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In organizations today, it's critical that storage be treated as a pivotal part of planning and execution. Understanding the growth of users and data in an organization needs to be reflected in storage planning.

Using a Drobo<sup>®</sup> as primary storage for an organization is a cost-effective solution—and as a bonus—Drobo is easy to deploy and manage. Drobo BeyondRAID<sup>™</sup> technology and Drobo Dashboard minimize the time and effort it usually takes to manage, monitor, and maintain a storage solution.

This document describes how easy it is to use a Drobo iSCSI SAN as backend storage for an organization's file servers: provisioning shares onto which Access Control List can be applied using Microsoft Windows Active Directory.

### Topics

- Setup checklist and general information
- Provisioning shares using the File Server wizard

# What You Will Need

- Drobo iSCSI SAN either model B800i or model B1200i
- Drobo Dashboard management software (latest version)
- Enterprise-grade 7200 RPM SATA disk drives recommended
- Windows Server Edition 2003 and above (2008 R2 used in this procedure)







## Setup Checklist and General Information

In this procedure, multiple volumes are created using a Drobo iSCSI SAN model B800i. The procedure also applies to the Drobo Pro with a USB, FireWire, or iSCSI connection (iSCSI recommended).

To learn more about Drobo and iSCSI, visit: <u>http://www.drobo.com/resources/iscsi.php</u>

Follow the directions in the Drobo Online User Guide to configure the Drobo: <a href="http://www.drobo.com/support/documentation.php">http://www.drobo.com/support/documentation.php</a>

To give you a better idea of how Drobo iSCSI SAN can be used as the backend storage for your file servers, multiple volumes are created, allowing user data to be stored on different volumes by department, function, region, and so on.





Once the volumes are mounted on the host, they appear as raw/block devices.



Looking at the properties of one of these volumes, notice that the operating systems sees them as just another hard drive. The volume shown below, for example, is formatted as an NTFS drive, allowing the operating system to take advantage of its file system features such as user access control.

General   Too	is   Hardware   Shar	ing Security
÷ 🗖		
Type: Loc File system: NT	al Disk FS	
Used space:	362,512,384 bytes	345 MB
Free space:	8,795,596,247,040 bytes	7.99 TB
Capacity:	8,795,958,759,424 bytes	7.99 TB
	Drive G:	
Compress this a	drive to save disk space	
<ul> <li>Allow files on the file properties</li> </ul>	is drive to have contents index	ked in addition to

drobo.com | Configure Drobo iSCSI SAN as Backend Storage for Active Directory File Servers

provisioning storage, which allow IT administrators to partition. While it is possible to format and partition iSCSI LUNs using this wizard, to

# **Provisioning Shares Using The Wizard**

**NOTE:** This document focuses on creating a network share using the "Provision a Share Folder Wizard." It does not describe the most basic way to create a directory and share it from within Windows Explorer.

#### STEP 1

Servet Manager (WCR	5R254)	Sharen	nd Storage!	Minagonia	mt		Actions
Poles	v Donan Se	Shares	Ivagest				Strain and Staring Management
E CNS Server		13 01	NOI				Provision Scrage
I Services	-	-	- me 244	Bestrood	Local Date: Casta Bia Ser	That's Board	Provision Share
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		100	Ht	SMB	HA	1.024 GB	E hep.
		10	15	548	EV.		
		- 14	IPCS	SMB			
			NETLOG	SMD	C \Windowr\\SV	8.57 GB	
		80	SYSVOL	SMB	E-Window/SY_	8.57 GB	

Start by launching Server Manager in Windows Server 2008 R2. In the left navigation, go to File Services > Share And **Storage Management > Disk Management**.

In this section you can see how the operating system sees the Drobo as a raw/block device. You can apply network restrictions/access control lists to the shares based on Active Directory usernames, groups, and so on

In the left navigation, select Roles > File Services, rightclick Share and Storage Management, and select **Provision Share**.

Take a quick look at the available options for

create and format LUNs, use Drobo Dashboard instead.

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The additional unallocated space on volumes larger than 2 TB, in this case 128 MB, is the Microsoft Reserved Partition. Therefore each volume larger than 2 TB will show this unallocated space.





Provision a Shared Folde	r Wizard					
Shared Folde	er Location					
Steps:	Canaditation Falder	that cars count be	akara Mu anakaran	Me and a local		
Shared Folder Location	and space, select an existing folder or access of volume with oppropriate characteristic and space, select an existing folder or acsets a new one. If an appropriate volume does not exist, click Provision Storage and create one:					
ITFS Permissions						
Share Protocols						
Review Settings and Create	Location					
Share	1			Bro	owse	
Confirmation	Accellent a contract					
	Available volumes	( Discontin	1 marchana	I Tran		
	Sustem Beser	100 MB	71 9 MB	Simple		
	(C:)	23.9 GB	8.57 GB	Simple		
	LATAM (H:)	1,024 GB	1.024 GB	Simple	*1	
	1		1. 1. a a a			
	Details Volume: Syst Shadow copie Indexing: Un Highly availabl	tem Reserved s: Unknown known e server: Voluñ	ne is not clustered			
				Provision S	itorage	
				- Previous	Mext	Cancel

The first screen in the process prompts you to select the destination for the directory to be shared. Click **Browse**.

### **STEP 3**

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A window prompts you to select a folder. In this example, select a folder that resides on one of the Drobo volumes.



NTFS Permis	ssions
Steps:     Shared Folder Location     NTFS Permissions     Share Protocols     SMB Settings     SMB Permissions     DFS Namespace Publishing     Review Settings and Create     Share     Confirmation	Specify NTFS permissions to control how individual users and groups access this folder locally. For network access to a shared folder, the more restrictive of the NTFS permissions and the share permissions configured for the share protocol determine the level of access granted to users and groups.         Path:
	For more information about sharing and permissions, see <u>Managing Permissions</u> for Shared Folders. < Previous Next> Cancel

To change NTFS permissions on the share, click one of the radio buttons after the question in the right pane.

In this example, select "No, do not change NTFS permissions" and click **Next**.

*NTFS permissions* are applied to a directory or file for controlled access whether local or remote. *Share permissions* apply only to access to the folders across the network. In this document, you will see how to set network shares and IT access controls. For more information on key differences between NTFS vs. share-level permissions, refer to: <u>http://technet.microsoft.com/en-us/library/cc754178.aspx</u>.

#### **STEP 5**

Provision a Shared Folde	er Wizard	
Share Protoc	cols	
Steps: Shared Folder Location NTFS Permissions Share Protocols SMB Settings SMB Permissions DFS Namespace Publishing Review Settings and Create Share Confirmation	Select each protocol over which users can access this shared folder.    Share name:  HQ-Sales  Share path:  NW2X8R264/HQ-Sales  NES  Bhare have:  Share path	
	Services for NFS is not installed on this server.	Cancel

Enter the name of the share that will be exported to the network and the protocol to be used.



While both protocols can be used to present the share across the network, only SMB is documented in this example.

#### **STEP 6**

Steps:	Constitution data share ditability	to be used by the second se
Shared Folder Location NTFS Permissions	protocol. You can use the descr is used. You can also control ad connections allowed, access ba	it to be used by clients accessing in over the small iption to add comments about how the shared folder Vanced SMB settings including the maximum ased enumeration, and offline availability.
Share Protocols		
SMB Settings	Share path:	
SMB Permissions	\\W/2K8R264\HQ-Sales	
DFS Namespace Publishing	Description:	
Review Settings and Create Share Confirmation		a second second
Heview Settings and Lifeate Share Confirmation	Default Networks Share for the	Sales team in HU
rieview Settings and Lieate Share Confirmation	Default Networks Share for the	Sales team in HU
review Settings and Lieate Share Confirmation	Default Networks Share for the Advanced settings User limit:	Sales team in HU Maximum allowed
Heview Settings and Liteate Share Confirmation	Advanced settings User limit Access-based enumeration:	Sales team in HU Maximum allowed Disabled
Heview Settings and Lifeate Share Confirmation	Octault Networks Share for the Advanced settings User limit: Access-based enumeration: Offline settings:	Sales team in HU Maximum allowed Disabled Selected files and programs available offline

**STEP 7** 

Steps:	Council of the companying interview (in CMD beyond assessed to the schward failed. The approximate
Shared Folder Location NTFS Permissions Share Protocols	Specify share permissions for SME-based access to the shared rolder, For network access to a shared rolder, the more restrictive of the share permissions and NTFS permissions determine the level of access granted to users or groups.
SMB Settings	Share parts.
SMB Permissions	THE ROUGH AND CODE
DFS Namespace Publishing	Select one of the following basic share permissions or create custom share permissions.
Review Settings and Create Share	C All users and groups have only Read access
Confirmation	<ul> <li>Administrators have Full Control: all other users and groups have only Read access.</li> <li>Administrators have Full Control: all other users and groups have only Read access and Write access.</li> <li>Users and groups have custom share permissions:</li> </ul>
	For more information about sharing and permissions, see <u>Managing Permissions</u> for Shared Folders:

You are now ready to define the users and groups that will have access to the share.

Enter a description for this

share.

Select "Users and groups have custom share permissions" and click **Permissions**.



curity		
oup or user names:		
Everyone		
	Add	Remove
ermissions for Everyone	Allow	Deny
Full Control		
Change Read		H
	and the second	
arn about access control and	1 permissions	

"Read" is the default setting for all users and groups. Click **Add** to specify which users and/or groups you want to have access to this network share.

### **STEP 9**

-Sales) t)	د - ب ک
Add	Remove
Allow	Deny
ons	1
í	ions Cancel

Once the Active Directory users and/or groups have been selected and permissions specified, click **Apply**.



Provision a Shared Folde	r Wizard
DFS Names	bace Publishing
Steps: Shared Folder Location NTFS Permissions Share Protocols SMB Settings	You can publish an SMB share to a DFS namespace by specifying an existing namespace and the folders you want to create in the namespace. The last folder in the namespace path will have the new share as a folder target.
SMB Permissions	Parent folder in namespace:
DFS Namespace Publishing	Erambe MDam in Manual Eridie
Review Settings and Create Share Confirmation	New folder name: Example: Name or NewFolder/Name Preview of namespace path:
	For more information about DFS Namespaces, see <u>Namespaces.</u>

Since in this example, DFS is not covered, click **Next** to continue.

### **STEP 11**



Review the settings to apply to this share and click **Create**.



Provision a Shared Folder	Wizard		
Steps:			
Shared Folder Location NTFS Permissions Share Protocols	You have successfully complete Tasks Errors	ated the Provision a Shared Folder Wizard.	
SMB Settings	Task	Status	
DFS Namespace Publishing	Share over SMB	Success	
Review Settings and Create Share			
Confirmation			
	<u>/</u>		
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Once the process is complete, the status changes to Success.

Click **Close** to complete the procedure.

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The share that now resides on one of the volumes of the Drobo is created and published as a network share.

Drobo • 2460 North First Street, San Jose, CA • www.drobo.com • 1.866.97.DROBO

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