



BackBox[®] E5.01 QoreStor Update Procedure

Abstract

This QoreStor Update Procedure document is for BackBox[®] E5.01

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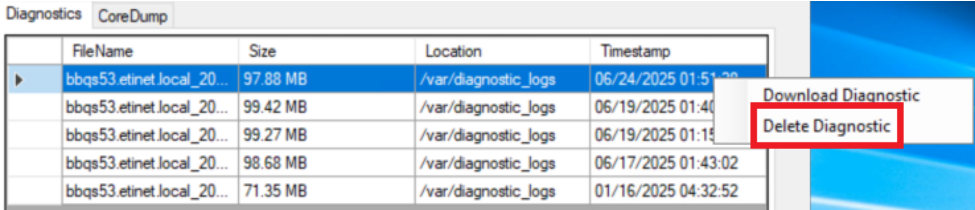
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INTRODUCTION

Use this procedure to update QoreStor for BackBox to the latest QoreStor version (7.4.1.169).

 Delete any diagnostic package previously generated, in order to avoid any update failure due to lack of storage space.




FileName	Size	Location	Timestamp
bbqs53.etinet.local_20...	97.88 MB	/var/diagnostic_logs	06/24/2025 01:51:20
bbqs53.etinet.local_20...	99.42 MB	/var/diagnostic_logs	06/19/2025 01:40:00
bbqs53.etinet.local_20...	99.27 MB	/var/diagnostic_logs	06/19/2025 01:15:00
bbqs53.etinet.local_20...	98.68 MB	/var/diagnostic_logs	06/17/2025 01:43:02
bbqs53.etinet.local_20...	71.35 MB	/var/diagnostic_logs	01/16/2025 04:32:52

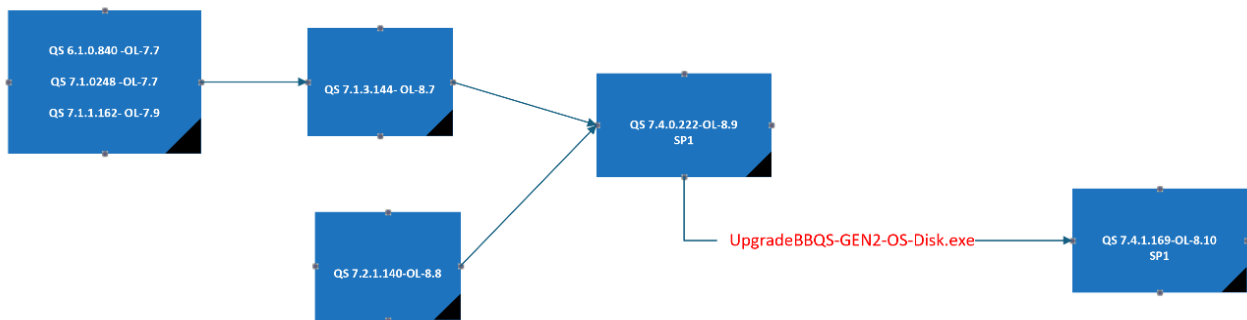
 The update is automatically done for both QoreStor and OS.


If the QoreStor server is joined to an active directory, the QoreStor Server will need to leave the Active Directory prior to the OS upgrade. Once upgrade done, the QoreStor server can rejoin the AD. This will need to be done using an account with AD Administrator privilege.


Temporarily stop the replication either on the source and the target QoreStor servers during the system upgrade.


 Replication will not restart until the replication source and replication target QoreStor servers are of the same version.


UPDATE QORESTOR VERSION PATH



 BackBox version 4.13 is a prerequisite for BBOX-QS-7.4.0-OL8-SP1 upgrade. From BackBox 4.13 or BackBox 5.00, you can execute any of the above upgrades.

 For each BBOX-QS-7.1.0-OL7, BBOX-QS-7.1.2-OL7 or BBOX-QS-7.1.3-OL8 required for update to BBOX-QS-7.4.0-OL8-SP1, make sure to follow the procedure described in UpdateQSReadmeFirst related to the BBOX-QS installation. Make sure to update the OS when indicated.

 BBOX-QS-7.1.3-OL8 must be applied if the installed QoreStor is at an earlier version than 7.1.3 and Oracle Linux 8.7.

 When updating BBOX-QS-7.1.3-OL8, you must keep the QoreStor to version 7.1.3 until the migration to OL-8 is completed. Upgrading to another version of QoreStor while at OL 7.x level will break the migration path to OL-8 and a special version will be required. Call ETI-NET support, if the case.



You can upgrade from BBOX-QS-7.1.3-OL8 directly to BBOX-QS-7.4.0-OL8-SP. In this case, the OS will be upgrading first to have the right kernel level and then the upgrade will need to be re-run to get the version 7.4.0 installed. You will need to run twice the update.

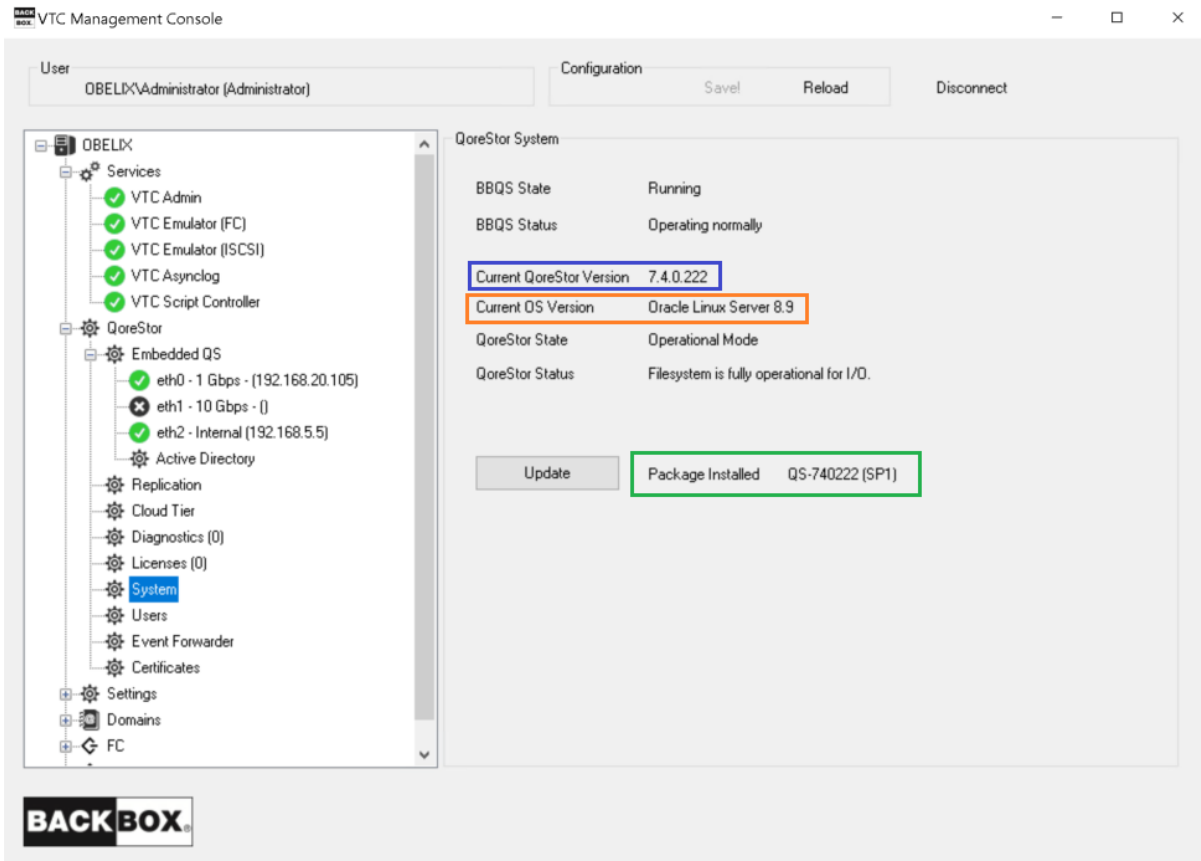
QORESTOR ISO UPDATE TO 7.4.1.169 AND OL 8.10

Package Content	Type of File
UpgradeBBQS-GEN2-OS-Disk.exe	Executable script to expand OS system storage
UPDQS741169.iso	QoreStor and OS Updater ISO
QoreStor_GEN2_OS-OL8.exe	Self-extract OS .vhdx file for disk storage re-partitioning (of QoreStor BBQS virtual machine)



To check the current versions of both embedded QoreStor and/or current version of the OS, open the VTC Management Console and click on the System tab under the QoreStor node.

The System tab displays both QoreStor and OS current versions. The tab allows automatic updates of the embedded QoreStor and/or OS for Oracle Linux Server.



Before proceeding with the automated update, locate the ISO file necessary for the procedure. The ISO file is delivered with BBOX-QS-7.4.1 package and contains the update scripts for both QoreStor and OS.

SYSTEM PREPARATION

UPDATE BBQS GEN1 TO BBQS GEN2

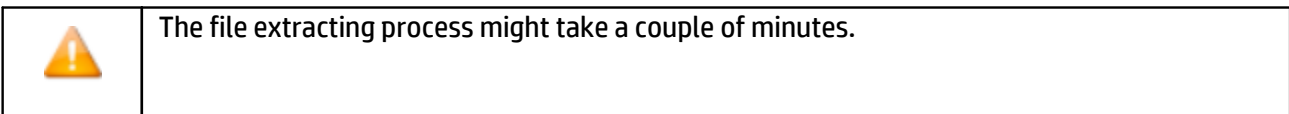
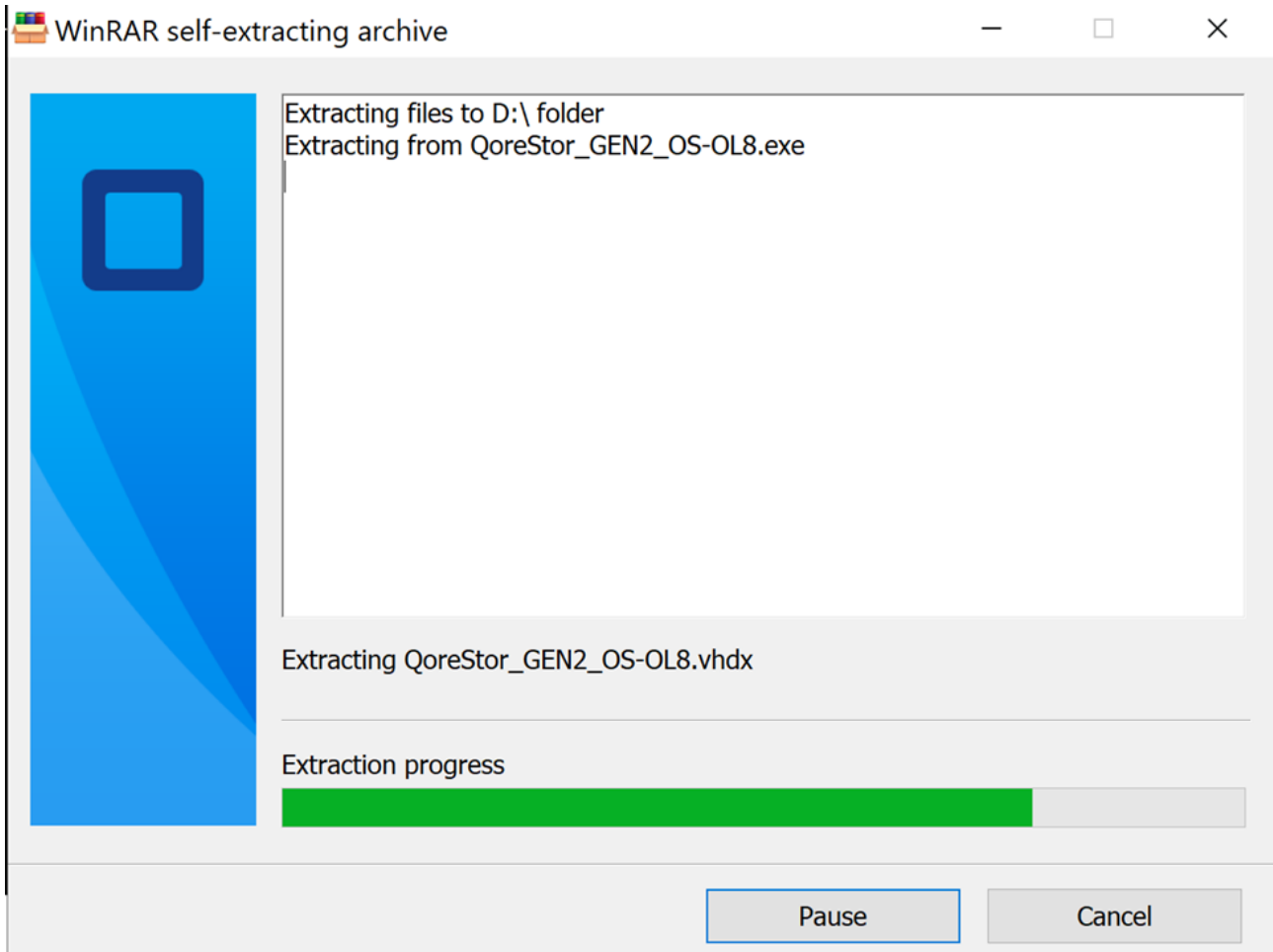


System preparation is necessary to create OS system storage space in order to comply with the storage requirements for 7.4.1
If this part of the procedure is not performed before running the update, VTC MC will prompt an upgrade error:

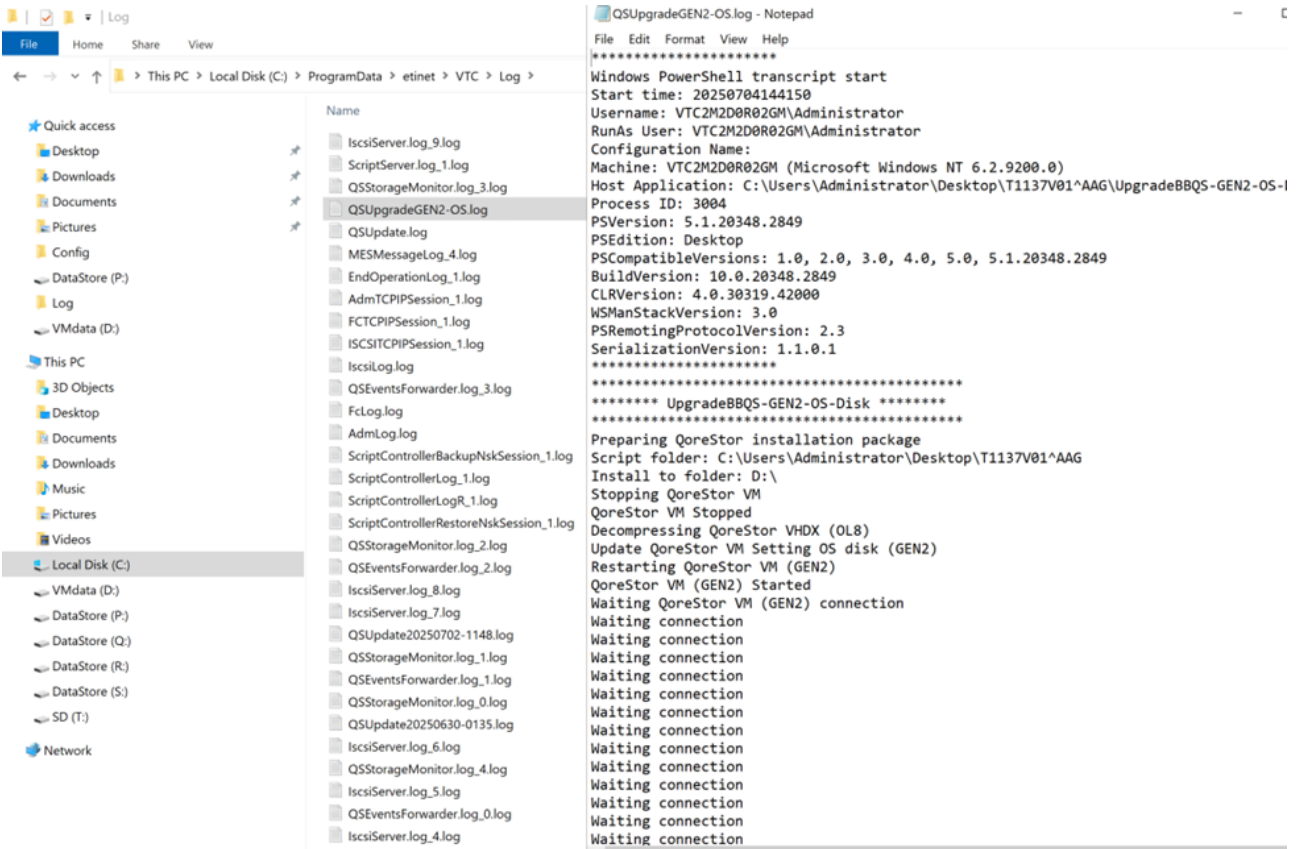
1. Open the packaging folder and double click on UpgradeBBQS-GEN2-OS-Disk.exe and run it as administrator. A command line windows will pop up and the upgrade will start automatically by default on :D\ drive. In case there is no drive D, run the exe file by specifying another installation path. For example //D:PrepareQS-VM-UpgradeToGEN2-OS.exe -installToPath D:\.


```
C:\Users\Administrator\Desktop\T1137V01^AAG\UpgradeBBQS-GEN2-OS-Disk.exe
Transcript started, output file is C:\ProgramData\etinet\VTC\Log\QSupgradeGEN2-OS.log
*****
***** UpgradeBBQS-GEN2-OS-Disk *****
*****
Preparing QoreStor installation package
Script folder: C:\Users\Administrator\Desktop\T1137V01^AAG
Install to folder: D:\
WARNING - POTENTIAL SECURITY BREACH!
The host key does not match the one Plink has cached for
this server:
  MYBBQS (port 22)
This means that either the server administrator has changed
the host key, or you have actually connected to another
computer pretending to be the server.
The new ssh-ed25519 key fingerprint is:
  ssh-ed25519 255 SHA256:I8T1vf0zILuVmWROKc+zQzhABtZDqHFd10ZE92/8GBY
If you were expecting this change and trust the new key,
enter "y" to update Plink's cache and carry on connecting.
If you want to carry on connecting but without updating the
cache, enter "n".
If you want to abandon the connection completely, press
Return to cancel. Pressing Return is the ONLY guaranteed
safe choice.
Update cached key? (y/n, Return cancels connection, i for more info) Stopping QoreStor service
```

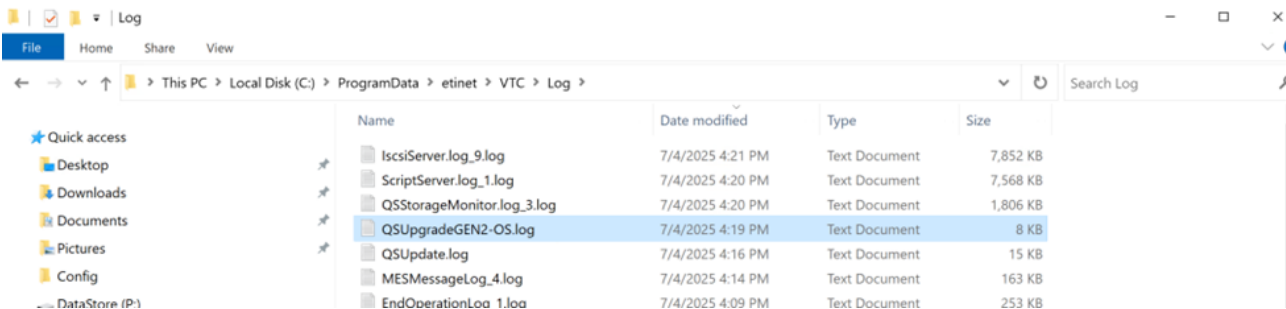
2. During the package installation, the self-extracting popup window for UpgradeBBQS-GEN2-OS-Disk.exe will appear starting the vhdx file extraction. Check the Extraction Progressbar in the popup. No other action is necessary.




3. Check the VTC logs for details on UpgradeBBQS-GEN2-OS-Disk.exe execution. The log files are located in Program Data>etinet>VTC>Log.



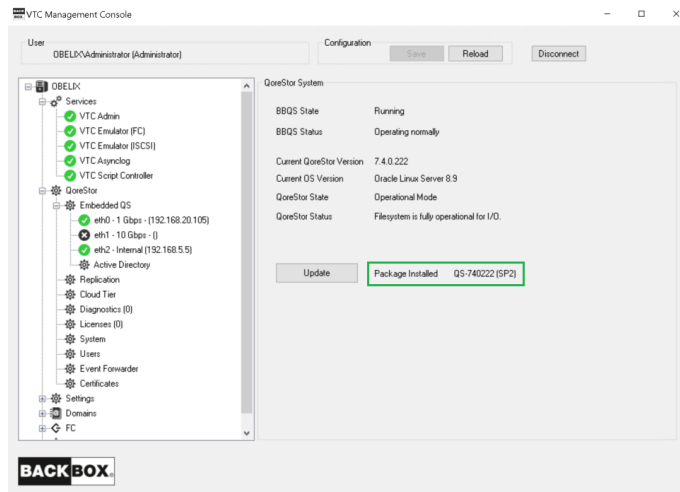
 Verify the QSUUpgradeGEN2-OS log, located in the VTC Log folder, for more details.



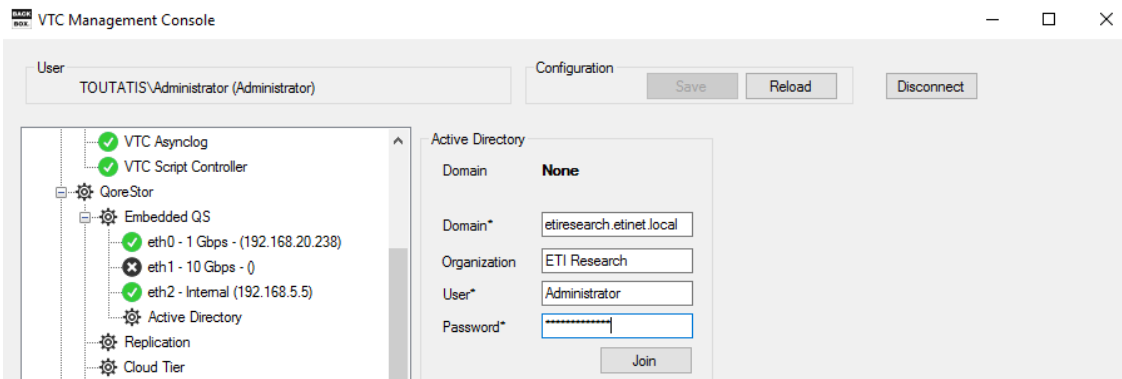
UPLOAD THE ISO FILE

 To check the current versions of both embedded QoreStor and/or current version of the OS, open the VTC Management Console and click on the System tab under the QoreStor node.

The System tab displays both QoreStor and OS current versions. The tab allows automatic updates of the embedded QoreStor and/or OS for Oracle Linux Server.



If QoreStor was part of an Active Directory and you left the Active Directory during the system preparation, you can rejoin the AD. Rejoining the Active Directory requires administrator privileges.



Before proceeding with the automated update, locate the ISO file necessary for the procedure. The ISO file is delivered with BBOX-QS-7.4.1 package and contains the update scripts for both QoreStor and OS.



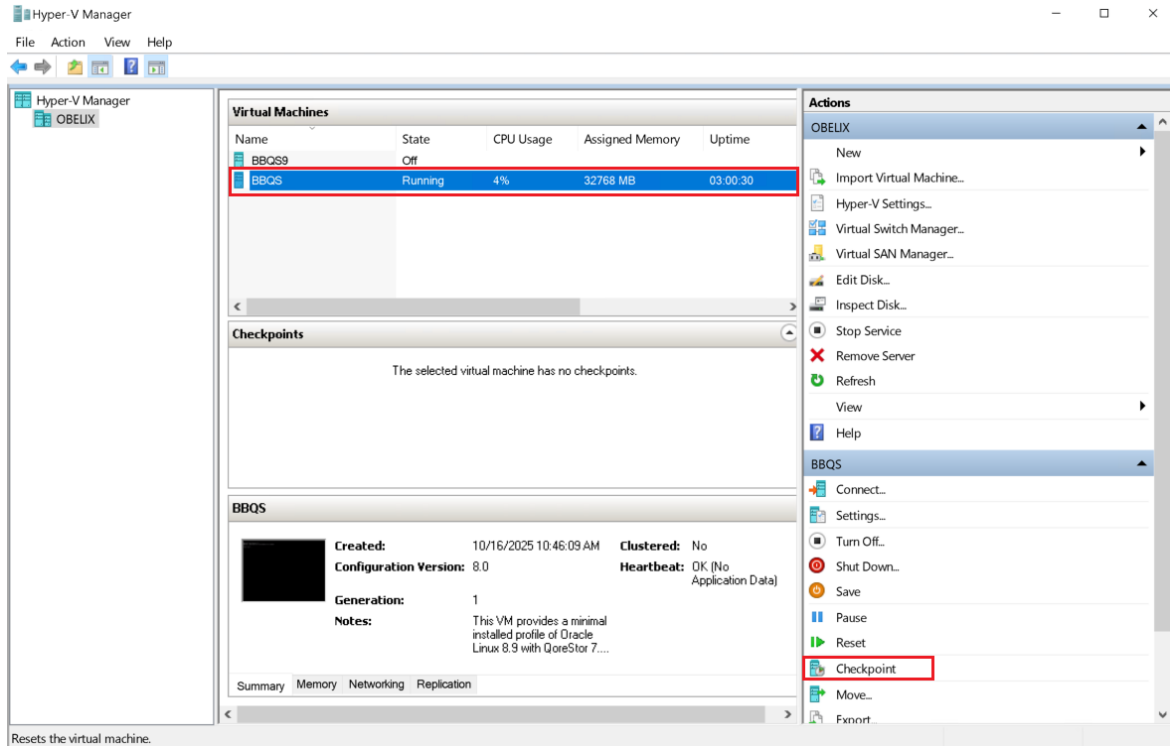
Before starting the update, it is recommended to manually create a checkpoint Hyper-V. It will be used, if needed, to easily rollback, in case of an error.

UPDATE QORESTOR AND OPERATING SYSTEM

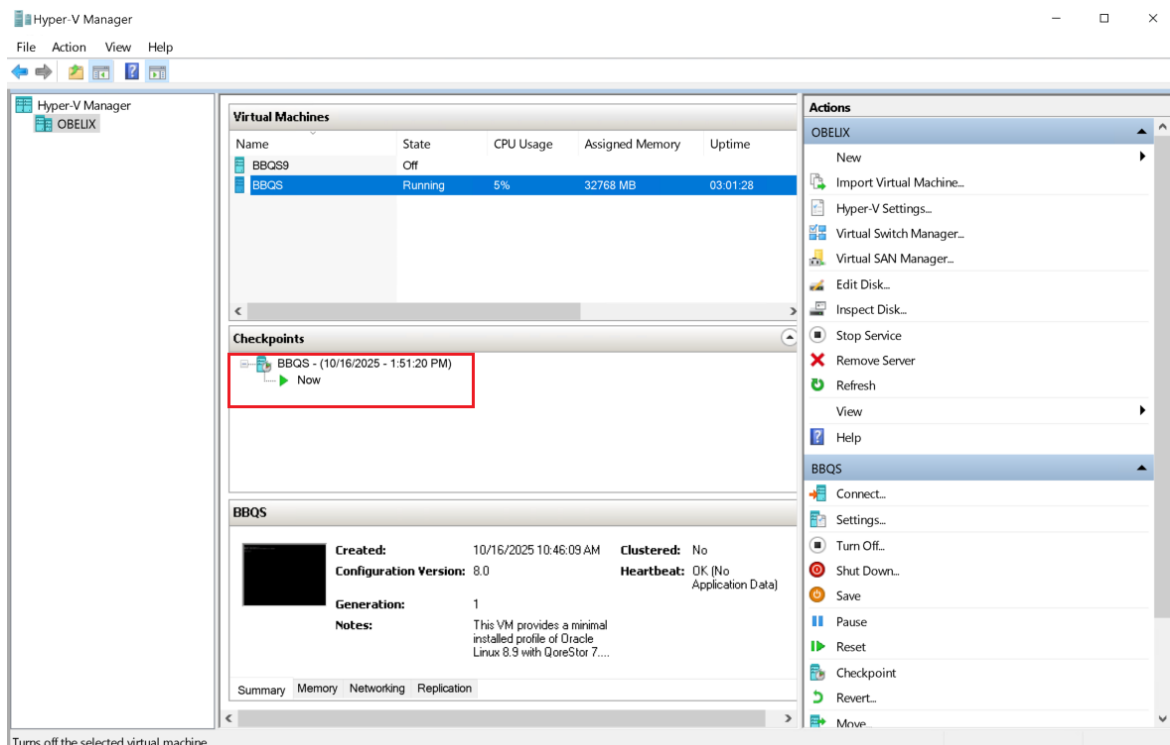


To check the current versions of both embedded QoreStor and/or current version of the OS, open the VTC Management Console and click on the System tab under the QoreStor node.

1. On the Hyper-V create BBQS Checkpoint - that takes a snapshot of the system in case it needs to be reverted to the state before the upgrade.



2. The checkpoint has been created under Checkpoints.





Step 3 and 4 are only required if more than one BackBox is configured in the Domain and if the Nonstop system needs to have tape operations enabled while performing the upgrade.

- Open BackBox UI and go to VT Controller tab.
- Switch to Edit Mode and disable VTC (in the example below, OBELIX). Save the VT Controller configuration.

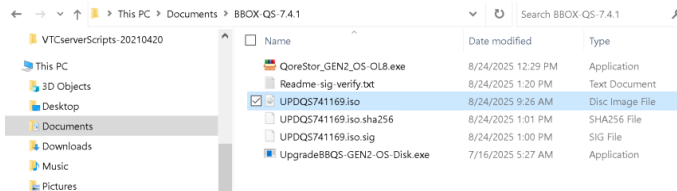


Select, Delete or Create a VT Controller

Create VT Controller

VT Controller ID	Status	Physical Location	TCP/IP Address	Comment		
GEN8SRV04	Enabled		192.168.21.42	test	Advanced	Delete
OBELIX	Disabled		192.168.20.87		Advanced	Delete

- Go to Windows Explorer where the ISO file UPDQS721169.iso is stored and copy it on the local machine.



- Return to the System tab in the VTC Management Console and click Update.

The System tab displays both QoreStor and OS current versions. The tab allows automatic updates of the embedded QoreStor and/or OS for Oracle Linux Server.

BACKBOX VTC Management Console

User: OBELIX\Administrator (Administrator)

Configuration: Save Reload Disconnect

OBELIX

- Services
 - VTC Admin
 - VTC Emulator (FC)
 - VTC Emulator (ISCSI)
 - VTC Asynclog
 - VTC Script Controller
- QoreStor
 - Embedded QS
 - eth0 - 1 Gbps - (192.168.20.105)
 - eth1 - 10 Gbps - []
 - eth2 - Internal (192.168.5.5)
 - Active Directory
 - Replication
 - Cloud Tier
 - Diagnostics (0)
 - Licenses (0)
 - System
 - Users
 - Event Forwarder
 - Certificates
- Settings
- Domains
- FC

QoreStor System

BBQS State	Running
BBQS Status	Operating normally
Current QoreStor Version	7.4.0.222
Current OS Version	Oracle Linux Server 8.9
QoreStor State	Operational Mode
QoreStor Status	Filesystem is fully operational for I/O.

Update Package Installed QS-740222 (SP2)

BACKBOX



The update can be done only from Oracle Linux Server release 8.x. If you are at versions 7.x, refer to [UPDATE QORESTOR VERSION PATH](#) section above. The BBOX-QS-7.1.3-OL8 is mandatory.

- In the dialog window, click on ISO File location browse button to find the ISO file UPDQS721169.iso and click Mount.

Update QoreStor System

In order to update Embedded QoreStor VM, you need to mount the ISO file received from ETINET on the VTC server

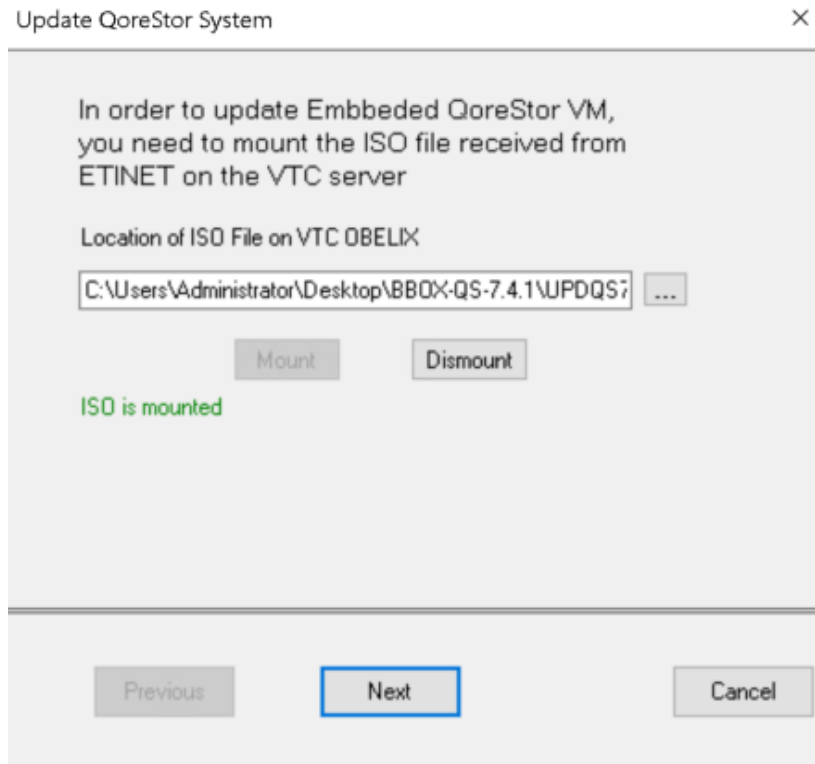
Location of ISO File on VTC OBELIX

C:\Users\Administrator\Desktop\BBOX-QS-7.4.1\UPDQS721169.iso

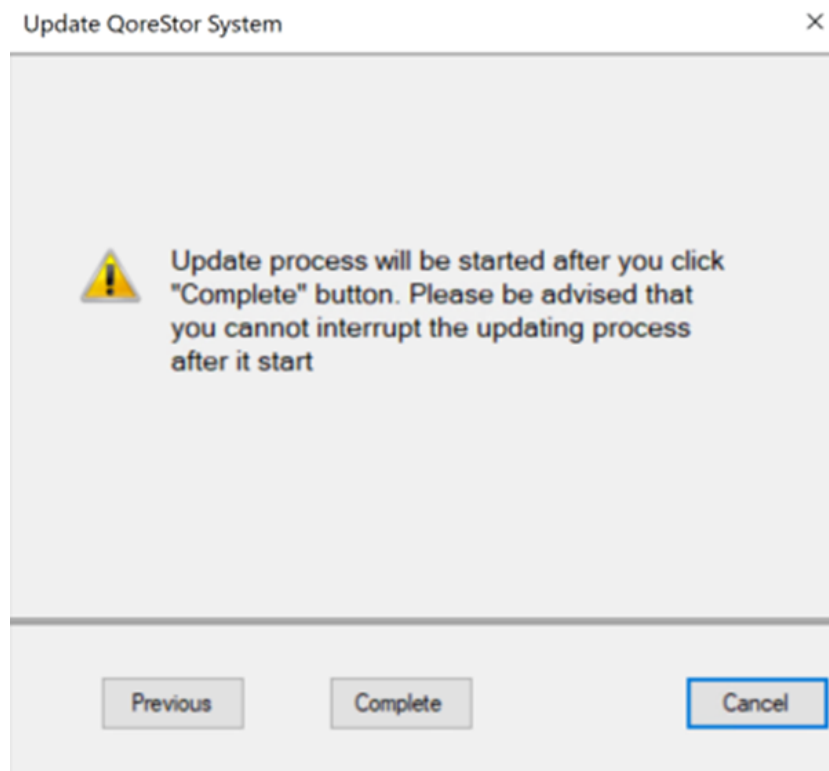
Mount Dismount

Previous Next Cancel

- Once the green message shows that the iso file has been mounted, click Next.



9. In the next dialog click Complete to start the update process that will be running in the background.



	<p>The warning message informs you that the update process will start after you click Complete. Once the updating process is started, it cannot be interrupted.</p>
--	---

VTC Management Console

User: OBELX\Administrator (Administrator) Configuration: Save Reload Disconnect

OBELX

- Services
 - VTC Admin
 - VTC Emulator (FC)
 - VTC Emulator (ISCSI)
 - VTC Asynclog
 - VTC Script Controller
- QoreStor
 - Embedded QS
 - eth0 - 1 Gbps - (192.168.20.105)
 - eth1 - 10 Gbps - []
 - eth2 - Internal (192.168.5.5)
 - Active Directory
 - Replication
 - Cloud Tier
 - Diagnostics (0)
 - Licenses (0)
 - System
 - Users
 - Event Forwarder
 - Certificates
- Settings
- Domains
- FC

QoreStor System

BBQS State: Running
 BBQS Status: Operating normally
 Current QoreStor Version: 7.4.0.222
 Current OS Version: Oracle Linux Server 8.9
 QoreStor State: Operational Mode
 QoreStor Status: Filesystem is fully operational for I/O.

Update Package Installed: QS-740222 (SP2)

Validating prerequisites to perform the upgrade.
 Adding repo from: <file:///mnt/cdrom/cdrom019.repo>
 QoreStor Installed Version: 7.4.0.222
 QoreStor Target Version: 7.4.1.169
 Verifying archive integrity...

VTC Management Console

User: OBELX\Administrator (Administrator) Configuration: Save Reload Disconnect

OBELX

- Services
 - VTC Admin
 - VTC Emulator (FC)
 - VTC Emulator (ISCSI)
 - VTC Asynclog
 - VTC Script Controller
- QoreStor
 - Embedded QS
 - eth0 - 1 Gbps - (192.168.20.105)
 - eth1 - 10 Gbps - []
 - eth2 - Internal (192.168.5.5)
 - Active Directory
 - Replication
 - Cloud Tier
 - Diagnostics (0)
 - Licenses (0)
 - System
 - Users
 - Event Forwarder
 - Certificates
- Settings
- Domains
- FC

QoreStor System

BBQS State: Running
 BBQS Status: Operating normally
 Current QoreStor Version: 7.4.1.169
 Current OS Version: Oracle Linux Server 8.9
 QoreStor State: Waiting for Initialization Commands
 QoreStor Status: N/A

Update Package Installed: QS-740222 (SP2)

```

Running scriptlet: libgcc-8.5.0-26.0.1.el8_10.x86_64
Upgrading      : libgcc-8.5.0-26.0.1.el8_10.x86_64
Running scriptlet: libgcc-8.5.0-26.0.1.el8_10.x86_64
Upgrading      : hyperv-daemons-license-0-0.34.20180415git.el8_7
Upgrading      : bind-license-32:9.11.36-16.el8_10.4.noarch
Upgrading      : python3-setuptools-wheel-39.2.0-9.el8_10.noarch
Upgrading      : python3-pip-wheel-9.0.3-24.el8.noarch
Upgrading      : linux-firmware-core-999:20250611-999.41.git356f0
Upgrading      : ivlax2xx-firmware-999:20250611-999.41.el8.noarch
  
```

VTC Management Console

User: BBOX2019-2\Administrator (Administrator) Configuration: Save Reload Disconnect

BBOX2019-2

- Services
 - VTC Admin
 - VTC Emulator (FC)
 - VTC Emulator (ISCSI)
 - VTC Asynclog
 - VTC Script Controller
- QoreStor
 - Embedded QS
 - Replication
 - Cloud Tier
 - Diagnostics (0)
 - Licenses (0)
 - System
 - Users
 - Event Forwarder
 - Certificates
- Settings
- Domains
- ISCSI

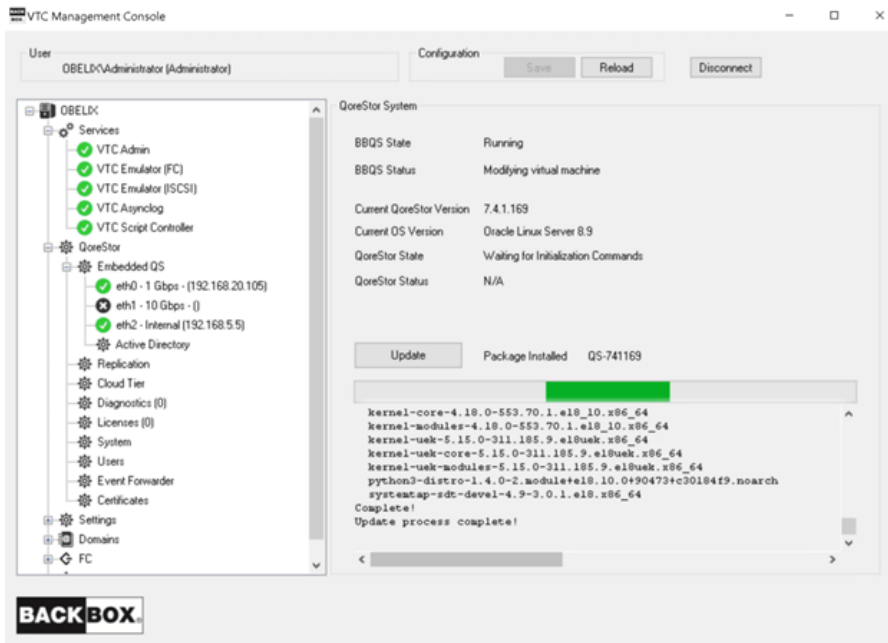
QoreStor System

BBQS State: Running
 BBQS Status: Operating normally
 Current QoreStor Version: 7.4.1.169
 Current OS Version: Oracle Linux Server 8.9
 QoreStor State: Initializing
 QoreStor Status: initializing

Update

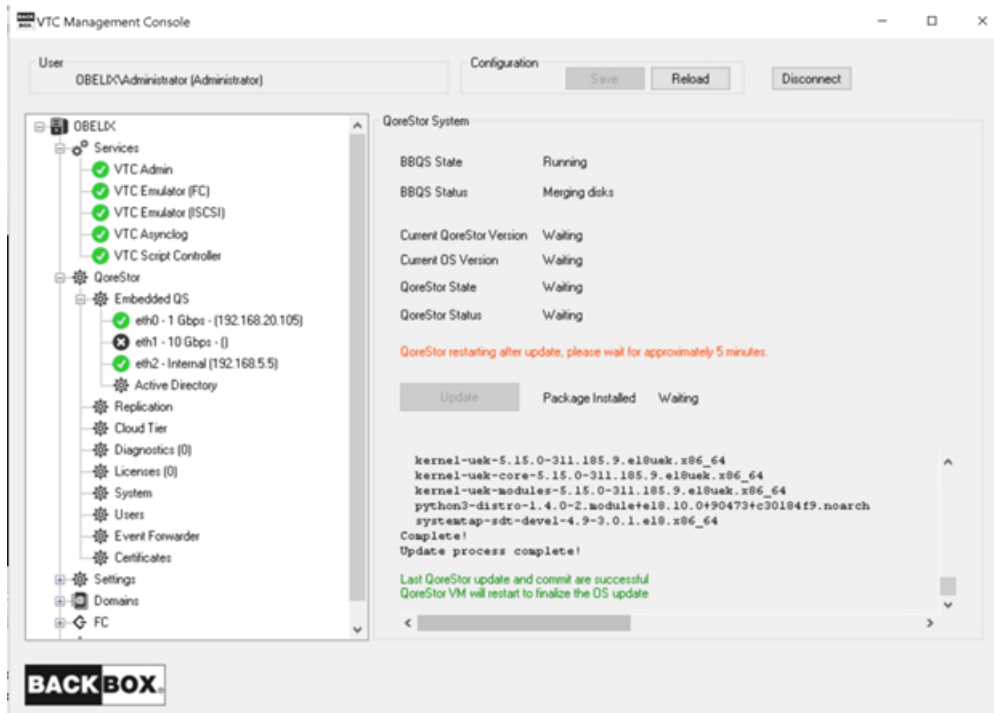
```

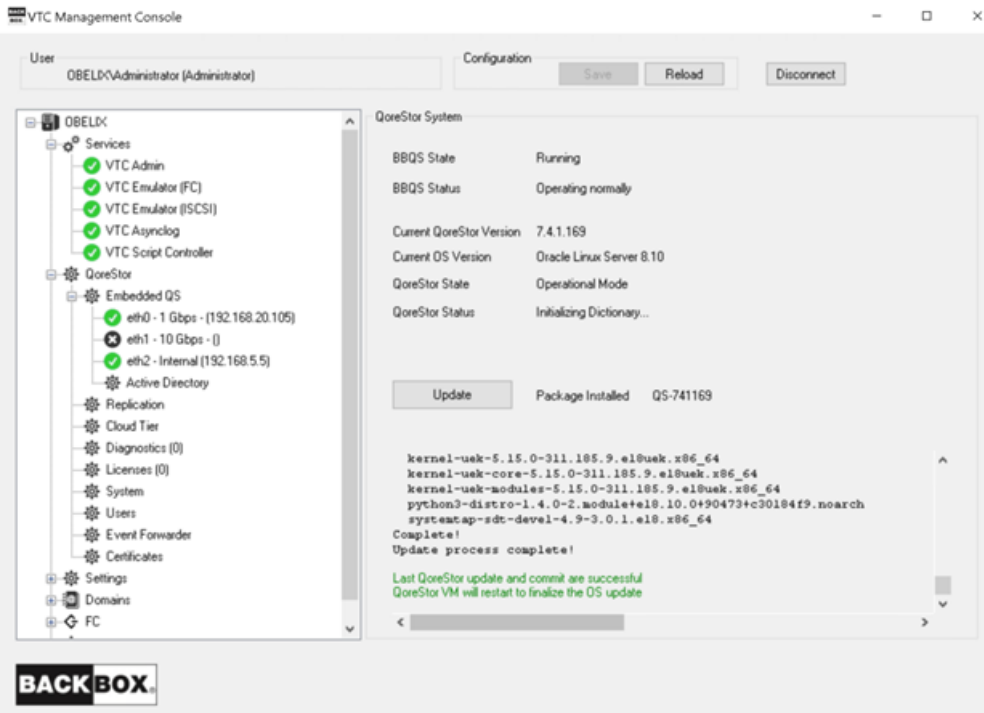
=== Starting services ===
Starting service: choam ...
Starting service: choam ...
Stopping service: ...
Starting service: ocards ...
... Done.
=== Management interface: https://bbqs93.etinet.local:5233 ===
Verifying required external python libraries...
Installing offline required external python libraries.
  
```



The progress bar shows the status of the update during the process.

10. Once the update is completed, the server will automatically restart.



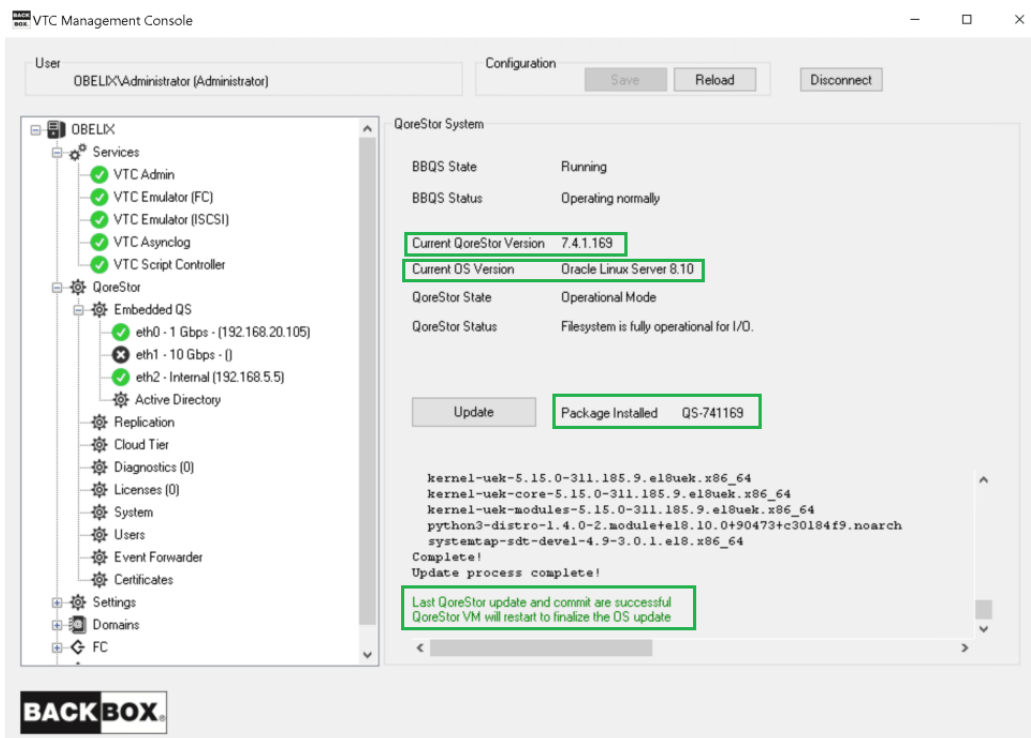


The updating process might take several minutes. Don't interrupt the process while updating.



If the update fails, an error message will be displayed and the version will be rolled back. For details on update error(s), verify the QSUpdate Log.

- Once the QoreStor update is successfully completed (see the green message at the bottom on the updating window).



At the end of the updating process, the System tab will display the QoreStor and OS versions updated to.

The displayed Current QoreStor Version is now 7.4.1.169 and Current OS Version is 8.10.

- Once the QoreStor Status is fully operational for I/O, the checkpoint initially created (at step 1) can be now deleted to finalize the process.

13. If the upgrade has been successfully completed, return to Hyper-V and delete the created Checkpoint

Name	State	CPU Usage	Assigned Memory	Uptime	Status	Configuration Version
BBQS9	Off					10.0
BBQS	Running	4%	32768 MB	00:09:53		8.0

Checkpoints

- BBQS - (10/16/2025 - 1:51:20 PM)
 - Now
 - Settings...
 - Apply...
 - Export...
 - Rename...
 - Delete Checkpoint...**
 - Delete Checkpoint Subtree...
 - Help

BBQS - (10/16/2025 - 1:51:20 PM)

Created: 10/16/2025 1:51:21 PM
Configuration Version: 8.0
Generation: 1
Notes: This VM provides a minimal installed profile of Oracle Linux 8.9 with QoreStor 7.4.0.222

	If upgrade failed, you can use the checkpoint to rollback the VM at state prior to beginning the upgrade by Apply... the root checkpoint
	ATTENTION: Don't forget to delete an active checkpoint after the upgrade has been completed to ensure the restart of normal operation. BBQS VM should always have no checkpoint enabled after the upgrade. For more details, contact ETINET Support.

Name	State	CPU Usage	Assigned Memory	Uptime	Status	Configurati...
BBQS	Running	0%	32768 MB	2:22:28.44		8.0

Checkpoints

The selected virtual machine has no checkpoints.

BBQS

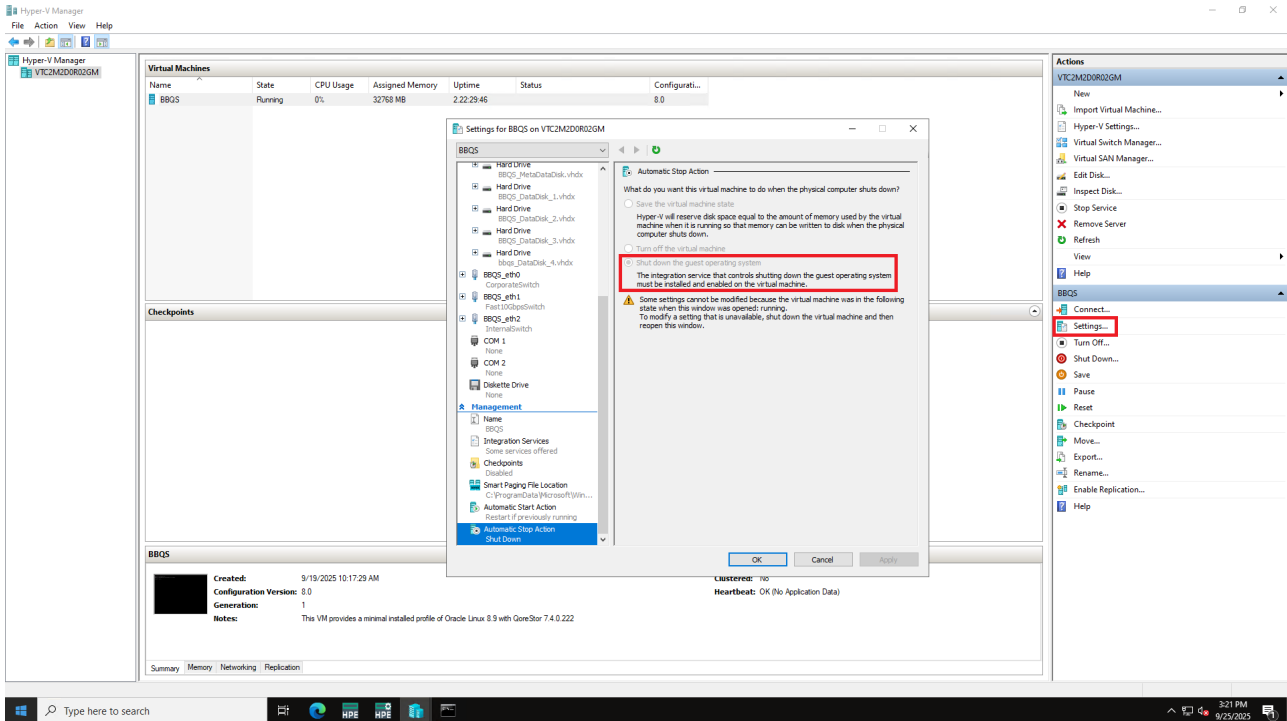
Created: 9/19/2025 10:17:29 AM
Configuration Version: 8.0
Generation: 1
Notes: This VM provides a minimal installed profile of Oracle Linux 8.9 with QoreStor 7.4.0.222

Clustered: No
Heartbeat: OK (No Application Data)

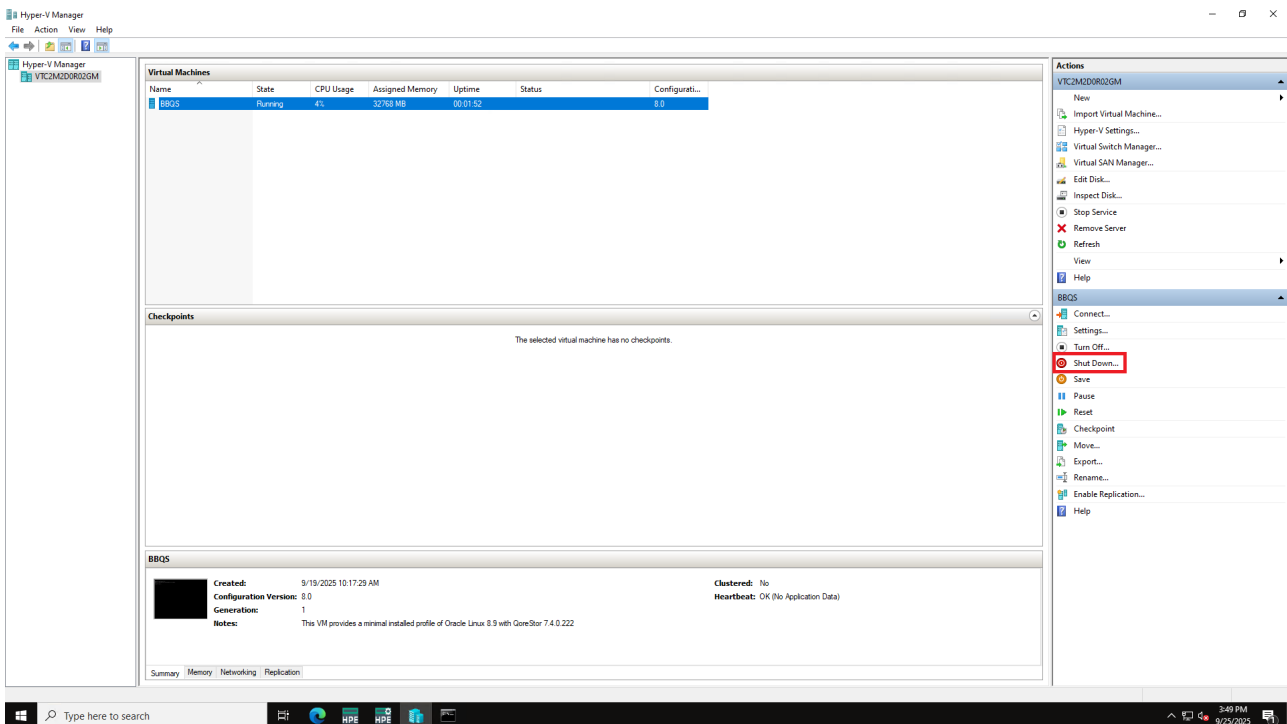
14. Validate the BBQS VM Automatic Stop Action and change it, if required. Hyper-V allows administrators BackBox® E5.01 QoreStor Update Procedure | 17

to control the Automatic Start/Stop behavior of virtual machines before a host shuts down or after it boots up. Automatic Stop Action is used to indicate what Hyper-V will do in that case. By default, Microsoft Hyper-V Virtual Machine Automatic Stop Action is in Save State. BBQS QoreStor Linux base VM has been set in Save State default. The recommended Automatic Stop Action for QoreStor is Shut down the guest operating system to avoid having a bad save state file that will prevent the QoreStor to restart without manual intervention after the VTC has been shutdown or restarted.

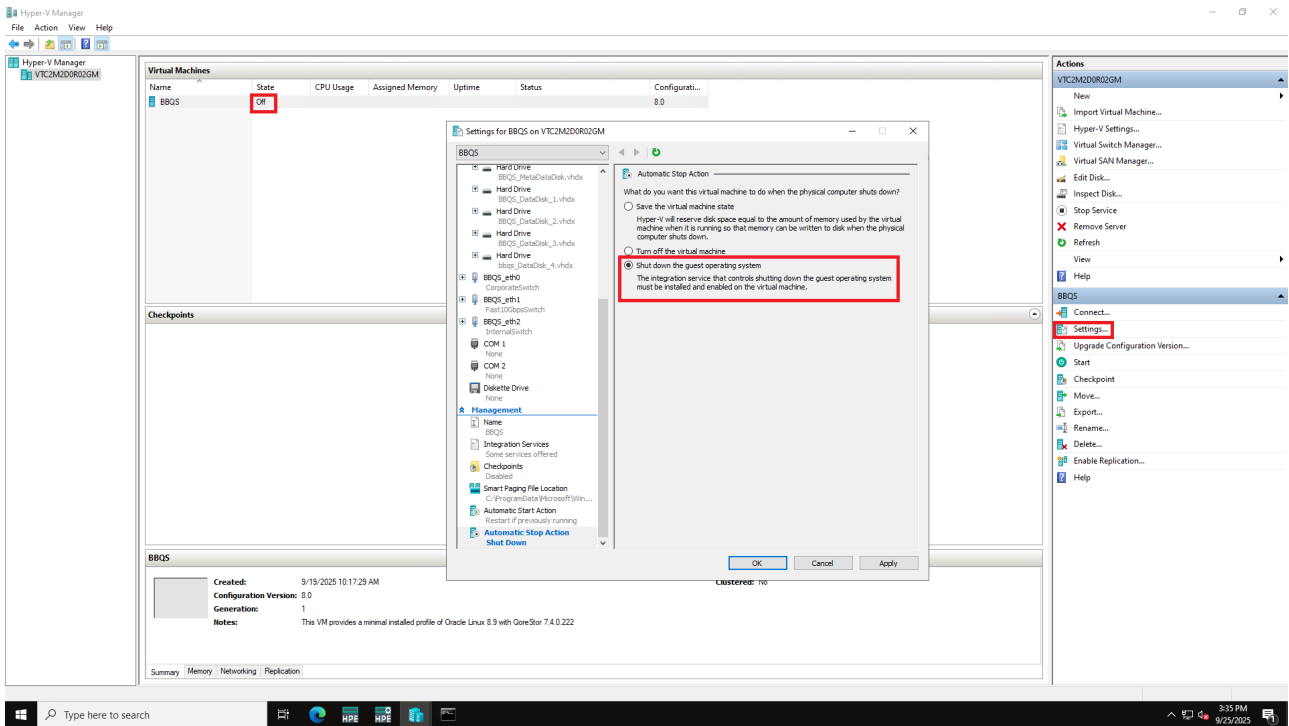
To validate the state, go to Settings and scroll down to the Automatic Stop Action.



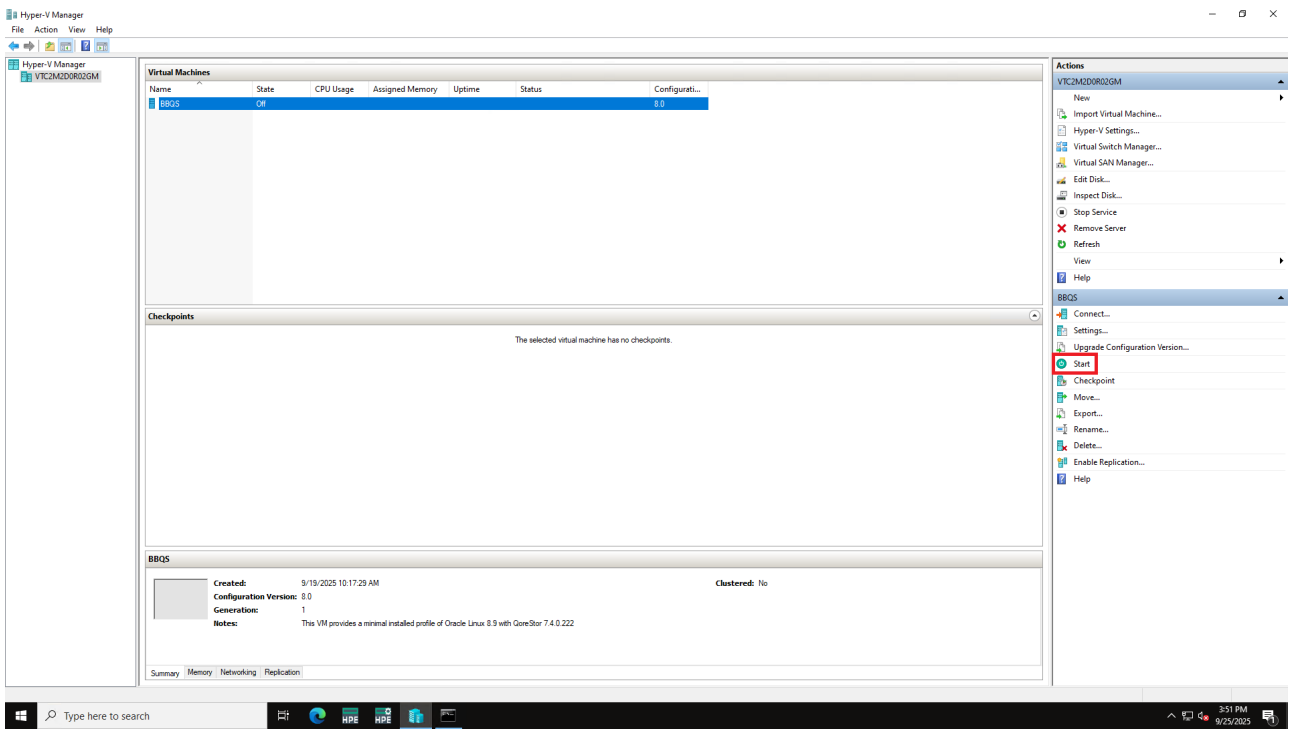
a. If the policy needs to be changed, close the Settings window and Shut Down the VM.



b. Go back to Settings to select and apply Shut down the guest operating system policy.



15. Start the VM.



16. If you performed steps 3 and 4, go to BackBox UI and enable the VTC1 (in the example below, OBELIX). Save the VT Controller configuration change.

Administration

Domain

NSK Nodes

VT Controller

Key Manager

Data Store

Volume Group

Select, Delete or Create a VT Controller

Create VT Controller

VT Controller ID	Status	Physical Location	TCP/IP Address	Comment		
GEN8SRV04	Enabled ▾		192.168.21.42	test	Advanced	Delete
OBELIX	Enabled ▾		192.168.20.87		Advanced	Delete