



RELEASE NOTES

EMC[®] NetWorker[®]
Module for Microsoft SQL Server
Release 5.2

Release Notes

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These release notes contain supplemental information about EMC NetWorker Module for Microsoft SQL Server, release 5.2. Topics include:

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Revision history

The following table presents the revision history of this document.

Revision	Date	Description
A01	September 24, 2008	First release of the product.

Product description

The EMC[®] NetWorker[®] Module for SQL Server, release 5.2 provides several quality enhancements and support for Microsoft SQL Server 2008.

New features and changes

This NetWorker Module release includes the following new or enhanced features, as well as problem fixes. [“Fixed problems” on page 2](#), contains a list of problems fixed for this release.

The following are features added to this release:

- ◆ Added support for Microsoft SQL Server 2008, which includes:
 - Transparent data encryption (TDE) support
 - SQL Server backup compression support
 - Filestream data backup and recovery support
- ◆ Removed support for SQL Server 7.0.
- ◆ Added support for job monitoring through the NetWorker Management Console. Both scheduled and manual jobs can be monitored.

Fixed problems

[Table 1 on page 2](#) lists the problems fixed in the NetWorker Module 5.2 release. The latest software is available on Powerlink at **Support > Software Downloads and Licensing > Downloads J-O / NetWorker Module > NetWorker Module for SQL Server**.

Table 1 Problems fixed for release 5.2 (page 1 of 2)

Issue number	Description
LGTpa33898	Database file group or file backup not promoted to full
LGTpa84698	Disabled “Restore Options” in root context (right-click) menu of the partial/piecemeal restore window
LGTpa26982	NMSQL software allows restore of a file group of a nonexisting database
LGTpa28750	NetWorker User for SQL Server program fails to recover a database with the same name
LGTpa33175	The -C option is supported only with database restores

Table 1 Problems fixed for release 5.2 (page 2 of 2)

Issue number	Description
LGTpa95601	The -\$ option for the nrsrqlc command was undocumented
LGTsc07612	Users will not be able to see the status of SQL recoveries from the Sessions window in the NetWorker Management Console
LGTsc15636	NMSQL backup to Symmetrix® device groups may fail intermittently
LGTsc00539	SQL silent uninstall pops up dialog for ia64 and x64 platforms
LGTsc05847	Cannot use the Configuration Wizard to add SQL 2000 clients on x64 platforms
LGTsc08807	NetWorker Module GUI and command line code do not run on Windows 2000 platforms
LGTsc07813	NetWorker Server software must be upgraded from 7.3.x to 7.3.3 to run with NetWorker Module for SQL 5.1
LGTpa85016	Extra debug message is displayed
LGTsc07953	NetWorker Module for SQL Server User program does not report the correct database size
LGTpa29889	Database files do not appear for file groups containing a slash (/)
LGTpa32182	NetWorker User for SQL Server program accepts inaccessible drives
LGTsc12037 LGTpa48391	Savegroup does not honor -y and -w options for NMSQL saveset

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

Environment and system requirements

Release 5.2 supports the following client configurations. Supported configurations occasionally change after release. The *EMC Information Protection Software Compatibility Guide* provides the latest list of supported configurations.

Supported operating systems

This module supports the following editions of Microsoft Windows:

- ◆ Windows 2000 with the latest service packs
- ◆ Windows Server 2003 with the latest service packs
- ◆ Windows Server 2008 with the latest service packs

See “[Microsoft Windows and SQL Server compatibility](#)” on page 4 for SQL Server and operating system compatibility with this module.

Microsoft SQL Server

The NetWorker Module for Microsoft SQL Server software supports the following versions of Microsoft SQL Server:

- ◆ Microsoft SQL Server 2008 Express, Workgroup, Standard, Web, Compact, and Enterprise editions
- ◆ Microsoft SQL Server 2005 Express, Workgroup, Standard, and Enterprise editions
- ◆ Microsoft SQL Server 2000 Standard and Enterprise editions

Microsoft Windows and SQL Server compatibility

NetWorker Module for Microsoft SQL Server is compatible with Microsoft Windows and Microsoft SQL Server, as shown in [Table 2 on page 4](#).

Table 2 NetWorker Module compatibility

SQL Server versions	Windows Server versions	Cluster support
SQL Server 2008 (x86, x64) SQL Server 2005 (x86, x64), service pack 2	Windows Server 2008 (x86, x64)	Windows Server 2008 Enterprise edition Windows Server 2008 Datacenter edition
SQL Server 2008 (x86, x64, IA64) SQL Server 2005 (x86, x64, IA64), service pack 2	Windows Server 2003 R2 (x64, x86, IA64) Windows Server 2003 (x64, x86, IA64) Windows 2000 (x86))	Windows Server 2003 Enterprise edition Windows Server 2003 Datacenter edition Windows 2000 Advanced Server Windows 2000 Datacenter Server
SQL Server 2000 (x86, IA64), service pack 4 and hotfix KB913100	Windows Server 2003 R2 (x64, x86, IA64) Windows Server 2003 (x64, x86, IA64) Windows 2000 (x86)	Windows Server 2003 Enterprise edition Windows Server 2003 Datacenter edition Windows 2000 Advanced Server Windows 2000 Datacenter Server

- ◆ With the Windows Server 2003 x64 operating system, the SQL Server, NetWorker, and the module software are supported in native mode. This module software does support SQL Server running in WOW64 mode.
- ◆ A Microsoft hotfix is required for the module running on Windows Server 2003 x64 with SQL Server 2000. SQL Server 2000 Virtual Device Interface (**Sqlvdi.dll**) is a 32-bit DLL. The 64-bit Volume Shadow Copy Service (VSS) writer that is included with the x64 edition of Windows Server 2003 requires an x64 edition of **Sqlvdi.dll** to work correctly. The Microsoft knowledgebase article <http://support.microsoft.com/kb/913100/> provides more information.

NetWorker PowerSnap Module

The NetWorker PowerSnap™ Module software is required only if the NetWorker Module for Microsoft SQL Server software is to perform snapshot backup and recovery operations. For recovery of snapshot backups, PowerSnap Module software is *not* required on the target SQL Server host.

For snapshot backup support, the SQL Server host must have a supported snapshot-capable storage subsystem.

PowerSnap Module software requirements are as follows:

- ◆ The SQL Server host must have the appropriate PowerSnap Module installed to recover a PowerSnap saveset backup.
- ◆ A computer other than the SQL Server host is required as the PowerSnap datamover (proxy client), the data mover host must have the following software installed:
 - NetWorker software release 7.4 or later
 - PowerSnap Module software appropriate for the storage subsystem

Table 3 on page 5 lists configurations for snapshot backup and recovery with NetWorker Module for SQL Server, release 5.2.

Table 3 NetWorker Module and PowerSnap support

SQL Server versions	Operating System versions	PowerSnap Arrays
SQL Server 2008 (x86) SQL Server 2005 (x86) SQL Server 2000 (x86)	Windows Server 2003 R2 (x86) Windows Server 2003 (x86)	PowerSnap for Symmetrix DMX™
SQL Server 2008 (x86, x64) SQL Server 2005 (x86, x64) SQL Server 2000 (x86)	Windows Server 2003 R2 (x86, x64) Windows Server 2003 (x86, x64)	PowerSnap for CLARiiON®
SQL Server 2008 (x86) SQL Server 2005 (x86) SQL Server 2000 (x86)	Windows Server 2003 R2 (x86) Windows Server 2003 (x86)	PowerSnap for RecoverPoint

See the PowerSnap documentation and the *EMC Information Protection Software Compatibility Guide* for additional information.

NetWorker software

The NetWorker client software must be installed on the SQL Server host computer. For more information about the installation requirements for NetWorker client software, refer to the appropriate *EMC NetWorker Installation Guide*.

The NetWorker software requirements for NetWorker Module for Microsoft SQL Server software are as follows:

- ◆ NetWorker client and server software release 7.4 or later for internationalization and localization support.
- ◆ NetWorker client and server software release 7.4.2 or later for Windows Server 2008 and SQL Server 2008 support.

Note: The `nsr_render_log` is required to view module logs and is supplied with NetWorker 7.4 and later releases. For releases prior to 7.4, this can be obtained from EMC Customer Support.

NetWorker Module for Microsoft SQL Server software can connect to and interact with a NetWorker server running on any supported operating system platform.

Note: The NetWorker Configuration Wizard will not work with SQL Server 2008 unless the "Microsoft SQL Server 2005 Backward Compatibility Components" package is installed. The Configuration Wizard uses SQL-DMO to communicate with SQL Server, which was removed from SQL Server 2008. The backward compatibility package can be downloaded from <http://www.microsoft.com/downloads/>.

Known problems and limitations

The following sections describe known problems in this NetWorker Module for SQL Server release and procedures to work around these problems, if available:

- ◆ "Limitations in backup operations" on page 6
- ◆ "Limitations in restore operations" on page 8
- ◆ "Limitations with snapshot backups or restores" on page 8
- ◆ "Limitations with NetWorker" on page 10
- ◆ "Limitations on internationalization" on page 10

Limitations in backup operations

This section describes backup limitations with the NetWorker Module for SQL Server release 5.2 software.

Support for Microsoft SharePoint Portal Server

The NetWorker Module for SQL Server can perform backups of the SQL Server databases in the SharePoint Portal Server environment. However, backup and recovery of the full SharePoint environment is not supported by this NetWorker Module.

Additional information regarding backup and restore operations by using NetWorker software on the various versions of SharePoint Portal Server, can be found in Technical Bulletin 393. The EMC NetWorker Module for Microsoft .

Some backup options are reset after reconnecting to a SQL instance in the same backup session (LGTpa84693)

When reconnecting to a SQL instance with the NetWorker Module, the values of two backup options are not in the registry. The **Compress backup content** and **striped backup** options are reset, although the **Debug level** option is not.

The problems include:

- ◆ The user may not be aware that some options are reset, especially striped backup, and run the backup with the unexpected settings.
- ◆ Confusion may result because the behavior for **Debug level** is inconsistent with **Compress backup content** and **striped backup**.
- ◆ The resetting of these options is inconsistent with information in the Administration Guide and the online help. These texts indicate that "The selected attributes apply to each marked object for all backups until the NetWorker User for SQL Server program is closed."

Scheduled backup always full in database mirroring due to invalid authorization (LGTpa80579)

When the principal database and mirror database are on different SQL servers, the scheduled non-full backup of the principal database will always be promoted to full. Though the scheduled backup succeeds, the log file (and Group detail) displays the Microsoft SQL Server Provider error, "Invalid authorization specification." The user does not get the differential/incremental backup of principal database as scheduled.

Also the problem will not happen in the scheduled non-full backup when the principal database and mirror database are on the same SQL server (but with different server instances).

This problem is caused by a mismatch between the Remote User and Password specification on the **Remote** tab of the NetWorker **Client** dialog box. A domain account must be used to set up the mirroring relationship. The same account (username and password) must be specified for **Remote User** and **Password** in the client dialog box. If multiple accounts have been set up, only one needs to be specified.

The NetWorker Module does not correctly promote a differential backup (LGTpa33202)

NetWorker Module for SQL Server automatically promotes the backup level of an item when it detects that a previous full backup does not exist. The NetWorker Module fails to correctly promote a file group differential backup to a full database backup when the file group full backup does not exist. This only occurs when you add a file group to the database after performing a full database backup.

Workaround: perform a full database backup any time a file group or file is added to the database.

Mixed SQL Server setup shows only default Instance in the NetWorker configuration wizard (LGTpa82140)

In a mixed SQL Server environment, the NetWorker **Configuration Wizard** shows only the default instance.

- ◆ One default instance (SQL 2000), for example: STRAWBERRY
- ◆ One named instance (SQL 2000), for example: STRAWBERRY\NAMED2000
- ◆ One named instance (SQL 2005), for example: STRAWBERRY\NAMED2005

In the NetWorker **Configuration Wizard**, if you identify a NetWorker client as *strawberry* all instances are displayed in the Management Console. If you specify the hostname and domain name, for example: *strawberry.blr.yourcompany.com*, only the default instance is displayed.

Expected behavior is to display all the instances. However, because the SQL Data Management Objects (DMO) API only returns one instance, that is all that can be displayed in a mixed server environment.

Limitations in restore operations

This section describes restore limitations.

Datamover name is mis-handled for copy restore operations (LGTsc07633)

Specifying a datamover at the command line for a copy restore operation works correctly the first time, but is set to the client host name thereafter.

To work around this issue, restart the NetWorker Module for SQL Server for each copy restore from a snapshot.

Incorrectly named option for recover operation (LGTsc20308)

In Restore Options dialog, a checkbox option is listed as "Transaction log backup before restoring Microsoft SQL 2005 databases." The box is relevant for SQL 2005 and SQL 2008.

Restore options make logtail promote to full in continuous restore (LGTpa85286)

Accessing the **Restore Options** dialog box while starting a normal restore enables the **Logtail backup before restoring Microsoft SQL Server 2005 database** checkbox. This enabled a backup of the active portion of transaction log in the **Restore** properties.

After a full backup and then a normal restore of a database, a second normal restore of the same database may occur differently than implied in by the program message. This depends on whether the **Restore Options** dialog box is accessed and the logtail checkboxes are enabled before starting the second normal restore.

In piecemeal restore, the "Mark the file group to display" list shows a file group that has not yet been backed up (LGTpa80484)

For piecemeal file group status in an online database, the NetWorker Module for SQL Server User program must query the SQL Server for filigreed information. The program lists new file groups as available for restore, even though the SQL Server will not distinguish whether the file group has or has not been backed up. A user may attempt to restore a file group that is not actually available for the restore process.

Limitations with snapshot backups or restores

SQL VDI errors in event log with snapshot backups and recoveries (LGTsc20445)

When a snapshot backup or recovery is performed, although the backups and recoveries happen successfully, SQL VDI errors are seen in the Windows Application event log. The backup and recovery completes successfully, but following errors appear in the application event log:

```
SQLVDI: Loc=SignalAbort. Desc=Client initiates abort.
ErrorCode=(0).
Process=1968. Thread=2772. Client. Instance=.
VD=Global\Legato#d4cc7bf5-9f1d-47d7-b0a3-dd63c25f42ee_SQLVDIMemoryName_0.
```

```
SQLVDI: Loc=CVDS::Close. Desc=Open devices!. ErrorCode=(0).
Process=1968.
Thread=2772. Client. Instance=.
VD=Global\Legato#d4cc7bf5-9f1d-47d7-b0a3-dd63c25f42ee_SQLVDIMemoryName_0.
```


SQL FLIR to mirror cannot restore to Symmetrix clones (LGTsc20093)

The PowerSnap restore option `-A symm_snap_tech=clone` is not recognized by the NetWorker Module for SQL Server program at this time.

SQL Server backup looks for media on local node even though a storage node is configured (LGTsc11947)

A SQL Server backup may generate a “media waiting” event and seek a local device even when a remote storage node with a snapshot pool is configured.

Workaround: Create and mount a local device for backups even if using a remote storage node.

Instant restore of a single SQL Server filegroup fails (LGTsc11882)

Restoring a single SQL Server filegroup from a snapshot may fail.

Workaround: Restore the entire SQL Server database.

Forced rollback of online SQL Server database fails (LGTsc11869)

Forced rollback of an online SQL Server database fails.

Workarounds:

- ◆ Do not use the forced rollback option. Use the standard rollback and add files to be overwritten in `psrollback.res`.
- ◆ Take the database offline and then perform a forced rollback.

With a PowerSnap and SQL Module FLIR piecemeal restore option set, the system drive is unmounted and the recover fails (LGTsc06169)

With Microsoft Windows Server 2003, image recovery workflow, and a FLIR using a mirror-type recovery with the piecemeal restore option set in the SQL Module interface, the system drive becomes uninstalled and the recover fails.

Workaround: Select the normal restore type option in the SQL module interface. Do not select the piecemeal restore option.

FLIB backup of a SQL database on a single volume is successful, but with trace log (LGTpa88729)

A FLIB backup of a SQL database on a single volume with the PowerSnap Module is successful. The NetWorker Module for SQL Server backs up the database files, transaction logs, and the metadata objects. The metadata objects are typically on the C:\ drive, which cannot be snapped. The backup of these objects fails over to a conventional PowerSnap Module backup, which causes creation of the trace log file. The trace log file is not a problem.

The SQL Module with PowerSnap does not allow copy restore with same paths (LGTsc20880)

A snapshot copy restore with a matching backup and recovery path will fail. The recovery path must be different from the backup path for the restore to succeed.

Filegroup recover causes xlog backup to fail and xlog recover fail (LGTsc20360)

When performing a conventional filegroup recovery from a snapshot backup that is rolled over to a file device, the recovery happens and the transaction log backup after that fails with the message:

```
Database <DB_Name> is loading, it can not be backed up.
```

The database is left in the restoring state.

This does not happen for non-snapshot backups.

Limitations with NetWorker

This section describes limitations with NetWorker or the NetWorker Management Console.

Level information not showing up when monitoring manual backup jobs (LGTsc18909)

When performing backup or recover operations from the NetWorker Module for SQL Server client, the NetWorker Server monitoring information does not display information on the level/type of save or Group information, if it's specified.

Limitations on internationalization

This sections describes limitations on internationalization.

NMSQL software does not provide cross-language support

Cross-language support is defined as any operation that involves SQL objects whose names are in languages that are different from the host system's default user language. Starting with release 3.1.1, the this NetWorker Module software does *not* support any cross-language environments or configurations.

Timestamp support

This module software supports only timestamps in this format:

```
-t "Thu Jan 30 10:30:59 2006"
```

String input limitations

Non-Latin characters are allowed for attributes in the NetWorker User for SQL Server program and for any value specified for a command option.

Windows and Microsoft SQL Server impose limits on the size of resource strings. For example, Microsoft SQL Server allows up to 128 characters in the name of a SQL object.

The NetWorker software also imposes a 128-byte limit on string length. A Latin alphabet string of 128 characters is composed of 128 bytes because Latin letters can be represented by a single byte. Chinese, however, requires three bytes to represent a single character. To fit into 128 bytes, a Chinese string cannot exceed 42 characters. Some European languages, like German, require two bytes to represent a single character. To fit into 128 bytes, a German string cannot exceed 64 characters.

Table 4 on page 11 lists the limits on the string size of command options for the NetWorker Module software commands **nsrsqlsv** and **nsrsqlrc**.

Table 4 Command option string size limits

Commands and options	Command	String-size limit
Instance name	nsrsqlsv or nsrsqlrc	16 bytes
Database name	nsrsqlsv or nsrsqlrc	128 bytes
Database filegroup name	nsrsqlsv or nsrsqlrc	128 bytes
Database filename	nsrsqlsv or nsrsqlrc	128 bytes
Directory paths (relocation lists for -C and -S)	nsrsqlrc	260 bytes
-P (password)	nsrsqlsv or nsrsqlrc	128 bytes, limited by SQL Server on English language systems and by NetWorker software on non-English language systems
-U (username)	nsrsqlsv or nsrsqlrc	128 bytes, limited by SQL Server on English language systems and by NetWorker software on non-English language systems
\$ (instance name)	nsrsqlsv or nsrsqlrc	16 bytes, limited by SQL Server on English language systems and by NetWorker software on non-English language systems
-C (file configuration, relocation list)	nsrsqlrc	260 bytes, limited by Windows on English language systems and by NetWorker software on non-English language systems
-d (copy operation)	nsrsqlrc	128 bytes, limited by Windows on English language systems and by NetWorker software on non-English language systems
-M (log mark name)	nsrsqlrc	32 bytes, limited by SQL Server on English language systems and by NetWorker software on non-English language systems
-R (partial filegroup list)	nsrsqlrc	128 bytes, limited by Windows on English language systems and by NetWorker software on non-English language systems
-S (standby file)	nsrsqlrc	260 bytes, limited by SQL Server on English language systems and by NetWorker software on non-English language systems

NetWorker server resources, such as Device, Pool, and Group resources, can be configured by using non-Latin characters, since they are created by the NetWorker Administrator program and are transparent to the NetWorker Module software.

Mid-level user accounts to enable copy restore

In order to select other client machines as the source of a copy restore, the destination machine and an appropriate user account or group must be specified in the list of NetWorker administrators on the NetWorker Server.

To avoid placing numerous backup operators in the administrators list, which grants them all privileges, you can do the following:

1. In the NetWorker Administrator program, create a User Group with a name of your choosing and in the Comment field describe it as "Enable copy restore with NMSQL."
2. Add a user to the new group as `user_account@fully qualified domain name`. The hostname and the domain name together make up the fully qualified domain name.
3. Select all privileges, except "Change security settings" and "Configure NetWorker." All other settings are required once the "Remote access all clients" privilege is specified.

This allows `user_account`, and only `user_account`, to copy restore to the fully qualified domain name (FQDN), and only to FQDN. Other users and/or machines can be added as needed.

For more information about managing NetWorker server access, refer to the *EMC NetWorker Administration Guide* and online help.

Technical notes

There are no technical notes to report for this release. All installation, configuration, and product information is provided in the EMC NetWorker Module for Microsoft SQL Server documentation.

Documentation

For information on installing and using the NetWorker Module software, refer to these additional EMC NetWorker Module for Microsoft SQL Server, release 5.2 documentation sources:

- ◆ Installation guide
- ◆ Administration guide
- ◆ NetWorker User for SQL Server online help

These EMC NetWorker 7.4, Microsoft Windows Version resources are specific to the NetWorker server version, and are also available:

- ◆ Administration guide
- ◆ Installation guide
- ◆ Release notes

Other EMC NetWorker resources that provide helpful information include:

- ◆ Command reference guide
- ◆ Error message guide
- ◆ Disaster recovery guide

- ◆ PowerSnap Module installation and administration guide (for the appropriate PowerSnap Module)
- ◆ Technical Bulletin 393: Using NetWorker Module for Microsoft SQL Server to Back Up and Restore Microsoft SharePoint Product Databases

The complete set of EMC documentation is provided in PDF form on the Documentation Suite CD-ROM shipped with the EMC software. The most up-to-date documentation is available at www.support.EMC.com.

Software media, organization, and files

This section is currently not applicable to the NetWorker products.

Installation

Complete installation procedures are provided in the *EMC NetWorker Module for Microsoft SQL Server 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.

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