

Known NetBackup 5.1 Product Issues

The purpose of this document is to provide VERITAS customers with additional product information relating to the NetBackup 5.1 release. This document contains the known product issues that are applicable to this release of NetBackup. For additional information about supported platforms, product dependencies, operational notes, and product limitations, refer to the *NetBackup Release Notes for UNIX and Windows*.

Note References to UNIX also apply to Linux, unless otherwise stated.

General NetBackup Notes

1. The NAS snapshot feature of NetBackup 5.1 Advanced Client does not support the Microsoft Server Appliance Kit (SAK).
2. Backing up real time files is not supported for SGI IRIX xfs.
3. On Linux, the NetBackup menu interface (bpadm) output for reports is not correctly aligned.

This problem may occur when logging into Red Hat Linux from another Unix OS (for example, Solaris, HP/UX, AIX) with the TERM variable set to xterm. If you set the TERM variable to vt100 or dtterm the columns are correctly aligned. This symptom has not occurred if you are using another Linux system to log in.

4. Daylight Savings Time causes minor problems for NetBackup.

When Daylight Savings Time changes take effect, anomalies can occur in the scheduling of some client backups and the displaying of some report screens. This is due to the method NetBackup uses in calculating the beginning of a backup window and comparing it to (potentially) completed backups.

In the Spring, when Daylight Savings Time takes effect, you see misordered reports (for example, All Log Entries, Backup Status). This is due to the discrepancy between Greenwich Mean Time (which UNIX uses) and your system's "local time." After the time changes (for the day of the time change only), you see entries logged between



midnight and 2 am displayed after entries logged between 3 am and midnight. You also must adjust the starting time of the display to 11 p.m. of the previous day to see all entries made for that day.

If a backup occurs within one hour of the backup window's opening and the backup window spans the time change, the backup may be re-executed (in the fall) or seen as already having occurred (in the spring). This is due to the fact that once a backup has completed it is given an absolute time, while the opening of the backup window is calculated in a relative fashion.

Until this algorithm is corrected, you should carefully check backups that are scheduled to occur when the time changes to assure that your data is adequately protected.

5. On UNIX, restores of NFS mounted files fail when attempting to perform a server directed restore. The progress log may show the following types of messages.

Could not make directory /net/machine/abc: The file access permissions do not allow specified action

Could not change access and modification time of /net/machine/abc: Not owner

Could not change access and modification time of /net/machine/abc: Operation not permitted

Could not create file /net/machine/abc/123: Permission denied

Could not create file /net/machine/abc/123: A file or directory in the path name does not exist

To work around this situation, the owner must restore the NFS files on the client machine.

6. If you are using NIS on an HP-UX 11 NetBackup media server, you may need to edit the `/etc/passwd` file. In order for the NetBackup server binaries to recognize NIS user names, the last line of the `/etc/password` file must be: (Reviewers

```
+:*:.....
```

Without this line, you might see a problem during user backups on an HP-UX 11 NetBackup media server. If the user name is defined in NIS, a user backup might fail with a `system call failed` message.

7. On Windows, the `bpdown` command has a peculiar behavior when using the `-s` or `-r` options. If you do not have an IBM Automated Tape Library configured, you get a popup error dialog saying that the dynamic link library `libibm.dll` could not be found. This is harmless. Click the **OK** button and the `bpdown` function will complete.

The `bpdown` function reports that one or more robot daemons could not be shut down, but that means only that the function to shut down the IBM Automated Tape Library failed because you do not have one configured.

If the popup dialog is annoying, you can stop this from happening by deleting (or renaming) the `tlhcd.exe` file from VERITAS *install_dir*\volmgr\bin directory.

8. Disk image backup problems on a Windows NT 4.0 NetBackup master or media server when NetBackup 5.1 Activity Monitor is doing remote administration.

If a connection to the Windows NT 4.0 processes interface is made over a network, WINLOGIN will lock the local hard drive partitions. (This may be a deficiency in Microsoft Windows.) Locking the local hard drive partitions can cause disk-image backups to fail because the disk image backups also require a lock on the partition. Because NetBackup Activity Monitor uses the windows process interface, these partitions will be inadvertently be locked thus preventing disk image backups.

The work-around for this problem is to make sure no remote administration consoles are monitoring the master server of the server that is doing a disk image backup.

9. Daemons may fail with sockets errors.

If a user has the following line in their `/etc/nsswitch.conf` file, then `vmd` and `bpdbm` will fail to start with socket error messages.

```
services: nisplus [NOTFOUND=return] files
```

To resolve this issue, the user can replace that line with either of the following lines.

```
services: files nisplus [NOTFOUND=return]
```

```
services: nisplus files
```

10. HP-UX performance issue with catalog file conversion.

Because of an operating system (OS) limitation acknowledged by Hewlett Packard, catalog file conversion performance degrades on HP-UX when the binary catalog file size is greater than 4 Gigabytes.

If a user attempts to convert ASCII catalog files to binary catalog files on NetBackup 5.1 (using `cat_convert` utility program), performance degrades on HP-UX systems if the binary catalog file size exceeds 4 Gigabytes. This is because of a known HP-UX Operating System `mmap` (memory map) 4 Gigabyte limitation on Version 11.xx.

The binary catalog record file size will reach 4 Gigabytes with the backup of approximately 56 million files.

Memory mapped support for large files was introduced in HP-UX with version 11.00.



Note If the following patches are not installed, the mmap size is limited to 2 Gigabyte and you will see performance issues when binary file size gets to the 2 Gigabyte limit.

- HP-UX 11.00 requires patch PHKL_25252
 - HP-UX 11.11 requires patch PHKL_25227
-

The list below shows possible work-arounds to this problem:

- Do not convert any ASCII catalog (.f) files for backups of more than 56 million files.
- Transfer the large ASCII catalog (.f) files to a non-HP-UX NetBackup 5.1 server for conversion to binary catalog and then transfer the binary catalog files back to the HP-UX NetBackup server. This conversion could be done on any OS platform where `cat_convert` is supported.

Proceed with the conversion on HP-UX. This may take several days depending on the size of the files.

11. You may encounter messages when logging is enabled

If logging is enabled, you may see messages similar to the following in some of the log files:

```
10:51:22.443 [4128] <2> adjust_backup_copy_range_opt: Backup
copy range field is improperly formatted. Changing to default
backup copy range.
```

```
10:51:22.443 [4128] <2> adjust_backup_copy_range_opt: Backup
copy range field is improperly formatted. Changing to default
backup copy range.
```

These messages may safely be ignored.

12. Restricted media servers may not be able to do Lotus Notes restores or Single Instance Store and Hard Link restores.

The *NetBackup System Administrator's Guide, Volume I* includes a section called Restricting Administrative Privileges of Media Servers. This section describes how to set host properties on a master server to prevent operating system (OS) administrators on one or more of its media servers from being NetBackup administrators on the master server.

A media server configured with these restricted privileges may not be able to do a "secondary restore". Secondary restores can occur during Lotus Notes restores or Single Instance Store and Hard Link restores. The likely error is, `client is not validated to perform the requested operation (135)`.



If you need to do Lotus Notes restores or Single Instance Store and Hard Link restores, you must make sure the media server is an unrestricted server in the master server's hosts properties. This means the media server is in the **additional servers** list rather than the **media servers** list for the master server. (Or for a UNIX master server, the media server is listed in a **SERVER** entry rather than a **MEDIA_SERVER** entry.)

13. There is no vertical scroll bar on the **Results** tab for the **Catalog** node of the tree in the NetBackup Administration Console. To view portions of a log file that do not fit within the available window, select the log file from the list control in the upper portion of the window and use the **Full View** option to view the entire log file. This does not apply the NetBackup-Java Administration Console.
14. The **Drive Status** column (optionally displayed in the Drives list accessed from the Media and Device Management->Devices->Hosts node in the tree) shows the status as a number instead of text, in other words it shows a "1" for down and a "2" for up. This does not apply the NetBackup-Java Administration Console.
15. After resuming a check-pointed restore job, the **Kilobytes** and **Files** entries for the job in the Activity Monitor may be less than the actual kilobytes and number of files restored.
16. Teradata Agent Support

This release should not be installed on Windows systems that have the NetBackup for NCR Teradata Agent installed. The Teradata Agent is not supported.
17. Initiating `bpcatres` jobs that require a large amount of input will spawn restore jobs that may sit in a Queued status for long periods of time. The jobs will eventually begin, however, this process may take a long time.
18. Two fields have been added to the `bpdbjobs` command

In this version of NetBackup, two fields (`Incomp` and `Susp`) have been added to the `bpdbjobs -help` command. Adding these two fields will cause the output format to change.
19. Error processing the WINNT.SIF file on the floppy disks during IDR.

A problem occurs when performing IDR during an initial operating system installation on Windows 2000. When performing the disaster recovery during the initial installation of the operating system, the installation may complain about line 15 in the INF file. This error prevents the disaster recovery from being performed.

The following is a workaround to this issue.



The file that is in error is named `WINNT.SIF`. Locate this file on the floppy disks and open it in a text editor tool. Line 15 should correspond to a line that indicates the *TargetPath*. *TargetPath* is the location where the operating system will be installed. This path should be set to where the operating system was installed before the disaster. If this path does not contain the appropriate path, then the disaster recovery will fail. You must manually change the setting of *TargetPath* to match where the operating system was installed. Then after Saving and closing the file, you can restart the disaster recovery.

- 20.** Problem reverting a media server from a NetBackup 4.5FP or NetBackup 5.0 or 5.1 release to a NetBackup 4.5MP (or NetBackup 3.4) release.

Media servers that are configured with NetBackup 4.5FP, NetBackup 5.0, or NetBackup 5.1 send their version information to the master at two different times:

- ◆ When the `vmid` process starts
- ◆ When `vmid` does its daily house keeping (sometime close to midnight)

Media servers that are configured with NetBackup 4.5MP or NetBackup 3.4 do not send their version information to the master server.

Again, if a media server is loaded with a NetBackup 4.5FP, NetBackup 5.0, or NetBackup 5.1 release, then the master server is sent the version as stated above. If the same media sever is then reverted to a NetBackup 4.5MP or NetBackup 3.4 release, the `vmid` process does not contain the code to update the master server. The master server will contain the stale (NetBackup 4.5FP, 5.0, or 5.1) version information.

To avoid this situation, run the following command on the master server when reverting a media server to a previous release:

```
/nb/bin/admincmd/bpversion -request -server <media_server_name>
```

The `bpversion` command pulls the version information from the specified server.

- 21.** The NetBackup 5.x and the VERITAS Enterprise Administrator (VEA) products each use a library name called `vxml4c.dll`. While the library name is the same, the `.dll` is not and each product calls this library name from a different location. This creates a problem if a user installs NetBackup 5.x and Storage Foundation for Windows (SFW) 4.1 on the same system. Having both products on the same system can cause the Rule Management functionality provided by the SFW Action Provider to not work. VERITAS recommends that you contact VERITAS Technical Support for Storage Foundation for Windows (reference incident number 159860) for instructions on how to receive a fix for this issue so that NetBackup and SFW Action Provider can co-exist on the same system.

Documentation

1. In the NetBackupThe synopsis of the Windows command `bpplinclude` incorrectly states this cammand as `bpinclude`.

Installation

1. During installation of the server on a Windows system, there can be a long delay during "upgrading databases" without the progress bar being updated. Installation should complete successfully.
2. For Microsoft Windows clients, if you perform a remote install to a computer in another domain, you may encounter errors stating that the system cannot find the file specified. If you encounter this problem, do the following:
 - a. Ensure both the source and target system are members of the same domain.
 - b. Retry the installation and when prompted, enter the user name, password, and domain of a user with administrative rights on the target system.
3. Client CD-ROM installations can be done from either of the following non-Solaris Server CD-ROMs labeled:
 - ◆ **Server: HP-UX, AIX and Linux**
 - ◆ **Server:Compaq Tru64 and IRIX.**
4. NetBackup 5.1 supports a direct upgrade from NetBackup4.5 GA and greater versions. This release does not support a direct upgrade from versions that were released before NetBackup 4.5 (for example, NetBackup 3.4 or 3.4.1).
5. Windows XP (64-bit) **Add\Remove Prog-> Change -> Modify** does not work properly.
6. The 64-bit client is not able to change port numbers during install. Changes to port numbers should be made in the registry after the install has been completed. Altering the services logon is not possible until after the install has been completed. This must be done in the services control panel.The operating system may open a GUI window (for example, File Manager on a Solaris system,) when the CD-ROM is inserted into the drive. VERITAS recommends that you do not use this window to install NetBackup products because unpredictable results may occur. Follow the installation instructions provided in the NetBackup 5.1 documentation set.



NetBackup Windows Clients

1. E-mail notifications of backup status are not sent to Windows NT client users.
2. When using `bpstart_notify` and `bpend_notify` scripts on Windows clients, the script should not require user interaction to complete. The backup waits for the notify script to complete and eventually times out. The backup fails with a status code 24, `socket write failed`.
3. Redirected restores using the AFS client type are not supported by the Backup, Archive, and Restore interface for the Windows client and server (this applies only to NetBackup Enterprise Server. NetBackup Server does not support AFS clients).
4. Backing up Windows servers which have Remote Storage Management (RSM) installed and are running a real-time virus scanning package:

If a system has files on RSM-managed volumes that are "offline" or stored on tape and that system is running a real-time virus scanning package such as McAfee™ or Norton™ Anti-Virus, NetBackup will fail to protect the system.

This is because the virus scanning software intercepts the NetBackup file "open" calls in such a way that offline files are recalled to disk. If sufficient numbers of files are recalled in a short time, the system assumes that NetBackup is a "runaway" recall job and effectively stops the client backup software. The server software eventually times out and the backup is abnormally terminated.

One way to work around this problem is to (temporarily) stop the real-time virus scanning, perform a backup, then resume the scanning.

This issue is being negotiated with various virus scanning vendors but no date has been set for a resolution.

Note The virus scanning capability for a NetBackup Windows client was removed at the NetBackup 4.5 release.

5. When backing up files that are part of Microsoft's Single Instance Store (SIS) and using VSP to back up open and active files on a NetBackup 5.1 client, the VSP volume snapshot of the volume that contains the SIS files does not get removed. Consequently, users may see extra drives in the Windows Explorer as well as orphaned VSP cache files. A reboot of the affected machine removes the volume snapshots and orphaned cache files. All files that are backed up by the backup jobs are unaffected and restored correctly. This problem is primarily caused by a Windows NTFS file system bug. Microsoft understands the problem and have filed bug #752785 on the issue.
6. Single Instance Store (SIS) restore:



Because of issues with the Microsoft SIS restore management, it may not be possible to restore SIS items if all links to a common store item and the common store item itself are removed. This includes restoring a SIS to a newly formatted/created volume.

VERITAS is working with Microsoft Corporation to resolve this issue.

In the interim, a best practice for SIS protection would be to backup the original images given to the Remote Install Service and be prepared to re-create the RIS data.

7. When using the NetBackup 5.1 Server Administration Console to add drive letters to the VSP Cache File Volume List or VSP Volume Exclude List for NetBackup 4.5 clients, the drives letters added for the NetBackup 4.5 client in its VSP Cache File Volume List or VSP Volume Exclude List will not be used by the client when creating VSP snapshots. This only happens if more than one drive is added into either volume lists. Both the VSP Cache File Volume List and VSP Volume Exclude List are still valid if only one drive is used for either list. This only affects VSP for NetBackup 4.5 clients being configured by a NetBackup 5.1 server's Administration Console and is not an issue for NetBackup 4.5 clients configured by NetBackup 4.5 servers or NetBackup 5.1 clients configured by NetBackup 5.1 servers. If more than 1 drive needs to be used in the VSP Cache File Volume List and VSP Volume Exclude List for a NetBackup 4.5 client being configured by a NetBackup 5.1 server, the NetBackup 4.5 client's Windows Registry can be modified as a workaround. To add more than 1 drive for the VSP Cache File Volume List on a NetBackup 4.5 client, add drive letters separated by a single space (such as, C D E) in the
HKEY_LOCAL_MACHINE\SOFTWARE\VERITAS\NetBackup\CurrentVersion\Config\VSP_CacheVols registry entry (REG_SZ). If this registry entry does not exist, create a new REG_SZ registry entry named VSP_CacheVols in
HKEY_LOCAL_MACHINE\SOFTWARE\VERITAS\NetBackup\CurrentVersion\Config. Similarly, if more than one drive needs to be added into the VSP Volume Exclude List, add the drive letters separated by a single space (such as, C D E) in the
HKEY_LOCAL_MACHINE\SOFTWARE\VERITAS\NetBackup\CurrentVersion\Config\VSP_Exclude registry entry (REG_SZ). If this registry entry does not exist, create a new REG_SZ registry entry named VSP_Exclude in
HKEY_LOCAL_MACHINE\SOFTWARE\VERITAS\NetBackup\CurrentVersion\Config.
8. When using Window Open File Backups to backup raw partitions on Windows NT4.0 clients, VSP snapshot creation will always fail for the raw partition backup if multi-streaming is enabled for the backup. The multi-streamed raw partition backup will not use VSP snapshots and continue the backup without snapshots. This only affects NetBackup 5.1 clients installed on Windows NT4 clients. When multi-streaming is disabled, raw partition backups using VSP and Windows Open File Backup will work correctly and use VSP snapshots for the raw partition backup.



Bare Metal Restore for NetBackup

1. If you are running VERITAS Bare Metal Restore for NetBackup, do not upgrade your NetBackup server or clients until you have read and understood the BMR TechNote 253582 located at <http://seer.support.veritas.com/docs/253582.htm>.
2. The current version of BMR (4.6) requires a patch before it will work with NetBackup 5.1. The soon-to-be released version of BMR (4.7) does not require a patch to work with NetBackup 5.1.
3. Existing releases of Bare Metal Restore (BMR) do not support NBAC. Customers who chose to enable Access Control will have to await the next scheduled release of BMR (4.7 MP1).

NetBackup Advanced Client

1. If you use the NetBackup Administration Console or the `bpxpdate` command to expire a backup image that was enabled for Instant Recovery, the number of Instant Recovery snapshots retained at one time will be one less than expected. That is, the number of snapshots retained will be one less than the "Maximum Snapshots (Instant Recovery only)" setting for the policy. Two or more snapshots may have to be created before the number of retained snapshots equals the policy's Maximum Snapshots setting. Refer to the NetBackup Advanced Client System Administrator's Guide for a description of the Maximum Snapshots parameter and mirror rotation.
2. Point in time rollback of a VxFS_Checkpoint snapshot does not work with the VxFS CFS (Cluster File System).
3. Advanced Client Instant Recovery VxFS checkpoint rollback
When using the Advanced Client Instant Recovery rollback feature, VERITAS recommends that you choose the **Overwrite existing files** option if you are sure that all the data in the file system can be replaced by the backup. If you do not choose this option, file system verification will be performed before rollback, and for file systems with a large number of files, it will take a long time to complete the verification.
4. Advanced Client FlashBackup on Windows clients cannot backup and restore SIS link files.
5. If running a pre-5.0 NetBackup client with a NetBackup 5.1 master, a few new options such as `-WOFB_enabled` may show up in the `bkar` log. These options are ignored and all processing works correctly.

6. When running Advanced Client VSP snapshots on Windows 2000 clients, the NetBackup client service must be running at administrator level or VSP snapshots may fail.
7. Advanced Client FlashBackup on Windows clients may restore NTFS compressed directories as non-compressed directories.
8. When restoring a Windows mounted volume reparse point (JUNCTION) from a FlashBackup-Windows backup, the JUNCTION is not restored if the directory exists prior to the restore. You must delete the directory before performing the restore.
9. When restoring from a FlashBackup-Windows policy that had backed up more than one partition (drive), you can restore only one of the partitions at a time. If two or more partitions are selected, the restore will fail.
10. If your NetBackup HP-UX 11i client is configured with the VxFS 3.5 file system and does not have the latest VxFS 3.5 shim library, backups made with the Instant Recovery option and the VxFS_Checkpoint snapshot method cannot be restored (the restore fails with error code 130 or 5). Messages similar to the following appear in the `/usr/opensv/netbackup/logs/bpbrm` log on the server:

```

14:20:33.742 [7105] <2> get_adaptable_string: (5) premature end of
file
14:20:33.742 [7105] <2> get_adaptable_string: read 81 of 796226418
bytes
from socket
14:20:33.743 [7105] <16> bpbrm read_media_msg: cannot read from
media
socket 8
14:20:33.749 [7105] <2> clear_held_signals: clearing signal mask
stack,
mask_stack_depth = 0
14:20:33.749 [7105] <2> bpbrm kill_child_process: start
14:20:33.749 [7105] <2> bpbrm wait_for_child: start
14:20:33.749 [7105] <16> bpbrm Exit: client restore EXIT STATUS 43:
unexpected message received

```

You should update the client to the latest VxFS 3.5 shim library. Until the update is performed, you can temporarily fix the problem by disabling file promotion. To disable file promotion, use the following touch file:

```
/usr/opensv/netbackup/DISABLE_VXFS_FILE_PROMOTE
```

This will re-enable normal restore from a VxFS_Checkpoint snapshot. Be sure to update to the latest VxFS 3.5 shim library. When the upcoming release of VxFS 4.0 becomes available for HP 11i, you should enable file promotion by deleting the `DISABLE_VXFS_FILE_PROMOTE` file.



11. The NAS snapshot feature of NetBackup 5.1 Advanced Client does not support the Microsoft Server Appliance Kit (SAK).
12. When using either the VxVM or FlashSnap snapshot methods on Windows clients, please note that the "VERITAS Storage Foundation for Windows with FlashSnap Option" (of VxVM) must be licensed.

Known NBAC Limitations

1. As most NetBackup daemons (UNIX) or services (Windows) are run in an operating system context of root (UNIX) or SYSTEM (Windows), a nonroot user (UNIX) or non administrator group member (Windows) will not be able to start or stop the NetBackup daemons or services.
2. After enabling or disabling NBAC on a server, it is necessary to close and reopen any interface that is connected to that server in order to establish properly secured (or unsecured if disabling) communications with the server.
3. If performing a manual backup of the NetBackup catalog, both the Operate and Configure permission sets are required on the catalog object.
4. When selecting a domain type or authentication mechanism, the labels *NT* and *Windows* are synonymous.
5. From a command line, a non-privileged user may access or modify the local host licensing information for NetBackup.
6. The NetBackup-Java Administration Console selects the users authentication domain by attempting to login to each defined authentication domain in `bp.conf` in the order specified in `bp.conf`. Because of this, VERITAS recommends that you list preferred domains first in `bp.conf`.
7. When displaying users in the Access Control node, the NetBackup-Java Administration Console displays only the user name rather than the domain name and the user name. When dealing with user identities that exist in multiple domains, it is recommended that you use the NetBackup Administration Console for Windows.
8. NetBackup Access Control adds performance overhead to existing NetBackup operations. The amount of overhead varies based on the number of network connections needed to perform the operation.



9. NBU_Admin users are not able to approve or reject tape mount requests using the `vmopr cmd -deny 0` command. To avoid this issue, the Security Administrator can run the following command:

```
bpnbaz -addperms Assign -group NBU_Admin -object NBU_RES_Drive
```

Running this command causes the "Assign" permission to be added to the Drive object for all users in the NBU_Admin group, and enables a user to approve or deny tape mount requests using the `vmopr cmd` command.

10. The VxSS installer on HP-UX systems truncates operating system error messages at a point that makes it difficult to determine what problem is being encountered.
11. When running a master server on an HP-UX machine, customers are advised to add the following line to their `bp.conf` file to ensure that the HP-UX library-load order is correct.

```
CONNECT_OPTIONS=<your_server_name> 0 0 0
```

12. The file directives for the NetBackup catalog backup for backing up the VxSS Authorization and Authentication databases are `[host:]nbat` and `[host:]nbaz` respectively. During a NetBackup catalog backup, the administrator must disable NetBackup's use of Authorization and Authentication. In addition, upon recovery, the VxSS Authorization and Authentication services/daemons must be shut down for file recovery to take place.

During a NetBackup catalog backup of the VxSS Authorization database, its primary database file is disabled and copied to a temporary location. This temporary file is backed up in place of the original VxSS Authorization database file. For VxSS Authorization database recovery to be seamless, the temporary file must be copied on to the destination host and renamed to the original database name.

To facilitate this rename process, the Catalog Backup operation (`bpbackupdb`) creates a NetBackup rename file that pairs the temporary file name with the actual Authorization database filename it represents. The rename file will be the first file that gets backed up as a part of a Catalog Backup operation. During NetBackup database recovery operations, the user must always recover the rename file, to enable the recreation of the original VxSS Authorization database file. This rename file is always recovered to the host on which the recovery is started, even if the eventual Authorization database is being restored onto a different host.



Media Manager

1. Some robotic daemons are not supported (applies only to NetBackup Enterprise Server), for example, Windows NetBackup servers do not support ODL, and TSH robotic daemons. For additional information about supported platforms, refer to the Customer Support web site: <http://www.support.veritas.com>.
2. The Device Monitor on a UNIX or Windows host that points to a Windows NT or Windows 2000 server may display incorrect data after a tape has been mounted. The incorrect data is caused only if the tape mount operation encountered a tape in the drive that wasn't expected. This can be caused by re-starting the NetBackup Device Manager service while tapes are mounted.
3. Windows NT and Windows 2000 path remapping for tape drives requires all drives attached to the server to be serialized. This means they return a serial number in response to a SCSI Inquiry, page code 80.
4. During a NetBackup Vault session, when ejecting media from an ACS robot with multiple CAPs, but only single element CAPs are available, the eject fails, but the media are moved out of the robotic volume group.
5. If any drives are configured as shared (SSO drives) and also configured with a robotic residence in which the robot type is PCR (an internal type representing the partially configured robot state), the Media Manager device daemon / NetBackup Device Manager service (ltid) will not start. This situation indicates that the robot is disabled or the correct robot type was unknown at the time of device discovery.
6. Robotic control inconsistencies can occur on Windows servers if robotic or drive databases are modified while the robotic daemons are running. This may affect TLD, TL8, TLH, or LMF robotic types.
7. In NetBackup 5.1, VERITAS will be making use of shared libraries provided by ADIC for accessing their DAS/SDLC robot controller. If these shared libraries are not installed, or installed in the wrong location, a shared library load error will be generated if the TLM robotic control or its associated test utility are invoked.
8. The Media Manager volume daemon / NetBackup Volume Manager service may be non-responsive to new connection attempts for service, leading to connection time outs, because of slow or non-responding requestors. NetBackup has been improved in version 5.1 to reduce the likelihood of these events, yet they may still occur depending on the requested operation, the load on the daemon/service, and the speed of the requesting clients.

9. When device discovery is run in a TLH robotic configuration, the device information returned may be inconsistent. An issue was seen with early versions of IBM 3590J drives in a TLH robotic library, that we suspect is related to the specific serial number format with early serial number sequences. We hope to work around the potential issue in a future patch. This issue can be avoided by manually configuring devices in a TLH robot, instead of using the Device Configuration Wizard or relying on automatic device path correction. For more information on device path correction see the `ENABLE_AUTO_PATH_CORRECTION` and `DISABLE_AUTO_PATH_CORRECTION` `vm.conf` options in the *Media Manager System Administration Guides for UNIX and Windows*
10. Some robotic libraries will report that they are Not Ready after the media access port (MAP) has been closed. They remain Not Ready until the library has finished taking inventory of the MAP. If, during the time that the robotic library is in the Not Ready state, NetBackup or another application or user tries to mount or unmount a tape, the drive will be DOWN'd. Either configure the DOWN drives back to UP after the MAP is accessed, or avoid accessing the MAP while any media mount or unmount activity is occurring.
11. The tape installer has the following issues in NetBackup 5.1
 - ◆ The tape installer that is packaged with NetBackup 5.1 has some areas where it refers to "VERITAS Windows NT and Windows 2000 Device Drivers". The package does also include device drivers for Windows 2003.
 - ◆ When installing device drivers, you may receive the following message in error:
The target file exists and is newer than the source.
Overwrite the newer file?
 - ◆ The installer may occasionally make the wrong window active during the device installation procedure. In addition, it may not perform the reboot, even when the user has indicated to do so.
12. Media may become frozen because of a media ID mismatch during a robot inventory of TL8, TLD, and TS8 robots.

For these robot types, NetBackup 5.1 has increased support for the length of barcodes returned by a robot from eight up to 16 characters. Previous versions of NetBackup would use always 8 character barcodes for these robot types. Within this eight character barcode, the last 6 characters were used by default to create the Media Manager media ID.

If after a NetBackup upgrade from 4.5 to 5.1 the robot does return more than eight characters, there will be a mismatch of media IDs when doing a robot inventory. New media IDs will be added to Media Manager based on the new longer barcode. The last six characters of the longer barcode may not be the correct characters to use to



generate the media IDs. In addition, all of the original media will be moved to standalone. This mismatch will cause the media to be frozen because the media label (barcode) will not match the media ID.

If a robot inventory is not done, the media will also not be able to be used because the robot performs a barcode check with the requested media and ensures it matches the volume database. This check will fail and the media will be frozen.

In the following example, the robot sends the same 10-character bar code for both versions of NetBackup.

◆ 4.5 media ID generation:

The robot returns a 10 character barcode (12345222L1). Media Manager uses the last 6 characters of the first 8 characters in the barcode (12345222) for the media ID = 345222.

◆ 5.0 and 5.1 media ID generation:

The robot returns the same 10 character barcode (12345222L1). Media Manager uses the last 6 characters of the 10 characters in the barcode (12345222L1) for the media ID = 5222L1. Starting from the left, the 4.5 media ID is located in character positions 3 through 8 of the barcode (345222).

Use one of the following solutions:

- ◆ Disable the robotic library's ability to return barcodes longer than eight characters.
- ◆ Use Media Manager media ID generation rules to recreate the original media ID. Create a media ID generation rule that specifically extracts the original barcode characters from the new longer barcode. After you create the media ID generation rule (always use character positions 3:4:5:6:7:8 as the rule to extract the original media ID), inventory the robot again and the barcodes will be updated properly.

For more information on using Media ID generation rules, refer to the NetBackup Media Manager Systems Administrator's Guide.

Note After bringing vaulted media back into the robot, you must perform a robot inventory to update the barcodes in the Media Manager volume database for the returning media.

13. RSM robotics can only mount media one time on Windows 2003 (32-bit and 64-bit platforms). After attempting to mount media for the first time, both platforms produce the following log message in the application log in the event viewer.

```
RSMD error "Cannot update the omid for media"
```

This type of error means NetBackup cannot remount the media with the RSM robot again, and make it impossible for to append to existing restores and the media.

Media Manager Cluster Support Limitations

1. AIX 5.1, 64-bit systems do not return sense data to our applications

You may have problems using tape devices on AIX 5.1, 64-bit systems running with the kernel booted in 64-bit mode. There is an IBM APR number generated to address this problem. The IBM APR number is IY38430, and will be available after April 28, 2003.

NetBackup Advanced Reporter

This section explains known issues in this release of NetBackup Advanced Reporter. For more technical issues, refer to the VERITAS Customer Support site. Navigate to <http://www.support.veritas.com>. Search on Advanced Reporter.

1. Time to Completion

Be aware that if you have a large amount of data to load from the NetBackup database, it may take a long time (upwards of 30 minutes) for your installation to complete.

2. Temporary Directory Left after Upgrade from 4.5 on Windows

During an upgrade, the Windows install leaves a copy of the previous database in the `<install_directory>\nbar_olddb\nbar` directory. The user receives a message that the copy can be deleted after the user has determined the upgrade is successful.

3. Upgrading NBAR in a Clustered Environment

If you are planning to upgrade NetBackup Advanced Reporter from 5.0 to 5.1 in a clustered environment, VERITAS suggests you perform the following steps:

- ◆ List all NetBackup master servers that are part of the cluster.
- ◆ Note which server is the active node.

For instructions on how to uninstall and install NBAR in a clustered environment, please refer to the installation chapter in the *NetBackup Advanced Reporter System Administrator's Guide*.

Planning for a Cluster Upgrade on Windows

The machines in each cluster must:

- ◆ Be running NetBackup Enterprise Server 5.1
- ◆ Have valid NetBackup and NetBackup Advanced Reporter licenses



- ◆ Have NBAR 5.1 installed on each inactive node first, then on the active node.

Note DO NOT uninstall NBAR from the active node as this action will delete the database. There is no need to uninstall NBAR from the inactive nodes.

Planning for a Cluster Upgrade on UNIX Systems

The machines in each cluster must:

- ◆ Be running NetBackup Enterprise Server 5.1
- ◆ Have valid NetBackup and NetBackup Advanced Reporter licenses
- ◆ Have NBAR 5.0 uninstalled from each inactive node first.
- ◆ Have NBAR 5.0 uninstalled from the active node.

Note Do not reboot the system. The database has been moved to the /tmp directory and will be deleted on reboot.

- ◆ Have NBAR 5.1 installed on each inactive node first, then on the active node.

4. Web Server Unavailable after Reboot on HP-UX

The web server may not start automatically after a reboot. If it does not, manually restart all services by executing the following commands:

```
/usr/obj/obj_install/bin/nbar stop
```

```
/usr/obj/obj_install/bin/nbar start
```

Database Agents

The following known limitations exist for the following database agents.

DB2 Agent

1. Known Issue for NetBackup for DB2 GUI on Solaris:

When using the NetBackup for DB2 GUI to perform a roll-forward recovery on a DB2 Version 8 database on a Solaris client, the progress log displays unreadable status information after a successful recovery. In this configuration, the roll-forward status information obtained from DB2 is erroneous. This problem does not occur in other configurations, i.e. DB2 V7 on Solaris, or DB2 V8 on other platforms.

If the following message appears in the progress log then the roll forward has failed.

```
ERR - DB2 roll forward failed for partition <number>, sqlcode =  
<code>
```

Otherwise, the roll forward is successful, and you can use the following DB2 command to obtain the roll-forward status:

```
DB2 ROLLFORWARD FOR DB <database name> QUERY STATUS
```

Lotus Notes Agent

1. If a backup or restore of Lotus databases or transaction log extents is attempted when the Lotus Domino server is not currently running, the operation will fail with a media manager system error 174 on termination. This issue has been reported to Lotus support as SPR: RMAN56HLPV and will affect Lotus Domino server installations on Solaris and AIX.

Microsoft Exchange Server Agent

1. Notes for the Exchange Server Agent
 - ◆ The ExIFS drive (M: drive by default) on the Exchange 2000 server should be placed in the NetBackup client EXCLUDE list to prevent the Exchange 2000 objects from being backed up as file-level files. The ExIFS enables file-level access to various objects within a private or public information store. Exchange 2000 objects should *only* be backed up with NetBackup for Microsoft Exchange Server.
 - ◆ A Restore of ExIFS drive (M: drive by default) on the Exchange 2000 server should NOT be performed. It will leave Exchange 2000 in an unstable state.
 - ◆ For Active/Active configuration of Exchange 2000 in a Microsoft clustering environment, if more than one instance is running on the SAME node, scheduled backups using the Mailbox directive ONLY will backup ALL mailboxes on all instances running on that node, regardless of which virtual server name is specified for backups.
 - ◆ For Active/Active configuration of Exchange 2000 in a Microsoft clustering environment, if more than one instance is running on the SAME node, the NetBackup Client GUI will display ALL mailboxes of all instances running on that node when browsing for mailboxes, regardless of which virtual server name is specified.
2. Compression of Exchange objects disabled



Compression of Exchange objects has been disabled for this release. You will be able to specify compression as an attribute of the Exchange class definition. However, Exchange objects will not be compressed by the Exchange client software.

Microsoft Exchange Server with Advanced Client

1. A multi-streaming backup results in streams being single-threaded. The streams cannot be run concurrently, therefore the backup process will only allow one stream to execute at a time.
2. A multi-streaming backup will result in each stream taking a separate snapshot of the volume(s) required for the Exchange storage group which are to be backed up in the stream.

Oracle Agent

1. Oracle tree cannot be browsed after running a template from the backup or recovery Wizard (Windows NT/2000 only).

The browser will lose its connection to the database if the template was created with the option to take the database offline before the backup or recovery starts. This connection is not reestablished causing indeterminate browser behavior. To avoid this issue, close the backup window and open a new one using **Select for Backup**.

Oracle Advanced Client Agent

1. Script-based Oracle BLI

At the NetBackup 4.5_3_F or higher level, the block-level incremental backup (BLIB) of standard files requires the presence of a `bpstart_notify.<policy-name>` file for the backup to be processed. This file must be located in the `/usr/opensv/netbackup/bin` directory and must have execute permissions. If this file is not found, the backup will fail with a status of 73 (`bpstart_notify` failed). The `bpbkar` log will have the following messages:

```
13:47:00.054 [2695268] <16> bpbkar notify: ERR - Missing block
incremental notify script
/usr/opensv/netbackup/bin/bpstart_notify.bli-file-test
13:47:00.054 [2695268] <16> bpbkar main: ERR - bpstart_notify
returned -1
```

```
13:47:00.054 [2695268] <16> bpbkar Exit: ERR - bpbkar FATAL
exit status = 73: bpstart_notify failed

13:47:00.054 [2695268] <4> bpbkar Exit: INF - EXIT STATUS 73:
bpstart_notify failed

13:47:00.319 [2695268] <2> bpbkar read_bpbrm_msg: INF - read
from stdin INF - Server status = 73

13:47:00.319 [2695268] <16> bpbkar Exit: ERR - read server exit
status = 73: bpstart_notify failed
```

This change prevents a possible data loss condition in Oracle BLIB configurations.

2. To perform RMAN/Proxy Oracle BLI backups of files that are larger than 2GB on an AIX platform, you should request an Oracle patch for bug # 2194810 from Oracle. This patch fixes the Oracle problem of not allowing Proxy Copy backups in the specified configuration.

SQL Server Agent

1. SQL Server advanced client images cannot be imported or duplicated.

NetBackup Java Interfaces

Backup, Archive, and Restore

1. Depending on the task submitted, you may not see the Type of Task (Backup, Restore, Archive) listed in this column on the display in the Progress tab.
2. If the NetBackup for Lotus agent is installed, and the Lotus node is expanded, the Transaction Logs node may appear even if transaction logging is not enabled, or is configured for circular style logging.



Host Properties

1. Configuration of an OS/2 client cannot be successfully completed using the Host Properties Client Properties page. Refer to Chapter 3 of the *NetBackup 3.4 OS/2 Warp User's Guide* for configuration information and instructions.
2. You can use Host Properties to configure 3.4 clients. Any attempt to change a property that was newly introduced in this release will fail without giving any error messages or warnings. It is not possible to configure Virus Scan related parameters even for 3.4 clients.
3. Using the spinner controls to increase the cache sizes can cause the NetBackup-Java Administration Console to hang

When using the NetBackup-Java Administration Console, on the VSP pane in a Windows client's Host Properties, the user should avoid using the spinner controls to sequentially increase the Initial cache size and Maximum cache size from their default value of 0. Using the spinner controls in this manner causes the NetBackup-Java Administration Console to hang. To increase these cache sizes, use the keyboard and manually enter values into the text fields corresponding to the Initial and Maximum cache sizes.

4. Problem trying to set an Initial Cache Size value less than 10

When modifying the VSP settings for a Windows client using the Client Host Properties GUI in the NetBackup-Java Administration Console, the VSP pane (in the client's Host Properties node) does not enable the user to set the Initial Cache Size to a value less than 10. If a value less than 10 is used, the user interface will use the number 10 instead of the value intended by the user. To use a value less than 10, use the NetBackup Administration Console for Windows to change the Initial Cache Size for that particular client. This problem does not exist in the NetBackup Administration Console for Windows.

Vault

1. When creating multiple copies of an image concurrently (using Inline Tape Copy), Vault does not create any of the copies when at least one of the copies has a disk storage unit as a destination and the continue/fail flag is set to fail for any one of the copies.
To avoid this issue, set the continue/fail flag to continue for all copies.
2. ACS Robot Eject Problem Caused by Missing `vm.conf` Entry.



When using Vault to eject media to more than one media access port (MAP) on an automated cartridge system (ACS) robot, if the `ADJ_LSM` entries for the library are missing from the `vm.conf` file, the media will not be ejected from the library but the volume database will be updated to show the media is no longer in the robotic volume group. The Vault job will fail with the following error:

```
Error encountered while processing eject (eject process has been aborted[293] )
```

The default behavior of assuming the LSMs are connected in a line is not occurring when the `ADJ_LSM` entries are missing. You should configure the `ADJ_LSM` entries in the `vm.conf` file; for details, see “Adjacent LSM Specification for ACS Robots” in the *NetBackup Media Manager System Administrator’s Guide*.

3. ACS Robot Eject Problem with More than Three LSMs.

When ejecting media from an automated cartridge system (ACS) robot that has at least three library storage modules (LSMs) and at least one of the LSMs is offline, media that must pass through an offline LSM so it can be ejected will *not* be ejected, but will be moved logically out of the robotic volume group in the NetBackup volume database.

4. Vault Administration Menu Shows Master Server Volume Pools Only.

The Vault user interfaces list the volume pools configured on the master server and not the volume pools configured on the media servers. When configuring off-site volume pools for the eject step, you will not be able to select a volume pool if it is configured on a media server. To specify off-site volume pools for the eject step, use the NetBackup Administration Console.

5. Vault Job Canceled if Print Command Hangs

If Vault invokes the print statement for printing a report and if the operating system does not execute that print statement for at least 30 minutes, the Vault job is cancelled and the Activity Monitor reports status code 50, child process aborted.

6. Catalog Backup Does Not Stop Properly

If you stop a Vault job that is doing a catalog backup, the catalog backup job may not stop immediately. The symptoms differ depending on the system:

- ◆ On UNIX systems, the vault job stops immediately with status 63, process was killed by a signal (although the status should be 150). The catalog backup job will stop with status 150, job terminated by administrator, but the volume assigned for the failed catalog backup job may not be unassigned.
- ◆ On Windows systems, the vault job stops immediately with status 150, job terminated by administrator, and the Activity Monitor reports that the catalog backup ends with status 150; however, the catalog backup job continues, the



volume being used for the catalog backup is unassigned, and the Activity Monitor still reports status 0 (success) for the catalog backup even though the volume was unassigned.

7. Vault Menu User Interface Issues:

- ◆ In the Vault Administration menu (`vltadm`, UNIX only), the value in the Number of Copies field displayed at the top of Duplication Rules Setup menu is changed by adding or deleting duplication rules. You cannot change the number of copies directly.
- ◆ When creating a vault in the Vault Administration menu (`vltadm`, UNIX only), when prompted to "Vault Using Containers (or Slots)? (y/n)" enter **y** to vault media in containers or enter **n** to vault media in slots.

8. During an inject operation using the Vault Operator menu (`vltopmenu`), the user is not prompted to insert tapes into the library media access port and is not prompted to press Enter to continue. To work around this limitation, use the `vltinject` command or the NetBackup Administration Console to inject media.

