

Integrating RDX® QuikStor™ into QNAP® NAS Backup

QNAP NAS Systems provide an OS-built in utility to secure business critical data. With the integration of Tandberg Data's RDX QuikStor removable media system, users can now implement a full disaster recovery protection solution or use it with QNAP's Virtualization Station for data protection.

All QNAP NAS storage systems offer data redundancy via RAID technology. RAID doesn't protect you from data losses and it should be backed up to an external device to be protected against hardware failures or human errors regularly. An easy to use built in utility allows scheduled backups to USB attached devices like memory sticks or external hard disks.

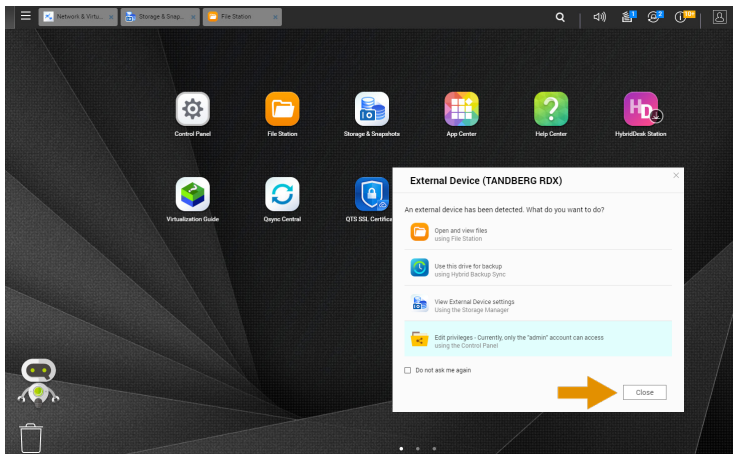
However, these devices don't offer much reliability and durability, as they are not specifically designed for backup and archiving tasks with on/offline storage requirements. The RDX QuikStor removable storage system is a media based rugged, reliable and convenient backup appliance, which fits perfectly into a professional backup strategy. With its USB3+ technology, RDX QuikStor easily attaches to QNAP NAS system's USB3.0 port and is ready to go.

After the backup job has completed, the RDX QuikStor media can be ejected to be placed into a secure location. Another media should then be inserted for the next backup job. This media rotation scenario provides the best protection against data loss and unpredictable failures and disasters.

The following guide explains how to integrate a RDX QuikStor drive directly to a QNAP NAS system and how to schedule a backup job. In addition, this guide refers to the QNAP **Virtualization Station** and explains how RDX is assigned to virtual machines.



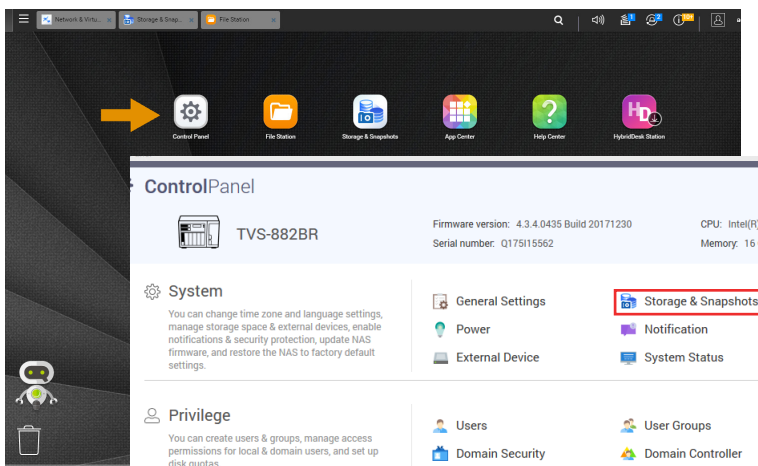
Introduce RDX QuikStor to QNAP NAS



Start your NAS system and connect your RDX QuikStor drive to the USB 3.0 port at the back of your NAS system. Insert an RDX media into the drive.

There might start a popup window, offering some options.

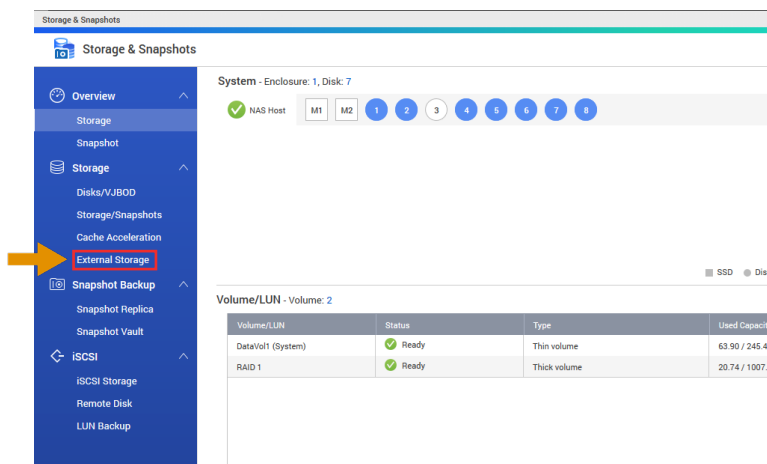
Click **Close**.



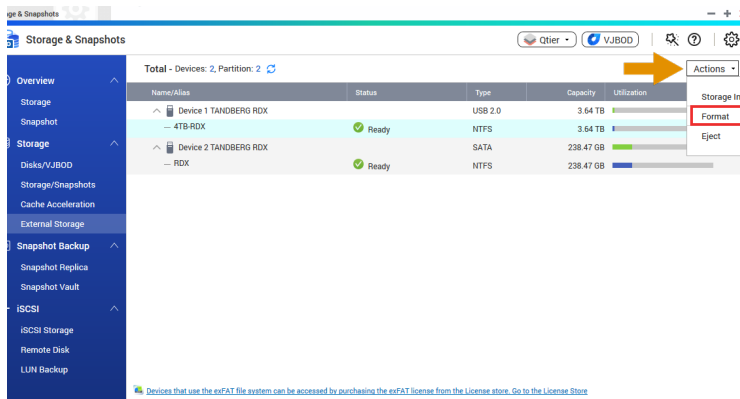
RDX media are preformatted with NTFS for Windows compatibility and are ready to use for backup. You might want to change this to EXT4 for maximum backup performance.

If you want to keep the NTFS filesystem, proceed to the next chapter!

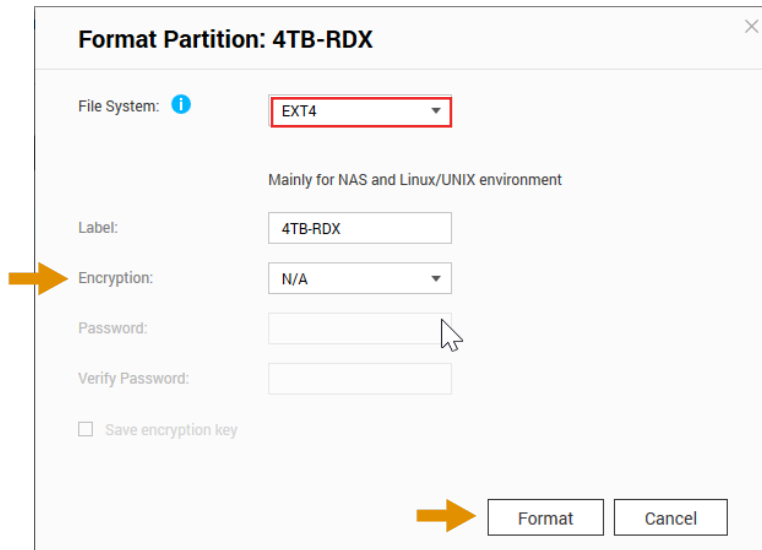
Otherwise click on **Control Panel** and choose **Storage & Snapshots**.



Choose **External Storage**.



All attached RDX drives are displayed. Select the desired drive and click on **Actions** and **Format**.



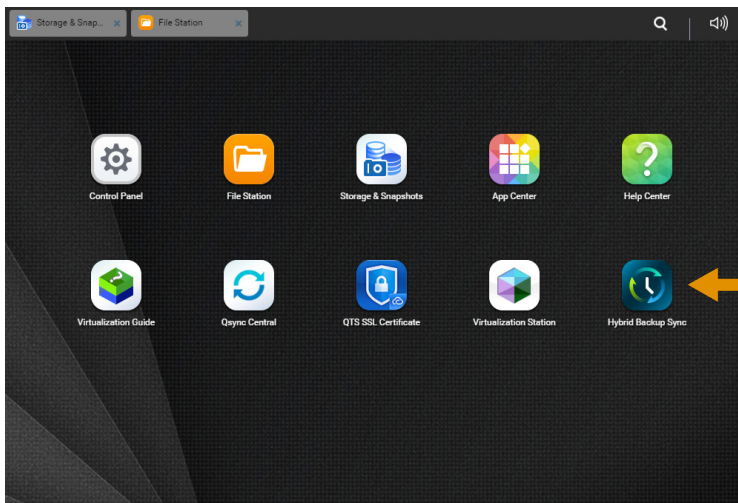
Choose the desired filesystem and enter a label. You might want to enable encryption to ensure that data on RDX media cannot be accessed during transport and off-site storage.

In this case, a password is required.

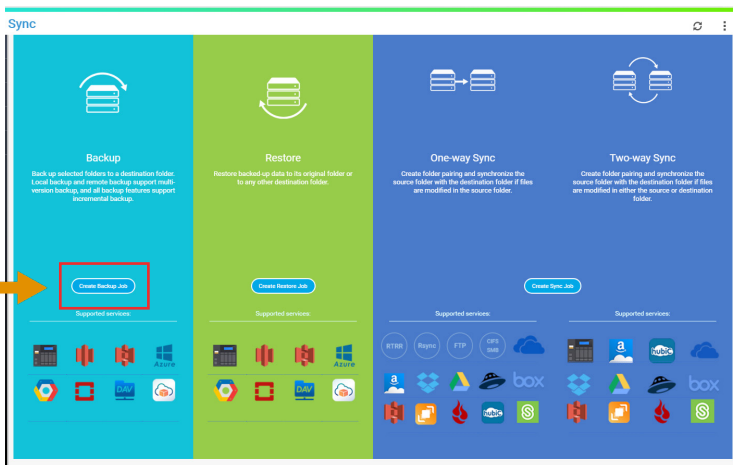
Click on **Format**.

The device is now ready to use.

Create a Backup Job to RDX



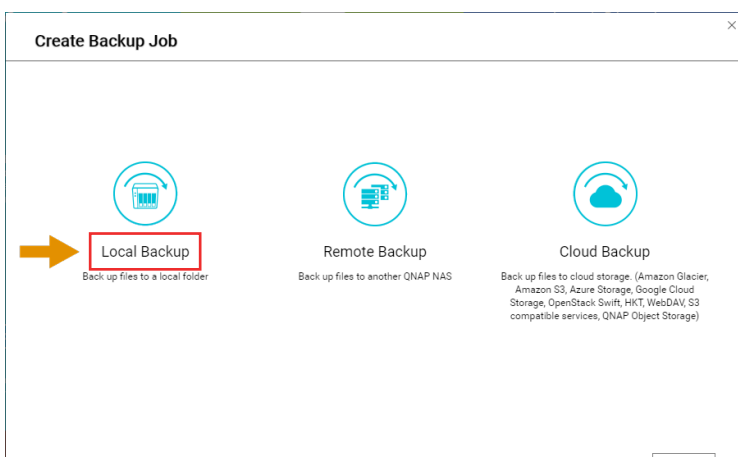
From the main menu, start **Hybrid Backup Sync**.



If you start Hybrid Backup Sync the first time, there will appear a 5-slide introduction of the application.

In addition, if there has no backup job defined yet, a start screen will be displayed.

Choose **Create Backup Job**.



As we want to backup to a local attached RDX, choose **Local Backup**.

Create Backup Job

Back up files from several local source folders to one local destination folder

Job Name:

Local Backup 1

Select Source Location

- ☐ 4TB-RDX
- ☒ **Public**
- ☐ QVM_DataStore
- ☐ RDX
- ☐ Web
- ☐ homes

Schedule

Daily

02:00

Select Backup Destination

< Add Local Storage Space >



Back up files from several local source folders to one local destination folder

Job Name:

Local Backup 1

Schedule

Daily

02:00

Select Backup Destination

< Add Local Storage Space >

< Add Local Storage Space >



The job name **Local Backup 1** is automatically assigned. You might change that name according to your needs.

Select the source location of your files you want to backup.

Select the destination of your backup.

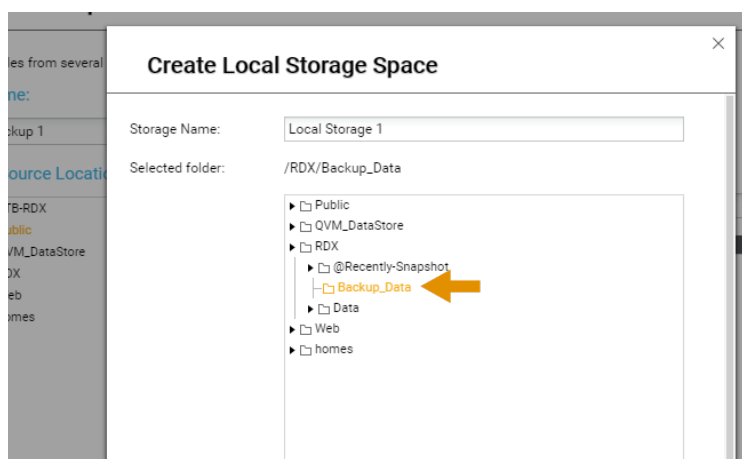
The destination is defined as a **Local Storage Space**. Initially, we need to add a local storage space.

Select **Add Local Storage Space**.

The storage space name **Local Storage 1** is automatically assigned. You might change that name according to your needs.

Select the desired storage space. In our case, we choose the subdirectory **Backup Data** of the external attached RDX drive.

Click **OK**.



Create Backup Job

Back up files from several local source folders to one local destination folder

Job Name:

Local Backup 1

Select Source Location

- ☐ 4TB-RDX
- ☒ Public
- ☐ QVM_DataStore
- ☐ RDX
- ☐ Web
- ☐ homes

Total File Size: 1000.15 MB
Total File(s): 17 files
Total Folder(s): 4 folders

☒ Advanced Settings

Schedule

Daily
02:00

Select Backup Destination

Local Storage 1

- /RDX/Backup_Data
- @Recently-Snapshot
- Backup_Data
- Data

☐ Backup Now
☐ Enable multi-version backup *i*

Cancel

Back

Apply

The storage space is now assigned as the backup target.

Hybrid Backup Sync is able to keep multiple versions of your backup if you enable the checkbox **Enable multi-version backup**.

Select **Advanced Settings** to adjust the parameters of this backup job according to your needs.

Create Backup Job

← Basic Settings

Schedule

Policy

Filter

Versions

Events

☒ Periodically *i*

Hourly

Every

Hourly

Daily

Weekly

Monthly

☐ No Schedule *i*

02 : 00

The scheduler allows you to choose between minutely, hourly, daily, weekly or monthly or one-time backups.

Determine your desired schedule.

Click on **Policy**.

Create Backup Job

← Basic Settings

Schedule

Policy

Filter

Versions

Events

☐ Delete extra files *i*

☐ Detect sparse files *i*

☐ Check file contents *i*

☐ Ignore symbolic links *i*

☐ Compress files during transmission *i*

☒ Filter system-generated temporary files *i*

☐ Replicate ACL and extended attributes *i*

☐ Do not take a snapshot for this job *i*

You might choose from several backup options. Hover over the *i* symbol to get a brief description of the entire option.

Click on **Filter**.

Create Backup Job

← Basic Settings

Schedule

Policy

Filter

Versions

Events

☐ File size ¹

☐ Min size: KB

☐ Max size: KB

☐ File date/time ¹

☐ From:

☐ To:

☐ Last modified ¹

Days

☐ Include file types ¹

☐ Documents ☐ Pictures ☐ Video ☐ Applications

☐ Music ☐ Temporary files ☐ Others

☐ Exclude file types ¹

☐ Documents ☐ Pictures ☐ Video ☐ Applications

☐ Music ☐ Temporary files ☐ Others

You can filter the files, which should be backed up according to their size, date, or type.

Determine your desired filters.

Click on **Versions**.

Create Backup Job

← Basic Settings

Schedule

Policy

Filter

Versions

Events

☒ Simple versioning ¹

Maximum number of versions

Days to retain

☐ Smart versioning ¹

If you enabled the checkbox **Enable multi-version backup** as explained above, you are able to specify the number of backup-versions you want to keep and the retention time.

Click on **Events**.

Create Backup Job

← Basic Settings

Schedule

Policy

Filter

Versions

Events

☒ Set maximum size for log files (MB):

Larger log files can contain additional information. This value cannot exceed 1024MB.

☐ Send alert emails when the following events occur:

☒ A job fails

☐ A job finishes

Note: The SMTP server must be configured before alert emails can be sent.
[Click here to configure the SMTP server](#)

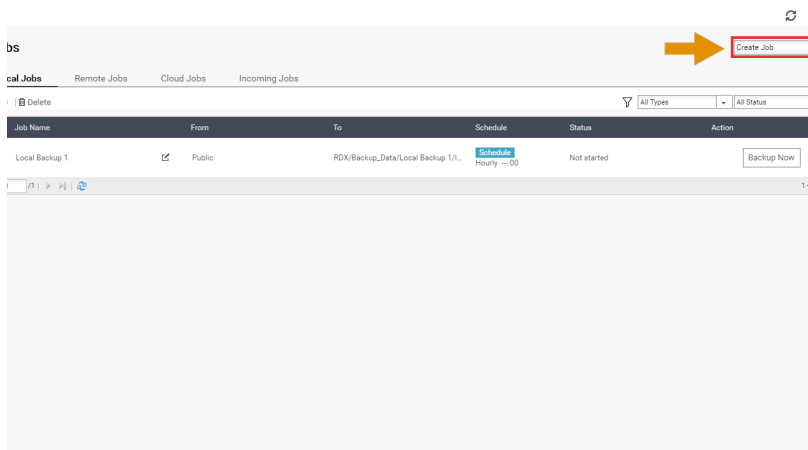
The Events menu allows you to set the maximum size for log files and enables email notification.

Click on **Apply**.

Back

Apply

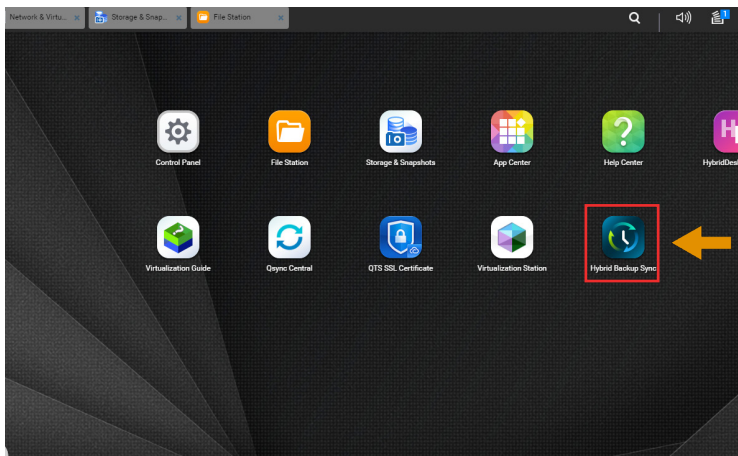




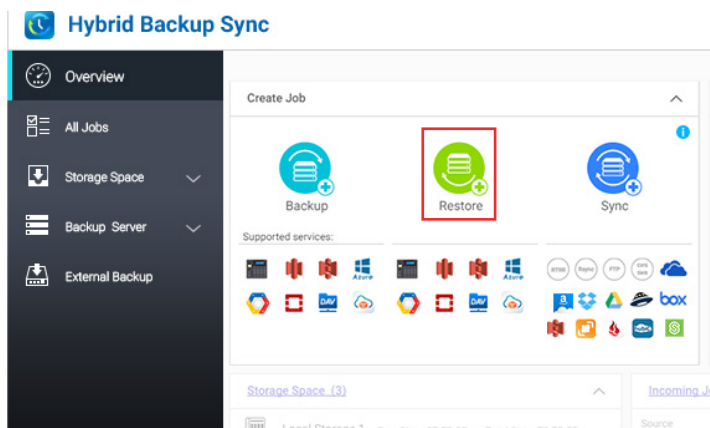
The backup job has been defined and will start according to the defined schedule.

To setup another job, click on **Create Job** in the **All Jobs** menu.

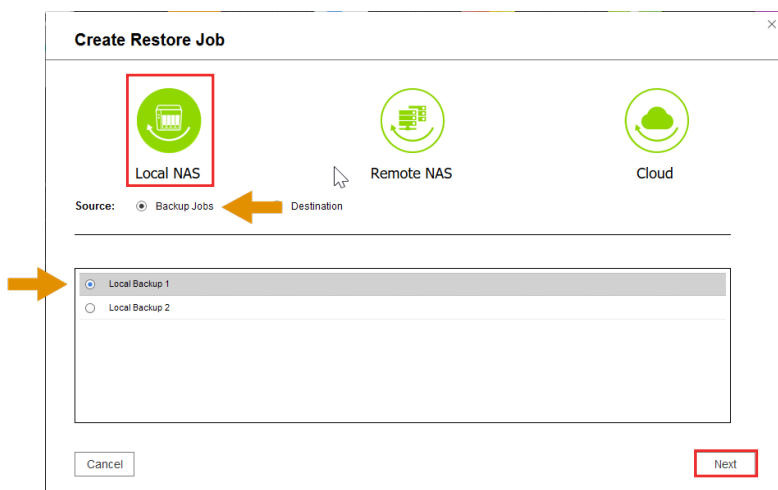
Performing a restore



From the main menu start **Hybrid Backup Sync**.



From the **Overview** menu select **Restore**.



Select **Local NAS** and **Backup Job** as the source.

The backup jobs will be displayed. Choose the backup job you want to perform the restore.

Click on **Next**.

Restore from Local NAS

Restore files from local folders to an external device or other local folders

Job Name
Local Restore 1

Select Source to Restore

- 201802271710.Q Version
- 201802271703.Q Version
- 201802271710.Q Version
- 201802271712.Q Version
- 201802271717.Q Version
- latest Version

Schedule
No schedule

Select the Destination

Destination folder

- /Public/Test Data
 - @_thumb
 - @upload_cache
 - @Recently-Snapsho
 - @Recycle
 - Test Data
 - Test File Creator
 - QVM_DataStore

If you enabled multi version back-up, select the desired version of your backup, otherwise select the latest version.

Select the desired folders you want to restore.

Then specify the destination folder you want to place the restore.

Click on **Apply**.

All Jobs Create Job

Local Jobs Remote Jobs Cloud Jobs Incoming Jobs

Selected : 0 Jobs | Delete

	Job Name	From	To	Schedule	Status	Action
<input type="checkbox"/>	Local Restore 1	RD\Backup Data\Lo...	/Public/Test Data/Public	One Time 2018/03/01 ...	Running (23/32)	
<input type="checkbox"/>	Local Backup 2	Public	RD\Backup Data\Lo...	Daily 02:00	Finished 2018/02/28 ...	Back
<input type="checkbox"/>	Local Backup 1	Public	RD\Backup Data\Lo...	Daily 02:00	Finished 2018/02/28 ...	Back

Page 1 / 1

The restore job will be displayed in the **All Jobs** overview window.

Further jobs can be created by selecting **Create Job**.

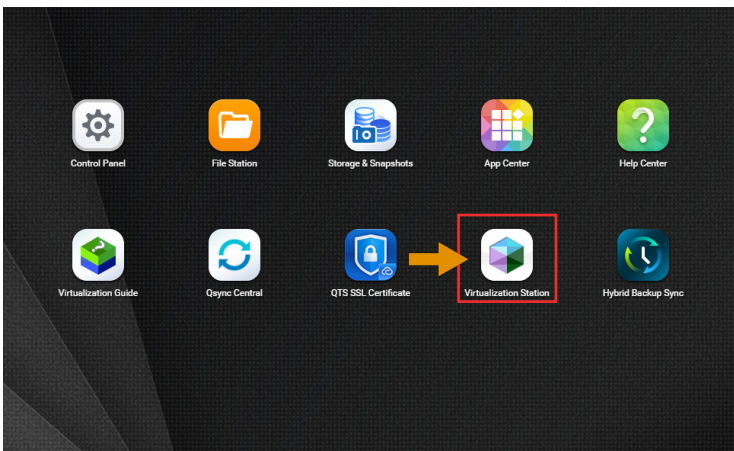
Using the Virtualization Station

Most QNAP NAS storage systems offer the Virtualization Station application (see the [supported NAS models list](#) for compatible systems). QNAP Virtualization Station enables virtualized desktop operations on the NAS for managing multiple virtual machines with multiple operating system types. With the easy-to-use interface, you can centrally manage all virtual machines created on the Turbo NAS with least efforts.

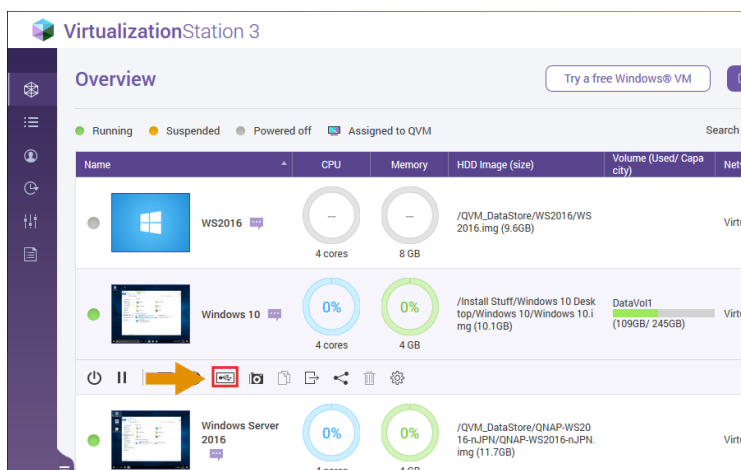
RDX QuikStor drives can be assigned to a virtual machine and benefit from removable storage for backup and archiving tasks with any supported application (see our [software compatibility list](#) for supported applications). In addition, you can install software utilities like [rdxLOCK](#) for regulatory compliance archiving (**WORM**), where data must not be deleted or overwritten, or for ransomware protection (**RansomBlock**), which secures backups against virus and ransomware attacks and ensures full recovery in case of infected data and blocked computer systems or **RDX Manager** with **PowerEncrypt** feature for integrated SATA III drives (*currently available for QNAP TVS-882BR only*), which encrypts data stored on RDX media for secure transportation and archiving.

In addition to the internal data store of the VM, the virtual machines can access directly data stored on the NAS system. With this, NAS data can be backed up to RDX using any RDX compatible backup application.

Assigning a RDX QuikStor USB drive to a virtual machine

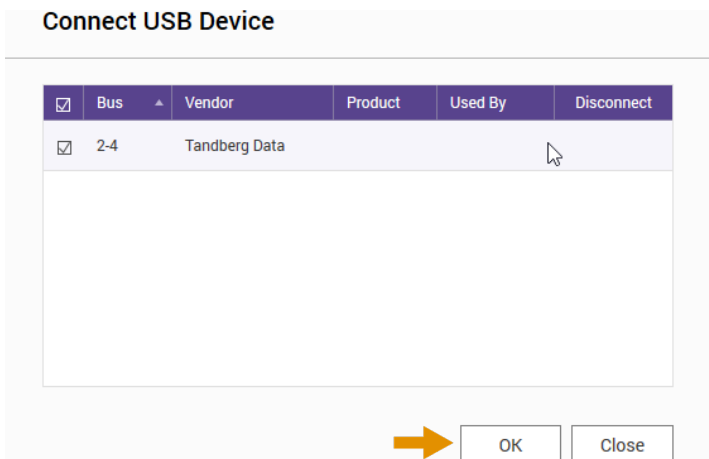


From the main menu select **Virtualization Station**.



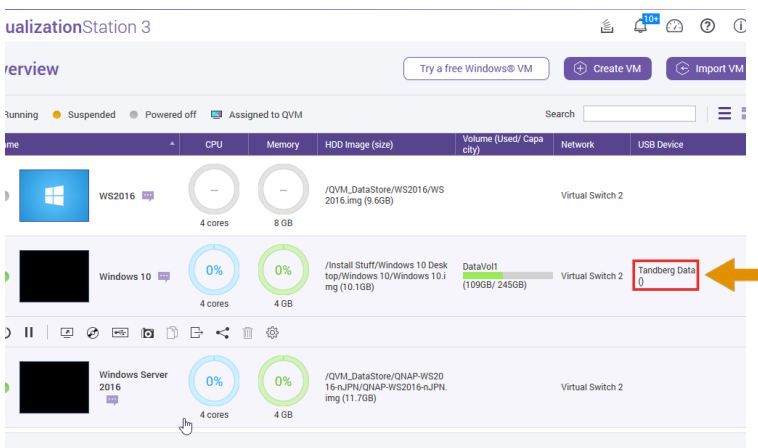
The Virtualization Station overview screen appears, displaying all available virtual machines. Select the desired virtual machine you want to attach the RDX QuikStor drive.

Click on the **USB Icon**.

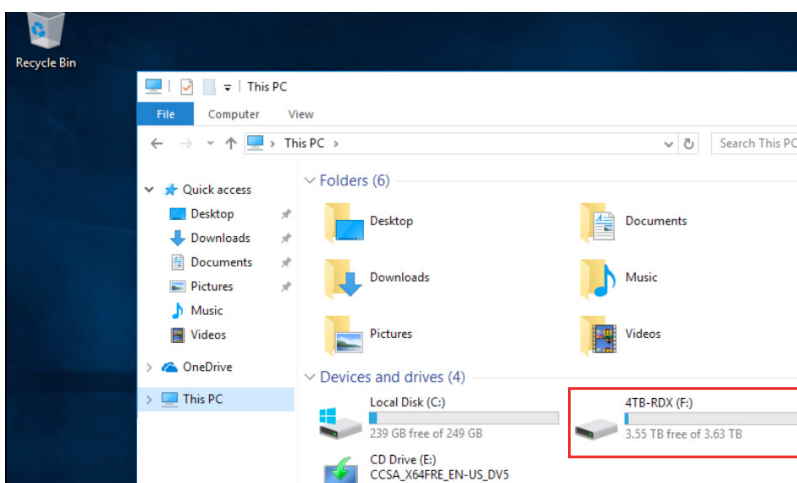


Choose the RDX QuikStor drive you want to assign.

Click on **OK**.



The RDX USB drive has been assigned ...

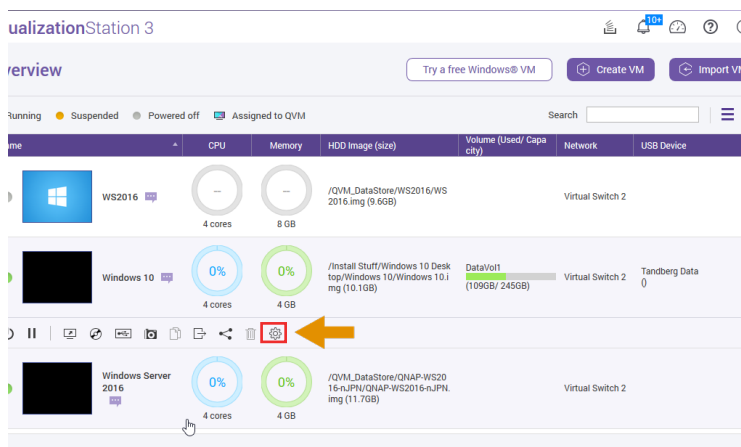


... and can be used in the virtual machine.

Assigning a RDX QuikStor SATA III drive to a virtual machine (available for QNAP TVS-882BR)

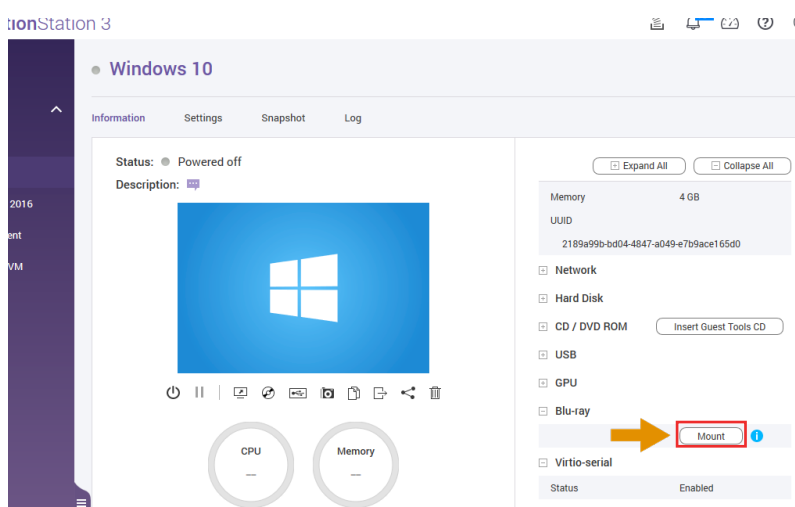
The QNAP TVS-882 NAS system offers an regular 5,25" drive bay for integration of an internal RDX QuikStor SATA III drive. The advantage of this solution is the clean integration of RDX QuikStor, without external cables and devices.

Another big advantage is the utilization of the hardware encryption **PowerEncrypt** provided by the RDX Manager software for SATA III drives, which can be installed on Windows-based virtual machines.



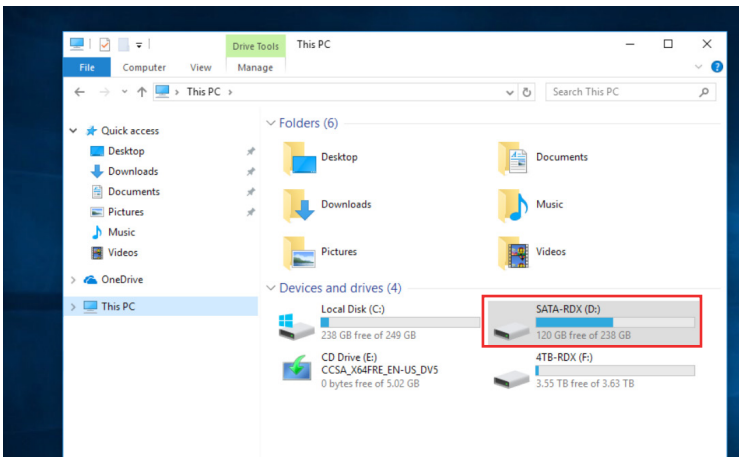
Start the Virtualization Station.

Stop the virtual machine, you want to assign the RDX QuikStor SATA III drive and click on the **Settings** icon.

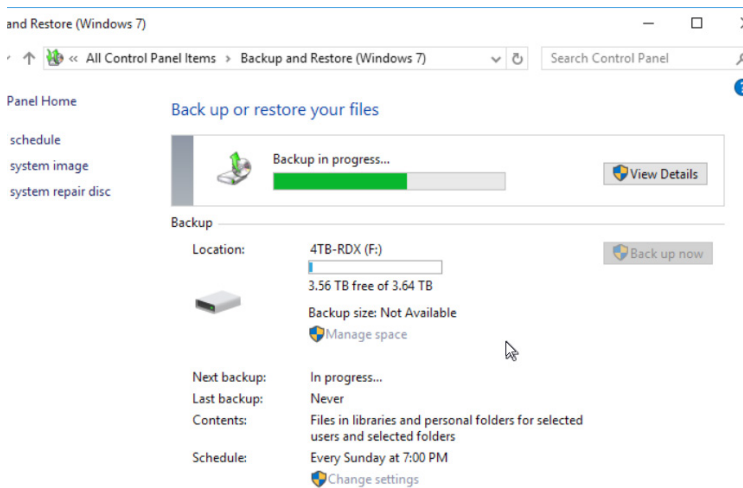


Expand the Blu-ray section on the right hand side of the windows by clicking on the **+** sign.

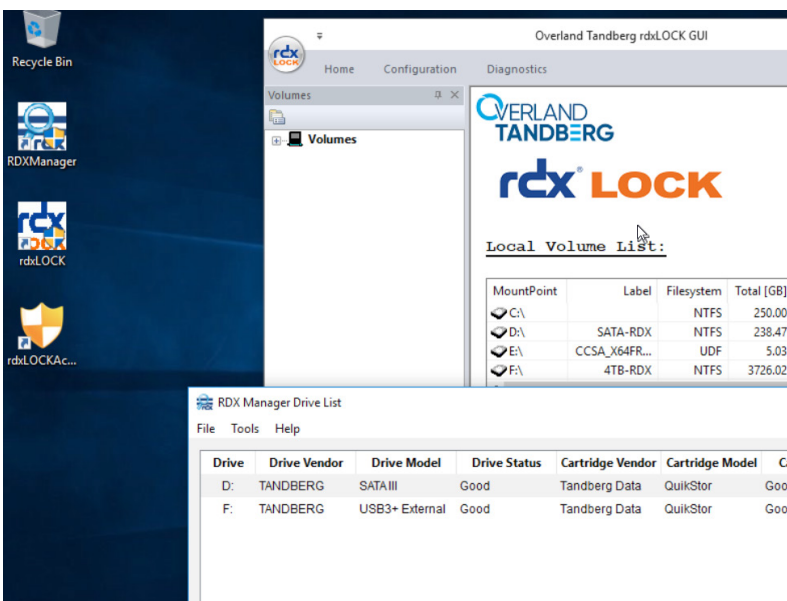
Click on **Mount**.



The RDX SATA III drive has been assigned and can be used in the virtual machine ...



... for example as a backup target for the built-in Windows Backup utility.



By installing the RDXManager and rdxLOCK software, you can use WORM, Ransomblock and PowerEncrypt features.

Sales and support for Overland-Tandberg products and solutions are available in over 90 countries.
Contact us today at sales@overlandstorage.com or sales@tandbergdata.com

©2018 Sphere 3D. All trademarks and registered trademarks are the property of their respective owners. The information contained herein is subject to change without notice and is provided "as is" without warranty of any kind. Sphere 3D shall not be liable for technical or editorial errors or omissions contained herein.

IB_v1_mar27_2018