

Setting Up Dell[™] DR Series Deduplication Appliance as Backup Target on CommVault Simpana[™] 10

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Executive summary

This paper provides information about how to set up the Dell DR Series Deduplication Appliance as a Backup device for CommVault Simpana 10. This paper is a quick reference guide and does not include all DR Series Deduplication Appliance deployment best practices.

See the DR Series Deduplication Appliance documentation for other data management application best practices whitepapers at <u>http://www.dell.com/support/troubleshooting/us/en/04/Product/powervault-dr4100</u>, under "Manuals & Documentation".

Note: The DR Series Deduplication Appliance/CommVault Simpana build version and screenshots used for this paper may vary slightly, depending on the version of the DR Series Deduplication Appliance/Symantec NetBackup software version used.



1 Install and Configure the DR Series Deduplication Appliance

- 1. Rack and cable the DR Series Deduplication Appliance, and power it on.
- 2. Please refer to *Dell DR Series System Administrator Guide*, under sections of "iDRAC Connection", "Logging in and Initializing the DR Series System", and "Accessing IDRAC6/Idrac7 Using RACADM" for using iDRAC connection and initializing the appliance.
- 3. Log in to iDRAC using the default address **192.168.0.120**, or the IP that is assigned to the iDRAC interface. Use user name and password of "**root/calvin**".

stem Prop II DR4000 St, Admin Syst	perties tem Summ	Setup Power	r Logs Alerts Console/Media Details System Inventory	vFlash Remote File Share	
stem Sy:	stem S	ummary			● C ?
Refes na na	Server H	lealth			
wer Supplies	Status C	Component		Virtual Console Preview	
movable Flash Media mperatures		Batteries		Options : Settings	
tages		Fano			_
wer Mondoring		indication			
	2 P	Power Supplies			
		Removable Flash I	i Media		
	2 7	Temperatures			
		vutages		Rel	esh Launch
	Server Infe	formation		Quick Launch Tasks	
	Power Sta	ate	ON	Power Ots / OFF	
	Opstam M	todet	Dell DR4000	Power Cycle System (cold boot)	
	System Revision		н	Launch Virtual Console	
	Dystem H	lost Name	DR4000-DKCV6S1.asglab.roundrock	View System Event Log	
	Operating	2 System	CentOS	View IDRAC Log	
	Operating	2 System Version	release 5.4 (Final) Kernel 2.6.18-164.e	Update Firmware Reset/ORAC	
	Service Ta	ag	DKCV6S1		
	Express 0	Denvice Gode	29529104401		
	BIOS Wirs	sion	1.9.0		
	Firmwate	Version	1.80 (Build 17)		

4. Launch the virtual console.





5. After the virtual console is open, log in to the system as user **administrator** and the password **St0r@ge!** (The "0" in the password is the numeral zero).



6. Set the user-defined networking preferences.

Mould you like to use DHCP (yes∕no) ?	
Please enter an IP address:	
Please enter a subnet mask:	
Please enter a default gateway address:	
Please enter a DNS Suffix (example: abc.com):	
Please enter primary DNS server IP address:	
Would you like to define a secondary DNS server (yes∕no) ?	
Please enter secondary DNS server IP address:	

7. View the summary of preferences and confirm that it is correct.

Set Static IP A	iddress k	
IP Address	: 10.10.86.108	
Network Mask	: 255.255.255.128	
Default Gateway	: 10.10.86.126	
DNS Suffix	: idmdemo.local	
Primary DNS Server	: 10.10.86.101	
Secondary DNS Server	: 143.166.216.237	
Host Name	: DR4000-5	
Are the above settings correct	(yes/no) ? _	



8. Log on to DR Series Deduplication Appliance administrator console, using the IP address you just provided for the DR Series Deduplication Appliance, with username **administrator** and password **St0r@ge!** (The "0" in the password is the numeral zero.).

)	Enter User Defined IP Address	(=) (r) (2)
DELL DR4000 DR4000-DKCV	651	Help
Login		Reset Password
	Please enter your password:	
	Username: administrator Password: St0r@gel Log In	

Note: if you do not want to add DR Series Deduplication Appliance to Active Directory, please see the *DR Series Deduplication Appliance Owner's Manual* for guest login instructions.

9. Join the DR into Active Directory domain.



Déil

• Select Active Directory from the menu panel on the left side of the management interface.

• Enter your Active Directory credentials.



10. Create and mount the container. Select **Containers** in the tree on the left side of the dashboard, and then click the **Create** at the top of the page.



Ľ							administrator (l	.og out) Help
iva	nw-sw-02 testad ocarina.lc 💌 Global View	Containers				Crea	ite) dit Delete Dis	play Statistics
=	- Dashboard - Alerts	Number of Containers: 1					Container Pa	th: /containers
	- Events	Containers	Files	NFS	CIFS	RDA	Replication	Select
	Health	backup	2	~	~		Not Configured	0
	-Usage Container Statistice							
	- Renlication Statistics							
	Storage							
	Containers							
	- Replication Clients							
+	Schedules							
-	System Configuration							
	- Networking							
	Active Directory							
	Local Workgroup Users							
	Email Alerts							
	-Admin Contact Into							
	- Email Relay Host							
	Date and Time							
	Support							
	- Diagnostics							
	-Software Upgrade							
	License							

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11. Enter a **Container Name**, select the **Enable CIFS** or **Enable NFS** check box. Symantec NetBackup supports both CIFS and NFS protocols.

	CLL DR4100		
	Create New Container:		
G G G Al E	Assign a name to the container, select its type, access protocol to use ashbi Container Name*: Sample vents Connection Type*: No Access NAS (NFS, CIFS) Rapid to ta callth	* = required fiel Name the container ^{iders.} Access (RDA) (7) CIFS	ds ontainers
U C R	sage NFS access path: 10.250.224.190./containers/sample ontain Use NFS to backup UNIX or LINUX clients. eplica I chable NFS Soloct CLES or NES	CIFS share path: \\10.250.224.190\sample Use CIFS to backup MS Windows clients.	
R C	Client Access: SELECT CTTS OF INTS ontai Open Access (all client, have access) eplica Add client (IP or FQDN Hostname): ints Add client (IP or FQDN Hostname):	Client Access: Client Access (all clients have access) Add clients (IP or FQDN Hostname)	
++ Sa ■ Sy Na Aa La	chedi yster etwort ctive I ocal Y	ckup Server Info	
Ei Ac Pa	ntall A Imin (■ NFS Options: ■ nw ■ secure To mail F		
	Alte ar -select- • iagno		
-S	onwai cense	Cance. Create a New Contain	ler

12. Select the preferred client access credentials.

-sw-02		
Global Assign a name to the container select its type, access protocol the	* = required fields	stadiotis:
Dashbi Container Name": sample	Neves e the e equate in equators.	Intainer
Alerts	Name the container	
Hostin (NES	CIES	select
NFS access path: 10.250.224.190:/containers/sample	CIFS share path: \\10.250.224.190\sample	0
Contain Use NES to backup UNIX + LINUX clients	Use CIES to backup MS Windows clients	
Replica 🕑 Enable NFS	Enable CIFS	
Storag Client Access: Select CIFS OF INF	Client Access:	
Contai 🔲 Open Access (all clients have access)	Open Access (all clients have access)	
Add client (IP or FQDN Hostname):	Add clients (IP or FQDN Hostname)	
Add	Add	
Clients Enter Back	In Server Info	
Network	Remove	
Active F	•	
Local V		
Email A		
Admin (NFS Options:		
Passwe O ro		
Map root to:		
-select-		
Diagnos		

Note: For improved security, Dell recommends adding IP addresses for the following (Not all environments will have all components): Backup console (CommVault Server, CommVault Media Agents)



13. Click Create a New Container. Confirm that the container is added.

-sw-02.testad.ocarina.lc 💌 Global View	Containers				Crea	ate Edit Delete Dis	splay Statisti
Dashboard Alerts Events -lealth Jsage Container Statistics	Message Successfully add Successfully add Successfully add	ed container "sample". ed NFS connection for conta ed CIFS connection for cont	ainer "sample ainer "sample	". 9" <u>.</u>			
Replication Statistics	Number of Containers: 2					Container Pa	th: /containe
Storage	Containers	Files	NFS	CIFS	RDA	Replication	Select
ontainers	baskup	2	~	~		Not Configured	0
	Dackup					•	
Replication Clients	sample	0	~	~		Not Configured	0
Replication Clients Schedules	sample	0	~	~		Not Configured	0

14. High-light the container and click **Edit**. Note down the container share/export path, which will be used later as the Disk Library for CommVault Simpana.

ivanw-sw-02 Edit Container: sample	administrator (Log out) Help
Global Dashbc Alerts Events Feath Usage Contain Replica Storag Replica Client Schedu System Networf Active C Local W Email R Date an Client R Cate an Client R Cotat Client R	* = required fields * = required fields * = required fields that iners IFS) Rapid Data Access (RDA) ⑦ CIFS CIFS share ath: \\10.250.224.190\sample Use CIFS to backup MS Windows clients. Elect Client Access: Client Access (all clients have access)
Suppor Diagnos Software Upgrade License	Cancel Modify this Container



15. Click **Cancel** to exit.

	CELL DR4100	administrator (Log c	out) Help
	Bit Container: sample Global Dashbc Connection Type [*] : On Access In AS (NFS, CIFS) Rapid Alerts NFS Events NFS access path: 10.250.224.190/containers/sample	* = required fields Data Access (RDA) ⑦ CIFS CIFS CIFS share path: \\10.250.224.190\sample	tatistics ntainers elect
-	Usage ✓ Enable NFS Contain Open Access (all clients have access) Storage NFS Options: Contain ○ nw Insecure Replica ○ ro Clients Schedt System Network Active E Local W Email A Admin (Passwo	Image: Second Secon	0
Сору	Date an Suppor Diagnos Software Upgrade License vright © 2011 - 2013 Dell Inc. All rights reserved.	Cancel Modify this Container]



2 Set up CommVault Simpana 10

2.1 Single System Environment (DR as CIFS Disk Library)

1. Open Simpana Administrative Console, expand Storage Resources, right-click on Libraries, select Add -> DiskLibrary...

🛃 davidd-w2k0-01 : CommYault® Simpan	108					- 0 ×
Home Tools Storage Configura	ation Reports View Supp	ort				▲ ♥
CommCell Job Centroller Viewer View	t Scheduler Control Panel New?	Getting Web Started Console			SIMPAN	A.
CommCell Browser 9	Getting Started 🗶	Libraries 🗙 🚺 Job Con	troller 🗙 🗍 🖲 Event Viewer 🗙 🕅 👸	Schedules ×		4 9 10
awidd-w2k0-01	🔏 davidd-w2k8-01 > 截 Stor	age Resources 🗧 🏙 Librarie	• >	6		409
Gent Computer Groups Gent Lanton Clients	Name	Status	Manufacturer	Model	Description	8
B. of evide-wide() B. of evide-wide() B. of evide-wide() B. of evide-wide() Control of the second of the se	Dekilbrary Cout Storage Ubrary Tape Ubrary					1
Townsen.	m country M country		1000			
1 object(s)			dava	35-w2k8-01 10 SP1b+ admin		

2. In **Add Disk Library** window, enter the name for the Disk Library and the information of DR container, and Click **OK**.

mmCell Job Event Alert Controller Viewer Viewer	Scheduler Control Panel	Started Console	SIA	NPANA.
CommCell Browser 9	Getting Started	🖍 📑 Libraries 🗙 🚺 Job Controller 🗴 🎼	Event Viewer × Schedules ×	4 ▷ Ⅲ
davidd w2i8-01	💑 davidd-w2i8-01 >	🕻 Storage Resources > 📑 Libraries >		6 D 8
Point Sector Secto	91	Nem: Peokle and Techniques: Savade wolke 01 Connect As: Administration Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Connect As: Administration Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Peokle Path Peokle Path Peokle Path Peokle Path Peokle Path Connect As: Administration Peokle Path Peokle Path Pe	Name the library	y
CommCell Browser				
Agents				<u>.</u>



3. Confirm that the library is created, its status is **Ready**.





2.2 Single System Environment (DR as NFS Disk Library)

1. Mount DR container NFS export onto Unix/Linux Media Agent.



2. Open Simpana Administrative Console, expand Storage Resources, right-click on Libraries, and Select Add – > DiskLibrary...

amidi waxo uti comminuutis simpana	18					
iome Tools Storage Configurati	ion Reports View Sup	port				6 0
Stary and Media Hardware Drive Management Maintenance Storage	Array Management Shared Catalog Configuration Index	2			communit SIMPANA	
CommCell Browser 4	🖌 📫 Getting Started 🗴	Libraries ×				D B
davidd-w2k0-01	👌 davidd-w2k8-01 > 🐔 Sto	rage Resources 👂 🎆 Libraries 🤉	,		9	00
Cent Cosputer Short Y Short Y	Name ij DR2 ij DR2 ij DR2 DR4 Uhrsy Cloud Storage Lib ary Tape Library	Status Ready Ready Ready Ready Ready	Menufacturer Dok Dok Dok Dok Dok	Touk	Cesoption	
CommCell Drowser						
CommCel Browser	Castant O Summer					



3. In **Add Disk Library** window, enter the name for **Disk Library** and mount path of DR container export, and Click **OK**.

🕐 davidd-w2k0-01 : CommVaultis Sin	panaši				
Home Tools Storage Confi	guration Reports View Su	pport			A 3
Library and Nedia Hardera Drive Management Maintena	re Array Ince Management Configuratio	n			SIMPANA.
CommCel Browser	0 Getting Started x	Libraries ×			4.5.00
💊 davidd w/2015 01	🔥 davidd-w2k8-01 > 截 5	torage Resources > 📑 Libraries	>		우 C 라
Gent Computer Groups Gent Computers	Name	Status	Manufacturer	Model	Description ¥
Security Scrage Resources Of Deduplication Engines Extranse	DR DR2 DR2 Add Disk Library	Ready Ready Ready	Disk Disk Disk	Dek Dek Dek	×
MediaAgents Orphaned Media	Name: Arb				
3: g Finden S g Finden S g Finden S g Cott Analysis S √ Wolfflows S √ Wolfflows	Conset Path Disk Device: C* Tetrinok Path Connect Pasy Pastourn! Verfy Passourd: Folder:	joite	Enter	the mount path	
CommCell Browser	Context @ Summary				-
				davidd-w2k8-01 10 SP1b+	admin

4. Confirm that the library is created, its **Status** is **Ready**.





2.3 Replicated System Environment

NOTE: The replicated system environment includes minimum of 2 DR systems that are connected to 2 different Media Agents. CommVault manages data replication between the replication pair. For more details, please refer to CommVault books online :

http://documentation.commvault.com/commvault/release_10_0_0/books_online_1/english_us/prod_in fo/flr.htm

1. On CommCell Console, click Storage then Library and Drive.



2. Select all the MediaAgent(s) that will participate in replication, click **Add** to add to **Selected MediaAgents**, and then click **OK**.

🖉 Library and Drive Configuration (Co	mmServe Host: davidd-w2k8-01)	X
Selected MediaAgents		
Select MediaAgents		X
Available MediaAgents:	Selected MediaAgents:	-1
DavidD-RHEL6-01		
davidd-rhel6-02	Add >>	
davidd-w2k8-01		
	<< Remove	
	Add All >>	
	<< Remove All	
1		
0	K Cancel Help	
E chart I		
Po start		

Note: To configure any shared library, make sure you select all the MediaAgents that share that library.



3. Click **OK** to continue.



4. Click Shared Disk Device tab.

Uibrary and Drive Configuration (CommServe Host: davidd-w2k8-01)
Selected MediaAgents
R DavidD-RHEL6-01
avidd-rhel6-02
🔚 Libraries 🔲 Data Path: 📿 Shared Disk Device
Sources
E- Device_2
Device_4
िं Start

5. Click Start, select Disk Device -> Add Network Sharing Device...

🕙 Library and Dri	ve Configuratio	on (CommServe Ho	ost: davidd-w2k8-01	l) 🗙
Selected MediaAge	ents			
DavidD-RHEL6	-01			
🛛 🔚 davidd-rhel6-0	12			
			1	
Libraries 🚐	Data Paths 🛛 🗺	Shared Disk Device		
Disk Devices				
⊕ ⊕ Device_2				
H Device_4				
+ Device 6				
Select MediaAg	gents			
Volume Explore	er			
Add	•			
NDMP	►			
Centera	►			
Disk Device		Add Network Sh	aring Device	
Help		Add Cloud Store	age Device	
Exit				
💀 Start				



6. In **Add Sharing Folder** dialog box, enter source DR container share/export information and then Click **OK**.

Device Name: SharingDevice# MediaAgent: DavidD-RHEL6-01	Select the name of MediaAgent accessing this mount path
iharing Folder Properties	
Cocal Path Folder:	Linux MediaAgent can only select local path
C Network Path	
Connect As;	
Password:	Windows MediaAgent can sele
Verify Password:	both local and network path
Folder:	
Preferred	
Read Only	

Note: This Device is replication source. Device information is based on which protocol the container is exposed to the MediaAgents.



7. The system displays the device information with the **MediaAgent** that can access the device in **Library and Drive Configuration** window.

Continue Configuration (CommServe Host: davidd-w2k8-01)
Selected MediaAgents
BavidD-RHEL6-01
🔚 davidd-rhel6-02
🔚 Libraries 📃 Data Paths 🧟 Shared Disk Device
Device_2
B-@ Device_5
Folder(DavidD-RHEL6-01)(/DR)(Configured)
E Start
ry start

8. Right-Click the device and then click Add Replica Sharing Folder

🖉 Library and D	ive Configuration (CommServe	Host: davidd-w2k8-01)	×	
Selected MediaA	ents			
DavidD-RHEI	6-01 02			
🔚 Libraries 🕻 💷) Data Paths 🛛 🥽 Shared Disk Devic	:e		
Disk Devices				
	Add Primary Sharing Folder			
	Add Replica Sharing Folder			
	Configure			
	Deconfigure			
	Deconfigure for All Selected Media	aAgents		
	Delete			
	Set Network Access Info for All W	/indows MediaAgents		
	Properties			
💀 Start 🛛 1	object(s)			



9. In **Add Sharing Folder** dialog box, enter target DR container share/export information and then Click **OK**.

Device Name: Device_5	Select the name of MediaAgent
Sharing Folder Properties	accessing this mount path
Eolder:	Linux MediaAgent can only select local path
C Network Path Connect As:	
Password:	Windows MediaAgent can select both local and network path
Folder:	
Preferred	
🔽 Read Only	
OK Cancel Help	

Note: This Device is the destination of replication. Device information is based on which protocol the container is exposed to the MediaAgents.



10. The system displays the device information with which MediaAgent can access the device in **Library and Drive Configuration** window.

Library and Drive Configuration (CommServe Host: davidd-w2k8-01)	×
Selected MediaAgents	
PavidD-RHEL6-01	
davidd-rhel6-02	
Libraries Data Paths Cal Shared Disk Device	
Disk Devices	
The Device 4	
E Device_5	
Folder(davidd-rhel6-02)(/DR2)(Conhigured)	
E _ Device_7	
E Chaut	
BO Start	

11. From Libraries tab, click Start menu, select Add -> Replica Disk Library.

Library and Drive Configuration (Comm5erve Host: davidd-w2k8-01)	×
Selected MediaAgents DavidD-RHEL6-01		
📙 Libraries 🗔 Data Paths 🛙 🥃 Sha	red Disk Device	
Libraries DR(Configured) DR2(Configured) DR22(Configured) DR22(Configured) dr(Configured) dr(configured) dr(configured)	·	
Select MediaAgents		
Add	Disk Library	
NDMP 🕨	Replica Disk Library	1
Centera 🕨	Cloud Storage Library	1
Disk Device	Disk Library with Automated Mount Path Detection	
Help	PnP Disk Library	
Exit	IP Library	- <u> </u>
💀 Start	Cell-Shared Library	



12. In the Add Disk Library dialog box, enter Alias and check Enable replication checkbox.



NOTE: Enable Replication:

- For Disk Library Replication solution, select this option to use ContinuousDataReplicator to replicate data between the source (shared folder added in Step 7) and the destination (shared folder added in Step 10) mount paths. Leave this option unselected if you don't want CommVault to manage replication between the two DRs.
- Selecting this option will automatically create a new replication set and a replication pair under ContinuousDataReplicator, when a mount path is added to this library. These replication sets and replication pairs can be monitored from the CommCell Console. It is highly recommended not to change the default settings of the replication sets, or delete the replication sets when the replication is in progress.
- If this option is selected, make sure to install the ContinuousDataReplicator package on the source and the destination computers before adding mount path to this library.Click **OK**.
- If this option is not selected, use DR native replication between two separate disk libraries. There may exist issues when CommVault tries to restore from the target DR disk library, because CommVault doesn't have catalog information for that disk library.

13. In **Share Mount Path** dialog box, select the device configured in step 5-10, which has two sharing folders on both the replication source an replication target, and then click OK:

Disk Device:	Replicated Library	associate as the mount path
lase Folder:	Replicated Library	
1ediaAgent: [r	Replicated Library	
haring Folder P	roperties	
🔵 Local Path		
Folder:		
Network P	ath	
Connect As	:	
Password:		
Verify Pass	word:	
Folders		

14. Verify the disk Library is configured.

Library and Drive Configuration (CommServe Host: prodcs)
Selected MediaAgents
🖡 mediaagent01
🔚 mediaagent03
Corares Colora Paths Constant Disk Device
Libraries
E-CReplicated_Disk_ubrary(Configured)
(1) Replicated Library(Folder 1)
Start 1 object(s)



2.4 Use Continuous Data Replicator to replicate client data to a DR container

NOTE:

ContinuousDataReplicator (CDR) replicates data from a source computer to a destination computer, with both computers support same network transfer protocol.

In this configuration, CDR replicates between a client and a DR container. CDR package should be installed on both media agents associated with this configuration.

For more details, please refer to Commvault books online :

http://documentation.commvault.com/commvault/release_10_0_0/books_online_1/english_us/prod_info/flr.htm

1. From **CommCell Console**, pick the client that a dataset needs to be replicated to DR. Right click **Continuous Data Replicator** -> **All Tasks** -> **Add Replication Set**.

8					ramboz-201	12-01 : Comr	nVault® Sin	npana ®					- 0	
Home Tools Storage Configuration	n Reports	View	Support											b ()
CommCell Job Event Viewer Viewer	Scheduler C	Control Wh Panel ne	hat's Gettin ev? Starte Feat	Web d Console								SIM	PANA	
CommCell Browser 0	Getta	ng Started \times	Job Con	roler × 🖸 Ce	ntinuous Data	Replicato >	<						đ	Þ. III
ramboz-2012-01	🚴 ramboz-;	2012-01 > 1	Client Compu	ters > 😙 Karenk	-Solaris-01 > 🕻	Continuous Da	sta Replicator on	unix >					φ	00
R The Clerit Computers	Replication Se	iet				Destination Host			Desi	niption				*
KarenK-Solaris-01 S Continuous Data Replicatos on Likis	No Rens to d	dsplay												^
Provide Control C	isico r www	Add Rep Add Rep Replicati Data Rep Release Operatio	olication Set F olication Set Presi pincetion Mon License an Window	om Policy n Wizard tor										×
	Content	Summery	1											
	Data	Replication Mo	onitor ×										4	P 00
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2. In **Create New Replication Set** window, Enter **Name** for the Replication Set, select **Destination Host** from dropdown list. That's the client machine that has DR container mounted (CIFS or NFS). Click **OK**.

Create New Replication Set										
General Pre/Post Process Replication Options Orphan Files Storage Policy Advanced Filters										
Name:										
Destination Host:										
KarenK-Solaris-01										
 Continuous Replication ramboz-rhel6-02 										
Preserve Write Order										
Scheduled Replication										
✓ Use Journaling										
Create Snapshot										
O Disk Library Replication										
Description										
OK Cancel Help										

3. Right click on the **Replication Set**, go to **All Tasks** -> **Manage Pairs**

0		ramboz-201	12-01 : CommVault® Sim	pana®		- 0 ×
Home Tools Storage Configuration	on Reports View S Scheduler Control Panel Configure	s Getting Web Started Console			Š	IMPANA.
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5. In **Common Base Folder**, enter the path pointing to DR container share/export, Click **Add**-> select the Destination Path. Click **Close**.

	Manage Pairs		x
Replication Set Details			
Source Host (This is the host	on which content is protected): KarenK-Sol	aris-01	
Destination Host (This is the I	nost to which content is replicated): ramboz-rhe	el6-02	
Common Base Folder (This is	the folder on destination host which contains all the	e destination paths):	Destination Paths :NFS
/mnt/nfs02	Browse		mounted path/CIFS path
.dd / Update Pairs			
Source Path	Destination Path	State Apps	Add
/export/home/test	/mnt/nfs02/export/home/test	New Pair	Browse
			Edit
			Delete
<	ш	> ×	Add App
* Before a source path indicat	es that it is an auto-created pair with a mount poin	t.	
Include files that do not	match with destination copy		
		Apply	Reset

6. Right click on the managed pairs under the replication set. Choose **Start/Start Full Resync**. Monitor the **State**.

				ra	mboz-2012	01 : CommV	ault® Simp	ana®						- 0 ×
Home Tools Storage Configuration Add/Remove New Software Client Commonling Denlowment Import	om Reports	View	Support	Data Replicatio Monitor	n								commvault SIMPA	NA.
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														12
1 object(s)	-								ramb	oz-2012-01.testad	d.ocarina.local 1	0 SP1b+ admi	n	
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2.5 Create backup job with DR Series Deduplication Appliance as the target

1. Expand the client to be backed up, right-click the target iDataAgent, select **All Tasks** – > **Create New Backup Set**

davidd-w2k0-01 : Cor Home Tools Sto	nmYauite Sin yrage Conf	ipana i iguratior	Reports Yew	Support					_ 🗆 ×
CommCell Job Controller v View	Event Viewer	0 Alert	Scheduler Control Panel	What's new? Started Feature	Web Console			SIM	PANA.
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10-BkSwidd-wickB		_	🔏 davidd-w2k8-01 >	the Clent Computers	> 🌌 davidd-w2	k8-01 > 🜓 File System	>		6 D 9
E Tent Computer Gri	oups			Backup Set	Name			Description	3
Cent Computers Gent Computers Gent Computers Gent Continuous Gent Continuous File System	a-ou 8-02 Data Replicator								
E 🔐 defa	All Tasks		Backup Default Backup	Set					
E Security	Percentiar	1	Create New Backup Sel						
E Storage Resource	ngines	-	Operation Window						
Control Decision Cost Analyse Control Decision Cost Analyse Cost Analyse Agents	a ***		Contract O Source						z
	_		Concent [[] Somm	av					
1 object(s)							davidd-w2k8-01 10 5	P1b+ admin	

2. Enter New Backup Set Name.

🕐 Create New Backup Set								
Client Computer:	davidd-w2k8-01							
iDataAgent:	File System							
New Backup Set Name:								
Storage Policy:	Not Assigned	-						
Make this the default backup set								
L	OK Cancel Help							



3. Set appropriate Backup Schedule

🖉 Backup Schedule		×
This newly added item may not be c Do you want to create a backup sch	overed by an existing backup schedule. nedule for it?	
C Associate to schedule policy	System Created (All Agent Types)	-
C Schedule		
Do Not Schedule		
	OK Cancel	Help

4. Right-Click on the newly created Backup Set, select **All Tasks** -> **New Subclient**





5. Enter **Subclient name** on **General** tab.

🖉 Subclient Properties of	×
Storage Device Activity Control Encryption IntelliSnap Operations Advanced Options General Content Retention Filters Pre/Post Process Security	
Client Name: davidd-w2k8-01	
iDataAgent: File System	
Backup Set: Test	
Subclient name:	
Vise VSS options	
 Use VSS for all files If VSS Snap fails, the backup behavior should be Fail the job Continue and reset access time With CJ and DC the files will requalify for Database Continue and do not reset access time Access time based on archiving rules will be affected For locked files only 	
Description	
OK Cancel Help	



6. Select Storage Device tab, click Create Storage Policy

🖉 Subclient Properties of		×
General Content Retention Filters Storage Device Activity Control Encryption Inte	Pre/Post Process	Security Advanced Options
Data Storage Policy Data Transfer Option Deduplication		
Storage Policy:		
	~	Data Paths
Incremental Storage Policy:	N/A	
		Data Paths
Create Storage Policy		
	ок с	ancel Help

- 7. In Create Storage Policy Wizard
 - 🖉 Create Storage Policy Wizard X What will this storage policy be used for? Storage Policy Type Data Protection and Archiving Cancel < Back Next > Finish
- Select Policy Type: Data Protection and Archiving •



• Enter Storage Policy Name

Create Storage Policy Wizard	×
Enter the storage policy	name
Storage Policy Name:	New Storage Policy
Incremental Storage Policy	
I Provide the Data-abric Manag	ler perver thrormation
	Cancel < Back Next > Finish

Select the DR disk library created in **Section 2** as default library

Create Storage Policy	wizaru				<u> </u>
Select a default lii	brary for this pr	imary copy			
Library					
	newlibrary				
		Cancel	< Back	Next >	Finish

Select MediaAgent

🕐 Create Storage Pol	licy Wizard				×
Select a Media	Agent for this copy	/			
MediaAgent:	davidd-w2k8-01				T
		Cancel	< Back	Next >	Einish
			- Codek	inoxe 2	1 11 11 20 1



• Enter Number of Device Streams and retention policy

Create Storage Policy Wizard	
Enter the streams and retention criterie for this policy. Number of Device Streams:	Max is 32. If each client can write backup data close to 100MB/s, this number can be set as 5 for current DR firmwersions.
iDataAgent Backup data	
✓ Infinite/ 15 ± Days 2 ± Cycles	
Data Archive/Compliance Archiver	
🔽 Infinite/ 365 🚽 Days	
	The second se
Cancel < Back	Next > Finish

• **Disable** deduplication for the primary copy

Create Storage Policy Wizard	×
Do you want to enable Dedunlication for the primary conv?	
bo you want to enable beaupheadon for the primary copy :	
Enable use of Partitioned Deduplication store	
Enable Client Side Deduction	
Cancel < Back Next >	Finish

• Finish



8. Disable Software Compression under Storage Device -> Data Transfer Option

🖉 Subclient Properties of 🛛 🛛 🗙
General Content Retention Filters Pre/Post Process Security Storage Device Activity Control Encryption IntelliSnap Operations Advanced Options
Data Storage Policy Data Transfer Option Deduplication
Software Compression
Select the software compression to be used in case hardware compression is not available or not selected in the destination data path.
C On Client
C On MediaAgent
O Use Storage Policy Settings
Resource Tuning
Specify the number of processes that the client will use to transfer data. For Windows, the range is 1-4 with default value of 2. For Unix, the range is 1-2 with default value of 1. Improvement in performance is resource dependent.
Network Agents:
Note: The setting does not affect performance if the MediaAgent is optimized for concurrent LAN backups.
Throttle Network Bandwidth (MB/HR) 500
Application Read Size :
64 ±KB
OK Cancel Help

9. Uncheck Enable Deduplication under Storage Device -> Deduplication

Subclient Properties of
General Content Retention Filters Pre/Post Process Security
Data Storage Policy Data Transfer Option Deduplication
Generate Signature on
© On Client
C On MediaAgent
Please note that if Client Side Deduplication is enabled, signature generation will occur on the Client, regardless of this setting
OK Cancel Help



10. Under Content tab, select data for backup by clicking Browse.

A succession of the succession	Urowsing content for			
Storogo Covie Antonic Control Encryption Intelling Operations Advanced Options General Contents Retention Riters PrepPost Process Security Contents of subclient:* Delete Bitrones Add Paths Edit Paths Edit Paths	Carrect Sector Barry Convert Sector Barry	Diane C:	Type Drive	
Buckup System State Drify with Full backup Koter First yob after systemic full will backup system states				
*Subdent content in takis uses regular expressions	1	Add Close		

11. Right-click the newly created subclient, and select Backup





12. Make selection under **Select Backup Type** and Click **OK**.

ect Backup Type	Job Initiation
© Full	Immediate Run this job now
C Differential	C Schedule
C Synthetic Full	Configure Schedule Pattern Configure
Before Synthetic Full	
C After Synthetic Full	

13. Navigate to Job Controller to monitor job Status

🕜 davidd-w2k8-01 : Comm¥ault® Simpa	a®	
Home Tools Storage Configur	tion Reports View Support	۵ (۲)
CommCell Job Controllery Viewer View	t Scheduler Control Panel Configure	commvault SIMPANA,
CommCal Provincer	Cotting Cost of Controller V Discont Viewer V C Scheduler	~
Avidd w2k8.01		
Client Computer Groups	Son Controller	Filters:
Laptop Clients		
tedd Agents	V Job ID Operation Client Com Agent Type Subclient Job Type Phase Storage P	. MediaAgent Status Progress Errors V
📄 🚑 davidd-w2k8-02	21 Backup davidd-wzk windows Pl newsubclient Pull Scan New Stora	. davidd-wzk Running 0%
Contracus Das Repictor Agents Agents Contractions Das Repictor Agents	I Peuse Playing Running: 1 Pending: 0 Wating: 0 Queued: 0 Suspended: 0 Total Jobs; 1 Job Stream	s: 1 High Watermark: 500
	davidd-w2k8-0	01 10 SP1b+ admin



Set Up the DR Series Deduplication Appliance Cleaner

3

The cleaner will run during idle time. If you workflow does not have a sufficient amount of idle time on a daily basis then you should consider scheduling the cleaner which will force it to run during that scheduled time.

If necessary you can do the following procedure described in the screenshot to force the cleaner to run. Once all the backup jobs are setup the DR4x00 cleaner can be scheduled. The DR Series Deduplication Appliance cleaner should run at least 6 hours per week when backups are not taking place, generally after a backup job has completed.

Performing scheduled disk space reclamation operations are recommended as a method for recovering disk space from system containers in which files were deleted as a result of deduplication.

DEEL DR4100 EdwinZ-SV	W-01		Help Log out
Dashboard	Cleaner Sche	dule	Edit Schedule
Events Health Usage Statistics: Container	System time zone: US/Pacific, Fri Jul 5 05:00:41 2013 Note: When no schedule is set, the cleaner will run as needed.		Scheoble Cleaner
Statistics: Replication	Day	Start Time	Stop Time
- Storage	Sun		
Containers	Mon		-
Compression Level	Tue	-	-
Clients	Wed		
Schedules	Thu		
Replication Schedule	Fri		
-Cleaner Schedule	Sat		-
System Contiguration Networking Active Directory Local Workgroup Users Email Alerts Admin Contact Info Password Email Relay Host Date and Time Support Diagnostics Software Upgrade License			
Copyright © 2011 - 2013 Dell Inc.	All rights reserved.		



Monitoring Deduplication, Compression and Performance

4

After backup jobs have completed, the DR Series Deduplication Appliance tracks capacity, storage savings and throughput on the DR Series Deduplication Appliance dashboard. This information is valuable in understanding the benefits the DR Series Deduplication Appliance.

NOTE: Deduplication ratios increase over time; it is not uncommon to see a 2-4x reduction (25-50% total savings) on the initial backup. As additional full backup jobs complete, the ratios will increase. Backup jobs with a 12-week retention will average a 15x ratio in most cases.



