



RELEASE NOTES

# EMC<sup>®</sup> NetWorker<sup>®</sup> Module for Databases and Applications

Release 1.0

## Release Notes

P/N 300-009-223

REV A03

January 18, 2010

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These release notes contain supplemental information about EMC NetWorker Module for Databases and Applications (NMDA) release 1.0. Topics include:

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Before installing the NMDA software, and then periodically after the installation, refer to the latest release of this document on the Powerlink website at <http://Powerlink.EMC.com>.

## Revision history

The following table presents the revision history of this document.

Revision	Date	Description
A03	January 18, 2010	Added the section <a href="#">“Installation guide — Client resource values set by the conversion”</a> under <a href="#">“Documentation errata”</a> on page 41.
A02	January 11, 2010	Added the section <a href="#">“Administration guide — Configure a Lotus DAOS backup”</a> under <a href="#">“Documentation errata”</a> on page 41.
A01	November 24, 2009	Initial release of this document.

## Product description

NMDA software is an add-on module for the EMC<sup>®</sup> NetWorker<sup>®</sup> server that replaces all the following NetWorker modules on the supported UNIX, Linux, or Windows operating systems:

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

NMDA software provides all the features and functionality that were previously included in these NetWorker modules, along with new enhancements.

NMDA includes the following major features that are supported for *all* database and application operations:

- ◆ Regular (non-snapshot) backups and restores of the database or application server data.
- ◆ Cluster backups and restores.
- ◆ Deduplication backups and restores. [“Deduplication backups and restores”](#) on page 7 provides more details.
- ◆ Internationalization support. [“Internationalization support”](#) on page 12 provides more details.
- ◆ Conversion of backup configurations with the **nsrdaadmin** command:
  - Conversion of a legacy NetWorker module configuration to an NMDA configuration.
  - Conversion of an NMDA client-side configuration to a server-side configuration.

**Note:** A client-side configuration is created with the NMC nonwizard method. A server-side configuration is created with the configuration wizard.

[“Conversion of backup configurations”](#) on page 10 provides details.

- ◆ Multiple database installations on the same host.
- ◆ Probe-based (event-based) backups. [“Probe-based backups” on page 9](#) provides more details.
- ◆ VMware support, including support of VMotion, Distributed Resource Scheduler (DRS), and High Availability (HA). [“VMware support” on page 9](#) provides more details.
- ◆ Backups and restores in cloud configurations.
- ◆ Internet Protocol version 6 (IPv6) support.

NMDA also includes the following major features that are supported for specific database or application operations:

- ◆ DB2-specific NMDA features:
  - Automatic transaction log backups
  - DB2 Database Partitioning Feature (DPF) and multinode backups and restores
  - DB2 history pruning
  - EMC PowerSnap™ snapshot backups and restores
  - Scheduled backup configuration wizard, integrated with NetWorker Management Console (NMC)
- ◆ Informix-specific NMDA features:
  - Automatic logical log backups
- ◆ Lotus-specific NMDA features:
  - Lotus DAOS backups and restores
  - Lotus Notes document-level recovery
  - Partitioned Domino servers
  - Scheduled backup configuration wizard, integrated with NMC
- ◆ Oracle-specific NMDA features:
  - Oracle Real Application Cluster (RAC)
  - Policy uniformity, which ensures that dependent save sets in the same scheduled backup cycle or save set bundle receive the same browse and retention policies
  - PowerSnap snapshot backups and restores
  - Recovery configuration wizard, integrated with NMC
  - Replication Manager snapshot backups and restores of Oracle ASM
  - Save set bundling and staging through the NetWorker server
  - Scheduled backup configuration wizard, integrated with NMC
- ◆ Sybase-specific NMDA features:
  - Database backup and restore verification
  - Exclusion of multiple user-defined temporary databases from backup
  - Password-protected database backups and restores
  - Sybase Adaptive Server Enterprise (ASE) Cluster Edition

Unless specified otherwise, NMDA feature support requires NetWorker server and client release 7.4 or later.

The following sources provide more information:

- ◆ “Major configuration changes from legacy NetWorker modules to NMDA” on page 4 provides details on major differences between the legacy modules and NMDA.
- ◆ “New features and changes” on page 7 provides details on specific major features in the NMDA software.
- ◆ The *EMC NetWorker Module for Databases and Applications Release 1.0 Installation Guide* provides details on the installation requirements of the NMDA software.
- ◆ The *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides details on how to configure and use the NMDA software features.
- ◆ The *EMC Information Protection Software Compatibility Guide* on the EMC Powerlink® website at <http://Powerlink.EMC.com> provides details on the platforms, operating systems, database or application server releases, and other software components that NMDA supports.
- ◆ The PowerSnap Module documentation provides details on the PowerSnap Module releases and requirements for PowerSnap snapshot backups and restores.
- ◆ The Replication Manager documentation provides details on the Replication Manager releases and requirements for snapshot backups and restores of Oracle ASM.

## Major configuration changes from legacy NetWorker modules to NMDA

Table 1 on page 4 compares the major configurations in the legacy NetWorker modules and NMDA software, and outlines any changes in those configurations.

Most NMDA parameters must be set in the NMDA configuration file. Configuration file templates are installed in the following directories:

- ◆ On UNIX and Linux: `/nsr/apps/config`
- ◆ On Windows: `NetWorker_install_path\apps\config`

**Table 1 Configuration changes from legacy NetWorker modules to NMDA (page 1 of 3)**

Feature or parameter in legacy NetWorker module	Corresponding feature or parameter in NMDA
NSR_DEBUG_FILE = <i>debug_file_full_path</i> .	Replaced by NSR_DIAGNOSTIC_DEST = <i>debug_directory_full_path</i> .
NSR_ENCRYPTION parameter.	Parameter is dropped. Specify backup encryption through the NSR_AES_ENCRYPTION parameter.
<b>NetWorker Module for DB2 (NMDB2)</b>	
Scheduled backup (configured <i>without</i> the wizard) performed through the <code>nsrdb2sv -f configuration_file</code> command.	Replaced by scheduled backup (configured <i>without</i> the wizard) performed through the <code>nsrdasv -z configuration_file</code> command.  <b>Note:</b> The NMDA <i>configuration_file</i> supports the NMDB2 <i>configuration_file</i> format.

Table 1 Configuration changes from legacy NetWorker modules to NMDA (page 2 of 3)

Feature or parameter in legacy NetWorker module	Corresponding feature or parameter in NMDA
Manual backup through the <b>db2</b> commands.	No change.
Restore through the <b>db2</b> commands.	No change.
DB2_PSWD parameter.	Replaced by USER_PSWD parameter. Set the password value in the parameter through the <b>nsrdaadmin -P</b> command.
DB2_USR parameter.	Replaced by DB2_USER parameter.
NSR_DB2_BACKUP_INFO parameter.	Replaced by NSR_DR_BACKUP_INFO parameter. If NSR_DB2_BACKUP_INFO was <i>not</i> set, NSR_DR_BACKUP_INFO is set to TRUE (default).
NSR_DB2_CONFIG_FILE parameter.	Replaced by NSR_DR_FILE_LIST parameter.
NSR_*_DEBUG* parameters.	Replaced by NSR_DEBUG_LEVEL parameter.
<b>NetWorker Module for Informix (NMI)</b>	
Scheduled backup performed through the <b>nsrdbmi</b> shell/batch script.	Replaced by scheduled backup performed through the <b>nsrdasv -z configuration_file</b> command.
Manual backup performed through the <b>onbar</b> commands.	No change.
Restore performed through the <b>onbar</b> commands.	No change.
BOOTFILE parameter.	Replaced by NSR_DR_FILE_LIST parameter.
DO_BOOTFILE_BACKUPS parameter.	Replaced by NSR_DR_BACKUP_INFO parameter.
<b>NetWorker Module for Lotus (NML)</b>	
Scheduled backup (configured <i>without</i> the wizard) or manual backup performed through the <b>nsrnotesv -z configuration_file</b> command.	Replaced by scheduled backup (configured <i>without</i> the wizard) or manual backup performed through the <b>nsrdasv -z configuration_file</b> command.  <b>Note:</b> The NMDA <i>configuration_file</i> supports the NML <i>configuration_file</i> format.
Scheduled backup configured with the NML 3.0 wizard.	Replaced by scheduled backup configured with the new NMC wizard.
Restore performed through the <b>nsrnotesrc -z configuration_file</b> command.	No change.
Manual backup or restore performed through the NetWorker User for Lotus GUI ( <b>nwbml.exe</b> ) on Windows <i>only</i> .	No change.
Document-level recovery performed through the <b>nsrdocrc -z configuration_file</b> command.	No change.
Document-level recovery performed through the Notes client GUI on Windows <i>only</i> .	No change.
LOTUSUSER parameter.	Replaced by LOTUS_USER parameter.
	New NMDA parameters are added: <ul style="list-style-type: none"> <li>• NSR_EXCLUDE_LIST</li> <li>• NSR_NOTES_INI_PATH</li> <li>• NSR_RECOV_LIST_FILE</li> <li>• NSR_SAVESET_NAME</li> </ul>

Table 1 Configuration changes from legacy NetWorker modules to NMDA (page 3 of 3)

Feature or parameter in legacy NetWorker module	Corresponding feature or parameter in NMDA
<b>NetWorker Module for Oracle (NMO)</b>	
Scheduled backup (configured <i>without</i> the wizard) performed through the <b>nsrnmo</b> shell/batch script.	Replaced by scheduled backup (configured <i>without</i> wizard) performed through the <b>nsrdasv -z configuration_file</b> command.
Manual backup performed through the Oracle RMAN interface.	No change.
Restore performed through the Oracle RMAN interface.	No change.
NSR_SB_DEBUG_FILE parameter.	Replaced by NSR_DEBUG_LEVEL=1 parameter.
<b>NetWorker Module for Sybase (NMS)</b>	
Scheduled backup performed through the <b>nsrsyb</b> shell/batch script.	Replaced by scheduled backup performed through the <b>nsrdasv -z configuration_file</b> command.
Manual backup performed through the <b>nsrsybsv command_line_options</b> command.	Replaced by manual backup performed through the <b>nsrdasv -z configuration_file</b> command.
Database consistency check performed through the <b>nsrsybcc command_line_options</b> command.	No change.
Restore performed through the <b>nsrsybrc command_line_options</b> command.	No change.
Manual backup or restore performed through the NetWorker User for Sybase GUI ( <b>nwbms.exe</b> ) on Windows <i>only</i> .	No change.
BACKUP_OPT parameter.	Parameter is dropped.
<b>-G, -R, and -T</b> options of <b>nsrsybsv</b> command.	Replaced by NSR_DUMP_LOG_OPT parameter.
<b>-I</b> option of <b>nsrsybsv</b> command.	Replaced by NSR_BACKUP_LEVEL parameter.
<b>-p</b> option of <b>nsrsybsv</b> command.	Replaced by NSR_PROMOTE_FULL parameter.
<b>-P</b> option of <b>nsrsybsv</b> command, or password setting in the Client resource.	Replaced by USER_PSWD parameter. Set the password value in the parameter through the <b>nsrdaadmin -P</b> command.
<b>-r</b> option of <b>nsrsybsv</b> command.	Replaced by NSR_ASE_PASSWORD parameter.
<b>-U</b> option of <b>nsrsybsv</b> command, or remote user setting in the Client resource.	Replaced by SYBASE_USER parameter.
<b>-V</b> option of <b>nsrsybsv</b> command.	Replaced by NSR_ASE_VERIFY parameter.
	New NMDA parameters are added: <ul style="list-style-type: none"> <li>LD_LIBRARY_PATH64</li> <li>NSR_BACKUP_PATHS</li> </ul>

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## New features and changes

The following sections provide details on what is and is not supported in specific NMDA features:

- ◆ [“Backups and restores in cloud configurations” on page 7](#)
- ◆ [“Deduplication backups and restores” on page 7](#)
- ◆ [“Probe-based backups” on page 9](#)
- ◆ [“VMware support” on page 9](#)
- ◆ [“Configuration wizards” on page 10](#)
- ◆ [“Conversion of backup configurations” on page 10](#)
- ◆ [“New platform support” on page 11](#)
- ◆ [“Support for multiple installations of multiple databases on the same host” on page 11](#)
- ◆ [“Internationalization support” on page 12](#)
- ◆ [“IPv6 support for regular backups and restores” on page 12](#)
- ◆ [“Lotus DAOS backups and restores” on page 13](#)
- ◆ [“Oracle snapshot backups of Oracle ASM with Replication Manager” on page 13](#)

The *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides complete details on all the NMDA software features.

[“Known problems and limitations” on page 14](#) provides details on known problems and limitations that exist in the NMDA software.

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### Backups and restores in cloud configurations

NMDA provides support for backups and restores in private or public cloud configurations for all supported databases and applications.

NMDA provides the same cloud support as NetWorker, including an option to send the application backup directly to a cloud device, if required.

NMDA support of cloud backups and restores requires the NetWorker server and client release 7.6 or later.

The EMC NetWorker documentation provides details on how to configure and perform cloud operations.

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### Deduplication backups and restores

NMDA provides support for deduplication backups and restores.

During a deduplication backup, an EMC Avamar<sup>®</sup> server (the NetWorker deduplication node) deduplicates the data from the NMDA client. After an initial full backup, the Avamar server backs up only the unique data blocks (*not* entire files) that contain changes.

Deduplication can be offloaded to a proxy host by using snapshot-based backups.

### Regular (non-snapshot) deduplication requirements

Regular deduplication backups and restores, which do *not* use a PowerSnap Module to create snapshots, require the following software:

- ◆ NetWorker server release 7.5 or later
- ◆ NetWorker client release 7.5 or later

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**Note:** NMDA supports deduplication on all the operating systems on which the NetWorker client (installed on the NMDA host) supports file system deduplication.

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- ◆ Avamar server supported by the NetWorker server

NMDA can recover deduplication backups performed with NMDDB2 release 4.0 or NMO release 5.0.

### PowerSnap deduplication requirements

PowerSnap deduplication backups and restores require the following software:

- ◆ PowerSnap Module release 2.5 or later
- ◆ NetWorker server release 7.5.1 or later
- ◆ NetWorker client release 7.5.1 or later

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**Note:** NMDA supports deduplication on all the operating systems on which the PowerSnap Module (installed on the NMDA host) supports file system deduplication.

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- ◆ Avamar server supported by the NetWorker server

The PowerSnap documentation provides information on the operating systems on which PowerSnap supports deduplication.



#### **IMPORTANT**

**For NetWorker server release 7.5.1 *only*, ensure that the LGTsc28689 hotfix has been applied on the server host *before* you perform a scheduled PowerSnap deduplication backup. To obtain the hotfix, contact your EMC Customer Support Representative.**

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### Backup operations not supported by deduplication

Deduplication operations do *not* support the following:

- ◆ AES encryption, checksumming, or compression of deduplicated data through the NSR\_AES\_ENCRYPTION, NSR\_CHECKSUM, or NSR\_COMPRESSION parameter, respectively

If NSR\_AES\_ENCRYPTION, NSR\_CHECKSUM, or NSR\_COMPRESSION is set for a deduplication backup, NMDA applies the AES encryption, checksumming, or compression, respectively, to only the metadata that is stored on the NetWorker storage node.

- ◆ Cloning or staging of deduplicated data on the Avamar server

Only the metadata (hash information) stored on the NetWorker backup volumes can be cloned or staged. However, deduplicated data on the Avamar server can be *replicated* to another Avamar server that has been configured as a



replication node by EMC Professional Services. Avamar documentation and the *EMC NetWorker Administration Guide* provide details on replication of deduplicated data.

PowerSnap deduplication backups do *not* support the following:

- ◆ Backup of data in instant (PIT) backups

**Note:** PowerSnap deduplication backups support only the backup of data that is rolled over to secondary storage.

- ◆ Backup of raw devices or volumes

The PowerSnap documentation provides details on any additional requirements and limitations of PowerSnap deduplication backups and restores.

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## Probe-based backups

NMDA provides support for probe-based backups. A probe-based backup, also known as an *event-based* backup, is a type of scheduled backup that is started by the NetWorker server when specified conditions are met.

NMDA probe-based backups require the following NetWorker software:

- ◆ NetWorker server release 7.5 or later
- ◆ NetWorker client release 7.4 or later

NMDA does *not* support probe-based backups for the following:

- ◆ PowerSnap snapshot backups
- ◆ Cluster environments, including DB2 DPF, Oracle RAC, or Sybase ASE Cluster Edition

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## VMware support

NMDA software provides support for regular backups and restores of the database or application installed on a VMware Virtual Machine (VM) on an ESX server, including the following advanced features of a VMware ESX server:

- ◆ VMotion
- ◆ Distributed Resource Scheduler (DRS)
- ◆ High Availability (HA)

VMware documentation provides details on these advanced features.

NMDA support of these VMware features requires NetWorker server release 7.5 or later.

NMDA supports VMware features for regular backups and restores, *not* for PowerSnap snapshot backups and restores.

If a restart of a guest operating system occurs during an NMDA backup or restore, the backup or restore *fails*. A manual backup or restore must be restarted *manually* when the guest operating system is restarted. In the case of a scheduled backup, the NetWorker server retries the backup if the Client Retries attribute in the Group

resource is set to a nonzero value. The *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides details on Oracle RMAN options for restartable backups.

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## Configuration wizards

NMDA provides support for backup and recovery configuration wizards that are integrated with the NetWorker Management Console (NMC). The wizards provide security and ease of management for backup and recovery configurations.

NMDA supports the following configuration wizards:

- ◆ Backup configuration wizard that configures scheduled backups (either typical or custom) of DB2, Lotus, and Oracle data *only* on the NMDA client
- ◆ Recovery configuration wizard that generates Oracle RMAN restore and recovery scripts designed to:
  - Restore Oracle data to the original host
  - Create a duplicate Oracle database on a local or remote host

NMDA support of the wizards requires NMC server, NetWorker server, and NetWorker client release 7.5 or later.

## Features not supported with the wizards

The scheduled backup configuration wizards do *not* support the following:

- ◆ Configuration of probe-based (event-based) backups

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**Note:** A NetWorker Client resource created with the wizard *can* be associated with a probe.

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- ◆ Configuration of backups in active-active application clusters, such as DB2 DPF, Oracle RAC, or Sybase ASE Cluster Edition
- ◆ Configuration of PowerSnap snapshot backups
- ◆ Configuration of Oracle split-mirror backups that require the Replication Manager
- ◆ Configuration of two different database backups in the same Client resource
- ◆ Modification of a NetWorker module backup configuration that was created with the wizard from another NetWorker module
- ◆ Modification of a client-side NMDA configuration that was created with the NMC method (*without* a wizard)

The Oracle recovery configuration wizard does *not* support the configuration of Oracle RMAN scripts in a cluster environment.

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## Conversion of backup configurations

Any existing legacy NetWorker module configuration, created with or without a configuration wizard, must be converted to an NMDA configuration before it can be used with the NMDA software. You can convert the configuration with the **nsrdaadmin -M** command.

“Major configuration changes from legacy NetWorker modules to NMDA” on page 4 describes the configuration changes that occurred between the legacy NetWorker modules and NMDA.

If you want to use the NMDA configuration wizard to modify an NMDA configuration that was created *without* the wizard, you must use the **nsrdaadmin -W** command to convert the NMDA client-side (nonwizard) configuration to an NMDA server-side (wizard) configuration.

The NMDA wizard can modify NMDA server-side configurations *only*.

Conversion of a PowerSnap snapshot backup configuration is *not* supported.

Use of the **nsrdaadmin** command to convert any configuration to an NMDA *server-side* configuration requires the NetWorker server and client release 7.5 or later.

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## New platform support

NMDA 1.0 provides the following new platform support for specific applications:

- ◆ 64-bit AIX and Windows support for Lotus Domino



### **IMPORTANT**

**To use NMDA with 64-bit Domino on AIX, follow the steps outlined in “NW101758” on page 29.**

- ◆ 64-bit HP-UX Itanium and Windows support for Sybase
- ◆ 64-bit Solaris AMD64/EM64T and Windows support for Informix

The *EMC Information Protection Software Compatibility Guide* on Powerlink provides details on the platforms, operating systems, database or application server releases, and other software components that NMDA supports.

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## Support for multiple installations of multiple databases on the same host

Specific combinations of 32-bit and 64-bit application software can coexist on the same 64-bit AIX, HP-UX PA-RISC, Linux, Solaris SPARC, or Windows system. For example:

- ◆ 32-bit and 64-bit Lotus Domino server might be installed on the same 64-bit AIX system.
- ◆ 32-bit Informix and 64-bit DB2 server might be installed on the same 64-bit Windows system.

Refer to the appropriate application documentation for details on the versions of 32-bit and 64-bit application software that can coexist on the same 64-bit system.

NMDA support for 32-bit and 64-bit application coexistence on 64-bit systems requires the NetWorker client release 7.5 or later.

The NMDA support for 32-bit and 64-bit application coexistence on 64-bit systems includes the following limitations:

- ◆ The NMDA wizard *cannot* be used to configure backups of 32-bit DB2 or 32-bit Lotus on a 64-bit Windows system where 32-bit and 64-bit applications coexist.
- ◆ The NMDA wizard *cannot* be used to configure backups of 32-bit Lotus on a 64-bit AIX system where 32-bit and 64-bit applications coexist.
- ◆ The NetWorker User for Lotus program *cannot* be used for backups or restores of 32-bit Notes on a 64-bit Windows system where 32-bit and 64-bit applications coexist.
- ◆ 32-bit or 64-bit Sybase *cannot* coexist with DB2, Informix, Lotus, or Oracle on a 64-bit Windows system.
- ◆ Software relocation is *not* supported on a 64-bit Linux or Solaris SPARC system where 32-bit and 64-bit applications coexist.

The EMC NetWorker Module for Databases and Applications Release 1.0 Installation Guide provides details on how to properly install and set up the NMDA software for 32-bit and 64-bit application coexistence on a 64-bit system.

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## Internationalization support

NMDA provides internationalization (I18N) support in a non-English environment or locale for the following:

- ◆ Regular backups and restores
- ◆ DB2 and Oracle PowerSnap snapshot backups and restores with a supported PowerSnap Module release, 2.4 SP3 or later

After NMDA I18N support is set up, NMDA can process and display non-ASCII data that is *passed to it* by the operating system, NetWorker software, and database or application server software.

The extent of the NMDA I18N support is dependent on the following:

- ◆ I18N support provided by the operating system on the NMDA client host
- ◆ I18N support provided by the NetWorker client and server software
- ◆ National Language Support (NLS) or globalization support provided by the database or application server software
- ◆ I18N support of PowerSnap 2.4 SP3 or later, for DB2 and Oracle PowerSnap backups

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## IPv6 support for regular backups and restores

NMDA provides support for Internet Protocol version 6 (IPv6) for regular (not PowerSnap) backups and restores.

NMDA support of IPv6 requires NetWorker server and client release 7.5 or later.

The EMC NetWorker Installation Guide provides details on the use of NetWorker software in an IPv6 environment.

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## Lotus DAOS backups and restores

The NMDA software supports backups and restores of the attachments managed by the Domino Attachment Object Service (DAOS), supported by Domino 8.5 and later.

You can configure a manual or scheduled NMDA backup to back up the DAOS base directory, separate DAOS subdirectories, or individual DAOS objects *after* the Domino database data is backed up. DAOS filenames end in .nlo; the DAOS files are called NLO files by IBM.

The appropriate IBM documentation provides details on the features and setup of DAOS directories and NLO files.

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## Oracle snapshot backups of Oracle ASM with Replication Manager

NMDA supports snapshot backups and restores of Oracle ASM through the Replication Manager software. Replication Manager manages the creation and expiration of point-in-time replicas (clones or snapshots) of databases and file systems on supported storage arrays.

After you configure the integration of NMDA with Replication Manager, NMDA can perform snapshot or split-mirror-based backups of Oracle ASM data through disk replication technology.

During the snapshot backups of Oracle ASM data, the replicas of Oracle ASM volumes are created on the production (source) host, mounted to a separate mount host, and backed up from the mount host, to reduce the backup overhead on the production host.

The *EMC Replication Manager Product Guide* and *EMC Replication Manager Release Notes* provide details on Oracle and ASM configuration and setup requirements.

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## Fixed problems

Not applicable for NMDA release 1.0.

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## Environment and system requirements

The *EMC Information Protection Software Compatibility Guide* on Powerlink provides details on the versions of operating systems, database or application servers, NetWorker, PowerSnap Module, and other software that NMDA supports.

The *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides details on the environment and system configurations required to operate the NMDA software.

## Known problems and limitations

Table 2 on page 14 identifies problems and limitations discovered in NMDA release 1.0 that continue to be applicable:

- ◆ When you contact Customer Service about an issue, use the issue number listed for Customer Service.
- ◆ When you search for an issue on Powerlink, use the issue number listed for Issue Tracker.

The issues are grouped according to the specific application to which they apply. The first group includes common issues that apply to *multiple* applications.

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

Table 2 Limitations in NMDA release 1.0 (page 1 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">“LGTsc25654, LGTsc30351, NW105082” on page 20</a>	25654nmda, 30351nmda, NW105082NMDA	Due to an NMC 7.5 bug, the backup configuration wizard fails to perform all the cluster configuration steps. Due to an NMC 7.5.1 bug, the backup configuration wizard fails to perform all the deduplication configuration steps.	Linux, UNIX, Microsoft Windows	DB2, Lotus, Oracle
<a href="#">“LGTsc28446” on page 21</a>	28446nmda	If Java Runtime Environment (RTE) version 1.5 is installed on Windows (the system where NMC is run), the following unexpected characters might appear on help screens in the backup or recovery configuration wizard: &thinsp	Microsoft Windows	DB2, Lotus, Oracle
<a href="#">“LGTpa95041, NW007075” on page 21</a>	95041nmda, NW007075NMDA	Due to a NetWorker limitation on Windows, NMDA does <i>not</i> support localized (non-English) date formats for the browse and retention policy settings configured for scheduled backups.	Microsoft Windows	All
<a href="#">“NW007000” on page 22</a>	NW007000NMDA	Due to a NetWorker bug in non-English locales, if the NetWorker server is installed in a nondefault path that includes any non-ASCII characters, the configuration of a backup with the wizard fails.	Linux, UNIX, Microsoft Windows	DB2, Lotus, Oracle
<a href="#">“NW101953” on page 22</a>	NW101953NMDA	Password encryption fails if you attempt to use the <b>nsrdaadmin -P</b> command to encrypt a non-ASCII password for a DB2 or Sybase user.	Linux, UNIX, Microsoft Windows	DB2, Sybase
<a href="#">“NW105131” on page 22</a>	NW105131NMDA	The conversion of a client-side to server-side configuration with the <b>nsrdaadmin -W</b> command does <i>not</i> properly convert: <ul style="list-style-type: none"> <li>• The <b>-c</b> option value of the <b>nsrdasv</b> command in the Backup Command attribute of the Client resource.</li> <li>• The NSR_CLIENT parameter setting in the NMDA configuration file.</li> </ul>	Linux, UNIX, Microsoft Windows	DB2, Lotus, Oracle
<a href="#">“NW105804” on page 22</a>	NW105804NMDA	When 32-bit NMDA is installed on a 64-bit system, the logs generated by the 32-bit NMDA software are stored in the 64-bit logs directory instead of the expected 32-bit logs directory.	Linux, UNIX, Microsoft Windows	All
<a href="#">“LGTsc26008” on page 23</a>	26008nmda	In the DB2 wizard, highlighted text or the Next button might not have the expected focus for default selection.	Solaris	DB2

Table 2 Limitations in NMDA release 1.0 (page 2 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">"LGTsc26082" on page 23</a>	26082nmda	In the DB2 wizard, the <b>Select the Backup Configuration Type</b> link might disappear from the wizard steps panel.	Solaris	DB2
<a href="#">"NW006930" on page 23</a>	NW006930NMDA	The DB2 wizard online help lists the options for offline and online backup in the wrong order.	Linux, UNIX, Microsoft Windows	DB2
<a href="#">"NW006934" on page 23</a>	NW006934NMDA	At least one lock file is left after an online database backup on Windows.	Microsoft Windows	DB2
<a href="#">"NW006966" on page 23</a>	NW006966NMDA	During a DB2 deduplication multi-session restore, the NMC Recover Sessions tab displays the ongoing recovery information for only one session.	Linux, UNIX, Microsoft Windows	DB2
<a href="#">"NW007025" on page 24</a>	NW007025NMDA	Deletion of DB2 snapshots fails with the <b>db2ascutil</b> command.	AIX, Linux	DB2
<a href="#">"NW007071" on page 25</a>	NW007071NMDA	The DB2 wizard used for custom backup configuration on a Japanese localized Windows system <i>cannot</i> use the browse functionality.	Microsoft Windows	DB2
<a href="#">"NW007078" on page 25</a>	NW007078NMDA	If you specify a nondefault location for the DB2 shared library, <code>libnsrdb2.so</code> , on the DB2 server, the wizard <b>Advanced Options</b> page does <i>not</i> accept the required <code>DB2_VENDOR_LIB_PATH</code> parameter.	Linux, UNIX, Microsoft Windows	DB2
<a href="#">"NW018898" on page 25</a>	NW018898NMDA	An instant (PIT) restore of a DB2 snapshot backup made with PowerSnap fails with permission problems if the DB2 database to be restored no longer exists, for example, if the database has been dropped.	AIX, Linux	DB2
<a href="#">"NW110183" on page 25</a>	NW110183NMDA	If a connection to a DB2 database indicates that the database has a buffer pools problem, tablespaces might be displayed incorrectly in the NMDA DB2 wizard, <i>without</i> an error message.	HP-UX	DB2
<a href="#">"LGTsc01934" on page 26</a>	01934nmda	On Windows, the Informix backup entries in the NetWorker client index are generated with the wrong syntax, a forward slash (/) rather than a back slash (\).	Microsoft Windows	Informix
<a href="#">"LGTsc01937" on page 26</a>	01937nmda	If a backup is <i>not</i> in the Informix catalog but is in the NetWorker catalog, and you run the <b>onsmsync</b> utility to remove it from the NetWorker catalog, the utility <i>fails</i> to remove the backup entry from the catalog.	Microsoft Windows	Informix
<a href="#">"LGTsc02067" on page 26</a>	02067nmda	The parameter setting <code>NSR_SAVESET_RETENTION=FOREVER</code> for Informix backups results in a NetWorker archive that is <i>not</i> supported with the NMDA software.	Linux, UNIX, Microsoft Windows	Informix
<a href="#">"LGTsc02139" on page 26</a>	02139nmda	An Informix scheduled backup of multiple save sets is successful but produces errors in the Informix IDS log file.	Linux, UNIX, Microsoft Windows	Informix
<a href="#">"LGTsc04671" on page 26</a>	04671nmda	The NMC Group Details window does not display the backups levels for all the save sets and the correct backup sizes of log files for an Informix scheduled backup.	Linux, UNIX, Microsoft Windows	Informix
<a href="#">"NW105339" on page 27</a>	NW105339NMDA	In a non-English locale on Windows, the NMC program and <b>mminfo</b> command display invalid non-ASCII characters in the save set names for Informix backups when the <code>dbspace</code> or log file pathnames contain non-ASCII characters.	Microsoft Windows	Informix

Table 2 Limitations in NMDA release 1.0 (page 3 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">"LGTpa22627" on page 27</a>	22627nmda	If the log.nsf file in the Notes data directory is missing or corrupt and you use the NOTES option with the <b>nsrnotesrc</b> command to recover all the database files to the default data directory, transaction logs are <i>not</i> applied to the recovered database files.	Linux, UNIX, Microsoft Windows	Lotus
<a href="#">"LGTpa48238" on page 27</a>	48238nmda	If a Domino server is configured with a secured (password-protected) console, NMDA backups and recoveries of the Lotus databases fail.	Microsoft Windows	Lotus
<a href="#">"LGTpa50352" on page 27</a>	50352nmda	The following limitations exist with using the NetWorker User for Lotus for remote recovery: <ul style="list-style-type: none"> <li>• A remote recovery fails if too many databases are selected for recovery.</li> <li>• Termination of a remote recovery of a Domino server on Windows does <i>not</i> stop the <b>nsrnotesrc</b> process on the remote Windows computer.</li> </ul>	Microsoft Windows	Lotus
<a href="#">"LGTpa82144" on page 28</a>	82144nmda	If a Lotus manual or scheduled backup is cancelled while child processes are waiting for writable volumes on the NetWorker server, the child processes might not be terminated.	Microsoft Windows	Lotus
<a href="#">"LGTpa84482" on page 28</a>	84482nmda	A vague error appears when a document-level recovery fails due to the following: <ul style="list-style-type: none"> <li>• The encryption phrase on the NetWorker server has changed since the time of a database backup.</li> <li>• A document-level recovery is attempted <i>without</i> specifying the current encryption phrase in the Notes client program.</li> </ul>	Microsoft Windows	Lotus
<a href="#">"NW101757" on page 28</a>	NW101757NMDA	When NetWorker User for Lotus is used to recover a Domino database that has non-ASCII characters in its name, the filename might be displayed incorrectly in the GUI.	Microsoft Windows	Lotus
<a href="#">"NW101758" on page 29</a>	NW101758NMDA	An NMDA Lotus scheduled backup of 64-bit Domino on AIX might cause the Domino server to crash or become suspended.	AIX	Lotus
<a href="#">"NW104817" on page 29</a>	NW104817NMDA	An NMDA Lotus document-level recovery fails if the following directory has been deleted by a previous document-level recovery: <ul style="list-style-type: none"> <li>• On UNIX: /nsr/apps/tmp</li> <li>• On Windows: <i>NetWorker_install_path</i>\apps\tmp</li> </ul>	Linux, UNIX, Microsoft Windows	Lotus
<a href="#">"LGTpa53921" on page 30</a>	53921nmda	If an Oracle RMAN session fails on Windows, any <b>nsrsbtcn.exe</b> processes that are still running must be terminated manually in the Task Manager.	Microsoft Windows	Oracle
<a href="#">"LGTpa72726" on page 30</a>	72726nmda	Due to an Oracle bug in Oracle10g, when two or more channels are allocated and <i>all</i> the channels fail during an Oracle backup, RMAN terminates abnormally and displays RMAN debug text instead of an expected error message on the console screen.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">"LGTpa80288, LGTpa81336" on page 30</a>	80288nmda, 81336nmda	Oracle PowerSnap backups of archived redo logs fail to roll over to NetWorker backup media, such as tape.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">"LGTpa88636" on page 31</a>	88636nmda	With a PowerSnap Module prior to version 2.4.2, a FLIB type of PowerSnap backup fails when a nonsnapshotable disk contains more than one datafile, for example, a tablespace with multiple datafiles.	Linux, UNIX, Microsoft Windows	Oracle



Table 2 Limitations in NMDA release 1.0 (page 4 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">“LGTpa91081, LGTpa91655, LGTpa93691” on page 31</a>	91081nmda, 91655nmda, 93691nmda	Due to the Oracle10g bug 5870989, if NMDA attempts to restore an Oracle tablespace backup but the backup is inaccessible, the restore might become suspended or produce an error when it attempts to fail over to a previous backup of the tablespace.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTpa92641” on page 31</a>	92641nmda	After a PIT PowerSnap restore of a datafile on an EMC Celerra® NAS device, the timestamp is changed so that the restored datafile has a different timestamp. The timestamp change is caused by the PowerSnap snapshot control module (SCM) on Celerra NAS devices only.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTpa94842, LGTpa94846” on page 31</a>	94842nmda, 94846nmda	If you create a copy of an Oracle datafile or archived log to the flash recovery area, and then perform a successful PowerSnap backup of that copy in the recovery area, a rollback restore of the PowerSnap backup fails to restore the Oracle datafile or archived log to its original location outside the recovery area.	Linux, UNIX, and Microsoft Windows	Oracle
<a href="#">“LGTsc06110” on page 32</a>	06110nmda	When a scheduled NMDA Oracle backup is run in a Japanese environment and the output from RMAN or from a preprocessing or postprocessing script (used for the backup) is <i>not</i> UTF8 text, the Japanese backup information displayed in the NMC program might appear incorrectly as box or question mark characters.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc07389” on page 32</a>	07389nmda	Crosscheck and channel allocation operations might take a long time to complete on an HP-UX cluster (MC/ServiceGuard). The issue is caused by an HP limitation when the Oracle user is not allowed to run the HP system command, <b>cmviewcl</b> .	HP-UX	Oracle
<a href="#">“LGTsc11340” on page 32</a>	11340nmda	Due to Oracle11g and NetWorker limitations, NetWorker multiplexing for multisection backups (a new feature with Oracle11g) is supported with advanced file type devices only, <i>not</i> with tape or regular file type devices.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc11491” on page 33</a>	11491nmda	NetWorker file system backups and NetWorker Module backups might fail on Windows if <i>all</i> of the following conditions are true: <ul style="list-style-type: none"> <li>• Oracle11g is installed on the client, and the Oracle VSS Writer service is running.</li> <li>• NetWorker software release on the Oracle11g host is prior to release 7.4.2.</li> <li>• The Oracle database contains at least one datafile on a raw partition identified by a drive letter, such as \\.\d:.</li> </ul>	Microsoft Windows	Oracle
<a href="#">“LGTsc11501” on page 33</a>	11501nmda	On Microsoft Windows with Oracle11g and a NetWorker client release prior to 7.4.2, when the Oracle VSS Writer service is running, the NWORA resource file backup fails at the end of a scheduled Oracle backup.	Microsoft Windows	Oracle

Table 2 Limitations in NMDA release 1.0 (page 5 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">“LGTsc12549” on page 33</a>	12549nmda	Each of the following NMDA limitations is caused by an Oracle11gR1 bug: <ul style="list-style-type: none"> <li>• “Automatic catalog synchronization fails with deletion of proxy archive log backup in Oracle11gR1 (Oracle bug ID 6658567)” on page 33</li> <li>• “Backup channel failover fails with Oracle11gR1 on Windows (Oracle Bug ID 6733394)” on page 33</li> <li>• “Failover and duplication fails with Oracle11gR1 in non-English environment (Oracle bug ID 6658479)” on page 34</li> <li>• “Oracle11gR1 multisection backup with small section size might not be restorable” on page 34</li> <li>• “Proxy backup of archived logs fails in specific scenario with Oracle11gR1 (Oracle bug ID 6656875)” on page 34</li> </ul>	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc15258” on page 34</a>	15258nmda	Due to a NetWorker bug, Oracle backups and the <b>nsroraadmin</b> command fail on Windows 2008 and Windows Vista with NetWorker releases 7.4.1 and 7.4.2.	Microsoft Windows	Oracle
<a href="#">“LGTsc24413, LGTsc24978” on page 35</a>	24413nmda, 24978nmda	Due to PowerSnap Module limitations, NMDA does <i>not</i> support Oracle proxy operations with raw devices that use PowerSnap Module 2.4 SP3 on 64-bit Linux.	Linux	Oracle
<a href="#">“LGTsc24972” on page 35</a>	24972nmda	Due to an NMC 7.5 bug, if you attempt to start the Oracle recovery wizard with NMC 7.5 for an NMDA client that was configured through the client-side configuration method ( <i>without</i> the wizard), the recovery wizard fails with an error.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc26748, LGTpa94301” on page 35</a>	26748nmda, 94301nmda	Due to Oracle bug 3627132, an NMDA Oracle backup fails in a non-English locale when the following conditions exist: <ul style="list-style-type: none"> <li>• NMDA internationalization is set up.</li> <li>• The character sets of the RMAN script and Oracle database are different.</li> <li>• A non-ASCII character is included in the <b>parms</b> option or <b>send</b> command in the RMAN script.</li> </ul>	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc27057” on page 35</a>	27057nmda	On Windows, if the NSR_RMAN_ARGUMENTS parameter setting contains a message log pathname that includes Japanese characters, the message log file is <i>not</i> generated during the Oracle scheduled backup.	Microsoft Windows	Oracle
<a href="#">“LGTsc27377” on page 36</a>	27377nmda	If you enter an invalid value for NLS_LANG on the <b>Specify the Database Information</b> screen in the Oracle backup or recovery configuration wizard, you <i>cannot</i> correct the value without exiting the wizard screen and then returning to that screen. Since NLS_LANG is set to an invalid value, an unreadable error message appears when you attempt to exit the wizard screen.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc27665” on page 36</a>	27665nmda	With NetWorker PowerSnap Module for EMC CLARiiON® release 2.4 SP3 on Linux, if an Oracle proxy backup of a CLARiiON system includes any files that reside on a nonsnapshotable disk, the proxy backup fails.	Linux	Oracle
<a href="#">“LGTsc29488” on page 36</a>	29488nmda	After the NMDA software is installed and properly set up for localization support in a Chinese locale on Microsoft Windows 2008, NMDA Oracle does <i>not</i> recognize the Chinese locale.	Microsoft Windows	Oracle

Table 2 Limitations in NMDA release 1.0 (page 6 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">“NW019057” on page 36</a>	NW019057NMDA	Due to Oracle bug 3627132, an Oracle debug file is <i>not</i> created during an NMDA Oracle backup in a non-English locale if the character sets of the user locale and Oracle database are different and the NSR_DIAGNOSTIC_DEST parameter setting contains a non-ASCII value.	Linux, UNIX, Microsoft Windows	Oracle
<a href="#">“LGTsc03560” on page 37</a>	03560nmda	In Sybase multistripe backups, NMDA writes two metadata save sets with the same name (one that is normal and the other that pertains to the stripe information). The NMC program does not display all the save set information for Sybase multistripe backups.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc03565” on page 37</a>	03565nmda	The NMC program does <i>not</i> display the backup levels for all the save sets of a Sybase multistripe scheduled backup.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc04133” on page 37</a>	04133nmda	In a Chinese locale, an NMDA Sybase backup is successful but the restore fails with an error message.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc04193” on page 37</a>	04193nmda	During an NMDA scheduled backup of a Sybase database, the data displayed in the NMC Group Details window is different from that displayed by the <b>mminfo</b> command. This difference is due to an error in rounding off of values.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc04626” on page 37</a>	04626nmda	Sybase ASE version 15.0 does <i>not</i> support the <b>with verify</b> clause for Sybase backups or restores.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05213” on page 37</a>	05213nmda	When a Sybase scheduled backup produces a core file, the core file is created in the home directory of the user. The core file should be created in the current working directory.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05214” on page 38</a>	05214nmda	When a consolidated Sybase backup fails, the NMC program displays the group as interrupted and not as failed. The <b>nsrdasv</b> usage is included in the daemon.raw file, but the NMC program is unable to capture the same information.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05216” on page 38</a>	05216nmda	NMDA does <i>not</i> support a Sybase incremental backup with the <b>no_log</b> option. This backup displays a confusing error message.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05217” on page 38</a>	05217nmda	For a Sybase read-only database, the <b>truncate_only</b> option is a fatal option when used with an incremental backup, and an incremental backup is terminated.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05218” on page 38</a>	05218nmda	A confusing error message appears if the <b>truncate_only</b> option is used for a Sybase incremental backup of a database that has data and logs on separate devices.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc05486” on page 38</a>	05486nmda	An incorrect error message appears when a restore of encrypted Sybase data is performed with an invalid pass phrase.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">“LGTsc06337” on page 38</a>	06337nmda	For a read-only Sybase database, you must perform only one incremental backup. To perform multiple incremental backups, every incremental backup must be followed by a full backup.	Linux, UNIX, Microsoft Windows	Sybase

Table 2 Limitations in NMDA release 1.0 (page 7 of 7)

Issue number for Customer Service	Issue number for Issue Tracker	Description	Operating system	Applications
<a href="#">"NW104822" on page 39</a>	NW104822NMDA	If an incorrect pass phrase is specified for the restore of an encrypted Sybase backup, then the restore command, <b>nsrsybrc</b> , produces the following type of vague error message: BSA-1.0.1 LNMs_2009.Build.208 3227 Mon Sep 28 16:29:54 2009 _nwbsa_read_asdf_section: System detected error due to asdf_read_and_unwrap_section. Operation aborted.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">"NW105216" on page 39</a>	NW105216NMDA	If a Sybase manual or scheduled backup attempts to back up more than 200 databases, the backup might fail.	Linux, UNIX, Microsoft Windows	Sybase
<a href="#">"NW110345" on page 39</a>	NW110345NMDA	When the sample threshold procedure is properly stored in a Sybase database, and the logs and data segments are located on separate devices, the NMDA software does <i>not</i> perform the expected transaction log backup when the database threshold is reached.	Linux, UNIX, Microsoft Windows	Sybase

## Common NMDA problems and limitations

This section contains the NMDA problems and limitations that apply to *all* the applications (DB2, Informix, Lotus, Oracle, Sybase) that NMDA supports.

**Note:** NMDA 1.0 supports certain features for only certain applications. For example, NMDA 1.0 supports the configuration wizard for DB2, Lotus, and Oracle *only*.

## Backup configuration with the wizard has issues due to NMC 7.5.x bugs

### LGtsc25654, LGtsc30351, NW105082

Due to NMC bugs, the configuration wizard fails to perform specific types of backup configurations:

- ◆ Due to an NMC 7.5 bug, the backup configuration wizard fails to perform all the cluster configuration steps. The wizard in NMC 7.5 fails to recognize a cluster virtual client and properly complete the NetWorker Client and Lockbox resource configurations for the virtual client backup.

As a workaround, perform the following after using the backup configuration wizard to configure a scheduled backup for the cluster virtual client:

1. Create Client resources for the associated physical clients if the resources do not yet exist.
2. Edit the Lockbox resource for the virtual client, and add the name `root@physical_hostname` (UNIX) or `system@physical_hostname` (Windows) to the Users attribute.
3. Use the configuration wizard to set the NSR\_CLIENT parameter to the virtual client hostname in the Advanced Backup Options field on the corresponding screen.
4. Add `-c virtual_clientname` to the Backup Command attribute in the Client resource of the virtual client.

The *EMC NetWorker Administration Guide* provides details on how to create and edit the NetWorker resources.

- ◆ Due to an NMC 7.5.1 bug, the backup configuration wizard fails to perform all the deduplication configuration steps:
  - If you use the DB2 or Lotus configuration wizard in NMC 7.5.1 to configure a deduplication backup and select the wizard option to save the configuration file as a reference file, the NSR\_DEDUP\_BACKUP AND NSR\_DEDUP\_NODE parameter settings are missing from the saved configuration file.
 

As a workaround, edit the saved configuration file and add the required NSR\_DEDUP\_BACKUP AND NSR\_DEDUP\_NODE settings to the file.

Appendix A of the *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides details on parameter settings in the NMDA configuration file.
  - If you use the Oracle configuration wizard in NMC 7.5.1 to configure an Oracle deduplication backup, the backup fails.
 

As a workaround, after configuring the Oracle deduplication backup with the wizard, use the wizard to edit the RMAN backup script for the deduplication backup and set the NSR\_DEDUP\_CACHE\_TAG parameter in the script to a *different* value for each channel.

Appendix A of the *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* provides details on NSR\_DEDUP\_CACHE\_TAG.

### Unexpected characters might appear on wizard help screens on Windows

#### **LGTsc28446**

If Java Runtime Environment (RTE) version 1.5 is installed on Windows (the system where NMC is run), the following unexpected characters might appear on help screens in the backup or recovery configuration wizard:

&thinsp

Ignore the unexpected characters.

### Browse and retention policy settings do not support non-English date formats

#### **LGTpa95041, NW007075**

Due to a NetWorker limitation on Windows, NMDA does *not* support localized (non-English) date formats for the browse and retention policy settings configured for scheduled backups.

For example, in a non-English Windows environment:

- ◆ A DB2 scheduled backup ignores browse and retention dates set in Japanese format, such as 2009/06/19. The backup uses the default values in the NetWorker Client resource.
- ◆ An Oracle backup fails if you set NSR\_SAVESET\_BROWSE or NSR\_SAVESET\_RETENTION to a date in Japanese format, such as 2009/06/28. The backup displays one of the following errors:

The NSR\_SAVESET\_BROWSE parameter was set to an invalid value.

The NSR\_SAVESET\_RETENTION parameter was set to an invalid value.

As a workaround on Windows, set the browse and retention dates in the English format only, MM/DD/YY or MM/DD/YYYY.

## Backup configuration with the wizard fails in non-English locale

### NW007000

Due to a NetWorker bug in non-English locales, if the NetWorker server is installed in a nondefault path that includes any non-ASCII characters, the configuration of a backup with the wizard fails with the following error message:

```
Failed to open lockbox
non-ASCII_dir_name\nsr\lockbox\client_name\clb.lb
```

As a workaround, do one of the following:

- ◆ Configure the backup manually with the NMC method, *without* the wizard.
- ◆ Ensure that the installation path of the NetWorker server does *not* include any non-ASCII characters.

## Password encryption with `nsrdaadmin -P` command fails for non-ASCII password

### NW101953

Password encryption fails if you attempt to use the following command to encrypt a non-ASCII password for a DB2 or Sybase user:

```
nsrdaadmin -P non-ASCII_password -z configuration_file
```

As a workaround, use an ASCII password with the `nsrdaadmin -P` command. The `USER_PSWD` parameter is updated with the encrypted user password and added to the NMDA configuration file.

The *EMC NetWorker Module for Databases and Applications Command Reference Guide* provides details on the `nsrdaadmin` command and options.

## The `nsrdaadmin -W` command fails to properly convert `NSR_CLIENT` setting or `-c` option

### NW105131

The conversion of an NMDA client-side to server-side configuration with the `nsrdaadmin -W` command might encounter the following issues:

- ◆ In the client-side configuration, if the Backup Command attribute of the Client resource includes the `nsrdasv` command with the `-c` option, the conversion does *not* recognize the `-c` option.
- ◆ In the client-side configuration, if the `NSR_CLIENT` parameter is set in the NMDA configuration file, the conversion does *not* recognize the `NSR_CLIENT` parameter setting. Instead, the conversion sets `NSR_CLIENT` to the application server hostname in the server-side configuration.

As a workaround, after the conversion with the `nsrdaadmin -W` command is complete, use the configuration wizard to correct the required setting in the server-side configuration.

## Logs for 32-bit NMDA are stored in 64-bit NMDA logs directory

### NW105804

When 32-bit NMDA is installed on a 64-bit system, the logs generated by the 32-bit NMDA software are stored in the 64-bit logs directory instead of the expected 32-bit logs directory.

For example, when 32-bit NMDA is installed on a 64-bit Windows system and `NSR_DEBUG_LEVEL` is set to 9, the logs generated by the NMDA backup are stored in the `C:\Program Files\Legato\nsr\apps\logs` directory instead of the `"C:\Program Files\Legato (x86)\nsr\apps\logs` directory.

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## DB2-specific problems and limitations

This section contains the DB2-specific problems and limitations in the NMDA software.

### DB2 wizard highlighted text or Next button does not have default focus

#### **LGtsc26008**

On the **Specify the Backup Configuration** page of the NMDA DB2 wizard, the highlighted text that reads **Available applications**, or the **Next** button, might not have the expected focus for default selection.

As a workaround, use the mouse to select the highlighted text.

### Link in DB2 wizard steps disappears

#### **LGtsc26082**

On the **Select the Configuration Type** page of the NMDA DB2 wizard, if the selection is toggled between the **Typical Scheduled Backup** and **Custom Scheduled Backup** options, the **Select the Backup Configuration Type** link might disappear from the wizard steps panel.

As a workaround, select the **Specify the NetWorker Client Name** link, and from that page, proceed to the **Select the Backup Configuration Type** page.

### DB2 wizard online help lists backup options in wrong order

#### **NW006930**

In the NMDA DB2 wizard, the online help for the **Specify the Backup Options** page lists the options for offline and online backup in the wrong order, inconsistent with the wizard GUI panel.

As a workaround, coordinate the help description by name instead of by order.

### DB2 lock file remains after online backup on Windows

#### **NW006934**

After a DB2 manual or scheduled online backup of a database on Windows, there is at least one lock file left in the `NetWorker_install_path\tmp` directory. The file size is 0 bytes and the filename is in the form of `DB2.database_name.lck`. Unnecessary lock files are left in the customer environment.

As a workaround, manually remove the lock files after the online backup.

### Only one session with full information appears during DB2 deduplication multi-session restore

#### **NW006966**

During a DB2 deduplication multi-session restore, the NMC Recover Sessions tab displays the ongoing recovery information (such as Duration, Device, Rate, % Complete) for only one session instead of all sessions. For the other sessions, no recovery information is displayed and the % Complete remains at 0%.

There is no workaround for this issue.

## DB2 snapshot deletion fails with db2ascutil command

### NW007025

DB2 snapshots created with PowerSnap software *cannot* be deleted with the **db2ascutil** command as documented in the *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide*.

As a workaround, use the **nsrsnapadmin** command to delete the snapshot.

**Note:** The **nsrsnapadmin** command deletes the snapshot specified by ssid, and updates the NetWorker server indexes. It does *not* update the DB2 backup history for the database. Consequently, the catalog entries for the DB2 backup history and NetWorker server indexes will be out of synchronization.

### Example

List and then remove a snapshot with the **nsrsnapadmin** command for the following snapshot environment:

```
server=bu-llet
proxy_client=bu-baby
client=bu-baby
```

1. Review the **nsrsnapadmin** command:

```
nsrsnapadmin> Valid commands
p [-s server] [-c client] [-v] [path] (Print all snapshots: -v to
  print snapid)
d [-s server] [-c client] [-v] -S ssid [or -S "ssid ssid ..."]
  (Delete snapshots: -v is verbose)
b [-s server] [-c client] -S ssid [or -S "ssid ssid ..."] [-M
  proxy_client] [-v] (Backup snapshots to tape: -v is verbose)
R [-s server] [-c client] [-v] -S ssid [-t destination] [-M
  proxy_client] [-T recover_host] -m path (Saveset restore: -v is
  verbose)
B [-s server] [-c client] [-Fv] -S ssid [-M proxy_client] -m path
  (Rollback: -v is verbose)
r [-s server] [-c client] [-M proxy_client] [-T recover_host] -S
  ssid (file by file restore)
e time [-s server] [-c client] [-v] -S ssid [or -S "ssid ssid ..."]
  (Reset expiration time for snapshots: -v is verbose)
q (Exit program)
```

2. Determine the snapshot ID (SSID) of the snapshot to be deleted:

```
nsrsnapadmin > p -s bu-llet -c bu-baby -v
ssid = 1393911980 savetime="Thu May 21 10:44:21 2009"
(1242917061) expiretime="Thu May 28 00:00:25 2009" (1243483225)
snap id= 8c672282-0000000d-00088042-4a1568af-00010000-0a05a615
snapsession id=1242916991 ssname=DB2:/sample/NODE0000
```

3. Delete the snapshot by using the following **nsrsnapadmin** command:

```
nsrsnapadmin> d -s bu-llet -S 1393911980 -c bu-baby
NSRSNAPCK::success.
nsrsnapck completed successfully.
snapshot [1393911980] deleted successfully.
```

4. Verify that the snapshot has been successfully deleted:

```
nsrsnapadmin> p -s bu-llet -c bu-baby -v
61599:nsrsnapadmin:No snapshots for client [bu-baby] in media
database.
```



The *EMC NetWorker Module for PowerSnap Installation and Administration Guide* for the primary storage system gives details on the **nrsnapadmin** command.

### DB2 wizard cannot browse Japanese Windows systems for custom backup

#### NW007071

The DB2 wizard used for custom backup configuration on a Japanese localized Windows system *cannot* use the browse functionality, either to find an existing NMDA configuration file or to save an NMDA configuration file at a location.

As a workaround, manually type the configuration file pathname.

### Nondefault DB2 shared library location cannot be specified with the wizard

#### NW007078

If you specify a nondefault location for the DB2 shared library, libnsrdb2.so, on the DB2 server, the wizard **Advanced Options** page (available for custom configurations) does *not* accept the required DB2\_VENDOR\_LIB\_PATH parameter. The wizard issues the following error:

Specific parameters cannot be configured using this table. Set this parameter using this appropriate wizard page.

As a workaround, open the Client resource that is created by wizard, and in the Backup Configuration attribute, set the DB2\_VENDOR\_LIB\_PATH parameter to the nondefault location.

### DB2 snapshot restore fails if database no longer exists

#### NW018898

(LGTsc30322) An instant (PIT) restore of a DB2 snapshot backup made with PowerSnap fails with permission problems if the DB2 database to be restored no longer exists, for example, if the database has been dropped.

As a workaround, set the parameter RESTORE\_TYPE\_ORDER=rollback in the NMDA configuration (for example, nmda\_db2.cfg), and perform a rollback restore.

### Database status might cause incorrect display of tablespaces in DB2 wizard

#### NW110183

If a connection to a DB2 database indicates that the database has a buffer pools problem, tablespaces might be displayed incorrectly in the NMDA DB2 wizard, *without* an error message.

For example, when the **db2 connect to db\_name** command is used to connect to the database *db\_name* and the command output indicates that the database has a buffer pools problem, the NMDA DB2 wizard might incorrectly display the tablespaces of the database, without displaying any error message.

As a workaround, change the database state to resolve the buffer pools problem before you use the NMDA DB2 wizard to view the tablespaces.

## Informix-specific problems and limitations

This section contains the Informix-specific problems and limitations in the NMDA software.

### Informix backups on Windows produce incorrect syntax in NetWorker client index

#### LGTsc01934

On Windows, the Informix backup entries in the NetWorker client index are generated with incorrect syntax, a forward slash (/) rather than a back slash (\).

### The onmsync utility fails to delete Informix backup entries

#### LGTsc01937

The Informix **onmsync** utility manages catalog synchronization between the Informix and NetWorker catalogs. The **onmsync** utility can be used to compare backups in the Informix sysutils database and emergency boot file with backups in the NetWorker catalogs. The **onmsync** utility can be run to remove backups from the Informix catalogs that are *not* found in the NetWorker catalogs.

If a backup is *not* in the Informix catalog but is in the NetWorker catalog, and you run the **onmsync** utility to remove it from the NetWorker catalog, the utility *fails* to remove the backup entry from the catalog.

### Informix backups do not support the NSR\_SAVESET\_RETENTION=FOREVER setting

#### LGTsc02067

The parameter setting NSR\_SAVESET\_RETENTION=FOREVER for Informix backups results in a NetWorker archive that is *not* supported with the NMDA software.

As a workaround, perform an Informix backup *without* setting the NSR\_SAVESET\_RETENTION parameter, and use the **nsrmm** command to set the browse and retention policy to forever.

### Successful Informix backup of multiple save sets produces errors

#### LGTsc02139

If an Informix scheduled backup includes multiple save sets and each save set backs up an individual dbspace, the backup is successful but produces errors in the Informix IDS log file.

As a workaround, to prevent incorrect errors in the log file, back up each Informix dbspace separately.

### NMC Group Details displays incomplete details for Informix scheduled backup

#### LGTsc04671

The NMC Group Details window does not display the backups levels for all the save sets and the correct backup sizes of log files for an Informix scheduled backup.

As a workaround, use the **mminfo** command to display the complete and correct details of the save sets and log files for an Informix scheduled backup.

## NMC and mminfo display invalid characters for Informix backups in non-English locale on Windows

### NW105339

In a non-English locale on Windows, the NMC program and **mminfo** command display invalid non-ASCII characters in the save set names for Informix backups when the dbspace or log file pathnames contain non-ASCII characters.

The incorrect display does *not* affect the success of any Informix backups or restores on the Windows platform.

## Lotus-specific problems and limitations

This section contains the Lotus-specific problems and limitations in the NMDA software.

### Recovery with NOTES option fails to apply transaction logs to data directory files

#### LGTPa22627

The following problem occurs only if the log.nsf file in the Notes data directory is missing or corrupt.

When you use the NOTES option with the **nsrnotesrc** command to recover all the database files to the Notes default data directory, transaction logs are *not* applied to the recovered database files.

As a workaround, recover the database files to an alternate directory and copy the files back to the Notes default data directory.

### Backup and recovery of a Domino server fails with a secured console

#### LGTPa48238

If a Domino server is configured with a secured (password-protected) console, the NMDA software cannot back up or recover the Lotus databases.

Under these conditions, backups and recoveries fail and report the following error:

```
Notes Library initialization failed, error = 417
```

For backups and recoveries to succeed, you must remove the password protection for the Domino server console by using the Domino Administrator program or the **Set Secure** command. The Domino Administrator online help provides instructions on removing password protection.

### Limitations exist with using the NetWorker User for Lotus for remote recovery

#### LGTPa50352

The following limitations exist with using the NetWorker User for Lotus for remote recovery:

- ◆ A remote recovery fails if too many databases are selected for recovery, whereby the total length of the paths of the selected files exceeds the operating system size limit for a command line argument list. The remote recovery failure might produce one of the following errors:

```
Failed to start nsrexec for remote recover
```

```
The following character string is too long
```

As a workaround, reduce the number of databases selected for remote recovery.

- ◆ The termination of a remote recovery of a Domino server on Windows does *not* stop the **nsrnotesrc** process on the remote Windows computer.

As a workaround, stop the **nsrnotesrc** process manually if the process does not stop long after the remote recovery terminates.

### Child processes waiting for volumes are not terminated when backup is cancelled

#### LGTpa82144

If a Lotus manual or scheduled backup is cancelled while child processes are waiting for writable volumes on the NetWorker server, the child processes might not be terminated.

To terminate the child processes, make available the writable volumes on the NetWorker server, as requested by the Lotus backup. When the volumes become available, the backup resumes and immediately fails, and the processes are then terminated.

### Vague error appears for a document-level recovery failure

#### LGTpa84482

A vague error appears when a document-level recovery fails due to the following:

- ◆ The encryption phrase on the NetWorker server has changed since the time of a database backup.
- ◆ A document-level recovery of a document from the database backup is attempted *without* specifying the current encryption phrase in the Notes client program.

In this case, an error message box appears containing only the word Error. The message does *not* specify the reason for the document-level recovery failure.

### Recovery report from NetWorker User for Lotus contains unexpected characters

#### NW101757

When NetWorker User for Lotus is used to recover a Domino database that has non-ASCII characters in its name, the filename might be displayed incorrectly in the GUI.

As a workaround, recover the Domino database with the **nsrnotesrc** command at the command line in order to see the expected information in the recovery report.

---

**Note:** On Windows, if the non-ASCII characters in the **nsrnotesrc** command line output are *not* readable, ensure that you use the proper code page for the language. For example, if the language is Spanish, run the following command to set the proper code page before you use the **nsrnotesrc** command for recovery:

**chcp 1251**

---

## Scheduled backup of 64-bit Domino on AIX might crash the Domino server

### NW101758

An NMDA Lotus scheduled backup of 64-bit Domino on AIX might cause the Domino server to crash or become suspended.

To prevent this issue, perform the following steps on the AIX Domino host after the NMDA software is installed:

1. Log in as the root user, and run the following command:

```
# dump -o /usr/bin/nsrexecd
```

If the command output contains the following, perform [step 2](#) to [step 4](#):

```
maxDATA
0x80000000
```

2. Shut down the NetWorker client that is running on the Domino host by using the **nsr\_shutdown** command.
3. Run the following **ldedit** command on the **nsrexecd** executable to decrease the amount of memory that it uses:

```
# /usr/ccs/bin/ldedit -bmaxdata:0x00000000 /usr/bin/nsrexecd
```

4. Restart the NetWorker client.

If the issue occurs on the AIX Domino host before you have run the preceding steps:

1. Shut down the Domino server.
2. Reboot the whole machine.
3. Perform the preceding [step 1](#) to [step 4](#).

## Lotus document-level recovery might fail due to missing tmp directory

### NW104817

An NMDA Lotus document-level recovery fails if the following directory has been deleted by a previous document-level recovery:

- ◆ On UNIX: `/nsr/apps/tmp`
- ◆ On Windows: `NetWorker_install_path\apps\tmp`

NMDA uses this directory to store temporary files during a Lotus document-level recovery, but deletes the directory at the end of the recovery if it does *not* contain any files. A subsequent Lotus document-level recovery fails if the tmp directory is missing.

As a workaround, ensure that the tmp directory exists before you use NMDA for a Lotus document-level recovery. If the tmp directory does *not* exist, create the directory and store a dummy file in it. The dummy file is not used by NMDA, but ensures that NMDA does not delete the tmp directory.

## Oracle-specific problems and limitations

This section contains the Oracle-specific problems and limitations in the NMDA software.

**Note:** To correct an Oracle-specific limitation, if Oracle release 10.1.0.3 is installed and the RMAN output contains many trace messages about the `kgllkdl()` function, contact Oracle to obtain and install the patch 4061041.

### Oracle backup process termination is required on Windows

#### **LGTpa53921**

If an Oracle RMAN session fails on Windows, check for any `nsrsbctn.exe` processes that are still running and terminate the processes manually in the Task Manager.

### Channel failure causes abnormal termination in Oracle10g

#### **LGTpa72726**

Due to an Oracle bug in Oracle10g, when two or more channels are allocated and *all* the channels fail during an Oracle backup, RMAN terminates abnormally and displays RMAN debug text instead of an expected error message on the console screen.

In Oracle10g, if multiple channels are allocated and one of the channels fails, Oracle attempts to fail over the operation on that channel to one of the other channels. If all the channels fail, RMAN should terminate with an appropriate error message.

Some of the possible reasons for a channel failure are as follows:

- ◆ The NMDA software is not licensed.
- ◆ The channel is assigned a NetWorker server through the `NSR_SERVER` parameter, where one of the following exists:
  - The name of the server is invalid.
  - The client is not properly configured on the server.
  - The evaluation license is expired on the server.
- ◆ The channel is assigned an invalid NetWorker volume pool through the `NSR_DATA_VOLUME_POOL` parameter.
- ◆ During a manual backup, the channel is assigned a NetWorker server that contains a Server resource with the Manual Saves attribute set to Disabled.
- ◆ The channel encounters an internal error.

### Proxy backups of archived redo logs fail to roll over to backup media

#### **LGTpa80288, LGTpa81336**

Oracle PowerSnap backups of archived redo logs fail to roll over to NetWorker backup media, such as tape.

As a workaround, perform a regular NetWorker backup of the archived log directory, or place the archived logs on a nonsnapshot storage volume.

## FLIB-type PowerSnap backup of multiple nonsnapshotable files fails

### LGTPa88636

With a PowerSnap Module prior to version 2.4.2, a FLIB (file-logical image backup) type of Oracle PowerSnap backup fails when a nonsnapshotable disk (a disk for which a snapshot cannot be made) contains more than one datafile, for example, a tablespace with multiple datafiles.

A conventional PowerSnap backup is successful for the same nonsnapshotable disk with multiple datafiles.

As a workaround, perform one of the following:

- ◆ Perform a regular (not snapshot) backup of the datafiles on a nonsnapshotable disk.
- ◆ Perform a conventional PowerSnap backup of the datafiles on a nonsnapshotable disk.

Ensure the success of a FLIB-type PowerSnap backup by using snapshotable storage (volumes that can be snapshotted by the PowerSnap Module).

## Restore failover might fail for Oracle tablespace backup

### LGTPa91081, LGTPa91655, LGTPa93691

Due to Oracle10g bug 5870989, if NMDA attempts to restore an Oracle tablespace backup but the backup is inaccessible (for example, because the backup encryption key is not available), the restore might become suspended or produce an error when it attempts to fail over to a previous backup of the tablespace. Restore failover to a previous backup of the tablespace should succeed.

As a workaround, ensure that the Oracle tablespace backup is accessible before attempting an NMDA restore of the backup.

## Timestamp is changed after a PIT PowerSnap restore on a Celerra NAS device

### LGTPa92641

After a PIT PowerSnap restore of a datafile on a Celerra NAS device, the timestamp is changed so that the restored datafile has a different timestamp. The timestamp change is caused by the PowerSnap SCM on Celerra NAS devices only.

This issue has *no* functional impact on an NMDA Oracle customer.

## Rollback restore fails for PowerSnap backup in flash recovery area

### LGTPa94842, LGTPa94846

If you create a copy of an Oracle datafile or archived log to the flash recovery area, and then perform a successful PowerSnap backup of that copy in the recovery area, a rollback restore of the PowerSnap backup fails to restore the Oracle datafile or archived log to its original location outside the recovery area. The rollback restore produces the following RMAN error:

```
ORA-27037: unable to obtain file status
```

**Note:** The flash recovery area is a directory where RMAN places all of the disk type backups it creates (backups not created with NMDA). NMDA can back up the backups from the recovery area.

For example, you create a datafile copy and PowerSnap backup as follows:

1. Use the **backup as copy datafile** command to create a datafile copy of the file /fs1/test1.dbf to the recovery area located at /fs2. The datafile copy is created as /fs2/datafile/o1\_mf\_test1\_2nnplt1z\_.dbf.
2. Use the **backup proxy recovery area** command to perform a an Oracle PowerSnap backup of the datafile copy in the recovery area.

Then if you perform a rollback restore of this PowerSnap backup, the restore occurs to /fs2. The restore produces the RMAN error because RMAN expects the backed-up file to be restored to /fs1, the original file location.

As a workaround, use the additional command **restore...from datafilecopy** to restore from the datafile copy in the recovery area to the original datafile location.

### Japanese Oracle backup information might be displayed incorrectly in NMC program

#### LGTsc06110

When a scheduled NMDA Oracle backup is run in a Japanese environment and the output from RMAN or from a preprocessing or postprocessing script (used for the backup) is *not* UTF8 text, the Japanese backup information displayed in the NMC program might appear incorrectly as box or question mark characters.

As a workaround, perform the following:

- ◆ Use the NSR\_RMAN\_ARGUMENTS parameter to redirect the RMAN output to a specified log file.
- ◆ Specify "echo off" in any preprocessing and postprocessing scripts used for the scheduled NMDA Oracle backup.

### Crosscheck and channel allocation might take a long time on an HP-UX cluster

#### LGTsc07389

Crosscheck and channel allocation operations might take a long time to complete on an HP-UX cluster (MC/ServiceGuard). The issue is caused by an HP limitation when the Oracle user is not allowed to run the HP system command, **cmviewcl**.

As a workaround, contact HP Support, and ensure that the Oracle user is allowed to run the HP command, **cmviewcl**.

### Multiplexing for Oracle11g multisection backups is supported with advanced file type devices only

#### LGTsc11340

Due to Oracle11g and NetWorker limitations, NetWorker multiplexing for multisection backups (a new feature with Oracle11g) is supported with advanced file type devices only, *not* with tape or regular file type devices.

If you have tape or regular file type devices, you should configure a separate NetWorker device for each RMAN channel, to avoid multiplexing in NetWorker.

If you multiplex the Oracle11g multisection backups on a tape or regular file type device and then experience a hang at restore time, use a single RMAN channel to restore the multisection Oracle backups.



## Backups might fail on Windows with NetWorker 7.4.1 (and earlier) and Oracle11g

### LGTsc11491

NetWorker file system backups and NetWorker module backups might fail on Windows if *all* of the following conditions are true:

- ◆ Oracle11g is installed on the client, and the Oracle VSS Writer service is running.
- ◆ NetWorker software release on the Oracle11g host is prior to release 7.4.2.
- ◆ The Oracle database contains at least one datafile on a raw partition identified by a drive letter, such as \\.\d:. (Backup failure does *not* occur if the raw datafile is located on a volume mount point.)

As a workaround, stop the Oracle VSS Writer from the Windows services.

## NWORA resource file is not backed up on Windows when Oracle VSS Writer is running

### LGTsc11501

The NWORA resource file (*NetWorker\_install\_path\nsr\apps\res\nwora.res* on Windows) is typically backed up at the end of each scheduled Oracle backup. On Microsoft Windows with Oracle11g and a NetWorker client release prior to 7.4.2, when the Oracle VSS Writer service is running, the resource file backup fails at the end of a scheduled Oracle backup.

As a workaround, stop the corresponding Windows service. Refer to Oracle documentation for details on how to stop the Oracle VSS Writer.

## Specific NMDA limitations are caused by Oracle11gR1 bugs

### LGTsc12549

Each of the following NMDA limitations is caused by an Oracle11gR1 bug.

If you experience any of these problems with Oracle11gR1, contact Oracle for support and provide the Oracle bug ID if it is listed as follows.

#### **Automatic catalog synchronization fails with deletion of proxy archivelog backup in Oracle11gR1 (Oracle bug ID 6658567)**

If automatic catalog synchronization is enabled and you delete a proxy archivelog backup with Oracle11gR1, the automatic catalog synchronization fails to delete the proxy backup entry from the RMAN catalog.

The underlying cause is failure of RMAN **delete** commands in Oracle11gR1 to delete proxy archivelog backup entries from the RMAN catalog. The RMAN **delete** commands in this case produce the following error:

```
RMAN-03002: failure of delete command at date time
ORA-01455: converting column overflows integer datatype
```

#### **Backup channel failover fails with Oracle11gR1 on Windows (Oracle Bug ID 6733394)**

Automatic backup channel failover fails during an NMDA backup with Oracle11gR1 on Windows.

**Failover and duplication fails with Oracle11gR1 in non-English environment (Oracle bug ID 6658479)**

With Oracle11gR1 in a non-English environment, NMDA does *not* support the following operations:

- ◆ Failover of a backup channel
- ◆ Failover of a backup piece during restore
- ◆ Duplication with the **duplicate target database...until** command

For each of these operations, the following RMAN internal error is generated:

```
DBGANY: Mismatched message length!
```

**Oracle11gR1 multisection backup with small section size might not be restorable**

For a multisection backup with Oracle11gR1, if you specify a small section size that generates more than 256 backup pieces for the same file, the NMDA backup is reported as successful, but the status of some of the backup pieces is DELETED. RMAN cannot perform a restore of the backup set.

As a workaround, specify a large enough section size to ensure that the multisection backup does *not* generate more than 256 backup pieces for any files.

**Proxy backup of archived logs fails in specific scenario with Oracle11gR1 (Oracle bug ID 6656875)**

An NMDA proxy backup of Oracle11gR1 archived redo logs fails when some of the archived logs are missing from the main location but available in the alternative location. In this case:

- ◆ The archivelog main location is on a snapshotable disk.
- ◆ The archivelog alternate location is on a nonsnapshotable disk.

The proxy backup of archived redo logs fails with the following RMAN error:

```
RMAN-00600: internal error, arguments [13200] [] [] [] []
```

**Oracle backups and nsroraadmin command fail on Windows 2008 and Windows Vista with NetWorker 7.4.1 and 7.4.2****LGTsc15258**

Due to a NetWorker bug, Oracle backups and the **nsroraadmin** command fail on Windows 2008 and Windows Vista with NetWorker releases 7.4.1 and 7.4.2. During the NetWorker client installation on the Windows systems, the *NetWorker\_install\_dir*\tmp directory is assigned incorrect permissions. The Administrator account requires write permissions to this directory.

As a workaround on Windows 2008 and Windows Vista, manually change the permissions on the *NetWorker\_install\_dir*\tmp directory:

1. In Windows Explorer, right-click the *NetWorker\_installation\_dir*\tmp directory, and select **Properties**.
2. On the **Security** tab, click **Advanced**.
3. On the **Owner** tab, click **Edit**.
4. Temporarily change the ownership to the Administrators group.
5. Reopen the **Properties** window.

6. In the **Properties** window, add Administrators to the **Group or user names** table, and grant Read and Write permissions to the Administrators group.
7. Follow [step 1](#) to [step 4](#) to change the ownership back to SYSTEM.

### Raw devices are not supported with PowerSnap Module 2.4 SP3 on 64-bit Linux

#### **LGTsc24413, LGTsc24978**

Due to PowerSnap Module limitations, NMDA does *not* support Oracle proxy operations with raw devices that use PowerSnap Module 2.4 SP3 on 64-bit Linux.

### Oracle recovery wizard cannot be started if client-side configuration was used

#### **LGTsc24972**

Due to an NMC 7.5 bug, if you attempt to start the Oracle recovery wizard with NMC 7.5 for an NMDA client that was configured through the client-side configuration method (*without* the wizard), the recovery wizard fails with the following error:

```
invokeHandlerForFinished called: msgid = 10
java.lang.NullPointerException
:
```

### Backup fails due to non-ASCII data in RMAN script when character sets differ in a non-English locale

#### **LGTsc26748, LGTpa94301**

Due to Oracle bug 3627132, an NMDA Oracle backup fails in a non-English locale when the following conditions exist:

- ◆ NMDA internationalization is set up.
- ◆ The character sets of the RMAN script and Oracle database are different.
- ◆ A non-ASCII character is included in the **parms** option or **send** command in the RMAN script.

For example, if the database uses the UTF8 character set and the RMAN script uses the EUC-JP character set, an NMDA Oracle backup fails when the **parms** option or **send** command in the RMAN script contains any non-ASCII data.

As a result, NMDA does *not* support non-ASCII data in the RMAN script when the character set of the RMAN script (set through the NLS\_LANG environment variable) differs from the character set of the Oracle database in a non-English locale.

### NSR\_RMAN\_ARGUMENTS does not support a pathname with Japanese characters on Windows

#### **LGTsc27057**

On Windows, if the NSR\_RMAN\_ARGUMENTS parameter setting contains a message log pathname that includes Japanese characters, the message log file is *not* generated during the Oracle scheduled backup.

For example, if NSR\_RMAN\_ARGUMENTS is set to the following value in the configuration file on Windows and *log\_file\_pathname* includes any Japanese characters, the log file is *not* generated during the Oracle scheduled backup:

```
NSR_RMAN_ARGUMENTS="msglog 'log_file_pathname' append"
```

**NLS\_LANG error in the wizard cannot be corrected without exiting and returning to the screen****LGTsc27377**

If you enter an invalid value for NLS\_LANG on the **Specify the Database Information** screen in the Oracle backup or recovery configuration wizard, you *cannot* correct the value without exiting the wizard screen and then returning to that screen. Since NLS\_LANG is set to an invalid value, an unreadable error message appears when you attempt to exit the wizard screen.

As a workaround after you enter an incorrect value for NLS\_LANG:

1. Click **Next** to exit the **Specify the Database Information** screen.
2. Click **Back** to return to the **Specify the Database Information** screen.
3. Correct the value in the NLS\_LANG field.

**Oracle proxy backup of CLARiiON system on Linux fails if files are on nonsnapshotable disk****LGTsc27665**

With NetWorker PowerSnap Module for EMC CLARiiON release 2.4 SP3 on Linux, if an Oracle proxy backup of a CLARiiON system includes any files that reside on a nonsnapshotable disk, the proxy backup fails.

**NMDA Oracle does not recognize a Chinese locale on Windows 2008****LGTsc29488**

After the NMDA software is installed and properly set up for localization support in a Chinese locale on Microsoft Windows 2008, NMDA Oracle does *not* recognize the Chinese locale.

As a workaround, run the following command to enable NMDA Oracle support of a Chinese locale on Windows 2008:

```
nsrscatconfig -e dapp zh Chinese
```

**Oracle debug file is not created if NSR\_DIAGNOSTIC\_DEST has non-ASCII value****NW019057**

Due to Oracle bug 3627132, an Oracle debug file is *not* created during an NMDA Oracle backup in a non-English locale if the following conditions exist:

- ◆ NMDA internationalization is set up.
- ◆ The character sets of the user locale and Oracle database are different.
- ◆ A non-ASCII value is specified in the NSR\_DIAGNOSTIC\_DEST parameter setting in either of the following:
  - Parameter setting in the NMDA configuration file for a scheduled backup
  - Parameter setting with the **parms** option in the RMAN script for a manual backup

As a result, NMDA does *not* support a non-ASCII value in the parameter NSR\_DIAGNOSTIC\_DEST when the character set of the user locale (set through the NLS\_LANG environment variable) differs from the character set of the Oracle database in a non-English locale.

## Sybase-specific problems and limitations

This section contains the Sybase-specific problems and limitations in the NMDA software.

### All save sets are not listed in Group Details window in NMC reporting

#### **LGTsc03560**

The NMC program does *not* display all the save set information for Sybase multistripe backups.

NMDA creates one session channel for every Sybase backup process. For multistripe backups, NMDA writes two metadata save sets with the same name (one is normal and the other pertains to the stripe information). The NMC program display cannot differentiate between the two save sets.

### NMC does not display levels for all the save sets of multistripe backup

#### **LGTsc03565**

The NMC program does *not* display the backup levels for all the save sets of a Sybase multistripe scheduled backup.

Use the **mminfo** command to view the backup levels for all the save sets.

### Sybase restore in a Chinese locale is unable to view current date and time

#### **LGTsc04133**

In a Chinese locale, an NMDA Sybase backup is successful but the restore fails with the following error message:

```
Unable to get current date and time.
```

Visit the Sybase website for a workaround.

### TNMC Group Details window and mminfo command display different data

#### **LGTsc04193**

During an NMDA scheduled backup of a Sybase database, the data displayed in the NMC Group Details window is different from that displayed by the **mminfo** command. This difference is due to an error in rounding off of values.

Use the **mminfo** command to obtain the correct information about the Sybase database backup.

### Sybase ASE version 15.0 does not support the with verify clause

#### **LGTsc04626**

Sybase ASE version 15.0 does *not* support the **with verify** clause for Sybase backups or restores.

### NMDA core files are erroneously created in home directory of the user

#### **LGTsc05213**

When a Sybase scheduled backup produces a core file, the core file is created in the home directory of the user. The core file should be created in the current working directory. During a Sybase manual backup, the core file is created in the current working directory.

### Consolidated Sybase backup failure should show nsrdasv usage

#### LGTsc05214

When a consolidated Sybase backup fails, the NMC program displays the group as interrupted and not as failed. The **nsrdasv** usage is included in the daemon.raw file, but the NMC program is unable to capture the same information.

### Sybase incremental backup with no\_log option displays a confusing error message

#### LGTsc05216

NMDA does *not* support a Sybase incremental backup with the **no\_log** option. This backup displays a confusing error message.

### Read-only database backup should change behavior for an incremental backup

#### LGTsc05217

For a Sybase database other than a read-only database, the **truncate\_only** option is ignored when used with an incremental backup, and only an incremental backup is performed.

For a Sybase read-only database, the **truncate\_only** option is a fatal option when used with an incremental backup, and an incremental backup is terminated. The **truncate\_only** option signifies truncation of logs, which is not possible for read-only databases.

### Sybase incremental backup with truncate\_only option displays a confusing error message

#### LGTsc05218

NMDA does *not* support a Sybase incremental backup with the **truncate\_only** option. The following confusing message appears if the **truncate\_only** option is used for an incremental backup of a database that has data and logs on separate devices:

```
Error: the truncate_only option of the NSR_DUMP_LOG_OPT parameter is not valid for an incremental backup where the log is on a separate device. It will be ignored. To truncate the transaction log, use the same command with a level of full instead of incremental.
```

### Incorrect error message appears when invalid pass phrase is used for restore

#### LGTsc05486

An incorrect error message appears when a restore of encrypted Sybase data is performed with an invalid pass phrase.

### Issue with multiple incremental backups for a read-only Sybase database

#### LGTsc06337

For a read-only Sybase database, you must perform only one incremental backup. To perform multiple incremental backups, every incremental backup must be followed by a full backup.

## Restore with `nsrsybrc` command displays a vague error message if pass phrase is incorrect

### NW104822

If an incorrect pass phrase is specified for the restore of an encrypted Sybase backup, then the restore command, `nsrsybrc`, produces the following type of vague error message:

```
BSA-1.0.1 LNMs_2009.Build.208 3227 Mon Sep 28 16:29:54 2009
_nwbsa_read_asdf_section: System detected error due to
asdf_read_and_unwrap_section. Operation aborted.
```

For example, if the Datazone Pass Phrase attribute in the NetWorker Server resource contains an incorrect pass phrase (the pass phrase was changed after the original encrypted backup was performed), the attempted restore of the encrypted Sybase backup with the `nsrsybrc` command produces the error message.

## Backup of more than 200 databases might fail

### NW105216

If a Sybase manual or scheduled backup attempts to back up more than 200 databases, the backup might fail.

**Note:** The limit of 200 databases is based on a maximum size of 30 bytes for a Sybase database name. The database limit might be higher for a backup of databases with names of smaller sizes.

As a workaround, perform two or more smaller Sybase backups instead of one large Sybase backup, where each smaller backup backs up fewer than 200 databases. For example, do one of the following:

- ◆ Perform two or more Sybase manual backups with the `nsrdasv` command, with each `nsrdasv` command backing up fewer than 200 databases.
- ◆ Perform two or more Sybase scheduled backups that each back up fewer than 200 databases. For each backup, create a separate Client resource and separate configuration file, with each configuration file specifying a difference set of databases for the backup.

## Sample threshold procedures fails to dump the transaction log

### NW110345

When the sample threshold procedure (provided with NMDA in the `threshold.sql` file) is properly stored in a Sybase database, and the logs and data segments are located on separate devices, the NMDA software does *not* perform the expected transaction log backup when the database threshold is reached. Instead, the NMDA software always performs a full database backup and truncates the transaction log.

As a workaround, perform one of the following:

- ◆ Modify the `threshold.sql` file to correctly check that the data and log are on separate devices.
- ◆ Use a different stored procedure script to implement the **dump transaction** call.

The *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide* describes how to configure a threshold procedure for NMDA Sybase backups. The Sybase documentation provides complete details on thresholds.

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## Technical notes

Review the following sections for important notes and tips about the use of NMDA software.

### NMDA wizard and GUI installations on supported platforms

If DB2, Lotus, or Oracle is *not* installed on the client system, NMDA still installs the configuration wizard for all the applications or databases (DB2, Lotus, or Oracle) that the wizard supports on the given platform. The wizard also displays DB2, Lotus, or Oracle accordingly as the available choices of applications for which backups can be configured.

If Lotus or Sybase is *not* installed on a Windows system, NMDA still installs the NetWorker User for Lotus and NetWorker User for Sybase GUI programs on the system. The programs are displayed under the Start menu.

---

### Prevent possible degradation of NMDA restore performance with Oracle 10.2 or later

Due to an Oracle limitation, degradation of NMDA restore performance might occur with Oracle 10.2 or later if NetWorker multiplexing is used with NMDA for Oracle backups. If NetWorker multiplexing is enabled, you can prevent the restore performance degradation by including the **set parallelmediarestore off** command in the RMAN restore script that is used for the Oracle restore.

For example, the following RMAN restore script contains the required Oracle command to disable the multiplexing during the Oracle restore:

```
set parallelmediarestore off;
run {
  allocate channel c1 type 'SBT_TAPE';
  restore database;
  release channel c1;
}
```

---

## Documentation

The following sections describe related documentation and any corrections or additions for the NMDA documentation.

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### Related documentation

The *EMC Information Protection Software Compatibility Guide* provides the latest information on operating systems and versions supported by the NMDA software. The guide is available at <http://Powerlink.EMC.com>, **Support > Interoperability and Product Lifecycle Information > Compatibility Guides**.



The following documentation provides information related to the NMDA software:

- ◆ The NetWorker Module for Databases and Applications release 1.0 documentation set:
  - Administration guide
  - Installation guide
  - Release notes
  - Command reference guide
- ◆ The NetWorker documentation set:
  - Administration guide
  - Installation guide
  - Release notes
  - Command reference guide
  - Disaster recovery guide
- ◆ Other EMC documentation:
  - NetWorker PowerSnap Module documentation
  - UNIX man pages

The guides are available at <http://Powerlink.EMC.com>, **Support > Technical Documentation and Advisories**.

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**Note:** The most up-to-date product issues for NMDA release 1.0 are detailed online in the EMC Issue Tracker, available on Powerlink.

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The following additional documentation may be useful:

- ◆ Database or application server documentation
- ◆ Database or application database backup and recovery documentation

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## Documentation errata

The following sections describe documentation corrections or additions for NMDA release 1.0.

### Administration guide — Configure a Lotus DAOS backup

In the *EMC NetWorker Module for Databases and Applications Release 1.0 Administration Guide*, change the first IMPORTANT note on page 101 to the following:




---

#### IMPORTANT

**If the DAOS directory is in the Domino data path to be backed up, add the DAOS directory to the exclude list in the NSR\_EXCLUDE\_LIST parameter in the LOTUS{} section, so the DAOS directory is *excluded* from the Domino data backup.**

---

## Installation guide — Client resource values set by the conversion

In the *EMC NetWorker Module for Databases and Applications Release 1.0 Installation Guide*, the information about the **-T app** option should be modified in the first bullet on page 41. Change the information in that first bullet to the following:

- ◆ Backup Command attribute is set to:

```
nsrdasv -z config_file [-T app] [-c client]
```

where:

- *config\_file* is the pathname of the NMDA configuration file created by the conversion, as shown in [Table 9 on page 41](#). The settings in the configuration file are based on the old command line options and the old configuration file or script.
- *app* is **db2**, **informix**, **lotus**, **oracle**, or **sybase**, depending on the database or application.

---

**Note:** Although the **-T app** option is *optional* in the **nsrdasv** command, the configuration conversion with the **nsrdaadmin** command always sets the **-T app** option in the **nsrdasv** command in the Backup Command attribute.

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- *client* is the client name that was used in the old value of the Backup Command attribute. This old option is kept in the **nsrdasv** command line, if required. Otherwise, this value is specified with the **NSR\_CLIENT** parameter in the NMDA configuration file.

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## Software media, organization, and files

The *EMC NetWorker Module for Databases and Applications Release 1.0 Installation Guide* provides details on the NMDA software media, organization, and files.

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## Installation

The *EMC NetWorker Module for Databases and Applications Release 1.0 Installation Guide* provides details on how to install, update to, uninstall, and license the NMDA software.

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## Coexistence of NMDA software

The NMDA software does *not* support the coexistence of NMDA with any other NetWorker module release on the same system.

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## NMDA reinstall after NetWorker software update

If the NetWorker client installation directory is relocated (for example, during a NetWorker software update) on the database or application server host where the NMDA software is installed, you must uninstall and reinstall the NMDA software.

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## Licensing

To enable NMDA operations after the end of an evaluation period, obtain and install an NMDA license enabler.

To enable PowerSnap snapshot operations, obtain and install a separate PowerSnap license enabler.

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## 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 Powerlink and choose **Support**. On the Support page, you will see several options, including one for making a service request. Note that to open a service request, you must have a valid support agreement. Please contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

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