

Symantec NetBackup™ Appliance Release Notes

Release 2.6.0.3

NetBackup 52xx



Symantec NetBackup™ Appliance Release Notes

Documentation version: 2.6.0.3

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- Version and patch level
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North America and Latin America	supportsolutions@symantec.com

About Symantec Operations Readiness Tools

Symantec Operations Readiness Tools (SORT) is a robust set of standalone and web-based tools that support Symantec enterprise products. For NetBackup, SORT provides the ability to collect, analyze, and report on host configurations across UNIX/Linux or Windows environments. This data is invaluable when you want to assess if your systems are ready for an initial NetBackup installation or for an upgrade.

Access SORT from the following webpage:

<https://sort.symantec.com/netbackup>

Once you get to the SORT page, more information is available as follows:

- **Installation and Upgrade Checklist**
Use this tool to create a checklist to see if your system is ready for a NetBackup installation or an upgrade. This report contains all the software and the hardware compatibility information specific to the information provided. The report also includes product installation or upgrade instructions, as well as links to other references.
- **Hot fix and EEB Release Auditor**
Use this tool to find out whether a release that you plan to install contains the hot fixes that you need.
- **Custom Reports**
Use this tool to get recommendations for your system and Symantec enterprise products.
- **NetBackup Future Platform and Feature Plans**
Use this tool to get information about what items Symantec intends to replace with newer and improved functionality. The tool also provides insight about what items Symantec intends to discontinue without replacement. Some of these items include certain NetBackup features, functionality, 3rd-party product integration, Symantec product integration, applications, databases, and the OS platforms.

Help for the SORT tools is available. Click **Help** in the upper right corner of the SORT home page. You have the option to:

- Page through the contents of the help similar to a book
- Look for topics in the index
- Search the help with the search option

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NetBackup Appliance 2.6.0.3 features, enhancements, and changes

This chapter includes the following topics:

- [NetBackup 52xx hardware features](#)
- [About NetBackup Appliance 2.6.0.3 new features, enhancements, and changes](#)
- [NetBackup Appliance 2.6.0.3 new features, enhancements, and changes](#)

NetBackup 52xx hardware features

This release supports the 52xx hardware architectures for the appliance. These architectures run the same software so you can configure them in any of the following modes:

- An appliance master server
- An appliance master and media server
- An appliance media server only

All appliance architectures support the following features and functionalities:

- Dual processor, Quad Core, 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.
- The Intel X520 SR2 10 Gb Ethernet card is either standard on the systems or an option.
- Each uses NetBackup as their code base.
- Linux operating system (provided by Symantec).
- Each can run the latest version of NetBackup Appliance software.
- Each supports Media Server Deduplication Pool (MSDP) storage on master and media servers. MSDP offers up to the maximum available storage capacity on a 52xx appliance.

The NetBackup 5220 Appliance contains eight internal storage disk drives with a total formatted storage capacity of 4 TB.

The NetBackup 5230 Appliance contains eight internal storage disk drives that are available in 1-TB and 3-TB storage capacities. The 1-TB disks provide a total formatted storage capacity of 4 TB. The 3-TB disks provide a total formatted storage capacity of 14 TB.

The NetBackup 5220 and 5230 can be used with attached Symantec Storage Shelves for additional storage. A storage shelf can support either 2-TB or 3-TB disk drives, but all drives within a shelf must be the same capacity.

[Table 1-1](#) shows the available, formatted storage capacity of the NetBackup 5220 Appliance, with or without attached storage shelves.

Table 1-1 NetBackup 5220 storage capacity options

Appliance storage drives (TB)	Appliance available storage capacity (TB)	Storage shelf drives (TB)	Storage shelf available storage capacity (TB)	Appliance and one storage shelf available storage capacity (TB)	Appliance and two storage shelves available storage capacity (TB)	Appliance and three storage shelves available storage capacity (TB)	Appliance and four storage shelves available storage capacity (TB)
1	4.55	2	24	28.55	52.55	*	*
1	4.55	3	36	40.55	76.55	112.55	148.55

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

[Table 1-2](#) shows the available, formatted storage capacity of the NetBackup 5230 Appliance, with or without attached storage shelves.

Table 1-2 NetBackup 5230 storage capacity options

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

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

[Table 1-3](#) shows the software version level that is required to achieve your desired storage capacity.

Table 1-3 NetBackup Appliance software dependencies for maximum storage

NetBackup Appliance software version	Maximum number of attached storage shelves	Maximum storage capacity (with attached storage shelves)	Maximum MSDP storage capacity
2.5 - 2.5.4	2	76 TB	64 TB
2.6.0.1	2	86 TB (with a 14-TB 5230 appliance)	86 TB*
2.6.0.2 and later	4	158 TB	158 TB*

* For best performance, the MSDP partition should not be split between the appliance and the expansion storage. Symantec recommends that your MSDP partition reside on expansion storage to optimize performance.

NetBackup 5230 hardware features

The following list includes features specifically for the 5230 appliance:

- The deduplication engine provides up to 100 times reduction in storage. The client-side plug-in provides similar levels of bandwidth reduction.

- Due to fingerprinting and RAID redundancy, the overall storage capabilities are not a simple multiplication of the disk size and the total number of disks. A NetBackup 5230 Appliance provides 4 TB (with 1-TB drives) or 14 TB (with 3-TB drives) of storage without added storage shelves. The 5230 appliance ships with zero, one, or two Symantec Storage Shelves. You can add up to an additional two storage shelves. Each storage shelf has a capacity of 24 TB (with 2-TB disks) or 36 TB (with 3-TB disks). The maximum capacity of a 5230 appliance with four attached storage shelves is 158 TB. [Table 1-2](#) shows all available storage configurations of the NetBackup 5230 Appliance, with or without attached storage shelves.
- Supports redundant power modules and fan modules. The 5230 also supports hot swappable disk modules and power modules.
- The system disk drives are external to the chassis. They can be hot-swapped without opening the chassis or shutting down the system. This feature is an improvement over the NetBackup 5220.
- Provides separate out-of-band management network interfaces. You can remotely turn on, turn off, and reset appliances through the network. Supports remotely configuring and managing the appliances through KVM over IP. Supports SNMP traps and automatically reports alarms. Supports reporting the disk information through the out-of-band management channel.
- RAID 1 and RAID 6:
 - Appliance system disks: RAID 1 (software RAID)
 - Storage shelf data storage disks: RAID 6
- The NetBackup 5230 Appliance can be ordered with one, four, or five FC HBA cards already installed. You can order a SAS RAID card to be preinstalled if you plan to use one or more storage shelves. A 10 Gb Ethernet card can also be ordered and preinstalled.
- Rear panel ports:
 - Two SAS ports that are located on a card in one of the PCI riser assemblies. The SAS ports connect to the storage shelf.
 - One 1-Gb/s IPMI management network port.
 - One VGA port.
 - Three USB 2.0 ports.
 - Four 1GE network ports, with link and activity LEDs.

- Two 10GE network ports, with link and activity LEDs.
- Only one SAS card and one 10 Gb Ethernet can be installed in the six PCI slots. The other slots can be used for additional Fibre Channel connections.

Table 1-4 outlines the differences between the NetBackup 5220 and 5230 Appliances.

Table 1-4 Comparison of NetBackup 5220 and NetBackup 5230 Appliances

Parameter	NetBackup 5220	NetBackup 5230
Cores	4	6
Cache (MB)	12	15
RAID Cache	512 MB	1 GB
Speed (GHz)	2.4	2.0
Turbo Speed (GHz)	2.66	2.5
QPI Speed (GT/s)	5.86	7.2
System memory (GB)	96	128
Memory Config (DIMMs)	8GB x 12	8GB x 16
Thermal (Watts)	80	95
Data Retention	One Li-ion battery backup unit	Two maintenance-free backup units (MFBU) with Flash and Supercapacitor
PCI add-in card slots	5	6
On-board 10 Gb Ethernet ports	0	2
Additional 10 Gb Ethernet cards in PCI assembly	Yes	Yes
Additional 1 Gb Ethernet cards in PCI assembly	Yes	No

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

About NetBackup Appliance 2.6.0.3 new features, enhancements, and changes

In addition to a number of new features, this release offers many 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.

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 52xx Appliance software. Many of these issues pertain to the customer-specific issues that have been documented in the form of Salesforce.com (SFDC) 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 52xx Appliance software. The engineering binaries and bundles that are included in this release are listed in the *Release content* appendix of this document.

NetBackup 7.6.0.3 is the version of NetBackup software that the NetBackup Appliance 2.6.0.3 release installs. Information about the new features, enhancements, and fixes found in NetBackup 7.6.0.3 can be found in the *NetBackup 7.6.0.3 Release Notes* document on the Symantec Support website:

<http://www.symantec.com/docs/DOC7221>

NetBackup Appliance 2.6.0.3 new features, enhancements, and changes

The following list describes the new features, enhancements, and changes in the NetBackup 52xx Appliance 2.6.0.3 release:

- For NetBackup Appliance 2.6.0.3 the security implementation has been improved with the addition of the following features:
 - You can now configure the Active Directory server to register users and user groups with the appliance. The feature is currently available only from the NetBackup Appliance Shell Menu, using the `Settings > Security > Authentication > Active Directory` command.

- You can grant the NetBackup CLI user role to users and user groups to grant them the permissions to run all the NetBackup commands through the NetBackup Appliance Shell Menu.
- You can set a policy banner, to be displayed after a user logs in to the NetBackup Appliance Shell Menu through SSH. The `Settings > Security > PolicyBanner` command has been added to set a new policy banner.
- NetBackup appliances and storage shelves currently ship with two AC power cords. To improve the power distribution within a rack environment, Symantec has started to transition to two Power Distribution Unit (PDU) compatible cords (C13-C14) instead of the AC power cords with these devices. The transition to the new cords is gradual. Until the transition is complete, you may receive the AC power cords or the PDU compatible cords with the purchase of a new appliance or storage shelf
- Several usability enhancements have been implemented in the NetBackup Appliance Web Console. The enhancements help to make the web console more consistent and user-friendly. Some of the enhancements include consistent layouts, adding page titles and descriptions, and making the web console elements more clickable.
- You can reset the IPMI from the NetBackup Appliance Web Console and the NetBackup Appliance Shell Menu. The IPMI must be reset only if the IPMI interface hangs or stops responding.
 You can reset the IPMI from the **Manage > Host > IPMI** tab in the NetBackup Appliance Web Console. You can also reset the IPMI from NetBackup Appliance Shell Menu by using the `Support > IPMI Reset` command.
- Starting with NetBackup appliance version 2.6.0.3, you can configure VLANs in your existing network environment. Significant enhancements are introduced in the NetBackup Appliance Web Console and the NetBackup Appliance Shell Menu to manage and support VLANs for appliances.
 The **Network** tab of the **Settings > Network** page is enhanced to allow VLAN configuration with new and modified options. These options facilitate easier navigation and better user experience. Some of the prominent enhancements are:
 - Distinct sections to manage network properties and network configuration.
 - Separate tabs to view and manage interface properties and routing properties.
 - Provision to edit or to delete the interfaces that are listed in the interface properties table.
 - Separate taskbars to perform important network operations like creating a bond, tagging a VLAN, and adding static route information.

- In the NetBackup Appliance Shell Menu, key enhancements are introduced for the commands under the `Network` view to provide efficient management of your network with VLAN implementation.

Some of the prominent enhancements are:

- New `Network > VLAN` command that provides options to manage VLAN specific operations.
- New `Create` and `Delete` command options under the `Network > LinkAggregation` command let you create a bond with or without assigning an IP address to it and to delete the bond respectively.
- Provision to configure VLAN interfaces using the `IPv4` and the `IPv6` commands.
- Provision to unconfigure VLAN interfaces using the `Unconfigure` command.
- The new **vCenter Credentials** menu that is listed under the **Manage** tab allows you to download vCenter credentials for your client from the NetBackup Appliance Web Console. The vCenter client credentials are required to authorize the NetBackup plug-in for vCenter to restore virtual machines.
- The functionality of the `Support > RestartService` command is enhanced to accommodate stopping a specified service. The enhanced functions are now available under the updated command named `Support > Service`, which provides two command options - `Restart` and `Stop`.

NetBackup Appliance compatibility

This chapter includes the following topics:

- [About software release types](#)
- [NetBackup Appliance release compatibility](#)
- [About NetBackup Appliance software upgrades](#)
- [About NetBackup Appliance third-party legal notices](#)

About software release types

Symantec 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. 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, 2.6. 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, 2.6.1. 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, 2.6.0.2. 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.

Note: NetBackup Appliance version 2.6.1 is used in this topic as an example. This version of NetBackup Appliance does not exist at the time of this document's publication.

NetBackup Appliance release compatibility

NetBackup appliances enable customers to quickly add an appliance as a media server or client in an existing NetBackup environment.

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.

For information about NetBackup compatibility with the NetBackup appliances, see the following tech note on the Symantec Support website:

<http://www.symantec.com/docs/TECH136970>

Symantec NetBackup has always maintained that the master server within an environment must be at a version level that is equal to or greater than the version levels of the media servers and clients within that environment. Symantec recommends that you keep your entire NetBackup environment up-to-date with the latest maintenance (triple-dot) releases. However, NetBackup offers the flexibility of an environment where the clients and the media servers are running a different triple-dot release than the master server. For example, you can upgrade a media server or client to version 2.6.0.2 (7.6.0.2) in an environment where the master server is running version 2.6.0.1 (7.6.0.1).

Since the NetBackup catalog resides on the master server, the master server is considered to be the client for a catalog backup. If your NetBackup configuration includes a media server, it must use the same NetBackup version as the master server to perform a catalog backup. See the *NetBackup Installation Guide* for information about mixed version support.

See “[About software release types](#)” on page 17.

Table 2-1 shows the various compatibility schemes that are supported with the current NetBackup Appliance 2.6 product line. The numbers in parentheses reflect the base NetBackup version level that is applied to that particular version of NetBackup Appliance software.

Table 2-1 NetBackup Appliance 2.6.0.3 release compatibility

NetBackup appliance master server version	NetBackup appliance media server version	NetBackup client version
2.6.0.x (7.6.0.x)	2.6.0.x (7.6.0.x)	7.1, 7.1.0.x, 7.5, 7.5.0.x, 7.6, 7.6.0.x
2.6.0.x (7.6.0.x)	2.5.x (7.5.0.x)	7.1, 7.1.0.x, 7.5, 7.5.0.x
2.6.0.x (7.6.0.x)	2.5 (7.5.0.2)	7.1, 7.1.0.x, 7.5, 7.5.0.x
2.6.0.x (7.6.0.x)	2.0.x (7.1.0.x)	7.1, 7.1.0.x

All NetBackup 52xx appliances can be upgraded to NetBackup Appliance version 2.6.0.3.

Note: If an appliance server is currently at a version earlier than 2.5, you cannot upgrade directly to NetBackup Appliance 2.6.0.3. You must first upgrade to version 2.5, and then upgrade to the 2.6 product line.

About NetBackup Appliance software upgrades

When a software update release is available, Symantec 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 2.5, you cannot upgrade directly to NetBackup Appliance 2.6.0.3. You must first upgrade to version 2.5, and then upgrade to the 2.6 product line.

Symantec 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. Symantec recommends that you suspend all backup and restore operations before starting the upgrade.

- Before you begin a software update, Symantec recommends that you take certain precautions to avoid loss of connectivity. The computer that you use to configure the device 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 fails.
- 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 Symantec 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. Symantec 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.
- During an upgrade from NetBackup Appliance 2.5.x to this version of the appliance software, the Media Server Deduplication Pool (MSDP) requires 13% free space to complete the conversion. If you do not have the necessary amount of free space, the upgrade fails.
- An upgrade from 2.5.x to the 2.6 product line takes approximately three hours to complete but can extend beyond that timeframe, depending on the environment. During that time, the appliance can restart several times. This behavior is normal.
- Once the upgrade has started, you must let it run until it has completed.

Note: Symantec 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.

About NetBackup Appliance third-party legal notices

NetBackup Appliance products may contain third-party software for which Symantec is required to provide attribution. Some of the third-party programs are available under open source or free software licenses. The license agreement accompanying

the software does not alter any rights or obligations you may have under those open source or free software licenses.

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

<http://www.symantec.com/about/profile/policies/eulas/>

Operational notes

This chapter includes the following topics:

- [About operational notes for NetBackup Appliance 2.6.0.3](#)
- [General NetBackup Appliance notes](#)
- [NetBackup Appliance user interface notes](#)
- [Installation and configuration notes](#)
- [Upgrade and rollback notes](#)
- [VMware notes](#)
- [Internationalization and localization notes](#)
- [About NetBackup support utilities](#)
- [About working with log files](#)

About operational notes for NetBackup Appliance 2.6.0.3

This chapter contains the topics that explain important aspects of NetBackup Appliance 2.6.0.3 operations that may not be documented elsewhere in the documentation set. This document is posted on the Symantec Support website and may be updated after the GA release of NetBackup Appliance 2.6.0.3. Therefore, Symantec recommends that you refer to the following link to view the latest release information:

<http://www.symantec.com/docs/DOC7458>

Because NetBackup Appliance 2.6.0.3 installs NetBackup 7.6.0.3 software, the operational notes that apply to NetBackup 7.6.0.3 also apply to NetBackup Appliance

2.6.0.3. For more information on the operational notes for NetBackup, refer to the *Symantec NetBackup 7.6.0.3 Release Notes* on the Symantec Support website:

<http://www.symantec.com/docs/DOC7221>

General NetBackup Appliance notes

The following list contains the notes and the known issues that relate to the general workings of the NetBackup 52xx appliances:

- 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 RAID-controller-adapter learn cycle, you should receive two email alerts: one alert when the RAID policy changes from `WriteBack` mode to `WriteThrough` mode, and one alert when the RAID policy changes from `WriteThrough` mode back to `WriteBack` mode. However, in this release, if the BBU is in a failed state, only one email is sent. The second alert is not sent because the policy does not change back to `WriteBack` mode when the cycle is complete.
- If your appliance's Battery Backup Unit (BBU) is in a relearn state, an email alert should be sent to indicate the BBU status. In this release, however, the email alert is not sent.

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:

- The appliance interface cannot be accessed from an IPv6 address.
- During the rollback process after an unsuccessful software update, the NetBackup Appliance Web Console may temporarily display the following status: "The appliance is 2.6.0.3 and not in upgrade state." In addition, the progress bar shows 100% completion. Please note that this behavior does not mean that the upgrade completed successfully.
The appliance restarts shortly after, but no status update or prompt displays on the web console. Wait for the restart to complete, and you can reconnect to the appliance. More information is available if you run the `UpgradeStatus` command in the NetBackup Appliance Shell Menu during the upgrade.
- The NetBackup Appliance Web Console views OpenLDAP and Active Directory user names as case sensitive, although the NetBackup Appliance Shell Menu does not.

- The `Main > Settings > Security > Authentication > LDAP > Certificate set path name` command in the NetBackup Appliance Shell Menu does not allow any certificate path names that contain dashes. Path names with dashes are allowed in the NetBackup Appliance Web Console.
- Multiple email addresses cannot be added for a point of contact from the **Settings > Notification > Registration** page of the NetBackup Appliance Web Console. However, you can add multiple email addresses for the point of contact from the NetBackup Appliance Shell Menu. To add multiple email addresses from the shell menu, run the `Settings > Alerts > CallHome Registration Email` command and enter multiple email addresses separated using a semicolon.
- For this release, the `Main > Monitor > NetBackup Jobs Failed` command in the NetBackup Appliance Shell Menu does not display information on some failed jobs. You can use the `Main > Monitor > NetBackup Jobs All` command to check for failed jobs by looking at the status column for each job.
- 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 Symantec 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 is 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.

Installation and configuration notes

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

- A client-side deduplication operation may fail with a status error 83.
When you configure your appliance, if DNS is used, you must make sure that the network names of all appliances and the master server are DNS-resolvable (fully qualified host name (FQHN) and short name). If DNS is not used, you must make sure that you enter the proper host entries for the appliance that you configure.
If you configure your appliance without DNS set and the `/etc/hosts` file does not contain an IP address that resolves to the FQHN mappings, you may receive a status error 83. If the value configured in the `required_interface` variable for the appliance media server is a short name and not a fully qualified host name, the client may not resolve correctly.
To work around this issue, ensure that the DNS and the `/etc/hosts` file exist, and both have the host names that are resolvable.

For more information about this error condition, see the following tech note on the Symantec Support website:

<http://www.symantec.com/docs/TECH179320>

- 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.
To avoid this situation, do not run any other commands until the copy process completes.
- 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.

Upgrade and rollback notes

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

- If an appliance server is currently at a version earlier than 2.5, you cannot upgrade directly to NetBackup Appliance 2.6.0.3. You must first upgrade to version 2.5, and then upgrade to the 2.6 product line.
- If the current version of your appliance is 2.5 and you want to upgrade to this version of the appliance software, you must use the NetBackup Appliance Shell Menu to install the software update. You can use the NetBackup Appliance Web Console to download a software update. However, you cannot use the web console to install the upgrade. You must use the shell menu to install a software update.
- During an upgrade from NetBackup Appliance 2.5.x to this version of the appliance software, the Media Server Deduplication Pool (MSDP) requires 13% free space to complete the conversion. If you do not have the necessary amount of free space, the upgrade fails.
- For this release of NetBackup Appliance, the ability to perform a remote upgrade from a master server appliance to a media server appliance is not supported. To upgrade media server appliances to this version of the appliance software, log in to each media server appliance as "admin" and follow the upgrade procedure.

- After an upgrade from 2.5.x completes successfully or is rolled back successfully, the system drive rebuild begins automatically. This process typically takes around three or four hours but can take longer depending on the system load. Do not attempt to remove any drives during this time.
If the rebuild process takes significantly longer than expected based on your system load, you may have a bad drive. Contact Symantec Technical Support for assistance.
- If you upgrade an unconfigured 2.5.x appliance to this version of NetBackup Appliance, the upgrade performs a reimage of the appliance rather than an upgrade. During a reimage of an unconfigured appliance, all configuration settings, such as host name and IP addresses are lost, and the storage is reset.
- When you upgrade an unconfigured appliance from 2.5.x to this version of NetBackup Appliance, the appliance has a factory-install checkpoint. Configured appliances that have been upgraded from 2.5.x only have a post-upgrade checkpoint.

VMware notes

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

- Concurrent VM restores may fail if you use the appliance as the restore host on a SAN. If you use the SAN transport mode to restore multiple VMs at the same time, the job status log may contain messages similar to the following:

```
4/19/2012 1:16:14 PM - Error bptm(pid=30649) cannot write
data to socket, Connection reset by peer
4/19/2012 1:16:14 PM - Info bptm(pid=30648) EXITING with status 24
```

Symantec has opened a VMware support request on this issue: 12172237605.

- Try the following:
 - On the **Virtual Machines Options** dialog, for the format of the restored virtual disks, select **Thin Provisioning** and retry the restore.
- If that fails, select **NBD** as the transport mode on the **Recovery Options** dialog and try the restore again.
- In this release of NetBackup Appliance, VM Instant Recovery requires a Windows-based VMware recovery host. This host is necessary to identify the objects that are needed to initiate Instant Recovery. The recovery host is not used for any data movement. Any Windows-based system with NetBackup client (physical or virtual) installed in the environment may be used if it has network connectivity to vCenter.

While the VMware recovery host (NetBackup client) must be on Windows, the VMware backup host that made the backup can be on Windows, Linux, or NetBackup Appliance. If the backup host was Linux, you must use the `-vmproxy` option on the `nbrestorevm` command to specify a Windows-based VMware recovery host. For more information, refer to the *Symantec NetBackup for VMware Administrator's Guide*.

Internationalization and localization notes

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

- The NetBackup Appliance Shell Menu user interface cannot input or modify multi-byte characters, and they are not localized to any language for this release.
- Non-English characters are not shown on the NetBackup Appliance Shell Menu user interface after you finish appliance configuration.
This issue occurs when you use the NetBackup Appliance Web Console during the initial configuration of a NetBackup appliance. When you input non-English characters to register your appliance on the **Registration** page, the non-English characters cannot be shown on the shell menu interface.
- If you install the NetBackup-Java Administration Console on a non-English Windows system to administrate the NetBackup server inside a NetBackup appliance, the console can hang when you attempt to log in to the NetBackup server. To avoid this issue, use the following workaround:
 - Modify the `install_path\Java\setconf.bat` file on the Windows system where the NetBackup-Java Administration Console is installed and set the `NBJAVA_FILE_ENCODING` parameter with the proper encoding. Use the same encoding as you previously set on the appliance system with the `SystemLocale` command.
To determine the coding name, refer to the **Canonical Name for java.nio API and java.lang API** column in the *Supported Encodings* document on the following website:
[Oracle Supported Encodings Documentation](#)
For example, if you set a UTF-8 locale like `zh_CN.utf8` or `ja_JP.utf8` on your appliance system, the canonical name for java.nio API and java.lang API is UTF8.
Uncomment the `SET NBJAVA_FILE_ENCODING` parameter in the `install_path\Java\setconf.bat` file, and specify UTF8 (in this example) as follows:

```
REM SET NBJAVA_FILE_ENCODING=
```

becomes:

```
SET NBJAVA_FILD_ENCODING=UTF8
```

For more information on the `SystemLocale` command, see the *Symantec NetBackup Appliance Command Reference Guide* or the "About the NetBackup Appliance Web Console login page" section in the *Symantec NetBackup Appliance Administrator's Guide*.

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 primary or secondary appliance to perform the following tasks:

- Identifying the NetBackup domain configuration to resolve network-related issues
- Identifying the NetBackup performance issues
- Ensuring the behavior with regards to the host name lookup is functional
- Ensuring that the connectivity between NetBackup hosts and the appliance is established and functional based on their role within the NetBackup domain
- Generating the reports that are meant for Symantec 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-SuSE2.6.16 7.0.1.5
      NBU Version: 7.0.1.5
        NBU Major Version: 7.0
          NBU Minor Version: 1
            NBU Patch Type: GA
              NBU GlobDB Host: "host name"
                Is GlobDB HOST? No
                  UNAME:
                    Hostname: sample.name.symantec.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 4.695464 seconds.

Initiating tests...

COMPLETED. Thank you for your patience.

/log/dna/sample.name.symantec.com.NBDNA.20100907.191711.zip
Archive created successfully!
Return /log/dna/sample.name.symantec.com.NBDNA.20100907.191711.zip
to Symantec 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 *Symantec NetBackup Troubleshooting Guide* describes when you would use this utility, as well as how to run it.

About other support resources

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

www.symantec.com/business/support/

Information specific to NetBackup Appliance can be found at:

go.symantec.com/nba

About working with log files

As you define and troubleshoot a problem, always try to capture potentially valuable information. NetBackup Appliance has the ability to capture hardware-, software-, system-, and performance-related data. These log files capture information such as how the appliance has been running, whether there are any issues such as unconfigured volumes or arrays, temperature issues, batteries not being found, etc. These log files are stored in specific directories and can be accessed using the following methods:

[Table 3-1](#) lists the methods you can use to access the various appliance logs.

Table 3-1 Viewing log files

From...	Using...	Logs collected..
NetBackup Appliance Web Console	You can use the Collect Log files wizard from the NetBackup Appliance Web Console to collect log files from an appliance.	<ul style="list-style-type: none"> ■ Logs created by the NetBackup Copy Logs tool (<code>nbcplogs</code>) ■ Appliance logs including high availability, hardware, and event logs ■ Operating system logs ■ All logs related to Media Server Deduplication Pool (MSDP) ■ All logs related to the NetBackup Appliance Web Console ■ Diagnostic information about NetBackup and the operating system ■ Hardware and storage device logs

Table 3-1 Viewing log files (*continued*)

From...	Using...	Logs collected..
NetBackup Appliance Web Console	You can use the Monitor > SCSP Audit View screen from the NetBackup Appliance Web Console to retrieve the audit logs of an appliance.	NetBackup appliance's audit logs
NetBackup Appliance Shell Menu	You can use the <code>Main > Support > Logs > Browse</code> commands to open the <code>LOGROOT/></code> prompt. You can use commands like <code>ls</code> and <code>cd</code> to work with the appliance log directories and obtain the various logs.	<ul style="list-style-type: none">■ NetBackup appliance configuration log■ NetBackup logs, Volume Manager logs, and the NetBackup logs that are contained in the <code>openv</code> directory■ NetBackup appliance operating system (OS) installation log■ NetBackup administrative web user interface log and the NetBackup web server log■ NetBackup 52xx appliance device logs

Table 3-1 Viewing log files (*continued*)

From...	Using...	Logs collected..
NetBackup Appliance Shell Menu	You can use the <code>Main > Support > Logs > VxLogView Module <i>ModuleName</i></code> commands to access the NetBackup Appliance VxUL (unified) logs. You can also use the <code>Main > Support > Share Open</code> commands and use the desktop to map, share, and copy the VxUL logs.	NetBackup Appliance unified logs: <ul style="list-style-type: none"> ■ All ■ CallHome ■ Checkpoint ■ Commands ■ Common ■ Config ■ CrossHost ■ Database ■ Hardware ■ HWMonitor ■ Network ■ RAID ■ Seeding ■ SelfTest ■ Storage ■ SWUpdate ■ Trace
NetBackup Appliance Shell Menu	You can use the <code>Main > Support > DataCollect</code> commands to collect storage device logs.	NetBackup 5xxx 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](#)
- [About release content conventions](#)
- [NetBackup Appliance 2.6.0.3 release content](#)
- [NetBackup Appliance 2.6.0.3 Emergency Engineering Binary \(EEB\) listing](#)
- [Other known fixes in NetBackup Appliance 2.6.0.3](#)

About the current release content

This release incorporates fixes to several known issues that existed with the NetBackup Appliance software. This section contains a list of Etracks that 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 2.6.0.3 release also contains all of the fixes that are included in NetBackup 7.6.0.3. For a complete listing of the NetBackup 7.6.0.3 Etracks, refer to the *NetBackup 7.6.0.3 Release Notes* on the Symantec Support website:

<http://www.symantec.com/docs/DOC7221>

This NetBackup Appliance 2.6.0.3 release is an upgrade to the NetBackup Appliance 2.6.0.2 release. Refer to the release notes documents on the Symantec Support website to see all of the fixes and enhancements in previous releases:

<http://www.symantec.com/docs/DOC2792>

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 7.6.0.3 is the version of NetBackup software that the NetBackup Appliance 2.6.0.3 release installs. Information about the new features, enhancements, and fixes found in NetBackup 7.6.0.3 can be found in the *NetBackup 7.6.0.3 Release Notes* document on the Symantec Support website:

<http://www.symantec.com/docs/DOC7221>

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

<http://www.symantec.com/docs/TECH59978>

About release content conventions

The following list describes the conventions used in the subsections that follow this section. Each item listed in the release content subsection describes a feature, enhancement, or fixed issue contained in this release:

- **Etrack Incident**
Notes the Etrack number that targets this release.
- *Associated Primary Etrack*
An additional Etrack number that exists in the incident hierarchy.
- *Associated Service Request Etrack*
The Etrack that is associated with the customer support service request.
- *Description*
Describes a particular issue that has been fixed in this release, as well as additional notes or workarounds. Workarounds can be used instead of applying the patch; however, Symantec recommends the "best practice" of being at the latest available patch level.
- ***Description or **Etrack number*
Describes a critical issue or an issue that can lead to a potential data loss that has been fixed in this release. Please read these issue descriptions carefully. In some cases, a Tech Alert link is provided.

About current release content Etracks

For more information on the Etracks that are listed in this section, or any other service request Etrack, Symantec recommends that you use Symantec Operations Readiness Tools (SORT). To access SORT, go to the following website:

<http://sort.symantec.com/netbackup>

NetBackup Appliance 2.6.0.3 release content

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

Etrack Incident: 3501434

- Associated Primary Etrack: N/A
- Associated Service Request Etrack(s): N/A
- Description:
If the appliance database contained any invalid NTP server entries, the user was unable to perform NTP server operations like `NTPServer Show`, `NTPServer Add`, and `NTPServer Delete`. In 2.6.0.3, if the `NTPServer Show` command finds an invalid NTP server entry, you can delete it with the `NTPServer Delete` command. Once the invalid entry has been deleted, you can perform all operations as expected.

Etrack Incident: 3523005

- Associated Primary Etrack: 3518421
- Associated Service Request Etrack(s): 3518192
- Description:
After an upgrade from NetBackup Appliance 2.6.0.1 to 2.6.0.2, Call Home sent an email to the user every 15 minutes with the following error message: `Can't exec "dmidecode": No such file or directory.`

NetBackup Appliance 2.6.0.3 Emergency Engineering Binary (EEB) listing

The following table contains the known issues that were identified, fixed, and available to customers in the form of an EEB. NetBackup Appliance 2.6.0.3 resolves the issues that were addressed in each of these EEBs. Additional EEBs may have been released since this document was posted. For more information on the Etracks that are listed in this section, or any other service request Etrack, Symantec

recommends that you use Symantec Operations Readiness Tools (SORT). To access SORT, go to the following website:

<https://sort.symantec.com/netbackup>

Alternatively, if you do not see an EEB that you expected to see in this document, or you require additional information about an issue in this table, contact Symantec Support.

Note: The following table includes only the EEBs that are associated with NetBackup Appliance. For a complete listing of the NetBackup EEBs that were resolved for this release, refer to the *NetBackup 7.6.0.3 Release Notes* on the Symantec Support website:

<http://www.symantec.com/docs/DOC7221>

Table A-1 NetBackup Appliance 2.6.0.3 EEB Listing

Etrack Number	EEB Description
3387622	The NetBackup Appliance Shell Menu Share Close command does not stop the SMB service. SMB continues to listen on the TCP 445 port, which is a security concern.
3402093	When a large amount of data needs to be compacted, the disk may become 100% full during a backup job due to a miscalculation of available space.
3450726	Replications appear to hang in the QUEUED state as reported by the get job status in the pdplugin.log.
3512671	The user receives an email alert that "No license exists" when only permanent license keys exist on the system.

Other known fixes in NetBackup Appliance 2.6.0.3

The following list contains additional known issues that were fixed and that are now included in this release of NetBackup Appliance, including issues that were previously listed in the Operational Notes chapter of this document:

- If you upgraded from NetBackup Appliance 2.6.0.1 to 2.6.0.2, you were not able to manage IPMI users through the NetBackup Appliance Shell Menu.
- If an authorized user attempted to log in to the NetBackup Appliance Web Console, the login page became blank if the user's permissions were not set properly.
- During hardware monitoring, a false temperature alert was sent out.

- The **Deduplication** output of the `Main > Manage > Storage > Show` command on the NetBackup Appliance Shell Menu did not take into account the 4% of storage that is used internally. The output thus showed more storage than was available.
- The OpenSSL CVE-2014-0224 vulnerability is addressed in this release.

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. All these documents are posted on the Symantec Support web site at the following URL:

<http://www.symantec.com/docs/DOC2792>

Table B-1 NetBackup Appliance documentation

Guide	Description
<i>Symantec NetBackup™ Appliance Hardware Installation and Initial Configuration Guide</i>	<p>This guide provides the following information:</p> <ul style="list-style-type: none">■ An introduction to the physical layout of the appliance hardware.■ Install preparation steps, such as unpacking procedures, environmental conditions, and safety precautions.■ Hardware configuration steps This section guides you through the required steps to install your appliance in a rack and connect your appliance cables.■ Software configuration steps This section guides you through the configuration process from the NetBackup Appliance Web Console or from the NetBackup Appliance Shell Menu.

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

Guide	Description
<i>Symantec NetBackup™ Appliance Administrator's Guide</i>	The <i>Symantec NetBackup™ Appliance Administrator's Guide</i> contains the following types of information: <ul style="list-style-type: none"> ■ Deployment information ■ Administering your appliance ■ Monitoring information
<i>Symantec NetBackup™ Appliance Command Reference Guide</i>	The <i>Symantec NetBackup™ Appliance Command Reference Guide</i> provides a complete list of the commands that are available for you to use through the NetBackup Appliance Shell Menu.
<i>Symantec NetBackup Appliance Release Notes</i>	This document contains information about NetBackup appliance, version 2.6.0.3. It contains brief descriptions of new features within the release, operational notes that apply to the release update, and any known issues.
<i>Symantec NetBackup Appliance Troubleshooting Guide</i>	This document contains the latest troubleshooting information for the NetBackup appliances.
<i>Symantec NetBackup Appliance Capacity Planning and Performance Tuning Guide</i>	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.
<i>Symantec NetBackup Appliance Security Guide</i>	This document describes the security features in NetBackup Appliance and how to use those features to ensure that your appliance environment is secure.
<i>Symantec NetBackup Appliance Third-party Legal Notices</i>	The <i>Symantec NetBackup Appliance Third-party Legal Notices</i> 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: http://www.symantec.com/about/profile/policies/eulas/

For additional information about the appliance hardware, refer to the following documents:

- *Symantec NetBackup 5220 Appliance and Symantec Storage Shelf Product Description*
- *Symantec NetBackup 5230 Appliance and Symantec Storage Shelf Product Description*