

Upgrading to Veritas NetBackup™ 6.0 on Supported Windows Platforms

Vast improvements have been made to the Veritas NetBackup product that make this product much more robust to meet our customer's needs. Changes have been made to the core design that improve the product's efficiency making it easier to use and maintain. Because of the significant changes and the number of new features that NetBackup now offers, Symantec would like you to upgrade any systems running a pre-6.0 version to the latest version of NetBackup.

The purpose of this document is to guide you through the process of upgrading your NetBackup 4.5 environment (4.5 GA, 4.5 FPx, or 4.5 MPx) to NetBackup 6.0 Maintenance Pack 2 (MP2). This document and the accompanying media kit will help you understand the necessary steps to achieve a successful upgrade. This document includes the following information.

- Information on where you can locate minimum memory requirements and upgrade requirements
- A checklist of things that you should verify and back up prior to beginning an upgrade
- A high-level procedure that steps you through the upgrade process by directing you to the appropriate upgrade information in existing NetBackup documents

Note: The NetBackup 5.1 and 6.0 documentation sets are included in the CD labeled, "NetBackup Documentation for 4.5 to 6.0 Upgrades." This CD is included in the NetBackup 5.1 media kit. Having this documentation on one CD enables you to search all documents using the Adobe Acrobat search tool.

In addition, this document contains links to the NetBackup documents stored on the documentation CD. You may click on any link within this document and the appropriate book will replace this document in the current Adobe Acrobat browser. If you want to return to this document after reviewing the other book, you can do so by pressing the **Alt key and the left arrow key** at the same time.

Before Upgrading

Before you begin upgrading your system, Symantec recommends that you review the software package (media kit) that you were sent and become familiar with its contents. An itemized list of the NetBackup 5.1 and the NetBackup 6.0 kits are provided for your review, starting on page 8 of this document. Because Symantec feels it is important that you to upgrade to the latest version of NetBackup, it is recommended that you contact your sales consultant and make sure that you have the latest NetBackup 6.0 MP release before you begin your upgrade.

Memory requirements for Windows systems

It is important that you understand the memory needs and disk space requirements of the versions of NetBackup that you are about to install. Because you are upgrading an environment from a NetBackup 4.5 to NetBackup 6.0, Symantec recommends that you configure your systems to meet the minimum requirements of NetBackup 6.0. For product-specific memory, disk, and binary size requirements refer to the following documents.

- For minimum memory and disk storage requirements: [NetBackup 6.0 Installation Guide for Windows](#) and the [NetBackup Release Impact Bulletin](#)
- For information about binary size requirements: [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#)
- For information on supported platforms: [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#)

Note: Selecting a link in this document causes this document to be replaced in the Adobe viewer by the appropriate book. If you want to return to this document, you can do so by pressing the **Alt key and the left arrow key** at the same time. If you minimize the windows within the Adobe viewer, you will see that both documents are now present.

NetBackup compatibility requirements

There are a few additional compatibility rules that you must remember before you begin. The following list discusses these rules.

The following operating systems are the only versions that can be upgraded from NetBackup 4.5 to 6.0.

- HP Tru64 5.1b
- Windows 2000 and 2003
- HP-UX 11.0 and 11.11
- IBM AIX 5.1 and 5.2
- Linux Red Hat 2.1
- Solaris 8 and 9

If you have an operating system that NetBackup 6.0 does not support, then you should install a new operating system that NetBackup 6.0 supports. In a situation like this, Symantec recommends that you install the new operating system and perform a clean installation of NetBackup 6.0. (Refer to the [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#) for a list of the supported platforms and operating systems.)

If you need to install a new operating system, then Symantec has the following recommendations:

Note: As you prepare to start your upgrade, Symantec requires that you keep the same host names that were used in your previous environment to avoid any potential issues.

- If the master server operating system is not supported in the NetBackup 6.0 MP2 migration, you should do the following:
 - When decommissioning a master server, you must first recover the master server's NetBackup catalog to a new system while maintaining the current host name. Refer to the [NetBackup 5.1 Troubleshooting Guide for UNIX and Windows](#) for more information on how to do a full recovery of your master server. After you have migrated the server to the new platform, follow the upgrade procedure in the [NetBackup 5.1 Installation Guide for Windows](#) to upgrade NetBackup 4.5 to 5.1, and then proceed to upgrade to NetBackup 6.0.
- Contact your Symantec Sales Representative for advanced migration details that are outside the scope of this procedure.

- If the media server operating system is not supported in the NetBackup 6.0 MP2 migration, you should take the following approach.
 - Run a catalog backup of the server that is being decommissioned.
 - Perform a decommissioning process to move the media database to an existing supportable media server platform. (This platform should be at an appropriate version level that will support a NetBackup 6.0 MP2 release prior to upgrading. Refer to the [NetBackup 5.1 Media Manager System Administrator's Guide for Windows](#) for instructions on how to decommission a server.)
 - From the existing, merged media server, follow the upgrade procedure in the [NetBackup 5.1 Installation Guide for Windows](#) to upgrade to NetBackup 4.5 to 5.1, and then proceed to upgrade to NetBackup 6.0.
 - Contact your Symantec Sales Representative for advanced migration details that are outside the scope of this procedure.
- Run `vmglob -listall` to obtain a list of your current devices, tape drives, and device host, so that you can validate the information and remove any decommissioned media servers necessary. For detailed information on how to remove a decommissioned media server, refer to, "Decommissioning a Media Server" in the [NetBackup 5.1 Media Manager System Administrator's Guide for Windows](#).
- Media servers must be upgraded from 4.5 to 5.1, and then to 6.0. However, upgrading media servers to 6.0 is an optional step. NetBackup 5.1 media servers are supported in a NetBackup 6.0 environment, however, you should not attempt to back up a NetBackup 6.0 client to a NetBackup 5.1 media server.
- After you have upgraded all of the master servers, and any media servers that you want to upgrade to 6.0, then you are ready to upgrade the NetBackup clients. You can upgrade clients directly from NetBackup 4.5 to 6.0.

For additional compatibility information, refer to the [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#).

Upgrade requirements

For detailed information describing the requirements that are necessary for a successful upgrade from NetBackup 4.5 to 5.1 and NetBackup 5.1 to 6.0 MP2, refer to the following documents:

- For NetBackup 4.5 to 5.1 upgrade requirements refer to [NetBackup 5.1 Installation Guide for Windows](#).
- For NetBackup 5.1 to 6.0 MP2 upgrade requirements refer to [NetBackup 6.0 Installation Guide for Windows](#) and the [NetBackup Release Impact Bulletin](#) for any additional information.

Beginning the Upgrade Process

There are three major processes that you must perform to upgrade from NetBackup 4.5 to 6.0 MP2. The first process is to upgrade from NetBackup 4.5 to 5.1. The second process is to upgrade from NetBackup 5.1 to 6.0 MP2. And the third process is to run the `nbpushdata` command after you have upgraded to 6.0 MP2.

The following sequence highlights the order in which you should install the upgrade software when upgrading from one version of NetBackup to another (it **is not** the sequence you should use to run the `nbpushdata` command. Refer again to the previous section or the [NetBackup 6.0 Installation Guide for Windows](#)).

- a Master server
- b Media servers
- c NetBackup Remote Administration consoles
(If supporting older releases, refer to the [NetBackup 6.0 System Administrator's Guide for Windows](#) for information on how to implement multiple versions.)

- d NetBackup clients - After you have successfully upgraded your master and media servers to NetBackup 6.0 MP2, you can then upgrade your clients to NetBackup 6.0. You can upgrade your clients from NetBackup 4.5 directly to 6.0; you do not have to upgrade clients from NetBackup 4.5 to 5.1, and then to 6.0.
- e Any NetBackup add-on products. The following should be considered for each product add-on:
 - When upgrading the Veritas Storage Migrator (VSM) product, you must upgrade from NetBackup 4.5 to 5.0 first, then upgrade to 5.1, and finally, to 6.0MP2. You cannot skip a version when upgrading VSM.
 - When upgrading NetBackup Vault, you can upgrade to the same version levels as is suggested for NetBackup.
 - When upgrading NetBackup Advanced Reporter, refer to the document for a better understanding of what you should do before you finish your upgrade to NetBackup 6.0 MP2. The name of the file on the Document CD is `NBAR_TechNote_281578.pdf`, and the title of the article is, “[How to preserve NetBackup Advanced Reporter \(NBAR\) data before upgrading to NetBackup 6.0. \(TechNote 281578\)](#)”.

Upgrading from NetBackup 4.5 to NetBackup 5.1

Symantec recommends that you check the state of your configuration and then perform a catalog backup before starting any upgrade procedure. These are safety steps to make sure that you have the latest information saved. The following steps guide you through the process of upgrading from NetBackup 4.5 to 5.1, the first stage of the upgrade.

- 1 Validate your current system configuration.
When performing an upgrade from NetBackup 4.5 to 5.1, Symantec recommends that you use a tool such as the NetBackup Configuration Validation utility (NCVU) to validate your configuration. This tool is supported on four platforms (AIX, HP-UX, Solaris, and Windows). This tool is downloadable through Symantec Support.
- 2 Perform a catalog backup and save this information to a secure location.
- 3 Symantec also recommends that you backup all NetBackup databases, patches, scripts (for example, database agent backup and restore scripts), and other NetBackup data.
- 4 Verify that all of the systems in your environment are a supported operating system version level for NetBackup 5.1. Refer to Chapter 2, in the [NetBackup 5.1 Release Notes for UNIX and Windows](#) for a list of the supported platforms. (If you need to decommission a server refer to, “[NetBackup compatibility requirements](#)” on page 2 for information on this process.)
- 5 Verify that all of the systems in your environment have all of the required patches installed for NetBackup 5.1. Refer to Chapter 3, in the [NetBackup 5.1 Release Notes for UNIX and Windows](#) for a list of all known patch information applicable to the platforms in your environment.
- 6 Disable all backup policies. A backup that is running during an upgrade is not desirable and could result in a failed upgrade.
- 7 Run `vmglob -listall`. This command provides a list of all devices, tape drives, and device host so that you can validate the list and remove any decommissioned media servers.

Note: As you perform your upgrade, Symantec requires that you keep the same host names that were used in your previous environment to avoid any potential issues.

- 8 Starting with your master server, upgrade to NetBackup 5.1. Refer to, “Upgrading NetBackup,” in Chapter 3 of the [NetBackup 5.1 Installation Guide for Windows](#) for instructions on how to complete this procedure.
- 9 Complete your system update after an upgrade process is complete.

At this time you should upgrade any separately-priced options (such as NetBackup for Oracle) on clients that have been upgraded. Separately-priced options should be at the same level as the NetBackup client. In addition, if you made changes to any NetBackup scripts prior to the upgrade, you should apply those changes to the new, upgraded versions of the scripts.

- 10 Upgrade the NetBackup client software in your environment. Refer to, “Installing NetBackup Client Software” in Chapter 7 of the [NetBackup 5.1 Installation Guide for Windows](#).

- 11 Install any NetBackup agents and options after the upgrade.

After your upgrade is complete, you can install any other NetBackup agents and options (such as NetBackup for Oracle) by following the instructions in the NetBackup guide that comes with that particular product. Copies of these documents have been provided to you in this media kit.

Upgrading from NetBackup 5.1 to NetBackup 6.0

The following steps guide you through the process of upgrading from NetBackup 5.1 to 6.0, the second stage of the upgrade process.

- 1 If you have not run a backup since upgrading to NetBackup 5.1, then you can skip this step and proceed to Step 2. If you have run a backup using NetBackup 5.1, then you must perform Steps 1.a. through 1.c.
 - a Validate your current system configuration.
Symantec recommends that you run `vmglob -listall` on your master server to obtain a list of your devices, tape drives, and the device host so that you can validate this information. If you have concerns about your environment, or need help validating your system configuration, contact your support representative for assistance.
 - b Perform a catalog backup and save this information to a secure location.
 - c Backup all NetBackup databases, patches, scripts, and other NetBackup data.
- 2 Verify that all of the systems in your environment are a supported operating system version level for NetBackup 6.0. Refer to Chapter 2, in the [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#) for a list of the supported platforms
- 3 Verify that all of the systems in your environment have all of the required patches installed for NetBackup 6.0. Refer to Chapter 3, in the [NetBackup 6.0 Release Notes for UNIX, Windows, and Linux](#) for a list of all known patch information applicable to the platforms in your environment.
- 4 Disable all backup policies. A backup that is running during an upgrade is not desirable and could result in a failed upgrade.
- 5 Run `vmglob -listall`. This command provides a list of all devices, tape drives, and device host so that you can validate the list and remove any decommissioned media servers.

Note: Again, Symantec requires that you keep the same host names that were used in your previous environment to avoid any potential issues.

- 6 Stop all NetBackup services and refer to “Upgrading NetBackup Servers” in Chapter 3 of the [NetBackup 6.0 Installation Guide for Windows](#) for detailed instructions on how to upgrade to NetBackup 6.0.
For systems with a Windows master, after upgrading your master server and prior to upgrading other components, verify the Adaptive Service Anywhere (ASA) database has been created. To verify this, execute the `nbdb_ping` from a command prompt within the NetBackup bin directory. A response to this command indicates that the database is alive.

This database is critical to the functionality of NetBackup 6.0. If the database has not been created, perform the following:

- a If the database has not been created properly do so now by executing:

```
<install path>\NetBackup\bin>create_nbdb -db_server VERITAS_NB_<master server name> -data <data path>\NetBackupDB\data" -index <data path>\NetBackupDB\data" -tlog <data path>\data" -conf <data path>\NetBackupDB\conf"
```

- b For non-clustered masters the install path and data path are the same. For clustered masters the data path is the shared data path and not the local system install path.

```
C:\Program Files\VERITAS\NetBackup\bin>create_nbdb -db_server VERITAS_NB_SAGA -data "F:\Program Files\VERITAS\NetBackupDB\data" -index "F:\Program Files\VERITAS\NetBackupDB\data" -tlog "F:\Program Files\VERITAS\NetBackupDB\data" -conf "F:\Program Files\VERITAS\NetBackupDB\conf"
```

- 7 After you have finished installing the NetBackup 6.0 GA upgrade, Symantec recommends that you install the NetBackup 6.0 MP2 (or any subsequent patch release after MP2) *before* you run the nbpushdata command. NetBackup 6.0 MP2 contains important product fixes and updates that will ensure a successful upgrade. You can download this maintenance pack from the following support web site: www.support.veritas.com.
- 8 Run the nbpushdata command. This command moves data from your current database files (a subset of the NetBackup catalog) into a newly created EMM database. The sequence of when and on what systems you run the nbpushdata command is extremely important. For more information on running nbpushdata and creating the EMM database when you upgrade, refer to "Populating the NetBackup EMM Database" in the [NetBackup 6.0 Installation Guide for Windows](#).

The following list provides the order in which you must run the nbpushdata command in your environment.

- a **5.x Global Device Database Host** - You must do the following:

- Run nbpushdata -show_flags. If you encounter the following flag, you must delete it.
NBPUSHDATA_G_5X_UPGRADE = myhost.mycompany.com
- To delete the previous flag, run the following command:
nbpushdata -delete_flag NBPUSHDATA_G_5X_UPGRADE
Note: After this flag has been deleted, do **not** start vmd on any NetBackup 6.0 host until the following command has completed on the NetBackup 5.x Global Device Database Host.
- Run nbpushdata -add on the 5.x server that was configured as the Global Device Database Host. This is usually a master server, but a media server as the Global Device Database Host is also a supported configuration.

- b **Master servers** - There is no particular order in which you must run nbpushdata -add on your master servers after you have run it on the server that was configured as the Global Device Database Host.
- c **Volume Database Hosts** - You must next run nbpushdata -add on the server designated as a Volume Database Host. If the Volume Database Host was also the Global Device Database Host, this step does not apply.
- d **Media Servers** - Any remaining media servers that have not been upgraded to NetBackup 6.0. Media servers can be upgraded at a later time.

If you are leaving any media servers at NetBackup 5.x, you must log in to the master server(s) that administers to those back-level media servers and run nbpushdata -modify_5x_hosts. See, "To configure 5.x media servers for compatibility with 6.0 environments," in the [NetBackup 6.0 Installation Guide for Windows](#) for detailed instructions.

For a list of the 5.x database files that are moved to the EMM database, refer to the [NetBackup 6.0 Installation Guide for Windows](#).

Note: If you are concerned that your current installation of NetBackup is corrupt, contact Symantec Technical Support for assistance.

- 9 Upgrade the clients in your environment. Refer to, “Upgrading Clients After Servers Are Upgraded” in Chapter 3 of the [NetBackup 6.0 Installation Guide for Windows](#).
- 10 Complete your system update after an upgrade process is complete.
At this time you should upgrade any separately-priced options (such as NetBackup for Oracle) on clients that have been upgraded. Separately-priced options should be at the same level as the NetBackup client. In addition, if you made changes to any NetBackup scripts prior to the upgrade, you should apply those changes to the new, upgraded versions of the scripts.
- 11 Install any NetBackup agents and options after the upgrade.
After your upgrade is complete, you can install any other NetBackup agents and options (such as NetBackup for Oracle) by following the instructions in the NetBackup guide that comes with that particular product. Copies of these documents have been provide to you in this media kit.
- 12 Enable the backup polices that were disabled earlier in the procedure.
- 13 Symantec recommends that you perform another catalog backup at this time.

Contents of the NetBackup 5.1 media kit

The following table provides the title of each CD along with a brief description of its contents.

Table 1-1 NetBackup 5.1 media kit contents

CD title	Contents
Documentation CD	<p>This CD provides documentation, in Portable Document Format (PDF), for all NetBackup software products in the 5.1 and 6.0 version releases. In addition to the NetBackup documentation set, other information has been made available, such as release impact information and additional upgrade-related information.</p> <p>The documentation is organized by version level. You can print the files you select using Acrobat Reader.</p> <p>You can navigate to the CD drive to view the contents of this CD. From that drive, you can select documents to view or copy them to a local drive.</p>
Windows server CDs	
Windows 32-bit Server	Contains the Windows 32-bit server and all Windows clients, agents, or options for a Windows 32-bit operating system.
Windows IA64-bit Server	Contains the Windows 64-bit server and all Windows clients, agents, or options for a Windows IA 64-bit operating system.
UNIX server CDs	
IBM AIX	Contains server and all UNIX clients
HP	Contains server and all UNIX clients
HP Tru64	Contains server and all UNIX clients
Linux	Contains server and all UNIX clients
SGI	Contains server and all UNIX clients
Sun Solaris	Contains server and all UNIX clients
UNIX clients	Contains all UNIX clients
UNIX options	Contains all database agents and add-on features
NetBackup GDM	AIX, HP, Linux, Solaris, Tru64 and Windows NT/2000
NetBackup Storage Migrator	Contains NetBackup Storage Migrator
NetBackup VSM	HP, SGI, and Solaris
NetBackup VxSS 4.1.2.5	AIX, HP, Linux, Solaris, Tru64 and Windows x86 and IA64
NetBackup 5.1 Patch CD	
NetBackup Server - v5.1 (Maintenance Pack 4)	Contains the patch updates for the 5.1 Maintenance Pack 4 release.

Contents of the NetBackup 6.0 media kit

The following table provides the title of each CD along with a brief description of its contents.

Table 1-2 NetBackup 6.0 media kit contents

CD title	Contents
Documentation CD	A NetBackup documentation CD. This CD provides NetBackup 6.0 documentation only, in Portable Document Format (PDF), for all NetBackup software products in a release.
Windows server CDs	
Windows 32-bit Server	Contains the Windows 32-bit server and all clients, agents, or options for a Windows 32-bit operating system.
Windows IA64-bit Server	Contains the Windows 64-bit server and all Windows clients, agents, or options for a Windows IA 64-bit operating system.
UNIX server CDs	
IBM AIX and HP Tru64	<ul style="list-style-type: none">■ AIX 5.1 RS/6000, AIX 5.2, or AIX 5.3 server types■ Alpha Tru64 5.1b and 5.1b2 server types and ALPHA: OSF1_V5 client types
HP	<ul style="list-style-type: none">■ HP9000 - PA-RISC: HP-UX 11.0, 11.11 and 11.23■ HP - Integrity: HP-UX 11.23
Linux	<ul style="list-style-type: none">■ Intel 32-bit Linux: Red Hat 2.4 client types and IA64 Linux: SuSE 2.4 client types
Sun Solaris	Solaris 8, 9, and 10 server types and the client types that correspond.
UNIX clients	Contains all UNIX clients
UNIX options	Contains database agents, Advanced Client, BMR, BMR boot, encryption, NDMP, Vault
NetBackup Storage Migrator	Contains NetBackup Storage Migrator (VSM)
NetBackup Operations Manager	Contains NetBackup Operations Manager (NOM)
Common Components CDs	
Infrastructure Core Services (ICS) for AIX	VxSS Security and PBX Installer for AIX
ICS for HP900 PA-RISC	VxSS Security and PBX Installer for HP-UX
ICS for HP Integrity	VxSS Security and PBX Installer for HP IA-64
ICS for Intel 32-bit Linux	VxSS Security and PBX Installer for Linux
ICS for IA64 Linux	VxSS Security and PBX Installer for Linux IA-64
ICS for Solaris	VxSS Security and PBX Installer for Solaris
ICS for Tru64	VxSS Security and PBX Installer for HP Tru64/Alpha
ICS for Windows 32	VxSS Security and PBX Installer for Windows
ICS for Windows IA64	VxSS Security and PBX Installer for Windows IA-64
NetBackup 6.0 Patch CDs	
NetBackup Server - v6.0 (MP 2)	There are three patch CDs that comprise the NetBackup 6.0 MP2 release.