

## Custom Reports Using Data Collectors

**NetBackup 5230 Appliance (NetBackup Appliance - x86-64) was last updated in the 3.3.0.1 release.**

Installation and Upgrade Checklist Report for NetBackup 5230 Appliance 3.3.0.1, NetBackup Appliance , x86-64

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**NEW!** = New content since the last release of SORT

## Install Information

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**NetBackup 5230 Appliance (NetBackup Appliance - x86-64) was last updated in the 3.3.0.1 release.**

### Procedure Overview:

Install the NetBackup Appliance 3.3.0.1 release.

For details of new features and changes, please refer to: [Release Notes](#).

For download and installation instructions, please go to: [Veritas Download Center](#).

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## Compatibility between NetBackup versions

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For compatibility between major versions, the latest available release of NetBackup is compatible with media servers and clients that run a release of NetBackup that is up to one major version behind. However, this compatibility ceases to be supported in any configuration once the previous major version has reached its End of Support Life.

For information on Veritas End of Life Policy, refer to [https://www.veritas.com/support/en\\_US/article.000116439](https://www.veritas.com/support/en_US/article.000116439)

NetBackup does not support any scenario where a media server or client runs a software release update version that is higher than that of their Master server.

For more information, refer to the NetBackup Release Notes and the NetBackup Upgrade Guide: [https://www.veritas.com/support/en\\_US/article.000116412](https://www.veritas.com/support/en_US/article.000116412)

NetBackup Master Server	NetBackup Media Server	NetBackup Client
8.0	7.0	7.0
8.0	7.0.1	7.0, 7.0.1
8.0	7.1, 7.1.0.x	7.0, 7.0.1, 7.1, 7.1.0.x
8.0	7.5, 7.5.0.x	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x

Veritas Services and Operations Readiness Tools (SORT)

8.0	7.6, 7.6.0.x	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x
8.0	7.6.1, 7.6.1.x	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x
8.0	7.7	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7
8.0	7.7.1	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1
8.0	7.7.2	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2
8.0	7.7.3	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3
8.0	8.0	7.0, 7.0.1, 7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0
8.1	7.7	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7
8.1	7.7.1	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1
8.1	7.7.2	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2
8.1	7.7.3	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3
8.1	8.0	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0
8.1	8.1	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1
8.1.1	7.7	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7
8.1.1	7.7.1	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1
8.1.1	7.7.2	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2
8.1.1	7.7.3	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3
8.1.1	8.0	7.6, 7.6.0.x, 7.6.1, 7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0

Veritas Services and Operations Readiness Tools (SORT)

8.1.1	8.1	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1
8.1.1	8.1.1	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1, 8.1.1
8.1.2	7.7	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7
8.1.2	7.7.1	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1
8.1.2	7.7.2	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2
8.1.2	7.7.3	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3
8.1.2	8.0	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0
8.1.2	8.1	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1
8.1.2	8.1.1	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1, 8.1.1
8.1.2	8.1.2	7.6, 7.6.0.x,7.6.1,7.6.1.x, 7.7, 7.7.1, 7.7.2, 7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
8.2	8.0	7.7.3, 8.0
8.2	8.1	7.7.3, 8.0, 8.1
8.2	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
8.2	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
8.2	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
8.3	8.0	7.7.3, 8.0
8.3	8.1	7.7.3, 8.0, 8.1
8.3	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
8.3	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
8.3	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
8.3	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3
8.3	8.3.0.1	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1

Veritas Services and Operations Readiness Tools (SORT)

8.3	8.3.0.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2
8.3.0.1	8.1	7.7.3, 8.0, 8.1
8.3.0.1	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
8.3.0.1	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
8.3.0.1	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
8.3.0.1	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3
8.3.0.1	8.3.0.1	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1
8.3.0.1	8.3.0.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2
8.3.0.2	8.1	7.7.3, 8.0, 8.1
8.3.0.2	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
8.3.0.2	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
8.3.0.2	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
8.3.0.2	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3
8.3.0.2	8.3.0.1	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1
8.3.0.2	8.3.0.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2

Other general rules for compatibility:

- OpsCenter/OpsCenter Analytics must always be running the same or higher Dot-Zero or Single-Dot or Double-Dot release as the master servers in the environment.
- All components (master, media, client, console, and agent) on an individual system must be at the same version.
- Backup images created under an older version of NetBackup will always be recoverable with a newer version of NetBackup
- A new feature may not be functional until the master, media and client are updated.
- Administration Consoles cannot be at an earlier version than the NetBackup server version they connect to via the "change server" functionality in the console

NetBackup Software Compatibility Documentation:

[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List \(last updated on March 11, 2024\)](#)

[8.0 - 8.x.x OS Software Compatibility List Updates](#)

NetBackup 5xxx Appliance Compatibility  
Appliance Compatibility List

## Late Breaking News - Available Hot Fixes

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Available hot fixes - for details and download information, consult the Update link in the table.

For more information about installation instructions, please review [NetBackup Appliance 3.3.0.1 on Support site](#).

Hot Fix	Description	Install Location
<a href="#">UPD804548</a>	NetBackup Appliance Client Package 3.3.0.1	Appliance
<a href="#">UPD964545</a>	NetBackup 8.3.0.1 / 3.3.0.1 Hotfix - MSDP EEB Bundle (Etrack 4013394)	Cross-platform
<a href="#">UPD638899</a>	NetBackup 8.3.0.1/3.3.0.1 Hotfix - bpjobd low performance impacting NetBackup operations domain wide when under heavy load (Etrack 4033200)	Cross-Platform
<a href="#">UPD107391</a>	NetBackup 8.3.0.1 HotFix - OpsCenter generates "media server unreachable" alerts every few minutes (Etrack 4022693)	Cross-Platform
<a href="#">UPD178963</a>	Spectre vulnerability (Variant 2 - CVE-2017-5715) on NetBackup Appliances (article 100043541)	Appliance
<a href="#">UPD813520</a>	Cloud Catalyst sync_to_cloud tool	Linux
<a href="#">UPD891447</a>	Appliance Management Server 1.4.1	Appliance
<a href="#">UPD773233</a>	NetBackup Appliance Upgrade Readiness Analyzer	Appliance
<a href="#">UPD763849</a>	NetBackup 8.3.0.1/3.3.0.1 HotFix - Some folders are skipped on VM backup of	Cross-Platform

Veritas Services and Operations Readiness Tools (SORT)

	Windows machines after upgrade to 8.3.0.1 (Etrack 4020533).	
UPD160133	NetBackup Appliance 3.3.0.2 Maintenance Release 2	Appliance
UPD415078	Appliance Management Server 2.0	Appliance
UPD863499	Apache Log4j Vulnerabilities Remediation Hot Fix for NetBackup Appliance version 3.3.0.2 Maintenance Release 2	Appliance
UPD271933	NetBackup 8.3.0.1 / 3.3.0.1 Hotfix - VMware virtual machine entered into emergency mode at first boot after successful restore. (Etrack 4049936)	Cross-Platform
UPD286655	NetBackup Appliance 3.3.0.2 Maintenance Release 1	Appliance
UPD299209	NetBackup Appliance Upgrade Readiness Analyzer (article 100040055)	Appliance
UPD790636	VTS22-012 and VTS22-013 - Hotfix for Security Advisory impacting NetBackup 8.3.0.2 and Appliance 3.3.0.2 Primary and Media Servers (Etrack 4067650)	Cross-platform
UPD713737	NetBackup Appliance Health Maintenance Plugin AddOn Package	Appliance
UPD125791	VTS22-015 - Hotfix for Security Advisory impacting NetBackup 8.3.0.1 and Appliance 3.3.0.1 Primary and Media Server(Etrack 4090775)	Cross-platform
UPD245887	Appliance Management Server 2.1	Cross-platform
UPD966809	Veritas Appliance firmware update tool (article 100046032)	Appliance
UPD736306	VTS22-012 and VTS22-013 - Hotfix for Security Advisory impacting NetBackup 8.3.0.1 and Appliance 3.3.0.1 Primary and Media Servers (Etrack 4075041)	Cross-platform

UPD714038	NetBackup 8.1.2 - 10.1.1 - nbdb_unload performance impact when upgrading to NetBackup 10.2 or above	Cross-platform
UPD653466	NetBackup 8.3.0.1/3.3.0.1 Hotfix - nbdeployutil Cumulative EEB for Accurate License Reporting(Etrack 4122131)	Cross-platform
UPD962786	NetBackup 8.3.0.1 / 3.3.0.1 Hotfix - Vxupdate / nbinstallagent EEB Bundle Package (Etrack 4047816)	Cross-platform
UPD465870	NetBackup 8.3.0.1 HotFix - Restore using vSphere 7.0 update 1 fails with EC 2820 (Etrack 4014637)	Cross-Platform

#### NetBackup Documentation References:

- [Guidelines for the availability of EEB/hotfixes](#)
- [Late Breaking News and Important Updates about NetBackup Appliances](#)

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## Appliances Supported Versions and Functionality

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NetBackup Appliances are Veritas-branded devices offering backup and deduplication solutions for enterprise environments in an appliance form factor. For more information, see the "[NetBackup Appliances](#)" page.

### NetBackup 5200 Series (Primary/Media Server/CloudCatalyst), 5300 Series (Media Server), Virtual, and Flex Appliances

The following tables list NetBackup 5200 Series, 5300 Series, and Virtual release versions, the Appliance models supported with each version, and the NetBackup Release version on which it is based.

There is also a table listing NetBackup Flex Appliance versions, the Appliance models supported with each version, and the Primary Server and Media Server versions supported with each version.

Documentation for NetBackup Appliances [is available here](#). Late breaking news related to NetBackup Appliances [is available here](#).

NetBackup Appliance packages and hotfixes [are available on Downloads Center](#).

NOTE: References to NetBackup 5200 and 5220 Appliances have been removed from this document since these models are no longer supported.

### NetBackup 5300 Series - Supported Versions

NetBackup 5300 Series Appliance Release	Supported NetBackup Appliance Models	Based on NetBackup Release
3.3.0.1	5340, 5330	8.3.0.1
3.2	5340, 5330	8.2
3.1.2	5340, 5330	8.1.2
3.1.1	5340, 5330	8.1.1
3.1	5340, 5330	8.1
3.0	5330	8.0

### NetBackup 5200 Series - Supported Versions

NetBackup 5200 Series Appliance Release	Supported NetBackup Appliance Models	Based on NetBackup Release
3.3.0.1	5250, CloudCatalyst 5240, 5240, 5230	8.3.0.1
3.2	5250 , CloudCatalyst 5240, 5240, 5230 <sup>[1]</sup>	8.2
3.1.2	CloudCatalyst 5240, 5240, 5230	8.1.2
3.1.1	CloudCatalyst 5240, 5240, 5230	8.1.1
3.1	CloudCatalyst 5240, 5240, 5230	8.1
3.0	5240, 5230	8.0

### Footnotes

1. The Veritas 5250 Appliance requires a revised version of 3.2.

### NetBackup Virtual Appliance - Supported Versions

NetBackup Virtual Appliance Release	Based on NetBackup Release	Supported Platforms
3.3.0.1	8.3.0.1	vSphere 6.0, 6.5, 6.7, 7.0

3.2	8.2	vSphere 6.0, 6.5, 6.7
3.1.2	8.1.2	vSphere 5.5, 6.0, 6.5
3.1.1	8.1.1	vSphere 5.5, 6.0, 6.5
3.1	8.1	vSphere 5.5, 6.0, 6.5
3.0	8.0	vSphere 5.5, 6.0

**NetBackup Flex Appliance - Supported Versions**

NetBackup Flex Appliance Release	Supported NetBackup Appliance Models	Supported NetBackup Primary Server Versions	Supported NetBackup Media Server Versions	WORM (OST Target)
2.1.2	5350 (Configuration A, B, C), 5340 (Configuration A, B, C, D, E, F, G, H, J), 5250 (Configuration A, B, C, D, E, F), 5150	10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	17.0, 16.0.1, 16.0, 15.0.2, 15.0, 14.0.1, 14.0, 13.0.2, 13.0.1.1 <sup>[1][2]</sup> [3][4][5][6][7][8]
2.1.1	5350 (Configuration A, B, C), 5340 (Configuration A, B, C, D, E, F, G, H, J), 5250 (Configuration A, B, C, D, E, F), 5150	10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	17.0, 16.0.1, 16.0, 15.0.2, 15.0, 14.0.1, 14.0, 13.0.2, 13.0.1.1 <sup>[1][2]</sup> [3][4][5][6][7][8]
2.1	5350 (Configuration A, B, C), 5340 (Configuration A, B, C, D, E, F, G, H, J), 5250 (Configuration A, B, C, D, E, F), 5150	10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	10.0.0.1, 10.0, 9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	16.0.1, 16.0, 15.0.2, 15.0, 14.0.1, 14.0, 13.0.2, 13.0.1.1 <sup>[1][2][3][4]</sup> [5][6][7]
2.0.1	5350 (Configuration A, B, C), 5340 (Configuration A, B, C, D, E, F, G, H, J), 5250 (Configuration A, B, C, D, E, F), 5150	9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	9.1.0.1, 9.1, 9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1	15.0.2, 15.0, 14.0.1, 14.0, 13.0.2, 13.0.1.1 <sup>[1][2]</sup> [3][4][5]
2.0	5340 (Configuration A, B, C, D, E, F, G, H, J), 5150	9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1, 8.2	9.0.0.1, 9.0, 8.3.0.2, 8.3.0.1, 8.2	14.0.1, 14.0, 13.0.2, 13.0.1.1 <sup>[1][2][3]</sup>

1.3.1	5340 (Configuration A), 5150	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 <sup>[9]</sup>	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 <sup>[9]</sup>	Not supported
1.3	5340 (Configuration A), 5150	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 <sup>[9]</sup>	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 <sup>[9]</sup>	Not supported

## Footnotes

1. WORM storage server version 13.0.2 requires NetBackup primary and media server version 8.3.0.2 or later.
2. WORM storage server version 14.0 requires NetBackup primary and media server version 9.0 or later.
3. WORM storage server version 14.0.1 requires NetBackup primary and media server version 9.0.0.1 or later.
4. WORM storage server version 15.0 requires NetBackup primary and media server version 9.1 or later.
5. WORM storage server version 15.0.2 requires NetBackup primary and media server version 9.1.0.1 or later.
6. WORM storage server version 16.0 requires NetBackup primary and media server version 10.0 or later.
7. WORM storage server version 16.0.1 requires NetBackup primary and media server version 10.0.0.1 or later.
8. WORM storage server version 17.0 requires NetBackup primary and media server version 10.1 or later.
9. Veritas strongly recommends running NetBackup 8.2 or later with Flex Appliance.

## Configuring Cloud Solutions with NetBackup CloudCatalyst Appliances

The table below shows when a NetBackup cloud configuration and device mappings RPM package is required for configuring cloud providers with NetBackup CloudCatalyst Appliances. "Included in release" means that version of the NetBackup Appliance software contains the information needed for configuring that cloud provider, so installing an RPM is not required.

Configuration for the cloud storage provider must be done using the Cloud Storage Configuration wizard in the NetBackup Administration Console. After this configuration is completed, you must manually create a backup policy for the deduplication (MSDP) pool catalog. For details, see the "[NetBackup 52xx Appliance Initial Configuration Guide](#)".

## When to install a Cloud Configuration/Device Mappings RPM for NetBackup CloudCatalyst Appliance

Cloud solution	NetBackup Appliances running 3.2	NetBackup Appliances running 3.3.0.1
ACP CS3 (S3)	Included in release	Included in release
Alibaba Cloud Object Storage Service (OSS) (S3)	Included in release	Included in release
Amazon Glacier (S3)	Included in release	Included in release

Veritas Services and Operations Readiness Tools (SORT)

Amazon Glacier Deep Archive (S3)	Included in release	Included in release
Amazon GovCloud Glacier (S3)	Included in release	Included in release
Amazon GovCloud Glacier Deep Archive (S3)	Included in release	Included in release
Amazon GovCloud Simple Storage Service (S3)	Included in release	Included in release
Amazon GovCloud Simple Storage Service - Infrequent Access (S3)	Included in release	Included in release
Amazon Simple Storage Service (S3)	Included in release	Included in release
Amazon Simple Storage Service - Infrequent Access (S3)	Included in release	Included in release
Amazon Simple Storage Service - OneZone-Infrequent Access (S3)	Included in release	Included in release
AT&T Cloud Storage (S3)	Included in release	Included in release
China Mobile CMCC Cloud Storage (S3)	Included in release	Included in release
China Telecom OOS (S3)	Included in release	Included in release
Chunghwa Telecom Hicloud S3 (S3)	Included in release	Included in release
Cloudian HyperStore Object Storage (S3)	Included in release	Included in release
Dell EMC Elastic Cloud Storage (S3)	Included in release	Included in release
Deutsche Telekom Open Telekom Cloud (S3)	Included in release	Included in release
Fujitsu ETERNUS CD10000 (S3)	Included in release	Included in release
Google Cloud Storage - Multi-Regional (S3)	Included in release	Included in release
Google Cloud Storage - Regional (S3)	Included in release	Included in release
Google Cloud Storage Coldline (S3)	Included in release	Included in release
Google Cloud Storage Nearline (S3)	Included in release	Included in release
Hitachi Vantara Content Platform (HCP) (S3)	Included in release	Included in release
Hitachi Vantara Cloud Scale (S3)	Not Supported	Included in release

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IBM Cloud Object Storage - Cold Vault (S3)	Included in release	Included in release
IBM Cloud Object Storage - Flex (S3)	Included in release	Included in release
IBM Cloud Object Storage - Private (S3)	Included in release	Included in release
IBM Cloud Object Storage - Standard (S3)	Included in release	Included in release
IBM Cloud Object Storage - Vault (S3)	Included in release	Included in release
Infoniqa SWISS3CLOUD (S3)	Included in release	Included in release
Kingsoft Standard Storage Service (KS3) - Standard (S3)	Included in release	Included in release
Kingsoft Standard Storage Service (KS3) - Standard IA (S3)	Included in release	Included in release
Microsoft Azure (Azure)	Included in release	Included in release
Microsoft Azure Germany (Azure)	Included in release	Included in release
Microsoft Azure Government (Azure)	Included in release	Included in release
NEC Cloud IaaS (S3)	Included in release	Included in release
NEC HYDRAsTOR HS3 and HS8 (4th Gen), iStorage HS3 and HS8 (4th Gen) and NEC Storage HS3 and HS8 (4th Gen) (S3)	Included in release	Included in release
NEC HYDRAsTOR HS3 and HS8 (5th Gen), iStorage HS3 and HS8 (5th Gen) and NEC Storage HS3 and HS8 (5th Gen) (S3)	Included in release	Included in release
NetApp StorageGRID Webscale Object Storage (S3)	Included in release	Included in release
NooBaa (S3)	Included in release	Included in release
Nutanix Objects (S3)	Not supported	Included in release
Oracle Cloud Infrastructure (S3)	Included in release	Included in release
Orange Business Services Flexible Engine OBS (S3)	Not supported	Included in release
Quantum Active Archive and ActiveScale Systems (S3) (formerly HGST)	Included in release	Included in release
Quantum Lattus Object Storage (S3)	Included in release	Included in release

Red Hat Ceph Storage (S3)	Included in release	Included in release
SandStone MOS (S3)	Not supported	Included in release
Scality RING Storage (S3)	Included in release	Included in release
SUSE Enterprise Storage (S3)	Included in release	Included in release
SwiftStack Object Storage (S3)	Included in release	Included in release
Telefonica Open Cloud (S3)	Included in release	Included in release
Veritas Access (S3)	Included in release	Included in release
Veritas Access 3340 Appliance (S3)	Included in release	Included in release

### NetBackup 5200 Series, 5300 Series, and Virtual Appliance Supported Functionality

The following table lists NetBackup 5200 Series, 5300 Series, and Virtual Appliance supported functionality and indicates the minimum NetBackup Appliance Release version (3.2 or later) required for support of that functionality. NetBackup 5200 Series, 5300 Series, and Virtual Appliances can be used with all supported core NetBackup clients (see the ["NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"](#), application and database agents ["NetBackup 8.0 - 8.x.x Database and Application Agent Compatibility List"](#), and [Snapshot client](#) configurations.

For information on functionality supported with earlier versions of NetBackup Appliances, see the NetBackup Appliances section of the [NetBackup Enterprise Server and Server 8.0 - 8.1.x Hardware and Cloud Storage Compatibility List](#).

### NetBackup 5200 Series, 5300 Series, and Virtual Appliances - Supported Functionality

Functionality	Minimum Appliance Release	Supported Appliance Models	Notes
NetBackup Primary/Media Server	3.2	5200 Series, Virtual	The Primary Server role is only supported on 5200 Series and Virtual Appliances. Key Management Service (KMS) and NetBackup Access Control (NBAC) are not supported when the Appliance is configured as a Primary Server.
NetBackup Media Server	3.2	5200 Series, 5300 Series, Virtual	The Primary Server in the NetBackup domain must be running a version of NetBackup

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			equal to or newer than the NetBackup version on which the appliance is based.
NetBackup CloudCatalyst Appliance	3.2	5240 (Configuration G with 192 GB of memory), Virtual	
Accelerator (for files and folders)	3.2	5200 Series, 5300 Series, Virtual	
Accelerator with NDMP	3.2	5200 Series, 5300 Series, Virtual	Supported with Dell EMC Isilon Scale-Out NAS filers, and NetApp AFF, FAS, and V series filers. When using this feature with a NetBackup Virtual Appliance, monitor the /dev/mapper/system-log partition to ensure it does not exceed 50% of capacity, and manage log files to increase remaining partition capacity. For information on managing accelerator track log files, see " <a href="#">About the track log for Accelerator for NDMP</a> ". For more information on this feature, see the " <a href="#">About NetBackup Accelerator for NDMP</a> ".
Accelerator with VMware-type policies	3.2	5200 Series, 5300 Series, Virtual	
Auto Image Replication to MSDP/5200 Series or 5300 Series over Ethernet	3.2	5200 Series, 5300 Series, Virtual	
Auto Image Replication to MSDP/5200 Series or 5300 Series over Fibre Channel (FC)	3.2	5200 Series, 5300 Series	

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Auto Image Replication to PDDO/5000 Series	3.2	5200 Series, 5300 Series, Virtual	
Client Deduplication / Client Direct over Ethernet	3.2	5200 Series, 5300 Series, Virtual	Veritas allows NetBackup Clients to write data directly to NetBackup Storage Server Appliances. The client hosts the deduplication plug-in that deduplicates the backup data. The plug-in sends only unique segments to the Storage Server, reducing network traffic and distributing CPU load. For the list of supported clients, see the "Deduplication Supported Operating Systems" section of the <a href="#">"NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"</a> .
Copilot for Oracle	3.2	5230, 5240, 5250, 5330, 5340, Virtual	For more information on this feature, see the <a href="#">"NetBackup Copilot for Oracle Configuration Guide"</a> .
Fibre Transport Media Server	3.2	5230, 5240, 5250, 5330, 5340	Supported with 8 Gb HBAs in NetBackup 5230, 5240, 5250, 5330, and 5340 Appliances. Supported with 16 Gb HBAs in NetBackup 5240 and 5340 Appliances.
FIPS-compliant encryption	3.2	5200 Series, 5300 Series, Virtual	FIPS-compliant encryption, as defined by the Federal Information Processing Standards 140-2, can be enabled from the NetBackup Shell Menu. For

			more information, see the <a href="#">"NetBackup Appliance Security Guide"</a> .
Granular Recovery Technology (GRT)	3.2	5200 Series, 5300 Series, Virtual	
Granular Recovery Technology (GRT) with VMware-type policies	3.2	5200 Series, 5300 Series, Virtual	Support for VMware-type backup policies with Application Protection options enabled for Exchange or SharePoint.
Instant Data Access	3.2	5230, 5240, 5250, 5330, 5340	This feature allows you to create an Instant Access VM from a NetBackup backup image. The VM is available almost instantaneously, achieving a near-zero recovery time objective. NetBackup mounts the VM snapshot directly on the backup storage device to allow your ESXi host or cluster to treat the snapshot as a normal VM. For more information, see the <a href="#">"NetBackup Web UI VMware Administrator's Guide"</a> .
Instant Recovery for VMware	3.2	5200 Series, 5300 Series, Virtual	Support for restoring virtual machines with Instant Recovery is described in the <a href="#">"NetBackup for VMware Administrator's Guide"</a> . For details on supported platforms for instant recovery restore hosts, see <a href="#">"Support for NetBackup 7.7.x, 8.x, and 9.x in virtual environments"</a> .

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iSCSI Initiator - Hardware-assisted with TCP Offload Engine (TOE) card	3.2	5240 (Configuration H), 5340 (Configurations A, B, C, D, and E)	Supports backup of VMware virtual machines using VADP with SAN transport. For more information on this feature, see the <a href="#">"NetBackup Appliance iSCSI Guide"</a> and the <a href="#">"NetBackup for VMware Administrator's Guide"</a> .
Key Management Service (KMS)	3.2	5200 Series, 5300 Series	KMS is supported with Appliances configured as either a Primary or a Media Server. With a NetBackupCLI administrator account in the NetBackup Appliance Shell Menu, an Appliance Primary Server can administrate KMS with tape devices connected to itself or another NetBackup Appliance. Regenerating the data encryption key is the only supported method of recovering KMS on an Appliance Primary Server.
NetBackup Access Control (NBAC)	3.2	5200 Series, 5300 Series	Supported when the Appliance is configured as a Media Server only. Not supported when the Appliance is configured as a Primary Server.
NDMP	3.2	5200 Series, 5300 Series, Virtual	Supported NDMP solutions are listed in the <a href="#">NDMP devices</a> Vendor Compatibility section.
NetBackup Cluster			There are no plans to support this feature.

Veritas Services and Operations Readiness Tools (SORT)

NetBackup OpenStorage Cloud and Third-Party Plug-in Support	3.2	5200 Series, 5300 Series, Virtual	Supported plug-ins are listed in the "Support with NetBackup Appliance" tables shown in the <a href="#">OST Cloud</a> and <a href="#">OST Storage Servers</a> Vendor Compatibility sections. For instructions on installing vendor plug-in packages on NetBackup Appliances, see " <a href="#">About OpenStorage plugin installation</a> ".
OpsCenter	3.2	5200 Series, 5300 Series, Virtual	
OpsCenter Managed Server	3.2	5200 Series, 5300 Series, Virtual	
Optimized Duplication (Opt_Dup) over Ethernet	3.2	5200 Series, 5300 Series, Virtual	Supported from 5200/5300 Series/Virtual to 5000 Series (MSDP to PDDO) and from 5200/5300 Series/Virtual to 5200/5300 Series/Virtual (MSDP to MSDP).
Optimized Duplication (Opt_Dup) over Fibre Channel (FC)	3.2	5200 Series, 5300 Series	Supported from 5200/5300 Series to 5000 Series (MSDP to PDDO), and from 5200/5300 Series to 5200/5300 Series (MSDP to MSDP)
Optimized Synthetics (Opt_Synth)	3.2	5200 Series, 5300 Series, Virtual	
Tape Drive Support	3.2	5200 Series, 5300 Series	Supported tape drives are listed in the "Support with NetBackup Appliance" tables shown in the <a href="#">Tape Drives</a> Vendor Compatibility section.

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			Shared Storage Option (SSO) is supported.
Tape Library Support	3.2	5200 Series, 5300 Series	Supported tape libraries are listed with the notes "This library is also supported with NetBackup 5200 Series and 5300 Series Appliances" and "This library is also supported with the NetBackup 5240 Series Appliance with a SAS tape-out adapter" in the <a href="#">Tape Libraries</a> Vendor Compatibility section. Use the NetBackup Device Configuration Wizard within the NetBackup Administration Console to configure robots and tape drives on the NetBackup Appliance.
Universal Shares	3.2	5240, 5250, 5330, 5340	For more information on configuring Universal Shares, see <a href="#">Manage &gt; Storage &gt; Universal Shares</a>
Virtual Tape Library (VTL) Support	3.2	5200 Series, 5300 Series	Supported VTLs are listed in the "Support with NetBackup Appliance" tables shown in the <a href="#">Virtual Tape Libraries</a> Vendor Compatibility section. Use the NetBackup Device Configuration Wizard within the NetBackup Administration Console to configure VTLs and emulated tape drives on the NetBackup Appliance.

NetBackup Hardware Compatibility Documentation:

NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List (last updated on October 05, 2023)

NetBackup Hardware Compatibility Documentation: Introduction

Appliance Compatibility List

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## Browser Requirements for NetBackup Web UI

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The NetBackup Web UI is compatible with the latest vendor-supported versions of web browsers.

For the best experience with the NetBackup Web UI, Veritas recommends that you use Google Chrome or Mozilla Firefox, without any plug-ins.

Web Browser	Versions	Notes
Mozilla Firefox	60 or later.	The latest browser edition is recommended. Download from <a href="https://www.mozilla.org/en-US/firefox/">https://www.mozilla.org/en-US/firefox/</a>
Google Chrome	65 or later.	The latest browser edition is recommended. Download from <a href="https://www.google.com/chrome/">https://www.google.com/chrome/</a>

NetBackup Software Compatibility Documentation:

NetBackup 8.0 - 8.x.x Operating System Software Compatibility List (last updated on March 11, 2024)

8.0 - 8.x.x OS Software Compatibility List Updates

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## Replication Director

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The NetBackup Replication Director feature offers a single NetBackup interface for end-to-end data protection for unified policy management, snapshot copy management, snapshot copy monitoring, and global search and restore.

Replication Director support information is listed below, organized by vendor. The tables provide information on the versions of software tested, supported attachment methods and functionality, and other important notes about the hardware and its compatibility.

For more information on NetBackup Replication Director, see "[About NetBackup Replication Director](#)". This document contains links to important information about Replication Director requirements, latest issues, best practices, product documentation, limitations, and eLearning tutorial videos.

### Replication Director - Considerations

Subject	Notes
Support assumptions	<p>For details on supported operating systems, please refer to the "<a href="#">NetBackup 8.0 - 8.x.x Operating System Software Compatibility List</a>".</p> <ol style="list-style-type: none"><li>1. Where support is shown for NetBackup 5200 Series or 5300 Series Appliances it means that the OST solution is supported on appliances running versions 3.2 or later, unless noted otherwise.</li><li>2. Where support is shown for "Windows Server 2008 Enterprise Edition" it also means that the other editions of Windows Server 2008 and Windows Server 2008 R2 are supported. Only the x64 (64-bit) editions of the OS are supported as a NetBackup Media Server. Server Core Installation Option is not supported as a NetBackup Media Server.</li><li>3. Where support is shown for "Windows Server 2012 Datacenter" it also means that the other editions of Windows Server 2012, Windows Storage Server 2012, Windows Server 2012 R2, and Windows Storage Server 2012 R2 are supported.</li><li>4. Where support is shown for "Windows Server 2016 Datacenter" it also means that the other editions of Windows Server 2016 and Windows Storage Server 2016 are supported.</li><li>5. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.</li></ol>

	6. CentOS and Oracle Linux are not supported with Replication Director, unless noted otherwise.
Vendor support considerations	<p>1. In the vendor compatibility tables below, the column "Vendor Software" lists the vendor-supplied software that communicates with NetBackup OpenStorage. Refer to the storage vendor's NetBackup Replication Director site for details on the components that comprise this package.</p> <p>2. Minor versions of the vendor software listed in the tables below are also supported. (Example: Version "2.0" means versions 2.0.1, 2.0.2, 2.0p1, 2.0p2, etc. are also supported. Version "3" means versions 3.1, 3.2, 3.1p1, 3.1p2, etc. are also supported.)</p>
Operating system support dropped	<p><b>1. CentOS 6 is not supported as a media server with NetBackup 9.0 and later.</b></p> <p><b>2. Red Hat Enterprise Linux 6 is not supported as a media server with NetBackup 9.0 and later.</b></p> <p><b>3. Solaris (all versions) on SPARC and x86-64 will not be supported as a media server with NetBackup 10.0 and later.</b></p> <p><b>4. SUSE Linux Enterprise Server 11 is not supported as a media server with NetBackup 8.3 and later.</b></p> <p><b>5. SUSE Linux Enterprise Server 12 GA through SP2 are not supported as a media server with NetBackup 8.3 and later.</b></p> <p><b>6. Windows 2008 and 2008 R2 are not supported by Microsoft as of January 14, 2020.</b></p>

### Replication Director - Links to Vendor Sites

Vendor-specific information on NetBackup Replication Director solutions is available at the storage vendor's website. The following table also contains links to Veritas Articles with information on identifying the version of the NetBackup Replication Director plug-in.

Vendor	Vendor Replication Director Solution Information/Compatibility	Vendor Software Version Information
NetApp	<a href="https://support.netapp.com/matrix/">https://support.netapp.com/matrix/</a>	"Software required to use Replication Director"

## Replication Director - Supported Functionality

The following table lists NetBackup Replication Director functionality and indicates the NetBackup version (8.2 or later) at which that functionality was first supported. For more information on Replication Director functionality, see the "[NetBackup Replication Director Solutions Guide](#)".

For supported versions of agents, see the "[NetBackup 8.0 - 8.x.x Database and Application Agent Compatibility List](#)". The version information contained in that document also applies to databases and applications residing in VMware Virtual Machines.

For supported versions of VMware, see "[Support for NetBackup 7.7.x, 8.x, and 9.x in virtual environments](#)".

NetBackup-directed Operations	Abbreviation	NetBackup 8.2 (or later) Start of Support
Array-based Restore	Array-based_Restore	8.2
Snapshot Management for File System	Snapshot_Mgmt_FS	8.2
Snapshot Replication for File System	Snapshot_Repl_FS	8.2
Snapshot Management for Oracle	Snapshot_Mgmt_Oracle	8.2
Snapshot Replication for Oracle	Snapshot_Repl_Oracle	8.2
Snapshot Management for VMware	Snapshot_Mgmt_VMware	8.2
Snapshot Replication for VMware	Snapshot_Repl_VMware	8.2
Snapshot Management for Microsoft Exchange on VMware	Snapshot_Mgmt_VMware_Exchange	8.2
Snapshot Replication for Microsoft Exchange on VMware	Snapshot_Repl_VMware_Exchange	8.2
Snapshot Management for Microsoft SQL Server on VMware	Snapshot_Mgmt_VMware_SQL	8.2
Snapshot Replication for Microsoft SQL Server on VMware	Snapshot_Repl_VMware_SQL	8.2
Snapshot Management for Oracle on NFS Storage	Snapshot_Mgmt_Oracle_NFS	8.2
Snapshot Replication for Oracle on NFS Storage	Snapshot_Repl_Oracle_NFS	8.2

Snapshot Management for VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_NFS	8.2
Snapshot Replication for VMware with NFS Attached Datastores	Snapshot_Repl_VMware_NFS	8.2
Snapshot Management for Microsoft Exchange on VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_Exchange_NFS	8.2
Snapshot Replication for Microsoft Exchange on VMware with NFS Attached Datastores	Snapshot_Repl_VMware_Exchange_NFS	8.2
Snapshot Management for Microsoft SQL Server on VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_SQL_NFS	8.2
Snapshot Replication for Microsoft SQL Server on VMware with NFS Attached Datastores	Snapshot_Repl_VMware_SQL_NFS	8.2

## Replication Director - Vendor Compatibility

**Contents (for details click on the checkbox)**

NetApp

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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## Virtual Systems Compatibility

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This Statement of Support for NetBackup in a Virtual Environment document describes the extent of support for NetBackup within a virtual environment. Ideally, every NetBackup configuration supported in a traditional physical environment would also be supported in any virtual environment without qualification. While that is our mission, it is not always possible.

Therefore, the purpose of this document is to:

- Clarify differences between NetBackup support in physical vs. virtual environments
- Describe general guidelines for support in virtual environments.
- Describe impact upon specific NetBackup components: clients, servers, options, etc.
- Provide references to related information.

## VMware Compatibility

**Virtual Systems Compatibility** - Refer: Support for NetBackup in a Virtual Environment - [https://www.veritas.com/content/support/en\\_US/article.100040093](https://www.veritas.com/content/support/en_US/article.100040093)

- For supported vSAN configurations, refer article <https://kb.vmware.com/s/article/55071>
- NetBackup supports all minor patch releases (like: EP, U1x) unless otherwise noted.
- Software Defined Data-Center(SDDC) environments which includes NSX, NSX-T or other networking technologies are transparent to NetBackup and are supported.
- VMware Cloud on AWS(VMC) support starts from NetBackup 8.1.2
- Google Cloud VMware Engine (GCVE) is supported on NetBackup 8.1 and later versions

NetBackup Versions	VDDK Versions	vSphere Versions	vCloud Director Versions	Backup/Restore Host Versions
8.3	7.0	vSphere 7.0, 7.0 U1, 7.0 U2, 7.0 U3 vSphere 6.7, 6.7 U1, 6.7 U2, 6.7 U3 vSphere 6.5, 6.5 U1, 6.5 U2, 6.5 U3 VMware vSAN 6.5, 6.6, 6.6.1, 6.7, 6.7 U1, 6.7 U2, 6.7 U3 VMware vSAN 7.0 , 7.0 U1, 7.0 U2, 7.0 U3 Refer VMware VDDK release notes URL below for additional information on supported vCenter and ESXi versions.	Service Provider Versions: 9.0, 9.1, 9.5, 9.7, 10, 10.1	All 64 bit only: Windows Server 2019, 2016, 2012 R2, 2012 Red Hat Enterprise Linux (RHEL) 7.7, 8.0 SUSE Linux Enterprise Server (SLES) 12SP5, 15SP1 CentOS 7.7

8.3.0.1	7.0	vSphere 7.0, 7.0 U1, 7.0 U2, 7.0 U3 vSphere 6.7, 6.7 U1, 6.7 U2, 6.7 U3 vSphere 6.5, 6.5 U1, 6.5 U2, 6.5 U3 VMware vSAN 6.5, 6.6, 6.6.1, 6.7, 6.7 U1, 6.7 U2, 6.7 U3 VMware vSAN 7.0 , 7.0 U1, 7.0 U2, 7.0 U3 Refer VMware VDDK release notes URL below for additional information on supported vCenter and ESXi versions.	Service Provider Versions: 9.0, 9.1, 9.5, 9.7, 10, 10.1	All 64 bit only: Windows Server 2019, 2016, 2012 R2, 2012 Red Hat Enterprise Linux (RHEL) 7.7, 8.0 SUSE Linux Enterprise Server (SLES) 12SP5, 15SP1 CentOS 7.7
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- For vCloud Director 8.0, 8.0.1, 8.0.2 to determine the host name: Refer to [https://www.veritas.com/support/en\\_US/article.000108257](https://www.veritas.com/support/en_US/article.000108257)
- For vCloud Director 8.0, 8.0.1, 8.0.2 NetBackup restores to vCloud: Refer to <http://www.veritas.com/docs/000108831>
- NetBackup does not support the vCloud Director 8.20, 9.0 and 10 feature called "Automatic discovery and import of vCenter VMs."

**Note the following:**

- NetBackup Web Client Plugin is not supported with VMware vSphere 7.0 U1, 7.0 U2, 7.0 U3 on NetBackup 8.3, 8.3.0.1 and 8.3.0.2
- NetBackup Web Client Plugin is not supported with VMware vSphere 7.0 and later updates on NetBackup 8.2
- NetBackup Instant Access is not supported with VMware vSphere 7.0 U1, 7.0 U2, and 7.0 U3 on NetBackup 8.3 and 8.3.0.2
- The EEB required for Instant Access with VMware vSphere 7.0 U1, 7.0 U2, and 7.0 U3 on 8.3.0.1 can be obtained from Veritas Technical Support. Refer [https://www.veritas.com/support/en\\_US/article.100048721](https://www.veritas.com/support/en_US/article.100048721) for additional details.
- VMware version information can also be obtained from the VMware Product Interoperability Matrix, and is subject to change by VMware. For the latest information, see the following: [http://www.vmware.com/resources/compatibility/sim/interop\\_matrix.php](http://www.vmware.com/resources/compatibility/sim/interop_matrix.php)
- NetBackup supports installation of the backup host in a virtual machine (VMware "hotadd"). The guest operating systems that NetBackup supports for hotadd are the same as the above.
- For the Linux VMware backup host or restore host, locales other than UTF-8 are not supported.

- NetBackup 8.0 and later supports VMware Virtual Volumes (VVols)
- NetBackup 8.1.2 introduces Instant Access for VMware for vCenter and ESXi versions 5.5 and later.
- NetBackup supports all triple-dot versions of VMware vCloud Director, unless otherwise noted.
- Install "VMware ESXi 6.0, Patch Release ESXi600-201511001 (2137545)" for consistent backups. This ESX patch is mandatory, according to VMware, to fix the data loss situation reported in VMware KB article 2136854. For more information about the cause and the resolution of this issue, see: [http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=2136854](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2136854)

**VMware VDDK Release Notes:**

- VDDK 6.0.2 Release Notes: <https://code.vmware.com/docs/3930/vddk-6-0-2-release-notes>
- VDDK 6.5.1 Release Notes: <https://code.vmware.com/docs/5584/virtual-disk-development-kit-6-5-1-release-notes>
- VDDK 6.5.2 EP1 Release Notes: <https://code.vmware.com/docs/6175/virtual-disk-development-kit-6-5-2-ep1-release-notes>
- VDDK 6.5.3 Release Notes: <https://code.vmware.com/docs/6842/virtual-disk-development-kit-6-5-3-release-notes>
- VDDK 6.7.2 Release Notes: <https://code.vmware.com/docs/8100/virtual-disk-development-kit-6-7-2-release-notes>
- VDDK 7.0 Release Notes: <https://code.vmware.com/docs/11697/virtual-disk-development-kit-7-0-release-notes>.

**Hyper-V Servers Compatibility**

**Hyper-V is supported on Microsoft Windows Server Editions which are compatible with NetBackup Client. Refer to Operating System Compatibility table for details.**

**Hyper-V Servers Compatibility** - Reference Article: TECH127089 Statement of Support for NetBackup in a Virtual Environment: <http://www.veritas.com/docs/000006177>

**Note:**

- NetBackup Client must be installed on the Hyper-V server
- Master and Media Server platform support as supported by the appropriate NBU release

NetBackup Versions	Hyper-V Server Versions	System Center Virtual Machine Manager Versions	Comments
8.0	Hyper-V Server 2019	NetBackup Add-In and Hyper-V	<ul style="list-style-type: none"> <li>• Hyper-V Intelligent Policy supported only for Hyper-V Server 2012 R2 (and associated updates), Hyper-V Server 2016, Hyper-V Server 2019.</li> <li>• VHD and VHDX support</li> </ul>
8.1	Hyper-V Server 2016	Intelligent Policy for	
8.1.1	Hyper-V Server 2012 R2	• SCVMM 2012 R2	
8.1.2	Hyper-V Server 2008 R2	• SCVMM 2016	
8.2	Hyper-V Server 2008SP2	• SCVMM 2019	
8.3			

**File-level recovery from a Hyper-V backup is not supported in case of following scenarios.**

- Any guest OS volume that resides on a 4Kn virtual disk (VHDX file).
- Files in guest OS that reside on REFS or NTFS deduplicated volume.

**WMI backup features and limitations:**

- WMI method is supported for Windows Server 2016 and above.
- Requires a VM configuration version later than 5.
- VMs can be hosted on either the NTFS, ReFS, Windows Storage Spaces, Storage Spaces Direct or SMB 3.0 file shares.
- WMI backup method does not support backup or restore of user-created checkpoints of the VM.
- Faster Hyper-V backup and recovery feature requires block-level incremental to be enabled and can only be saved to deduplication storage unit.

**VSS backup limitations:**

- VMs must reside on the NTFS file system (ReFS or NTFS Deduplication is not supported).
- Block-level incremental backup is not supported.
- Backing up VM's residing on SMB 3.0 file shares is not supported.

**Hyper-V Limitations**

- Backup of a Hyper-V guest OS that use VHD Sets or shared VHDX file is not supported.
- Hyper-V Server 2019 and System Center Virtual Machine Manager 2019 is supported from NetBackup version 8.1.2
- Hyper-V Server on windows Server Semi-Annual Channel builds are supported with partial functionality.  
Refer technote for additional details <https://www.veritas.com/docs/100041472>

**Nutanix AOS versions and backup host**

**Supported Nutanix AOS versions and backup host operating systems**

NetBackup for Nutanix AHV protects Nutanix AHV virtual machines by integrating with Nutanix APIs for Data Protection. All minor versions of Nutanix AOS are supported unless specifically noted in the table below.

NetBackup Versions	Nutanix AOS Versions	Backup/Restore Host Versions	Notes
8.2, 8.3	5.10 5.11 5.15 5.17 5.18, 5.19, 5.20, 6.0, 6.1 , 6.5 [1][1]	NetBackup 8.2 and 8.3 supported x86-64 platforms of Red Hat Enterprise Linux and SUSE Linux Enterprise Server will work as backup hosts.	<ul style="list-style-type: none"><li>• Nutanix AOS 5.10 is supported with “BigData” and “Hypervisor” policy type.</li><li>• Nutanix AOS 5.11 and later versions are supported with "Hypervisor” policy type only</li></ul>

- |  |  |  |  |
|--|--|--|--|
|  |  |  | <ul style="list-style-type: none"><li>• NetBackup plug-in for Nutanix-AHV is required to enable "Hypervisor" policy on NetBackup 8.2, The Plugin can be downloaded from SORT/ Download Centre. The EEB required to enable the support can be obtained from Veritas Technical Support</li></ul> |
|--|--|--|--|

## Footnotes

1. Support for AOS 5.18 and above with NetBackup 8.2 requires an EEB from Veritas Support. For details, refer [https://www.veritas.com/support/en\\_US/article.100049391](https://www.veritas.com/support/en_US/article.100049391).

### **Note the following:**

- Going forward any new AOS versions and new feature sets will be supported with "Hypervisor" policy only. Veritas recommends switching to "Hypervisor" policy for Nutanix AHV protection. Refer: [https://www.veritas.com/content/support/en\\_US/doc/127664414-140673866-0/v127666788-140673866](https://www.veritas.com/content/support/en_US/doc/127664414-140673866-0/v127666788-140673866)
- Refer Nutanix Acropolis Hypervisor (AHV) Administrator's Guide for knowing more on Nutanix-AHV VM protection. [https://www.veritas.com/content/support/en\\_US/doc/127664414-140673866-0/v127666788-140673866](https://www.veritas.com/content/support/en_US/doc/127664414-140673866-0/v127666788-140673866)
- To backup other hypervisors like VMware ESX or a Hyper-V on a Nutanix Acropolis cluster, please see VMware ESX or a Hyper-V SCL for support matrix. To backup VMware ESX or a Hyper-V on a Nutanix Acropolis cluster, use a VMware policy or a Hyper-V, respectively.
- NetBackup supports installation of the backup host in a virtual machine.
- English only AHV is supported.
- Backups are Crash Consistent.
- AHV Community Edition is not supported.
- Nutanix-AHV Plugin can be installed on NetBackup Master, Media or Client to be used as Nutanix Backup Host. Veritas recommends having NetBackup Media server as Backup-Host.
- Backup of VMs having volume groups is not supported.
- NetBackup currently does not support file-level recovery. Backup and recovery of the entire virtual machine for all guest operating systems is supported.

## Red Hat Virtualization Compatibility

### Supported RedHat Virtualization (RHV) Versions

- NetBackup currently supports only x86-64 editions of RHV servers.

NetBackup Versions	RHV Versions
8.3	4.2 4.3, 4.4 <sup>[1]</sup>

### Footnotes

1. EEB for NetBackup 8.3 can be obtained from Veritas technical support

#### Note:

- Support of Red Hat Virtualization Manager and Hypervisor starts from version 4.2.7
- NetBackup 8.2 supported x86-64 platforms of Microsoft Windows Server, Red Hat Enterprise Linux and SUSE Linux Enterprise Server will work as backup hosts.
- Application consistent backup needs RHV Guest Agent.
- Pass through disk cannot be backed up by RHV agent. Please install NetBackup client inside the VM to protect data on such disks.
- RHV 4.3.3 has issue in restoring thick provision disk. Till fix is available from RedHat, please restore disk as thin provision.
- VMs in suspended state cannot be protected.
- Cinder storage is currently not supported.
- Backup of VMs based on a template (thin clone) may fail to delete snapshots created by the backup job. If such a condition is encountered, then subsequent backups would fail.

This issue is related to a race condition in RHV Manager versions 4.2.x, 4.3.0 to 4.3.3. Red Hat recommends upgrading RHV Manager to 4.3.4 before protecting such VMs.

Refer: <https://access.redhat.com/support/policy/updates/rhev>

### OpenStack Virtualization Compatibility

#### Supported OpenStack Versions

Distributions which include the following OpenStack versions are supported.

Supported Hypervisor: KVM

NetBackup Versions	OpenStack Revisions	Backup/Restore Host Versions
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8.3	Mitaka, Newton, Ocata, Pike, Queens, Rocky, Stein, Train, Ussuri	NetBackup 8.3 supported x86-64 platforms of Red Hat Enterprise Linux and SUSE Linux Enterprise Server will work as backup hosts.
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**VMware vRealize Compatibility**

Veritas NetBackup plug-in for VMWare vRealize Version	VMWare vRealize Orchestrator Versions	NetBackup Versions
1.0	7.5 7.6	NetBackup 8.1.2 NetBackup 8.2 NetBackup 8.3 NetBackup 8.3.0.1
1.1	7.5 7.6	NetBackup 8.1.2 NetBackup 8.2 NetBackup 8.3 NetBackup 8.3.0.1
2.0	8.3 8.4	NetBackup 8.2 NetBackup 8.3 NetBackup 8.3.0.1

**Note:**

- NetBackup 8.2 and later versions support Backup Now for VMWare VM, AWS VM and AWS Volumes
- NetBackup 8.2 and later versions support API Key Authentication in addition to standard Authentication. This is recommended

NetBackup Software Compatibility Documentation:

[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List \(last updated on March 11, 2024\)](#)

[8.0 - 8.x.x OS Software Compatibility List Updates](#)

The latest version of this file is included in NetBackup release updates and is also available for download independently on the Veritas support site. This file is updated whenever new cloud provider support is needed, independent of NetBackup release updates. This file is cumulative, so the most recent version contains all support added in earlier versions. The column "NetBackup version" indicates the NetBackup Primary Server version that the Cloud Configuration package requires for installation.

For more information on configuring Cloud solutions see "[About the cloud storage vendors for Veritas NetBackup](#)".

### Cloud Configuration File Packages

Cloud Configuration Package version	NetBackup version	URL	Providers added
2.10.7	Media Server: 8.0 or later	Media Server: <a href="https://www.veritas.com/content/support/en_US/downloads/update.UPD971796.html">https://www.veritas.com/content/support/en_US/downloads/update.UPD971796.html</a>	Added support: - VAST data (S3) Added earlier support not included in NetBackup 10.2 release: - Amazon Glacier Instant Retrieval (IR) - Backblaze B2 Cloud Storage (S3) - DataCore Swarm (S3) - iTernity iCAS FS (S3) - Quantum ActiveScale Glacier Storage Class - Spectra Vail (S3) - STACKIT Object Storage (S3) - NEC Cloud IaaS Object Storage N2 (S3) - Amazon (S3) - Asia Pacific (Jakarta) region - Amazon (S3) – ME (UAE) region - Google (S3) - Asia South2 (Delhi) region - Google (S3) - Australia-Southeast2 (Melbourne) region

Veritas Services and Operations Readiness Tools (SORT)

			<ul style="list-style-type: none"> <li>- Google (S3) - EU West8 (Milan) region</li> <li>- Google (S3) - EU West9 (Paris) region</li> <li>- Google (S3) - EU Southwest1 (Madrid) region</li> <li>- Google (S3) - North America Northeast2 (Toronto) region</li> <li>- Google (S3) - US East5 (Columbus) region</li> <li>- Google (S3) - US South1 (Dallas) region</li> <li>- Wasabi (S3) - AP Southeast 1 (Singapore) region</li> <li>- Wasabi (S3) - AP Southeast 2 (Sydney) region</li> <li>- Wasabi (S3) - EU Central 2 (Frankfurt) region</li> <li>- Wasabi (S3) - CA Central 1 (Toronto) region</li> <li>- Wasabi (S3) - EU West 2 (Paris) region</li> </ul>
2.10.6	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- STACKIT Object Storage (S3)</li> <li>- Backblaze B2 Cloud Storage (S3)</li> <li>- NEC Cloud IaaS Object Storage (N2) (S3)</li> </ul>
2.10.5	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Spectra Logic Vail (S3)</li> <li>- DataCore Swarm (S3)</li> <li>- Google (S3) - Middle East West1 (Tel Aviv) region</li> </ul>

Added earlier support not included in NetBackup 10.1.1 release:

- Amazon Glacier Instant Retrieval (IR)
- iTernity iCAS FS (S3)
- Amazon (S3) - Asia Pacific (Jakarta) region
- Amazon (S3) - Middle East (UAE) region
- Google (S3) - Asia South2 (Delhi) region
- Google (S3) - Australia-Southeast2 (Melbourne) region
- Google (S3) - EU West8 (Milan) region
- Google (S3) - EU West9 (Paris) region
- Google (S3) - EU Southwest1 (Madrid) region
- Google (S3) - US East5 (Columbus) region
- Google (S3) - US South1 (Dallas) region
- Google (S3) - North America Northeast2 (Toronto) region
- Wasabi (S3) - EU West 2 (Paris) region
- Wasabi (S3) - AP Southeast 1 (Singapore) region
- Wasabi (S3) - AP Southeast 2 (Sydney) region
- Wasabi (S3) - EU Central 2 (Frankfurt) region

Veritas Services and Operations Readiness Tools (SORT)

			- Wasabi (S3) - CA Central 1 (Toronto) region
2.10.4	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Google (S3) - EU West8 (Milan) region
2.10.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Veritas NetBackup Recovery Vault AWS Glacier Deep Archive
2.10.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Amazon (S3) - Middle East (UAE) region
2.10.1	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: Added earlier support not included in NetBackup 10.1 release: - Amazon Glacier Instant Retrieval (IR) - iTernity iCAS FS (S3) - Amazon (S3) - Asia Pacific (Jakarta) region - Google (S3) - Asia South2 (Delhi) region - Google (S3) - Australia-Southeast2 (Melbourne) region - Google (S3) - EU West9 (Paris) region - Google (S3) - EU Southwest1 (Madrid) region - Google (S3) - US East5 (Columbus) region - Google (S3) - US South1 (Dallas) region

Veritas Services and Operations Readiness Tools (SORT)

			<ul style="list-style-type: none"> <li>- Google (S3) - North America Northeast2 (Toronto) region</li> <li>- Wasabi (S3) - EU-West-2 (Paris) region</li> <li>- Wasabi (S3) - AP Southeast 1 (Singapore) region</li> <li>- Wasabi (S3) - AP Southeast 2 (Sydney) region</li> <li>- Wasabi (S3) - EU Central 2 (Frankfurt) region</li> <li>- Wasabi (S3) - CA Central 1 (Toronto) region</li> </ul>
2.9.4	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Google (S3) - US East5 (Columbus) region</li> <li>- Google (S3) - US South1 (Dallas) region</li> </ul>
2.9.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Google (S3) - EU Southwest1 (Madrid) region</li> <li>- Google (S3) - EU West9 (Paris) region</li> <li>- Wasabi (S3) - AP Southeast 1 (Singapore) region</li> </ul>
2.9.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Wasabi (S3) - AP Southeast 2 (Sydney) region</li> <li>- Wasabi (S3) - EU Central 2 (Frankfurt) region</li> <li>- Wasabi (S3) - CA Central 1 (Toronto) region</li> </ul>
2.8.8	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Amazon (S3) - Asia Pacific (Jakarta) region</li> </ul>

Veritas Services and Operations Readiness Tools (SORT)

			<ul style="list-style-type: none"> <li>- Google (S3) - Asia South2 (Delhi) region</li> <li>- Google (S3) - Australia-Southeast2 (Melbourne) region</li> <li>- Google (S3) - NorthAmerica Northeast2 (Toronto) region</li> <li>- Quantum Active Archive and ActiveScale Systems - Standard (S3)</li> <li>- Quantum Active Archive and ActiveScale Systems - Glacier (S3)</li> <li>- Wasabi (S3) - EU-West-2 (Paris) region</li> </ul>
2.8.7	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added support:</p> <ul style="list-style-type: none"> <li>- Amazon Glacier Instant Retrieval (IR)</li> <li>- Amazon GovCloud - Glacier Instant Retrieval (IR)</li> </ul>
2.8.6	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added support:</p> <ul style="list-style-type: none"> <li>- Veritas NetBackup Recovery Vault Azure</li> <li>- Veritas NetBackup Recovery Vault Azure Government</li> </ul>
2.8.5	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added support:</p> <ul style="list-style-type: none"> <li>- Wasabi Hot Cloud Storage (S3)</li> </ul>
2.8.4	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added support:</p> <ul style="list-style-type: none"> <li>- Google (S3) - Asia-Northeast3 (Seoul) region</li> <li>- Google (S3) - Asia-Southeast2 (Jakarta) region</li> <li>- Google (S3) - EU-Central2 (Warsaw) region</li> </ul>

- IBM (S3) - Amsterdam, Netherlands region
- IBM (S3) - Chennai, India region
- IBM (S3) - EU Germany region
- IBM (S3) - Hong Kong S.A.R. of the PRC region
- IBM (S3) - Mexico City, Mexico region
- IBM (S3) - Milan, Italy region
- IBM (S3) - Montreal, Canada region
- IBM (S3) - Oslo, Norway region
- IBM (S3) - Paris, France region
- IBM (S3) - San Jose, US region
- IBM (S3) - Sao Paulo, Brazil region
- IBM (S3) - Seoul, South Korea region
- IBM (S3) - Singapore region
- Nutanix Objects (S3) - updated provider portal URL Added in NetBackup 9.1 release:
- Amazon (S3) - US East (N. Virginia FIPS 140-2) region
- Amazon (S3) - US East (Ohio FIPS 140-2) region
- Amazon (S3) - US West (Northern California FIPS 140-2) region

Veritas Services and Operations Readiness Tools (SORT)

			- Amazon (S3) - US West (Oregon FIPS 140-2) region
2.8.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - IBM (S3) - AP Osaka region - Seagate Lyve Cloud (S3)
2.8.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - IBM (S3) - AP Australia region - IBM (S3) - AP Tokyo region - Corrected entry for XSKY Enterprise Object Storage (S3) - Corrected region name: IBM (S3) - AP United Kingdom - Removed decommissioned region: IBM (S3) - AUS Melbourne Added earlier support not included in NetBackup 9.0 release: - Google (S3) - US-West3 (Salt Lake City) region - Google (S3) - US-West4 (Las Vegas) region
2.8.1	Media Server: 8.0 or later	Media Server: Use the most recent version above.	- Dell EMC Isilon PowerScale (S3) - XSKY Enterprise Object Storage (S3) Added earlier support not included in NetBackup 9.0 release: - Tencent Cloud - Cloud Object Storage (COS) (S3)
2.7.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Tencent Cloud - Cloud Object Storage (COS) (S3)

Veritas Services and Operations Readiness Tools (SORT)

2.7.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Google (S3) - US-West3 (Salt Lake City) region - Google (S3) - US-West4 (Las Vegas) region
2.7.1	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added earlier support not included in NetBackup 8.3 release: - Amazon (S3) - Africa (Cape Town) region - Amazon (S3) - Asia Pacific (Hong Kong) region - Amazon (S3) - Europe (Milan) region - Amazon (S3) - Europe (Stockholm) region - Amazon (S3) - Middle East (Bahrain) region - Google (S3) - Asia-East2 region - Google (S3) - Asia-Northeast2 region - Google (S3) - Asia-South1 region - Google (S3) - EU-North1 region - Google (S3) - EU-West4 region - Google (S3) - EU-West6 region - Google (S3) - NorthAmerica-Northeast1 region - Google (S3) - SouthAmerica-East1 region

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			<ul style="list-style-type: none"> <li>- Google (S3) - US-West2 region</li> <li>- Hitachi Vantara Cloud Scale (S3)</li> <li>- Nutanix Buckets (S3)</li> <li>- Orange Business Systems Flexible Engine OBS (S3)</li> <li>- SandStone MOS (S3)</li> <li>- SwiftStack Object Storage (S3) buffer size changes</li> </ul>
2.6.4	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Amazon (S3) - Africa (Cape Town) region</li> <li>- Amazon (S3) - Europe (Milan) region</li> <li>- Amazon (S3) - Europe (Stockholm) region</li> <li>- Hitachi Vantara CloudScale (S3) buffer size changes</li> </ul>
2.6.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Hitachi Vantara CloudScale (S3)</li> </ul>
2.6.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> <li>- Amazon (S3) - Asia Pacific (Hong Kong) region</li> <li>- Amazon (S3) - Middle East (Bahrain) region</li> <li>- Google (S3) - Asia-East 2 region</li> <li>- Google (S3) - Asia-Northeast 2 region</li> <li>- Google (S3) - EU-West 6 region</li> </ul>

			<ul style="list-style-type: none"> <li>- Orange Business Systems Flexible Engine OBS (S3)</li> <li>- SandStone MOS (S3)</li> <li>- SwiftStack Object Storage (S3) buffer size changes</li> </ul>
2.6.1	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added support:</p> <ul style="list-style-type: none"> <li>- Google (S3) - Asia-South1 region</li> <li>- Google (S3) - EU-North1 region</li> <li>- Google (S3) - EU-West4 region</li> <li>- Google (S3) - NorthAmerica-Northeast1 region</li> <li>- Google (S3) - SouthAmerica-East1 region</li> <li>- Google (S3) - US-West2 region</li> </ul> <p>Added earlier support not included in NetBackup 8.2 release:</p> <ul style="list-style-type: none"> <li>- Nutanix Buckets (S3)</li> </ul>

**Cloud Configuration File Versions released with NetBackup and NetBackup Appliances**

NetBackup / NetBackup Appliance version	Cloud Configuration File version
8.3.0.2	2.7.1
8.3.0.1/3.3.0.1	2.7.1
8.3	2.7.0
8.2 / 3.2	2.6.0

**Cloud Configuration File Versions included in NetBackup Appliance cloud configuration and device mappings RPMs**

NetBackup Appliance RPM version	Cloud Configuration File version
1.0.6	2.5.2

1.0.5	2.5.1
1.0.4	2.4.5
1.0.3	2.4.4
1.0.2	2.4.3
1.0.1	2.4.1

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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## OST Secondary Storage Solutions - General Information

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This feature is not supported on this platform.

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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## Cloud Storage Solutions

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NetBackup Cloud Storage plug-ins enable Veritas NetBackup to access Cloud Storage Solutions. Either the storage vendor or Veritas provides a software plug-in, which is installed on each NetBackup Media Server that is connected to the cloud solution.

NetBackup Cloud support information is listed in the tables below, organized by vendor. These tables provide information on supported versions of plug-ins and functionality, and other important notes about the hardware and its compatibility.

### Cloud Storage - Considerations

Subject	Notes
Support assumptions	<p>For details on supported operating systems, please refer to the <a href="#">"NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"</a> .</p> <ol style="list-style-type: none"> <li>1. In the vendor compatibility tables below, the column "NetBackup Version Containing Plug-in" indicates the NetBackup version (8.2 or later) at which that cloud storage solution was first supported.</li> <li>2. Cloud support on Windows platforms requires Windows 2008 R2 or later.</li> <li>3. Community-distributed Ceph solutions are supported when using the Red Hat string. Since these solutions rely on the community, support for any issues encountered may be delayed or unavailable, depending on the nature of the issue.</li> <li>4. NetBackup supports AWS Outposts. For more information, please refer <a href="https://www.veritas.com/news-releases/2019-12-03-veritas-tested-and-validated-for-aws-outposts">https://www.veritas.com/news-releases/2019-12-03-veritas-tested-and-validated-for-aws-outposts</a>.</li> </ol>
Configuration considerations	<ol style="list-style-type: none"> <li>1. NetBackup is configured to trust a number of well-known public Certificate Authorities (CA) related to Cloud storage. However, there are instances where, for internal purposes, you may need to add your own self-signed CA certificate. For information on adding a self-signed CA certificate, please refer to <a href="#">"Cloud Storage Configuration: How To Add a Self-Signed CA Certificate"</a> .</li> <li>2. NetBackup-provided Cloud connectors are not supported with IPv6, unless noted otherwise. Configuring these plug-ins with IPv6 may result in unpredictable behavior.</li> </ol>

### Cloud Storage - Supported Cloud Technology Methods

NetBackup supports Cloud-based storage providers using a variety of technology methods, described below.

**Contents (for details click on the checkbox)**

S3 Storage

Swift Storage

Microsoft Azure Storage

OST

Advanced Disk Targets

VTL

## Support for Workloads with Image Sharing in Cloud

Image Sharing in Cloud is supported with either MSDP Direct Cloud Tiering or CloudCatalyst. Workload support is listed in the tables below.

### Support for Image Sharing using MSDP Direct Cloud Tiering

Image sharing using MSDP Direct Cloud Tiering is supported with any of the S3 cloud providers listed in the Vendor Compatibility tables below, and with Microsoft Azure Blob storage.

MSDP Direct Cloud Tiering is supported with NetBackup 8.3 and later.

For more information on image sharing using MSDP Direct Cloud Tiering, see "[About Image Sharing using MSDP cloud](#)".

### Support for Image Sharing using CloudCatalyst

Image sharing using CloudCatalyst is supported with any of the S3 cloud providers listed in the Vendor Compatibility tables below, and with Microsoft Azure Blob storage.

For more information on image sharing using CloudCatalyst, see "[About automated disaster recovery in cloud using CloudCatalyst](#)".

### Image Sharing in Cloud - Supported Workloads

Workload	NetBackup Start of Support	Notes
Basic backups of files and folders	8.2	
Bare Metal Restore (BMR)	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
DB2	8.2	
Enterprise Vault	8.2	
Hadoop	8.2	
Hbase	8.2	

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Hyper-V	8.2	
Informix	8.2	
Lotus Notes	8.2	
MariaDB	8.2	
Microsoft Exchange Server	8.2	
Microsoft SharePoint	8.2	
Microsoft SQL Server	8.2	
MySQL	8.2	
NDMP	8.2	
Nutanix	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
OpenStack	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
Oracle	8.2	
Postgres	8.2	
RHV	8.2	
SAP	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
Sybase	8.2	
VMware	8.2	

**Cloud Storage - Vendor Compatibility**

**Contents (for details click on the checkbox)**

ACP	Alibaba	Amazon
AT&T	Beijing XSKY	China Mobile
China Telecom	Chunghwa Telecom	Cloudian
Datish Systems (OpenDedup)	Dell EMC	Dell EMC Isilon
Deutsche Telekom	Fujitsu	Google
Hewlett Packard Enterprise	Hitachi Vantara	IBM

Infoniq	Kingsoft	Microsoft
NEC	NetApp	NooBaa
Nutanix	Oracle	Orange Business Services
Quantum	Red Hat	Scality
Seagate	StorReduce	SUSE
SwiftStack	Telefonica	Tencent
Veritas	Wasabi	

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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## OST Storage Servers

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OpenStorage Servers are intelligent storage devices that interface to NetBackup Media Servers via the Veritas OpenStorage (OST) API. The vendor supplying the Storage Server appliance provides a software plug-in, which is installed on each NetBackup Media Server that is attached to the OpenStorage Server.

OST Storage Servers support information is listed below, organized by vendor. Under each vendor there are separate tables showing compatibility with NetBackup Appliances, with Linux/Windows operating systems, and with UNIX operating systems. The tables provide information on supported versions of plug-ins and functionality, and other important notes about the hardware and its compatibility. OST functionality is available on all supported NetBackup Media Server platforms. If you do not see OST support for your desired Storage Server appliance / Media Server OS platform, please contact that Storage Server appliance vendor to request OST support for that platform. Please see the Veritas NetBackup Administrator's Guide for more information on how to use OST.

### OST Storage Servers - Considerations

Subject	Notes
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## Support assumptions

For details on supported operating systems, please refer to the ["NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"](#) .

1. All OpenStorage Servers are compatible with the NetBackup Data Protection Optimization Option features (Storage Lifecycle Policies, Intelligent Disk Capacity Management and Media Server Load Balancing) and the SAN Client (currently supported only with Solaris SPARC and Linux x64 media servers).
2. Where support is shown for NetBackup 5200 Series or 5300 Series Appliances it means that the OST solution is supported on appliances running versions 3.2 or later, unless noted otherwise.
3. Where support is shown for "Windows Server 2008 Enterprise Edition" it also means that the other editions of Windows Server 2008 and Windows Server 2008 R2 are supported. Only the x64 (64-bit) editions of the OS are supported as a NetBackup Media Server. Server Core Installation Option is not supported as a NetBackup Media Server.
4. Where support is shown for "Windows Server 2012 Datacenter" it also means that the other editions of Windows Server 2012, Windows Storage Server 2012, Windows Server 2012 R2, and Windows Storage Server 2012 R2 are supported.
5. Where support is shown for "Windows Server 2016 Datacenter" it also means that the other editions of Windows Server 2016 and Windows Storage Server 2016 are supported.
6. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.
7. CentOS and Oracle Linux are not supported with OpenStorage, unless noted otherwise.

## Vendor support considerations

1. Veritas and OpenStorage server vendors have mutually agreed to support NetBackup customers with OST solutions. Veritas and most OST server vendors are members of TSANet.

2. Veritas qualifies OpenStorage plug-ins for use with NetBackup. The qualified plug-ins are maintained by the party that writes and distributes the plug-ins. Features Veritas Partners implement behind the OST API, that operate independently and are transparent to NetBackup and the OpenStorage API (for example, replication between storage servers, deduplication on the storage server, deduplication-aware plug-ins, data transport mechanisms between the media server and the storage server), are not specifically qualified by Veritas. Partner-specific features designed to interoperate in the NetBackup environment as part of the total solution are the maintenance responsibility of the partner. Check the partner's compatibility list to ensure support of the feature with NetBackup and to ensure that your infrastructure (that is, hardware and network) meets the partner's recommended sizing considerations for the feature.

3. Check the device manufacturer's compatibility list to verify the minimum version of Storage Server software required for your Storage Server family member, that the Storage Server software version you are running is compatible with the plug-in version, and that the storage server software version supports the OpenStorage functionality you are running.

4. Minor versions of the plug-ins listed in the tables below are also supported. (Example: Version "2.0" means versions 2.0.1, 2.0.2, etc. are also supported. Version "3" means versions 3.1, 3.2, etc. are also supported.)

#### Configuration considerations

1. The Data Interface column in the tables below describes the supported data path between the media server running the vendor's OST plug-in and the OST storage server.

2. The Veritas NetBackup OpenStorage Optimized Duplication feature takes advantage of the replication capabilities built into many storage servers and cloud solutions by allowing images replicated by the storage servers or cloud solutions to be registered as duplicated copies in the NetBackup catalog. This feature requires at least one NetBackup Media Server with

	<p>connectivity to both the source storage server or cloud solution and the destination storage server or cloud solution. Optimized Duplication cannot be performed across NetBackup domains.</p> <p><b>3. A Logical Storage Unit (LSU) must be configured to only one NetBackup domain. Media servers from more than one NetBackup domain configured to the same LSU is not supported.</b></p>
Operational considerations	<ol style="list-style-type: none"> <li>1. Storage Servers that do not automatically increase the size of LSUs may take advantage of the LSU spanning feature. For information about spanning volumes on OpenStorage disk pools, see the Veritas NetBackup OpenStorage Solutions Guide for Disk.</li> <li>2. The NetBackup Accelerator, Accelerator with NDMP, and Accelerator with VMware-type policies features are not supported with spanned LSUs.</li> </ol>
Operating system support dropped	<ol style="list-style-type: none"> <li>1. <b>CentOS 6 is not supported as a media server with NetBackup 9.0 and later.</b></li> <li>2. <b>Red Hat Enterprise Linux 6 is not supported as a media server with NetBackup 9.0 and later.</b></li> <li>3. <b>Solaris (all versions) on SPARC and x86-64 will not be supported as a media server with NetBackup 10.0 and later.</b></li> <li>4. <b>SUSE Linux Enterprise Server 11 is not supported as a media server with NetBackup 8.3 and later.</b></li> <li>5. <b>SUSE Linux Enterprise Server 12 GA through SP2 are not supported as a media server with NetBackup 8.3 and later.</b></li> <li>6. <b>Windows 2008 and 2008 R2 are not supported by Microsoft as of January 14, 2020.</b></li> </ol>

### OST Storage Servers - Supported Functionality

The following table lists NetBackup OpenStorage functionality and indicates the NetBackup 8.x version at which that functionality was first supported. For detailed descriptions of OpenStorage functionality, see the "[NetBackup OpenStorage Solutions Guide for Disk](#)".

To see which OST functionality is supported with your OpenStorage solution, refer to the "Supported OpenStorage Functionality" column in the Vendor Compatibility tables below.

OpenStorage Functionality	Abbreviation	NetBackup Start of Support	Notes
Accelerator (for files and folders)	Accelerator	8.0 GA	<p>If your storage server shows support for Accelerator in the tables below, Veritas recommends updating your device mappings file to the current version to ensure this functionality is enabled.</p> <p>If you are running Accelerator-enabled backups of Windows clients whose file systems contain hard linked files, running NetBackup 7.5.0.7 or later on the client is strongly recommended.</p> <p>For more information, see <a href="#">"Accelerator enabled backups of Windows hard linked files to OpenStorage disk storage may cause bptm to crash"</a> .</p> <p>Accelerator is not supported with spanned Logical Storage Units (LSU).</p>
Accelerator with NDMP	Accel_NDMP	8.0 GA	<p>Supported with Dell EMC Isilon Scale-Out NAS filers, and NetApp AFF, FAS, and V series filers.</p> <p>For more information on this feature, see the <a href="#">"About NetBackup Accelerator for NDMP"</a> .</p>

Veritas Services and Operations Readiness Tools (SORT)

Accelerator with Hyper-V-type policies	Accel_Hyper-V	8.0 GA	<p>Accelerator with NDMP is not supported with spanned LSUs.</p> <p>If your storage server shows support for Accelerator with Hyper-V in the tables below, Veritas recommends updating your device mappings file to the current version to ensure this functionality is enabled.</p> <p>Accelerator with Hyper-V-type policies is not supported with spanned LSUs.</p> <p>Accelerator with Hyper-V-type policies is not supported with shared virtual disks and VHD sets.</p> <p>Accelerator with Hyper-V-type policies support requires Hyper-V Server 2016 or later.</p> <p>For more information on this feature, see the "<a href="#">Veritas NetBackup for Hyper-V Administrator's Guide</a>".</p>
Accelerator with VMware-type policies	Accel_VMware	8.0 GA	<p>If your storage server shows support for Accelerator with VMware in the tables below, Veritas recommends updating your device mappings file to the current version to ensure this functionality is enabled.</p> <p>Accelerator with VMware-type policies is not supported with spanned LSUs.</p>

			<p>For more information on this feature, see the "<a href="#">Veritas NetBackup for VMware Administrator's Guide</a>" .</p>
Auto Image Replication	A.I.R.	8.0 GA	<p>For more information on configuring Auto Image Replication, see "<a href="#">About the storage lifecycle policies required for Auto Image Replication</a>" .</p> <p>Veritas recommends replicating images from NetBackup 8.0 or later storage servers to target storage servers running the same NetBackup version. Replicating images between NetBackup 8.0 or later storage servers and NetBackup 7.x storage servers is supported, however, due to differences in encryption and fingerprinting methods, the additional processing required may cause performance issues and causes the replicated image data to be unencrypted while in transit. In configurations running both A.I.R. and Targeted A.I.R., Veritas recommends setting the Storage Lifecycle Policies parameter "Auto create A.I.R. import SLP" to "No" and creating non-Targeted A.I.R.</p>

			<p>import policies only where desired.</p> <p><b>Only one media server should be configured to each target Logical Storage Unit (LSU).</b></p> <p><b>Each source and target storage server should have its credentials configured in only one NetBackup domain.</b></p>
<p>Targeted Auto Image Replication</p>	<p>Targeted_A.I.R.</p>	<p>8.0 GA</p>	<p>If your storage server shows support for Targeted A.I.R. in the tables below, Veritas recommends updating your device mappings file to the current version to ensure this functionality is enabled.</p> <p>Veritas recommends replicating images from NetBackup 8.0 or later storage servers to target storage servers running the same NetBackup version. Replicating images between NetBackup 8.0 or later storage servers and NetBackup 7.x storage servers is supported, however, due to differences in encryption and fingerprinting methods, the additional processing required may cause performance issues and causes the replicated image data to be unencrypted while in transit.</p>

Veritas Services and Operations Readiness Tools (SORT)

			<p>In configurations running both A.I.R. and Targeted A.I.R., Veritas recommends setting the Storage Lifecycle Policies parameter "Auto create A.I.R. import SLP" to "No" and creating non-Targeted A.I.R. import policies only where desired.</p> <p><b>Only one media server should be configured to each target Logical Storage Unit (LSU).</b></p> <p><b>Each source and target storage server should have its credentials configured in only one NetBackup domain.</b></p> <p>When support for Targeted A.I.R. is shown in the tables below, all replication topologies are supported, unless noted otherwise.</p>
Direct Copy to dedicated tape drives	Direct_Copy	8.0 GA	
Direct Copy to shared tape drives	Direct_Copy_Shared	8.0 GA	
Granular Recovery Technology	Granular_Recovery	8.0 GA	Support for the Veritas NetBackup OpenStorage Granular Recovery Technology feature is described in <a href="#">"Granular Restore Technology (GRT) support for NetBackup with PureDisk (PDDO/PDDE)"</a> and <a href="#">"Granular Restore</a>

Veritas Services and Operations Readiness Tools (SORT)

			Technology (GRT) support for NetBackup with 3rd-party OpenStorage Secondary Storage Solutions" .
Granular Recovery Technology with VMware-type policies	GRT_VMware	8.0 GA	Support for VMware-type backup policies with Application Protection options enabled for Exchange or SharePoint. Support for the Veritas NetBackup OpenStorage Granular Recovery Technology feature is described in "Granular Restore Technology (GRT) support for NetBackup with PureDisk (PDDO/PDDE)" and "Granular Restore Technology (GRT) support for NetBackup with 3rd-party OpenStorage Secondary Storage Solutions" .
Immutable Data / WORM	WORM	8.3.0.1	When support for immutable data/WORM (Write Once Read Many) is shown in the tables below, basic backup/restore, duplication, A.I.R. and Targeted A.I.R. using WORM are supported. Data Immutability/WORM is supported with Client Direct with NetBackup 9.1 and later.
Instant Recovery for VMware	IR_VMware	8.0 GA	Support for restoring virtual machines with Instant Recovery is described in the "Veritas NetBackup for VMware

			<p><a href="#">Administrator's Guide</a> .                  For details on supported platforms for instant recovery restore hosts, see "<a href="#">Support for NetBackup 7.7.x, 8.x, and 9.x in virtual environments</a>" .</p>
NetBackup Encryption Key Management Service	KMS	8.0 GA	<p>In the OST Cloud vendor tables, KMS indicates that the cloud provider supports using NetBackup KMS to encrypt backups to cloud targets. In the OST Storage Servers vendor tables, KMS indicates that the plug-in supports NetBackup KMS with Direct Copy to Tape functionality.</p>
Optimized Duplication	Opt_Dup	8.0 GA	<p>Optimized Duplication transfers data in 256 KB chunks.</p>
Optimized Duplication (Whole Image Copy)	WI_Opt_Dup	8.0 GA	<p>Whole image Optimized Duplication uses the storage unit's Maximum fragment size to transfer an entire NetBackup image fragment in a single operation.</p>
Optimized Synthetics	Opt_Synth	8.0 GA	<p>Storage Lifecycle Policies are not supported in policies that use the multiple copy synthetic backups method. For details, see "<a href="#">Storage lifecycle policies are not supported in policies that use the multiple copy synthetic backups method</a>" .</p>

**OST Storage Servers - Links to Vendor Sites**

More information on NetBackup OpenStorage solutions is available at the following OST Storage Server vendors' websites.

Vendor	URL
Cleversafe	<a href="http://www.cleversafe.com/">http://www.cleversafe.com/</a>
Data Domain	<a href="http://www.datadomain.com/products/">http://www.datadomain.com/products/</a>
Dell EMC	<a href="http://www.dell.com/">http://www.dell.com/</a>
ExaGrid	<a href="https://www.exagrid.com/exagrid-products/supported-data-backup-applications/veritas-netbackup/">https://www.exagrid.com/exagrid-products/supported-data-backup-applications/veritas-netbackup/</a>
FalconStor	<a href="http://www.falconstor.com/en/pages/?pn=VTL">http://www.falconstor.com/en/pages/?pn=VTL</a>
Fujitsu	<a href="http://www.fujitsu.com/global/">http://www.fujitsu.com/global/</a>
Hewlett Packard Enterprise	<a href="https://www.hpe.com/us/en/storage/storeonce.html">https://www.hpe.com/us/en/storage/storeonce.html</a>
Hitachi Vantara	<a href="https://www.hitachivantara.com/en-us/home.html">https://www.hitachivantara.com/en-us/home.html</a>
H3C	<a href="http://www.h3c.com/en/OurBusiness/Products/Storage/">http://www.h3c.com/en/OurBusiness/Products/Storage/</a>
IBM	<a href="http://www.ibm.com/">http://www.ibm.com/</a>
Infinidat	<a href="http://www.infinidat.com/">http://www.infinidat.com/</a>
NEC	<a href="http://www.necam.com/HYDRAsTOR/">http://www.necam.com/HYDRAsTOR/</a>
NetApp	<a href="http://www.netapp.com/us/products/protection-software/altavault/">http://www.netapp.com/us/products/protection-software/altavault/</a>
Oracle	<a href="http://www.oracle.com/technetwork/server-storage/sun-unified-storage/downloads/zfssa-plugins-1489830.html">http://www.oracle.com/technetwork/server-storage/sun-unified-storage/downloads/zfssa-plugins-1489830.html</a>
Quantum	<a href="http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/OSTClientPlugIn/Index.aspx">http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/OSTClientPlugIn/Index.aspx</a>
Quest	<a href="https://www.quest.com/products/dr-series-disk-backup-appliances/">https://www.quest.com/products/dr-series-disk-backup-appliances/</a>
Septon	<a href="http://www.septon.com/">http://www.septon.com/</a>
Veritas	<a href="https://www.veritas.com/product/backup-and-recovery/netbackup-appliances/">https://www.veritas.com/product/backup-and-recovery/netbackup-appliances/</a>

### OST Storage Servers - Vendor Compatibility

Contents (for details click on the checkbox)

Datish Systems (OpenDedup)

Dell EMC Data Domain

ExaGrid

FalconStor  
Hewlett Packard Enterprise  
NetApp  
Veritas

Fujitsu  
Hitachi Vantara  
Quantum

H3C  
Infinidat  
SEPATON

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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## Virtual Tape Libraries Compatibility List

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Virtual tape device support information is listed below, organized by vendor. Under each vendor there are separate tables showing compatibility with NetBackup Appliances, with Linux/Windows operating systems, and with UNIX operating systems. The tables provide information on supported versions of software, inquiry string (vendor ID + product ID), and other important notes about the hardware and its compatibility.

### Virtual Tape Libraries/Drives - Considerations

Subject	Notes
Support assumptions	<p>For details on supported operating systems, please refer to the <a href="#">"NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"</a> .</p> <p>1. Virtual tape device software versions are no longer listed in this section. Veritas recommends using the most recent version of software available when you configure the VTL with NetBackup. When a minimum VTL software version is required, it will be listed in a footnote. If a VTL software version is causing a problem, Veritas will work with the hardware vendor to resolve the problem. Veritas and most hardware vendors listed are members of TSAnet.</p>

	<ol style="list-style-type: none"><li>2. Where support is shown for "Windows Server 2008 Enterprise Edition" it also means that the other editions of Windows Server 2008 and Windows Server 2008 R2 are supported. Only the x64 (64-bit) editions of the OS are supported as a NetBackup Media Server. Server Core Installation Option is not supported as a NetBackup Media Server.</li><li>3. Where support is shown for "Windows Server 2012 Datacenter" it also means that the other editions of Windows Server 2012, Windows Storage Server 2012, Windows Server 2012 R2, and Windows Storage Server 2012 R2 are supported.</li><li>4. Where support is shown for "Windows Server 2016 Datacenter" it also means that the other editions of Windows Server 2016 and Windows Storage Server 2016 are supported.</li><li>5. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.</li><li>6. Where support is shown for "Red Hat Enterprise Linux 6 on x86-64" it also means that CentOS 6 and Oracle Linux 6 are supported.</li><li>7. Where support is shown for "Red Hat Enterprise Linux 7 on x86-64" it also means that CentOS 7 and Oracle Linux 7 are supported.</li></ol>
Vendor support considerations	<ol style="list-style-type: none"><li>1. Check the device manufacturer's compatibility list to verify OS platform support for the version of software running on your VTL.</li><li>2. Check the device manufacturer's compatibility list to verify the minimum version of VTL software required for your VTL family member.</li><li>3. The list of attributes for each drive emulation is based on the most recent version of Virtual tape device software tested. Check with the device manufacturer to determine when support for a specific attribute was added.</li></ol>
Configuration considerations	<ol style="list-style-type: none"><li>1. The virtual library must be configured with the unique VTL inquiry string as listed. Using the inquiry string to emulate a</li></ol>

	<p>real library model is not supported even if the real device is supported with NetBackup.</p> <ol style="list-style-type: none"><li>2. Only the virtual tape drive emulations listed with each virtual library are supported. Other virtual tape drive emulations are not supported even if the real device being emulated is supported with NetBackup. Conversely, a virtual tape drive emulation listed as supported in this section does not mean the physical model is also supported.</li><li>3. Veritas recommends the use of SCSI Persistent Reserve (SPR) whenever all the hardware in your device path supports it. Refer to the NetBackup Administrator's Guide for more information on SPR and the types of configurations where SPR may be more effective than the default SPC-2 SCSI reserve and release method.</li><li>4. NetBackup NDMP Direct Copy with VTL enables NDMP tape duplication to physical tape libraries. For more information on this feature, see "<a href="#">About NDMP DirectCopy</a>".</li></ol>
OS library and tape driver considerations	<ol style="list-style-type: none"><li>1. Refer to the <a href="#">Tape Drives</a> section of this document for information on supported tape drivers.</li></ol>
Operational considerations	<ol style="list-style-type: none"><li>1. Filling up the available disk space on a virtual device may cause unpredictable behavior of the device. Working with the device vendor may be required to recover from errors that result from a full disk.</li><li>2. NetBackup NDMP Direct Copy with VTL Copying virtual media to physical media or a 2nd virtual media is not supported by Veritas; any support for this must come from the VTL vendor providing the capability. If the VTL copies virtual media to physical media (or a 2nd VTL), NetBackup is not aware of the physical media or 2nd virtual media and may not be able to recover that data directly from it.</li><li>3. When NetBackup expires a virtual volume, the virtual device is not aware that the data is no longer needed. Because of this, the virtual device may appear to be much closer to capacity than it really is. When NetBackup subsequently begins writing to that</li></ol>

	virtual volume at the beginning of the volume, the virtual library will then be aware that the rest of the data is no longer needed and can free up the disk space.
Operating system support dropped	<ol style="list-style-type: none"> <li><b>1. CentOS 6 is not supported as a media server with NetBackup 9.0 and later.</b></li> <li><b>2. Red Hat Enterprise Linux 6 is not supported as a media server with NetBackup 9.0 and later.</b></li> <li><b>3. Solaris (all versions) on SPARC and x86-64 will not be supported as a media server with NetBackup 10.0 and later.</b></li> <li><b>4. SUSE Linux Enterprise Server 11 is not supported as a media server with NetBackup 8.3 and later.</b></li> <li><b>5. SUSE Linux Enterprise Server 12 GA through SP2 are not supported as a media server with NetBackup 8.3 and later.</b></li> <li><b>6. Windows 2008 and 2008 R2 are not supported by Microsoft as of January 14, 2020.</b></li> </ol>

### Virtual Tape Libraries/Drives - Tape Drive Emulation Attributes

The following table lists attributes supported with Virtual Tape Libraries and indicates the NetBackup version (8.2 or later) at which that attribute was first supported.

Attribute	Abbreviation	NetBackup 8.2 (or later) Start of Support
NDMP Direct Copy with VTL, physical tape drives used with this feature must be dedicated to the VTL.	DirCpy_Ded	8.2
NDMP Direct Copy with VTL, physical tape drives used with this feature can be shared using NetBackup Shared Storage Option (SSO).	DirCpy_Shr	8.2
SCSI Reservation	SResv	8.2
SCSI Persistent Reservation	SPR	8.2
Write Once, Read Many	WORM	8.2

NetBackup Encryption Key Management Service	KMS	8.2
Append-only mode	Append	8.2

### Virtual Tape Libraries/Drives - Vendor Compatibility

**Contents (for details click on the checkbox)**

Dell EMC	Dell EMC Data Domain	FalconStor
Fujitsu	H3C	Hewlett Packard Enterprise
Hitachi Vantara	Huawei	IBM
NEC	Quantum	SEPATON
Spectra Logic		

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

[NetBackup Hardware Compatibility Documentation: Device Mappings Files](#)

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## NDMP Devices Compatibility List

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NDMP device support information is listed below, organized by vendor. The tables provide information on the versions of software tested, supported connection methods and functionality, and other important notes about the hardware and its compatibility.

For information about Operating Systems supported with NDMP, see the NDMP column in the NetBackup Server section for each OS platform in the "[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List](#)".

For NetBackup for NDMP vendor-specific configuration information, refer to "[NetBackup for NDMP: NAS appliance information](#)".

Minor ("double-dot") or patch versions of the software listed in the tables below are also supported. (Example: "v5.0" means versions v5.0.1, v5.0.2, etc. are also supported.)

Direct Access Restore (DAR) and Directory Direct Access Restore (DDAR) are supported, unless noted otherwise.

NetBackup Appliances and NetBackup Virtual Appliances are supported with the NDMP solutions listed in the tables below. For more information on supported appliance versions, see the "Supported Functionality" subsection under "[NetBackup Appliances](#)".

IPv6 support is shown in the tables below.

64-bit inode numbers are supported.

Wildcard characters can be used in regular expressions or the directive ALL\_FILESYSTEMS to specify path names in NDMP policy backup selections. For more information on the use of wildcard characters, see the "[Wildcard characters in backup selections for an NDMP policy](#)".

### NDMP Devices - Connection Methods

The following table describes the supported NDMP connection methods.

Connection Method	Description
Direct-attach	Data travels from disk to a tape device on the same NDMP host, or from disk to tape device on a SAN. Backup data is NOT sent over local network. NOTE: The tape drives must be in NDMP-type storage units.
Remote	Data travels from the NDMP host, across the local network to a NetBackup media server, to a storage unit connected to the NetBackup media server.
3-way	Data travels from disk on an NDMP host to a tape device on another NDMP host. Backup data is sent over the local network. NOTE: The tape drives must be in NDMP-type storage units.

### NDMP Devices - Vendor Compatibility

Contents (for details click on the checkbox)

Dell EMC	Dell EMC Data Domain	Dell EMC Isilon
Fujitsu	Hewlett Packard Enterprise	Hitachi Vantara
Huawei	IBM	Imation
Lenovo	Mirapoint	NEC
NetApp	Nexenta	Oracle

Stratus Technologies

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## Tape Libraries Compatibility List

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Tape library support information is listed below. This information is organized by vendor and provides information on the inquiry string (vendor ID + product ID), the method(s) of controlling the robot, and any other important notes about the hardware and its compatibility.

### Tape Libraries - Considerations

Subject	Notes
Support assumptions	For details on supported operating systems, please refer to the <a href="#">"NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"</a> . 1. The tables in this section show robotic support only, not tape drive support. Refer to the <a href="#">Tape Drives</a> section of this document to ensure that the specific drive used in the library is supported on the desired OS platform(s). The library vendor must also support the library and drive combination. 2. Firmware versions are not listed in this section. Veritas recommends using the most recent version of firmware available when you configure the library with NetBackup. When a minimum firmware version is required, it will be listed in the Notes column. If a firmware version is causing a problem, Veritas will work with the hardware vendor to resolve the problem. Veritas and most hardware vendors listed are members of TSANet.

	<ol style="list-style-type: none"><li>3. ACS robots are supported with NetBackup Enterprise Server only. ACS robots are not supported with NetBackup Server.</li><li>4. For ACS robots the "Inquiry String" column is intentionally left blank.</li><li>5. Where support is shown for "Red Hat Enterprise Linux" it also means that CentOS and Oracle Linux are supported.</li></ol>
Configuration considerations	<ol style="list-style-type: none"><li>1. Library partitioning is supported unless noted otherwise.</li><li>2. Library expansion modules are supported unless noted otherwise.</li><li>3. Configuring persistent robotic paths for Linux media servers is supported with NetBackup 8.3 and later. To enable this functionality, you can download <a href="#">a Linux rules file from the Veritas Support Downloads Center</a> . When the downloaded rules file is installed in the specified directory, NetBackup uses /dev/tape/by-path type paths that persist across SAN interruptions. If this rules file is not present, NetBackup continues to use the /dev/sg type paths.</li></ol>
Operating system support dropped	<ol style="list-style-type: none"><li><b>1. CentOS 6 is not supported as a media server with NetBackup 9.0 and later.</b></li><li><b>2. Red Hat Enterprise Linux 6 is not supported as a media server with NetBackup 9.0 and later.</b></li><li><b>3. Solaris (all versions) on SPARC and x86-64 will not be supported as a media server with NetBackup 10.0 and later.</b></li><li><b>4. SUSE Linux Enterprise Server 11 is not supported as a media server with NetBackup 8.3 and later.</b></li><li><b>5. SUSE Linux Enterprise Server 12 GA through SP2 are not supported as a media server with NetBackup 8.3 and later.</b></li><li><b>6. Windows 2008 and 2008 R2 are not supported by Microsoft as of January 14, 2020.</b></li></ol>

## Tape Libraries - NetBackup Robot Types

These tables list operating system platform support for each NetBackup robotic daemon type. For more information about configuring robot types, see the "[NetBackup Device Configuration Guide](#)".

**Contents (for details click on the checkbox)**

ACS - Oracle Automated Cartridge System - Supported Operating Systems  
ACS - Oracle Automated Cartridge System - Supported Drive Types  
ACS - Oracle Automated Cartridge System - Supported Media Types  
TLD - Tape Library DLT - Supported Operating Systems

**Tape Libraries - Legend**

The following table describes terms and symbols used in the Tape Libraries - Vendor Compatibility tables.

**Tape Libraries - Legend**

Value	Meaning
Multi LUN	The device is a Multi-LUN based library.
SCSI ID	The device is a SCSI ID based library.
^	Character used to denote a space in the INQUIRY STRING.

**Tape Libraries - Vendor Compatibility**

**Contents (for details click on the checkbox)**

Dell EMC	Fujitsu	H3C
Hewlett Packard Enterprise	Hitachi Vantara	IBM
NEC	Oracle	Overland Storage
Qualstar	Quantum	Spectra Logic
Tandberg		

NetBackup Hardware Compatibility Documentation:

[NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List \(last updated on October 05, 2023\)](#)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

[NetBackup Hardware Compatibility Documentation: Device Mappings Files](#)

Tape drive support information is listed below, organized by vendor. Under each vendor there are separate tables showing compatibility with NetBackup Appliances, with Linux/Windows operating systems and with UNIX operating systems. These tables provide information on the operating system versions supported by the drive, inquiry string (vendor ID + product ID), and other important notes about the hardware and its compatibility.

## Tape Drives - Considerations

Subject	Notes
Support assumptions	<p>For details on supported operating systems, please refer to the <a href="#">"NetBackup 8.0 - 8.x.x Operating System Software Compatibility List"</a> .</p> <ol style="list-style-type: none"><li>1. To ensure support, a device (both drive and library where applicable) must be supported by Veritas, the device manufacturer, and the operating system vendor.</li><li>2. Firmware versions are not listed in this section. Veritas recommends using the most recent version of firmware available when you configure the drive with NetBackup. When a minimum firmware version is required, it will be listed in the footnotes. If a firmware version is causing a problem, Veritas will work with the hardware vendor to resolve the problem. Veritas and most hardware vendors listed are members of TSANet.</li><li>3. Where support is shown for "Windows Server 2008 Enterprise Edition" it also means that the other editions of Windows Server 2008 and Windows Server 2008 R2 are supported. Only the x64 (64-bit) editions of the OS are supported as a NetBackup Media Server. Server Core Installation Option is not supported as a NetBackup Media Server.</li><li>4. Where support is shown for "Windows Server 2012 Datacenter" it also means that the other editions of Windows Server 2012, Windows Storage Server 2012, Windows Server 2012 R2, and Windows Storage Server 2012 R2 are supported.</li><li>5. Where support is shown for "Windows Server 2016 Datacenter" it also means that the other editions of Windows Server 2016 and Windows Storage Server 2016 are supported.</li></ol>

	<p>6. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.</p> <p>7. Where support is shown for "Red Hat Enterprise Linux 6 on x86-64" it also means that CentOS 6 and Oracle Linux 6 are supported.</p> <p>8. Where support is shown for "Red Hat Enterprise Linux 7 on x86-64" it also means that CentOS 7 and Oracle Linux 7 are supported.</p> <p>9. The "ULTRIUM-TD" and the "ULT3580-TD" inquiry strings are interchangeable (both are supported), unless noted otherwise. The "ULTRIUM-HH" and the "ULT3580-HH" inquiry strings are interchangeable (both are supported), unless noted otherwise.</p> <p>10. Backup Exec Tape Reader is not supported in NetBackup 8.0 and later releases.</p>
Vendor support considerations	<p>1. The list of attributes for each tape drive is based on the most recent drive testing. Check with the device manufacturer to determine the firmware version at which support for a specific attribute was added.</p>
Configuration considerations	<p>1. Veritas recommends the use of SCSI Persistent Reserve (SPR) whenever all the hardware in your device path supports it. Refer to the NetBackup Administrator's Guide for more information on SPR and the types of configurations where SPR may be more effective than the default SPC-2 SCSI reserve and release method.</p> <p>2. Only tape drives listed in the tables below are supported. Other tape drive models are not supported even if the Virtual Tape Library section shows an emulated version of the drive is supported with NetBackup.</p> <p>3. For Solaris 10, Veritas recommends running Update 6 (137137-09 for SPARC, 137138-09 for x64) or later.</p>
OS tape driver considerations	<p>1. Except where noted, Veritas recommends the use of the operating system's native tape drivers.</p>

## Operational considerations

1. Tape Alert functionality is supported by all drives, unless noted otherwise.
2. NetBackup supports LTO-7 Type M media, also known as M8 cartridges (LTO-7 cartridges formatted to a new LTO-8 standard, increasing their native capacity), in the following manner:
  - M8 cartridges are supported with LTO-8 tape drives.
  - M8 cartridges pre-formatted by the media vendor are supported.
  - LTO-7 cartridges with an M8 barcode formatted as M8 using hardware vendors' software tools or tape library firmware features (automatic or manual) are supported.
  - NetBackup does not have the ability to convert LTO-7 cartridges with an M8 barcode to M8 format.
  - For more information on M8 media (for example, formatting methods, supported barcodes, other technical information), please consult the vendor's documentation.
3. **Uninitialized LTO-9 media is not supported with NetBackup.** LTO-9 media must run a one-time characterization/optimization step to calibrate the tape before it can be used for backup. This process can take from 12 minutes to 2 hours. If a NetBackup job is assigned a brand new, uninitialized LTO-9 tape cartridge, the mount may time out and mark the assigned tape drive down.

To avoid this scenario, you must initialize new LTO-9 cartridges before putting them into a NetBackup volume pool to use for backup.

For more information on LTO-9 media initialization and mitigation solutions, consult the following vendor sites:

  - "[HPE StoreOpen Software Linux and Mac 3.5 User Guide - LTO-9 Media Initialization](#)"
  - "[HPE StoreOpen Software 3.5 for Microsoft Windows User Guide - LTO-9 Media Initialization](#)"
  - "[Oracle StorageTek SL150 Modular Tape Library - Library Support of LTO9 Tape Calibration](#)"

	<p><a href="#">"Overland Tandberg NEO XL-Series LTO-9 New Media Initialization Technical Brief"</a>  <a href="#">"Quantum LTO-9 Media - Frequently Asked Questions (FAQ)"</a>  <a href="#">"Spectra Logic - LTO-9 Initialization for Media / LTO-9 Certified Media"</a></p>
Operating system support dropped	<p><b>1. CentOS 6 is not supported as a media server with NetBackup 9.0 and later.</b>  <b>2. Red Hat Enterprise Linux 6 is not supported as a media server with NetBackup 9.0 and later.</b>  <b>3. Solaris (all versions) on SPARC and x86-64 will not be supported as a media server with NetBackup 10.0 and later.</b>  <b>4. SUSE Linux Enterprise Server 11 is not supported as a media server with NetBackup 8.3 and later.</b>  <b>5. SUSE Linux Enterprise Server 12 GA through SP2 are not supported as a media server with NetBackup 8.3 and later.</b>  <b>6. Windows 2008 and 2008 R2 are not supported by Microsoft as of January 14, 2020.</b></p>

### Tape Drives - Attributes

The following table lists attributes supported with Tape Drives and indicates the NetBackup version (8.2 or later) at which that attribute was first supported.

Attribute	Abbreviation	NetBackup Release Supported
SCSI Reservation	SResv	8.2
SCSI Persistent Reservation	SPR	8.2
Write Once, Read Many	WORM	8.2
NetBackup Encryption Key Management Service	KMS	8.2
Append-only mode	Append	8.2

### Tape Drives - Vendor Compatibility

**Contents (for details click on the checkbox)**

Dell EMC	Hewlett Packard Enterprise	IBM
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Oracle

Quantum

Tandberg

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## Encryption and Security Solutions

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Encryption and security solution support information is listed below, organized by solution type.

The following listings do not include specific operating system compatibility. For a list of supported NetBackup Media Server platforms, refer to the "[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List](#)".

### NetBackup Key Management Service (KMS)

The NetBackup Key Management Service (KMS) feature is intended to support any tape drive with built-in hardware encryption capability that conforms to the SCSI T10 encryption standard. Each drive model listed in the following table has been tested in Veritas labs to verify that it works with NetBackup correctly, so Veritas recommends using only listed drives with the KMS feature. Refer to the [Tape Drives](#) section in this document for the list of platforms and interfaces on which each of the following drives is supported.

Note: KMS is supported on any tape library supported by NetBackup, provided the library vendor supports that library with any of the encryption-capable drives listed in the table below.

### NetBackup KMS - Supported Devices

Manufacturer	Model	Notes
Dell EMC	PowerVault LTO4-120	
Dell EMC	PowerVault LTO5-140	
Dell EMC	PowerVault LTO-6	

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Dell EMC	PowerVault LTO-6 HH	
Dell EMC	PowerVault LTO-7	
Dell EMC	PowerVault LTO-7 HH	
Hewlett Packard Enterprise	Ultrium 1760 LTO4	
Hewlett Packard Enterprise	Ultrium 1840 LTO4	
Hewlett Packard Enterprise	Ultrium 3000 LTO5	
Hewlett Packard Enterprise	Ultrium 3280 LTO5	
Hewlett Packard Enterprise	Ultrium 6250 LTO6	
Hewlett Packard Enterprise	Ultrium 6650 LTO6	
Hewlett Packard Enterprise	Ultrium 15000 LTO7	
Hewlett Packard Enterprise	Ultrium 15750 LTO7	
Hewlett Packard Enterprise	Ultrium 30750 LTO8	
IBM	System Storage TS1040 Ultrium 4	Requires firmware version 7BG2 or later.
IBM	System Storage TS1050 Ultrium 5	
IBM	System Storage TS1060 Ultrium 6	
IBM	System Storage TS1070 Ultrium 7	
IBM	System Storage TS1120 (3592 Model E05)	Requires firmware version 1C15 or later.
IBM	System Storage TS1130 (3592 Model E06)	Requires firmware version 2480 or later.
IBM	System Storage TS1140 (3592 Model E07)	
IBM	System Storage TS1150 (3592 Model E08)	
IBM	System Storage TS1155 (3592 Model 55F)	
IBM	System Storage TS2240 Ultrium 4 Half Height	
IBM	System Storage TS2250 Ultrium 5 Half Height	
IBM	System Storage TS2260 Ultrium 6 Half Height	

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IBM	System Storage TS2270 Ultrium 7 Half Height	
IBM	System Storage TS2280 Ultrium 8 Half Height	
IBM	System Storage TS2340 Ultrium 4	Requires firmware version 7BG2 or later.
IBM	System Storage TS2350 Ultrium 5	
IBM	System Storage TS2360 Ultrium 6	
IBM	System Storage TS2370 Ultrium 7	
IBM	System Storage TS2380 Ultrium 8	
IBM	Ultrium 4 (OEM)	Requires firmware version 7BG2 or later.
IBM	Ultrium 4 Half Height (OEM)	
IBM	Ultrium 5 (OEM)	
IBM	Ultrium 5 Half Height (OEM)	
IBM	Ultrium 6 (OEM)	
IBM	Ultrium 6 Half Height (OEM)	
IBM	Ultrium 7 (OEM)	
IBM	Ultrium 7 Half Height (OEM)	
IBM	Ultrium 8 (OEM)	
IBM	Ultrium 8 Half Height (OEM)	
Oracle StorageTek	T10000B	Requires firmware version 1.41.211 or later.
Oracle StorageTek	T10000C	Requires firmware version 1.53.311 or later. The drive needs manual setup including obtaining the data path key management (DPKM) encryption license from Oracle.
Oracle StorageTek	T10000D	
Quantum	LTO-4 HH	Requires firmware version 2190 or later.
Quantum	LTO-5 FH	
Quantum	LTO-5 HH	
Quantum	LTO-6 HH	

Quantum	LTO-7 HH	
Quantum	LTO-8 HH	
Tandberg	HH LTO 5	

### External Key Management Services using KMIP

External Key Management Services (EKMS) servers using KMIP are supported with NetBackup 8.3 and later.

### External KMS - Considerations

Subject	Notes
Configuration considerations	<ol style="list-style-type: none"> <li>1. EKMS is supported with AdvancedDisk, Cloud, MSDP, MSDP Direct Cloud Tiering, and Tape storage solutions supported by NetBackup.</li> <li>2. The EKMS server must be KMIP-based. Supported KMIP versions are 1.0, 1.1, 1.2, 1.3, 1.4 and 2.0.</li> <li>3. NetBackup uses Symmetric Key objects stored on the EKMS server for data encryption.</li> <li>4. The EKMS server must use PEM formatted certificate-based authentication.</li> <li>5. The NetBackup primary server should be able to establish an outbound connection to the KMIP port on the EKMS server.</li> </ol>

### External KMS - Supported Devices

Manufacturer	Model	EKMS server software version	KMIP version supported
Fortanix	Data Security Manager (DSM)	4.2	1.0, 1.1, 1.2, 1.3, 1.4
IBM	Security Key Lifecycle Manager (SKLM)	2.6	1.0, 1.1, 1.2
IBM	Security Key Lifecycle Manager (SKLM)	3.0	1.0, 1.1, 1.2, 1.3, 1.4, 2.0
Oracle	Key Vault	12.1, 18.1, 18.2	1.0, 1.1
Thales	CipherTrust Manager K170, K170v, K470, K570	1.8	1.0, 1.1, 1.2, 1.3, 1.4

Thales	CipherTrust Manager K170, K170v, K470, K570	2.5	1.0, 1.1, 1.2, 1.3, 1.4
Thales	CipherTrust Manager K170, K170v, K470, K570	2.7	1.0, 1.1, 1.2, 1.3, 1.4
Thales	CipherTrust Manager K170, K170v, K470, K570	2.8	1.0, 1.1, 1.2, 1.3, 1.4
Thales	CipherTrust Manager K170, K170v, K470, K570	2.9	1.0, 1.1, 1.2, 1.3, 1.4
Thales	Gemalto-SafeNet KeySecure K150, K150v	8.11	1.0, 1.1, 1.2, 1.3
Thales	Vormetric Data Security Manager (DSM)	6.4	1.0, 1.1, 1.2, 1.3, 1.4, 2.0
Utimaco	Enterprise Secure Key Manager	5.2	1.0, 1.1, 1.2, 1.3, 1.4, 2.0

### Single Sign-On using SAML

NetBackup 8.3 and later supports authentication via Single Sign-On with SAML. For more information, see [Configure NetBackup for Single Sign-On \(SSO\)](#) in the NetBackup Web UI Administrator's Guide.

### Single Sign-On using SAML - Considerations

Subject	Notes
Configuration considerations	<ol style="list-style-type: none"> <li>1. To use SSO, you must have a SAML 2.0 compliant identity provider configured in your environment.</li> <li>2. Only one Active Directory (AD) or LDAP domain is supported for each primary server domain. This feature is not available for local domain users.</li> <li>3. Configuration of the Identity Provider (IDP) requires the NetBackup APIs or the NetBackup command <code>nbidpcmd</code>.</li> <li>4. SAML users cannot use the APIs. API keys are used to authenticate a user and therefore cannot be used with a SAML-authenticated user.</li> <li>5. Global logout is not supported.</li> </ol>

### Single Sign-On with SAML - Supported Solutions

Identity Provider	Link to configuration information
ADFS	<a href="https://www.veritas.com/support/en_US/article.100047744">https://www.veritas.com/support/en_US/article.100047744</a>
Microsoft Azure	<a href="https://www.veritas.com/support/en_US/article.100047748">https://www.veritas.com/support/en_US/article.100047748</a>
Okta	<a href="https://www.veritas.com/support/en_US/article.100047745">https://www.veritas.com/support/en_US/article.100047745</a>
PingFederate	<a href="https://www.veritas.com/support/en_US/article.100047746">https://www.veritas.com/support/en_US/article.100047746</a>
Shibboleth	<a href="https://www.veritas.com/support/en_US/article.100047747">https://www.veritas.com/support/en_US/article.100047747</a>

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## Third Party Encryption Solutions

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Support information for vendor-supplied encryption solutions is listed below, organized by vendor. Under each vendor there is a table showing tested solutions, firmware versions tested with that solution, and other important notes about the solution and its compatibility.

The firmware listed in these tables is the firmware that has been tested. Firmware versions newer than those listed are also supported.

Support for specific storage devices such as tape drives, libraries, and virtual devices is not listed in this section. NetBackup will support any hardware that is supported both by the encryption provider and Veritas. Please refer to the other sections of this document for Veritas' support of these storage devices.

### **Please Note:**

The firmware listed on this page is the firmware that has been tested. All firmware versions newer than what is listed are also supported.

## Third-Party Encryption Solutions - Vendor Compatibility

**Contents (for details click on the checkbox)**

Brocade	Cisco Systems	Decru
Fujitsu	Hewlett Packard Enterprise	IBM
NEC	Quantum	SafeNet
Sun StorageTek	Thales (NeoScale)	

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## **SAN Media Server/SAN Client/FT Media Server**

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- Unless otherwise noted the minimum NetBackup level for SAN Client support is NetBackup 6.5 GA.

### **SAN style backups via SAN Media Server**

SAN media servers are NetBackup media servers that back up their own data. SAN media servers cannot back up data that resides on other clients. SAN media servers are useful for certain situations. For example, a SAN media server is useful if the data volume consumes so much network bandwidth that it affects your network negatively.

- Enables LAN-free data protection with high performance access to shared resources.
- Can share tape resources with NetBackup Master and Media Servers.
- Can only back itself up, not other clients.
- Software is installed stand-alone on each cluster node and linked to the virtual host via an application cluster.
- When you define a backup policy for a SAN media server, add only the SAN media server as the client.
- The NetBackup Shared Storage Option is able to use NetBackup SAN media servers.
- There is no platform restriction regarding SAN Media Servers - any Media Server can be a SAN Media Server. The only difference is in the license authentication mechanism. Application and DB Agents are supported with the SAN Media Server.

### **SAN style backups via SAN Client**

A NetBackup SAN client is a NetBackup client on which the Fibre Transport service is activated. The SAN client is similar to the SAN media server that is used for the Shared Storage Option; it backs up its own data. However, the SAN client is based on the smaller NetBackup client installation package, so it has fewer administration requirements and uses fewer system resources.

- It connects to a NetBackup media server over Fibre Channel.
- The NetBackup SAN Client Fibre Transport Service manages the connectivity and the data transfers for the FT pipe on the SAN clients. The SAN client FT service also discovers FT target mode devices on the NetBackup media servers and notifies the FT Service Manager about them.
- Requires SAN connectivity with a Media Server running Fibre Transport Services (reference additional information below in regards to the FT Media Server).

SAN client does not support the following types of backup:

- SharePoint
- Enterprise Vault
- Exchange DAG or CCR backups through a passive node of an Exchange cluster
- All other application and database agents are supported with the SAN Client.

**Note:** SAN client does support the use of FlashBackup but all restores from FlashBackup backups will use the LAN connection, not the SAN connection.

### **SAN client and NetBackup Deduplication**

- SAN Client is a NetBackup optional feature that provides high speed backups and restores of NetBackup clients. Fibre Transport is the name of the NetBackup high-speed data transport method that is part of the SAN Client feature. The backup and restore traffic occurs over a SAN.
- SAN clients can be used with the deduplication option; however, the deduplication must occur on the media server, not the client. Configure the media server to be both a deduplication storage server (or load balancing server) and an FT media server. The SAN client backups are then sent over the SAN to the deduplication server/FT media server host. At that media server, the backup stream is deduplicated.
- Do not enable client deduplication on SAN Clients. The data processing for deduplication is incompatible with the high-speed transport method of Fibre Transport. Client-side deduplication relies on two-way communication over the LAN with the media server. A SAN client streams the data to the FT media server at a high rate over the SAN.

### **FT Media Server**

A NetBackup FT media server is a NetBackup media server on which the Fibre Transport services are activated. NetBackup FT media servers accept connections from SAN clients and send data to the storage units. The host bus adapters (HBAs) that accept connections from the SAN clients use a special NetBackup target mode driver to process FT traffic. The media server FT service

controls data flow, processes SCSI commands, and manages data buffers for the server side of the FT pipe. It also manages the target mode driver for the host bus adaptors.

Reference the HCL document Fibre Transport Media Server HBAs section for supported Operating Systems and HBAs. [https://www.veritas.com/content/support/en\\_US/article.100040093](https://www.veritas.com/content/support/en_US/article.100040093)

NetBackup Software Compatibility Documentation:

[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List \(last updated on March 11, 2024\)](#)

[8.0 - 8.x.x OS Software Compatibility List Updates](#)

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## Infrastructure Used for Testing

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The NetBackup Shared Storage Option (SSO) hardware support model for Storage Area Network (SAN) components is an open model. In other words, all Fibre Channel over Ethernet (FCoE) converged network adapters (CNA), Fibre Channel (FC) host bus adapters (HBA), switches, bridges, and routers are supported in a SAN environment. This means that if a FCoE or FC component is causing a problem, Veritas will work with the component vendor in an attempt to resolve the problem, but resolution is not guaranteed. Veritas and most hardware vendors listed are members of TSANet.

### Infrastructure - Considerations

Subject	Notes
Vendor support considerations	1. To ensure compatibility, the device manufacturers and the operating system vendor must support the combination of SAN components.

### Bridges/Routers

This list of SAN components represents equipment that has been used during NetBackup qualification testing of devices listed in previous sections of this document. It is not intended to be a list of supported components.

### Infrastructure - Considerations

Subject	Notes
Vendor support considerations	<ol style="list-style-type: none"><li>1. To ensure compatibility, the device manufacturers and the operating system vendor must support the combination of SAN components.</li><li>2. Consult the hardware vendor's web site for current firmware.</li></ol>

### Infrastructure - Routers/Bridges Used In Testing

**Contents (for details click on the checkbox)**

Bridges/Routers

### Switches

This list of SAN components represents equipment that has been used during NetBackup qualification testing of devices listed in previous sections of this document. It is not intended to be a list of supported components.

### Infrastructure - Considerations

Subject	Notes
Vendor support considerations	<ol style="list-style-type: none"><li>1. To ensure compatibility, the device manufacturers and the operating system vendor must support the combination of SAN components.</li><li>2. Consult the hardware vendor's web site for current firmware.</li></ol>

### Infrastructure - Switches Used In Testing

**Contents (for details click on the checkbox)**

Switches

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## Devices Retiring Soon

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The devices in this section will not be listed in the Hardware Compatibility List for the next major NetBackup release after NetBackup 8.2. Many of these devices are end-of-life products that are no longer supported by the manufacturer.

### Virtual Tape Libraries

Manufacturer	Device
SEPATON	S2100

### Tape Libraries

Manufacturer	Device
Dell EMC	PowerVault ML6000 Series, PowerVault TL2000, PowerVault TL4000
Hewlett Packard Enterprise	1/8 G2 Tape Autoloader, MSL2024, MSL4048, MSL8048, MSL8096
IBM	System Storage TS3200 (Machine Type 3573), System Storage TS3310 (Machine Type 3576)
Oracle	StorageTek SL24, StorageTek SL48, StorageTek SL500
Quantum	Scalar i2000, Scalar i500, SuperLoader 3
Spectra Logic	Spectra T120
Tandberg	StorageLibrary T24, StorageLibrary T48

### Tape Drives

Manufacturer	Device
Hewlett Packard Enterprise	Ultrium 1760 LTO4, Ultrium 1840 LTO4, Ultrium 920 LTO3, Ultrium 960 LTO3
IBM	System Storage TS1030 (3588 Model F3B) Ultrium 3, System Storage TS2230 Ultrium 3 Half Height, System Storage TS2340 Ultrium 4, TotalStorage 3580 Ultrium 3, Ultrium 3, Ultrium 3 Half Height, Ultrium 4 (U160)
Quantum	LTO-3, LTO-3 HH

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## NetBackup Future Platform and Feature Plans

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Veritas is committed to providing the best possible data protection experience for NetBackup customers on the widest variety of platforms, operating systems, databases, applications, and hardware. Veritas is continuously reviewing NetBackup's support of these items to ensure the proper balance of supporting their General Availability release, the very latest versions of new software, hardware and introducing new features and functionality and maintaining support for existing and older versions of these products and NetBackup functionality. While Veritas is continually adding support for new features, platforms, operating systems, and applications, it may be also necessary to improve, replace, or remove support in NetBackup for lesser used, older features, functionality, software, OS, databases, applications, integration with other products, and hardware that are no longer supported or nearing their end of support life from the manufacturer from NetBackup Compatibility Lists.

To better help its customers to plan for these upcoming changes to the support status of these items in NetBackup, Veritas will provide advanced notification as soon as possible as listed below. Veritas intends to list the older product functionality, features, hardware, OS, and 3rd party software products that will no longer be supported in the next release of NetBackup. If possible, these items are listed at least six months before that release.

The information below lists certain features, functionality, 3rd-party and Veritas products, applications, databases, and OS/ Platforms for which Veritas intends to replace with newer and improved functionality, or in some cases, discontinue without replacement. The last release of NetBackup to proliferate support of the item is provided. Technotes in the Notes column contain additional details about available replacement options. Where a major, minor or release update version is specified, the feature or platform is supported through the last Maintenance Update (patch) of that release. Where 'All' is specified, it is supported for all versions or variations of the family of the relevant or supported platforms.

Check this site frequently for updated information for NetBackup. If an item listed below will cause significant business impacts, contact your Veritas Sales Account Team. Please note that the official NetBackup Support Lifecycle for your existing NetBackup product version won't be affected or altered in any way. For the official Veritas Support Lifecycle Policy of all NetBackup versions, see [https://www.veritas.com/content/support/en\\_US/terms/support-fundamentals.html](https://www.veritas.com/content/support/en_US/terms/support-fundamentals.html).

Information in the following table contains plans starting with NetBackup 7.5. For information concerning no longer supported platforms, consult the following section of the report.

Information in the following table was last updated on **2023-10-23**.

Date Added/ Modified	Feature/ Functionality/ OS/Platform	NetBackup Area	OS/Platform	OS/Platform Version	CPU Architecture	Last Supported Release	Notes
2022-04-19	All	OpsCenter	All	All	All	10.0.0.1	
2021-06-03	VMware Cloud Director 9.0, 9.1, 9.5	All	All	All	All	9.0.0.1	VMware Cloud Director 9.0, 9.1, 9.5 to be not supported from NetBackup 9.1 onwards.
2021-06-03	Red Hat Enterprise Linux 7.0, 7.1, 7.2 and 7.3	Master Server, Media Server, Client	Red Hat Enterprise Linux	7	All	9.1.0.1	These operating systems will no longer be supported platforms
2017-05-25	Pre-7.7 backlevel administration with the Java GUI	Master Server, Media Server, Client	All	All	All	8.0	Pre-7.7 versions were EOSL Febuary 1, 2017. The 8.0 Windows remote administration console can be installed if needing to administer pre-7.7 NetBackup

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2017-05-19	Remote (push) installations of UNIX/Linux clients using ftp	Master Server, Client	All UNIX and Linux	All	All	8.0	<p>servers or perform backups/ restores of pre-7.7 clients.</p> <p>Use the sftp method as the alternative. Push install from the administration console is being changed to use ssh.</p>
2017-05-19	Remote (push) installations of UNIX/Linux clients using rsh	Master Server, Client	All UNIX and Linux	All	All	8.0	<p>Use the ssh method as the alternative. Push install from the administration console is being changed to use ssh as well.</p>
2017-04-19	NetBackup High Availability (HA) Media Server	Media Server	All	All	All	8.0	<p>HA Media Server was End of Life for new installs with NetBackup 7.7 and only upgrades from 6.5 were supported. This will now</p>

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							continue the EOL for HA Media Server with regards to upgraded HA Media Server moving forward with the Jasper release. NetBackup Media Server App_Clusters will not be impacted. NetBackup HA Appliances are not impacted.
2017-04-19	DB2 versions 9.1, 9.5, 9.7 & 10.1	NetBackup for DB2	All	All	All	8.0	
2017-03-14	Replication Director for EMC VNX	Replication Director	All	All	All	8.0	
2016-04-13	Backup Exec Tape Reader	Master Server, Media Server	All	All	All	7.6.1	Statement of direction for Backup Exec Tape Reader - <a href="http://www.veritas.com/docs/000005737">http://www.veritas.com/docs/000005737</a>
2016-01-11	BMR - XenServer support	Client	All	All	All	7.7.3	

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2014-12-12	Backup Exec Reporting	OpsCenter	All	All	All	7.6.1	Backup Exec reporting will be handled by the Backup Exec Enterprise Server Option that includes the Central Admin Server Option.
2014-12-12	OpsCenter NetBackup 6.x Support	OpsCenter Agent	All	All	All	7.6	
2014-12-12	OS/2 Policy Type	Master Server, Client	All master server and OS/2 clients	All	All	7.6.1	
2014-12-12	NetWare Policy Type	Master Server, Client	All master server and NetWare clients	All	All	7.6.1	
2014-12-12	AFS Policy Type	Master Server, Client	All master server and UNIX/Linux clients	All	All	7.6.1	
2014-12-12	Support for Nirvanix as a cloud storage platform.	Media Server	All	All	All	7.6.1	
2014-12-12	Oracle 8i, 9i and 10g support	NetBackup for Oracle	All	All	All	7.6.1	

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2014-12-12	Sybase 12	NetBackup for Sybase	All	All	All	7.6.1	
2014-12-12	Sybase 12.5	NetBackup for Sybase	All	All	All	7.6.1	
2014-12-12	Menu interfaces (bpadm and vmadm)	Master Server, Media Server	All master and media server	All	All	7.6.1	
2014-12-12	NetBackup Search	NetBackup Search	All	All	All	7.6.1	
2013-06-20	IBM Tivoli Storage Manager Reporting	OpsCenter Analytics	All	All	All	7.5	
2013-06-20	EMC Legato NetWorker Reporting	OpsCenter Analytics	All	All	All	7.5	
2013-06-20	VMware Agent VCB Backup and Restore	NetBackup for VMware	All	All	All	7.5	Replaced with VMware API's for Data Protection (VADP) integrated support as a direct replacement.
2013-06-20	OpsCenter ThreatCon Security Integration	OpsCenter	All	All	All	7.5	Feature discontinued with no replacement planned.
2013-06-20	Remote-EMM and Shared-	Master Server, Media Server	All	All	All	7.5	Stop supporting the

	EMM server configurations						use of shared EMM/NBDB across multiple NetBackup domains/master servers
2013-06-20	Enterprise Vault Reporting	OpsCenter	All	All	All	7.5	Enterprise Vault reporting will now be handled directly by Enterprise Vault in future versions of that product.

NetBackup Software Compatibility Documentation:  
[NetBackup 8.0 - 8.x.x Operating System Software Compatibility List \(last updated on March 11, 2024\)](#)  
[8.0 - 8.x.x OS Software Compatibility List Updates](#)

## Documentation

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### Product Documentation

- [NetBackup Appliance Documentation](#)
- [NetBackup Appliance Documentation Sets](#)
- [52xx Initial Configuration Guide](#)
- [Administrator's Guide](#)
- [Appliance Fibre Channel Guide](#)
- [Appliance Management Guide](#)
- [Copilot for Oracle Configuration Guide](#)

## [Veritas Services and Operations Readiness Tools \(SORT\)](#)

- [High Availability Reference Guide](#)
- [NetBackup 5230 Appliance and Storage Shelf Product Description](#)
- [NetBackup 5230 Appliance and Storage Shelf Product Description](#)
- [NetBackup 5230 Appliance Hardware Installation Guide](#)
- [NetBackup Appliance AutoSupport 2.0 Reference Guide](#)
- [NetBackup Appliance Compatibility Notes](#)
- [NetBackup Appliance Decommissioning and Reconfiguration Guide](#)
- [NetBackup Appliance iSCSI Guide](#)
- [NetBackup Appliance SNMP Trap Reference Guide](#)
- [NetBackup Appliance Troubleshooting Guide](#)
- [Security Guide](#)
- [Veritas Appliance Safety and Maintenance Guide](#)
- [Veritas Service and License Agreements](#)

## **Virtual Netbackup Appliance**

- [NetBackup Virtual Appliance Third-party Legal Notices](#)

## **Installation/Upgrade Documentation**

- [NetBackup Appliance Upgrade Readiness Analyzer Upgrade Guide](#)
- [What's new in NetBackup Appliance releases](#)
- [Release Notes](#)
- [Veritas Download Center](#)

## **Late Breaking News**

- [Guidelines for the availability of EEB/hotfixes](#)
- [Late Breaking News and Important Updates about NetBackup Appliances](#)

## **Compatibility Lists**

- [NetBackup 8.2 - 8.x.x Hardware and Cloud Storage Compatibility List](#)
- [NetBackup 8.0 - 8.x.x Operating System Software Compatibility List](#)

[Veritas Services and Operations Readiness Tools \(SORT\)](#)

## **Performance and Tuning Guidelines**

[Appliance Capacity Planning and Performance Tuning Guide](#)

## **Product End of Life Information**

[SORT End of Support Life matrix for NetBackup Appliances](#)

[Veritas End of Life Policy](#)

## **Other Related Documentation**

[Veritas Entitlement Management System Guide](#)