



INTEGRATION BRIEF

Backup in a Virtual Environment with Overland-Tandberg and Veeam using RDX[®] QuikStor[™]

Virtualisation enables your computers to run multiple operating systems and applications, maximizing performance and efficiency of IT systems whilst reducing costs. Within a virtualised environment data is stored across multiple physical devices. The increased utilisation and complexity increase the risk of data loss. It this therefore imperative that businesses install robust data protection solutions.

Through our technology partnership, Overland-Tandberg and Veeam have combined best in class hardware and software to provide small and medium businesses with best in class data protection solution for virtual environments.

Overland-Tandberg RDX QuikStor

The RDX QuikStor removable disk storage system offers rugged, reliable and convenient storage for backup, archive, data interchange and disaster recovery. RDX is endorsed by all major OEMs, provides high performance up to 1.2TB/hr* and capacities up to 5TB per cartridge.

Veeam Backup & Replication

Veeam Backup & Replication is the industry leading data protection software for virtualised environments. Powered by Veeam vPower-Technology, Veeam Backup & Replication offers high performance, scalable and reliable data protection for VMware vSphere[®] and Microsoft[®] Hyper-V environments.



* depending in media and interface type

Create a Backup Repository for RDX

Before RDX can be used as a backup target, a backup repository needs to be defined.

REPOSITORY TOOLS HOME BACKUP REPOSITORY							
Add Edit Remove Repository Repository Repository Tools	de						
BACKUP INFRASTRUCTURE	Q. Type in an object name to	search for	×				
 Backup Procise Backup Procise Backup Procise Scale-court Repositories WiNA Accelerators SorreBackup Application Groups Whataged serves Whataged serves Unnux 	NAME 4	TYPE Windows	HOST Demo-Veeam	PATH c/\backup	CAPACITY 39.7 G8	DESCRIPTION Created by Veeam Backup	
BACKUP & REPLICATION							
STORAGE INFRASTRUCTURE							
FILES							
D							

	New Backup Repository
Name Type in a name and	description for this backup repository.
Name Type Server Repository Mount Server Review Apply	Name: RDX Backup Repository Description: Created by DEMO-VEEAMVAdministrator at 10/7/2016 5:36 PM.
	< Previous Ned > Prish Cancel

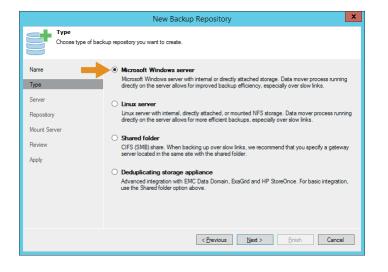
Go to Veeam Backup & Replication home screen: Select **BACKUP INFRASTRUCTURE**

Select Backup Repositories

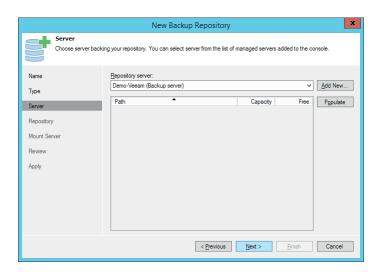
From the top menu: Select **Add Repository**.

The Add Repository wizard starts up, create a name for your new backup repository.

Click Next.







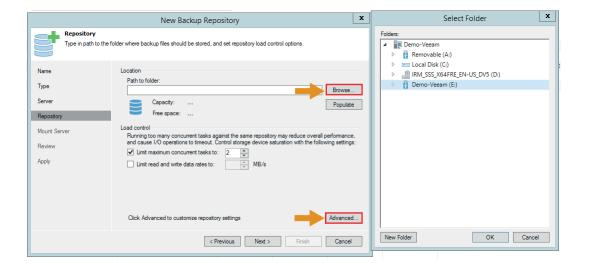
Select the repository server (this guide assumes that this was created previously).

Click Next.

Now choose the backup repository. Click **Browse** and select the RDX drive (Demo-Veeam in our case). Click **OK**.

Limit the maximum concurrent tasks to 2.

Click Advanced.



	Repository	
ſ	Tune in orth to the folder where backun files should be stored, and est reported Storage Compatibility Settings	ev load control options.
Van	Align backup file data blocks Allows to achieve better deduplication ratio on deduplicating storage	
Гур	devices leveraging constant block size deduplication. Increases the backup size when backing up to raw disk storage.	Browse
Ser	Decompress backup data blocks before storing	Populate
Rep	VM data is compressed by backup proxy according to the backup job compression settings to minimize LAN traffic. Uncompressing the data before storing allows for achieving better deduplication ratio on most deduplicating storage appliances at the cost of backup performance.	
	This repository is backed by rotated hard drives	repository may reduce overall performance, device saturation with the following settings:
lev pp	Backup jobs pointing to this repository will tolerate the disappearance of previous backup files by creating new full backup, clean up backup files no longer under retention on the newly inserted hard drives, and track backup repository location across unintended drive letter changes.	MB/s
	Use per-VM backup files	
	Per-VM backup files may improve performance with storage devices benefiting from multiple I/O streams. This is the recommended setting when backing up to deduplicating storage appliances.	
	OK Cancel	Advanced
	< Previous	Next > Finish Cancel

	New Backup Repository
	mount backups to for file-level restores. vPower NFS service allows for running virtual machines directly from ng advanced functionality such as Instart VM Recovery, SureBackup and On-Demand Sandbox.
Name Type Server Repository	Mount server: Demo-Veeam (Backup server) ✓ Demo-Veeam (Backup server) C/dd server
Mourt Server Review Apply	Folder: C: VPogramData Weeam \Backup WisDatastore Browse
	Click Ports to change NFS server and backup mount listener ports
	< Previous Next > Enich Cancel

	New Backup Repository	
Apply Please wait w	hile backup repository is created and saved in configuration. This may take a few minutes.	**
Name	Message	Duration
-	Starting infrastructure item creation job	0:00:01
Туре	Discovering installed packages	
Server	Registering client DEMO-VEEAM for package Transport	
	Registering client DEMO-VEEAM for package vPower NFS	
Repository	Registering client DEMO-VEEAM for package Mount Server	
	Discovering installed packages	
Mount Server	All required packages have been successfully installed	
Review	Detecting server configuration	
neview	Reconfiguring vPower NFS service	
Apply	Creating configuration database records for installed packages	
	Creating database records for repository	
	Backup repository has been added successfully	
	L	
	< Previous Next > Finish	Cancel
		Cancer

To be protected the against all types of disasters, businesses need to store copies of backed up data offsite.

Select This repository is backed by rotated hard drives.

Click **OK**.

Click Next.

Minimum of 3 RDX media should be used in media rotation to minimise the risk of data loss.

Mount a server for file-level restores (usually the same as the backup server).

Click Next.

Review your settings, then click **Next**.

Your backup repository will be created.

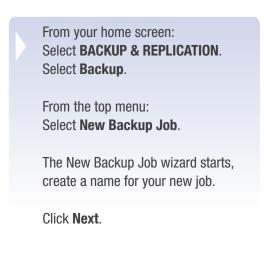
Click **Finish** to exit this menu.

Create a Backup Job

Now we are ready to create a backup job.

	 ≡• HOME VIEW			v	EEAM BACKUP AND REPLICATIO	DN .			- □ × ?	
→	Backup Replication Tape Backup VM File Restor Job Job Job Job × Copy Copy Copy ~ Primary Jobs Auxiliary Jobs F F F F	re Import Backup Restore Failover Plan Failover Plans								
	New Backup Job Q. Type in an object name to search for Yes Yes									
	 ⁴% Jobs ²™ Jobs ²™ Tape ²™ Backups ²™ Disk ² Disk ² Disk (imported) ²™ Tape ² Oils Lat A hours ² Success 	NAME 4	TYPE	OBJECTS	STATUS	LAST RESULT	NEXTRUN	TARGET		
\rightarrow	BACKUP & REPLICATION									
	STORAGE INFRASTRUCTURE									
	FILES									
	C									

	New Backup Job	x
Name Type in a name and	description for this backup job.	
Name	Name:	
Virtual Machines	Backup to RDX QuikStor	
Storage	Description: Created by DEMO-VEEAM\Administrator at 10/7/2016 6:53 PM.	
Guest Processing		
Schedule		
Summary		
	< Previous Next > Einish Cancel	



	Ne	Add Objects X			
Virtual Machines Select virtual machin as you add new VM i		or granularly. Container provides	dynamic selection th	at automatically changes	Select objects:
Name	Virtual machines to backu	ip:		<u> </u>	W1064 - DemoCenter AG Ent Client 3
Virtual Machines	Name	Туре	Size	Add	W1064 - DemoCenter AG Ent Client 4
Storage Guest Processing				Remove	Image: State of the state
-					W8164 - DemoCenter AG Ent Client 4
Schedule				🕇 Up	WS2012R2 - DemoCenter - AccuGuard 8
Summary				Jown	₩S2012R2 - DemoCenter DC ₩ WS2012R2 - DemoCenter Exchange ₩ WS2012R2 - DemoCenter SQL
				Recalculate	BizNAS Webinar Demo - VTX Performance VK9 - DemoCenter
				Total size: 0.0 KB	VSnapServer - DemoCenter V III Frype in an object name to search for
		< Previous	Next > Fin	ish Cancel	Add Cancel

	New Backup Job)		>
Virtual Machine: Select virtual mach as you add new Vi	- ines to process via container, or granularly. Conta	ainer provides dynamic	selection that aut	tomatically changes
Name	Virtual machines to backup:			
14. III II	Name	Туре	Size	<u>A</u> dd
Virtual Machines	W8164 - DemoCenter AG Ent Client 1	Virtual Machine	12.9 GB	Remove
Storage	W8164 - DemoCenter AG Ent Client 2	Virtual Machine	10.1 GB	<u>R</u> emove
Storage	W8164 - DemoCenter AG Ent Client 3	Virtual Machine	12.2 GB	
Guest Processing				Exclusions
Schedule				
Schedule				↑ <u>U</u> p
Summary				↓ Down
,				
				Re <u>c</u> alculate
				Total size:
	<		>	35.3 GB
	< <u>P</u> rev	rious <u>N</u> ext >	Finish	Cancel

	New Backup Job
	praxy server to be used for source data retrieval, backup repository to store the backup files produced by this dvanced job settings if required.
Name Virtual Machines	Backyp proxy: Automatic selection Qhoose
Storage	Backup (epository: RDX Backup Repository (Created by DEMO-VEEAM\Administrator at 10/7/2016 v
Guest Processing Schedule	31.1 GB free of 74.5 GB Map backup
Summary	Retention policy Regione points to keep on disk:
	Configure secondary destinations for this job Copy backups produced by this job to another backup repository, or to tape. Best practices recommend maintaining at least 2 backups of production data, with one of them being off-site.
	Advanced job settings include backup mode, compression and deduplication, block size, notification settings, automated post-job activity and other settings.
	< Previous Next > Prinish Cancel

Click **Add** to open the virtual machine selection menu.

Select the desired machines and click **Add**.

The selected machines are displayed, and the total backup size is calculated.

Click Next.

Select the backup repository we just created as the backup target.

Specify the number of recovery points depending on your backup strategy.

You might choose some advanced options by clicking **Advanced**.

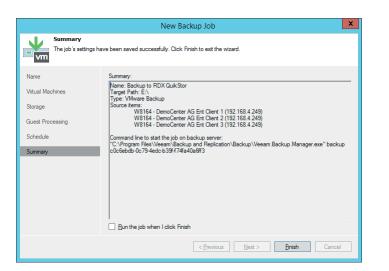
Click Next.

We recommend keeping a minimum of 7 recovery points to provide complete data protection, in case of a virus attack, hardware failure or human error.

	New Backup Job						
Guest Processin Choose guest OS p	g rocessing options available for running VMs.						
Name Virtual Machines	Enable application-aware processing Detects and prepares applications for consistent backup, performs transaction logs processing, and configures the OS to perform required application restore steps upon first boot.						
Storage	Customize application handling options for individual VMs and applications						
Guest Processing	Enable guest file system indexing Creates catalog of guest files to enable browsing, searching and 1-click restores of individual files. Indexing is optional, and is not required to perform instant file level recoveries.						
Schedule	Customize advanced guest file system indexing options for individual VMs						
Summary	Guest OS credentials						
	✓ Add						
	Manage accounts						
	Customize guest OS credentials for individual VMs and operating systems						
	Guest interaction proxy:						
	Automatic selection						
	<u>T</u> est Now						
	<previous next=""> Prish Cancel</previous>						

ick Next .	
tions. Otherwise skip this	•
ickups, choose guest proc	nnioso
case of database or excha	ange

New Backup Job x Schedule Specify the job scheduling options. If you do not set the schedule, the job will need to be controlled manually. Bun the job automatically
 Daily at this time:
 Daily at this time:
 Don PM
 Everyday
 Dayg...
 Monthly at this time:
 10:00 PM
 Fourth
 V Saturday
 Morths...
 Periodically every:
 1
 V Hours
 V Schedule...
 Demo VMs to RDX (Created by DEMO-VEEAM'Administrator at 11 v Name Virtual Machines Storage Guest Processing Schedule Summary Automatic retry utomato retry ✓ Retry failed VMs processing: 3 ☆ times Wat before each retry attempt for: 10 ☆ minutes Backup window _____Terminate job if it exceeds allowed backup window If the job does not complete within allocated backup window, it will be terminated to prevent snapshot commit during production hours. < Previous Create Enish Cancel



Setup the backup schedule according to your requirements.

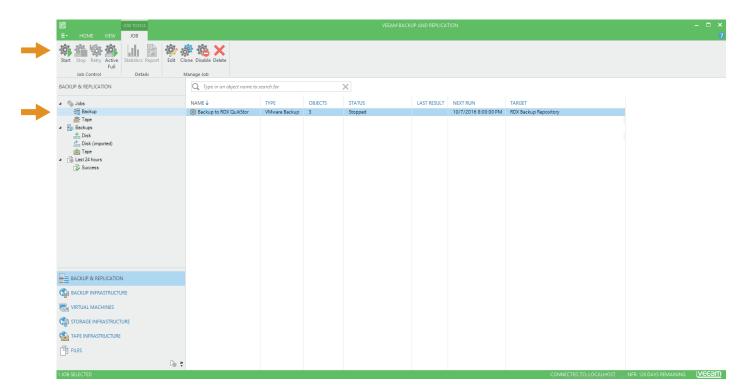
Click Create.

The backup job is created, and your backup settings are displayed

Click Finish.

Run your Backup Job

The backup job has been created successfully and will run as per the specified schedule. You can start the backup job at any time by selecting the job and clicking "Start."



The backup job has started. Informations about status and progress are displayed.

I IONE VEV VID Image: Second Region	VEEAM BACKUP AND REPLICATION -									
NAME 4 TYPE OBJECTS STATUS LAST RESULT NDLT RUN TARGET #Backup \$\$\$ Backup to RDX QuicStor VMware Backup 3 1% completed at 90 MB/s 107/2016 8:00:00 PM RDX Backup Repository Bob kore Data										
Backup Skackup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMware Backup 3 1% completed at 90 MB/s 10/7/2016 8.00.00 PM RDX Backup Repository Backup to RDX QuikStor VMmare Backup 5 1										
Backups Job progress: Image: Control of the progress: Image: Contro of the progress:										
SUMMARY DATA STATUS THROUGHPUT (LAST 5 MIN) Duration: 0.0138 Processed: 896.0 MB (1%) Success: 0										
DATA STATUS THROUGHPUT (LAST 5 MIN) Duration: 0.0124 96.0 MB (1%) Success: 0 <th>0 of 3</th>	0 of 3									
BACKUP & REPLICATION Outside Outside Processed 856.0 MB (1%) Success: 0 BACKUP & REPLICATION Bottleneck: Source Transferred: 559.6 MB (1.6c) Errors: 0 Image: Control of Co										
BACKUP & REPLICATION Outside Outside Processed 856.0 MB (1%) Success: 0 BACKUP & REPLICATION Bottleneck: Source Transferred: 559.6 MB (1.6c) Errors: 0 Image: Control of Co										
Processing rate: 90 MB/s Read: 896.0 MB Warnings: 0 Battlenect: Source Transferred: 559.6 MB (1.6.) Errors: 0										
Bottleneck: Source Transferred: 559.6 MB (1.6v) Errors: 0										
	DURATION									
P → → → → → → → → → → → → → → → → → → →										
g VIRTUAL MACHINES 🔐 W8164 🕥 0% 🕑 Building VMs list	0:00:37									
STORAGE INFRASTRUCTURE De Willie - Dending Of Marceland Contraction in and and a contraction of a contractio										
Changeo block tracking is enabled	0:00:01									
TAPE INFRASTRUCTURE	0:00:47									
RLES (Processing Weith - DemoGeneral AG End Client 2	0:00:41									
Waiting for backup infrastructure resources availability	0:00:41									

The backup job has finished successfully.

JOB TOOLS	VEEAM BACKUP AND REPLICATION – 🗖 🗘									
E+ HOME VIEW JOB										?
Start Stop Retry Active Full	ione Disable Delete	2								
Job Control Details	Manage Job									
BACKUP & REPLICATION	Q Type in an	object name to :	search for		×					
a % Jobs	NAME 4		TYPE	OBJECTS	STATUS		LAST RESULT	NEXT RUN	TARGET	
∰ Backup	🔅 Backup to RD	X QuikStor	VMware Back	up 3	Stopped		Success	10/7/2016 8:00:00 PM	RDX Backup Repository	
 ▲ Beckups ▲ Disk ▲ Disk (imported) ▲ Tape ▲ Last 24 hours ▲ Success 										
	SUMMARY	JMMARY DATA				TA STATUS THROUGHPUT (ALL TIME)				
	Duration: 0:11:01 Processed:			incessed: 3						Speed: 115.3 MB/s
Processing rate: 67 MB/s					3.2 GB Warnings:					
	Bottleneck:	Targe			1.4 GB (2.3x)	Errors:	0			
BACKUP & REPLICATION	NAME	STATUS	A	CTION 🕹						DURATION
	W8164			Building VMs list						0:00:37
BACKUP INFRASTRUCTURE	W8164	VW SIZE 90.0 GB (53.5 GB USED)								
VIRTUAL MACHINES		Changed block tracking is enabled								0:00:01
										0:06:59
STORAGE INFRASTRUCTURE				Processing W8164 - DemoCenter AG Ent Client 1						0:06:40
TAPE INFRASTRUCTURE				Processing W8164 - DemoCenter AG Ent Client 3						0:09:54
			All VMs have been queued for processing							
FILES	Cload: Source 31% > Proxy 27% > Network 36% > Target 63%									
				Primary bottleneck:						
C∰ ¥			0	Job finished at 10/7	/2016 7:59:35 P	М				×
1 JOB SELECTED									CONNECTED TO: LOCALHOST	SNFR: 126 DAYS REMAINING

Recommendations

The RDX QuikStor drives are recognized by Veeam as Removable Disk Devices which enables selection of a retention policy that specifies the number of restore points Veeam will retain on the RDX media (see page 6). Veeam will indicate the total number of restore points that are available on the existing media. When a new (blank) RDX media is inserted to do media rotation, Veeam Backup & Replication will perform a new full backup.

Activation of the **Reverse Incremental** backup method in advanced job settings is recommended. However, when you want to perform permanent full backups, the RDX cartridge needs to be deleted prior to the backup job. To do so, set the value of **ForceDeleteBackupFiles** to **5** in the registry entry of

HKEY_LOCAL_MACHINE\Software\Veeam\Veeam Backup and Replication.

WARNING: This will delete the entire content of the RDX media. All files will be lost.

For further information and registry values read <u>knowledge base article #1154</u> at the Veeam support webpage.

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