

EMC® NetWorker®
Module for Microsoft Applications
Release 2.0

Release Notes

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These release notes contain supplemental information about this release of EMC NetWorker Module for Microsoft Applications. Topics include:

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Product description

The EMC® NetWorker® Module for Microsoft Applications 2.0 (NMM) uses Microsoft VSS technology to provide backup and recovery services for file systems, application data, and operating system data.

The NMM software allows for the creation of a point-in-time snapshot (copy) of data. Instead of backing up data directly from the physical file system, data is backed up from the snapshot. The snapshot includes exact copies of files and all open files. For example, databases and files that are open due to operator or system activity are included in a snapshot. In this way, files changed during the backup process are copied correctly. Snapshot backups ensure that:

- ◆ Applications can continue to write data to the volume during a backup.
- ◆ Open files are no longer omitted during a backup.
- ◆ Backups can be performed at any time, without locking out users.

The NMM software enables one to manage snapshots on disk to maximize backup and recovery performance.

NMM Features

This section describes briefly the backup and recovery features of the NMM software. The *EMC NetWorker Module for Microsoft Applications Release 2.0 Administration Guide* provides more details about all NMM features.

NMM backups

Backups are configured as scheduled snapshot backups on the NetWorker server. Ad hoc (manual) backups, from either the command line or from the NMM, are not supported at this time. However, one can manually start a scheduled snapshot backup at any time.

The NMM supports three types of snapshot backups:

- ◆ Nonpersistent backup (also referred to as a live backup)
- ◆ Instant backup with or without rollover
- ◆ Serverless backup (also referred to as proxy backup or an off-host backup)

Proxy client support

A proxy client is used to offload the processing requirements associated with serverless backups. Serverless backups free the backup client from much of the processing involved in an instant backup. These backups are particularly useful when there is additional processing involved in a scheduled backup. For example, to determine whether a snapshot of an Exchange database is consistent, the Exchange utility, **eseutil**, must be run against the snapshot. Running **eseutil** can be disk intensive. Therefore, offloading the work from the Exchange server to a proxy client frees resources on the Exchange server.

NMM recoveries

There are three types of recoveries:

- ◆ Conventional recovery
- ◆ Instant recovery
- ◆ Rollback recovery

By default, recoveries are performed from a conventional backup. If a conventional backup is unavailable for the selected browse time, an instant recovery is performed. The default recovery method can be specified in the NetWorker Recovery Options dialog box.

New features and changes

This release succeeds EMC NetWorker VSS Client for Windows Server 2003 7.3, First Edition.

NMM 2.0 features new and expanded support for many Microsoft applications, including:

New Operating System Support:

- ◆ Support for Windows Server 2008 x86/x64
- ◆ Support for Windows Server 2003 x64
- ◆ Support for Windows Dynamic Disks

New Application Support:

- ◆ Microsoft Exchange Server 2007 x64
 - Exchange Server 2007 Cluster Continuous Replication (CCR) Secondary Node Backups
 - Exchange Server 2007 Local Continuous Replication (LCR) Compatible
- ◆ Microsoft Office SharePoint Server 2007
 - Disaster Recovery for standalone and distributed farms
- ◆ Microsoft System Center Data Protection Manager 2007
 - Protection of DPM Server and DPM Protected Server Replicas

New NetWorker Support:

- ◆ Support for AES Encryption

New VSS Hardware Provider Support:

- EMS Celerra with Celerra VSS Hardware Provider
- EqualLogic PS Series Arrays with EqualLogic Integration Toolkit

Expanded VSS writer support for Microsoft SQL Server 2005

Fixed problems

Search feature needs asterisk (*) and question mark (?) search capability (LGTpa94138)

This section describes fixes in this release.

The NMM client software now supports searching for a recovery item using the asterisk (*) and question mark (?) wildcards.

In addition to using literal or name matches, case-sensitive or case-insensitive, you can refine your search as follows:

- Single character match search using the ? wildcard.
Type ? to return single character entries and drive volumes, such as *C* or *D*
Type **NEW?Disk** to return *NEW Disk*
- Multiple character match search using the * wildcard.
Type ***.txt** to return all entries with a *.txt* extension
Type ***** to return all items within the selected container
Type ***new*** or **new*** to return *New Disk*
- Search using both the * and the ? wildcards.
Type **??w*disk*** to return *NEW Disk*

The *EMC NetWorker Module for Microsoft Applications Release 2.0 Administration Guide* provides more details on how to search for a recovery item, and how to use literal and name matches.

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

Environment and system requirements

The *EMC NetWorker Module for Microsoft Applications Release 2.0 Installation Guide* lists hardware and software requirements for the NMM software.

Known problems and limitations

This section provides known problems and limitations for this release.

Unsupported NetWorker features

The following NetWorker features are not supported:

- ◆ NetWorker Clone, Staging and Archive.
- ◆ Directed Recovery.
- ◆ Internationalization (I18N) or Localization (L10N).

- ◆ Installation of dedicated Storage Node on NMM client host. NMM does support proxy storage node. The *EMC NetWorker Module for Microsoft Applications Release 2.0 Administration Guide* provides more information.
- ◆ Adhoc/Manual Backups.
- ◆ De-duplication.

The following Windows Server versions are not supported: Windows Server 2008 Core installation, and Windows IA64 editions.

The following Windows features are not supported:

- ◆ BitLocker encryption.
- ◆ GUID Partition Table (GPT) disks.
- ◆ LAN-based Proxy Client or LAN-free backups, if dynamic disks are used.
- ◆ EMC VSS Hardware Provider with Windows Server 2008.
- ◆ EMC VSS Provider for Celerra with Windows Server 2008.
- ◆ VSS Hardware Providers with Windows dynamic disks.
- ◆ Microsoft Software Shadow Copy provider to perform persistent snapshots of clustered disks.
- ◆ Windows Automated System Recovery (ASR).
- ◆ Windows Storage Server Single Instance Storage (SIS) is supported, but recoveries will recover file data for all duplicate file—data will not be lost if there is sufficient disk space to hold the duplicate copies.

The *EMC Information Protection Software Compatibility Guide* contains additional and the most up-to-date information about NMM compatibility.

SQL 2005 databases in recovery state are not skipped during backup or restore (LGTsc00754)

SQL 2005 databases in the recovery state are not skipped during a conventional backup or snapshot restore; the SQL Server Writer does not list database files in the recovery of the file system. This problem only occurs when you perform a file system backup of the file systems that contain these SQL database files. As a result, when you restore the file system where these databases reside, the files are overwritten.

Workaround If the databases were participating in SQL Log Shipping, recreate the database from a fresh backup of the source, then reenable log shipping.

Conventional incremental backup does not save renamed files (LGTsc00665)

If, after performing a conventional full backup of a drive, you rename files and then perform a conventional incremental backup of the drive, the renamed files will not be saved and will not be browsable for recover in the NMM client window.

Invalid temporary path created during Event Log writer recovery (LGTpa96400)

When you recover a writer such as the System Components Event Log writer, an empty subdirectory is created at C:\temp\nsr_recover\timestamp\...\

ServiceState\EventLogs, where timestamp indicates the time and date of the recover operation. The creation of this subdirectory does not create any performance issues, but does cause the nsr_recov directory to not be removed after rebooting the system.

Workaround After the client is rebooted, manually delete the nsr_recover directory.

Unable to browse save sets created by NMM client after downgrading from NMM client software to non-NMM client (LGTpa96395)

If, after installing the NMM software, you perform a save or rollover save operation and then decide to downgrade to a non-NMM client, you cannot browse the save sets created by the NMM client on the downgraded client software. This is because the format of the client file index entries changed with the NMM client, and previous NetWorker clients do not recognize this format.

EMC VSS Provider cannot take a snapshot of the volume on which Solutions Enabler is installed (LGTpa90841)

A CLARiiON or Symmetrix volume supported with the EMC VSS provider cannot take a snapshot of the volume on which Solutions Enabler is installed. Additionally, the volume on which Solutions Enabler is installed cannot be included in the same client resource and backup group with a CLARiiON or Symmetrix volume.

More information about this issue is provided in the EMC Solutions Enabler documentation.

Workaround To protect a NMM using CLARiiON or Symmetrix storage:

- ◆ Install Solutions Enabler on a local volume (a volume that is not a CLARiiON or Symmetrix volume). When Solutions Enabler is installed on a local volume, the snapshot is taken with the software-based VSS System provider.
- ◆ Do not specify save set **All**.
- ◆ Create at least two client resources for the NMM. Create one client resource for the local volume on which Solutions Enabler is installed and create another client resource for the CLARiiON or Symmetrix volumes. Local volumes without Solutions Enabler installed can be included in any client resource.
- ◆ Ensure that the client resource for the local volume on which Solutions Enabler is installed and the client resource for the CLARiiON or Symmetrix volumes are not assigned to the same backup group.

Snapshot cannot include both CLARiiON and Symmetrix volumes (LGTpa91221)

A client resource cannot include both CLARiiON and Symmetrix volumes in the same save set. Additionally, save set **All** cannot be specified for such a client resource. If both CLARiiON and Symmetrix volumes are included in a save set, the backup will fail.

Workaround If a NMM has both CLARiiON and Symmetrix volumes, create at least two client resources: one for CLARiiON volumes and one for Symmetrix volumes. Additionally, do not specify save set **All** in any of the client resources for the NMM.

Recovering files to a deleted mount point (LGTpa95055)

To recover data to a deleted mount point, manually re-create the mount point before recovering the data. Re-creating the mount point enables the data to be recovered to the remote mount point location. Otherwise, the data is recovered to a local directory and the local directory name is the deleted mount point.

Exchange backup requires that the System Path and Transaction Log be set to the same location (LGTpa93254)

When performing a backup of Microsoft Exchange, specify the same directory location (such as E:\) for both the System path and the Transaction log under the Storage Group properties in Microsoft Exchange System Manager.

SQL backups with the MSDE Writer fail if a database is in suspect mode (LGTpa94615)

If any of the databases belonging to a SQL instance are in suspect mode, and a backup of the SQL instance is attempted with the Microsoft MSDE Writer, the snapshot backup will fail with the following error:

```
[3844] [S] 10/27/06 11:19:24 RM .. 027121 ERROR: MSDEWriter has
failed at prepare snapshot. The error is
VSS_E_WRITERERROR_NONRETRYABLE. The code is: 0x800423f4. Check the
application event log for more information.
[3844] [S] 10/27/06 11:19:24 RM .. 026003 ERROR: Application Agent
operation thaw has failed with an error...
```

Workaround Either delete or repair the suspect databases.

Mounting one volume will mount all volumes in snapshot (LGTpa94348)

When mounting a volume for restore, all volumes included in that snapshot are also mounted. For example, if drives C:, D:, and E: are included in the snapshot and then you mount a directory from drive C: for restore, drives D: and E: also get mounted. The mounting of all volumes in the snapshot causes drive letters to be used up.

Rollover backups do not occur in parallel (LGTpa85933)

Rollover backups for multiple save sets in the client resource occur sequentially instead of in parallel, causing backups to take longer than normal. However, if any save sets are writer save sets (for example, SQL writer) and the writer has files on multiple volumes, the rollover of this save set occurs in parallel, with multiple streams for each of the volumes containing the writer files. Conventional backups (nonsnapshot) occur in parallel.

Limit of eight volumes included in save set for a client resource (LGTpa94348)

There is a limit of eight volumes included in a snapshot that is supported with the EMC VSS Provider.

Workaround

To back up more than eight volumes for a NMM host:

1. Create separate client resources for the host and limit the save set for each client resource to eight volumes.
2. Ensure that client resources are assigned to different backup groups so that no backup group contains more than eight volumes for a particular NMM host.

Note: Other hardware providers have their own limit for volumes included in the snapshot. Consult your provider's documentation for specific limits.

Snapshot may fail to import when QLogic SanSurfer running (LGTpa90724)

Snapshots supported with a hardware provider may fail to import if the QLogic Management Suite Java Agent service running, and return a getoperation error.

Workaround

Use the QLogic SanSurfer utility to stop the QLogic Management Suite Java Agent service. Manually start the service only when required and then manually stop the service. The Primus eServer Solution article, emc129473, provides more information.

Backing up data for a Microsoft Exchange or SQL application (LGTpa91971)

When backing up data for a Microsoft Exchange or SQL application, ensure that all databases are mounted. Unmounted databases are not backed up, and no warning appears during the backup operation to indicate if any databases are unmounted.

Character support for names of backup files and directories (LGTpa89319)

The backup of files and directories fail if they have file and directory names containing:

- ◆ Extended ASCII characters such as those in French or Spanish.

Note: Some extended ASCII characters not symbol related may not display properly.

- ◆ Unicode characters. These characters are often used in Asian languages.

Hardware import failures and freeing up LUN resources (LGTpa88834)

When an import operation succeeds, LUN resources reserved for the import operation are freed automatically. When an import operation fails, the NMM cannot free resources when the snapshot is deleted through retention policy on hardware storage systems such as CLARiiON or Symmetrix.

Workaround Free the LUN resources manually using the Microsoft **vshadow** utility or vendor supplied utilities.

The Microsoft **vshadow** utility is available in the Microsoft Volume Shadow Copy Service SDK 7.2, which is available for download from <http://www.microsoft.com/downloads/>.

Information about freeing resources with vendor utilities is available in the array of management utilities provided with your hardware storage systems.

Behavior of local directives on a NMM (LGTpa94805)

Local directives specified in a `nsr.dir` file cannot refer to a nested directory.

Workaround Place the directive file, `nsr.dir`, in the nested directory to which the directive applies. For example, the following directive specifies that all files with a `.dll` extension under the `C:\Windows\system32` directory must be skipped when a backup is performed.

```
<<"C:\Windows\system32">>
skip: *.dll
```

To enable the previous directive, place the directive file, `nsr.dir`, in the `C:\Windows\system32` directory. If the directive is placed in the root of the `C:` drive, it is not executed upon backup.

Active Directory attribute value for `msNPAllowDialin` not recovered under Windows Server 2003 SP1 (LGTpa95417)

For NMMs running Windows Server 2003 SP1, the value for the Active Directory attribute `msNPAllowDialin` is unrecoverable. NMMs that run Windows Server 2003 R2 are unaffected.

Workaround After recovering Active Directory, update the value for the `msNPAllowDialin` attribute if necessary. To edit this attribute use a Microsoft tool such as ADSI Edit, which is available by installing the Windows Server 2003 family Support Tools from the Windows Server 2003 family CD.

Reclaiming array storage after an import failure (LGTsc03522)

When there is an import failure in CLARiiON snapshots or clones, or Symmetrix BCVs or VDEV, the snapshot session must be destroyed, synchronized, or terminated, depending on the hardware type, prior to the next backup.

Use the following examples as general descriptions of the process or procedure. Refer to the product documentation for more detailed steps and information to perform these on your system.

- Workaround** For CLARiiON Snapshots (DIFF):
1. In **Navisphere Manager**, locate the snapshot name and session based on the timestamp.
 2. If the snapshot belongs to a Storage Group(s), remove the snapshot from the Storage Group(s).
 3. Select the session and then click **Stop Session**.
 4. Select the snapshot and then click **Destroy Snapshot**.

The index entry “destroy, snapshot” in the *Navisphere Manager Help* provides more detailed steps and information.

For CLARiiON Clones (PLEX)

1. In **Navisphere Manager**, locate the clone group for the source LUN.
2. Right-click the clone group you want to synchronize, and then click **Synchronize**.

The topic “Synchronizing a fractured clone” in the *Navisphere Manager Help* provides more detailed steps and information.

For Symmetrix BCVs (PLEX)

- ◆ Make the BCVs *not ready*, using EMC Solutions Enabler Symmetrix CLI (SYMCLI)

For example:

```
symdev -sid SymmID [not_ready] <BCV#>
```

The *EMC Solutions Enabler Symmetrix CLI Command Reference* and the *EMC Solutions Enabler Symmetrix TimeFinder Family CLI Product Guide* provide detailed information about using the symdev command and options.

For Symmetrix VDEV (DIFF)

- ◆ Terminate the snap session using the symsnap command with the terminate option.

The *EMC Solutions Enabler Symmetrix CLI Command Reference* and the *EMC Solutions Enabler Symmetrix TimeFinder Family CLI Product Guide* provide more information about using the symsnap command and options.

Snapshot cannot include both hardware and software snapshot volumes for clustered NetWorker VSS clients (LGTsc05386)

A NetWorker VSS client resource running on a cluster cannot include both hardware and software volumes in the same save set. Additionally, save set **All** cannot be specified for such a client resource. If both hardware and software volumes are included in a save set, the backup will fail.

- Workaround** If a NMM client on a cluster has both hardware and software volumes, create at least two client resources: one for hardware volumes and one for software volumes. Additionally, do not specify save set **All** in any of the client resources for the NMM client. When using a hardware provider with a NMM client, you must configure a proxy client and the snapshot volume must be exported to a proxy outside of the cluster.

Failed Cluster Database recovery of legacy VSS backups may fail without displaying error message (LGTsc06190)

The NMM client can recover legacy VSS backups of the cluster database (VSS SYSTEM SERVICES) created prior to the upgrade to or installation of the NMM client. The Cluster Writer Service files may be successfully recovered, but the cluster database recovery may fail without displaying a recovery failure message.

Workaround When recovering the cluster database, make sure that the cluster is not running on the other node.

When GUI is minimized during rollover, the GUI does not open again (LGTsc06558)

If a rollover is started from the GUI, and then the GUI is minimized, then the GUI cannot be opened to check monitoring status. The GUI may appear to be hung.

Workaround Wait until rollover is complete, and then open the GUI.

Recovery of large number of items fails if one or more items in a folder is deselected (LGTsc05792)

If one or more items is deselected in a folder that has been selected for recovery, then recovery may fail if the number of items in that folder is very large.

This scenario has occurred when testing the recovery of 50 K items in a folder.

Workaround Select all items or the entire folder, and then perform recovery. After recovery, delete any unwanted items.

Save of DPM data with data mover fails with import error (LGTsc12128)

When performing a save operation of DPM database and replica without using data mover, save operation is successful.

If the DPM database and replica is saved with data mover, the save operation fails with an error similar to the following:

```
2007 12 12 16:52:02 (5628) main.
```

```
000551 ERROR:Import of dynamic disk group(s) cannot proceed
because Replication Manager was unable to determine the
existing dynamic disk groups on this system (Call to vxdg
list failed). Check to make sure that Volume Manager is
installed properly. /*e*/
```

Workaround NMM does not support dynamic disks with data mover (transportable snapshots). Perform save operations of DPM database and replica without using data mover.

Backup of Windows Server 2008 with proxy host fails (LGTsc11828)

If a Windows Server 2003 system is used as the proxy mount host for Windows Server 2008 production host, backup will fail.

Celerra snapshot failure due to inadequate file system size (LGTsc12292)

The file system size needs to be set correctly to accommodate snapshots.

The Celerra document *Configuring iSCSI targets on Celerra* describes how to set the file size correctly in the section "Planning considerations for iSCSI."

Required Volumes information is not displayed correctly in Microsoft SharePoint Services node (LGTsc13670)

In **NetWorker Module for Microsoft Applications**, when you select and right-click the **Microsoft Office SharePoint Services** node or an item within that node, and then click **Required Volumes**, the volume information is not displayed.

Instead, a message box is displayed:

```
NetWorker was not able to display required volumes
information for the selected Microsoft Office SharePoint
Services component. Please query the following node(s):
```

The message lists the nodes where the required volumes information can be found. The message may point to a local or remote host name, depending on where the SQL Server database for this Microsoft Office SharePoint Services is located.

Workaround

Query the nodes listed in the message:

1. In **NetWorker Module for Microsoft Applications**, navigate to the backup you want to check.
2. Select and right-click the **Microsoft Office SharePoint Services** node or an item within that node, and then click **Required Volumes**.

A NetWorker message box is displayed, with instructions to query the nodes that are listed in the message box.

3. Note the nodes listed in the message box, and click **OK**.

4. For each node that was listed, select and right-click the node, and then click **Required Volumes**.

NO_SUPPRESS option can cause backup operations to report failures (LGTsc13731)

In the NetWorker software release 7.3.x and later, savegroup does not support the NO_SUPPRESS option. This means there will be no extra output obtained in the messages file if you create the NO_SUPPRESS file in \nsr\debug and in \nsr\tmp. In NMM this can also cause backup operations to report failures.

Workaround

Do not use the NO_SUPPRESS option.

NPS Writer fails if not configured properly on Windows Server 2008 (LGTsc13843)

If Network Policy and Access Services (NPS) Role is installed, but is not configured properly, will not create the file " c:\windows\system32\ias\ias.xml," which is in the NPS Writer file list.

Workaround Run NPS configuration, which will create “ c:\windows\system32\ias\ias.xml.”
Or, do not use NPS.

Groups left offline after failure of Windows Server 2008 Cluster Writer authoritative restore (LGTsc 14540)

At the start of an authoritative restore of the Windows Server 2008 Cluster Writer, NMM sets the cluster group offline. If the authoritative restore happens to fail, the recovery will leave the groups offline.

Workaround Perform both of the following actions:

- ◆ Manually restart the cluster services.
- ◆ Manually restart all of the cluster groups.

NMM client does not support the NetWorker pathownerignore cluster functionality (LGTsc15116)

The pathownerignore cluster functionality is not supported in NMM 2.0. This restriction is not enforced by NMM code. In some circumstances the path owner may be ignored by NMM so that the data from a clustered disk is backed up under the indices of the physical node. But recovers of that data will fail.

Clustered disks must be backed up under a virtual cluster client (which is configured with an ip address). The *EMC Module for Microsoft Applications Release 2.0 Administration Guide* provides more information about backing up a clustered NMM client.

Workaround Do not attempt to use the pathownerignore functionality. Ensure that a nsr\bin\pathownerignore file does not exist.

Multiple client resources with the same name cannot be combined in the same group (LGTsc15014)

If two or more client resources with the same name are in the same snapshot group, then some of the savesets will not be recoverable. NMM does not support combining multiple client resources with the same name in the same group.

Workaround Either combine the client resources into a single client resource, or create separate groups and backup the individual clients in separate groups.

The EMC NetWorker Module for Microsoft Applications Release 2.0 Administration Guide provides more information about best practices and considerations for application backups, including using different policies for application server data and host operating system data and volumes.

Installation of Microsoft Windows Server 2008 does not grant correct permissions to nsr\tmp directory (LGTsc15258)

During installation of the NMM client on Windows Server 2008, the networker_install_dir\tmp directory does not have the correct permissions. The Administrator account needs write permissions to this directory.

- Workaround** Manually change the permissions to the *networker_install_dir*\tmp directory:
1. In **Windows Explorer**, right-click on the *networker_install_dir*\tmp directory and select **Properties**.
 2. Select the **Security** tab.
 3. Temporarily change the ownership to the Administrators group.
 4. Grant Read/Write permissions to the Administrators group.
 5. Change the ownership back to the system.

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

Windows Server 2008 COM+ Registry database is not recovered correctly (LGTsc15380)

NetWorker System State restores on Windows Server 2008 do not correctly recover the COM+ Registry database. There is a workaround that enables you to do a full system recovery.

- Workaround**
1. Log on to the system as a local system administrator.
 2. Open a command window:
Click **Start**, click **Run**, type **cmd**, and then press **Enter**.
 3. Change the working directory to the COM+ catalog files folder:
cd %windir%\registration
 4. Delete all the COM+ catalog files that are not in use, except for the R000000000001.clb file. The following command will prompt you to confirm the deletion of each file; select N for the R000000000001.clb file if it exists.
del /p *.clb

SharePoint recovery of Configuration database requires restore of all Content Databases (LGTsc15837)

When a SharePoint Configuration Database is recovered as part of the recovery of an entire farm, all Content Databases in that farm must also be recovered in order for the Microsoft SharePoint Writer to ensure consistency. Previously this was considered a best practice, but Microsoft states that this is a requirement.

An individual Content Database can still be recovered if the recovery is not part of an entire farm recovery. The *EMC NetWorker Module for Microsoft Applications Administration Guide* provides steps for recovering individual SharePoint Content databases.

Additional steps required for configuring SharePoint 2007 backups (LGTsc15836)

The *EMC NetWorker Module for Microsoft Applications Administration Guide* section "Configuring SharePoint backups" is missing steps that must be completed after registering the SharePoint writer. That section is corrected as follows:

Configuring SharePoint 2007 backups

The NMM client must be installed on each machine in the SharePoint farm. In addition, for distributed configurations, the SharePoint writer must be registered on one and only one of the web front-end servers. This web front-end server will be included in the NetWorker backup schedule, and will be used to perform any recoveries.

All of the following services must be enabled and started on the computers where the VSS writers will be run, or else backup will fail:

- ◆ **SharePoint Services Writer** — on the web front-end computer only
- ◆ **SQLServer Services VSS Writer** — on any computer that contains the Configuration Database or one or more Content Databases

In addition, the following services should already be enabled and started on the computers where SharePoint search activities are being performed; there will be VSS Writers associated with them:

- ◆ **Office SharePoint Server Search**
- ◆ **Windows SharePoint Server Search**

Note: On a standalone farm, all of these writers and services run on one computer. In a distributed farm, the SQL Server and SharePoint Servers may run on separate computers. The service for the writers must be enabled on the computer running the service.

To register SharePoint writer, run the following command line:

STSADM.EXE -o registerwsswriter

The default location for STSADM.EXE is in the following folder:

C:\Program Files\Common Files\Microsoft Shared\web server extensions\12\BIN

To start the SharePoint and SQL Server writers, complete the following steps on the computer where the writer is registered. To determine the writers available on a specific machine, follow the steps for "Displaying valid SharePoint 2007 data save sets" in the *The EMC NetWorker Module for Microsoft Applications Administration Guide*.

Complete the following steps on each machine where the VSS writers will be run:

1. Start Windows Services using the appropriate steps for your operating system:
 - a. In Windows Server 2003, click **Start**, click **Control Panel**, click **Administrative Tools**, and then double-click **Services**.
 - b. In Windows Server 2008, click **Start**, point to **Administrative Tools**, and then click **Services**.
2. Right-click one of the following services, and then click **Properties**:
 - **SharePoint Services Writer** (on the web front-end machine only)

- **SQLServer Services VSS Writer** (on any machine that contains the Configuration Database or one or more Content Databases)
3. In **Startup** type, click **Automatic**, and then click **OK**.
 4. Right-click the writer you just enabled, and then click **Start**.
 5. Repeat from step 2 for each of the listed writers present on the computer.
 6. Repeat as needed on each computer in the farm to enable and start the appropriate writers on each computer.

Once these writers are registered and started, you can schedule a backup. The first four tasks for scheduling a backup are the same for all VSS writers supported by NMM. After completing the first four tasks for configuring a scheduled backup as described in *EMC NetWorker Module for Microsoft Applications Administration Guide*, complete the tasks specific to SharePoint as described in “Task 5: Configure a SharePoint Client resource. “

NMM incorrectly reports replica recovery failure (LGTsc15805)

When recovering a single replica from among several replicas that were backed up, the recovery job may be reported as failing.

Nrsrnap_vss_recover.exe will report failures for any replicas that were not targeted for recovery.

Workaround

No action is required for the replicas selected for recovery. The targeted replicas will recover successfully, and if failures are reported for replicas that were not selected for recovery, the recovery failure messages can be ignored.

The following issues are fixed in NMM 2.0 QuickFix releases with build numbers of 183 or higher:

Security fix for RPC vulnerability (LGTsc14258)

Installing this NMM hotfix resolves a previously discovered RPC security vulnerability.

Fix to recover Windows Server 2008 Hive Registry database correctly (LGTsc15312)

NetWorker System State restores on Windows Server 2008 did not correctly recover the Hive Registry database. This issue has been fixed, and the Windows Server 2008 Hive Registry is recovered correctly in a full system recovery.

Technical notes

There are no technical notes for this release.

Documentation

Related documents include:

- ◆ *EMC Module for Microsoft Applications Release 2.0 Administration Guide*
- ◆ *EMC Module for Microsoft Applications Release 2.0 Installation Guide*

- ◆ *EMC NetWorker Administration Guide*
- ◆ *EMC NetWorker Installation Guide*
- ◆ *EMC NetWorker Release Notes*
- ◆ *EMC Information Protection Software Compatibility Guide*
- ◆ *EMC License Manager Installation and Administration Guide*
- ◆ *EMC Symmetrix Solution Enabler Quick Reference Guide*

Note: For updated disaster recovery information, consult the *EMC Module for Microsoft Applications Release 2.0 Administration Guide*.

Software media, organization, and files

Information on software media, organization, and files is provided in the *EMC Module for Microsoft Applications Release 2.0 Installation Guide*.

Installation

The *EMC Module for Microsoft Applications Release 2.0 Installation Guide* contains details on installation of the NMM Client.

Note: Before performing a NMM client software upgrade, remove all existing snapshots. Also, ensure that PowerSnap snapshot entries are deleted before upgrading. Delete Powersnap entries using the PowerSnap Client SnapManager or **nsrnapadmin**.

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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