



**EMC® NetWorker™**  
**Module for Microsoft SQL Server**  
Release 5.0

**INSTALLATION GUIDE**  
P/N E6-1799-01

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*As part of an effort to improve and enhance the performance and capabilities of its product line, EMC from time to time releases revisions of its hardware and software. Therefore, some functions described in this EMC<sup>®</sup> NetWorker<sup>™</sup> Module for Microsoft SQL Server Installation Guide may not be supported by all revisions of the software or hardware currently in use. For the most up-to-date information on product features, refer to your product release notes.*

*If a product does not function properly, or does not function as described in this installation guide, go to: <http://softwaresupport.EMC.com>.*

### **Audience**

This guide is part of the EMC NetWorker Module for Microsoft SQL Server (NMSQL) documentation set, and is intended for use by system administrators during installation and setup of the product. Operators who monitor daily backups may also find this guide helpful.

Readers of this guide are expected to be familiar with the following:

- ◆ EMC NetWorker software
- ◆ Microsoft SQL Server versions: 7.0, 2000, 2005, and SQL Express

**Organization** Chapters in this guide are as follows:

Table 1 **Organization of this Guide**

Chapter	Description
<a href="#">Chapter 1, "Introduction"</a>	An overview of the configuration and a description of related EMC products (PowerSnap and Configuration Wizards).
<a href="#">Chapter 2, "Installation"</a>	Complete instructions for installing the NMSQL 5.0 product.
<a href="#">Chapter 3, "Enabling and Registering the Software"</a>	Information on the evaluation and licensing procedures for the NMSQL product.

### Related documentation

The following documentation provides additional information relevant to the use of NMSQL 5.0 software:

- ◆ NetWorker Module for Microsoft SQL Server, version 5.0 documentation set:
  - Administrator's guide
  - Release notes
  - Online help
- ◆ NetWorker PowerSnap Module Installation and Administrator's Guide

Documentation specific to the NetWorker server version are also available:

- ◆ NetWorker Administrator's Guide
- ◆ NetWorker Installation Guide
- ◆ NetWorker Release Notes

Hardware and software compatibility guides are also available at <http://softwaresupport.EMC.com>.

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This chapter includes the following sections:

- ◆ “About NMSQL 5.0” on page 1-1
- ◆ “NetWorker PowerSnap Module support” on page 1-3
- ◆ “NMSQL permissions wizard” on page 1-3

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## About NMSQL 5.0

The EMC<sup>®</sup> NetWorker<sup>™</sup> Module 5.0 for Microsoft SQL Server (NMSQL) is a NetWorker add-on module that provides backup and restore of the following database and transaction logs:

- ◆ Microsoft SQL Server 2005
- ◆ Microsoft SQL Server 2005 Express
- ◆ Microsoft SQL Server 2000
- ◆ Microsoft SQL Server 7.0

NMSQL 5.0 integrates data protection procedures for Microsoft SQL Server databases with the NetWorker software. This provides a comprehensive storage management solution that addresses the need for cross-platform support of enterprise applications on UNIX and Microsoft Windows operating systems. See [Figure 1-1 on page 1-2](#) for details on how NMSQL 5.0 and NetWorker software work with SQL Server.

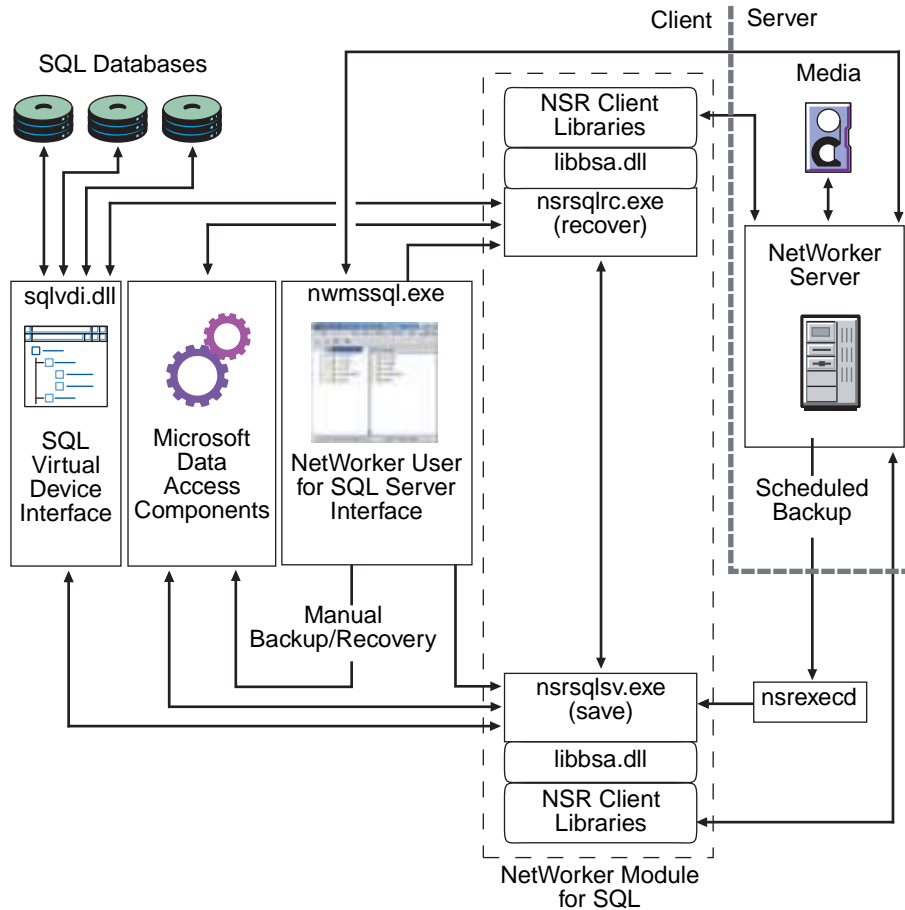


Figure 1-1 NMSQL and NetWorker Setup with SQL Server

In addition to traditional backup and recovery, NMSQL 5.0 also provides snapshot backup and recovery of SQL Server 2000 and 2005 on Microsoft Windows Server 2000 and 2003 computers.

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## NetWorker PowerSnap Module support

NMSQL 5.0 supports NetWorker PowerSnap™ Modules, which interface with a snapshot-capable storage subsystem and the NetWorker and NMSQL 5.0 software. For a current list of supported storage subsystems, refer to the *Compatibility Guides*.

By using the NetWorker PowerSnap Module appropriate for the SQL Server storage subsystem, you can create and manage *point-in-time* (PIT) copies, or snapshots, of Microsoft SQL Server data. For more information on PowerSnap Modules, refer to the *NetWorker PowerSnap Module Installation and Administrator's Guide* for the specific storage subsystem.

---

## NMSQL permissions wizard

The NMSQL 5.0 Permissions Wizard enables you to manage access to files and registry keys for users and groups. The Permissions Wizard runs automatically whenever the software is installed or removed. For information about using the Permissions Wizard, refer to the *EMC NetWorker Module for Microsoft SQL Server, Release 5.0, Administrator's Guide*.

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**Note:** The Permissions Wizard works only on Windows Server, version 2003 and later.

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This chapter includes the following sections:

- ◆ “Installation roadmap” on page 2-2
- ◆ “Software requirements” on page 2-2
- ◆ “Installation prerequisites” on page 2-5
- ◆ “The upgrade option” on page 2-6
- ◆ “Where to install the NMSQL software” on page 2-7
- ◆ “Accessing the NMSQL software installation files” on page 2-8
- ◆ “Installing the NMSQL 5.0 software” on page 2-10
- ◆ “Using SMS 2.0 to install NMSQL 5.0” on page 2-13
- ◆ “Installing NMSQL 5.0 software in a Microsoft cluster” on page 2-16
- ◆ “Configuring and testing the installation” on page 2-18
- ◆ “Maintaining an NMSQL 5.0 software installation” on page 2-25
- ◆ “Removing the NMSQL 5.0 software” on page 2-29

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## Installation roadmap

The following roadmap provides an overview of the NetWorker Module for Microsoft SQL Server (NMSQL) software installation tasks:

1. Review [“Software requirements”](#) on page 2-2.
2. Review [“Installation prerequisites”](#) on page 2-5.
3. Obtain the software as described in [“Accessing the NMSQL software installation files”](#) on page 2-8.
4. Install the NMSQL 5.0 software. For instructions, see [“Installing the NMSQL 5.0 software”](#) on page 2-10.
5. Enable and register the NMSQL 5.0 software. For instructions, see [Chapter 3](#).

---

## Software requirements

This section specifies the software that is required for successful installation of NMSQL 5.0 software.

---

## Supported operating systems

NMSQL 5.0 supports the following editions of Microsoft Windows:

- ◆ Windows 2000 (English and Japanese versions) with the latest service pack installed:
  - Windows 2000 Advanced Server
  - Windows 2000 Enterprise Server
  - Windows 2000 Datacenter
- ◆ Windows Server 2003 (English and Japanese versions) with the latest service pack (SP 1):
  - Windows Server 2003 Standard (32-bit)
  - Windows Server 2003 Enterprise (32-bit)
  - Windows Server 2003 Datacenter (32-bit)
  - Windows Server 2003 (x64)
  - Windows Server 2003 (Itanium 64-bit)

## Microsoft SQL Server

The NMSQL 5.0 software supports the following versions of Microsoft SQL Server:

- ◆ Microsoft SQL Server 2005
- ◆ Microsoft SQL Server 2005 Express
- ◆ Microsoft SQL Server 2000
- ◆ Microsoft SQL Server 7.0

## Microsoft Windows and SQL Server compatibility

NMSQL 5.0 is compatible with Microsoft Windows and Microsoft SQL Server, as shown in [Table 2-1 on page 2-3](#).

Table 2-1 NMSQL 5.0 Compatibility

SQL Server Version	Windows Version	Hardware Platform	Backup and Recovery Method
2005	Windows 2000, 2003	32-bit	Traditional and snapshot
2005	Windows 2003	x64 <sup>a</sup> , ia64	Traditional
2005 Express	Windows 2000, 2003	32-bit	Traditional
2000	Windows Server 2000, 2003	32-bit	Traditional and snapshot
2000	Windows 2003	ia64	Traditional
7.0	Windows Server 2000	32-bit	Traditional

a. With the Windows Server 2003 x64 operating system, the SQL Server, NetWorker, and NMSQL 5.0 software are supported in native mode. Additionally, with SQL Server running in native mode, NetWorker and NMSQL 5.0 software are also supported in WOW64 mode. NMSQL 5.0 software does not support SQL Server running in WOW64 mode.

## NetWorker PowerSnap Module

NetWorker PowerSnap Module software is required *only* if NMSQL 5.0 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.
- ◆ If a computer other than the SQL Server host is configured as the PowerSnap data mover (proxy client), the data mover host must have the following software installed:
  - NetWorker software release 7.1 or later
  - PowerSnap Module software appropriate for the storage subsystem

For instructions on installing PowerSnap Module software, and more information about configuring a PowerSnap data mover, refer to the appropriate *NetWorker PowerSnap Module Installation and Administrator's Guide*.

---

## 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 *NetWorker Installation Guide*.

The NetWorker software requirements for NMSQL 5.0 software are as follows:

- ◆ NetWorker client and server software release 6.0.3 or later for traditional backups and restores of SQL Server 7.0, SQL Server 2000, and SQL Server 2005 data on Windows 2000.

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**Note:** If NMSQL 5.0 software detects a NetWorker release earlier than 6.0, requests for traditional backups terminate with an error message.

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- ◆ NetWorker client and server software release 7.0 or later for traditional backups and restores of SQL Server 2000 and 2005 data on Windows Server 2000 and 2003.
- ◆ NetWorker client and server software release 7.1 or later for snapshot backups and restores of SQL Server 2000 and 2005 data on Windows Server 2000 and 2003.

NMSQL 5.0 software can connect to and interact with a NetWorker server running on any supported operating system platform.

## NMSQL software backward compatibility

NMSQL 5.0 software can successfully restore backups of all types made by all earlier releases of the software.



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## NetWorker installation path

This guide refers to the root directory of the NetWorker installation path by using the variable *NetWorker\_install\_path*. The actual location represented by this variable depends on when and how the NetWorker software was installed.

For new installations of NetWorker release 7.0 and later, the default location is *%SystemDrive%\Program Files\Legato\nsr*.

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**Note:** During the NetWorker software installation, you can specify a non-default location.

---

The installation path is not changed during a NetWorker update. For example, an installation of NetWorker release 6.x that has been updated to release 7.1 has the default installation path *%SystemDrive%\Program Files\nsr*.

In the NMSQL 5.0 software documentation, references to locations under the installation root use *NetWorker\_install\_path* in the path statement. For example, the NMSQL 5.0 log files are located in the *<NetWorker\_install\_path>\applogs* directory.

---

## Installation prerequisites

Before installing the NMSQL 5.0 software, verify that the following prerequisites are met:

- ◆ The SQL Server host must meet the installation requirements. For details, see [“Software requirements” on page 2-2](#).
- ◆ The SQL Server host must have enough disk space available for the NMSQL 5.0 software installation:
  - Complete installation (NMSQL 5.0 software and the configuration wizard) requires approximately 6.8 MB for the 32-bit version and 13.1 MB for the 64-bit version. (Temporary files created during installation require additional space. After the installation is complete, the temporary files are deleted.)
  - Configuration wizard installation requires approximately 564 KB.
- ◆ The NetWorker client software must be installed on the SQL Server host.

- ◆ Any previous release of NMSQL software must be removed before you begin an installation of release 5.0.
- ◆ The installation operator must have Windows domain administrator privileges. The release notes provide more information on creating generic configurations for users.

---

## The upgrade option

Selection of the upgrade option in the NMSQL 5.0 software setup program automatically removes a previous release of the software. Registry entries are also removed.



### CAUTION

**Removing the NMSQL software deletes certain registry setting configurations. This includes any pool settings you specified in the NetWorker User for SQL Server Backup Options dialog box. Make a record of the pool settings. The Backup Options dialog box is accessed from the Options menu when you select Backup Options in the NetWorker User for SQL Server program.**

There are two ways to manually remove an earlier release of NMSQL:

- ◆ Use the Windows Add/Remove feature in the Control Panel.
- ◆ Complete the following steps:
  1. Access the directory on the CD or hard drive from which you installed the previous NMSQL release.
  2. Run **setup.exe** to start the NMSQL setup program. Because the software is already installed, the setup program runs in maintenance mode. Click **Next**.
  3. Click **Remove** and then click **Next**.
  4. In the **Remove the Program** dialog box, click **Remove**.

---

**Note:** When removing the NMSQL software from a Microsoft cluster, you must perform this procedure on each cluster node.

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## Where to install the NMSQL software

The NetWorker client software and the NMSQL 5.0 software must both be installed on the SQL Server host. The NetWorker server software may be installed on the SQL Server host, or on a separate computer.

- ◆ A NetWorker server is a system running the NetWorker server software with a connected backup storage device.
- ◆ A NetWorker client is a system running the NetWorker client software, which receives storage management services from the NetWorker server.

After you install the NMSQL software, configure the SQL Server host as a client of the NetWorker server.

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### On the same computer

To take advantage of NetWorker immediate-save technology, install the NetWorker server software on the SQL Server host. Immediate saves improve backup performance because the data is not moved over the network. However, do not install the NetWorker server software on the SQL Server host if the NetWorker server supports a large numbers of clients. The SQL Server host and NetWorker software compete for the same system resources when installed on the same computer.

In this configuration, consider using a NetWorker storage node. For instructions on configuring and using a storage node, refer to the *NetWorker Administrator's Guide*.

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**Note:** The immediate save feature is available with a NetWorker Power Edition license.

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## On separate computers

Typically, the NetWorker server software resides on one computer and the SQL Server software on another, as shown in [Figure 2-1 on page 2-8](#).

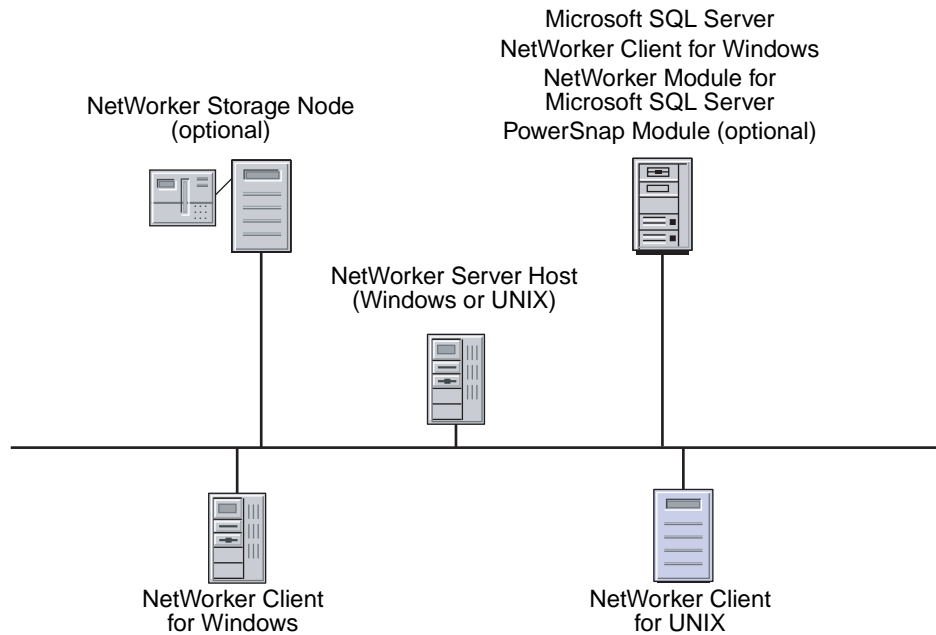


Figure 2-1 **Configuration Example**

## Accessing the NMSQL software installation files

This section explains how to access the NMSQL 5.0 software installation files from the following locations:

- ◆ [“From a CD” on page 2-9](#)
- ◆ [“From the EMC website” on page 2-9](#)

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## From a CD

To access the installation files from a CD:

1. Load the NMSQL 5.0 CD in the SQL Server host or a remote server.
2. If installing from a remote server, create a shared volume for the CD drive.
3. Log in with administrator privileges to the Windows computer that is running the SQL Server.
4. Start Windows Explorer and select the CD drive.
5. To complete the installation, see [“Installing the NMSQL 5.0 software” on page 2-10](#).

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## From the EMC website

To access the installation files from the EMC website:

1. Request the NMSQL 5.0 software:
  - a. Go to <http://softwareforms.emc.com/resources/downloads>.
  - b. On the **Evaluation Software Request** page, select **NetWorker Module for Microsoft SQL Server** from the products list.
  - c. Complete and submit the Evaluation Request Form with the contact information. An EMC Inside Sales Representative will send you an email with a URL to the XYZ download file on the EMC FTP site.
2. Access the software:
  - a. Log in with administrator privileges to the SQL Server host.
  - b. Create a temporary directory where you can download the software.
  - c. Click the URL you received to download the NMSQL 5.0 software to the temporary directory you created.

The *nmsql50\_win\_x86.exe* (32-bit), *nmsql50\_win\_x64.exe* (x64), or *nmsql50\_win\_ia64.exe* (ia64) file appears in the temporary directory.
3. To complete the installation, see [“Installing the NMSQL 5.0 software” on page 2-10](#).

## Installing the NMSQL 5.0 software

First determine if any of these situations apply:

- ◆ If you plan to use Microsoft Systems management Server (SMS) to install the NMSQL 5.0 software, see [“Using SMS 2.0 to install NMSQL 5.0” on page 2-13](#).
- ◆ If you plan to use the NMSQL 5.0 software in a Microsoft cluster, see [“Installing NMSQL 5.0 software in a Microsoft cluster” on page 2-16](#).
- ◆ If you plan to use the NetWorker Configuration Wizard to configure NMSQL scheduled backups see [“Configuring scheduled backups” on page 2-10](#).

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### Configuring scheduled backups

To use the NetWorker Configuration Wizard to configure NMSQL scheduled backups:

1. Install the NetWorker release 7.1 or later client software.
2. (Optional) Install the NetWorker Configuration Wizard if the NetWorker release is 7.2.x. The Wizard functionality is not available with NetWorker 7.1, and is available by default in NetWorker 7.3.
3. Install the NMSQL software.
4. Ensure that the hostname of the computer that is running the wizard is included in the `/nsr/res/servers` or `<NetWorker_install_path>\res\servers` file on the NMSQL client (or the servers file is empty). If the servers file is not empty, it must also include the hostnames of all the NetWorker servers authorized to back up the NMSQL client. The servers file is a text file, which can be modified by using a text editor.

### Installing the software

To install the NMSQL 5.0 software:

1. Verify that the target computer satisfies the requirements. For details, see [“Software requirements” on page 2-2](#).
2. Ensure that prerequisites have been met. For details, see [“Installation prerequisites” on page 2-5](#).

3. Log in with administrator privileges to the target computer for the NMSQL 5.0 software installation.
4. Exit all NetWorker programs.
5. In Windows Explorer, go to the directory containing the NMSQL 5.0 software installation files. The content of this directory depends on the source for the NMSQL 5.0 software:
  - If from the CD, this directory contains *setup.exe*.
  - If from the EMC website, this directory contains *nmsql50\_win\_x86.exe* (32-bit), *nmsql50\_win\_x64.exe* (x64), or *nmsql50\_win\_ia64.exe* (ia64).
6. Double-click the appropriate executable file.

The **Welcome** dialog box appears.

- If this is a new installation of NMSQL, go to step 7.
  - If a previous version of NMSQL is already installed, the Welcome dialog box provides an Upgrade button and offers to upgrade the software to release 5.0. In this case, click **Upgrade**, and then **Install**, and proceed to step 9.
  - If NMSQL 5.0 software is already installed, the Welcome dialog box offers to repair or remove the software. In this case, click **Next** and then proceed to either [“Repairing an NMSQL 5.0 software installation” on page 2-28](#) or [“Removing an installation by using the setup program” on page 2-29](#).
7. Click **Next**. The **License Agreement** dialog box appears.
  8. Read the license agreement. If you accept the terms, select the appropriate option and click **Next**.

---

**Note:** If Microsoft SQL Server is not yet installed on this computer, a message prompts you to install it before using the NMSQL program. Click **OK** to continue with the installation.

---

9. If the NetWorker Configuration Wizard is *not* installed, skip this step and proceed to step 11.

If the NetWorker Configuration Wizard is installed, the **Setup Type** dialog box appears.

In the **Setup Type** dialog box, select one of the following and click **Next**:

- **Complete** — Automatically installs the NMSQL software and the NMSQL Server component of the NetWorker Configuration Wizard.
- **Custom** — Enables you to install the NMSQL software, the NMSQL wizard component, or both.

---

**Note:** If you opt to install only the NMSQL software (without the NMSQL wizard component) during the initial installation, you can run **setup.exe** in maintenance mode later and install the wizard component. For instructions, see [“Maintaining an NMSQL 5.0 software installation” on page 2-25](#).

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10. If you selected **Complete** in step 9, the **Server** dialog box appears. Skip this step and proceed to step 11.

If you selected **Custom**, the **Custom Setup** dialog box appears.

Installation of NMSQL Server component of the NetWorker Configuration Wizard lets you use the wizard to configure scheduled backups of SQL Server data.

To exclude the NMSQL Server component of the NetWorker Configuration Wizard from the installation:

- a. Click the **NetWorker Module for Microsoft SQL Server Client Configuration Wizard** icon.
- b. Select **This feature will not be available**.

11. In the **Server** dialog box, select one of the following:
  - To specify a NetWorker server that can back up the SQL Server host, enter the name of the NetWorker server in the **Default NetWorker Server** text box.
  - To use the local computer as the NetWorker server, leave the Default NetWorker Server text box blank.
12. Click **Next**. The **Ready to Install the Program** dialog box appears.



13. Click **Install** to begin the installation.

The setup program performs the following:

- Adds NetWorker User for SQL Server to the NetWorker group in the Windows **Start** menu.
- Installs the NMSQL 5.0 software in the `<NetWorker_install_path>\bin` directory.

---

**Note:** For more information about the NetWorker installation path, see [“NetWorker installation path”](#) on page 2-5.

---

14. In the **InstallShield Wizard Completed** dialog box, click **Finish** to exit the wizard.

---

**Note:** If you are installing the NMSQL 5.0 software on Windows Server 2003, the **InstallShield Wizard Completed** dialog box displays the option to launch the EMC NetWorker Module Permissions Wizard, as already selected by default. This option is selected by default. If you do not want to run the Permissions Wizard clear this option. For more information, refer to the administrator’s guide. However, if you are running the SQL Server 2005 in 64-bit mode, the Permissions Wizard may be deactivated. In this case, refer to the release notes for more information.

---

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## Using SMS 2.0 to install NMSQL 5.0

You can use Microsoft Systems Management Server (SMS) Version 2.0 to install NMSQL 5.0 software automatically over an entire network. For the best results with an SMS installation perform the following before you install the NMSQL 5.0 software:

- ◆ Set up the SQL Server and SMS software. Refer to the Microsoft SMS documentation for procedures and system requirements.
- ◆ Do not configure the SMS server on a NetWorker server host. You can, however, configure the SMS server on a NetWorker client host.
- ◆ Test the SMS software.

The NMSQL 5.0 software installation consists of three tasks:

- ◆ Creation of an NMSQL 5.0 software application source directory or directories.

- ◆ Creation of the SMS installation package.
- ◆ Creation of the job to install or remove the NMSQL 5.0 software on the client computers.

---

## Creating the application source directories

To create the NMSQL application source directory:

1. Create a shared directory on one of the SMS site server's local disks, for example, *nmsql50*.
2. Copy all files from the appropriate directory on the product CD (*\MSSQLSVR\5.0\NETWORKR*) to the corresponding shared directory that was just created.

---

## Creating the SMS installation package

Package Command Manager (PCM) can run in one of two modes:

- ◆ As a Windows application (foreground mode).
- ◆ As a Windows service (background mode).

To run background (unattended) installations, PCM must be running as a service on the target Windows client computer. For more information about using PCM, refer to Microsoft Knowledge Base article Q166765, *SMS: Deploying Packages Successfully with the PCM Service*.

To create the SMS installation package:

1. Use the **SMS Administrator** program to open the **Packages** window at the SMS site server.
2. From the **File** menu, select **New** to open the **Package Properties** dialog box.
3. Click **Import** to open the **File Browser** dialog box.
4. Select **Nwmssql.i.pdf** from shared directory you created on the SMS site server. (*Nwmssql.i.pdf* is a package definition file, not an Adobe Acrobat portable document file.) This file defines a package to install NMSQL 5.0 software as an automated background task that requires no user input.
5. Click **OK** to close the **File Browser** dialog box and return to the **Package Properties** dialog box.

6. Click **Workstations** to open the **Setup Package for Workstations** dialog box.
7. In the **Source Directory** text box, enter the server name and shared directory names as follows:  

```
\\server_name\shared_dir_name
```

where:
  - *server\_name* is the name of the SMS site server.
  - *shared\_dir\_name* is the name of the shared directory that was created on the SMS site server as described under [“Creating the application source directories”](#) on page 2-14.
8. Click **Close** to return to the **Package Properties** dialog box.
9. Click **OK** to close the **Package Properties** dialog box.

---

## Creating the install or uninstall job

To create the job to install or remove the NMSQL 5.0 software by using SMS:

1. Open the **Packages** window at the SMS site server.
2. Open the **Sites** window.
3. From the **Packages** window, select the **NetWorker Module** package.
4. To open the **Job Details** dialog box, drag the **NetWorker Module** package to a computer in the **Sites** window.
5. In the **Send Phase** section of the **Job Details** dialog box, click **Even If Previously Sent**.
6. In the **Run Phase** section of the **Job Details** dialog box, select a setup option (either **Install** or **Uninstall**) from the menu under **Run Workstation Command**.
7. If you are using the PCM service (on Windows clients) to perform background installations, specify the job runtime in the “Mandatory After” (not the “Offer After”) portion of the **Run Phase** section of the **Job Details** dialog box.

8. Click **OK** in the **Job Details** dialog box to close it.

SMS displays the **Job Properties** dialog box. For further details on configuring the job in the **Job Details** dialog box, refer to the Microsoft SMS documentation.

---

## Installing NMSQL 5.0 software in a Microsoft cluster

The NMSQL 5.0 software can be installed in a Microsoft cluster and configured to do the following:

- ◆ Perform backup and recover operations in a Microsoft Cluster Server (MSCS) environment.
- ◆ Provide backup and restore capability for SQL Server data stored on the cluster disks of a virtual server.

The software also can perform backup and restore for failover cluster configurations in SQL Server 7.0, 2000, or 2005 environments. Failover cluster support for the database engines is as follows:

- ◆ SQL Server 2005 supports:
  - 8-node failover clusters on 32-bit systems
  - 4-node clusters on 64-bit systems
- ◆ SQL Server 2000 supports:
  - 4-node failover cluster on 32-bit systems
  - 2-node failover clusters on 64-bit systems
- ◆ SQL Server 7.0 supports up to two nodes in a failover cluster.

If SQL Server 2005 is installed, up to 50 named instances can run as virtual servers in the cluster. SQL Server 2005 Enterprise Edition can have up to 50 SQL Server instances on a single computer.

If SQL Server 2000 is installed, up to 16 named instances can run as virtual servers in the cluster.

If SQL Server 7.0 is installed, the program supports an active/passive configuration with one virtual server, or an active/active configuration with two virtual servers.

For each physical cluster node, the NetWorker client and NMSQL 5.0 software must be installed on a private disk owned by the node. Do not install the NMSQL 5.0 software on a shared cluster disk.

---

## Installing the software in a Microsoft cluster

To install NMSQL 5.0 software in an MSCS cluster:

1. Install the NetWorker client software on a local disk of each physical node in the cluster.

---

**Note:** Install the NMSQL 5.0 software into the default NetWorker installation directory.

---

During the installation, you are prompted to specify the hostnames of NetWorker servers that are authorized to back up the client's data. The list of authorized servers is stored in the `<NetWorker_install_path>\res\servers` file on the NetWorker client.

- For *snapshot* backups in a Microsoft cluster, the *servers* file on each cluster node must either contain the hostnames of all nodes in the cluster, or be blank (contain no hostnames).
- For *traditional* backup operations, you do not need to list cluster hostnames in the servers file.

For instructions on editing the servers file after the NetWorker software installation, refer to the *NetWorker Administrator's Guide*.

---

**Note:** A NetWorker client's servers file that does not contain any hostnames could be a security risk because any NetWorker server would have access to the client's data.

---

2. Install NMSQL 5.0 software on the local disk of each physical node in the cluster.

The software is automatically installed at the same location as the NetWorker client software. See [“Installing the NMSQL 5.0 software” on page 2-10](#) for additional information.

3. Install the enabler for NMSQL 5.0. For more information, see [“Enabling and Registering the Software” on page 3-1](#).
4. (Optional) If the SQL Server has a snapshot-capable storage subsystem, install the appropriate NetWorker PowerSnap Module. For instructions on installing and configuring the software in a Microsoft cluster, refer to the appropriate *NetWorker PowerSnap Module Installation and Administrator's Guide*.

## Configuring and testing the installation

This section provides information about testing and verifying the NMSQL 5.0 software installation. To verify that the NMSQL 5.0 software is installed properly, you must first configure the SQL Server host as a NetWorker client and enable the Autostart option.

Perform a test backup of SQL Server by using NMSQL 5.0 software to ensure that:

- ◆ The necessary components are installed and configured properly.
- ◆ The NetWorker server can access the SQL Server host and perform a scheduled backup.

### Configuring NMSQL 5.0

Due to the complexity of configuring scheduled backups, complete one of the following before you begin the configuration:

- ◆ Perform a manual backup.
- ◆ Use the NetWorker Configuration Wizard to configure a basic scheduled backup.

Before you use the NMSQL 5.0 software to back up the databases managed by SQL Server, you must configure the NetWorker server to run with the NMSQL 5.0 software by creating the following:

- ◆ A backup Group resource for scheduled backups of SQL Server. For instructions, see [“Creating a backup group for scheduled backups” on page 2-19](#).
- ◆ A Client resource for the client host on which you installed NMSQL 5.0. For instructions, see [“Creating a NetWorker client” on page 2-21](#).

For more information, refer to the documents listed in [Table 2-2 on page 2-19](#).

Table 2-2 Reference Documentation

Type of information	Documentation
For using the NetWorker Administrator program or the NetWorker Configuration Wizard to configure scheduled backups and add clients to the NetWorker server.	EMC NetWorker Administrator's Guide
For using NMSQL 5.0 software with the NetWorker server to perform backups and restores.	EMC NetWorker Module for Microsoft SQL Server Administrator's Guide, Release 5.0

**Note:** The following set of instructions for creating a backup group and NetWorker client are specific to running the NetWorker Administrator program from a Windows computer. To perform these procedures from a UNIX computer, refer to the NetWorker Administrator's Guide, UNIX and Linux Version.

## Creating a backup group for scheduled backups

The following instructions provide basic detail on the procedures for the current versions of NetWorker software.

### Using NetWorker 7.2 or earlier

To create a backup group for scheduled backups of SQL Server:

1. In the **NetWorker Administrator** program, click **Manage Groups** from the **Configure** tab.
2. Right-click **Groups** and select **Create**.
3. In the **Name** attribute, enter a name for the group.
4. From the **Autostart** attribute, select **Enabled**.
5. Click **OK** to save the new group configuration.

To create a backup group for scheduled backups of SQL Server:

1. In the **NetWorker Administrator program**, select **Groups** from the **Customize** menu to open the Groups window.
2. Click **Create**.

3. In the **Name** attribute, enter the name of the group.
4. (Optional) In the **Comment** attribute, enter a description of the group.
5. For the **Autostart** attribute, select **Enabled**.
6. In the **Start Time** attribute, enter a new time, unless you want to keep the default time of 3:33 a.m.

---

**Note:** When you select a start time for different groups, schedule them far enough apart so that one group has completed backing up before the next group starts.

---

7. If the NetWorker PowerSnap Module software is also installed, configure the PowerSnap attributes as follows:
  - a. For the **Snapshot** attribute, select **True**.
  - b. For the **Snapshot Pool** attribute, select the pool that was configured specifically for PowerSnap operations.
  - c. For the **Snapshot Policy** attribute, select a preconfigured or a custom policy.
8. In the **Client Retries** attribute, select the number of retries. This value specifies the number of times the NetWorker server will attempt to back up a failed client.
9. In the **Clones** attribute, select **Yes** to automatically clone the group's backed-up data. You must have appendable volumes in the appropriate clone pool.

---

**Note:** If you select **No**, do not complete the clone-related step, and skip to step 11.

---

10. In the **Clone Pool** attribute, select the appropriate clone pool for the cloned data.
11. In the **Printer attribute**, enter the name of the printer on which **savegrp** will print the bootstrap save set information.
12. Complete other attributes as necessary, and click **Apply**.



## Using NetWorker 7.3 or later

To create a group:

1. From the **Administration** window, click **Configuration**.
2. In the expanded left pane, select **Groups**.
3. From the **File** menu, select **New**.
4. In the **Name** attribute, enter a name for the group.
5. In the **Comment** attribute, enter a description of the group.
6. For the **Start Time** attribute, enter a new time, unless it is appropriate to maintain the default time of 3:33 a.m. Ensure that start times for different groups are far enough apart so that one group has completed backing up before the next group starts.
7. For the **Autostart** attribute, select **Enabled**.
8. In the **Printer** attribute, enter the name of the printer on which bootstrap save set information will be printed.
9. Click the **Advanced** tab.
10. For the **Client Retries** attribute, change the number of retries, if necessary. This value specifies the number of times the NetWorker software attempts to back up a failed client.
11. Click **OK**.

---

## Creating a NetWorker client

The SQL Server host must be configured as a NetWorker client by using the Client resource in the NetWorker Administrator program. The Client resource provides the NetWorker server with information about the following:

- ◆ The data to back up for a client.
- ◆ How long to maintain entries for the data in the online index for restoring (browse policy).
- ◆ How long to keep the media containing the client's backed-up data (retention policy).

You can configure each Microsoft SQL Server database on the same host as a separate NetWorker Client resource.

## Using NetWorker 7.2 and earlier

To add and configure a new NetWorker client:

1. In the **NetWorker Administrator** program, click the **Manage Clients** icon in the **Configure** tab.
2. Right-click **Clients** and select **Create**.
3. In the **Name** attribute, enter the DNS name of the SQL Server host.
4. In the **Save Set** attribute, specify the items to back up.

For example, to back up all databases on the SQL Server host, enter:

**MSSQL:**

To back up a named instance, enter:

**MSSQL\$***<instancename>*:db\_name

5. From the **Group** attribute, select the newly created backup group.
6. From the **Schedule** attribute, select **Default**.
7. From the **Browse Policy** attribute, select a browse policy.
8. From the **Retention Policy** attribute, select a retention policy.
9. Select the **Preferences** tab.
10. In the **Aliases** attribute, enter the nicknames for the client computers that queries can match. Otherwise, queries match only the client name.

---

**Note:** Each Client resource should include both the DNS short name and long name in the **Aliases** attribute.

---

11. Select the **Remote** tab.
12. In the **Backup Command** attribute, enter the following command (with the appropriate command options):

**nsrsqlsv**

13. Click **OK** to save the configuration.

To add and configure a new NetWorker client:

1. In the **NetWorker Administrator** program, select **Client Setup** from the **Clients** menu.

2. Click **Create**.
3. Complete steps 3 through 13 from [“Using NetWorker 7.2 and earlier” on page 2-22](#).

### Using NetWorker 7.3 or later

In NetWorker 7.3, to add and configure a new NetWorker client:

1. From the **Administration** window, click **Configuration**.
2. In the expanded left pane, select **Clients**.
3. From the **File** menu, select **New**.
4. Complete the attributes as described for [“Using NetWorker 7.2 and earlier” on page 2-22](#). The appropriate attributes are on the General tab except for the following:
  - the Aliases attribute, which is on the Globals (1 of 2) tab
  - the Backup Command attribute, which is on the Apps & Modules tab

---

### Configuring volume pools

You can create or edit destination volume pools for scheduled backups in the **NetWorker Administrator Pools** resource. For details on using pools, refer to the *NetWorker Administrator’s Guide* and the *NetWorker Module for Microsoft SQL Server Administrator’s Guide*.

---

### Starting a test backup

The NMSQL 5.0 software backup of a SQL Server database is always a full backup. A full backup backs up the entire database, including uncommitted transactions in the logs. The full backup accurately reflects the state of a live database, including all transaction log data, at approximately the time the backup completes. As the backup ends, the old logs are truncated and the logs begin collecting transaction data again.

If you do not assign specific pools before performing a scheduled backup, the database and transaction log backup data are automatically directed to the media pools selected on the NetWorker server. If no pools are selected on the NetWorker server, backup data is automatically directed to the NetWorker preconfigured pool called Default.



### CAUTION

**A backup cannot run if there is no media volume mounted in the backup device. Make sure that a labeled media volume is mounted in the backup device before starting a backup. The volume should be labeled for the volume pool where the backup is to be directed. If there is no volume in the backup device when a backup is started, no messages appear in the Backup Status window.**

### Testing with NetWorker 7.2 and earlier

To test the SQL Server backup you scheduled in the NetWorker Administrator program:

1. Before the backup starts, ensure that both the SQL Server and the NetWorker client program are running.
2. Log in to the NetWorker server host with administrator privileges and start the **NetWorker Administrator** program.
3. Click **Manage Groups** on the **Configure** tab, and then click the plus sign (+) next to **Groups** to expand it.
4. From the list of available groups, right-click the newly created backup group and click **Start**.
5. When prompted to start the group, click **Yes**.
6. (Optional) To view the progress of the backup, select the **Monitor** tab.
7. (Optional) To cancel a backup, select **Stop Group** from the **Operations** menu.

When the backup is finished:

- ◆ The backup status displayed for the selected backup group on the Group Status tab is updated according to the results of the backup.
- ◆ A message is logged in each of the following:
  - The NetWorker server's *daemon.log* file
  - The NetWorker client's Windows Event Viewer application log
  - The NMSQL 5.0 software application log
  - The SQL Server message file

The client file index for the SQL Server host is backed up to the media volume labeled for the appropriate media volume pool.

### Testing with NetWorker 7.3 and later

To test the SQL Server backup you scheduled in the NetWorker Administration program:

---

**Note:** When a group backup is started manually, the NetWorker server runs the backup at the level of the next scheduled backup, such as full, level [1 – 9], incremental, or consolidated.

---

1. From the **Administration** window, click **Monitoring**.
2. Click the **Groups** tab.
3. Right-click the group to start, then select **Start**.
4. Click **Yes** to confirm the start.

The NetWorker server immediately backs up the clients in the group, overriding the scheduled backup start time. The group icon changes to the clock icon until the backup has completed or is interrupted.

---

## Maintaining an NMSQL 5.0 software installation

After NMSQL 5.0 software is installed, you can run the Setup program in maintenance mode to repair or remove the existing installation.

---

### Running the setup program in maintenance mode

When NMSQL is already installed, the Setup program automatically runs in maintenance mode:

1. Log in with administrator privileges to the target computer.
2. Exit all NetWorker programs.
3. In Windows Explorer, go to the directory that contains the NMSQL 5.0 software setup files (**setup.exe**).
4. In the **Welcome to the InstallShield Wizard for NetWorker Module for Microsoft SQL Server** dialog box, click **Next**.

The Setup program detects the existing NMSQL 5.0 software installation and automatically displays the **Program Maintenance** dialog box, as shown in [Figure 2-2 on page 2-26](#).

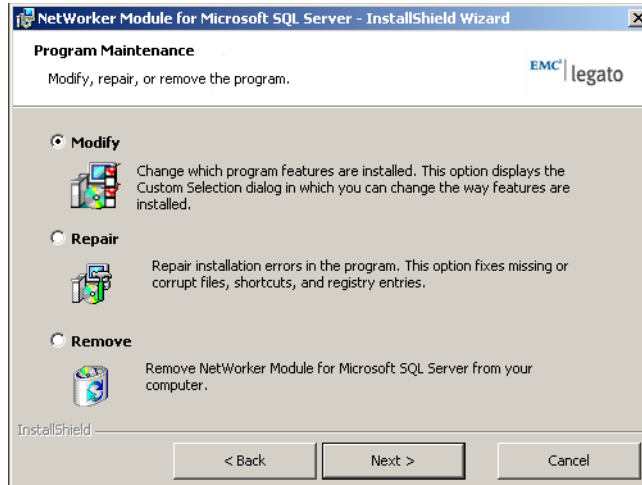


Figure 2-2 Program Maintenance Dialog Box

5. Select the task you want to perform, then proceed to the appropriate procedure to complete the maintenance task:

- **Modify** — Add new features to the existing installation.

---

**Note:** Modify is available for the NMSQL software that is running in 32-bit mode. Modify is not available if it is running in a 64-bit mode. Only the SQL Server Backup and Recovery component is available for 64-bit installations.

---

- **Repair** — Replace missing or corrupted program files, or repair registry entries and shortcuts in the existing NMSQL 5.0 software installation. For instructions, see [“Repairing an NMSQL 5.0 software installation” on page 2-28](#).
- **Remove** — Use the Setup program’s installation removal function to remove the NMSQL 5.0 software. Alternatively, you can use the Add/Remove program in the Windows Control Panel to remove the NMSQL 5.0 software installation. For instructions, see [“Removing the NMSQL 5.0 software” on page 2-29](#).

## Adding program features to an installation

To add program features to an existing NMSQL 5.0 software installation:

1. In Windows Explorer, go to the directory that contains the NMSQL 5.0 software setup files and run the **setup.exe** program.  
Because the software is already installed, the Setup program now runs in maintenance mode.
2. In the **Program Maintenance** dialog box, select **Modify**, and click **Next**.
3. In the **Custom Setup** dialog box, click the icon of each program feature to be installed and select **This feature will be installed on local hard drive**. See [Figure 2-3 on page 2-27](#).

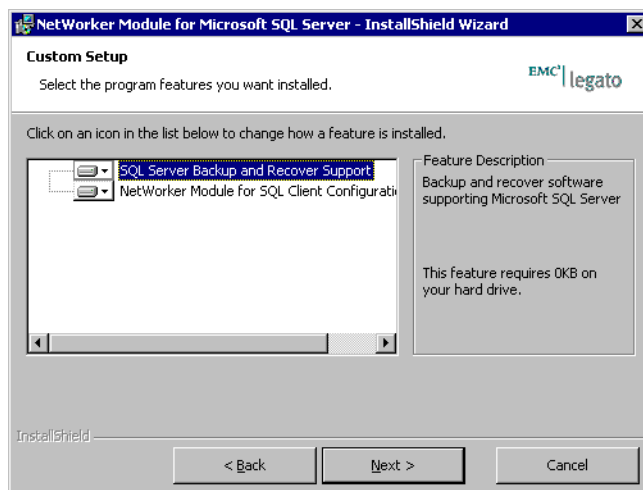


Figure 2-3 Custom Setup Dialog Box

**Note:** The NMSQL Server component of the NetWorker Configuration Wizard is available for installation only if the following was installed:

First, the NetWorker release 7.2 or later client software.

Then the separately installed the NetWorker Configuration Wizard.

4. Click **Next**.

The **Server** dialog box appears.

5. In the **Server** dialog box, enter the hostname of the default NetWorker server to which the NetWorker User for SQL Server program will connect when started.

If you do not enter a default NetWorker server, NetWorker User for SQL Server attempts to connect to the local host.

6. In the **Ready to Modify** dialog box, click **Install** to begin the installation.

The **setup** program then adds the selected program features to the existing installation.

---

**Note:** For more information about NMSQL 5.0 software support for the SQL Server Backup and Recover Support feature or the Configuration Wizard feature, refer to the administrator's guide.

---

---

## Repairing an NMSQL 5.0 software installation

To repair an existing NMSQL 5.0 software installation:

1. In Windows Explorer, go to the directory that contains the NMSQL 5.0 software setup files and run the **setup.exe** program.

Because the software is already installed, the **Setup** program now runs in maintenance mode.

2. In the **Program Maintenance** dialog box, select **Repair**, and then click **Next**.
3. In the **Ready to Repair** dialog box, click **Install** to begin the installation.

The Setup program reinstalls the NMSQL 5.0 software files as necessary.



---

## Removing the NMSQL 5.0 software

You can remove an existing installation of the NMSQL 5.0 software either by using the Setup program, or the Windows Add/Remove Programs tool.

---

**Note:** When removing the NMSQL 5.0 software from a cluster, you must perform the procedure on each cluster node.

---

---

### Removing an installation by using the setup program

To remove an NMSQL 5.0 software by using the Setup program:

1. In the Windows Explorer, go to the directory that contains the NMSQL 5.0 software setup files and run the **setup.exe** program.  
Because the software is already installed, the Setup program now runs in maintenance mode.
2. Click **Next**.
3. In the **Program Maintenance** dialog box, select **Remove**, and click **Next**.
4. In the **Remove the Program** dialog box, click **Remove**.

The Setup program removes all NMSQL 5.0 software program files and registry settings.

---

### Removing an installation by using the add/remove programs tool

To remove an NMSQL 5.0 software installation by using the Windows Add/Remove Programs tool:

1. From the Windows server, click the **Start** menu and select the **Control Panel**.
2. From the **Control Panel**, select **Add/Remove Programs**.
3. From the **Add/Remove Programs** window, select **NetWorker Module for Microsoft SQL Server**.
4. Click **Remove**.



---

This chapter includes the following sections:

- ◆ “How NetWorker software is licensed” on page 3-2
- ◆ “Evaluating the NMSQL 5.0 software” on page 3-3
- ◆ “Licensing the NMSQL 5.0 software” on page 3-5
- ◆ “Managing licenses” on page 3-9

## How NetWorker software is licensed

The licensing of NetWorker software means the entry of enabler and authorization codes on the server for the NetWorker environment. Without these codes, the software or added features will not run beyond the evaluation period.

Each installation of NetWorker server software must be licensed with a base enabler that “turns on” the software and allows you to use a particular set of features, such as a specified number of clients and devices. All licensing takes place on the server. The licenses are entered and stored on the server, and the server enforces the licensing.

Base enablers come in four editions:

- ◆ Power Edition
- ◆ Network Edition
- ◆ Workgroup Edition
- ◆ Business Edition

These four editions enable varying degrees of functionality. Add-on enablers allow a broader scope of features, such as the various NetWorker Modules.

NetWorker Modules are licensed on the basis of one enabler per database type host. For example, to back up a single SQL Server database that is located on two hosts, two NMSQL enablers are required, even if the two hosts are backed up by the same server. However, if multiple database instances are running on a NetWorker client host, only one NMSQL enabler is required for that one host.

---

## Evaluating the NMSQL 5.0 software

The licensing of the NMSQL 5.0 software is the process of obtaining and entering an enabler code and an authorization code in the Registration attribute in the NetWorker Administrator program. Without these special codes, the NMSQL 5.0 software will not run beyond an initial evaluation period.

---

### 30-day evaluation period

After you install the NMSQL 5.0 software, you can use it for up to 30 days without entering an enabler code. This is called *evaluation mode*. The evaluation period begins as soon as the software is installed. The software is fully functional during this time. After 30 days, the software will not work until you enter a temporary or permanent enabler code.

---

### 45-day evaluation period

If the NetWorker server is already licensed, you may extend the 30-day evaluation period of the NMSQL 5.0 software for an additional 45 days by entering a *temporary* enabler code. The 45-day evaluation period begins as soon as the temporary enabler code is entered.

---

**Note:** If you have *not* obtained and entered a permanent enabler code by the end of the evaluation period, you will be unable to back up any additional SQL Server data until you enter the code. However, you can still recover data that was backed up (from local devices only) during the evaluation period.

---

---

### Entering a 45-day enabler code

---

**Note:** Do *not* enter the same 45-day evaluation enabler code on more than one computer on the same network. If you do, a copy violation error occurs and the NMSQL 5.0 software is disabled on all SQL servers with that same enabler code.

---

**Enabler codes in  
NetWorker 7.2 and  
earlier**

To enter the 45-day temporary evaluation enabler code:

1. On the NetWorker server host, log in by using an account with root privileges (for UNIX), or with administrator privileges (for Windows).
2. Start the **NetWorker Administrator** program.
3. Enter the license enabler code:

**For UNIX:**

- a. From the **Server** menu, select **Registration**.
- b. Click **Create**, and enter the following 45-day evaluation enabler code in the **Enabler Code** text box:

`74f1f6-3e80b7-4d7d3e`

- c. Click **Apply**.

**For Windows:**

- a. On the **Configure** tab, click **Registration**.
- b. Right-click the **Registration** icon and select **Create**.
- c. Enter the following 45-day evaluation enabler code in the **Enabler Code** text box:

`74f1f6-3e80b7-4d7d3e`

Enter any notes that may be useful in the Comments box.

- d. Click **OK**.

**Enabler codes in  
NetWorker 7.3 and  
later**

To enter the 45-day temporary evaluation enabler code:

1. On the NetWorker server host, start the **NetWorker Administration** program and log in as administrator.
2. In the **Administration** program window, click **Configuration**.
3. In the expanded left pane, right-click **Registrations**, and select **New**.

4. Enter the following 45-day evaluation enabler code in the **Enabler Code** text box:

`74f1f6-3e80b7-4d7d3e`

Enter any notes that may be useful in the Comments box.

5. Click **OK**.

---

## Licensing the NMSQL 5.0 software

An NMSQL enabler code is required on each NetWorker server that backs up data on the SQL Server host.

- ◆ To use the NMSQL 5.0 software permanently, you must purchase a license enabler code and authorize the software within 45 days.
- ◆ To run snapshot backups, you must also obtain an NMSQL PowerSnap Option License.

The following tasks explain how to license and authorize NMSQL 5.0 software.

- ◆ [“Task 1: Purchase a license enabler code” on page 3-5](#)
- ◆ [“Task 2: Enter the license enabler code” on page 3-6](#)
- ◆ [“Task 3: Obtain an authorization code” on page 3-7](#)
- ◆ [“Task 4: Enter the authorization code” on page 3-7](#)

---

**Note:** At the end of the 45-day registration period, if you have not yet authorized the NMSQL 5.0 software, you will be unable to continue to back up SQL Server data until you enter a valid authorization code. However, you can still recover data that was backed up (to local devices) during the registration period.

---

---

### Task 1: Purchase a license enabler code

You can purchase a license enabler code at the EMC website or through a NetWorker representative. For contact information, go to <http://softwaresupport.EMC.com>.

---

## Task 2: Enter the license enabler code

If you are purchasing the NMSQL 5.0 software for the first time, the license enabler code is included on the Enabler Certificate. If you are purchasing an update or upgrade release of NMSQL, the license enabler code is included in the letter that announced the update or upgrade.

Enter license code by using NetWorker 7.2 or earlier

To enter the license enabler code:

1. On the NetWorker server host, log in with an account that has root privileges (for UNIX) or with administrator privileges (for Windows).
2. Start the **NetWorker Administrator** program.
3. Enter the license enabler code:

### For UNIX:

- a. From the **Server** menu, select **Registration**.
- b. If you have already used a 45-day temporary evaluation enabler code, delete it.
- c. Click **Create** and enter the license enabler code in the **Enabler Code** text box.
- d. Click **Apply**.

### For Windows:

- a. In the **Configure** tab, click the **Registration** button.
- b. If you have already used a 45-day temporary evaluation enabler code, delete it. In the **Registration** window, right-click the evaluation enabler code and select **Delete**. Click **Yes** to confirm.
- c. Right-click the **Registration** icon and select **Create**.
- d. Enter the license enabler code in the **Enabler Code** text box and click **OK**.

Enter license code by using NetWorker 7.3 or later

To enter the license enabler code:

1. On the NetWorker server host, start the **NetWorker Administration** program and log in as administrator.
2. In the **Administration** program window, click **Configuration**.



3. In the expanded left pane, click **Registrations**.
4. If you have already used a 45-day temporary evaluation enabler code, delete it. In the **Registrations** window, right-click the evaluation registration and select **Delete**.
5. Right-click the **Registration** icon and select **New**.
6. Enter the license enabler code in the **Enabler Code** text box and create a descriptive name for the enabler code. Enter descriptive comments in the Comments field, as needed.
7. Click **OK**.

---

### Task 3: Obtain an authorization code

After you enter the license enabler code, you have 45 days to register and authorize the NMSQL 5.0 software so that it is permanently enabled. You can obtain a unique authorization code by registering either on the website, or by fax or email.

#### Registering on the EMC website

You can register and authorize EMC products by completing a registration form at <http://softwaresupport.EMC.com>.

Web authorization can be completed in just a few minutes and is available 24 hours a day, 7 days a week. After you complete and submit a registration form, a NetWorker representative will send you an authorization code by email.

---

### Task 4: Enter the authorization code

To complete the licensing process, you must enter a unique authorization code on the NetWorker server within 45 days of entering the license enabler code.

#### Authorizing by using NetWorker 7.2 or earlier

To enter the authorization code:

1. On the NetWorker server host, log in as root (on UNIX) or with administrator privileges (on Windows).
2. Start the **NetWorker Administrator** program.

3. Enter the authorization code.

**For UNIX:**

- a. From the **Server** menu, select **Registration**.
- b. In the **Authorization Code** attribute, enter the authorization code and click **Apply**.

---

**Note:** The authorization code is case-sensitive.

---

**For Windows:**

- a. In the **Manage Server** section, click **Registration** to open the **Registration** window.
- b. Double-click the icon of the product for which you have purchased a license enabler code.
- c. In the **Authorization Code** attribute, enter the authorization code.
- d. Click **OK**.

**Authorizing by using  
NetWorker 7.3 or later**

To enter the authorization code:

1. On the NetWorker server host, start the **NetWorker Administration** program and log in as administrator.
2. In the **Administration** program window, click **Configuration**.
3. In the expanded left pane, click **Registrations**.
4. In the right pane, right-click the registration you are authorizing, and select **Properties**.
5. In the **Authorization Code** attribute, enter the authorization code.
6. Click **OK**.

**When moving the  
NMSQL 5.0 Server**

To avoid an interruption in scheduled backups when moving the NMSQL 5.0 software from one computer to another, or when changing the network address of a computer after the software is installed, you must either:

- ◆ Contact your NetWorker sales representative to obtain a new authorization code. Provide the host ID of the original server as well as the new server.
- ◆ Install and configure the EMC License Manager software.

## Managing licenses

The EMC License Manager provides a central place for managing the licenses of all NetWorker clients and servers. Instead of managing licenses separately, you can maintain all NetWorker licenses from a single computer. Installation of the License Manager is an option when installing the NetWorker software.

You can use the License Manager software to do the following:

- ◆ Move the NetWorker software from one computer to another.
- ◆ Use a new IP address on an existing NetWorker server without having to reauthorize the software.

For details on using the License Manager, refer to the *License Manager Installation and Administrator's Guide*.

