

Overview

Note: This procedure, though relatively straight-forward, is complex and contains many steps.

- [These instructions are available as a printable PDF file here:](#)

Limited support for virtualization of systems containing 4K drives is available in Replibit 10.1.0 and newer.

- The underlying KVM hypervisor requires the use of VirtIO drivers and disks to create virtual 4K volumes. Because Windows does not natively support VirtIO, drivers must be injected into the virtual machine image before Windows is able to boot.
- Virtualization of protected systems in test mode, bootvm checks, and AutoVerify are not currently supported.
- Virtualization in live mode is supported with manual injection of the required drivers.

Before you begin: Mark the recovery point you intend to work with by adding a note.

This will make identification of the persistent snapshot easier later.

Click the **Note** icon and enter some text, then save it.



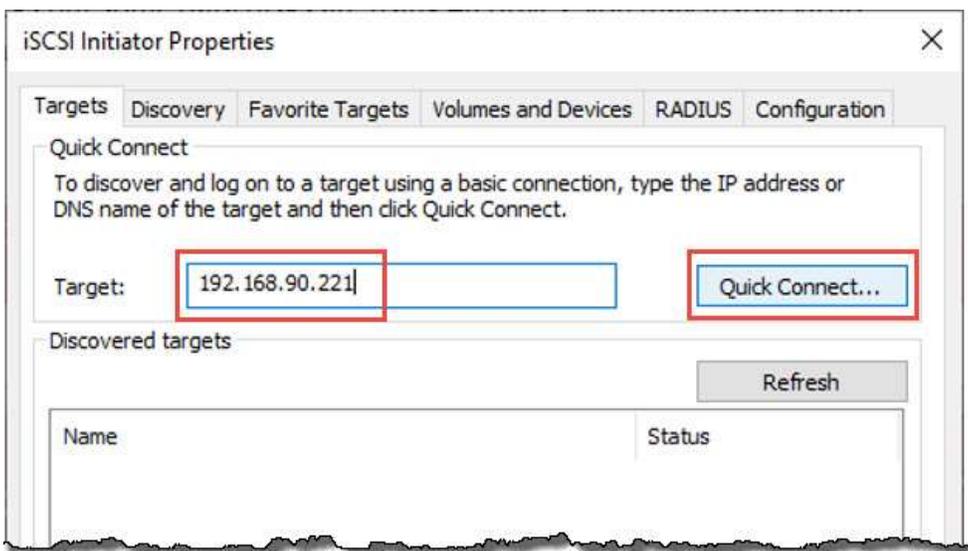
Manual Driver Installation

To perform virtualization of a protected system with 4K drives, perform the following steps:

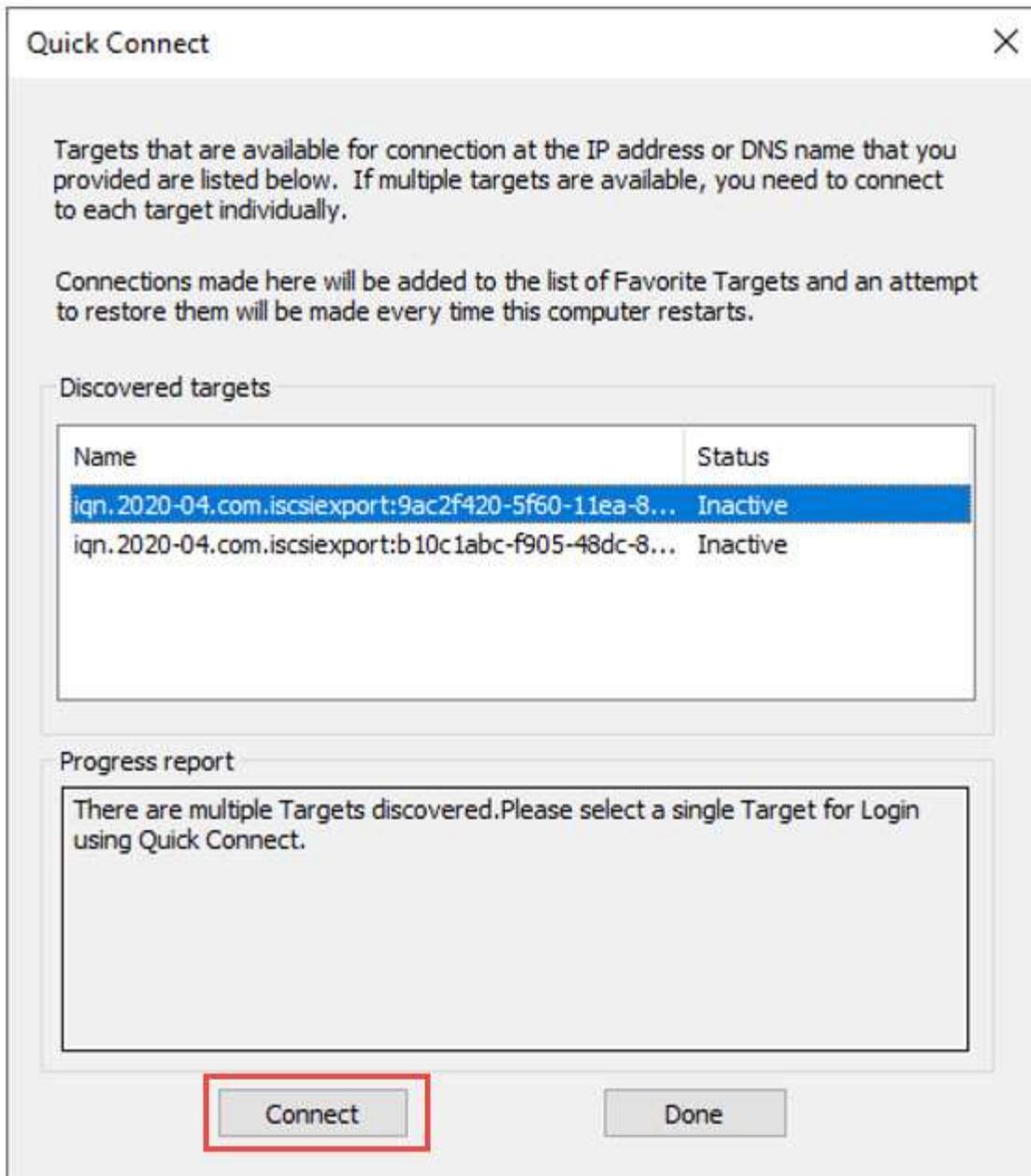
Start iSCSI and attach volumes to a Windows machine

1. From the Protected System Details page identify the Recovery Point you wish to virtualize and add a Note as shown above.

2. Click **Start iSCSI**.
3. Select **Live Mode** when prompted.
4. Once iSCSI has been started for the recovery point, attach the volumes to a Windows system using iSCSI Initiator, found at **Control Panel > Administrative Tools> iSCSI Initiator**
5. Enter the **IP address** of the appliance in the *Target* field.
6. Click **Quick Connect**.



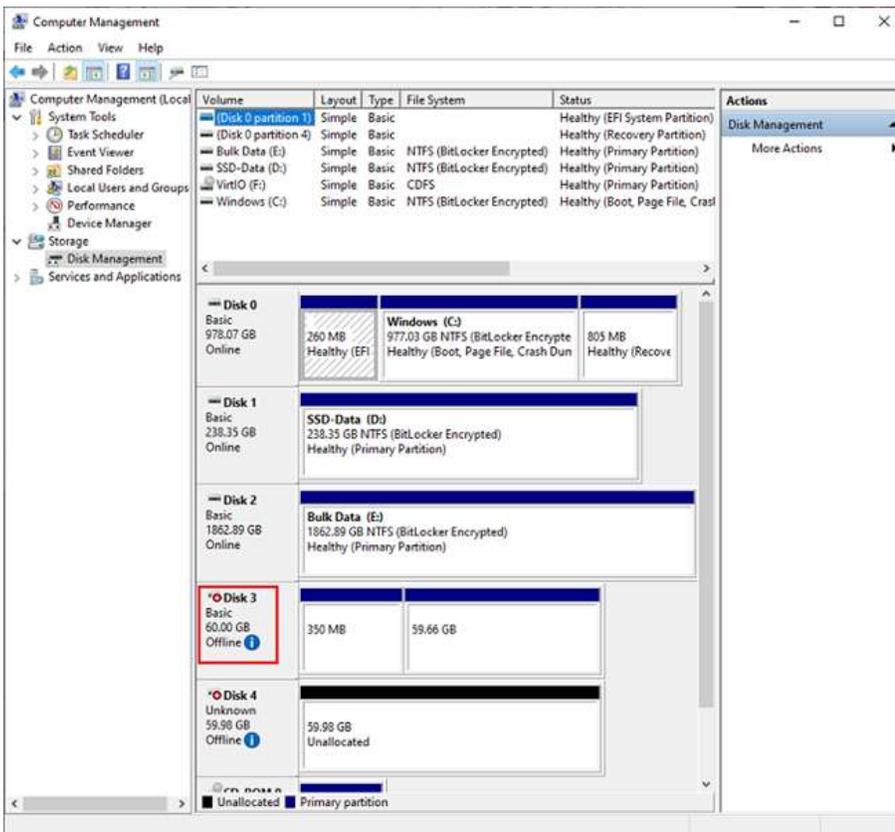
7. The available volume targets should be displayed in the *Quick Connect* popup.
Connect each disk device by clicking **Connect**.



8. Open *Computer Management* from **Control Panel > Administrative Tools**.
9. Select **Disk Management**.
10. Locate the attached iSCSI volume(s).

11. Make sure that the volume containing the Windows folder of your protected system is online and has a drive letter assigned.

(You can do this by right-clicking the disk volume and selecting **Online** to mount the device. Then, right-click the volume and select **Change Drive Letter and Path** to assign a drive letter, if necessary.)

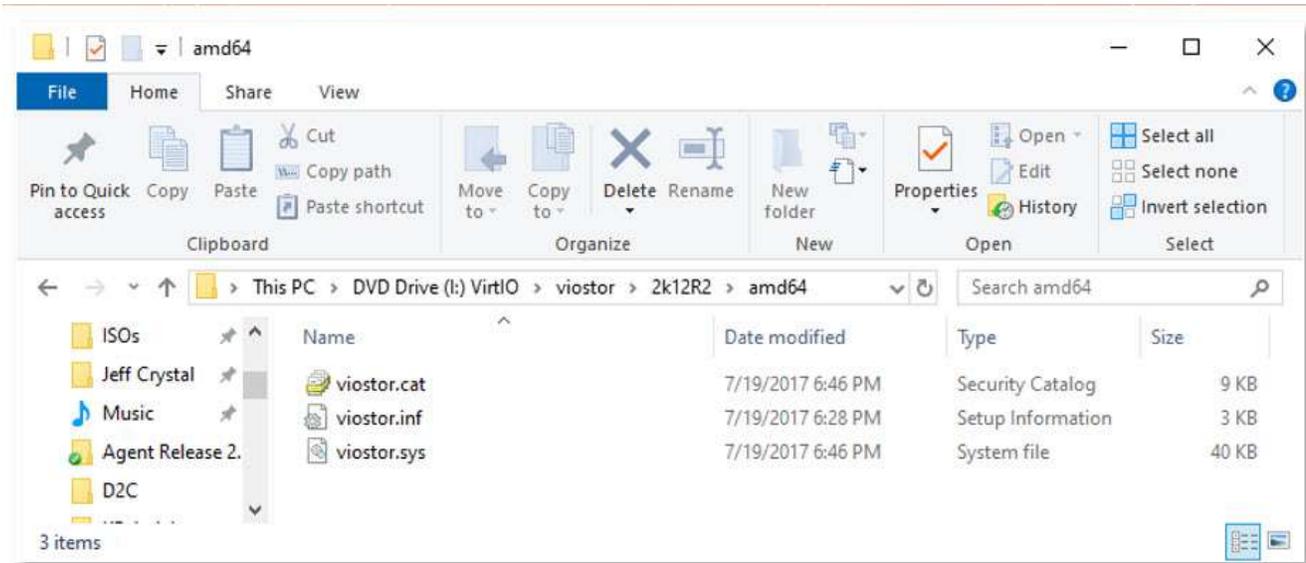


12. Retrieve the Virtio driver ISO (viostor.iso) by copying it from the root folder of the Replibit appliance or download it [here](#).

13. Extract the required drivers from the Virtio driver ISO.

To do this:

- Open **viostor.iso** with Windows Explorer and browse to **/virtio/<OS version>/<architecture>**. (Select the drivers that match your Protected System)
- Copy the driver files to a convenient temp folder on your windows machine.



Inject drivers into the protected system image

Next, we will inject the drivers into your protected system image.

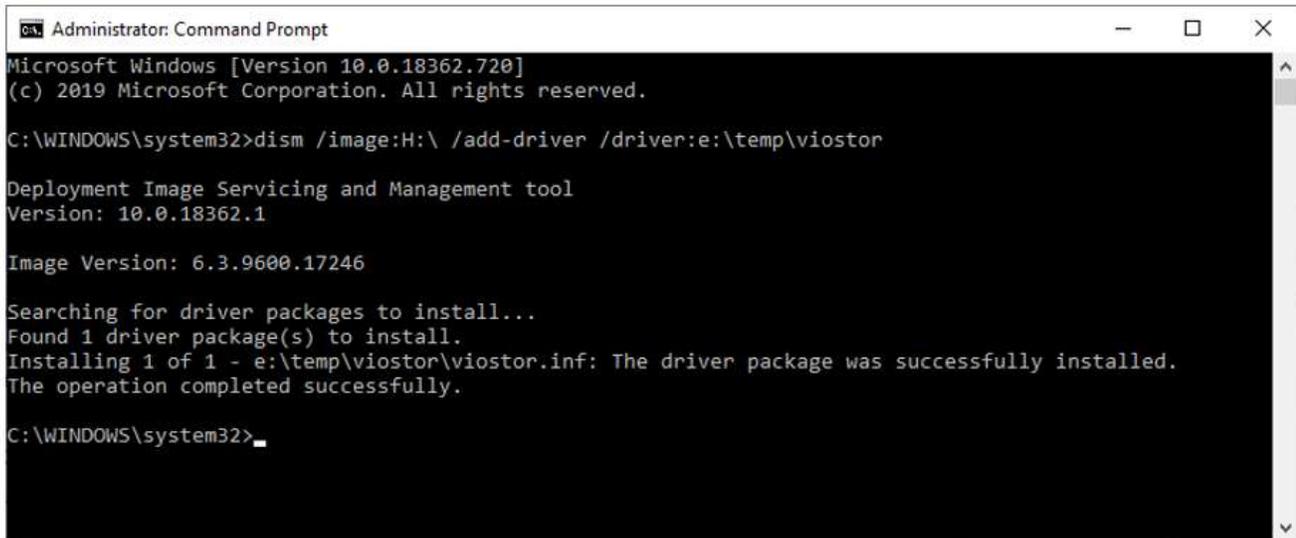
43. Open a Windows CMD shell in administrative mode.

To do this:

- Click **Start**
- Type **cmd**
- Right-click on **Command Prompt**
- Select **Run as administrator**

15. Using the command window, inject the drivers into the offline system image using Microsoft DISM.

DISM /Image:<Drive Letter containing image>: /Add-Driver /Driver:<Path to Driver Files>



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>dism /image:H:\ /add-driver /driver:e:\temp\viostor

Deployment Image Servicing and Management tool
Version: 10.0.18362.1

Image Version: 6.3.9600.17246

Searching for driver packages to install...
Found 1 driver package(s) to install.
Installing 1 of 1 - e:\temp\viostor\viostor.inf: The driver package was successfully installed.
The operation completed successfully.

C:\WINDOWS\system32>
```

For example, if the volume containing the Windows folder of your protected system is mounted at H:, and you copied the driver files to E:\Temp\viostor, then run:

DISM /Image:H:\ /Add-Driver /Driver:E:\Temp\viostor

16. Once you've injected the drivers, dismount the drives from the Windows system and stop iSCSI on the appliance.

17. Go to *Computer Management* from **Control Panel > Administrative Tools** and select **Disk Management**. Right click each mounted iSCSI volume and select **Offline** to dismount the volume.

18. From *iSCSI Initiator*, select each connected volume and click **Disconnect**.

19. Remove all entries from the *Discovery* and *Favorite Targets* tabs.

20. From the appliance, click **Stop iSCSI**

Boot the target recovery point as a virtual machine

From this point forward, the target recovery point should be able to boot as a virtual machine.

21. Click on **Start VM**.

22. Select the desired amounts of **RAM** and **CPU** to provide the virtual machine.

23. Select **Live Mode**.

24. Click **Start**.

Note: Do NOT select 'Setup Virtio' again when launching the VM. If 4K drives are present within your Protected System the BDR will automatically detect this and create the virtual machine using VirtIO devices.

Virtualization settings

RAM (GB): Free: 13.5
2

CPU (cores): Free: 16
2

Mode:

- Test mode
- Live mode

Boot Key:
None

Boot Device:
Hard drive

CD-ROM Image:
None

Network interfaces:

MAC fc:3f:db:90:2a:bd	eth0
MAC e0:94:67:bb:62:ef	eth0

Setup virtio

Cancel Start