

Enterprise Vault Snapshot

on

FlashNAS ZFS Systems

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Why Use FlashNAS ZFS 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.

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



Enterprise Vault Snapshot on FlashNAS ZFS

Enterprise Vault Snapshot (EVS) allows users to backup an entire iSCSI or Fibre volume/Folder to another FlashNAS ZFS system. Users may choose a password-protected device for added security and add schedules to the backup so data is always protected.

Using Enterprise Vault Snapshot to Backup a Volume

1. Go to *Backup > Enterprise Vault Snapshot*, and then click *Add*.

Backup Enterprise Vault Snapshot			2014-11-04 18:52:3	1 Welcome admin 🔻	🔒 Links
Status Configuration	Enterprise Vault	Snapshot			?
Eldor	Volume/Folder Replication	l.			
Account	Enterprise Vault Snapshot Schedule menu to edit the	is a block level backup function. You ca backup schedulo.	in backup your volume/folder to anothe	er NAS. After configuring	use the
🖃 🧾 Dackup					
in Snapshot	Name	Source	Destination	Status	
S Fool Mirror					
Semote Replication			Edit Doleta	Deplicate	Pactaro
i External Drive			Eur Derece	replicate	Restore
🕤 Entcrprise Vaul: Snapshot					

2. In the window that appears, follow the steps below to set up an Enterprise Vault Snapshot task.

Backup Source		
Directory	Pool-2/20G	Browse
Specify the target system	Step1: Select the volume you want t	o do EVS
Backup Target		
IP Address	172.24.110.71	Step2: Enter the valid IP an
Username	admin	username/Password
Password	••••	the target site
Pool		✓ Fetch
Directory		
Advanced Option		Step3:
IP Address	172.24.110.71	Step4: Select the pool in tar
IP Address	172.24.110.71	Sten4:
Username	admin	Select the pool in tar
Password	•••••	store the backup volu
Pool	Pool-1	Fetch
Directory	20G_EVS_Backup	
Advanced Option	Step5: Create a volume name	
Enable Encl	ryption	
	k	
Schedule your backup tas	N.	
Schedule your backup tas	Γ	
Schedule your backup tas Schedule	yat 00 ♥ : 00 ♥	
Schedule your backup tas Schedule Backup dail Backup wee	yat 00 ♥ : 00 ♥ klyat 00 ♥ : 00 ♥ eve	ry Monday V
Schedule your backup tas Schedule Backup dait Backup wee Customize	y at 00 ♥ : 00 ♥ kkly at 00 ♥ : 00 ♥ even	ny Monday 🗸

Note:

If the volume name entered already exists, you will be prompted to create a new name. The FlashNAS will not delete any volume automatically. If you want to use the existing volume name, please manually delete the volume before creating the EVS backup volume.

Parameter Info:

Section	Name	Description
Backup Source	Directory	Click Browse to select an existing volume/folder on the source device.
	IP Address	Enter a valid target device IP address. The IP address must be that of a data port (instead of the management port).
Backup Target	Username	Enter the username for the target system.
	Password	Enter the password for the target system.
	Pool	Click Fetch to load pool configuration on the target de- vice
	Directory	Create the target volume/folder name.
Advanced Option	Enable Encryption	Select the checkbox to enable encryption for extra data security.
Schedule your backup task	Schedule	Users can choose to backup on a daily/weekly basis, or customize their own schedule

In our example, we have used the client computer to access the source volume and add three files to it.

anize + moudem	brary • Share with • New for	der		0= • 🛄	
Favorites	Name *	Date modified	Туре	Size	
Desktop	111	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
🗽 Downloads	222	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
Recent Places	1333	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
Chranies Coursents Coursents Curses Consultance Computer Computer Computer Curses Cocal Disk (C:) Curse 206 (E:) Curses					
Network					

3. To take an Enterprise Vault Snapshot of the volume, launch the web management interface of the FlashNAS ZFS, go to Backup > Enterprise Vault Snapshot, and select the task you just created. Click Replicate to start the backup task. When the task session is finished, the volume will be backed up to the target FlashNAS, and the Status column will turn to Ready. Operation time varies depending on the size of the source volume.

Backup Enterprise Vault Snapshot			2014-11-05 15:54:04	Welcome admin 🔻	🔓 Links 🔻
System Not Settings	Enterprise Vault	Snapshot			?
Date/Time	Volume/Folder Replication				
\Lambda Language	Enterprise Vault Snapshot is	a block level backup function. You ca	an backup your volume/folder to another	NAS. After completing	the
Admin Password	configuration, use the Sched	lule menu to edit the backup schedule	Ð.		
Certificates					
Network	Name	Source	Destination	Status	
Peripheral	EVS_20141105_153556	Pool-2/20G	Pool-1/20G_EVS_Backup	Ready	
🗉 🧰 Notification					
Fibre Channel		Add Edit	Delete Replicate	Restore	dvanced
E Storage					
Pool					
Volume					
- Disk					
SSD SSD					
🚯 Target					
🗄 🥪 Folder					
🗉 🎒 Account					
🖃 🧾 Backup					
🕺 Snapshot	-				
Sol Mirror					
Semote Replication					
🚰 External Drive					
To Enterprise Vault Snapshot					

4. Log in to the web management interface of the target FlashNAS, and you can see the backup volume under Storage > Volume.

Storage Volume				2014-11-06 00:04:12	Welcome admin 🔻	Links
2 Status	Volume					?
Storage	Shared Volumes					
9 Pool	Create volumes to manage vo	ur data and shared acces	s			
Volume						
isk Disk	Name	Protocol	Pool	Deduplication	Compression	
SSD SSD	20G EVS Backup	Unmapped	Pool-1	Disabled	Disabled	
Target						
n Folder			Delate III			
Account	Add	Edit	Delete	p Lock	Unlock	assword
Backup						
💥 Maintenance						

5. Now we are going to simulate the condition of data loss occurring on the source volume by using the client computer to delete the file "222.doc."

		60		-
* 20G (E:)		- F	Search 2	
ary 🔻 Share with 👻 New folder			1= - 🗔	
Name -	Date modified	Туре	Size	
111	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
333	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
	 20G (E:) sry ▼ Share with ▼ New folder Name ^ (m) 111 (m) 333 	206 (E:) sy ▼ Share with ▼ New folder Name Date modified 111 11/6/2014 10:07 AM 333 11/6/2014 10:07 AM	206 (E:)	206 (E:)

 To resolve data loss, we are going to restore data from the backup target. Before doing so, log in to the web management interface of the source FlashNAS, and unmap the source volume from its target.

Storage Volume					2014-11-06 11:11:25	Welcome admin v	🛃 Links 🔻
Petwork Constants Constants	^	Volume					?
DNS DNS		Shared Volumes					
Routing		Create volumes to ma	nage your data and shared access				
Trunking							
💹 Jumbo Frame		Name	Protocol	Pool	Deduplication	Compression	
VLAN		20G	ISCSI	Pool-2	Disabled	Disabled	
🕀 💽 Peripheral		30G	iSCSI	Pool-3	Enabled	95.69%	
Motification		15G	Unmapped	Pool-1	Disabled	Disabled	
Fibre Channel							
E Storage		Target Mapping				× Inlock	assword
Pool	. 1	Unchec	ĸ				assiloid
Volume		Name	IQN/WWN				
UISK		20G	ign.2002-10.com.sn8386690:[a	alb].d:20g.[channel].[in	terface]		
Target			ign 2002-10 com en9296600:fr	alb] o:20g [channol] [in	torfacol		
E Eolder		L E_300	Iq1.2002-10.0011.5116560050.[6	aloj.e.oog.[cnannei].[in	tenacej		
						_	
					OK Cancel		
Snapshot							
S Pool Mirror							
Remote Replication							
External Drive							
To Enterprise Vault Snapshot							
Schedule							
E 💥 Maintenance	Y						

7. Go to *Backup > Enterprise Vault Snapshot*, and then select *Restore* to restore data from the target volume.

Backup Enterprise Vault Snapshot				2014-11-05 15:54:04	Welcome admin 🔻	🔒 Links 🔻
System	^	Enterprise Vault Sna	apshot			?
Date/Time	11	Volume/Folder Replication				
Admin Password	Ц	Enterprise Vault Snapshot is a blo configuration, use the Schedule n	ock level backup function. You nenu to edit the backup scheo	u can backup your volume/folder to another Jule.	NAS. After completing	the
Certificates		Name	Source	Destination	Status	
		EVS 20141105 153556	Pool-2/20G	Pool-1/20G EVS Backup	Ready	
Notification						
Fibre Channel			Add	Dalata Paplicata	Pertore	henced
🖃 🗐 Storage					Kestore	dvanced
Pool						
Volume						
isk 🚔 Disk						
SSD SSD						
Target						
🗄 🥪 Folder						
🗉 🎒 Account						
🖃 🥂 Backup						
🕺 Snapshot						
Sol Mirror						
🐾 Remote Replication						
🔗 External Drive						
The Enterprise Vault Snapshot						
Schedule						
🗉 💥 Maintenance	~					

8. When the task session is finished and the *Status* column turns to *Ready*, map the volume back to the target. Use the client computer to access the volume, and you can see that "222.doc" is now restored.

Organize 💌 Indude in lib	orary 👻 Share with 👻 New folder			· 🗉 🖷	0
🔶 Favorites	Name *	Date modified	Туре	Size	
E Desktop	@)111	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
Downloads	222	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
Recent Places	333	11/6/2014 10:07 AM	Microsoft Office Wo	0 KB	
Libraries Documents Music Pictures Videos Videos	Data restored !				
webwork					

Using Enterprise Vault Snapshot to Backup a Folder

1. Go to *Backup > Enterprise Vault Snapshot*, and then click *Add*.

Backup Enterprise Vault Snapshot			2014-11-04 18:52:31	Welcome admin 🔻	🔒 Links 🔻
Genfiguration	Enterprise Vault	Snapshot			?
🗄 🔄 Storage	Volume/Folder Replication				
 Weight Folder Weight Account Weight Backup 	Enterprise Vault Snapshot Schodule menu to odit tho	is a block level backup function. You ca backup scheduls.	n backup your volume!folder to another	NAS. After configuring,	use the
Snapshot	Name	Source	Destination	Status	
🍪 Fool Mirror					
Semote Replication		Add	Edit Delete	Replicate	Restore
External Drive					
The Enterprise Vaul: Snapshot					

2. In the window that appears, follow the steps below to set up Enterprise Vault Snapshot task.

I Enterprise Vault Snapsh	ot	,
Select the source folder/vo	lume you want to replicate	
Backup Source		
Directory	/Pool-1/Share_1	Browse
Specify the target system	Step1: Select the folder you want	to do EVS
Backup Target		
IP Address	172.24.110.71	Step2:
Username	admin	username/Password o
Password	••••	the target site
Pool		✓ Fetch
Directory		
Advanced Ontion		Step3:
Advanced Option		T CLOW
	ł	
Backup Target		
IP Address	172.24.110.71	Step4:
Username	admin	Select the pool in targe
Password	••••	store the backup folder
Pool	Pool-1	✓ Fetch
Directory	Share_1_EVS	
Advanced Option	Step5: Create a folder name	
Enable Encr	votion	
Schedule your backup tas	c.	
Schedule		
Backup dail		
Backup wee		every Monday
Customize		and a start and a start
O COCOMINE		
		OK Cancel

Note:

If the folder name entered already exists, you will be prompted to create a new name. The FlashNAS will not delete any folder automatically. If you want to use the existing folder name, please manually delete the folder before creating the EVS backup folder.

Parameter Info:

Section	Name	Description
Backup Source	Directory	Click Browse to select an existing volume/folder on the source device.
	IP Address	Enter a valid target device IP address. The IP address must be that of a data port (instead of the management port).
	Username	Enter the username for the target system.
Backup Target	Password	Enter the password for the target system.
	Pool	Click Fetch to load pool configuration on the target de- vice
	Directory	Create the target volume/folder name.
Advanced Option	Enable Encryption	Select the checkbox to enable encryption for extra data security.
Schedule your backup task	Schedule	Users can choose to backup on a daily/weekly basis, or customize their own schedule

In our example, we have used the client computer to access the source folder and add the file "This is test file for EVS folder restore function.txt" to it



3. To take an Enterprise Vault Snapshot of the folder, launch the web management interface of the FlashNAS, go to Backup > Enterprise Vault Snapshot, and select the task you just created. Click Replicate to start the backup task. When the task session is finished, the folder will be backed up to the target FlashNAS, and the Status column will turn to Ready. Operation time varies depending on the size of the source folder.

Backup Enterprise Vault Snapshot				2014-11-13 10:16:35	Welcome admin 🔻	🔒 Links 🔻
 Network Basic Settings 	^	Enterprise Vault Sn	apshot			?
DNS DNS		Volume/Folder Replication				
Routing Trunking	ł	Enterprise Vault Snapshot is a bl configuration, use the Schedule	ock level backup function. You can menu to edit the backup schedule.	a backup your volume/folder to another t	NAS. After completing	g the
Jumbo Frame		Name	Source	Destination	Status	
Peripheral		EVS_20141107_152516	Pool-1/Share_1	Pool-1/Share_1_EVS	Ready	
Motification		EVS_20141113_095536	Pool-2/20G	Pool-1/20G_EVS_Backup	Ready	
Fibre Channel Storage						
🗏 🤣 Folder			Add	Delete	Restore	Advanced
3 Share						
🤣 Configuration						
WORM						
Characterization Encryption						
🦦 Portal Folder						
Account						
🗉 🧾 Backup						
Snapshot						
🚳 Pool Mirror						
Semote Replication						
🚰 External Drive						
1 Enterprise Vault Snapshot						

4. Log in to the web management interface of the target FlashNAS, and you can see the backup folder under Folder > Configuration.

Folder Configuration						2014-11-07 2	3:33:12 Welco	eme admin 🔻 📑 Links 🔻
Service System Most Settings Gate/Time	^	Configuration Folder Configurations View the list of folders and a	add, delete, d	or edit a folder to	o configure parameters	3.	_	?
Admin Password		Directory	Quota	Available	Deduplication	Compression	Anti-Virus	Transaction Log
Certificates		/Pool-1/Share_1_EVS	none	120.77GB	Disabled	Disabled	Disabled	Enabled
🖃 😾 Network		/Pool-1/UserHome	none	120.77GB	Disabled	Disabled	Disabled	Enabled
🗠 Basic Settings	H	/Pool-2/UserHome	none	125.87GB	Disabled	Disabled	Disabled	Enabled
 Routing Trunking 	H				User Quota	Add	Edit	Delete
🐹 Jumbo Frame								
NLAN								
🗉 💽 Peripheral								
🗉 🚮 Notification								
E Storage								
🖃 🥪 Folder								
3 Share								
Configuration								

Note: Sharing the backup folder on the target FlashNAS is not prohibited, but doing so will render its access privilege as "read-only", and is NOT a recommended practice.

5. Now we are going to simulate the condition of data loss occurring on the source folder by using the client computer to delete the file "This is test file for EVS folder restore function.txt."

rganize New folder					1 0
Favorites	Name *	Date modified	Туре	Size	
Desktop Downloads		This folder is empty.			
Libraries					
Music					
Pictures Videos					
🖳 Computer					
Local Disk (C:)					
Mahrindi					

6. To resolve data loss, we are going to restore data from the backup target. Log in to the web interface of the source FlashNAS, go to *Backup > Enterprise Vault Snapshot*, and then select *Restore* to restore data from the target folder.

Backup Enterprise Vault Snapshot				2014-11-05 15:54:04	Welcome admin 🔻 📑 Links 🕷
System Host Settings	^	Enterprise Vault Sn	apshot		?
Date/Time	11	Volume/Folder Replication			
Aunguage	IJ	Enterprise Vault Snapshot is a bl configuration, use the Schedule r	ock level backup function. You can menu to edit the backup schedule.	backup your volume/folder to another f	NAS. After completing the
Certificates		Name	Source	Destination	Status
Perinheral		EVS 20141105 153556	Pool-2/20G	Pool-1/20G EVS Backup	Ready
Notification					
Fibre Channel			Add	Delete Peolicate	Pestore Advanced
B Storage					Restore
Pool					
Volume					
🚔 Disk					
SSD SSD					
Target					
🗄 🥪 Folder					
E 👌 Account					
😑 🧾 Backup					
5 Snapshot					
Sol Mirror					
Semote Replication					
🔗 External Drive					
The Enterprise Vault Snapshot					
Schedule					
🗉 💥 Maintenance	~				

7. When the task session is finished and the *Status* column turns to *Ready*, use the client computer to access the folder, and you will see that its content is now restored.

ganize 🔻 New folder				/≡ • ⊟
Favorites	Name *	Date modified	Туре	Size
Desktop Downloads Downloads Recent Places Documents Documents Music Pictures Videos	The is test file for EVS folder restore function	11/13/2014 10:13 AM	Text Document	0 KB
Computer Local Disk (C:) 206 (E:) Network 1 Item				

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