

# 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 is 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

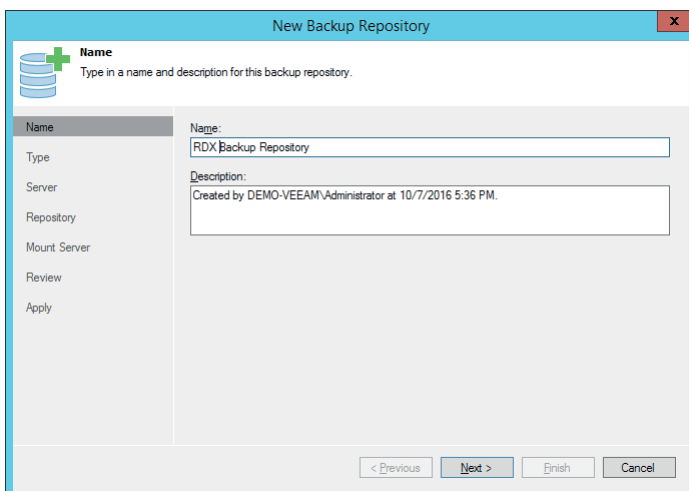
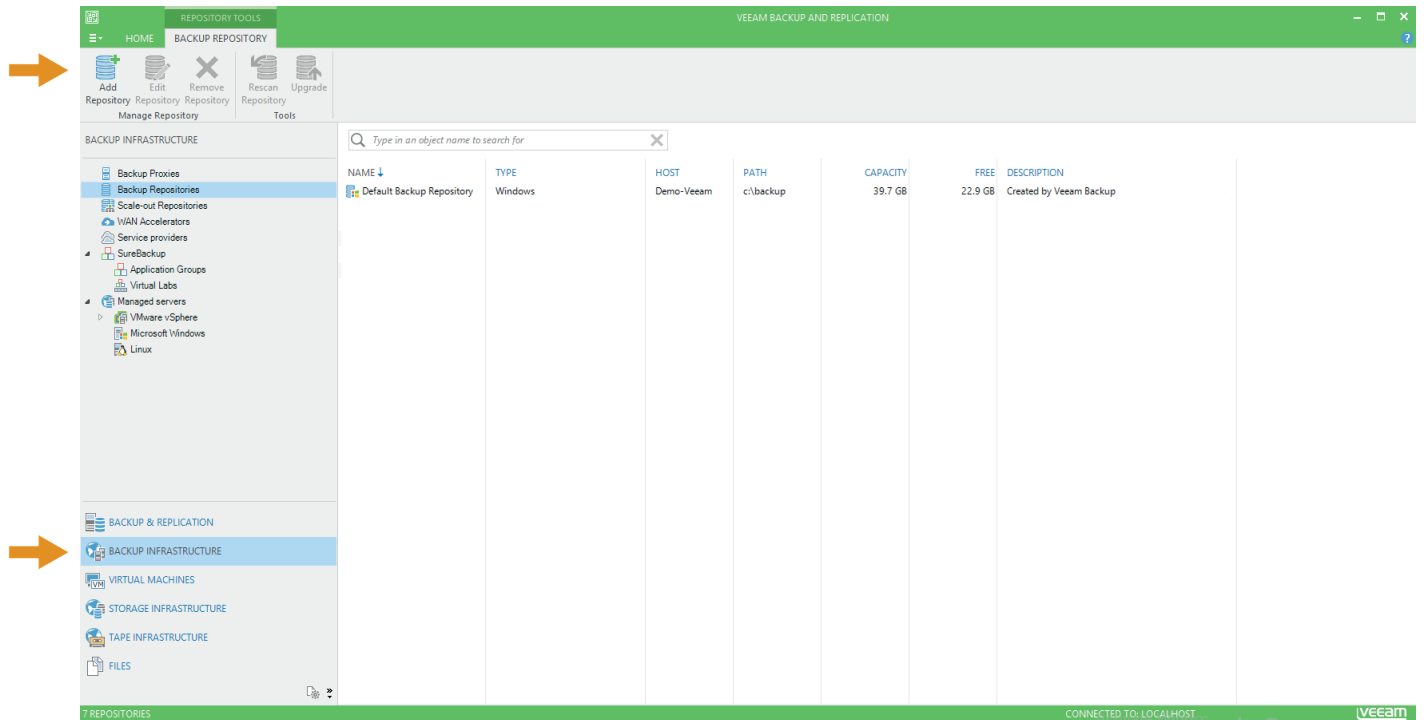
Veeam Backup & Replication is the industry leading data protection software for virtualised environments. Powered by Veeam vPower-Technology, Veeam Backup & Replication offers high performance, scalable and reliable data protection for VMware vSphere® and Microsoft® Hyper-V environments.



\* 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.



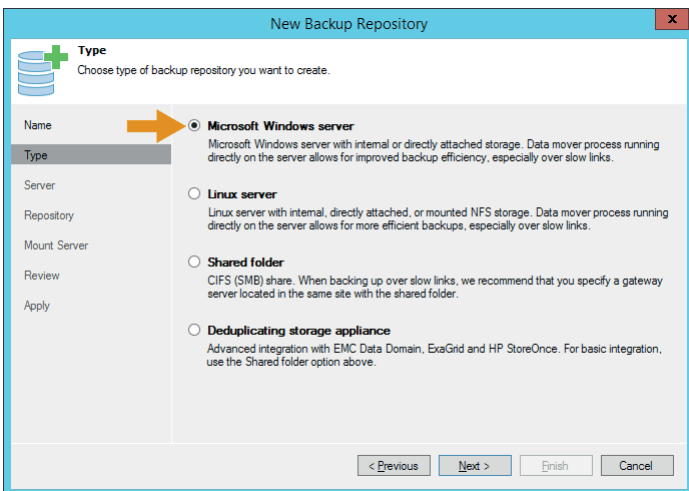
Go to Veeam Backup & Replication home screen:  
Select **BACKUP INFRASTRUCTURE**

Select **Backup Repositories**

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

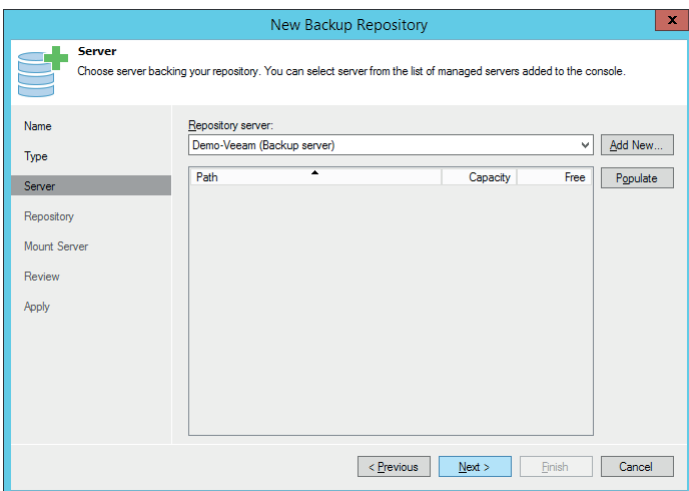
The Add Repository wizard starts up, create a name for your new backup repository.

Click **Next**.



Select **Microsoft Windows Server** as the RDX QuikStor is directly attached to the server.

Click **Next**.



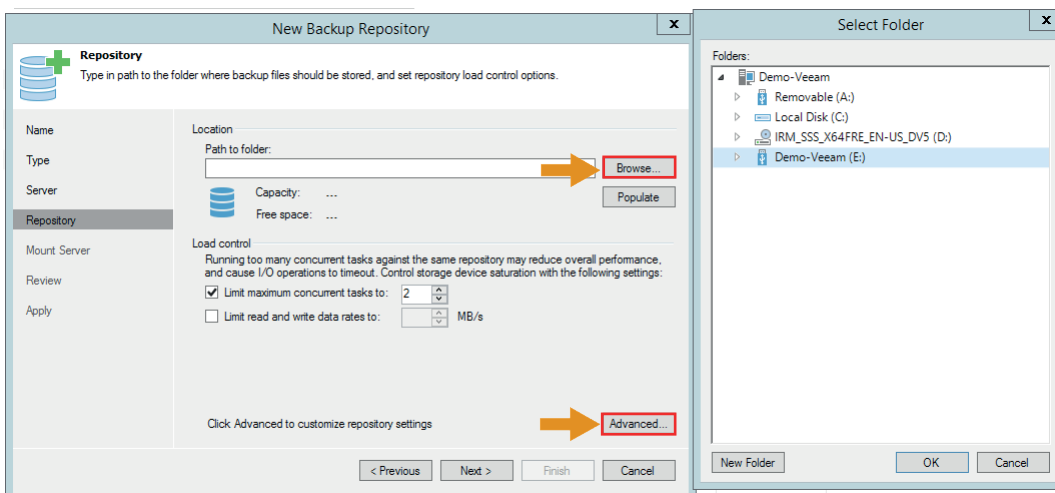
Select the repository server (this guide assumes that this was created previously).

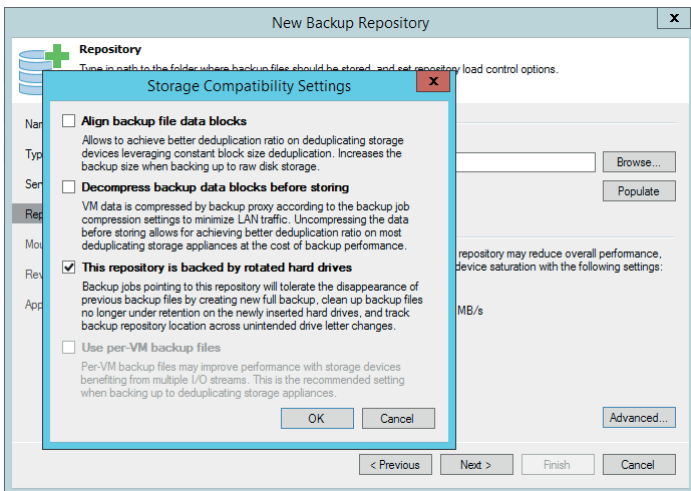
Click **Next**.

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**.





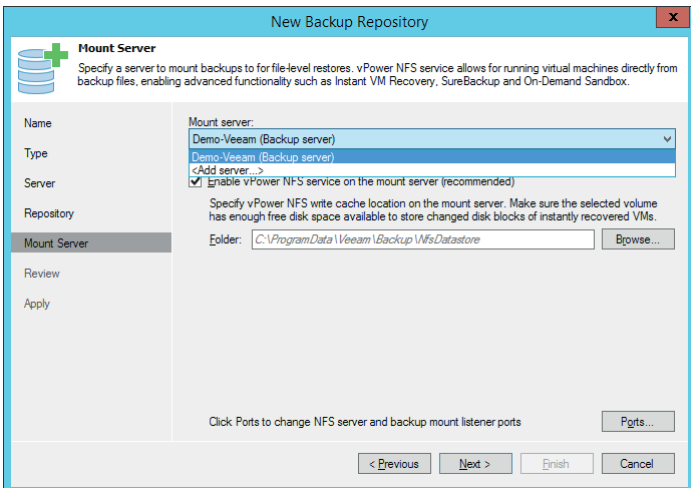
To be protected the against all types of disasters, businesses need to store copies of backed up data offsite.

Select **This repository is backed by rotated hard drives**.

Click **OK**.

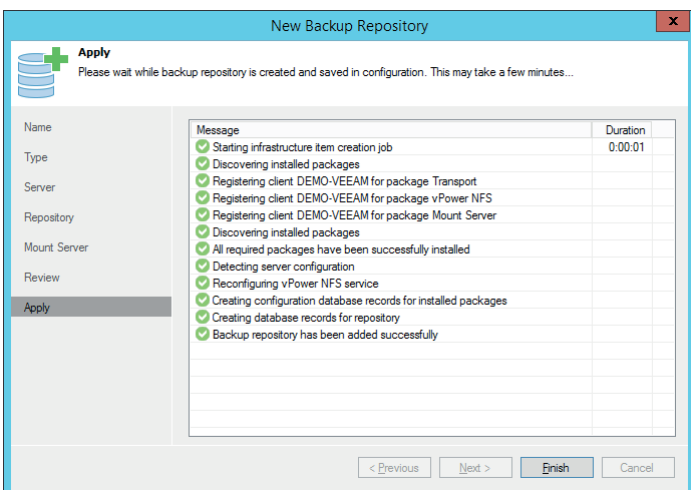
Click **Next**.

*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**.



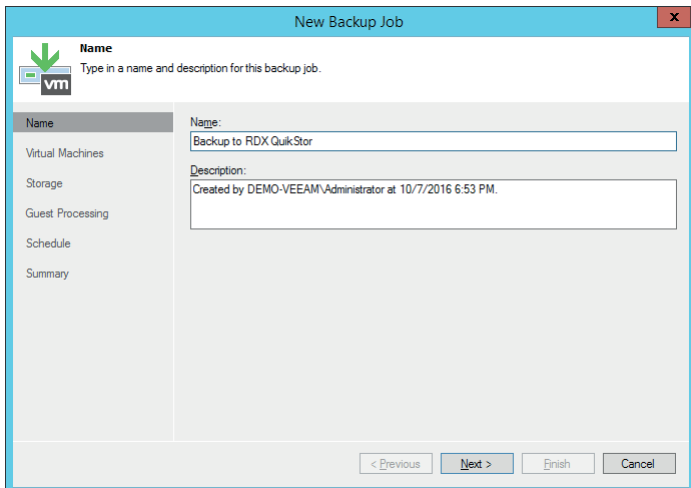
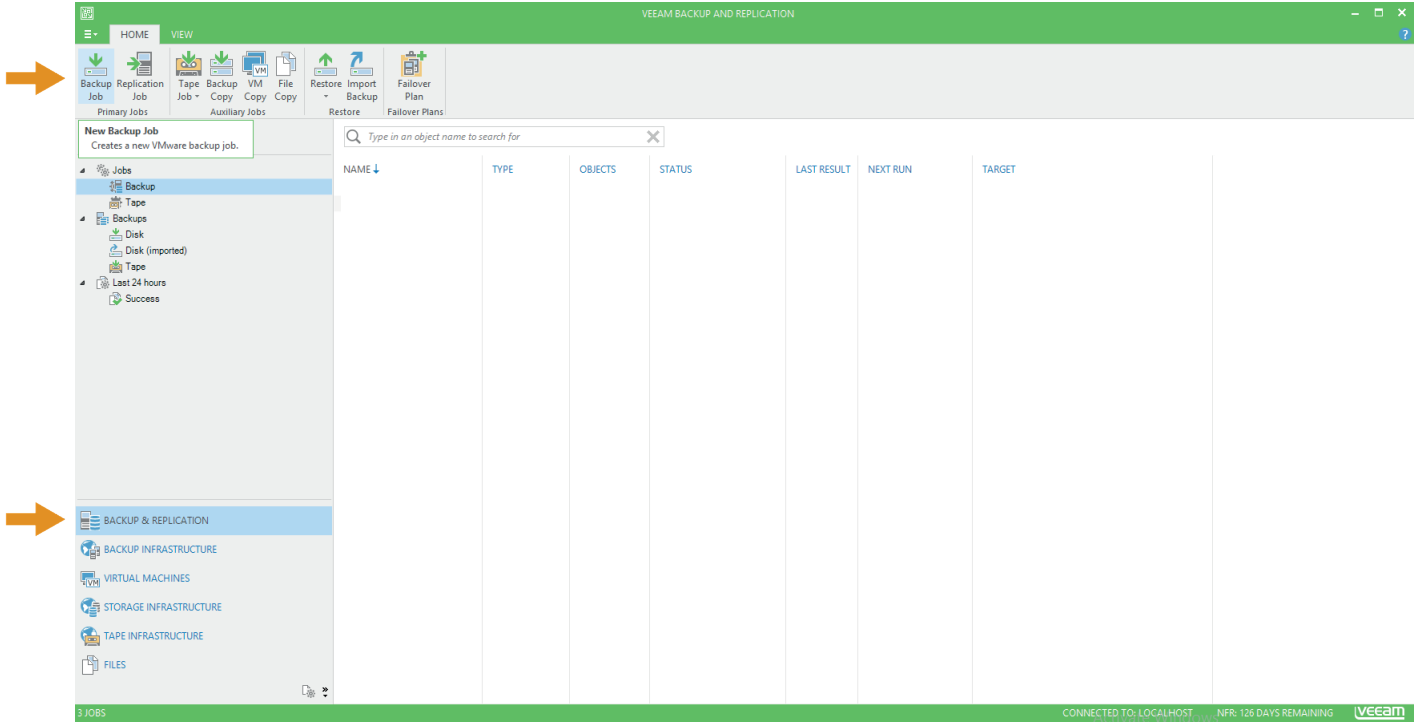
Review your settings, then click **Next**.

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.

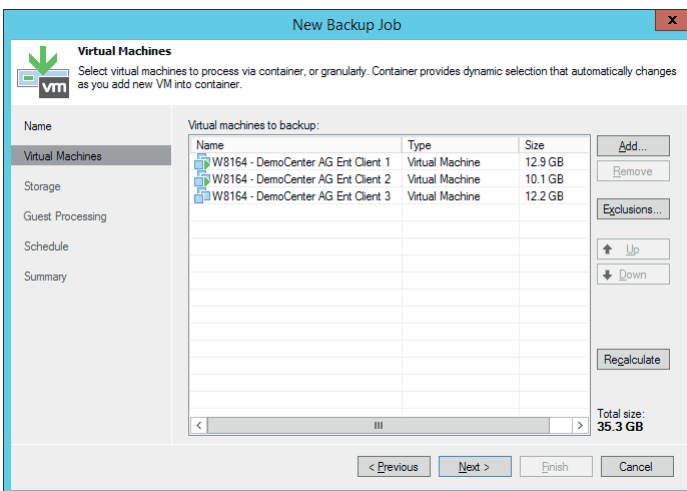
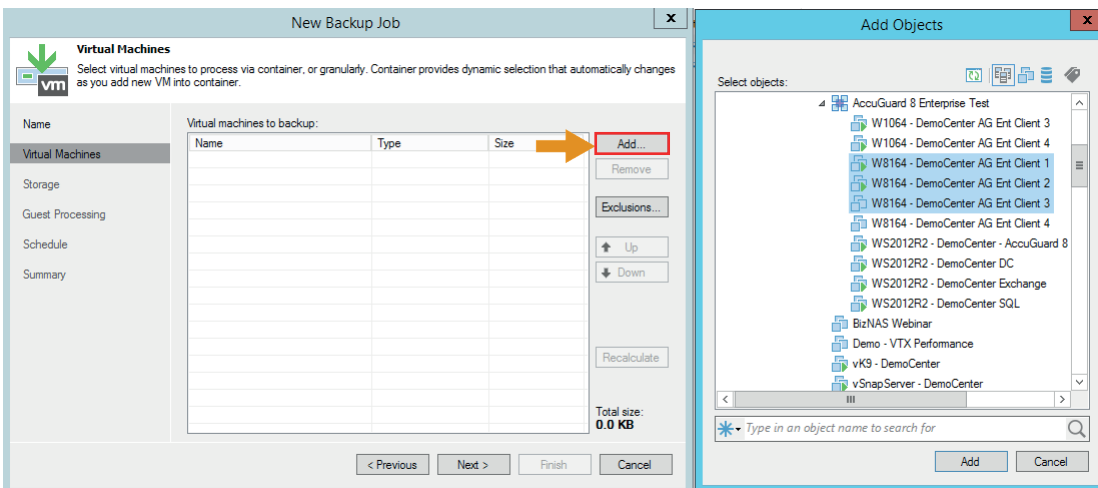


From your home screen:  
 Select **BACKUP & REPLICATION**.  
 Select **Backup**.

From the top menu:  
 Select **New Backup Job**.

The New Backup Job wizard starts,  
 create a name for your new job.

Click **Next**.

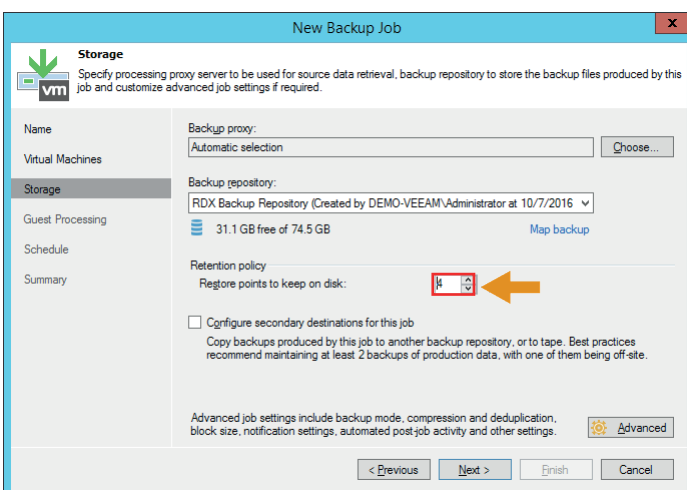


Click **Add** to open the virtual machine selection menu.

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

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

Click **Next**.



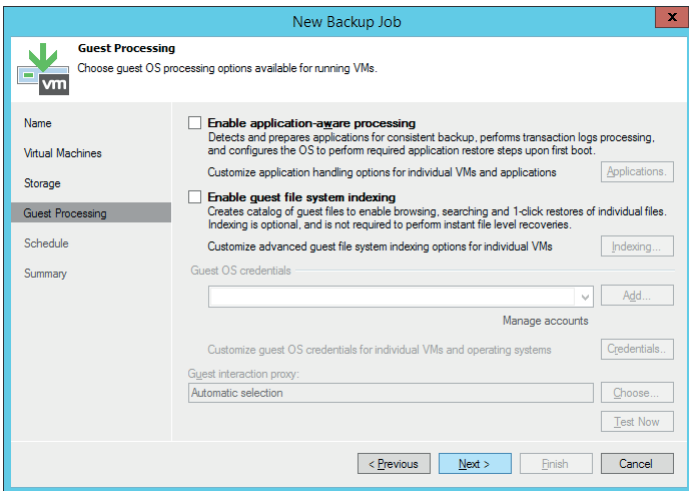
Select the backup repository we just created as the backup target.

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

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

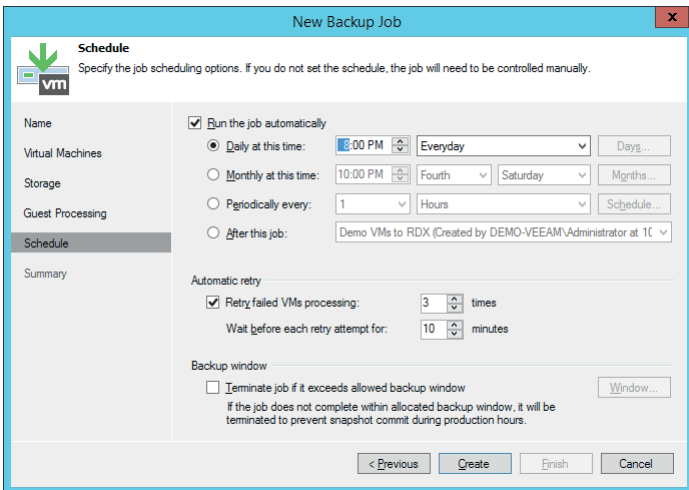
Click **Next**.

*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.*



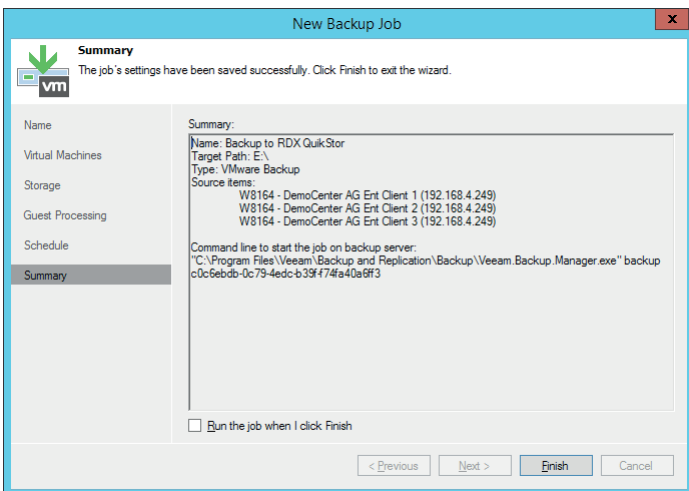
In case of database or exchange backups, choose guest processing options. Otherwise skip this menu.

Click **Next**.



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 screenshot shows the Veeam Backup & Replication console. The 'JOB TOOLS' menu is visible at the top, with the 'Start' button highlighted by an orange arrow. The main area displays a table of backup jobs. The job 'Backup to RDX QuikStor' is selected, showing it is 'Stopped' with 3 objects. The 'Next Run' is scheduled for 10/7/2016 8:00:00 PM. The left sidebar shows the navigation tree with 'Backup & Replication' selected.

NAME	TYPE	OBJECTS	STATUS	LAST RESULT	NEXT RUN	TARGET
Backup to RDX QuikStor	VMware Backup	3	Stopped		10/7/2016 8:00:00 PM	RDX Backup Repository

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

The screenshot shows the Veeam Backup & Replication console with the backup job 'Backup to RDX QuikStor' now in a 'Running' state. The 'Start' button is no longer highlighted. The job progress bar shows 1% completion. The summary and action log are visible below the table.

NAME	TYPE	OBJECTS	STATUS	LAST RESULT	NEXT RUN	TARGET
Backup to RDX QuikStor	VMware Backup	3	1% completed at 90 MB/s		10/7/2016 8:00:00 PM	RDX Backup Repository

Job progress: 1% (0 of 3 VMs)

SUMMARY	DATA	STATUS	THROUGHPUT (LAST 5 MIN)
Duration: 0:01:38	Processed: 896.0 MB (1%)	Success: 0	
Processing rate: 90 MB/s	Read: 896.0 MB	Warnings: 0	
Bottleneck: Source	Transferred: 559.6 MB (1.6x)	Errors: 0	

NAME	STATUS	ACTION	DURATION
W8164 - ...	3%	Job started at 10/7/2016 7:48:33 PM	
W8164 - ...	0%	Building VMs list	0:00:37
W8164 - ...	Pending	VM size: 96.0 GB (35.3 GB used)	
		Changed block tracking is enabled	
		Rotated drive letter did not change	0:00:01
		Processing W8164 - DemoCenter AG Ent Client 1	0:00:47
		Processing W8164 - DemoCenter AG Ent Client 2	0:00:41
		Waiting for backup infrastructure resources availability	0:00:41



The backup job has finished successfully.

The screenshot shows the Veeam Backup and Replication console. The main window displays a table of backup jobs. The selected job is 'Backup to RDX QuikStor', which is a VMware Backup of 3 objects, completed successfully on 10/7/2016 at 8:00:00 PM. Below the table, a summary and data section shows that 35.3 GB (100%) were processed, 33.2 GB were read, and 14.4 GB (2.3x) were transferred. A throughput graph shows a peak speed of 115.3 MB/s. The bottom section lists actions such as 'Building VMs list', 'VM size: 96.0 GB (35.3 GB used)', and 'All VMs have been queued for processing'.

NAME	TYPE	OBJECTS	STATUS	LAST RESULT	NEXT RUN	TARGET
Backup to RDX QuikStor	VMware Backup	3	Stopped	Success	10/7/2016 8:00:00 PM	RDX Backup Repository

SUMMARY	DATA	STATUS
Duration: 0:11:01	Processed: 35.3 GB (100%)	Success: 3
Processing rate: 67 MB/s	Read: 33.2 GB	Warnings: 0
Bottleneck: Target	Transferred: 14.4 GB (2.3x)	Errors: 0

NAME	STATUS	ACTION	DURATION
W8164 - ...	Success	Building VMs list	0:00:37
W8164 - ...	Success	VM size: 96.0 GB (35.3 GB used)	
W8164 - ...	Success	Changed block tracking is enabled	
		Rotated drive letter did not change	0:00:01
		Processing W8164 - DemoCenter AG Ent Client 1	0:06:59
		Processing W8164 - DemoCenter AG Ent Client 2	0:06:40
		Processing W8164 - DemoCenter AG Ent Client 3	0:09:54
		All VMs have been queued for processing	
		Load: Source 31% > Proxy 27% > Network 36% > Target 63%	
		Primary bottleneck: Target	
		Job finished at 10/7/2016 7:59:35 PM	

## 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 [knowledge base article #1154](#) at the Veeam support webpage.