

Setting Up Dell[™] DR Series Deduplication Appliance Disk Backup Appliance on CA ARCserve

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Executive summary

This paper provides information about how to set up the Dell DR Series Deduplication Appliance as a backup target for CA ARCserve R16. 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/CA ARCserve build version and screenshots used for this paper may vary slightly, depending on the version of the DR Series Deduplication Appliance/ CA ARCserve 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.
- 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 assigned to the iDRAC interface. Use user name and password of "**root/calvin**".

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ystem	System Sun	mmary			a c (
afteries ans Anusion	Server Hea	alth						
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	Server Inform	nation		Quick Launch Tasks				
	Power State		ON	Power Ots/OFF				
	System Mode	at	Dell DR4000	Power Cycle System (cold boot)				
	System Revis	alon	н	Launch Virtual Console				
	Dystem Host	1 Name	DR4000-DKCV6S1.asglab.roundrock	View System Event Log				
	Operating Sy	stem	CentOS	View IDRAC Log				
	Operating Sy	ristem Version	release 5.4 (Final) Kernel 2.6.18-164.e	Update Firmware				
	Service Tag		DKCV6S1	Resensorous				
	Express Ben	vice Gode	29529104401					
	BIOG Version	n	1.9.0					
	Firmwate Ver	eston	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.



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

Set Static IP A	ddress k
IP Address	: 10.10.86.108
Network Mask	: 255.255.255.128
Default Gateway	: 10.10.86.126
DNS Suffi×	: 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.).

Please enter your password:	
Username: administrator	
Password: St0r@gel	
Log In	

9. Join the DR Series Deduplication Appliance to Active Directory.

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.



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

Enter your Active Directory credentials. ٠

DELL DR4100 DavidD-	SW-01 Help Log out
Dashboard Alerts Events Health Usage Statistics: Container Statistics: Replication Storage	Active Directory Join Settings The Active Directory settings have not been configured. Click on the 'Join' link to configure them. Active Directory Configuration Active Directory Configuration
Containers Replication Compression Level Clients Schedules Replication Schedule Cleaner Schedule	Domain Name (FQDN): Usemamet: Password: Org Unit
System Configuration Networking Active Directory Local Workgroup Users Email Aets Admin Contact Info Password Email Relay Host Date and Time Support Diagnostics Software Upgrade -License	Cancel Join Domain IDavidD-SW-01.ocarina.local/WindCA3\ IDavidD-SW-01.ocarina.local/WindCA3\ IDavidD-SW-01.ocarina.local/Windnew\

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.

DELL DR410 David	00 D-SW-01						Help Log out
Dashboard Alerts	Containers					Create Edit Dele	te Display Statistics
- Events - Health	Number of Containers: 8					Conta	iner Path: /containers
Usage	Containers	Files	NFS	CIFS	RDA	Replication	Select
Statistics: Container	New_Container	0				Not Configured	0
Storage	NN	0	~	~		Not Configured	0
Containers	RP	7		~		Not Configured	0
Compression Level	savauto	31		~		Not Configured	O
Clients	WinCA	98		~		Not Configured	0
Schedules	WindCA2	0		~		Not Configured	0
Replication Schedule	WindCA3	24		~		Not Configured	0
System Configuration	Windnew	19		~		Not Configured	0
Networking Adive Diredory Local Workgroup User Email Alerts Admin Contact Info Password Email Relay Host Date and Time Support Diagnostics Software Upgrade License	5						



11. Enter a Container Name and select the Enable CIFS/NFS check box.

ſ	X¢L	DR4100 DavidD-SW-01		Help	Log out
	Dashb Alerts Events Health Usage Statisti Statisti	Create New Container: Choose the type of container to create ((NFS and/or CIFS) or RDA) Container Name [®] : Marker Type [®] : None Auto CommVault Networker TSM Connection Type [®] : None NFS/CIFS RDA ?	add clients that need access. Hame the Container and _ characters. ARCServe ⑦	* = required fields	Statistics
	Storag Contai Replic Compr Clients Sched Replic Cleane	NFS NFS access path: 10.250.242.38:/containers Use NFS to backup UNIX or LIN ^M Select NFS or CIFS I Enable NFS Client Access: ☐ Open Access (all clients have access) Add client (IP or FQDN Hostname):	CIFS CIFS share path: \\10.250.242.38\ Use CIFS to backup MS Windows clients. I chable CIFS Client Access: Open Access (all clients have access) Add clients (IP or FQDN Hostname)		
	Systen Networ Active I Local V Email / Admin Passw Email I Date a Suppo Diagno Softwa	Enter Backup Server Info Clients:	Clients:	Add	
Corr	Licens	11 2013 Dalling, All rights reserved	Cancel	ate a New Container	

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

lth ige istics: Container						Create Edit Dele	te Displa
istics: Replication rage	Message Successfully ad Successfully en "Auto".	Ided container "New_ abled container "New	Container". /_Container"	with the fol	llowing ma	rker(s)	
tainers lication	Number of Containers: 8	Files	NEC	CIEC	004	Conta	ainer Path: /
npression Level	Containers	Files	NF 5	CIFS	RDA	Replication	Select
dules	New_Container	0				Not Configured	0
cation Schedule		7	*	*		Not Configured	0
er Schedule	RP	/		~		Not Configured	0
Configuration	savauto	31		~		Not Configured	0
king	WinCA	98		~		Not Configured	\bigcirc
Arectory	WindCA2	0		~		Not Configured	\bigcirc
Verts	WindCA3	24		~		Not Configured	0
Contact Info	Windnew	19		~		Not Configured	0
word il Relay Host and Time port nostics vare Upgrade nse							

Xel

13. Click **Edit.** Note down the container share/export path, which you will use later to target the DR Series Deduplication Appliance.

	DEVELL DR4100 DavidD-SW-01	
•	Dashboard Alerts Events Edit Container: NN Health	Create Edit Delete Display Statistics
•	Usage Statistic Statistic Storage Contain	In CLES
= =	Replica Use NFS to backup UNIX or LINUX clients Compre Enable NFS Clients Client Access: Schedu Open Access (all clients have access) Replica NFS Options: Clearts or m System or o Active D Map root to:	. Use CIFS to backup MS Windows clients.
8	Local W root ▼ Email A Admin C Passwo Email R Date an Support Diagnos Softwar License	Cancel Modify this Container
L		Cancel Modify this Container
Copy	yright © 2011 - 2013 Dell Inc. All rights reserved.	

14. Click Cancel to exit.



2 Create Disk-Based Target Device on CA ARCserve

2.1 Procedure for the Windows Environment

1. Open CA ARCserve Manager. In Navigation pane expand Administration, Click Device.





2. Select a Server -> Click Disk-Based Device

🐺 CA ARCserve Backup - [Device]									
File Quick Start View Device	Window Help	-					_ 8 ×		
😚 🕹 🗇 🔂 🛛 🕂 × A	VANW-W2K8-02	Cloud Conne Cloud-based	Jisk-based	Device Groups	Group Pro	Browse Clou	Scan Device:		
Quick Start 🛛 🔻 Monitor & Reports 🛛 👻	Servers		There are n	anage Disk-based to items to show it	Device n this view				
Protection & Recovery Image: Constraint of the second se									
Device Oevice Configuration Device Wizard		Manage Cloud Connections							
Device Group Configuration Ø Media Pool		→ Manage Cloud-based Devices → Manage Disk-based Devices	Server Im Server Nan Server Typ	ne ne:	IVANW-W Windows F	2K8-02 Primary Server			
Database		→ Manage Device Groups → Manage Device Group							
User Profile Image: Agent Deployment		Browse Cloud Folder							
Support Feedback		Scan Devices					•		
Manage Disk-based Device							1:40 AM		
CA Technologies ARCserve I	MSP Program 3.0 Sets New Standard for Sim	plicity and Service Provider E	nablement				2		

3. Select **Windows File System Devices** ->Enter a **Device name**, **Description**, DR container share path as **Data File Location**.

📊 CA ARCserve Backup - [Device]								_ 🗆 ×
Sile Quick Start View Device	Window Help								_ <u>8</u> ×
	[IVAN₩-₩2K8-02	Job Tape DB	Cloud Conne	Solud-based	Disk-based	Device Groups	Group Pro	Browse Clou	Scan Device:
Quick Start ▼ Monitor & Reports ▼	Servers				There are	no items to show i	n this view		
Protection & Recovery	k-based Devices Configuration <iv< td=""><td>ANW-W2K8-</td><td>02></td><td></td><td></td><td></td><td>×</td><td></td><td></td></iv<>	ANW-W2K8-	02>				×		
Administration	Disk-based Devices:			Add	Remove	Securi	ty		
Server Admin	Device Name Description I Windows File System Devices	Data File Locati	on Index File	Location Grou	up Name 🛛 Tap	e Name 🛛 Vol	Size		
Central Agent Admi	CIFS FS Description 1	10.250.242.1	26 🕨						
Device									
Device Configuratio									
Configuration								2K8-02	
Media Pool								Primary Server	
Database									
Alert						1			
🔊 User Profile			_	< Back	Next>	Cancel	Help		
			Browse C	loud					
Agent Deployment									
Litilities =			- Scan Dev	lices					
Support Feedback			Refresh						-
	<i>.</i>			Default Server:	IVANW-W2K8-02				1:41 AM
🔊 CA ARCserve® Family of Pi	roducts r16 Release 7								2

	unity Enter credentia	als of domain , click UK	
CA ARCserve Backup - [Device]	Window Help		_ 0
🖇 🔕 🔊 📮 🗙	IVANW-W2K8-02 Job Tape DB	Source Cloud-Conne Cloud-based Disk-based Device Groups Group Pro	Browse Clou Scan Device
Quick Start 🛛 👻 Monitor & Reports 🛛 👻	Servers JVANW-W2K8-02 JVANW-RHEL6-01 JVANW-RHEL6-01	There are no items to show in this view	
Protection & Recovery	-based Devices Configuration <ivanw-w2k8-< td=""><td>02></td><td>1</td></ivanw-w2k8-<>	02>	1
Administration [)isk-based Devices:	Add Remove Security	
Server Admin	Device Name Description Security	Tape Name Vol Size	
Central Agent Admi	CIFS FS Descriptic Deduplication Devices Please specify Use ARCserv	account to access this File System Device: 112.54 GB e System Account (default)	
Device	User Name:		
Device Configuratio	Domain:		
Device Wizard	Procuord	,	
Device Group Configuration	Confirm Password	t.	
Media Pool			2K8-02
Database			Primary Server
Alert		/ Pack Nexts Caread Hele	
Vser Profile		Manage Device Group	
Agent Deployment		Properties	
Itilities		Browse Cloud Folder	
Support Feedback		Scan Devices	
* J		Default Server:TVANWJW2Y8-02	E-00 DM
CA ARCserve® D2D r16 Upd	ate 7 and CA ARCserve® Central Applicatio	n r16 Update 7 :: New!!! End-to-End Bookshelf	10.02 PP

4. 2.1.4 Click on Security... Enter credentials of domain , click OK

5. Click Finish

CUCK I III3II.		
📊 CA ARCserve Backup - [Device	e]	_ 🗆 ×
😝 File Quick Start View Device	e Window Help	_ <u>8</u> ×
😵 🕹 🧇 🔂 🛛 🕂 ×	VANW4W2K8.02 Job Type DB Sol Cloud Conne Disk-based Disk-based Device Groups Group Pro	Browse Clou Scan Device:
Quick Start 🔹 Monitor & Reports 📑	Servers TVANW-W2K8-02 TVANW-RFLE-01 There are no items to show in this view	
Protection & Recovery	sk-based Devices Configuration <ivanw-w2k8-02></ivanw-w2k8-02>	1
Administration	You have configured your Disk-based Devices as follows:	
Server Admin	Device Name Description Data File Lo Index File L Group N Tape Na Report B Windows File System Devices	
Central Agent Admi	CIFS FS Descri \\10.250.24 PGRP0 11/18/1 Add - Successful	
Device		
Device Configuratio		
Device Wizard		
Configuration		
Media Pool		2K8-02
Database		rimary Server
Alert	< Back Finish Cancel Help	
User Profile	Manage Device Group	1
Agent Deployment	Browse Cloud	
Support Feedback	George Daviers	
*		•
	Default Server:IVANW-W2K8-02	5:33 PM
🔊 We value your ideas and s	auggestions	۵

2.2 Procedure for the Unix/Linux Environment

Note:

Make sure that you can mount/verify the NFS share from the UNIX/Linux client system. Please see **Appendix A.1** for how to mount/verify the NFS share.

The procedure for the Unix/Linux Environment is very similar to the procedure for the Windows Environment. The only difference is that DR container NFS export path is used instead of a UNC path, as described below, for **Data File Location**.

For other details, please refer to 2.1 Procedure for the Windows Environment.

📅 CA ARCserve Backup - [Device]	
😝 File Quick Start View Device Window Help	_ B ×
Image: Second	p Pro Browse Clou, Scar
Quick Start	
Monitor & Reports Disk-based Devices Configuration <ivanw-rhel6-01></ivanw-rhel6-01>	×
Protection & Recover Disk-based Devices: Add Remove Security	
Administration Device Name Description Data File Location Index File Location Group Name Tape Name Vol Size	
Server Admin	
Verver Aufmini Verso Descri Verso Descri Verso Descri Vir Central Agent Ac	
Device Device	A
Device Configura	
Device Wizard Exerce Group Configuration	
Media Pool	HEL6-01
Database	IX Data Mover
Alert	
User Profile	_
Support Feedback	•
Default Server:IVANW-W2K8-02	1:33 AM
🔊 CA ARCserve® D2D r16 Update 7 and CA ARCserve® Central Application r16 Update 7 :: New!!! End-to-End Bookshelf	2



3 Create a New Backup Job with DR Series Deduplication Appliance as the Target

1. In the Navigation pane, click **Quick start** -> **Backup**. Then in right side panel, on **Start** tab, set **Select backup types** as **Normal backup** for both CIFS and NFS backup.





2. On **Source** tab, select backup source files.



3. On Schedule tab, set a Custom Schedule or Use Rotation Schema, and Backup Method

TA ARCserve Backup - [Backup]) Window Help	
Image: Start Image: Start	IVANW-W2K8-02 Job Tape DB Image DB <	
Job Status Job Status Backup Backup Archive Restore Server Admin Joshboard Infrastructure Visualization Monitor & Reports	Custom Schedule C Use Rotation Scheme Repeat Method Once	-
Protection & Recovery Administration Utilities Most Recently Used Server Admin Restore Backup Device Support Feedback	Backup Method Full (Keep Archive Bit) Full (Clear Archive Bit) Full (Clear Archive Bit) Differential Use WDRM Media	
Rethinking Backup in a Multif	Default Server:IVANW-W2K8-02	6:11 PM

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File QuickStart View Backup	Window Help					_
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uick Start 🗸 🔻	Start > Source > S	chedule > Destination 🗸	1			
Job Status	Multistreaming Max Number	er of Streams	Use Any Group	Media:	×	
Backup	Multiplexing	· ,	Group PGRP0	Media pool:	Image: Second	
Archive	E Servers	🐚 <device: 2=""> 11/18/13 1:31 A</device:>	м			
Restore						
Server Admin	IVANW-RHELD-01					
Dashboard						
Infrastructure Visualization						
Ionitor & Reports		PGRPO				
dministration		Manage Cloud				
dministration		→ Manage Cloud Connections → Manage Cloud-based	Group Informatio	n	20222	
dministration		Manage Cloud Connections Manage Cloud-based Devices	Group Informatio Group Name Group Type	n	PGRP0 Regular group	
dministration • tilities • Most Recently Used		 Manage Cloud Connections Manage Cloud-based Devices Manage Disk-based Devices 	Group Informatio Group Name Group Type	n 	PGRP0 Regular group	
dministration		 Manage Cloud Connections Manage Cloud-based Devices Manage Disk-based Devices Manage Device Groups 	Group Informatio Group Name Group Type Device Informatio CIFS	n IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	PGRP0 Regular group \\10.250.242.126\backup\	
Initiation dministration tilities Most Recently Used > Server Admin > Restore > Backup > Device		 Manage Cloud Connections Manage Cloud-based Devices Manage Disk-based Oevices Manage Device Groups Manage Device Group Manage Device Group 	Group Informatio Group Name Group Type Device Informatio CIFS	n Dn	PGRP0 Regular group \\10.250.242.126\backup\	
Initiation Image: Control of Recovery dministration Image: Control of Recovery tilities Image: Control of Recovery Most Recently Used Image: Control of Recovery Server Admin Restore Backup Image: Control of Recovery Device Support Feedback		 Manage Cloud Connections Devices Manage Disk-based Devices Manage Device Groups Manage Device Group Properties Browse Cloud 	Group Informatio Group Name Group Type Device Informatio CIFS	n DN	PGRP0 Regular group \\10.250.242.126\backup\	

4. On **Destination** tab, select destination device that is created on DR. Click **Submit**.

5. In Security and Agent Information window, choose an agent server, click OK.

CA ARCserve Backup - [Backup]	Window Help			_ 🗆 X _ 8 X
	IVANW-W2K8-02	Job Tape DB	Options Filter View	
Quick Start 🔻	Start > Source > S	chedule 🗦 Destination 😒		
Job Status	Multistreaming Max Numb	er of Streams	Use Any Group Media:	×
Backup	Multiplexing		Group PGRP0 Media pool	: 📃 💽
Archive	Servers	🐚 <device: 2=""> 11/18/13 1:31 A</device:>	M	
Restore	PGR Security	and Agent Information		
Server Admin	Please	edit or confirm the following security job.	and agent information OK	
bashboard	Object	User Name	Password Agent Cancel	
Infrastructure Visualization		ANW-W2K8-02 (0. Administrator	******* 0.0	
Monitor & Reports			Security	_
Protection & Recovery			Agent	
Administration	•		► Help	
Utilities 🔻		m Manage Cloud-based	Group Information	
		Devices	Group Name	PGRP0
Most Recently Used		Manage Disk-based	Group Type	Regular group
> Server Admin		Devices	Device Information	
> Job Status		Groups	CIFS	\\10.250.242.126\backup\
> Backup		Manage Device Group		
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Support Feedback ¥	<u>т</u>	Browse Cloud		
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🔊 Rethinking Backup in a Multi	faceted World			

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- 📅 CA ARCserve Backup [Backup] _ 🗆 × 🙀 File Quick Start View Backup _ 🗗 🗙 👧 🕭 📀 🔝 Ψ× := Job Tape DB ۲ -IVANW-W2K8-02 Submit Options Filter View Quick Start Start > Source > Schedule > Destination ~ Job Status Multistreaming Max Num 🖅 📋 🗖 Use Any Group Media: ? × Submit Job Backup Г 🖸 🛃 ob Execution Tim Job Details Archive -Job Type Run Now Restore Backup Run Now Job 🔿 Run On 🜏 <u>Server Admin</u> 11/21/2013 💌 Source Nodes bashboard 6:20:30 PM 🚔 IVANW-W2K8-02 (0.0.0.0) Through Agent Infrastructure Visualization Destination Node Group Name PGRP0 Media Name * Source Priority Protection & Recovery Save Job ninistration Job Name: Save Template Utilitie Backup [Custom Preflight Check Most Recently Used up OK Cancel Help Device Informati > Server Admin → Manage Device Groups... > Job Status CIFS \\10.250.242.126\backup\ > Backup Manage Device Group Properties... > Device Support Feedback 👝 Browse Cloud • Þ • Default Server:IVANW-W2K8-02 6:20 PM Mhat's New in CA ARCserve D2D for Windows r16.5 Update 1? 3
- 6. Enter the backup Job Name, choose Job Execution Time, then click OK.

7. When the backup job runs, check **Job Queue** display in **Job Status** window.

File Quick Start View Job Sta	tus Window Help			
t 🕭 🗇 🔂 — म 🗙 ©	Jo	b Tape DB	Stop Custom	Refresh Print Log
uick Start 🗾	CA ARCserve Backup Domain:	Job Queue 🗸 Job History 🖒 Activity Log	> Audit Log >	
Job Status	IVANW-W2K8-02	Show jobs with the status: 🗾 Active	🗹 Ready 🛛 🗹 Hold	🗹 Waiting for target 🛛 🗹
Backup		Job Name Backup Server	Job No. Status	Execution Time
Archive		Database protection inb. IVANW-W2K8-02	2 HOLD	11/21/2013 7:50 DM
Restore		Esackup [Custom] IVANW-W2K8-U2	3 HOLD	<run now=""></run>
Server Admin				
Dashboard				
Infrastructure Visualization				
onitor & Reports 🛛 🔻				
otection & Recovery 🔻				
Iministration 🔻				
ilities 🔻		Job Detail Job Log		
		Job Summary		
Most Recently Used		Backup to Media		
Server Admin		Host Machine	IVANW-W2K8-02	
Job Status		Job Owner	Laiuot	
		Owner Password		
Backup		Domain Name	1VANW-W2K8-02	
Backup Device				
Backup Device Support Feedback		Source Targets	Window - Contorn Marking	
Backup Device Support Feedback		Source Targets IVANW-W2K8-02	Windows System Machine	

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4 Set up DR Native Replication & Restore from Replication Target

Note: Assume DR1 is the replication source DR appliance, and DR2 is the replication target DR appliance. 'ARCsource' is the replication source container, and 'ARCtarget' is the replication target container.

4.1 Create DR Native Replication Session

1. Create a CIFS container 'ARCsource' on DR1; create a second CIFS container 'ARCtarget' on DR2. For each of the containers, on ARCServe server configure a Windows File System Devices within same group.

- CA		- FD1								
	ARCSEIVE BACKU	p - [Device] w Device Window Hi	eln		_	_	_	_	_	
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2. From DR1's GUI management interface, under **Replication** menu, click on **Create**. Set 'ARCsource' container as replication source, set DR2 'ARCtarget' container as replication target. **Start** the replication session, or make sure the replication session is **Online**. You can **Stop** and/or **Delete** the replication whenever it's in INSYNC mode.

Ľ	CEL DR4100					root (Log	out) Help
ran	nboz-sw-01.testad.ocarii 💌 Global View	Replication		Create Edit Delete	Stop Start Ban	dwidth Displa	ay Statistics
-	Dashboard Alerts	Number of Source Replicatio	ns: 2				
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	- Containers						
+ +	-Replication -Clients -Schedules -System Configuration -Support						
Сору	right © 2011 - 2013 Dell Inc. All rigi	hts reserved.					



4.2 Restore from Replication Target

1. Restart ARCserve services. Go to **Administration** -> **Device**. Check and verify the target device.

Job Tape DB Job Tape DB Job Tape DB DAVIDD-W2X8-02 Onitor & Recovery Oministration Server Admin Device Device Configuration Device Group	Cloud Conne Cloud-based	Disk-based Dev Device Inform Vendor Product Name	mation FSD2
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Device Configuration Device Wizard Device Group	Manage Cloud-based Devices Manage Disk-based Devices	Vendor Product Name	FSD2
Device Wizard	Manage Disk-based	Product Name	1052
Device Wizard	Manage Disk-based Devices		
Device droup		Firmware Version	1.0
	Manage Device Groups	SCSI Compliance	N/A
Media Pool	m Manage Device Group	Serial No.	gen3010FSD2
	Properties	Device Path	\\10.250.224.190\ARCtarget\
Here Admin	Browse Cloud	Volume Capacity	156671 MB
Database	Folder	Volume Used Space	28519 MB (18.20%)
Alout	→ Ottline	Volume Free Space	128152 MB (81.80%)
Support Feedback	Refresh	SnapLock	No
Pofeułt Server/DAVII	1		

2. Go to **Quick Start** -> **Restore**. Configure a restore job. Run the job to restore from the target device.

🔢 CA ARCserve Backup - [Restore	1				- 🗆 ×
File Quick Start View Restore	Window Help				- 8 ×
8 & ⊗ 5 ∓ × ∧	DAVIDD-W2K8-02	Job Tape DB O Submit Options	Filter View		
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otilities			Device Path	\\10.250.224.190\ARCtarget\	
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			Volume Free Space	128151 MB (81.80%)	
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S CA ARCserve® Family of Pro	oducts r16 Release 7				3

Set Up the DR Series Deduplication Appliance Cleaner

5

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 as described in the screenshot to force the cleaner to run. Once all the backup jobs are setup the DR Series Deduplication Appliance 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.

D	CLL DR4100 EdwinZ-SV	V-01			Help Log out
	Dashboard Verts Events Health Jsage Statistics: Container	Cleaner Sched System time zone: US/P Note: When no schedule	ule acific, Fri Jul 5 05:00:41 2013	Schedule Cleaner	Edit Schedule
	Statistics: Replication	Day	Start Time	Stop Time	
	Storage	Sun	-		
	Containers	Mon			
	Compression Level	Tue			
	Clients	Wed			
-	Schedules	Thu			
E F	Replication Schedule	Fri			
L	Cleaner Schedule	Sat	-	-	
	System Configuration Vetworking Active Directory .ocal Workgroup Users Email Alerts Admin Contact Info Password Email Relay Host Date and Time Support Diagnostics Software Upgrade License				



Monitoring Deduplication, Compression and Performance

6

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.





A Appendix

A.1 Create a Storage Device for NFS

For NFS backup using the CA ARCserve, a target folder needs to be created as NFS share directory. This is the location to which backup objects will be written. This is not required while adding CIFS share.

 Mount the DR Series Deduplication Appliance NFS share onto the NFS share directory which backup objects will be written in the CA ARCserve. Check the NFS access path:

		Edit Container: backup		
Ľ	Xel	Connection Type [*] : [©] No Access [®] NAS (NFS, CIFS) [©] Rapid Data Ac	* = required f	ields) Help
	nboz-sw- Global V	NFS NFS VISE NFS to backup UNIX or LINUX clients	CIFS CIFS share path: \\10.250.242.126\backup	tatistics
╏╸	Dashbo Alerts	✓ Enable NFS	Enable CIFS	Itainers
	Events Health	Client Access: ☑ Open Access (all clients have access)	Client Access: Open Access (all clients have access)	elect
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	System Networl Active D			
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	Passwo Email R		Cancel Modify this Conta	iner
.	Date and Time Support			
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2. Mount NFS access path in Linux agent server

Example:

[root@IvanW-RHEL6-01 mnt]# mount 10.250.242.126:/containers/backup /mnt/nfs