

Custom Reports Using Data Collectors

**NetBackup (Solaris 11 - SPARC) was last updated as a NetBackup Server in the 9.1.0.1 release.
It is still available as a NetBackup Client through the 10.4 release.**

Get ready for a newer version of NetBackup Server (9.1.0.1)

Installation and Upgrade Checklist Report for NetBackup Enterprise Server 9.1, Solaris 11, SPARC

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No new versions for NetBackup OpsCenter after 10.0.0.1

**NetBackup 10.0 (including maintenance release 10.0.0.1) is the last NetBackup version to include NetBackup OpsCenter and OpsCenter Analytics.
Please refer to [NetBackup OpsCenter last release and transition to NetBackup IT Analytics FAQ](#) for more information.**

EOL for NetBackup on Solaris on primary servers(master servers) and media servers after NetBackup 9.1.0.1

**Disclaimer: Veritas announces the EOL (End-of-Life) for NetBackup primary (master) servers and media servers running Solaris on SPARC and x86-64 architecture.
This EOL does not apply to client support on this platform. NetBackup 9.1, which released on June 7, 2021, is the last major release supporting NetBackup deployed on Solaris as a primary server or media server. You will need to migrate to a supported version prior to attempting to upgrade to the targeted release or any later releases. Veritas will support Solaris primary servers and media servers on older versions of NetBackup per our [Veritas Product End of Life policy](#).
For more information about this EOL, see the following technical article: [Veritas End of Life \(EOL\) announcement for Veritas on Solaris primary \(master\) server and media server](#).**

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NetBackup (Solaris 11 - SPARC) was last updated as a NetBackup Server in the 9.1.0.1 release.
It is still available as a NetBackup Client through the 10.4 release.

Get ready for a newer version of NetBackup Server (9.1.0.1)

Procedure Overview:

Install the NetBackup Enterprise Server 9.1 release.

To obtain the 9.1 release, please go to [Veritas Download Center](#)

In order to install NetBackup Enterprise Server 9.1, follow the installation instructions found in the [NetBackup Installation Guide](#)

Be sure to review the [Updates, Patches and Late Breaking News for NetBackup 9.x](#).

For NetBackup clients, Veritas has developed [deployment templates for Chef & SCCM](#), so that customers can deploy them at scale. The templates will help you to perform installation, upgrade and uninstall NetBackup clients.

Compatibility between NetBackup versions for Primary(Master) Server,Media Server and Client

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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

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 Primary server.

For more information, refer to the NetBackup Release Notes and the NetBackup Upgrade Guide: https://www.veritas.com/support/en_US/article.000116412

NetBackup Primary Server	NetBackup Media Server	NetBackup Client
9.0	8.0	7.7.3, 8.0
9.0	8.1	7.7.3, 8.0, 8.1
9.0	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
9.0	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
9.0	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
9.0	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2

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9.0	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
9.0	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
9.0	9.0	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, 9.0, 9.0.0.1
9.0	9.0.0.1	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, 9.0, 9.0.0.1
9.0.0.1	8.0	7.7.3, 8.0
9.0.0.1	8.1	7.7.3, 8.0, 8.1
9.0.0.1	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
9.0.0.1	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
9.0.0.1	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
9.0.0.1	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2
9.0.0.1	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, 8.3.0.2
9.0.0.1	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
9.0.0.1	9.0	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, 9.0, 9.0.0.1
9.0.0.1	9.0.0.1	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, 9.0, 9.0.0.1
9.1	8.0	7.7.3, 8.0
9.1	8.1	7.7.3, 8.0, 8.1
9.1	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
9.1	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
9.1	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
9.1	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2
9.1	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, 8.3.0.2

Veritas Services and Operations Readiness Tools (SORT)

9.1	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
9.1	9.0	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 9.0, 9.0.0.1
9.1	9.0.0.1	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, 9.0, 9.0.0.1
9.1	9.1	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, 9.0, 9.0.0.1, 9.1
9.1	9.1.0.1	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, 9.0, 9.0.0.1, 9.1, 9.1.0.1
9.1.0.1	8.0	7.7.3, 8.0
9.1.0.1	8.1	7.7.3, 8.0, 8.1
9.1.0.1	8.1.1	7.7.3, 8.0, 8.1, 8.1.1
9.1.0.1	8.1.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2
9.1.0.1	8.2	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2
9.1.0.1	8.3	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 8.3.0.1, 8.3.0.2
9.1.0.1	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, 8.3.0.2
9.1.0.1	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
9.1.0.1	9.0	7.7.3, 8.0, 8.1, 8.1.1, 8.1.2, 8.2, 8.3, 9.0, 9.0.0.1
9.1.0.1	9.0.0.1	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, 9.0, 9.0.0.1
9.1.0.1	9.1	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, 9.0, 9.0.0.1, 9.1, 9.1.0.1
9.1.0.1	9.1.0.1	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, 9.0, 9.0.0.1, 9.1, 9.1.0.1

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 primary servers in the environment.
- All components (primary, 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 primary, 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 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

[Appliance Compatibility List](#)

Late Breaking News - Available Hot Fixes for Primary(Master) Server,Media Server and Client

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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 9.1 on Support site](#).

Hot Fix	Description	Install Location
UPD344759	NetBackup Java Administration Console Language Pack (article 100033052)	Java Administration Console
UPD971796	NetBackup Server / Enterprise Server 8.1.2 and later - Cloud Configuration Package (article 100033434)	Primary(Master) Server, Media Server
UPD399544	Veritas NetBackup Server / Enterprise Server - Device Mappings Package for UNIX / Linux (article 100015983)	Primary(Master) Server, Media Server
UPD787768	NetBackup 9.1 / 4.1 Hotfix - VMware virtual machine entered into emergency	Primary(Master) Server, Media Server, Client

	mode at first boot after successful restore. (Etrack 4047114)	
UPD829993	NetBackup 9.1 / 4.1 Hotfix - MSDP EEB Bundle (Etrack 4040970)	Primary(Master) Server, Media Server, Client
UPD162444	NetBackup Primary Server Migration Tool 2.3.1	Primary(Master) Server, Media Server, Client
UPD714038	NetBackup 8.1.2 - 10.1.1 - nbdb_unload performance impact when upgrading to NetBackup 10.2 or above	Primary(Master) Server, Media Server, Client
UPD238422	Bare Metal Restore Third-Party Products CD (3PPCD)	Primary(Master) Server, Media Server, Client

NetBackup Documentation References:

[Updates, Patches and Late Breaking News for NetBackup 9.x](#)

Patches for Operating System for Primary(Master) Server,Media Server and Client

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Required Patches

There is no information found for this section.

NetBackup Documentation References:
[NetBackup Release Notes](#)
[NetBackup Self Service Release Notes](#)

NetBackup Appliances

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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), 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.

Note: The NetBackup 5230 Appliance and the NetBackup 5240 CloudCatalyst Appliance are not supported with version 4.0 and later.

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 5230 and CloudCatalyst 5240 Appliance models have been removed from this document since these models are not supported with version 4.0 and later.

NetBackup 5300 Series - Supported Versions

NetBackup 5300 Series Appliance Release	Supported NetBackup Appliance Models	Based on NetBackup Release
4.1	5350, 5340, 5330	9.1
4.0	5350, 5340, 5330	9.0
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
4.1	5250, 5240	9.1
4.0	5250, 5240	9.0
3.3.0.1	5250, 5240	8.3.0.1
3.2	5250 , 5240 ^[1]	8.2
3.1.2	5240	8.1.2
3.1.1	5240	8.1.1
3.1	5240	8.1
3.0	5240	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
4.1	9.1	vSphere 6.5, 6.7, 7.0, 7U1
4.0	9.0	vSphere 6.0, 6.5, 6.7, 7.0
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)
3.0	5350 (Configuration A, B, C), 5340 (Configuration	10.1.1, 10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1	10.1.1, 10.1, 10.0.0.1, 10.0, 9.1.0.1, 9.1	17.1, 17.0, 16.0.1, 16.0, 15.0.2, 15.0 ^{[1][2][3][4][5][6]}

	A, B, C, D, E, F, G, H, J), 5250 (Configuration A, B, C, D, E, F), 5150			
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 ^{[7][8]} [9][1][2][3][4][5]
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 ^{[7][8]} [9][1][2][3][4][5]
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 ^{[7][8]} [9][1][2][3][4]
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 ^{[7][8]} [9][1][2]
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 ^{[7][8]} [9]
1.3.1	5340 (Configuration A), 5150	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 ^[10]	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 ^[10]	Not supported
1.3	5340 (Configuration A), 5150	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 ^[10]	8.3.0.1, 8.2, 8.1.2, 8.1.1, 8.1 ^[10]	Not supported

Footnotes

1. WORM storage server version 15.0 requires NetBackup primary and media server version 9.1 or later.

2. WORM storage server version 15.0.2 requires NetBackup primary and media server version 9.1.0.1 or later.
3. WORM storage server version 16.0 requires NetBackup primary and media server version 10.0 or later.
4. WORM storage server version 16.0.1 requires NetBackup primary and media server version 10.0.0.1 or later.
5. WORM storage server version 17.0 requires NetBackup primary and media server version 10.1 or later.
6. WORM storage server version 17.1 requires NetBackup primary and media server version 10.1.1 or later.
7. WORM storage server version 13.0.2 requires NetBackup primary and media server version 8.3.0.2 or later.
8. WORM storage server version 14.0 requires NetBackup primary and media server version 9.0 or later.
9. WORM storage server version 14.0.1 requires NetBackup primary and media server version 9.0.0.1 or later.
10. Veritas strongly recommends running NetBackup 8.2 or later with Flex Appliance.

Configuring Cloud Solutions with NetBackup Appliances

The table below shows when a NetBackup cloud configuration and device mappings RPM package is required for configuring cloud providers with NetBackup 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 Appliance

Cloud solution	NetBackup Appliances running 4.0	NetBackup Appliances running 4.1
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
Amazon Glacier Deep Archive (S3)	Included in release	Included in release
Amazon Glacier Instant Retrieval (IR) (S3)	Not supported	Not supported
Amazon GovCloud Glacier (S3)	Included in release	Included in release
Amazon GovCloud Glacier Deep Archive (S3)	Included in release	Included in release
Amazon GovCloud Glacier Instant Retrieval (IR) (S3)	Not supported	Not supported

Veritas Services and Operations Readiness Tools (SORT)

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
Dell EMC Isilon PowerScale series (S3)	Not supported	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 Archive (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
Hewlett Packard Enterprise Cloud Volumes (S3)	Included in release	Included in release
Hitachi Vantara Content Platform (HCP) (S3)	Included in release	Included in release
Hitachi Vantara HCP for Cloud Scale (S3)	Included in release	Included in release

Veritas Services and Operations Readiness Tools (SORT)

IBM Cloud Object Storage - Cold Vault (S3)	Included in release	Included in release
IBM Cloud Object Storage - Private (S3)	Included in release	Included in release
IBM Cloud Object Storage - Smart Tier (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
Infonika 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)	Included in release	Included in release
Oracle Cloud Infrastructure (S3)	Included in release	Included in release
Orange Business Services Flexible Engine OBS (S3)	Included in release	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

Veritas Services and Operations Readiness Tools (SORT)

Red Hat Ceph Storage (S3)	Included in release	Included in release
SandStone MOS (S3)	Included in release	Included in release
Scality RING Storage (S3)	Included in release	Included in release
Seagate Lyve Cloud (S3)	Not supported	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
Tencent Cloud Object Storage (COS) - ARCHIVE (S3)	Not supported	Included in release
Tencent Cloud Object Storage (COS) - DEEP ARCHIVE (S3)	Not supported	Included in release
Tencent Cloud Object Storage (COS) - Archive (S3)	Not supported	Included in release
Tencent Cloud Object Storage (COS) - Standard IA (S3)	Not supported	Included in release
Veritas Recovery Vault Amazon S3	Requires 4.0.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD217820	Requires 4.1.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD251988
Veritas Recovery Vault Amazon GovCloud	Requires 4.0.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD217820	Requires 4.1.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD251988
Veritas Recovery Vault Azure	Requires 4.0.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD217820	Requires 4.1.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD251988
Veritas Recovery Vault Azure Government	Requires 4.0.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD217820	Requires 4.1.0.1 and the Emergency Engineering Binaries in this bundle: https://www.veritas.com/content/support/en_US/downloads/update.UPD251988
Veritas Access (S3)	Included in release	Included in release

Veritas Access 3340 Appliance (S3)	Included in release	Included in release
XSKY Enterprise Object Storage (S3)	Not supported	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 (4.0 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 9.0 - 9.x.x Operating System Software Compatibility List"](#), application and database agents ["NetBackup 9.0 - 9.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 8.2 - 8.x.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	4.0	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	4.0	5200 Series, 5300 Series, Virtual	The Primary Server in the NetBackup domain must be running a version of NetBackup equal to or newer than the NetBackup version on which the appliance is based.
NetBackup CloudCatalyst Appliance			This role is not supported with version 4.0 and later.
Accelerator (for files and folders)	4.0	5200 Series, 5300 Series, Virtual	

Accelerator with NDMP	4.0	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 "About the track log for Accelerator for NDMP" . For more information on this feature, see the "About NetBackup Accelerator for NDMP" .
Accelerator with VMware-type policies	4.0	5200 Series, 5300 Series, Virtual	
Auto Image Replication to MSDP/5200 Series or 5300 Series over Ethernet	4.0	5200 Series, 5300 Series, Virtual	
Auto Image Replication to MSDP/5200 Series or 5300 Series over Fibre Channel (FC)	4.0	5200 Series, 5300 Series	
Client Deduplication / Client Direct over Ethernet	4.0	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

			<p>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 "NetBackup 8.0 - 8.x.x Operating System Software Compatibility List" .</p> <p>Data Immutability/WORM is supported with Client Direct with NetBackup Appliances running version 4.1 and later.</p>
Copilot for Oracle	4.0	5200 Series, 5300 Series, Virtual	<p>For more information on this feature, see the "NetBackup Copilot for Oracle Configuration Guide" .</p>
Fibre Transport Media Server	4.0	5200 Series, 5300 Series	<p>Supported with 8 Gb HBAs in NetBackup 5240, 5250, 5330, and 5340 Appliances.</p> <p>Supported with 16 Gb HBAs in NetBackup 5240, 5250, 5340, and 5350 Appliances.</p>
FIPS-compliant encryption	4.0	5200 Series, 5300 Series, Virtual	<p>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 "NetBackup Appliance Security Guide" .</p>
Granular Recovery Technology (GRT)	4.0	5200 Series, 5300 Series, Virtual	

Granular Recovery Technology (GRT) with VMware-type policies	4.0	5200 Series, 5300 Series, Virtual	Support for VMware-type backup policies with Application Protection options enabled for Exchange or SharePoint.
Instant Data Access	4.0	5200 Series, 5300 Series	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 "NetBackup Web UI VMware Administrator's Guide" .
Instant Recovery for VMware	4.0	5200 Series, 5300 Series, Virtual	Support for restoring virtual machines with Instant Recovery is described in the "NetBackup for VMware Administrator's Guide" . For details on supported platforms for instant recovery restore hosts, see "Support for NetBackup 7.7.x, 8.x, and 9.x in virtual environments" .
iSCSI Initiator - Hardware-assisted with TCP Offload Engine (TOE) card	4.0	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 "NetBackup

			Appliance iSCSI Guide" and the "NetBackup for VMware Administrator's Guide" .
Key Management Service (KMS)	4.0	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)	4.0	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	4.0	5200 Series, 5300 Series, Virtual	Supported NDMP solutions are listed in the NDMP devices Vendor Compatibility section.
NetBackup Cluster			There are no plans to support this feature.
NetBackup OpenStorage Cloud and Third-Party Plug-in Support	4.0	5200 Series, 5300 Series, Virtual	Supported plug-ins are listed in the "Support with NetBackup Appliance" tables shown in the OST Cloud and OST Storage

			Servers Vendor Compatibility sections. For instructions on installing vendor plug-in packages on NetBackup Appliances, see "About OpenStorage plugin installation" .
NFSv4	4.0	5200 Series, 5300 Series, Virtual	All shares exported by the appliance can be mounted using NFSv4, including system shares and backup shares such as Universal shares and Copilot shares.
OpsCenter	4.0	5200 Series, 5300 Series, Virtual	
OpsCenter Managed Server	4.0	5200 Series, 5300 Series, Virtual	
Optimized Duplication (Opt_Dup) over Ethernet	4.0	5200 Series, 5300 Series, Virtual	Supported from 5200/5300 Series/Virtual to 5200/5300 Series/Virtual (MSDP to MSDP).
Optimized Duplication (Opt_Dup) over Fibre Channel (FC)	4.0	5200 Series, 5300 Series	Supported from 5200/5300 Series to 5200/5300 Series (MSDP to MSDP)
Optimized Synthetics (Opt_Synth)	4.0	5200 Series, 5300 Series, Virtual	
Tape Drive Support	4.0	5200 Series, 5300 Series	Supported tape drives are listed in the "Support with NetBackup Appliance" tables shown in the Tape Drives Vendor Compatibility section. Shared Storage Option (SSO) is supported.

Tape Library Support	4.0	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 Tape Libraries 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	4.0	5200 Series, 5300 Series	For more information on configuring Universal Shares, see Manage > Storage > Universal Shares
Virtual Tape Library (VTL) Support	4.0	5200 Series, 5300 Series	Supported VTLs are listed in the "Support with NetBackup Appliance" tables shown in the Virtual Tape Libraries 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 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

NetBackup Hardware Compatibility Documentation: Introduction Appliance Compatibility List

NetBackup Self Service

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Veritas NetBackup Self Service offers large enterprises and service providers a single store front for all backup and recovery service offerings. Customers and business users can perform self-service backup and restore operations using intuitive, custom-designed interface themes. A single instance supports the registration of multiple tenants or business units to allow secure separation between clients. Codeless, visually-designed forms and process workflows cater to most self-service needs. Service Level Agreement (SLA) measurement, notification, chargeback, and reporting make it easy to manage the service.

NetBackup Self Service Documentation

- Veritas NetBackup™ Self Service Installation Guide: https://www.veritas.com/support/en_US/doc/109481741-127663622-0/index
- Veritas NetBackup™ Self Service Release Notes: https://www.veritas.com/support/en_US/doc/109473637-127663620-0/index
- Veritas NetBackup™ Self Service Configuration Guide: https://www.veritas.com/support/en_US/doc/109536476-127663621-0/index

NetBackup Self Service OS Platform Compatibility

NetBackup Self Service Versions	Supported Platforms	Supported Databases
NetBackup Self Service 9.0 ,9.1	Windows Server 2012 R2 Windows Server 2016 Windows Server 2019	Microsoft SQL Server 2014 Microsoft SQL Server 2016 Microsoft SQL Server 2017 Microsoft SQL Server 2019 Azure SQL database Microsoft SQL Server on Amazon RDS

NetBackup Primary Server Compatibility

- NetBackup Self Service does not require the NetBackup client software to be installed on the Web server or SQL server, However it is recommended to have the NetBackup Client software Installed.

- The primary server version remains restricted to the Netbackup client version or later versions incase the NetBackup Client software is installed on the Web Server or SQL server.

NetBackup Self Service Versions	NetBackup Versions	Appliance Versions
NetBackup Self Service 9.0, 9.1	NetBackup 8.0 NetBackup 8.1 NetBackup 8.1.1 NetBackup 8.1.2 NetBackup 8.2 NetBackup 8.3 NetBackup 8.3.0.1 NetBackup 9.0 NetBackup 9.0.0.1 NetBackup 9.1 NetBackup 9.1.0.1 [1][2]	NetBackup Appliance 3.0 NetBackup Appliance 3.1 NetBackup Appliance 3.1.1 NetBackup Appliance 3.1.2 NetBackup Appliance 3.2 NetBackup Appliance 3.3.0.1 NetBackup Appliance 4.0 NetBackup Appliance 4.1 NetBackup Virtual Appliance 3.0 FlexScale 1.3.1 FlexScale 2.1 [2]

Footnotes

1. NetBackup Self Service 9.0 with NetBackup 9.1 does not support protection of cloud asset
2. All NetBackup Triple dot releases are supported unless specified otherwise

VMware vCloud Director Compatibility

- The NetBackup primary server must also support the vCloud Director version

Self Service Versions	vCloud Director Versions
NetBackup Self Service 9.0, 9.1	5.5, 5.6, 8.0, 8.10, 8.20, 9.0, 9.1, 9.5 , 9.7 , 10.0 , 10.1 , 10.2 , 10.3 [1][1][1][1][1][1]

Footnotes

1. VMware vCloud Director 9.5 and later requires VMware vCenter servers versions 6.5 and later .

NetBackup Self Service Supported Web Browsers

- Microsoft Edge
- Microsoft Internet Explorer 11
- Mozilla Firefox
- Google Chrome
- Apple Safari [not recommended]

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Software Compatibility List (SCL) for Primary(Master) Server and Media Server

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SAN Client feature is supported only on physical machine.

Oracle Solaris - NetBackup Server

OS	CPU Architectur	OS Bits	NetBackup Primary Server	NetBackup Media Server	NetBackup Bits	NBAC	OpsCenter Server	OpsCenter Managed Server	NDMP	Minimum NetBackup Level
Solaris 11	SPARC	64	Y	Y	64	Y		Y	Y	9.0

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

[Operating Systems Compatibility List General Information](#)

System Requirements for Primary(Master) Server

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NetBackup Binary Size

Approximate binary size of the NetBackup server software (includes client software) for an initial install.

OS - All Versions	CPU Architecture	32-bit server	64-bit server	Notes
Solaris	SPARC		6326 MB	

Primary(Master) Server Minimum Physical Memory Requirement

OS/Version	CPU Architecture	Minimum Memory Requirement
Solaris 11	SPARC	16 GB

File Descriptor and File Size Requirements

The number of file descriptors for the Primary(Master) Server must be set to at least 8000. See 'ulimit -n' output value.

The file size limit for the Primary(Master) Server must be set to unlimited. See 'ulimit -f' output value.

Operating System Tuning Requirements

The following resource tuning parameters can impact performance of the Server.

The recommended values are as follows:

max-msg-ids	max-sem-ids	max-sem-ops	max-sem-nsems	max-shm-ids	max-shm-memory
256	1024	32	300	1024	half of system memory

Catalog Maintenance Disk Space Requirement

This system requirement only applies to upgrades from one major, minor or release update (single or double dot) version to another, not an initial install.

Database rebuilds are likely to occur in each major, minor (single-dot), and release update (double-dot) version of NetBackup.

Therefore, before upgrading to NetBackup major, minor, or release update, you must ensure that you have an amount of free disk space available that is equal to or greater than the size of the NetBackup database. That means for default installations, you are required to have that amount of free space on the file system containing the /usr/openv/db/data directory. If you have changed the location of some of the files in this directory, free space is required in those locations equal to or greater than the size of the files in those locations. For specific information for your environment, use the SORT data collector to generate a custom report. Refer to the [NetBackup 9.1 Administrator's Guide Volume I](#) for more information about storing NBDB database files in alternate locations.

NOTE: This free disk space requirement assumes that you have already performed the best practice of completing a successful catalog backup before you begin the upgrade.

Temporary Disk Space Requirement for Install or Upgrade

After downloading the software, temporary disk space is required for the installation process. You may designate where this temporary space is located via use of environment variables, NB_TMPDIR or TMPDIR. NB_TMPDIR is used if set, TMPDIR next if set, otherwise /tmp. You will need approximately 0 MBs of temporary disk space during the install.

If using Live Update, you will need 4.5 GBs of temporary disk space. The location of the temporary disk space is designated in the 'workdir' setting in the /usr/opensv/netbackup/nblu.conf file with /tmp being the default.

Web Server User Account Requirement

Beginning with NetBackup 8.0, the primary(master) server includes an active web server to support critical backup operations. A user account must be setup for it. Consult [Tomcat setup](#) for details on setting up this account.

Valid Characters in Host Names Requirement

NetBackup requires host names to comply with [RFC-1123](#), meaning only ASCII characters "a" thru "z", case insensitive, and digits "0" thru "9" and the hyphen character.

CPU Cores Recommendation

Beginning with NetBackup 8.1, it is recommended that the primary(master) server host have 4 CPU cores.

NetBackup Documentation References:

[ERROR CODE: error 26 bpbm jobs failing with status 26](#)

[How to estimate the number of master servers needed](#)

[How to estimate the number of media servers needed](#)

[Information on resource allocation within NetBackup](#)

[Insufficient system file descriptors can cause performance issues and possible growth in the EMM_DATA.db file](#)

[Minimum O/S ulimit settings on UNIX platforms](#)

[NetBackup Backup Planning and Performance Tuning Guide](#)

[NetBackup OpsCenter Performance and Tuning Guide](#)

[NetBackup pre-install check detects insufficient space to perform upgrade](#)

[Performance tuning for NetBackup 7.x for Solaris 10 and Solaris 11 Project resource allocation](#)

[Recommended NetBackup UNIX / Linux semaphore tuning values \(Linux/Solaris/HP-UX/AIX\)](#)

[NetBackup Release Notes](#)

[NetBackup Self Service Release Notes](#)

NetBackup Binary Size

Approximate binary size of the NetBackup server software (includes client software) for an initial install.

OS - All Versions	CPU Architecture	32-bit server	64-bit server	Notes
Solaris	SPARC		6326 MB	

Media Server Minimum Physical Memory Requirement

OS/Version	CPU Architecture	Minimum Memory Requirement
Solaris 11	SPARC	4 GB

File Descriptor and File Size Requirements

The number of file descriptors for the Media Server must be set to at least 8000. See 'ulimit -n' output value.

The file size limit for the Media Server must be set to unlimited. See 'ulimit -f' output value.

Operating System Tuning Requirements

The following resource tuning parameters can impact performance of the Server.

The recommended values are as follows:

max-msg-ids	max-sem-ids	max-sem-ops	max-sem-nsems	max-shm-ids	max-shm-memory
256	1024	32	300	1024	half of system memory

Temporary Disk Space Requirement for Install or Upgrade

After downloading the software, temporary disk space is required for the installation process. You may designate where this temporary space is located via use of environment variables, NB_TMPDIR or TMPDIR. NB_TMPDIR is used if set, TMPDIR next if set, otherwise /tmp. You will need approximately 0 MBs of temporary disk space during the install.

If using Live Update, you will need 4.5 GBs of temporary disk space. The location of the temporary disk space is designated in the 'workdir' setting in the /usr/opensv/netbackup/nblu.conf file with /tmp being the default.

Valid Characters in Host Names Requirement

NetBackup requires host names to comply with [RFC-1123](#), meaning only ASCII characters "a" thru "z", case insensitive, and digits "0" thru "9" and the hyphen character.

NetBackup Documentation References:

[NetBackup Release Notes](#)

[NetBackup Self Service Release Notes](#)

ERROR CODE: error 26 bpbrm jobs failing with status 26

Minimum O/S ulimit settings on UNIX platforms

Performance tuning for NetBackup 7.x for Solaris 10 and Solaris 11 Project resource allocation

Browser Requirements for NetBackup Web UI for Primary(Master) Server

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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	83 or later.	The latest browser edition is recommended. Download from https://www.mozilla.org/en-US/firefox/
Google Chrome	87 or later.	The latest browser edition is recommended. Download from https://www.google.com/chrome/

NetBackup Documentation References:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

[NetBackup Web UI Administrator's Guide](#)

[NetBackup Web UI Cloud Administrator's Guide](#)

[NetBackup Web UI Microsoft SQL Server Administrator's Guide](#)

[NetBackup Web UI Nutanix AHV Administrator's Guide](#)

[NetBackup Web UI Oracle Administrator's Guide](#)

[NetBackup Web UI Red Hat Virtualization Administrator's Guide](#)

[NetBackup Web UI VMware Administrator's Guide](#)

NetBackup for Kubernetes for Primary(Master) Server

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Starting with NetBackup 9.1, you can use the NetBackup Web UI to enable backup and restore of Kubernetes applications in the form of namespaces.

Supported storage solutions are listed in the table below. Container Storage Interface (CSI) plug-ins for the solutions listed below are available here: <https://kubernetes-csi.github.io/docs/drivers.html>

For more information on supported Kubernetes distributions, see the [NetBackup Enterprise Server and Server 9.0 - 9.x.x OS Software Compatibility List](#).

For more information on configuring Kubernetes with NetBackup, see the [NetBackup Web UI Kubernetes Administrator's Guide](#).

NetBackup for Kubernetes - Vendor Compatibility

Supported Storage

Vendor	Supported Storage Family
Dell EMC	PowerMax PowerScale PowerStore Unity VxFlexOS
Google Compute Engine	GCE Persistent Disk
Hitachi VantaraC	VSP series
Hewlett Packard Enterprise	Nimble Primera 3PAR
IBM / Red Hat	Cloud Kubernetes Service DS8880 and DS8900 FlashSystem A9000 and A9000R

	Spectrum Fusion HCI Spectrum Scale File System Spectrum Virtualize Family
Infinidat	Infinibox
NetApp	Trident container storage orchestrator
Nexenta	NexentaStor File Storage NexentaStor over iSCSI
Nutanix	Files Volumes
Pure Storage	Portworx Pure Service Orhestrator
Veritas	InfoScale Volumes
VMware	vSphere ^[1]
Zadara	VP SA Storage Array VP SA All-Flash

Footnotes

1. Rollback of individual persistent volumes is not supported with this solution.

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

Kubernetes Compatibility

NetBackup supports all vendor GA updates, Major or Minor service packs and Patch Releases unless stated otherwise in the tables below.

Supported Storage Providers

For supported storage providers details. Refer:

NetBackup Versions	Kubernetes Distributions	Velero
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9.1	<ul style="list-style-type: none">• Google Kubernetes Engine (GKE) (1.18.*-1.20.*)• RedHat OpenShift (4.4.* - 4.7.*)• VMware vSphere with Tanzu - TKG Management Cluster + K8s Guest cluster - 1.19• Vanilla Kubernetes 1.21	<ul style="list-style-type: none">• 1.5.3 through 1.6.0
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NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Replication Director for Media Server and Client

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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	For details on supported operating systems, please refer to the " NetBackup 9.0 - 9.x.x Operating System Software Compatibility List ".

	<ol style="list-style-type: none">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.2. 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.3. 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.4. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.5. CentOS and Oracle Linux are not supported with Replication Director, unless noted otherwise.6. SUSE Linux Enterprise Server 12 support requires SP3 or later.
Vendor support considerations	<ol style="list-style-type: none">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.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.)

Replication Director - Supported Platforms for Block-attached Storage

Replication Director is supported with block-attached storage on the NetBackup Client and Media Server platforms listed in the table below. The table indicates the NetBackup version (9.0 or later) at which that platform was first supported with block-attached storage with Replication Director. The table also lists the file systems and multipathing tools supported on each platform.

Replication Director - Supported Platforms for NAS-attached Storage

Replication Director is supported with NAS-attached storage on the NetBackup Client and Media Server platforms listed in the table below. The table indicates the NetBackup version (9.0 or later) at which that platform was first supported with NAS-attached storage with Replication Director.

With NAS-attached storage, Replication Director supports NFS file systems on UNIX platforms and CIFS file systems on Windows platforms.

Operating System	NetBackup 9.0 (or later) Client Start of Support	NetBackup 9.0 (or later) Media Server Start of Support
Solaris 11 on SPARC	9.0	9.0 ^[1]

Footnotes

1. Requires Solaris 11.2 or later.

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	https://support.netapp.com/matrix/	"Software required to use Replication Director"

Replication Director - Supported Functionality

The following table lists NetBackup Replication Director functionality and indicates the NetBackup version (9.0 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 9.0 - 9.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 9.0 (or later) Start of Support
Array-based Restore	Array-based_Restore	9.0
Snapshot Management for File System	Snapshot_Mgmt_FS	9.0
Snapshot Replication for File System	Snapshot_Repl_FS	9.0
Snapshot Management for Oracle	Snapshot_Mgmt_Oracle	9.0
Snapshot Replication for Oracle	Snapshot_Repl_Oracle	9.0
Snapshot Management for VMware	Snapshot_Mgmt_VMware	9.0
Snapshot Replication for VMware	Snapshot_Repl_VMware	9.0
Snapshot Management for Microsoft Exchange on VMware	Snapshot_Mgmt_VMware_Exchange	9.0
Snapshot Replication for Microsoft Exchange on VMware	Snapshot_Repl_VMware_Exchange	9.0
Snapshot Management for Microsoft SQL Server on VMware	Snapshot_Mgmt_VMware_SQL	9.0
Snapshot Replication for Microsoft SQL Server on VMware	Snapshot_Repl_VMware_SQL	9.0
Snapshot Management for Oracle on NFS Storage	Snapshot_Mgmt_Oracle_NFS	9.0
Snapshot Replication for Oracle on NFS Storage	Snapshot_Repl_Oracle_NFS	9.0
Snapshot Management for VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_NFS	9.0
Snapshot Replication for VMware with NFS Attached Datastores	Snapshot_Repl_VMware_NFS	9.0

Snapshot Management for Microsoft Exchange on VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_Exchange_NFS	9.0
Snapshot Replication for Microsoft Exchange on VMware with NFS Attached Datastores	Snapshot_Repl_VMware_Exchange_NFS	9.0
Snapshot Management for Microsoft SQL Server on VMware with NFS Attached Datastores	Snapshot_Mgmt_VMware_SQL_NFS	9.0
Snapshot Replication for Microsoft SQL Server on VMware with NFS Attached Datastores	Snapshot_Repl_VMware_SQL_NFS	9.0

Replication Director - Vendor Compatibility

Contents (for details click on the checkbox)

NetApp

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

Virtual Systems Compatibility for Primary(Master) Server,Media Server and Client

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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

- 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) and VMware Cloud Foundation on Dell EMC VxRail is supported on NetBackup 9.0 and later versions.
- VMware HyperScale Partner- Azure VMware solution is supported on NetBackup 9.0 and later versions.
- Google Cloud VMWare Engine(GCVE) is supported on NetBackup 9.1 and later versions.
- Single File Recovery (agent-based and agentless) is supported for Windows guest virtual machines with Veritas Volume Manager (VxVM) and NTFS file system.

NetBackup Versions	VDDK Versions	vSphere Versions	vCloud Director Versions	Backup/Restore Host Versions
9.1	7.0.2	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, 10.2, 10.3, 10.4	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

- 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 Instant Access is not supported with VMware vSphere 7.0 U1, 7.0 U2 and 7.0 U3 on NetBackup 9.0, 9.0.0.1, 9.1.
- The EEB required for Instant Access with VMware vSphere 7.0 U1, 7.0 U2, and 7.0 U3 on 9.1.0.1 can be obtained from Veritas Technical Support.
- 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
- 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 9.0 and later versions support VMware Virtual Volumes (VVols)
- 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

VMware VDDK Release Notes:

- VDDK 7.0 Release Notes: <https://code.vmware.com/docs/11697/virtual-disk-development-kit-7-0-release-notes>.
- VDDK 7.0.2 Release Notes: <https://vdc-download.vmware.com/vmwb-repository/dcr-public/357c1280-36b1-4713-8587-8e3b0858b2a6/6e6dd894-bd49-48bb-86ea-f8bffece8542/VDDK-702-ReleaseNotes.html>

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
- Primary 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
9.1, 9.1.0.1	Hyper-V Server 2019 Hyper-V Server 2016 Hyper-V Server 2012 R2	NetBackup Add-In and Hyper-V Intelligent Policy for • SCVMM 2012 R2 • SCVMM 2016 • SCVMM 2019	• Hyper-V Intelligent Policy supported only for Hyper-V Server 2012 R2 (and associated updates), Hyper-V Server 2016, Hyper-V Server 2019. • VHD and VHDX support

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 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
9.1 9.1.0.1	5.10 5.11 5.15 5.17 5.18 5.19 5.20 6.0 6.1 6.5	NetBackup 9.0 and later versions supported x86-64 platforms of Red Hat Enterprise Linux, SUSE Linux Enterprise Server and Windows Server will work as backup hosts.	"Hypervisor" policy type to be used for protecting Nutanix AHV on supported AOS versions

Note the following:

- Starting NetBackup 9.0, BigData policy cannot be used to protect Nutanix AHV VMs. Refer: https://www.veritas.com/content/support/en_US/doc/127664414-145604802-0/index
- 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 And Application Consistent.
- AHV Community Edition is not supported.
- Veritas recommends having NetBackup Media server as Backup-Host. For Nutanix Backup Hosts earlier than NetBackup version 9.0, please refer: https://download.veritas.com/resources/content/live/OSVC/100046000/100046611/en_US/nbu_80_scl.html?__gda__=1609411610_3ee50aa4e31e9ef3fb902c7b37a12612
- Backup of VMs having volume groups is not supported.
- Backup and recovery of the entire virtual machine for all guest operating systems is supported.
- NetBackup 9.1 and later versions support file and folder recovery.

Kubernetes Compatibility

NetBackup supports all vendor GA updates, Major or Minor service packs and Patch Releases unless stated otherwise in the tables below.

Supported Storage Providers

For supported storage providers details. Refer:

NetBackup Versions	Kubernetes Distributions	Velero
9.1	<ul style="list-style-type: none"> • Google Kubernetes Engine (GKE) (1.18.*-1.20.*) • RedHat OpenShift (4.4.* - 4.7.*) • VMware vSphere with Tanzu - TKG Management Cluster + K8s Guest cluster - 1.19 • Vanilla Kubernetes 1.21 	<ul style="list-style-type: none"> • 1.5.3 through 1.6.0

Continuous Data Protection for VMware

NetBackup Versions	ESXi Version	Veritas IO-filter version	Notes
9.1	<ul style="list-style-type: none"> • 6.7 or later 	<ul style="list-style-type: none"> • 4.0 • Download link for ESXi 6.x : https://sort.veritas.com/public/vrp/400/vtstap-offline-bundle.zip • Download link for ESXi 7.x : https://sort.veritas.com/public/vrp/400/vsphere7/VMW-esx-7.0.0-VTS-vtstap-4.0.0-00.zip 	<ul style="list-style-type: none"> • Datastores supported: VMFS, NFS, vVol, vSAN • File-system supported for CDP gateway: XFS,EXT3,EXT4,NFS, VxFS • RedHat Linux supported version: 7.7 or later versions • Media Server as CDP gateway: NetBackup 9.1 supported x86-64 platforms of Red Hat Enterprise Linux(Appliance is not supported)

Azure Stack HUB

Supported Azure Stack versions and backup host operating systems

NetBackup protects Azure Stack virtual machines by integrating with Azure Stack APIs for Data Protection.

All minor versions of Azure Stack are supported unless specifically noted in the table below.

NetBackup Versions	Azure Stack HUB Versions
9.1	2002 2008 2102

Note the following:

- NetBackup 9.0 and later versions supports Managed disk
- NetBackup 9.0 and later versions supports restore unmanaged disk VMs in Managed Disk VM format
- NetBackup 9.0 and later versions supports restore unmanaged disk in Managed Disk format
- Backups are Crash Consistent.

Azure Stack HCI

Azure Stack HCI is protected by WMI method from NetBackup Policy Type Hyper-V.

Cluster Configuration	NetBackup Versions	Notes
Microsoft Azure Stack HCI - 21H2, 22H2	9.1	

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Cluster Compatibility for Primary(Master) Server

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This Software Compatibility List (SCL) document contains information for Veritas NetBackup 9.0 through 9.x.x. It covers NetBackup Server (which includes Enterprise Server and Server), Client, Bare Metal Restore (BMR), Clustered Primary Server Compatibility and Storage Stacks, Deduplication, File System Compatibility, NetBackup OpsCenter, NetBackup Access Control (NBAC), SAN Media Server/SAN Client/FT Media Server, Virtual System Compatibility and NetBackup Self Service Support. It is divided into bookmarks on the left that can be expanded.

IPv6 and Dual Stack environments are supported with few limitations, refer technote for additional information <http://www.veritas.com/docs/100041420>

For information about certain NetBackup features, functionality, 3rd-party product integration, Veritas product integration, applications, databases, and OS platforms that Veritas intends to replace with newer and improved functionality, or in some cases, discontinue without replacement, please see the widget titled "NetBackup Future Platform and Feature Plans" at <https://sort.veritas.com/netbackup>

Reference Article <https://www.veritas.com/docs/100040093> for links to all other NetBackup compatibility lists.

Clustered Primary Server Compatibility

See NetBackup High Availability Administrator's Guide <http://www.veritas.com/docs/000003214> for details. Cluster compatibility is only listed for NetBackup Components that are cluster aware. NetBackup clients and agents are supported in cluster environments but are not cluster aware.

For Linux distributions shown in the tables below, NetBackup is supported on all "editions" and on all vendor GA updates (n.1, n.2, etc.) or service packs (SP1, SP2, etc.) unless otherwise footnoted in this document or in the NetBackup OS Compatibility List. <http://www.veritas.com/docs/000040842>

For information about certain NetBackup features, functionality, 3rd-party product integration, Veritas product integration, applications, databases, and OS platforms that Veritas intends to replace with newer and improved functionality, or in some cases, discontinue without replacement, please see the widget titled "NetBackup Future Platform and Feature Plans" at <https://sort.veritas.com/netbackup>

Cluster Type	Version	OS	CPU Architecture	Supported NetBackup Version
VCS (InfoScale)	8.0	Solaris 11.4	SPARC	9.1.0.1
VCS (InfoScale)	7.4.2	Solaris 11.4	SPARC	9.1.0.1
VCS (InfoScale)	7.4.2	Solaris 11.4	SPARC	9.1
VCS (InfoScale)	7.4.1	Solaris 11.3	SPARC	9.1.0.1
VCS (InfoScale)	7.4.1	Solaris 11.4	SPARC	9.0
Solaris Cluster	4.0	Solaris 11	SPARC	9.0

Clustered Primary Server Storage Stacks

The table below captures the NetBackup clustering solution supported volume manager on shared disk. For example, when configuring NetBackup on a Linux OS VCS cluster, the only supported volume manager for the shared disk used by NetBackup is VxVM.

Note that the table below does not include OS versions. Please see the preceding table for specific OS version support.

NetBackup support of the FlashBackup policy with Storage Foundation 6 volume manager is scheduled for a future NetBackup release.

NetBackup support of Storage Foundation 6 features of Deduplication and Compression is scheduled for a future NetBackup release.

Cluster Technology	OS	Storage Stack
Sun Cluster	Solaris ^[1]	VxVM, SVM, HAStoragePlus
Solaris Cluster	Solaris ^[1]	VxVM, SVM, HAStoragePlus, ZFS
VCS	Solaris ^[1]	VxVM

Footnotes

1. Supported on all OS versions as noted in the preceding table.

NetBackup Cluster Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Bare Metal Restore (BMR) Support for Primary(Master) Server

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General Information

Bare Metal Restore Server (BMR server) is a feature of the Primary Server.

- BMR Boot Server

BMR Boot Server is supported on the same Operating Systems as the BMR client. In case of Windows, BMR Boot Server bitness is not relevant. I.E., a Windows x86 boot server can boot x86 and x64 servers and visa-versa.

- BMR Boot Server Requirements

Please Reference the Requirements for Bare Metal Restore (BMR) Boot Servers document for comprehensive information, <http://www.veritas.com/docs/000041982>.

Please refer to the following link for BMR supported configurations: https://www.veritas.com/support/en_US/article.000127612

Disclaimer:

- BMR restores uses NBCA certificates hence primary and media (servers which have backup images for BMR client) should have NBCA enabled for BMR restores to work.

For more information on supported workflows refer technote https://www.veritas.com/support/en_US/article.100044534

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Deduplication Supported Operating Systems for Media Server

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If you are looking for information regarding PureDisk support, and not media server deduplication, reference article <http://www.veritas.com/docs/000008731>

For further details on recommended hardware reference NetBackup Deduplication: Additional Usage Information: <http://www.veritas.com/docs/000041111>

Where support is shown for "Windows Server 2012", or "Windows Server 2012 R2" it is implied that Foundation Edition, Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Where support is shown for "Windows Server 2016" it is implied that Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Where support is shown for "Windows Server 2019" it is implied that Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Media Server Deduplication (MSDP) is supported in an Infrastructure as a Service (IaaS) environment on any cloud platform that meets minimum requirements. For additional details on minimum and recommended configurations see NetBackup Media Server Deduplication (MSDP) in the Cloud https://www.veritas.com/support/en_US/article.000004584.

OS	CPU Architecture	Media Server Dedupe	Minimum NetBackup Level
Solaris 11 ^[1]	SPARC	Yes	9.0

Footnotes

1. ZFS file system is not supported as a backend storage location for a MSDP disk pool.

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Descriptions of Disk Storage Unit Types for Media Server

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NetBackup permits the creation of an unlimited number of disk storage units. The types of storage units are described in the table below.

Disk Storage Unit Types

BasicDisk

A BasicDisk type storage unit consists of a directory on a locally-attached disk or a network-attached disk that is exposed as a file system to a NetBackup media server. NetBackup stores backup data in the specified directory.

BasicDisk - Considerations

Subject	Notes
Configuration considerations	1. Do not include the same volume or file system in multiple BasicDisk storage units. 2. BasicDisk storage units cannot be used in a storage lifecycle policy.

AdvancedDisk

An AdvancedDisk type storage unit is used for a dedicated disk that is directly attached to a NetBackup media server. AdvancedDisk is available only when the Data Protection Optimization Option is licensed. NetBackup assumes exclusive ownership of the disk resources that comprise an AdvancedDisk disk pool. If the resources are shared with other users, NetBackup cannot manage disk pool capacity or storage lifecycle policies correctly. For AdvancedDisk, the NetBackup media servers function as both data movers and storage servers. For more information on configuring AdvancedDisk, see the ["NetBackup AdvancedDisk Storage Solutions Guide"](#).

AdvancedDisk - Considerations

Subject	Notes
Support assumptions	<p>1. Veritas NetBackup has an open support policy for AdvancedDisk storage units. The storage must be seen as local disk by the NetBackup Media Server, regardless of connection method (SCSI, Fibre Channel, iSCSI, etc), to be supported as an AdvancedDisk storage unit.</p> <p>Please note: Due to the open support policy, and the range of 3rd party storage solutions, it is the responsibility of the customer to ensure that the chosen storage solution meets the specific performance needs in the specific production environment. Veritas NetBackup features that are performance-dependent, such as Granular Restore Technology (GRT) are not supported with AdvancedDisk storage units.</p> <p>Hybrid storage solutions, with a mix of both local (LAN or FC) and WAN (remote or cloud) based storage tiers, have become available. Thorough testing of these storage solutions, when used as AdvancedDisk storage units, needs to be completed by the customer, to the customer's satisfaction, particularly in the area of restore operations, to ensure that timeouts do not occur. Some specific hybrid storage solutions have been tested as NetBackup AdvancedDisk storage units, in Veritas labs, with joint effort and in cooperation with Veritas storage partners. Resulting white papers and reference materials will appear here:</p> <ul style="list-style-type: none">- Microsoft Azure StorSimple: "Configure StorSimple with Veritas NetBackup"

	<p>All-flash storage solutions are included in the AdvancedDisk open support policy. Some specific all-flash storage solutions have been tested as NetBackup AdvancedDisk storage units, in Veritas labs, with joint effort and in cooperation with Veritas storage partners. Examples are:</p> <ul style="list-style-type: none">- Pure Storage FlashBlade- Violin Systems Flash Storage Platform <p>2. Veritas InfoScale Foundation and Storage Foundation are supported with NetBackup AdvancedDisk. For information on disk arrays that are supported with the InfoScale Foundation or Storage Foundation version you're running, please see "Veritas Services and Operations Readiness Tools (SORT)".</p> <p>3. AdvancedDisk functionality is subject to all functional limitations as imposed either by the operating system or by the underlying file system.</p>
Configuration considerations	<p>1. For UNIX NetBackup Media Servers, AdvancedDisk requires that all LSUs (Logical Storage Units) are active mount points within the UNIX host. Using the NFS automount feature is not recommended with AdvancedDisk.</p> <p>2. Access to NFS storage requires NetBackup daemons to run as root. The NFS server exporting the file system must be configured to allow root access to the file system.</p> <p>3. To ensure support, the disk array must be combined with interconnect hardware that is supported by the disk array manufacturer and the operating system vendor. Refer to the respective vendor's support lists for this information.</p> <p>4. When installing and configuring HBA drivers it is recommended that the array vendor-qualified HBA drivers be used as opposed to the general HBA drivers that are released for each operating system. These array vendor-qualified HBA drivers are typically found in a separate section of the HBA vendor or array vendor's website, often separated by array model.</p>

5. Performance may vary depending on the array hardware used.

OpenStorage

An OpenStorage type storage unit is used for disk storage, usually provided by a third party vendor. The actual name of the disk type depends on the vendor. OpenStorage is available only when the OpenStorage Disk Option is licensed. The storage is integrated into NetBackup through an API. The storage vendor partners with Veritas to integrate the storage into NetBackup. The storage host is the storage server. The NetBackup media servers function as the data movers. The storage vendor's plug-in must be installed on each media server that functions as a data mover. The logon credentials to the storage server must be configured on each media server. For more information on configuring OpenStorage, see the ["NetBackup OpenStorage Solutions Guide for Disk"](#).

PureDisk

A PureDisk disk type storage unit is used for deduplicated data for Media Server Deduplication Pools (MSDP) storage pools.

Media Server Deduplication Pool (MSDP)

When a Media Server Deduplication Pool is configured, NetBackup deduplicates the data and hosts the storage. MSDP is available only when the NetBackup Data Protection Optimization Option is licensed.

The following all-flash storage solutions have been tested as NetBackup MSDP storage in Veritas labs, with joint effort and in cooperation with Veritas storage partners, and are supported with the following limitations:

Storage Solution	Notes
Pure Storage FlashBlade	<ul style="list-style-type: none"> - Requires Purity//FB 3.0.2 or later running NFS version 3. - Requires Flex 5340 Appliance version 1.3 or later. - Requires Flex NetBackup Images version 8.2 or later. - Requires Flex Add-Ons for NetBackup 8.2: "NetBackup 8.2 Hotfix - MSDP EEB Bundle (Etrack 3981133)" and Flex add-on netfs. - Maximum aggregate size of MSDP pool supported with this device is 250 TB. - NetBackup Client-side deduplication is supported.

- NetBackup Accelerator (for files and folders) is supported.
- NetBackup Auto Image Replication (A.I.R.) is supported.
- Not supported with Veritas Instant Access, Instant Recovery, and Universal Shares.

Veritas reserves the right to approve customer scenarios on a case-by-case basis prior to confirming support.

For more information on configuring MSDP, see the ["NetBackup Deduplication Guide"](#).

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

Cloud Configuration Files for Media Server

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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
2.11.8	Media Server: 8.0 or later	Media Server: "Cloud Configuration Package"	Added support for regions in AWS Recovery Vault: <ul style="list-style-type: none">- Asia Pacific (Hyderabad)- Asia Pacific (Melbourne)- Europe (Spain)- Europe (Zurich)

Veritas Services and Operations Readiness Tools (SORT)

			<ul style="list-style-type: none"> - Israel (Tel Aviv) - Middle East (UAE)
2.11.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> - Impossible Cloud (S3) - S3 Object Lock - Google (S3) - Europe West 10 (Berlin) region - Google (S3) - Middle East Central 2 (Dammam) region
2.10.12	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> - SandStone MOS (S3)
2.10.10	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> - Pure Storage FlashBlade (S3)
2.10.9	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> - NetApp ONTAP S3 - Iron Mountain Iron Cloud SOS (S3) - Impossible Cloud (S3) - Amazon (S3) - Asia Pacific (Melbourne) region - Amazon (S3) - Asia Pacific (Hyderabad) region - Amazon (S3) - EU (Zurich) region - Amazon (S3) - EU (Spain) region - Google (S3) - Europe West 12 (Turin) region - Google (S3) - Middle East Central 1 (Doha) region
2.10.8	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: <ul style="list-style-type: none"> - VAST Data (S3)

2.10.7	Media Server: 8.0 or later	Media Server: Use the most recent version above.	<p>Added earlier support not included in NetBackup 10.2 release:</p> <ul style="list-style-type: none">- 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- Google (S3) - EU West8 (Milan) region- Google (S3) - EU West9 (Paris) region- Google (S3) - EU Southwest1 (Madrid) region- Google (S3) - North America Northeast2 (Toronto) region- Google (S3) - US East5 (Columbus) region
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			<ul style="list-style-type: none"> - Google (S3) - US South1 (Dallas) region - Wasabi (S3) - AP Southeast 1 (Singapore) region - Wasabi (S3) - AP Southeast 2 (Sydney) region - Wasabi (S3) - EU Central 2 (Frankfurt) region - Wasabi (S3) - CA Central 1 (Toronto) region - Wasabi (S3) - EU West 2 (Paris) region
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"> - STACKIT Object Storage (S3) - Backblaze B2 Cloud Storage (S3) - NEC Cloud IaaS Object Storage (N2) (S3)
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"> - Spectra Logic Vail (S3) - DataCore Swarm (S3) - Google (S3) - Middle East West1 (Tel Aviv) region Added earlier support not included in NetBackup 10.1.1 release: <ul style="list-style-type: none"> - Amazon Glacier Instant Retrieval (IR) - iTernity iCAS FS (S3) - Amazon (S3) - Asia Pacific (Jakarta) region - Amazon (S3) - Middle East (UAE) region

			<ul style="list-style-type: none"> - 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 - 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: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - Veritas NetBackup Recovery Vault AWS Glacier Deep Archive

Veritas Services and Operations Readiness Tools (SORT)

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 - 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
2.9.4	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Google (S3) - US East5 (Columbus) region - Google (S3) - US South1 (Dallas) region
2.9.3	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Google (S3) - EU Southwest1 (Madrid) region - Google (S3) - EU West9 (Paris) region - Wasabi (S3) - AP Southeast 1 (Singapore) region
2.9.2	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Wasabi (S3) - AP Southeast 2 (Sydney) region - Wasabi (S3) - EU Central 2 (Frankfurt) region - Wasabi (S3) - CA Central 1 (Toronto) region
2.8.8	Media Server: 8.0 or later	Media Server: Use the most recent version above.	Added support: - Amazon (S3) - Asia Pacific (Jakarta) region - Google (S3) - Asia South2 (Delhi) region - Google (S3) - Australia-Southeast2 (Melbourne) region - Google (S3) - NorthAmerica Northeast2 (Toronto) region - Quantum Active Archive and ActiveScale Systems - Standard (S3)

Veritas Services and Operations Readiness Tools (SORT)

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

			<ul style="list-style-type: none"> - 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 - 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: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - IBM (S3) - AP Australia region

			<ul style="list-style-type: none"> - 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 <p>Added earlier support not included in NetBackup 9.0 release:</p> <ul style="list-style-type: none"> - 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.	<ul style="list-style-type: none"> - Dell EMC Isilon PowerScale (S3) - XSKY Enterprise Object Storage (S3) <p>Added earlier support not included in NetBackup 9.0 release:</p> <ul style="list-style-type: none"> - Tencent Cloud - Cloud Object Storage (COS) (S3)

Cloud Configuration File Versions released with NetBackup and NetBackup Appliances

NetBackup / NetBackup Appliance version	Cloud Configuration File version
9.1.0.1	Same content as 2.8.3, plus the Amazon FIPS 140-2 regions included in 2.8.4
9.1	Same content as 2.8.3, plus the Amazon FIPS 140-2 regions included in 2.8.4
9.0.0.1	2.8.0
9.0	2.8.0

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

OST Secondary Storage Solutions - General Information for Media Server

This feature is not supported on this platform.

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NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
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Cloud Storage Solutions for Media Server

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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	For details on supported operating systems, please refer to the "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" . 1. In the vendor compatibility tables below, the column "NetBackup Version Containing Plug-in" indicates the

	<p>NetBackup version (9.0 or later) at which that cloud storage solution was first supported.</p> <p>2. 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.</p> <p>3. NetBackup supports AWS Outposts. For more information, please refer https://www.veritas.com/news-releases/2019-12-03-veritas-tested-and-validated-for-aws-outposts.</p>
Configuration considerations	<p>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 "Cloud Storage Configuration: How To Add a Self-Signed CA Certificate".</p> <p>2. NetBackup-provided Cloud connectors are not supported with IPv6, unless noted otherwise. Configuring these plug-ins with IPv6 may result in unpredictable behavior.</p>

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 MSDP Direct Cloud Tiering. 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"](#).

Image Sharing in Cloud - Supported Workloads

Workload	NetBackup 9.0 (or later) Start of Support	Notes
Basic backups of files and folders	9.0	
Bare Metal Restore (BMR)	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
DB2	9.0	
Enterprise Vault	9.0	
Hadoop	9.0	
Hbase	9.0	
Hyper-V	9.0	
Informix	9.0	
Lotus Notes	9.0	
MariaDB	9.0	
Microsoft Exchange Server	9.0	
Microsoft SharePoint	9.0	
Microsoft SQL Server	9.0	
MySQL	9.0	
NDMP	9.0	
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	9.0	
Postgres	9.0	

RHV	9.0	
SAP	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
Sybase	9.0	
VMware	9.0	

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
Dell EMC	Dell EMC Isilon	Deutsche Telekom
Fujitsu	Google	Hewlett Packard Enterprise
Hitachi Vantara	IBM	Impossible Cloud
Infoniqua	Kingsoft	Microsoft
NEC	NetApp	NooBaa
Nutanix	Oracle	Orange Business Services
Quantum	Red Hat	SandStone
Scality	Seagate	StorReduce
SUSE	SwiftStack	Tencent
VAST Data	Veritas	Wasabi

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

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
Support assumptions	<p>For details on supported operating systems, please refer to the "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .</p> <ol style="list-style-type: none">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 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.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.

	<p>5. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.</p> <p>6. CentOS and Oracle Linux are not supported with OpenStorage, unless noted otherwise.</p> <p>7. SUSE Linux Enterprise Server 12 support requires SP3 or later.</p>
Vendor support considerations	<p>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.</p> <p>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.</p> <p>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.</p> <p>4. Minor versions of the plug-ins listed in the tables below are also supported. (Example: Version "2.0" means versions 2.0.1,</p>

	2.0.2, etc. are also supported. Version "3" means versions 3.1, 3.2, etc. are also supported.)
Configuration considerations	<p>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.</p> <p>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 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>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.</p>
Operational considerations	<p>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.</p> <p>2. The NetBackup Accelerator, Accelerator with NDMP, and Accelerator with VMware-type policies features are not supported with spanned LSUs.</p>

OST Storage Servers - Supported Functionality

The following table lists NetBackup OpenStorage functionality and indicates the NetBackup 9.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	9.0	<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, see "Accelerator enabled backups of Windows hard linked files to OpenStorage disk storage may cause bptm to crash" .</p> <p>Accelerator is not supported with spanned Logical Storage Units (LSU).</p>
Accelerator with NDMP	Accel_NDMP	9.0	<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 "About NetBackup Accelerator for NDMP" .</p> <p>Accelerator with NDMP is not supported with spanned LSUs.</p>
Accelerator with Hyper-V-type policies	Accel_Hyper-V	9.0	<p>If your storage server shows support for Accelerator with Hyper-V in the tables below, Veritas recommends updating</p>

			<p>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 "Veritas NetBackup for Hyper-V Administrator's Guide".</p>
Accelerator with VMware-type policies	Accel_VMWare	9.0	<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 "Veritas NetBackup for VMware Administrator's Guide".</p>
Auto Image Replication	A.I.R.	9.0	<p>For more information on configuring Auto Image Replication, see "About the</p>

		<p>storage lifecycle policies required for Auto Image Replication" .</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. import policies only where desired.</p> <p>Only one media server should be configured to each target Logical Storage Unit (LSU).</p> <p>Each source and target storage server should have</p>
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			its credentials configured in only one NetBackup domain.
Targeted Auto Image Replication	Targeted_A.I.R.	9.0	<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. 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. import policies only where desired.</p>

			<p>Only one media server should be configured to each target Logical Storage Unit (LSU).</p> <p>Each source and target storage server should have its credentials configured in only one NetBackup domain.</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	9.0	
Direct Copy to shared tape drives	Direct_Copy_Shared	9.0	
Granular Recovery Technology	Granular_Recovery	9.0	<p>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" .</p>
Granular Recovery Technology with VMware-type policies	GRT_VMware	9.0	<p>Support for VMware-type backup policies with Application Protection options enabled for Exchange or SharePoint. Support for the Veritas</p>

			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	9.0	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	9.0	Support for restoring virtual machines with Instant Recovery is described in the "Veritas NetBackup for VMware Administrator's Guide" . For details on supported platforms for instant recovery restore hosts, see "Support for NetBackup 7.7.x, 8.x, and 9.x in virtual environments" .
NetBackup Encryption Key Management Service	KMS	9.0	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.
Optimized Duplication	Opt_Dup	9.0	Optimized Duplication transfers data in 256 KB chunks.
Optimized Duplication (Whole Image Copy)	WI_Opt_Dup	9.0	Whole image Optimized Duplication uses the storage unit's Maximum fragment size to transfer an entire NetBackup image fragment in a single operation.
Optimized Synthetics	Opt_Synth	9.0	Storage Lifecycle Policies are not supported in policies that use the multiple copy synthetic backups method. For details, see " Storage lifecycle policies are not supported in policies that use the multiple copy synthetic backups method ".

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
Dell EMC	http://www.dell.com/
Dell EMC Data Domain	http://www.datadomain.com/products/
ExaGrid	https://www.exagrid.com/exagrid-products/supported-data-backup-applications/veritas-netbackup/

FalconStor	http://www.falconstor.com/en/pages/?pn=VTL
Fujitsu	http://www.fujitsu.com/global/
H3C	http://www.h3c.com/en/OurBusiness/Products/Storage/
Hewlett Packard Enterprise	https://www.hpe.com/us/en/storage/storeonce.html
Hitachi Vantara	https://www.hitachivantara.com/en-us/home.html
Huawei	http://www.huawei.com/
Infinidat	http://www.infinidat.com/
NEC	http://www.necam.com/HYDRAsstor/
Oracle	http://www.oracle.com/technetwork/server-storage/sun-unified-storage/downloads/zfssa-plugins-1489830.html
Quantum	http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/OSTClientPlugIn/Index.aspx
Quest	https://www.quest.com/products/dr-series-disk-backup-appliances/
Veritas	https://www.veritas.com/product/backup-and-recovery/netbackup-appliances/

OST Storage Servers - Vendor Compatibility

Contents (for details click on the checkbox)

Dell EMC Data Domain	ExaGrid	FalconStor
Fujitsu	H3C	Hewlett Packard Enterprise
Infinidat	NEC	Oracle
Quantum	Veritas	

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Virtual Tape Libraries Compatibility List for Media Server

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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 "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .</p> <ol style="list-style-type: none">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 TSA.net.2. 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.3. 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.4. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.5. 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.

	6. SUSE Linux Enterprise Server 12 support requires SP3 or later.
Vendor support considerations	<ol style="list-style-type: none"> 1. Check the device manufacturer's compatibility list to verify OS platform support for the version of software running on your VTL. 2. Check the device manufacturer's compatibility list to verify the minimum version of VTL software required for your VTL family member. 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.
Configuration considerations	<ol style="list-style-type: none"> 1. The virtual library must be configured with the unique VTL inquiry string as listed. Using the inquiry string to emulate a real library model is not supported even if the real device is supported with NetBackup. 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. 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. 4. NetBackup NDMP Direct Copy with VTL enables NDMP tape duplication to physical tape libraries. For more information on this feature, see "About NDMP DirectCopy".
OS library and tape driver considerations	<ol style="list-style-type: none"> 1. Refer to the Tape Drives section of this document for information on supported tape drivers.
Operational considerations	<ol style="list-style-type: none"> 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.

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.

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 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.

Virtual Tape Libraries/Drives - Tape Drive Emulation Attributes

The following table lists attributes supported with Virtual Tape Libraries and indicates the NetBackup version (9.0 or later) at which that attribute was first supported.

Attribute	Abbreviation	NetBackup 9.0 (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	9.0
NDMP Direct Copy with VTL, physical tape drives used with this feature can be shared using NetBackup Shared Storage Option (SSO).	DirCpy_Shr	9.0
SCSI Reservation	SResv	9.0
SCSI Persistent Reservation	SPR	9.0
Write Once, Read Many	WORM	9.0

NetBackup Encryption Key Management Service	KMS	9.0
Append-only mode	Append	9.0

Virtual Tape Libraries/Drives - NetBackup Robot Types

Most Virtual Tape Libraries use the NetBackup robot type TLD. The following table lists operating system platform support for TLD robots. For supported OS versions, refer to the ["NetBackup 9.0 - 9.x.x Operating System Software Compatibility List"](#).

A few Virtual Tape Libraries use NetBackup robot type ACS. For information on ACS robotics support, see [ACS - Oracle Automated Cartridge System](#) in the Tape Libraries section.

For more information about configuring robot types, see the ["NetBackup Device Configuration Guide"](#).

TLD - Tape Library DLT

Operating System	NetBackup 9.0 (or later) Start of Support
NDMP	9.0
Solaris on SPARC	9.0

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
IBM	Infinidat	Oracle
Quantum		

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NDMP Devices Compatibility List for Media Server

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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 9.0 - 9.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	Hitachi Vantara	Huawei
Imation	Lenovo	NEC
NetApp	Nexenta	Oracle
Stratus Technologies		

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Tape Libraries Compatibility List for Media Server

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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 "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .

	<ol style="list-style-type: none">1. The tables in this section show robotic support only, not tape drive support. Refer to the Tape Drives 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.3. ACS robots are supported with NetBackup Enterprise Server only. ACS robots are not supported with NetBackup Server.4. For ACS robots the "Inquiry String" column is intentionally left blank.5. Where support is shown for "Red Hat Enterprise Linux" it also means that CentOS and Oracle Linux are supported.6. SUSE Linux Enterprise Server 12 support requires SP3 or later.
Configuration considerations	<ol style="list-style-type: none">1. Library partitioning is supported unless noted otherwise.2. Library expansion modules are supported unless noted otherwise.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 Linux rules file from the Veritas Support Downloads Center . 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.

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

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

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Tape Drives Compatibility List for Media Server

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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 "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .</p> <ol style="list-style-type: none">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.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.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.

	<p>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.</p> <p>5. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.</p> <p>6. 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>7. 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>8. Backup Exec Tape Reader is not supported in NetBackup 8.0 and later releases.</p> <p>9. SUSE Linux Enterprise Server 12 support requires SP3 or later.</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

1. Except where noted, Veritas recommends the use of the operating system's native tape drivers.

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" "Overland Tandberg NEO XL-Series LTO-9 New Media Initialization Technical Brief" "Quantum LTO-9 Media - Frequently Asked Questions (FAQ)" "Spectra Logic - LTO-9 Initialization for Media / LTO-9 Certified Media"
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Tape Drives - Attributes

The following table lists attributes supported with Tape Drives and indicates the NetBackup version (9.0 or later) at which that attribute was first supported.

Attribute	Abbreviation	NetBackup Release Supported
SCSI Reservation	SResv	9.0
SCSI Persistent Reservation	SPR	9.0
Write Once, Read Many	WORM	9.0
NetBackup Encryption Key Management Service	KMS	9.0
Append-only mode	Append	9.0

Tape Drives - Vendor Compatibility

Contents (for details click on the checkbox)

Dell EMC	Hewlett Packard Enterprise	IBM
Oracle	Quantum	

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This feature is not supported on this platform.

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Encryption and Security Solutions for Media Server

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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 9.0 - 9.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	

Veritas Services and Operations Readiness Tools (SORT)

Dell EMC	PowerVault LTO-6	
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	

Veritas Services and Operations Readiness Tools (SORT)

IBM	System Storage TS2260 Ultrium 6 Half Height	
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"> 1. EKMS is supported with AdvancedDisk, Cloud, MSDP, MSDP Direct Cloud Tiering, and Tape storage solutions supported by NetBackup. 2. The EKMS server must be KMIP-based. 3. NetBackup uses Symmetric Key objects stored on the EKMS server for data encryption. 4. The EKMS server must use PEM formatted certificate-based authentication. 5. The NetBackup primary server should be able to establish an outbound connection to the KMIP port on the EKMS server.

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
IBM	Security Guardium Key Lifecycle Manager (GKLM)	4.1	1.0, 1.1, 1.2, 1.3, 1.4, 2.0, 2.1

Oracle	Key Vault	12.1, 18.1, 18.2	1.0, 1.1
Thales	CipherTrust Manager K170, K170v	1.8	1.0, 1.1, 1.2, 1.3, 1.4
Thales	CipherTrust Manager K170, K170v	2.5	1.0, 1.1, 1.2, 1.3, 1.4
Thales	CipherTrust Manager K170, K170v	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 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"> 1. To use SSO, you must have a SAML 2.0 compliant identity provider configured in your environment. 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. 3. Configuration of the Identity Provider (IDP) requires the NetBackup APIs or the NetBackup command nbidpcmd. 4. API keys are used to authenticate a user or a group and cannot be used with SAML-authenticated users or groups.

5. Global logout is not supported.

Single Sign-On with SAML - Supported Solutions

Identity Provider	Link to configuration information
ADFS	https://www.veritas.com/support/en_US/article.100047744
IBM	https://www.veritas.com/support/en_US/article.100049816
Microsoft Azure	https://www.veritas.com/support/en_US/article.100047748
Okta	https://www.veritas.com/support/en_US/article.100047745
PingFederate	https://www.veritas.com/support/en_US/article.100047746
Shibboleth	https://www.veritas.com/support/en_US/article.100047747

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Third Party Encryption Solutions for Media Server

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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 for Media Server and Client

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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 Primary 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 adapters.

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

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Infrastructure Used for Testing for Media Server

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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.

CNAs

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.

CNAs - Considerations

Subject	Notes
Support assumptions	<p>For details on supported operating systems, please refer to the "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .</p> <ol style="list-style-type: none">1. 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.2. 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.3. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.4. 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.5. SUSE Linux Enterprise Server 12 support requires SP3 or later.
Vendor support considerations	<ol style="list-style-type: none">1. Consult the hardware vendor's web site for current firmware and driver updates (where applicable).
Configuration considerations	<ol style="list-style-type: none">1. All like CNAs within a SAN should use the same firmware, BIOS and driver revision as recommended by CNA vendors.

HBAs

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.

HBAs - Considerations

Subject	Notes
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Support assumptions	<p>For details on supported operating systems, please refer to the "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" .</p> <ol style="list-style-type: none">1. 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.2. 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.3. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.4. 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.5. SUSE Linux Enterprise Server 12 support requires SP3 or later.
Vendor support considerations	<ol style="list-style-type: none">1. All like HBAs within a SAN should use the same firmware, BIOS and driver revision as recommended by HBA vendors.2. Consult the hardware vendor's web site for current firmware and driver updates (where applicable).

Infrastructure - HBAs Used In Testing

Contents (for details click on the checkbox)

Broadcom Emulex

Hewlett Packard Enterprise

Marvell QLogic

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
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Vendor support considerations	1. To ensure compatibility, the device manufacturers and the operating system vendor must support the combination of SAN components. 2. Consult the hardware vendor's web site for current firmware.
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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	1. To ensure compatibility, the device manufacturers and the operating system vendor must support the combination of SAN components. 2. Consult the hardware vendor's web site for current firmware.

Infrastructure - Switches Used In Testing

Contents (for details click on the checkbox)

Switches

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

The devices in this section will not be listed in the Hardware Compatibility List for the next major NetBackup release after NetBackup 9.0. Many of these devices are end-of-life products that are no longer supported by the manufacturer.

Virtual Tape Libraries

Manufacturer	Device
Quantum	DXi6700 Series, DXi8500 Series

Tape Libraries

Manufacturer	Device
Quantum	Scalar i40, Scalar i40/i80 series, Scalar i80

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

Software Compatibility List (SCL) for Client

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SAN Client feature is supported only on physical machine.

Oracle Solaris - NetBackup Client

OS	CPU Architecture	OS Bits	NetBackup Client	NetBackup Bits	NBAC	SAN Client	Minimum NetBackup Level
Solaris 11	SPARC	64	Y	64	Y	Y	9.0

NetBackup Software Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List](#) (last updated on July 12, 2023)
[9.0 - 9.x.x OS Software Compatibility List Updates](#)
[Operating Systems Compatibility List General Information](#)

System Requirements for Client

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NetBackup Binary Size

Approximate binary size of the NetBackup client software for an initial install.

OS - All Versions	CPU Architecture	32-bit client	64-bit client	Notes
Solaris	SPARC		2104 MB	

Temporary Disk Space Requirement for Install or Upgrade

After downloading the software, temporary disk space is required for the installation process on almost all platforms. For local installs or remote (push) installs using the rsh or ssh method, you may designate where this temporary space is located via use of environment variables, NB_TMPDIR or TMPDIR on the client. NB_TMPDIR is used if set, TMPDIR next if set, otherwise /tmp. For ftp or sftp remote installs, the client software is moved to /tmp on the client and during the install environment variables NB_TMPDIR or TMPDIR are used as mentioned previously. For details, consult the Installation Guide.

For local installs, you will need approximately 1032 MBs of temporary disk space during the install.

For remote installs, you will need approximately 2064 MBs for placement of the client software and, then, for the install.

If using Live Update, you will need 4.5 GBs of temporary disk space. The location of the temporary disk space is designated in the 'workdir' setting in the /usr/opensv/netbackup/nblu.conf file with /tmp being the default.

Valid Characters in Host Names Requirement

NetBackup requires host names to comply with [RFC-1123](#), meaning only ASCII characters "a" thru "z", case insensitive, and digits "0" thru "9" and the hyphen character.

NetBackup Documentation References:

[NetBackup Release Notes](#)

[NetBackup Self Service Release Notes](#)

Bare Metal Restore File System/Volume Manager Support for Client

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Listed in the table below are the available File Systems and Logical Volume Managers compatible with Bare Metal Restore 9.0 through 9.x. Support is conditional according to the published notes corresponding to the individual OS platforms. The table below contains scenarios that have been thoroughly tested with NetBackup. Due to the number of combinations, it is not possible to test all combinations for compatibility. If a particular scenario is not listed, it may work fine, but has not been explicitly tested by Veritas.

OS	File Systems	Volume Managers	Striping, Mirroring, RAID	Notes
Solaris 11 SPARC (GA and above)	ZFS	ZFS	All	

Acronyms

LDM - Logical Disk Manager

LVM - Logical Volume Manager

SFW - Storage Foundation for Windows

SRT - Shared Resource Tool

SVM - Solaris Volume Manager

VxFS - Veritas File System

VxVM - Veritas Volume Manager

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Client Selections for Backup Policies for Client

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The information in the Client Selection column of the table below is the client type that should be selected when installing NetBackup as a client on the Operating System/Version and Architecture listed in this table.

Where support is shown for "Windows Server 2008" or "Windows Server 2008 R2" it is implied that Standard Edition, Enterprise Edition, Datacenter Edition, and Web Edition are supported.

Where support is shown for "Windows Server 2012" or "Windows Server 2012 R2" it is implied that Standard Edition, Datacenter Edition, Essentials Edition, and Foundation Edition are supported.

NetBackup 8.1.2 and later will require Linux Kernel version 2.6.32 or higher

OS	CPU Architecture	NetBackup 9.0 Client Selection
Solaris 11	SPARC	Solaris,Solaris10

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Deduplication Supported Operating Systems for Client

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If you are looking for information regarding PureDisk support, and not media server deduplication, reference article <http://www.veritas.com/docs/000008731>

For further details on recommended hardware reference NetBackup Deduplication: Additional Usage Information: <http://www.veritas.com/docs/000041111>

Where support is shown for "Windows Server 2012", or "Windows Server 2012 R2" it is implied that Foundation Edition, Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Where support is shown for "Windows Server 2016" it is implied that Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Where support is shown for "Windows Server 2019" it is implied that Essentials Edition, Standard Edition, and Datacenter Edition are supported.

Media Server Deduplication (MSDP) is supported in an Infrastructure as a Service (IaaS) environment on any cloud platform that meets minimum requirements. For additional details on minimum and recommended configurations see NetBackup Media Server Deduplication (MSDP) in the Cloud https://www.veritas.com/support/en_US/article.000004584.

OS	CPU Architecture	Client Deduplication	Minimum NetBackup Level
Solaris 11 ^[1]	SPARC	Yes	9.0

Footnotes

1. ZFS file system is not supported as a backend storage location for a MSDP disk pool.

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Database and Application Agent Compatibility for Client

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This Software Compatibility List (SCL) document describes the supported database and application agents for Veritas NetBackup 9.0 through 9.x

For all other NetBackup compatibility lists, refer to <http://www.veritas.com/docs/000033647>

IPV6 and Dual Stack environments are supported from NetBackup 9.0 onwards with few limitations, refer technote for additional information <http://www.veritas.com/docs/100041420>

Database and application patch support: Major versions of database software have been qualified in Veritas Labs and are listed in the tables below. NetBackup supports minor versions, service packs, and patches of database software unless otherwise noted, with the exception of Microsoft Exchange, Microsoft SharePoint and Microsoft SQL Server.

Linux support: For Linux distributions shown in the tables below, NetBackup is supported on all "editions" and on all vendor GA updates (n.1, n.2, etc.) or service packs (SP1, SP2, etc.) unless otherwise noted in this document or in the NetBackup OS Compatibility List, <http://www.veritas.com/docs/100032808>

Database Appliances: 3rd party database hardware appliances are supported if the appliance OS/architecture and database software are listed in the Veritas NetBackup OS compatibility list <http://www.veritas.com/docs/100032808> and in the Database and

Application Agent compatibility list (this document). For example, some Oracle Exadata and Exalogic models are supported based upon this support statement. Please consult the vendor documentation to identify the embedded software versions.

End of life information: More information is available about certain NetBackup features, functionality, 3rd-party product integration, Veritas product integration, applications, databases, and OS platforms that Veritas intends to replace with newer and improved functionality, or in some cases, discontinue without replacement. Please see the SORT widget titled "NetBackup Future Platform and Feature Plans" at <https://sort.veritas.com/netbackup>.

Database Agents

The sections below contain information that is related to specific database agents and OS platforms.

SAP

The NetBackup SAP Agent protects SAP Oracle environments by integrating with SAP BR*Tools. SAP BR*Tools may have a separate version from the SAP Kernel. Reference Technical Solution 51094 for details <http://www.veritas.com/docs/000033132>. SAP environments based on Microsoft SQL or DB2 databases are supported via the NetBackup Microsoft SQL and DB2 agents respectively. SAP supports Oracle and MAX-DB base environments.

Contents (for details click on the checkbox)

IBM DB2	IBM Informix	Oracle Database
SAP ASE	SAP MaxDB	SAP Oracle

NetBackup Database and Application Agent Documentation:
[NetBackup 9.0 - 9.x.x Database and Application Agent Compatibility List \(last updated on September 14, 2023\)](#)
[9.0 - 9.x.x Database and Application Agent Software Compatibility List Updates](#)

Snapshot Client - General Information for Client

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This section contains Snapshot Client compatibility information for Veritas NetBackup 9.0 - 9.x.x. It covers NetBackup Server (which includes Enterprise Server and Server), Client, and Snapshot Client.

Veritas supports standard unaltered kernel/Operating System levels. Should an issue arise on a revised kernel, Operating System, or virtual system environment, Veritas support may request the recreation of the problem with the standard operating environment distribution.

Veritas InfoScale / Storage Foundation Compatibility

Veritas InfoScale/Storage Foundation file system and volume manager are supported as the Snapshot Client stack based on Operating System requirements of the InfoScale/Storage Foundation product. For specific OS compatibility information regarding InfoScale/Storage Foundation, please see "[Veritas Services and Operations Readiness Tools \(SORT\)](#)".

FlashBackup policy limitation: The NetBackup FlashBackup policy is not supported on Veritas File System (VxFS) layout versions 8 and beyond, versions 7 and earlier are supported.

Third-Party Products

When a problem may be related to product(s) from a third-party vendor with whom Veritas has a cooperative or collaborative relationship on such product(s), then Veritas will work with that vendor in an attempt to resolve the problem, but resolution is not guaranteed. When Veritas does not have such a support relationship in place with the third-party vendor, or when the vendor ceases to support such product(s), then our ability to support Veritas Licensed Software operating with such vendor's product(s) may be limited, affected, or prevented (and such third party product(s) may cease to be part of Veritas-supported configuration(s)). Veritas support may be limited by the hardware or software vendor due to their support lifecycle. Should a vendor announce End of Support for a product, Veritas support may be limited.

Oracle Agent Support

Oracle ASM Environment is not supported.

Snapshot Client - Considerations

Subject	Notes
Support assumptions	For details on supported operating systems, please refer to the " NetBackup 9.0 - 9.x.x Operating System Software Compatibility List ". 1. 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.
2. 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.
3. Where support is shown for "Windows Server 2019 Datacenter" it also means that the other editions of Windows Server 2019 are supported.
4. SUSE Linux Enterprise Server 12 support requires SP3 or later.

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

Snapshot Client - Array-based Snapshot Methods for Client

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This feature is not supported on this platform.

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

Snapshot Client - Software-based Snapshot Methods for Client

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This feature is not supported on this platform.

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

NetBackup Hardware Compatibility Documentation: Introduction

Encryption and Security Solutions for Client

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NetBackup Client Encryption is compatible with all disk storage units (DSU), tape drives, tape libraries, and virtual tape libraries supported by NetBackup.

Note: Any DSU type supported by NetBackup can be used with client encryption, although encryption prevents deduplication by Media Server Dedupe, OpenStorage devices, or VTLs.

NetBackup Client Encryption is supported on all NetBackup client platforms except OpenVMS, and is not supported with BMR or SAN client.

Symantec Security Information Manager

NetBackup Client is supported with Symantec Security Information Manager (SSIM) v4.8 and later.

For more information on SSIM, see https://support.symantec.com/en_US/dpl.52517.html

NetBackup Hardware Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

[NetBackup Hardware Compatibility Documentation: Introduction](#)

File System Compatibility for Client

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NetBackup supports backing up file data on all POSIX compliant file systems. The table below represents the platform configurations that have been tested for compatibility with ACLs and other extended attributes. Unless otherwise noted in the table below, ACLs and other extended attributes are not supported.

NetBackup has improved its integration with the Veritas File System (VxFS) product to ensure interoperability on all compatible VxFS versions. If you run a VxFS version that is older than VxFS 4.0 then you need to install new VxFS libraries on the client to back up the systems that run VxFS. You can search and download the appropriate VxFS libraries to your system from Patch Central on the Veritas Support Web site. See, <https://sort.veritas.com/patch/finder>

Note :

- For Linux Operating Systems, the backup and restore of extended attributes set by the chattr command on XFS, ZFS, BTRFS etc. is not supported
- Cross platform restore of extended attributes is not supported.

File System	ACL	Other Extended Attributes or Named Data Streams	Notes / Exceptions
UFS, ZFS, VxFS	Yes	Yes	- ZFS file system is not supported as a backend storage location for an MSDP disk pool.

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

NetBackup OpsCenter Web Browser Requirements

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Web Browser	Versions	Notes
Microsoft Internet Explorer	- 7.x, 8.x, 9.0, 10.0, 11.0 - 32-bit and 64-bit	- IE 7.0 and later versions may display a security certificate warning page when you access OpsCenter. Reference "Disabling security certificate warnings permanently from browsers" instructions in the NetBackup OpsCenter Administrator's Guide.

		<ul style="list-style-type: none"> - It may not be possible to view reports, jobs, or audit data when exporting from IE 9.0. Alternatively, IE 9.0 may show a "Internet Explorer Cannot Download" error when exporting reports, jobs, or auditing data from OpsCenter. - Reference "Exporting OpsCenter reports or data with IE 9.0" instructions in the NetBackup OpsCenter Administrator's Guide. - Extra steps are required to access the OpsCenter console using Internet Explorer version 7 or 8 on a 32-bit Windows computer. For more information, see "About web browser considerations" in the NetBackup OpsCenter Administrator's Guide. - NetBackup 7.7.2 and later support OpsCenter with IE 11 - The NetBackup OpsCenter Administrator's Guide and other Guides are available by selecting the appropriate NetBackup version link at http://www.veritas.com/docs/000003214
Mozilla Firefox	<ul style="list-style-type: none"> - 3.0, 3.5.x, 3.6.x, 9.0.1 and above for OpsCenter 7.0 to 7.5. - 15.0 and later versions for OpsCenter 7.6 and later. - 32-bit and 64-bit - 27.0 and later versions for OpsCenter 8.0 and later 	<ul style="list-style-type: none"> - Mozilla Firefox may display an Untrusted Connection page when you access OpsCenter. Reference "Disabling the Untrusted Connection page in Mozilla Firefox" instructions in the Veritas OpsCenter Administrator's Guide.

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

9.0 - 9.x.x OS Software Compatibility List Updates

NetBackup OpsCenter Backup Product Support[Back to top](#)

There are two OpsCenter products: Veritas NetBackup OpsCenter and Veritas NetBackup OpsCenter Analytics. OpsCenter does not require any license and is included with the NetBackup Enterprise Server and Server products. OpsCenter provides single deployment configuration and user interface for monitoring, alerting, and reporting functionality. It provides monitoring, management and administration capabilities for NetBackup as well as operational reporting for other products as designated in the following table.

OpsCenter Analytics is the licensed version of OpsCenter. In addition to the features available in the unlicensed OpsCenter version, Analytics offers report customization, chargeback reporting and support for third-party data protection products as designated in the following table. The primary objectives of this product are to help organizations assess their compliance with business standards, e.g., service level agreements, and assist in effective business planning, e.g., future backup requirements via backup trend analysis.

Listed in the table below are the backup and archiving products and versions supported by OpsCenter and OpsCenter Analytics.

Backup Product	Version	Support Level	Analytics License Required
Veritas NetBackup	7.7 and higher versions	All supported NetBackup platforms by Remote Agent. Native OpsCenter agent for Windows 2008 (SP2 and R2) and Solaris 10 and 11. BCS customer are entitled to receive support for the legacy products until 2019. Refer to https://www.veritas.com/support/en_US/business-critical-services/support-extensions-program.html	No

Veritas NetBackup Appliance	See NetBackup Hardware Compatibility List for Appliance support information. http://www.veritas.com/docs/000025228	Data collection happens automatically by NBSL	No
Veritas NetBackup PureDisk	6.2, 6.2.2, 6.5, 6.5.1, 6.5.1.2, 6.6, 6.6.0.1, 6.6.0.2, 6.6.0.3, 6.6.1, 6.6.1.2, 6.6.3a, 6.6.5	PureDisk supported platform (PDOS) by the OpsCenter integrated Agent. You do not need a separate Agent to collect data from PureDisk. You can use the inbuilt Agent of the OpsCenter Server for data collection. To create or configure the data collector, select the Agent that is installed as Integrated Agent.	No

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

NetBackup OpsCenter Operating System Requirements

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NetBackup OpsCenter Physical Memory Requirement

OS/Version	CPU Architecture	Minimum Memory Requirement
Solaris 11	SPARC	8 GB

Valid Characters in Host Names Requirement

NetBackup OpsCenter requires host names to comply with [RFC-1123](#), meaning only ASCII characters "a" thru "z", case insensitive, and digits "0" thru "9" and the hyphen character.

Software compatibility and release notes documentation is contained in:
[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)
[9.0 - 9.x.x OS Software Compatibility List Updates](#)
[NetBackup Release Notes](#)
[NetBackup Self Service Release Notes](#)

NetBackup Administration Consoles

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The NetBackup Java Administration Console is an interface to configure and manage NetBackup installed on the same machine. The interface can run on any NetBackup Java-capable system.

The Backup Archive and Restore (BAR) console is an interface to the NetBackup client. The Backup, Archive, and Restore utility performs backups and archives for the system on which it is installed and restores for this system and other clients. For information on how to install the consoles mentioned above reference the NetBackup Installation Guides. And for information on usage reference the NetBackup Administrator's Guides.

The table below is a list of the platforms that support the NetBackup-Java Administration Console and the Backup Archive and Restore Interface.

Note: If a supported NetBackup client is not listed in the table below the client is supported for backup and restore, but it does not support any of the available graphical interfaces.

Where support is shown for "Windows Server 2012" or "Windows Server 2016" it is implied that Standard Edition, Datacenter Edition, Essentials Edition, and Foundation Edition are supported.

Where support is shown for "Windows Server 2019" it is implied that Standard Edition, Datacenter Edition, Essentials Edition are supported.

Administrative consoles for supported versions of NetBackup are included in the NetBackup installation packages. console versions are installed for all versions of NetBackup that are not beyond their End of Support Life (EOSL). For information on supported versions of NetBackup see <https://sort.veritas.com/eosl>.

OS	CPU Architecture	NetBackup-Java Administration Console	Backup, Archive, and Restore Interface
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Solaris 10, 11	SPARC	Y	Y
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NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

NetBackup in the Cloud

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Core NetBackup Deployments in the Cloud

NetBackup supports cloud-based Primary Servers and Media Servers as part of extending data protection into workloads in the cloud. For more information, see the ["360 Data Management"](#) page.

Core NetBackup Deployments in the Cloud - Considerations

Subject	Notes
Support assumptions	<ol style="list-style-type: none">1. NetBackup is supported on any cloud infrastructure environment that meets NetBackup's minimum resource requirements. For details on operating systems supported by NetBackup, please refer to the "NetBackup 9.0 - 9.x.x Operating System Software Compatibility List" . For details on NetBackup minimum resource requirements, please refer to "Installation and upgrade requirements for UNIX and Linux" or "Installation and upgrade requirements for Windows and Windows clusters" in the NetBackup Installation Guide.2. Veritas does not certify the cloud compute layer or the cloud block storage layer. They are assumed to work as similar physical resources do.3. NetBackup-certified cloud object storage support is listed in the vendor tables in the Cloud Storage Solutions section of this HCL.

4. NetBackup deployment templates are available for some operating systems and cloud infrastructure solutions. Supported templates are listed in the vendor tables below. For a quicker and easier NetBackup deployment, Veritas strongly recommends using these templates for deploying NetBackup instead of doing a manual NetBackup installation. For examples, see [Setting up NetBackup CloudCatalyst in AWS](#) and [NetBackup in the Cloud - Guidelines for AWS Deployments](#).

Core NetBackup Deployments in the Cloud - Links to Solution Information

NetBackup is supported on any cloud infrastructure environment that meets NetBackup's minimum resource requirements. Solution briefs have been created for the cloud infrastructures listed in the table below.

Vendor	URL
Amazon	https://www.veritas.com/solution/amazon-web-services
Google	https://www.veritas.com/solution/google-cloud-platform
IBM	https://www.veritas.com/solution/ibm-cloud
Microsoft	https://www.veritas.com/solution/microsoft-cloud
Oracle	https://www.veritas.com/solution/oracle-cloud

Core NetBackup Deployments in the Cloud - Deployment Templates

Contents (for details click on the checkbox)

Amazon

Google

Microsoft

NetBackup CloudPoint In-Cloud Data Protection

NetBackup CloudPoint In-Cloud Data Protection is available in NetBackup 8.3 and later.

NetBackup CloudPoint In-Cloud Data Protection - System Requirements

NetBackup CloudPoint In-Cloud Data Protection - Supported File Systems

NetBackup CloudPoint In-Cloud Data Protection is supported with the following operating systems and file systems:

NetBackup CloudPoint In-Cloud Data Protection - File system support

Operating System	Supported File Systems
Linux	ext3, ext4, xfs ^[1]
Windows	NTFS

Footnotes

1. ext2 snapshots are not application-consistent due to underlying OS limitations.

NetBackup CloudPoint In-Cloud Data Protection - Supported Azure Kubernetes Service Versions

NetBackup CloudPoint In-Cloud Data Protection is supported with NetBackup 9.1 and later with the following versions of Azure Kubernetes Service: 1.18.19, 1.19.11, 1.20.7, 1.21.1

NetBackup CloudPoint In-Cloud Data Protection - High Level Feature Support

NetBackup CloudPoint In-Cloud Data Protection high level feature support information is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data Protection High Level Feature Support - Amazon Web Services	NetBackup CloudPoint In-Cloud Data Protection High Level Feature Support - Google Cloud Platform	NetBackup CloudPoint In-Cloud Data Protection High Level Feature Support - Microsoft Azure
NetBackup CloudPoint In-Cloud Data Protection High Level Feature Support - Microsoft Azure Stack Hub		

NetBackup CloudPoint In-Cloud Data Protection - Restore Options from Snapshots

NetBackup CloudPoint In-Cloud Data Protection support for snapshot restore options is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data Protection Restore Options - Amazon Web Services	NetBackup CloudPoint In-Cloud Data Protection Restore Options - Google Cloud Platform	NetBackup CloudPoint In-Cloud Data Protection Restore Options - Microsoft Azure
NetBackup CloudPoint In-Cloud Data Protection Restore Options - Microsoft Azure Stack Hub		

NetBackup CloudPoint In-Cloud Data Protection Replication Support Across Regions

NetBackup CloudPoint In-Cloud Data Protection support for replication across regions is listed in the tables below, organized by cloud vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data Protection Replication Support - Amazon Web Services

NetBackup CloudPoint In-Cloud Data Protection Replication Support Across Accounts

NetBackup CloudPoint In-Cloud Data Protection support for replication across accounts is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data Protection Replication Support - Amazon Web Services

NetBackup CloudPoint In-Cloud Data Protection Restore Options for Snapshots Replicated Across Regions

NetBackup CloudPoint In-Cloud Data Protection support for restore options for snapshots replicated across regions is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data
Protection Replicated Snapshot Restore
Support - Amazon Web Services

NetBackup CloudPoint In-Cloud Data Protection Restore Options for Snapshots Replicated Across Accounts

NetBackup CloudPoint In-Cloud Data Protection support for restore options for snapshots replicated across accounts is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

NetBackup CloudPoint In-Cloud Data
Protection Replicated Snapshot Restore
Support - Amazon Web Services

NetBackup CloudPoint In-Cloud Data Protection Supported Regions

Region support for cloud providers is listed in the tables below, organized by provider.

NetBackup CloudPoint In-Cloud Data Protection - Supported Regions

Cloud Provider	Supported Regions
Amazon Web Services	Africa (Cape Town), Asia Pacific (Hong Kong), Asia Pacific (Mumbai), Asia Pacific (Seoul), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), AWS GovCloud (US-East), AWS GovCloud (US-West), Canada (Central), China (Beijing), China (Ningxia), Europe (Frankfurt), Europe (Ireland), Europe (London), Europe (Milan), Europe (Paris), Middle East (Bahrain), South America (Sao Paulo), US East (N. Virginia), US East (Ohio), US West (N. California), US West (Oregon)
Google Cloud Platform	Asia-East1 (zones a, b, c), Asia-East2 (zones a, b, c), Asia-Northeast1 (zones a, b, c), Asia-Northeast2 (zones a, b, c), Asia-Northeast3 (zones a, b, c), Asia-South1 (zones a, b, c), Asia-Southeast1 (zones a, b, c), Australia-Southeast1 (zones a, b, c), Europe-North1 (zones a, b, c), Europe-West1 (zones b, c,

	d), Europe-West2 (zones a, b, c), Europe-West3 (zones a, b, c), Europe-West4 (zones a, b, c), Europe-West6 (zones a, b, c), NorthAmerica-Northeast1 (zones a, b, c), SouthAmerica-East1 (zones a, b, c), US-Central1 (zones a, b, c, f), US-East1 (zones b, c, d), US-East4 (zones a, b, c), US-West1 (zones a, b, c), US-West2 (zones a, b, c), US-West3 (zones a, b, c), US-West4 (zones a,b,c)
Microsoft Azure	Central US, East US, East US 2, North Central US, South Central US, West US, West US 2, West Central US, Canada Central, Canada East, Brazil South, South Africa North, South Africa West, UAE Central, UAE North, Norway East, Norway West, North Europe, West Europe, France Central, France South, UK South, UK West, Switzerland North, Switzerland West, East Asia, Southeast Asia, Australia Central, Australia Central 2, Australia East, Australia Southeast, Central India, South India, West India, Japan West, Korea Central, Korea South, Germany North, Germany West Central, US Gov Arizona, US Gov Texas, US Gov Virginia
Microsoft Azure Stack Hub ^[1]	Customer-deployed private regions

Footnotes

1. Requires NetBackup 9.1 or later.

NetBackup CloudPoint In-Cloud Data Protection - Database Applications

NetBackup CloudPoint In-Cloud Data Protection support for database applications is listed in the tables below, organized by vendor.

Contents (for details click on the checkbox)

MongoDB

Microsoft SQL

Oracle

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)

NetBackup Hardware Compatibility Documentation: Introduction

NetBackup Snapshot Manager

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Starting with NetBackup 8.3, you can add CloudPoint servers from the NetBackup Administration Console. You can manage CloudPoint and control discovery of assets, REST API, and CLI without interacting with the CloudPoint interfaces.

If you are using a standalone CloudPoint server and want to use it along with NetBackup, you can migrate your CloudPoint server. For more information, see the [Veritas NetBackup CloudPoint Install and Upgrade Guide](#).

For information on hardware and cloud applications that are compatible with earlier versions of CloudPoint, see the CloudPoint compatibility lists at <http://www.netbackup.com/compatibility>

NetBackup Snapshot Manager / CloudPoint - Considerations

Subject	Notes
Vendor support considerations	<ol style="list-style-type: none">1. All storage configurations shown in the tables below were tested with drivers and firmware supported by the storage array vendors. Check with these vendors for minimum driver and firmware levels, specific driver and firmware support, support for the stated Veritas products, and other functional options.2. Veritas supports hardware products listed below that include virtualization capability, but Veritas does not support compatibility issues that can be attributed to the virtualization feature. Veritas requires any compatibility issue to be reproduced in a non-virtualization environment. If the issue is confirmed to be related to Veritas products, Veritas will support its software at the same level as when that software is not running with hardware virtualization products. Veritas will cooperate with virtualization vendors, and attempt to assist in

	the diagnosis of problems found between the virtualization and Veritas products. 3. Minor ("double-dot") 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.)
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NetBackup Snapshot Manager / CloudPoint - Vendor Compatibility

Contents (for details click on the checkbox)

Dell EMC	Hewlett Packard Enterprise	Hitachi Vantara
Infinidat	NetApp	Nutanix
Pure Storage	Qumulo	

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

Support for Workloads with Image Sharing in Cloud

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Image Sharing in Cloud is supported with MSDP Direct Cloud Tiering. 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](#)".

Image Sharing in Cloud - Supported Workloads

Veritas Services and Operations Readiness Tools (SORT)

Workload	NetBackup 9.0 (or later) Start of Support	Notes
Basic backups of files and folders	9.0	
Bare Metal Restore (BMR)	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.
DB2	9.0	
Enterprise Vault	9.0	
Hadoop	9.0	
Hbase	9.0	
Hyper-V	9.0	
Informix	9.0	
Lotus Notes	9.0	
MariaDB	9.0	
Microsoft Exchange Server	9.0	
Microsoft SharePoint	9.0	
Microsoft SQL Server	9.0	
MySQL	9.0	
NDMP	9.0	
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	9.0	
Postgres	9.0	
RHV	9.0	
SAP	Not supported	Duplication of images is supported. Restores can be done from another NetBackup media server.

Sybase	9.0	
VMware	9.0	

NetBackup Hardware Compatibility Documentation:
[NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List](#) (last updated on March 04, 2024)
[NetBackup Hardware Compatibility Documentation: Introduction](#)

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.

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	
2021-09-21	Solaris 11, Solaris 10	Master Server, Media Server	Solaris	All	All	9.1.0.1	NetBackup 9.1 is the last major release supporting NetBackup deployed on Solaris as a Primary server or Media server. This EOL does not apply to client support on this platform. For more information about this EOL, see this technical article: https://www.veritas.com/support/en_US/article.100051042 .

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

9.0 - 9.x.x OS Software Compatibility List Updates

End of Life (EOL) announcement and platforms no longer supported by NetBackup

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The following Operating System and Application Versions/Architectures in the 9.x.x versions of NetBackup will be End of Life.

Platform and Application Versions	CPU Architecture	OS Bits	NetBackup	Last NetBackup Release Supported
CentOS 8	ALL	64	Primary, Media and Client	9.1
Solaris 10, 11	ALL	64	Primary and Media	9.1
Red Hat Enterprise Linux 7.0, 7.1, 7.2, 7.3	ALL	64	Client, Primary and Media Server	9.1

NetBackup Software Compatibility Documentation:

[NetBackup 9.0 - 9.x.x Operating System Software Compatibility List \(last updated on July 12, 2023\)](#)

[9.0 - 9.x.x OS Software Compatibility List Updates](#)

Documentation

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Product Documentation

- [NetBackup Documentation Landing Page \(Including links for all PDFs individually, and PDFs in a single .zip file\)](#)

- [NetBackup Bare Metal Restore Administrator's Guide](#)

- [NetBackup 9.1 Administrator's Guide Volume I](#)

- [NetBackup 9.1 Administrator's Guide Volume II](#)

- [NetBackup 9.1 API - Getting Started](#)

Veritas Services and Operations Readiness Tools (SORT)

NetBackup Add-in for Microsoft SCVMM Console Guide
NetBackup AdvancedDisk Administrator's Guide
NetBackup Backup, Archive, and Restore Getting Started Guide
NetBackup Cloud Administrator's Guide
NetBackup Cloud Marketplace Deployment on Microsoft Azure
NetBackup CloudPoint Install and Upgrade Guide
NetBackup Clustered Master Server Administrator's Guide
NetBackup Commands Reference Guide
NetBackup Deduplication Guide
NetBackup Device Configuration Guide
NetBackup Emergency Engineering Binary Guide
NetBackup for DB2 Administrator's Guide
NetBackup for Enterprise Vault Agent Administrator's Guide
NetBackup for Hadoop Administrator's Guide
NetBackup for HBase Administrator's Guide
NetBackup for HCL Domino Administrator's Guide
NetBackup for Hyper-V Administrator's Guide
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NetBackup for Nutanix Acropolis Hypervisor (AHV) Administrator's Guide
NetBackup for OpenStack Administrator's Guide
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NetBackup for SQLite Administrator's Guide
NetBackup for Sybase Administrator's Guide
NetBackup for VMware Administrator's Guide
NetBackup in Highly Available Environments Administrator's Guide
NetBackup Installation Guide

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

[NetBackup Logging Reference Guide](#)
[NetBackup Network Ports Reference Guide](#)
[NetBackup OpenStorage Solutions Guide for Disk](#)
[NetBackup OpsCenter 9.1 Administrator's Guide](#)
[NetBackup OpsCenter Reporting Guide](#)
[NetBackup OpsCenter Tuning Guide](#)
[NetBackup Plug-in for VMware vSphere Client \(HTML5\) Guide](#)
[NetBackup Plug-in for VMware vSphere Web Client Guide](#)
[NetBackup Replication Director Solutions Guide](#)
[NetBackup SAN Client and Fibre Transport Guide](#)
[NetBackup Security and Encryption Guide](#)
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[NetBackup Vault Administrator's Guide](#)
[NetBackup Web UI Administrator's Guide](#)
[NetBackup Web UI Cloud Administrator's Guide](#)
[NetBackup Web UI Microsoft SQL Server Administrator's Guide](#)
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[NetBackup Web UI Red Hat Virtualization Administrator's Guide](#)
[NetBackup Web UI VMware Administrator's Guide](#)
[NetBackup WebSocket Service \(NBWSS\) Reference Guide](#)
[Veritas Service and License Agreements](#)
[Veritas Smart Meter Getting Started Guide](#)

Installation/Upgrade Documentation

[How to perform a consistency check of the NetBackup EMM and BMR databases](#)
[Links to the latest NBCC / NBCCR downloads](#)
[NetBackup Replication Director Tools for NetApp Storage Systems](#)

Veritas Services and Operations Readiness Tools (SORT)

- NetBackup Upgrade Guide
- What's new in NetBackup releases
- NetBackup Release Notes
- NetBackup Self Service Release Notes
- Veritas Download Center

Late Breaking News

- Updates, Patches and Late Breaking News for NetBackup 9.x

Compatibility Lists

- NetBackup 9.0 - 9.x.x Database and Application Agent Compatibility List
- NetBackup 9.0 - 9.x.x Hardware and Cloud Storage Compatibility List
- NetBackup Compatibility List for all Versions
- NetBackup 9.0 - 9.x.x Operating System Software Compatibility List
- Support for NetBackup in virtual environments

Performance and Tuning Guidelines

- ERROR CODE: error 26 bpbrm jobs failing with status 26
- How to estimate the number of master servers needed
- How to estimate the number of media servers needed
- Information on resource allocation within NetBackup
- Insufficient system file descriptors can cause performance issues and possible growth in the EMM_DATA.db file
- Minimum O/S ulimit settings on UNIX platforms
- NetBackup Backup Planning and Performance Tuning Guide
- NetBackup OpsCenter Performance and Tuning Guide
- NetBackup pre-install check detects insufficient space to perform upgrade
- Performance tuning for NetBackup 7.x for Solaris 10 and Solaris 11 Project resource allocation
- Recommended NetBackup UNIX / Linux semaphore tuning values (Linux/Solaris/HP-UX/AIX)

Product End of Life Information

- SORT End of Support Life matrix for NetBackup

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

[Veritas End of Life Policy](#)

Other Related Documentation

[NetBackup Vault Operators Guide](#)

[Veritas Entitlement Management System Guide](#)