

Veritas NetBackup™ Getting Started Guide

Release 7.7.2

Veritas NetBackup™ Getting Started Guide

Documentation version: 7.7.2

PN: 16113

Legal Notice

Copyright © 2015 Veritas Technologies LLC. All rights reserved.

Veritas, the Veritas Logo, and NetBackup are trademarks or registered trademarks of Veritas Technologies LLC or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners.

This product may contain third party software for which Veritas is required to provide attribution to the third party ("Third Party Programs"). 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. Please see the Third Party Legal Notice Appendix to this Documentation or TPIP ReadMe File accompanying this product for more information on the Third Party Programs.

The product described in this document is distributed under licenses restricting its use, copying, distribution, and decompilation/reverse engineering. No part of this document may be reproduced in any form by any means without prior written authorization of Veritas Technologies LLC and its licensors, if any.

THE DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. VERITAS TECHNOLOGIES LLC SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, PERFORMANCE, OR USE OF THIS DOCUMENTATION. THE INFORMATION CONTAINED IN THIS DOCUMENTATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

The Licensed Software and Documentation are deemed to be commercial computer software as defined in FAR 12.212 and subject to restricted rights as defined in FAR Section 52.227-19 "Commercial Computer Software - Restricted Rights" and DFARS 227.7202, et seq. "Commercial Computer Software and Commercial Computer Software Documentation," as applicable, and any successor regulations, whether delivered by Veritas as on premises or hosted services. Any use, modification, reproduction release, performance, display or disclosure of the Licensed Software and Documentation by the U.S. Government shall be solely in accordance with the terms of this Agreement.

Veritas Technologies LLC
500 E Middlefield Road
Mountain View, CA 94043

<http://www.veritas.com>

Made in Singapore.

10 9 8 7 6 5 4 3 2 1

Technical Support

Technical Support maintains support centers globally. Technical Support's primary role is to respond to specific queries about product features and functionality. The Technical Support group also creates content for our online Knowledge Base. The Technical Support group works collaboratively with the other functional areas within the company to answer your questions in a timely fashion.

Our support offerings include the following:

- A range of support options that give you the flexibility to select the right amount of service for any size organization
- Telephone and/or Web-based support that provides rapid response and up-to-the-minute information
- Upgrade assurance that delivers software upgrades
- Global support purchased on a regional business hours or 24 hours a day, 7 days a week basis
- Premium service offerings that include Account Management Services

For information about our support offerings, you can visit our website at the following URL:

www.veritas.com/support

All support services will be delivered in accordance with your support agreement and the then-current enterprise technical support policy.

Contacting Technical Support

Customers with a current support agreement may access Technical Support information at the following URL:

www.veritas.com/support

Before contacting Technical Support, make sure you have satisfied the system requirements that are listed in your product documentation. Also, you should be at the computer on which the problem occurred, in case it is necessary to replicate the problem.

When you contact Technical Support, please have the following information available:

- Product release level
- Hardware information
- Available memory, disk space, and NIC information

- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
 - Error messages and log files
 - Troubleshooting that was performed before contacting Technical Support
 - Recent software configuration changes and network changes

Licensing and registration

If your product requires registration or a license key, access our technical support Web page at the following URL:

www.veritas.com/support

Customer service

Customer service information is available at the following URL:

www.veritas.com/support

Customer Service is available to assist with non-technical questions, such as the following types of issues:

- Questions regarding product licensing or serialization
- Product registration updates, such as address or name changes
- General product information (features, language availability, local dealers)
- Latest information about product updates and upgrades
- Information about upgrade assurance and support contracts
- Advice about technical support options
- Nontechnical presales questions
- Issues that are related to CD-ROMs, DVDs, or manuals

Support agreement resources

If you want to contact us regarding an existing support agreement, please contact the support agreement administration team for your region as follows:

Worldwide (except Japan)

CustomerCare@veritas.com

Japan

CustomerCare_Japan@veritas.com

Contents

Technical Support	4
NetBackup Getting Started Guide	8
About NetBackup	8
How a NetBackup system works	9
How to make a NetBackup system work for you	10
About NetBackup software availability	10
About the NetBackup media kit	10
About the NetBackup Electronic Software Distribution (ESD) images	12
About the NetBackup documentation	12
About NetBackup license key requirements	12
About Veritas Services and Operations Readiness Tools	13
Recommended SORT procedures for new installations	14
Recommended SORT procedures for upgrades	18
Installation and upgrade requirements for UNIX and Linux	20
Installation and upgrade requirements for Windows and Windows clusters	23
NetBackup 7.7.2 binary size requirements	30
How to prepare for NetBackup installation	30
About NetBackup configuration	31
Where to find NetBackup documentation	32

NetBackup Getting Started Guide

About NetBackup

NetBackup provides a complete, flexible data protection solution for a variety of platforms. The platforms include Microsoft Windows, UNIX, and Linux systems.

NetBackup lets you back up, archive, and restore files, folders or directories, and volumes or partitions that reside on your computer.

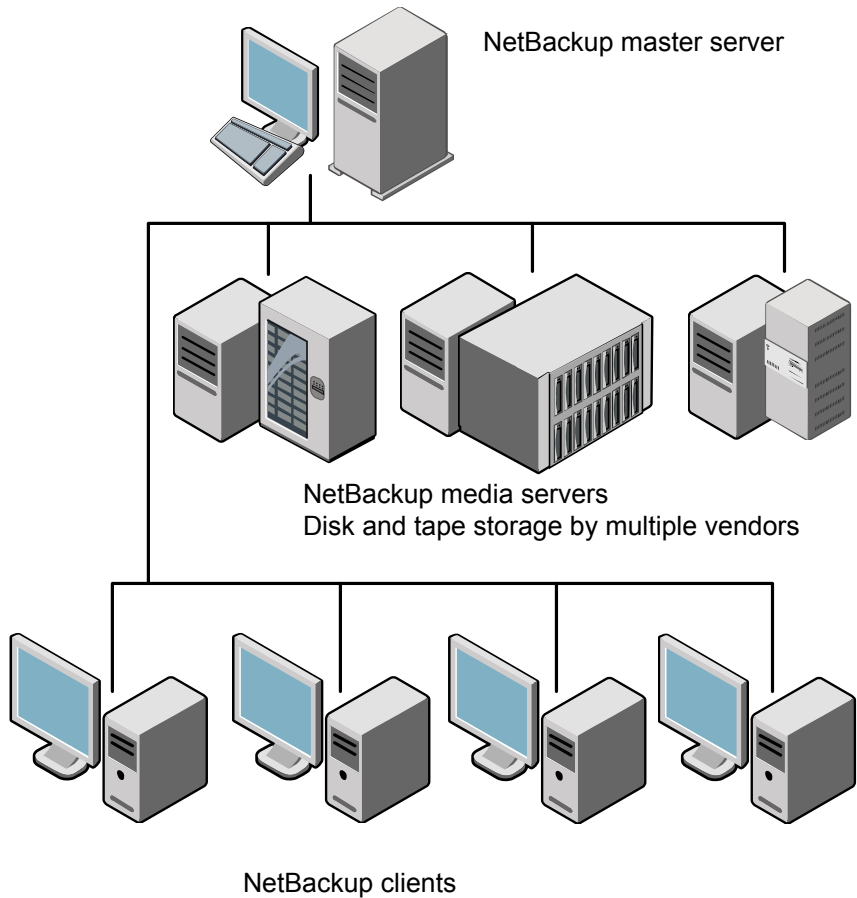
NetBackup includes the server and the client software as follows:

- Server software resides on the computer that manages the storage devices.
 - The master server manages backups, archives, and restores. You configure backup policies on the master server to determine the computers (clients) and the files that you want to back up. The master server is also responsible for media and device selection for NetBackup. The master server contains the NetBackup catalog. The catalog contains the internal databases that contain information about NetBackup backups and configuration.
 - Media servers provide additional storage by allowing NetBackup to use the storage devices that are attached to them. Media servers can also increase performance by distributing the network load. Media servers can also be referred to as device hosts.
- Client software resides on the computers that contain data to back up. (Servers also contain client software and can be backed up.)

NetBackup also accommodates multiple servers that work together under the administrative control of one NetBackup master server (see [Figure 1](#)).

Figure 1

Example of a NetBackup environment



See ["About Veritas Services and Operations Readiness Tools"](#) on page 13.

How a NetBackup system works

During a backup or an archive, the client sends backup data across the network to a NetBackup server. The NetBackup server manages the type of storage that is specified in the backup policy.

During a restore, users can browse, then select the files and directories to recover. NetBackup finds the selected files and directories and restores them to the disk on the client. Refer to the *NetBackup Backup, Archive, and Restore Getting Started Guide* for more information about restores.

How to make a NetBackup system work for you

Policies determine when backups occur. Policies include schedules for automatic, unattended backups of the NetBackup clients (server-directed backups). Policies also define when you can back up and restore files manually (user-directed operations). Refer to the *NetBackup Administrator's Guide for UNIX, Windows, and Linux, Volume I* for more information on policies.

NetBackup administrators can set up periodic or calendar-based schedules to perform automatic, unattended backups for clients across a network. An administrator can carefully schedule backups to achieve systematic and complete backups over a period of time, and optimize network traffic during off-peak hours.

The backups can be full or incremental. Full backups back up all client files. Incremental backups back up only the files that have changed since the last backup.

The NetBackup administrator can allow users to back up, restore, or archive the files from their computer. (An archive operation backs up a file, then deletes the original file from the source disk if the backup is successful.)

About NetBackup software availability

NetBackup 7.7.2 is available in the following formats:

- DVD media kit
All necessary software and documentation files are provided on several DVDs. See [“About the NetBackup media kit”](#) on page 10.
- Electronic Software Distribution (ESD) images
The DVD image files are posted and available for download on the **FileConnect** website.
See [“About the NetBackup Electronic Software Distribution \(ESD\) images”](#) on page 12.

About the NetBackup media kit

The media kit includes a DVD for each supported UNIX platform or operating system and one DVD for Windows. The label on each DVD provides a brief description of its contents. Printed materials in the kit include a copy of the *NetBackup Getting Started Guide*.

[Table 1](#) describes the contents of each DVD.

Table 1 NetBackup 7.7.2 DVD contents

Platform OS	Contents
AIX 64-bit	Server and supported options
HP-UX IA64	Server and supported options
Linux RedHat x86_64	Server and supported options
Linux SUSE x86_64	Server and supported options
Solaris SPARC64	Server and supported options
Solaris x86-64	Server and supported options
Windows	<ul style="list-style-type: none"> ■ Server and supported options ■ All x64 clients ■ All x86 clients
Linux zSeries RedHat x64	Media server and supported options
Linux zSeries SUSE x64	Media server and supported options
UNIX clients 1	<ul style="list-style-type: none"> ■ AIX ■ HP PA-RISC and IA64 ■ Solaris SPARC and X86
UNIX clients 2	All Linux platforms
Clients in LiveUpdate format 1	<ul style="list-style-type: none"> ■ AIX ■ HP IA64 ■ All Linux platforms ■ Solaris SPARC and X86
Clients in LiveUpdate format 2	<ul style="list-style-type: none"> ■ HP PA-RISC ■ All Windows platforms
OpsCenter for Windows	All Windows platforms
OpsCenter for UNIX/Linux	All UNIX/Linux platforms
OpenVMS (CD format)	NetBackup Client for OpenVMS

Note: The NetBackup vCenter plug-in for ESX is available electronically from the Veritas Fileconnect download site. It is free to customers under maintenance contract. An e-mail with access information to the Veritas Fileconnect download site was sent when NetBackup 7.6.1 became generally available. More information is available.

See “[About the NetBackup Electronic Software Distribution \(ESD\) images](#)” on page 12.

See “[About the NetBackup Electronic Software Distribution \(ESD\) images](#)” on page 12.

About the NetBackup Electronic Software Distribution (ESD) images

The ESD images for NetBackup 7.7.2 are available for download from the **FileConnect** webpage. The images adhere to a 1.8G size limitation.

To ensure the accuracy of the ESD download, some of the product images have been split into smaller, more manageable files. Before you uncompress any file, you must first join the split image files that you can identify as 1 of 2 and 2 of 2. A `Download_Readme.txt` file on **FileConnect** describes how to join the files together.

See “[About NetBackup software availability](#)” on page 10.

See “[About the NetBackup media kit](#)” on page 10.

About the NetBackup documentation

The NetBackup documentation is not included on the DVDs or in the ESD images. You can access and download NetBackup documentation from the following website:

<http://www.veritas.com/docs/DOC5332>

To view the PDF copies of the manuals, you need Adobe Acrobat reader. You can download a copy of this product from the Adobe website at the following URL:

<http://www.adobe.com>

Veritas assumes no responsibility for the correct installation or use of the reader.

About NetBackup license key requirements

To install NetBackup master server or media server software, you must enter a NetBackup product license key.

To obtain license keys, you must order a license SKU when you order your NetBackup products.

After you place your order, Veritas sends you an email with a license certificate that includes the following information:

List of NetBackup licenses purchased This list includes all of the licenses for the products that you ordered.

Keep this list in a secure location. You may be asked for a product license key if you ever need to contact technical support for assistance.

Serial number for access to download NetBackup products Instead of a DVD media kit, you can use this serial number to download the Electronic Software Distribution (ESD) images for NetBackup product installation.

Go to the following website and enter this serial number to download the ESD images to your system:

<https://fileconnect.veritas.com/LangSelection.jsp>

When you install NetBackup, Veritas recommends that you enter all other product license keys on the master server when you are prompted. Although you can add these license keys later, it is easier to enter them when you install the master server software.

For detailed information on how to administer NetBackup license keys, refer to the *NetBackup Administrator's Guide, Volume I*.

<http://www.veritas.com/docs/DOC5332>

About Veritas Services and Operations Readiness Tools

Veritas Services and Operations Readiness Tools (SORT) is a robust set of standalone and web-based tools that support Veritas 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.veritas.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 Veritas enterprise products.
- **NetBackup Future Platform and Feature Plans**
 Use this tool to get information about what items Veritas intends to replace with newer and improved functionality. The tool also provides insight about what items Veritas intends to discontinue without replacement. Some of these items include certain NetBackup features, functionality, 3rd-party product integration, Veritas 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

Recommended SORT procedures for new installations

Veritas recommends new NetBackup users perform the three procedures that are listed for an initial introduction to SORT. The tool has many other features and functions, but these serve as a good introduction to SORT. In addition, the procedures provide a helpful base of knowledge for other SORT functionality.

Table 2

Procedure	Details
Create a Veritas Account on the SORT webpage	See "To create a Veritas Account on the SORT page" on page 15.
Create generic installation reports	See "To create a generic installation checklist" on page 15.

Table 2 (continued)

Procedure	Details
Create system-specific installation reports	<p>See “To create a system-specific installation report for Windows” on page 16.</p> <p>See “To create a system-specific installation report for UNIX or Linux” on page 17.</p>

To create a Veritas Account on the SORT page

- 1 In your web browser, navigate to:
<https://sort.veritas.com/netbackup>
- 2 In the upper right corner, click **Register**.
- 3 Enter the requested login and contact information:

Email address	Enter and verify your email address
Password	Enter and verify your password
First name	Enter your first name
Last name	Enter your last name
Company name	Enter your company name
Country	Enter your country
Preferred language	Select your preferred language
CAPTCHA text	Enter the displayed CAPTCHA text. If necessary, refresh the image.
- 4 Click **Submit**.
- 5 When you receive your login information, you can log into SORT and begin uploading your customized information.

To create a generic installation checklist

- 1 In your web browser, navigate to:
<https://sort.veritas.com/netbackup>
- 2 Find the **Installation and Upgrade Checklist** widget.

3 Specify the requested information

Product	Select the appropriate product from the drop-down menu. For NetBackup select NetBackup Enterprise Server or NetBackup Server .
Product version you are installing or upgraded to	Select the correct version of NetBackup. The most current version is always shown at the top of the list.
Platform	Select the operating system that corresponds to the checklist you want generated.
Processor	Select the correct processor type for your checklist.
Product version you are upgrading from (optional)	For new installations, do not make any selections. For upgrades, you can select the currently installed version of NetBackup.

4 Click **Generate Checklist**.

- 5** A checklist corresponding to your choices is created. You can modify your selections from this screen, and click **Generate Checklist** to create a new checklist.

You can save the resulting information as a PDF. Numerous options are available for NetBackup and many of them are covered in the generated checklist. Please spend time reviewing each section to determine if it applies to your environment.

To create a system-specific installation report for Windows

- Go to the SORT website:
<https://sort.veritas.com/>
- Select **SORT > SORT for NetBackup**
- In the **Custom Reports Using Data Collectors**, select the **Data Collector** tab.
- Select the radio button for **Graphical user interface** and download the correct data collector for your platform.

 The data collector is OS-specific. To collect information about Windows computers, you need the Windows data collector. To collect information about UNIX computers, you need the UNIX data collector.
- Launch the data collector after it finishes downloading.

- 6 On the **Welcome** screen, select **NetBackup** from the product family section and click **Next**.
- 7 On the **System Selection** screen, add all computers you want analyzed. Click **Browse** to see a list of computers you can add to the analysis. Veritas recommends starting the tool with an administrator or a root account.
- 8 When all systems are selected, review the **System names** section and click **Next**.
- 9 In the **Validation Options** screen, under **Validation options**, select the version to which you plan to upgrade.
- 10 Click **Next** to continue
- 11 The utility performs the requested checks and displays the results. You can upload the report to My SORT, print the results, or save them. Veritas recommends that you upload the results to the My SORT website for ease of centralized analysis. Click **Upload** and enter your My SORT login information to upload the data to My SORT.
- 12 When you are finished, click **Finish** to close the utility.

To create a system-specific installation report for UNIX or Linux

- 1 Go to the SORT website:
<https://sort.veritas.com/>
- 2 Select **SORT > SORT for NetBackup**
- 3 Change to directory that contains downloaded utility.
- 4 In the **Custom Reports Using Data Collectors**, select the **Data Collector** tab.
- 5 Download the appropriate data collector for your platform.

The data collector is OS-specific. To collect information about Windows computers, you need the Windows data collector. To collect information about UNIX computers, you need the UNIX data collector.
- 6 Run `./sortdc`

The utility performs checks to confirm the latest version of the utility is installed. In addition, the utility checks to see it has the latest data. The utility then lists the location of the log file for this session.
- 7 If requested, press **Enter** to continue.
- 8 Select the **NetBackup Family** at the **Main Menu**.

- 9** Select **Installation/Upgrade report** when prompted **What task do you want to accomplish?**

You can select multiple options by separating your response with commas.
- 10** Specify the system or systems you want included in the report.

If you previously ran a report on the specified system, you may be prompted to run the report again. Select **Yes** to re-run the report.

The utility again lists the location of the log files for the session.

The progress of the utility is displayed to the screen.
- 11** Specify **NetBackup** when prompted for the product you want installation or upgrade reports.
- 12** Enter the number that corresponds to the version of NetBackup you want to install.

The utility again lists the location of the log files for the session.

The progress of the utility is displayed to the screen.
- 13** The utility prompts you to upload the report to the SORT website if you want to review the report online. The online report provides more detailed information than the text-based on-system report.
- 14** When your tasks are finished, you can exit the utility. You have the option to provide feedback on the tool, which Veritas uses to make improvements to the tool.

Recommended SORT procedures for upgrades

Veritas recommends current NetBackup users perform the three procedures that are listed for an initial introduction to SORT. The tool has many other features and functions, but these serve as a good introduction to SORT for users who already use NetBackup. In addition, the procedures provide a helpful base of knowledge for other SORT functionality.

Table 3

Procedure	Details
Create a Veritas Account on the SORT webpage	See "To create a Veritas Account on the SORT page" on page 15.

Table 3 (continued)

Procedure	Details
Create a system-specific upgrade report	See “To create a system-specific installation report for Windows” on page 16. See “To create a system-specific installation report for UNIX or Linux” on page 17.
Review the future platform and feature plans. Review the hot fix and emergency engineering binary release auditor information.	See “To review future platform changes and feature plans” on page 19. See “To review hot fix and emergency engineering binary information” on page 19.

To review future platform changes and feature plans

- 1 In your web browser, navigate to:
<https://sort.veritas.com/netbackup>
- 2 Find the **NetBackup Future Platform and Feature Plans** widget.
- 3 Click **Display Information**.
- 4 Review the information provided
- 5 Optional - sign in to create notification - Click **Sign in and create notification**.

To review hot fix and emergency engineering binary information

- 1 In your web browser, navigate to:
<https://sort.veritas.com/netbackup>
- 2 Find the **NetBackup Hot Fix and EEB Release Auditor** widget.
- 3 Enter the hot fix or emergency engineering binary (EEB) information.
- 4 Click **Search**.
- 5 The new page shows a table with the following columns:

Hot fix of EEB Identifier	Shows the hot fix or EEB number that was entered on the previous screen.
Description	Displays a description of the problem that is associated with the hot fix or EEB.
Resolved in Versions	Provides the version of NetBackup where this issue is resolved.

Installation and upgrade requirements for UNIX and Linux

Table 4 describes the requirements to prepare your UNIX and Linux systems for NetBackup installation. Use this table as a checklist to address each item.

For the most up-to-date information about installation requirements, Veritas recommends use of the SORT website. More information about SORT is available.

See “About Veritas Services and Operations Readiness Tools” on page 13.

Table 4 NetBackup installation and upgrade requirements for UNIX and Linux

Check	Requirement	Details
	Operating System	<ul style="list-style-type: none"> For a complete list of compatible UNIX and Linux operating systems, refer to the <i>Software Compatibility List (SCL)</i> at the following website: http://www.netbackup.com/compatibility https://sort.veritas.com/netbackup
	Memory	<ul style="list-style-type: none"> Master servers in a production environment with several database agents enabled should have a minimum of 8 GB of memory each. Media servers in a production environment with several database agents enabled should have a minimum of 4 GB of memory each. Any client in a production environment should have a minimum of 512 MB of memory. For reasonable performance of the NetBackup-Java interfaces, you need 512 MB of RAM. Of that space, 256 MB must be available to the interface program (<code>jnbSA</code> or <code>jbPSA</code>). <p>For additional information about memory requirements, refer to the <i>NetBackup Backup Planning and Performance Tuning Guide</i>. http://www.veritas.com/docs/DOC5332</p>

Table 4 NetBackup installation and upgrade requirements for UNIX and Linux *(continued)*

Check	Requirement	Details
	Disk space	<ul style="list-style-type: none"> ■ The exact amount of space that is required depends on the hardware platform. More information about this topic is available. <i>NetBackup Release Notes for 7.7.2</i> http://www.veritas.com/docs/DOC5332 ■ NetBackup catalogs contain information about your backups that become larger as you use the product. The disk space that the catalogs require depends primarily on the following aspects of your backup configuration: <ul style="list-style-type: none"> ■ The number of files that are backed up. ■ The frequency of your backups. ■ The amount of time that you set to retain your backup data. <p>If space is an issue, you can install NetBackup on an alternate file system. The installation lets you select an alternate install location, and creates the appropriate link from <code>/usr/openv</code>.</p> <p>Note: The value for disk space is for initial installation only. The NetBackup catalog requires considerably more space once the master server is placed in a production environment. For additional information on sizing requirements for the NetBackup catalog, refer to the <i>NetBackup Backup Planning and Performance Tuning Guide</i>.</p> <p>http://www.veritas.com/docs/DOC5332</p>

Table 4 NetBackup installation and upgrade requirements for UNIX and Linux (*continued*)

Check	Requirement	Details
	General requirements	<ul style="list-style-type: none"> ■ Ensure that the <code>gzip</code> and the <code>gunzip</code> commands are installed on the local system. The directories where these commands are installed must be part of the root user's path environment variable setting. ■ All NetBackup installation DVDs or ESD images, appropriate license keys, and the root password for all servers. ■ A server of a supported hardware type that runs a supported version of its operating system (with applicable patches), adequate disk space, and supported peripherals. For details on these requirements, refer to the <i>NetBackup Release Notes</i>. http://www.veritas.com/docs/DOC5332 ■ All NetBackup servers must recognize and be recognizable by their client systems. In some environments, this means that each must be defined in the other's <code>/etc/hosts</code> file. Other environments may use the Network Information Service (NIS) or Domain Name Service (DNS). ■ The minimum screen resolution configuration is 1024x768, 256 colors.
	Clustered systems	<ul style="list-style-type: none"> ■ Ensure that each node in the NetBackup cluster can run the <code>ssh</code> command, the <code>rsh</code> command, or its equivalent (on HP-UX, the command is <code>remsh</code>). The root user must be able to perform a remote login to each node in the cluster without entering a password. This remote login is necessary for installation and configuration of the NetBackup server and any NetBackup agents and options. After installation and configuration are complete, it is no longer required. ■ You must install, configure, and start the cluster framework before you install NetBackup. ■ You must have defined a virtual name using DNS, NIS, or the <code>/etc/hosts</code> file. The IP address is defined at the same time. (The virtual name is a label for the IP address.) <p>More information about cluster requirements is available.</p> <p><i>Veritas NetBackup Clustered Master Server Administrator's Guide</i></p> <p>http://www.veritas.com/docs/DOC5332</p>

Table 4 NetBackup installation and upgrade requirements for UNIX and Linux (*continued*)

Check	Requirement	Details
	NFS compatibility	Veritas does not support installation of NetBackup in an NFS-mounted directory. File locking in NFS-mounted file systems can be unreliable.
	Kernel reconfiguration	For some peripherals and platforms, kernel reconfiguration is required. For more details, see the <i>NetBackup Device Configuration Guide</i> . http://www.veritas.com/docs/DOC5332
	Red Hat Linux	For Red Hat Linux, NetBackup requires server networking.
	Other backup software	Veritas recommends that you remove any other vendor backup software currently configured on your system before you install this product. Other vendor backup software can negatively affect how NetBackup installs and functions.

Installation and upgrade requirements for Windows and Windows clusters

[Table 5](#) describes the requirements to prepare your Windows systems for NetBackup installation. Use this table as a checklist to address each item.

For the most up-to-date information about installation requirements, Veritas recommends use of the SORT website. More information about SORT is available.

See “[About Veritas Services and Operations Readiness Tools](#)” on page 13.

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters

Check	Requirement	Details
	Operating system	<ul style="list-style-type: none"> ■ Make sure that you have applied the most current operating system patches and updates. If you are not certain that your operating system is current, contact your operating system vendor and request the latest patches and upgrades. ■ For a complete list of compatible Windows operating systems, refer to the <i>Software Compatibility List (SCL)</i> at the following website: http://www.netbackup.com/compatibility

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
	Memory	<ul style="list-style-type: none"> ■ Master servers in a production environment with several database agents enabled should have a minimum of 8 GB of memory each. ■ Media servers in a production environment with several database agents enabled should have a minimum of 4 GB of memory each. <p>For additional information about memory requirements, refer to the <i>NetBackup Backup Planning and Performance Tuning Guide</i>.</p> <p>http://www.veritas.com/docs/DOC5332</p>
	Disk space	<ul style="list-style-type: none"> ■ An NTFS partition. ■ The exact amount of space that is required to accommodate the server software and the NetBackup catalogs depends on the hardware platform. More information about this topic is available. <i>NetBackup Release Notes for 7.7.2</i> http://www.veritas.com/docs/DOC5332 ■ For upgrades, you must have an additional 500 MB of disk space on the drive where Windows is installed. After the upgrade is complete, this additional space is not needed. ■ NetBackup catalogs contain information about your backups that become larger as you use the product. The disk space that the catalogs require depends primarily on the following aspects of your backup configuration: <ul style="list-style-type: none"> ■ The number of files that are backed up. ■ The frequency of your backups. ■ The amount of time that you set to retain your backup data. ■ Veritas recommends that you have a minimum available disk space of 5% in any Disk Storage Unit volume or file system. <p>Note: The value for disk space is for initial installation only. The NetBackup catalog requires considerably more space once the master server is placed in a production environment. For additional information on sizing requirements for the NetBackup catalog, refer to the <i>NetBackup Backup Planning and Performance Tuning Guide</i>.</p> <p>http://www.veritas.com/docs/DOC5332</p>

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
	General requirements	<p>Make sure that you have all of the following items:</p> <ul style="list-style-type: none"> ■ NetBackup installation DVDs or ESD images ■ Appropriate license keys ■ Administrator account and password for all servers ■ Screen resolution configured for at least 1024x768, 256 colors. <p>Note: To install NetBackup on Windows 2008 Server, Windows 2008 R2 Server, Windows 2012 R2, and Windows 2012 UAC-enabled environments, you must log on as the official administrator. Users that are assigned to the Administrators Group and are not the official administrator cannot install NetBackup in UAC-enabled environments. To allow users in the Administrators Group to install NetBackup, disable UAC.</p>

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
	Remote and cluster installations	

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
		<p>In addition to all previously stated installation requirements, the following guidelines apply to remote installations and cluster installations:</p> <ul style="list-style-type: none"> ■ All nodes in the cluster must run the same operating system version, service pack level, and NetBackup version. You cannot mix versions of server operating systems. ■ The installation account must have administrator privileges on all remote systems or on all nodes in the cluster. ■ The source system (or primary node) must run Windows 2008/2008 R2 Server/Windows 2012/2012 R2. ■ The destination PC (or clustered nodes) must have Windows 2008/2008 R2/Windows 2012/2012 R2. ■ The Remote Registry service must be started on the remote system. <p>Starting with NetBackup 7.5.0.6, the NetBackup installer can enable and start the Remote Registry service on the remote system. If the Remote Registry service is not started, the installation receives the following error message:</p> <pre>Attempting to connect to server server_name failed with the following error: Unable to connect to the remote system. One possible cause for this is the absence of the Remote Registry service. Please ensure this service is started on the remote host and try again.</pre> <ul style="list-style-type: none"> ■ NetBackup virtual name and IP address Have the virtual name and IP address for NetBackup available. You must provide this information during installation. ■ Cluster support changes for media servers Beginning with NetBackup 7.1, you cannot perform a new installation of a clustered media server. You can, however, upgrade existing 6.x clustered media servers to NetBackup 7.7.2 and still keep them clustered. ■ Windows Server Failover Clusters (WSFC) <ul style="list-style-type: none"> ■ The shared disk that the NetBackup Group uses must already be configured in the cluster and online on the active node. ■ Install NetBackup from the node with the shared disk (that is, the active node). ■ Computer or host names cannot be longer than 15

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
		<p>characters.</p> <ul style="list-style-type: none"> ■ Cluster server (VCS) clusters <ul style="list-style-type: none"> ■ For SFW-HA 4.1 and SFW-HA 4.2: Make sure that you install the patch from the following website before you install versions 7.x or upgrade from versions 6.x: http://entsupport.veritas.com/docs/278307 ■ All NetBackup disk resources must be configured in Veritas Enterprise Administrator (VEA) before you install NetBackup. ■ Cluster node device configuration and upgrades When you upgrade clusters, the <code>ltid</code> and the robotic daemons retrieve the device configuration for a particular cluster node from the EMM database. The cluster node name (provided by <code>gethostname</code>) stores or retrieves the device configuration in the EMM database. The cluster node name is used when any updates are made to the device configuration, including when <code>ltid</code> updates the drive status. The cluster node name is only used to indicate where a device is connected. The NetBackup virtual name is employed for other uses, such as the robot control host. <p>More information about cluster requirements is available.</p> <p><i>Veritas NetBackup Clustered Master Server Administrator's Guide</i></p> <p>http://www.veritas.com/docs/DOC5332</p>
	Remote Administration Console host names	You must provide the names of the Remote Administration Console hosts during master server installation.

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
	NetBackup communication	<p>Make sure that your network configuration allows all servers and clients to recognize and communicate with one another.</p> <p>Generally, if you can reach the clients from a server by using the ping command, the setup works with NetBackup.</p> <ul style="list-style-type: none"> ■ NetBackup services and port numbers must be the same across the network. ■ Veritas suggests that you use the default port settings for NetBackup services and Internet service ports. If you modify the port numbers, they must be the same for all master servers, media servers, and clients. The port entries are in the following file: <code>%SYSTEMROOT%\system32\drivers\etc\services.</code> To change the default settings, you must perform a custom installation of NetBackup or manually edit the <code>services</code> file.
	CIFS-mounted file systems	Veritas does not support installation of NetBackup in a CIFS-mounted directory. File locking in CIFS-mounted file systems can be unreliable.
	Storage devices	Devices such as robots and standalone tape drives must be installed according to the manufacturers' instructions and recognized by the Windows software.
	Server names	When you are prompted for server names, always enter the appropriate host names. Do not enter IP addresses.
	Mixed versions	Make sure to install NetBackup servers with a release level that is at least equal to the latest client version that you plan to use. Earlier versions of server software can encounter problems with later versions of client software.
	Installations on Windows 2008/2008 R2 Server Core, 2012/2012 R2 Server Core	You can only install NetBackup on these computers with the silent installation method.

Table 5 NetBackup installation and upgrade requirements for Windows and Windows clusters (*continued*)

Check	Requirement	Details
	Other backup software	Remove any other vendor's backup software currently configured on your system. The backup software of another vendor can negatively affect how NetBackup installs and functions.

NetBackup 7.7.2 binary size requirements

The information about the amount of space the NetBackup binaries requires is dynamic and changes in each release. To insure you have the most up-to-date information, Veritas recommends reviewing the binary size information in the *NetBackup 7.7.2 Release Notes*.

For the current information on operating system version support, consult the SORT *Installation and Upgrade Checklist* or the *Software Compatibility List (SCL)*.

- SORT
<https://sort.veritas.com/netbackup>
- *Software Compatibility List (SCL)*
<http://www.netbackup.com/compatibility>

How to prepare for NetBackup installation

The following tables describe the key points that should be addressed before NetBackup installation. Use these tables as a checklist to address each item.

[Table 6](#) describes the tasks that you should perform on your backup environment before you install NetBackup.

Table 6 Preinstallation tasks

Check	Preinstallation task
	Remove any backup software from other vendors.
	Install the latest operating system (OS) updates for all computers in your backup environment.
	Install and configure the latest updates for all storage devices and make sure that they work with your OS.
	Set your screen resolution to a minimum of 1024x768, 256 colors.

Table 7 describes the information you should have available when you install NetBackup.

Table 7 NetBackup installation information

Check	Required information
	<ul style="list-style-type: none"> ■ NetBackup Media Kit or the ESD images ■ License keys for NetBackup and all other NetBackup products that you purchased ■ NetBackup Installation Guide http://www.veritas.com/docs/DOC5332 ■ NetBackup Release Notes http://www.veritas.com/docs/DOC5332
	<p>Master server names (fully qualified domain names and short names)</p> <p>Note: When you are prompted for server names, always enter the appropriate host names. Do not enter IP addresses.</p>
	<p>Media server names (fully qualified domain names and short names)</p> <p>Note: When you are prompted for server names, always enter the appropriate host names. Do not enter IP addresses.</p>
	<p>Client names (fully qualified domain names and short names)</p>
	<p>User names and passwords</p>
	<p>Credentials for an administrator account</p> <p>Backup administrators must have administrator privileges to install NetBackup.</p>
	<p>Names of the Remote Administration Console hosts that you plan to install (during master server installation).</p>

When you have checked all items in the tables that pertain to your backup environment, you are ready to install NetBackup.

About NetBackup configuration

After you install the software on the servers and the clients, you must set up or configure where your backups are stored. The NetBackup Administration Console provides several configuration wizards. These wizards help you configure where you want files to be stored and which media device is used for storage.

NetBackup Administration Console	The NetBackup Administration Console is the graphical user-interface that assists you with NetBackup configuration and operation. Anytime the console is open, you can press the F1 key on your keyboard to launch the help.
Configure Storage Devices	Use this wizard to configure the storage devices that you want NetBackup to use. The wizard uses device serialization to configure robotic libraries and drives.
Configure Disk Storage Servers	Use this wizard to create and configure a storage server and a disk pool to use the new storage server.
Configure Cloud Storage Server	Use this wizard to create a cloud storage server and a disk pool, to allow NetBackup to send your data to your cloud storage provider.
Configure Disk Pool	Use this wizard to create and configure a disk pool and a storage server to use the disk pool.
Configure Volumes	Use this wizard to configure the removable media to use for backups.
Configure the Catalog Backup	Use this wizard to specify how and when NetBackup configuration and catalog information are to be backed up. Catalog backups are essential to recovery of your data, in case of a server failure or crash.

Where to find NetBackup documentation

You can find copies of NetBackup documentation on the Veritas NetBackup website in Adobe Portable Document Format (PDF).

<http://www.veritas.com/docs/DOC5332>

To view the PDF copies of the manuals, you need Adobe Acrobat Reader which you can download from the following site:

<http://www.adobe.com>

A list of the entire NetBackup documentation set appears as an appendix in the *NetBackup Release Notes*.