

Setting Up the Dell[™] DR Series System as an Archive Target on AppAssure 5.3.6

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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 AppAssure 5.3.6. This document is a quick reference guide and does not include all DR Series system deployment best practices.

For additional data management application (DMA) best practice whitepapers, see the DR Series system documentation at <u>http://www.dell.com/support/Manuals/us/en/19/Product/powervault-dr4100</u>.

Note: The DR Series system and AppAssure screenshots used in this document may vary slightly, depending on the DR Series system firmware version and AppAssure version used.



1 Install and configure the DR Series system

- 1. Rack and cable the DR Series system and power it on.
- 2. Initialize the DR Series system. Refer to the *Dell DR Series System Administrator Guide* under the following topics: "iDRAC Connection," "Logging in and Initializing the DR Series System," and "Accessing iDRAC6/iDRAC7 Using RACADM".
- 3. Log in to iDRAC using the default address **192.168.0.120**, or the IP assigned to the iDRAC interface. Use the user name and password of "**root/calvin**".

	ATED DELL RE	MOTE R 6 - ENTERPRISE			Support About	Logout	
System Dell DR4000 root , Admin	Properties System Sur	Setup Power	r Logs Alerts Console-Media Details System Inventory	vFlash Remote File Share		-	
System URAC: 98thigs Batteriss Fans Intrusion Power Supplies Removable Flash Media Temperatures Voltages Power Monitoring	System	Summary			e c	3	1
	Serve	r Health					
	Status	Component		Virtual Console Preview			
		Batteries		Options : Settings			
		Pana					
		Industors .		a and the same and the same and			1
		Power Supplies					1
		Removable Flash	Media				
		Temperatures			-		
		votages		Retesh	Launch		
	Server	Information		Quick Launch Tasks			
	Power	State	ON	Power Otl / OFF		1	
	Oyster	Model	Dell DR4000	Power Cycle System (bold boot)			
	System	Revision	н	Launch Witual Console			
	Dyster	Host Name	DR4000-DKCV6S1 asglab roundrock	View System Event Log			
	Operat	ing System	CentOS	View IDRAC Log			
	Operat	ing System Version	release 5.4 (Final) Kernel 2.6.18-164.e	Update Firmware			
	Service	Tag	DKCV6S1	ResetIDRAC			
	Expres	a Denice Gode	29529104401				
	BIOGV	ersion	1.9.0				
	Firmwa	ere Version	1.80 (Build 17)				-

4. Launch the virtual console.

System Dell DR4000 root , Admin	Properties System Summ	Setup Power ary System I	Logs Alerts ConsoletMedia Details System Inventory	vFlash Remote File Share				
System	System Su	ummary				C	?	
lateries fans	Server H	lealth						
ower Supplies	Status C	component		Virtual Console Preview				
movable Flash Media	💌 в	latteries		Options : Settings			1	
Mages ower Monitoring	Pana Pana							
	💌 In	noisunte						
	Pi Pi	ower Supplies						
	R	comovable Flash I	leda					
	2 10	emperatures			_	-		
	2 w	oitages		-	Retresh Lau	nch		
	Server Info	ormation		Quick Launch Tasks		-		
	Power Stat	ite	ON	Power ON / OFF			1	
	Dystern Mc	odet	Dell DR4000	Power Cycle System (cold boot)				
	System Ro	evision	н	Launch Virtual Console				
	System He	nat Name	DR4000-DKCV6S1 asglab roundrock	View System Event Log				
	Operating	System	CentOS	View IORAC Log				
	Operating	System Version	release 5.4 (Final) Kernel 2.6.18-164.e	Opdate Firmware				
	Bendoe Ta	0	DKCV651	Reset IDRAG				
	Express S	lervice Code /	29529104401					
	ances versa	not	1,9.0					
	Firmware	Version	1.80 (Build 17)					



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 the DR Series system administrator console, using the IP address you just provided for the DR Series system and the username **administrator** and password **St0r@ge!** (the "0" in the password is the numeral zero.).

DELL DR4000 DR4000-DKCV6	\$1	Help
_ogin		Reset Password
	Please enter your password:	
	Username: administrator Password: St0r@gel Log in	
	anapoorangeorem	

9. Join the DR Series system to Active Directory.

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



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

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b. Enter your Active Directory credentials.

DetLL DR4100 edwinz-s	w-01 Help Log sul
Connective of American Incention Global View Dashbuard Arets Events Health Usage Statistics: Container	Active Directory Join Settings The Active Directory settings have not been configured. Click on the 'Join' link to configure them. Active Directory Configuration
Statistics: Replication Storage Containers Replication Compression Level Clients Schedules	Domain Name (FGDN)* Usemame* Password* Op Unit
Replication Schedule Cleaner Schedule System Coefiguration Networking Local Workgroup Users	Cancel Join Domain
Email Addis Admin Contactive Password Email Relay Hoot Date and Time Sepport Diagnostics Gotware Upgrade License	

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

Ľ	DR4100 edwinz-sw	-01					Не	lp Log out
ed	winz-sw-01.ocarina.local 👻	Containers			•	Creat	e Ec Delete Disj	play Statistics
	Dashboard Alerts	Number of Containers: 1					Container Pat	h: /containers
	Events	Containers	Files	NFS	CIFS	RDA	Replication	Select
	Health	backup	1	~	~		Not Configured	0
	Usage				•			
	-Statistics: Container							
	Statistics: Replication							
	Storage							
	Containers							
	Replication							
	Clients							
	Schedules							
-	-Replication Schedule							
	Cleaner Schedule							
	System Configuration							
	Networking							
	Active Directory							
	-Local Workgroup Users							
	-Email Alerts							
	Admin Contact Info							
	Password							
	Email Relay Host							
	-Date and Time							
	Diagnostics							
	-Software Upgrade							
	License							
Cop	yright © 2011 - 2013 Dell Inc. A	Il rights reserved.						



11. Enter a **Container Name** and select the **Enable CIFS** checkbox. (AppAssure supports CIFS protocols.)

		Create New Container:		
				b) Help
		Assign a name to the container select its type, access protocol to use a	nd add clients that need access	
		Container Noma [*]	acters and only letters, numbers, and characters Name the container	
dre	000-09.0			tatistics
I Bi	Global '	Connection Type": O No Access I NAS (NFS, CIFS) O Rapid Data Acc	cess (RDA) (?)	
	Alorte	NFS NFS Access path: vovol-sw-01:/containers	CIFS share path: \\vovol-sw-01\	ntainers
	Events			
	Health	Use NFS to backup UNIX or LINUX clients	Use CIFS to backup MS Windows clients.	elect
	Usage	Enable NFS		0
	Contair	Client Access:	Client Access:	0
	Replica	Open Access (all clients have access)	Open Access (all clients have access)	0
	Storage	Add client (IP or FQDN Hostname):	Add clients (IP or FQDN Hostname)	0
	Contair	Adu	Add	
	Clients	Clients:	Clients:	
	Schedu	_ Remove	^ Remove	0
	System			0
	Networ			0
	Active D		· · · ·	· · · ·
	Local V	NFS Options:		
	Email A	rw insecure		
	-Aumin - Pacewa			
	-Fmail F	Map root to:		
	Date ar	-select-		
	Suppor		Cancel Create a New Container	
Сору	right © 201	1 - 2013 Dell Inc. All rights reserved.		

12. Select the preferred client access credentials.

Container bl		Name the container	
BUUU-U9.C Container N	ame [*] : Max 32 ch	aracters and only letters, numbers, - and _ characters.	Itatiatia
Global Connection	Type [*] : ○ No Access NAS (NFS, CIFS) ○ Rapid Data A	ccess (RDA) ⑦	
Alerts NFS acces	s path: yoyol-sw-01:/containers	CIFS share path: \\yoyol-sw-01\	ntainei
Events Health Use NFS to Enable	n backup UNIX or LINUX client NFS	Use CIFS to backup MS Windows clients.	elect
Contair Client Acce	ISS:	Client Access:	0
Replica Dpen Ad	ccess (all clients have access)	Open Access (all clients have access)	0
Storage Add client ((IP or FQDN Hostname):	r into	0
Replica Clients:		Clients:	0
Schedu	Remove	Remove	0
System			0
Networ			0
Active E			
Local V NFS Option	ns:		
Passwi			
Email F select-	<u>.</u>		
Date ar	*		
Suppor		Cancel Create a New Container	-

Note: For improved security, Dell recommends adding IP addresses for the backup console (AppAssure Core, AppAssure Agent). Not all environments will have all components included.

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

Ľ	CEL DR6000						administrator (L	og out) Help
dr6 	000-09.ocarina.local v - Global View - Dashboard	Containers				Creat	e Edit Delete Dis	play Statistics
	–Alerts –Events –Health –Usage –Container Statistics –Replication Statistics	Message Successfully a Successfully a Successfully a Number of Containers: 9	idded container "AppAssure". Idded NFS connection for cont Idded CIFS connection for cont	ainer "AppAs ainer "AppAs	sure". ssure".		Container Pat	h: /containers
-	Storage	Containers	Files	NFS	CIFS	RDA	Replication	Select
+ -	Replication Clients Schedules System Configuration Networking Active Directory Local Workgroup Users Email Alerts Admin Contact Info Password Email Relay Host Date and Time	aa1 aa2 aa3 aa4 aa5 AppAssure backup rep1 yyy4	15 11 15 15 7 0 0 4 6		> > <th></th> <th>Stopped Not Configured Not Configured Not Configured Not Configured Not Configured Not Configured Not Configured</th> <th></th>		Stopped Not Configured Not Configured Not Configured Not Configured Not Configured Not Configured Not Configured	
+ Copy	right © 2011 - 2013 Dell Inc. All rig	hts reserved.						



14. Click **Edit.** Note the container share/export path, which you will use later to target the DR Series system.

dr6000-09 Global Dasht Alerts	Edit Container: AppAssure Connection Type [*] : O No Access O NAS (NFS, CIFS) O Rapid Da NFS NFS access path: yoyol-sw-01:/containers/AppAssure Use NFS to backup UNIX or LINUX clients. I Enable NFS	*= required fields CIFS CIFS share path: \\yoyoI-sw-01\AppAssure Use CIFS to backup MS Windows clients. I Enable CIFS) Help tatistics ntainers
Events Health Usage Conta Replic Client Softee System Netwo Active Local Email Admin	Client Access:	Client Access:	elect 0 0 0 0 0 0 0 0 0 0 0 0 0
Passy Email Date a	F and Time art	Cancel Modify this Container]

15. To exit, click Cancel.

	Edit Container: AppAssure		
DEL	Connection Type [*] : O No Access	* = required fields) Help
dr6000-09.c	NFS access path: yoyol-sw-01:/containers/AppAssure	CIFS share path: \\yoyol-sw-01\AppAssure	tatistics
Dashbo Alerts	Use NFS to backup UNIX or LINUX clients. Enable NFS	Use CIFS to backup MS Windows clients.	ntainers
Events	Client Access:	Client Access:	elect
Health	Open Access (all clients have access)	Open Access (all clients have access)	0
Contair	NFS Options:		0
Replica	rw insecure ro		0
Storage	Man root to:		0
Replica	root V		0
Clients			•
+ Schedu			0
System Networ			0
Active E			0
Local V			
Email A 			
Passwi		\frown	2
-Email F		Cancel Modify this Container	
⊡Date an	nd Time		
-Support			
Copyright © 201	11 - 2013 Dell Inc. All rights reserved.		



2 Set up AppAssure

2.1 Archive backup images to the DR Series system

To create a backup job and back up a Windows data set, follow steps 1-8 in the procedure that follows. If you already have a backed up data set, skip steps 1-8 and start from step 9 to archive the backup data set to the DR Series system.

Note about Linux backup images: Steps 9-12 in the following procedure is for archiving both Windows and Linux backup images. To generate Linux backup images, see Appendix A.2.

1. Login to AppAssure Core. Click **Configuration -> Repositories -> Add New Repository**.

AppAssure R	320-SYS-44 > Configuration	Contact AppAssure Support docs Version: 5.3.6.125
AppAssure F * #R320.5Y5.44 * Protected Machines # 10.250.233.95 # 10.250.242.12	220-51/5-44 > Configuration	Configuration
		-

2. Type in a repository name and then click Add Storage Location.

AppAssure		
 * R320-SYS-44 Protected Machines 	Home Machines Replication Victorial Standby Events Tools Contract	flow.
10.250.233.95	Man Rep Sec	e Space Compression Ratio
	Even Repository Comments: Ret Concurrent 64	× 29%
	Sett Lice Storage Locations	Add Storage Location
	Metadata Path Data Path Please, add Storage Location.	Size Action
		Create Cancel

3. Enter the **Storage Location** details; the storage location is the target location for backup job. Click **Save**.

Add file on local disk		Add file on CIFS share	
Metadata Path:	c:\test\matadata	UNC path:	\\10.250.243.89\aa2
Data Path:	c:\test\data	User Name:	administrator
		B 1	
e recommend placing the	repository in a dedicated folder (i.e.	Password: X:\Repository\). Placing the repositor	y in the root (i.e. X:\) is not recommended a
e recommend placing the elete of the repository will tails	repository in a dedicated folder (i.e. delete the entire contents of the repo	Password: Xi'Repository'). Placing the repositor ository path.	y in the root (i.e. X:\) is not recommended a Show/Hide Det

4. In the AppAssure core console, click **Home -> Protect Machine**.

AppA	issure	YOYO-W	NCK8R2-0 > Home				Cor	itect AppActure Suppo	ort docs Version: 5.3.6.10
		How	Machines Replication	n Virtual Standby Events Tools	Configuration				
~ Protect	led Machines		000-9002682-0						2
	10.30.149.74		010-WIN2K6K2-0						1.1.1
		Pr	otected Machines					Protect Machi	ine Protect Cluster
		514	tus Machine Hasse		Repository		Last Sciapshot	Recovery Points	Total Protected Space
			0 10.30,149,74		Reportory 1		11/27/2013 12:01:57 PM		8 993.6 MB
		Re	positories						Add New Repository
		Sta	tus Repository Name			Total Size	ree Space Protected Data Mac	hines Recovery Pole	ots Compression Ratio
			Repository 1			183.81 GB	183.64 G8 993.6 MB	1	8 82%
			erts						
		Lee	vel Date	Message					
			11/27/2013 12:00:59 AM	Events, alerts, reports and background jobs	: older than 10/28/2013 12:00:59 AM were deleted f	rom database			
		4	11/27/2013 12:00:59 AM	Nightly 'Checksum Check Job' has been skip	oped. Reason: No agents available for nightly checks	um check			
		4	11/27/2013 12:00:59 AM	Nightly attachability job has been skipped.	Reason: There are no SQL Server instances configu	red for attachability check on the	Core		
			11/26/2013 12:00:57 AM	Events, alerts, reports and background job	s older than 10/27/2013 12:00:57 AM were deleted f	rom database			
		4	11/26/2013 12:00:57 AM	Nightly 'Checksum Check Job' has been skip	ped. Reason: No agents available for nightly checks	rum check			
		4	11/26/2013 12:00:57 AM	Nightly attachability job has been skipped.	Reason: There are no SQL Server Instances configu	red for attachability check on the l	Core		
		4	11/25/2013 11:07:16 AM	A backup of protected machine '10,20,149.1	M has failed.				
		4	11/25/2013 11:01:47 AM	A backup of protected machine '10.30.149.1	14 has been canceled				
		4	11/25/2013 10:54:56 AM	A backup of protected machine 10.30,149.3	M has been canceled				



5. Enter the client machine information and click **Connect**.

(HAL) AppAssure										
		YOYO-WIN2KBR2-0								?
		Protected Machines							Protect Machine	Protect Chaster
										Intel Printerio Space
		0 10.30.149.74			eputtary f			11/27/2013 12:01:57 PM		493.6 MB
		Repositories		Pageway 1 1102003 CONT AN 8 905 and T X Connect T X Hor Tree Space Protected Data Mechanic Researching None 9230 58754 Perce approximation Refer						
			Connec	.t.			Sire True Spar			
		C Reputtory 1	Host:	10.30.149.74	Port: 8	1006	10.41 GB 100.44	(# 992 s. MB		1
	0	Alerts	User nar	ne: administrator	Password:	••••••				
		went Data	deninger.			Connect				
		11/27/2013 12:00:54 AM	Events, elects, reports and enough							
		11/27/2013 12:00-51 AM	lightly Checkson Check Job has b	een skipped. Reason: No ager	ert; available for rightly	checksum check				
		A 11/27/2013 12:00:39 AM	legently attachability job has been a	Ruped. Resone There are no	s SQL Server Instances	configured for attachabilit	try check on the Core			
		11/26/2013 12:00:57 AM	Events, elects, reports and backgroup	und juby ofder than 10/27/20	12 12/00.57 AM were de	elvised from database				
		A 11/26/2013 12:00:57 AM	Highly Checkson Check Job has b	een chipped. Reaton: No ager	nta peritable for vightly	checklum check				
		11/26/2013 12:00:57 AM	lightly attachability job has been a	Noted. Reason: There are no	a SQL Server Instances	costigured for attachabil	By check on the Core			
		A 11/25/2012 11.07 14 44	A having of protected machine "S	20, 520,72 has failed						
		11/25/2013 11/31-47 AM	A backup of protected machine "	30.585.72 fee been canceled	4					
		11/25/2013 10:54:56 AM	A backup of protected machine [3]	SI 18.72 he been second						

6. Check or uncheck each volume group to select the backup data set. To change backup schedules, click **Edit.** Click **Protect**.

Firefox 🔻							. 🗆 ×
😕 Welcome to Firefox	× 😻 Mozilla Firefox Start Page	× 🖾 AppAssure 5 Core	× +				
+ https://r320-sys-44:8006/apprecov	very/admin/Core		☆ ₹ C	<mark>8</mark> ▼ Google	٩	D - +	Â
AppAssure							
✓ 増けR320-SYS-44	Protect 10.250.233.95			? ×			
 Protected Machines 10.250.242.12 	Options					?	
	Display Name: Repository:	10.250.233.95 aa1			ct Machine Protec	t Cluster	
	Encryption Key: Initially pause protection:	(none)		▼ Stry	6	3.48 GB	
	Volumes		Αŗ	pply Default	Add New Re	pository	
	Volume groups			COVI	ery Points Compress	ion Ratio 29%	
	✓ > (Volume Labeled 'Systematic Systematic Systemat	m Reserved')	Every 60 minutes peak, every 60 minutes weekends	Edit			
	✓ > C:\		Every 60 minutes peak, every 60 minutes weekends	Edit			
			(Protect dat	tabase		
	11/26/2013 10:10:15 PM 11/26/2013 10:10:15 PM	Nightly Unecksum Uneck Jol Nightly attachability job has	o has been skipped. Keason: No agents available for been skipped. Reason: There are no SQL Server in:	r nightly checksum che istances configured for	eck r attachability check on	the Core	

7. The machines that have been protected by AppAssure are listed on the left side under **Protected Machines**.

AppAssure R	320-SY5-44 > 10,250,233.95 > Summary Contact AppAssure Support	docs Version: 5.3.6.12
✓ 🕌 R320-SYS-44	Summary Recovery Points Events Tools Configuration	
Protected Machines	10 250 233 95	
A10.250.233.95		
₱ 10.250.242.12	Summary	? • Actions
•	Host: ZHUHAI-2012-01 Last Snapshot: 11/26/2013 Next Snapshot: 11/27/2013 11/27/2013 12:55:06 AM Encryption: Deabled Version: 5:3.6.125	
	(Volume Labeled 'System Reserved') Total size: 350 Used Space: Free space: 108.7 Every 60 minutes peak, every 60 MB 241.3 MB MB minutes weekends	
	C:\ Total size: 199.66 Used Space: Free space: Every 60 minutes peak, every 60 GB 57.15 GB 142.51 GB minutes weekends	548

8. AppAssure creates backup images for the protected machines according to the protection policy. To see the backup images, click **Protected Machines** -> **Recovery Points**.

9. To create an archive job, click **Core Server** -> **Tools** -> **Archive** -> **Create**. Enter all of the required information then click **Archive**.

АррАззиге К ~ Жазда хүл-44 К	120-5Y5-44 × Tools Home Machines	Kotlan Yirtui Standay Tweets <mark>Taob</mark> Ceufiguration	Contact AppAcure Support docs Vienton: 5.3.6.1
 Protected Machines 10.250.233.95 	Tools ~	Create Archive	?
10.250.242.12	Create	Date Range	
	Inport Diagnostics Y	Date range: 11/27/2013 + to: 11/27/2013	te range of your backup images
	Reports *	Location	
		Location: UN0.250.243.89/AppAssure The UNC Example local path. D. Year/Aarchive on nation's path. Viceneeraana (dureases	path of DR
		User name: testadiadministrator The access in	formation to DR
		Password:	
•		Options	
		Maximun Site: 🐵 Entire Target 🔘 200	
		Recycle action: Erace completely -	
		Connert:	
		z	
		Machines	
		의 Agent Hames	
		2 10.250.242.12	
		10.250.233.95	
			Archive

10. To check the archive job details, click the **Events** tab.

	Taska				?	Contraction of Contraction	
	Arabies of 1 agents from 16/27/2012 12:00:00 AM to 11/27/20	12 11.54.55 8M. Archive pats	n. 1015-250-243.891AppAppara	1 M	11/27/2513 12:12:59 AM		
	3 Transfer of volumes (Volume Labeled System Reserved)(Cr))	from 101.250.233.99		Succeeded	11/26/2013 11:55-06-PM	11/27/2013 12:05:55 AM	
10000000						E)	
Archive Start Tie	of 1 agents from 10/27/2013 12:00:00 AM to 11/27/2013 11:59 e: 11/27/2013 12:12:59 AM	9:59 PM. Archive path: \	10.250.243.89\AppAssure				1
Archive Start Tie	of 1 agents from 10/27/2013 12:00:00 AM to 11/27/2013 11:59 n: 11/27/2013 12:12:59 AM	9:59 PM. Archive path: \	110.250.243.89\AppAssure				10 M
Archive Start Tis Details	of 1 agents from 10/27/2013 12:00:00 AM to 11/27/2013 11:55 e: 11/27/2013 12:12:59 AM	9:59 PM. Archive path: V	110.250.243.89\AppAssure				10 10 10 10
Archive Start Tia Details Elapted T	of 1 agents from 10/27/2013 12:00:00 AM to 11/27/2013 11:55 n 11/27/2013 12:12:09 AM ne: 1 minute; 2 second:	9:59 PM. Archive path: V Progress	10.250.243.89\AppAssure 5% 2.75 68 of 57.96 68		Cascel		1 1 1 1 1 1 1
Archive Start Tia Details Elapted T Rate:	of 1 agents from 10/27/2013 12:00:00 Aik to 11/27/2013 11:55 =: 11/27/2013 12:12:59 Aik =: 11/27/2013 12:12:59 Aik =: 1 almute:, 2 (second): 45.59 MB/;	P:59 PM. Archive path: \ Progress: Phase:	110.250.243.891AppAssure 55 2.75 68 or 57.96 68 Punning backup		Cancel		1 10 10 10 10 10
Archive Start Tim Details Elapsed T Rate: Time Ram	of 1 agents from 10/27/2013 12:00:00 Aik to 11/27/2013 11:55 ei 11/27/2013 12:12:59 Aik internet 11/27/2013 12:12:59 Aik internet 1 minuter, 2 seconds 45:59 #8/3 airing: 20 minuter, 41 seconds	P:59 PM. Archive path: \ Progress: Phase:	110.250.243.891AppAssure 115 2.75 GB of 57.96 GB Running bestup		Cancel		



11. The archive job details are displayed on the **Events** tab.

Tasks		?	Active V Complete	e 😥 Falle
Job	Status	Start Time	End Time	Detail
22212	re Succeeded	11/27/2013 12:12:59 AM	11/27/2013 12:35:52 AM	1
Transfer of volumes ((Volume Labeled System Reserved)),Cit) from '40.290,233,99	Succeeded	11/26/2013 11:55:06 PM	11/27/2013 12:05:55 AM	1
Transfer of volumes (E/Q from 10.250.242.12)	Succeeded	11/26/2013 11:00:15 PM	11/26/2013 11:00:34 PM	1
 Rolling up 'l' protected machine(s). 	Succeeded	11/26/2013 10:10:10 PM	11/26/2013 10:10:15 PM	1
 Transfer of volumes (E:1) from '10,290,242.12' 	Succeeded	11/25/2013 11:00:17 PM	11/25/2013 11:00:34 PM	1
Rolling up * protected machine(s).	Succeeded	11/25/2013 10:10:50 PM	11/25/2013 10:10:51 PM	F.
> Waintaining repository 'as'	Succeeded	11/25/2013 5:24:20 PM	11/25/2013 5:25:14 PM	1
Importing 1 protected machines from backup. Path: 110.250.240.18/aa1	Succeeded	11/25/2013 12:40:14 AM	11/25/2013 12:45:18 AM	1
Importing 1 protected machines from backup. Path: \0.10.250.240.18\u00e4a1	Error	11/25/2013 12:17:42 AM	11/25/2013 12:20:42 AM	F
Deleting all recovery points for '10.250.242, 12'	Succeeded	11/25/2013 12:16:39 AM	11/25/2013 12:16:42 AM	1.

12. To return to the Next Step Wizard page, click Finish. To close the window, click Close.



2.2 Restore archived backup images from the DR Series system

1. Click Tools -> Archive -> Import.

AppAssure		320-545-44 + Tools						Contact AppAssure Supp	ort docs Version: 5.3.6.125
~ WROMESNEAD		Home Machines Re	splication Virtual Standby Even	nts Tools	Configuration	_		_	
 Protected Mecl 10.250 	hines .733.95	Tools v	System Info						?
T 10.356	.242.12	Creste Disport Disposition ~ Reports ~	Not Name: GS Verlintecture: Memory (Physical): Display Name: Cuby Qualified Domain Name: Cuby Casilined Domain Name: Cache Metadas Path: Primary Cache Path: Secondary Cache Path:	K020-5Y5-44 Windows Se and64 24 GB R020-5Y5-44 R020-5Y5-44 C:\Program C:\Program C:\Program	ner 2008 R2 Letta cosini. Soci Mittigafiecony Vegalacy HetDet & Cschellet ad Det Mgafiecony Vegalacy HetDet & Geordey Cu	ata e che			
			Volumes						
			Name		Device ID	Raw Capacity	Formatted Capacity	Used Capacity	Mount Points
			(Volume Labeled 'System Reserved')		WhiGLOBALROOT/Device/HanddiskVolume1	100 MB	100 M.B	28.87 MB	
			C:N		While OBALROOT/Device/HanddiskVolume2	199.9 68	799.9 GB	46-22 68	C:N
			FA		WhGLOB4LROOT/Device/HarddiskVolume4	2.53 TB	2.53 78	2.13 TB	F:\
			Replay Engine Connections						Details
			Ð	Local E	and Point Remote End Point Mounted Image D	Visplay Nome		Is Writable Mount	Authenticated User
	3				N	io data to display			

2. Enter the UNC path of the DR container share that holds the archive images. In addition, enter the CIFS credentials for authenticating to the DR Series system. Click **Check File**.

AppAssure	R228-515-44 + Tools	Contact AppAcsure Support docs Version: 5.3.6.12
» Жазалуунда	House Mechines Replication Virtual Standby Events Tools Configuration	
 Protected likehios ♥ 80,250,223,095 ♥ 80,250,242,12 	Acade A	?



3. Under **Agent Names**, select the agent and repository that the archived data will be imported to and click **Restore**.

Dect				
	Constraints of the second seco	port Archive autos ar name: a=ord	Content Social T for a two Restore Re	2
			Reputitory of Care for unprotected select the repository name of core	

4. To monitor the restore process, click **Open Monitor Window**.

	(Dear Marteel Sectories Veter Teeds Dear Contractor	
	Testa * Import Archive.	
	Comp. Control (NULLINGCOMPACING) Interpreter Destroy	
	Dispositio - Unit mine (active) addition additional Reserve - Parameter	
	(bed the	
	Active Task Core Manitor Vision	
AppAssure	K00-5154 x Taily	Contart Applicane Support () deer () Version
АррАзшие	1002/1944 - Tark	Castlant Application Surgicity () decar () Version
AppAssure	NDD 1944 / Task	Contart Appkrove Support) den « Version
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AppAssure CONTRACTOR Notice ted Machines T 10,259,252,95 T 10,259,242,12	KUD SYS44 Face New Constraints of Second Standard Constraints of Second Standard Constraints of Second Sec	Contact AgeAccee Support dans Vendur
AppAssure SSERVE-11 Protected Machines T 10.250.253.95 T 10.250.253.95 Monitor 1	EX055544 + Tech Tech Start March Start Archive Archive Data Start Archive Data Sta	Content Agakaune Support () den () Version
AppAssure Data System The System The System The System The System Monitor J Importing Star Time		Contract Age-Access Support () Acce () Version
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AppAssare Comparison Protected Mac Notes T 10.250.232.55 T 10.250.232.13 T 10.250.232.13 Monitor / Statum Statum Statum Statum Statum	RCD 179-44 - Task Import Archine Impor	Contract Approace Support () Alter () Surveyor Cont Times: 11/22/2013 11/25/45 AM
AppAsare Reserved Machaeles The Internet Sector S	NOD 179-64 - Table Testing Statistics Statistics Statistics Statistics Statistics Statistics Statistics Statistics Statistics	Contact Applicase Support (Anno 1 Version)



5. After the restore is completed, click **Protected Machines** -> **Recovery Points**. Verify that the recovery point(s) have been restored back to the repository.

← the sys-44	R220-575-44 + 10-250-233-95 + Recovery Points -Summery Recovery Points Tools Configurati		_	Сом	ast AppAssure Support docs Version: \$3.6.12
 Protected Hackbins 10.250.233.95 10.250.242.12 	10.250.233.95 Recovery Points Summary				?
	Torsk Recovery Points: 2 Torsk Povessed Dans: 58.62 GB Repository: aa1	Repository St	tus 500 250 400 45	0 500 1 7m	
Ŭ	Recovery Points				· Actions
	Status Encryptical Constants		Туре	Creation Date	Size
	3 💿 🏠 (Volume Labeled 'System Reserved'), CiV		Incremental	11/27/2013 12:55:22 AM	661.69 MB
	(Volume Labeled 'System Reserved'), C:\		Dase	11/26/2013 11:55:06 PM	57.98 GB

6. Each of the recovery points can be expanded to show available operations.

ssure 9020-515-44	i > 10.250.233.95 > Recovery Points			Contact A	opAtsure Support doct Versio
S-44 Report	sitory: as1	est.			
10.250.233.95		0 50 100 150 200 250	300 350 400 450	500	
10.250.242.12		Side (S	uel 🔳	Tree	
Recov	ivery Points				
1 50	tatus Encrypted Contents		Тури	Creation Date	Size
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	(Volume Labeled System Reserved), C:\		Incremental	11/27/2013 12:55:22 AM	661.69 MB
A	Actions				Mount Export • Rolba
0	Contents				
	Status Title				Size
2	Volume Labeled "System Reserved")				1.9
	• • ca				659.7
0	Volume Labeled "System Reserved"), C(\		Base	11/26/2013 11:55:06 PM	57.98 68
	Actions			Mount	Export * Rollback Deler
6	Contents				
	Status Title				Size
	(Volume Labeled 'System Reserved')				269
	+ 0 C/				57.3



Set up the DR Series system cleaner

3

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.

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

If necessary, you can perform the procedure shown in the following screenshot to force the cleaner to run. After all of the backup jobs are set up, the DR Series system cleaner can be scheduled. The DR Series system cleaner should run at least six hours per week when backups are not taking place, and generally after a backup job has completed.

Ľ	DR4100 EdwinZ-SV	N-01				Help Log out
	Dashboard Alerts Events	Cleaner Sche	dule	Sche	edule Cleaner	Edit Schedule
	-Health -Usage -Statistics: Container	System time zone: US Note: When no schedu	Pacific, Fri Jul 5 05:00:41 2013 Ile is set, the cleaner will run as need	ed.		
	Statistics. Replication	Day	Start Time		Stop Tir	ne
	Containers	Sun			-	
	Replication	Mon			-	
	Compression Level	Tue			-	
	Clients	Wed			-	
-	Schedules	Thu			-	
	Replication Schedule	Fri			-	
	Cleaner Schedule	Sat			-	
	System Configuration					
	Active Directory					
	Local Workgroup Lisers					
	Email Alerts					
	Admin Contact Info					
	Password					
	Email Relay Host					
	Date and Time					
	Support					
	Diagnostics					
	Software Upgrade					
	License					
Сор	yright © 2011 - 2013 Dell Inc. /	All rights reserved.				



4 Monitor deduplication, compression, and performance

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

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 are completed, the ratios will increase. Backup jobs with a 12-week retention will average a 15x ratio, in most cases.





A Appendix

A.1 Configure the DR container share as a CIFS storage device on AppAssure

In order to configure the DR container share as an archive destination, AppAssure needs to authenticate to a DR Series system.

• If DR is joined into an Active Directory domain, you must enter [domain_name]\user_id in the User Name field for successful authentication.

AppAssure R00-5Y	75-44 × Tools	Contect AppAssure Support docs Version: 5.3.6.12
- Ramon a	ae Michies Replication Virtual Standby Events Tools Coaligoration	
 Protected Machines To To 250, 223, 95 	eols Create Archive	?
T 10.250.242.12	reste Date Range	
ing Dia	agont sagontics v 10/27/2013 v to 11/27/2013 v	j
Re	aports × Location	
	Location: VDR/000-074.pp4pruve Location Location Location Control Control Parts. Visionariam University International International	
	User name: Testadudninistrator DomainiuserID	
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	Nacimus Ste: 🐞 Entire Target 🔿 200 💷	
	Recycle action: Do not reuse +	
	Connert:	
	<u>×</u>	
	Machines	
	Agent Names	
	10.290.242.12 10.290.233.95	
		Archive

• If DR is configured as a standalone CIFS server, a DR local CIFS user credential can be used.

	Home Machines	Replication Virtual St.	tandby Events Tools Configuration	_
Protected Machines	Tools	import Archive		
10.250.242.12	Create	Location:	VSRk000-09/AppAlssure	
	Diagnostics	u User name:	Administrator	
	Benorts	Password:	·······	



A.2 Back up a Linux client

A.2.1 Install the Linux agent onto the client machine

Note: For more details, see the AppAssure User Guide.

On the Linux client machine, run the commands below as the **root** user:

- 1. Create a new user for Linux Agent useradd approot
- 2. Set a password for the new user passwd approot
- 3. Add the user to the root, daemon, adm, and wheel groups. usermod -G root, daemon, adm, wheel approot

📧 root@IvanW-RHEL6-02:~/Downloads	_ 0
<u>File E</u> dit <u>V</u> iew <u>S</u> earch <u>T</u> erminal <u>H</u> elp	
<pre>[root@IvanW-RHEL6-02 Downloads]# useradd approot [root@IvanW-RHEL6-02 Downloads]# passwd approot Changing password for user approot. New password: Retype new password: passwd: all authentication tokens updated successfully. [root@IvanW-RHEL6-02 Downloads]# usermod -G root,daemon, [root@IvanW-RHEL6-02 Downloads]# groups approot approot : approot root daemon adm wheel [root@IvanW-RHEL6-02 Downloads]#</pre>	dm,wheel approot

4. Install the Linux agent installer.

./appassure-installer_rhel_amd64_5.3.6.125.sh



Note: You can download the Linux agent installer from the AppAssure 5.x link here: <u>http://docs.appassure.com/display/AA50D/AppAssure+5+Previous+Builds.</u>

A.2.2 Back up the Linux client machine

- 1. On the AppAssure Core Console, click Home -> Protect Machine.
- 2. In the **Connect** dialog box, enter the information about the client machine, and then click **Connect**.

lost:	IvanW-RHEL6-02	Port:	8006
Jser name:	approot	Password:	
			Connect

2. In the **Protect** dialog box, edit the settings as needed, and then click **Protect**.

Opti	ons		
Displa	y Name:	IvanW-RHEL6-02	
Repos	itory:	rep01	-
incry	ption Key:	(none)	-
Volu	Imes	Арр	ly Defaul
Volu	Wolume groups	Арр	ly Defaul
Volu V	Volume groups	App Every 60 minutes peak, every 60 minutes weekends	ly Defaul Edit

