K-Backup: Create real-time replication between local hard disk and remote Datastore

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Overview

K-Backup also provides synchronous and asynchronous replication between local hard disk and remote data-store, which is very common backup method in the current world.

It is similar to network backup solution, but this is synchronization, no need to create backup job. This solution can help officer or employees backup whole disk data.



In this white paper, we introduce that how to synchronize local hard disk

to remote data-store.

To backup files to remote data-store, you should have a K-Backup Server to provide data-store.

K-Backup is released as a shareware; there is only 20 days trial when you are unregistered user. To get more information about license, please visit: www.kernsafe.com or send an Email to sales@kernsafe.com.

1

Create Datastore

Add Users

Open K-Backup Server Management Console and click Users on the left

server tree.

K-Backup Server Management Cons	ole View Taols Help		- 0 - X
Create Delete Start Sto	P Refresh Add Remove View Acce	- 🎡 📄 🕕	
Servers Tree X Backup Servers Backup Servers Composition Datastore Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition Composition	K-Backup Server: LocalHost General Datastore Users Groups Logs User Name	Groups	
	Properties		Read:
		S Connected Loc	alHost (20-Days Trial)

Right click Uses and select New user...

Create/Edit User dialogue will be shown as below.

Create/Edit User	×			
User Name:	test01			
Password:	•••••			
Confrim Password:	•••••			
User name and password are case sensitive.				
	OK Cancel			

Enter the User Name, Password and Confirm Password.

Then press **OK** to add user.

Add more users as above.

3 K-Backup Server Management Conso	e	- • ×
Eile Server Storage Clients Vi	ew Iools Help	- 🙀 🔒 🕚
Servers Tree ×	K-Backup Server: LocalHost	Scangs Frint Hood
Backup Servers Backup Servers Datastore Users Groups Logs	General Datastore Users Groups Logs User Name test01 test02 test03	Groups
	9	Connected: LocalHost (20-Days Trial)

Create Group

Right click Groups and then select New Group...

Create/Edit Group		×
Group name:	TEST	
Default Access:	Full Access	-
Members:		
a test01 a test02 a test03		
Add F	Remove	
	OK Cancel	

Enter the Group name.

Then press **Add...** to add users we have created.

Then press **OK**.

😃 K-Backup Server Management Conse	ole		- • ×
Eile Server Storage Slients	/iew Iools Help		
Create Deleta Start Stop	Refresh Add Remove View Access	- 🙀 📙 Settings Print	About
Servers Tree ×	K-Backup Server: LocalHost		
Backup Servers Detatlog test-PC (127.0.0.1:8681)	General Datastore Users Groups Logs		1
- & Users	Group Name	Members Count	Default Access
Logs			
	. () >
		G Connected: LocalHo	st (20-Days Trial)

Create DataStore

Click **Create** on the toolbar then press **Datastore**.

Backup Datastore Configuration You can specify a folder to hold each image files. Security disks parameters Specify a folder to hold datastores: Device Size in MBs: 256 File system options Sparse file (Recommended for image files smaller then 1TB) Compressed (Enable file system compress feature) Encrypted (Enable NTFS encryption feature) User Password Encrypted	eate Datastore Wizard	
Security disks parameters Specify a folder to hold datastores: Device Size in MBs: 256 File system options Sparse file (Recommended for image files smaller then 1TB) Compressed (Enable file system compress feature) Encrypted (Enable NTFS encryption feature) User Password Encrypted	Backup Datastore Con You can specify a folder t	figuration Second Secon
Specify a folder to hold datastores: Image: Device Size in MBs: 256 File system options Image: Sparse file (Recommended for image files smaller then 1TB) Image: Compressed (Enable file system compress feature) Image: Encrypted (Enable NTFS encryption feature) Image: User Password Encrypted	Security disks parameters	
Device Size in MBs: 256	Specify a folder to hold dat	astores:
File system options Sparse file (Recommended for image files smaller then 1TB) Compressed (Enable file system compress feature) Encrypted (Enable NTFS encryption feature) User Password Encrypted	Device Size in MBs: 25	
 Sparse file (Recommended for image files smaller then 1TB) Compressed (Enable file system compress feature) Encrypted (Enable NTFS encryption feature) User Password Encrypted 	File system options	
 Compressed (Enable file system compress feature) Encrypted (Enable NTFS encryption feature) User Password Encrypted 	Sparse file (Recommen	ded for image files smaller then 1TB)
 Encrypted (Enable NTFS encryption feature) User Password Encrypted 	Compressed (Enable file	system compress feature)
User Password Encrypted	Encrypted (Enable NTF	S encryption feature)
	User Password Encrypt	ed
< <u>Back</u> Next > Cancel		< <u>B</u> ack <u>N</u> ext > Cancel

Specify a folder to hold disk images.

eate Datastore Wizard	×
Backup Datastore Configuration You can specify a folder to hold each image files.	4
Security disks parameters	
Specify a folder to hold datastores:	
C:\backupserver	Browse
Device Size in MBs: 20480	
File system options	
Sparse file (Recommended for image files smaller then 1TB)	
Compressed (Enable file system compress feature)	
Encrypted (Enable NTFS encryption feature)	
User Password Encrypted	
C Back Next >	Cancel
- Dack Mext >	Canobi

And then check **Sparse file** and **User Password Encrypted**.

Note: It is recommended to Check Spare file to save disk space and the size of Datastore shouldn't be less than local hard disk which will be synchronized.

Press **Next** to continue.

Create Datastore Wizard	×
Authorization	2
You can select an authorization mode, built-in user or Windows.	
Built-In User	
Select this option to use built-in user authorization.	
NT Authorization	
Select this option to use Windows or Active Directory authorization.	
© Both	
Select this option to use both built-in user and Windows authorization.	
Inherit security roles from global settings.	
< <u>B</u> ack <u>N</u> ext >	Cancel

Choose Authorization.

To use the users we have created, choose Built-In User.

Do not check "Inherit security roles from global settings."

Press Next to continue.

Create Datastore Wizard	×
Completing the Create Datastore Wizard You can specify a datastore name to complete datastore creating.	2
Basic Information	
Datastore Name:	
TEST	
< <u>B</u> ack Finish	Cancel

Enter the **Datastore Name** and then press Finish.

K-Backup Server Management Conso	e			- • ×
<u>F</u> ile <u>S</u> erver Stora <u>g</u> e <u>C</u> lients <u>V</u> i	ew <u>T</u> ools <u>H</u> elp			
Create Delete Start Stop	Refresh Add Remove	/iew Access Settings	Print About	
Servers Tree ×	Datastore Name: TEST			
	General Online Clients CUAD			
⊡				
Inc. I IEST Inc. 2 Users Inc. 2 Groups Inc. 1 Logs	Datastore General I	Properties		Properties
	General			
	IQN:	TEST		
	Device Type:	Network Stream		
	Media Type:	Security Images (Sparse)		E
	Authorization Method:	CHAP		
	Capacity:	1.00G		
	Status			
	Status:	Enabled		
	File Name:	C:\backupserver\		
	Server Portal			
	192.168.0.112	8680		
	•			4
			🖉 Connected: Lo	calHost (20-Days Trial)

Then click **CHAP** on Datastore properties tab.

K-Backup Server Management Conso	le		3
File Server Storage Clients V	iew Tools Help		_
			_
Create Delete Start Ston	Refresh Add Remove View Acces	ss Settings Print About	
Servers Tree ×			
□ J Backup Servers	Datastore Name: IESI	and the second secon	
E test-PC (127.0.0.1:8681)	General Online Clients CHAP		
TEST	CHAP Name	Туре	
	Group	Conver	
Logs	ZE IEST	Group	
	•		•
		S Connected: LocalHost (20-Days Trial)	.::

To use Datastore, we should add the Group we have created.

Create Synchronization

Open the K-Backup Suite; click Disk Synchronization (Replication) on the

Home page.

📢 K-Backup Suite File View Go Tool	s Help					
Home Backup Job	Backup Mediur	n Job Monitor	Storage Protection	Settings Log Viewe	r Help	
Disk Encryption Disk S	ynchronization					
September 29, 2013	Drive	Туре	Encrypt	ed Synchronized	Drive Synchronizat	tion
September 25, 2015	C:	Fixed Drive	No	No	Drive Type:	Normal
	D:	Fixed Drive	No	No	FS:	NTFS
Common tasks	E:	Fixed Drive	No	No	Synchronized:	No
Linesia Manual	F:	Fixed Drive	No	No	-,	
Learn More	G:	Fixed Drive	Yes	No	Total Space:	21,474,832,384 Bytes 20.0 GB
Economic III	H:	Fixed Drive	No	No	Used Space:	94,760,960 Bytes 90.4 MB
					Free Space:	21,380,071,424 Bytes 19.9 GB
						Drive G:(NoName)
					Sync Progress	
					Attach	Synchronize
	•			+		

One the right side, you can check the drive information.

Note: User can't operate on system drive.

Press **Attach** to connect to remote Datastore.

Create Replication Wizard	
Remote Replication Setting Specify parameters for remote datastore replication.	٩
Remote Portal Target:	Select
Local Portal Portal: Any Port: Any	
Synchronize Options Replication Type: Synchronous Initilize Type: Full Synchronize	•
< <u>B</u> ack <u>N</u> ext >	Cancel

Press Select.

Discovery Datastore		×
Target portals		
Host Name	Port	Add
Sec. 192.168.0.112	8680	
		Remove
Discovery Datastores		Refresh
CHAP logon		
User Name:		
Target Secret:		
	ОК	Cancel

Add the remote K-Backup Server, select **Discovery Datastore**.

Host Name		Port	
3 192.168.0.112		8680	Add
			Remove
L Discovery Datasto	pres		
Discovery Datasto	pres		▼ Refresh
Discovery Datasto	pres		▼ Refrest
Discovery Datasto TEST CHAP logon User Name:	test01		Refrest

Check CHAP logon

Press **OK** to finish configuring remote Datastore.

Create Replic	ation Wizard
Remote Spec	ify parameters for remote datastore replication.
Remote Po	ortal
Target:	TEST Select
Portal:	192.168.0.112 Port: 8680
Local Port	al
Portal:	Any Port: Any
Synchronia	ze Options
Replication	on Type: Synchronous Initilize Type: Full Synchronize
	< <u>B</u> ack <u>N</u> ext > Cancel

Remote Portal: Remote Datastore information

Local Portal: Local Portal information

Synchronize Options: Configure replication type and initialize type

Synchronous: Real-time replication

Asynchronous: Fast speed and high reliability replication

Full Synchronize: Synchronize data if two storages have differences.

Don't Synchronize: If two storages are empty, user doesn't need to synchronize them.

Press **Next** to continue

Create Replication Wiza	rd	×
Encryption Speicfy if encypt	target medium and encryption password.	Ø
Target Storage	edium.	
Password:		
Comfirm Password:		
	< <u>B</u> ack <u>N</u> ext >	Cancel

You can encrypt the Datastore.

Create Replication Wizard	
	Completing the Create Application Wizard
	Service name: Remote Replication Service Replication type: Asynchronous First node: 127.0.0.1 Storage: G: Second node: 192.168.0.112:8680 Storage name: TEST Authorization: Yes
	To close this wizard, click Finish. < <u>B</u> ack Finish Cancel

Check the information and press **Finish** to complete it.

📢 K-Backup Suite File View Go Tools	Help					
Home Backup Job	Backup N	Aedium Job Monitor	Storage Protection	Settings Log	Viewer Help	
Disk Encryption Disk Sy	nchronizatio	n				
September 29, 2013	Drive	Туре	Encrypted	Synchronized	Drive Synchronizat	tion
	C:	Fixed Drive	No	No	Drive Type:	Normal
	D:	Fixed Drive	No	No	FS:	NTFS
Common tasks	E:	Fixed Drive	No	No	Synchronized:	Yes
Liser's Manual	F:	Fixed Drive	No	No		
Learn More	G:	Fixed Drive	Yes	Yes	🔲 Total Space:	21,474,832,384 Bytes 20.0 GB
	H:	Fixed Drive	No	No	Used Space:	94,760,960 Bytes 90.4 MB
					Free Space:	21,380,071,424 Bytes 19.9 GB
						Drive G:(NoName)
					Sync Progress	
					Attach	Synchronize Detach
					Server: 193 Datastore: TE	2.168.0.112:8680 ST
	•		III	•	Status: Ru	nning

Press **Synchronize** to do full synchronization.

Press **Detach** to separate them.

Contact

Support:support@kernsafe.comSale:sales@kernsafe.comHome Page:http://www.kernsafe.com/Product Page:http://www.kernsafe.com/product/k-backup.aspxLicensing:http://www.kernsafe.com/product/k-backup/license-compares.aspxhttp://www.kernsafe.com/forum/



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