresses to devices on your local network.

Save Settings Don't Save Settings Refresh

### **DHCP Server:** Enables or Disables the DNS-343 DHCP Server.

- **Starting IP Address:** Enter the starting IP address for the range of addresses assigned by the DHCP server.
- **Ending IP Address:** Enter the ending IP address for the range of addresses assigned by the DHCP server.
  - **Lease Time:** Sets the duration of time that an IP address will remain assigned to a device.

DHCP SERV	'ER :			
DHCP Server : Starting IP Ad Ending IP Add Lease Time :	dress : 192.16	8.0.254		
DHCP CLIE	NT LIST :			
Host Name	IP Address	MAC Address	Expired Time	

### **LLTD Page**

LLTD :

The DNS-343 supports LLTD. LLTD stands for Link Layer Topology Discovery and is used to discover network devices by the Network Map application that is included in Windows Vista.

Click the Enable or Disable radio button to enable or disable the DNS-343 LLTD service.

LLTD:
This section allows you to enable or disable the LLTD support.
Save Settings Don't Save Settings
LLTD :

### **Remote Backup Page**

The Remote Backup window allows you to backup the files stored on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure. The Remote Backup feature has several benefits:

- 1. Uses a Secure Shell (SSH) connection that dynamically creates secure key pairs to encrypt the data, ensuring that your data is reliably backed up or restored securely.
- 2. Supports 10 concurrent downloads to multiple destination devices, providing efficient and comprehensive backups.
- 3. If configuring the DNS-343 to be a Destination device, the Remote Backup feature allows you to browse to the shared backup folders setup on a Source device.
- 4. The shared backup folder located on the Source device is encrypted before being sent to the Destination devices.

**Remote Backup** Click the Source radio button to specify that you want **Settings:** to backup the files stored on the DNS-343 to a remote NAS device.

> Click the Destination radio button to specify that the DNS-343 should be used as a destination device for a remote NAS device to back its files onto.

> Please consult your router's manual for information on port forwarding or virtual server settings.

#### **REMOTE BACKUP SETTINGS :**

This section allows you to backup files on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure. You can securely backup or recover your data over an encrypted SSH connection.

REMOTE BA	CKUP SETTINGS :		
Туре	⊙ Source ○ De	estination	
Password			Apply
SOURCE SH	ARE PATH :		
Dest. Backup F Backup from	older Name		Browse
			Apply
SOURCE STA	ATUS :		
Status	Stopped Start Remote S	Server	
SOURCE SH	ARE LIST :		 



### Please Note:

To be able to this function ports number 22, 873, and 62057 needs to be forwarded to this unit from your local router's setup.

### **Remote Backup - Source**

If configuring the DNS-343 to be a Source device, configure the parameters as described below:

Remote Backup<br/>Settings:Type a password that will be used by the destination<br/>NAS device to authenticate with the DNS-343 before<br/>copying the files.Destination Backup<br/>Folder Name:Type a name for the folder that you want to back the<br/>data up to on the remote device.Backup from:Click the Browse button to specify the folders that<br/>you want to backup on the DNS-343. Click the Apply<br/>button to add the folder to the Source Share List.Source Share List:Displays the list of folders that will be backed up onto<br/>the destination NAS device. To modify the source<br/>folder, click the Notepad icon next to the folder you<br/>want to modify and change the required settings. To<br/>delete a source folder, click the Trashcan icon next to<br/>the folder you want to delete.

REMOTE BAC	KUP SETTINGS :
Туре	● Source ○ Destination
Password	Apply
SOURCE SHA	RE PATH :
Dest. Backup Fol Backup from	Ider Name Browse Apply
SOURCE STAT	TUS :
Status	Stopped Start Remote Server
SOURCE SHA	RE LIST :
Backup from	Best. Folder Name

### **Remote Backup - Destination**

If configuring the DNS-343 to be a Destination device, configure the parameters as described below:

- **Source IP:** Type the IP address of the NAS device that is storing the files you want to backup.
- **Password:** Type the password that has been setup on the source device for the Remote Backup feature.
  - **Save to:** Click the Browse button and choose the folder where you want to back the data up to. Click the Apply button to add the folder to the Destination List.
  - **Method:** Tick the Keep existing file check box to stop any existing files stored on the destination folder from being deleted.
- **Destination List:** Tick the check box next to the folders that you want to back the data up to.

REMOTE BACKUP SETTINGS :					
Туре	○ Source ④ Destination				
Source IP Password Save To Method	Browse Browse				
	Apply				
DESTINATION	LIST :				
Backup fro	n Dest. Folder Name				
	Backup				

### **Add-ons Page**

In this section you will be able to install application and language packs to further enhance the functionality of your DNS-343. This powerful new feature on the DNS-343 allows users to customize the interface and usability of this unit. Adding features to the unit now only requires an Add-on installation as soon as new features are available.

- **Application Pack:** Click on "Browse" to search for the specific application pack you want to install. After selecting the application pack, then click "Apply" to install the application pack.
- **Language Pack:** Click on "Browse" to search for the specific language pack you want to install. After selecting the language pack, then click "Apply" to install the language pack.
- Add-Ons Summary: In this section you can see a summary of the application/language pack(s) you have installed. Under the "Status" column, you can see if a specific pack is currently enabled or disabled. Under the "Start/Stop" column, click the "Start" icon to enable the specified pack.

Click on the "Stop" icon to disable the specified pack. Under the "Remove" column, press the "trashcan" icon to uninstall the specified pack

The two Add-ons added here is the Bit Torrent Client Application and ADS.

More Add-ons like language packs and utilities should be available soon.



### **Please Note:**

Keep a keen lookout on D-Link's local website for new Add-on releases.

#### ADD-ONS :

This section allows you to install application packages onto your system. In addition, you can also install language packages to suit your local language needs.

APPLICATION PACK :						
File Pa	th :		Browse	Apply		
LANG	UAGE PACK :					
File Path : Apply						
ADD-	ONS SUMMARY :					
			🕑:Enable 🗹	):Disable 🎫:Si	tart <b>E:</b> Stop	
NO.	Module Name	Version	Status	Start/Stop	Delete	
1	ADS	1.00	<b>v</b>			
2	BitTorrent	1.00	<b>v</b>		The second secon	
3	LANGUAGE.TC	1.00	Ø		Ē	

### Language Pack

After the loading a language pack you must activate it on the Add-ons page. After activating a language pack the interface of the DNS-343 will change to the language loaded. Below is an example of a running Chinese language pack.

D-Linl	K				$\prec$
DNS-343	設定	進階設定	工具	狀態	支援
	増益集 :				<b>有用的提示</b> 請確定要在使用應用程
CH石/研組 一 配額設定 網路分享設定			的設備硬碟之中,以彈性的 沒有安裝硬碟,便無法使用		式 /語言套件前先對其 安裝。此外,應用程式 及語言套件可以藉由點 擊在「增益集摘要」區
,调查刀子或定 (Samba) 	應用程式套件 :				段裡「啟動 / 關閉」欄 下的「啟動 / 關閉」圖 示以暫時關掉(然後在
UPnP AV 伺服器	檔案路徑:		Browse 客用	]	稍後重新開啟 <b>)。</b> 這些 套件也可加以刪除。 取消此語言套件將會讓
DHCP 伺服器					系統語言回復到預設值 英文。
遠端備份 増益集	語言套件 :				
登出	檔案路徑:		Browse 套用	]	
	增益集 <b></b>				

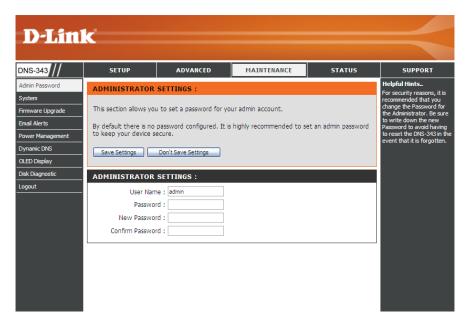


### **Please Note:**

Please contact the local vendor (D-Link) to find out if there is a language pack available for your local language.

### **Maintenance Section**

- Admin Password: This section allows you to set a password for your admin account.
  - **System:** The System Settings section allows you to restart the system, shutdown the system, or restore the device to the factory default setting.
- **Firmware Upgrade:** A new firmware upgrade may be available for your DNS-343. It is recommended to keep your DNS-343 firmware up-to-date to maintain and improve the functionality and performance of your storage device.
  - **Email Alerts:** This section allows you to configure e-mails to be alerting you to certain operational conditions and drive status conditions.
- **Power Management:** This section allows you to enable or disable the Hard Drive Hibernation and Power Recovery function.



- **Dynamic DNS:** The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www. whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your NAS no matter what your IP address is.
- **OLED Display:** This section allows you to configure the OLED display screen to turn to standby mode after a specified idle time.
- **Disk Diagnostics:** This section allows you to perform a health test on your hard drives. In addition, you can set a schedule for your tests and receive email notifications.

### **Admin Password Page**

The Admin menu allows you to set a password for the admin account. It is recommended to set an admin account password when first configuring the DNS-343.

#### ADMINISTRATOR SETTINGS :

This section allows you to set a password for your admin account.

By default there is no password configured. It is highly recommended to set an admin password to keep your device secure.

Save Settings Don't Save Settings

- **User Name:** The administrator user name is admin, and this cannot be changed.
- **Password:** Enter the current password. (Leave this blank if you have not set a password yet.)
- **New Password:** Enter a new password.
- **Confirm Password:** Enter the new password again for confirmation.

Click Save Settings to save the new password.

_		
ADMINISTRATOR SETTINGS :		

### System Page

The DNS-343 System menu provides options for system restarts, saving and loading configuration settings, and setting idle times.

Restart: Click Restart to reboot the DNS-343.

- **Restore Defaults:** Click Restore to reset the DNS-343 to its factory default settings. This will erase all previous configuration changes.
  - **Shutdown:** Click Shutdown to turn off the DNS-343.
  - **Configuration** Settings: Click Save to save the current DNS-343 configuration settings to a file on the local computer. If at a later time you need to reload this configuration after a system reset, browse to the file and click Load.
    - Idle Time: Enter the time (in minutes) that the administrator will be allowed to remain idle while accessing the DNS-343 configuration settings or that users will be allowed to remain idle while accessing the download schedule settings.

Click Apply to save the settings.

#### SYSTEM SETTINGS :

The System Settings section allows you to restart the system, shutdown the system, or restore the device to the factory default setting. Restoring the unit to factory settings will erase all settings, including any rules that you have created.

The current system settings can be saved as a file onto the local hard drive. The saved file can be uploaded into the unit.

RESTART : System Restart.	Restart
DEFAULTS :	
Restore To Factory Default Settings.	Restore
SHUTDOWN :	
System shutdown.	Shutdown
<b>CONFIGURATION SETTINGS</b> :	
Save Configuration Settings. Load Configuration Settings.	Browse Load
IDLE TIME :	
Config Inactivity Timer Download Schedule Inactivity Timer	10     (Minutes)       10     (Minutes)       Apply     Cancel

### Firmware Upgrade Page

The DNS-343 Firmware Upgrade menu makes it simple to check for new firmware releases and upload them to the device.

#### FIRMWARE UPGRADE :

A new firmware upgrade may be available for your DNS-343. It is recommended to keep your DNS-343 firmware up-to-date to maintain and improve the functionality and performance of your storage device.

Click D-Link Support Page to check for the latest available firmware.

To upgrade the firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.

### **Firmware Upgrade:** This section provides a link to check for new firmware on the D-Link support website.

If a new firmware is available, download the file to your local computer.

**Current Firmware** This section provides information about the current **Info:** DNS-343 firmware.

When upgrading the firmware, click Browse to select the new firmware file on your local computer.

Click Apply to begin the firmware upgrade process.

Current OLEDThis section provides information about the currentFirmware Info:DNS-343 OLED firmware.

See further for details on how to upgrade the OLED Firmware.

### CURRENT FIRMWARE INFO :

Current NAS Firmware Version : 1.04 Current OLED Firmware Version : 1.04 Firmware Date : 05/11/2010

File Path :

Browse... Apply

### **OLED Firmware Upgrade**

The latest firmware for the DNS-343 have a function to verify if the OLED Firmware is up to date or not. When the OLED Firmware is out dated, after the firmware update, the user will be prompted to up date the OLED firmware automatically. The following steps starts off like a normal firmware update but add the OLED update too.

Start: Go to the MAINTENANCE > FIRMWARE UPGRADE page to verify the current firmware version.

FIRMWARE UPGRADE :
A new firmware upgrade may be available for your DNS-343. It is recommended to keep your DNS-343 firmware up-to-date to maintain and improve the functionality and performance of your storage device.
Click <u>D-Link Support Page</u> to check for the latest available firmware.
To upgrade the firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.
CURRENT FIRMWARE INFO :

**Step 1:** To upgrade the firmware click on the Browse button and select the latest firmware available for the upgrade.

Notice that you can go to your local D-Link web site to find out what the latest available firmware is for the DNS-343. In this example we upgrade to the firmware version 1.03

Once you've selected your firmware file, click on the Apply button. This will start the firmware update as per normal.

RENT FIRMWARE INFO :	l
Current Firmware Version : 1.02	
Firmware Date : 08/20/2008	
File Path : Browse Apply	
	Current Firmware Version : 1.02 Firmware Date : 08/20/2008

Choose File to	Upload		_			? 🔀
Look in:	2009-06-03	Latest Firmware	•	3 🦻	•111 🥙	
My Recent Documents Desktop		5343.1.03b71(1.30.052 5343.1.03b71(1.30.052			View M	enu
My Documents My Computer						
My Network Places	File name: Files of type:	DLINKEu_DNS343. All Files (*.*)	1.03671(1.30.052)	7	• [	Open Cancel

After clicking the Restart button wait 120 seconds for the device to restart.

Step 3:	After the restart you can connect to the web
	configuration again. The latest firmware evaluates the
	current OLED firmware and will prompt you to upgrade
	it, if it's out dated.

If prompted to upgrade, click the Start button. This will start the OLED firmware Upgrade.

	IWARE INFO :	
Current F	irmware Version : 1.02	
	Firmware Date : 08/20/2008	
	File Path : D:\Projects Pending Writer\DNS- Browse Apply	
	Warning : Firmware update is in progress.	
	Please don't restart or power-off the DNS-343.	
	The DNS-343 is restarting. Please wait a moment.	
)-Link	DNS-343	

A new OLED firmware upgrade may be available for your DNS-343. It is recommended that you keep your DNS-343 OLED firmware up-to-date to maintain and improve the functionality and performance of the OLED of your storage device.

Click <u>D-Link Support Page</u> to check for the latest available OLED firmware.

To upgrade the OLED firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.

CURRENT OLED FIRMWARE INFO :

Current OLED Firmware Version: 1.02

OLED Firmware Date : 10/27/2008

Start

STORAGE

**Step 4:** The update will automatically go through the steps of erasing and programming the OLED firmware of your device.

**Step 5:** After the update has been completed, you'll be prompted to please remove the power cord from the DNS-343, wait for 5 seconds and then insert the power cord to the DNS-343 again.

After this, updating the Firmware and the OLED Firmware will be complete.

D Tank
D-Link DNS-343
OLED FIRMWARE UPGRADE :
A new OLED firmware upgrade may be available for your DNS-343. It is recommended that you keep your DNS-343 OLED firmware up-to-date to maintain and improve the functionality and performance of the OLED of your storage device.
Click <u>D-Link Support Page</u> to check for the latest available OLED firmware.
To upgrade the OLED firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.
CURRENT OLED FIRMWARE INFO :
Current OLED Firmware Version : 1.02
OLED Firmware Date : 10/27/2008
Erasing µP
2%
CTOPOCC
STORAGE
D-Link
DNS-343
OLED FIRMWARE UPGRADE :
A new OLED firmware upgrade may be available for your DNS-343. It is recommended that you keep your DNS-343 OLED firmware up-to-date to maintain and improve the functionality and performance of the OLED of your storage device.
Click <u>D-Link Support Page</u> to check for the latest available OLED firmware.
To upgrade the OLED firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.
CURRENT OLED FIRMWARE INFO :
Current OLED Firmware Version : 1.02
OLED Firmware Date : 10/27/2008
OLED Firmware Date : 10/2//2008
Programming uP
Programming µP 34%
34%
34%
34%
34% STORAGE To complete the OLED firmware upgrade process, please disconnect the power cord from the NAS.
34% STORAGE To complete the OLED firmware upgrade process,

### **E-Mail Alerts Page**

With the DNS-343 E-Mail Alerts, you can configure e-mails to be sent alerting you to certain operational conditions and drive status conditions. These alerts can prove helpful with the management and safeguarding of important data. The Alert Settings section contains the configuration settings for the your e-mail

account and alert preferences. Once configured, use the Test E-Mail button to send a test e-mail and confirm your settings are correct. The Alert Types section contains the alert options and their configuration settings.

- Login Method: Select either Account or Anonymous. Choosing Anonymous does not require a User Name or password.
  - **User Name:** Enter the appropriate user name for your e-mail account.
  - **Password:** Enter the appropriate password for your e-mail account.
- **SMTP Server:** Enter the IP address or domain name of your outgoing mail server. If you are unsure of this value, contact your e-mail provider.
- Sender E-Mail: Enter the "from" e-mail address (e.g. alerts@dns343. com). This field does not require a valid e-mail address. However, if your e-mail client is filtering spam, make sure you allow this address to be received.
- **Receiver E-Mail:** Enter the e-mail address you want to send the alerts to. This address must correspond with the SMTP server configured above.
  - **Test E-Mail:** Click the Test E-Mail button to send a test alert and confirm your settings are correct.

#### E-MAIL ALERTS :

This section allows you to configure e-mails to be alerting you to certain operational conditions and drive status conditions. These alerts can prove helpful with the management and safeguarding of important data.

Save Settings Don't Save Settings Clear Saved Settings

E-MAIL ALERT SETTINGS :	
Login Method : 💿 Account 🔘 Anonymous	
User Name :	
Password :	
SMTP Server :	
Sender E-mail :	
Receiver E-mail :	
Test E-Mail	

E-MAIL ALERT SETTINGS :
Login Method : 🔿 Account 💿 Anonymous
SMTP Server :
Sender E-mail :
Receiver E-mail :
Test E-Mail

opullo dialati	of space remaining on the drives e-mailed.
A Volume Is Full:	An alert will be sent when the hard drive is full.
	An alert will be sent if a critical error occurs on one of the drives.
Administrator Password Change:	An alert will be sent if the admin password is changed.
Firmware Upgraded:	An alert will be sent if the firmware is upgraded.
Send Log File:	A log file will be sent daily, weekly or monthly.

**Space Status:** Select an interval in hours and minutes to have a status

- **S.M.A.R.T. Test** S.M.A.R.T. information and result will be sent. **Result:**
- **System Temperature** Exceeded: An alert will be sent if the DNS-343 device temperature exceeds the set threshold. After the alert has been sent, the DNS-343 will power off for safety.

#### ALERT TYPES :

□ Space Status Interval: 0
One Of The Volumes Is At 95 Percent Full.
One Of The Hard Drives Has Failed
The Administrator Password Has Been Changed
Firmware Has Been Upgraded
Send Log File
Send S.M.A.R.T. Test Result
System Temperature Has Exceeded Fahrenheit 💌 140 °F
Enabling this feature will cause the DNS-343 to shut down after the selected temperature is exceeded and an e-mail is sent.

### **Power Management Page**

The DNS-343 Power Management feature allows you to configure the drives to shut down while power remains constant to the device. The drives will power up again when data is accessed.

**HDD Hibernation:** Use the radio buttons to Enable or Disable the Hard Drive Hibernation feature.

before idle drives will be shut down.

Settings: the DNS-343 after an unexpected shutdown or after a

**Power Recovery** Click the Enable radio button to automatically restart

Turn off Hard Drives: Use the drop-down menu to set the amount of time

power failure.

POWER MANAGEMENT :
This section allows you to enable or disable the Hard Drive Hibernation and Power Recovery function.
Save Settings Don't Save Settings
HARD DRIVE HIBERNATION SETTINGS :
HDD Hibernation :
Turn Off Hard Drives : After 5 minutes 💌
POWER RECOVERY SETTINGS :
Power Recovery : O Enable O Disable

	Please Note: If the hard drive does not hibernate after the hibernation time you have set has passed, please make sure that: 1. BitTorrent is disabled and/or all download seeds are stopped. 2. There is no read/write access to the UPnP AV or iTunes server. 3. No one is using the easy search utility to discover the D-Link NAS or mapping/disconnecting a drive.
--	---

### **Dynamic DNS Page**

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.

**DDNS:** Select Enable or Disable.

- **Server Address:** Enter the DDNS server address or select from the drop down menu.
- Host Name: Enter your DDNS host name.
- Username or Key: Enter your DDNS username or key.
- **Password or Key:** Enter your DDNS password or key.
- Verify Password or Re-enter your password or key. Key:

Status: Displays your DDNS status.

### **OLED Display Page**

The LCD Display settings allow the administrator to change the time it takes for the OLED screen on the front of the DNS-343 to power off. Click on the drop-down box below to change the time it takes for the OLED screen to power off. Click the Save Settings button to apply the settings.

Tick the 'Do not notify me when "Disk Is Full" option to turn off this notification.

#### DDNS SETTINGS :

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your NAS no matter what your IP address is.

#### Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.

Save Settings Don't Save Settings

DDNS SETTINGS :	
Dynamic DNS	○ Enable ④ Disable
Server Address :	<< Select Dynamic DNS Server 🗸
Host Name :	(e.g.: me.mydomain.net)
Username or Key :	
Password or Key :	
Verify Password or Key :	
Status :	



### **Disk Diagnostics Page**

S.M.A.R.T stands for "Self-Monitoring, Analysis, and Reporting Technology". This is a system on a hard drive used to monitor and report on the health of the drive. If the HD is grayed out, then it does not support S.M.A.R.T.

- Quick Test: Runs a quick S.M.A.R.T test. The test usually takes less than 10 minutes. This test will check the electrical, mechanical, and read performance of the hard drive. The results are displayed as Passed/Failed on the web UI and can also be sent as an email alert.
- **Extended Test:** Runs an extended S.M.A.R.T test. This test requires a lot more time to complete. However, it is a more thorough and complete test when compared to the Quick Test.
- **Send Result By** Enable this function in order to have the results of the **Email:** S.M.A.R.T test sent to you by e-mail.
- **Create Schedule:** Click on this button in order to create a scheduled S.M.A.R.T test. You will be able to schedule a test on a daily, weekly, and monthly basis.
  - Scan Disk: Scan Disk will scan your system's file system for errors and/or corruption. After completion, any errors on your file system will be displayed accordingly.

To run the S.M.A.R.T test, select the hard drive you wish to perform the S.M.A.R.T test on. Then select whether to run a Quick or Extended S.M.A.R.T test. Then press "Start" to run the test.

#### **DISK DIAGNOSTIC SETTINGS :**

This section allows you to perform a health test on your hard drives. In addition, you can set a schedule for your tests and receive email notifications.

#### S.M.A.R.T TEST :

	Slot	: Manu.	Model	Progress	Result	
	1	WDC	WD2500AAKS-00L9	-	Pass [ 2009/07/15 09:15:48 ]	
	2	WDC	WD5000AAKS-22YG	-	-	
	3	Hitachi	HDS728080PLA380	-	-	
	4	Hitachi	HDS728080PLA380	-	-	
Test type : ④ Quick test 〇 Extended test						
Send result by E-mail						
Create Schedule Start						

SCAN DISK :	
Volume Name : Volume_1 🔽 Scan Disk	

### **Status Section**

**System Info:** View a summary of system information here.

- Hard Drive Info: View a summary of hard drive information here.
  - **Logs:** Use this option to view the NAS system logs and the FTP logs.

D-Lin	k				$\prec$			
DNS-343	SETUP	ADVANCED	MAINTENANCE	STATUS	SUPPORT			
System Info	DEVICE INFORMA	TION :						
Hard Drive Info	View a summary of ha	rd drive information here.						
Logout	LAN INFO :							
		IP Address: 192.168.6 Subnet Mask: 255.255.2						
		y IP Address: 192.168.6						
		Mac Address: 00:1E:58:						
		DNS1:						
		DNS2:						
	DEVICE INFO :							
		Workgroup: workgrou	p					
		Name: dlink-9f31	.a6					
		Description: DNS-343						
	System Temperature: 114°F / 46°C							
	PRINTER INFO :							
	M	lanufacturer: None						
		Product: None						

### **Device Information Page**

View a summary of system information here.

**Device Info:** 

Hard Drive Info:

**LAN Info:** Displays the local network settings of the DNS-343.

temperature of the DNS-343.

**Printer Info:** Displays information for a connected USB printer.

your computer to be unable to print.

DNS-343.

Displays the workgroup, name, description and current

If your computer is having problems printing to the DNS-343, you can click the Clear Print Queue(s)

button to remove any print jobs that may be causing

Displays the total number of hard drives installed in the

mode, total size, used and remaining drive space.

#### **DEVICE INFORMATION:**

View a summary of hard drive information here.

#### LAN INFO :

IP Address: 192.168.69.32 Subnet Mask: 255.255.255.0 Gateway IP Address: 192.168.69.1 Mac Address: 00:1E:58:9F:31:A6 DNS1: DNS2:

#### **DEVICE INFO :**

Workgroup: workgroup Name: dlink-9f31a6 Description: DNS-343 System Temperature: 113°F / 45°C



#### HARD DRIVE INFO :

Volume Name: Volume\_1 Volume Type: JBOD Total Hard Drive Capacity: 894113 MB Used Space: 88 MB Unused Space: 894024 MB



### **Please Note:**

The amount of hard drive space used is always larger than the total size of all folders/files on the hard drive, because a small portion of the hard drive space is occupied by the file system.

# Connecting a UPS to the DNS-343

To add an Uninterrupted Power Supply (UPS), carry out the following steps:

- Turn off the DNS-343 if it is not already powered down.
- Connect the UPS to the USB port on the back of the DNS-343.
- Connect the power of the DNS-343 to the UPS.
- Turn on the UPS.
- Turn on the DNS-343.
- Verify the UPS is properly connected and powered on by going to the Device Information window.

UPS Info:	The UPS Information screen displays information
	about the UPS Manufacturer and the Product name.

- **Battery Charge:** Battery Charge indicates the battery power state of the UPS (not all UPS' support this function).
  - **Status:** The Status field will display one of the three messages below:
    - 1. OL: This indicates that the UPS is online.
    - 2. OB: This indicates that the UPS is running on battery, meaning that there has been a power failure. The DNS-343 is consuming the battery power of the UPS and any data should be saved immediately to prevent any work being lost.
    - 3. LB: This indicates that the UPS has low battery power.

#### UPS INFO :

Manufacturer: Cypress Semiconductor Product: USB to Serial Battery Charge: Not Find Status: Not Find

When a UPS (Uninterrupted Power Supply) USB management connection is connected to the DNS-343, the Status screen hides the printer information and displays information about the UPS connected. The screenshot on the right-hand side shows the Status screen when a UPS is attached to the DNS-343. The following parameters are displayed in the UPS Info section:

### Hard Drive Information Page

This section will display a summary of the hard drive(s) currently installed in the DNS-343. The summary will include information such as the hard drive manufacturer, model, serial number, temperature, total capacity size, and status. The "Status" of the hard drive will display the health of the hard drive. If your hard drive is healthy, the status will display "Normal". If your hard drive is not healthy, the status will display "Abnormal". At any time, if you wish to view the S.M.A.R.T table of the hard drive, you can press the "Normal/Abnormal" button

HAR	D DRIV	E INFORMATION :				
View	2 6000000	ary of hard drive inform	ation hara			
view	a summa	ary of hard drive informa	acion nere.			
HAR	D DRIV	/E INFO :				
Slot	Manu.	Model	Serial Number		Temp. Size	Status
1	Hitachi	HDS728080PLA380	PFDBW3SWT2V	V4H 4	0°C/104°F 82 GB	Normal
2	Hitachi	HDS728080PLA380	PFDBW3SWT68	RNH 4	3°C/109°F 82 GB	Normal
SL01	Г 1 <b>S</b> .M	I.A.R.T INFO				
Id		Item	Now	Wor	st Thresh	Raw Value
1	Raw_Re	ead_Error_Rate	100	100	0 16	0
2	Throug	hput_Performance	100	100	0 50	0
3	Spin_Up_Time		103	103	3 24	190
4	Start_Stop_Count		100	100	0 0	515
5	Reallocated_Sector_Ct		100	100	) 5	0
7	Seek_E	rror_Rate	100	100	0 67	0
8	Seek_T	ime_Performance	100	100	0 20	0
9	Power_	On_Hours	100	100	0 0	1449
10	Spin_Re	etry_Count	100	100	0 60	0
12	Power_	Cycle_Count	100	100	0 0	317
192	Power-	Off_Retract_Count	100	100	0 50	552
193	Load_C	ycle_Count	100	100	0 50	552
194	Tempe	rature_Celsius	137	65	; <u>0</u>	40
196	Realloca	ated_Event_Count	100	100	0 0	0
197	Current	_Pending_Sector	100	100	0 0	0
198	Offline_	Uncorrectable	100	100	0 0	0
199	UDMA_	CRC_Error_Count	200	253	3 0	0

# Log Page

Use the Log window to view a summary of the System and FTP Log Events on the DNS-343. Choose System Log from the drop-down menu to view the System Log events. Choose FTP Log from the drop-down menu to view FTP Log events.

Use this option	to view the NAS s	system logs and the FTP logs.
LOGS :		
Logs : System L	og 🔽	
Date	Time	Info
2001/02/05	19:19:28	Modify System time to "2001/02/05 19:19:28"
2001/02/05	19:19:55	System up
2001/02/05	19:21:13	admin login.
2001/02/05	19:21:22	admin login.
2001/02/05	19:33:27	admin login.
2001/02/05	19:38:04	System restart.
2001/02/05	19:39:02	Modify System time to "2001/02/05 19:39:02"
2001/02/05	19:39:23	System up
2001/02/05	19:40:14	admin login.
2001/02/05	19:43:40	Modify "admin" password.
2001/02/05	11:44:00	Modify RTC time to "2001/02/05 11:43:59"
2001/02/06	03:44:21	admin login.
2001/02/06	03:45:43	admin logout.
2001/02/06	03:45:49	admin login.
2001/02/06	03:51:24	System restart.

# **Support Section**

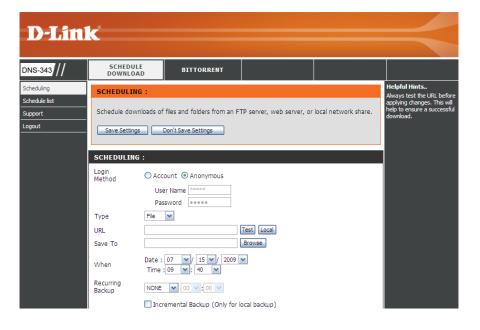
The DNS-343 Support page provides a menu of Support topics explaining the features of the device.



### **Schedule Downloads Section**

Scheduling Settings: Configure download and backup schedules here.

**Schedule List:** The Schedule List will display all completed, active, and pending scheduled downloads and backups.



## **Scheduling Settings Page**

Schedule downloads of files and folders from an FTP server, web server, or local network share.

- **Login Method:** Select the appropriate login method to access the files for download. If the site requires login credentials, select Account and enter a valid username and password.
  - **Type:** Select File or Folder, depending on what you want to download or backup.
  - **URL:** Enter the URL of the site or server you are initiating a transfer from.
    - E.g. ftp://123.456.789/Test http://www.test.com/test.txt
  - **Test:** Click Test to test the URL is valid and the user name and password are correct.
  - **Local:** Click Local to set the source file or folder from one of the internal drive volumes. Browse to the file or folder, and click OK to accept the network path.
  - **Save To:** Enter a valid destination drive on the DNS-343, or click Browse and browse to the destination.
    - **When:** Enter the date and time you want the scheduled backup or download to occur.
- **Recurring Backup:** Designate the interval and time you want the backup or download to run unattended.

#### SCHEDULING :

Schedule downloads of files and folders from an FTP server, web server, or local network share.

Save Settings Don't Save Settings

SCHEDULIN	G :		
Login Method	O Account   Anonymous User Name		
	Password •••••		
Туре	File 💌		
URL	Test Local		
Save To	Browse		
When	Date : 07 v/ 15 v/ 2009 v Time : 09 v: 40 v		
Recurring Backup	NONE 00 00 00 00		
	Incremental Backup (Only for local backup)		
SCHEDULE	LIST :		
Status Downlo	pad Path Save To	Time	Del
		Refr	esh

- Incremental Backup: By default all local backups and file/folder downloads are in Overwrite mode, meaning that identical files in the destination folder will be overwritten by the source files. Ticking Incremental Backup will have the DNS-343 compare identical file names at the source and destination. Files will only be overwritten if the source file is more recent.
  - Schedule List: The Schedule List will display all completed, active, and pending scheduled downloads and backups.

# **Scheduling List Page**

Pending and completed download events will be listed here. The current status for each event is displayed here. In addition, there is an option to delete a download event at any time. Current download statistics, such as % completed and download speed, are displayed for each event. A refresh button is also provided to produce updated listings at any time.



Download Success.



- Download has not yet occurred.
- Waiting.
- Link File.
  - The file is downloading.

#### SCHEDULE LIST :

View the progress and status of currently scheduled downloads.

SCHEDULE LIST :						
Status	%	Speed Download Path	Save To	Time		
				Refresh		

# **BitTorrent Section**

BitTorrent is a peer-to-peer file sharing protocol used for distributing large amounts of data.

- **Downloads:** Here you can download files using the built in BitTorrent download manager.
  - **Settings:** Here you can configure your BitTorrent download manager settings.
  - **Support:** Here you can find support for this section.

D-Lin	1-2				
IS-343 //	SCHEDULE DOWNLOAD	BITTORRENT			
wnloads tings	DOWNLOADS :				
oport	Here you can dow DOWNLOADS :	nload files using the built in BitT	Forrent download manager.		
			Total Sp Downik Upload	oads:	0
	Add Torrent I	From URL	rom File	Remove Co	mpleted 🔰
	Stop	Red Hat Linux Networking an ebooks-bookzone	d System Administration - 2nd		move
	Stop	7.8 MB	0% More Details ►	∞ Re	move

### **Downloads Page**

Here you can download files using the built in BitTorrent download manager.

- Total Speeds: Total download and upload speed will be displayed here for torrents that are active.
- Add Torrent: Add Torrent from URL: In the field provided you can copy and paste a link to a torrent file hosted on the Internet. The BitTorrent download manager will add the torrent file to the download manager for downloading.

Add Torrent from File: Here you can browse for a torrent file you have downloaded onto your PC. This allows you to load the torrent file from your local PC.

- **Remove Completed:** By clicking the remove completed option you can remove all downloads that have transferred 100% of the data to your DNS-343. This allows you to see what downloads are still active.
  - **Start:** After you have added a torrent file to your BitTorrent download manager, you can click the start button to begin downloading your files.
  - **Stop:** Once you have added a torrent file and clicked the Start button, the Stop button will now be available. In the event that you need to pause the download on your DNS-343 you can click the Stop button and later resume the download again by clicking Start.
  - More Details: Here you can view download details like the number of peers and seeds you are connected to and what download and upload speed the selected file is transferring at as well as the remaining amount of data and how long until your download finishes.
    - **Remove:** Once you have added a torrent file to the BitTorrent download manager you will have the option to remove the download. This will delete any partial data downloaded as well as the associated torrent file.

#### **DOWNLOADS** :

Here you can download files using the built in BitTorrent download manager.

	Total Sp	eeds	
	Downlo	oads:	0
	Upload	ls:	0
dd Torrent From URL	Add	Remove C	ompleted
Add Torrent From LIRI			
Add Torrent From URL Add Torrent From File			
Add Torrent From URL 🛛 Add Torrent From File			
Add Torrent From URL Add Torrent From File	ents. Add a torre	nt above.	
	ents. Add a torre	nt above.	
	ents. Add a torre	nt above.	
Add Torrent From URL D Add Torrent From File	ents. Add a torre	nt above.	

Red Hat Linu	x Networkin	g and System A	dministratio	on - 2nd Edition -	0	~ ~
ebooks-book	zone					8
		0%			K	lemove
7.8 MB		Less Details 🔻		00		
Remaining:	7.8 MB	Seeds:	0(0)	Download Speed:	0	
Downloaded:	0 bytes	Peers:	0 (1)	Upload Speed:	0	
Uploaded:	0 bytes	Ratio:	0	Availability:	0	
Files:						
ALC: NOT CONTRACT OF	Networking ar	nd System Adminis	tration - 2nd E	Edition -ebooks-		
bookzone/Dow	nload Free Eb	ooks.url				
Red Hat Linux	Networking ar	nd System Adminis	tration - 2nd E	Edition -ebooks-		
	1011/2023	1		Edition -ebooks- tion - 2nd Edition.pdf		

### **Settings Page**

Here you can configure your BitTorrent download manager settings.

#### SETTINGS :

SET

Here you can configure your BitTorrent download manager settings.

- **Port Settings:** Here you can select the default port setting of 6881 or if your ISP blocks port 6881 you can select a customer port number and enter it in the field provided.
- Bandwidth<br/>Management:Select between automatic and manual. If you choose<br/>Manual bandwidth control you must specify the<br/>maximum download, upload, and maximum upload<br/>while seeding speeds.
- Seeding Remove: While you are downloading the files associated with your torrent there are other users also downloading this same data. Seeding allows other users to start a peer to peer connection to your torrent client and download parts of data that you have already received. This allows users to accelerate their download speeds by receiving data from multiple locations at once.
  - There are three options to choose from in the BitTorrent download manager that can be selected. You can choose to Seed until the torrent is removed from your BitTorrent download manager manually or you can choose to have the files automatically stop seeding at a specific percentage or after a specific amount of time has passed.

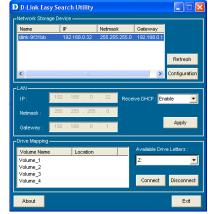
TINGS :		
Port Settings:		
Oefault (6881)		
○ Custom		
Incoming connections port:		
Bandwidth Management:		
<ul> <li>Automatic</li> </ul>		
O Manual		
Maximum download rate (kB/s):		default: -1 (unlimited)
Maximum upload rate (kB/s):		default: -1 (unlimited)
Max. upload rate when seeding (kB/s)		default: -1 (unlimited)
Seeding:		
Seed until removed		
Stop seeding when ratio reaches		%
Stop seeding after		(Minutes)
	Save	Cancel

# Knowledge Base Mapping a Drive

You can use the D-Link Easy Search Utility to map drives to your computer. Insert the DNS-343 CD into your CD-ROM drive.



1. Click Easy Search Utility. The Easy Search Utility will load and detect any DNS-343 devices that are on the local network. If the DNS-343 you are working with does not show up in the device list, click Refresh.



2. Highlight an available DNS-343. Available volumes will be displayed under Drive Mapping. Highlight the volume you want to map. Select an available drive letter from the drop-down menu and click Connect. Once connected, your mapped drive(s) will appear in My Computer.

e Edit View Favorites Tuols Distant - 🔿 - 🏦 📿 s	Belo ware Police's III v		
has 🕞 My Computer	-		Noton Anližinas 🐼 🔹
System Tacks (8) Wex system Information Did for remove programs Change is setting Uthor Places (8)	Non - (315) Ruys(A) (2010) What(3) What(3) What(3) Control(1	Type 2 X-bite, Ploppy Self usel Disk usel Disk def Disk CD Prvs Network Triken State a Folder Folder	Total Siza 2.92 GE 1.35 GC 1.55 GT 140 GT
Mr. Notwork Locos Mr. Documents Shared Documents Control Handl Detwils (\$)	Share: Usonents	Fores	
Seagate_hi an D-Link Network Storage Adapter (Dis-gJ20)*(Mi) NetworkDroc File System NT#S Free Space (7718			

3. Double-click the My Computer icon on your desktop. Double-click on the mapped drive to access the files and folders.

# Yahoo! Widget Configuration

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

### What is a Yahoo Widget?

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

# Yahoo! Widget Installation

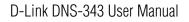
**Step 1:** Install the Yahoo! Widget downloaded. Once the Yahoo! Widget is installed a D-Link icon will appear in your Widget Dock. Once you hover with your mouse over the D-Link Widget you'll be able to click the configuration button.



**Step 2:** Click the configuration button to configure the Widget.

Enter the IP Address of your DNS-343 and click on the Save button.

Now your ready to use your new D-Link Yahoo! Widget!



## Yahoo! Widget Display

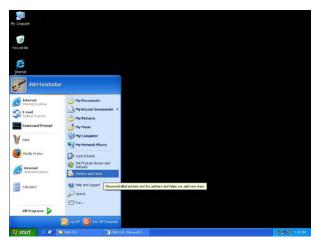
The D-Link Widget is mainly used for monitoring the activities taking place on your sharecenter.

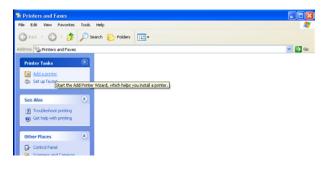
- **System:** In the System window information about your Computer, Sharecenter, IP Address, Firmware Version and Current Operational Temperature are displayed.
- **Hard Drive:** In the Hard Drive window information about the storage space of your Sharecenter is displayed.
  - **Server:** In the Server window information about the USB Device, UPnP Server, ITunes and FTP Server configured on your Sharecenter is displayed.
- **Download:** In this window the user can view the download status of files being downloaded using the Bit Torrent Client Add-on. Please note that the Bit Torrent Add-on must be installed on the device for this window to display information.



## **USB Print Server**

The DNS-343 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 DNS-343. It is important to ensure that any of the printer manufacturer's drivers are already installed on any computer you want to print from.





2. Select "Add a printer".

1. To add a printer: Click Start and select Printers and Faxes.



3. The Windows® Add Printer Wizard will launch: Click Next to continue.



4. When prompted to choose a local, or network printer, select "A network printer, or a printer attached to another computer." Click Next to continue.

Add Printer Wizard
Specify a Printer If you don't know the name or address of the printer, you can search for a printer that meets your needs.
What printer do you want to connect to?
URL: Example: http://server/printers/myprinter/.printer
< <u>₿</u> ack <u>N</u> ext> Cancel

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

trowse for Printer When the list of printers appears	, select the one you want to use.
Printer: \\dns-343\lp	
Shared printers:	
Microsoft Windows Network	
workgroup	
DNS-343	USB Printer
	05011110
Printer information	
Comment: USB Printer	
Status: Ready	Documents waiting: 0
	2 Counterfue Walking.

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

Add Printer Wizard	
Browse for Printer When the list of printers appears, select the one you want to use.	
Printer: Shared printers: Microsoft Windows Network WORKGROUP DNS-343	
Printer information Comment: Status: Documents waiting:	
< <u>B</u> ack <u>N</u> ext> Cancel	)

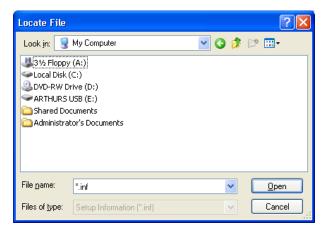
6. Select Double-click "DNS-343" from the Shared Printers list to expand the tree.

♪	You are about to connect to a printer on dns-343, which will automatically install a print driver on your machine. Printer drivers may contain viruses or scripts that can be harmful to your computer. It is important to be certain that the computer sharing this printer is trustworthy. Would you like to continue?
	Yes No
Connec	t to Printer
Connec	t to Printer The server for the printer does not have the correct printer driver installed. If you want to search for the proper driver, click OK. Otherwise, click Cancel and contact your network administrator or original equipment manufacture for the correct printer driver.

8. The following printer driver messages will appear: Click Yes to continue. Click OK to continue and select a printer driver.

installation dis 🛁 🛁	acturer and model of your printer. If your prin k, click Have Disk. If your printer is not listed ation for a compatible printer.	
Manufacturer	Printers	<u>^</u>
Agfa Alps Apollo Apple APS-PS AST	AGFA-AccuSet v52.3     AGFA-AccuSetSF v52.3     AGFA-AccuSetSF v52.3     AGFA-AccuSet 800     AGFA-AccuSet 800SF v52.3     AGFA-AccuSet 800SF v2013.10	3
This driver is digitally s <u>Tell me why driver sign</u>		<u>H</u> ave Disk
	OK	Cancel

9. 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.



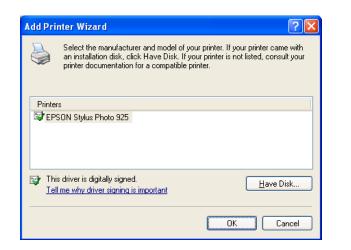
11. Select the appropriate driver file, and click Open to continue.



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



12. Click OK to continue.



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

Printers and Faxes	
je Edit Vjew Fgvorites Iools Help	4
3 Back - 🕥 - 🏂 🔎 Search 😥 Polders 🛄 -	
járess 🎭 Printers and Faxes	🛩 🛃 Go
Printer Tasks	
Add a printer     Set up faxing	
See Also	
Troubleshost printing     Get help with printing	
Other Places (8)	
Ger Control Panel	
Scanners and Cameras	
My Documents	
A My Pictures	
My Computer	
Details ¥	
Details 😵	

15. The printer should now appear as an available printer.

Add Printer Wizard	
	Completing the Add Printer Wizard
	You have successfully completed the Add Printer Wizard. You specified the following printer settings:
	Name: Ip on dns-343
	Default: Yes
	Location: Comment:
Y,	Comment.
	To close this wizard, click Finish.
	< <u>B</u> ack <b>Finish</b> Cancel

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

## **Storing non-English Character Files**

By default the DNS-343 will support Unicode which is an industry standard allowing computers to consistently represent and manipulate text expressed in most of the world's writing formats.

## **Replacing or Adding a New Hard Drive**

It is recommended that you backup your important files before replacing or adding a new hard drive to the DNS-343.

#### **Replacing a Hard Drive:**

Please make sure the power is off before replacing a hard drive. After you install the new drive, turn on the DNS-343 and then connect to the Web UI. The DNS-343 will prompt you to format the new drive. Refer to page 12.

#### Adding a New Hard Drive:

The DNS-343 is able to work with one single hard drive, two, three and four hard drives. Please make sure the power is off before installing a new hard drive. After you install the new drive(s), turn on the DNS-343 and then connect to the Web UI. The DNS-343 will prompt you to format the new drive(s). Refer to page 12.



#### **Please Note:**

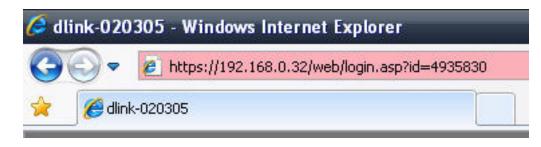
Formatting a hard drive will erase the data stored on the hard drive. Please backup important data before formatting a hard drive!

## **Secure HTTP Login**

Apart from logging into the web user interface using the normal http://192.168.69.32/, user can also login to the web configuration using secure https.

1) Open Internet Explorer and type https://192.168.0.32

2) Login to the DNS-343 as per normal.

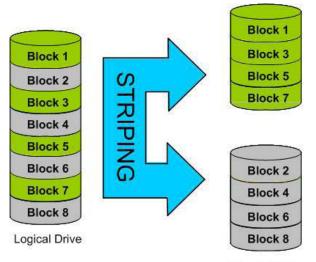


## What is RAID?

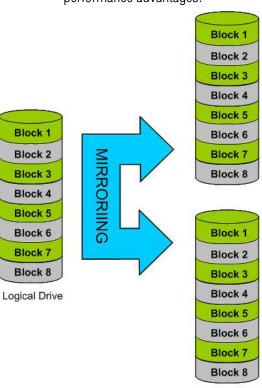
RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each one providing a different method of sharing or distributing data among the drives.

**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.



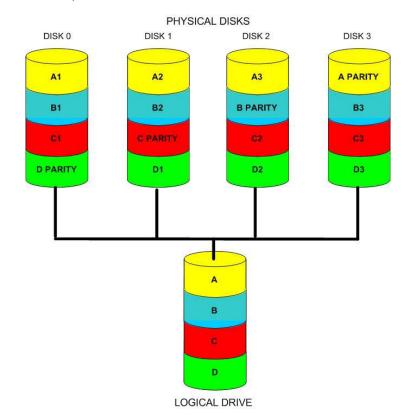




Physical Disks

**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 4 x 80GB disks in the array, the arrays capacity will be 240GB (3 x 80GB).

Implementing RAID 5 on the DNS-343 allows it to continue operating even if one of the disks fails. The diagram below indicates the operation of RAID 5:



## **RAID 1 Recovery - Setting up RAID 1**

RAID 1 configuration creates an exact copy (or mirror) of a set of data on two or more disks.

Step 1: Go to ADVANCED > RAID and select Basic Configuration. Also select RAID 1 (Mirroring - Keeps Data Safe). Click the Next button.

A message will pop-up. Click OK.

**Step 2:** Auto-Rebuild is a feature that will allows the DNS-343 to initiate the Rebuilding phase automatically. The Rebuilding phase will occur when one or more hard drives fail and is replaced by a new one.

WARNING - This feature will automatically format the newly added drive. If this feature is NOT required, click disable. Click Next.

**Step 3:** Choose the desired file system and click Next.

RAID 1 configuration creates an exact copy (or mirror) of a set of data on two or more disks.

RAID CON	FIGURATION :			
Disk	Vendor	Model	Serial Number	Size
1 2	Seagate Seagate	ST3500630AS ST3500630AS	5QG1TEHT 5QG1TENA	500 GB 500 GB
	Configuration : lect a RAID type:			
56	lect a long type.	O Standard (Individ	ual Disks)	
		O JBOD (Linear - Co	mbines All Disks)	
			- Keeps Data Safe)	
		CRAID 5 (Striping)	with Rotating Parity)	
O Custo	m Configuration			
				Back Next
Message from v	webpage			<u>×</u>
(?) Create	a Raid based on the m	ninimum space of the existing d	rives, the remaining space will	become JBOD(Linear) Volume.
Y				
		ОК	Cancel	
AUTO-REB	UILD CONFIG	JRATION :		
O Enable A	uto-Rebuild			
Oisable A	uto-Rebuild			
				Back Next
-				
RAID CON	FIGURATION :			
			702 10	
	Select file sy	/stem: EXT 2 (Best Perf	ormance) 💌	
				Back Next
				Dary Mext

**Step 4:** RAID configuration will initiate and formatting of the hard drives will commence.

After the RAID 1 configuration you'll be prompted to click the Restart button. Do so and the RAID 1 configuration is complete.

		Initializating 9%		
RAID CO	DNFIGURATION :			
		Formatting Volum	e 1	
RAID CO	DNFIGURATION :	Formatting Volum 3%	e_1	
RAID CO	DNFIGURATION :	Formatting Volum 3%	e_1	y.

## **RAID 1 Recovery - Auto Rebuilding**

When a hard drive fails or becomes corrupted RAID 1 provides a the feature to enable the Auto Rebuild configuration. This configuration will take the information from one of the existing hard drives and rebuild the new hard drive with the same information to get the RAID 1 configuration completed.

- Information: To view the hard drive status you can got to STATUS > SYSTEM INFO and monitor the Sync Time Remaining field. If it displays 'Completed' the RAID 1 configuration is functioning normal.
- **Degraded:** However if it displays 'Degraded' then one of the hard drives have either failed or is starting to fail. This mean that the problematic hard drive needs to be replaced.

Step 1: After the new hard drive is inserted into the DNS-343 go to ADVANCED > RAID and you'll now have the option to start the Auto Rebuilding process if Auto Rebuild was disabled from the beginning. If Auto Rebuild was enabled from the beginning the DNS-343 will start this Rebuilding process automatically.

You can now click the Manually Rebuild Now button to initiate the Auto Rebuilding process.

	Mahana N	Maluma 1		
	Volume Name:			
	Volume Type:			
	ync Time Remaining:			
Total	Hard Drive Capacity: Used Space:			
	Unused Space:			
	onuseu space.	400403 MB		
RD DRIV	'E INFO :			
	Volume Name:	Volume_1		
	Volume Type:	RAID 1		
S	nc Time Remaining:	Degraded		
Total	Hard Drive Capacity:	489326 MB		
	Used Space:	923 MB		
	useu space.			
	Unused Space:	488403 MB		
rrent RAID Volun	Unused Space:	ed)		
rrent RAID Volun Re-cor	Unused Space: IGURATION : Type : ne_1 : RAID 1 (Degrad	ed) ive(s)		
rrent RAID Volun Re-cor	Unused Space: IGURATION : Type : ne_1 : RAID 1 (Degrad	ed) ive(s)	Size	
rrent RAID Volun Re-cor <b>TTO-REBU</b>	Unused Space: IGURATION : Type : ne_1 : RAID 1 (Degrad ifigure All Existing Hard Dr ILD CONFIGURATI	ed) ive(s) ON :	Size 500 GB	0
rent RAID Volun Re-cor <b>TO-REBU</b> ndor agate	Unused Space: IGURATION : Type : ne_1 : RAID 1 (Degrad figure All Existing Hard Dr ILD CONFIGURATIO Model ST3500630AS	ed) ive(s) ON : Serial Number	100 C	0
rent RAID Volun Re-cor <b>TO-REBU</b> ndor	Unused Space: IGURATION : Type : ne_1 : RAID 1 (Degrad ifigure All Existing Hard Dr ILD CONFIGURATIO Model ST3500630AS	ed) ive(s) ON : Serial Number	100 C	0

**Step 2:** After clicking the Manually Rebuild Now button the Synchronizing will start and take some time to finish.

**Monitoring:** To monitor the progress of the Auto Rebuilding process you can go to STATUS > SYSTEM INFO and monitor the Sync Time Remaining to know how far the Rebuilding process is.

Alternatively you can also use your Yahoo! Widget to monitor the progress of the Rebuilding process.

UTO-REBI	JILD CONFIGUR	ATION :	
/endor	Model	Serial Number	Size
) <mark>Enable Au</mark>	to-Rebuild		
Disable Au	ito-Rebuild		
			Apply Cancel

#### HARD DRIVE INFO :





## **Quotas - Configuration**

By default, all users and groups are displayed on the Quota Settings page. Users and groups are automatically listed on this page, and cannot be deleted. The default quota setting is "Unlimited".

#### To add a quota for a user:

**Step 1:** Click the Notepad icon of the user you want to add a quota to.

#### QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

#### USER QUOTA SETTINGS :

NO.	Lines Manage	Volume_1		Volume_2		Volur	ne_3	Volume_4		Edit	
	NO.	User Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	
	1	robert	Unlimited		Unlimited		Unlimited		Unlimited		1

**Step 2:** Type the quota amount (MB) that the user will have for each volume and click Apply.

#### QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

#### USER QUOTA SETTINGS :

	User Name :			robert						
	Volume_1 Qu	iota Amo	ount	0		ME	3			
	Volume_2 Quota Amount			0			МВ			
	Volume_3 Quota Amount			0			МВ			
	Volume_4 Quota Amount			0		ME	3			
							Ар	ply		
	User Name	Volur	ne_1	Volur	ne_2	Volu	me_3	Volur	ne_4	Edit
NO.	Oser Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	Eult
1	robert	Unlim	nited	Unlin	nited	Unlir	nited	Unlin	nited	

USER QUOTA SETTINGS :

		Volur	ne 1	Volur	me 2	Volun	ne 3	Volur	me 4	
NO.	User Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	Edit
1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	

#### GROUP QUOTA SETTINGS :

NO.	. Group Name	Volume_1		Volume_2		Volume_3		Volume_4		-Edit
	, laroup Marrie	Used	Limit	Used	Limit	Used	Limit	Used	Limit	
1	test	Unlin	nited	Unlimited		Unlimited		Unlimited		.1

**Step 3:** Click Enabled to turn quota monitoring on.

QUOTA STATUS :
Status: Stopped
Enabled

Once enabled, the status will change to Started.

DUOTA	STATUS	:

Status: Started

Disabled

#### To add a quota for a group:

**Step 1:** Click the Notepad icon of the group you want to add a quota to.

#### QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

#### USER QUOTA SETTINGS :

NO.	User Name	O User Name Volume_1		ne_1	Volume_2		Volume_3		Volume_4		Edit
		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Edit	
Γ	1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	1

#### GROUP QUOTA SETTINGS :

NO.	Group Name	Volume_1		Volume_2		Volume_3		Volume_4		
NO.		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Edit
1	test	Unlim	nited	Unlim	nited	Unlim	nited	Unlim	nited	1

## **Step 2:** Type the quota amount (MB) that the group will have for each volume and click Apply.

GRO	IUP QUOTA	SETTIN	IGS :							
	Group Name	:		test						
	Volume_1 Quota Amount			0			МВ			
	Volume_2 Quota Amount			0			МВ			
	Volume_3 Quota Amount			0		ME	)			
	Volume_4 Quota Amount		0		ME	}				
							Ap	ply		
	Crown Marga	Volur	ne_1	Volur	ne_2	Volur	ne_3	Volur	ne_4	-Edit
NO.	Group Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	
1	test	Unlin	nited	Unlin	nited	Unlin	nited	Unlim	nited	

The group, the amount of storage used and the storage limit are displayed.

USER QUOTA SETTINGS :

NO	User Name	Volume_1		Volume_2		Volume_3		Volume_4		Edit
NO.		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Eult
1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	
	NO.		NO. User Name Used	NO. User Name Used Limit	NO. User Name Used Limit Used	NO. User Name Used Limit Used Limit	NO. User Name Used Limit Used Limit Used	NO. User Name Used Limit Used Limit Used Limit	NO. User Name Used Limit Used Limit Used Limit Used Limit Used	NO. User Name Used Limit Used Limit Used Limit Used Limit

#### GROUP QUOTA SETTINGS :

NC		Group Name	Volume_1		Volume_2		Volume_3		Volume_4		Edit
	NO.		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Eult
	1	test	OMB	68MB	OMB	77MB	OMB	33MB	OMB	33MB	1

**Step 3:** Click Enabled to turn quota monitoring on.

QUOTA	STATUS :		
Status:	Stopped		
Enabled			
Lindbicd			

Once enabled, the status will change to Started.

QUOTA	STATUS	

Status: Started

Disabled

## **Download Scheduling**

The DNS-343 Download Scheduling feature allows you to schedule folder or file downloads and backup sessions. Begin by accessing the web-based configuration utility of your DNS-343:



Click on the Easy Search Utility Link.

D-Link DNS-343	
	_
User Name:	
Password:	
Configuration Applications	
STORAGE	

The DNS-343 login screen will appear. Type **admin** for the username and leave the password field blank by default or your new password and click on the **Applications** button. The DNS-343's **Download Scheduling** configuration page will appear.

link-3A0A03 169.254.73.183 255.255.0.0	lame	IP	Netmask	Gateway	
	link-3A0A03	169.254.73.183	255.255.0.0		
					Refresh
					Configurat
Receive DHCP :	Ţ		Recei		

Highlight an available DNS-343 and click **Configuration** to access the web-based utility.

# **Technical Specifications**

#### Standards

- IEEE 802.3 10Base-T Ethernet
- IEEE 802.3u 100Base-TX Fast Ethernet
- IEEE 802.3ab 1000Base-T Gigabit Ethernet
- TCP/IP
- CIFS/SMB
- NFS
- DHCP Server/Client
- DDNS
- NTP
- HTTP/HTTPS
- Jumbo Frame
- USB 2.0
- LLTD
- Rsync
- UPnP AV
- PnP-X
- FTP
- FTP over SSL/TSL, FXP

### Supported Hard Drive Types

• 3.5" Internal SATA I/II Drive, supports any capacity up to 2TB, compatible sizes may increase as larger capacities become available

### Ports

- Gigabit Ethernet Port
- USB Port (for Print Server/UPS Monitoring function)
- Power Connector

### Display

- 256 x 64 OLED display
- Device Name
- IP Address
- Firmware Version
- Temperature
- UPnP™ Status (On/Off)
- Formatting Percentage
- FTP Server Status (Started/Stopped)

### Drive Management

- Support for 5 hard drive configurations (RAID 0, RAID 1, RAID 5, JBoD, Standard)
- Supports EXT2/EXT3 file systems
- Scandisk
- S.M.A.R.T.
- RAID Roaming

### Account Management

- Windows Active Directory service support
- User/Group management
- User/Group quota management
- Network access management

### **Device Management**

- Management through a web browser (Internet Explorer 6 or Firefox 1.0 or higher)
- E-Mail alerts
- Syslog
- Easy Search Utility
- Yahoo! Widget

#### **Power Management**

- Power saving mode
- UPS monitoring
- Auto power recovery
- Smart fan control

#### **File Sharing**

- External power supply
- DC 19V/4.74A switching

#### Temperature

- Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
- Storage temperature: -4 °F to 122 °F (-20 °C to 50 °C)

#### **Operating Humidity**

• 5% - 90% maximum (Non-condensing)

#### Dimensions (W x D x H)

- Item: 5" x 7.9" x 7" (128 x 200 x 178 mm)
- Packaging: 9.52" x 10.94" x 10.04" (242 x 278 x 255 mm)

### Weight

- Item: 5.95 lbs (2.7 kg)
- Packaging: 8.86 lbs (4.02 kg)

#### Certifications

• FCC Class B, CE, CSA

### Warranty

• 1-year limited warranty

# **Contacting Technical Support**

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DNS-343)
- Hardware Revision (located on the label on the bottom of the switch (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the device).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

For customers within the United States:

Phone Support: (877) 453-5465

Internet Support: http://support.dlink.com For customers within Canada:

Phone Support: (800) 361-5265

Internet Support: http://support.dlink.com

# Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor.
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

#### Limited Warranty:

D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies): One (1) year
- Free Technical Support Basic Installation: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at

D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

#### Limited Software Warranty:

D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the

original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

#### Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

### Submitting A Claim:

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.com/.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories. The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

#### What Is Not Covered:

The Limited Warranty provided herein by D-Link does not cover:

Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or

removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

#### **Disclaimer of Other Warranties:**

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

#### Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

#### Governing Law:

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

#### Trademarks:

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#### **Copyright Statement:**

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#### **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.

#### Federal Communication Commission (FCC) Statement:

This equipment has been tested and found to comply with the limits for a Class B 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 communications. 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 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

# Registration



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.