

VERITAS NetBackup™ DataCenter 3.4

Installation Guide

UNIX

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VERITAS

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Preface

The purpose of this guide is to help NetBackup system administrators install NetBackup™ DataCenter. The NetBackup system administrator is responsible for maintaining backups and disaster recovery plans using NetBackup.

This guide assumes:

- ◆ A basic understanding of UNIX system administration.
- ◆ Experience with the system on which NetBackup DataCenter is to be installed.
- ◆ Your SCSI devices are properly attached and configured for the operating system.

Caution If a device is not properly configured for the operating system, backups made to that device may be difficult to restore.

Organization

- ◆ Chapter 1, “Installation and Initial Configuration,” contains detailed instructions on using the installation scripts created for Solaris and all non-Solaris platforms.
- ◆ Chapter 2, “Performing an Upgrade Installation,” contains instructions on upgrading NetBackup.
- ◆ Chapter 3, “Uninstall NetBackup DataCenter and Clients,” explains how to uninstall the NetBackup software.
- ◆ Appendix A, “Related Documents,” describes the manuals pertaining to NetBackup.

Conventions

The following explains typographical and other conventions used in this guide.



Type Style

Table 1. Typographic Conventions

Typeface	Usage
Bold fixed width	Input. For example, type <code>cd</code> to change directories.
Fixed width	Paths, commands, filenames, or output. For example: The default installation directory is <code>/opt/VRTSxxx</code> .
<i>Italics</i>	Book titles, new terms, or used for emphasis. For example: <i>Do not</i> ignore cautions.
<i>Sans serif (italics)</i>	Placeholder text or variables. For example: Replace <i>filename</i> with the name of your file.
Sans serif (no italics)	Graphical user interface (GUI) objects, such as fields, menu choices, etc. For example: Enter your password in the Password field.

Notes and Cautions

Note This is a Note and is used to call attention to information that makes it easier to use the product or helps you to avoid problems.

Caution This is a Caution and is used to warn you about situations that can cause data loss.

Key Combinations

Some keyboard command sequences use two or more keys at the same time. For example, you may have to hold down the Ctrl key before you press another key. When this type of command is referenced, the keys are connected by plus signs. For example:

Press Ctrl+t

Command Usage

The following conventions are frequently used in the synopsis of command usage.

brackets []

The enclosed command line component is optional.

Vertical bar or pipe (|)

Separates optional arguments from which the user can choose. For example, when a command has the following format:



command *arg1* | *arg2*

the user can use either the *arg1* or *arg2* variable.

Getting Help

For updated information about this product, including system requirements, supported platforms, supported peripherals, and a list of current patches available from Technical Support, visit our web site:

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

For product assistance, contact VERITAS Customer Support.

US and Canadian Customers: 1-800-342-0652

International Customers: +1 (650) 335-8555

VERITAS Customer Support can also be reached through electronic mail at:

support@veritas.com





NetBackup DataCenter includes wizards that make it easy to install and configure the software.

Installing and configuring NetBackup DataCenter involves the following steps as explained in this chapter:

- ◆ Installing NetBackup DataCenter
- ◆ Configure Storage Devices for the Operating System
- ◆ Configure NetBackup
- ◆ Install the NetBackup Clients
- ◆ Install Alternative Administration Interfaces
- ◆ Install NetBackup Agents and Options (Optional)



Installing NetBackup DataCenter

Note If you are performing an upgrade, refer to “Performing an Upgrade Installation” on page 37.

Before running the NetBackup DataCenter installation script, first review “What Does the Script Do?” and “What Should I Do Before I Start the Script?” below.

What Does the Script Do?

In addition to installing the NetBackup DataCenter on the server, the install scripts do the following:

- ◆ Places the name of the DataCenter host in the `/usr/opensv/netbackup/bp.conf` file on the server.
- ◆ Adds entries to the `/etc/services` file for NetBackup and Media Manager services (for example, robotic daemons). The `/etc/services` file contains UNIX system information. The script shows the default port numbers and asks if you want to change them.
- ◆ Checks to see if your server is running Network Information System (NIS). NIS is the UNIX directory service utility. If it is running, you are instructed to add entries to your NIS services map.
- ◆ Adds entries to the server’s `/etc/inetd.conf` file. The `/etc/inetd.conf` file facilitates networking. Entries are added for `bpcd`, `vopied`, and `bpjava-msvc`, and then the script sends `inetd` a `SIGNAL` to cause it to read the updated file.
- ◆ Adds an automatic startup script to the `/etc/rc2.d` directory (Solaris) or to the `/sbin/rc2.d` directory (HP). On other systems this script may be placed in a different directory. This script will automatically initiate NetBackup and Media Manager daemons when you reboot your operating system.

What Should I Do Before I Start the Script?

Review this section before starting the installation.

Installation Requirements

- ◆ A server of a supported hardware type running a supported version of its operating system, with adequate disk space and supported peripherals. For details on these requirements, refer to the *NetBackup Release Notes*.
- ◆ For reasonable performance of the NetBackup-Java interfaces, VERITAS recommends 256 MB of RAM, of which 128 MB are available to the interface program (`jnbSA` or `jbpSA`).



- ◆ The NetBackup CD-ROM.
- ◆ The root password for the server.
- ◆ About 20 minutes to install the server software. Additional time is required to configure the product for your environment.
- ◆ For some peripherals and platforms, kernel reconfiguration is required. See the *NetBackup DataCenter Media Manager System Administrator's Guide - UNIX* for details.
- ◆ Adequate disk space to install the software (see the *NetBackup Release Notes* for binary sizes).
- ◆ All NetBackup servers must recognize and be recognized by their client systems. In some environments, this means that each must be defined in the other's `/etc/hosts` file. Other environments may use the Network Information Service (NIS) or Domain Name Service (DNS).
- ◆ Identify the devices you plan to use in your NetBackup configuration. Ensure that these devices appear on the list of DataCenter supported devices (included in the Release Notes).

Notes About the Installation

- ◆ If you are not adding any NetBackup media servers, ignore all references to them.
 - ◆ On the NetBackup server, the install location contains the software and the NetBackup catalog and can become quite large.
 - ◆ For the Solaris NetBackup installation, the default location is `/opt/openv` with a link to `/usr/openv`.
 - ◆ For the all other UNIX NetBackup installations, the default location is `/usr/openv`.
- If space is an issue, consider installing NetBackup on an alternate file system. The installation allows you to select an alternate install location, and creates the appropriate link to `/usr/openv`.
- ◆ Because the product uses file locking, VERITAS recommends that you not install NetBackup in an NFS mounted directory. File locking in NFS mounted file systems can be unreliable.
 - ◆ For Hewlett Packard servers, install NetBackup on a file system that supports long file names. Also, install HP-UX 10.x compatibility links.



How to Install NetBackup DataCenter

1. Check the license keys included with this order to make sure that you have license keys for all the NetBackup servers, clients, options, and agents that you have ordered.

When installing a NetBackup server, master or media, you must enter a NetBackup base product license key. On the master server, you must also enter license keys for any additional NetBackup software product options or agents used on the server or its clients. For more information on administering NetBackup licenses see the *NetBackup DataCenter System Administrator's Guide - UNIX*.

2. Log in as the root user on the server.
3. Insert the CD-ROM in the drive.
4. HP systems only: Because the NetBackup CD-ROM is Rockridge formatted, it must be mounted by entering the following commands:

```
nohup pfs_mountd &
nohup pfsd &
pfs_mount -o xlat=unix /dev/dsk/device-ID /cdrom
```

Where *device_ID* is the ID of your CD-ROM drive.

5. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

6. Execute the install script:

```
./install
```

When the menu appears, choose option 1 (NetBackup). This installs both Media Manager and NetBackup software on the server.

7. Follow the prompts in the installation scripts.

Note The correct NetBackup client software is automatically installed on the master server. Do not install additional client software on any media servers.

Note The installation script offers you the option to load onto the server the UNIX client software for each of the UNIX client types supported by NetBackup. Later you can “push” this client software from the server to your UNIX clients.



Be certain to load onto the server the software for all the UNIX client types you intend to back up. Otherwise, you will not be able to add these UNIX client types to the NetBackup class configuration.

8. Remove Java files used by platforms for which you have no clients, as follows:

On HP700, HP800, and Solaris servers, NetBackup installation creates some large files in the `/usr/opencv/java` directory, including:

- ◆ `Solaris_JRE_117B.tar.Z`
- ◆ `Solaris_X86_JRE_117B.tar.Z`
- ◆ `hp1020_jre116.tar.Z`
- ◆ `hp110_jre116.tar.Z`

These files are needed for installs on the following NetBackup clients and are used by the NetBackup Java interface applications on those platforms:

NetBackup's Java client GUI runs on the following platforms:

- ◆ SPARC: Solaris 2.6, 7, 8
- ◆ Intel x86: Solaris 2.6, 7, 8
- ◆ HP9000-700: HP-UX 10.20, 11.0
- ◆ HP9000-800: HP-UX 10.20, 11.0

Delete any of the tar files used by platforms for which you have no clients:

Platform/OS	Tar file
SPARC: Solaris	<code>Solaris_JRE_117B.tar.Z</code>
Intel x86: Solaris	<code>Solaris_X86_JRE_117B.tar.Z</code>
HP-UX 10.20	<code>hp1020_jre116.tar.z</code>
HP-UX 11.0	<code>hp110_jre116.tar.z</code>

9. On HP systems only: to unmount the CD-ROM, do the following:

- ◆ Execute the `pfs_umount` command
- ◆ Use the `kill` command to kill the following processes:

```
pfs_mountd
pfsd
pfs_mountd.rpc
pfsd.rpc
```



Set up the Window Manager for Java Interface (Solaris /HP)

Always set your window manager so windows become active only when you click inside the windows. Do not enable auto focus, which is when windows become active if you just move the mouse pointer over them. The NetBackup-Java interfaces do not run properly with auto focus enabled. The following are general instructions for correctly setting up the focus.

CDE (Common Desktop Environment)

The following explains how to set up a CDE (Common Desktop Environment) window manager, which is the preferred window manager for NetBackup-Java applications.

1. On the front panel in the CDE window, click the Style Manager control icon.
The Style Manager toolbar appears.
2. On the Style Manager toolbar, click the Window control icon.
The Style Manager - Window dialog box appears.
3. In the Style Manager-Window dialog box, click the Click In Window To Make Active button.
4. Click OK.
5. Click OK when asked to Restart the Workspace Manager.

Motif

When using the Motif window manager, set the `Mwm*keyboardFocusPolicy` X resource as follows:

```
Mwm*keyboardFocusPolicy:explicit
```

Modify Scripts

You may want to create or modify system startup scripts so they start the Media Manager and NetBackup daemons when the system boots and terminate them at system shutdown. Always start the Media Manager daemons before the NetBackup daemons.

In your initialization scripts for media servers, start and stop only `ltid`. Do not start and stop `bprd` from media-server initialization scripts.

All server platforms have various scripts in the following directory:

```
/usr/openv/netbackup/bin/goodies
```

- ◆ For DEC Alpha, Solaris 2.x, SGI, NCR, Pyramid and Sequent, the `goodies` directory contains the `S77netbackup` and `K77netbackup` scripts. `S77netbackup` starts the NetBackup and Media Manager daemons and `K77netbackup` stops the NetBackup and Media Manager daemons.
 - ◆ For all except DEC Alpha, place these scripts in the server's `/etc/rc2.d` (startup) and `/etc/rc0.d` (shutdown) directories.
 - ◆ For DEC Alpha, place them in the `/sbin/rc3.d` (startup) and `/sbin/rc0.d` (shutdown) directories.
- ◆ For HP 10.x and HP 11.0, the `goodies` directory contains the `S777netbackup` and `K777netbackup` scripts. `S777netbackup` starts the NetBackup and Media Manager daemons and `K777netbackup` stops the NetBackup and Media Manager daemons. Place these scripts in the server's `/etc/rc2.d` (startup) and `/etc/rc0.d` (shutdown) directories.
- ◆ For Auspex servers, the `/etc/rc.local` file can be changed by adding lines similar to those in the example below. In the test environment, these lines were placed after the test for `/etc/exports` and before the test for `/tftpboot`.

Figure 1. `/etc/rc.local` file for Auspex.

```
if [ -f /usr/opensv/volmgr/bin/ltid ]; then
    /usr/opensv/volmgr/bin/ltid
    sleep 2
    echo "Media Manager daemons have been started." > /dev/console
else
    echo "Media Manager daemons have not started." > /dev/console
fi
if [ -f /usr/opensv/netbackup/bin/initbprd ]; then
    /usr/opensv/netbackup/bin/initbprd
    sleep 2
    echo "NetBackup request daemon started." > /dev/console
else
    echo "NetBackup request daemon not started." > /dev/console
fi
```

- ◆ For IBM servers, the `goodies` directory contains the `rc.veritas.aix` script. This script starts the Media Manager and NetBackup daemons. Place this script into the server's `/etc` directory and call it during the level 2 boot process. Edit the server's `/etc/inittab` file and add this line:


```
veritas:2:wait:/etc/rc.veritas.aix
```

 Call this script after most of the other level 2 `inittab` entries like `rctcpip` and `diagd`.



Configure Storage Devices for the Operating System

Reliable use of NetBackup depends on the configuration of your storage devices. To ensure reliable backups and restores, you must configure devices for your operating system according to the instructions provided by the device and operating system vendors. This should be completed *before* you configure NetBackup itself.

Note To connect a device to the operating system (OS), you should read the chapter appropriate for your OS in the *NetBackup Media Manager Device Configuration Guide*. The Device Configuration Guide is available on your installation CD in Acrobat format.

Caution An improperly configured device may lead to loss of data during a restore.

Configure NetBackup

After the server software has been installed and storage devices have been configured, perform the following steps. Refer to the *NetBackup DataCenter System Administrator's Guide - UNIX* for more information.

1. Configure NetBackup on Each Server
2. Configure Volumes
3. Configure the Catalog Backup
4. Create a Backup Policy

Install the NetBackup Clients

By definition, your NetBackup server is also a NetBackup client. When you installed the NetBackup software, both the NetBackup *server* and NetBackup *client* software were installed on your server machine.

The following are quick-start instructions for installing NetBackup client software. For further information on installing and configuring software on PC clients, see the *NetBackup Installation Guide - PC Clients*.

Windows 95/98/2000/NT 4.0

Note Open Transaction Manager (OTM) is a separately-priced option for BusinessServer. If the client's server is a NetBackup BusinessServer, you must have license keys for this feature registered on the server to enable this feature.

Execute `PC_ClnT\Win32\Setup.exe` from the CD-ROM.

NetWare Target and Nontarget

Note Open Transaction Manager (OTM) is a separately-priced option for BusinessServer. If the client's server is a NetBackup BusinessServer, you must have license keys for this feature registered on the server to enable this feature.

Installing OTM for NetWare

NetWare 3.x and 4.x:

1. Copy `OTMSDK.DSK` onto the server's DOS partition.
2. Modify `STARTUP.NCF` on the server's DOS partition so that `OTMSDK.DSK` is loaded before any other `.DSK` drivers.
3. Reboot the NetWare file server.

NetWare 3.x, 4.x, and 5.x:

From the `PC_ClnT\NetWare\NLM` directory on the CD-ROM, copy `OTMCDM.NLM`, `OTMLAPI.NLM`, `OTMLOAD.NLM`, AND `PMTHREAD.NLM` to the NetWare file server.

Installing NetBackup

Note `tsands.nlm` must be installed in order to back up and restore NetWare Directory Services (NDS) files.

Any version-dependent NLMs must be also installed. These NLMs are in the form `tsaxxx.nlm` and are supplied by Novell based on the NetWare Server release level. For example, the appropriate NLM for a Netware 5.0 server is `tsa500.nlm`.



1. From the `PC_ClnT\NetWare\NLM` directory on the CD-ROM, copy `BP.NLM`, `BPSRV.NLM`, `BPSMS.HLP`, and `BPCD.NLM` to the `SYS:system` directory on your file server.
2. Create the following directories on the `SYS:` volume:
 - ◆ For NetWare Target
 - `Openv\netback\logs`
 - `Openv\netback\logs\altpath`
 - `Openv\netback\logs\bpback`
 - `Openv\netback\logs\bprest`
 - `Openv\netback\logs\bpcd (optional)`
 - `Openv\netback\tgts`
 - ◆ For NetWare NonTarget
 - `Openv\netback\logs`
 - `Openv\netback\logs\altpath`
 - `Openv\netback\logs\bpsrv (optional)`
 - `Openv\netback\logs\bpcd (optional)`
3. For NonTarget clients, execute `PC_ClnT\NetWare\Win32\Setup.exe` file from the CD-ROM.
4. Modify the hosts file to contain the master server and media servers and their IP addresses.

Macintosh

For Macintosh installation instructions, refer to the *NetBackup Installation Guide - PC Clients*.

OS/2 Warp

1. Copy `PC_ClnT\OS2\nbuos2.exe` to a temporary directory on the OS/2 Warp computer.
2. Execute `nbuos2.exe` from the temporary directory to extract the installation files.
3. Execute `install.exe` from the temporary directory to install NetBackup for OS/2.



UNIX

To use a UNIX client, the software for that type of UNIX computer must first be loaded onto your UNIX server. If you did not choose to do this during the installation of your UNIX server, do so now by following the instructions provided in “Add a UNIX Client Type After Initial Server Installation” on page 16.

UNIX clients can be installed in two different ways: either locally at the client computer, or remotely, from your UNIX NetBackup server.

- ◆ **Locally:** You must install the client software locally if remote installation is not possible. Remote installation is not possible if your NetBackup server is an NT/2000 computer or if there is a firewall that prevents remote installation.
- ◆ **Remotely:** You can “push” the client software from your UNIX NetBackup server to your UNIX client computers.

Note If you are running NetBackup on a Windows NT/2000 computer, or if there is a firewall that prevents remote installation, UNIX clients *must* be installed locally.

Note If your server is not HP or Solaris, you must install client software locally to install NetBackup Java on HP and Solaris NetBackup clients. NetBackup Java is only installed and distributed to HP and Solaris NetBackup clients from an HP or Solaris NetBackup master server.

To initiate a backup or a restore from the UNIX client computer, the following graphical interfaces are available on the UNIX client:

- ◆ On Solaris and HP clients only: the NetBackup Java interface (`jbpsA`).
- ◆ On all UNIX clients: the `xbp` interface. For instructions on the use of `xbp`, see the *NetBackup User's Guide - UNIX*.

Install Client Software Locally

1. Insert the NetBackup CD-ROM into the drive on the client computer.

HP systems only: Because the NetBackup CD-ROM is Rockridge formatted, it must be mounted by entering the following commands:

```
nohup pfs_mountd &
nohup pfsd &
pfs_mount -o xlat=unix /dev/dsk/device-ID /cdrom
```

Where *device_ID* is the ID of your CD-ROM drive.



2. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

3. Start the install program.

```
./install
```

4. Choose option 2, NetBackup Client Software.

Note The choices provided for OS level represent the OS Level on which the binaries were compiled. Often the binaries will function perfectly on newer versions of the operating system. For example, Solaris 2.6 binaries also are used on Solaris 7 and Solaris 8 levels of the operating system. So, if you wish to install on a Solaris 8 system, choose the Solaris2.6 binaries.

5. Follow the prompts to complete the installation.
6. On HP systems only: to unmount the CD-ROM, do the following:
 - ◆ Execute the `pfs_umount` command
 - ◆ Use the `kill` command to kill the following processes:

```
pfs_mountd  
pfsd  
pfs_mountd.rpc  
pfsd.rpc
```

Install Client Software Remotely

The following sections describe how to “push” the client software from your UNIX NetBackup server to your UNIX NetBackup clients. You can push the client software to either a trusting client or a secure client.

Installing NetBackup Software on Trusting UNIX Clients

A *trusting* UNIX client is one that has an entry for the server in its `/.rhosts` file. The `/.rhosts` entries enable software installation, but are not necessary for correct operation of NetBackup software.

Note Add the trusting clients to a backup policy (class), if this has not already been done.

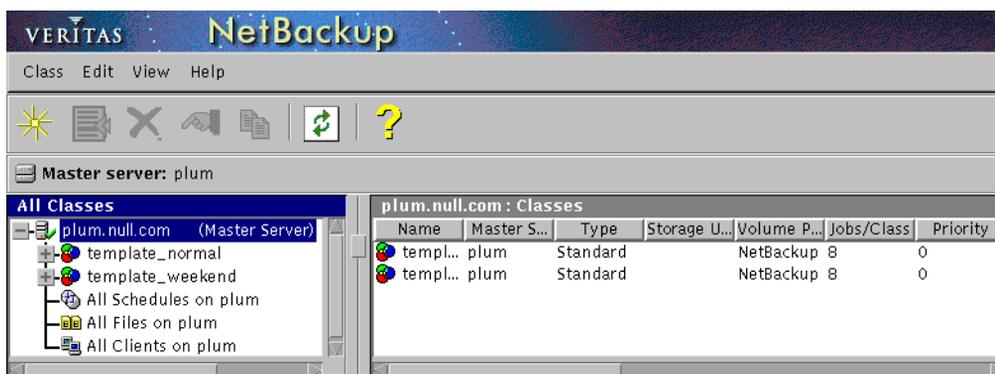


1. Start the NetBackup Administration interface.

In the Login dialog box, type the name of the NetBackup server that has the class configuration with the clients.

You can install the client software only from the NetBackup server that you specify in the Login dialog box when starting the interface. The clients must be defined in a class on this NetBackup server.

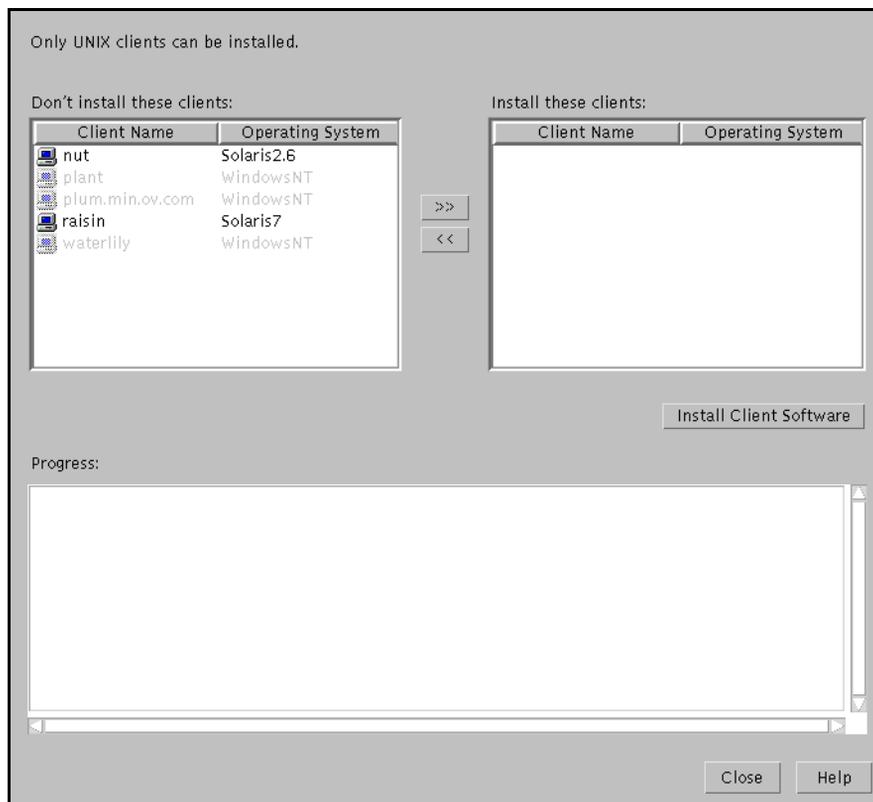
2. In the NetBackup Administration window, click the Backup Policy Management icon.
3. Select the master server in the left pane.



4. Choose Install UNIX Client Software on the Edit menu.



The Install UNIX Client Software dialog box appears.



5. In the Don't install on these clients box, select the clients you want to install and click the right arrows.

The clients are moved to the Install these clients box.

6. Click the Install Client Software button to start the installation.

Client software installation can take a minute or more per client. NetBackup writes messages in the Progress box as the installation proceeds. If the installation fails on a client, NetBackup notifies you but keeps the client in the class. You cannot stop the installation once it has started.

During installation, NetBackup does the following:

- ◆ Copies the client software from the `/usr/opens/netbackup/client` directory on the server to the `/usr/opens/netbackup` directory on the client.
- ◆ Adds the required entries to the client's `/etc/services` and `inetd.conf` files.

The only way to install client software to a different location on the client is to create the directory where you want the software to reside and then create `/usr/opensv/netbackup` as a link to that directory prior to installing software.

7. When the install is complete, click Close.

Installing NetBackup Software on Secure UNIX Clients

As defined here, a *secure* UNIX client is one that does not have an entry for the NetBackup server in its `.rhosts` file.

Note Add the secure clients to a backup policy (class), if this has not already been done.

1. Move software from the server to temporary space in the `/tmp` directory on the client by executing the `install_client_files` script from the NetBackup server. To execute this script, you must have a login ID and password that you can use to access the clients through ftp.

To move software to only one client at a time, execute:

```
/usr/opensv/netbackup/bin/install_client_files ftp client user
```

To move software to all clients at once, execute:

```
/usr/opensv/netbackup/bin/install_client_files ftp ALL user
```

Where the options are defined as follows:

- ◆ *client* is the hostname of the client.
- ◆ *user* is the login id required by ftp on the client.
- ◆ ALL specifies that you want to install all clients which are configured in any backup policy (class) on the server.

The `install_client_files` script prompts you for a password for each client if you do not have a `.netrc` file set up.

2. After the `install_client_files` script is done, the root user on each of the clients must execute the `client_config` script to complete the installation:

```
sh /tmp/bp/bin/client_config
```

The `client_config` script installs the binaries and updates the `/etc/services` and `inetd.conf` files on the client.



Add a UNIX Client Type After Initial Server Installation

If you add a new UNIX client type to your backup environment, or forgot to select a UNIX client platform during your NetBackup installation, you must first load the NetBackup client software onto the NetBackup server as described below.

1. Insert the NetBackup CD-ROM into the drive on the server.

2. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

3. Use the install program to load the client software onto the NetBackup server.

```
./install
```

4. Choose option 2, NetBackup Client Software.
5. Follow the prompts, selecting the additional client platforms you want.
6. You must now install the NetBackup client software on these additional client computers, as described earlier in this chapter.



Install Alternative Administration Interfaces

You can install a NetBackup user interface on a different computer. (This will be necessary if your server computer has no graphics display capabilities.)

System	Install this user interface
UNIX	UNIX NetBackup client. Then set up your window manager.
Windows NT/2000	Administration Client or the Java Display Console
Windows 98 or Windows 95	Java Display Console

NetBackup Administration Client

The NetBackup Administration Client is a version of the NetBackup client for Windows NT/2000 which can be used to remotely administer one or more UNIX or Windows NT/2000 NetBackup DataCenter computers. You can skip this section if you do not want to remotely administer a DataCenter computer from a Windows NT/2000 NetBackup client.

Before you can use the NetBackup Administration Client, the host that is to run the Administration Client must be added to the server list of the remote DataCenter computer you want to administer. We recommend that you do this before installing the Administration Client.

1. To add the Administration Client host to the server list of the remote DataCenter computer, do the following:

- a. Go to the remote DataCenter computer.
- b. In the `/usr/openv/netbackup/bp.conf` file, at the end of the `SERVER =` lines, add the following line:

```
SERVER = name-of-Administration-Client-machine
```

2. Go to the computer on which you want to install the Administration Client.
3. Insert the CD-ROM that contains the NetBackup server software.
 - ◆ On Windows NT 4.0/2000 systems with AutoPlay enabled for CD-ROM drives, the NetBackup install program starts automatically.
 - ◆ On Windows NT 4.0/2000 systems that have AutoPlay disabled, run the `AutoRunI.exe` program in the `AutoRun` directory on the CD-ROM.



4. On the NetBackup - Install screen, click the Install option beneath NetBackup Server.
5. Enter the NetBackup base product license key.
For more information on administering NetBackup licenses see the *NetBackup DataCenter System Administrator's Guide - UNIX*.
6. Click Administration Client.
7. Follow the prompts to complete the installation.

Note On the NetBackup System Names screen, the name of the Administration Client should be in the first entry field. You must enter the name of the remote NetBackup DataCenter computer in the Master Server field.

When the software is installed, a set of NetBackup documents are also installed in the following directory:

install_path\Help

By default, *install_path* is C:\Program Files\VERITAS.

By default, the Administration Client interface will automatically begin as soon as you click Finish in the installation program. (If you did not choose that default, go to the Windows Start menu on the Administration Client computer and select Programs, VERITAS NetBackup, NetBackup Administration.)

NetBackup-Java Display Console for Windows

The NetBackup-Java Display Console allows you to run the NetBackup Java (UNIX) interfaces on a Windows NT, 2000, 98, or 95 system to remotely administer your UNIX NetBackup servers. You can skip this section if you do not want to remotely administer UNIX NetBackup servers using the Java interface on Windows NT, 2000, 98, or 95.

Requirements

For the computer on which you want to run the NetBackup-Java Display Console, VERITAS recommends 256 MB of physical memory.

Installation procedure

1. On the system where you are performing the install, insert the CD-ROM that contains the NetBackup server software.
 - ◆ On Windows NT 4.0/2000 systems with AutoPlay enabled for CD-ROM drives, the NetBackup install program starts automatically.



- ◆ On Windows NT 4.0/2000 systems that have AutoPlay disabled, run the `AutoRunI.exe` program in the `AutoRun` directory on the CD-ROM.
- 2. On the NetBackup - Install screen, click on the Install option beneath NetBackup - Java Display Console for MS. A welcome dialog box appears.
- 3. Click Next and follow the prompts to complete the installation.
- 4. When the software is installed, see the following document for information on using the display console (this document is installed with the software):

`install_path\Java\Readme.txt`

Where, by default, `install_path` is `C:\Program Files\VERITAS`.

Install NetBackup Agents and Options

After your initial installation 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 product.





Performing an Upgrade Installation

2

This section explains how to upgrade your UNIX server to NetBackup 3.4.

Requirements

Caution Back up your NetBackup databases before upgrading NetBackup software on the master server.

- ◆ As a general rule, ensure that the NetBackup release level on each server is at least equal to that on the clients. Older versions of server software can encounter problems with newer clients. Upgrade all servers first so they are at the same level.
- ◆ You can upgrade to 3.4 only if you currently have NetBackup 3.1.1, 3.2, or 3.3 software installed.

To Allow Reinstalling NetBackup 3.4

To allow the option of reinstalling NetBackup 3.4 after the upgrade, perform the following steps:

1. Back up all databases (media, volume, configuration, device) on the master and remote media servers.
2. Back up all NetBackup 3.4 patches, scripts, and `bp.conf` entries that are specific to NetBackup 3.4.
3. You do not have to upgrade your clients at this time, only the master and remote media servers.
 - ◆ If you are running NetBackup 2.1 clients, create a `/usr/opensv/netbackup/2_1_CLIENT_COMPATIBILITY` file on the NetBackup 3.4 master server and remote media servers.



- ◆ If you have DEC3100, DEC5000 or SGI IRIX 4 clients, create a `/usr/opensv/netbackup/2_1_CLIENT_COMPATIBILITY` file on the NetBackup 3.4 master server and remote media servers.

If you have 3.2 or 3.3 clients that are unsupported at 3.4 and encounter problems with using the new features of 3.4, move those clients to a separate class.

Install Software on UNIX Servers and Clients

Before Installation

1. Stop the NetBackup/Media Manager daemons:

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

2. On Solaris and HP, stop all instances of the NetBackup Java interface applications. You can find the process IDs for the NetBackup Java applications by piping the output of `ps` into `grep`.

On Solaris, for example:

If you are upgrading from NetBackup 3.2 or later:

```
ps -ef | grep jre | grep opensv
```

If you are upgrading from NetBackup 3.1.1, you must first terminate all instances of web browsers that initiated the NetBackup Java client application:

```
ps -ef | grep "java jbpMServer" | grep opensv
```

Then, use the `kill` command to terminate the processes.

3. On Solaris, if you are upgrading to NetBackup 3.4 or reinstalling it, remove the current SUN packages.

Caution This will remove all/any NetBackup scripts you may have modified. See step 2 of “After the Upgrade” on page 26.

```
pkgrm SUNWnetbp SUNWmmgr
```

When asked:

```
Are you doing this pkgrm as a step in an upgrade process?
```

Answer `y`.

Procedure

As the root user, install the NetBackup server software first on the master server and then on all remote media servers. The steps for each server are as follows:

1. Check the license keys included with this order to make sure that you have license keys for all the NetBackup servers, clients, options, and agents that you have ordered.

When installing a NetBackup server, master or media, you must enter a NetBackup base product license key. On the master server, you must also enter license keys for any additional NetBackup software product options or agents used on the server or its clients. For more information on administering NetBackup licenses see the *NetBackup Datacenter System Administrator's Guide - UNIX*.

2. Log in as the root user on the server.
3. Insert the CD-ROM in the drive.
4. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

5. Execute the install script:

```
./install
```

6. When the menu appears, choose option 1 (NetBackup). This installs both Media Manager and NetBackup software on the server.

Option 2 (NetBackup Client Software) is for local installation on UNIX clients (see “Install Client Software Locally” on page 11) or for reinstalling client software without disturbing the NetBackup and Media Manager installation.

7. Follow the prompts in the installation script.
 - ◆ If this is a remote media server, install only the Media Manager and the server software for NetBackup. The correct NetBackup client software is automatically installed. Do not install the other client software on a remote media server.
 - ◆ The installation script can push client software to up to 30 clients simultaneously. If you have more than 30 UNIX clients to upgrade, we suggest you respond to the installation script as explained below and then upgrade the clients later (as explained in step 8).



Note: On Solaris, if you have done the `pkgrm`, you will not be prompted to update your NetBackup clients. Refer to step 8 for information on upgrading clients after the installation.

Note If your server is not HP or Solaris, you must install client software locally to install NetBackup Java on HP and Solaris NetBackup clients. NetBackup Java is only installed and distributed to HP and Solaris NetBackup clients from an HP or Solaris NetBackup master server.

If you have more than 30 clients to upgrade:

When asked:

```
Do you want to update the NetBackup software on the clients?  
(y/n) [y]
```

Answer **y**.

The script proceeds as follows:

```
Starting update_clients script.  
There are N clients to upgrade.  
Do you want the bp.conf file on the clients updated to list this  
server as the master server? (y/n) [y]
```

Answer either **y** or **n** here.

```
Enter the number of simultaneous updates you wish to take place.  
Must be in the range 1 - 30 (default: 15)
```

Press Enter (Return).

```
The upgrade will likely take Y to Z minutes.  
Do you want to upgrade clients now? (y/n) [y]
```

Answer **n**.

```
You will need to upgrade clients later with install_client_files  
or update_clients -ClientList filename.  
The complete list of UNIX clients can be found in  
/tmp/NB_CLIENT_LIST.04-29-1533.13195.
```

(04-29-1533.13195 is a date-time.pid that changes with each execution)

After the install, edit the file `/tmp/NB_CLIENT_LIST.04-29-1533.13195` appropriately for your site.

- ◆ You can delete clients and change OS levels. The format of each entry in the file is:

```
hardware_type os_level client_name
```

Where *hardware_type*, *os_level* and *client_name* are as defined for the clients in the NetBackup class configuration.



- ◆ For more than 30 clients, you can divide the list into multiple files and execute `update_clients` for each file.
 - ◆ You can also upgrade only one client by creating an entry for just that client in the `-ClientList` file.
8. If you did not update the NetBackup client software on all currently configured UNIX client systems when running the installation script, do so now by performing the following steps as root user on the NetBackup master server.

- a. Check whether `bprd` is running by executing:

```
/usr/openv/netbackup/bin/bpps
```

- b. If only one `bprd` shows up in the `bpps` output, there are no active backups or restores. You can terminate the `bprd` daemon by executing:

```
/usr/openv/netbackup/bin/admincmd/bprdreq -terminate
```

- c. Update UNIX client software by executing the `update_clients` script with one of the following commands:

If you are using a `-ClientList` file (as explained in step 7) execute the following (all on one line):

```
/usr/openv/netbackup/bin/update_clients -ClientList file_name
```

If you are not using a `-ClientList` file execute:

```
/usr/openv/netbackup/bin/update_clients
```

9. After all servers and clients have been updated, start NetBackup and Media Manager daemons as the root user on the master server by entering the commands:

```
/usr/openv/volmgr/bin/ltid  
/usr/openv/netbackup/bin/initbprd
```

At this point, UNIX server and UNIX client updates are complete.



Upgrading from NetBackup BusinessServer 3.4 to NetBackup DataCenter 3.4

1. Check the license keys included with this order to make sure that you have license keys for all the NetBackup servers, clients, options, and agents that you have ordered.

When installing a NetBackup server, master or media, you must enter a NetBackup base product license key. On the master server, you must also enter license keys for any additional NetBackup software product options or agents used on the server or its clients. For more information on administering NetBackup licenses see the *NetBackup Datacenter System Administrator's Guide - UNIX*.

2. Reinstall NetBackup, following the instructions in the previous section, "Install Software on UNIX Servers and Clients."

3. When prompted, enter the DataCenter license key.

This will perform DataCenter specific configuration and install the correct man pages.

After the Upgrade

1. 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.

2. If you made changes to NetBackup scripts prior to the upgrade, apply those changes to the new scripts. Installing the software overwrites the following files, after first copying them to a file or directory with the old version appended to the name:

- ◆ All files in the `/usr/opensv/netbackup/bin/goodies` directory and the `/usr/opensv/netbackup/help` directory.
- ◆ Some files and directories in `/usr/opensv/volmgr`.
- ◆ The following scripts from the `/usr/opensv/netbackup/bin` directory:
 - ◆ `backup_notify`
 - ◆ `backup_exit_notify`
 - ◆ `bpend_notify` (present only if used)
 - ◆ `bpend_notify_busy` (present only if used)
 - ◆ `bpps`
 - ◆ `bpstart_notify` (present only if used)

- ◆ `dbbackup_notify`
- ◆ `diskfull_notify`
- ◆ `initbpdm`
- ◆ `initbprd`
- ◆ `restore_notify`
- ◆ `session_notify`
- ◆ `session_start_notify`
- ◆ `userreq_notify`

For example, an upgrade from NetBackup 3.2 to 3.4 would result in changing:

```
/usr/opensv/netbackup/bin/goodies
```

to

```
/usr/opensv/netbackup/bin/goodies.3.2GA
```

and changing

```
/usr/opensv/netbackup/bin/initbprd
```

to

```
/usr/opensv/netbackup/bin/initbprd.3.2GA
```

3. If you are updating from 3.2 and are going to use the Motif interfaces (`xbpadm`, `xvmadm` and so on), update the 3.2 resource files for these interfaces so they all use XNB.

To make it easier to configure all of the Motif interfaces to look the same, these interfaces now use a common resource file named XNB.

Your X interface program searches for the XNB resource file by going through the paths listed in the `XFILESEARCHPATH` in your environment. This varies from operating system to operating system. Often resource files are kept in `/usr/lib/X11/app_defaults`. For Solaris CDE environments, the directory `/usr/dt/app_defaults` is usually used.

In NetBackup 3.0, the Motif interfaces used the following resource files:

XNB

XBpmon

XBpadm

XVmadm



If you changed any of these files to control the look of the NetBackup 3.2 Motif interfaces, perform the following procedure.

- a. Apply those changes to the XNB resource file (located in `/usr/opensv/netbackup/bin` or `/usr/opensv/volmgr/bin`).
 - b. Copy XNB into your X resource directory (listed in `XFILESEARCHPATH`).
 - c. Remove the old `XBpmon`, `XBpadm`, and `XVmadm` files from `/usr/opensv/netbackup/bin`, `/usr/opensv/volmgr/bin`, and from your X resource directory.
4. If this is a master server upgrade installation and the site had previously allowed nonroot users to administer NetBackup, the default permissions and group on the newly installed files allow only a root user to perform NetBackup administration. Refer to Chapter 2 in the *NetBackup System Administrator's Guide - UNIX* to determine how to restore nonroot administrator capability.
 5. If you are going to use the NetBackup Java interfaces, see the *NetBackup Release Notes* for configuration information. The online help provides operating instructions.

Note On HP700, HP800, and Solaris servers, NetBackup installation creates some large files in the `/usr/opensv/java` directory, including: `Solaris_JRE_117B.tar.Z`, `Solaris_X86_JRE_117B.tar.Z`, `hp1020_jre116.tar.Z`, and `hp110_jre116.tar.Z`. These files are needed for installs on Solaris 2.6, 7, 8, Solaris x86 2.6/7/8, HP 10.20, and HP 11.0 NetBackup clients and used by the NetBackup Java graphical-user-interface applications on those platforms. Delete these `tar` files if you do not have NetBackup clients with these hardware and operating system combinations.

Uninstall NetBackup DataCenter and Clients

3

This chapter gives instructions for uninstalling NetBackup DataCenter software.

How to Uninstall DataCenter (Solaris)

1. Log in as the root user on the server.
2. Perform a catalog backup.
3. Stop the NetBackup/Media Manager daemons:

```
/usr/opensv/netbackup/bin/goodies/bp.kill_all
```
4. Execute the uninstall script:

```
pkgrm SUNWnetbp SUNWmmgr
```
5. Answer **no** to the “Is this an upgrade?” prompt.
6. Answer **yes** to remove non-empty directories.
7. Replace the `/etc/services` file with `/etc/services_ymmddyy.hh:mm:ss` file, where `ymmddyy.hh:mm:ss` is the date and time of the original install.
8. Replace the `/etc/inetd.conf` file with `/etc/inetd.conf.NB_MM.version`, where `version` is the version of the original install.
9. Execute the following shell commands to cause `inetd` to read the updated `inetd.conf` file.

```
ps -ea | grep inetd
```

Run the kill command as follows. The process ID is the first number displayed in the output from the `ps` command.

```
kill -1 process ID
```

The `ps` command options may vary from one client platform to another.



10. Remove the following files:

```
rm -f /etc/rc2.d/S77netbackup
rm -f /etc/rc0.d/K77netbackup
```

11. Execute the following command to remove the NetBackup-Java application state data for the root account:

```
/bin/rm -rf /.nbjava
```

12. Inform NetBackup-Java users that they can remove their \$HOME/.nbjava directory.

The \$HOME/.nbjava directory contains application state information (for example, table column order and size) that is saved when the user exits NetBackup-Java applications. The uninstall process removes this directory for the root user only.

How to Uninstall DataCenter (all other UNIX servers)

1. Log in as the root user on the server.

2. Perform a catalog backup.

3. Stop the NetBackup/Media Manager daemons:

```
/usr/openv/netbackup/bin/goodies/bp.kill_all
```

4. Remove the /usr/openv directory:

If /usr/openv is a physical directory, execute:

```
rm -rf /usr/openv
```

If /usr/openv is a link, execute:

```
cd /usr/openv
rm -rf *
cd /
rm -f /usr/openv
```

Caution The `rm -f /usr/openv` command will also de-install your VERITAS Storage Migrator product and any NetBackup Add-on products installed on this machine.



5. Remove these additional files.

System	Additional Files
AIX	/etc/rc.veritas.aix
Alpha	/sbin/rc3.d/S77netbackup /sbin/rc0.d/K77netbackup
HP	/sbin/rc2.d/S777netbackup (note three 7s)
Other servers	/etc/rc2.d/S77netbackup /etc/rc0.d/K77netbackup

6. Remove any NetBackup entries from the following files.

System	File	NetBackup Entry
AIX	/etc/inittab	/etc/rc.veritas.aix
Auspex	/etc/rc.local	/usr/openv/netbackup/bin/initbprd /usr/openv/volmgr/bin/ltid
NCR	/etc/inet/inetd.local	/usr/openv/netbackup/bin/bpcd /usr/openv/netbackup/bin/vopied /usr/openv/netbackup/bin/bpjava-msvc

7. Replace the /etc/services file with /etc/services_*mmddyy.hh:mm:ss* file.

Where *mmddyy.hh:mm:ss* is the date and time of the original install.

8. Replace the /etc/inetd.conf file with /etc/inetd.conf.*NB_MM.version*, where *version* is the version of the original install.

9. Execute the following shell commands to cause inetd to read the updated inetd.conf file.

a. Enter the following for most UNIX servers:

```
ps -ea | grep inetd
```

For Auspex, enter:

```
ps -ax | grep inetd
```

b. Run the kill command as follows. The process ID is the first number displayed in the output from the previous command.

```
kill -1 process ID
```

The ps command options may vary from one client platform to another.



10. Execute the following command to remove the NetBackup-Java application state data for the root account:

```
/bin/rm -rf /.nbjava
```

11. Inform NetBackup-Java users that they can remove their \$HOME/.nbjava directory. The \$HOME/.nbjava directory contains application state information (for example, table column order and size) that is saved when the user exits NetBackup-Java applications. The uninstall process removes this directory for the root user only.

How to Uninstall NetBackup Clients

Note If you are uninstalling NetBackup from a machine on which you have installed the NetBackup-Java Display Console, the Console will be also be removed when uninstalling NetBackup. You will need to reinstall the Console in order to continue using it on the machine.

For instructions on uninstalling NetBackup client software for the following platforms, refer to the *NetBackup Installation Guide - PC Clients*.

- ◆ Windows 95/98, NT/2000
- ◆ Macintosh
- ◆ Novell NetWare
- ◆ OS/2

How to Uninstall UNIX NetBackup client software

1. Log in as the root user on your client.
2. Remove the `/usr/openv` directory.

If `/usr/openv` is a physical directory, execute:

```
rm -rf /usr/openv
```

If `/usr/openv` is a link, execute:

```
cd /usr/openv
rm -rf *
cd /
rm -f /usr/openv
```

3. Remove NetBackup entries in the `/etc/services` file, as follows.



- ◆ Edit the client's `/etc/services` file.
- ◆ Locate the lines marked by the following and remove them:

```
# NetBackup services#
.....
# End NetBackup services #

# Media Manager services #
....
# End Media Manager services #
```

4. Remove the NetBackup entries in the `/etc/inetd.conf` file. For NCR this file is called `inetd.local`.

- ◆ Edit the client's `/etc/inetd.conf` file.
- ◆ Delete the lines for `bpcd`, `vopied` and `bpjava-msvc`.

5. Execute the following two shell commands to cause `inetd` to read the updated `inetd.conf` (or `inetd.local`) file.

- a. Enter the following.

For most UNIX clients:

```
ps -ea | grep inetd
```

For MacOS 10, FreeBSD, and Auspex:

```
ps -ax | grep inetd
```

- b. Run the `kill` command as follows. The process ID is the first number displayed in the output from the `ps` command.

```
kill -1 process ID
```

The `ps` command options may vary from one client platform to another.

6. For Solaris and HP NetBackup clients running NetBackup-Java graphical interfaces, remove the NetBackup-Java state data by executing the following:

```
/bin/rm -rf /.nbjava
```





Related Documents

A

This appendix lists and describes the technical manuals that pertain to NetBackup.

The CD-ROM for each NetBackup product has a copy of the related manuals in Adobe Portable Document Format (PDF). The PDF files are either in the root directory or the `Docs` directory on the CD-ROM.

To view the PDF copies of the manuals, you need an Adobe Acrobat reader, which you can download from the Adobe website at www.adobe.com. VERITAS assumes no responsibility for the correct installation or use of the reader.

Release Notes

NetBackup Release Notes

Provides important information about NetBackup software, such as the platforms and operating systems that are supported and operating notes that may not be in the manuals or the online help.

Getting Started Guides

NetBackup BusinessServer Getting Started Guide - UNIX

Explains how to get UNIX NetBackup BusinessServer software installed and running.

Getting Started Cards

- ◆ *NetBackup FastBackup - Getting Started Card*

Provides installation requirements and instructions for NetBackup FastBackup on an Auspex platform.

- ◆ *NetBackup BusinessServer Getting Started Card - UNIX*

Provides installation requirements and instructions for NetBackup BusinessServer on UNIX servers.



Installation Guides

- ◆ *NetBackup Installation Guide - PC Clients*

Explains how to install NetBackup PC client software. The PC clients are Windows 2000, Windows NT, Windows 95, Windows 98, Macintosh, OS/2 Warp, and Novell NetWare.

- ◆ *NetBackup DataCenter Installation Guide - UNIX*

Explains how to install NetBackup DataCenter software.

System Administrator's Guides - Basic Product

- ◆ *NetBackup DataCenter System Administrator's Guide - UNIX*

Explains how to configure and manage NetBackup DataCenter on a UNIX system.

- ◆ *NetBackup BusinessServer System Administrator's Guide - UNIX*

Explains how to configure and manage NetBackup BusinessServer on a UNIX server.

- ◆ *NetBackup DataCenter Media Manager System Administrator's Guide - UNIX*

Explains how to configure and manage the storage devices and media on UNIX servers running NetBackup DataCenter. Media Manager is part of NetBackup.

- ◆ *NetBackup BusinessServer Media Manager System Administrator's Guide - UNIX*

Explains how to configure and manage the storage devices and media on UNIX servers running NetBackup BusinessServer. Media Manager is part of NetBackup BusinessServer.

System Administrator's Guides - Agents and Options

- ◆ *NetBackup for DB2 on UNIX System Administrator's Guide*

Explains how to install, configure, and use NetBackup for DB2 on UNIX.

For this product, you may also need the following manuals from IBM:

IBM DB2 Universal Database Extended Enterprise Edition for AIX

Quick Beginnings for DB2 Extended Enterprise Edition

API Ref IBM DB2 Universal Database API Reference

Version 5

Guide IBM DB2 Universal Database Administration Guide

Version 5

Cmd Ref IBM DB2 Universal Database Command Reference



- ◆ *NetBackup for DB2 on Windows NT System Administrator's Guide*

Explains how to install, configure, and use NetBackup for DB2 on Windows NT.

For this product, you may also need the following manuals from IBM:

IBM DB2 Universal Database Extended Enterprise Edition for AIX Quick Beginnings for DB2 Extended Enterprise Edition

API Ref IBM DB2 Universal Database API Reference Version 5

Guide IBM DB2 Universal Database Administration Guide Version 5

Cmd Ref IBM DB2 Universal Database Command Reference
- ◆ *NetBackup for EMC System Administrator's Guide*

Explains how to install, configure, and use NetBackup for EMC.
- ◆ *NetBackup Encryption System Administrator's Guide*

Explains how to install, configure, and use NetBackup encryption software to provide file-level encryption of backups and archives.
- ◆ *NetBackup FlashBackup System Administrator's Guide*

Explains how to install, configure, and use NetBackup FlashBackup. The FlashBackup product combines the increased performance of raw-partition backups with the ability to do individual file restores.
- ◆ *NetBackup for Informix System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Informix to back up and restore Informix databases that are on a UNIX NetBackup client.

For this product, you may also need the following manual from Informix Software Incorporated:

Informix-Online Dynamic Server Backup and Restore Guide
- ◆ *NetBackup for Lotus Notes on Windows NT System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Lotus Notes to back up and restore Lotus Notes databases and transaction logs.
- ◆ *NetBackup for Lotus Notes on UNIX System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Lotus Notes to back up and restore Lotus Notes databases and transaction logs.
- ◆ *NetBackup for Microsoft Exchange Server System Administrator's Guide*

Explains how to configure and use NetBackup for Microsoft Exchange Server to perform online backups and restores of Microsoft Exchange Server.



You may also need the following resources from Microsoft Corporation:

Microsoft Exchange Server whitepapers and FAQs (go to <http://www.microsoft.com/exchange> and search for "Disaster Recovery")

Microsoft Exchange Administrator's Guide

Microsoft Exchange Concepts and Planning Guide

Microsoft TechNet

Microsoft BackOffice Resource Kit

<http://www.msexchange.org>

◆ *NetBackup for Microsoft SQL Server System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Microsoft SQL Server to back up and restore Microsoft SQL Server databases and transaction logs.

For this product, you may also need the following manual from Microsoft Corporation:

Administrator's Companion - Microsoft SQL Server

◆ *NetBackup for NCR Teradata System Administrator's Guide*

Explains how to install, configure, and use NetBackup for NCR Teradata to back up and restore NCR Teradata databases and transaction logs.

◆ *NetBackup for NDMP System Administrator's Guide*

Explains how to install, configure, and use NetBackup for NDMP to control backups on an NDMP host.

◆ *NetBackup for Oracle on UNIX System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Oracle to back up and restore Oracle databases that are on a UNIX NetBackup client.

For this product, you may also need the following manuals from Oracle Corporation:

Oracle7 Enterprise Backup Utility Installation and Configuration Guide

Oracle7 Enterprise Backup Utility Administrator's Guide

Oracle7 Server Administrator's Guide

Oracle8 Server Backup and Recovery Guide

Oracle8 Server Administrator's Guide

◆ *NetBackup for Oracle on Windows NT System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Microsoft Oracle to back up and restore Oracle databases that are on a Windows NT/2000 NetBackup Client.



For this product, you may also need the following manuals from Oracle Corporation:

Oracle7 Enterprise Backup Utility Installation and Configuration Guide

Oracle7 Enterprise Backup Utility Administrator's Guide

Oracle7 Server Administrator's Guide

Oracle8 Server Backup and Recovery Guide

Oracle8 Server Administrator's Guide

◆ *NetBackup for Oracle - Advanced BLI Extension System Administrator's Guide*

Explains how to install, configure, and use NetBackup for Oracle Advanced BLI Agent to back up and restore Oracle databases that are on a UNIX NetBackup client.

For this product, you may also need the following manuals from Oracle Corporation:

Oracle Enterprise Manager Administrator's Guide

Oracle8 Server Backup and Recovery Guide

For this product, you may also need the following manuals from VERITAS Software:

Database Edition for Oracle Administrator's Guide

Storage Edition for Oracle Administrator's Guide

NetBackup for Oracle - Advanced BLI Agent for Backups without RMAN System Administrator's Guide

◆ *NetBackup for Oracle - Advanced BLI Agent for Backups without RMAN System Administrator's Guide*

Explains how to verify NetBackup for Oracle Advanced BLI Agent for Backups Without RMAN.

For this product, you may also need the following manuals from Oracle Corporation:

Oracle Enterprise Manager Administrator's Guide

Oracle8 Server Backup and Recovery Guide

For this product, you may also need the following manuals from VERITAS Software:

Database Edition for Oracle Administrator's Guide

Storage Edition for Oracle Administrator's Guide

NetBackup for Oracle - Advanced BLI Extension System Administrator's Guide

◆ *NetBackup Plus Module for TME 10 System Administrator's Guide*

Explains how to install, configure, and use NetBackup / Plus Module for TME 10 to manage NetBackup in the Tivoli Management Environment TM (TME) rather than through the standard NetBackup administrator interfaces.



- ◆ *NetBackup for SAP on UNIX System Administrator's Guide*

Explains how to install, configure, and use NetBackup for SAP on UNIX.

For this product, you may also need the following manuals from Oracle Corporation:

Oracle Enterprise Backup Utility Installation and Configuration Guide

BC SAP Database Administration : Oracle

You may also need the following manual from SAP AG:

BC-BRI BACKINT Interface R/3 System, Release 3.0

- ◆ *NetBackup for SAP on Windows NT System Administrator's Guide*

Explains how to install, configure, and use NetBackup for SAP on Windows NT/2000.

For this product, you may also need the following manuals from Oracle Corporation:

Oracle Enterprise Backup Utility Installation and Configuration Guide

BC SAP Database Administration : Oracle

You may also need the following manual from SAP AG:

BC-BRI BACKINT Interface R/3 System, Release 3.0

- ◆ *NetBackup for SYBASE System Administrator's Guide*

Explains how to install, configure, and use NetBackup for SYBASE to back up and restore Sybase databases that are on a UNIX NetBackup client.

For this product, you may also need the following manuals from SYBASE Incorporated:

SYBASE SQL Server Utility Programs for Unix

SYBASE SQL Server Administration Guide

User's Guides

- ◆ *NetBackup User's Guide - Macintosh*

Explains how to use NetBackup on a Macintosh client to perform backups, archives, and restores. This guide also contains some configuration instructions for the NetBackup client software.

- ◆ *NetBackup User's Guide - Microsoft Windows*

Explains how to use NetBackup on a Windows 2000, Windows NT, Windows 95, or Windows 98 client to perform backups, archives, and restores. This guide also contains some configuration instructions for the NetBackup client software.

- ◆ *NetBackup User's Guide NonTarget Version - Novell NetWare*



Explains how to use NetBackup nontarget software on a Novell NetWare server to perform backups and restores. The nontarget version of NetBackup has a Microsoft Windows interface. This guide also contains some configuration instructions for the NetBackup client software.

◆ *NetBackup User's Guide Target Version - Novell NetWare*

Explains how to use NetBackup target software on a Novell NetWare server to perform backups and restores. The target version of NetBackup has a menu driven interface that runs under DOS. This guide also contains some configuration instructions for the NetBackup client software.

◆ *NetBackup BusinessServer User's Guide - OS/2 Warp*

Explains how to use NetBackup on an IBM OS/2 Warp client to perform backups and restores. This guide also contains some configuration instructions for the NetBackup client software.

◆ *NetBackup User's Guide - UNIX*

Explains how to use NetBackup on a UNIX client to perform backups, archives, and restores.

Device Configuration Guide - Media Manager

◆ *NetBackup Media Manager Device Configuration Guide*

Explains how to add device drivers and perform other system level configuration for storage devices that are supported by NetBackup DataCenter and NetBackup BusinessServer Media Manager on UNIX hosts.

Troubleshooting Guides

◆ *NetBackup Troubleshooting Guide - UNIX*

Provides troubleshooting information for UNIX based NetBackup products.





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