

Snapshot Rollback

using

FlashNAS ZFS

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Product Models Covered by This Document

This document applies to the following product models:

- FlashNAS ZFS ZX3U16 Series
- FlashNAS ZFS ZX2U12 Series

For more information about compression, virtualization, snapshot, remote replication, ZFS, backup, storage, network-attached-storage, file-sharing and WORM (Write Once, Read Many), please visit www.winsys.com.

FlashNAS ZFS Series of Unified Storage Systems

IT environments often feature multiple types of storage infrastructures to accommodate various types of data and achieve different service levels. The scattered boxes for DAS (Direct-Attached Storage), SAN (Storage Area Network) and NAS (Network-Attached Storage) configurations lead to poor utilization and complicated management.

FlashNAS ZFS simultaneously serves file and block-based applications with a unified storage platform, and features easy management, optimized resource utilization, high availability, flexible scalability and competitive price/performance. In addition, FlashNAS ZFS offers a comprehensive set of advanced software features at no additional costs. FlashNAS ZFS systems help businesses effectively meet diverse and changing data demand while staying within budget.



FlashNAS ZFS

FlashNAS ZFS systems provide snapshot technology to protect data against logical errors. Snapshot technology allows users to create space-efficient differential copies. These copies can serve as granular recovery points when users need to roll back data to a previous state.

FlashNAS ZFS users can rollback snapshots using Windows VSS (Volume Shadow Copy Service) or through the FlashNAS ZFS web-based GUI (Graphical User Interface). Besides snapshot rollback, the below descriptions also show users how to create a snapshot to highlight the overall process from taking a snapshot to the snapshot rollback.

Windows VSS

<u>1.</u> Enable the CIFS service. In the FlashNAS ZFS GUI, go to *Configuration* > *Service* > *Share*, and check the CIFS status.

Configuration Service Share	
Service Name	Status
CIFS	😑 Online

<u>2.</u> Share a file or folder with CIFS. Go to *Explorer*. Select a file or folder and click *Share* at the bottom of the screen. Complete the necessary configurations.

Folder Path	/Pool-1/UserHome/guest				
Share Name	folder1				
Description	Shared Folder				
Access	Rights				
🙎 guest		Access	Allow	Forbid	
👧 everyon	ie	Full Control	$\mathbf{\nabla}$		
		Modify	☑		
		Read and Execute	V		
		List folder contents	V		
		Read			
		VAlrita	3	_	
Add	Delete	, mo		L	
┌── Share					
	TP				
✓ NFS			Se	tting	
AFP AFP					

3. Create/edit files inside the folder.

<u>4.</u> To make snapshots of folders, go to *Backup* > *Snapshot*. Click on *Add* at the bottom of the screen.

🖃 🌉 Backup
🕺 Snapshot
\delta Pool Mirror
📲 Remote Replication
🔄 Schedule

<u>5.</u> In the pop-up window, select a backup source and schedule. If only taking a snapshot of a specific folder, click *Browse* to select the folder.

Backup Source



Schedule



6. Select the folder for the snapshot and click OK.

'ool-1			t :::: (
Name	Size	Туре	Modified Time
👕 Share	2.80M	volume	2012-2-9 14:08
👕 UserHome	43.4K	volume	2012-2-9 13:23
🔜 iSCSIforCitrix	201G	volume	2012-2-9 13:25

<u>7.</u> The selected volume path will be shown in the following window. Click *OK* to take the snapshot.

Backup Source		
O All Shared Folders		
O Home Directory		
Select Volume/Folder		
Volume/Folder /Pool-1/Share	Browse	
Schedule your backup tasks.		
Schedule		
O Backup daily at 🛛 00 💌 : 🗖 00 💌		
 Backup once and immediately 		
O Customize		

<u>8.</u> Snapshots will appear in the snapshot list in the GUI after they have been successfully taken. To see this list, go to *Backup > Snapshot*.

Backup Snapshot					Welcome admin	👆 Logout	📑 Links 🔻
Gardinguration Storage	Snapshot Differential Local Backups				_	_	?
 ➡ ⇒ Folder ➡ ➡ Account ■ ➡ Backup 	Create snapshots and view their sta Directory	atus. To restore your data to a specific point in tin Schedule	ne, click Manage. Last	Next	Number		
💩 Snapshot	/Pool-1/Share	One-Time	2012-02-09		1		
 Pool Mirror Remote Replication Schedule Maintenance 					Add D	elete	Manage

<u>9.</u> Use Windows Explorer to link to the CIFS shared volume. Enter the IP address of the NAS system as in \xxx.xxx.xxx, followed by the account information.



10. Right-click on the relevant folder and select *Properties* from the menu.



<u>**11.</u>** Select the *Previous Versions* tab in the window that appears. Here you will see the previously created snapshots.</u>

Name	Date modified	Location
Today (2)	
test	2/11/2009 9:58 AM	Restore point
🖹 test	2/11/2009 9:58 AM	Backup

<u>12.</u> Now users can employ the snapshot to open, copy, or restore (rollback) the selected file or folder.

FlashNAS ZFS web-based GUI

To rollback snapshots through the FlashNAS ZFS web-based GUI, follow the steps below:

<u>1.</u> Enable the CIFS service. In the FlashNAS ZFS GUI, go to *Configuration* > *Service* > *Share*, and check the CIFS status.

OInfortrend				Part Shortcut Explorer Home
Configuration Service Share				Welcome admin 🛛 👆 Logout 🛛 🖺 Links 🔻
• 🥥 Status	Share			?
Bervice	Activate and configure file service pr	otocols to provide shared access to your EonNAS sy	stem on the network. Choose the service according to your OS	3 and file system environment. Windows (CIFS/SMB), Mac (AFP),
Miscellaneous Eli System	Service Name	Status	Start Time	Action
E System	CIFS	😝 Online	2012-02-08 11:55:22	0 S
🗉 🦲 Peripheral	FTP	\varTheta Online	2012-02-09 13:55:04	0 S
🗉 📆 Notification	NFS	ODisabled	2012-02-08 11:54:58	Ø
🗄 🗐 Storage	AFP	😁 Online	2012-02-09 13:59:14	\$ \$
🗉 🥪 Folder 🗉 🍓 Account	ISCSI	🖶 Online	2012-02-09 11:38:26	0 S
⊞ 🧾 Backup ℝ 💥 Maintenance				Edit Start All Stop All

<u>2.</u> Share a volume with CIFS. Go to *Explorer*. Select a file or folder and click *Share* at the bottom of the screen. Complete the necessary configurations.

Colder Deth	/Deal 4/Okava		-	
Fulder Patri	Pool-Honare			
Share Name	Share			
Description				
- Access	Rights			
everyon	e	Access	Allow	Forbid
		All Controls		
		Modify		
		Read And Execute		
		List folder contents		
		Write	✓	
Add	Delete	1		
Share		1		
CIFS/S	MB			
NFS			Se	tting
-				

3. Create/edit files inside the volume.

<u>4.</u> To make snapshots of folders, go to *Backup* > *Snapshot*. Click on *Add* at the bottom of the screen.

Backup Snapshot					Welcome admin 🛛 🐣 Logout 📑 Links 🔻
 Status Configuration Storage 	Snapshot Differential Local Backups				?
🗉 🥪 Folder 🗉 🍓 Account	Create snapshots and view the Directory	ir status. To restore your data to a specific point in the Schedule	me, click Manage. Last	Next	Number
Backup					Add Delete Manage
Remote Replication					
🗉 💥 Maintenance					

<u>5.</u> In the pop-up window, select a backup source and schedule. If only taking a snapshot of a specific folder, click *Browse* to select the folder.

Snapshot	×
Select the source volumes/folders for which you wish to create snapsho	3
Backup Source	
O All Shared Folders	
O Home Directory	
Select Volume/Folder	
Volume/Folder	Browse
Schedule your backup tasks.	
Schedule	
🔿 Backup daily at 🛛 00 💌 : 🛛 00 💌	
Backup once and immediately	
O Customize	
[OK Cancel

6. Select a volume for the snapshot and click OK.

Pool-1			
Name	Size	Туре	Modified Time
👕 Share	2.80M	volume	2012-2-9 14:08
👕 UserHome	43.4K	volume	2012-2-9 13:23
🔜 iSCSIforCitrix	201G	volume	2012-2-9 13:25

<u>7.</u> The selected volume path will be shown in the following window. Click *OK* to take the snapshot.

Backup Source	
O All Shared Folders	
O Home Directory	
Select Volume/Folder	
Volume/Folder /Pool-1/Share	Browse
Schedule your backup tasks.	
Schedule	
🔿 Backup daily at 🛛 00 💌 : 🔍 🔍	
Backup once and immediately	
O Customize	

<u>8.</u> Snapshots will appear in the snapshot list in the GUI after they have been successfully taken. To see this list, go to *Backup > Snapshot*.

Backup Snapshot					Welcome admin	🕹 Logout	📑 Links 🔻
 Status Configuration Storage 	Snapshot Differential Local Backups					_	?
🗉 🥪 Folder	Create snapshots and view their sta	itus. To restore your data to a specific point in tir	ne, click Manage.				
🗉 🍯 Account	Directory	Schedule	Last	Next	Number		
🕺 Snapshot	/Pool-1/Share	One-Time	2012-02-09		1		
 Pool Mirror Remote Replication Schedule K Maintenance 					Add [elete	Manage

<u>9.</u> After taking the snapshot, click on *Manage*.

Backup Snapshot					Welcome admin	🕹 Logout	🔒 Links 🔻
 	Snapshot Differential Local Backups Create snapshots and view their st	atus. To restore your data to a specific point in tin	ne, click Manage.		_	_	?
🗄 🍓 Account 🖃 🌉 Backup	Directory	Schedule	Last	Next	Number		
🕺 Snapshot	/Pool-1/Share	One-Time	2012-02-09		1		
 Pool Mirror Remote Replication Schedule Maintenance 					Add	Delete	Manage

10. The snapshot image will be shown in the list. Click on Preview.

elect a snapshot image and quickly re review function to double-check the sn	estore (rollback) your data to a specific point in time. Use the approximation of the state of t
Snapshot ID	Time Created
201229_14427_Pool-1_Share	2012-02-09 14:42

<u>**11.</u>** Select a folder or file for rollback. Select *Rollback* at the bottom of the screen.</u>



<u>12.</u> A message will appear showing that the rollback has been successfully completed.



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