Veritas NetBackup™ Appliance Release Notes

Release 3.1

Document Revision 3

(including NetBackup 5340 Appliance)

VERITAS™

Veritas NetBackup™ Appliance Release Notes

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Veritas Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

Contents

About NetBackup appliance 3.1

This chapter includes the following topics:

- About the NetBackup appliance 3.1

- About NetBackup Appliance third-party legal notices

About the NetBackup appliance 3.1

The NetBackup Appliance Release Notes document is meant to act as a snapshot of information about a version of NetBackup Appliance at the time of its release. Old information and any information that no longer applies to this release is either removed from the release notes, and you can check old information in the previous NetBackup Appliance documentation set.

When an appliance is released, the latest version of NetBackup is used as a basis on which the appliance code is built. That ensures that all applicable features, enhancements, and fixes that were released within NetBackup are included in the latest release of the appliance.

This release incorporates fixes to several known issues that existed with the NetBackup Appliance software. Many of these issues pertain to the customer-specific issues that have been documented in the form of technical support cases. Many of the fixes that are incorporated into this release are available as individual engineering binaries and engineering bundles (EEBs). These EEBs were created to address specific customer issues with a previous version of the NetBackup Appliance software. The engineering binaries and bundles that are created and included can be found on the Veritas Services and Operations Readiness Tools (SORT), and in the *Release content* appendix of this document.

NetBackup software version 8.1 is included with the NetBackup appliance 3.1 release. Information about the new features, enhancements, and fixes found in NetBackup 8.1 can be found in the *NetBackup 8.1 Release Notes* document on the Veritas Support website:

https://www.veritas.com/content/support/en_US/doc-viewer.103228346-127350715-0.index.html

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The proprietary notices and the licenses for these third-party programs are documented in the *NetBackup Appliance Third-party Legal Notices* document, which is available at the following website:

https://www.veritas.com/about/legal/license-agreements

NetBackup appliance 3.1 features, enhancements, and changes

This chapter includes the following topics:

■ About new features, enhancements, and changes

■ New features, enhancements, and changes for NetBackup Appliance 3.1

About new features, enhancements, and changes

In addition to a number of new features, this release offers many new features, enhancements to the issues and improvements from previous NetBackup Appliance releases. Information about the new features, enhancements, and changes in this release of NetBackup Appliance can be found in the following sections of this chapter.

New features, enhancements, and changes for NetBackup Appliance 3.1

The following list describes the new features, enhancements, and changes in the NetBackup appliance 3.1 release:

NetBackup Appliance Hardware features

This chapter includes the following topics:

- NetBackup 52xx hardware features

- NetBackup 53xx hardware features

- Comparison of the NetBackup Appliances hardware

NetBackup 52xx hardware features

This release supports the 52xx hardware architectures for the appliance. You can configure these architectures in any of the following modes:

- An appliance master server

- An appliance master and media server

- An appliance media server only

The 5240 is the latest of the 52xx hardware architectures. NetBackup 5240 Appliances support appliance software version 2.7.3 or higher.

Starting with appliance software version 3.1, NetBackup 5240 Appliances support up to six 2U12 storage shelves. I/O configurations H, J, K, and L are not supported in NetBackup Appliance software version 2.7.3 and earlier versions.

For the latest NetBackup Appliance compatibility information, refer to the *NetBackup Hardware Compatibility List* posted on the following site:

http://www.veritas.com/docs/100036440

Note: Starting with appliance software version 2.7.1, references to "52xx" exclude the NetBackup 5200. That model is not supported beyond software version 2.6.1.2 and does not support the Linux RHEL operating system or any other associated appliance hardware or software functionality.

All 52xx appliance architectures support the following features and functions, unless specifically noted:

- 5230 - Dual processor, six core processors, Intel-based systems.

- 5240 - Dual processor, eight core processors, Intel-based systems.

- Each has a number of hot swap external drives.

- Fibre Channel connectivity that supports external tape drives.

- The base configuration supports a Gigabit Ethernet network.

- High-performance hardware RAID controller.

- Each uses NetBackup as their code base.

- RHEL operating system (provided by Veritas).

- Each can run the latest version of NetBackup Appliance software.

- Each supports Media Server Deduplication Pool (MSDP) storage when configured as a media server. MSDP offers up to the maximum available storage capacity on a 52xx appliance.

The NetBackup 5230 Appliances use the Intel X520 SR2 10 Gb Ethernet card either as standard on the systems or an option.

The NetBackup 5240 Appliance uses the Intel X710 10Gb Ethernet card either as standard on the systems or an option.

The NetBackup 5240 Appliance contains eight internal storage disk drives with a total formatted storage capacity of 4 TB to 27 TB, depending on the configuration.

The NetBackup 5230 Appliance contains eight internal storage disk drives that provide a total formatted storage capacity of 4 TB to 14 TB.

The NetBackup 52xx Appliances can be used with attached Veritas Storage Shelves for additional storage.

Table 3-1 shows the available, formatted storage capacity of the NetBackup 5240 Appliance, with or without attached storage shelves. The NetBackup 5240 Appliance, Release 3.1, now supports six 2U12 storage shelves.

| Table 3-1 | | NetBackup 5240 Appliance version 3.1 available storage capacity options |

Appliance only	Storage shelf	Appliance and one storage shelf	Appliance and two storage shelves	Appliance and three storage shelves	Appliance and four storage shelves	Appliance and five storage shelves	Appliance and six storage shelves
4TB	49TB	53TB	102TB	151TB	200TB	249TB	298TB
14TB	49TB	63TB	112TB	161TB	210TB	259TB	308TB
27TB	49TB	76TB	125TB	174TB	174TB	272TB	321TB

Refer to the *NetBackup 5240 Appliance Product Description* for additional details about storage capacity.

Table 3-2 shows the available, formatted storage capacity of the NetBackup 5230 Appliance, with or without attached storage shelves.

| Table 3-2 | | NetBackup 5230 Appliance version 3.1 available storage capacity options |

Appliance disk drives	Appliance	Storage shelf disk drives	Storage shelf	Appliance and one storage shelf	Appliance and two storage shelves	Appliance and three storage shelves	Appliance and four storage shelves
1 TB	4.55 TB	2 TB	24 TB	28.55 TB	52.55 TB	*	*
1 TB	4.55 TB	3 TB	36 TB	40.55 TB	76.55 TB	112.55 TB	148.55 TB
3 TB	13.65 TB	2 TB	24 TB	37.65 TB	61.65 TB	*	*
3 TB	13.65 TB	3 TB	36 TB	49.65 TB	85.65 TB	121.65 TB	157.65 TB

* If required, 2TB storage drives can be provided.

For more information about the hardware architecture of NetBackup Appliances, see the *NetBackup Appliance and Veritas Storage Shelf Product Description* document.

NetBackup 53xx hardware features

The 53xx appliances can only be configured as a media server.

The NetBackup 53xx appliances offer the following features:

The NetBackup 5330 hardware includes the appliance and a Primary Storage Shelf. The appliance does not provide any storage, but the space available from the Primary Storage Shelf and up to five Expansion Storage Shelves can be used for backups. The Primary Storage Shelf and the Expansion Storage Shelf support either 3-TB or 6-TB disk drives, but all drives within a shelf must be the same capacity. The following table shows the available, formatted storage capacity of the NetBackup 5330 Appliance system.

NetBackup 5340 Appliance storage capacities

The NetBackup 5340 Appliance compute nodes do not contain internal disk space on which to store data. Instead, the NetBackup 5340 Appliance uses the required Veritas 5U84 Primary Storage Shelf as the main data storage device. The 5U84 Primary Storage Shelf connects to the NetBackup 5340 Appliance compute nodes and uses RAID 6 drive sets to protect the stored data.

If additional data storage space is required, you can connect up to three optional Veritas 5U84 Expansion Storage Shelves to the existing 5U84 Primary Storage Shelf. The 5U84 Expansion Storage Shelves connect to the 5U84 Primary Storage Shelf using SAS3 data cables. After connecting the shelves, the disk drives in the 5U84 Expansion Storage Shelf use RAID 6 sets that are controlled by the 5U84 Primary Storage Shelf to protect the stored data.

Table 3-3   *NetBackup 5340 Appliance* software version 3.1.2 storage options by disk drive capacities

Usable storage capacities (4-TB Drives)	Usable storage capacities (8-TB Drives)
120TiB (132TB)	240TiB (264TB)
240TiB (264TB)	480TiB (528TB)
360TiB (396TB)	720TiB (792TB)
480TiB (528TB)	960TiB[*] (1,056TB)
600TiB (660TB)	1200TiB[*] (1,320TB)
720TiB (792TB)	1440TiB[*] (1,583TB)

Table 3-3	*NetBackup 5340 Appliance* software version 3.1.2 storage options by disk drive capacities *(continued)*

Usable storage capacities (4-TB Drives)	**Usable storage capacities (8-TB Drives)**
840TiB	1680TiB[*]
(924TB)	(1,847TB)
960TiB[*]	1920TiB[*]
(1,056TB)	(2,111TB)

[*]NetBackup 5340 Appliance software version 3.1.2 supports up to 960TiB (1,056TB) of usable MSDP storage capacity.

For more information, see the *Veritas 5340 Appliance Product Description*.

For more information about the hardware architecture of NetBackup Appliances, see the *NetBackup Appliance and Veritas Storage Shelf Product Description* document.

About the NetBackup 5330 appliance storage shelves

The NetBackup 5330 Appliance does not contain any internal storage and relies on the use of the following external storage shelves:

- Primary Storage Shelf
  This storage shelf contains the RAID controller and is required for every 5330 appliance installation. The unit connects directly to the appliance with Fibre Channel (FC) cables. A NetBackup 5330 system requires one Primary Storage Shelf.

- Expansion Storage Shelf
  This storage shelf is optional and is intended to increase the disk space of minimum configuration systems that contain only a Primary Storage Shelf. The shelf connects directly to the Primary Storage Shelf with SAS cables. A NetBackup 5330 system supports up to five Expansion Storage Shelves.

Note: The Primary Storage Shelf and the Expansion Storage Shelf are not compatible with NetBackup 52xx appliances. The Veritas Storage Shelf is not compatible with a NetBackup 5330 or with either of its associated storage shelves.

When you begin the initial configuration of a NetBackup 5330 from the NetBackup Appliance Web Console, a **Storage Overview** page appears. This page shows the hardware configuration of your system and identifies the connectivity or the disk drive issues that may exist. Veritas recommends that you correct all identified issues before you proceed with the initial configuration.

When you perform the initial configuration from the NetBackup Appliance Shell Menu, you can manually run the `Test hardware` command to identify the connectivity or the disk drive issues that may exist.

For complete information, see the *NetBackup Appliance Initial Configuration Guide*.

Comparison of the NetBackup Appliances hardware

Table 3-4 outlines the differences between the NetBackup 53xx and 52xx Appliances.

Table 3-4   Comparison of NetBackup 5340, 5330, 5240, and 5230 Appliances

Parameter	NetBackup 5340	NetBackup 5330	NetBackup 5240	NetBackup 5230
Role	Media server only	Media server only	Master or media server	Master or media server
Cores	40	20	16	12
Cache	55 MB	50 MB	40 MB (20 MBs per CPU)	30 MB
RAID cache	32 GB	24 GB	1 GB	1 GB
CPU speed	2.0 GHz	2.8 GHz	2.4 GHz	2.0 GHz
Turbo speed	3.7 GHz	3.1 GHz	3.2 GHz	2.5 GHz
QPI speed	10.4 GT/s	8 GT/s	8 GT/s	7.2 GT/s

Table 3-4 Comparison of NetBackup 5340, 5330, 5240, and 5230
Appliances *(continued)*

Parameter	NetBackup 5340	NetBackup 5330	NetBackup 5240	NetBackup 5230
System memory**	768 GB	384 GB	64 GB **Note:** When you purchase the first storage shelf, the Storage Expansion that comes with the storage shelf includes an additional 64 GBs of memory. After adding the first storage shelf and the memory, you can increase the appliance memory to 192 GBs by purchasing an additional 64 GB memory kit. **Note:** A 256GB kit is also available that replaces the existing memory configuration (32 GB x 8).	128 GB (with expansion storage)
Memory configuration ** (DIMMs, except where noted otherwise.)	Standard (RDIMMs): 32 GB x 24 (768 GB) Option: (RDIMMs) 64 GB x 24 (1536 GB)	Standard: 16 GB x 24 Option: 32 GB x 24 (768 GB)	Standard: 8 GB x 8 (64 GB) Options: 8 GB x 16 (128 GB) 8 GB x 24 (192 GB) 32 GB x 8 (256 GB)	Standard: 8 GB x 8 (64 GB) Options: 8 GB x 16 (128 GB 8 GB x 24 (192 GB)

Table 3-4   Comparison of NetBackup 5340, 5330, 5240, and 5230
Appliances *(continued)*

Parameter	NetBackup 5340	NetBackup 5330	NetBackup 5240	NetBackup 5230
Data retention	Supercapacitors and flash memory in each of the 2 RAID controllers	1 Li-ion battery backup unit to NVRAM per RAID controller (2 per system)	One MFBU with a flash memory card for the internal RAID controller One MFBU with a flash memory card for the external RAID controller when the first storage shelf is purchased	One maintenance-free backup unit (MFBU) with Flash and Supercapacitor A second MFBU is added with expansion storage
PCI add-in card slots	8	6	8	6
On-board 10 Gb Ethernet ports	0 (Four on-board 1 GbE ports)	2	2	2
10 Gb Ethernet cards in PCI assembly	Up to 5 cards (10 ports)	Up to 4 cards (8 ports) *	Up to 3 cards (6 ports)	Up to 1 card (2 ports)
Additional 1 Gb Ethernet cards in PCI assemblies	No	No	Up to 1 card (4 ports)	No
SAS RAID card in PCI assemblies	No	No	Yes (with the purchase of the first storage shelf)	Yes (with expansion storage)
Dual redundant external storage-based RAID controllers	Yes	Yes	No	No
External storage	1 required Primary Storage Shelf and up to 3 optional Expansion Shelves	1 required Primary Storage Shelf and up to 5 optional Expansion Shelves	Up to 4 Storage Shelves	Up to 4 Veritas Storage Shelves
Maximum storage capacity with external storage**	1920 TB	1364 TB	201 TB	157 TB

Table 3-4		Comparison of NetBackup 5340, 5330, 5240, and 5230 Appliances *(continued)*		

Parameter	NetBackup 5340	NetBackup 5330	NetBackup 5240	NetBackup 5230
Typical power consumption with maximum external storage	5800 Watts (3.0 W per TB)	2442 Watts (1.79 W per TB)	1140 Watts (5.6 W per TB)	1500 Watts (9.5 W per TB)

* The NetBackup 5330 Appliance always includes two 10Gb Ethernet ports as standard components on every configuration.

** Refer to the following topic for important information on memory configuration and maximum storage capacity with external storage: See "About NetBackup Appliance memory requirements" on page 17.

About NetBackup Appliance memory requirements

Beginning with NetBackup Appliance software version 3.1, the security posture of MSDP has been improved by moving from MD5 to SHA-256 for the fingerprinting process. This change has increased the demand on memory consumption in large deduplication pool configurations.

The following describes the guidance for appliance memory footprint requirements that you should follow to ensure optimal performance with MSDP:

- NetBackup 5230
  For all 3- and 4-storage shelf configurations, Veritas strongly recommends that you upgrade the memory capacity from 128GB to 192GB when configured with an MSDP pool of 144TB or larger.

- NetBackup 5240
  For all 3- and 4-storage shelf configurations, Veritas strongly recommends that you upgrade the memory capacity from 128GB to a minimum of 192GB when configured with an MSDP pool of 150TB or larger.
  For all 5- and 6-storage shelf configurations, Veritas strongly recommends that you upgrade the memory capacity a minimum of 256GB when configured with an MSDP pool of 250TB or larger.
  A 256GB memory upgrade kit is now available for purchase, which replaces all existing DIMM modules in the appliance. Contact your Veritas account representative for details.

- NetBackup 5330
  For all storage configurations with an MSDP pool of 458TB or larger, Veritas strongly recommends upgrading the memory capacity to 768GB.

- NetBackup 5340

For all storage configurations with an MSDP pool of 960TB or larger, Veritas strongly recommends upgrading the memory capacity to 1536GB.

Other factors can also contribute to additional memory utilization, including but not limited to the following:

- High concurrent job/stream count

- Larger MSDP fingerprint cache configurations

- Master server scheduling responsibilities

NetBackup Appliance compatibility

This chapter includes the following topics:

- About software release types
- About NetBackup Appliance software upgrades

About software release types

Veritas maintains a policy by which NetBackup can deliver various levels of releases to accommodate customer needs. The following list defines the various release types and the version number schemes that are associated with each type. The NetBackup Appliance products use these release types and number schemes.

- A major release is the first in a series of releases. For example, 3.0. This type of release contains many new features and enhancements.

- A minor release is a single-dot release that follows a major release. For example, 3.1. This release type contains many of the same requirements as a major release. It contains a smaller set of new features and enhancements.

- A software release update is a double-dot release. For example, 3.1.2. This release type contains a few new features and enhancements as well as many product fixes.

- A maintenance release update is a triple-dot release. For example, 3.1.2.1. This release type is primarily comprised of a number of fixes that are developed to address issues in major, minor, and software update releases. This release type may also include a small number of new features and enhancements.

About NetBackup Appliance software upgrades

When a software update release is available, Veritas recommends that you install it to make sure that you have the latest product features and fixes.

When you upgrade appliance software, the update release may install an updated version of the operating system, NetBackup, and all appliance interfaces. All services are shut down automatically when the upgrade begins, and then restarted automatically after all updates have been applied.

Note: If an appliance server is currently at a version earlier than 2.6.1, you cannot upgrade directly to versions 2.7.x or 3.x. You must first upgrade to version 2.6.1.x. For these upgrade scenarios, Veritas highly recommends that you upgrade to version 2.6.1.2, then proceed with the upgrade to versions 2.7.x or 3.x.

Veritas recommends that you plan your appliance upgrades in advance to help minimize system down time.

The following describes how you should plan for and perform appliance software upgrades:

■ Always schedule upgrades when system activity is at its lowest. Veritas recommends that you suspend all backup and restore operations before starting the upgrade.

■ Before you begin a software update, Veritas recommends that you take certain precautions to avoid loss of connectivity. The computer that you use to upgrade the appliance should be set up so that it does not go to sleep, shut down, lose power, or otherwise lose its network connection. If you lose connectivity during the installation, the operation may fail.

■ An appliance master server must always be at an equal or a later version than any appliance media server that is used with it. The only exception to this rule is if Veritas provides a maintenance release to any major, minor, or software update release. A maintenance release version number is identified with four digits (2.x.x.x).

■ When you upgrade your appliance, you must only use the software updates that are available for the appliance. An appliance software update is a complete package that consists of updates to the appliance, NetBackup, and the operating system components. Veritas does not support appliance upgrades for any of the individual components separately.

■ Appliance master servers must always be upgraded before any appliance media servers are upgraded.

- The NetBackup appliance version 3.1 upgrade requires at least 100 GB on the configuration volume. Before you start the upgrade, resize the partition. Refer to the *NetBackup Appliance Upgrade Guide* for more information.

- Once the upgrade has started, you must let it run until it has completed.

Note: Veritas recommends that you do not attempt to cancel an upgrade. Otherwise, you may experience unexpected system behavior. For example, backups may fail immediately after a canceled upgrade while the services are restarted. Although this behavior is to be expected, other parts of the system may potentially have been affected.

Operational notes

This chapter includes the following topics:

About operational notes for NetBackup appliance 3.1

This chapter contains the topics that explain important aspects of NetBackup Appliance 3.1 operations that may not be documented elsewhere in the documentation set. This document is posted on the Veritas Support website and may be updated after the GA release of NetBackup appliance 3.1. Therefore, Veritas recommends that you refer to the following link to view the latest release information:

https://www.veritas.com/content/support/en_US/doc-viewer.77080687-125469996-0.index.html

Because NetBackup Appliance 3.1 installs NetBackup 8.1 software, the operational notes that apply to NetBackup 8.1 also apply to NetBackup appliance 3.1. For more

information on the operational notes for NetBackup, refer to the *NetBackup 8.1 Release Notes* on the Veritas Support website.

https://www.veritas.com/content/support/en_US/doc-viewer.103228346-127350715-0.index.html

New Operational Notes for NetBackup Appliance 3.1

Note: If you are familiar with the Operational Notes for the previous release, review this section to see only the newly documented content for this release. You should also check the *Release content* appendix of this document to see the issues that have been resolved for this release.

Note: The notes and the known issues that are documented in this section may also apply to previous releases.

The following list contains the notes and the known issues that are newly documented for this release:

- **About Media Server Deduplication Pool (MSDP) changes in NetBackup 8.1**
  If you upgrade your NetBackup 5220 appliance to appliance version 3.1, there will be a performance degradation of up to 35%. The performance degradation occurs because NetBackup 8.1 upgraded to new Federal Information Processing Standard (FIPS) Publication 180-1 SHA-2 cryptographic algorithms to improve the NetBackup MSDP deduplication hashing technology. The 5220 appliance models were shipped with older Intel processors that do not have the ability to accelerate secure hash algorithms. This causes an increase in the processor load, resulting in a degradation of deduplication performance. Other appliance models are not affected.
  Veritas recommends either of the following workarounds:

  - Refresh your 5220 hardware with current shipping 5240 appliances by contacting the Veritas Sales team.

  - Do not upgrade the NetBackup 5220 appliance to 3.1 as the End of Support Life (EOSL) for 5220 is August 14, 2018.
    The End of Support Life for NetBackup 5220 appliance is also documented here:
    https://sort.veritas.com/eosl

  Additionally, NetBackup 5020 and 5030 deduplication appliances with software version 1.4.5 or later cannot perform an optimized deduplication to NetBackup

8.1 or a NetBackup 3.1 or later appliance. Optimized deduplication is not supported with NetBackup 8.1 and NetBackup appliance 3.1 releases.

- Some EEBs have been introduced recently that let you manage appliances with versions 2.7.3 or 3.0 from the Appliance Management Console:
  https://www.veritas.com/support/en_US/article.100040019

  If you reimage or perform a factory reset on a 3.0 NetBackup appliance and then upgrade this appliance to 3.1 from the Appliance Management Console, you may be asked to enter a token on the **Additional requirements** screen. When you enter a token, the upgrade fails saying that it needs a reissue token. The following error message appears on the Activity Monitor:

  ```
  V-409-777-1182 - A reissue token is required. Enter the reissue
  token for the required host to get a host ID based certificate.
  ```

  This happens only when the 3.0 appliance is configured as a media server and connected to a 3.1 master server. To resolve this issue, restart the upgrade process and enter the reissue token. See the *NetBackup Security and Encryption Guide* for more information about the reissue token.

- The NetBackup job may hang when you use Fibre Channel (FC) for optimized duplication or Auto Image Replication between NetBackup appliances with the software version 3.1 and earlier versions. When the NetBackup job hangs, do the following to work around the issue:

  - Identify the software version of the source and target appliances. You can use the following command to verify the appliance software version.

    ```
    Main > Appliance > Status
    ```

  - If the source appliance uses software version 3.0 or earlier, and the target appliance uses 3.1, you need to log on to the source appliance and adjust the chunk size to 128 KB or a greater value.
    To adjust the chunk size, run the following command from the NetBackup Appliance Shell Menu.

    ```
    Main > Support > FibreTransport Chunksize
    ```

- When you enable the Fibre Transport media server (FTMS) for SAN Client on the NetBackup appliance 3.1 and then run backup jobs for SAN clients, you may find that the jobs do not go over Fibre Channel (FC). The FTMS target port status shows `Disconnected`. If this issue occurs, refer to the Technical Note 100041215 for more information.

- When you allocate space on a physical appliance media server, note that the unallocated space shown in the NetBackup Appliance Web Console may not be accurate. This is because 100GB space is automatically reserved by the NDMP Log partition. For checking the partition detail, you can go to the

NetBackup Appliance Shell Menu, and run the `Main > Manage > Storage > Show Partition` command.

- After an upgrade to version 3.1, before adding any packages or files to the repository you must first increase the size of the `/config` partition to 150 GB. For complete details, see the *Appliance Management Guide*.

- Changing the management role of an Appliance Management Server (AMS) to agent is not supported. Similarly, changing the management role of an agent to AMS is not supported.

- If you install your own certificate on the AMS or change the hostname of the AMS, then all the agents that were already registered must be added again. Similarly if you install your own certificate on the agent or change the hostname of the agent, you must add the agent again to the AMS. For more information, see the *Appliance Management Guide*.

- Consider a scenario where an agent is being managed by an AMS and then a factory reset is performed on the specific agent. In this case, the agent is still displayed on the Home page in the AMS but some of the operations performed on that agent will fail. There will be no other indication on the AMS that the agent is no longer added to the AMS. To resolve this issue, you can remove the agent from the Appliance Management Console and then add the agent again to the specific AMS. For more information, see the *Appliance Management Guide*.

- An input/output error occurs when accessing Universal Shares due to the VpFS service not running. If you experience this issue, contact Veritas Technical Support and reference internal Technote 100040197.

- Universal Share management actions can time-out when there is heavy MSDP load. For complete details, refer to the Technote 100040183.

- The NetBackup CloudCatalyst Appliance Configuration Wizard fails if you reuse cloud storage server configuration details that do not include a region. When you reuse a service host in step "`[2a/5 oo---] Cloud storage region`," the service host displays with a region even if you did not specify a region when you created the previous cloud storage server. When there is no region, the configuration wizard incorrectly displays the cloud instance name as the region name. If you select this region, the wizard eventually fails to configure the cloud storage server and the following error is displayed:

```
[Error] Unable to add the cloud storage server to the cloud instance
 'abc123.company.com'. Please factory reset the appliance and
retry the configuration.
[Error] Unable to create the cloud storage server on the appliance.
The appliance may be unconfigurable. Please factory reset the
```

```
appliance and retry the configuration.
[Error] Please retry the role configuration. If the problem persists,
contact Veritas Technical Support.
```

For more details and a workaround for this issue, refer to the Technote 100039991.

- You cannot view or update the Data Buffer Parameters for an appliance media server from the NetBackup Appliance Web Console with software version 3.1. This only applies for the NetBackup 52xx Appliances that are configured as media servers.

  When you navigate to the **Manage > Host > Data Buffer** page on an appliance media server, the following error appears:

  ```
  Error while retrieving data buffer parameters.
  ```

  To view and update the data buffer parameters, use the `Settings > NetBackup` command from the NetBackup Appliance Shell Menu. For more information, see the *NetBackup Appliance Commands Reference Guide*.

- During the setup of the NetBackup 53xx high availability (HA) configuration, the NetBackup media server is restarted automatically. After the restart, the NetBackup client may use the LAN instead of the Fibre Channel for the backup data transactions. To work around this issue, refer to SAN clients use LAN instead of FT.

- In either an incomplete or a complete NetBackup 53xx HA configuration, Veritas recommends that you do not run the following commands:

  - `Support > InfraServices > Stop Database`

  - `Support > InfraServices > Stop All`

  These two commands may stop the database services that are used for the NetBackup 53xx HA configuration. If the services are stopped, contact Veritas Technical Support.

- If any error occurs during the HA operations, it requires to roll back the operations and restart the system. But the system may not be restarted properly. If you wait for more than 30 minutes for the restart, Veritas recommends that you restart the system manually.

- In a complete NetBackup 53xx HA configuration, some services that should be online are in offline state when you check the HA status with the command `Manage > HighAvailability > Status`.

- In a complete NetBackup 53xx HA configuration, if the following error appears:

  ```
  EXIT STATUS 5988: The host name is not part of the host ID-to-host
  name mapping list.
  ```

  Clear the host entries as follows:

- Log on to the Java-based NetBackup Administration Console.

- In the left pane, expand **Security Management > Host Management**.

- At the bottom of the right pane, select the **Mappings for Approval** tab.

- Reject all the host entries that are related to the current HA configuration.

- If the following message appears while the node removal procedures, you can restart the node where you run the command and try again:

  `[Error] Failed to remove the node.`

- In a complete 53xx HA configuration, it may take about six minutes to start or stop the service after the following commands are run successfully:

  - `Main > Settings > FibreTransport Deduplication Disable`

  - `Main > Settings > FibreTransport Deduplication Enable`

- In either an incomplete or a complete NetBackup 53xx HA configuration, the service or services are not in the correct status. You can use the following workaround:

  - Restart the EMM server on the master server.

  - Restart the NetBackup processes.

- In a complete 53xx HA configuration, if you use the tape devices to back up your data, the following errors may occur:

  `INFO EXIT STATUS 2001: No drives are available`

  You can restart the Media Manager device daemon on the two nodes as follows to work around this issue:

  - On the master server, log on to the Java-based NetBackup Administration Console as the admin user.

  - Expand **Media and Device Management > Devices** in the left pane.

  - Right click on the **Devices**, and select **Stop/Restart Media Manager Device Daemon** from the shortcut menu.

  - In the drop-down list of the **Device host**, select the host name of either node in the HA configuration.

  - In the **Action** area, select the radio button of **Stop/Restart**, and click **OK**.

  - Right click on the **Devices** again, and select **Stop/Restart Media Manager Device Daemon** from the shortcut menu.

  - In the drop-down list of the **Device host**, select the host name of the other node in the HA configuration.

  - In the **Action** area, select the radio button of **Stop/Restart**, and click **OK**.

- In a complete 53xx HA configuration, if one of the nodes is turned off, you may see the following wrong information from the NetBackup Appliance Web Console:

  - The status of the HA configuration is incomplete.

  - The **Add Partner** button appears.

  The wrong information disappears after the node is powered on.

- During the node removal procedures, if the node to be removed is accidentally turned off or restarted, the node can still be removed. When the node is powered on, you need to perform the following procedures to avoid the malfunction of the HA configuration:

  - Disconnect the Ethernet cables from the removed node.

  - Disconnect the FC cables from the removed node.

  - Perform the factory reset on the removed node.

- After the STIG option is enabled, a STIG-compliant password policy automatically overrides and replaces the default appliance password policy. The STIG-compliant password policy is enforced for all appliance users. However, the following password age rules are not enforced for any existing appliance users:

  - Maximum days for password change (PASS_MAX_DAYS)

  - Minimum days for password change (PASS_MIN_DAYS)

  This issue affects all users that were created when the default appliance password policy was in force. Even after these user passwords are changed to meet the STIG-compliant password policy, the age rules are still not enforced. This issue does not affect the users that are created after the STIG option is enabled.

  For complete details about how to resolve this issue, refer to the following article: https://www.veritas.com/docs/100040387

General NetBackup Appliance notes

The following list contains the notes and the known issues that relate to the general workings of the NetBackup Appliance:

- For this release, if a Veritas Storage Shelf in your configuration is turned off or loses power, the hardware monitoring interfaces may not reflect the correct information. If this issue occurs, the **Monitor > Hardware** page of the NetBackup Appliance Web Console and the `Monitor > Hardware` commands in the NetBackup Appliance Shell Menu show the storage shelf as present. The status

that displays is the last known status before the storage shelf was turned off or lost power.

The only hardware alerts that are sent in this case are for the partition status. If you receive a hardware alert for a partition with UMI code V-475-103-1002 or V-475-103-1003, physically check to make sure that the storage shelf has power and is turned on. Once the storage shelf is turned on again, the web console and the shell menu show the latest monitoring information.

If you need to remove a storage shelf from your configuration and from hardware monitoring, contact Veritas Support for assistance.

■ The NetBackup Appliance Web Console may show different values of Enclosure ID in the **Monitor > Hardware** tab for a storage shelf when a 52xx appliance restarts or when the mainboard RAID Controller is reset. Similarly, the NetBackup Appliance Shell Menu may also show different values of Enclosure ID when you run the `Monitor > Hardware ShowHealth StorageShelf` command after a 52xx appliance restarts or when the mainboard RAID Controller is reset. In this case, you may see multiple Enclosure ID's for the same enclosure (storage shelf).

If you are on version 2.7.1 or 2.7.2 and want to fix this issue, contact Technical Support for assistance.

If you are on version 2.7.3 and want to fix this issue, log on to the NetBackup Appliance Shell Menu and run the following command: `Main > Support > Cleanup > RemoveShelfEntries`.

See the `Support > Cleanup > RemoveShelfEntries` section in the *NetBackup Appliance Commands Reference Guide* for more information about the command.

■ The order in which the 52xx storage shelves are displayed on the NetBackup Appliance Web Console or the NetBackup Appliance Shell Menu may be different than the actual order and layout in your environment. The storage shelf order is displayed in the **Monitor > Hardware** tab on the left pane where the storage shelves are displayed as **NetBackup StorageShelf 1**, **NetBackup StorageShelf2**, etc. Similarly the order of the storage shelves is displayed on the NetBackup Appliance Shell Menu when you run the `Monitor > Hardware > ShowHealth` command.

■ If the mainboard RAID controller is removed from a 52xx appliance, the NetBackup Appliance Web Console or the NetBackup Appliance Shell Menu may still display stale data when you click on the **Monitor > Hardware > Adapter** tab or run the `Monitor> Hardware ShowHealth Appliance Adapter` command.

■ If the disks on the RAID 1 volume of the 5240 appliance are missing and you run the `Monitor > Hardware ShowHealth Appliance RAID` command, the location of the missing disks is displayed incorrectly as slot 0.

The same behavior is observed in the NetBackup Appliance Web Console when you navigate to **Monitor > Hardware > RAID** for the 5240 appliance. This issue applies to 5240 appliances and is observed when the disks on the RAID 1 volume of the appliance are missing.

- If you connect a Veritas Storage Shelf to a NetBackup 52xx Appliance, an AutoSupport alert with UMI code V-475-100-1004 is generated for each storage disk when the storage shelf is turned on. The following message displays: "You can either import the foreign configuration or clear the disk."
  You can safely ignore these alerts.
  If you connect the storage shelf during initial configuration, the alerts are all cleared when initial configuration is complete.
  If you connect the storage shelf after initial configuration, the alerts are cleared when you run the storage scan as part of installation. In this case, the NetBackup Appliance Web Console and the NetBackup Appliance Shell Menu may show incorrect data for the storage shelf for approximately five minutes after installation is complete.
  See the *NetBackup Appliance Hardware Installation Guides* for more information on installing a storage shelf.

- The appliance login banner is not retained after you upgrade the appliance software version. To work around this issue, run the `LoginBanner Show` command before the upgrade and copy the login banner text. After the upgrade, run the `LoginBanner Set` command and use the copied text to set the same login banner.

- An appliance self-test fails if the login banner heading or a single line in the login banner message contains only the following text: `ERROR:`.

- On a NetBackup 5330 Appliance, a preferred path failure can occur when the LUN ownership fails over from one controller to another controller. In some cases, one controller can reset the other controller, which then causes a preferred path failure. When this failure happens, the **Storage Status** for appliance hardware monitoring displays as Not Optimal. This failure can persist for weeks at a time until cleared.
  If the failure is not cleared, all paths fail, and the affected controller is taken offline, resulting in loss of redundancy and performance degradation. If you encounter this issue, contact Veritas Support and have your representative reference TECH225558.

- Windows 7/8.1 clients cannot automatically access the appliance CIFS shares. To work around this issue, run the following command from a Windows command prompt on the client:
  `net use /user:admin \\`*appliance-name*` *`, where *appliance-name* is the fully qualified domain name (FQDN) of the appliance.

Enter your appliance administrator password at the prompt.

Once you have run this command, the client is able to access the CIFS shares.

- If you use a network protocol analyzer like ManageEngine or Wireshark and have SNMP configured on the appliance, the `TimeTicks` field on the appliance SNMP traps is incorrect.

- For this release of NetBackup Appliance, Replication Director (RD) restores do not support dynamic multi-pathing (DMP) when the appliance is used as a backup or a recovery host.

- During a factory reset, when the following message appear:

  `RESET STORAGE CONFIGURATION and BACKUP DATA [Optional]`

  If you select `no`, it indicates that you keep the storage related configurations. After the factory reset, when you perform the initial configuration, make sure that the size of the Advanced Disk and MSDP are not set to `0`, otherwise the role configuration fails.

  Note: If the size of AdvancedDisk and MSDP partitions were set to `0` before the factory reset, they can remain at `0` when you perform the initial configuration.

- Starting with version 2.6.1, if you perform a factory reset and select to keep the network and the storage configuration settings, the error message "Cannot rollback volume" may appear. This message indicates that during the factory reset process, the appliance network configuration could not be saved. Although the factory reset has completed successfully, you must now reconfigure the network parameters.

  For more information, see the following tech note on the Veritas Support website:

  www.veritas.com/docs/100032270

NetBackup appliance user interface notes

The following list contains the notes and the known issues that relate to the NetBackup Appliance Web Console and the NetBackup Appliance Shell Menu:

- When expanding the screen resolution to above the size of 1280*1024, and setting the font size to larger than 11, the command line interface may not display properly. To avoid this situation, do not change the default font size of the command line interface if you have adapted a large screen resolution.

- If you see a hardware error on the home page of the NetBackup Appliance Web Console, but the **Monitor > Hardware** page does not show the error, check the NetBackup Appliance Shell Menu to see the current status. The **Monitor >**

Hardware page may not have some information that is available in the shell menu.

■ When you install a NetBackup client add-on package on the appliance, the **Version after upgrade** that displays on the NetBackup Appliance Web Console is incorrect. A client package installation does not affect the appliance software version. However, the web console displays the NetBackup version for the **Version after upgrade**.

■ The **Monitor > SCSP Events** page on the NetBackup Appliance Web Console does not correctly record user sessions. The logins for the user sessions are logged on the page, but the logout information is not.

■ The functionality of Active Directory (AD) user names is inconsistent, as described in the following scenarios:

  ■ NetBackup Appliance Web Console and NetBackup Appliance Shell Menu
    These interfaces do not recognize Active Directory (AD) user names as case sensitive.

  ■ NetBackup Java Console
    This interface does recognize Active Directory (AD) user names as case sensitive. When you enter these user names with all lowercase letters, access to the NetBackup Administrator's Console is granted. If you enter these user names with any or all uppercase letters, access to the NetBackup Backup, Archive, and Restore interface is granted.

■ The command `Main > Settings > Security > Authentication > LDAP > Certificate set` *path name* in the NetBackup Appliance Shell Menu does not allow path names with dashes. Path names with dashes are allowed in the NetBackup Appliance Web Console.

■ If your appliance is not provisioned, the following notification should appear on the NetBackup Appliance Web Console landing page:
Call Home service is not functional. Please contact Veritas Technical Support to verify if the system has been provisioned on Call Home server.
However, in certain cases, the notification does not appear. If the appliance date and time are not set per Network Time Protocol (NTP), the landing page only shows a notification to update the date and time. If you set the date and time per NTP, the Call Home notification appears.

■ Alert configuration is not supported from the Veritas Remote Manager. Alert configuration is supported from either the **Settings > Notification > Alert Configuration** menu in the NetBackup Appliance Web Console or the `Settings > Alerts` command view in the NetBackup Appliance Shell Menu. For details, see the **Settings > Notifications > Alert Configuration** section in the *NetBackup Appliance Administrator's Guide* or the **Main > Settings > Alerts**

view commands section in the *NetBackup Appliance Commands Reference Guide* .

Installation and configuration notes

The following list contains the notes and the known issues that relate to the installation and configuration of the appliance:

- If your NetBackup 5330 Appliance includes a Primary Storage Shelf and an Expansion Storage Shelf, and the expansion shelf has configured RAID volumes on it, it should not be removed from the appliance setup. If the expansion shelf is removed, the primary shelf behaves as if the expansion shelf has lost power, and it produces errors. If you need to remove the expansion shelf, you need to run the `Support > RAID Clear` command before you can remove the expansion shelf from the setup.

  Warning: The `Support > RAID Clear` command deletes all of the data from both storage shelves. Make sure that you have saved the data elsewhere before you run the command.

- If you install a new version of NetBackup Appliance on a previously used appliance, you may receive the following error message during the appliance configuration:

  ```
  Cannot recover the existing MSDP partition because the NetBackup
  disk pool and storage unit could not be determined. …
  - [Error] Could not configure the appliance.
  ```

  This error occurs when a preexisting Media Server Deduplication Pool (MSDP) disk pool has a **+** in the disk pool name. If you encounter this issue, you need to change the disk pool name so that it does not include a **+** and manually configure the MSDP partition. Use the `Manage > Storage > Resize` command to configure the partition.

- When you attempt to copy a software update to the share directory, do not initiate any other commands until the copy finishes. If you run a command during the copy process, you may see that the software update is listed and available. However, if you install that software update, it can fail.

- If you receive an email stating "No license exists" during the initial configuration of a media server, you can safely disregard the email. The email is sent during host name configuration. The license key file is renamed when it is modified with the new host name, and the alert mechanism cannot locate the license temporarily. When the configuration completes, the license is set correctly. You

can check the license key on the **Manage > License** page of the NetBackup Appliance Web Console or with the `Main > Manage > License > List` command in the NetBackup Appliance Shell Menu.

- iSCSI supports IPv4 addresses only. iSCSI connections over IPv6 are not supported. In addition, the initiator and the target must be on the same Layer 2 network (L2).

- A VLAN can be configured on either the network interface or the iSCSI interface. If a VLAN is configured on both the network and iSCSI interfaces, the VLAN for the network interface is effective on both the interfaces. Note that when VLAN is configured on both the network and iSCSI interface on different subnets, the configuration is not supported.

Network interface		iSCSI interface		Description
IP	VLAN	IP	VLAN	
Subnet X	None	Subnet X	None	Supported
Subnet X	None	Subnet Y	VLAN A	Supported
Subnet X	VLAN B	Subnet X	VLAN B	Supported
Subnet X	VLAN B	Subnet Y	VLAN B	Not supported

- If you run the `iSCSI> Target Discover Portal` or the `iSCSI> Target Discover iSNS` command again after the targets are connected, it overrides the existing connection settings like target credentials. If the target requires authentication, you need to enter the target credentials again when the existing sessions are reconnected. The existing sessions need to be reconnected if the appliance restarts or when you change the IQN for the appliance or when the iSCSI processes are restarted etc.

- When targets are discovered by using iSNS on two iSCSI interfaces, only the recent record is displayed by the `Target Show All` command. For example if you run the `Target Discover iSNS` command for *iscsi1* and then *iscsi2*, the **Interfaces** column in the `Target Show All` command output may not show both of the interfaces (*iscsi1*, *iscsi2*) for some targets. It actually shows the interface from the most recent command (*iscsi2* in this case) for some targets.

- The `iSCSI> Target Disconnect` command takes more time to complete if workloads are running on the iSCSI interface.
  You may see the following messages appear on the NetBackup Appliance Shell Menu:

```
Message from syslogd@host at Sep 12 10:09:14 ...
iscsid:
Message from syslogd@host at Sep 12 10:13:27 ...
iscsid:
Message from syslogd@host at Sep 12 10:17:53 ...
iscsid:
```

These messages may appear at different times on the NetBackup Appliance
Shell Menu. They may appear when you are running an iSCSI command, in the
middle of a command output, or even when the console is idle. These messages
are harmless and should be ignored.

- When CHAP authentication is enabled on a target device and targets are
  discovered by using iSNS, the `iSCSI > Target Discover` command may not
  prompt for target credentials.

Upgrade and rollback notes

The following list contains the notes and the known issues that relate to upgrades
and rollbacks:

- If you currently use NetBackup Appliance software versions 3.1 or earlier and
  upgrade to version 3.1.1, all iSCSI commands become unavailable after the
  upgrade has completed. This issue occurs with all 3.1.1 upgrades on all
  NetBackup Appliance models. However, established initiator and target
  connections are not affected.
  After the upgrade, you are not able to perform the following tasks:

  - Add new connections.

  - Delete existing connections.

  - Use any commands that display iSCSI status and parameters.

  If you have not yet upgraded to version 3.1.1, you can avoid this issue by
  upgrading to version 3.1.2 which contains the fix.
  If you have already upgraded to version 3.1.1 and want to restore all iSCSI
  command functions, do one of the following:

  - Re-image the appliance with version 3.1.1.

  - Upgrade to version 3.1.2.

- During an upgrade to 3.1, if a canceled replication operation is restarted right
  after the checkpoint is created, the upgrade fails and the system rolls back
  automatically. After rollback, the backup cannot work because the media server
  is no longer active. To resolve this issue, activate the media server manually
  as follows:

- Log on to the NetBackup Administration Console as administrator.

- On the left panel, navigate to **Media and Device Management** > **Devices** > **Media Servers**.

- On the right panel, right-click the media server you need and select **activate** from the shortcut menu.

Note: To prevent this issue, before you upgrade any servers, make sure to stop all backup jobs.

Before you upgrade a master server, pause all jobs and any Storage Lifecycle Policies (SLPs).

Before you upgrade a media server, stop all jobs that are currently running and suspend the jobs that may be scheduled to start during the upgrade. You must prevent jobs from attempting to start on the media server during an upgrade.

VMware notes

The following list contains the notes and the known issues that relate to VMware:

- If you have a NetBackup 5330 Appliance with an attached VMware datastore that is a non-Veritas external NetApp E-series storage device, make sure that the access LUN of the external storage is not exposed to the 5330 appliance. If the access LUN is exposed to the 5330 appliance, some functionality like appliance hardware monitoring and scanning for storage devices does not work properly.
The following diagram shows the type of environment that this issue affects:
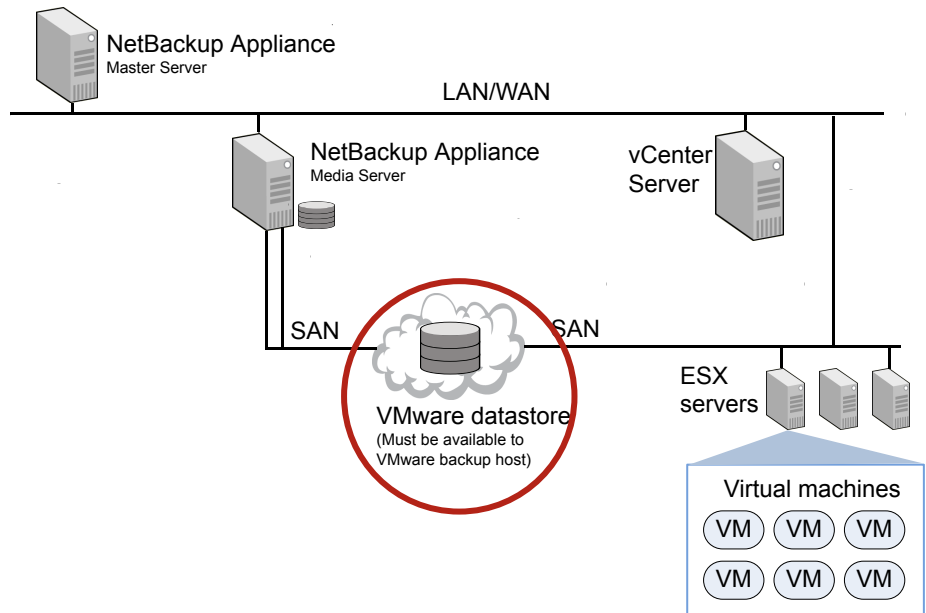
About NetBackup support utilities

The NetBackup appliance provides the following support utilities to help diagnose NetBackup problems:

- NetBackup Domain Network Analyzer (NBDNA)

- NetBackup Support Utility (NBSU)

NetBackup Domain Network Analyzer (NBDNA)

You can run the NBDNA utility on a NetBackup appliance to perform the following tasks:

- Identify the NetBackup domain configuration to resolve network-related issues

- Identify NetBackup performance issues

- Ensure the behavior of the host name lookup is functional

- Ensure that the connectivity between NetBackup hosts and the appliance is established and functional based on their role within the NetBackup domain

- Generate the reports that are meant for Veritas Technical Support.

The NBDNA utility provides the following types of information in its output:

```
Running audit as Media Server.

Collection Version: x.x
   Collection Time: Tuesday, October 7, 2010 at 19:17:11 PM
       NBU Release: NetBackup-RedHat2.6.18 7.7.1
       NBU Version: 7.7.1
 NBU Major Version: 7
 NBU Minor Version: 7
 NBU Release Update: 1
     NBU Patch Type: Release Update
   NBU GlobDB Host: "host name"
    Is GlobDB HOST? No
             UNAME:
          Hostname: sample.name.veritas.com
 Host's  Platform: Linux
 Perl Architecture: Linux


 Initialization completed in 14.040101 seconds.



 Brief Description of What It Does (for type 1):
---------------------------------------------------
1) Perform basic self checks.
2) Check connectivity to Master (and EMM) server.
3) If SSO configured, get list of media servers sharing devices.
4) Get list of all clients which could send data here for backup.
5) Test NBU ports for basic connectivity between media servers
   sharing devices.
6) Test NBU ports for basic connectivity between media server and
   clients it backs up.
7) Perform service level tests for phase 2
8) Capture data for reports; save reports.
9) Save data to report files.
---------------------------------------------------

 Discovering and mapping the NetBackup domain network for analysis
 by extracting data from current system's configuration.
  (To see more details, consider using '-verbose' switch.)


 Probing Completed in 2.867581 seconds.
```

```
Initiating tests...

COMPLETED.   Thank you for your patience.


/log/dna/sample.name.veritas.com.NBDNA.20100907.191711.zip
Archive created successfully!
Return /log/dna/sample.name.veritas.com.NBDNA.20100907.191711.zip
to Veritas Support upon request.
```

NetBackup Support Utility (NBSU)

You can use the NBSU utility to gather appropriate diagnostic information about NetBackup and the operating system.

The NetBackup Support Utility (NBSU) is a Veritas utility used to gather diagnostic information about the system on which the utility is run. By default, NBSU gathers the appropriate diagnostic information based on the operating system and the NetBackup environment.

You can use the Support > NBSU command to create or remove the NetBackup configuration support files that the NBSU utility uses.

For more information, see the *NetBackup Appliance Commands Reference Guide*.

About other support resources

If you need additional assistance with your NetBackup Appliance, contact Veritas Technical Support. Customers with a current support agreement may access Technical Support information at the following URL:

www.veritas.com/support/

Information specific to NetBackup Appliance can be found on the NetBackup Appliance Support page.

About NetBackup appliance log files

Log files help you to identify and resolve any issues that you may encounter with your appliance.

The NetBackup appliance has the ability to capture hardware-, software-, system-, and performance-related data. Log files capture information such as appliance operation, issues such as unconfigured volumes or arrays, temperature or battery issues, and other details.

Table 5-1 describes the methods you can use to access the appliance log files.

Table 5-1   Viewing log files

From	Access methods	Log details
NetBackup Appliance Web Console	You can use the **Monitor > SDCS Audit View** screen from the NetBackup Appliance Web Console to retrieve the audit logs of an appliance.	Appliance audit logs
NetBackup Appliance Shell Menu	You can use the `Main > Support > Logs > Browse` command to open the `LOGROOT/>` prompt. You can use the `ls` and `cd` commands to traverse the appliance log directories.	■ Appliance configuration log ■ Appliance command log ■ Appliance debug log ■ NetBackup logs, Volume Manager logs, and the NetBackup logs that are contained in the `openv` directory ■ Appliance operating system (OS) installation log ■ NetBackup administrative web user interface log and the NetBackup web server log ■ NetBackup 52xx appliance device logs

Table 5-1 Viewing log files *(continued)*

From	Access methods	Log details
NetBackup Appliance Shell Menu	You can use the `Main > Support > Logs > VxLogView Module` *`ModuleName`* command to access the appliance VxUL (unified) logs. You can also use the `Main > Support > Share Open` command and use the desktop to map, share, and copy the VxUL logs.	Appliance unified logs: ■ `All` ■ `CallHome` ■ `Checkpoint` ■ `Commands` ■ `Common` ■ `Config` ■ `CrossHost` ■ `Database` ■ `Hardware` ■ `HWMonitor` ■ `Network` ■ `RAID` ■ `Seeding` ■ `SelfTest` ■ `Storage` ■ `SWUpdate` ■ `Trace` ■ `FTMS` ■ `FTDedup` ■ `TaskService` ■ `AuthService`
NetBackup Appliance Shell Menu	You can use the `Main > Support > DataCollect` command to collect the storage device logs.	Appliance storage device logs
NetBackup-Java applications	If you encounter problems with the NetBackup-Java applications, you can use the scripts in this section to gather the required information for contacting support.	Logs relating to the NetBackup-Java applications

Release content

This appendix includes the following topics:

- About the current release content
- NetBackup Appliance 3.1 general release content
- NetBackup Appliance security release content

About the current release content

This release incorporates fixes to several known issues that existed with the NetBackup Appliance software. This section documents the known issues that have been fixed in this release of NetBackup Appliance.

Note: This chapter contains only the fixes that are exclusive to NetBackup Appliance. The NetBackup Appliance 3.1 release also contains all of the fixes that are included in NetBackup 8.1. For a complete listing of the NetBackup 8.1 fixes, refer to the *NetBackup 8.1 Release Notes* on the Veritas Support website:

When an appliance is released, the latest version of NetBackup is used as a basis on which the appliance code is built. That ensures that all applicable features, enhancements, and fixes that were released within NetBackup are included in the latest release of the appliance.

NetBackup software version 8.1 is included with the NetBackup appliance 3.1 release. Information about the new features, enhancements, and fixes found in NetBackup 8.1 can be found in the *NetBackup 8.1 Release Notes* document on the Veritas Support website:

For the latest NetBackup Appliance compatibility information, refer to the *NetBackup Enterprise Server and Server 7.x Hardware Compatibility List* on the Veritas Support website:

www.netbackup.com/compatibility

NetBackup Appliance 3.1 general release content

This release incorporates fixes to several known issues that existed with the NetBackup Appliance software.

Some of these issues were identified, fixed, and available to customers in the form of an EEB. Those issues include an Etrack number for identification in the following list. Additional EEBs may have been released since this document was posted. For more information on any of the fixed issues in this section, Veritas recommends that you use Veritas Services and Operations Readiness Tools (SORT). To access SORT, go to the following website:

https://sort.veritas.com/netbackup

The following list contains the known issues that were fixed and that are now included in this release of NetBackup Appliance:

■ The `Monitor > SDCS > Audit View EventType <`*`code`*`>` command does not accept the following event type codes, so you cannot audit the related SDCS logs from the NetBackup Appliance Shell Menu. However, you can use the **Monitor > SDCS Events** page from the NetBackup Appliance Web Console to audit those logs.

PBOP   IPS Overflow

PCRE   IPS Create

PDES   IPS Destroy

PFIL   IPS File

PMNT   IPS Mount

PNET   IPS Network

POSC   IPS System Call

PPST   IPS PSET

PREG   IPS Registry

NetBackup Appliance security release content

The following list contains the known security issues that were fixed and that are now included in this release of NetBackup appliance software:

The appliance software has been updated to the RHEL7.3 Kernel. Many packages and libraries have been updated to address the following security vulnerabilities:

- CVE-2010-4478
- CVE-2014-9365
- CVE-2014-9761
- CVE-2015-0261
- CVE-2015-2153
- CVE-2015-2154
- CVE-2015-2155
- CVE-2015-8776
- CVE-2015-8777
- CVE-2015-8778
- CVE-2015-8779
- CVE-2017-5202
- CVE-2016-8610
- CVE-2016-8646
- CVE-2016-9401
- CVE-2016-9555
- CVE-2016-2143
- CVE-2016-2183
- CVE-2016-3115
- CVE-2016-3841
- CVE-2016-5546
- CVE-2016-5547
- CVE-2016-5548
- CVE-2016-5549
- CVE-2016-5552

- CVE-2016-5617
- CVE-2016-6480
- CVE-2016-6664
- CVE-2016-7167
- CVE-2016-7399
- CVE-2016-7444
- CVE-2016-7543
- CVE-2016-7922
- CVE-2016-7923
- CVE-2016-7924
- CVE-2016-7925
- CVE-2016-7926
- CVE-2016-7927
- CVE-2016-7928
- CVE-2016-7929
- CVE-2016-7930
- CVE-2016-7931
- CVE-2016-7932
- CVE-2016-7933
- CVE-2016-7934
- CVE-2016-7935
- CVE-2016-7936
- CVE-2016-7937
- CVE-2016-7938
- CVE-2016-7939
- CVE-2016-7940
- CVE-2016-7973
- CVE-2016-7974
- CVE-2016-7975
- CVE-2016-7983

- CVE-2016-7984
- CVE-2016-7985
- CVE-2016-7986
- CVE-2016-7992
- CVE-2016-7993
- CVE-2016-8328
- CVE-2016-8574
- CVE-2016-8575
- CVE-2016-0634
- CVE-2016-10142
- CVE-2016-10164
- CVE-2016-10200
- CVE-2016-1583
- CVE-2016-2069
- CVE-2016-5483
- CVE-2017-5336
- CVE-2017-3600
- CVE-2017-3143
- CVE-2017-3142
- CVE-2017-3137
- CVE-2017-3136
- CVE 2017-5461
- CVE-2017-0553
- CVE-2017-1000364
- CVE-2017-1000366
- CVE-2017-1000367
- CVE-2017-1000379
- CVE-2017-10053
- CVE-2017-10067
- CVE-2017-10074

- CVE-2017-10078
- CVE-2017-10081
- CVE-2017-10086
- CVE-2017-10087
- CVE-2017-10089
- CVE-2017-10090
- CVE-2017-10096
- CVE-2017-10101
- CVE-2017-10102
- CVE-2017-10104
- CVE-2017-10107
- CVE-2017-10108
- CVE-2017-10109
- CVE-2017-10110
- CVE-2017-10111
- CVE-2017-10114
- CVE-2017-10115
- CVE-2017-10116
- CVE-2017-10117
- CVE-2017-11050118
- CVE-2017-10121
- CVE-2017-10125
- CVE-2017-10135
- CVE-2017-10145
- CVE-2017-10176
- CVE-2017-10193
- CVE-2017-10198
- CVE-2017-10243
- CVE-2017-2583
- CVE-2017-2619

- CVE-2017-2625
- CVE-2017-2626
- CVE-2017-2628
- CVE-2017-2647
- CVE-2017-3231
- CVE-2017-3238
- CVE-2017-3241
- CVE-2017-3243
- CVE-2017-3244
- CVE-2017-3252
- CVE-2017-3253
- CVE-2017-3258
- CVE-2017-3308
- CVE-2017-3259
- CVE-2017-3260
- CVE-2017-3261
- CVE-2017-3262
- CVE-2017-3265
- CVE-2017-3272
- CVE-2017-3289
- CVE-2017-3291
- CVE-2017-3302
- CVE-2017-3309
- CVE-2017-3312
- CVE-2017-3313
- CVE-2017-3317
- CVE-2017-3318
- CVE-2017-3453
- CVE-2017-3456
- CVE-2017-3464

- CVE-2017-3544
- CVE-2017-3731
- CVE-2017-5203
- CVE-2017-5204
- CVE-2017-5205
- CVE-2017-5341
- CVE-2017-5334
- CVE-2017-5335
- CVE-2017-5336
- CVE-2017-5337
- CVE-2017-5342
- CVE-2017-5482
- CVE-2017-5483
- CVE-2017-5484
- CVE-2017-5485
- CVE-2017-5486
- CVE-2017-5638
- CVE-2017-6074
- CVE-2017-6214
- CVE-2017-7308
- CVE-2017-7477
- CVE-2017-7488
- CVE-2017-7494
- CVE-2017-7502
- CVE-2017-7507
- CVE-2017-7645
- CVE-2017-7869
- CVE-2017-7895
- CVE-2017-8779
- CVE-2017-8797

- CVE-2017-8859

- CVE-2017-9287

- CVE-2017-9461

The following vulnerabilities do not affect the appliance:

- CVE-2017-3533

- CVE-2017-3509

- CVE-2017-3539

- CVE-2017-3514

- CVE-2017-3512

- CVE-2017-2628

- CVE-2017-8779

- CVE-2017-8779

- CVE-2017-8779

- CVE-2017-9791

- CVE-2017-7675

- CVE-2017-9805

- CVE-2017-7674

The Tomcat version on the appliance has been updated to v.8.0.43 to address the following security vulnerabilities:

- CVE-2017-5648

- CVE-2017-7675

- CVE-2017-5647

- CVE-2016-8745

- CVE-2016-8735

- CVE-2016-3092

The `libtiff` package version has been updated to `libtiff-3.9.4-21.el6_8` to address the following security vulnerabilities:

- CVE-2015-8870

- CVE-2016-5652

- CVE-2016-9533

- CVE-2016-9534
- CVE-2016-9536
- CVE-2016-9537
- CVE-2016-9540

Related documents

This appendix includes the following topics:

■ About the NetBackup appliance documentation

About the NetBackup appliance documentation

The following documents help to ensure that you can successfully install, configure, and use your appliance. In addition, you can find information about the appliance hardware documents from the following table.

All these documents are posted on the NetBackup Appliance Documentation page.

Table B-1 NetBackup Appliance Software documentation

Guide	Description
NetBackup™ 52xx Initial Appliance Configuration Guide	This document guides you through the 52xx configuration process from the NetBackup Appliance Web Console or from the NetBackup Appliance Shell Menu.
NetBackup™ 53xx Initial Appliance Configuration Guide	This document guides you through the 53xx configuration process from the NetBackup Appliance Web Console or from the NetBackup Appliance Shell Menu.
NetBackup Appliance Upgrade Guide	This document guides you through the required steps to upgrade a NetBackup appliance.
NetBackup™ Appliance Administrator's Guide	The *NetBackup™ Appliance Administrator's Guide* contains the following types of information: ■ Deployment information ■ Administering your appliance ■ Monitoring information

Table B-1   NetBackup Appliance Software documentation *(continued)*

Guide	Description
NetBackup™ Appliance Command Reference Guide	The *NetBackup™ Appliance Command Reference Guide* provides a complete list of the commands that are available for you to use through the NetBackup Appliance Shell Menu.
Appliance Management Guide	This document helps you to use the Veritas Appliance Management Console to centrally manage multiple appliances. The Veritas Appliance Management Console provides enterprise-wide monitoring and management of NetBackup appliances. With 3.1 and later, you can manage software upgrades or install EEBs on multiple appliances.
NetBackup Appliance Release Notes	This document contains information about this version of NetBackup Appliance. It contains brief descriptions of new features within the release, operational notes that apply to the release update, and any known issues.
NetBackup Appliance Troubleshooting Guide	This document provides a general overview of how to troubleshoot NetBackup appliance issues and an explanation of the appliance troubleshooting tools and log files. If you need more specific troubleshooting information about a particular issue, go to the NetBackup Appliance page on the Veritas Support website. You can use the search function to look for articles relating to specific issues.
NetBackup Appliance Capacity Planning and Performance Tuning Guide	This document contains information on how to optimize your backup environment and your NetBackup appliance. It helps you to analyze your backup requirements and design a system that best fits your needs.
NetBackup Appliance Security Guide	This document describes the security features in NetBackup Appliance and how to use those features to ensure that your appliance environment is secure.
NetBackup Appliance Fibre Channel Guide	This document describes the supported Fibre Channel (FC) capabilities and configurations for NetBackup appliances.
NetBackup Appliance iSCSI Guide	This document describes how iSCSI works on the NetBackup appliance.

Table B-1   NetBackup Appliance Software documentation *(continued)*

Guide	Description
NetBackup Appliance Decommissioning and Reconfiguration Guide	This document describes how to decommission and reconfigure a NetBackup appliance.
NetBackup Appliance SNMP Trap Reference Guide	This document provides a complete list of the NetBackup Appliance SNMP traps. It describes what each trap means and the recommended actions for when an error occurs.
NetBackup Copilot for Oracle Configuration Guide	This document outlines how to configure Copilot using NetBackup and the NetBackup Appliance.
NetBackup Appliance Third-party Legal Notices	The *NetBackup Appliance Third-party Legal Notices* document lists the third-party software that is included in this product, and it contains attributions for the third-party software.
	This document is available from the following website:
	https://www.veritas.com/about/legal/license-agreements
NetBackup™ Appliance AutoSupport 2.0 Reference Guide	This document contains the information about the AutoSupport 2.0. It helps you to understand the deployment of the AutoSupport infrastructure, and how does the AutoSupport infrastructure analyzes the Call Home data from each appliances.
NetBackup™ 53xx Appliance High Availability Reference Guide	This document contains the information about the High Availability (HA) solution. It helps you to understand the deployment of the high availability configuration.

Table B-2   NetBackup Appliance Hardware documentation

Guide	Description
NetBackup™ 5230 Appliance and Storage Shelf Product Description	This guide introduces you to the NetBackup 5230 Appliance and Storage Shelves.
NetBackup™ 5240 Appliance Product Description	This guide introduces you to the NetBackup 5240 Appliance and Storage Shelf.
NetBackup™ 5330 Appliance Product Description	This guide introduces you to the NetBackup 5330 Appliance and Storage Shelves.
NetBackup™ 5340 Appliance Product Description	This guide introduces you to the NetBackup 5340 Appliance and the 5U84 Storage Shelves.

Table B-2   NetBackup Appliance Hardware documentation *(continued)*

Guide	Description
NetBackup™ Appliance Safety and Maintenance Guide	This document provides safety maintenance information for the following hardware: ■ NetBackup 52xx appliances ■ NetBackup 53xx appliances ■ Veritas 3U16 24TB/36TB Storage Shelves ■ Veritas 2U12 49TB Storage Shelf ■ Veritas 5U84 Storage Shelves