



RELEASE NOTES

EMC[®] NetWorker[®] Release 7.6 and Service Packs

Release Notes

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These release notes contain supplemental information about the EMC[®] NetWorker[®] 7.6 and 7.6 Service Pack 1 releases.

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Revision history

The EMC® NetWorker® 7.6 and Service Packs Release Notes was originally published in August 2009.

Table 1 **Revision history**

Date	Description
September 24, 2010	<ul style="list-style-type: none"> NetWorker 7.6 Service Pack 1 released
April 19, 2010	<ul style="list-style-type: none"> Documentation errata added for "Added information to the topic "Resolvable names for multiple network interface cards"" on page 162. "Technical notes" section updated with "Configuration options to send write error alert if NFS mount of AFTD device fails silently while writing to AFTD" on page 157.
March 17, 2010	<ul style="list-style-type: none"> "Installing or Upgrading to NetWorker 7.6 on Solaris AMD64 and Intel requires Solaris 10 Encryption Kit" on page 13 added to section "New features and changes". "Index browsing (file selection recovery) may not be supported when using VMware clones and the hotadd transport mode" on page 64 added to "Known problems and limitations". Added doc errata for "Important note added to Administration Guide for running the inquire command" on page 162.
March 5, 2010	<ul style="list-style-type: none"> Statement added to section "Internationalization support" on page 147 for "Locale and Code Set Support". "Localization support" on page 147 is now a separate section.
February 19, 2010	<ul style="list-style-type: none"> Added doc errata for "ConnectEMC Release Notes contain wrong version number" on page 163.
February 15, 2010	<ul style="list-style-type: none"> "Upgrade of NMC for NetWorker 7.4 Service Pack 5 to release 7.6 may result in core dump on AIX" on page 60 and "NETWORKER.cfg file must be backed up prior to upgrading from any NetWorker version 7.5 Service Pack 1 or earlier" on page 60 added to "Known problems and limitations" on page 32. "Issues with replication node recovery and setting the RECOVER_FROM_REP_HOST environment variable" on page 162 added to "NetWorker 7.6 documentation errata" on page 161
December 18, 2009	<ul style="list-style-type: none"> Fixed external links for a Secure Storage Library hotfix. Added doc errata section under "Documentation" on page 160.
December 4, 2009	<ul style="list-style-type: none"> Additional information related to ConnectEMC
November 27, 2009	<ul style="list-style-type: none"> "Savegroup completion report output contains additional, unnecessary information" on page 82 added to "NetWorker releases previous to 7.6".
November 20, 2009	<ul style="list-style-type: none"> NetWorker 7.6 released.

Product description

The EMC NetWorker 7.6 release provides significant functional enhancements, including support for the following:

- ◆ Integration of Data Domain features and services in NetWorker
- ◆ Enhancements to the handling of Advanced File Type Devices (AFTDs)
- ◆ Increased NetWorker functionality for VMware support, including support for the new virtualization platforms and features from VMware (such as the ESX Server vSphere 4)
- ◆ Backup to EMC Atmos-based cloud storage
- ◆ Enhancements to the NetWorker Management Console, including the new monitoring task panel and event/log information visible on every page
- ◆ Integration of the ConnectEMC console, used to obtain information on system configuration for identifying system errors
- ◆ Reporting enhancements for deduplication and recovery operations in NMC.
- ◆ Changes to licensing, including a new model based on source capacity, and improved license expiry notification and update enabler functionality

See [“New features and changes” on page 4](#) for more information.

Before installing NetWorker release 7.6, review the NetWorker release 7.6 installation guide, administration guide, and other documentation.

[“Documentation” on page 160](#) lists the complete NetWorker release 7.6 documentation set.

New features and changes

The NetWorker software contains the following new features and enhancements. More detailed information on these features is provided in the *EMC NetWorker Administration Guide*.

- ◆ “NetWorker release 7.6 Service Pack 1” on page 4
- ◆ “NetWorker release 7.6” on page 12

NetWorker release 7.6 Service Pack 1

NetWorker release 7.6 Service Pack 1 includes these new features and changes:

- ◆ “Integration of Data Domain features and services in NetWorker” on page 5
- ◆ “Support for HomeBase Agent version 6.4” on page 7
- ◆ “AFTD changes to load balancing, device target session values, and intelligent space management” on page 7
- ◆ “Device block size for read and write operations” on page 8
- ◆ “Source Capacity licensing model” on page 8
- ◆ “Licensing information now provided in NetWorker Licensing Guide” on page 8
- ◆ “Java Runtime Environments (JRE) version 1.6 and later are supported” on page 8
- ◆ “Windows 7 and Windows Server 2008 R2 support” on page 8
- ◆ “Cluster Shared Volumes (CSV) with Microsoft Windows Server 2008 R2” on page 9
- ◆ “New VSS writers for Windows Server 2008 R2 and Windows 7” on page 9
- ◆ “Backup and recovery of BOOT/BCD Data on Windows 2008 R2 and Windows 7” on page 9
- ◆ “Backup and offline recovery using Windows Server Backup with NetWorker” on page 10
- ◆ “Notifications for Device Ordering/Serial number mismatch issues” on page 10
- ◆ “Checkpoint restart backups” on page 10
- ◆ “Setting up a schedule clone operation” on page 10
- ◆ “New environment variable NSR_SOCKET_BUF_SIZE to adjust TCP window size” on page 11
- ◆ “Mac OS X installation changes” on page 11
- ◆ “NMM backup types added for NMC reports” on page 11
- ◆ “Scanner command affected due to automatic unloading of volumes that have been placed in a jukebox but have never been mounted” on page 12

Integration of Data Domain features and services in NetWorker

In addition to NetWorker's wizard-driven configuration of an EMC® Data Domain® storage system, the NetWorker software provides the following features and services.

Note: Contact your sales representative for details on how to get the licenses required to configure the new Data Domain devices with NetWorker 7.6 SP1

Deduplication backup

As the NetWorker server moves and stores information over a network, the Data Domain system identifies redundant files and data, dramatically reducing the amount of disk storage needed to retain and protect data.

Deduplication services may be performed at any of the following sites on a network:

- ◆ On the Data Domain storage system (storage-side deduplication)
- ◆ On the NetWorker storage node (storage node deduplication)

Clone Controlled Replication of deduplicated backups

Deduplicated backup data can be replicated for efficient disaster recovery and consolidated tape operations. In addition to existing methods for replication, such as automatic cloning of a scheduled backup and cloning by way of the **nsrclone** command, replication can be done by a new NetWorker Clone resource. This resource can specify save set and scheduling options for the following operations:

- ◆ Replication of deduplicated data after backup
- ◆ Replication of deduplicated data from one Data Domain system to another

Note: This new clone functionality is not limited in use to the Data Domain storage systems with NetWorker.

Device Configuration Wizard and NMC

The NetWorker Management Console (NMC) *New Device Wizard* can be used to configure Data Domain storage systems, including storage units within the Data Domain system. It is no longer required to use NetWorker commands and scripts to configure and execute backup operations to Data Domain systems.

Note: Configuration of clients and replication cannot be performed from the *New Device Wizard*.

Data Domain storage system enablers and licensing

With NetWorker release 7.6 Service Pack 1, to take advantage of the new Clone Controlled Replication feature, you can configure a Data Domain host directly as a **Data Domain** media type. For Data Domain devices that are configured as a **Data Domain** media type, in contrast to legacy modes such as AFTD or VTL, the NetWorker software requires a Data Domain storage system enabler for each Data Domain system that will be included in the integrated backup environment.

The amount of Data Domain raw storage available in a NetWorker datazone is provided by a Data Domain capacity entitlement license. There is no restriction on the number of NetWorker Data Domain device resources that can be created, other than the overall device limits for the datazone. However, there must be sufficient

Data Domain capacity entitlement licenses for the amount of Data Domain storage used in the datazone.

Optimized cloning (replication)

Data Domain optimized cloning (replication) for backup-to-disk can be performed through the standard NetWorker cloning workflow (using `nsrclone`).

Scheduled cloning and replication

Use the **Configuration > Clones** window in NMC or create `nsrclone` scripts to schedule cloning operations of deduplication backups.

Reporting and monitoring

Reporting and monitoring of deduplication backup, recovery, and replication operations is provided by the NetWorker Management Console (NMC) software.

NMC provides the ability to monitor details of current Data Domain backup operations in either the **NMC Enterprise** window or the **NetWorker**

Administration window **Devices** view, as well as display alerts that require user intervention.

New statistical reports of NetWorker with Data Domain backup activities, including Save Set summary, Save Set details, and so on, are available from the **NMC Reports** window.

Media Type required attribute for Data Domain cloning operations

There is a new pool attribute, Media type required, that when set will trigger an optimized clone on the target Data Domain device.

1. Set up a clone pool and assign only Data Domain devices to this pool.
2. Set the Media type required attribute in the Pool resource to Data Domain.

Note: It is especially important to set this new attribute when using cloned controlled replication over WAN, so the clone operation never falls back to regular cloning over a long distance network. The attribute is set automatically when using the configuration wizard.

Data Domain Boost supported platforms

NetWorker supports the integration with Data Domain Boost on the following platforms:

- ◆ Windows 2003 and Windows 2008 (x86 and x64)
- ◆ Solaris 9 and 10 (SPARC only)
- ◆ Red Hat 4 and 5 (x86 and x64)
- ◆ SuSE Linux Enterprise Server 9, 10, and 11 (x86 and x64)

Limitations to Data Domain support

The following limitations apply to NetWorker 7.6 Service Pack 1 support for Data Domain:

- ◆ Storage nodes on AIX, HP-UX and Solaris AMD64 do not support Data Domain devices
- ◆ AIX, HP-UX and Solaris AMD64 do not support the creation of LSU folders on a Data Domain system using the *New Device wizard*
- ◆ A Glibc 2.3.4 or later library is required on a Linux host in order for that host to run as storage node for the Data Domain device

- ◆ The source and target remote storage node for the Data Domain device of the clone operation must be defined as a Client resource on the NetWorker server
- ◆ The Data Domain volume on the source storage node must be mounted
- ◆ The Data Domain retention lock is not supported
- ◆ Checkpoint restart backups are not supported with Data Domain devices

Support for HomeBase Agent version 6.4

The NetWorker 7.6 and later software now supports EMC HomeBase Agent version 6.4. Note that NetWorker release 7.6 and later is still bundled with the EMC HomeBase Agent version 6.2.x.

Homebase version 6.4 is required for BMR of the following host operating systems:

- ◆ Windows Server 2008 R2
- ◆ Windows Server 2008 SP2
- ◆ Windows Server 2003 SP1 or later
- ◆ Windows Server 2003 R2 SP1 or later

To provide bare metal disaster recovery for NetWorker clients on these platforms, upgrade to the Homebase 6.4 agent. Information about upgrading to and configuring the Homebase 6.4 agent is available in the *HomeBase Agent Installation and Configuration Guide*. Information on bare metal recovery is available in the *HomeBase Recovery and Migration Guide*.

Note: In NetWorker 7.6 Service Pack 1, the Homebase Agent installation will not be bundled with the NetWorker installation package for AIX. Homebase is still supported on AIX, however, you must download and install the Homebase Agent manually.

AFTD changes to load balancing, device target session values, and intelligent space management

The following AFTD enhancements have been made to load balancing, the default values for device target sessions, and space usage settings.

Device Configuration Wizard and NMC

AFTDs can be configured using the NMC *New Device Wizard*.

AFTD Load Balancing

NetWorker volume selection criteria was the same for AFTDs as for tapes, such that when there were multiple available AFTD volumes belonging to the same pool fitting the selection criteria (pool settings), NetWorker would select a volume based on label time. However, selecting a volume by label time is unnecessary for AFTDs, and results in the first AFTD being overused while others are underused.

The load-balancing scenario for AFTDs has been changed to properly utilize multiple LUNs for improved performance and utilization. Now, among all volumes that fit the selection criteria (pool settings), for the first save set NetWorker chooses the AFTD with the lowest used space, and joins sessions based on device target sessions. When the desired utilization for the first AFTD is reached, the write operation continues with the next AFTD with the least amount of used space, and so on.

Target sessions and max sessions values for AFTDs

Previously, the target session default values for AFTDs were 4 for device target sessions and 512 for device max sessions. However, such values can lead to high concurrencies, resulting in disk thrashing.

The Device target session value has been changed from the default of 4 to 1 for AFTDs, and device max sessions for AFTDs has been reduced from 512 to 32.

Intelligent space management

NetWorker now provides a configurable setting for determining at what level NetWorker stops writing to an AFTD. This configurable setting can be from 0% to 100%. If the capacity is defined at a value of 100%, the entire disk capacity is used, though the existing save set cutoff size is still in use.

Device block size for read and write operations

The block size for both read and write operations now uses the block size defined in the volume header during the label operation rather than the device block size.

Source Capacity licensing model

NetWorker Release 7.6 Service Pack 1 introduces a capacity licensing model, whereby you can license the NetWorker software based on a source capacity metric. Source capacity is measured as the aggregate of full backups (measured in terabytes) from all data-sources that are protected by the NetWorker software, irrespective of where the data is moved (for example, from tape, disk, VTL, Avamar Data Store, or Data Domain). The quantity of pre-deduplicated data is included in the calculation.

The source capacity licensing model allows for unlimited access and deployment of all NetWorker features, modules, and options, and simplifies license management and maintenance renewals, since only the source capacity of the datazone is tracked.

The EMC AMP Utility, a virtual appliance, is used to determine and track the backup environment's source capacity usage. The utility is available as a free download from EMC Powerlink.

Licensing information now provided in NetWorker Licensing Guide

All information related to licensing and enabling the NetWorker software is now provided in a new document, the EMC NetWorker Licensing Guide.

Java Runtime Environments (JRE) version 1.6 and later are supported

Java Runtime Environment 1.6 is required to run the NMC GUI. Optionally, to take advantage of the Command Line Reporting feature, JRE 1.6 should be installed on NMC Server host. If you do not have the required Java version installed, go to the Java website to download and install the appropriate JRE version. NMC cannot be started until the correct JRE version is installed.

Windows 7 and Windows Server 2008 R2 support

NetWorker 7.6 Service Pack 1 introduces NetWorker client support for Windows 7 (Ultimate Edition and Business Edition on both x86 and x64), and NetWorker server, storage node, client and NetWorker Management Console (NMC) support for Windows Server 2008 R2.

This includes support for the following:

- ◆ File system backup and recovery
- ◆ Online restore of System State
- ◆ [“New VSS writers for Windows Server 2008 R2 and Windows 7”](#)

Note: These writers are backed up as a part of the VSS SYSTEM BOOT FILES save set.

- ◆ Microsoft Cluster
- ◆ [“Cluster Shared Volumes \(CSV\) with Microsoft Windows Server 2008 R2”](#)
- ◆ Windows 2008 R2 Server core
- ◆ NMC for Windows Server 2008 R2

The following are not supported:

- ◆ Virtual Hard Disks (VHDs)
- ◆ Hyper-V writer
- ◆ Cluster Shared Volumes with Windows 7
- ◆ Deduplication
- ◆ NMC for Windows 7

Cluster Shared Volumes (CSV) with Microsoft Windows Server 2008 R2

Cluster Shared Volumes (CSV) is a new failover clustering feature in Windows Server 2008 R2 that allows all nodes in a cluster concurrent access to data on every CSV-enabled shared disk. CSV simplifies the configuration and management of clustered virtual machines. With CSV, multiple clustered virtual machines can use the same LUN (disk) while still being able to fail over independently.

Note: The NetWorker client on Windows Server 2008 R2 will not support CSV. If NetWorker detects configured CSV, it does not back up the CSV, and displays the following message: ALERT: This release of NetWorker does not support the backup of Cluster Shared Volumes. The *save_set_path* directory and its contents will not be saved. NetWorker continues to backup the remaining files and directories.

New VSS writers for Windows Server 2008 R2 and Windows 7

The following new VSS writers were introduced in Windows Server 2008 R2 and Windows 7:

- ◆ Performance Counters Writer
- ◆ Task Scheduler Writer
- ◆ VSS Metadata Store Writer

The NetWorker client on Windows Server 2008 R2 and Windows 7 supports the back up of these new VSS writers. These writers are backed up as a part of the VSS SYSTEM BOOT FILES save set.

Backup and recovery of BOOT/BCD Data on Windows 2008 R2 and Windows 7

In earlier versions of Windows operating system, the BOOT directory was present in the system drive. However, in Windows 7 and Windows 2008 R2, a hidden, unmounted system reserved partition is created and the BOOT Configuration

Data (BCD) store is saved in this partition. The BCD store contains the boot configuration parameters and controls the computer's boot environment. **BCDEdit** is a command-line tool provided by Microsoft to add, delete, edit, and modify data in a BCD store.

Backup of BOOT/BCD data

During a backup, NetWorker checks for the type of operating system. If it is Windows 7 or Windows 2008 R2, it ensures that the partition containing the BCD is mounted and then assigns a drive letter to the mounted partition and performs the backup of the BCD. The VSS BOOT BCD FILES get backed up as a part of the VSS SYSTEM FILE SET. After a backup, the partition is unmounted.

Recovery of the BCD file

The BCD file is recovered to the folder `c:\boot_restored-{timestamp}` during recovery. To restore the BCD file, import the file using the following command:

```
bcdedit /import c:\boot_restored-{timestamp}\BCD
```

Note: Restoring the recovered file is optional.

Backup and offline recovery using Windows Server Backup with NetWorker

For information about the Windows 2008 offline system recovery, refer to the Technical Note titled *Windows Server 2008 Offline System Recovery Using Windows Server Backup with NetWorker* at <http://Powerlink.EMC.com>.

Notifications for Device Ordering/Serial number mismatch issues

Upon detecting a device ordering error or serial number mismatch, in addition to an error message being returned, the device is put into service mode and an alert is posted to the Events window and the Monitoring window of NMC. The messages provide instructions to resolve the issue. When the issue is resolved and the device is re-enabled, the event is dismissed.

Checkpoint restart backups

The Checkpoint restart feature allows failed backup operations to restart at a known good point prior to the point-of-failure during backup. A known good point is defined as a point in the backup data stream where the data was successfully written to tape and that data can be located and accessed by subsequent recovery operations. This feature allows client backups that are part of a scheduled backup to be restarted should they fail while running. This prevents the files and directories that have already been backed up from being backed up again.

The checkpoint restart feature is *not* enabled by default. If a NetWorker client is not configured as checkpoint enabled and a backup fails, the next time the group is run, the software creates a new save set from the beginning.

Note: The NMC database cannot be backed up as part of a Checkpoint restart backup. If a backup of the Console database is required, do not select the **Checkpoint enabled** attribute in the client resource.

Setting up a schedule clone operation

Previously, scheduled clones could only be set up by creating **nsrclone** scripts that were set to run as scheduled tasks.

With NetWorker 7.6 Service Pack 1 and higher, you can set up scheduled clone operations through the **Configuration > Clones** window of the NetWorker Management Console, in addition to enhanced reporting and monitoring functions for scheduled clones. Scheduled clone operations enable you to reduce the backup window when compared to clone operations that are automatically selected to run as part of a scheduled backup.

The **nsrclone** command is still supported for scheduling clone operations.

Note: Cloning works differently for Avamar deduplication backups. The section “Cloning and Avamar deduplication” of the NetWorker Administration Guide provides more information. It is also possible to send the backup data of Avamar deduplication nodes to tape volumes. The section “[Backup-to-tape for Avamar deduplication clients](#)” on page 634 of the NetWorker Administration Guide provides more information.

New environment variable **NSR_SOCKET_BUF_SIZE** to adjust TCP window size

With the addition of the environment variable **NSR_SOCKET_BUF_SIZE**, you can now adjust the TCP window for tuning so that NetWorker can utilize larger TCP window sizes.

The operating system still needs to be configured to enable larger TCP windows. The NetWorker default settings are 64K for Windows and Solaris, and 32K for all other platforms. You can override these defaults by setting **NSR_SOCKET_BUF_SIZE** to the number of bytes desired prior to starting the NetWorker daemons:

```
NSR_SOCKET_BUF_SIZE = <# bytes>
```

Note: This setting must be changed on all systems in the environment for the desired size to be used (for example, if the server is 128K, any clients would need to be set to 128K); if there are mismatched systems (for example, the server is 128K but one client is 32K), NetWorker will throttle down to the lowest value.

Mac OS X installation changes

Starting with NetWorker 7.6 Service Pack 1, the NetWorker client for Mac OS X now uses **launchd** instead of **SystemStarter** to manage the NetWorker daemons (**nsrexecd**). As a result, the following changes have been made:

- ◆ the **NetWorkerUninstall** script is now located in `/usr/sbin` instead of `/Library/Receipts/NetWorker/Contents/Resources/NetWorkerUninstall`
- ◆ to restart **nsrexecd**, run **launchctl start com.emc.NetWorker** instead of **SystemStart start NetWorker**.
- ◆ to shut down **nsrexecd**, only the **-l** option is supported; **nsr_shutdown** is no longer used to shut down **nsrexecd**.

NMM backup types added for NMC reports

Backup statistics and backup status reports available in NMC have been enhanced to specify three different NetWorker Module for Microsoft applications (NMM) backup types. The following backup types are now listed in the reports:

- ◆ SharePoint
- ◆ SQL server
- ◆ Exchange

Scanner command affected due to automatic unloading of volumes that have been placed in a jukebox but have never been mounted

NetWorker automatically unloads volumes that have been placed in a jukebox device but have never been mounted (for example, by running `nsrjb -l -n <volume>`). Commands such as the scanner command that operate on volumes that have never been mounted will be affected by this behavior.

To prevent NetWorker from unloading the volume, the device should be set to service mode while the command is being run.

NetWorker release 7.6

NetWorker release 7.6 includes these new features and changes:

- ◆ “Cloud functionality for onsite and offsite backup and recovery” on page 13
- ◆ “Upgrading from NetWorker 7.4 to 7.6 for VCB backups on UNIX and Windows” on page 13
- ◆ “Installing or Upgrading to NetWorker 7.6 on Solaris AMD64 and Intel requires Solaris 10 Encryption Kit” on page 13
- ◆ “Only VCB Image backup required to perform image-based or file-based recovery” on page 13
- ◆ “Improved VCB File-level Backup capabilities” on page 14
- ◆ “VCB Proxy hosts on virtualization map” on page 14
- ◆ “NetWorker client resource creation for virtual machines” on page 14
- ◆ “Applying file-level incremental backups to full image backups” on page 14
- ◆ “Changes to deduplication reporting in NMC” on page 15
- ◆ “New Recovery Reports in NMC” on page 15
- ◆ “Deduplication support for Windows Server 2008 clients” on page 16
- ◆ “Monitoring docking panel added to NMC with event and log information permanently visible” on page 15
- ◆ “Automation of NetWorker Update Enablers” on page 16
- ◆ “Licensing for NetWorker NMDA module” on page 17
- ◆ “ConnectEMC functionality in NMC and the ConnectEMC Console” on page 17
- ◆ “Consolidation of NetWorker licensing across Windows and Linux platforms” on page 17
- ◆ “License Expiration Alert” on page 18
- ◆ “Dedicated Storage Node in Solaris local zone” on page 18
- ◆ “NetWorker client now includes HomeBase Agent version 6.2” on page 18
- ◆ “NetWorker monitoring of Deduplication replication jobs” on page 18
- ◆ “NetWorker monitoring for Deduplication Node maintenance operations” on page 19
- ◆ “mminfo changed to allow query for valid save set copies in order to prevent data loss” on page 19

- ◆ “Support for index-only backup option in the NSR group resource options attribute list” on page 19

Cloud functionality for onsite and offsite backup and recovery

The NetWorker software previously did not support the ability to perform backup or recovery using cloud infrastructures.

New in NetWorker 7.6

You can now use NetWorker to back up systems to cloud storage and recover from cloud storage. When enabled, backups occur over a TCP/IP network and can be compressed and encrypted. EMC Atmos cloud configurations are supported.

Cloud backups are supported on Windows and Linux storage nodes only.

Upgrading from NetWorker 7.4 to 7.6 for VCB backups on UNIX and Windows

When upgrading from NetWorker Release 7.4 to NetWorker Release 7.6 for VCB related backups without using the NetWorker Integration module, run the following command on the NetWorker server:

```
nsrvcbserv_tool -p VCB proxy hostname or IP address
```

The upgrading chapter of the *NetWorker Release 7.6 Installation Guide* provides more information.

Note: NetWorker 7.6 supports only Microsoft Windows 2003 (32-bit or 64-bit) OS on VCB Proxy.

Installing or Upgrading to NetWorker 7.6 on Solaris AMD64 and Intel requires Solaris 10 Encryption Kit

When installing or upgrading to NetWorker Release 7.6 on Solaris 10 AMD64 or Intel, ensure that the **Solaris 10 Encryption kit** is already installed on that host. This kit includes the packages SUNWcrman, SUNWcry, and SUNWcryr, and is available from the official SUN Solaris web downloads at <http://www.sun.com/download/index.jsp?tab=2>. Scroll down under "S" to find the link to the Solaris 10 Encryption Kit.

Failure to install this kit prior to the installation of NetWorker will result in NetWorker **NOT** functioning on the Solaris 10 AMD and Intel platforms.

Using VCB directives for backing up virtual machines

With NetWorker release 7.6, a new VCB directive has been introduced for backing up virtual machines using the VCB methodology. The VCB directive skips saving the system folders "WINDOWS\SYSTEM" and "WINDOWS\SYSTEM32" when the save set is "ALLVMFS" or when performing incremental file-level backups.

Note: VCB directives are not supported when performing a level 0 (full) Image backup or when performing specific saveset backups such as "C:\".

Only VCB Image backup required to perform image-based or file-based recovery

NetWorker needed to perform *both* a VCB-based file-level backup (used to recover individual files for the host VM) and a VCB-based image backup of a full virtual machine (used to recover the virtual machine in a disaster recovery) if you wanted to perform a file-level or full image recovery.

Changed in NetWorker 7.6

NetWorker now requires only the VCB-based image backup in order to perform either an image-based or file-based recovery. Therefore, the administrator is now able to browse the file system, locate the desired file and initiate recovery of only that file from a VCB image backup. More information on VCB-based backups is provided in Chapter 20 of the *NetWorker Release 7.6 Administration Guide*.

Improved VCB File-level Backup capabilities

For VCB file-level backups, NetWorker was using the Legato NetWorker Integration Module (LNIM) technology, which has some limitations when communicating between the NetWorker server and the NetWorker client on the VCB proxy. These limitations include the difficulty in handling special files (such as encrypting sensitive files and compressing large files, due to the inability to use NetWorker directives when backing up VMs), and the inability to cancel VCB backups or receive completion status of VCB backups using LNIM technology.

Changed in NetWorker 7.6

NetWorker now supports the file-level backup of virtual machines without using LNIM.

Note: In order to continue encrypting the backup data, use a VCB proxy instead of using NetWorker client agents in each VM.

VCB Proxy hosts on virtualization map

NetWorker previously did not represent VCB proxy hosts or their relationship to the virtual machines being backed up by the proxy host, making it difficult to determine the proper load balancing of related VCB proxy hosts. Because relationships to virtual machines are not represented, you cannot determine which virtual disks are not being backed up.

New in NetWorker 7.6

NetWorker visually represents each VCB proxy host on the virtualization map, and visually represents the relationship between each VCB proxy host and the Virtual Machines it is configured to backup.

NetWorker client resource creation for virtual machines

You can now use the Client Backup Configuration wizard to configure a NetWorker client for virtual machines to perform either standard NetWorker file system backups, or VMware Consolidated Backups (VCB).

Applying file-level incremental backups to full image backups

NetWorker did not support incremental or differential backups of virtual machines. Each backup was a full image backup that would result in the consuming of resources (network bandwidth, CPU, Memory and long-term storage medium).

New in NetWorker 7.6

NetWorker now supports file-based incremental and differential backups, and you can recover the whole save set or a single file from those backups.

New default timeout of 10 minutes for NetWorker server in a MSCS or Microsoft Failover Cluster

The default timeout for NetWorker server startup in a Microsoft Cluster Server (MSCS) or Microsoft Failover Cluster has been changed from 3 minutes per

daemon to 10 minutes per daemon. You can now set the server's timeout value by modifying the **AdditionalArguments** field in the Parameters tab of the NetWorker Server cluster resource.

Note: If upgrading from a version that does not allow you to set the default timeout to a version that does have this feature, re-register the NetWorker resource using **regcnstrd**.

To set the timeout parameter for the NetWorker server startup:

1. In the Cluster Administrator program, select the resource group where the NetWorker Server resource exists.
2. In the Parameters tab of the NetWorker Server cluster resource, edit the value for the **AdditionalArguments** field.
3. Type the following keyword and add a value in seconds. For example:

```
ServerStartupTimeout=200
```

where 200 is a numeric value.

Note: The ServerStartupTimeout keyword is case sensitive. The time value is represented in seconds and must be a numeric value. If the entry for the time value is not recognized, the default of 600 seconds (10 minutes) is used for this variable.

Changes to deduplication reporting in NMC

The category types for deduplication reports in NMC did not list the same information as the Avamar reports. The columns for capacity of backups, sizes of backups, and space utilized on the deduplication storage node did not match those on the Avamar report.

Changed in NetWorker 7.6

The NetWorker NMC reports for deduplication have now been synchronized with the Avamar reports so that the type of data matches what is provided in the Avamar `dpnsummary` report.

New Recovery Reports in NMC

Four new recovery reports are available from the Reports task pane in NMC. These reports allow you to view the history of recovery operations that have been performed by NetWorker servers for any NetWorker server version 7.3 and later.

More information on recovery reports is provided in the *NetWorker Release 7.6 Administration Guide*.

Monitoring docking panel added to NMC with event and log information permanently visible

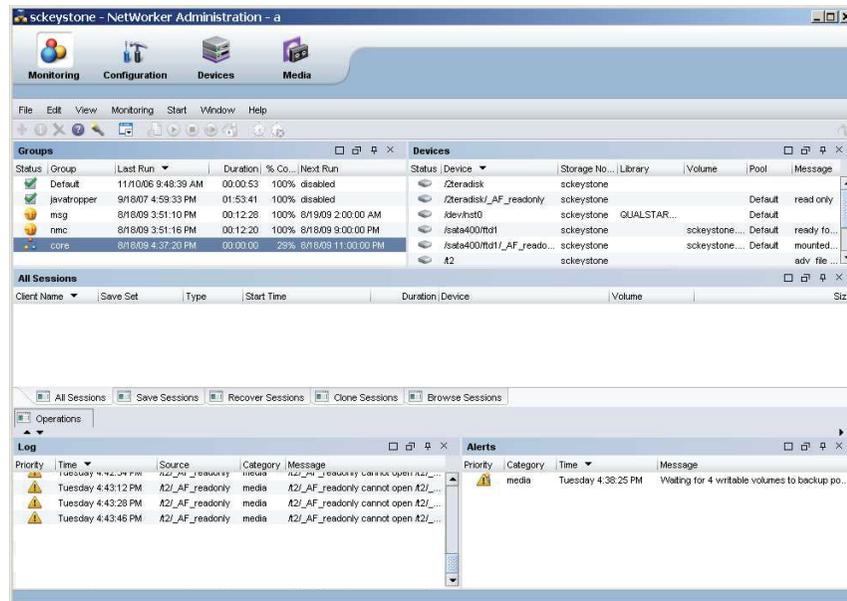
The NetWorker Management Console previously used one tab panel, and you had to navigate to the Monitoring window in order to view status information. Also, only one window could be viewed at a time.

Changed in NetWorker 7.6

The Monitoring window in NMC has been enhanced with a docking panel which enables you to view several monitoring windows at once. Each monitoring window is a floating window that can be repositioned to customize the view.

Also, a portion of the Monitoring window, known as the task monitoring area, is always visible across all windows. A splitter separates the task monitoring area

from the rest of the window. You can click and move the splitter to resize the task monitoring area. The arrow icon in the top-right corner of the Monitoring window allows you to select which tasks you want to appear in this view.



Automation of NetWorker Update Enablers

Customers upgrading to newer versions of a NetWorker server require an update enabler. Previously it was required to refer to the documentation to access information and obtain the correct update enablers; only upon completion of the upgrade and attempting to start the NetWorker server would you receive an error message if you did not apply the update enabler.

New in NetWorker 7.6

At the completion of a successful upgrade, when the NetWorker server starts, a check occurs to determine whether an Update enabler is required. If an Update enabler is required, the enabler is added automatically. After the update enabler is added, the NetWorker server generates an alert and displays the alert in NMC (and in nsrwatch) to notify that this enabler needs to be authorized within 45 days.

Note: If upgrading from a 7.5.x release to 7.6, an update enabler is not generated and not required. If upgrading from any release previous to 7.5 to release 7.6, the update enabler is auto-generated. However, the enabler indicates "Update enabler for 7.5" and will need to be authorized for a 7.6 server within 45 days.

Deduplication support for Windows Server 2008 clients

The NetWorker deduplication workflow was not supported on client hosts running Windows Server 2008.

New in NetWorker 7.6

NetWorker now supports deduplication workflow backups for both file systems and application-specific backups on NetWorker clients running any of the editions of the Windows Server 2008 operating system.

Licensing for NetWorker NMDA module

The NetWorker Module for Databases and Applications (NMDA) version 1.0 is a new product that offers the functionality of the following modules:

- ◆ NMO (NetWorker Module for Oracle)
- ◆ NMDB2 (NetWorker Module for DB2)
- ◆ NML (NetWorker Module for Lotus)
- ◆ NMS (NetWorker Module for Sybase)
- ◆ NMI (NetWorker Module for Informix)

A new enabler has been added for NMDA (either for Win/Lin, or for Unix). If NMDA is installed on a physical host, the new NMDA enabler allows the full functionality of NMDA for all five applications supported by NMDA.

If NMDA is installed in a virtualized environment (for example, VMs for ESX VMware or Microsoft Hyper-V, Solaris zones for Solaris, LPARs for AIX, and so on), one NMDA license will be required for each application on all VMs.

Authorization of the NMDA enabler code is the same as any other module enabler code. After the evaluation period, contact your EMC sales representative to authorize NMDA or to obtain a temporary enabler code.

ConnectEMC functionality in NMC and the ConnectEMC Console

ConnectEMC is a program that polls information from the RAP database (for example, system configuration data) and creates an .xml file once per month with this data for analyzing by EMC Corporate Customer Service. NetWorker releases previous to 7.6 did not feature support for the ConnectEMC program.

New in NetWorker 7.6

ConnectEMC can now be installed on any Windows 32-bit server, node, or client in the datazone. You can install this package on a host of their choice so that they have control over which host ultimately makes the connection to EMC. The default setting in the NetWorker installation process is set to not install, requiring the user to make a selection to install.

Upon installing ConnectEMC, an icon for the ConnectEMC console appears on the desktop. Use the ConnectEMC console and NMC to configure the ConnectEMC program. Configuration instructions are provided in the *NetWorker Release 7.6 Administration Guide*.

Consolidation of NetWorker licensing across Windows and Linux platforms

NetWorker Server, Storage Node and Application Modules have different model codes and license enablers for Windows, UNIX and Linux Operating Systems. The number of model codes and part numbers representing all three environments create unnecessary complexity.

New in NetWorker 7.6

The NetWorker Windows and Linux model codes are now combined into a single model code, which will be referred to as "Win/Lin". Existing licenses are not impacted by this change. New licenses provided for Windows and/or Linux clients will use this new model code.

License Expiration Alert

For license expiry, NetWorker sent notification to NMC Alerts tab on the actual day of license expiration, leaving no time to customer to rectify the situation. There is a need to increase the lead time of alert notification prior to the license expiration date.

New in NetWorker 7.6

NetWorker now displays the following color-coded alerts in the Alerts window of the Administration console, and these alerts continue to be visible on every page in the console starting from 30 days before the expiration of a license:

- ◆ Yellow indicates a license that is 30 days from its expiration date. This alert continues to appear on a daily basis until 10 days prior to expiration of the license.
- ◆ Red indicates a license that is 10 days from its expiration date. This alert continues to appear on a daily basis up to and including the expiration date.

NetWorker continues to operate as it did before after 30 days. However, you must type the phrase “grace” to extend the expiration date by an additional 15 days.

Dedicated Storage Node in Solaris local zone

You cannot install and run a NetWorker Dedicated Storage Node in a local zone to direct the backup data stream directly to a physically attached device that avoids sending backup data across the network.

New in NetWorker 7.6

NetWorker supports a Dedicated Storage Node installed in a Solaris 10 local zone to backup directly to a physically attached device without sending data across the IP network, and manages the sharing of a device between multiple dedicated storage nodes or storage nodes that are installed in multiple local zones of a single physical host, as long as all are contained within a single NetWorker datazone.

NetWorker client now includes HomeBase Agent version 6.2

NetWorker client shipped with HomeBase Agent version 6.1 SP3, which is not supported by the latest HomeBase Server, version 6.2

New in NetWorker 7.6

NetWorker release 7.6 includes the HomeBase Agent version 6.2. NetWorker currently does not support HomeBase Agent version 6.3.

Note: If the HomeBase agent installed is version 6.2, the HomeBase server in your environment must also be version 6.2.

NetWorker monitoring of Deduplication replication jobs

Information and monitoring of replication jobs was not available within the NetWorker Management Console.

New in NetWorker 7.6

The NetWorker Management Console displays activity concerning replication operations performed by the deduplication node under **Events** in the console. Information on configuring the Events pane to view deduplication operations is provided in Chapter of the NetWorker Release 7.6 Administration Guide.

NetWorker monitoring for Deduplication Node maintenance operations

NMC now monitors the following deduplication operations in the **Events** pane:

- ◆ Status of hfscheck running on the deduplication node.
- ◆ Capacity thresholds on the deduplication node, along with an alert notification when the space threshold is reached.
- ◆ Hardware failures on the deduplication node

mminfo changed to allow query for valid save set copies in order to prevent data loss

There was no convenient method to query for save sets with valid clone copies on other volumes using **mminfo**. This made certain tasks difficult to perform, such as determining if space could be cleared on the EDLs.

Changed in NetWorker 7.6

A single **mminfo** query can be used to check whether all completed save sets on a volume have at least one successful clone on other volumes. To query for save sets with valid clone copies on other volumes, run the following:

```
mminfo -q 'volume=<volumename>,validcopies>1'
```

Support for index-only backup option in the NSR group resource options attribute list

Index-only backups could not be performed through the NSR group configuration.

New in NetWorker 7.6

Support for -O option is added to the NSR group options to perform index only backups through the NSR group configuration.

Fixed problems

This section provides details on fixed bugs for the NetWorker releases:

- ◆ [“Product issue details in Issue Tracker” on page 19](#)
- ◆ [“Fixed bugs in release 7.6 Service Pack 1” on page 20](#)
- ◆ [“Fixed bugs in release 7.6” on page 26](#)

Product issue details in Issue Tracker

EMC Issue Tracker offers online access for up-to-date product issue information.

Product issues are sorted alphabetically by product feature and by issue number within each product feature. Product issue details include a three column table with the following information for each product issue:

- ◆ Issue number — Unique case number assigned to track the problem. If the problem was found during product test by EMC, the unique case number can be identified by its 3-letter product suffix.
- ◆ Product feature The name of the feature affected.
- ◆ Problem summary — A short (one or two sentence) description of the problem.
- ◆ Fix Number — Number of the patch or fix for the problem.
- ◆ Knowledgebase ID — EMC Knowledgebase solution describing the issue.

- ◆ Host OS — Operating system version affected by the problem.
- ◆ Host Type — Host Type affected by the problem.
- ◆ Problem Summary — High-level description of the problem.
- ◆ Symptom — Observable behavior of the problem.
- ◆ Special Conditions — Brief description of the unique scenarios that may need to occur in order to reproduce the issue.
- ◆ Workaround or Fix Summary — Detailed description of what was fixed and any known workarounds.
- ◆ Found In Version — EMC product version where the problem was found.
- ◆ Impact Level — Severity and impact of the issue.
- ◆ Additional Feature — Additional categorization of problems within an EMC product feature set.
- ◆ Impact Statement — Description of how the issue might affect the customers environment.

Example issue number search

When searching for a NetWorker defect in Issue Tracker where an LGTsc or LGTpa number is provided, list the Defect Number followed by the suffix **nw** (for example, if the defect ID LGTsc32251, search for this defect in Issue Tracker by entering 32251nw).

The column **Issue Number for Issue Tracker** in the following table provides the defect IDs for searching in Issue Tracker.

Note: The most up-to-date product issues for EMC NetWorker release 7.6 are detailed online in the EMC Issue Tracker available on the EMC Powerlink[®] website: <http://Powerlink.EMC.com> under **Support > Knowledgebase Search > Issue Tracker Search**.

Fixed bugs in release 7.6 Service Pack 1

Table 2 on page 20 lists customer reported defects resolved in release 7.6 Service Pack 1.

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 1 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
LGTsc15448	15448nw	File history generation fails for backups of Sun NAS 5320 filers
LGTsc21714	21714nw	Some files are skipped or missed during recovery if a parallel save of the same parent mount point is performed
LGTsc22381	22381nw	Subfolders not being backed up in folder containing mountpoints
LGTsc23251	23251nw	VSS Recovery fails due to the doubling of the PendingFileRenameOperations value
LGTsc26015	26015nw	Device auto-detection fails on Windows with nsrmon error
LGTsc26443	26443nw	Mminfo query returns more lines for smaller timeframe
LGTsc27092	27092nw	The tape_perf_test fails with the message open_it returns fffffff

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 2 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
LGTsc27323	27323nw	Received a response for an unknown operation
LGTsc28166	28166nw	Save set retention period gets incremented by a day for cloned Oracle save set
LGTsc28433	28433nw	VSS SYS FILESET:\saveset fails because it is selecting the ONTAP NetApp VSS provider
LGTsc28518	28518nw	Some saving/reading messages are missing from the daemon log file
LGTsc29340	29340nw	Unknown host error message has been replaced by Error 0
LGTsc29824	29824nw	Running mminfo -q "savetime>=today" reports all clients
LGTsc29884	29884nw	nwrecover - relocate does not restore directory, just the file
LGTsc30001	30001nw	A completed group is displayed as "interrupted" in the NMC Group Details window
LGTsc30554	30554nw	mminfo issue regarding 'ssaccess' field
LGTsc30674	30674nw	No solution is offered after the warning message "64-bit inode number uses high order 32 bits" appears
LGTsc30690	30690nw	The Aliases field is updated improperly in cluster configuration
LGTsc31024	31024nw	An invalid time format displays when using Hungarian locale
LGTsc31984	31984nw	In a NDMP DDS configuration, the nsrmdmp_save cores on storage node 2 after taking over the volume from storage node 1
LGTsc32131	32131nw	A cloned save set expires on the retention date though the source save set remains browseable
LGTsc32157	32157nw	A disaster recovery of domain controller fails to restore domain functions
LGTsc32233	32233nw	Recover returns a zero exit code even if the recovery fails
LGTsc32333	32333nw	NMC does not update with the correct information in the Monitoring -> Sessions -> Clone Sessions tab when cloning jobs are run
LGTsc32458	32458nw	OP_LABEL timeout in device shortage of labelling and cloning
LGTsc32555	32555nw	A bootstrap save progresses very slowly until jobsd is stopped
LGTsc32567	32567nw	NetWorker hangs on HP-UX due to memory consumption
LGTsc32710	32710nw	NDMP dsa recover Listening Portno not found, DSA might have died
LGTsc32916	32916nw	Runtime rendering does not work properly in Japanese Environment
LGTsc32929	32929nw	Savegroup dumps core with a SEGV error
LGTsc33035	33035nw	NDMP backup fails with timeout reading error
LGTsc33068	33068nw	pstcmd runs 60 sec after precmd completes
NW105000	NW105000	nsrscsi_save intermittently corrupts file pathname
NW105081	NW105081	When VSS SYSTEM BOOT is backed up, NetWorker hangs on cluster after "clu_is_cluster_disk: Invalid path specified" error appears
NW105225	NW105225	Nsr_render_log is dumping core
NW105249	NW105249	Nsrclone hangs when cloning more than 2000 save set IDs

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 3 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
NW105293	NW105293	Nsrndmp_save consumes 100% CPU when a SnapImage client crashes
NW105423	NW105423	NMC library data flashes between visited libraries when the polling/stop comes before the polling/start
NW105495	NW105495	Verify labels on unmount fails and volumes are marked as suspect
NW105538	NW105538	Nsrmm in Japanese locale returns an incorrect message in Japanese
NW105756	NW105756	Savefs cores when a backup is started with Save Set All-global
NW105980	NW105980	When trying to restart a failed savegroup, random savegrp.exe application faults occur
NW110385	NW110385	In NMC, the expiration field is blank for some volumes, with mminfo -m showing the volretent as "undefined" and displaying all ssids as past retention
NW110404	NW110404	Failed save sets are reported as successful by mminfo
NW110548	NW110548	The recover command core dumps with a Segmentation fault
NW110555	NW110555	A garbled error is returned with LANG=ja used in nwrecover
NW112119	NW112119	Non-root users cannot recover data
NW112149	NW112149	Obsolete cover save sets allow underlying rollovers to be browseable
NW112334	NW112334	The output of validcopies incorrectly reports a flag for mminfo
NW112382	NW112382	Dvdetect started on a storage node receives as argument "-s <networker server>" instead of the content of the server network interface field
NW112414	NW112414	Users who are not in the administrators group cannot connect to the NetWorker server via NMC
NW112455	NW112455	Automatic cloning fails for save sets that backed up a UNC share
NW112522	NW112522	Backup of NetWorker client causes winworkr GUI to crash if started from GUI, or save.exe to crash if stated from command line
NW112571	NW112571	Backup of a client fails with savefs and save command being launched on the NetWorker server instead of the client
NW112726	NW112726	The NetWorker nsrexecd service fails to start when a small port range is specified
NW112790	NW112790	Oracle backup logs saved at /nsr/logs/sg/<Groupname> become truncated intermittently
NW112809	NW112809	nsr_render_log segmentation fault
NW113167	NW113167	NetWorker backup of a holey file does not complete
NW113291	NW113291	A scsi reset occurs when a volume is mounted in a drive that is shared with the robotic arm
NW113313	NW113313	Index directory located on NFS mount causes backup failure
NW113382	NW113382	Scanner and uasm are unable to recover data from a clone tape if the volume containing the header is not available
NW113413	NW113413	When the library loading door is opened to load and unload tapes, NetWorker puts the library in offline mode in the server must be rebooted to get the library back online
NW113417	NW113417	After upgrading from NetWorker 7.5.1 to 7.6, NetWorker requests volume on wrong storage node
NW113588	NW113588	During a backup of 'VSS SYSTEM', the backup fails by VSS time out

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 4 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
NW113648	NW113648	Upper and lower case pool names with the same name are treated as the same pool
NW113715	NW113715	Nsrd becomes unresponsive after nsrlcpd exits, requiring a NetWorker server reboot
NW113841	NW113841	Nsrmmdbd core dumps at startup during the consistency check
NW113850	NW113850	NetWorker hangs when changing the debug level for nsrd
NW113950	NW113950	The Group schedule does not work when Client Override is selected
NW113953	NW113953	Changes to Device Block Size code impacting NDMP backups
NW114080	NW114080	The Cycles column incorrectly displays '0' for 'Index Save Sets' in NMC on UNIX
NW114157	NW114157	NetWorker reuses staging tapes after a read attempt on the staging target device
NW114367	NW114367	The NetWorker server hangs if a single storage node is unresponsive
NW114407	NW114407	NMC crashes after upgrading the NetWorker server and client
NW114428	NW114428	Incremental backup fails with an error regarding VSS provider
NW114437	NW114437	Running Scanner -i causes SQL striped restore to fail with an error indicating no index was found
NW114591	NW114591	Intermittent NMC core dumps occur at least once a month
NW114655	NW114655	After staging off all data from AFTD and running nsrim -X, the volume is marked as recyclable.
NW114856	NW114856	nsrlcpd fails to acquire a device lock during backups.
NW114899	NW114899	Savepnc backups hang after upgrading the Neworker server and client to version 7.4 SP4 and later.
NW114913	NW114913	NetWorker does not allow sessions, preventing new or existing sessions from starting a backup to media, and resulting in savegroup hangs.
NW115158	NW115158	nsrwatch adds a break to each line of output when Japanese LANG environment is used.
NW115221	NW115221	Group column not displayed in NMC
NW115381	NW115381	Upgrading clients using nsrpush overwrites the /res/servers file
NW115387	NW115387	A VSS system state restore fails and crashes with a dump for a dedupe client backup to Avamar
NW115555	NW115555	NMC becomes unresponsive and core dumps, with many FCP warning messages.
NW115687	NW115687	Recover core dumps when performing a directed recover with a large number of files
NW115814	NW115814	Using a long host name consistently causes gstd to stop running upon startup on Linux
NW115909	NW115909	The NMC error "can't decode result" pops up when trying to create a HyperVisor resource
NW116153	NW116153	In an environment with multiple FTDs, a backup can fail during switching of volumes
NW116217	NW116217	If a save set name contains multibyte characters, then all backups levels 1-9 run as a full backup
NW116397	NW116397	Name resolution failures cause nsrd to hang upon startup
NW116653	NW116653	Save sets are picking up and trying to process incorrect items
NW116691	NW116691	A savegroup does not end despite the inactivity timeout being reached

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 5 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
NW116719	NW116719	nsrmmnd core dumps and restarts, resulting in various symptoms
NW117090	NW117090	Nsraddadmin version 7.6 does not display appropriate error message
NW117398	NW117398	Drives are reported as being in service mode when most of the devices in a DDS environment are in use
NW117544	NW117544	A delay occurs in nsrexecd startup on HPUX due to some entries in the servers file that are not accurate
NW117598	NW117598	A nsrd memory leak can occur when the RPC client connection limit (1024) is reached
NW118123	NW118123	When updating a client resource via nsradmin, nsrd becomes unresponsive for about 5-10 minutes
NW118331	NW118331	When NetWorker automatically selects the tape drive, labelling or mounting the tape fails with an error indicating media types do not match
NW118515	NW118515	The nsrim process hangs when there is a heavy load on the server
NW118564	NW118564	When the retention policy is set to a value greater than 72 years, ssretent does not set the correct value
NW118692	NW118692	Backups fail after running for a few days under heavy load
NW118772	NW118772	The NetWorker client (LGTOclnt) fails to install when the file system has a long name
NW120071	NW120071	The networker.cluster script returns the error: "NetWorker software incompatible with script"
NW116858	NW116858	Qualify NetWorker Client support for Solaris Zone Cluster
LGTsc01126	01126nw	Add functionality to stop, restart and reset individual jobs in a group without restarting the whole group
LGTsc06194	06194nw	Method required to select/de-select boolean column in table
LGTsc21675	21675nw	Add support for additional VSS Writers in Windows 7
LGTsc23686	23686nw	Port NMC to Solaris x64
LGTsc28866	28866nw	Provide savetime info during a save set restore performed through winworkr
LGTsc30939	30939nw	Changes for cloud backup support and diagnostic tools
LGTsc30947	30947nw	Support for an automatic cloning/staging option within NMC to make clone after backup is complete
LGTsc31792	31792nw	Turn on support for DMF on Linux x86_64
LGTsc32563	32563nw	Support Data Domain replication within the NetWorker clone infrastructure
NW105962	NW105962	SSR feature needs to support non-default port when performing disaster recovery of the VM
NW110360	NW110360	Support multiple transport modes and multiple ESX/VC hosts when performing VCB backups via a single proxy
NW110487	NW110487	A Scheduled Clone requires a user interface to schedule nsrclone
NW110509	NW110509	Excessive logging occurs to the dameon raw file due to NT impersonation errors
NW112141	NW112141	Support for Cluster Shared Volume on Windows 2008 R2
NW112673	NW112673	Implement function to NMC so NetWorker 7.6 SP1 features like the Recover wizard can function in NMC
NW112801	NW112801	The Silo configuration option should not be displayed on platforms where it is not supported

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 6 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
NW112846	NW112846	The bootmgr file must be skipped during file system backup (C:\) since it comes under VSS SYSTEM FILESET
NW112971	NW112971	Update nsravtar for the NetWorker 7.6 Service Pack 1 release
NW113061	NW113061	Implementation of the module in NMC for Data Domain support
NW113124	NW113124	Data Domain managed application support in Enterprise window
NW113125	NW113125	New Device Configuration Wizard supporting Data Domain devices
NW113126	NW113126	Data Domain device support in Devices task of NetWorker Administration window
NW113127	NW113127	New Data Domain reports in NMC
NW113128	NW113128	Data Domain support for client configuration
NW113129	NW113129	Data Domain support in Save Set Query interface
NW113131	NW113131	Add NetWorker server name to titles of floating monitoring windows in NMC
NW113503	NW113503	Improved error reporting of invalid NSR peer information resources
NW113505	NW113505	GSS authentication should be reauthenticated upon session timeouts
NW113605	NW113605	Add Visual Number Columns to table in NMC
NW113999	NW113999	The default max number of save set clones should be 1
NW114055	NW114055	Change disk volume selection criteria to be based on utilization and not label time.
NW114057	NW114057	Change device target sessions from the default value of 4 to 1 for AFTDs, and reduce device max sessions for AFTDs from 512 to 32.
NW114165	NW114165	Disable the BOOST feature in the DDCL integration workflow when called from a save
NW114279	NW114279	Data Domain feature merge
NW114429	NW114429	Report folder name needs to be displayed in the title pane and report documents
NW114431	NW114431	Data Domain support for NSR client properties
NW114477	NW114477	When nsrtask runs nsrclone, successful/failed save set information needs to be updated in the clone resource
NW114561	NW114561	Qualification and addition of LTO-5 support
NW114646	NW114646	Create SNMP module for the Console server to talk to Data Domain or any other SNMP agent
NW114648	NW114648	Snapshot management to be enabled for Solaris on AMD server in order to support Powersnap clients
NW114701	NW114701	Add intelligent space management feature for AFTDs
NW114839	NW114839	New device ordering alerts and notification requirements for device order/serial number mismatch errors
NW114851	NW114851	Add a 'Warning' section to the inquire man page and provide best practices for using the command
NW114924	NW114924	Add enhancements to schedule clone operation in NMC
NW115013	NW115013	Add deduplication statistics in save sets for Data Domain backups

Table 2 Fixed bugs in NetWorker release 7.6 Service Pack 1 (page 7 of 7)

Issue Number for Customer Service	Issue Number for Issue Tracker	Description
NW115106	NW115106	A new client resource attribute to specify that data should be backed up to a Data Domain device
NW115184	NW115184	Split Disk and Tape volumes should be separate tree entries in the NetWorker Administration Media tab
NW115242	NW115242	If the NetWorker installation is an upgrade and the parallelism is set to less than 12, it should be adjusted to 12 for the client only; otherwise the value will be unchanged
NW115856	NW115856	The snmptrapd process needs to be integrated into NMC to listen to Data Domain traps
NW115945	NW115945	Update required for Data Domain management events to the Alerts table
NW116102	NW116102	Upgrade required of RSA BSAFE MES lib from 3.0.0.1 to 3.1.1.2 on Solaris
NW116386	NW116386	Nsrd shutting down due to nsrd poll error
NW116582	NW116582	Add NetWorker client support for Linuxs390
NW116685	NW116685	Introduce a new capacity model for licenses with NetWorker 7.6 Service Pack 1
NW119066	NW119066	Drop support for JRE 1.5.0
NW119098	NW119098	Upgrade nsravtar to 5.0 SP1

Fixed bugs in release 7.6

[Table 3 on page 26](#) lists customer reported defects resolved in release 7.6.

Table 3 Fixed bugs in NetWorker release 7.6 (page 1 of 3)

Issue number for Customer Service	Issue Number for Issue Tracker	Description
LGTsc32251	32251nw	A nsrlcpd core occurs during reset operation on a silo jukebox.
LGTsc22272	22272nw	NetWorker server not using AFTD volume or jukebox volumes.
LGTsc26537	26537nw	NetWorker overwrites NDMP tape after tape gets full.
LGTsc29301	29301nw	Save set chunking observed during backup.
LGTsc30977	30977nw	Data recovered by nsrscsi_recover is corrupted.
LGTsc32547	32547nw	Volume % used in NMC Devices window resets to zero when the volume is manually marked read-only.
LGTsc32602	32602nw	Multiple read from AFTD does not work.
LGTsc21910	21910nw	nsrexecd is dumping core.
LGTsc24484	24484nw	Savegrp parallelism not honored when using expander jobs (NMO4.5).
LGTsc25887	25887nw	Environment variable required to customize the compress-period for nsrim run.
LGTsc26353	26353nw	Ansrld hang occurs, during which the daemon.log is locked.
LGTsc26395	26395nw	Load volume issue on highly shared (DDS) environment.
LGTsc26530	26530nw	nsrclone hangs when cloning expired save set.
LGTsc26745	26745nw	gst cluster scripts not properly working in EBS.

Table 3 Fixed bugs in NetWorker release 7.6 (page 2 of 3)

Issue number for Customer Service	Issue Number for Issue Tracker	Description
LGTsc27438	27438nw	nsrd hang-ups in deadlock with nsrmmmd.
LGTsc27688	27688nw	nsrexecd core dumps with segmentation fault (SEGV) error.
LGTsc28205	28205nw	NDMP size does not get reported upon backup completion.
LGTsc28789	28789nw	Each clone host needs at least two enabled devices
LGTsc29111	29111nw	nsrlcpd is unresponsive after temporary jukebox disconnection.
LGTsc29159	29159nw	Nsrlcpd can become unresponsive with a silo, resulting in incomplete media requests
LGTsc29197	29197nw	mminfo: RPC authentication error
LGTsc29321	29321nw	Missing values for attributes in jobsdb for NDMP cloning.
LGTsc29504	29504nw	Defunct nsrsybcn after successful backup.
LGTsc29561	29561nw	NetWorker cannot manually recover space after SSID is deleted.
LGTsc29681	29681nw	Change Journal use not reported in Savegroup Completion report.
LGTsc29771	29771nw	LDAP error "Error Size limit exceeded" for large User Directory.
LGTsc30170	30170nw	Excessive jobsdb indication records overwhelm server.
LGTsc30195	30195nw	Save.exe Faults Due to liblocal.dll.
LGTsc30472	30472nw	Windows XP does not secure files in folder called C:c but backup succeeds.
LGTsc30475	30475nw	Cloning is slow from a local device to a remote device.
LGTsc30690	30690nw	Aliases field updated improperly in cluster configuration.
LGTsc30808	30808nw	When using nsrpush to upgrade clients, the nsr/res/servers file is being cleared/recreated.
LGTsc30903	30903nw	nsrscsi_recover dumps core.
LGTsc31127	31127nw	A MAC-OS save of millions of files fails with malloc() error.
LGTsc31280	31280nw	nsrmmdbd consumes 100% of CPU when backing up a client.
LGTsc31283	31283nw	Running nsrclone -J <storage node> fails to clone.
LGTsc31564	31564nw	nsrexecd leaves behind several defunct processes.
LGTsc32510	32510nw	Savegroup fails with "Too many open files Segmentation Fault(coredump)" error.
LGTsc32803	32803nw	A save output error creates a file in \nsr\tmp.
LGTsc32842	32842nw	nsrexecd intermittently dies at startup
LGTsc33000	33000nw	NetWorker cannot manually recover space after SSID is deleted
NW104850	NW104850	Cannot unmount tape from tape device in service mode
NW104920	NW104920	VSS System files set fails on Windows 2008.
NW105186	NW105186	There are multiple nsrmmmd processes for the same device on the same storage node.
LGTsc07681	07681nw	NDMP fb recover only recovers from incr level backup not full.

Table 3 Fixed bugs in NetWorker release 7.6 (page 3 of 3)

Issue number for Customer Service	Issue Number for Issue Tracker	Description
LGTsc09318	09318nw	A tape unmount fails when the mail cap is in use.
LGTsc17128	17128nw	Unable to autoconfigure NDMP Drives on SUN NAS 5320.
LGTsc20118	20118nw	Save fails in connecting directory section.
LGTsc20439	20439nw	Recover does not start all ssid in parallel.
LGTsc20477	20477nw	Volumes marked full prematurely with "verify label on unload".
LGTsc20776	20776nw	nsrclpd fails to initialize on a multi-homed storage node.
LGTsc22381	22381nw	Subfolders not being backed up in folder containing mount points.
LGTsc23887	23887nw	NDMP: client cannot restore files with french characters in name.
LGTsc23900	23900nw	nsrclone -J does not enforce Read-Host selection in certain cases.
LGTsc24392	24392nw	ssi-ACSLs communication fails after migration.
LGTsc25669	25669nw	Powersnap media does not expire automatically.
LGTsc26209	26209nw	A silent failure occurs where AFTD Volumes are dismounting.
LGTsc27174	27174nw	Due to a nsrmmgd issue, NetWorker can not manage Jukebox.
LGTsc27421	27421nw	Location field of non-barcode jukebox volumes not updated by inventory
LGTsc28160	28160nw	nsrmmdbd updates to the media database hang when purging staged save sets.
LGTsc28455	28455nw	tape_bsf failed: drive status is The beginning of medium.
LGTsc28482	28482nw	NDMP ghost index issue.
LGTsc28659	28659nw	Entries over 200 characters get truncated from the notification action field.
LGTsc28818	28818nw	Avamar deduplication backup of the Windows client fails.
LGTsc29069	29069nw	Inquire on Solaris 10 skips devices at double digit LUNs.
LGTsc29934	29934nw	Savepsm fails when there is an NMC instance other than legato in the folder.
LGTsc29969	29969nw	nwrecover GUI Status showing "offline" instead of "near-line".
LGTsc30176	30176nw	A device becomes busy and eventually goes into service mode during clone.
LGTsc30271	30271nw	Volume marked as "Unlabelled" after NetWorker is restarted.
LGTsc30876	30876nw	Nsrmmmd infinitely loops in insert_frag() when update_volume fails.
LGTsc31214	31214nw	NetWorker does not resynchronize upon receiving a "source empty" and "destination full" status from the silo.
LGTsc31416	31416nw	Install of NetWorker Client on Windows 2000 - No Service created.
LGTsc31457	31457nw	"Server network interface" not used for VCB/proxy backup.
LGTsc32258	32258nw	If /nsr directory is not created then nsrexecd fails to start.
LGTsc08694	08694nw	When mounting a tape that contains NDMP data into a tape device and running the scanner -v command, the "written/used" field of the media doubles.

Environment and system requirements

This section describes specific environment and system requirements.

System configuration requirements for a dedicated NetWorker server

Table 4 on page 29 and Table 5 on page 29 outline the following:

- ◆ Minimum system configuration requirements to be met when running the NetWorker software on a dedicated NetWorker server.
- ◆ Tips when setting parameters at the operating system level.

Note: If the following system requirements are not met, the performance of the NetWorker software could be significantly affected or the NetWorker daemons might crash.

Table 4 Minimum system requirements for a dedicated NetWorker server

	Minimum recommended configuration
CPU	Dual Core with a minimum of 1.5 GHz speed for each CPU
RAM	2 GB
Swap space	4 GB minimum (at least twice RAM)

Table 5 Minimum system requirements for a dedicated NetWorker server

	Minimum recommended configuration		
Kernel parameters	The following plimit values for all NetWorker daemons should be set to maximum as follows:		
	Resource	Current	Maximum
	Time	Unlimited	Unlimited
	file(blocks)	Unlimited	Unlimited
	data(Kbytes)	Unlimited	Unlimited
	stack(Kbytes)	8192	Unlimited
	coredump(blocks)	Unlimited	Unlimited
	nofiles(descriptors)	65536	65536
	vmemory(Kbytes)	Unlimited	Unlimited
	Dedicated NetWorker storage nodes and servers should be tuned to for shared memory usage as follows:		
msgsys:msginfo_msgmni=1024 msgsys:msginfo_msgtql=1024 semsys:seminfo_semmni=2048 semsys:seminfo_semmns=2048 semsys:seminfo_semopm=128 shmsys:shminfo_shmmax=33554432 shmsys:shminfo_shmmni=512 These settings are not required for Solaris 10, but are required for Solaris 9.			

The *NetWorker Performance Tuning Guide* has information on tuning the operating system and is available at: <http://Powerlink.EMC.com>.

Write access to temp folders required when using the NetWorker Software Administration Wizard or nsrpush CLI for a Windows 2008 client

Microsoft Windows 2008 restricts write access to temp folders, including the folders defined in the Windows SYSTEM user's TEMP or TMP environment variable. Write permissions must be enabled when performing software updates, add to repository operations, and inventory operations using the Software Administration Wizard or the **nsrpush** CLI.

On the Windows 2008 client, grant the Administrator and SYSTEM users write permissions to the temp folders defined in the SYSTEM user's TEMP and TMP environment variables.

Windows hot fix required for Vista to recover VSS System files

Due to an issue with the Microsoft Windows Vista operating system, a hot fix is required to successfully recover VSS System files. Contact Microsoft to obtain the fix. Details can be found at: <http://support.microsoft.com/kb/935606>.

Install latest Microsoft VSS roll-up fix for Windows Server 2003

If running NetWorker on Windows Server 2003, install the latest Microsoft VSS roll-up fix. To view more information on the roll-up fix and to download the package appropriate to your platform, go to the Microsoft knowledge base article at <http://support.microsoft.com/kb/940349>.

Features provided with base enablers

Table 6 on page 30 lists the features that are available as part of NetWorker base enablers.

Table 6 Features provided with base enablers

Feature	Support by edition			
	Power	Network	Workgroup	Business
Number of included client connections	12	10	8	8
Parallel data streams per NetWorker server	64	32	32	32
Parallel datastreams per storage node ^a	64	32	N/A	N/A
Number of physical devices included with base enabler	32	16	4	4
Increase in datazone's devices, per storage node license	32	16	N/A	N/A
Maximum number of devices	512 ^b	512 ^c	4	4

a.Storage nodes available for additional cost for the Power and Network Editions only.

b.Available in NetWorker 7.2.x and later. For NetWorker 7.1.x the maximum is 256.

c.Available in NetWorker 7.2.x and later. For NetWorker 7.1.x the maximum is 256.

Additional features available with base enablers

Table 7 on page 31 lists the features that are available for support with NetWorker base enablers.

Table 7 Additional features available with base enablers

Feature	Support by edition			
	Power	Network	Workgroup	Business
Additional client connections	Yes	Yes	No	No
Storage nodes	Yes	Yes	No	No
Cluster support	Server and Client	Client	No	Maximum 2 Cluster client connections
ClientPak Module ^a for heterogeneous environments	Yes	Yes	Yes	Yes
NetWorker NDMP Client Connections	Yes	Yes	No	Maximum 2 NDMP client connections
Dynamic Drive Sharing Option	Yes	Yes	N/A	N/A
NetWorker DiskBackup Option	Yes	Yes	Yes	Yes
NetWorker Archive Module	Yes	Yes	No	No
Autochanger Software Modules	All	All	1-9, 1-16, 1-20, 1-32	One 1-26 included in base
NetWorker Application Modules	Yes	Yes	Yes	Yes
NetWorker Windows Server 2003 Open File Option	Yes	Yes	Yes	Yes
Open File Manager	Yes	Yes	Yes	Yes
NetWorker PowerSnap Modules	Yes	Yes	No	No
NetWorker SnapImage Module	Yes	Yes	No	Yes
VSS Support for Windows 2003	Yes	Yes	Yes	Yes
Simple Network Management Protocol (SNMP)	Yes	Yes	Yes	Yes
VTL (Virtual Tape Library)	Yes	Yes	Yes	Yes

a. The ClientPak Module license requirement was eliminated in NetWorker 7.4.1 and later.

QPK1123 and PHSS_37492 patches required to run NetWorker on HP-UX RISC 11.23

The NetWorker services cannot be started on an HP-UX RISC 11.23 system until the following patches are downloaded from the HP website:

- ◆ QPK1123(B.11.23.0712.070a) 1185010 Quality Pack Depot
- ◆ PHSS_37492

Go to <http://itrc.hp.com> and click **patch database** to obtain these patches. You must provide an appropriate username and login password to download the patches.

Known problems and limitations

This section describes known limitations found in the entire NetWorker family of releases:

- ◆ “NetWorker 7.6 Service Pack 1” on page 32
- ◆ “NetWorker 7.6” on page 49
- ◆ “NetWorker releases previous to 7.6” on page 70
- ◆ “NetWorker releases previous to 7.5” on page 87
- ◆ “NetWorker releases previous to 7.4” on page 120

Unless the entry for a known limitation indicates that it is resolved for a specific release, the limitation applies to the release in which it is identified *and* all subsequent releases. If a limitation is resolved, it will also be identified in the fixed bugs table for the release in which it is resolved.

Note: The most up-to-date product issues for EMC NetWorker are detailed online in the EMC Issue Tracker, available on the EMC Powerlink website: <http://Powerlink.EMC.com>.

NetWorker 7.6 Service Pack 1

The following section identifies problem issues and limitations discovered in NetWorker 7.6 Service Pack 1.

[Table 9 on page 49](#) identifies problem issues and limitations discovered in NetWorker 7.6.

The known limitations are separated into the following categories:

- ◆ “Backup problems and limitations” on page 35
- ◆ “CLI problems and limitations” on page 36
- ◆ “Cloning and Staging problems and limitations” on page 37
- ◆ “Configuration problems and limitations” on page 41
- ◆ “Devices and media problems and limitations” on page 43
- ◆ “GUI problems and limitations” on page 45
- ◆ “Restore problems and limitations” on page 46
- ◆ “VMware Consolidated Backup (VCB) problems and limitations” on page 47

For known limitations related to internationalization support in NetWorker 7.6, see “Internationalization support” on page 147.

Table 8 Limitations discovered in NetWorker Release 7.6 Service Pack 1

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"NW120967" on page 35	NW120967	Checkpoint Restart backup to Data Domain device not supported	All	Backup
"NW120918" on page 35	NW120918	File-by-file recovery of a DSA backup from Data Domain device fails		
"NW120421" on page 35	NW120421	For BMR-enabled Windows NetWorker clients, generating profile information using HomeBase Agent 6.4 fails	Windows	Backup
"NW120031" on page 36	NW120031	Glibc 2.3.4 or later required on Linux host in order to run as storage node for Data Domain device	Linux	Backup
"NW117892" on page 36	NW117892	nsrmmid may consume large amount of memory when backing up to Data Domain device by way of the storage node	All	Backup
"NW114817" on page 36	NW114817	Savegroup with customized backups script fails	UNIX	Backup
"NW104883" on page 36	NW104883	Cloud backup devices and partial save sets	All	Backup
"NW118223" on page 37	NW118223	Scanner -i does not rebuild media indices	All	CLI
"NW118064" on page 37	NW118064	AFTD capacity displayed in kb instead of % in output for mminfo -m	All	CLI
"NW114937" on page 37	NW114937	nsrls -m option may not list media database statistics	Linux	CLI
"NW119530" on page 37	NW119530	Path-to-tape: when spanned save set is cloned from media type with smaller block size to media type with larger block size, recovery from media type with larger block size fails	All	Cloning and Staging
"NW119156" on page 38	NW119156	Cloning fails when Data Domain or NDMP save set of a client is encountered and there is no client resource on the NetWorker server		Cloning and Staging
"NW118255" on page 38	NW118255	Device status continues to display as "active" after cloning operation terminated	Windows	Cloning and Staging
"NW118893" on page 38	NW118893	Clone controlled replication with nsrclone may revert to a regular clone if the NetWorker server's primary host name is not specified	All	Cloning and Staging
"NW117750" on page 39	NW117750	nsrclone/nsrstage performs regular clone for source Data Domain volume on remote storage node if client resource was not created in NetWorker server	Linux	Cloning and Staging
"NW117470" on page 39	NW117470	Concurrent stage with stage or clone from the same Data Domain device or AFTD is not supported	Linux	Cloning and Staging
"NW117179" on page 39	NW117179	A regular volume clone operation hangs if the source volume is on a remote storage node and it is unmounted initially but is mounted after the clone attempts to start	Linux	Cloning and Staging
"NW117137" on page 40	NW117137	Clone controlled replication (optimized clone) for a Data Domain Device is performed only when the Data Domain clone volume is mounted and available for writing	Solaris, Windows	Cloning and Staging

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"NW116696" on page 40	NW116696	When cloning a mix of save sets from different source devices such as Data Domain, AFTD, and NDMP devices, the same clone target volume may not be used for all save sets	Windows	Cloning and Staging
"NW115417" on page 40	NW115417	Clone jobs may time out and not complete if 30 or more are scheduled to occur at the same time	Windows	Cloning and Staging
"LGTsc31596" on page 41	31596nw	Path-to-tape cloning of save sets spanning across multiple volumes with different block sizes fails	All	Cloning and Staging
"NW120856" on page 41	NW120856	Data Domain host name must be specified in Device access information attribute when configuring Data Domain devices	All	Configuration
"NW120373" on page 41	NW120373	NetWorker and device operations can fail when TCP Chimney is enabled for NICs on Windows Server 2003 or Windows 2008 R2	Windows	Configuration
"NW117057" on page 42	NW117057	Failure reported during disaster recovery of VSS SYSTEM BOOT; set NSR_RECOV_TEMP_CLEANUP variable	Windows	Configuration
"NW114428" on page 42	NW114428	Incremental backup failure may occur due to number of VSS shadow copies; set NSR_VSS_WAIT_INTERVALS variable	Windows	Configuration
"NW114157" on page 43	NW114157	Unable to restore/clone data from tape written on a Linux Storage Node device when using persistent device names	Linux	Devices and Media
"NW120540" on page 43	NW120540	Labelling a Data Domain device to a new pool when the device contains data belonging to a different pool can result in data loss	All	Devices and Media
"NW118590" on page 44	NW118590	Labelling a Data Domain device fails after converting the device from AFTD to Data Domain	All	Devices and Media
"NW120536" on page 45	NW120536	Username/password validation may fail using NMC New Device Wizard for file system browsing if storage node is UNIX	UNIX	GUI
"NW120324" on page 45	NW120324	Data Domain systems do not display in NMC Enterprise window or NetWorker Administration Devices window upon reinstalling NMC after complete uninstall	All	GUI
"NW118886" on page 45	NW118886	Monitoring of SNMP events for Data Domain not available on HP-UX	HP-UX	GUI
"NW115920" on page 46	NW115920	NSR clone resources that are created with the nsradmin program cannot be edited as scheduled resources in the GUI	Windows	GUI
"NW119115" on page 46	NW119115	Remote cluster services not started after Authoritative Restore of MSCS cluster database	Windows	Restore
"NW116575" on page 46	NW116575	Bootmgr file deleted upon recovery of C:\directory with VSS System save set selected	Windows	Restore
"NW115372" on page 47	NW115372	NDMP: recover or nsrndmp_recover displays debug messages during DSA recover on Windows even though recover is successful	Windows	Restore
"NW118106" on page 47	NW118106	VCB topology map shows Helper VM for hotadd mode is associated with same group used for hotadd proxy	Windows	VCB
"NW117233" on page 47	NW117233	Single Step recovery of VM within a vApp fails with P2V error	Windows	VCB
"NW117714" on page 48	NW117714	Single Step recovery of Windows 2008 x64 VM fails with P2V error	Windows	VCB

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"NW118197" on page 48	NW118197	PVSCSI controller changes to BusLogic controller, leading to boot failure for x64 VMs and performance issues for x86 VMs	Windows	VCB
"NW118200" on page 48	NW118200	SSR disaster recovery of SuSE Linux Enterprise Server 11 VM fails with P2V error	Windows	VCB
"NW118486" on page 48	NW118486	Vmxnet3 adapter changes to e1000 adapter during VM recovery	Windows	VCB
"NW113740" on page 49	NW113740	NetWorker cannot use mapped drive for VCB mount point	Windows	VCB

Backup problems and limitations

Checkpoint Restart backup to Data Domain device not supported

NW120967

Checkpoint restart backup to a Data Domain device is not supported for this release. When using a Data Domain device as the target device for backup, ensure that the **Checkpoint enabled** attribute in the client resource is not selected.

File-by-file recovery of a DSA backup from Data Domain device fails

NW120918

Performing a file-by-file recovery of a DSA backup from a Data Domain device fails with an error similar to the following:

```
nsrndmp_recover: NDMP Service Warning: These files were not restored
```

Workaround

Change the recover mode from client DFA to mmd by creating an empty file named **nodirectfile** in the following location on UNIX or Windows:

- ◆ UNIX: /nsr/debug/nodirectfile
- ◆ Windows: %NW_INSTALL Directory%\nsr\debug\nodirectfile

For BMR-enabled Windows NetWorker clients, generating profile information using HomeBase Agent 6.4 fails

NW120421

For Windows NetWorker clients, if HomeBase Agent version 6.4 has been installed and you have enabled BMR profiling on the NetWorker client, profiling generation fails with an error similar to the following:

```
HBA: 'hba.bat' is not recognized as an internal or external command
```

Workaround

Manually create a **hba.bat** file in the same directory where **hba.exe** is located. The file should contain the following lines:

```
@echo off
hba.exe %*
```

Glibc 2.3.4 or later required on Linux host in order to run as storage node for Data Domain device**NW120031**

A **glibc 2.3.4** or later library is required by **libDDBoost.so** to initialize the DDCL library on supported Linux systems such as SuSE Linux version 9. If a version earlier than **glibc 2.3.4** is installed on the Linux system, the system will not be able to run as a storage node for the Data Domain device.

nsrmmd may consume large amount of memory when backing up to Data Domain device by way of the storage node**NW117892**

When backing up to a Data Domain device by way of the storage node, **nsrmmd** consumes a large amount of memory and does not release the memory, even when the backup is no longer running.

Savegroup with customized backups script fails**NW114817**

When a savegroup is run with a customized backup script, the savegroup fails.

Workaround

On HP-UX, do not use the posix shell (`/bin/sh`) for customized backup scripts that are meant to be automatically started by the savegroup. Use the korn shell instead (`/bin/ksh`).

Cloud Backup Devices and partial save sets**NW104883**

By default, the CheckPoint Restart feature does not support cloud backup devices because partial save sets are not retained on cloud backup devices.

Workaround

When the cloud backup device is used as a backup device for a Checkpoint Restart operation, on the **Server Properties** menu, enable the **Keep Incomplete Backups** attribute.

If the **Keep Incomplete Backups** attribute is not enabled, the NetWorker software will not keep the partial savesets.

CLI problems and limitations**Running nsrclone with -d option ignored when used to specify destination storage node for writing save sets or when target clone pool has media type required=DD****NW121894**

The `nsrclone` command is ignored when used with the `-d` option to set the destination storage node for writing save sets or to set the destination storage node if the target clone pool has its selection criteria set to **media type required=Data Domain**.

For example, when running `nsrclone -vvv -d scip2b131 -b DDclone -S <ssid>` where the server is `scip2d14` and the target pool is `DDclone`, if the target pool's selection criteria is **media type required=Data Domain**, save sets are written to a

volume in DDclone on the server scip2d14 instead of the storage node scip2b131, as was specified in the command line.

Workaround

Use the Configuration tab of NMC to specify the destination storage node at **Configuration > Client Resource > Globals (2 of 2) > Clone Storage Nodes**).

Scanner -i does not rebuild media indices

NW118223

Running scanner -i <device> does not rebuild the media indices from the volumes read.

Workaround

To rebuild the media indices:

1. Prior to running **scanner -i**, run **scanner -m <device>**.
2. Run **scanner -i <device>**.
3. Synchronize the media database and indices by running **nsrim -X**.

AFTD capacity displayed in kb instead of % in output for mminfo -m

NW118064

When mminfo -m is run, AFTD capacity does not display as a percentage in the output. Instead, the output displays device capacity in kb. For example, if AFTD capacity was set to 98% as in the following example, an output similar to the following displays:

```
bash-2.05# mminfo -m
state volume      written (%) expires      read mounts capacity
pep.talisman.com.003 0 KB 0%      undef      0 KB      2      98 KB
```

nsrls -m option may not list media database statistics

NW114937

When using the **nsrls -m** option to print media database information, statistics of the NetWorker media database may not be listed.

Workaround

If **nsrls -m** does not list the media database sizing status, stop and restart the NetWorker services and then run **nsrls -m** again.

Cloning and Staging problems and limitations

Path-to-tape cloning only supported for media types with the same device block size and device file size

NW119530

When a save set is cloned from a media type with a block size that is different from the destination media type, recovery from the clone volume to the destination volume fails with an error message similar to the following:

```
recover: Unable to read checksum from save stream
recover: Encountered an error recovering <filename>
recover: Error encountered by NSR server `scip2d.lss.emc.com': Bad
or missing record in save set <save set ID>, lost <# bytes> bytes
starting at offset <# bytes>.
```

Workaround

Clone the path-to-tape save set to a media type that has the same device block size and device file size.

To check the block size of a labelled volume, open the **Device Properties** dialog box and check the volume block size in the **Volume** tab.

If the block sizes are different, do the following:

1. Go to the **Device Properties > Advanced** tab and change the **Device Block Size** attribute so that the source and destination volume block sizes match.
2. Relabel the volumes so that the new block sizes take effect.

IMPORTANT

If you need to configure the device file size of a device, do so with caution. If the device file size and the actual file size do not match, you may not be able to recover the resulting clone image.

Cloning fails when Data Domain or NDMP save set of a client is encountered and there is no client resource on the NetWorker server**NW119156**

A clone operation fails when a Data Domain or NDMP save set of a client is encountered and there is no resource defined for that client on the NetWorker server.

Workaround

Create a client resource on the NetWorker server.

Device status continues to display as “active” after cloning operation terminated**NW118255**

When a cloning operation is terminated by way of the **nsrmmmd** process being stopped, the status of the device used for the operation continues to display as active in NMC.

Workaround

Refreshing the NMC browser results in the correct status being displayed.

Clone controlled replication with nsrclone may revert to a regular clone if the NetWorker server’s primary host name is not specified**NW118893**

When performing clone controlled replication by using the **nsrclone** command, ensure that any NetWorker server alias names are set up correctly. Otherwise, the clone controlled replication operation may revert to a regular clone operation. This situation can occur when invoking the **nsrclone** command on a host that is not the NetWorker server.

For example, suppose that the following command is invoked on a remote storage node, that is, a storage node that is not on the NetWorker server host:

```
nsrclone -s mars -vvv -S saveset_id
```

where **mars** is an alias for the NetWorker server's primary hostname, **ersat2d049**. In this example, a regular clone operation may be performed instead of a clone controlled replication operation.

Workaround

To avoid this situation, do one of two things:

- ◆ Invoke the `nsrclone` command with the primary hostname of the NetWorker server. For the previous example, the command would be:

```
nsrclone -s ersat2d049 -vvv -S saveset_ID
```

- ◆ Ensure that the alias hostname for the NetWorker server is specified in the Aliases attribute of the NetWorker server's client resource. For the previous example, you would add the name **mars** to the Aliases attribute of the NetWorker client resource named **ersat2d049**. When this is done, you can invoke the `nsrclone` command as follows:

```
nsrclone -s mars -vvv -S saveset_id
```

nsrclone/nsrstage performs regular clone for source Data Domain volume on remote storage node if client resource was not created in NetWorker server

NW117750

If a client resource for the remote storage node is not created in the NetWorker server, running `nsrclone/nsrstage` always performs a regular clone for the source Data Domain volume on the remote storage node.

Workaround

In order for the NetWorker server to manage and monitor clone operations, the NetWorker storage nodes, at both the source and target locations, must be clients of the same NetWorker server. A clone may not be created in a different datazone.

Create or add a client resource for the remote storage node in the NetWorker server.

Concurrent stage with stage or clone from the same Data Domain device or AFTD is not supported

NW117470

Performing a concurrent stage with the stage or clone from the read-only and read-write volume of the same Data Domain device or AFTD is not supported. If this is attempted, an `ansrd` core dump may occur.

A clone operation hangs if the source volume is on a remote storage node and is unmounted initially but is mounted after the clone attempts to start

NW117179

If the source volume is on a remote storage node and is unmounted, starting a clone operation will not complete successfully even if the source volume is mounted after the clone operation attempts to start. The clone program `nsrclone` will hang with the following message:

```
Server <server_name> busy, wait 30 seconds and retry
```

This issue does not occur if the storage node is on the NetWorker server, that is, when the storage node is not remote. However, if you do not set **Media type**

required to Data Domain in the target Backup Clone pool, a regular clone operation will be performed even if the source is a Data Domain volume.

Workaround

Ensure the source volumes to clone are mounted and the target volume is available for writing before initiating the clone operation, then set **Media type required to Data Domain** in the Backup Clone type pool for the clone's target device, making sure to specify that this pool is the target for the clone operation.

Clone controlled replication (optimized clone) for a Data Domain Device is performed only when the Data Domain clone volume is mounted and available for writing

NW117137

When performing a clone controlled replication operation (optimized clone) from one Data Domain device to another Data Domain device, ensure that the Data Domain clone volume is mounted prior to initiating the clone operation. If the Data Domain clone volume is not mounted and the clone operation is initiated, then a regular clone operation will be triggered instead of a clone controlled replication operation.

Workaround

There is a new pool attribute, **Media type required**, that when set will trigger an optimized clone on the target Data Domain device:

1. Set up a clone pool and assign only Data Domain devices to this pool.
2. Set the **Media type required** attribute in the Pool resource to **Data Domain**.

Note: It is especially important to set this new attribute when using cloned controlled replication over WAN, so that the clone operation never falls back to regular cloning over a long distance network.

When cloning a mix of save sets from different source devices such as Data Domain, AFTD, and NDMP devices, the same clone target volume may not be used for all save sets

NW116696

Clone operations that mix save sets from different source devices such as Data Domain devices, AFTD devices, or NDMP devices, may be written to different target volumes. Although this behavior is by design, you may prefer to write all save sets in the clone operation to the same clone volume.

Workaround

If the clone operation includes save sets from different devices and you want all save sets to be written to the same volume, include only one volume in the clone target pool.

Clone jobs may time out and not complete if 30 or more are scheduled to occur at the same time

NW115417

Scheduling multiple clone jobs (30 or more) to occur at the same time may result in some clone jobs timing out and not completing.

Workaround

Do not schedule more than 30 clone jobs to occur at the same time.

Path-to-tape cloning of save sets spanning across multiple volumes with different block sizes fails**LGTsc31596**

NDMP path-to-tape cloning fails if the source save set resides on multiple volumes with different block sizes. For example, when backup is performed using one LTO4 and one LTO2 volume, the cloning fails with the following error message:

```
"Error - Current NDMP session's block size 65536 does not match with
new volume's block size 131072".
```

If performing path-to-tape cloning, save sets should be backed up on similar volumes.

Configuration problems and limitations**Data Domain host name must be specified in Device access information attribute when configuring Data Domain devices****NW120856**

When configuring Data Domain devices, do not specify an IP address in the Device attribute **Device access information** when multiple NICs are enabled on the Data Domain system. Instead, specify the Data Domain system host name for this attribute.

Note: A Data Domain license is required for each IP address used. It is recommended to use only one NIC per NetWorker datazone.

NetWorker and device operations can fail when TCP Chimney is enabled for NICs on Windows Server 2003 or Windows 2008 R2**NW120373**

RPC errors can occur with some combinations of **TCP Chimney** and the NIC driver when **TCP Chimney** is enabled for NICs in a Windows Server 2003 or Windows 2008 R2 environment, leading to failed connections. The TCP Chimney feature was introduced in the Windows Server 2003 Scalable Networking Pack, and is enabled by default for that release.

This issue can cause a failure of the following NetWorker and device operations:

- ◆ Scheduled and manual savegroups can fail, with manual savegroups reporting the error "Lost connection to server, exiting".
- ◆ Device connections can fail with the error "Lost media database connection".
- ◆ Device operations can fail with the error "RPC send operation failed", along with a more specific explanation such as "Broken pipe" or "Connection reset by peer", among others.

Workaround

To work around this issue:

1. Disable TCP chimney by running the following command:

```
netsh int tcp set global chimney=disabled
```

2. Restart NetWorker services.

More information related to this issue is provided in the following knowledgebase articles:

- ◆ <http://support.microsoft.com/kb/942861>
- ◆ <http://support.microsoft.com/kb/945977>
- ◆ <http://social.technet.microsoft.com/forums/en-US/winservergen/thread/8a72f5d6-6f09-498a-b1a8-bced2bfeecd>
- ◆ <http://communities.vmware.com/thread/91454?tstart=0&start=195>

Failure reported during disaster recovery of VSS SYSTEM BOOT; set NSR_RECOV_TEMP_CLEANUP variable

NW117057

When performing a disaster recovery in multiple Windows platforms and copying the registry, a failure may be reported during the recovery of VSS SYSTEM BOOT due to the size of the **PendingRenameFileOperations** registry value, which is populated during the disaster recovery. The error message indicates a lack of system resources.

If this error appears, it is recommended to restart the disaster recovery after setting the environment variable **NSR_RECOV_TEMP_CLEANUP** to an appropriate value (for example, 1) in the system space. Setting this variable ensures that the above error does not appear, and that the recovery and subsequent cleanup of the temporary recover files after reboot occur without this interruption.

Incremental backup failure may occur due to number of VSS shadow copies; set NSR_VSS_WAIT_INTERVALS variable

NW114428

Incremental backups may fail due to the number of VSS shadow copies that are created and released by Windows when a backup is performed. A new environment variable, **NSR_VSS_WAIT_INTERVALS**, has been introduced to resolve the issue if a failure occurs. The syntax of the variable is as follows:

```
NSR_VSS_WAIT_INTERVALS=<Mutex wait in mins>,<Snap attempt wait time in seconds>
```

where

<Mutex wait in mins> is the timeout interval that a save instance waits until requesting a snapshot to the VSS framework. The recommended value in case of a failure is 30.

<Snap attempt wait time in seconds> is the time interval that occurs between successive snapshot requests being sent to the VSS framework. The recommended value in case of a failure is 5.

If the problem persists, higher values for both the parameters can be set.

Devices and media problems and limitations

Unable to restore/clone data from tape written on a Linux Storage Node device when using persistent device names

NW114157

If using Linux persistent naming (udev) and NetWorker CDI is enabled for the device, there is a potential to overwrite data when NetWorker positions the tape to perform a write operation. Most often this would occur if a partially full tape was mounted for writing and data was appended to it. This should not occur if data was continuously written to the device and the tape was filled.

Workaround

A fix is available for this issue (NW114157) for Linux storage nodes using tape devices configured with symbolic links (for example, /dev/rkant1 -> /dev/nst0) or tape devices configured with udev (for example, /dev/by-id/dev-name).

For storage nodes running NetWorker 7.4.5.6 and earlier, update to the latest cumulative build for NetWorker 7.5.x or 7.6. Links to the download are provided below.

For storage nodes running 7.5.2.3 and earlier, update to the latest cumulative build for NetWorker 7.5 Service Pack 3:

- ◆ ftp://ftp.legato.com/pub/NetWorker/Cumulative_Hotfixes/7.5

For storage nodes running NetWorker 7.6, update to the latest cumulative build for 7.6.x:

- ◆ ftp://ftp.legato.com/pub/NetWorker/Cumulative_Hotfixes/7.6

The knowledgebase article [esg113332](#) and the corresponding ETA contain more information on this issue, including symptoms such as error messages that appear when this problem occurs.

Also, refer to the NetWorker /EDL interoperability Matrix in NetWorker Procedure Generator to determine supported NetWorker versions for the applicable EDL version. In NetWorker Procedure Generator, navigate to **NetWorker and Disk Library Integrations -> EDL ESN -> NetWorker -EDL Interoperability Support Matrix**.

The Information Protection Software Compatibility Guide provides the supported NetWorker version for the applicable Linux operating systems.

More information regarding all of fixes included in the 7.5 Cumulative build or 7.6 Cumulative build is available in the NetWorker Cumulative fixes documents at <http://powerlink.emc.com> at the following links:

- ◆ [NetWorker 7.5 Cumulative Hotfixes](#)
- ◆ [NetWorker 7.6 Cumulative Hotfixes](#)

Labelling a Data Domain device to a new pool when the device contains data belonging to a different pool can result in data loss

NW120540

Labelling a Data Domain device to a customized pool when the device does not belong to a Data Domain pool (ddpool) will label the volume but will not mount the volume. If this device contains data that belongs to a different pool prior to

labelling the device to the new pool, the data that was saved to the previous pool will be lost.

Workaround

To prevent data loss, ensure the data previously backed up on the device is already cloned or archived to another destination prior to configuring and labelling the device to a different pool.

To label and mount the device to a customized Data Domain pool:

1. Unmount the device, and disconnect the device from its current pool if it is connected to one.
2. From NMC, go to **Media > Media Pool**, then select the pool name for the customized Data Domain pool.
3. Go to **Properties > Selection Criteria > Devices**, and enable the check boxes in order to select from the list of devices the device to be used for this pool. Click OK.
4. Label that device to the customized Data Domain pool from step 2 (the default setting is **Mount after Labeling**).

The device will be labeled and mounted successfully.

Labelling a Data Domain device fails after converting the device from AFTD to Data Domain

NW118590

Labelling a Data Domain device fails with the following error message after the device has been converted from an AFTD to a Data Domain device:

```
labelling operation failed on rd=deviceName.RO:volume error number
is a read only attribute
```

This error occurs due to a difference in permissions. When the device is used as an AFTD, the owner of the files and directories is **root**, whereas the owner of the Data Domain device will be the user account configured in the device resource.

Workaround

Perform the following to remove the volume from the media database and change permissions:

1. To remove the volume from the media database, run the following


```
nsrmm -dy <volume name on aftd>
```
2. Change permissions to 777 by running the following:


```
\rm -rf <aftd_path>/*
chmod 777 <aftd_path>
```

The device can now be labelled successfully.

GUI problems and limitations

Username/password validation may fail using NMC New Device Wizard for file system browsing if storage node is UNIX

NW120536

When using the NMC New Device Wizard to configure an AFTD, username/password validation for browsing the file system may fail if the storage node is a UNIX host. This failure occurs if the system is missing the Pluggable Authentication Modules (PAM) library, or when the rule in the **pam.conf** file (/etc/pam.conf) for **OTHER service** is set to **deny**.

Workaround

If validation fails using the New Device Wizard on a UNIX storage node, install the PAM package appropriate to your environment if it is not already installed, and then modify the **pam.conf** file so that the rule for **OTHER service** is not set to **deny**. Refer to your operating system's documentation for more information.

Data Domain systems do not display in NMC Enterprise window or NetWorker Administration Devices window upon reinstalling NMC after a complete uninstall

NW120324

When NMC is uninstalled and the NMC database is removed, upon reinstalling NMC and adding the NetWorker server that has Data Domain devices configured, the Data Domain system does not appear in the NMC Enterprise window or the NetWorker Administration Devices window.

Workaround

To add one of these hosts to the Enterprise:

1. From the Console window, click **Enterprise**.
2. In the left pane, right-click **Enterprise**, then select **New > Host**. The **Add New Host** wizard appears.
3. Enter a hostname, IP address, DNS name, or WINS name in the Host Name attribute, then click **Next**.

Note: Host names and aliases cannot exceed 80 characters.

4. Select the server type and click **Next**.
5. Follow the instructions for configuring the selected host type, then click **Finish**.

After Data Domain Systems are added to the Enterprise, they will appear in NMC Enterprise and the NetWorker Administration Devices window under the Data Domain Systems folder for corresponding NetWorker servers.

Monitoring of SNMP events for Data Domain not available on HP-UX

NW118886

HP-UX operating systems do not monitor SNMP events for Data Domain systems.

NSR clone resources that are created with the `nsradmin` program cannot be edited as scheduled resources in the GUI

NW115920

NSR clone resources that are created with the `nsradmin` command line program cannot be edited as scheduled clone resources in the Console GUI. Scheduled clone resources can be selected for editing in the Console by opening the NetWorker Administration interface and then selecting **Configuration > Clones**.

Workaround

Do one of the following:

- ◆ Create scheduled clone resources in the GUI. Scheduled clone resources can be created and edited in the GUI by opening the NetWorker Administration interface and then by selecting **Configuration > Clones**.
- ◆ If you must create a NSR clone resources with the `nsradmin` program, create a corresponding NSR task resource with the `nsradmin` program. Together, these resources will enable you to edit the clone item as a scheduled resource in the GUI. The corresponding NSR task resource must have its **name** and **action** attributes specified as follows:

- **name:** `clone.nsrclone_resource_name;`
- **action:** `"NSR clone:nsrclone_resource_name";`

For example, if the NSR clone resource was named `TestClone1`, the name and action attributes of the NSR task resource would be:

- **name:** `clone.TestClone1`
- **action:** `NSR clone: TestClone1`

These entries are case sensitive.

Restore problems and limitations

Remote cluster services not started after Authoritative Restore of MSCS cluster database

NW119115

After performing an authoritative restore of the MSCS cluster database on Windows Server 2008 R2, the remote cluster services are not started. An error message similar to the following appears:

```
recover: Unable to start Cluster Service on all the remote nodes
```

Workaround

Restart the cluster services on the remote cluster nodes manually.

Bootmgr file deleted upon recovery of C:\directory with VSS System save set selected

NW116575

If the `bootmgr` file is located under the `C:\` directory, a backup of folders under `"C:\\"` with `"VSS SYSTEM FILESET: \\"` will also back up the `bootmgr` file as part of the file system. During recovery, if you select the entire `C:\` directory and the **Overwrite** option is selected, the original `bootmgr` file gets deleted and the following errors appear:

```
52973: Winworkr: Didn't recover requested file C:\bootmgr
52973: Winworkr: Didn't recover requested file C:\config.sys
```

This leads to corruption of the machine. Upon rebooting the machine, a message appears indicating "bootmgr file is missing, press Ctrl+Alt+Del to restart".

Note: This issue is only seen when a backup is performed via NMC (scheduled backups) and the machine has its bootmgr file in C:\. This does not occur with client-initiated Winworkr backups. Note also that a machine running Windows 2008 R2 can be configured to hold the boot related files in a separate volume.

Workaround

During recovery, mark the backed up folders present in the C:\ directory one-by-one; do not include the **bootmgr** and **Config.sys** files.

Note: If you select the entire C:\ directory and then try to unmark only bootmgr and config.sys, the recovery will not work.

NDMP: recover or nsrndmp_recover displays debug messages during DSA recover on Windows even though recover is successful

NW115372

When performing a DSA recover on a Windows system using **recover** or **nsrndmp_recover**, debug messages appear, even though the recovery completes successfully. These messages can be ignored.

VMware Consolidated Backup (VCB) problems and limitations

Hot-add operation does not work when Windows proxy is a virtual machine residing on an ESX 4.1 host

NW121774

Due to a VMware limitation, performing a VCB backup on NetWorker with **VCB_TRANSPORT_MODE=hotadd** fails when the Windows proxy is a virtual machine running on an ESX 4.1 host.

VCB topology map shows Helper VM for hotadd mode is associated with same group used for hotadd proxy

NW118106

The Topology map shows that the helper VM used for hotadd mode is associated with the same group that is used for the hotadd proxy VM.

Single Step recovery of VM within a vApp fails with P2V error

NW117233

Performing a Single Step recovery of a VM within a vApp fails with the following error:

```
winworkr: Restore failed with error P2VError
UNKNOWN_METHOD_FAULT(vmodl.fault.InvalidType)
```

Workaround

Perform disaster recovery to a staging location and then use the latest VMware Standalone Converter 4.x to perform a restore to ESX/VC.

Single Step recovery of Windows 2008 x64 VM fails with P2V error**NW117714**

Performing a Single Step recovery of a Windows 2008 x64 VM initiated from the NetWorker server fails with the following error:

```
Check dest params in progress...
...failed with error P2VError
UNKNOWN_METHOD_FAULT(sysimage.fault.OsVersionNotFound)
```

Workaround

Perform disaster recovery to a staging location and then use the latest VMware Standalone Converter 4.x to perform a restore to ESX/VC.

PVSCSI controller changes to BusLogic controller, leading to boot failure for x64 VMs and performance issues for x86 VMs**NW118197**

When performing a Single Step recovery of a VM, the Paravirtual SCSI controller on Windows 2003 VMs gets changed to a BusLogic Parallel controller, resulting in decreased performance for Windows x86 VMs and boot failures for Windows x64 VMs. This issue is only seen if using SSR with VMware Converter 3.0.3.

Workaround

Perform disaster recovery to a staging location and then use the latest VMware Standalone Converter 4.x to perform a restore to ESX/VC.

SSR disaster recovery of SuSE Linux Enterprise Server 11 VM fails with P2V error**NW118200**

Performing an SSR disaster recovery of an SLES Enterprise Server 11 VM fails with the following error:

```
winworkr: Restore failed with error P2VError
UFAD_SYSTEM_ERROR(Failed to find conversion from sles11 to type:
vim.vm.GuestOsDescriptor.GuestOsIdentifier)
```

Workaround

Perform disaster recovery to a staging location and then use the latest VMware Standalone Converter 4.x to perform a restore to ESX/VC.

Vmxnet3 adapter changes to e1000 adapter during VM recovery**NW118486**

When performing a Single Step recovery of a VM, a vmxnet3 network adapter gets changed to an e1000 network adapter.

Workaround

Perform disaster recovery to a staging location and then use the latest VMware Standalone Converter 4.x to perform a restore to ESX/VC.

NetWorker cannot use mapped drive for VCB mount point

NW113740

Attempting to use the VCB mount point on a CIFS share (mapped drive) fails with an error indicating that the device is not a writeable volume.

Workaround

Perform the backup to VCB mount point on the local disk instead of the CIFS share.

NetWorker 7.6

Table 9 on page 49 identifies problem issues and limitations discovered in NetWorker 7.6.

The known limitations are separated into the following categories:

- ◆ [“Backup problems and limitations” on page 54](#)
- ◆ [“Cloning and Staging problems and limitations” on page 56](#)
- ◆ [“CLI problems and limitations” on page 58](#)
- ◆ [“Cloud device problems and limitations” on page 58](#)
- ◆ [“Configuration problems and limitations” on page 59](#)
- ◆ [“Installation and upgrading problems and limitations” on page 60](#)
- ◆ [“Messaging problems and limitations” on page 61](#)
- ◆ [“Performance problems and limitations” on page 62](#)
- ◆ [“Restore problems and limitations” on page 62](#)
- ◆ [“VMware Consolidated Backup \(VCB\) limitations and descriptions” on page 64](#)
- ◆ [“General problems and limitations” on page 69](#)

For known limitations related to internationalization support in NetWorker 7.6, see [“Internationalization support” on page 147](#).

Table 9 Limitations discovered in NetWorker release 7.6

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
“LGTsc30233” on page 54	30233nw	AIX deduplication client fails with AVCTL error due to case-sensitivity	AIX	Backup
“LGTsc31729” on page 54	31729nw	Savegroup fails when backing up VSS save sets with deduplication enabled	Windows	Backup
“LGTsc31933” on page 54	31933nw	Multiple passphrases cannot be used for cloud-based encrypted backup and recovery	Windows	Backup
“LGTsc31401” on page 55	31401nw	Selecting “Discover” option in Software Administration wizard causes nsrccd process to hang	Solaris	Backup
“LGTsc28262” on page 55	28262nw	NetWorker Server may take a long time to restart if size of media management database is very large	Windows	Backup

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"LGTsc08220" on page 55	08220nw	Limits in NetWorker support for NTFS	Windows	Backup
"LGTpa88903" on page 55	88903nw	Cannot backup two NetWorker clients with the same hostname but different fully qualified domain names (FQDNs)	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Backup
"LGTsc32100" on page 56	32100nw	DFS backup failure under certain conditions if VSS is enabled	Windows	Backup
"LGTsc19011" on page 56	19011nw	Savegrp may fail if a client has more than 1116 savesets	AIX, Solaris	Backup
"LGTsc29210" on page 56	29210nw	Backups may fail if server parallelism is set to maximum value	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Backup
"NW105699" on page 56	NW105699	NDMP Path-to-Tape cloning fails to clone save sets spanning across two volumes	Linux	Cloning
"NW105306" on page 56	105306nw	Status of aborted clone is not shown under Show Manual Clone History in NMC	Solaris	Cloning
"NW105684" on page 57	NW105684	Path-to-Tape cloning check fails if spanning of first fragment of the source image and destination spanning occur simultaneously during cloning	Linux	Cloning
"LGTsc31283" on page 57	31283nw	Running nsrclone -J <storage node> hangs for any source device type	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Cloning
"LGTsc29276" on page 57	29276nw	Path-to-tape cloning requires a separate volume to write the end notes	Linux	Cloning
"LGTsc31929" on page 57	31929nw	NetWorker does not support cloning of a Path-To-Tape clone instance that is cloned from a tape of different block or device file size than that of the original source tape.	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Cloning
"LGTsc29190" on page 58	29190nw	Using nsrclone to clone an NDMP clone hangs if source volume is not mounted	Solaris	Cloning
"LGTsc32017" on page 58	32017nw	nsrlic output may not list all connected clients to NMDA UNIX enabler	UNIX	CLI
"NW105390" on page 58	NW105390	Directed recover initiated from server may fail with machines in different domains from CLI on Windows	Windows	CLI
"NW104933" on page 58	NW104933	Cloud device created with target session attribute of 1 even if another value is specified	Windows	Cloud device
"LGTsc32171" on page 59	32171nw	NDMP target session value changed to 32 when evaluation mode expires	Linux	Configuration
"LGTsc29940" on page 59	29940nw	Device file size value cannot be reset to default unless nsrmmid or NetWorker services are restarted	Solaris	Configuration
"LGTsc28693" on page 59	28693nw	Quantum DXi: May not be able to configure library from a particular node in a DDS configuration	Solaris	Configuration

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"LGTsc30786" on page 59	30786nw	Default client parallelism should be set to 4 except for the NetWorker server	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Configuration
"NW110327" on page 60	NW110327	nsrjobd running after uninstallation of Sun StorageTek EBS on Windows	Windows	Installation
"LGTsc32047" on page 60	32047nw	ConnectEMC software cannot be installed in non-default location	Windows	Installation
"LGTsc32944" on page 60	32944nw	Library disabled after upgrading from NetWorker 7.4 release to NetWorker 7.6	AIX	Upgrading
"NW105501" on page 61	NW105501	Usage error does not appear when nsrda binaries run from command line	Solaris	Messaging
"NW105414" on page 61	NW105414	Logging and warning messages not sufficient when reaching soft runtime limit	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Messaging
"LGTsc29953" on page 61	29953nw	Running ndmpsups with full disk specified for output location does not return error	Windows	Messaging
"NW105832" on page 61	NW105832	No warning message appears when staging is started for disabled destination device	Windows	Messaging
"NW105777" on page 61	NW105777	Save output error and parse error messages appear in Savegroup log and NMC Group Details upon backup with directives turned on	Windows	Messaging
"LGTsc31827" on page 61	31827nw	Failure status does not display in NMC when invalid hostname specified for ConnectEMC	Windows	Messaging
"LGTsc29791" on page 62	29791nw	NMC may consume increasing amounts of memory on Windows	Windows	Performance
"LGTsc24128" on page 62	24128nw	HP TruCluster with DNS enabled may result in slow connections to the NetWorker server	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Performance
"LGTsc29958" on page 62	29958nw	Empty directory for NDMP is not recovered during Direct Recover	Linux	Restore
"LGTsc33060" on page 62	33060nw	Volume mount point is recovered as a folder	Windows	Restore
"LGTsc30685" on page 62	30685nw	Recovery reports are not generated immediately after a successful recover	Solaris	Restore
"LGTsc17739" on page 63	17739nw	Host name resolution changes on the NetWorker server can cause recover items to become unbrowsable	HP-UX	Restore
"LGTsc00742" on page 63	00742nw	The recover command may fail if the NetWorker server's short name cannot be resolved from the client	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Restore
"LGTsc24329" on page 63	24329nw	Client file index recovery fails for NDMP client on Windows	Windows	Restore
"LGTsc25674" on page 63	25674nw	Windows file permissions may be changed after a full recovery	Windows	Restore

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"LGTsc31671" on page 63	31671nw	Unable to recover savesets on NDMP path-to-tape clone volume that has been deleted and then restored using scanner command	Solaris	Restore
"LGTsc30685" on page 62	30685nw	Recovery reports are not generated immediately after a successful recover	Solaris	Restore
"LGTsc17739" on page 63	17739nw	Host name resolution changes on the NetWorker server can cause recover items to become unbrowsable	HP-UX	Restore
"LGTsc00742" on page 63	00742nw	The recover command may fail if the NetWorker server's short name cannot be resolved from the client	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Restore
"LGTsc24329" on page 63	24329nw	Client file index recovery fails for NDMP client on Windows	Windows	Restore
"LGTsc25674" on page 63	25674nw	Windows file permissions may be changed after a full recovery	Windows	Restore
"LGTsc31671" on page 63	31671nw	Unable to recover savesets on NDMP path-to-tape clone volume that has been deleted and then restored using scanner command	Solaris	Restore
"LGTsc32763" on page 63	32763nw	RECOVER_FULL_PATHS variable for NetApp filer recovery not supported	UNIX	Restore
"NW114517" on page 64	NW114517	Index browsing (file selection recovery) may not be supported when using VMware clones and the hotadd transport mode	Windows	VCB
"NW105846, NW105379" on page 64	NW105846 NW105379	Index browsing fails when the VCB backups are performed with traditional backups	Windows	VCB
"NW105962" on page 64	NW105962	Single step recovery of VM on Virtual Center or ESX server does not work if non-default port number used	Windows	VCB
"NW105583" on page 64	NW105583	Backup with VCB Directive applied to Windows 2000 VM does not skip system32 folder under C:\WINNT	Windows	VCB
"NW105298" on page 65	NW105298	Incorrect error messages are displayed during full image recovery or drive letter recovery	Windows	VCB
"NW105265" on page 65	NW105265	Single-file recovery is not supported for VMs containing non-ASCII filenames	Windows	VCB
"NW105098" on page 65	NW105098	Performance is slow on Windows VMs when multiple disaster recovery sessions are performed simultaneously	Windows	VCB
"NW105095" on page 65	NW105095	Stopping the savegroup does not stop the VCB mounter operation	Windows	VCB
"LGTsc32604" on page 66	32604nw	Single-step recovery has limitation to restore VMs with thin disks to ESX 4.0 Server.	Windows	VCB
"LGTsc32380" on page 66	32380nw	File-level recovery of an encrypted file is not supported	Windows	VCB
"LGTsc30075" on page 66	30075nw	Recovery of a VM host with multiple drives displays "Directory not empty" in the recover GUI	Windows	VCB

Customer Service defect number	Issue tracker issue number	Description of limitation	Operating System Affected	Product Feature
"LGTsc30810" on page 67	30810nw	Additional system generated or user files are recovered during save set recovery from an incremental backup	Windows	VCB
"LGTsc30813" on page 67	30813nw	Restored virtual machine starts in forceful powered off state during FULLVM restore	Windows	VCB
"LGTsc31164" on page 67	31164nw	nsr resource takes default values if invalid application information inputs are provided for the proxy server	Windows	VCB
"LGTsc30927" on page 67	30927nw	GPT disks are not supported for single file recovery (SFR)	Windows	VCB
"LGTsc31190" on page 67	31190nw	Single file recovery (SFR) cannot be performed on disks with no drive letter	Windows	VCB
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"LGTsc32410" on page 70	32410nw	Compression asm does not work with other asms	Windows	General problems

Backup problems and limitations

This section details the problems and limitations related to backups.

AIX deduplication client fails with AVCTL error due to case-sensitivity

LGTsc30233

Deduplication backup of a NetWorker client on AIX may fail with an AVCTL error. This is because client names or domains on the Avamar server are not case-sensitive at the creation time, but are case-sensitive when logging on to a particular domain account.

Workaround

Keep the same naming convention of client name or domain (case-sensitive) after the first client record creation.

Savegroup fails when backing up VSS save sets with deduplication enabled

LGTsc31729

When backing up the VSS save sets on Windows 2008 with deduplication enabled, the savegroup fails with the following error in NMC and the savegroup log upon completion:

```
vm20-win-6:VSS OTHER:\ 57803:save: Saving with De-Duplication
enabled
vm20-win-6:VSS OTHER:\ VSS OTHER: No writers found for this saveset:
VSS OTHER.
```

Multiple passphrases cannot be used for cloud-based encrypted backup and recovery

LGTsc31933

Multiple passphrases cannot be used for cloud-based encryption and decryption, due to the difficulty of specifying a passphrase for decryption that is different from the one that was used for encrypting that data. The passphrase used when backing up encrypted data must be the same one used when performing a recovery and decrypting the data.

The **recover -p** option, which provides a way to specify a passphrase different from the one currently configured on the NetWorker server, cannot be used for encrypted cloud backups.

The following limitations also apply to passphrase use in NetWorker:

- ◆ A cloud device can only support one single passphrase for both backup and recovery when encryption is enabled.
- ◆ Changing the datazone passphrase impacts all newly initiated backup and recovery operations and should be avoided.
- ◆ If a backup using an old passphrase needs to be recovered, that old passphrase must be restored on the NetWorker server during the recovery process.

Selecting “Discover” option in Software Administration wizard causes nsrccd process to hang

LGTsc31401

When you perform “Add products to the repository” using the Software Administration Wizard in NMC and select **Discover** after successful completion of the task, the **nsrccd** process becomes unresponsive and the application hangs.

Workaround

To avoid this issue, perform one of the following:

- ◆ Kill the **nsrccd** process, then restart the daemons. Selecting the **Discover** option in NMC now completes successfully.
- ◆ Run the command line utility **nsrpush** to perform the operation instead of using NMC.

NetWorker Server may take a long time to restart if size of media management database is very large

LGTsc28262

If the NetWorker media management database is very large, the NetWorker server may take a long time to establish client connections when it is restarted. The reason is that a consistency check of the media management database is triggered when the server is restarted.

To reduce the size of the media management database, run the **nsrim -C** command. Be aware that this command may take a long time to run and that the NetWorker server will be unavailable during this time. Run the command when the NetWorker server is not busy.

More information about reducing the media management database is provided in Chapter 17, NetWorker Server Management, of the *NetWorker Release 7.6 Administration Guide*.

Limits in NetWorker support for NTFS

LGTsc08220

The NetWorker software supports the backup and recovery of NTFS using Win32 API-defined subsystem. Besides Win32 Subsystem, NTFS also support other subsystems like POSIX. The Win32 subsystem supports certain file naming conventions, and does not have ability to support file naming conventions of other subsystems like POSIX, such as the ability to differentiate between filenames that are identical except for uppercase and lowercase characters (for example, temp.txt and TEMP.txt) and the ability to have multiple dots (.) in filenames.

POSIX applications that access NTFS file systems may implement file naming convention differently than the Win32 subsystem. It is possible that certain file naming features may be present that are not part of the Win32 subsystem. If this is the case, the NetWorker software will not correctly back up these files.

Cannot backup two NetWorker clients with the same hostname but different fully qualified domain names (FQDNs)

LGTpa88903

NetWorker cannot cope with two different machines that have the same hostname but different FQDNs. For example, if two divisions of a company have a machine

named "mailserver.abc.com" and "mailserver.xyz.com," they will be unable to back up the second host.

DFS backup failure under certain conditions if VSS is enabled

LGTsc32100

If VSS is enabled, a DFS backup or a VSS SYSTEM BOOT backup may fail under the following conditions:

- ◆ The namespace folder is not a shared folder target.
- ◆ Replication is configured for the namespace.
- ◆ Files exist in the namespace folder and have replicated to the member server.

Workaround

To avoid this issue, create a namespace in the folder target or do not enable replication.

Savegrp may fail if a client has more than 1116 savesets

LGTsc19011

A savegrp operation may fail when client is configured with more than 1116 saveset files. The following message may appear:

```
Probe job had unrecoverable failure(s), please refer to daemon.raw
for further details
```

Backups may fail if server parallelism is set to maximum value

LGTsc29210

Index backups may fail with the following error message if the maximum server parallelism is set to 400 and there were 400 simultaneous sessions running:

```
server-name:index 1 retry attempted
server-name:index P?: No such file or directory
```

Workaround

Reduce the server parallelism value.

Cloning and Staging problems and limitations

This section details the problems and limitations related to cloning operations and staging.

NDMP Path-to-Tape cloning fails to clone save sets spanning across two volumes

NW105699

NDMP Path-to-Tape cloning of a volume fails to clone save sets that span across two volumes. However, when that save set is cloned individually, cloning is successful.

Status of aborted clone is not shown under Show Manual Clone History in NMC

NW105306

When the `nsrmdmp_clone` operation is aborted from the command line, **Show Manual Clone History** in NMC does not display the status.

Path-to-Tape cloning check fails if spanning of first fragment of the source image and destination spanning occur simultaneously during cloning

NW105684

The Path-to-Tape cloning check, which checks the consistency of the source tape file size while cloning is in progress, fails if spanning of the first fragment of the source image and destination spanning occur at the same time during cloning. A series of **nsrndmp_clone** error messages similar to the following will display, indicating the tape file size error and identifying which save set failed cloning.

```
nsrndmp_clone: Tape server paused: reached the end of file
nsrndmp_clone: Error - Incorrect tape file size 1073741824
nsrndmp_clone: Tape server halted: The backup is aborted by
operator.
nsrndmp_clone: Failed to clone /Builds (ssid 3119103906)
nsrndmp_clone: Failed to clone the following save sets: 3119103906
```

Workaround

Manually clone the failed save set to another destination volume that has enough free space to accommodate the save set.

Running nsrclone -J <storage node> hangs for any source device type

LGTsc31283

If **nsrclone** is specified with **-J <storage node>** for any source device type and that storage node is not permitted for use based on the affinity lists, **nsrclone** will loop indefinitely and a failure level error displays.

Path-to-tape cloning requires a separate volume to write the end notes

LGTsc29276

During path-to-tape cloning, **mminfo** does not display end notes as part of the clone image.

For example, configure NetWorker Server, Client, or Storage node for path-to-tape. Configure the source and target jukeboxes with the same type of device and default size. Manually save multiple savesets to the source volume so that one of the volume spans to another volume. Using the following command, execute path-to-tape cloning for all the savesets including the spanned save sets in the same sequence as they are backed up:

```
nsrndmp_clone -b "Default Clone"-J <clone storage node> -p -S <ssid>
```

When the save sets span across 2 volumes and writes only end notes in the third volume, then the clone completion message and the **mminfo** command displays only the first 2 volumes and skips the third volume as it does not contain any save sets.

Note: The third volume is not required in order to complete the restore.

NetWorker does not support cloning of a path-to-tape clone instance that is cloned from a tape of different block or device file size than that of the original source tape

LGTsc31929

Cloning of path-to-tape (opaque) clone is not supported for destination tapes with different block or device file size from that of the original source.

Example Create a backup saveset (Clone instance 0) on a LTO-3 tape with a block size of 128KB and a device file size of 4 GB. Using path-to-tape, create a clone saveset (Clone instance 1) to another LTO-1 tape with a block size of 64KB and a device file size of 1 GB. When attempting to create a new instance from Clone instance 1, cloning fails with the following error:

```
nsrndmp_clone: Incorrect tape file size <current_tape_file_size>
nsrndmp_clone: Set device file size to <recommended_value> in source
device properties
```

Workaround

Change the source device file to the value suggested by the `nsrndmp_clone` message. Once cloning is complete, change the source device file to its original value.

Using nsrclone to clone an NDMP clone hangs if source volume is not mounted

LGTsc29190

If you perform an NDMP clone of a save set and then use `nsrclone` to clone the NDMP clone, the operation will hang if the source volume is not mounted.

Workaround

Mount the source volume manually before starting the `nsrclone` operation.

CLI problems and limitations

This section details the problems and limitations related to command line use.

nsrlic output may not list all connected clients to NMDA UNIX enabler

LGTsc32017

The output produced by running `nsrlic -v` may not list all Virtual clients as connected clients to the NMDA UNIX enabler.

Workaround

Add NMDA UNIX enabler, then backup the virtual client for the Solaris host first.

Directed recover initiated from server may fail with machines in different domains from CLI on Windows

NW105390

Directed recovery may fail when performing the directed recover on the Windows NetWorker server to the remote client when the NetWorker server and client are in different domains. In this case, perform the directed recovery from the NetWorker User program.

Cloud device problems and limitations

This section details the problems and limitations related to cloud devices.

Cloud device created with target session attribute of 1 even if another value is specified

NW104933

When a cloud device is created using `nsradmin` or NMC with a target sessions attribute other than 1, the NSR device resource is always created with a target sessions attribute of 1 rather than the specified value.

Configuration problems and limitations

This section details the problems and limitations related to configuration.

NDMP target session value changed to 32 when evaluation mode expires

LGTsc32171

The NDMP device target session attribute is changed to 32 after the expiration of evaluation mode.

Workaround

Manually change the Target session attribute from 32 to 1 and then enable the NDMP drives.

Device file size value cannot be reset to default unless nsrmmmd or NetWorker services are restarted

LGTsc29940

There is no way to reset the value of "device file size" in NMC to the default value without restarting **nsrmmmd** or restarting the NetWorker services.

Quantum DXi: May not be able to configure library from a particular node in a DDS configuration

LGTsc28693

When virtual devices, tape libraries and drives exported from the DXi host are configured in a DDS (Dynamic Drive Sharing) configuration and one of the DXi libraries is deleted from the DDS configuration and subsequently rescanned and reconfigured, the operation may fail with the error message "Storage node xxxxx is not part of storage node list associated with NSR unconfigured library". This can occur due to a DXi SCSI reserve/release issue after a new install or server/storage node reboot.

Workaround

Perform one of the following:

- ◆ Reboot the DXi hosts, then perform a re-scan from the storage node that encountered the initial failure. The reboot of the DXi forces a release of the SCSI reservation.
- ◆ Configure the failed DXi library from another storage node in the DDS configuration.

Default client parallelism should be set to 4 except for the NetWorker server

LGTsc30786

The client parallelism attribute for a NetWorker client is set to 12 by default. This value can cause problems with interoperability features such as Avamar, EMC Celerra backups, and VSS backups.

Workaround

Set the client parallelism attribute on NetWorker clients to 4. However, keep the NetWorker server client parallelism attribute set to 12.

Installation and upgrading problems and limitations

This section details the problems and limitations related to new installations of the NetWorker software, or upgrades from a previous release.

Upgrade of NMC for NetWorker 7.4 Service Pack 5 to release 7.6 may result in core dump on AIX

NW113316

When performing an upgrade from NetWorker 7.4 Service Pack 5 to release 7.6 on AIX, uninstallation of the previous NetWorker Management Console may result in a core dump of the dbrsv9 process, with a core file created in the <NMC install dir>/cores/gstd directory. This has no impact on Console functionality after the upgrade, and can be ignored.

NETWORKER.cfg file must be backed up prior to upgrading from any NetWorker version 7.5 Service Pack 1 or earlier

NW110457

When upgrading from any version of NetWorker 7.5 Service Pack 1 or earlier, the **NETWORKER.cfg** file must be backed up on each client and used to replace the new **NETWORKER.cfg** file created after the upgrade, in order to maintain user preferences.

nsrjobd running after uninstallation of NetWorker on Windows

NW110327

The nsrjobd process continues to run after NetWorker has been uninstalled on Windows. As a result, the NetWorker Installation folder cannot be deleted.

Workaround

Using Task Manager, kill the nsrjobd process manually and then delete the NetWorker installation folder.

ConnectEMC software cannot be installed in non-default location

LGTsc32047

The ConnectEMC software is installed under C:\Program Files by default, and cannot be installed to a non-default location.

Library disabled after upgrading from NetWorker 7.4 release to NetWorker 7.6

LGTsc32944

After upgrading from a NetWorker 7.4 release to NetWorker 7.6, configured libraries may not become available and, after several unsuccessful connection attempts, may be disabled. This may be due to a Control Port change.

Workaround

To work around this issue:

1. Disable the library
2. Re-scan the Storage node where the failure occurred.
3. Re-enable the library.

The Library now appears in the Ready State.

Messaging problems and limitations

This section details the problems and limitations related to error messages.

Usage error does not appear when nsrdsa binaries run from command line

NW105501

nsrdsa binaries are not meant to be run from the command line. However, when this is attempted, NetWorker hangs and does not display an error notifying the user of the incorrect usage.

Logging and warning messages not sufficient when reaching soft runtime limit

NW105414

When a soft runtime limit is reached for any operation, the logging and warning messages do not provide any information about the limit being exceeded.

Running ndmpsups with full disk specified for output location does not return error

LGTsc29953

When **ndmpsups** is run (**ndmpsups -c client -o <disk>**) and the location specified for the output file is a disk that is full, no error message displays indicating that the disk is full, and only a partial output file is created.

No warning message appears when staging is started for disabled destination device

NW105832

No warning or error message appears when staging is started and the destination device is disabled. An error message should display indicating that NetWorker is waiting for 1 writable device.

Workaround

Check the device configuration prior to staging and enable the device if necessary.

Save output error and parse error messages appear in Savegroup log and NMC Group Details upon backup with directives turned on

NW105777

When backing up a client with directives turned on, the savegroup passes successfully. However, parse error messages and save output errors appear in the Savegroup log file and NMC Group Details window, such as "bad directory specification for /nsr/tmp".

Failure status does not display in NMC when invalid hostname specified for ConnectEMC

LGTsc31827

When an invalid hostname is used as the ConnectEMC server, the failed status appears in the daemon log but does not display in NMC.

Performance problems and limitations

This section details the problems and limitations related to performance of the NetWorker software.

NMC may consume increasing amounts of memory on Windows

LGTsc29791

Over a period of time, NMC may consume large amounts of memory that could result in the system becoming unresponsive.

HP TruCluster with DNS enabled may result in slow connections to the NetWorker server

LGTsc24128

If DNS is enabled on TruCluster, connections to the NetWorker Server are delayed about 30 seconds each. Also the initial start of the NetWorker server may take longer.

Workaround

Disable DNS on the TruCluster server.

Restore problems and limitations

This section details the problems and limitations related to recoveries.

Empty directory for NDMP is not recovered during Direct Recover

LGTsc29958

Performing a Directed recover of an empty directory for NDMP does not recover the empty directory, even though the operation is reported as successful.

Volume mount point is recovered as a folder

LGTsc33060

When performing a mount point recovery, the volume mount point is recovered as a folder instead of a mount point.

Workaround

To recover the data within the mount point:

1. Manually create the mount point (if it does not exist already).
2. Use **winworkr** to recover the data under the mount point.

This procedure is documented in the NetWorker Release 7.6 Administration Guide in the chapter "Recovering Data."

Recovery reports are not generated immediately after a successful recover

LGTsc30685

After a successful recover, a subsequent savegroup completion is required to generate the recovery report as the index is updated only after the completion of a save group.

Host name resolution changes on the NetWorker server can cause recover items to become unbrowsable**LGTsc17739**

Changes to the etc/hosts file on the NetWorker server may cause recover items to become unbrowsable.

The recover command may fail if the NetWorker server's short name cannot be resolved from the client**LGTsc00742**

The recover operation may fail if the short name of the NetWorker server cannot be resolved from the client performing the recover.

Client file index recovery fails for NDMP client on Windows**LGTsc24329**

Recovery of the client file index fails when running `nsrck -L7` for an NDMP client that was running on Windows.

Windows file permissions may be changed after a full recovery**LGTsc25674**

If all of the system files are recovered and "overwrite existing files" was selected, some system configuration permissions and security settings may be changed.

Unable to recover savesets on NDMP path-to-tape clone volume that has been deleted and then restored using scanner command**LGTsc31671**

You may be unable to recover savesets from a volume that has been restored using the scanner command in the following situation:

1. Perform a multiplexed backup.
2. Perform an NDMP Path-to-tape clone of the volume.
3. Delete the volume containing the clone instance.
4. Run the scanner command on the deleted volume.
5. Try to recover a saveset.

RECOVER_FULL_PATHS variable for NetApp filer recovery not supported**LGTsc32763**

When performing a DAR recovery for a NetApp filer, the NetApp specific environment setting "RECOVER_FULL_PATHS" is not supported for NetWorker release 7.6. Setting or unsetting the NetWorker environment variable "NSR_NDMP_RECOVER_NO_FULL_PATHS" no longer has any effect on this NetApp specific environment setting (for example, RECOVER_FULL_PATHS) for the DAR recovery.

VMware Consolidated Backup (VCB) limitations and descriptions

This section details problems and limitations related to VCB operations.

Note: NetWorker 7.6 supports only Microsoft Windows 2003 (32-bit or 64-bit) OS on the VCB Proxy.

Index browsing (file selection recovery) may not be supported when using VMware clones and the hotadd transport mode

NW114517

Due to a VMware limitation, when the VCB transport mode is set to **hotadd** (VCB_TRANSPORT_MODE=hotadd), index recovery is not supported in the following cases:

- ◆ If either the virtual machine to be backed up or the VCB proxy virtual machine are VMware clones of one another.
- ◆ If both the virtual machine to be backed up and the VCB proxy virtual machine were cloned from the same parent virtual machine.

Index browsing fails when the VCB backups are performed with traditional backups

NW105846, NW105379

When VCB backups *FULL* and ALLVMFS are performed along with traditional backups, index browsing of the backup fails.

Workaround

Perform one of the following:

- ◆ In the command line interface, browse to a particular folder to view the index. For example, if C:\test-data\D1 was the new folder created for *FULL* incremental backup that you want to browse, type **recover>cd C:\test-data\D1** from the command line to view the index.
- ◆ Use the **nsrim** command to make browsable save sets to recoverable save sets for traditional backups in order to view the full index of the backup. For example, **nsrim -c 10.31.79.12 -N C:\F1 -l**.

Single step recovery of VM on Virtual Center or ESX server does not work if non-default port number used

NW105962

Single step recovery of a VM cannot be performed on the Virtual Center or ESX server if a non-default port number (a port number other than 443) is used.

Workaround

Recover the VM image to a staging location and use VMware Converter to export the VM image to the ESX server.

Backup with VCB Directive applied to Windows 2000 VM does not skip system32 folder under C:\WINNT

NW105583

When VCB Directive is applied to a Windows 2000 VM, the **system32** folder under C:\WINNT is not skipped during backup. File-level full and incremental backups

with VCB Directive enabled should skip the system and system32 folders in the Windows install folder.

Incorrect error messages are displayed during full image recovery or drive letter recovery

NW105298

When using the recover command or the NetWorker User program (winworkr), saveset recovery of full image or browsable recovery of an entire drive letter displays incorrect error messages, such as “cannot write to <directory_location>: The directory is not empty.”

Workaround

Ignore the incorrect error messages.

Single-file recovery is not supported for VMs containing non-ASCII filenames

NW105265

If VMs contain filenames with non-ASCII characters, single-file recovery is not possible and the full-image backup implementation is used for backup.

Workaround

Perform the ALLVMFS backup and recover.

Performance is slow on Windows VMs when multiple disaster recovery sessions are performed simultaneously

NW105098

When performing disaster recovery of multiple Windows VMs simultaneously from the same proxy machine, the recovery time increases due to VMware VDDK limitation.

Workaround

Perform disaster recovery of multiple VMs in a sequential manner instead of performing recovery simultaneously.

Stopping the savegroup does not stop the VCB mounter operation

NW105095

When you stop the savegroup, the VCB mounter does not stop until the operation is completed.

Workaround

Stop the VCB mounter operation manually.

Savegroup log error message for Hypervisor user without VCB privileges is not descriptive

LG7sc30913

The error message that displays if a Hypervisor user attempts a VCB operation but does not have VCB privileges does not fully describe the problem. The message indicates:

```
nsrvcb_save: Error: Other error encountered: vim.fault.NoPermission
```

Only full level VCB backups can be performed when Backup renamed directories attribute is enabled**LGTsc30843**

When enabling the **Backup renamed directories** attribute for a VM client instance, you can only perform full level VCB backups. You cannot perform incremental and differential file-level backups with the attribute enabled.

Single-step recovery has limitation to restore VMs with thin disks to ESX 4.0 Server**LGTsc32604**

Due to the VMware Converter 3.0.3 limitation, single-step recovery always restores the VM with thick disks irrespective of whether the VM was configured with thin disks before.

Workaround

To restore the VM with thin disks to ESX 4.0, first perform recovery to a staging location and then use the VMware Converter 4.x to perform Disaster Recovery (DR) with thin disks.

File-level recovery of an encrypted file is not supported**LGTsc32380**

Due to Microsoft Windows limitation, browsable recovery of a NTFS encrypted file to a local file system on a proxy machine is not supported.

Workaround

Share a CIFS folder from the VM and perform a recovery of the encrypted file from the VCB proxy to the CIFS share directly or install NetWorker Client on the VM to recover encrypted file to a local file system of the VM.

Limitations when performing file-level recovery of image-level backup

The following considerations apply when performing a file-level recovery of an image-level backup:

- ◆ Support for file-level recovery from image based backup is available only on Windows.
- ◆ File-level recovery is supported only on VMs having Windows OS with NTFS5 file system.
- ◆ File-level incremental backup of a VM is not supported after a hardware change in the VM. Perform a full image level backup after every change in the VM hardware.
- ◆ In case of a remote VCB proxy client, single step recover requires the members of the VCB proxy clients administrator group to be part of the remote access list of the VM clients or should have the "Remote access all clients" privilege.

Recovery of a VM host with multiple drives displays "Directory not empty" in the recover GUI**LGTsc30075**

During a ALLVMFS backup on a VM host with multiple drives, select all the drives to be recovered in the recovery GUI and start the recovery to the relocated

target location. Recovery is completed successfully to the target location with "Directory not empty" error at the end of each selected drive.

Workaround

Ignore the error. Recovery is successful.

Additional system generated or user files are recovered during save set recovery from an incremental backup**LGTsc30810**

During VCB incremental backup, additional files modified since the last backup, including system generated files or user files, are backed up.

Workaround

Ensure sufficient disk space is available for recovery. Ignore the additional files that are recovered.

Restored virtual machine starts in forceful powered off state during FULLVM restore**LGTsc30813**

During a FULLVM restore using the GUI or Command Line Interface, the restored virtual machine will start in forceful powered off state due to VCB snapshot limitations.

nsr resource takes default values if invalid application information inputs are provided for the proxy server**LGTsc31164**

When wrong inputs are provided in the Application Information tab for the proxy server, nsr resource will take the default values by default. For example, if VCB_TRANSPORT_MODE=ncd and the user types VCB_TRANSPORTMODE=ncd, then the nsr resource takes the default mode of transport VCB_TRANSPORT_MODE=san.

Workaround

Ensure to provide the correct values.

GPT disks are not supported for single file recovery (SFR)**LGTsc30927**

During an image based backup, GPT disks are not supported for file-level recovery. If the VM has any GPT disk then the backup will always be image based backup without support for file-level recovery.

Workaround

Ensure there are no GPT disks.

Single file recovery (SFR) cannot be performed on disks with no drive letter**LGTsc31190**

When a disk is formatted with NTFS partition without a drive letter, file systems which are candidates for SFR backup will adopt FULLVM method of backup.

Workaround

Ensure each disk partition is associated with a drive letter.

Single file recovery (SFR) is not supported for VM's configured with dynamic disks**LGTsc31499**

When VM's are configured with dynamic disks, SFR is not supported.

Workaround

Ensure there are no dynamic disks.

VCB implementation is not supported on VM's configured on or with RDM physical disks**LGTsc31500**

VCB (FULLVM or SFR) implementation is not supported when VM's are configured on RDM physical disks or disks which are attached to RDM physical disks.

Memory footprint for nsrvcb_save is huge during VMware backups**LGTsc31545**

When VCB backups are performed, nsrvcb_save binary consumes huge amount of memory. For example, to backup a VM with 200GB vmdk, nsrvcb_save binary can consume up to 1.15 GB of RAM.

Therefore, it is recommended to provision a minimum of 1 GB or more memory space for nsrvcb_save binary.

Note: For every VM backup, one nsrvcb_save binary is spawned. Memory consumed by the nsrvcb_save binary should be released once the VM backup is complete.

VM should be in the "powered on" state for the first backup**LGTsc31562**

When running the first backup, the VM should be in the powered on state irrespective of whether the VCB_VM_LOOKUP_METHOD is based on the IP address or the display name.

Shared folder settings are not restored from a file-level restore on the VM**LGTsc31575**

When a file-level restore is performed from a full image or incremental or differential backup of a shared folder on the VM, the share settings on the folder is not restored.

Workaround

Manually reset the share settings for the folder.

Any system changes to the VM requires a full backup**LGTsc31651**

When you add or delete hard disks, install or uninstall applications, or update OS patches to the VM, perform a full level backup manually.

Save set consolidation is not supported for VCB backups**LGTsc31735**

For any VCB backup, either full image or file-level, save set consolidation is not supported.

No directives are supported for VCB backup when saveset is “*FULL*” and the level is full**LGTsc31737**

During VCB backups, when the saveset is “*FULL*” and the level is full, no directives are supported. For example, directives such as **skip** are not supported for VCB image level backup because disaster recovery is not possible after using this directive.

Backup of a powered off VM is only possible if the VM was turned off gracefully**LGTsc31971**

Before performing a VCB backup with file-level recovery for a VM in powered off state, complete the shutdown process of the VM gracefully.

General problems and limitations

This section details the problems and limitations related to backups.

Secure Storage Library not initialized during Lockbox entry creation due to missing library**NW110377**

When you create a lockbox entry (using either **nsradmin**, NMC, or the client configuration wizard) on HP-UX ia64, lockbox entry creation fails with an error indicating that the Secure Storage Library was not initialized. This is due to a missing library, **libccme.sl**.

A hot fix containing the missing library **libccme.sl** has been provided in <ftp://ftp.legato.com/pub/NetWorker/Updates/NW110377>. Instructions for installing the hot fix are provided in the ReadMe file at <ftp://ftp.legato.com/pub/NetWorker/Updates/NW110377/README>.

NetWorker does not save or recover DFS empty directories**NW105048**

DFS empty directories are not backed up or recovered by NetWorker.

Archived data not properly indexed on MAC-OS**LGTsc32722**

When data is archived using **nsrchive** on a MAC-OS platform, NetWorker adds a “/” to the name of the save set in the index. For example, the path **/Volumes/sat-tree/scip2c217/backup/qgO** becomes **/Volumes/sat-tree/scip2c217/backup/qgO/**, and the data can only be retrieved if “/” is added to the end of the name.

NetWorker services might not start due to lock files

LGTsc30717

If the `nsrmmgd` process is terminated and a message similar to the following appears, ensure that all `nsrmmgd` processes have been shutdown. The NetWorker software keeps the locks in place until all instances of `nsrmmgd` are gone.

```
nsrmmgd SYSTEM error: Lock file `C:\Program
Files\Legato\nsr\tmp\nsrmmgd.lck' cannot be locked.
```

Compression asm does not work with other asms

LGTsc32410

The compression asm does not work in conjunction with any other asms

NetWorker releases previous to 7.6

Table 10 on page 70 identifies problem issues and limitations discovered in NetWorker release 7.5.

The known limitations are separated into the following categories:

- ◆ “Backup problems and limitations descriptions” on page 73
- ◆ “CLI problems and limitations descriptions” on page 75
- ◆ “Cloning and staging problems and limitations descriptions” on page 75
- ◆ “Configuration problems and limitations descriptions” on page 76
- ◆ “Devices and media problems and limitations descriptions” on page 78
- ◆ “GUI problems and limitations descriptions” on page 79
- ◆ “Installation problems and limitations descriptions” on page 80
- ◆ “Licensing problems and limitations descriptions” on page 80
- ◆ “Localization problems and limitations descriptions” on page 81
- ◆ “Messaging problems and limitations descriptions” on page 81
- ◆ “Performance problems and limitations descriptions” on page 83
- ◆ “Restore problems and limitations descriptions” on page 84
- ◆ “Security problems and limitations descriptions” on page 86
- ◆ “Upgrading problems and limitations descriptions” on page 86

Table 10 Limitations discovered in NetWorker releases previous to 7.6 (page 1 of 4)

Customer Service defect number	Issue Tracker issue number	Description of limitation	Operating System affected	Product Feature
“LGTsc25711” on page 75	25711nw	Running <code>nsravatar</code> directly from the command line might fail	AIX	CLI
“LGTsc27302” on page 76	27302nw	<code>nsrjobd</code> memory consumption may cause NetWorker services to hang if running on low RAM	Linux	Configuration
“LGTsc26202” on page 76	26202nw	Cannot configure Windows Firewall Support in the NetWorker Installation Wizard	Windows	Configuration

Table 10 Limitations discovered in NetWorker releases previous to 7.6 (page 2 of 4)

Customer Service defect number	Issue Tracker issue number	Description of limitation	Operating System affected	Product Feature
"LGTpa94658" on page 76	94658nw	NMC cannot connect to GSTDB if EMC AlphaStor or EMC DPA is installed	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Configuration
"LGTsc28059" on page 78	28059nw	Multiplexing must be disabled for save sets to be cloned from the DXi/DL3D using NDMP path-to-tape	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Devices and Media
"LGTsc27571" on page 79	27571nw	Tapes left in "Ejecting" state after labelling large number of volumes in a Windows virtual environment	Windows	Devices and Media
"LGTsc27106" on page 79	27106nw	Querying large numbers of save sets in the NetWorker user interface may cause a Java heap space error	Windows	GUI
"LGTsc26673" on page 81	26673nw	Inconsistent license information displayed for NDMP Workstation Client	Windows	Licensing
"LGTsc26980" on page 152	26980nw	Non-ASCII hostnames are not supported by NetWorker	Windows	Localization
"LGTsc31111" on page 82	31111nw	Savegroup Completion report output contains extra, unnecessary information	Tru64 UNIX, AIX, Solaris, HP-UX, Linux, Windows	Messaging
"LGTsc26965" on page 82	26965nw	Single step recovery of a full virtual machine: some error messages are cryptic	Windows	Messaging
"LGTsc27063" on page 82	27063nw	Single step recovery of a full virtual machine: some messages are non-standard	Windows	Messaging
"LGTsc24358" on page 86	24358nw	When upgrading to NetWorker Release 7.5 on Windows, reboot NMC	Windows	Upgrading
"LGTsc24329" on page 84	24329nw	Recovering client file index fails if NDMP attribute is selected on client resource	Windows	Restore
"LGTsc27447" on page 84	27447nw	Single step recovery of a full virtual machine: VCB restore must use Virtual Center IP/name and password/username combination if Virtual Center used for backup	Windows	Restore
"LGTsc26268" on page 84	26268nw	Single step recovery of a full virtual machine: Validation of the VC/ESX server credentials are validated once the NetWorker recover complete	Windows	Restore
"LGTsc22164" on page 73	22164nw	Software distribution feature cannot be used to perform upgrade on some platforms	Linux, Solaris	Backup
"LGTsc24483" on page 73	24483nw	Low system memory may cause unpredictable results	Solaris	Backup
"LGTsc15176" on page 73	15176nw	VCB backup of multiple virtual machines simultaneously may fail	***	
"LGTsc11447" on page 74	11447nw	Hosts file entries for IPv6 must contain localhost before aliases.	AIX	Backup
"LGTsc11274" on page 74	11274nw	Backup fails when save set list has a very large number of save sets defined.	Solaris	Backup

Table 10 Limitations discovered in NetWorker releases previous to 7.6 (page 3 of 4)

Customer Service defect number	Issue Tracker issue number	Description of limitation	Operating System affected	Product Feature
"LGTsc21070" on page 74	21070nw	Save jobs may terminate prematurely or later than desired if NetWorker server and clients time settings differ	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Backup
"LGTsc14530" on page 74	14530nw	VCB fails with custom pre-freeze script error.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Backup
"LGTsc14319" on page 74	14319nw	SSL key length limitation on Solaris AMD64.	Solaris	Backup
"LGTsc23714" on page 75	23714nw	Savegroup initiated with "@" symbol at beginning of name does not trigger desired group.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	CLI
"LGTsc10723" on page 75	10723nw	AFTD direct file recover option may yield incomplete volume information	Solaris	CLI
"LGTsc24548" on page 75	24548nw	Slow performance on Solaris 10 because asynchronous I/O is disabled	Solaris	Cloning and Staging
"LGTsc23081" on page 77	23081nw	NetWorker Console unable to generate reports in pure IPv6 environment	HP-UX	Configuration
"LGTsc18543" on page 77	18543nw	Relabelling volume after deleting remote client resource does not purge file index.	Windows	Configuration
"LGTsc11811" on page 78	11811nw	Do not perform client backups using temporary IPv6 addresses.	Linux, Windows	Configuration
"LGTsc14761" on page 78	14761nw	Connecting to web server through IPv6 fails using Internet Explorer 6.	Windows	Configuration
"LGTsc17146" on page 79	17146nw	Raw disk backup and restore not supported on NetWorker with Microsoft Windows 2008.	Windows	Devices and Media
"LGTsc07321" on page 79	07321nw	Inquire command does not detect tape drive on HP-UX.	HP-UX	Devices and Media
"LGTsc12061" on page 80	12061nw	Cannot dismiss events in the events table until the event is resolved.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	GUI
"LGTsc08415" on page 80	08415nw	A user cannot be a member of more than 512 groups.	Windows	GUI
"LGTsc17805" on page 80	17805nw	NetWorker installation directory path longer than 160 characters returns error, but installation still completes successfully.	Windows	Installation
"LGTsc26210" on page 81	26210nw	License Conformance Summary displays incorrect base license type.	Solaris	Licensing
"LGTsc21657" on page 151	21657nw	In a non-English environment, the character encoding used for the NMC client and NetWorker client must be the same	Windows	Localization
"LGTsc26288" on page 152	26288nw	JRE 1.6 users cannot export reports as PDF documents for non-English locales on AIX and HPUX	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Localization

Table 10 Limitations discovered in NetWorker releases previous to 7.6 (page 4 of 4)

Customer Service defect number	Issue Tracker issue number	Description of limitation	Operating System affected	Product Feature
"LGTsc22735" on page 83	22735nw	mminfo query ignores "!" on non-boolean fields.	Windows	Messaging
"LGTsc21253" on page 83	21253nw	nsrjobd may consume large amount of memory depending on backup environment	Windows	Performance
"LGTsc19690" on page 83	19690nw	NetWorker programs may experience delays on SuSE Linux Enterprise Server version 9.x using IPv6.	Linux	Performance
"LGTsc12672" on page 85	12672nw	nsrck -L7 -t must be performed with additional steps in order to recover client index with save sets passed browse period.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Restore
"LGTsc20723" on page 86	20723nw	Ctime attribute not modified on AIX version 5.3 and later, Mac OS X version 10.4 and later.	AIX, Mac OS X	Restore
"LGTsc21704" on page 86	21704nw	Authentication error displays when NetWorker connecting to client.	Solaris	Security
"LGTsc24076" on page 86	24076nw	New client's global attributes do not inherit existing client values after upgrading NMC.	Windows	Upgrading

Backup problems and limitations descriptions

This section details the problems and limitations related to backup operations.

Software distribution feature cannot be used to perform upgrade on some platforms

LGTsc22164

You cannot perform a NetWorker upgrade using the software distribution feature on the linux_ia64, linux_ppc64, and solaris_amd64 client platforms.

Low system memory may cause unpredictable results

LGTsc24483

If your NetWorker server runs low on system memory, unpredictable behavior could result. "[Environment and system requirements](#)" on page 29 has information on minimum recommended system requirements.

VCB backup of multiple virtual machines simultaneously may fail

LGTsc15176

Due to a limitation in VMware Consolidated Backup (VCB) version 1.1, a VCB backup of multiple virtual machines simultaneously may fail with an exit code of -2146234327.

Workaround

There are two possible workarounds for this limitation:

1. Upgrade to VMware Consolidated Backup version 1.5.
2. Update the following settings in the config.js file used by VCB on the VCB proxy host:

- a. Set MAX_RETRIES to a number greater than 0.
- b. Set PREEXISTING_MOUNTPOINT to **delete** to attempt to remove the pre-existing mount point.

Hosts file entries for IPv6 must contain localhost before aliases

LGTsc11447

If an entry for the IPv6 localhost address `::1` is added to the `/etc/hosts` file, localhost must be entered before aliases such that the order is `<address> <localhost> <alias>`. For example, if the alias was "loopback", the entry for this address should read:

```
::1 localhost loopback
```

Backup fails when save set list has a very large number of save sets defined

LGTsc11274

When a very large number of save sets are defined in the client's save set attribute, backups may fail with the message:

```
SYSTEM error: Not enough space
```

This error may occur when the total length of all save sets included in the save set list exceeds 25 KB.

Workaround

Create one or more Client resources for the client and divide the save sets between the two clients. The *EMC NetWorker Administration Guide* provides information about creating multiple client resources for the same client.

Save jobs may terminate prematurely or later than desired if NetWorker server and clients time settings differ

LGTsc21070

The `NSR_UNRESPONSIVE_JOB_TIMEOUT` environment variable can be used to automatically terminate jobs that have no activity for a predetermined period of time regardless of their state. If this environment variable is used and there is a discrepancy between client and server times, save jobs may be terminated prematurely or later than desired.

Workaround

Periodically synchronize the time between the NetWorker server and clients.

VCB fails with custom pre-freeze script error

LGTsc14530

Due to a known limitation with VMware, VCB backup of a Solaris virtual machine may fail due with the error of "Custom pre-freeze script failed," even though no customization is made to the pre-freeze script.

This limitation has been fixed in ESX 3.5 Update 2.

SSL key length limitation on Solaris AMD64; Solaris 10 Encryption Kit required

LGTsc14319

The default OpenSSL library on the Solaris operating system for AMD 64 does not support key lengths greater than 128 bits. You must install the **Solaris 10 Encryption kit**, which includes the packages `SUNWcrman`, `SUNWcry`, and

SUNWcyr. The Solaris 10 Encryption kit supports AES encryption of 256 bit key lengths. This kit is available from the official SUN Solaris web downloads at <http://www.sun.com/download/index.jsp?tab=2>. Scroll down under "S" to find the link to the Solaris 10 Encryption Kit.

Failure to install this kit will result in NetWorker NOT functioning on the Solaris 10 AMD platform.

CLI problems and limitations descriptions

This section details the problems and limitations related to the CLI.

Running nsravatar directly from the command line might fail

LGTsc25711

Running `nsravatar` directly from the command line might fail if the following environment variable was not updated:

`LD_LIBRARY_PATH`

Workaround

Add `/usr/lib/nsr` to the `LD_LIBRARY_PATH` environment variable.

Savegroup initiated with "@" symbol at beginning of name does not trigger desired group

LGTsc23714

When a savegroup with the "@" symbol at the beginning of the name is initiated from the command line or from NMC, the default group will be triggered instead of the specified savegroup. The "@" symbol is being interpreted as a special flag/option, not as part of the savegroup name.

Workaround

Do not use the "@" symbol at the beginning of a savegroup name.

AFTD direct file recover option may yield incomplete volume information

LGTsc10723

Recovering data from AFTD volumes using direct files recovery method will not update the "read" information in the volume record. As a result, the `mminfo` command will incorrectly display the "read" data as 0.

For example, the command, `mminfo -a -r "written, read, volume"` might yield results similar to the following:

```
written read volume
99 KB 0 KB trout.legato.com.002
0 KB 0 KB trout.legato.com.002.RO
```

Cloning and staging problems and limitations descriptions

This section details the problems and limitations related to cloning and staging operations.

Slow performance on Solaris 10 because asynchronous I/O is disabled

LGTsc24548

Due to a Solaris 10 operating system issue, asynchronous tape input/output operations are disabled by default. As a result, some I/O intensive operations such as cloning will be slower.

Configuration problems and limitations descriptions

This section details the problems and limitations related to configuration.

nsrjobd memory consumption may cause NetWorker services to hang if running on low RAM

LGTsc27302

Memory consumption of the **nsrjobd** daemon can grow up to 9.8 GB during backup and recovery operations. If **nsrjobd** memory consumption reaches that level, running NetWorker services on low RAM may cause the services to hang.

Workaround

Ensure that there is sufficient RAM available for all NetWorker services to run.

Cannot configure Windows Firewall Support in the NetWorker Installation Wizard

LGTsc26202

The option to configure Windows Firewall support does not appear in the NetWorker Installation wizard under the following conditions:

- ◆ The Windows Firewall Service is not turned on.
- ◆ Windows Firewall is not supported for a particular Windows operating system.

The Windows Firewall Service is turned on and enabled by default on the following Windows operating systems:

- ◆ Windows XP SP2 and later.
- ◆ Windows 2008

Note: Windows Firewall is not supported on Windows 2000.

Workaround

The Windows Firewall service is turned off by default on Windows Server 2003.

To turn on the firewall service on:

1. Ensure that Service Pack 1 or later has been installed. This Service Pack is required for Windows Firewall support.
2. Start the Windows Firewall/ICS service.

NMC cannot connect to GSTDB if EMC AlphaStor or EMC DPA is installed

LGTpa94658

By default, the NetWorker Console database uses port 2638 for TCP/IP communications. Other applications may also use this port or, as is the case with EMC AlphaStor or EMC DPA installed with default options, may have their own instance of the iAnywhere database installed, which can create conflicts if both applications are installed on the same host.

Workaround

To change the service port used by the NetWorker Console database:

1. Stop the GST Service.
2. Stop any other products that are using the iAnywhere database, for example EMC AlphaStor or EMC DPA.
3. Ensure that no **dbsrv9** processes are running. If the **dbsrv9** processes are running, stop them.
4. Open a terminal or command prompt window.
5. Depending on the shell you are using, use the appropriate command (for example, **setenv** for csh, **export** for sh) to update the library path environment variable in the terminal window to the following location:
 - Solaris: **/opt/LGTONmc/bin:/opt/LGTONmc/sybase/lib**
 - Linux/AIX/HPUX: **/opt/lgtonmc/bin:/opt/lgtonmc/sybase/lib**
 - Microsoft Windows (assumes default installation location):
C:\Program Files\Legato\Management\GST\sybase\bin

The environment variable to set varies by platform, for example:

 - Solaris/Linux: **LD_LIBRARY_PATH**
 - AIX: **LIBPATH**
 - HP-UX: **SHLIB_PATH**
6. Edit the `gstd.conf` file to add or change the following line:
db_svc_port=port_number
For example:
`db_svc_port=2639`
The `gstd.conf` is located in the following locations:
 - Solaris: `/opt/LGTONmc/etc`
 - Linux/AIX/HP-UX: `/opt/lgtonmc/etc`
 - Microsoft Windows: `C:\Program Files\Legato\Management\GST\etc`
7. Run the **gstconfig** command to update the port value in the NetWorker Console. The `gstconfig` command is located in the following locations:
 - Solaris: `/opt/LGTONmc/bin`
 - Linux/AIX/HP-UX: `/opt/lgtonmc/bin`
 - Windows: `C:\Program Files\Legato\Management\GST\bin`
8. Close the terminal or command prompt window, then restart the GST Service.

NetWorker Console unable to generate reports in pure IPv6 environment

LGTsc23081

The NetWorker Console is unable to generate reports when deployed in a pure IPv6 environment due to a Sybase iAnywhere 9 limitation.

Relabelling volume after deleting remote client resource does not result in purge of file index

LGTsc18543

The file index of a remote client cannot be purged by relabelling a volume after deleting the remote client resource.

The file index of the remote client can be purged (for the volume ID) by relabelling a volume when the remote client is a current valid client resource.

Workaround

Run `nsrck -L 3` from the command line to purge the file index.

Do not perform client backups using temporary IPv6 addresses

LGTsc11811

Temporary or randomly generated IPv6 TCP/IP addresses are not supported in NetWorker. If the address for a client is not stored in DNS or in a hosts file and has not been added to the client resource, NetWorker will be unable to back up the client.

Connecting to web server through IPv6 fails using Internet Explorer 6

LGTsc14761

Internet Explorer 6 does not handle IPv6 addresses. If you attempt to connect to the GST web server through an IPv6 address using the IE6 web browser, the browser does not connect and returns an error.

Use the Internet Explorer 7 web browser. This problem does not occur when using IE7.

Devices and media problems and limitations descriptions

This section details the problems and limitations related to devices and media.

Multiplexing must be disabled for save sets to be cloned from the DXi/DL3D using NDMP path-to-tape

LGTsc28059

Multiplexing of save sets is not supported for save streams that are to be cloned from the Dxi/DL3D with the NDMP path-to-tape feature.

Note: Only volumes created without multiplexing can be used with the NDMP path-to-tape feature.

Workaround

Device properties must be set to disable multiplexing capability.

To disable multiplexing of save sets:

1. From NMC on the NetWorker server, select **Devices**.
2. For each configured target device on the DL3D or Dxi:
 - a. Select **Device > Properties**.
 - b. Click the **Configuration** tab.
 - c. Set **Target sessions** to **1**.
 - d. Set **Max sessions** to **1**.
 - e. Click **OK**.

Note: Backup performance may be affected by disabling multiplexing of save sets.

Tapes left in "Ejecting" state after labelling large number of volumes in a Windows virtual environment

LGTsc27571

After labelling a large number of virtual volumes over a large number of virtual drives in a Windows 2008 environment, some tapes may be left in the "Ejecting" state without being removed from the drive.

Workaround

Select **Diagnostic Mode** within NMC (**View > Diagnostic Mode**), then perform the following:

1. In the **Devices** pane, highlight the affected library.
2. Right click the library and select **Properties**.
3. Click the **Advanced** tab.
4. In the **Jukebox features** selection box, check the **autoeject** feature.
5. Click the **Timers** tab.
6. Set the **load sleep**, **unload sleep**, and **eject sleep** values to **0**.
7. Click **Save** to save the changes.

Note: You may be required to disable and re-enable the jukebox for changes to take effect.

Raw disk backup and restore not supported on NetWorker with Microsoft Windows 2008

LGTsc17146

NetWorker does not support backup and restore of raw disks with Windows Server 2008.

Inquire command does not detect tape drive on HP-UX

LGTsc07321

When you attach a Tape drive to the HP-UX 11i V2 64-bit host and run the **inquire** command, the tape drive is not detected, even though the device was configured, labelled and mounted and a save was successful.

Workaround

Identify the drive path in the `/dev/rmt` folder, and using this path configure the device, as usual.

Whenever a new device is attached to the system, ensure that the cached file `/tmp/lgto_scsi_devlist` is updated. Remove this temp file and then run the **inquire** command, which will rebuild the file.

GUI problems and limitations descriptions

This section details the problems and limitations related to the GUI.

Querying large numbers of save sets in the NetWorker user interface may cause a Java heap space error

LGTsc27106

Querying large numbers of save sets in the NetWorker user interface may fail with a Java heap space error.

Workaround

Increase the Java heap size used by the NetWorker Management Console application:

1. On the Console server host, open the gconsole.jnlp file in a text editor. The gconsole.jnlp file is located in:

```
<Console_install_dir>\web
```

2. Increase the default **max-heap-size** value from 700MB to 1400MB. For example,

```
<resources>
<j2se version="1.6+" initial-heap-size="64M"
max-heap-size="1400M"/>
```

Note: To provide meaningful query results and to reduce the chance of encountering this error, narrow the save set search criteria by specifying selection parameters.

Cannot dismiss events in the events table until the event is resolved**LGTsc12061**

Events cannot be dismissed or hidden in the events table until the event is resolved or has finished.

A user cannot be a member of more than 512 groups**LGTsc08415**

A user cannot be a member of more than 512 groups when running any operation with NetWorker. If the user is a member of more than 512 groups, the following message appears:

```
Maximum number of groups exceeded, some groups may be dropped
from the credential. Number of groups the user belongs to: XXX,
maximum number of groups supported: 512
```

Installation problems and limitations descriptions

This section details the problems and limitations related to installation.

NetWorker installation directory path longer than 160 characters returns error, but installation still completes successfully**LGTsc17805**

In Windows 2003, when a NetWorker installation directory path is longer than 160 characters, an error message appears during installation. However, if you click **OK** in the error message dialog box, the installation completes successfully. The NetWorker software is then installed in a new directory where the name is the first 160 characters of the folder selected during installation.

The longest pathname currently supported by NetWorker is 160 characters.

Licensing problems and limitations descriptions

This section details the problems and limitations related to licensing.

Inconsistent license information displayed for NDMP Workstation Client**LGTsc26673**

If an IP address is specified in the NDMP Array name attribute of the NetWorker client resource, the license information displayed for the WORKSTATION CLIENT TYPE may be incorrect. NetWorker client license information can be displayed with the `nsrlic -v` command. In this case, the license information displayed for the NDMP CLIENT LICENSES is correct. However, the information displayed for the WORKSTATION CLIENT TYPE may be incorrect.

License Conformance Summary displays incorrect base license type**LGTsc26210**

The License Conformance Summary, accessed through the Configuration tab of the **NetWorker Administration** window, incorrectly displays the base license type as "Eval" when it should be "Data Backup Utility".

Localization problems and limitations descriptions

This section details the problems and limitations related to localization.

For more information on localization important notes and tips, see [“Internationalization support” on page 147](#).

Non-ASCII hostnames are not supported by NetWorker**LGTsc26980**

NetWorker does not support hosts that have non-ASCII characters in the hostname.

In a non-English environment, the character encoding used for the NMC client and NetWorker client must be the same**LGTsc21657**

In a non-English environment, characters do not display correctly if the character encoding is different on the NMC client than the files on the NetWorker host that are being browsed.

Workaround

In a non-English environment, ensure that the NMC client uses the same character encoding as the files on the NetWorker client host that are to be browsed. For example, if the NMC client uses the zh_CN.EUC locale it will not properly display files that were created using the zh_CN.UTF-8 locale.

The character encoding used for the NMC client and NetWorker client must be the same to ensure the proper display of characters. In this example, the NMC client should be started using the zh_CN.UTF-8 locale.

JRE 1.6 users cannot export reports as PDF documents for non-English locales on AIX and HPUX**LGTsc26288**

The NetWorker option to export reports in Acrobat PDF format is not supported on AIX and HPUX hosts that are running JRE 1.6 in a non-English locale.

Messaging problems and limitations descriptions

This section details the problems and limitations related to messaging.

Savegroup completion report output contains additional, unnecessary information

LGTsc31111

Upon completion of a NetWorker 7.2.x client savegroup backup on NetWorker servers 7.3 and later, the following additional information is added to the output of the savegroup completion report. This additional information is unnecessary and can be ignored.

```
type: NSR client description;
pools supported: Yes;
browse time supported: Yes;
multiple balanced streams supported: Yes;
remote user: <NetWare_User>;
arch: NetWare IA32;
client OS type: NetWareOS;
CPU type: Intel Pentium;
CPUs: 2;
kernel arch: Intel Pentium;
machine type: server;
MB used: 57221;
NetWorker version: nwnv_7_2;
OS: NetWare IA32 6;
version: nwnv_7_2;
save set: path="<Save_Set_Name>:", level=full, diskno=0,
max_sessions=1,
stype=save ;
parallelism: 8
V <NetWare_client_Name>: <NetWare_save_set_name>: level=6,      8360
MB 00:09:34  21096 files
  <NetWorker_Server_Name>: index:<NetWare_client_Name> level=6, 47
MB 00:00:03  56 files
```

Single step recovery of a full virtual machine: some error messages are cryptic

LGTsc26965

During the single step recovery of a full VMware virtual machine, some error messages may appear to be cryptic. These error messages are generated by the VMware converter product. The error messages may refer to the underlying function name rather than the cause or required solution. The following is an example of one such error message:

```
70047:winworkr: Retore failed with error P2VError
IMPORT_DEST_INSUFFICIENT_SPACE()
```

The previous error message was generated because there was insufficient space in the staging location that was specified for the single step recovery.

Single step recovery of a full virtual machine: some messages are non-standard

LGTsc27063

During the single step recovery of a full VMware virtual machine, some messages may appear to be non-standard. These messages are generated by the VMware converter product. The following is an example of such messages:

```
[2009-02-17 14:27:37.380 'Libs' 4380 info] HOSTINFO: Seeing Intel
CPU,
numCoresPerCPU 4 numThreadsPerCore 1.
[2009-02-17 14:27:37.380 'Libs' 4380 info] HOSTINFO: This machine
has 2 physical CPUS, 8 total cores, and 8 logical CPUS.
```

```
[2009-02-17 14:27:37.802 'Libs' 4380 info] System libeay32.dll
library is older than our library (90709F < 9070AF)
[2009-02-17 14:27:49.850 'Libs' 4380 warning]
SSLVerifyCertAgainstSystemStore: Subject mismatch: VMware vs
10.31.236.60
[2009-02-17 14:27:49.850 'Libs' 4380 warning]
SSLVerifyCertAgainstSystemStore: The remote host certificate has
these problems:
* The host name used for the connection does not match the subject
name on the host certificate
* A certificate in the host's chain is based on an untrusted root.
[2009-02-17 14:27:49.850 'Libs' 4380 warning] SSLVerifyIsEnabled:
failed to open the product registry key. Assuming verification is
disabled. LastError = 0
[2009-02-17 14:27:49.850 'Libs' 4380 warning]
SSLVerifyCertAgainstSystemStore: Certificate verification is
disabled, so connection will proceed despite the error p2vTool
version 3.0.3 build-89816
```

mminfo query ignores “!” on non-boolean fields

LGTsc22735

Performing an **mminfo** query with “!” (for example, if you run **mminfo -q "client=hydra"**) should exclude all save sets for the client hydra. However, **mminfo** ignores the “!” and returns all save sets for the specified client.

Performance problems and limitations descriptions

This section details the problems and limitations related to performance.

nsrjobd may consume large amount of memory depending on backup environment

LGTsc21253

The **nsrjobd** daemon runs on the NetWorker server and is responsible for monitoring NetWorker activity during a backup or recovery operation. Be aware that, depending on the size of your backup environment, **nsrjobd** can require large amounts of RAM.

NetWorker programs may experience delays on SuSE Linux Enterprise Server version 9.x using IPv6

LGTsc19690

NetWorker programs may experience a start up delay on a SuSE Linux Enterprise Server (SLES) version 9.x using IPv6 in either a single stack or dual stack (IPv4/IPv6) environment. This situation may occur if the Scope:Link IPv6 address of the Linux host network interface is not included in the `/etc/hosts` file.

To determine the Scope:Link address of the host network interface, run the `ipconfig` command from the host's command line. In the following example, the host named `geol` has a network interface named `eth0`, which has a Scope:Link address of `fe80::2c0:4ff:fe68:c24/64`.

```
geol> ipconfig
eth0      Link encap:Ethernet  HWaddr 00:C0:4F:68:C2:4F
          inet addr:192.168.0.1 Bcast:10.5.163.255
          Mask:255.255.254.0
          inet6 addr: 3ffe:80c0:22c:74:2c0:4ff:fe68:c24/64
          Scope:Global
          inet6 addr: fe80::2c0:4ff:fe68:c24/64 Scope:Link
```

```

        inet6 addr: 2001:abcd:0:1001:2c0:4ff:fe68:c24/64
Scope:Global
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:137451625 errors:0 dropped:0 overruns:0 frame:0
        TX packets:13840698 errors:0 dropped:0 overruns:0
carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:1834082191 (1749.1 Mb)  TX bytes:69705018 (66.4
Mb)
        Interrupt:19 Base address:0xdc00

```

Workaround

Add the Scope:Link address of the host network interface(s) to the /etc/hosts file on the affected NetWorker client. The following example shows how an entry in the /etc/hosts file might appear:

```

# Scope:Link address
fe80::2c0:4ff:fe68:c24 ge01.fss.dcp.com ge01

```

Restore problems and limitations descriptions

This section details the problems and limitations related to restore operations.

Recovering client file index fails if NDMP attribute is selected on client resource

LGTsc24329

Recovering the client file index for a NetWorker client will fail if the NDMP attribute is set on the client resource.

Workaround

Before using the `nsrck -L7` command to recover a client file index, ensure that the NDMP attribute is not selected in the corresponding NetWorker client resource. After the client file index is recovered, you can once again select the NDMP attribute on the client resource.

Single step recovery of a full virtual machine: VCB restore must use Virtual Center IP/name and password/username combination if Virtual Center used for backup

LGTsc27447

When a VMware Consolidated Backup (VCB) is performed using Virtual Center (for example, if the config.js file contains Virtual Center as the Host and its credentials), then the restore must be performed using the Virtual center IP (or its fully qualified domain name) with its credentials. Similarly, this process should be followed when performing a VCB restore using the ESX server, otherwise the restore will fail with an error message indicating "unknown path."

Single step recovery of a full virtual machine: Validation of the VC/ESX server credentials are validated once the NetWorker recover completes

LGTsc26268

The VC/ESX server credentials are validated once the NetWorker recover operation completes:

If wrong user credentials are entered, the following might occur:

- ◆ The restore operation fails after the completion of the NetWorker recover operation.

- ◆ The user must wait until the NetWorker software completes the recover operation before being notified that a wrong credential was entered.
- ◆ For large a save set, the NetWorker recover operation will take a longer time to complete depending upon the size of the save set. Notification of wrong ESX/VC credentials happens after the NetWorker recover operation completes.

Workaround

Ensure that you enter the proper user credentials to avoid long response time for the following operations:

- ◆ VC/ESX server credentials validation. This task is performed in the later stages of a VCB restore operation.
- ◆ Before performing a VMware Consolidated Backup (VCB) restore operation. The validation of wrong credentials might cause longer response times.

Single step recovery of a full virtual machine: cannot specify CIFS path for staging location

LGTsc27559

When performing a single step restore of a full VMware virtual machine, the staging location you specify cannot be a Common Internet File System (CIFS) path. The recovery will fail with an error message similar to one of the following:

Error 1:

```
Recovering files of client 'langre-rh-1.takman.com' from
server '11.32.64.115'.
Total disk space available for recover is 0 KB.
Total disk space needed for recover is 2304 MB.
67854:winworkr: Failed to recover save sets: Recover failed due to
low disk space!..
```

Error 2:

```
Recovering files of client 'langre-rh-1.takman.com' from
server '11.32.64.115'.
70483:winworkr: Staging location Z:\rack2 is in use by other
process.
Select new staging location or delete the staging location Z:\rack2
manually.
Restore of virtual machine failed!...
```

nsrck -L7 -t must be performed with additional steps in order to recover client index with save sets passed browse period

LGTsc12672

The **nsrck -L7 -t** command can no longer be used solely to perform a recovery of a client index where save sets have passed the period identified in the browse policy.

The following operations must be performed in addition to running the **nsrck** command on the save sets in order to recover the index information:

1. Identify a save set containing the index for the desired time/client.
2. Adjust the retention of the identified client file index to a date in the future.
3. Change the mode to **notrecyclable** for the identified client file index.
4. Identify the save sets required to browse (for example, the full backup and all the following incremental backups prior to the desired date).

5. Set a new retention period for each of the individual save sets to a date in the future.
6. Change the mode to **notrecyclable** for each of the individual save sets.
7. Run the **nsrck -L7 -t** command.
8. Browse the save sets and perform the recover as usual.

Ctime attribute does not get modified on AIX version 5.3 and later, Mac OS X version 10.4 and later

LGTsc20723

When a file is renamed on AIX version 5.3 and later or Mac OS X 10.4 and later, the **ctime** attribute is not modified. The **ctime** attribute is the timestamp NetWorker uses to determine whether a file has been modified when performing a non-full backup. If renaming files on AIX version 5.3 and later or Mac OS X 10.4 and later, perform a full backup to ensure recovery of the renamed files.

Security problems and limitations descriptions

This section details the problems and limitations related to security.

Authentication error displays when NetWorker connecting to client

LGTsc21704

When trying to connect to a client to browse the client's file system, NetWorker displays the error message "Authentication failed or no valid authentication methods supported by both client and server".

Workaround

If this error message appears, search the daemon log file for more information and instructions.

Upgrading problems and limitations descriptions

This section details the problems and limitations related to upgrading.

When upgrading to NetWorker Release 7.5 on Windows, you might need to reboot the system

LGTsc24358

When upgrading to NetWorker Release 7.5 on Windows from a previous release of NetWorker software, you might need to reboot the system.

New client's global attributes do not inherit existing client values after upgrading NMC

LGTsc24076

After upgrading to the latest version of NMC and launching the Console for the first time, the **Configuration** window appears, prompting you to set the configuration for the Console and to add NetWorker servers. In the **Set Database Backup Server** page, the checkbox **Create client resource on this server** is selected by default. If you click **Finish** with this checkbox selected, the NetWorker software disables the client's global attributes archive services, hard links, and short filenames if enabled prior to the upgrade when the new client resource is created.

Workaround

Clear the checkbox **Create client resource on this server**.

NetWorker releases previous to 7.5

Table 11 on page 87 identifies problem issues and limitations discovered previously to NetWorker release 7.5

The known limitations are separated into the following categories:

- ◆ “Archiving problems and limitations descriptions” on page 92
- ◆ “Backup problems and limitations descriptions” on page 93
- ◆ “CLI problems and limitations descriptions” on page 97
- ◆ “Cloning and Staging problems and limitations descriptions” on page 100
- ◆ “Compatibility problems and limitations descriptions” on page 101
- ◆ “Configuration problems and limitations descriptions” on page 101
- ◆ “Devices and Media problems and limitations descriptions” on page 102
- ◆ “GUI problems and limitations descriptions” on page 105
- ◆ “Installation problems and limitations descriptions” on page 107
- ◆ “Licensing problems and limitations descriptions” on page 110
- ◆ “Localization problems and limitations descriptions” on page 110
- ◆ “Messaging problems and limitations descriptions” on page 111
- ◆ “NetWorker support for Novell’s OES Linux limitations” on page 113
- ◆ “NetWorker Management Console problems and limitations descriptions” on page 115
- ◆ “Restore problems and limitations descriptions” on page 115
- ◆ “Upgrading problems and limitations descriptions” on page 119

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 1 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
“LGTsc05166” on page 92	05166nw	DiskXtender Data Manager file systems get archived on NetWorker	Windows	archiving
“LGTsc20517” on page 93	20517nw	For each NetWorker client that is BMR enabled, set the save set attribute in the client resource to ALL.	Linux, Windows Solaris	Backup
“LGTsc19514” on page 93	19514nw	Delay in cancelling savegroups in NMC for BMR enabled clients.	Linux, Windows, Solaris	Backup
“LGTsc16575” on page 94	16575nw	A backup might fail for CIFS shares on Microsoft Windows hosts.	Windows	Backup
“LGTsc17703” on page 94	17703nw	How to back up a NetWorker Windows client that has multiple domains that are part of both an AD domain, and a DNS domain.	Windows	Backup
“LGTsc10292” on page 95	10292nw	Incorrectly configured NPS role results in failed backup of VSS SYSTEM SERVICES of Windows Server 2008.	Windows	Backup
“LGTsc11914” on page 95	11914nw	Active Directory Lightweight Directory Services backup fails for Windows 2008 client.	Windows	Backup

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 2 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTsc13933" on page 93	13933nw	VSS system state backups may fail if programs were not cleanly uninstalled.	Windows	Backup
"LGTsc14956" on page 95	14956nw	Not all drives in a VCB file level backup are browsable.	Windows	Backup
"LGTsc15236" on page 96	15236nw	Incorrect error during recovery of VCB backups.	Windows	Backup
"LGTsc12970" on page 96	12970nw	Backups of /dev directory fail in HP-UX 11i v3 on PA_RISC and IA64.	AIX, Solaris, HP-UX, Tru64 UNIX	Backup
"LGTsc06312" on page 96	06312nw	The <code>nsr_render_log</code> program doesn't accept input from STDIN.	AIX, Solaris, HP-UX, Tru64 UNIX	Backup
"LGTsc09257" on page 97	09257nw	A user cannot be a member of more than 512 groups.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Backup
"LGTpa91475" on page 97	91475nw	The <code>savepnpc</code> command fails if the precommand and post command contains any non-ASCII characters.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Backup
"LGTsc00850" on page 97	00850nw	Restrictions associated with the ZFS file system.	AIX, Solaris, HP-UX, Tru64 UNIX	Backup
"LGTsc19916" on page 97	19916nw	The contents of the /opt, /var, /etc directories are not excluded when the -B option is used.	Linux, Windows, Solaris	CLI
"LGTsc09483" on page 98	09483nw	Not all save sets listed after running <code>mminfo</code> command with <code>dedupe</code> option.	Solaris	CLI
"LGTsc19402" on page 98	19402nw	The <code>-e exclude file</code> option behaves differently for files and directories.	Linux, Windows, Solaris	CLI
"LGTsc19084" on page 99	19084nw	The <code>recover -e exclude file</code> option does not support NDMP file systems.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	CLI
"LGTsc19405" on page 99	19405nw	No filename checks for remote clients when using the <code>--e exclude file</code> option with a directed recovery operation.	Linux, Windows, Solaris	CLI
"LGTsc10665" on page 99	10665nw	Cannot view log files created with the <code>nsr_render_log</code> command.	AIX, Solaris, HP-UX, Tru64 UNIX, Windows	CLI
"LGTsc06809" on page 99	06809nw	Clients running pre-7.4 releases cannot use the <code>mminfo -N</code> command to query save set names longer than 255 bytes.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	CLI
"LGTpa95406" on page 100	95406nw	The <code>jbverify</code> command is not supported on Solaris 10.	AIX, Solaris, HP-UX, Tru64 UNIX	CLI
"LGTsc15337" on page 100	15337nw	Marking volumes as Recyclable might slow system performance.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Cloning and Staging

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 3 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTsc19401" on page 101	19401nw	Removable Storage Manager (RSM) not supported.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Compatibility
"LGTsc20557" on page 101	20557nw	The Homebase Agent is not supported in a Cluster environment.	Linux, Windows, Solaris	Compatibility
"LGTsc14700" on page 101	14700nw	Support for Windows Change Journal Manager with Microsoft Windows 2008.	Windows	Compatibility
"LGTsc18397" on page 101	18397nw	Cannot set nsrdir parameter for virtual server using remote Microsoft Management Console (MMC).	Windows	Configuration
"LGTsc06585" on page 101	06585nw	Running the Linux 64 bit package with the 2.6.x kernel may result in crashes.	Linux	Configuration
"LGTsc19241" on page 102	19241nw	For Microsoft Windows Server 2008 raw devices are not saved under the virtual client's index	Windows	Devices and Media
"LGTsc19676" on page 102	19676nw	Broker connects to first available storage node if no device or mmd available on first host.	Solaris	Devices and Media
"LGTpa72839" on page 103	72839nw	NetWorker support for Solaris 9 HBAs and drivers.	Solaris	Devices and Media
"LGTsc11158" on page 103	11158nw	Cannot create an advanced file-type device on a remote storage node device.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Devices and Media
"LGTsc14352" on page 103	14352nw	Incorrect path suggested during jbconfig of ACSLS silo for HP Tru64.	HP Tru64	Devices and Media
"LGTsc10950" on page 104	10950nw	VMware Consolidated Backup 1.0.x is not supported on Windows Server 2003, Enterprise Edition (x64) Service Pack 2.	Windows	Devices and Media
"LGTsc06358" on page 104	06358nw	NetWorker becomes unresponsive when attempting an invalid clone operation.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Devices and Media
"LGTsc01923" on page 104	01923nw	Cannot query UNIX non-ASCII save sets in the NetWorker Management Console.	AIX, Solaris, HP-UX, Tru64 UNIX	Devices and Media
"LGTpa93001" on page 104	93001nw	Virtual tapes are listed as "full" after mounting.	Windows	Devices and Media
"LGTpa88188" on page 104	88188nw	Scan for Devices configures all devices as a regular storage node device.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Devices and Media
"LGTsc01446" on page 105	01446nw	The Virtual Jukebox attribute for a CDL virtual tape library is not automatically set after upgrading to release 7.4.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Devices and Media
"LGTsc10295" on page 105	10295nw	dedup recover sessions do not display in the NMC GUI.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	GUI

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 4 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTsc08756" on page 105	08756nw	Text searched for in the NetWorker Console Help program does not get highlighted correctly if using JRE 1.5.x for Asian languages.	Solaris	GUI
"LGTsc00365" on page 106	00365nw	On HP-UX the NetWorker Server window does not appear.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	GUI
"LGTsc01115" on page 106	01115nw	Cannot copy and paste Japanese characters using the NetWorker Management Console.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	GUI
"LGTpa95162" on page 106	95162nw	Newly created groups are not displayed by the NetWorker Console GUI after moving system date back in time.	Linux, AIX, Solaris, HP-UX, Tru64 UNIX	GUI
"LGTpa96168" on page 106	96168nw	Cannot launch NetWorker Console Help program on Solaris 10 with a JRE earlier than version 1.5.0_09.	AIX, Solaris, HP-UX, Tru64 UNIX	GUI
"LGTsc19557" on page 107	19557nw	For Microsoft Windows 2000, the Support Tools must be installed in order to run the HomeBase Agent installation script	Windows	Installation
"LGTsc19513" on page 107	19513nw	HomeBase installation files are automatically extracted during a NetWorker client install.	Linux, Windows, Solaris	Installation
"LGTsc16831" on page 107	16831nw	For Microsoft Windows, ensure that the HomeBase agent software installed in the same installation path as the NetWorker software.	Windows	Installation
"LGTsc18023" on page 108	18023nw	For UNIX, only install the NetWorker HomeBase agent software in the NetWorker default installation directory.	Linux, Solaris	Installation
"LGTsc18641" on page 108	18641nw	Before restoring the base profile, manually edit the fields in the recovery-configuration.xml file.	Linux, Windows, Solaris	Installation
"LGTsc18925" on page 108	18925nw	Unable to launch the NetWorker Dashboard software with NetWorker Release 7.4 Service Pack 3.	Windows	Installation
"LGTsc14023" on page 109	14023nw	Package requirement for Linux platforms.	Linux	Installation
"LGTsc15490" on page 109	15490nw	Linux upgrade using rpm -Uvh not working correctly.	Linux	Installation
"LGTsc12500" on page 109	12500nw	NetWorker release 7.4 SP1 must be installed using the --nodeps option on SuSE 8.	Linux	Installation
"LGTsc19388" on page 110	19388nw	NetWorker and the HomeBase agent (BMR) licenses work independently.	Linux, Windows, Solaris	Licensing
"LGTsc05879" on page 106	05879nw	NMC version 3.4 and NWD version 1.0 cannot be installed on the same host.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Localization
"LGTsc06280" on page 105	06280nw	Inventory operation in Software Administration Wizard delays for unreachable clients.	AIX, Solaris, HP-UX, Tru64 UNIX	Localization
"LGTsc05166" on page 92	05166nw	DiskXtender Data Manager file systems get archived on NetWorker.	Windows	Localization

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 5 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTsc02862" on page 152	02862nw	The NMC Japanese Online Help displays incorrect characters on Linux systems	Linux	Localization
"LGTsc02808" on page 152	02808nw	The nwrecover program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed	Linux	Localization
"LGTsc05339" on page 152	05339nw	Recovering a large number of files may take a long time in the French locales on Solaris	Solaris	Localization
"LGTsc03894" on page 152	03894nw	Garbled characters may appear in the NetWorker Console GUI font list on Solaris	Solaris	Localization
"LGTsc02814" on page 152	02814nw	Problem with highlighted text in the NetWorker Console Help program after performing a search using JRE 1.5.x for Asian languages	Solaris	Localization
"LGTpa88887" on page 153	88887nw	Entering non-ASCII characters in NetWorker user interfaces	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Localization
"LGTpa92833" on page 153	92833nw	Non-ASCII save set names are displayed incorrectly in nsradmin visual mode on Linux	Linux	Localization
"LGTsc16423" on page 111	16423nw	nsrbmr does not give proper error messages under certain conditions.	Linux, Windows Solaris	Messaging
"LGTsc17737" on page 111	17737nw	Error message does not display for annotations with similar characters at end.	Windows	Messaging
"LGTsc08054" on page 112	08054nw	Erroneous error message may be generated by Linux operating systems when performing an I/O to a volume.	Linux	Messaging
"LGTsc08978" on page 112	08978nw	New pdksh package required on SuSE 10 x86.	Linux	Messaging
"LGTsc03478" on page 112	03478nw	Incorrect error message reported when starting the NetWorker console on Red Hat 64-bit Enterprise Server 4.	AIX, Solaris, HP-UX, Tru64 UNIX	Messaging
"LGTsc06288" on page 112	06288nw	Error states you need to perform an uninstall when updating from NetWorker 7.2.2 32-bit to NetWorker 7.5 64-bit.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Messaging
"LGTsc02903" on page 115	02903nw	NetWorker Management Console may become unresponsive when opened using Exceed.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	NMC
"LGTsc19364" on page 115	19364nw	Last-modified date changed for files recovered to Sun Cluster global file system.	Solaris	Restore
"LGTsc10796" on page 115	10796nw	Do not recover identical save sets with different ssids to the same target directory.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Restore
"LGTsc13799" on page 116	13799nw	Antivirus programs block recovery.	Windows	Restore
"LGTsc14577" on page 116	14577nw	NetWorker interactive recover does not recover the registry and the com+ regdb writers.	Windows	Restore

Table 11 Limitations discovered in NetWorker releases previous to 7.5 (page 6 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTsc11618" on page 116	11618nw	Restoring full VM image on ESX server fails.	Linux	Restore
"LGTsc11734" on page 116	11734nw	Unable to restore files encrypted with both Microsoft Windows Encrypting File System & AES encryption.	Windows	Restore
"LGTsc06577" on page 117	06577nw	The nwrecover program might fail to launch on a Solaris Sparc V240 server.	AIX, Solaris, HP-UX, Tru64 UNIX	Restore
"LGTsc05990" on page 117	05990nw	FSRM Disk Quota may not be restored to previous settings after recovery.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Restore
"LGTsc20558" on page 117	20558nw	After a BMR recovery operation the root password might change.	Linux, Windows, Solaris	Restore
"LGTpa95900" on page 117	95900nw	On NetApps files, filenames ending with special characters might be renamed.	Windows	Restore
"LGTpa94966" on page 118	94966nw	The winworkr program fails to retrieve successfully archived files if a slash (/) character was entered in the annotation string.	Windows	Restore
"LGTpa83927" on page 118	83927nw	Directed recover using the CLI fails with permission errors on Windows.	Windows	Restore
"LGTsc00167" on page 118	00167nw	The winworkr program will not relocate to a partition not existing on the initiating host if the NetWorker server is running release 7.4 and the client is running release 7.2.	Windows	Restore
"LGTsc05053" on page 119	05053nw	Performing a save set query can take a long time if the query parameter in the Query Save Set tab is set to "Save Time" and From and To calendars for 3 or more days	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Restore
"LGTpa96554" on page 119	96554	For recoveries operations using Celerra filers, misleading error messages might display	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Restore
"LGTsc08958" on page 119	08958nw	JRE version mismatch causes authentication failure, stops GSTD.	Linux	Upgrading
"LGTpa95019" on page 119	95019nw	When upgrading from release 7.3.1 the Virtual jukeboxes attribute will not be set correctly.	Windows	Upgrading
"LGTsc01587" on page 120	01587nw	Group details window is empty after upgrading from NetWorker release 7.2.2.	AIX, Solaris, Windows, Tru64 UNIX, Linux, HP-UX	Upgrading

Archiving problems and limitations descriptions

This section details the problems and limitations related to archiving operations.

DiskXtender Data Manager file systems get archived on NetWorker

LGTsc05166

On the Data Manager file system for Windows, when you perform a client or server initiated archive of the file system containing the file stubs (or if you archive the file stubs themselves), file systems managed by the DiskXtender Data Manager

are archived by NetWorker, and no error message is displayed. With DiskXtender running on UNIX, NetWorker properly fails the archiving and reports the error.

There are several problems that may result from the archive:

- ◆ If an archive is scheduled with grooming, this may cause the file stubs to be deleted.
- ◆ If an archive retrieve is performed, the existing file stubs may be overwritten.
- ◆ If the DX schedule is running after grooming, the file on the media server may be deleted.

Backup problems and limitations descriptions

This section details the problems and limitations related to backup operations.

For each NetWorker client that is BMR enabled, set the save set attribute in the client resource to ALL

LGTsc20517

If the extended profile is not backed up as part of the NetWorker data set, a recovery or migration of the source to the target system cannot be performed.

For each NetWorker client that is BMR enabled, set the **save set** attribute in the client resource to **ALL**. This ensures that the extended profile is part of NetWorker data backup.

The location of extended profile differs for Microsoft Windows and UNIX:

- ◆ Microsoft Windows: *NetWorker_install_path\HomeBaseAgent\history*
- ◆ UNIX: */opt/homebase-agent/history*

Note: Where *NetWorker_install_path* is the location of the NetWorker installation files.

Delay in cancelling savegroups in NMC for BMR enabled clients

LGTsc19514

Stopping a savegroup from NMC when there are BMR clients enabled for profiling does not result in the savegroup being cancelled immediately. The clients with BMR enabled must wait until the profiling jobs complete before the savegroup is cancelled. Once the profiling completes, the savegroup is cancelled and subsequent savegroups for the clients will not be triggered.

VSS system fileset backups fail on Windows Server 2008 Hyper-V role implementation

LGTsc13933

NetWorker backups of the VSS SYSTEM FILESET fail on Windows Server 2008 with Hyper-V role implementation.

Workaround

To work around this issue:

1. Copy the *slanaccel.exe* file from the following location:
C:\Windows\winsxs\amd64_microsoft-hyper-v-slanaccel_31bf3856ad364e35_6.0.6001.18000_none_1db986a6500c51a0\
2. Save the copied *slanaccel.exe* file to the following location:

C:\windows\system32\

A backup might fail for CIFS shares on Microsoft Windows hosts

LGTsc16575

A backup might fail for CIFS shares on a Microsoft Windows host. When **nsrexecd** is started as a service (context account), it cannot obtain the CIFS path because of access restrictions to its security credentials from the NetWorker client (**nsrexecd**). By default, **nsrexecd** starts as a service under the SYSTEM account that does not have the correct permissions to access the CIFS share.

A message similar to the following appears:

```
save: \\10.31.73.80\bluenose\sam\t1.txt: "No such file or directory"
```

Workaround

To work around this issue:

1. Create an account on the NetWorker client machine with the same username and password as an account with permissions to the CIFS shares.
2. Perform one of the following backup operations:

- Backup the CIFS shares save set:
 - a. Edit the Client resource for the NetWorker client that is backing up the CIFS share:
 - For the **Remote User** attribute, type the username from step 1.
 - For the **Password** attribute, type the password from step 1.
 - b. Use the **savegrp** command to backup the CIFS shares save set from the command line. For example:

```
# savegrp client_name -G group_name
```

- Backup the CIFS shares:
 - a. Ensure that the NetWorker client is connected to the CIFS share. For example:

Run a command shell that:

- Has a mapped share with *net use \\IP_address\share*
- Is connected with the username and password that has access to the CIFS share.

- b. Use the **Save -L** command to backup the CIFS shares. For example:

```
# Save -L
```

How to back up a NetWorker Windows client that has multiple domains that are part of both an AD domain, and a DNS domain

LGTsc17703

To back up a NetWorker Windows client that has multiple domains that are part of both an AD domain and a DNS domain, perform one of the following steps:

- ◆ Define the AD domain name, which is the Full Computer Name, in the NetWorker server's */etc/hosts* file.

- ◆ Define the AD domain, which is the Full Computer Name, in the Active Directory DNS. Also, on the NetWorker server, open the Client resource and add the Full Computer Name in the alias list.

Incorrectly configured NPS role results in failed backup of VSS SYSTEM SERVICES of Windows Server 2008

LGTsc10292

Due to a problem identified by Microsoft with Windows Server 2008, an incorrectly configured Network Policy Server (NPS) results in the writer incorrectly reporting files to the NetWorker software. As a result, the backup of the VSS SYSTEM SERVICES fails.

The Microsoft defect number for this issue is 872233.

Active Directory Lightweight Directory Services backup fails for Windows 2008 client

LGTsc11914

When running a scheduled backup of a save group which includes a Windows 2008 client configured with Active Directory Lightweight Directory Services (AD LDS), the backup may fail with the following error:

```
"VSS USER DATA:\ VSS USER DATA: ERROR: VSS failed to process
snapshot, error=0x800423f4. The VSS writer operation failed
because of an error that might recur if another shadow copy is
created.
```

There will also be ADAM Writer errors in the Application Event Log that correspond to the time of the save of the ADAM component.

Workaround

To avoid this problem, increase the **Client Retries** attribute on the **Advanced** tab of the Group resource. Increasing the value to 2 or 3 will resolve the problem.

Not all drives in a VCB file level backup are browsable

LGTsc14956

When performing a virtual machine restore from a file level VCB backup, only the drive letters that exist on the proxy host will be seen in the Recover window. For example, if the proxy host has only a C:\ drive and the virtual machine has a C:\, D:\ and E:\ drive, then during the restore of the virtual machine, only the C:\ drive of the Virtual machine will be displayed.

Workaround

To resolve this problem, perform one of the following:

- ◆ From the NetWorker User program:
 1. Select **Change Selection** from the **File** menu.
 2. Type the drive that you want to browse.

Note: This workaround will need to be performed each time you change the browse time.

- ◆ From the **recover** command:
 1. Change to the root of the current directory:


```
recover> cd /
```
 2. Change to the drive that you want to browse, for example:


```
recover> cd e:
```
 3. Verify that you can now browse the drive:


```
recover> dir
```

Incorrect error during recovery of VCB backups

LGTsc15236

During a file-based recovery of a VCB backup, when a drive letter (rather than a filename or directory) is identified for recovery, one of several error messages similar to the following is displayed:

```
Failed to write to directory_location The directory is not empty.
```

These errors occur when using either the **recover** command or the NetWorker User Program (winworkr).

Workaround

These error messages are incorrect and should be ignored.

Backups of /dev directory fail in HP-UX 11i v3 on PA_RISC and IA64

LGTsc12970

If you back up the /dev directory using a local storage node in an HP-UX 11i v3 environment on PA_RISC and IA64, the backup fails and the system freezes.

Workaround

To work around this issue:

- ◆ Do not back up the /dev directory. Do not specify Save Set ALL in the client's Save Set attribute, and do not specify save sets that include the /dev directory in the backup.
- ◆ Use a directive to exclude the /dev directory from the backup.
- ◆ Use a remote storage node.

The nsr_render_log does not accept input from STDIN

LGTsc06312

The **nsr_render_log** does not accept input from STDIN. The following error message is displayed:

```
Please provide the input log filename with the path.
```

After the error message the usage information is listed.

Workaround

Type the following command:

```
tail -f /nsr/logs/daemon.raw | nsr_render_log -
```

A user cannot be a member of more than 512 groups

LGTsc09257

A user cannot be a member of more than 512 groups when running any operation with NetWorker software. If the user is a member of more than 512 groups, the following message appears:

```
Maximum number of groups exceeded, some groups may be dropped
from the credential. Number of groups the user belongs to: XXX,
maximum number of groups supported: 512
```

The savenpc command fails if the precommand and post command contains any non-ASCII characters

LGTpa91475

The `savenpc` command fails if the precommand and post command contains any non-ASCII characters. When editing the `<group-name>.res` file for the `savenpc` command, the use of UTF-8 BOM characters is unsupported. Some text editors, such as Windows Notepad, include UTF-8 BOM at the beginning of the file. You need to create a UTF-8 encoded file without the UTF-8 BOM.

If you use a text editor that includes UTF-8 BOM characters, use a hex editor to remove the first 3 bytes in the UTF-8 encoded file. The UTF-8 BOM character is 3 bytes long and the value is `0xef 0xbb 0xbf`.

Restrictions associated with the ZFS file system

LGTsc00850

The following are restrictions associated with the ZFS file system:

- ◆ Only a root user with full access to ZFS directories may recover files. ZFS files can be restored to a UFS file system. When restoring ZFS files to a UFS file system, only the permission information is retained, the access control entries are not retained. If a non-root user attempts to recover a ZFS file, the recover operation will core dump.
- ◆ ZFS snapshots and the files in ZFS directories are not backed up or restored when restoring the original files. File systems must be explicitly specified in the client's save set attribute. ZFS file systems will not be recognized if you use the ALL keyword.
- ◆ Backup and recovery of raw partitions on Solaris ZFS file systems is unsupported.

CLI problems and limitations descriptions

This section details the problems and limitations related to the CLI.

The contents of the /opt, /var, /etc directories are not excluded when the -B option is used

LGTsc19916

During the HomeBase base profile recovery, the `exclude.NETWORKER` file is created in `<hombaseagent>/install path`. The `-B` option uses this exclude file and excludes the specified files and directories.

However, the `exclude.NETWORKER` file does not exclude files and directories under the following directories. Data from these directories are not recovered from the source to the target system since they might cause issues during the recovery and migration operations:

- ◆ /opt
- ◆ /var
- ◆ /etc

To recover application files installed under /var or /opt, you must manually recover the data to the appropriate directories for the application. To recover configuration files or service binaries under /etc, you must manually recover those files and directories.

Also, when a file system recover is performed using the **recover -B** option, if the extended profile is excluded the profile needs to be recovered separately. The profile by default resides on the client in `<installdir>\HomeBaseAgent\history\`.

Not all save sets listed after running mminfo command with dedupe option

LGTsc09483

When you run the **mminfo** command with the **-q dedupe** option to view save sets created using deduplication, the command does not list the following types of save sets:

- ◆ Empty save sets
- ◆ Save sets in which nothing was backed up as the result of skip directives

Such save sets are treated as regular save sets, not as deduplicated save sets.

The recover -e exclude file option behaves differently for files and directories

LGTsc19402

The **recover -e exclude file** option behaves differently for files and directories.

If the content of the exclude file has `/etc/a*`, the following occurs:

- ◆ Filenames that start with the character **a** are excluded.
- ◆ Directory names that start with the character **a** are excluded only when the directories are empty.
- ◆ The NetWorker recover operation looks for the entries which start with the character **a**:
 - If it is the end node in the tree, then the recover operation will exclude that entry.
 - If it is not end node in the tree, then the NetWorker software will recover the contents inside the tree.

Examples

If the content of exclude file has `/etc/a*`, type the following in the exclude file:

- ◆ To exclude all contents under a directory:
`directory_name/*`
- ◆ To exclude all files and directories inside the '/':
`/*`
- ◆ To avoid recovering the '/':
`/**`

- ◆ To exclude all files starting with the character **a** inside '/':

`/a*`

This excludes all of the files starting with the character **a** inside '/'. It also excludes the empty directories starting with the character **a**.

- ◆ To exclude all files and empty directories inside the '/':

`/?*`

The recover -e <exclude file> option does not support NDMP file systems

LGtsc19084

Do not use the **-e exclude file** option to exclude NDMP file system files and directories during a recover operation.

If the **-e exclude file** option is used with the **recover** command during a NDMP file system recover operation, the specified files listed with the **-e exclude file** option will not be excluded from the recovery and the following message will appear:

```
Total files excluded in the exclusion list is '0'
```

No filename checks for remote clients when using the -e exclude file option with a directed recovery operation

LGtsc19405

The NetWorker software does not validate specified exclude filenames when the **-e exclude file** option is used with a remote client during a directed recovery operation. The validation will not be performed because the specified exclude file is present on the target client when the recovery is invoked.

If the **-e exclude file** option is used with a local recover operation, the NetWorker software validates the specified exclude filename. If the file does not exist, an error message appears. This validation is limited to only local recover operations.

Cannot view log files created on a Windows on UNIX with the nsr_render_log command

LGtsc10665

When log files created on Windows operating systems are viewed on a UNIX operating system using the **nsr_render_log** command, **nsr_render_log** core dumps. View the log files created on a Windows operating system using a Windows operating system.

Clients running pre-7.4 releases cannot use the mminfo -N command to query save set names longer than 255 bytes

LGtsc06809

Clients running pre-7.4 releases cannot use the **mminfo -N** command to query save set names longer than 255 bytes. This issue is caused by the enhancement in release 7.4 for supporting longer save set names for to up to 1024 bytes (was 255 bytes in release 7.3) to accommodate non-ASCII save set names, which will take more bytes.

Workaround

There are two workarounds for this issue if you are using a pre-7.3 client:

- ◆ Do not specify **-N** option on pre-7.4 **mminfo** to query save set names longer than 255 bytes. For example, the **mminfo -avot** command can be issued, but will only display the first 255 bytes of save set name.
- ◆ Use the **mminfo -N** command with a 7.4 client to view save set names longer than 255 bytes.

The `jbverify` command is not supported on Solaris 10**LGTpa95406**

The **jbverify** command is not supported on Solaris 10. The NetWorker software has an autoconfiguration option provided that ensures a jukebox is configured correctly.

Cloning and Staging problems and limitations descriptions

This section details the problems and limitations related to cloning and staging operations.

Marking volumes as recyclable might slow system performance**LGTsc15337**

The following factors might slow system performance when marking a volume as recyclable.

For each volume that is to be marked as recyclable:

1. The number of save set clone instances that reside on that particular volume and are required to be marked as expired.
2. The number of clones or clone instances for each of the save set clone instances on that particular volume, that reside on other volumes.

The number of clones that are created for a save set, equal the number of save set clone instances. Each save set clone instance has the same ssid and unique clone ID. Each save set clone instance resides on a separate volume. The first instance of backup also has a clone ID.

Thus, the volume being marked as recyclable might contain save sets that have multiple clone instances that reside on other volumes. These clone instances need to be checked before the save sets are marked as expired. A save set, identified by the ssid, only expires when all of the clone instances, which are identified by a clone ID, expire.

To mark a volume as recyclable:

- ◆ From the server's **Administration** window, click **Media**.
 - a. In the navigation tree, select **Volumes**. The **Volumes** detail table appears.
 - b. Right-click a volume in the **Volumes** detail table, and select **Recycle**. The **Recycle** window appears. It names the selected volume.
 - c. Select the recycle policy: **Auto** (default) or **Manual**.
 - d. Click **OK**.
- ◆ From the command prompt, type the following:

```
nsrmm -o recyclable volume
```

Compatibility problems and limitations descriptions

This section details the problems and limitations related to software compatibility.

Removable Storage Manager (RSM) not supported

LGTsc19401

The NetWorker software does not support RSM. You cannot use the NetWorker software to allocate one or more volumes in an RSM library.

The Homebase Agent is not supported in a Cluster environment

LGTsc20557

For NetWorker Release 7.5, the Homebase Agent is not supported in a Cluster environment.

Support for Windows Change Journal Manager with Microsoft Windows 2008

LGTsc14700

When VSS is used, the Microsoft Change Journal is not used. Microsoft Windows 2008 is VSS only, so Windows 2008 does not use the Windows Change Journal.

Configuration problems and limitations descriptions

This section details the problems and limitations related to software configuration.

Cannot set nsrdir parameter for virtual server using remote Microsoft Management Console (MMC)

LGTsc18397

When configuring a virtual NetWorker server on Windows Server 2008 Core using a remote Microsoft Management Console (MMC), the `nsrdir` parameter for the NetWorker server service cannot be set because the service's Properties tab is not visible.

Workaround

It is necessary to register the NetWorker server resource type on the remote machine running MMC in order to view the service's Properties tab to change the settings. To register the resource type:

1. Install the NetWorker server software.
2. Run `regcnsrd -r` on the remote machine. You can now use a remote MMC to set the parameters.

Note: Besides MMC, you can also use the CLI cluster command on the cluster to set the `nsrdir` value. For example: `cluster res networker /priv: NsrDir="I:\nsr"`

Running the Linux 64-bit package with the 2.6.x kernel may result in crashes

LGTsc06585

A compatibility issue with `libc` and `pthread` libraries on Linux 2.6 kernel-based environments causes problems when running the 64-bit package for Linux on platforms built on the 2.6.x kernel (for example, RedHat AS 4 and SuSE SLES 9). Although operation may be normal at first, continued use of the 64-bit package with a 2.6.x kernel may result in crashes of various programs.

Use the 32-bit package when running with a 2.6.x kernel. Running a 32-bit package instead of the 64-bit package should have no operational impact. The 64-bit

package can still be used for kernel version 2.4 Linux variants such as RedHat AS 3 and SuSE SLES 8.

Devices and Media problems and limitations descriptions

This section details the problems and limitations related to devices and media operations.

For Microsoft Windows Server 2008 raw devices are not saved under the virtual client's index

LGTsc19241

When performing a savegroup of save set "All" for the virtual client, raw device are excluded from the backup list, even when directives are used. When a backup of the raw device is performed from the command line, the raw device is saved under the physical host's index, rather than the virtual client's.

Workaround

To work around the problem and back up the raw devices under the physical node's index:

1. Edit the client resource for the virtual client:
 - a. Update the save set list to include the raw device, for example:


```
\\.\M:
```
 - b. For the Backup Command attribute, set the following value to force the save sets go to the correct index:


```
save -c virtual_client_name
```
 - c. Create a directive using **rawasm**, for example:


```
rawasm: \\.\M:
```
2. On all nodes in the cluster, create the pathownerignore file. Ensure that the pathownerignore file is created in the NetWorker installation directory, for example:

```
c:\Program Files\Legato\nsr\bin
```

Broker connects to first available storage node if no device or mmd available on first host

LGTsc19676

If there is no device or mmd available on the first host in the affinity list, the broker continues through the affinity list until the first available storage node is located. Since the broker is not designed for file and AFTD devices, it does not recognize that the volume and the device are inseparable (for example, the broker could request an AFTD volume to be mounted on a different host). This is only a problem with stand-alone devices, because volumes are not associated with storage nodes.

Workaround

To work around the problem, assign different devices to different pools. If the volume is not in a jukebox, the server has no way of knowing which volume can be mounted on which storage node.

NetWorker support for Solaris 9 HBAs and drivers

LGTpa72839

In order to ensure correct NetWorker operation on Solaris 9 systems, the environment variable definition `USE_LUS_NO=YES` must be set.

NetWorker for Solaris uses the Solaris `cfgadm` utility to obtain device information. In environments where the `cfgadm` utility works correctly, the NetWorker software will work correctly. If the `cfgadm` utility does not see the devices, the NetWorker software will not see the devices.

Workaround

To work around this issue:

1. Set this environment variable definition:

```
USE_LUS_NO=YES
```

This forces NetWorker to use the `cfgadm` utility.

2. Ensure that the `USE_LUS_NO=YES` environment variable is made available to:

- The NetWorker daemons
- Any command shell in which NetWorker CLI commands are run

Note: When `USE_LUS_NO` is set, do **not** run the `lus_add_fp_devs.sh` script.

Cannot create an advanced file-type device on a remote storage node device

LGTsc11158

If the `nsrmmmd` daemon has not started on the storage node, creation of an advanced file-type device (AFTD) on the storage node will fail because the `nsrmmmd` daemon cannot validate the AFTD path.

Workaround

If this issue is encountered, either:

- ◆ Select **No** to the **Verify path** prompt when the AFTD is being created, then manually label the device.
- ◆ Attempt to create the AFTD again.

Incorrect path suggested during `jbconfig` of ACSLS silo for HP Tru64

LGTsc14352

When using `jbconfig` to configure an ACSLS silo on HP Tru64, the default location for the path to the STL library is incorrect. Currently, `jbconfig` states:

```
=>Pathname of the STL library for the ACSLS silo?
[/usr/opt/networker/bin/libstlstk.so]
```

Workaround

Identify the correct path for the STL library, rather than selecting the incorrect default path. The correct path should be:

```
/usr/opt/networker/lib/libstlstk.so
```

VMware Consolidated Backup 1.0.x is not supported on Windows Server 2003, Enterprise Edition (x64) Service Pack 2

LGTsc10950

VMware Consolidated Backup 1.0.x is not supported on Windows Server 2003, Enterprise Edition (x64) Service Pack 2.

NetWorker becomes unresponsive when attempting an invalid clone operation

LGTsc06358

You cannot put multiple instances of the same clone onto a single volume. NetWorker should prevent the operation and provide an error message. Instead, if this operation is attempted, NetWorker becomes unresponsive.

Workaround

Ensure that multiple instances of a clone are placed on different volumes.

Cannot query UNIX non-ASCII save sets in the NetWorker Management Console

LGTsc01923

Because of differences between the encoding used to create non-ASCII save sets on UNIX platforms and the encoding used by the NetWorker Management Console to query the media database, using the Query Save Set window to query for non-ASCII save sets that were created on UNIX platforms will result in no matches being found.

Virtual tapes are listed as full after mounting

LGTpa93001

In a Windows environment when using virtual IBM tape drives, virtual tapes are listed as "full" even though 0 KB have been written to the tape. This can be observed after labelling and mounting the tape.

Workaround

Change the system configuration to use an equivalent tape drive from a manufacturer other than IBM. For example, type HP LTO-3, instead of IBM LTO-3.

Scan for Devices configures all devices as a regular storage node device

LGTpa88188

When adding a new device to a jukebox, the scan operation detects a device, but incorrectly displays it as a storage node device. Attempting to configure the device as standalone device fails with the following error message:

```
cannot create the device, storage node enabler is required
```

Workaround

1. Using the Console, create a new device. For example:

```
rd=Storage_Node:/dev/rmt/...
```

2. Specify the device is a Dedicated Storage Node by using the **Configuration** tab.
3. Use **jbedit** command to add a new drive to this device. The **jbedit** man page contains more information regarding the use of the **jbedit** command.

The Virtual Jukebox attribute for a CDL Virtual Tape Library is not automatically set after upgrading

LGTsc01446

If the `jbconfig` command was used to configure a CDL VTL in the 7.3.2 release, the Virtual Jukebox attribute is not automatically set after upgrading to the current release.

Workaround

After upgrading to the current release, initiate a Scan for Devices operation using the NetWorker Console to scan only the NetWorker storage node on which the VTL is configured. The NetWorker software will update all VTL related attributes utilizing the new VTL license.

This behavior does not occur when using the auto-configuration option.

Inventory operation in Software Administration Wizard delays for unreachable clients

LGTsc06280

When starting an inventory operation using the Software Administration Wizard, there is a delay of 7 to 8 minutes for each client configured on the server that is unreachable (for example, if a NSR Installed Software resource entry does not exist) and has not previously been inventoried. Once started, you cannot cancel the inventory operation and must wait until the **Select Clients for Inventory** window displays to continue the operation.

Workaround

Ensure there are no unreachable clients on the server. Also, if you want to perform an inventory operation but do not need to inventory specific clients, inventory all clients using the `nsrpush` command with the `-all` option; for example, `nsrpush -i -all`.

GUI problems and limitations descriptions

This section details the problems and limitations related to the GUI.

Deduplication recover sessions do not appear in the NMC GUI

LGTsc10295

Deduplication recover sessions do not appear in the Monitoring window of the NetWorker Management Console. However, deduplication save sessions appear.

To view the Monitoring window:

1. From the **Administration** window, click **Monitoring**.
2. Click **Session**.

Text searched for in the NetWorker Console Help program does not get highlighted correctly if using JRE 1.5.x for Asian languages

LGTsc08756

Due to a known limitation with JRE 1.5.x (Sun bug 6375606), when performing a search for text in the NetWorker Console Help program, the search is completed but the keyword is not highlighted correctly.

Update the JRE version to 1.6 or later.

On HP-UX the NetWorker Server window does not appear**LGTsc00365**

On HP-UX, the following error message appears if the NetWorker Management Console **Setup > Setup System Options** attribute is selected and the NetWorker server window does not appear:

```
"Unable to connect to server: Failed to contact using UDP ping."
```

Workaround

1. Open the NetWorker Management Console window and select **Setup > Setup System Options**.
2. Ensure that **RPC ping using UDP when connecting to NetWorker** is cleared.

Cannot copy and paste Japanese characters by using the NetWorker Management Console**LGTsc01115**

On UNIX platforms, cannot copy and paste Japanese characters with **Ctrl+C** and **Ctrl+V** using the NetWorker Management Console.

Newly created groups are not displayed by the NetWorker Console after moving system date back in time**LGTpa95162**

If the system date is moved to a past date and subsequently moved back to the current date, newly created groups are not displayed in the NetWorker Console.

Workaround

Select the Archive Request tab from within the Monitoring task window and the Groups table will refresh.

Cannot launch NetWorker Console Help program on Solaris 10 with a JRE earlier than version 1.5.0_09**LGTpa96168**

The NetWorker Console Help program will not launch if the JRE version is earlier than 1.5.0_09.

NetWorker release 7.6 and later requires JRE version 1.6 or later.

NMC version 3.4 and NWD version 1.0 cannot be installed on the same host**LGTsc05879**

If NetWorker Dashboard (NWD) 1.0 is installed on the NetWorker Management Console Server 3.4 host, the NMC GUI fails to download, and a Java Web Start error appears. NMC 3.4 and NWD 1.0 cannot function together due to database security and Java certificate issues, and the NMC GUI will not launch if NWD is installed on the same host as the NMC Server.

Workaround

Uninstall NWD before updating to NMC 3.4 for NetWorker release 7.4.

Installation problems and limitations descriptions

This section details the problems and limitations related to installation.

For Microsoft Windows 2000, the Support Tools must be installed in order to run the HomeBase Agent installation script

LGTsc19557

To run the HomeBase Agent installation script (setup-homebase.bat) on Microsoft Windows 2000:

1. Install the Microsoft Windows 2000 Support Tools. This installs **REG.exe** which is not included with the Microsoft Windows 2000 operating system.
2. Once the Microsoft Windows 2000 Support Tools have been installed, verify that the path has been set. If not, manually set the path. This step is required to run HomeBase Agent installation script.
3. Run the following HomeBase Agent installation script:

```
setup-homebase.bat
```

For all other Microsoft Windows operating systems, REG.exe is installed as part of the operating system.

HomeBase installation files are automatically extracted during a NetWorker client install

LGTsc19513

As part of the NetWorker client install, the HomeBase agent binary and setup files are always extracted to the standard location for all supported NetWorker platforms. To install the EMC HomeBase agent, run the HomeBase setup file. The location of the setup file for Microsoft Windows and UNIX is different:

- ◆ Microsoft Windows: `\NWInstallDIR\HomeBaseAgent\setup_homebase.bat`
- ◆ UNIX: `/opt/homebase-agent/setup-homebase`

Note: For Microsoft Windows, the install directory **HomeBaseAgent** is at the same peer level as the **nsr** directory.

For Microsoft Windows, ensure that the HomeBase agent software is installed in the same installation path as the NetWorker software

LGTsc16831

For Microsoft Windows, ensure that the HomeBase agent software is installed in the same installation path as the NetWorker software.

It is not recommended to manually install the HomeBase agent software into a location that was not specified during the NetWorker software installation process.

On Microsoft Windows, the HomeBase agent installation path is at the same level as the default or user-defined installation directory.

For example:

```
C:\Program Files\Legato\nsr
C:\Program Files\Legato\HomeBaseAgent
```

Example

For example, if the NetWorker software is installed under:

- ◆ *C:\Program Files\Legato* which is the default location for the NetWorker software, then the HomeBase agent software is installed under the following location: *C:\Program Files\Legato\HomebaseAgent*
- ◆ *C:\Legato* which is an example of a non-default installation location for the NetWorker software, then the HomeBase agent software is installed under the following location: *C:\Legato\HomebaseAgent*

For UNIX, only install the NetWorker HomeBase agent software in the NetWorker default installation directory**LGTsc18023**

On all UNIX platforms, ensure that the NetWorker HomeBase agent software is only installed in the default installation directory. Do not install the software in another directory. For example, the default installation directory is located in:

`/opt/homebase-agent`

On all UNIX platforms, the NetWorker bare metal recovery profiling feature will not work if the HomeBase agent software is installed in a location other than the default installation directory, `/opt/homebase-agent`.

Before restoring the base profile, manually edit the fields in the recovery-configuration.xml file**LGTsc18641**

If the HomeBase agent is installed with the NetWorker client package, the base profile for the HomeBase agent might not be updated.

Before you restore the base profile, you must first update the *recovery-configuration.xml* file or the recovery operation might fail.

Workaround

To work around this issue, manually edit the fields in the following file before performing a recovery of the base profile:

`install_dir/etc/config/recovery/custom/recovery-configuration.xml`

Note: Where *install_dir* is the location of the Homebase agent installation directory.

Unable to launch the NetWorker Dashboard software with NetWorker installed**LGTsc18925**

If the NetWorker Dashboard software is installed on a computer with the NetWorker software already installed, the NetWorker Dashboard software will not start.

The following errors might occur:

- ◆ At the end of the NWD server installation process, a warning message might appear stating that the NWD server could not start.
- ◆ After starting the NWD Server process, either manually through Microsoft Windows Services or automatically on system start up, the NWD server process might stop shortly afterwards.

- ◆ When launching the NWD GUI, a message might appear stating that the NWD server process is not running.

Workaround

To work around this issue:

1. Open and edit the serverproperties.xml file. The file is located in:

NWD_Install_Dir\classes\serverproperties.xml

Note: Where *NWD_Install_Dir* is the installation directory where the NWD server software was installed.

2. Locate the text specifying the **dbport** value. For example:

```
<param name="dbport">2638;DoBroadcast=NONE;HOST=myhost</param>
```

3. Edit the text string so that it contains only the port information. For example:

```
<param name="dbport">2638</param>
```

4. Save the serverproperties.xml file.
5. Restart the NWD server process.

Package requirement for Linux platforms

LGTsc14023

During installation on all supported Linux platforms, the installation will fail with a package dependency error if the compat-libstdc++ package is not installed.

Workaround

Prior to installation, install the appropriate compat-libstdc++ for your platform:

- ◆ 32 bit Intel platforms: install the *compat-libstdc++-33-3.2.3-47.3.i386.rpm* package.
- ◆ 64 bit Intel platforms: install the *compat-libstdc++-33-3.2.3-47.3.x86_64.rpm* package.

Upgrading on Linux with rpm -Uvh not working correctly

LGTsc15490

When upgrading on Linux systems using the `rpm -Uvh package_name` command, the NetWorker startup script, `/etc/init.d/networker`, is not installed.

Workaround

To upgrade on Linux systems, use the following steps:

1. Uninstall NetWorker packages using `rpm -e`.
2. Install the new versions of NetWorker packages using `rpm -ivh`.

NetWorker must be installed using the --nodeps option on SuSE 8

LGTsc12500

An RPM dependency error occurs on SuSE Linux Enterprise Server 8 when installing the NetWorker software.

Workaround

To perform the installation, run the `rpm` program using the `--nodeps` option. For example:

```
rpm -i --nodeps lgtoclnr-7.4.1-1.i686.rpm
```

Licensing problems and limitations descriptions

This section details the problems and limitations related to licensing.

NetWorker and the HomeBase agent (BMR) licenses work independently**LGTsc19388**

The software licenses for the NetWorker software and the HomeBase agent (Bare Metal Recovery) software work independently.

Example 1

If the Bare Metal Recovery (BMR) license is *disabled* and the base enabler license for the NetWorker server where the client is configured is *enabled*, the following occurs when a savegroup is run:

- ◆ The BMR profiling fails
- ◆ The NetWorker backup succeeds

Example 2

If the Bare Metal Recovery (BMR) license is *enabled* and the base enabler license for the NetWorker server where the client is configured is *disabled*, the following occurs when a savegroup is run:

- ◆ The BMR profiling succeeds
- ◆ The NetWorker backup fails

Localization problems and limitations descriptions

This section details the problems and limitations related to localization.

For more information on localization important notes and tips, see [“Internationalization support” on page 147](#).

The NMC Japanese Online Help displays incorrect characters on Linux systems**LGTsc02862**

The NMC Japanese Online Help displays incorrect characters on Linux systems due to limitations with the Javahelp software. These limitations affect the software’s ability to display fonts in the help viewer content pane.

Due to this limitation in Javahelp the only character encoding that displays is the system default; not the font defined by the user.

The nwrecover program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed**LGTsc02808**

The `nwrecover` program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed.

Workaround

Install the following font packages:

- ◆ ttf-founder-simplified-0.20040419-6.1.noarch.rpm
- ◆ ttf-founder-traditional-0.20040419-6.1.noarch.rpm

Non-ASCII save set names are displayed incorrectly in nsradmin visual mode on Linux

LGTpa92833

Non-ASCII save set names are displayed incorrectly in **nsradmin** visual mode on Linux.

Workaround

To work around this limitation, do one of the following:

- ◆ Use the **print nsr client** command in **nsradmin** window to view the non-ASCII save set.
- ◆ Use the Console GUI on the Linux client to view the non-ASCII save set.

Messaging problems and limitations descriptions

This section details the problems and limitations related to messaging.

nsrbmr does not give proper error messages under certain conditions

LGTsc16423

An appropriate error message is not displayed when both BMR profiling status and **savegrp** status fail due to one of the following:

- ◆ The Homebase agent is uninstalled and a **savegrp** with BMR enabled client is performed.
- ◆ A communication issue occurs between **nwsvr** and **nwclnt**.

An error message appears but BMR profiling still completes with a status of “pass” in the following scenarios:

- ◆ The Homebase agent services are stopped during or after profiling. In this case, **nsrbmr** completes without any errors.
- ◆ Incorrect options are specified in the BMR options field under client properties. A command usage error appears, but profiling status indicates “pass”.
- ◆ After installation, when the first **savegrp** is performed with BMR enabled client, the HomeBase server name is specified in the server properties and the BMR options field is left blank.

Once the **savegrp** is completed for the BMR enabled client, it is recommended to check the status of the BMR profile completion to ensure that BMR profiling has completed successfully.

Error message does not display for annotations with similar characters at the end

LGTsc17737

Nsrretrieve does not display an error message when a retrieve is performed using regular expressions for two annotations with similar characters at the end.

Erroneous error message may be generated by Linux operating systems when performing an I/O to a volume

LGTsc08054

The following erroneous error message may be generated by Linux operating systems when performing an I/O to a volume:

```
kernel: program nsrmmmd is using deprecated SCSI ioctl, please
convert it to SG_IO.
```

Ignore this message. In upcoming NetWorker releases, this warning from the kernel will stop.

New pdksh package required on SuSE 10 x86

LGTsc08978

A failed dependencies error occurs on the SuSE 10 x86 platform if the required version of the pdksh package is not installed. The following is displayed:

```
error: Failed dependencies: /bin/ksh is needed by lgtoclnT-7.4-1
```

Workaround

Install **pdksh-5.2.14-801.i586.rpm**, which can be downloaded from the SuSE/Novell website.

You could alternatively install the packages with the **--nodeps** option.

Incorrect error message reported when starting the NetWorker console on Red Hat 64-bit Enterprise Server 4

LGTsc03478

On a Red Hat 64-bit Enterprise Server 4, the preinstalled Mozilla browser incorrectly reports that the JRE is not installed. The NetWorker console uses Javascript to detect the JRE installation and a warning message appears reporting that the correct JRE is not installed on the client machine.

If the correct JRE is already installed, ignore the message. To start the NetWorker Console, click the Start link in the line "If you have installed JRE 1.6 or later, then click here to start NetWorker Management Console" from the Mozilla browser.

Error states you need to perform an uninstall when updating from NetWorker 7.2.2 32-bit to NetWorker 7.5 64-bit

LGTsc06288

When updating from NetWorker release 7.2.2 32-bit on x64 to NetWorker 7.5 64-bit, an error message is displayed stating that the 32-bit NetWorker software is already installed and should be uninstalled.

Workaround

It is not necessary to do a complete uninstall of NetWorker release 7.2.2 to perform this update. Perform a partial uninstall of NetWorker release 7.2.2 32-bit, then install NetWorker release 7.5 64-bit to the same location that the 7.2.2 32-bit version was installed.

Note: The 32-bit version of NetWorker release 7.3.x is the only version of 32-bit NetWorker software that is supported on ntx64. NetWorker release 7.4 and later does not allow 32-bit NetWorker to be installed on ntx64.

NetWorker support for Novell's OES Linux limitations

Limitations to support for Novell's OES Linux with NetWorker are as follows:

- ◆ [“Metadata modifier field not recovered” on page 113](#)
- ◆ [“Creating eDirectory backup files for NetWorker backup and recovery” on page 113](#)
- ◆ [“Creating GroupWise backup files for NetWorker backup and recovery” on page 114](#)

IMPORTANT

NSS+eDirectory backups and GroupWise backups are two unrelated procedures and should be considered separately.

Metadata modifier field not recovered

When you perform backup and recovery by using the NetWorker software, it does not recover the metadata modifier field for NSS files or directories.

Creating eDirectory backup files for NetWorker backup and recovery

eDirectory is a database of Network resources that contains extra information related to NSS objects. However, since eDirectory is not part of the file system, when you perform backup and recovery using the NetWorker software, NetWorker does not recover eDirectory data as it was backed up.

Workaround

NetWorker can perform a parallel backup and recover of eDirectory files using eMBox/DSBK (eMBox is a GUI version of DSBK). DSBK is a command line tool used to back up eDirectory as a complete database, saving all the information on a file that is created when running the pre-and-post script. The file created by DSBK is saved by NetWorker along with the backup of the file system.

The following is an example of how to create a pre-and-post script to backup and recover eDirectory.

Note: If performing a manual (non-scheduled) backup, DSBK should always be run before the NSS file system backup. If performing a scheduled backup, initiate DSBK by a pre-command script using savenpc, and ensure that the savegrp includes the exported database on the file system. DSBK should always create the eDirectory backup file before save runs, so NetWorker can back up both the file system and the DSBK file. If performing a recovery, the same order applies. Recover eDirectory using DSBK, and then recover the NSS file system.

To back up and recover eDirectory by using DSBK:

1. In the `/etc/dsbk.conf` file, set the following value:

```
/root/dsbk.command
```

The output for the command is written to eDirectory's log file.

2. Run the following command:

```
dsbk backup -f /media/nss/NSS1/ndsbk -l /media/nss/NSS1/nds.log
```

Two files are created; ndsbk and nds.log. The ndsbk file contains eDirectory information that can be backed up using the NetWorker software. The nds.log file contains messages for the successful creation or errors.

3. Using the NetWorker software, recover the ndsbk file.
Once the file has been recovered, you can recover eDirectory.
4. To recover eDirectory, run the following command:

```
dsbk restore -f /media/nss/NSS1/ndsbk -l /media/nss/NSS1/nds.log
-r -a -o
```

Creating GroupWise backup files for NetWorker backup and recovery

When you perform backup and recovery using the NetWorker software, you need to create a pre-and-post script to backup GroupWise so that NetWorker can recover GroupWise data as it was backed up.

Workaround

The following is an example of how to create a pre-and-post script to backup GroupWise:

1. Create a backup directory (for example, backup).
2. Run this command to copy the Post office (-p) to the backup directory:

```
./dbcoppy -m -p -v /gw /backup
```

3. Run this command to copy the Domain (-d) to the backup directory:

```
./dbcoppy -m -d -v /gw /backup
```

You can now use the NetWorker software to back up the backup directory.

4. Run the following command to stop GroupWise:

```
./rcgrpwise stop
```

5. Remove GroupWise and the backup directory.

6. Run the following command to start GroupWise:

```
./rcgrpwise start
```

The following is an example of how to create pre-and-post script to recover GroupWise:

1. Use NetWorker to recover the backup directory.
2. Run the following command to stop GroupWise:

```
./rcgrpwise stop
```

3. Run the following command to copy the Domain (-d) from the backup directory to the GroupWise directory:

```
./dbcoppy -m -d -v /backup /gw
```

4. Run the following command to copy the Post office (-p) from the backup directory to the GroupWise directory:

```
./dbcoppy -m -p -v /backup /gw
```

5. Run the following command to start GroupWise:

```
./rcgrpwise start
```

6. Run the following command to view the status of GroupWise and confirm that the recovery was successful:

```
./rcgrpwise status
```

NetWorker Management Console problems and limitations descriptions

This section details the problems and limitations related to the NetWorker Management Console (NMC).

NetWorker Management Console may become unresponsive when opened using Exceed

LGTsc02903

When using Exceed to launch the NetWorker Management Console from a UNIX or Linux system, the NMC GUI may become unresponsive.

Workaround

Enable the **XTEST (X11R6)** variable in the Exceed XConfig program on the Windows host.

Restore problems and limitations descriptions

This section details the problems and limitations related to restore operations.

Last-modified date changed for files recovered to Sun Cluster global file system

LGTsc19364

The last-modified date for files recovered to the SUN Cluster global file system may be displayed as the current time instead of the last date the files were changed, due to an issue with Sun Cluster version 3.2.

Workaround

Disable **pxfs_fastwrite** by performing the following:

1. On all cluster nodes, run:

```
# echo "pxfs_fastwrite_enabled/W 0" |mdb -kw
```

2. Unmount, then mount the global file systems for the change to appear.

To re-enable fastwrite:

1. Set the variable **pxfs_fastwrite_enabled** to 1.
2. Unmount, then mount the global file systems.

More information on this issue is provided at the following website:

http://bugs.opensolaris.org/bugdatabase/view_bug.do?bug_id=6540206

Do not recover identical save sets with different ssids to the same target directory

LGTsc10796

Do not perform a save set recovery from the command prompt, with multiple save set IDs that all point to the same file/directory path and will be recovered into the original location.

Data corruption might occur when the same dir/file path is backed up multiple times. This creates multiple save sets, each with a different save set ID. For example, ssid1 and ssid2 are save set IDs created for the same file/directory path, at different save or backup times.

When the recover command or the **nsrretrieve** command is run to retrieve more than one instance of the save set, each with a different save set ID, into the original

location, the recovered instance of the directory/file from *ssid1* might be overwritten by the recovered data of the same directory/file from *ssid2*, or vice-versa.

Example

Data corruption might occur in the following scenario:

```
recover -s server -c client -S ssid1 -S ssid2
nsrretrieve -s server -S ssid1 -S ssid2
```

where *ssid1* and *ssid2*, are save set IDs of the same file/directory.

Antivirus programs block recovery

LGTsc13799

During recovery, antivirus programs may block the recovery of certain files. Antivirus programs are designed to protect their own program files and settings from external threats that may be attempting to disable the program. The antivirus program may not be able to distinguish between a recovery and an attack.

Workaround

Prior to recovery, disable the antivirus program's protection properties. Consult your anti-virus program's documentation for further information. After recovery, reenble the program's protection properties.

NetWorker interactive recover does not recover the registry and the com+ regdb writers

LGTsc14577

You cannot perform a system recover of the registry and com+ regdb writers by using the interactive mode of the **recover** command.

Workaround

Perform a system recovery using the noninteractive mode of the **recover** command, or use the NetWorker User program.

Restoring full VM image on ESX server fails

LGTsc11618

When attempting to restore a full VM image directly onto the ESX server, the recovery fails.

Workaround

Recover to the proxy host and use VirtualCenter tools (VMware Converter).

Unable to restore files encrypted with both Microsoft Windows Encrypting File System & AES encryption

LGTsc11734

When AES encryption is applied to a file that is also encrypted using the Microsoft Windows Encrypting File System (EFS), the backup will be reported as successful. However, recovery of the file fails and the following message is written to the NetWorker log file:

```
recover: Error recovering <filename>. The RPC call completed before
all pipes were processed.
```

Workaround

Do not use AES encryption when backing up files that are encrypted by using EFS.

The nwrecover program might fail to launch on a Solaris Sparc V240 server**LGTsc06577**

The `nwrecover` program might fail to launch on a Solaris Sparc V240 server if the following CDE/Motif patch is not installed:

Solaris 10 CDE 1.6 Runtime update:
sparc: 119280
x86: 119281

FSRM Disk Quota may not be restored to previous settings after recovery**LGTsc05990**

The NetWorker software might not restore the previous FSRM Disk Quota configuration after the Disk Quota recovery. Some of the changes made to the setup values after saving the FSRM Disk Quota may remain after the recovery operation. However, if the Disk Quota is completely deleted, it can be restored to the previous configuration.

After a BMR recovery operation the root password might change**LGTsc20558**

After BMR recovery (base profile) operation, the root password might change. For example:

- ◆ On UNIX, the root password might be reset to **riskey**.
- ◆ On Microsoft Windows a new admin username and password is created. You can log in as administrator with the profiled servers password or as the indigostone user. For example:
 - Admin username: indigostone
 - Admin username password: H0meBase

On NetApps files, filenames ending with special characters might be renamed**LGTpa95900**

On NetApps filers, the recovery of filenames ending with the special character sequence `~n` (where `n` is a number) might be renamed with `~1` appended at the end of the name. For example, a file named `C~1` might be restored with the name `C~1~1`.

This behavior might occur when the **DIRECT=Y** application parameter has been defined in the NetApps client instance.

Workaround

To perform a file level recovery of a file with a special character sequence, perform one of the following:

- ◆ Set the following environment variable prior to performing a file level recovery:


```
NSR_NDMP_RECOVER_NO_DAR=y
```
- ◆ Redefine the NetApps client application parameters:

DIRECT=Y.

Note: This will not address the recovery of legacy backups performed prior to the **DIRECT=Y** parameter removal. In this case, you must set the **NSR_NDMP_RECOVER_NO_DAR=y** environment variable before performing the recovery operation.

The winworkr program fails to retrieve successfully archived files if a slash (\) character was entered in the annotation string

LGTpa94966

The **winworkr** program fails to retrieve successfully archived files if a slash (\) character was entered in the annotation string.

Workaround

Enter a double slash (\\) into the annotation string and the files will be archived and retrieve operations perform successfully.

Directed recover fails with permission errors on Windows

LGTpa83927

A directed recover operation fails when using the command line interface (CLI) and the **winworkr** program. Permission errors display if the NetWorker server and the client where the files are to be recovered to are running Windows.

Workaround

To perform a directed recover, one of the two following conditions must be met:

- ◆ If the NetWorker server and target recover client are in the same domain, start the NetWorker server (**nsrd**) as a domain user that is in the Windows Administrators group on the NetWorker server machine.
- ◆ If neither machine is in a domain, or they are not in the same domain:
 - Ensure that the user:
 - Exists on both machines.
 - Has the same password on both machines.
 - Is in the Windows Administrators group on the NetWorker server machine.
 - Start the NetWorker server (**nsrd**) as the local user existing on both systems with the same password.

The winworkr program will not relocate to a partition not existing on the initiating host if the NetWorker server is running release 7.4 and the client is running release 7.2

LGTsc00167

If the NetWorker server is running release 7.4, and the 7.2 release is installed on a client, a directed recover will not relocate to a partition that does not exist on the host initiating the recover operation. An error message is displayed indicating that it is an invalid directory.

Workaround

Upgrade the client to release 7.4 or create the appropriate directory on the host initiating the recovery.

Performing a save set query can take a long time if the query parameter in the Query Save Set tab is set to "Save Time" and From and To calendars for 3 or more days

LGTsc05053

In a large scale NetWorker environment, performing a save set query can take a long time if the query parameter in the Query Save Set tab is set to **Save Time** and **3 or more days** in the From and To calendar.

An Operation in Progress window appears with the following message:

```
Getting save set information from NetWorker server <server name>
```

This dialog box will remain till the save set query is complete blocking you from performing any other operations on the NetWorker server.

Workaround

Perform the save set query using the **mminfo** command from the command line.

For recoveries operations using Celerra filers, misleading error messages might display

LGTpa96554

On Celerra filers, the recovery of a backup containing a recursive directory can result in the generation of log messages:

```
NDMP Service Debug: Too much retry on header research
```

This log message can be intermittent in nature as subsequent recoveries of the same back might not result in the generation of a log message.

This log message does not affect the recovery and can be ignored.

Upgrading problems and limitations descriptions

This section details the problems and limitations related to upgrading the software.

JRE version mismatch causes authentication failure, stops GSTD

LGTsc08958

After updating the NetWorker release, if the JRE version installed on the system is lower than the JRE version required by NetWorker, NMC cannot be launched and the GSTD process stops with an "authentication failure" error message.

Workaround

Update to JRE version 1.6 or later.

When upgrading from release 7.3.1 the Virtual Jukeboxes attribute will not be set correctly

LGTpa95019

When upgrading from the 7.3.1 release, the Virtual Jukeboxes attribute will not be set if you previously configured a Virtual Tape Library (VTL) using the 7.3.1 release. After upgrading to 7.5, the Virtual Jukeboxes attribute uses the normal jukebox license instead of a VTL license. The VTL still functions normally using the normal jukebox license.

The Virtual Jukeboxes attribute will function normally if upgrading to the 7.5 release from 7.3.2.

Group details window is empty after upgrading from NetWorker release 7.2.2

LGTsc01587

After upgrading to NetWorker release 7.4 from release 7.2.2, savegroups details run prior to the upgrade do not appear in the Group Details window.

NetWorker releases previous to 7.4

Table 12 on page 120 identifies problem issues and limitations discovered in NetWorker release prior to 7.4 that continue to be applicable.

The known limitations are separated into the following categories:

- ◆ “Backup operations problems and limitations descriptions” on page 125
- ◆ “CLI problems and limitations descriptions” on page 129
- ◆ “Cloning problems and limitations descriptions” on page 130
- ◆ “Compatibility problems and limitations descriptions” on page 131
- ◆ “Configuration problems and limitations descriptions” on page 131
- ◆ “Devices and media problems and limitations descriptions” on page 133
- ◆ “GUI problems and limitations descriptions” on page 139
- ◆ “Installation problems and limitations descriptions” on page 140
- ◆ “Licensing problems and limitations descriptions” on page 142
- ◆ “Localization problems and limitations descriptions” on page 142
- ◆ “Messaging problems and limitations descriptions” on page 143
- ◆ “NDMP problems and limitations descriptions” on page 144
- ◆ “Restore problems and limitations descriptions” on page 144

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 1 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
“LGTpa91299” on page 129	91299nw	ZFS file systems are not automatically backed up when performing a savegroup backup of ALL.	AIX, Linux, Solaris, HP-UX, Tru64 UNIX	Backup
“LGTpa83221” on page 126	83221nw	Backup might default to an incorrect server if the -s option is not specified with the save command.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Backup
“LGTpa82436” on page 127	82436nw	VSS on Windows Server 2003 x64 requires a Microsoft hotfix if Windows is running MSSQL Server or MSDE.	Windows	Backup
“LGTpa75719” on page 126	75719nw	Save set status is displayed as invalid if a DSA backup is terminated due to an invalid backup path.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Backup
“LGTpa75339” on page 127	75339nw	Backup will fail with remote exec service if passwords are not configured correctly.	Windows	Backup

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 2 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTpa73509" on page 126	73509nw	The /system/object and /system/contract directories are not skipped during a backup on Solaris 10.	AIX, Solaris, HP-UX, Tru64 UNIX	Backup
"LGTpa51184" on page 127	51184nw	Increase server parallelism to complete concurrent operations.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Backup
"LGTpa61694" on page 128	61694nw	SHAREPOINT save set cannot be excluded with directives when a save set of ALL is specified.	Windows	Backup
"LGTpa58888" on page 128	58888nw	Command-Line Backup and Recovery of SYSTEM Save Sets.	Windows	Backup
"LGTpa58422" on page 129	58422nw	VSS backups of raw devices unsupported.	Windows	Backup
"LGTpa44863" on page 127	44863nw	Files larger than 2 GB can break the save set consolidation process.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Backup
"LGTpa41039" on page 125	41039nw	Windows management instrumentation database might stop responding.	Windows	Backup
"LGTpa54620" on page 125	54620nw	Microsoft VSS backups on a FAT32 partition take longer than on an NTFS partition.	Windows	Backup
"LGTpa35171" on page 126	35171nw	Hot fix required to operate the NetWorker software in a Windows 2000 Clustered Environment running Service Pack 1 or 2.	Windows	Backup
"LGTpa33868" on page 126	33868nw	Windows 2000 server cannot handle large numbers of concurrent saves.	Microsoft Windows	Backup
"LGTpa83221" on page 126	83221nw	Backup might default to an incorrect server if the -s option is not specified with the save command.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Backup
"LGTpa79664" on page 126	79664nw	The /var/log/lastlog file causes a save process to appear to hang on RedHat AS4 x86_64.	Linux, Solaris	Backup
"LGTpa75719" on page 126	75719nw	Save set status is displayed as invalid if a DSA backup is terminated due to an invalid backup path.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX,	Backup
"LGTpa73509" on page 126	73509nw	The /system/object and /system/contract directories are not skipped during a backup on Solaris 10.	Linux, Solaris	Backup
"LGTpa51184" on page 127	51184nw	Increase server parallelism to complete concurrent operations.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX,	Backup
"LGTpa44863" on page 127	44863nw	Files larger than 2 GB can break the save set consolidation process.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Backup
"LGTpa75339" on page 127	75339nw	Backup will fail with remote exec service if passwords are not configured correctly.	Windows	Backup
"LGTpa61694" on page 128	61694nw	SHAREPOINT save set cannot be excluded with directives when a save set of ALL is specified.	Windows	Backup

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 3 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTpa58888" on page 128	58888nw	Command line backup and recovery of SYSTEM save sets.	Windows	Backup
"LGTpa58422" on page 129	58422nw	VSS backups of raw devices unsupported	Windows	Backup
"LGTpa91299" on page 129	91299nw	ZFS file systems are not automatically backed up when performing a savegrp backup of.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX	Backup
"LGTpa87308" on page 129	87308nw	Using the withdraw command to withdraw a volume on a partitioned library fails.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	CLI
"LGTpa91406" on page 130	91406nw	The ls -l command does not display files recovered from a NetApp Data ONTAP 6.5 file system.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	CLI
"LGTpa76457" on page 130	76457nw	The mminfo command does not display a weekly summary of save set usage during the change to daylight savings time.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	CLI
"LGTpa51045" on page 130	51045nw	Perform a save set recovery when using the save command with the -l input_file option.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	CLI
"LGTpa62490" on page 130	62490nw	Cloning on an EMC DART CFS 5.2 is unsupported.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Cloning and Staging
"LGTpa70320" on page 130	70320nw	Automatic cloning might fail when using a single staging policy.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Cloning and Staging
"LGTpa41044" on page 131	41044nw	NetWorker software might stop responding when running SQL server 2000 and NetWorker client.	Windows	Compatibility
"LGTpa89947" on page 131	89947nw	Cannot deposit volumes in a DAS silo.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Configuration
"LGTpa66196" on page 131	66196nw	Warning when using AlphaStor 3.0x with SR2 on a Windows server with a NetWorker for Windows 2000 storage node.	Windows	Configuration
"LGTpa57709" on page 131	57709nw	Removable storage manager jukebox configures all devices automatically.	Windows	Configuration
"LGTpa35407" on page 132	35407nw	Change journal manager problems with multiple servers.	Windows	Configuration
"LGTpa83273" on page 133	83273nw	Misleading error message reported if an invalid NDMP storage node password is entered when labelling a volume.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Devices and Media
"LGTpa83579" on page 133	83579nw	Device operations using the right click option might be lost.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa82503" on page 133	82503nw	Media capacity notification not logged in the media database.	AIX, Solaris, Windows, HP-UX, Tru64 UNIX, Linux	Devices and Media

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 4 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTpa80901" on page 133	80901nw	labelling volumes concurrently might fail when using the NetWorker Console.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa87657" on page 134	87657nw	The udev tool is unsupported on Emulex running Linux RedHat AS 4 using default kernel 2.6.	Linux	Devices and Media
"LGTpa74492" on page 134	74492nw	The jbconfig command might fail on Windows 2003 with a multidrive jukebox.	Windows	Devices and Media
"LGTpa68867" on page 134	68867nw	Tape gets stuck in a drive when labelling Linux Red Hat.	Linux	Devices and Media
"LGTpa66140" on page 134	66140nw	The jbconfig command reports a BNCHMARKVS640 DLT drive as 4mm.	Windows	Devices and Media
"LGTpa54632" on page 135	54632nw	Error message appears in daemon log when labelling a volume that contains PowerSnap save sets.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa55128" on page 135	55128nw	Slow Solaris tape operations when using an IBMtape driver with IBM LTO-2 Tape drives and the NetWorker CDI.	AIX, Solaris, HP-UX, Tru64 UNIX	Devices and Media
"LGTpa51725" on page 135	51725nw	NetWorker software attempts to eject a stuck tape.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa66565" on page 135	66565nw	Volume retention information does not apply to volumes that contain snapshots.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Devices and Media
"LGTpa50485" on page 136	50485nw	Increase the value of the save mount timeout attribute when auto media management is enabled and a corrupt tape is encountered.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Devices and Media
"LGTpa45470" on page 136	45470nw	Volume remains in the tape drive if the storage node nsrmmnd is not responding in a shared drive environment with DDS.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Devices and Media
"LGTpa37996" on page 138	37996nw	The nsrjb -L and -I operations fail with an Exabyte Mammoth-2 tape drive with Fibre Channel device.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa58356" on page 136	58356nw	Label tape operation fails on an HP-UX platform if CDI is turned on and IBM tape driver is used.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Devices and Media
"LGTpa58215" on page 137	58215nw	Jukebox fails to allocate enough devices.	Windows	Devices and Media
"LGTpa50089" on page 137	50089nw	Entering the inquire command during tape activity causes a device error.	Windows	Devices and Media
"LGTpa48374" on page 137	48374nw	Managing optical drives with Solaris 9.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa50279" on page 138	50279nw	Cannot label a tape if CDI is enabled on a tape drive on HP Tru64 5.1.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Devices and Media
"LGTpa36367" on page 138	36367nw	Tape Drive Requires Cleaning Error Message.	Windows	Devices and Media

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 5 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTpa89859" on page 138	89859nw	Unable to configure an ACSLS silo on Windows with lib_attach 1.4.1.	Windows	Devices and Media
"LGTpa87730" on page 139	87730nw	Cannot launch the NetWorker Console from a Linux PowerPC client.	Linux	GUI
"LGTpa77990" on page 139	77990nw	Cannot run commands in nsradmin without the nsrexecd daemon.	Windows	GUI
"LGTpa82555" on page 139	82555nw	Remote client save sets with japanese characters are displayed incorrectly.	Windows	GUI
"LGTpa83820" on page 139	83820nw	Files backed up from a VSS system fileset appear in the file system tree.	Windows	GUI
"LGTpa53364" on page 140	53364nw	SCSI device ID displayed differently than NetWorker NDMP devices.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	GUI
"LGTpa56231" on page 140	56231nw	All client file index entries might appear not to have been deleted.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	GUI
"LGTpa86214" on page 140	86214nw	Microsoft Windows username cannot contain a '!' character.	Windows	GUI
"LGTpa80764" on page 140	80764nw	No alternative location provided for the java14.sdk.tar file if the /tmp directory is full.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Installation
"LGTpa83706" on page 141	83706nw	ASR and non-ASR recovery fails if the Windows install CD does not match the service pack level of the data being backed up.	Windows	Installation
"LGTpa61643" on page 141	61643nw	Package installation on Linux IA64 Red Hat results in an error.	Linux	Installation
"LGTpa50807" on page 141	50807nw	Error downgrading to business edition.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Installation
"LGTpa62224" on page 142	62224nw	NetWorker License Manager allowance limitation.	Windows	Licensing
"LGTpa79450" on page 153	79450nw	The XAPPLRESDIR environment variable must be set to operate the NetWorker Console on HP-UX	HP-UX	Localization
"LGTpa81024" on page 143	81024nw	Fatal error incorrectly reported no printer available to print a bootstrap on AIX 5.3.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Messaging
"LGTpa54165" on page 143	54165nw	Error message generated if the snapshot policy is configured to request more snapshots than a Savegroup can generate.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	Messaging
"LGTpa43135" on page 143	43135nw	System log notifications fail on SuSE 8.0.	Linux	Messaging
"LGTpa88065" on page 144	88065nw	If a connection is lost during an NDMP backup to a NAS filer the NetWorker software stops responding.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	NDMP

Table 12 Limitations discovered in NetWorker releases prior to 7.4 (page 6 of 6)

Customer Service defect number	Issue Tracker Issue number	Description of limitation	OS affected	Product Feature
"LGTpa74026" on page 144	74026nw	The scanner command might stop responding if it encounters an aborted save set backed up to an NDMP device.	AIX, Solaris, HP-UX, Tru64 UNIX, Linux	NDMP
"LGTpa28778" on page 144	28778nw	NetWorker software fails to use tapes preinitialized in NDMP-enabled tape devices.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	NDMP
"LGTpa65644" on page 144	65644nw	NDMP save sets in status recyclable are not recoverable.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Restore
"LGTpa48556" on page 145	48556nw	Preventing duplicate filenames during recovery.	Windows	Restore
"LGTpa48322" on page 145	48322nw	Windows error message during automated system recovery.	Windows	Restore
"LGTpa37508" on page 145	37508nw	Limitation on browse and retention policy dates	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Restore
"LGTpa35856" on page 145	35856nw	No message is logged if resource files are missing.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Restore
"LGTpa23372" on page 146	23372nw	Concurrent multicient recovery on Windows 2000.	Microsoft Windows	Restore
"LGTpa38176" on page 146	38176nw	Cannot change the browse time if there are files for recovery.	AIX, Linux, HP-UX, Solaris, Tru64 UNIX, Windows	Recovery

Backup operations problems and limitations descriptions

This section details the problems and limitations related to backup operations.

Windows management instrumentation database might stop responding

LGTpa41039

While performing a save of the Windows Management Instrumentation (WMI) database, the **save** process stops responding during a Microsoft application programming interface (API) call. A Microsoft API call should be nonblocking.

To work around this issue, obtain the hot fix for the Microsoft operating system bug. The Microsoft Knowledgebase article Q319579, *COM Activity Deadlock Causes IIS to Stop Responding*, contains more information on this hot fix.

Microsoft VSS backups on a FAT32 partition take longer than on an NTFS partition

LGTpa54620

VSS backups of files on a FAT32 partition take longer than VSS backups of files on an NTFS partition. This is a known Microsoft issue.

Hot fix required to operate the NetWorker software in a Windows 2000 Clustered Environment running Service Pack 1 or 2

LGTpa35171

To run NetWorker software in a Windows 2000 cluster environment by using MSCS and the Windows Service Pack 1 or 2, apply the Microsoft Gethostbyaddr() hot fix. The hot fix is available from Microsoft Product Support Services. The Gethostbyaddr() hot fix is not required if Windows 2000 Service Pack 3 is installed on the cluster nodes. It is only required when running Service Pack 1 or 2.

Windows 2000 server cannot handle large numbers of concurrent saves

LGTpa33868

Running a large number of concurrent saves might cause the server to stop responding.

To work around this issue, increase the desktop heap for noninteractive processes from the default value (512 KB) to 3,072 KB. If the failures continue to occur, increase the heap up to 5,120 KB.

Backup might default to an incorrect server if the -s option is not specified with the save command

LGTpa83221

On a NetWorker client, if the -s servername option is not specified with the save pathname command, the save command does not select the first server name in the `/nsr/res/servers` file. The save command selects the first server it contacts on the network.

Workaround

Use the -s servername option with the `save` command to specify a specific NetWorker server.

The /var/log/lastlog file causes a save process to appear to hang on RedHat AS4 x86_64

LGTpa79664

RedHat AS4 x86_64 creates a 4TB sparse file, `/var/log/lastlog`, during the install process. A save process that includes this file appears to hang while it reads the sparse file. The save process executes after the delay.

Save set status is displayed as invalid if a DSA backup is terminated due to an invalid backup path

LGTpa75719

If a DSA backup is terminated due to an invalid backup path, the save set status is displayed as invalid `ss` (for file type devices and tape devices) in the Volumes window. The Volume window should not display information about the save set status.

The /system/object and /system/contract directories are not skipped during a backup on Solaris 10

LGTpa73509

The `/system/object` and `/system/contract` directories should be skipped when running backups on a Solaris 10 operating system.

Create a .nsr file with directives to skip the `/system/object` and `/system/contract` directories.

If the directories are not skipped, error messages are reported during a backup. For example:

```
enoexec:/system/contract save: readdir overflow error, backup of
  directory cannot continue
enoexec: /system/contract          level=full,      3 KB 00:04:06
  9 files
```

Increase server parallelism to complete concurrent operations

LGTPa51184

There may be a need to increase the server parallelism value to complete the concurrent operations with an advanced file type device (AFTD) device when the number of simultaneous save sessions reaches the maximum value for server parallelism.

For example, if the server parallelism is set to 4, and there are 4 simultaneous saves going to an AFTD, set the server parallelism to 5 to complete a concurrent clone/stage operation from this AFTD while the four saves are in progress.

Files larger than 2 GB can break the save set consolidation process

LGTPa44863

The NetWorker software cannot consolidate save sets when either the full or Level 1 save set contains a file larger than 2 GB.

VSS on Windows Server 2003 x64 requires a Microsoft hotfix if Windows is running MSSQL Server or MSDE

LGTPa82436

Due to problems that Microsoft is encountering with certain VSS writers, VSS on Windows Server 2003 x64 requires a Microsoft hotfix if Windows is running MSSQL Server or MSDE. The Microsoft hot fix can be installed from the following: <http://support.microsoft.com/default.aspx?scid=kb;en-us;913100>.

Backup will fail with remote exec service if passwords are not configured correctly

LGTPa75339

A backup will fail if the following is true:

- ◆ A NetWorker Remote Exec service on a client machine is configured so that the service is initiated by a local system account.
- ◆ The remote user and password field for the client is configured to use the same username and password as the Remote Exec service.

This error message is reported:

```
Cannot authenticate user: a required privilege is not held by the
  client. Permission denied.
```

Workaround

To avoid this issue, configure the NetWorker Remote Exec service on the client to initiate with the local system account and populate the Remote User and Password fields of the client by using the NetWorker Administrator program.

SHAREPOINT save set cannot be excluded with directives when a save set of ALL is specified

LGTpa61694

The SHAREPOINT save set cannot be excluded with directives when a save set of ALL is specified for backup.

Command line backup and recovery of SYSTEM save sets

LGTpa58888

When backing up or recovering SYSTEM or VSS SYSTEM save sets from the command line, these limitations apply:

- ◆ A maximum of one SYSTEM or VSS SYSTEM save set can be included in the same **save** or **recover** command.
- ◆ File system directories cannot be specified in the same **save** or **recover** command.
- ◆ A maximum of one SYSTEM or the VSS SYSTEM save set can be specified in an input file.

Note: An input file is specified in a **save** or **recover** command with the **-I** option.

File system directories cannot be specified in an input file.

Examples of invalid command line entries include:

```
recover -s servername "SYSTEM DB:" "SYSTEM STATE:"
recover -s servername D:\letters "SYSTEM DB:"
save -s servername "SYSTEM DB:" "SYSTEM STATE:"
save -s servername D:\letters "SYSTEM DB:"
save -s servername -I D:\list.txt
```

Where **list.txt** is an input file. Examples of invalid input files include:

- ◆ The following input file is invalid because it includes a file system and a VSS SYSTEM save set:
D:\letters
VSS SYSTEM BOOT:
- ◆ The following input value file is invalid because it includes multiple VSS SYSTEM save sets:
VSS SYSTEM BOOT:
VSS SYSTEM SERVICES:

Examples of valid command line entries include:

```
save -s servername "VSS SYSTEM BOOT:"
save -s servername "VSS SYSTEM SERVICES:"
recover -s servername "VSS SYSTEM BOOT:"
recover -s servername "VSS SYSTEM SERVICES:"
```

Workaround

To back up multiple SYSTEM or VSS SYSTEM save sets in one operation, choose one of these options:

- ◆ In the NetWorker Administration window, edit the Client resource to include multiple SYSTEM or VSS SYSTEM save sets. Alternatively, ensure that the default save set All is selected for the Client resource.

- ◆ In the NetWorker User program, mark all of the required SYSTEM or VSS SYSTEM save sets and any other required save sets and then complete the backup.

To recover multiple SYSTEM or VSS SYSTEM save sets in one operation, from the NetWorker User program, mark all of the required SYSTEM or VSS SYSTEM save sets and any other required save sets and then complete the recovery.

The *EMC NetWorker Administration Guide* contains more information about editing Client resources, using the NetWorker Administrator program or the NetWorker User program.

VSS backups of raw devices unsupported

LGTpa58422

NetWorker release 7.4 does not support the VSS backups of raw devices.

ZFS file systems are not automatically backed up when performing a savegrp backup of ALL

LGTpa91299

The `savezfs` command fails to automatically backup a ZFS file system when performing a savegrp backup of ALL. The ZFS file systems do not appear in the `/etc/vfstab` file.

Workaround

To workaround this issue do one of the following:

- ◆ Explicitly set the file systems for backup in the client's save set list.
- ◆ Set the ZFS file systems to legacy mount point behavior and add an entry to the `/etc/vfstab` file.

For example:

```
# zfs umount <zpool>
# zfs set mountpoint=legacy <zpool>
```

Add an entry to the `/etc/vfstab`. For example:

```
<zpool> - /mypool zfs - yes -
where /mypool is the mount point

# mount /mypool
```

CLI problems and limitations descriptions

This section details the problems and limitations related to the Command Line Interface (CLI).

Using the `withdraw` command to withdraw a volume on a partitioned library fails

LGTpa87308

The `withdraw` command fails when a volume is withdrawn from a partitioned library.

Workaround

When using the `withdraw` command, specify the port number also. For example,

```
nsrjb -w -S 1 -P 2 -vvv
```

The ls -l command does not display files recovered from a NetApp Data ONTAP 6.5 file system

LGTpa91406

After performing a recovery from a NetApp Data ONTAP 6.5 file system mounted on a UNIX client (NFS share), the recovered files are not displayed if the `ls -l` command is entered.

Workaround

Unmount and remount the file system and the files are visible.

The mminfo command does not display a weekly summary of save set usage during the change to daylight savings time

LGTpa76457

If you use `mminfo` query to get a weekly save set usage summary during the change to daylight saving time (last Sunday of October and first Sunday of April), there is no information for the day of the change.

Perform a save set recovery when using the save command with the -I input_file option

LGTpa51045

When using the `save` command with the `-I input_file` option and one of the entries is deleted while the backup is running, the remaining entries in the input file are saved successfully. However, connecting directories are not saved and you are unable to perform index-based recoveries. The workaround is to perform a save set recovery.

Cloning problems and limitations descriptions

This section details the problems and limitations related to cloning operations.

Cloning on an EMC DART CFS 5.2 is unsupported

LGTpa62490

Cloning on an EMC DART CFS 5.2 is unsupported.

The source tape begins reading data after the clone tape is mounted and the clone operation fails. The source drive does not exit the reading data state.

A clone error is reported in the `/nsr/cores/nsrndmp_clone` file.

Automatic cloning might fail when using a single staging policy

LGTpa70320

Automatic cloning fails when using a single staging policy if the following apply:

- ◆ Backup is to an advanced file type device.
- ◆ Server Parallelism value is set low (two or less).
- ◆ Recover space and check file system interval is approximately three and five minutes.
- ◆ High-water mark is set at a low value (approximately 10 percent).

This error message appears:

```
Error: nsrd: nonexistent cloneid (SSID) for saveset(ss_name)
```

Compatibility problems and limitations descriptions

This section details the problems and limitations related to compatibility of the software.

NetWorker software might stop responding when running SQL server 2000 and NetWorker client

LGTPa41044

On systems running both SQL Server 2000 and the NetWorker client, the NetWorker software might stop responding when obtaining device information on the client computer.

To work around this issue, obtain the hot fix for the Microsoft operating system bug. The Microsoft Knowledgebase article Q319246, *FIX: Error Dialog Box During SQL Server Database Backup* contains more information on this hot fix.

Configuration problems and limitations descriptions

This section details the problems and limitations related to configuring the software.

Cannot deposit a volume from the CAP (I/O Port) using nsrjb -d command

LGTPa89947

Cannot deposit a volume from the CAP (I/O Port) using `nsrjb -d` command. A silo volume deposit requires the `-T` and `-a` options in sequence to add a volume in the media database.

The sequence of operations is:

```
nsrjb -d -T BarCode
```

Ignore the error message that appears.

```
nsrjb -a -T Barcode
```

Warning when using AlphaStor 3.0x with SR2 on a Windows server with a NetWorker for Windows 2000 storage node

LGTPa66196

When using AlphaStor 3.0x with Service Release 2 on a Windows server with Windows 2000 Storage node, this scenario might occur:

The `nsrncnt` process terminates after loading a volume into the storage node tape devices. The `nsrncnt` process is contacted by the `nsrjb` program to perform a mount request. If the `nsrncnt` process does *not* remain active during the backup, the process fails and the tape is ejected from the drive.

To prevent the `nsrncnt` process from failing, add the `system@storagenode` (default) or the account that starts the NetWorker services. This problem only occurs with the AlphaStor SR2 release when both the NetWorker storage node and server are running Windows 2000.

Removable storage manager jukebox configures all devices automatically

LGTPa57709

When using the `jbconfig` command to configure a tape drive, a Removable Storage Manager (RSM) jukebox configures all devices automatically and picks the most generic device type available. For example, if you are configuring a 4 mm 20 GB tape drive, the RSM jukebox defines the device as a 4 mm type device, not 4 mm 20

GB. Likewise, if you are configuring a DLT8000 device, it is configured as DLT. Therefore, you might not receive the same performance and usage as with a fully defined device.

Change journal manager problems with multiple servers

LGTPa35407

Configuring multiple NetWorker servers to back up a client with Change Journal enabled is unsupported. Such a configuration can cause problems in the Change Journal Manager.

A volume's Change Journal state (enabled or disabled) is maintained in the client computer's registry. This key is created the first time the client is backed up with Change Journal enabled. If a second NetWorker server backs up the same client while Change Journal is enabled, a second registry key is created. These keys are named for the NetWorker server that performed the backup.

For example, the following registry keys will be present on a client that is backed up by two servers while Change Journal is enabled for at least one volume:

```
HKEY_LOCAL_MACHINE
SOFTWARE
Legato
NetWorker
Change Journal
Server1
Server2
```

If a volume's Change Journal state appears enabled in the **Server1** key and disabled in the **Server2** key, you cannot edit the volume's settings by using the Change Journal Manager.

When the volume is selected, the NetWorker Uses Change Journal checkbox is dimmed, indicating that components controlled by the checkbox have different states. Details of each volume's state are displayed in the textbox.

Note: No data is lost if a backup occurs while the client is configured using the following.

If you experience this problem, perform these procedure on the client:

1. Stop the NetWorker services.
2. Start the **regedit** program.
3. Expand the **HKEY_LOCAL_MACHINE>SOFTWARE>Legato>NetWorker>Change Journal**.
4. As an optional precaution, select the NetWorker key, and select **Export Registry File** from the **Registry** menu to save a copy of the current configuration.
5. Select the key for one of the servers under **Change Journal** and delete all of the values the key contains. (Do not delete the server key itself).
6. Repeat step 5 for each server key under **Change Journal**.
7. Restart the NetWorker services.

Use Change Journal Manager to enable or disable the Change Journal on each of the client computer's volumes.

Devices and media problems and limitations descriptions

This section details the problems and limitations related to device and media operations.

Misleading error message reported if an invalid NDMP storage node password is entered when labelling a volume

LGTPa83273

If an invalid NDMP storage node password is entered when labelling a volume, the error message does not indicate that the password is incorrect. Instead, this error message is reported:

```
command operation `LOAD', command ID 231 is not connected
```

Device operations using the right-click option might be lost

LGTPa83579

Device operations that use the Console are limited if a resource was created by a pre-7.4 release NetWorker server that used the **nsradmin** program in nonvisual mode. Mount, unmount, and label operations cannot be performed by using the right-click option.

Workaround

Delete and re-create the device.

Note: This limitation only occurs when the Type attribute is in lowercase.

Media capacity notification not logged in the media database

LGTPa82503

When the maximum number of save sets for a volume is reached, no notification is logged in the media database indicating a volume reached capacity.

labelling volumes concurrently might fail when using the NetWorker Management Console

LGTPa80901

When labelling a volume by using the NetWorker Console, concurrent label operations might fail if one of these conditions is true:

- ◆ Two or more label operations are running concurrently.
- ◆ The operation is using the same pool, or two pools with the same label template.

This error message appears:

```
Error: Duplicate volume name `rh64.014'. Select a new name or remove the original volume."
```

Workaround

Use the **nsrjb** command to perform concurrent label operations. The *EMC NetWorker Command Reference Guide* or the UNIX man pages has more information on the **nsrjb** command.

The udev tool is unsupported on Emulex running Linux RedHat AS 4 using default kernel 2.6

LGTPa87657

The `udev` tool is unsupported on Emulex running Linux RedHat AS 4 using default kernel 2.6.

The jbcnfig command might fail on Windows 2003 with a multidrive jukebox

LGTPa74492

When configuring media libraries on Windows Server 2003, the `jbconfig` command might fail with this error:

```
jukebox error: scsi command MODE_SENSE failed.
```

If this error message appears:

1. Right-click **My Computer** and select **Manage**.
2. Select **Device Manager**.
3. Right-click the effected library and select **Disable**.
4. Rerun the `jbconfig` command.

Tape gets stuck in a drive when labelling Linux Red Hat

LGTPa68867

While labelling tape in a DDS configuration by using a NetWorker server that is running Linux Red Hat, the tape becomes stuck in the drive and this error message is displayed:

```
unload failure-retrying 30 seconds
```

To prevent a tape from being stuck in the drive, set the `auto_lock` setting to "0" (Off) in the `/etc/stinit.def` file for these drive types:

- ◆ Sony AIT-2 and AIT-3
- ◆ IBM LTO Gen1
- ◆ HP LTO Gen1
- ◆ IBM LTO GEN2
- ◆ IBM 3580 drive LTO-1
- ◆ IBM 3592 J1A
- ◆ Quantum DLT 7000

By default the `auto_lock` setting is set to 1 (On).

The jbcnfig command reports a BNCHMARKVS640 DLT drive as 4mm

LGTPa66140

When using the `jbconfig` command to configure an autodetected SCSI jukebox by selecting option 2, **Configure an Autodetected SCSI Jukebox**, a BNCHMARKVS640 DLT drive is incorrectly reported as a 4mm drive.

To work around this issue, select option 4, **Configure an SJI Jukebox**, to specify the drive.

Error message appears in daemon log file when labelling a volume that contains PowerSnap save sets

LGTpa54632

When labelling a volume that contains PowerSnap save sets, this error message appears in the daemon log file:

```
nsrmmdbd: error, null
```

Ignore the error messages in the daemon log file. No actual error occurred.

Slow Solaris tape operations when using an IBMtape driver with IBM LTO-2 tape drives and the NetWorker CDI

LGTpa55128

Solaris tape operations are slow when using an IBM tape driver with IBM LTO-2 tape drives when **CDI** is turned on.

Note: This behavior is seen with the Solaris **st** driver.

Workaround

Turn **CDI** off.

NetWorker software attempts to eject a stuck tape

LGTpa51725

If a hardware problem results in a tape becoming stuck in a drive, the NetWorker software tries to eject the tape instead of continuing the backup on another tape. In this situation, save stream backups from clients intended for the stuck tape/drive might fail.

If the NetWorker software keeps trying to eject a stuck tape:

1. Mark the volume as read-only.
2. Disable the drive.
3. Manually eject the tape.
4. Inventory the slot to which the tape was ejected.
5. Resolve the hardware error that led to the tape becoming stuck in the drive (for example, a faulty tape or a faulty drive).
6. Reenable the drive.
7. Mark the volume appendable again (if appropriate).

Volume retention information does not apply to volumes that contain snapshots

LGTpa66565

The output produced by the **mminfo** command by using the **volretent** flag (the date the last save set on this volume expires) does not apply to volumes that contain snapshots.

Increase the value of the save mount time-out attribute when auto media management is enabled and a corrupt tape is encountered

LGTpa50485

Note: This issue has only been seen on SDLT110/220 drives.

A label operation may take more than 30 minutes before it fails under these conditions:

- ◆ Autotape management is enabled and a backup is initiated.
- ◆ The NetWorker software encounters a corrupted tape during label operations.

The NetWorker software keeps a record of the location of the corrupted tape only for the current backup operation, so a corrupted tape could be used again for the next backup operation if the operator does not remove it.

Workaround

To increase the value of the **Save Mount Time-out** attribute to 60 minutes from the default 30 minutes:

1. In the **NetWorker Administrator** program, select **Devices** from the **Media** menu to open the **Devices** window.
2. From the **View** menu, select **Details** to display the hidden attributes.
3. Set the **Save Mount Time-out** attribute to 60 minutes.

Volume remains in the tape drive if the storage node nsrmmmd is not responding in a shared drive environment with DDS

LGTpa45470

In a shared drive environment, volumes remain in the physical drive when these conditions exist:

- ◆ The drives are accessed by multiple storage nodes through DDS.
- ◆ The NetWorker server is unable to communicate with the **nsrmmmd** daemon on any storage node.
- ◆ The storage node has loaded or mounted volumes onto shared drives.

Label tape operation fails on an HP-UX platform if CDI is turned on and IBM tape driver is used

LGTpa58356

On an HP-UX platform, a label tape operation fails with this error message if CDI is turned on and an IBM tape driver is used:

```
Error: while operating on slot `1': write open error: drive status
      is Drive reports no error - but state is unknown
```

Workaround

To avoid a failed label tape operation, turn off **CDI**.

The IBM Atape driver version 3.0.1.8 does not display this behavior. The *EMC NetWorker Hardware Compatibility Guide* contains more information and is available at <http://Powerlink.EMC.com>.

Jukebox fails to allocate enough devices

LGTpa58215

When the NetWorker jukebox control command (**nsrjb**) attempts to access an eligible drive to complete a NetWorker service daemon (**nsrd**) task, the drive reports as busy. This error message is displayed:

```
Error 'nsrd: Jukebox 'xx' failed cannot allocate enough devices
```

Workaround

Wait for the eligible drive to become free and retry the operation. If the problem persists, contact EMC Technical Support.

Entering the inquire command during tape activity causes a device error

LGTpa50089

Issuing the **inquire** command from the command line while there is any tape activity, such as labelling of tapes or backing up of data, might cause an operating system crash or a device I/O error.

Managing optical drives with Solaris 9

LGTpa48374

With Solaris 9, the Volume Management daemon (**vold**) is changed so that it automatically attempts to manage all removable media devices. Because of this change, the Volume Management daemon may interfere with NetWorker operations related to optical drives.

Workaround

Disable the **vold** daemon *or* modify the daemon configuration file:

Disable the vold daemon

To disable the volume management (**vold**) daemon:

1. Log in as **root** on the NetWorker storage node, and remove or rename the `/etc/rc2.d/*volmgt` script.
2. Enter the `/etc/init.d/volmgt stop` command.

Modify the daemon configuration file

To modify the daemon configuration file:

1. Log in as **root** on the NetWorker storage node, and open the daemon configuration file, `/etc/vold.conf`, in a text editor.
2. Comment out this line in the **Devices to Use** section.

```
use rm SCSI drive /dev/rdisk/c*s2 dev_rm SCSI.so rm SCSI%d
```

After commenting out this line, the **Devices to Use** section of the configuration file looks similar to this:

```
# Devices to use
# use rm SCSI drive /dev/rdisk/c*s2 dev_rm SCSI.so rm SCSI%d
```

3. Save the configuration file.
4. Reinitialize the **Volume Management** daemon with the new configuration file settings. One way to do this is to send a hang-up signal to the daemon, for example:

```
ps -ef | grep vold
kill -HUP vold_pid
```

where *vold_pid* is the process ID of the volume management daemon, **vold**.

Cannot label a tape if CDI is enabled on a tape drive on HP Tru64 5.1

LGTPa50279

To use the CDI feature with a storage node or server that is running on HP Tru64 UNIX version 5.1, install the latest patch kit available from Hewlett-Packard. If you choose not to install the patch kit on the Tru64 5.1 operating system, disable the CDI feature on any preconfigured devices.

The nsrjb -L and -I operations fail with an Exabyte Mammoth-2 tape drive with Fibre Channel device

LGTPa37996

When using the **nsrjb -L** and **-I** commands to perform inventory and tape label operations, the NetWorker software reports this error message with an Exabyte Mammoth-2 tape drive with a Fibre Channel device:

```
timestamp /dev/rmt/2cbrn Tape label read for volume? in pool?, is not
  recognized by Networker: I/O error"
```

Workaround

Update the firmware on the Exabyte Mammoth-2 tape drive with Fibre Channel device to version v07h, and the changer firmware to 3.03 or higher.

Tape drive requires cleaning error message

LGTPa36367

When trying to create a tape backup, the Windows 2000 dlptape.sys device driver may read and report soft and hard errors on digital linear tape (DLT) drives. When this occurs, the backup is not created and this error message appears:

```
Tape Drive Requires Cleaning
```

A supported hot fix is now available from Microsoft, but apply it only to systems experiencing this specific problem. Therefore, if you are not severely affected by this problem, Microsoft recommends waiting for the next Windows 2000 service pack containing this fix. To resolve this problem immediately, contact Microsoft Product Support Services to obtain the hot fix.

Unable to configure an ACSLS silo on Windows with lib_attach 1.4.1

LGTPa89859

The NetWorker software is unable to configure an ACSLS silo on Windows with **lib_attach 1.4.1**. If the NetWorker **nrsexecd** service is started first, it begins serving the portmapper services on port 111. In this situation, the Windows Services for UNIX portmapper is unable to start, causing dependent services to fail. Conversely, if the Windows Services for UNIX portmapper is started first, the NetWorker **nrsexecd** process will simply not service portmapper requests on port 111, allowing both products to coexist without problems.

Workaround

1. Shut down the NetWorker daemons.

2. Add a value to the Windows Registry to delay the start of the **nsrexecd** service until the Windows Services for UNIX portmapper is running. Technical Bulletin 375: Portmapper Conflict between NetWorker and Microsoft Windows Services for UNIX is available at <http://Powerlink.EMC.com>
3. Restart the NetWorker daemons.

GUI problems and limitations descriptions

This section details the problems and limitations related to the GUI.

Cannot launch the NetWorker Console from a Linux PowerPC client or using the browser of another supported Operating System

LGTPa87730

The NetWorker Console client GUI is unsupported on a PowerPC Linux client. Client operations must be performed from the NetWorker Console server.

1. Above **Required-Start: networker** script, add these two lines to the file:

Default-Start: 3 5

Default-Stop: 0 1 2 6

2. Run the **chkconfig --add gst** command:

This command adds a symbolic link to the **gst** script in the **/etc/init.d/rc3.d** and **/etc/init.d/rc5.d** directories.

Cannot run commands in nsradmin without the nsrexecd daemon

LGTPa77990

To increase datazone security, running the **nsradmin** program, or any other NetWorker command on a host without the **nsrexecd** daemon running, is unsupported.

New authentication fails if you run the **nsradmin** program without the **nsrexecd** daemon. If old authentication is disallowed in a datazone, the **nsrexecd** daemon is required to connect to the server even when running **nsradmin** from a client.

Remote client save sets with Japanese characters are displayed incorrectly

LGTPa82555

The **nsrinfo** and **recover** commands display remote client save sets with Japanese characters incorrectly. The command line on Windows does not support UTF-8 natively so the Japanese characters will not display correctly.

Note: This behavior does not occur when using the **mminfo** command or browse Japanese files from **winworkr** or NetWorker Console.

Files backed up from a VSS system file set appear in the file system tree

LGTPa83820

On a Windows 2003 operating system, saving a VSS save set, such as VSS SYSTEM FILESET: or VSS SYSTEM SERVICES: creates index entries for backed-up files as well as their parent directories. This can cause problems when browsing the recover items by displaying the version from the VSS backup as part of the file system.

Note: If the VSS system saves sets are marked along with the file system, the save sets will fail to recover and the status will indicate those folders failed (for example, you select **My Computer** using the **winworkr** program). This is expected behavior.

SCSI device ID displayed differently than NetWorker NDMP devices

LGTpa53364

For NetWorker NDMP devices, the bus number in the control port is offset by a value of 1,024 so that they occupy a different range compared to a locally attached SCSI jukebox. This offset helps visually differentiate the type of device (NDMP or non-NDMP). The actual value of the NDMP device bus number can be obtained from the NDMP Bus Number field. This is found if you select Jukeboxes from the Media menu.

All client file index entries might appear not to have been deleted

LGTpa56231

The NetWorker software does not delete all client file index entries under these conditions:

- ◆ All save sets are recycled.
- ◆ Volumes are deleted.
- ◆ Device is relabelled.

After running the **nsrck -L6** command, the **nsrinfo client** output command indicates there are still browsable files.

This is an issue only when all save sets for a client are deleted from the media database. If there is at least one valid save set for that client in the media database, the **nsrck -L6** command deletes the invalid save set records from client file index.

Note: This requirement might be more apparent with AFTD as it supports concurrent operations, but it is applicable to all other device types with a similar setup.

Microsoft Windows username cannot contain a '!' character

LGTpa86214

The NetWorker Management Console does not launch correctly if a Microsoft Windows username contains a '!' character. This error message is displayed:

```
"Can't find bundle for base name res/gwt_rb, locale en_US"
```

NetWorker Management Console can be launched from the same machine when logged in as a user with no special characters in the name.

Installation problems and limitations descriptions

This section details the problems and limitations related to installing the software.

No alternative location provided for the java14.sdk.tar file if the /tmp directory is full

LGTpa80764

After installing the NetWorker Console server on an AIX platform, if the /tmp directory does not have enough space for the java14.sdk.tar JRE file, this error message appears:

There is not enough room on the disk to save `/tmp/uontdicn.tar`. Remove unnecessary files from the disk and try again, or try saving in a different location.

ASR and non-ASR recovery fails if the windows install CD does not match the service pack level of the data being backed up

LGTpa83706

If you have installed a Service Pack on a client machine, you will not be able to perform an automated system recovery (ASR) or non-ASR recovery unless the data you are trying to backup has the same service pack(s) incorporated into the backup. For example, this behavior occurs if you backed a Windows 2003 Server SP1 machine and then use a Windows 2003 Server CD during the recovery.

To ensure an ASR recovery succeeds, use a Windows install CD that matches the service pack level of the backed-up data that you are trying to recover. Otherwise, an ASR recovery will not succeed. The *EMC NetWorker Disaster Recovery Guide* contains more information on a Windows non-ASR recovery if the backup and the CD do not match.

Package installation on Linux IA64 Red Hat results in an error

LGTpa61643

During installation of NetWorker packages on Linux IA64, the `rpm` program incorrectly reports these missing library errors:

```
rpm -i lgtocln1-1.ia64.rpm
error: Failed dependencies:
ld-linux-ia64.so.2 is needed by lgtocln1-1
libc.so.6.1 is needed by lgtocln1-1
libc.so.6.1(GLIBC_2.2) is needed by lgtocln1-1
libncurses.so.5 is needed by lgtocln1-1
```

Workaround

To correct the installation errors:

1. Log in as root.
2. Verify that the libraries exist.
3. Run the `rpm` program, for example:

```
rpm -i --nodeps lgtocln1-1.ia64.rpm
```
4. Repeat this procedure for each required NetWorker package, **lgtonode**, **lgtoserv**, or **lgtodrvr**.

Error downgrading to business edition

LGTpa50807

The licensing utility (`nsrkap`) cannot downgrade to the Business Edition from a higher enabler.

Workaround

To downgrade from Power Edition or Network Edition to Business Edition:

1. Enter the computer's hostname in the License Server attribute, if a license service is not specified:
 - a. In the **NetWorker Administrator** program on the NetWorker server, select **Server Setup** from the **Server** menu.

- b. From the **View** menu, select **Details**.
 - c. Enter the hostname in the **License Server** attribute and select **Add**.
2. Delete the base enabler of the edition being downgraded:
 - a. From the **Server** menu, select **Registration**.
 - b. In the **Registration** window, select the NetWorker product whose enabler code you want to delete.

A series of windows appear.
 - c. Click **OK** in the windows and repeat the steps to delete the base enabler.
3. Select the hostname from the NetWorker server's **License Server** attribute:
 - a. From the **Server** menu, select **Server Setup**.
 - b. From the **View** menu, select **Details**.
 - c. Select the hostname in the **License Server** attribute that was entered in step 1 and click **Delete**
 - d. Click **Apply**.
4. Enter the Business Edition enabler code:
 - a. From the **Server** menu, select **Registration**.
 - b. Click the **Create**.
 - c. Type the Business Edition enabler code in the **Enabler Code** attribute and click **Apply**.

Licensing problems and limitations descriptions

This section details the problems and limitations related to licensing the software.

NetWorker License Manager allowance limitation

LGTpa62224

If NetWorker License Manager is used to allocate licenses to specific servers, wait a minimum of two minutes. Failure to allow two minutes for the synchronization to occur may result in incorrect assignment of a license to the server.

Localization problems and limitations descriptions

This section details the problems and limitations related to localization.

For more information on localization important notes and tips, see [“Internationalization support” on page 147](#).

The XAPPLRESDIR environment variable must be set to operate the NetWorker Console on HP-UX

LGTpa79450

To operate the NetWorker Console on HP-UX that is running a non-English locale, the **XAPPLRESDIR** environment variable must be set as follows:

```
XAPPLRESDIR=/usr/lib/X11/app-defaults
```

Messaging problems and limitations descriptions

This section details the problems and limitations related to messaging.

Fatal error incorrectly reported no printer available to print a bootstrap on AIX 5.3

LGTPa81024

After a save group operation completed successfully, the Completed Successfully table of the Group Details window incorrectly reported a fatal error. This window indicates there is not a printer available to print the bootstrap.

Error message generated if the snapshot policy is configured to request more snapshots than a Savegroup can generate

LGTPa54165

If a snapshot policy is configured to request more snapshots than a savegroup can generate for a group in a given time, the savegroup generates this error message when running the group, and does not back up that group:

```
timestamp savegrp: RAP error: Invalid snapshot policy with
number_of_requested_snapshots snapshot creation per day. NetWorker
will not be able to create, number_of_requested_snapshots from
timestamp in a single day.
```

Workaround

To resolve this issue, do one of the following:

- ◆ Modify the savegroup Start Time and Interval attributes of the Group resource to synchronize the resource with the snapshot policy.
- ◆ Modify the snapshot policy to synchronize it with the Group resource.

The *EMC NetWorker Administration Guide* contains more information on modifying the Start Time and Interval attributes and snapshot policies.

System log notifications fail on SuSE 8.0

LGTPa43135

System log notifications might fail on the SuSE 8.0 and SuSE Linux Enterprise Server operating systems. The logger binary appears in the /bin directory instead of /usr/bin. This causes the log default notification to fail.

Note: The SuSE 7.3 distribution does not have this problem.

Workaround

To resolve this issue, do one of the following:

- ◆ Create a link in the /usr/bin directory to /bin/logger.
 - Update the default Tape Mount Request 1 and Tape Mount Request 2 notifications if a link is not created.
- ◆ Modify the log default notification and change the /usr/bin/logger filepath to /bin/logger.

NDMP problems and limitations descriptions

This section details the problems and limitations related to NDMP.

If a connection is lost during an NDMP backup to a NAS filer the NetWorker software stops responding

LGTPa88065

If a connection is lost during an NDMP backup to a NAS filer, a connection reset by peer error is written to the daemon log file, but the **nsrndmp_save**, **ndmp2fh** and **nsrmmmd** processes stop responding. The tape device also appears in writing mode, but stops responding.

Workaround

Stop the **nsrndmp_save**, **ndmp2fh** and **nsrmmmd** processes by using **kill -9I** command, and restart NetWorker daemons to free the tape device.

The scanner command might stop responding if it encounters an aborted save set backed up to an NDMP device

LGTPa74026

The **scanner** command might stop responding if:

- ◆ The **scanner** command encounters a save set backed up to an NDMP device.
- ◆ The save set aborts after the start note is written.
- ◆ The last complete save set was backed up to the device and cannot be scanned.

NetWorker software fails to use tapes preinitialized in NDMP-enabled tape devices

LGTPa28778

If a new tape is preinitialized in an NDMP-enabled tape device, the NetWorker software does not use the tape.

To ensure that NetWorker software uses all tapes in an NDMP tape device:

- ◆ Do not use tapes that were preinitialized in an NDMP-enabled tape device.
- ◆ Label preinitialized tapes in a non-NDMP tape drive before inserting the tape into an NDMP tape drive or jukebox.

Restore problems and limitations descriptions

This section details the problems and limitations related to restore operations.

NDMP save sets in status recyclable are not recoverable

LGTPa65644

NDMP save sets cannot be recovered if they are in the status eligible for recycling. This error message appears:

```
Failed save set, not recoverable
```

Workaround

Set the status of the save set to **recoverable**. More information on changing the status of a save set to recoverable is provided in the **nsrmm** and **mminfo** entries in the *EMC NetWorker Command Reference Guide* or the UNIX man pages.

Preventing duplicate filenames during recovery

LGTpa48556

Because of the case-sensitive nature of Portable Operating System Interface (POSIX) compliance, NetWorker software can restore a file when another file exists with the same name but different case. For example, if the **FILE1.DOC file** exists on the target client, restoring **file1.docfile** can result in two files with the same name but different case. The contents of the two files may or may not be the same.

To avoid this problem, disable POSIX compliance by setting this system environment variable:

```
NSR_DISABLE_POSIX_CREATE=YES
```

The Windows online help contains detailed instructions about setting system environment variables.

Windows error message during automated system recovery

LGTpa48322

Due to a problem in Windows XP Professional and Windows Server 2003, this error message may appear when you start an ASR disaster recovery of a client computer:

```
Can't create partition...
```

This error is intermittent. To work around the problem, restart the ASR recovery.

Limitation on browse and retention policy dates

LGTpa37508

Client file index browse and save set retention policies can be set no later than the year 2038. This is caused by an operating system limitation in which support for time is limited to a maximum of 68 years starting from the year 1970.

Note: An expired save set retention date does not immediately result in the save set being overwritten.

Save sets can only be overwritten if the following is true:

- ◆ The retention policy has expired and NetWorker uses the storage volume for backup.
- ◆ The storage volume is relabelled.
- ◆ Entries are manually deleted from the storage volume.

Workaround

To enable full browse and retention policies beyond the year 2038, use the NetWorker Archive feature. Archived data is never subject to automatic recycling, so it cannot be accidentally overwritten.

No message is logged if resource files are missing

LGTpa35856

If one or more resource files are somehow removed from the NetWorker resource database directories (as a result of disk corruption or manual deletion, for example), no error message is logged in the daemon log file.

Concurrent multiclient recovery on Windows 2000

LGTpa23372

In the NetWorker Administration window, the Parallelism attribute specifies the maximum number of clients that the NetWorker server may back up or recover simultaneously. Each client being recovered typically requires 10 MB to 15 MB of memory or more if large numbers of files are being recovered on the NetWorker server host. For example, recovering 30 clients concurrently might require approximately 450 MB of memory.

The recovery operation has been tested to recover up to 30 clients concurrently. Attempting to recover more than 30 clients concurrently with insufficient virtual memory might cause the recovery operation to fail with this error message:

```
nsrindexd.exe - Application Error
The application failed to initialize properly (0xc0000142).
Click OK to terminate the application.
```

To avoid a failure when recovering a large number of clients concurrently:

- ◆ In the **Set Up Server** dialog box in the **NetWorker Administration** window, reduce the **Parallelism** attribute to 25 or less.
- ◆ Increase the virtual memory on the NetWorker server host to 2 GB or more (or enough to accommodate at least 15 MB per client).
- ◆ Use a multiprocessor computer as the NetWorker server host.

Cannot change the browse time if there are files for recovery

LGTpa38176

The following warning message is displayed if you attempt to change the browse time if files are marked for recovery.

```
There are files marked for recovery.
OK to ignore the marked files.
Cancel to stay with the current browse time.
OK / Cancel
```

Unmark files for recovery before attempting to change the browse time.

Internationalization support

These sections describe important notes and tips pertaining to the internationalization support for the NetWorker release.

Additional information on support for internationalization can also be found in the *EMC NetWorker Release 7.6 Administration Guide*, chapter 17, NetWorker Server Management.

Locale and Code Set Support

NetWorker software does not support locales (defined by your operating system) or code sets that remap characters having special meaning for filesystems. Depending on the filesystem, these special characters can include the forward slash (/), the backslash (\), the colon (:), or the period(.). De_DE.646 is an example of one unsupported locale.

NetWorker software might function normally in such an environment, but might not function normally if the locale is changed (the previously existing indexes can become invalid).

Localization support

These sections describe important notes and tips pertaining to localized NetWorker releases.

Important notes and tips

The NetWorker 7.6 software supports language packs, which can be installed as part of the NetWorker installation process, or can be installed separately after the NetWorker software has been installed. Note, however, that any program screens or messages that have changed since release 7.5 Service Pack 1 are not localized.

The following sections contain important notes and tips, as well as limitations, pertaining to the internationalized NetWorker software:

- ◆ [“Localized software contains some English Text” on page 148](#)
- ◆ [“Java Web Start cache path and non-English characters” on page 148](#)
- ◆ [“Fonts may not display correctly in UNIX Motif GUIs in non-english locales” on page 148](#)
- ◆ [“Solaris 9 does not support certain non-English code sets” on page 149](#)
- ◆ [“Locale settings with NDMP” on page 149](#)
- ◆ [“Display of an unsupported character in the current locale” on page 149](#)
- ◆ [“Man page locales” on page 149](#)
- ◆ [“Supported Locales” on page 149](#)
- ◆ [“Changing the Locale in the NMC GUI” on page 150](#)
- ◆ [“Scheduled backup or Archive Requests of non-ASCII files or directories” on page 151](#)

- ◆ “Maximum NetWorker supported path” on page 151
- ◆ “In non-English environment, character encoding used for NMC client and NetWorker client must be the same” on page 151
- ◆ “The NMC Japanese Online Help displays incorrect characters on Linux systems” on page 152
- ◆ “Non-ASCII hostnames are not supported by NetWorker” on page 152
- ◆ “JRE 1.6 users cannot export reports as PDF documents for non-English locales on AIX and HP-UX” on page 152
- ◆ “JRE 1.6 users cannot export reports as PDF documents for non-English locales on AIX and HP-UX” on page 152
- ◆ “The nwrecover program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed” on page 152
- ◆ “Recovering a large number of files may take a long time in the French locales on Solaris” on page 152
- ◆ “Garbled characters may appear in the NetWorker Console GUI font list on Solaris” on page 152
- ◆ “Problem with highlighted text in the NetWorker Console Help program after performing a search using JRE 1.5.x for Asian languages” on page 152
- ◆ “Entering non-ASCII characters in NetWorker user interfaces” on page 153
- ◆ “Non-ASCII save set names are displayed incorrectly in nsradm visual mode on Linux” on page 153
- ◆ “The XAPPLRESDIR environment variable must be set to operate the NetWorker Console on HP-UX” on page 153

Localized software contains some English Text

Messages and strings that were added after the NetWorker 7.5 Service Pack 1 release have not been localized. Some strings from the operating system have also been left intentionally unlocalized. The **nsrwatch** and **nsradm** programs are not localized. The English language components do not affect the functionality of the software.

The only RAP value that supports non-ASCII characters is the Save Set attribute of the Client and Archive Request resources.

Java Web Start cache path and non-English characters

If the path for the Java Web Start cache contains non-English characters, this will cause the NetWorker Console to fail to launch. The resolution to this problem is to change the Java Web Start cache path to a path that contains no non-English characters.

The Java Web Start cache path is changed in the Java Web Start Console. Different JRE versions have different names for the Java Web Start Console; consult java.sun.com for details.

Fonts may not display correctly in UNIX Motif GUIs in non-english locales

If you are having trouble displaying fonts in the nwrecover program, for your current locale, ensure that the operating system is configured to display them.

Solaris 9 does not support certain non-English code sets

Solaris 9 does not support certain code sets. The Sun website has a full list of supported code sets.

Locale settings with NDMP

When running NDMP backups, the locale setting has to be consistent in your environment. All UNIX operating system locale settings on the filer (including UTF-8) must be the same and the NMC client can only be run on an UNIX client set to the exact same locale setting as the filer.

Backup and recovery operations can be run on any locale, but if you try and browse on a locale that is different from the original locale the filenames will show up as random characters.

Display of an unsupported character in the current locale

If the NetWorker software encounters a character that is unsupported in the current locale, it replaces the character with a '?'.

Man page locales

Man pages are displayed based on the locale setting for a specific language. The following EUC locales are supported:

- ◆ Chinese: **EUC-CN**
- ◆ French: **ISO8859-15**
- ◆ Korean: **EUC-KR**
- ◆ Japanese: **EUC-JP**

If the locale is not set to a specific language matching an installed language pack, the man pages will be displayed in English.

Supported Locales

Table 13 on page 149 lists the supported locales.

Table 13 Supported Locales (page 1 of 2)

Language	Operating system				
	Windows	Solaris	HPUX	AIX	Linux
English	English	OS Default Locale	OS Default Locale	OS Default Locale	OS Default Locale
French	French (France)	UTF-8 ISO8859-1 ISO8859-15	UTF-8 ISO8859-1 ISO8859-15	UTF-8 ISO8859-1 ISO8859-15	UTF-8 ISO8859-1 ISO8859-15
Japanese	Japanese (Japan)	UTF-8 EUC-JP S-JIS	UTF-8 EUC-JP	UTF-8 EUC-JP	UTF-8 EUC-JP S-JIS

Table 13 Supported Locales (page 2 of 2)

Language	Operating system				
	Windows	Solaris	HPUX	AIX	Linux
Chinese	Chinese (China)	UTF-8 EUC-CN GB18030 GBK BIG5	UTF-8 EUC-CN	UTF-8 EUC-CN	UTF-8 EUC-CN GB18030 GBK BIG5
Korean	Korean (Korea)	UTF-8	UTF-8	UTF-8	UTF-8

Note: Localization is not supported on the Mac OS, Tru 64 or SGI platforms.

Changing the Locale in the NMC GUI

There are three conditions for the displayed textual elements (messages, dates, time and numbers) in the NMC GUI:

1. If there is an appropriate NetWorker language pack installed on the NMC server, all textual elements will be rendered to the current user locale.
2. If no NetWorker language pack is installed on the NMC server, all textual elements will be rendered to English.
3. If the locale is neither supported by the NetWorker software nor has an appropriate NetWorker language pack installed, all textual elements will be rendered to English, except dates, times and numbers which will appear in the current user locale that is supported by the installed JRE on the user host.

The NMC GUI must be restarted to apply any change to the locale.

Example 1

There is a French language pack installed on the NMC server and the user locale is French. The user logs in to the NMC server. In the NMC GUI, all textual elements will be in French.

Example 2

The installed JRE supports French and the user locale is French. There is no French (France) language pack installed on the NMC server. In the NMC GUI, all texts and messages will be in English, except dates, time and numbers will be in French.

It is the user's responsibility to change the locale and apply the change correctly to the operating system. For example, changing and applying the locale to Windows server 2003 and Solaris 5.9 are as follows:

Windows server 2003

- a. Click **Start**.
- b. Select **Control panel > Regional and Language Options > Regional Options**.
- c. Select the language.
- d. Select the location.
- e. Click **Ok**.

Solaris 5.9

- a. Logout to the **Welcome** dialog box.
- b. Click **Options > Language**.
- c. Select the language.
- d. Log in.

Note: Date and times may be still in North American format. Not all date and time displayed are internationalized. This is a known deficiency that will be addressed in a future release.

Scheduled backup or Archive Requests of non-ASCII files or directories

The value of the **Save Operations** attribute in Clients or Archive Requests resource should be set to:

- ◆ NetWorker UNIX clients at release 7.4 or higher: **I18N:mode=nativepath**.
- ◆ NetWorker UNIX clients at a release level prior to 7.4: **I18N:mode=utf8path**.
- ◆ Microsoft Windows clients: **I18N:mode=utf8path**

If the Client Configuration Wizard is used to create the Clients resource, the Save Operations attribute will be automatically filled-in based on the client platform when non-ASCII save sets are specified.

Maximum NetWorker supported path

The maximum length of the NetWorker supported path has increased to 12 KB. The number of characters supported in the path is dependent on the language of the characters *and* any specific operating system limitations.

Non-English characters require more bytes than English characters. Ensure that the filepath and directory names remain within the limits imposed by the operating system and the NetWorker software.

In non-English environment, character encoding used for NMC client and NetWorker client must be the same

LGTsc21657

In a non-English environment, characters do not display correctly if the character encoding is different on the NMC client than the files on the NetWorker host that are being browsed.

Workaround

In a non-English environment, ensure that the NMC client uses the same character encoding as the files on the NetWorker client host that are to be browsed.

For example, if the NMC client uses the zh_CN.EUC locale it will not properly display files that were created using the zh_CN.UTF-8 locale. The character encoding used for the NMC client and NetWorker client must be the same to ensure the proper display of characters. In this example, the NMC client should be started using the zh_CN.UTF-8 locale.

The NMC Japanese Online Help displays incorrect characters on Linux systems

LGTsc02862

The NMC Japanese Online Help displays incorrect characters on Linux systems due to limitations with the Javahelp software. These limitations affect the software's ability to display fonts in the help viewer content pane.

Due to this limitation in Javahelp the only character encoding that displays is the system default; not the font defined by the user.

Non-ASCII hostnames are not supported by NetWorker

LGTsc26980

NetWorker does not support hosts that have non-ASCII characters in the hostname.

JRE 1.6 users cannot export reports as PDF documents for non-English locales on AIX and HPUX

LGTsc26288

The NetWorker option to export reports in Acrobat PDF format is not supported on AIX and HPUX hosts that are running JRE 1.6 in a non-English locale.

The nwrecover program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed

LGTsc02808

The **nwrecover** program will not start on Linux platforms for Asian Languages if the necessary fonts are not installed.

Workaround

Install the following font packages:

- ◆ ttf-founder-simplified-0.20040419-6.1.noarch.rpm
- ◆ ttf-founder-traditional-0.20040419-6.1.noarch.rpm

Recovering a large number of files may take a long time in the French locales on Solaris

LGTsc05339

In the French locale on Solaris, a degradation in performance may be seen when recovering a large number of files (greater than 100,000).

To improve performance, expand the command dialog box to reveal the complete pathnames of the files being recovered in the output field.

Garbled characters may appear in the NetWorker Console GUI font list on Solaris

LGTsc03894

Garbled characters may appear in the NetWorker Console GUI font list for font names if the fonts do not have English names, or the localized names are not recognized by the JRE.

Problem with highlighted text in the NetWorker Console Help program after performing a search using JRE 1.5.x for Asian languages

LGTsc02814

Due to a known limitation with JRE 1.5.x (Sun bug 6375606), text that is highlighted in the NetWorker Console Help program after a search has been performed will not be highlighted correctly. Update the JRE version to 1.6 or later.

Entering non-ASCII characters in NetWorker user interfaces

LGTPa88887

Non-ASCII characters are supported only for the **Save Set** attribute in **Client** and **Archive Request** resources. However, user interfaces such as the NetWorker Management Console do not prevent the user from entering non-ASCII characters for other attributes in NetWorker resources.

Non-ASCII save set names are displayed incorrectly in nsradmin visual mode on Linux

LGTPa92833

Non-ASCII save set names are displayed incorrectly in **nsradmin** visual mode on Linux.

Workaround

To work around this limitation, do one of the following:

- ◆ Use the **print nsr client** command in **nsradmin** window to view the non-ASCII save set.
- ◆ Use the Console GUI on the Linux client to view the non-ASCII save set.

The XAPPLRESDIR environment variable must be set to operate the NetWorker Console on HP-UX

LGTPa79450

To operate the NetWorker Console on HP-UX that is running a non-English locale, the **XAPPLRESDIR** environment variable must be set as follows:

```
XAPPLRESDIR=/usr/lib/X11/app-defaults
```

Technical notes

This section describes important notes and tips for using the NetWorker software.

NetWorker cloud backup option and network connectivity

Cloud backups are highly dependent on the network connection that is used to access the service. Any disruption in connectivity or a slowdown in network access speed may adversely affect cloud backups or recoveries.

Additionally, if you define large Network Write Sizes for the cloud device, make sure to set the Send/Receive Timeout attribute proportionally high to avoid read/write timeouts. Optimal values for send/receive timeouts vary depending on the network speed and bandwidth.

Open File Management on Microsoft Windows

NetWorker clients will automatically use VSS for file system backups, avoiding the need for Open File Manager. A license is not required when used in conjunction with a NetWorker server.

NetWorker clients prior to release 7.4 Service Pack 2 also automatically use VSS for file systems backups, whether or not the NetWorker VSS Client for Microsoft

Windows is installed. However, those clients will require a NetWorker VSS Client Connection license.

Table 14 Recommended management of open files

Windows 2000 and XP	Windows 2003	Windows 2008 and Vista
No VSS is available in the operating system. For all versions of NetWorker, use Open File Manager to back up open files.	Use VSS to back up open files. <ul style="list-style-type: none"> • If both client and server are using release 7.4 Service Pack 2 or later, no VSS Client Connection license is required. • If client or server are at using a release prior to 7.4 Service Pack 2, a VSS Client Connection license is required. 	Use VSS to back up open files. <ul style="list-style-type: none"> • If both client and server are Windows 2008, no VSS Client Connection license is required. • If the client is Windows Vista and the server is using release 7.4 Service Pack 2 or later, no VSS Client Connection license is required. • If a Windows 2008 or Vista client is used with a server using a release prior to 7.4 Service Pack 2, a VSS Client Connection license is required.

EMC NetWorker License Manager not supported on Solaris Opteron platform

The 7.6 NetWorker release does not support the EMC NetWorker License Manager on the Solaris Opteron platform.

NetWorker Management Console does not support Microsoft Internet Explorer version 7.0

Microsoft Internet Explorer version 7.0 is not supported by NMC on any Windows platforms except Microsoft Vista.

A server does not support a NetWorker client running release 7.2.x or earlier

A NetWorker server does not support a NetWorker client running release 7.2.x or earlier.

Single clients or archive requests resource for UNIX non-ASCII paths support only one locale

A single Clients or Archive Requests resource supports non-ASCII UNIX paths belonging to only one locale. If you have paths in multiple locales, you must create multiple Clients or Archive Requests resource. A Clients or Archive Requests resource supports paths only from a single locale on UNIX.

Note: This limitation does not apply to Microsoft Windows paths.

VMware qualification

NetWorker release 7.6 and later is qualified with VMware. Chapter 20 of the *NetWorker Release 7.6 Administration Guide* provides more information on support for VMware.

Symbolic links are not restored during DAR recovery with NetApp

During a DAR recovery, symbolic links for files, directories, and other specific files, such as device files or named pipes, cannot be recovered. To recover these files, use the NetApp **restore** command with the **-x** option. The Network Appliance documentation has more information about the NetApp restore command.

SYSTEM save set archive unsupported on Microsoft Windows

Archiving of SYSTEM or VSS SYSTEM save sets is not currently supported.

NetWorker connections through a firewall

The **NSR_KEEPALIVE_WAIT** variable sets the timeout limit that the **nsrexecd** daemon uses to keep messages active once a connection to the NetWorker server has been established through a firewall. The period that **nsrexecd** will send keep-alive messages to **nsrexec** is adjustable by the **NSR_KEEPALIVE_WAIT** environment variable. Set this environment variable to the desired number of seconds between keep-alive wait messages. If the **NSR_KEEPALIVE_WAIT** variable is not set or is set to an invalid value, (0, a negative number, or a nonnumeric string) then no keep-alive message is sent.

Pause recommended between file creation and backup with EMC IP4700

If a level 1 to 9 backup is run on an EMC IP4700 filer within five minutes of creating a file, more files than expected may be saved. For example, if a level 1 backup is run, followed by a level 2 backup, and both of these backups complete within five minutes of the file being created, the newly created file might appear on both the level 1 and level 2 backups, even though the files should only be added to the level 1 backup. To avoid this problem, wait at least five minutes after creating a file to run a backup.

Bus reset can rewind tape on Microsoft Windows

Tape devices shared by more than one computer can experience unpredictable bus resets from any of the computers. These reset commands can cause a tape on a shared bus (such as SCSI or Fibre Channel) to rewind. The results can include:

- ◆ Tapes that are prematurely treated as full.
- ◆ Corrupted data on tapes.

System configurations that do not properly protect tape devices shared by more than one computer can experience these bus resets. Some switching hardware can be configured to protect tape devices from resets. Certain operating systems include built-in protection (that can be turned on by the user) against stray bus resets.

To determine whether the switch or operating system includes such protection, and to learn how to use it, refer to the manufacturer's documentation or contact the manufacturer.

Note: Whatever solution you select *must* block the reset command from the tape drives, but *must not* block it from certain cluster-controlled disks. The reset is a necessary part of the disk arbitration process in some cluster environments. To determine whether this applies in your environment, refer to the cluster documentation.

The NetWorker software does *not* support configuring a tape device in a shared SCSI or Fibre Channel environment without using either a hardware switch or an appropriate operating system solution to handle the bus reset issue.

Microsoft does not support attaching any tape drive to any shared SCSI bus that also hosts cluster-controlled disks because of this issue.

Older versions of Intel unsupported on NetWorker software on Linux

To take advantage of IA-32 586 and 686 optimizations in the compiler, as well as the new instructions provided on these architectures, the NetWorker release 7.6 for Linux does not support older versions of Intel, such as 486.

Note: NetWorker release 6.1.x for Linux fully supports older versions of Intel architecture, including 386 and 486.

NetWorker features that are unsupported for Windows NT 4.0, Windows 2000, and Windows Server 2003

These NetWorker features are unsupported on Windows:

- ◆ Directed recovery of Encrypting File Systems (EFS)
- ◆ Directed recovery of SYSTEM or VSS SYSTEM save sets
- ◆ Verified (-V) backup of the EFS
- ◆ Verified (-V) backup of SYSTEM or VSS SYSTEM save sets
- ◆ Archiving of SYSTEM or VSS SYSTEM save sets

Considerations when using an advanced file type device

The AFTD device can be deployed in varying environments with local disks, NFS and CIFS mounted/mapped disks. Operation of this feature is affected by the configuration. Ensure that the AFTD is fully operational in the production environment before you deploy it as part of regularly scheduled operations.

As part of the validation process, include these tests:

- ◆ Backup
- ◆ Recover
- ◆ Staging
- ◆ Cloning
- ◆ Maximum file-size compatibility between the operating system and a disk device
- ◆ Device behavior when the disk is full

Some versions of NFS or CIFS drop data blocks when a file system becomes full. Use versions of NFS, CIFS, and operating systems that fully interoperate and handle a full file system in a robust manner.

On some disk devices, the volume labelling process may take longer than expected. This extended labelling time depends on the type of disk device being used and does not indicate a limitation of the NetWorker software.

The upper limits of save set size depend on the upper limits supported by the operating system or the file size specified by the disk device vendor.

Configuration options to send write error alert if NFS mount of AFTD device fails silently while writing to AFTD

It is possible for the NFS mount of an AFTD device to fail silently during large writes to the AFTD, which can result in write operations in progress continuing on the underlying mount point in the local file system. To prevent this from occurring, use one of the following configurations which will send a write error at the point in time when the NFS mount fails:

- ◆ Ensure the local mount point permissions do not have local write permissions.
- ◆ Use the **overlay** mount option for operating systems that support this option (for example, **-O** on Solaris), so the local file system mount point is considered read-only.
- ◆ Create a sub-directory structure for the AFTD below the top-level mounted directory. This will result in the path becoming invalid if the NFS mount fails, producing a write error.

Disable a driver before configuring an a media library if the driver was automatically installed on Microsoft Windows 2000 or Server 2003

On a Windows 2000 or Server 2003 operating system, if a driver is automatically installed for a media library, first disable the driver before configuring a media library using the NetWorker software.

This does not apply to media library configured as RSM autochangers. Media libraries configured as RSM works with media library driver enabled.

Enabling NetWare 4.22 clients on Windows

Support for a NetWare client is controlled by the environment variable **NSR_SUPPORT_NetWare_4X**. By default, the supported is disabled. To enable support for NetWare clients set the server system environment variable **NSR_SUPPORT_NetWare_4X** to 1:

1. Open **Control Panel** and select **System**.
2. In **System Properties** attribute, select the **Advanced** tab.
3. Select the **Environment Variables** option. A new window will appear called **System Variables**.
4. Click **New**.
 - a. Type **NSR_SUPPORT_NetWare_4X** for the **Variable Name**.
 - b. Type **1** for the **Variable Value**.

5. Reboot the computer.
6. Open a command prompt window and type this command:

```
set NSR_SUPPORT_NetWare_4X=1
```

When NetWare support is enabled and a NetWare client establishes connection with the `nsrd` process, this message will appear in the daemon log file:

```
Support for NetWare clients is enabled
```

IMPORTANT

Authentication methods in the NetWorker 7.3.2 and later server have been changed to provide greater security. The 4.x client is no longer fully compatible with this version of the server. Upgrade to the 7.2.1 NetWorker client for NetWare. For NetWare 5.1 systems, apply LGTpa86701. Netware 5.0 and older systems are not compatible with the NetWorker 7.2.1 client for NetWare.

Manual backups from the client interface via the NetWare Console can be successfully completed. Note that manual backups will only use media from the default pool.

Adjusting client parallelism to decrease VSS backup failures on Microsoft Windows

If VSS is licensed and enabled and timeout failures occur when backing up save sets, try decreasing the value of the client Parallelism setting.

During a VSS backup, a snapshot is taken of each specified save set. The client Parallelism setting determines how many snapshots are taken concurrently. Since snapshots consume system resources, the more snapshots that are taken concurrently, the more likely it is that a snapshot will fail.

After a failed attempt, NetWorker software waits ten minutes before attempting another snapshot, as recommended by Microsoft. After three unsuccessful snapshot attempts, the backup of the save set fails.

When backing up a large number of save sets, decreasing the value of the client Parallelism helps to ensure successful snapshots.

Using the NSR_NDMP_RESTORE_LIMIT environment variable on Microsoft Windows

The `NSR_NDMP_RESTORE_LIMIT` environment variable is used to limit memory consumption during recoveries involving a large number of index entries (millions). This is specifically useful if there is not enough swap space or memory for the number of index entries selected for the recovery. If the variable is not set, the recovery might fail with an “out of memory” error message.

To avoid a failure:

1. In the NetWorker startup script, set the `NSR_NDMP_RESTORE_LIMIT` environment variable to an appropriate value.

2. The value of the **NSR_NDMP_RESTORE_LIMIT** environment variable determines the maximum number of entries that the **recover** program can allocate memory to. For example, if the total number of entries is 3 million, then the **NSR_NDMP_RESTORE_LIMIT** can be set to 50,000 or 1,000,000, but less than 3,000,000.
3. In the **NetWorker Administration** window, select **Recover**.
4. Select the files to recover, and click **OK**.

The recovery is divided into multiple recoveries, where each has the **NSR_NDMP_RESTORE_LIMIT** entries successfully recovered in their respective sessions.

Manually removing data left behind from a partial uninstall of NetWorker software on Microsoft Windows

When performing a partial uninstall of the NetWorker software by using the **Add/Remove Programs** option in the Windows Control Panel, if **Change** is selected, certain folders, files, and registry keys remain on the system. This occurs when the **Remove NetWorker Metadata** checkbox was left unselected.

To remove this data:

1. Open Windows Explorer, and delete **%SystemDrive%\Program Files\Legato\nsr**.
2. Open the Windows Registry Editor, and delete `<\HKEY_CURRENT_USER\Software\Legato>`.

If **Remove** is selected, the checkbox will not appear and a partial uninstall is performed.

Client retries setting with VMware Consolidated Backups

When using NetWorker software with VMware Consolidated Backups (VCB), the Client Retries attribute for Group resources should be set to 0. If Client Retries is set to any value higher than 0 and the backup fails, the NetWorker software will retry the backup regardless of the state of the VCB backup itself. This can result in the VMware utility generating errors such as "mount point already exists" or "backup snapshot already exists."

Change to save set expiration time

When a save set reaches its scheduled browse or retention policy deadline (the day when the save set expires or becomes no longer browsable), the time of expiration on that day is 23:59:59 (11:59:59 P.M.). For NetWorker releases 7.2.x and earlier, the time of expiration for the save set matches the time of day the save set was originally created.

For example, if a save set was backed up on May 1, 2005 at 1:00 P.M. and the browse or retention policy is set to 5 years, with NetWorker releases 7.2.x and earlier, the save set would have expired on May 1, 2010 at 1:00 P.M. With NetWorker releases 7.3.x and later, the save set will expire on May 1, 2010 at 11:59:59 P.M.

Documentation

This section describes the documentation for the following NetWorker releases:

- ◆ [“NetWorker product documentation” on page 160](#)
- ◆ [“NetWorker related documentation” on page 161](#)
- ◆ [“NetWorker 7.6 documentation errata” on page 161](#)

NetWorker product documentation

This section describes the additional documentation and information products that are available with NetWorker.

EMC NetWorker Installation Guide

Provides instructions for installing or updating the NetWorker software for clients, console and server on all supported platforms.

EMC NetWorker Cluster Installation Guide

Contains information related to installation of the NetWorker software on cluster server and clients.

EMC NetWorker Administration Guide

Describes how configure and maintain the NetWorker software.

EMC NetWorker Release Notes

Contains information on new features and changes, fixed problems, known limitations, environment and system requirements for the latest NetWorker software release.

EMC NetWorker Licensing Guide

Provides information about licensing NetWorker products and features.

NetWorker Error Message Guide

Provides information on common NetWorker error messages.

NetWorker Performance Tuning Guide

Contains basic performance tuning information for NetWorker.

NetWorker Command Reference Guide

Provides reference information for NetWorker commands and options.

NetWorker Management Console Online Help

Describes the day-to-day administration tasks performed in the NetWorker Management Console and the NetWorker Administration window. To view Help, click **Help** in the main menu.

NetWorker Data Domain Deduplication Devices Integration Guide

Provides planning and configuration information on the use of Data Domain devices for data deduplication backup and storage in a NetWorker environment.

NetWorker User Online Help

The NetWorker User program is the Windows client interface. Describes how to use the NetWorker User program which is the Windows client interface connect to a NetWorker server to back up, recover, archive, and retrieve files over a network.

NetWorker related documentation

For more information about NetWorker software, refer to this documentation:

EMC Information Protection Software Compatibility Guide

A list of supported client, server, and storage node operating systems for the following software products: AlphaStor, ArchiveXtender, DiskXtender for Unix/Linux, DiskXtender for Windows, Backup Advisor, AutoStart, AutoStart SE, RepliStor, NetWorker, and NetWorker Modules and Options.

E-lab Issue Tracker

Issue Tracker offers up-to-date status and information on NetWorker known limitations and fixed bugs that could impact your operations. E-Lab Issue Tracker Query allows you to find issues in the Issue Tracker database by matching issue number, product feature, host operating system, fixed version, or other fields.

NetWorker Procedure Generator

The NetWorker Procedure Generator (NPG) is a stand-alone Windows application used to generate precise user driven steps for high demand tasks carried out by customers, Support and the field. With the NPG, each procedure is tailored and generated based on user-selectable prompts. This generated procedure gathers the most critical parts of NetWorker product guides and combines experts' advice into a single document with a standardized format.

Note: To access the E-lab Issue Tracker or the Procedure Generator, go to <http://www.Powerlink.emc.com>. You must have a service agreement to use this site.

Technical Notes and White Papers

Provides an in-depth technical perspective of a product or products as applied to critical business issues or requirements. Technical Notes and White paper types include technology and business considerations, applied technologies, detailed reviews, and best practices planning.

NetWorker 7.6 documentation errata

The following section outlines corrections and/or additions to the NetWorker release 7.6 documentation.

Windows 2008 not supported as VCB proxy

The chapter "Support for VMware" of the *NetWorker Release 7.6 Administration Guide* incorrectly identifies support for Windows 2008 as a VCB proxy host. The reference to Windows 2008 should be removed and the statement should read:

"The VMware Consolidated Backup (VCB) proxy system must be running Microsoft Windows 2003 (with at least SP1 installed)."

Referenced Technical Bulletin 377 no longer available

The *EMC NetWorker License Manager 9th Edition Installation and Administration Guide* refers to the following technical bulletin on page 32:

EMC Technical Bulletin 377: How Host IDs Change on a Microsoft Windows Computer

This technical bulletin is no longer available.

Added information to the topic “Resolvable names for multiple network interface cards”

The section “Resolvable names for multiple network interface cards” in Chapter 30, Troubleshooting of the *NetWorker Release 7.6 Administration Guide* should contain the following information:

“If any component of NetWorker (client, storage node, server) has multiple network interface cards (NICs) with unique IPs and hostnames, all NICs must be configured and must be resolvable names, even if one or more NICs are not being used. Failure to have all NICs resolvable may cause problems with host connectivity to the NetWorker server.

Follow these steps to configure NetWorker so that the appropriate hostname is used for the associated IP, and to ensure the hosts file and routing table on the machine are configured properly.

- ◆ Set up DNS so that a separate name is associated with each IP
- ◆ Configure the hosts file and routing table on each machine that has multiple interfaces with the appropriate IP
- ◆ Configure NetWorker to use the names configured in steps 1 and 2.

Example for configuring multiple NICs

In the following example, a dual-interface client connects to the NetWorker Server and Storage Node over **interface1** having IP **1.1.1.1** and has a dedicated connection to the Storage Node over **interface2** having IP **2.2.2.1**. The user wants to send all data to the Storage Node over **interface2** instead of the default **interface1**.

1. Configure DNS with unique hostnames for IPs **1.1.1.1** and **2.2.2.1**. For example, **client-1** maps to **1.1.1.1** and **client-2** maps to **2.2.2.1**. DNS should also be configured with unique hostnames for the IPs on the Storage Node. For example, **node-1** maps to **1.1.1.2** and **node-2** maps to **2.2.2.2**.
2. Configure the routing table on the client to route the traffic through the correct interface, and add the two IPs to the local hosts file.
3. In NetWorker, enter **node-2** in the Storage Node Affinity List of the client.”

Important note added to Administration Guide for running the inquire command

The *NetWorker Release 7.6 Administration Guide* should contain the following note regarding the use of the inquire command where instructions are provided for running the command:

IMPORTANT

Use the inquire command with caution. The inquire command sends the SCSI inquiry command to all devices detected on the SCSI bus. Running inquire during normal operations may cause unforeseen errors and possible data loss may result.

Issues with replication node recovery and setting the RECOVER_FROM_REP_HOST environment variable

The *NetWorker Release 7.5 Administration Guide* should include the following information regarding replication node recovery and setting the environment variable **RECOVER_FROM_REP_HOST**:

“If recovery from a replication node fails and all of the prerequisites listed in the section “[Recovery from a replication node](#)” have been met, try one of the following workarounds:

Option 1: Set the RECOVER_FROM_REP_HOST environment variable

Set the RECOVER_FROM_REP_HOST environment variable to **Yes**. Setting this environment variable to Yes will cause NetWorker to attempt to recover from the replication node first before attempting to recover from the primary deduplication node. Be aware of the following when using this option:

- ◆ This environment variable only works with command line recoveries.
- ◆ Set and then export the variable value before using the **recover** command.

Option 2: use the recover -X option

If the replication node name has changed from the time when the backup was performed, you may need to use the recover -X command argument to recover from the replication node. For example:

```
recover -c scip2b081 -d /tmp -X "Replication Node=replication_node"
/usr/sbin/ansrd
```

Where *replication_node* is the name of the new replication node.

Note: You can also use **recover -X "Deduplication Node=deduplication_node"** to recover from a primary deduplication node whose name has changed since the original backup."

ConnectEMC Release Notes contain wrong version number

The version identified in the ConnectEMC Release Notes (version 3.0) does not match the version of the installed ConnectEMC Console, which is version 4.0 or later. The version in the Release Notes should read 4.0.x.

Incorrect table reference

The *NetWorker Release 7.6 Administration Guide* on page 323 contains an incorrect reference to table 50 on page 313. The reference should be to table 52 on page 323.

Installation

This section provides information on installing and updating the NetWorker software. More information on installation and updating procedures is provided in the *EMC NetWorker Release 7.6 Installation Guide*.

NetWorker Release 7.6 and Service Packs

This section provides information on installing and updating the NetWorker Release 7.6 software:

- ◆ ["NetWorker client location and space requirements"](#) on page 163
- ◆ ["Update enablers automated when license expires"](#) on page 165
- ◆ ["Java not included with the NetWorker software"](#) on page 165
- ◆ ["Installing the NetWorker client in a failover zone"](#) on page 165

NetWorker client location and space requirements

This section specifies the location and space requirements for the NetWorker client software for NetWorker Release 7.6.

Microsoft Windows

Table 16 on page 164 specifies the location and space requirements for the NetWorker client software in a Microsoft Windows environment.

Table 16 Microsoft Windows location and space requirements

NetWorker files	Location	Space		
		x86	x64	ia64
NetWorker client files and NetWorker catalog	Legato\nsr\	110 MB	110 MB	110 MB
EMC HomeBase agent binary	Legato\HomebBaseAgent\	400 MB	400 MB	Not applicable
Temporary space required for EMC HomeBase agent	%TEMP%	400 MB	400 MB	Not applicable

Linux

Table 17 on page 164 specifies the location and space requirements for the NetWorker client software in a Linux environment.

Table 17 Linux location and space requirements

NetWorker files	Location	Space		
		x86	x64	ia64
NetWorker client files and NetWorker catalog	/usr/bin /usr/sbin /usr/lib/nsr /opt/nsr	110 MB	110 MB	110 MB
EMC HomeBase agent binary	/opt/homebase-agent/	400 MB	400 MB	not applicable
Temporary space required for EMC HomeBase agent	/tmp	400 MB	400 MB	not applicable

Solaris location and space requirements

Table 18 on page 164 specifies the location and space requirements for the NetWorker client software in a Solaris environment.

Table 18 Solaris location and space requirements

NetWorker files	Location	Space		
		Sparc	x86	amd64
NetWorker client files and NetWorker catalog	/usr/bin /usr/sbin /usr/lib/nsr /opt/nsr	200 MB	200 MB	200 MB
EMC HomeBase agent binary	/opt/homebase-agent/	440 MB	not applicable	not applicable
Temporary space required for EMC HomeBase agent	/tmp	440 MB	not applicable	not applicable

Installing ConnectEMC

When performing a new installation of the NetWorker software, a prompt to install ConnectEMC displays after you select the installation type (either server, client, or server and client). ConnectEMC is a program that generates an .xml file once per month from information in the RAP database (such as data related to system configuration and server errors), and sends the file to EMC Corporate Customer Service for the purpose of analyzing the customer's NetWorker configuration if a failure occurs.

If installing ConnectEMC, the minimum installation must be client and it must be installed on a system running Windows 32-bit (x86). More information on installing ConnectEMC and best practices for installing is provided in the *NetWorker Release 7.6 Installation Guide*.

Installing ConnectEMC when updating the software

The ConnectEMC prompt does not appear if you are updating the NetWorker software. If you are updating a client to NetWorker release 7.6 from a previous release and you want to install ConnectEMC, you must uninstall then reinstall on the client.

Update enablers automated when license expires

At the completion of a successful installation, when the NetWorker server starts, a check occurs to determine whether an Update enabler is required. If an Update enabler is required, the enabler is added automatically.

After the update enabler is added, the NetWorker server generates an alert and displays the alert in NMC (and in nsrwatch) to notify that this enabler needs to be authorized within 45 days.

Note: If you are upgrading from a 7.5.x release to 7.6, an update enabler is not generated and not required. If you are upgrading from any release previous to 7.5 to release 7.6, the update enabler is auto-generated. However, the enabler indicates "Update enabler for 7.5" and will need to be authorized for a 7.6 server within 45 days.

Java not included with the NetWorker software

Java is not included with the NetWorker install. When installing the Console server software, a minimum JRE version of 1.6 is required, depending on the operating system. Java is required to run the Console GUI, but is optional for the NMC server.

If you do not have the required Java version installed, go to the Java website to download and install the appropriate JRE version. The NMC console cannot be started until the appropriate JRE version is installed.

Installing the NetWorker client in a failover zone

The NetWorker software supports installation of the NetWorker client in a failover zone. More information on failover zone setup is provided in the Sun Cluster Data Service for Solaris Containers Guide, available at:

<http://dlc.sun.com/pdf/819-3069/819-3069.pdf>

Note: A NetWorker server or storage node cannot be installed in a failover zone. Also, an active/active configuration is not supported.

To make the NetWorker client highly available, use the following steps:

1. After the zone has been set up as a failover zone with the SUNWsczone tool **sczbt**, install the NetWorker Client.
2. When setting up the **sczsh_config** configuration file, make sure the following parameters are specified with these values:

```
"ServiceStartCommand="/etc/init.d/networker start"
"ServiceStopCommand="/usr/sbin/nsr_shutdown"
"ServiceProbeCommand="/usr/sbin/nsrzoneprobe"
```

3. Run **sczsh_register** to register.

Note: You must have Solaris 10 or later installed to use any zone functionality, and the SUN cluster must be installed in order to use the failover functionality.

Reconfiguring Console authentication for LDAP if NMC fails to start after update

If a NetWorker 7.5.x Console server is configured to use LDAP for authentication and you are updating to release 7.6, in some cases NMC may fail to start after the update. If this occurs, the **gstd.raw** file in the Console's logs directory contains the message "acm: External directory library initialization failed".

Workaround

Reset the Console authentication configuration and reconfigure LDAP by performing the following steps:

1. Ensure that the **gstd** service is not running. If **gstd** is running, stop the service.
2. Go to `<NMC install directory>/lcs`.
3. Delete the files **Config.xml**, **csp.clb**, **csp.clb.bak** and **upgrade_cst.tag**, if present.
4. Copy **Config.xml.template** to **Config.xml**.
5. Start the Console.

The Console starts in native authentication mode.

6. Log in as Console's 'administrator' user with the password that was last set for this user before switching to LDAP mode.
7. Go to **Setup > Configure Login Authentication** and configure LDAP again.

Troubleshooting and getting help

EMC support, product, and licensing information can be obtained as follows.

Product information — For documentation, release notes, software updates, or for information about EMC products, licensing, and service, go to the EMC Powerlink website (registration required) at:

<http://Powerlink.EMC.com>

Technical support — For technical support, go to EMC Customer Service on Powerlink. To open a service request through Powerlink, you must have a valid support agreement. Please contact your EMC sales representative for details about obtaining a valid support agreement or to answer any questions about your account.

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