EMC²

RELEASE NOTES

EMC® NetWorker®
Module for SAP with Oracle
Release 4.0

Release Notes

P/N 300-009-528
Rev A01
November 23, 2009

These release notes contain supplemental information about EMC NetWorker Module for SAP with Oracle, Release 4.0 software. Topics include:

Product description

The EMC® NetWorker® Module for SAP with Oracle (NMSAP) software is an add-on module for NetWorker client software that provides a backup and restore interface between the SAP **BRTools** program and the NetWorker server. The main component of the NMSAP software is the **backint** program, which provides backup, inquiry, and restore operations for Oracle and SAP files.

The NMSAP software provides the following operations for SAP data on Oracle databases:

◆ Scheduled and manual backups of SAP Oracle data

◆ Inquiry and restore of backed up data

◆ Automated media management

◆ Support for redo log backup and recovery

◆ Support for multiple, concurrent high-speed devices

◆ Support for cluster and Oracle RAC configurations

◆ Support for snapshot backup and recovery (using EMC PowerSnap™ software)

◆ Support for split-mirror backup and recovery (using EMC Replication Manager software)

◆ Support for backup cloning

◆ Restore to alternative database instance on the same or a different host

Environment and system requirements

As a client-side product, the NMSAP software, along with the NetWorker client software, must reside on each SAP with Oracle server. The NetWorker server software and SAP software can reside on either the same or separate systems.

The *EMC Information Protection Software Compatibility Guide*, available on the EMC Powerlink website, provides current details on supported operating systems and versions, BRTools versions, and other supporting software required by NMSAP 4.0.

For details on updates of patches required for a particular system, see the Support section of the EMC Powerlink website: http://Powerlink.EMC.com.

New Features and changes

The NMSAP release 4.0 software includes the following new features and improvements.

Deduplication backup and restore

NMSAP supports deduplication backups and restores in cooperation with NetWorker and Avamar® software.

◆ Regular and split-mirror deduplication backups and restores require the following software:

• NetWorker server release 7.5 or later
• NetWorker client release 7.5 or later

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

• Avamar server supported by the NetWorker server

◆ Snapshot deduplication backups with a NetWorker PowerSnap module require the following software:

• PowerSnap Module release 2.5 or later
• NetWorker server release 7.5.1 or later

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 deduplication PowerSnap backup. To obtain the hotfix, contact your EMC Technical Support Representative.

• NetWorker client release 7.5.1 or later

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

• Avamar server supported by the NetWorker software

Backup operations not supported by NMSAP deduplication

NMSAP deduplication operations do *not* support the following:

◆ Backup to raw devices or volumes.
◆ Data compression, checksum, or NSR_AES_ENCRYPTION.

Probe-based backups

NMSAP supports 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.

NMSAP probe-based backups require the following NetWorker software:

◆ NetWorker server release 7.5 or later

◆ NetWorker client release 7.4 or later

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

◆ PowerSnap snapshot backups

◆ Cluster and Oracle RAC environments

Configuration wizard integration with NMC

The NMSAP software provides feature support for the scheduled backup configuration wizard that is integrated with the NetWorker Management Console (NMC). The NMSAP wizard provides security and ease of management for scheduled backup configurations, including deduplication backups.

Note: The Typical wizard workflow configures an *offline* backup of the entire database. To configure an *online* backup, use the Custom workflow option.

The NMSAP wizard requires an NMC server, NetWorker server, and NetWorker client, all of release 7.5 or later.

The NMSAP wizard does *not* support the following:

◆ Configuration of backups with a NetWorker server installed on a Linux Itanium or a Microsoft Windows Itanium operation system.

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

◆ Configuration of PowerSnap snapshot backups.

◆ Configuration of split-mirror backups with EMC Replication Manager.

◆ Modification of a scheduled backup configuration that was created *without* the wizard.

VMware ESX Server features

NMSAP supports the following ESX Server features and functionality:

◆ VMotion

◆ Distributed Resource Scheduler (DRS)

◆ High Availability (HA)

Note: If a VM restart occurs during an NMSAP backup or restore operation, the backup or restore is interrupted. To respond to this potential problem, the NetWorker server can restart a scheduled backup if the Client Retries attribute in the Group resource is set. A manual backup or restore must be manually restarted when the guest operating system is restarted.

Cloud support

NMSAP software supports the cloud backup and restore feature with NetWorker 7.6.x and later.

Remote NMSAP software installation

Administrators in large-scale environments may now upgrade from NMSAP 3.5 to NMSAP 4.0 software from a package on a single source location by using remote (push) installation. With this new feature, it is no longer necessary to physically locate the client host, manually mount and copy the NMSAP package to that host, and then execute the installation steps.

Support for push installation requires the following:

◆ Client operating systems on the remote hosts that support push install.

The *EMC NetWorker Installation Guide* gives details.

◆ A supported NetWorker 7.4.1 or later release is installed on the remote server hosts.

◆ A supported release of NetWorker client is installed on the remote NMSAP client hosts.

The *EMC Information Protection Software Compatibility Guide* provides details.

Backward compatibility for scheduled backups

The **nsrsapadm** command provides added functionality to convert NMSAP 3.0.2 and later scheduled backup settings to the new style of configuration that can be modified through the wizard. The command reads the backup parameter and configuration files found on the NMSAP client host and stores its converted scheduled backup settings as client attributes on the NetWorker server.

NMSAP parameter changes

New parameters were introduced to support new NMSAP features such as deduplication backup, probe-based backup, and the configuration wizard.

All boolean Yes and No parameter values have been changed to TRUE and FALSE. The old Yes and No values continue to be supported for this release.

During a backup, NMSAP 3.5 software adds a process ID (PID) to each save set name, for example, backint:*<DBSID>_PID*. NMSAP 4.0 software does not add PIDs by default. However, PIDs can be set with the ssNameFormat parameter, which have two new values: *new_pid* and *old_pid*. The NMSAP administration guide has details.

The following NMSAP **backint** parameters are deprecated:

◆ encrypt
◆ level_full

The *EMC NetWorker Module for SAP with Oracle Administration Guide* provides details on supported NMSAP parameters.

Internationalization

The NMSAP 4.0 software extends internationalization (I18N) support to cover snapshot backups using the NetWorker PowerSnap Module.

Data with non-English (I18N) characters may be monitored, backed up, and restored with a NetWorker server and client that is configured for an English locale or any of the other locales that the NetWorker software supports.

I18N support requires the following environment:

◆ Internationalized operating system
◆ Unicode version of BRTools
◆ NetWorker server and client that supports I18N

Note: I18N support should be distinguished from localization (L10N) support, in which the software user interface and operational messages are translated into localized languages.

Fixed problems

Table 1 on page 6 lists defects that were found to have occurred under certain circumstances and are now resolved by the NMSAP Release 4.0 software.

Table 1   Defects fixed in NMSAP Release 4.0

Issue number	Problem summary
LGTsc07211	Scheduled backups fail if the parameters set in the nsrsapsv.cfg file contains non-ASCII characters
LGTsc08826	The **backint** command does not accept a file path that starts with \\.
LGTsc10057	The **sapclone** command clones all save sets instead of those from the last 24 hours.
LGTsc16358	Restore fails without group parameter set in parameter file
LGTsc19983	Slow performance at recovery time
LGTsc20441	Restore of PowerSnap backups to a new location does not work
LGTsc20910	Backup fails when backing up connecting directory info (Windows only)
NW018896	NMSAP backup fail with permission denied but error does not show the user name

Known problems and limitations

Table 2 on page 7 lists problems and limitations that were found to occur under certain circumstances and continue to be applicable to this release of the NMSAP software.

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

Table 2   Known problems and limitations

Number	Description	Operating system
"LGTpa96555" on page 7	Snapshot backups leave NetWorker out of sync with CLARiiON.	Solaris
"LGTsc06833" on page 7	RMAN backup fails if a parameter in rman_parms is set to an invalid value.	Microsoft Windows
"LGTsc10688" on page 7	Restore fails for PowerSnap backups on managed file systems.	Microsoft Windows

Snapshot backups leave NetWorker out of sync with CLARiiON

LGTpa96555   A PowerSnap NMSAP backup made on a CLARiiON storage array may have been successful and be deleted from the array, but the NetWorker media database index does not record the backup and still shows the previous backup entry.

The daemon.log file may contain errors similar to the following:

```
nsrd: Impersonation was requested by: remoteuser@jupiter, but the
user does not have enough privileges to impersonate.

nsrd: PowerSnap notice: Operation Requested for: backint:SAP:PS:
```

This discrepancy can occur when:

◆ The remote user does not have enough NetWorker permissions
◆ There are no users for the particular host in User groups
◆ The remote user is not in the Administrator/User groups list

Workaround — Provide the user with enough permission for the backups.

Backup fails if a NSR* parameter for RMAN is set to an invalid value

LGTsc06833   For an NMSAP backup using RMAN, if an NSR* parameter is set to an invalid value, then the backup fails and Oracle may hang. Subsequent backups also fail, whether they are correctly configured or not.

Workaround — Set a valid parameter value and restart the Oracle services. If necessary restart the operating system.

Restore fails for PowerSnap backups on managed file systems

LGTsc10688   Cloned point-in-time (PIT) backups created with PowerSnap on a managed file system, such as Veritas Volume Manager (VxVM), may fail to restore properly.

Workaround — Change the status of the clone volume (BCV) to "Not Ready for Veritas." Use the data mover to import from this BCV for the PIT restore and rollover from the PIT.

Technical notes

This section provides supplementary technical notes for implementing this release of the product. Some of these notes describe issues that are dependant on the functionality of other products that are used with the NMSAP software.

RMAN save sets are not displayed by the NetWorker Console on Windows systems

If the RMAN utility is used for scheduled backups on Microsoft Windows systems, then the information for the save sets generated by RMAN is not reported in the Group Details window of the NetWorker Management Console. Only the information for save sets generated by the **backint** program is reported.

Workaround — To obtain information on the RMAN save sets, use the NetWorker **nsrinfo** or **mminfo** commands.

Chained symbolic links are not supported

CAUTION

On UNIX systems, if the path of a file contains a chained symbolic link (a link that points to another link), then the backup succeeds but restores of the file will fail.

The SAP program does not support chained symbolic links. SAP Note 27428 provides details.

Documentation

The following EMC documents are relevant to the NMSAP product, and are available at softwaresupport.EMC.com:

- *EMC NetWorker Module for SAP with Oracle Administration Guide*
- *EMC NetWorker Module for SAP with Oracle Installation Guide*
- *EMC NetWorker Module for SAP with Oracle Command Reference Guide*
- *EMC NetWorker PowerSnap Module Installation and Administration Guide* appropriate for your implementation
- *EMC NetWorker Administration Guide* appropriate for your implementation
- UNIX man pages
- *EMC NetWorker Command Reference Guide*
- *EMC NetWorker Licensing Process Guide*
- *EMC Information Protection Software Compatibility Guide*

Installation

For information and procedures on how to install the NMSAP software, or how to upgrade this software from a previous installation, refer to the *EMC NetWorker Module for SAP with Oracle Installation Guide*.

Troubleshooting and getting help

EMC support, product, and licensing information can be obtained as follows.

Product information — For documentation, release notes, software updates, or for information about EMC products, licensing, and service, go to the EMC Powerlink website (registration required) at:

http://Powerlink.EMC.com

Technical support — For technical support, go to EMC Customer Service on Powerlink. To open a service request through Powerlink, you must have a valid support agreement. Please contact your EMC sales representative for details about obtaining a valid support agreement or to answer any questions about your account.

Verifying release information

Depending on the operating system, verify the release information and release number for the installation as follows:

◆ On UNIX operating systems, enter the following command as the root user:

what filenm **| more**

where filenm is the name of a NMSAP binary file, for example backint or nsrsapsv.

◆ On Linux operating systems, enter the following command as the root user:

strings filenm **| grep "@(#)"**

where filenm is the name of a NMSAP binary file, for example backint or nsrsapsv.

◆ On Microsoft Windows operating systems:

a. Locate the NMSAP binary file, for example backint.exe or nsrsapsv.exe.

b. Right-click the file, and select **Properties**.

c. In the **Properties** window, select the **Version** tab to display the version information.