

NetBackup™ Appliance Upgrade Guide

Software Releases through 2.6.1.2

Models 52xx and 5330

**SUSE Linux Enterprise Server
(SLES) Operating System**



NetBackup™ Appliance Upgrade Guide

Documentation version: Software Releases through 2.6.1.2

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- Available memory, disk space, and NIC information

- Operating system
- Version and patch level
- Network topology
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- Problem description:
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Japan

CustomerCare_Japan@veritas.com

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Introduction to the guide

This chapter includes the following topics:

- [About the NetBackup Appliance Upgrade Guide](#)
- [Supported upgrade paths for NetBackup appliance version 2.6.1.2](#)

About the NetBackup Appliance Upgrade Guide

This guide provides information to upgrade a NetBackup appliance using the NetBackup Appliance Web Console and the NetBackup Appliance Shell Menu. It also provides information to troubleshoot the issues that are related to the overall upgrade process.

This guide helps you to complete the following tasks:

- Analyze your upgrade requirements.
- Understand and adhere to general guidelines and best practices.
- Perform steps to complete the upgrade process.
- In the event of an upgrade failure, locate the relevant information to identify the core problem by referencing the relevant logs.
- Resolve the issues that you may encounter by implementing the best troubleshooting practices.

Why you should upgrade your NetBackup appliance software

The following describes important reasons to keep your appliance software up-to-date:

- Software upgrades provide improvements and new features. These improvements help to provide better performance, efficiency, and productivity.

- Software upgrades address and correct some of the issues that were encountered in previous software versions.
- A software upgrade may contain an architecturally advanced version of the software. This advanced architecture may be in the form of new features and improvements that provide better performance.
- Software upgrades contain important security updates that address and help to eliminate vulnerabilities.
- A software upgrade ensures that your system is optimized to maximize its effectiveness.
- The support staff for your appliance, who is more familiar with current features and issues, is better able to support you in a timely manner.

Supported upgrade paths for NetBackup appliance version 2.6.1.2

The following describes the supported upgrade paths:

- Upgrade directly from version 2.5.x to 2.6.1.2

Note: If an appliance server is currently at a version earlier than 2.5, you cannot upgrade directly to appliance version 2.6.1.2. You must first upgrade to version 2.5, and then upgrade to the 2.6 software line.

- Upgrade directly from version 2.6.0.x to 2.6.1.2
- Upgrade directly from versions 2.6.1 or 2.6.1.1 to 2.6.1.2

For more information about new features and enhancements in the 2.6.1.2 release, refer to the *Symantec NetBackup™ Appliance Release Notes*.

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Software requirements for appliance upgrades”](#) on page 15.

Planning the upgrade process

This chapter includes the following topics:

- [General guidelines and best practices for appliance upgrades](#)
- [Hardware requirements for appliance upgrades](#)
- [Software requirements for appliance upgrades](#)
- [Notes and known issues](#)

General guidelines and best practices for appliance upgrades

To facilitate upgrading the NetBackup appliance software, it is recommended that you follow certain guidelines to perform a software upgrade.

Upgrade preparation

- Identify a period of downtime for your appliance to upgrade the software. The upgrade process provides an estimated time that is required to complete the process. You can choose to proceed or reschedule it for a different time that works better for you.
- Symantec strongly recommends that you do the following:
 - Always perform a full disaster recovery (DR) backup prior to making any changes to your environment.
 - Always make sure that your environment is running the latest version and patch level.

- Perform periodic restore tests.
- Subscribe to technical articles to keep up with the latest product issues and updates.
- Follow the same order as traditional NetBackup upgrades, for the appliance upgrades. Begin by updating the master server, followed by the media server appliances.
- If a traditional NetBackup master server is used with a media server appliance, that master server must have either the same or a later version of NetBackup as the media server appliance. For example, before you upgrade a media server appliance with NetBackup Appliance version 2.6.1.x or 2.6.0.x, first upgrade the master server to NetBackup version 7.6.1.x or 7.6.0.x respectively.
- Ensure that the NetBackup master server is active and running throughout the duration of the appliance media server upgrade. In addition, ensure that the NetBackup processes are started on both the master server and the media server.
- Make sure that you pause all jobs and any SLPs (Storage Lifecycle Policies) before you upgrade the master server. For media server upgrades, stop all jobs that are currently running and suspend the jobs that may be started during the upgrade. You must prevent jobs from attempting to start on the media server during an upgrade.
- If the upgrade process fails and rolls back, you must verify that the rollback process has completed by using the `Main_Menu > Manage > Software > UpgradeStatus` command. Later, you must restart the appliance before you attempt to initiate the upgrade process again.

Before you initiate a software upgrade process

- If you plan to upgrade more than one media server, you must perform the upgrade procedure on each media server.
- Web services may be unavailable for a few minutes or throughout the entire upgrade process. How long the Web services are unavailable depends on the type of the software update you download. Therefore, you cannot use the NetBackup Appliance Web Console until the Web service is restored. While the Web services are unavailable and before you can open the NetBackup Appliance Web Console again, you can run the following command to view the upgrade process:

```
Main > Manage > Software > UpgradeStatus
```

Note: This command is available only for upgrades from version 2.6.0.1 and later and cannot be used for upgrades from 2.5.x.

- The system may restart several times during the upgrade process. While the system restarts, the NetBackup Appliance Web Console and any SSH-based connection to the server is unavailable until the restart process has completed. You can use the Symantec Remote Management interface (or IPMI) to view the system restart status. In addition, you may view the logs under `/log` or wait for the appliance to send an email upon completion of the upgrade process.

Note: The upgrade process from 2.5.x may take some more time to upgrade and it might not restart the appliance until it is complete.

- When you upgrade a NetBackup appliance, the Fibre Transport Media Server (FTMS) is restarted automatically. As a result, the Fibre Channel (FC) ports must be rescanned to allow any SAN Client computers to reconnect to the Fibre Transport (FT) devices. The upgrade procedures include the details on how to rescan the FC ports.
- When you perform an appliance upgrade for the 2.5.x release series, you must take precautions to avoid loss of connectivity, especially up to the first restart that marks the upgrade process completion. After the first restart, it is safe to disconnect and this disconnection does not affect the software upgrade. Any loss of connectivity during an upgrade results in failure. The computer that you use to upgrade the appliance should be set up to avoid the following events:
 - Conditions that cause the computer to go to sleep
 - Conditions that cause the computer to shut down or to lose power
 - Conditions that cause the computer to lose its network connection

Note: If the upgrade fails, the upgrade process attempts to roll back all software to the previously installed version. The error is logged in the appliance logs, and the administrator is notified. You can consult the `/log` directory for detailed error information.

- Before you perform an appliance upgrade from certain 2.6.0.x versions to version 2.6.1 or later, you must first verify whether the required Engineering Emergency Binary (EEB) is installed. The required EEB helps to prevent a possible upgrade or rollback failure. For more information, refer to the following topic:
 See [“Notes and known issues”](#) on page 17.

The upgrade mechanism takes the following measures to ensure that the upgrade process completes successfully:

- Determines if the available update is newer than the version of software that is currently installed.
- Determines if there is enough available space on the appliance to install the release update.
- Stops the current processes being run on the appliance.
- Checks if there are any active NetBackup jobs. The upgrade process only proceeds if it is determined that no active jobs are detected.

Only after the required criteria are met, the appliance software is upgraded, and the version number is updated to the appropriate release.

See [“Software requirements for appliance upgrades”](#) on page 15.

See [“Hardware requirements for appliance upgrades”](#) on page 14.

Hardware requirements for appliance upgrades

This topic describes the hardware requirements that might affect the software upgrade process. The hardware upgrade requirements are more disk space centric for the 2.5.x to 2.6. line upgrade processes.

Before you proceed with the software upgrade, review the following hardware requirements:

- Make sure that you have enough space in the `/inst` directory to download the upgrade package and unpack it. For example, this space can be around 3GB each, so a total of 6GB is needed.
- The software upgrade requires a certain amount of unallocated disk space. For upgrades from version 2.5.x to the 2.6. line, the unallocated disk space depends on the following:
 - For the MSDP conversion, there must be a minimum of 13% free space on the MSDP partition.
 - Twice the size of `/usr/openv` in addition to 35GB.

For upgrades from version 2.6.0.x to the 2.6.1.x line, the unallocated disk space depends on the following:

- For the MSDP catalog partition, there must be a minimum of 13% free space on the MSDP partition.
- Master appliances require 20% free space in the Catalog volume (`catvol`).

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Software requirements for appliance upgrades”](#) on page 15.

Software requirements for appliance upgrades

This topic provides information on software requirements for the upgrade process. [Table 2-1](#) provides a list of pre-checks that the appliance conducts before it installs the software. The pre-checks ensure that your set-up meets the necessary criteria for a successful software upgrade.

Table 2-1 Software installation pre-checks

| Pre-check item | Checks whether... | Type of appliance server- Master or Media | Software release version |
|--|--|---|--------------------------|
| System clock | The system clock has a newer date than the patch build date. | Master and Media | 2.5.x/2.6 line |
| Patch version | The existing software version meets the minimum patch version for the software upgrade. | Master and Media | 2.5.x/2.6 line |
| Master version | The version of the master server is earlier than the target version. | Media | 2.5.x/2.6 line |
| User account | The user accounts with UIDs matching 1007, 1111, or 0 are not in use. | Master and Media | 2.5.x |
| Free space for media server catalog partition | 10% free space is available in the NetBackup catalog partition for the media server. | Master and Media | 2.5.x |
| Free space for master server catalog partition | 20% free space is available in the NetBackup catalog partition (/cat). | Master | 2.5.x/2.6 line |
| Catalog migration | Catalog needs to be migrated. | Master | 2.5.x/2.6 line |
| Free space for MSDP upgrade | 13% free space is available in the Deduplication partition for the MSDP upgrade. | Master and Media | 2.5.x/2.6 line |
| MSDP upgrade time | To proceed with upgrade considering the estimated time for the MSDP upgrade. | Master and Media | 2.5.x |
| File system and disk groups | Storage disks can unmount for the file system upgrade. | Master and Media | 2.5.x |
| USB storage | USB storage devices are attached to the appliance during the upgrade. Note: USB storage devices cannot be attached to the appliance during an upgrade. | Master and Media | 2.5.x |
| Call Home service | Call Home service is shut down and not running. | Master and Media | 2.5.x |

Table 2-1 Software installation pre-checks (*continued*)

| Pre-check item | Checks whether... | Type of appliance server- Master or Media | Software release version |
|---------------------------------------|---|---|--------------------------|
| Status of RAID1 OS | RAID1 OS disk is not in a degraded state. | Master and Media | 2.5.x |
| Unallocated space for upgrade | Unallocated space for the upgrade meets the required amount. For example, it might be about 40 GB to 60 GB depending on the OS size. | Master and Media | 2.5.x |
| Requirements for partition resize | Unallocated space is sufficient for the upgrade to proceed. If the space is not sufficient, the upgrade prompts to borrow this space by resizing another storage partition. | Master and Media | 2.5.x |
| Domain name | Domain name has been set for the appliance. | Master and Media | 2.5.x |
| Appliance serial number | Serial number has been set for the appliance. | Master and Media | 2.5.x |
| Network interfaces bonding | All bonded network interfaces are valid. | Master and Media | 2.5.x |
| NetBackup Appliance Web Console usage | The upgrade is run using the NetBackup Appliance Web Console. If it is run through the console, the appliance prompts you to disconnect from the console. | Master and Media | 2.5.x |
| NetBackup status | NetBackup shuts down before the upgrade process starts. | Master and Media | 2.5.x |
| Checkpoint space allocation | Sufficient space is allocated for checkpoint creation. | Master and Media | 2.6 line |
| Space checks | Sufficient free space is available. For example, 10% in <code>/log</code> , twice the patch size in <code>/inst</code> , and lastly 10% in the boot drive. | Master and Media | 2.6.0.1 |
| Factory checkpoint size | Factory checkpoint size is correct for 2.6.0.1 factory appliances. If any issues exist, the upgrade process repairs them. | Master and Media | 2.6.0.1 only |
| Active NetBackup jobs | Any NetBackup jobs are running on the appliance that is currently in the upgrade process. | Media | 2.6 line |

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Hardware requirements for appliance upgrades”](#) on page 14.

Notes and known issues

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

- Certain Engineering Emergency Binaries (EEBs), when installed on a NetBackup appliance running certain 2.6.0.x versions, may cause issues when attempting to upgrade those appliances to 2.6.1 or later. If these EEBs are installed on the appliance, or if other EEBs are not installed, the upgrade and the rollback can fail. The affected appliance software versions and their associated EEBs are as follows:
 - Version 2.6.0.2 with EEB `SYMC_NBAPP_ET3570768-2.6.0.2-1.x86_64.rpm` installed.
Before you upgrade these appliances to version 2.6.1 or later, you must remove this EEB and install the updated EEB `SYMC_NBAPP_ET3570768-2.6.0.2-2.x86_64.rpm`.
 - Version 2.6.0.3 with EEB `SYMC_NBAPP_ET3570768-2.6.0.2-1.x86_64.rpm` installed.
Before you upgrade these appliances to version 2.6.1 or later, you must remove this EEB and install the updated EEB `SYMC_NBAPP_EEB_ET3592475-2.6.0.3-2.x86_64.rpm`.
 - Version 2.6.0.4.
Before you upgrade these appliances to version 2.6.1 or later, you must install EEB `SYMC_NBAPP_EEB_ET3647512-2.6.0.4-1.x86_64.rpm`.
- For complete details about removing and installing the described EEBs, see the following Tech Note:
https://support.symantec.com/en_US/article.TECH229240.html
- The appliance login banner is not retained after you upgrade the appliance to software version 2.6.1.2. 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:.`
 - If you use the NetBackup Appliance Web Console to roll back to a checkpoint, some operations may not roll back correctly. To avoid this issue, use the NetBackup Appliance Shell Menu to roll back to a checkpoint.
 - If an appliance server is currently at a version earlier than 2.5, you cannot upgrade directly to the 2.6 product line. 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 the latest available version, 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 the latest available version, 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 2.6.x software versions, 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 about 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 the latest available version, the upgrade performs a re-image of the appliance rather than an upgrade. During a re-image 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 the latest available version, the appliance has a factory-install checkpoint. Configured appliances that have been upgraded from 2.5.x only have a post-upgrade checkpoint.

Installing the software update

This chapter includes the following topics:

- [Methods for downloading appliance software release updates](#)
- [Installing an appliance software update using the NetBackup Appliance Web Console](#)
- [Installing an appliance software update using the NetBackup Appliance Shell Menu](#)
- [Appliance post-upgrade checks](#)

Methods for downloading appliance software release updates

NetBackup appliance software release updates are available from the Symantec support website. Appliance software and client packages can be downloaded through the NetBackup Appliance Web Console or the NetBackup Appliance Shell Menu. Updates must first be downloaded onto the appliance before you can initiate an upgrade.

The following describes the methods you can use to download appliance software release updates:

- See [“Downloading software updates to a NetBackup appliance using the NetBackup Appliance Web Console”](#) on page 20.
- See [“Downloading software updates directly to a NetBackup appliance”](#) on page 20.

- See [“Downloading software updates to a NetBackup appliance using a client share”](#) on page 22.

Downloading software updates to a NetBackup appliance using the NetBackup Appliance Web Console

Use the following procedure to download a software release update to an appliance using the NetBackup Appliance Web Console.

To download a software release update onto the appliance using the NetBackup Appliance Web Console

- 1 Open a web browser and log on to the appliance through the NetBackup Appliance Web Console.
- 2 Select **Manage > Software Updates**.
- 3 On the **Software Updates** page, in the **Downloaded Software Updates** table, check to make sure that the software update has not already been downloaded.
 - If the table contains the software update that you want to install, proceed to software installation as follows.
 - See [“Installing an appliance software update using the NetBackup Appliance Web Console”](#) on page 25.
 - See [“Installing an appliance software update using the NetBackup Appliance Shell Menu”](#) on page 29.
 - If the table does not contain a software update that you want to install, proceed to the next step.
- 4 In the **Online Software Updates** table on the page, select a software update and click **Download**.

The **Download Progress** column shows the download status. After the download has completed successfully, the software update appears in the **Available Software Updates** column of the **Downloaded Software Updates** table.

Proceed to software installation as described in the previous step.

Downloading software updates directly to a NetBackup appliance

When downloading software updates directly onto an appliance, Internet access is required.

To use this method, the appliance requires Internet access to download the files or packages from the Symantec Support website.

To download software release updates directly onto the appliance

- 1 Open an SSH session and log on to the appliance as an administrator using the NetBackup Appliance Shell Menu.
- 2 To determine if a software update is available from the Symantec Support website, enter the following command:

```
Main_Menu > Manage > Software > List AvailablePatch
```

- 3 To download an available software update or a client package, enter the appropriate command as follows:

- For appliance server updates:

```
Main_Menu > Manage > Software > Download
```

```
SYMC_NBAPP_update-<version>-<release>.x86_64.rpm
```

Where *<version>* is the version of software release and *<release>* is the software version release number.

- For a UNIX client package:

```
Main_Menu > Manage > Software > Download
```

```
SYMC_NBAPP_addon_nbclient_<platformname>-<version>-<release>.x86_64.rpm
```

Where *<platformname>* is the client platform or operating system name, *<version>* is the version of the client package, and *<release>* is the software version release number.

For example:

```
Main_Menu > Manage > Software > Download
```

```
SYMC_NBAPP_addon_nbclient_Solaris-7.6.0.2-SLES11.x86_64.rpm
```

- For a Windows client package:

```
Main_Menu > Manage > Software > Download
```

```
SYMC_NBAPP_addon_nbwin_<platformname>-<version>-<release>.x86_64.rpm
```

Where *<platformname>* is the client platform or operating system name, *<version>* is the version of the client package, and *<release>* is the software version release number.

For example:

```
Main_Menu > Manage > Software > Download
```

```
SYMC_NBAPP_addon_nbwin-7.6.0.2-SLES11.x86_64.rpm
```

- 4 To verify that the rpm has downloaded successfully, enter the following command:

```
Main_Menu > Manage > List Downloaded
```

See [“Downloading software updates to a NetBackup appliance using the NetBackup Appliance Web Console”](#) on page 20.

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

Downloading software updates to a NetBackup appliance using a client share

Use this procedure to download the software release updates or client packages to an appliance using a CIFS or an NFS client share.

Note: If downloading the software updates directly the appliance fails, use this method to download the appliance software release update or client package onto the appliance.

Perform this method from a computer that is connected to the appliance and that also has Internet access. Internet access is needed to download the files or packages from the Symantec Support website to the appliance.

To download software release updates or client packages to the appliance using a CIFS or an NFS client share:

- 1 Open an SSH session and log on to the appliance as an administrator using the NetBackup Appliance Shell Menu.

- 2 To open an NFS or a CIFS share, enter the following command:

```
Main_Menu > Manage > Software > Share Open
```

- 3 Map or mount the appliance share directory as follows:

Windows systems

Map the following appliance CIFS share on your computer:

Note: On Windows systems, you are prompted to provide the user name (`admin`) and its corresponding password.

UNIX systems

Mount the following appliance NFS share:

- `mkdir -p /mount/<appliance-name>`
- `mount <appliance-name>:/inst/patch/incoming /mount/<appliance-name>`

- 4 To download release updates, enter the following URL for the Symantec Support site where the release updates and the client packages are posted:

<http://www.symantec.com/business/support/index?page=landing&key=58991>

- 5 Download and unzip or untar the release update or the client package as follows:

- For release updates

The release update .rpm file name may be split into multiple files with names. The following example demonstrates a software update file that is split into three files:

```
NB_Appliance_N_<version>-<release>.x86_64-tar-split.1of3
NB_Appliance_N_<version>-<release>.x86_64-tar-split.2of3
NB_Appliance_N_<version>-<release>.x86_64-tar-split.3of3
```

Where *<version>* is the version of software release and *<release>* is the software version release number.

To continue with release update downloading, go to step 6.

- For client packages

Client packages are not split and use the following naming convention:

```
SYMC_NBAPP_addon_nbwin_<version>.x86_64.rpm OR
SYMC_NBAPP_addon_nbclient_<platform and version>.x86_64.rpm
```

Where *<platform and version>* is the specific platform operating system and the NetBackup version of the client package. For example:

```
SYMC_NBAPP_addon_nbclient_HP-UX-IA64-7.6.0.2-SLES11.x86_64.rpm
```

To continue with client package downloading, go to step 8.

6 Use one of the following commands to join (and extract) the release update.rpm files:

- For Windows, use a `copy /b` command similar to the following to join three split files:

```
copy /b NB_Appliance_N_<version>-<release>.x86_64-tar-split.1of3+
NB_Appliance_N_<version>-<release>.x86_64-tar-split.2of3+
NB_Appliance_N_<version>-<release>.x86_64-tar-split.3of3+
NB_Appliance_N_<version>-<release>.tar
```

Note: This command is one string. Make sure that it contains no spaces when you enter it. In addition, *<version>* is the version of software release and *<release>* is the software version release number.

Use Windows WinRAR utilities to uncompress the resulting .tar file, NB_Appliance_N_<version>-<release>.tar.

The resulting files are as follows:

```
SYMC_NBAPP_update-<version>-<release>.x86_64.rpm
update.rpm.md5_checksum
```

- For UNIX, use a `cat` or similar command to join three split files as follows:

```
cat NB_Appliance_N_<version>-<release>.x86_64-tar-split.1of3<space>
  NB_Appliance_N_<version>-<release>.x86_64-tar-split.2of3<space>
  NB_Appliance_N_<version>-<release>.x86_64-tar-split.3of3 | tar xvf -
```

Where `<version>` is the version of software release and `<release>` is the software version release number.

Note: This command is one string. In this example, there is one space between each package that is identified with a "`<space>`".

The resulting files from the preceding command are as follows:

```
SYMC_NBAPP_update-<version>-<release>.x86_64.rpm
update.rpm.md5_checksum
```

Note: To extract packages on UNIX systems, Symantec recommends that you use GNU tar version 1.16 or higher instead of tar. See the following Technote for more information about extracting images:

<http://www.symantec.com/docs/TECH154080>

7 Compute the md5 checksum value for the

`SYMC_NBAPP_update-<version>-<release>.x86_64.rpm` as follows:

- For Windows systems:
To compute the md5 checksum, click on the following link for details:
<http://support.microsoft.com/kb/889768>
- For UNIX systems, run the following command:

```
md5sum SYMC_NBAPP_update-<version>-<release>.x86_64.rpm
```

Verify that the checksum value matches the content of the `update.rpm.md5_checksum` file.

8 Copy this release update or client package `.rpm` to the mounted share.

Note: During the copy process, do not run any commands on the appliance. Doing so can cause the copy operation to fail.

9 After you have successfully copied the release update or client package `.rpm` into the mounted share, unmap or unmount the shared directory.

- 10 On the appliance, enter the following command to close the NFS and the CIFS shares:

```
Main_Menu > Manage > Software > Share Close
```

If you run any of the following commands before you close the share, the downloaded release update or client package is moved from the share directory location to its proper location. However, you must still run the `Share Close` command to ensure that the NFS and the CIFS shares are closed.

Note: The release update or the client package cannot be verified and moved unless the Symantec Critical System Protection (SCSP) scanning is complete.

- `List Version`
- `List Details All`
- `List Details Base`
- `Share Open`
- `Share Close`

- 11 To list the available release updates or client packages on the appliance, enter the following command and note the name of the downloaded files:

```
Main_Menu > Manage > Software > List Downloaded
```

Running this command validates and moves the release update or the client package from the share directory to its proper location. You are not notified that this move has occurred.

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Downloading software updates to a NetBackup appliance using the NetBackup Appliance Web Console”](#) on page 20.

See [“Installing an appliance software update using the NetBackup Appliance Web Console”](#) on page 25.

Installing an appliance software update using the NetBackup Appliance Web Console

After you have reviewed the upgrade guidelines and downloaded the appropriate software release update, use the following procedure to install the software update.

To install a downloaded appliance release update using the NetBackup Appliance Web Console

- 1 Open a web browser and log on to the appliance using the NetBackup Appliance Web Console.
- 2 Log on to the NetBackup Administration Console as the administrator and stop all backup processes as follows:
 - Before you upgrade a master server, pause all jobs and any SLPs (Storage Lifecycle Policies).
 - 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.
- 3 Select **Manage > Software Updates**.
- 4 From the **Software Updates** page, locate the appropriate software update in the **Downloaded Software Updates** table.
 - If the table contains the software update that you want to install, proceed to Step 5.
 - If the table does not contain a software update that you want to install, refer to the following topics:
 - See [“Downloading software updates to a NetBackup appliance using the NetBackup Appliance Web Console”](#) on page 20.
 - See [“Downloading software updates directly to a NetBackup appliance”](#) on page 20.
 - See [“Downloading software updates to a NetBackup appliance using a client share”](#) on page 22.
- 5 Select the check box that is associated with the software update that you want to install and click **Install**.

The following events occur after you click **Install**:

- The **Software Updates** page refreshes and presents a table that displays the server (master or media) that is to be upgraded. The table also shows the name and version of the software update.

Note: If you plan to upgrade more than one media server, you must run this upgrade procedure on each media server.

- An interactive, preinstallation check window appears.

You must provide answers to the preinstallation questions. Then select **Finish** to close the preinstallation check window.

- 6 On the **Downloaded Software Updates** table, click **Next**.
- 7 The **Confirm** pop-up window displays the server (master or media) that you are about to upgrade.

If this information is correct, click **Next**. If the information is not correct, click **Cancel**.

- 8 Clicking **Next** opens a **Confirmation Required** pop-up window. An administrator must enter a user name and a password as a final step before the software installation or the upgrade begins. After you enter these credentials, click **Confirm**. If you want to stop or exit the installation, click **Cancel**.

The **Software Updates** page refreshes and updates the information that is displayed in **Downloaded Software Updates** table. This table displays the percentage of progress and the status of the software installation.

Note: The Web service may not be available during the upgrade process. For more information, refer to the following topic: See [the section called “Before you initiate a software upgrade process”](#) on page 12.

- 9 After the status of the server reaches 100%, the information in the title line of the table indicates whether the upgrade was successful. The following status can occur depending on whether the upgrade was successful or not:
 - **The appliance version is <the target version> and not in upgrade state.** If the target (or new) version appears, the upgrade was successful. Click **Finish** to complete the process.
 - **The appliance version is <the original version> and not in upgrade state.** If the original (or pre-upgrade) version appears, the upgrade has failed, and an automatic rollback has taken place. The rollback returns the server back to the original version.
 - **Failed to create the PRE_UPGRADE checkpoint, please resolve this issue first**

A checkpoint creation process is performed automatically before the upgrade operation begins. This checkpoint is used to enable the server to roll back to it, if the upgrade fails. If the failure message appears, it indicates that the creation of the checkpoint failed, and the upgrade operations were not performed. You must determine what caused the issue and resolve it before you can attempt the upgrade again.

- **Self-Test failed on <nodename >, please resolve the issue first.** The self-test operation is executed automatically before the upgrade operation begins. If the self-test operation fails, the upgrade process does not continue. If this issue occurs, you must attempt to resolve it before you continue.
- 10 Complete this step only if your backup environment includes SAN client computers.

The Fibre Channel (FC) ports must be rescanned to allow any SAN client computers to reconnect to the Fibre Transport (FT) devices. The rescan must be done from the NetBackup CLI view on the appliance.

To rescan the FC ports:

- Enter the following command to see a list of NetBackup user accounts:

```
Manage > NetBackupCLI > List
```
- Log in to this appliance as one of the listed NetBackup users.
- Run the following command to rescan the FC ports:

```
nbftconfig -rescanallclients
```
- If any SAN clients still do not work, run the following commands on each of those clients in the order as shown:
 On UNIX clients:

```
/usr/opensv/netbackup/bin/bp.kill_all
```

```
/usr/opensv/netbackup/bin/bp.start_all
```

 On Windows clients:

```
<install_path>\NetBackup\bin\bpdown
```

```
<install_path>\NetBackup\bin\bpup
```
- If any SAN clients still do not work, you must manually initiate a SCSI device refresh at the OS level. The method to accomplish the refresh action depends on the operating system that the client is running. Once the refresh has completed, attempt the `nbftconfig -rescanallclients` command again.
- If any SAN clients still do not work, restart those clients.

Note: If you have any SLES 10 or SLES 11 SAN clients that still do not work, Symantec recommends that you upgrade the QLogic driver on those clients. For the affected SLES 10 clients, upgrade to version 8.04.00.06.10.3-K. For the affected SLES 11 clients, upgrade to version 8.04.00.06.11.1.

For additional information on working with the software release updates through the NetBackup Appliance Web Console, refer to the *Symantec NetBackup Appliance Administrator's Guide*

See [“Methods for downloading appliance software release updates”](#) on page 19.

See [“Installing an appliance software update using the NetBackup Appliance Shell Menu”](#) on page 29.

Installing an appliance software update using the NetBackup Appliance Shell Menu

After you have downloaded a software update to the appliance, it can be installed from the NetBackup Appliance Shell Menu using this procedure. If you perform an upgrade from the NetBackup Appliance Shell Menu, the NetBackup Appliance Web Console is still available for use during the upgrade operation.

[Table 3-1](#) displays the command options from the `Software > List` commands that let you view, verify, and check the details of the available software release updates.

Table 3-1 Manage > Software > List command options

| Command name | Description |
|---|---|
| <code>Main_Menu > Manage > Software > List AddOns</code> | Lists the software add-ons that are installed on the appliance. |
| <code>Main_Menu > Manage > Software > List AvailablePatch</code> | Checks the Symantec site for any software updates that are available. |
| <code>Main_Menu > Manage > Software > List Details All</code> | Lists all the software release updates that were applied to your appliance during the factory installation. |
| <code>Main_Menu > Manage > Software > List Details Base</code> | Lists all the software release updates that were applied to your appliance during the factory installation. |
| <code>Main_Menu > Manage > Software > List Downloaded</code> | Lists the detailed information of a downloaded software update. |
| <code>Main_Menu > Manage > Software > List EEBS</code> | Shows a detailed listing of all of the factory-installed Emergency Engineering Binaries (EEBs). |

Table 3-1 Manage > Software > List command options (*continued*)

| Command name | Description |
|---|--|
| Main_Menu > Manage > Software > List Version | Displays the software version that is currently installed on your appliance. |

To install a downloaded appliance release update using the NetBackup Appliance Shell Menu

- 1 Open an SSH session and log on to the appliance using the NetBackup Appliance Shell Menu.
- 2 Log on to the NetBackup Administration Console as the administrator and stop all backup processes as follows:
 - Before you upgrade a master server, pause all jobs and any SLPs (Storage Lifecycle Policies).
 - 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.

- 3 To install the software release update, run the following command:

```
Main_Menu > Manage > Software > Install patch_name
```

Where *patch_name* is the name of the release update to install. Make sure that this patch name is the one that you want to install.

- 4 Watch the onscreen progress of the upgrade to see an estimated completion time. To see the current status of the upgrade, enter the following command:

```
Main_Menu > Manage > Software > UpgradeStatus
```

Note: This command is available only for upgrades from version 2.6.0.1 and later and cannot be used for upgrades from 2.5.x.

- 5 The upgrade may force the appliance to restart several times. After the upgrade has completed and the disk pools are back online, the appliance runs a self-diagnostic test. Refer to the following file for the test results:

```
/log/selftest_report_<appliance_serial>_<timedate>.txt
```

If SMTP is configured, an email notification that contains the self-test result is sent.

- 6 Complete this step only if your backup environment includes SAN client computers.

The Fibre Channel (FC) ports must be rescanned to allow any SAN client computers to reconnect to the Fibre Transport (FT) devices. The rescan must be done from the NetBackup CLI view on the appliance.

To rescan the FC ports:

- Enter the following command to see a list of NetBackup user accounts:

```
Manage > NetBackupCLI > List
```

- Log in to this appliance as one of the listed NetBackup users.

- Run the following command to rescan the FC ports:

```
nbftconfig -rescanallclients
```

- If any SAN clients still do not work, run the following commands on each of those clients in the order as shown:

On UNIX clients:

```
/usr/opensv/netbackup/bin/bp.kill_all
```

```
/usr/opensv/netbackup/bin/bp.start_all
```

On Windows clients:

```
<install_path>\NetBackup\bin\bpdown
```

```
<install_path>\NetBackup\bin\bpup
```

- If any SAN clients still do not work, manually initiate a SCSI device refresh at the OS level. The refresh method depends on the operating system of the client. Once the refresh has completed, attempt the `nbftconfig -rescanallclients` command again.
- If any SAN clients still do not work, restart those clients.

Note: If you have SLES 10 or SLES 11 SAN clients that still do not work, Symantec recommends upgrading the QLogic driver on those clients. For the affected SLES 10 clients, upgrade to version 8.04.00.06.10.3-K. For the affected SLES 11 clients, upgrade to version 8.04.00.06.11.1.

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Installing an appliance software update using the NetBackup Appliance Web Console”](#) on page 25.

See [“Methods for downloading appliance software release updates”](#) on page 19.

Appliance post-upgrade checks

After the upgrade has completed, check and verify the following items:

- Check and verify MSDP-related updates. *[What should customers look for here?]*
- To verify the status or the completion of the software upgrade, run the `Manage > Software> UpgradeStatus` command. *[This seems redundant with regard to the upgrade procedures. The GUI upgrade method clearly shows whether the upgrade has completed. And, this command is the second step in the CLISH upgrade method. Is this really necessary?]*
- To ensure that the upgrade process has successfully completed and to verify the version of the software update, run the `Manage > Software> Version` command. *[This only applies to the CLISH method. The GUI upgrade method clearly shows the current version after an upgrade. Maybe we should add this as the last step in the CLISH upgrade procedure?]*
- To check the status of hardware and software components, run the `Support > Test Hardware` and the `Support > Test Software` commands.

See [“General guidelines and best practices for appliance upgrades”](#) on page 11.

See [“Methods for downloading appliance software release updates”](#) on page 19.

Troubleshooting

This chapter includes the following topics:

- [Troubleshooting general upgrade related issues](#)
- [About NetBackup appliance log files](#)
- [Where to find information for NetBackup-Java applications](#)

Troubleshooting general upgrade related issues

If the appliance upgrade fails or if you experience other upgrade issues, use the following information in [Table 4-1](#) to help resolve the issues.

Note: The following information also includes issues from previous appliance releases, in case you are not upgrading to the latest available version.

Table 4-1 Troubleshooting general upgrade related issues

| Problem description | Explanation | Recommended action |
|---|--|--|
| Upgrade from 2.5.3 to 2.6.0.2 fails during pre-check. | This issue may occur when the appliance to be upgraded is accessed using KVM. In this scenario, the upgrade script treats the KVM devices as a USB storage device and as a result the pre-check fails. | This issue is resolved in version 2.6.1. A workaround to the problem for the 2.6.0.2 release is to install the upgrade rpm Package Manager (rpm) manually and modify the <code>patchinst</code> script to remove the check. You can now use the NetBackup Appliance Shell Menu to upgrade the appliance. For further assistance, contact Symantec Technical Support. |

Table 4-1 Troubleshooting general upgrade related issues (*continued*)

| Problem description | Explanation | Recommended action |
|---|---|--|
| Upgrade from 2.5.4 to 2.6.0.2 failed. | This issue may occur if the file <code>/root/autoinst.xml</code> is not created or is unavailable during the upgrade. | To resolve this issue, you may need to modify the <code>/control.xml</code> file. For further assistance, contact Symantec Technical Support. |
| While you upgrade the appliance from a previous version to 2.6.0.1, the upgrade process fails at the time of NetBackup installation. | This issue may occur if your media server does not have sufficient free space in the <code>/cat</code> volume. | This issue is resolved in version 2.6.1. To avoid this issue when upgrading to earlier versions, increase the <code>/cat</code> size to 2GB.. For further assistance, contact Symantec Technical Support. |
| Upgrade to version 2.6.0.3 fails and shows that is at the previous version. However, the appliance still displays a successful upgrade message. | This issue may occur if you have not configured an SMTP server for notifications on the appliance, which may trigger a rollback towards the completion of an upgrade process. | To avoid this issue, ensure that you have configured an SMTP server to receive notifications from your appliance. Alternatively, Symantec recommends that you upgrade your appliance to the latest software version. For more information, log on to SymConnect . |
| Upgrade to version 2.6.02 fails with the following message in the log file: <code>not ok remote_emm: Remote EMM configuration is detected</code> | This issue may occur if there is a case-sensitive entry between the OS and the NetBackup configuration. | Symantec recommends that you upgrade your appliance to the latest software version. For more information, log on to SymConnect . |
| Self-test fails for appliance during an upgrade from software version 2.6.0.1 to 2.6.0.3. | This issue may occur if you have suspended all jobs and Storage Lifecycle Policies (SLP) before you started the upgrade process using the following commands: <code>nbpemreq -suspend_scheduling</code> . | To correct this issue, re-active the SLPs or try to reactive the appliance if it has been suspended. For more information, log on to SymConnect . |

Table 4-1 Troubleshooting general upgrade related issues (*continued*)

| Problem description | Explanation | Recommended action |
|---|--|---|
| <p>Upgrade to version 2.6.0.1 fails and rolls back with the following error:</p> <pre>[Error] Failed to retrieve NetBackup storage units for partition_name storage partition.</pre> | <p>You may encounter this error if you accidentally turned on caps lock during the initial configuration of your appliance while typing the appliance host name. When the appliance configures NetBackup it uses lower case. Hence, a mismatch is observed between the <code>/etc/HOSTNAME</code> or <code>hostname</code> command output and the contents of the <code>bp.conf</code> file.</p> | <p>To resolve this error, identify the host name of the appliance using the <code>Network > Hostname Show</code> command. Add this <i>hostname</i> as a new <code>SERVER = hostname</code> in the <code>/usr/openv/netbackup/bp.conf</code> on the appliance. Save the file, and try to install the software update, again.</p> <p>Additionally, Symantec recommends that you upgrade your appliance to the latest software version.</p> <p>For detailed information, refer to TECH214325.</p> |
| <p>Upgrade to version 2.6.0.1 fails and rolls back with the following error:</p> <pre>[Error] Unable to expand the storage partition. The specified size is above the maximum supported size 4 TB of Catalog storage partition.</pre> | <p>In previous appliance versions, the NetBackup catalog partition can be over 4TB. However, the latest versions of appliances perform pre-checks for such requirements and shrink the catalog space automatically.</p> | <p>To resolve this issue, shrink the <code>/cat</code> volume to less than 4TB before attempting the next upgrade. For example, 1TB or 2TB. To resize your partition, use the Manage > Storage > Resize page from the NetBackup Appliance Web Console or run the <code>Main_Menu > Storage > Resize Cat 1-TB</code> command from the NetBackup Appliance Shell Menu.</p> <p>For detailed information, refer to TECH214933.</p> |
| <p>Upgrade to 2.6.0.2 version fails with following self-test result:</p> <pre>-[Error] An upgrade process is already running on this appliance. [Info] The software upgrade has been aborted!</pre> | <p>This issue may occur if the upgrade process is interrupted before the creation of a pre-upgrade checkpoint.</p> | <p>To resolve this issue, remove the <code>/inst/patch/appliance/upgrading/state.info</code> and the <code>/inst/patch/appliance/upgrading/patchinst.lock</code> and restart the upgrade process.</p> <p>Additionally, Symantec recommends that you upgrade your appliance to the latest software version.</p> <p>For detailed information, refer to TECH218031.</p> |

Table 4-1 Troubleshooting general upgrade related issues (*continued*)

| Problem description | Explanation | Recommended action |
|--|--|--|
| Upgrade process fails to proceed with installation while there are USB Mass Storage devices attached to the appliance. | USB devices cannot be attached to the appliance while you perform an upgrade. | You must disconnect all USB devices or KVM that are attached to the appliance. For detailed information, refer to TECH217135 . |
| Upgrade to version 2.6.0.1 fails if <code>REQUIRED_INTERFACE</code> is set to an IP address. | This issue may occur if the install script overrides the <code>hostname</code> entry with the <code>REQUIRED_INTERFACE</code> definition. You must not use this <code>hostname</code> entry because the <code>PREFERRED_NETWORK</code> option has replaced it. | To resolve the issue, remove the entry from the <code>bp.conf</code> file and restart the upgrade process. For detailed information, refer to TECH215030 . |
| <code>DataCollect</code> file is too large after the appliance is upgraded to 2.6.0.x versions. | The large file size is attributed to the additional logs that are now gathered to include patch install logs. | Use the Appliance Diagnostics Center from the NetBackup Appliance Web Console to gather logs. Refer to TECH217665 for steps on using the Appliance Diagnostics Center . |
| Upgrade fails after the self-test when it finds active jobs, although no jobs are running. | If an upgrade fails after the self-test because it finds active jobs, even though there are no jobs running, there might be a large number of expired images to be deleted. | Log in to the appliance or the master server as a NetBackup CLI user and run the <code>nbdelete -list</code> command. If the command returns a large number of images, run the <code>nbdelete</code> command to delete the images. Then try the upgrade again. Note: If a storage server is inaccessible, the <code>nbdelete</code> command may be unable to delete the images. If the images are not deleted, check the connectivity to the storage server and try again. |

Table 4-1 Troubleshooting general upgrade related issues (*continued*)

| Problem description | Explanation | Recommended action |
|---|---|---|
| <p>Self-test reports the following warning about the BIOS firmware version:</p> <pre>Checking whether BIOS firmware is compatible with the software ... [WARNING]</pre> | <p>If you have upgraded the BIOS firmware version for your appliance software version 2.6.1, you may observe that the self-test may still report a warning about BIOS firmware version. This occurs even though the software installation was successful.</p> | <p>To resolve this issue and to ensure that the BIOS firmware upgrade was successful, log on to the NetBackup Appliance Shell Menu and run the <code>Main_Menu > Monitor > Hardware ShowHealth Appliance CPU</code> command. The command output must display the updated BIOS firmware version.</p> |

For more information the troubleshooting appliance issues, refer to the *Symantec NetBackup Appliance Troubleshooting Guide*.

See [“About appliance patch log files”](#) on page 46.

About NetBackup appliance log files

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

A 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 4-2](#) describes the methods you can use to access the appliance log files.

Table 4-2 Viewing log files

| From... | Using... | Log details |
|---------------------------------|--|---|
| 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. See “About the Collect Log files wizard” on page 39. | <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 |
| 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 <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. See “Viewing log files using the Support command” on page 40. | <ul style="list-style-type: none"> ■ Appliance configuration log ■ NetBackup logs, Volume Manager logs, and the NetBackup logs that are contained in the <code>openv</code> 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 4-2 Viewing log files (continued)

| From... | Using... | Log details |
|--------------------------------|--|--|
| NetBackup Appliance Shell Menu | You can use the <code>Main > Support > Logs > VxLogView Module <i>ModuleName</i></code> commands to access the 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. | <p>Appliance unified logs:</p> <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. See “Gathering device logs with the DataCollect command” on page 42. | 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. See “Where to find information for NetBackup-Java applications” on page 46. | Logs relating to the NetBackup-Java applications |

About the Collect Log files wizard

You can use the **Collect Log files** wizard from the NetBackup Appliance Web Console to collect log files from an appliance. The wizard lets you collect different types of log files for NetBackup, the appliance, operating system, NBSU (NetBackup Support Utility), DataCollect, and others.

You can collect log files from any NetBackup appliance.

After you have generated the log files you can email them to recipients, download them to your computer, or upload them to Symantec Support.

Refer to the following for information about the Appliance Diagnostics Center:

See [“About NetBackup appliance log files”](#) on page 37.

Viewing log files using the Support command

You can use the following section to view the log file information.

To view logs using the `Support > Logs > Browse` command:

- 1 Enter browse mode using the `Main_Menu > Support > Logs` followed by the `Browse` command in the NetBackup Appliance Shell Menu. The `LOGROOT/>` prompt appears.
- 2 To display the available log directories on your appliance, type `ls` at `LOGROOT/>` prompt.
- 3 To see the available log files in any of the log directories, use the `cd` command to change directories to the log directory of your choice. The prompt changes to show the directory that you are in. For example, if you changed directories to the `GUI` directory, the prompt appears as `LOGROOT/GUI/>`. From that prompt you can use the `ls` command to display the available log files in the `GUI` log directory.
- 4 To view the files, use the `less <FILE>` or `tail <FILE>` command. Files are marked with `<FILE>` and directories with `<DIR>`.

See [“Where to find NetBackup appliance log files using the Browse command”](#) on page 41.

To view NetBackup Appliance unified (VxUL) logs using the `Support > Logs` command:

- 1 You can view the NetBackup Appliance unified (VxUL) logs with the `Support > Logs > VXLogView` command. Enter the command into the shell menu and use one of the following options:
 - `Logs VXLogView JobID job_id`
Use to display debug information for a specific job ID.
 - `Logs VXLogView Minutes minutes_ago`
Use to display debug information for a specific timeframe.
 - `Logs VXLogView Module module_name`
Use to display debug information for a specific module. The available module names are: All, CallHome, Checkpoint, Common, Config, Database,

Hardware, HWMonitor, Network, RAID, Seeding, SelfTest, Storage, SWUpdate, Commands, CrossHost, **and** Trace.

Use to display debug information for a specific module. The available module names are: All, CallHome, Checkpoint, Common, Config, Database, FTMS, Hardware, HWMonitor, Network, RAID, Seeding, SelfTest, Storage, SWUpdate, Commands, CrossHost, **and** Trace.

- 2 If you want, you can copy the unified logs with the `Main > Support > Share Open` command. Use the desktop to map, share, and copy the logs.

Note: The NetBackup Appliance unified logs are not the same as the NetBackup unified logs, such as `nbpem` or `nbjm`. NetBackup Appliance has its own set of unified logs. To collect the NetBackup unified logs, use the Collect Logs Wizard and select **NetBackup**.

You can also use the `Main_Menu > Support > Logs` commands to do the following:

- Upload the log files to Symantec Technical Support.
- Set log levels.
- Export or remove CIFS and NFS shares.

Note: The NetBackup Appliance VxUL logs are no longer archived by a cron job, or a scheduled task. In addition, log recycling has been enabled, and the default number of log files has been set to 50.

Refer to the *NetBackup Appliance Command Reference Guide* for more information on the above commands.

See [“About NetBackup appliance log files”](#) on page 37.

Where to find NetBackup appliance log files using the Browse command

Table 4-3 provides the location of the logs and the log directories that are accessible with the `Support > Logs > Browse` command.

Table 4-3 NetBackup appliance log file locations

| Appliance log | Log file location |
|-------------------|--|
| Configuration log | <DIR> APPLIANCE config_nb_factory.log |

Table 4-3 NetBackup appliance log file locations (*continued*)

| Appliance log | Log file location |
|--|---|
| Selftest report | <DIR> APPLIANCE selftest_report |
| Host change log | <DIR> APPLIANCE hostchange.log |
| NetBackup logs, Volume Manager logs, and the NetBackup logs that are contained in the <code>openv</code> directory | <DIR> NBU <ul style="list-style-type: none"> ■ <DIR> netbackup ■ <DIR> openv ■ <DIR> volmgr |
| Operating system (OS) installation log | <DIR> OS boot.log boot.msg boot.omsg messages |
| NetBackup deduplication (PDDE) configuration script log | <DIR> PD pdde-config.log |
| NetBackup Administrative web user interface log and the NetBackup web server log | <DIR> WEBGUI <ul style="list-style-type: none"> ■ <DIR> gui ■ <DIR> webserver |
| Device logs | /tmp/DataCollect.zip You can copy the <code>DataCollect.zip</code> to your local folders using the <code>Main > Support > Logs > Share Open</code> command. |

See [“About NetBackup appliance log files”](#) on page 37.

Gathering device logs with the DataCollect command

You can use the `DataCollect` command from the `Main > Support` shell menu to gather device logs. You can share these device logs with the Symantec Support team to resolve device-related issues.

Along with the operating system, IPMI, and storage logs, the DataCollect command now collects the following logs as well:

- Patch logs
- File System logs
- Test hardware logs
- CPU information
- Disk performance logs
- Memory information
- Hardware information

To gather device logs with the DataCollect command

- 1 Log on to the administrative NetBackup Appliance Shell Menu.
- 2 Open the Support menu. To open the support menu, use the following command:

```
Main > Support
```

The appliance displays all the sub-tasks in the support menu.

3 Enter the `DataCollect` command to gather storage device logs.

The appliance initiates the following procedure:

```

appliance123.Support > DataCollect
Gathering release information
Gathering dmidecode logs
Gathering ipmitool sel list logs
Gathering fwtermlog logs
Gathering AdpEventLog logs
Gathering smartctl logs
Gathering disk performance logs
Gathering ipmiutil command output
Gathering cpu information
Gathering memory information
Gathering sdr logs
Gathering adpallinfo logs
Gathering encinfo logs
Gathering cfgdsply logs
Gathering ldpdinfo logs
Gathering pdlist logs
Gathering fru logs
Gathering adpbucmd logs
Gathering os logs
Gathering adpalilog logs
Gathering dfinfo logs
Gathering vxprint logs
Gathering Test Hardware logs
Gathering patch logs

```

```

All logs have been collected in /tmp/DataCollect.zip
Log file can be collected from the appliance shared folder
- \\appliance123\logs\APPLIANCE
Share can be opened using Main->Support->Logs->Share Open

```

```

=====End of DataCollect=====
All logs have been collected in /tmp/DataCollect.zip

```

The appliance generates the device log in the `/tmp/DataCollect.zip` file.

- 4 Copy the `DataCollect.zip` to your local folders using the `Main > Support > Logs > Share Open` command.
 - 5 You can send the `DataCollect.zip` file to the Symantec Support team to resolve your issues.
- See [“About NetBackup appliance log files”](#) on page 37.

Enabling and disabling VxMS logging

The following procedures explain how to enable or disable VxMS logging from the NetBackup Appliance Shell Menu.

Note: Due to the size of the VxMS logs, Symantec recommends that you only enable VxMS logging when it is necessary to troubleshoot an issue. Disable VxMS logging again when the issue is resolved.

Use the `Support > Logs > GetLevel` command to check your current VxMS log setting.

To enable VxMS logging

- 1 From the `Support > Logs` view of the NetBackup Appliance Shell Menu, run the following command:

```
SetLevel VxMS 1
```

- 2 Verify that VxMS logging has been enabled with the `GetLevel` command. If the VxMS logs are enabled, the `GetLevel` command output displays the following:

```
VxMS debug level is TRC_TOP|PARAM_IN|PARAM_OUT|DEBUG|PARAM_FULL
```

To disable VxMS logging

- 1 From the `Support > Logs` view of the NetBackup Appliance Shell Menu, run the following command:

```
SetLevel VxMS 0
```

- 2 Verify that VxMS logging has been disabled with the `GetLevel` command. If the VxMS logs are disabled, the `GetLevel` command output displays the following:

```
VxMS debug level is disabled
```

See [“About NetBackup appliance log files”](#) on page 37.

About appliance patch log files

Patch log files contain information for software upgrade or rollback processes. You may refer to these log files if you encounter any issue during the upgrade or the rollback process. The patch logs are the `/log/patch<time_stamp>`, where the *time_stamp* variable defines the date and time at which the log file was generated.

The method to view the patch logs might be slightly different depending on the software release line:

- For 2.5.x upgrades:
 - Use the NFS logs share method to view the patch logs for the 2.5.x release line.
- For 2.6.x.x upgrades:
 - The `/log/patch<time_stamp>` are the main source of troubleshooting. Additionally, you may also use the `Vxlogview` with [SWUpdate] as a keyword.
 - For upgrades from 2.6.x.x, use any of the following options to access the patch log files:
 - NFS log share method
 - DataCollect logs - Access the DataCollect logs from the NetBackup Appliance Shell Menu and the NetBackup Appliance Web Console. Run the `Main_Menu > Support > DataCollect` command from the NetBackup Appliance Shell Menu or run the **Appliance Diagnostics Center** wizard from the NetBackup Appliance Web Console.

For more information about working with patch log files, contact Symantec Technical Support.

See [“Troubleshooting general upgrade related issues”](#) on page 33.

Where to find information for NetBackup-Java applications

If you encounter problems with the NetBackup-Java applications, use the following methods to gather data for support.

The following scripts are available for gathering information:

jnbSA

(NetBackup-Java administration application startup script)

Logs the data in a log file in

`/usr/opensv/netbackup/logs/user_ops/nbjlogs`. At startup, the script tells you which file in this directory it logs to. Normally, this file does not become very large (usually less than 2 KB). Consult the file `/usr/opensv/java/Debug.properties` for the options that can affect the contents of this log file.

| | |
|---|--|
| <p>NetBackup-Java administration application on Windows</p> | <p>Logs the data in a log file if NetBackup is installed on the computer where the application was started. It logs on <code>install_path\NetBackup\logs\user_ops\nbjlogs</code>. If NetBackup was not installed on this computer, then no log file is created. To produce a log file, modify the last "java.exe" line in the following to redirect output to a file: <code>install_path\java\nbjava.bat</code>.</p> |
| <p><code>/usr/opencv/java/get_trace</code></p> | <p>Provides a Java Virtual Machine stack trace for support to analyze. This stack trace is written to the log file that is associated with the instance of execution.</p> |
| <p><code>/usr/opencv/netbackup/bin/goodies/support</code></p> | <p>Creates a file containing data necessary for customer support to debug any problems you encounter. For more details, consult the usage information of the script by using <code>support -h</code>.</p> |

The following example describes how you can gather troubleshooting data for Symantec Technical Support to analyze.

| | |
|---|---|
| <p>An application does not respond.</p> | <p>Wait for several minutes before you assume that the operation is hung. Some operations can take quite a while to complete, especially operations in the Activity Monitor and Reports applications.</p> |
| <p>Still no response after several minutes.</p> | <p>Run <code>/usr/opencv/java/get_trace</code> under the account where you started the Java application. This script causes a stack trace to write to the log file.</p> <p>For example, if you started <code>jnbSA</code> from the root account, start <code>/usr/opencv/java/get_trace</code> as root. Or else, the command runs without error, but fails to add the stack trace to the debug log. This failure occurs because root is the only account that has permission to run the command that dumps the stack trace.</p> |
| <p>Get data about your configuration.</p> | <p>Run <code>/usr/opencv/netbackup/bin/goodies/support</code>. Run this script after you complete the NetBackup installation and every time you change the NetBackup configuration.</p> |
| <p>Contact Symantec Technical Support</p> | <p>Provide the log file and the output of the <code>support</code> script for analysis.</p> |

See ["About NetBackup appliance log files"](#) on page 37.

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