



March 29, 2005

NetWorker[™]

Module for Microsoft[®] SQL Server[™]

Release 4.1
Microsoft Windows[®] Version

Installation Guide

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LEGATO NetWorker Module for Microsoft SQL Server, Release 4.1, Microsoft Windows Version, Installation Guide

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Preface

This guide provides instructions on how to install the LEGATO NetWorker[®] Module for Microsoft SQL Server software.

After installing the NetWorker[™] Module software, refer to the *NetWorker Module for Microsoft SQL Server Administrator's Guide* and the program's Online Help for detailed instructions on how to configure, administer, and use the software.

Post-release information is contained in the Release Supplement for this product. This document is available on the LEGATO web site at www.legato.com. Refer to the web site periodically to view the latest Release Supplement.

Audience


The information in this guide is intended for system administrators who are responsible for installing software and maintaining the servers and clients on a network. Operators who monitor the daily backups may also find this manual useful.

Product Documentation

For a complete list of documentation related to this product, see "[Related Documentation](#)" on page 14. Most of the documents are Adobe Acrobat PDFs, and can be viewed by downloading and installing the Adobe Acrobat Reader. The Reader is available in the `/viewers/acroread` directory on the LEGATO[®] Documentation Suite CD-ROM, or directly from Adobe. To install and use the Reader on the preferred platform, refer to the instructions in the CD-ROM's `/viewers/acroread/readme.txt` file or at the Adobe web site.

Conventions

This document uses the following typographic conventions and symbols to make information easier to access and understand.

Convention	Indicates	Example
boldface	Names of line commands, daemons, options, programs, or scripts	The nsradmin command starts the command line version of the NetWorker Administrator program.
<i>italic in text</i>	Pathnames, filenames, computer names, new terms defined in the Glossary or within the chapter, or emphasized words	Displayed messages are also written to <i>/nsr/logs/daemon.log</i> . The specifications are created, one for each swap file, in <i>c:\pagefile.sys</i> .
<i>italic in command line</i>	A variable that must be provided in the command line	nwadmin -s <i>server_name</i>
fixed-width	Examples and information displayed on the screen	media waiting: recover waiting for 8mm 5GB tape volume name
fixed-width, boldface	Commands and options that must be entered exactly as shown	nsr_shutdown -a
Menu_Name> Command	A path or an order to follow for making selections in the user interface	Volume>Change Mode>Appendable
Important:	Information that must be read and followed to ensure successful backup and recovery of data	 <hr/> Important: Use the no_verify option with extreme caution. <hr/>

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LEGATO Education Services (650) 842-9357 training@legato.com				Yes

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Chapter 1: Introduction

This chapter provides a brief description of the NetWorker Module for Microsoft SQL Server software. It includes the following sections:

- ["About the Guide" on page 12](#)
- ["About the NetWorker Module" on page 12](#)
- ["NetWorker PowerSnap Module Support" on page 13](#)
- ["NetWorker Module Permissions Wizard" on page 14](#)
- ["Related Documentation" on page 14](#)

About the Guide

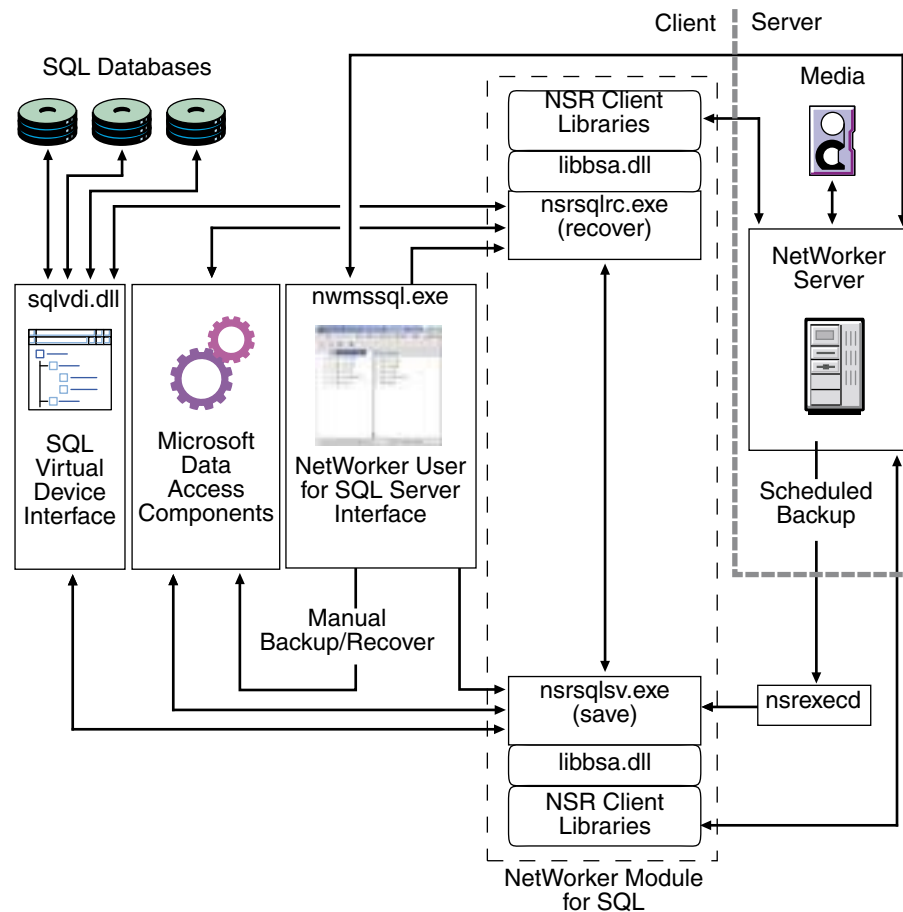
Use the information in this guide to:

- Install or update the NetWorker Module software.
- Install or update the NetWorker Module software by using Microsoft System Management Server (SMS).
- Install NetWorker Module in a Microsoft Cluster Server (MSCS) environment.
- Maintain a NetWorker Module installation.
- Enable the NetWorker Module.
- Uninstall the NetWorker Module software.

About the NetWorker Module

The NetWorker Module for Microsoft SQL Server is an add-on module for NetWorker software that provides back up and restore of Microsoft SQL Server 7.0 and SQL Server 2000 databases and transaction logs. The NetWorker Module 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 on page 13](#) for details on how the NetWorker Module and NetWorker software work with SQL Server.

Figure 1. NetWorker Module and NetWorker Setup with SQL Server



In addition to traditional backup and recovery, NetWorker Module release 4.1 also provides snapshot backup and recovery of SQL Server 2000 on a Windows Server 2003 computer.

NetWorker PowerSnap Module Support

Release 4.1 of the NetWorker Module supports NetWorker PowerSnap™ Modules, which are interfaces between a snapshot-capable storage subsystem and the NetWorker and NetWorker Module software. For a current list of supported storage subsystems, refer to the *LEGATO Compatibility Guides* available at www.legato.com.

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 2000 data. For more information on PowerSnap Modules, refer to the *NetWorker PowerSnap Module Installation and Administrator's Guide* for the specific storage subsystem.

NetWorker Module Permissions Wizard

The NetWorker Module release 4.1 Permissions Wizard enables you to manage access to files and registry keys for users and groups. The Permissions Wizard runs automatically whenever you install or uninstall the software. For information about using the Permissions Wizard, refer to the *NetWorker Module for Microsoft SQL Server, Release 4.1, Administrator's Guide*.

Related Documentation

For information about locating LEGATO documentation, see "[Product Documentation](#)" on page 8. The following LEGATO sources provide additional information relevant to the NetWorker Module:

- *NetWorker Module for Microsoft SQL Server Administrator's Guide, Release 4.1*
- *NetWorker Module for Microsoft SQL Server Release Supplement, Release 4.1*
- NetWorker User for SQL Server Online Help, release 4.1
- *NetWorker PowerSnap Module Installation and Administrator's Guide*

These sources—specific to the NetWorker server version—are also available:

- *NetWorker Administrator's Guide*
- *NetWorker Installation Guide*
- *NetWorker Release Supplement*

Refer to the Microsoft SQL Server documentation for procedures and administrative information.

Chapter 2: Installation

This chapter describes how to install the NetWorker Module software. It includes the following sections:

- ["Installation Roadmap" on page 15](#)
- ["Installation Requirements" on page 16](#)
- ["Installation Prerequisites" on page 18](#)
- ["Where to Install the NetWorker Module Software" on page 19](#)
- ["Accessing the NetWorker Module Installation Files" on page 20](#)
- ["Installing the NetWorker Module Software" on page 22](#)
- ["Using SMS 2.0 to Install the NetWorker Module" on page 25](#)
- ["Installing the NetWorker Module Software in a Microsoft Cluster" on page 27](#)
- ["Validating the Installation and Initial Configuration" on page 28](#)
- ["Maintaining a NetWorker Module Installation" on page 32](#)
- ["Removing the NetWorker Module Software" on page 35](#)

Installation Roadmap

The following roadmap provides an overview of the NetWorker Module software installation tasks:

1. Review ["Installation Requirements" on page 16](#).
2. Review ["Installation Prerequisites" on page 18](#).
3. Access the installation files. For instructions, see ["Accessing the NetWorker Module Installation Files" on page 20](#).
4. Install the NetWorker Module software. For instructions, see ["Installing the NetWorker Module Software" on page 22](#).
5. Enable and register the NetWorker Module for Microsoft SQL Server. For instructions, see ["Chapter 3: Enabling and Registering the Software" on page 36](#).

Installation Requirements

This section specifies the Microsoft Windows, Microsoft SQL Server, NetWorker PowerSnap Module, and NetWorker client and server software requirements for this NetWorker Module.

Supported Operating Systems

This NetWorker Module supports all language versions of the following editions of Microsoft Windows:

- Windows 2000 editions with the latest service pack installed:
 - Windows 2000 Advanced Server
 - Windows 2000 Enterprise Server
 - Windows 2000 Datacenter
- Windows Server 2003 editions (32-bit versions only):
 - Windows Server 2003 Standard
 - Windows Server 2003 Enterprise
 - Windows Server 2003 Datacenter

Microsoft SQL Server

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

- Microsoft SQL Server 7.0
- Microsoft SQL Server 2000

Microsoft Windows and SQL Server Compatibility

The NetWorker Module is compatible with Microsoft Windows and Microsoft SQL Server, as shown in [Table 1 on page 16](#).

Table 1. NetWorker Module Compatibility

SQL Server Version	Windows Version	Hardware Platform	Backup and Recovery Method
7.0 and 2000	Windows 2000	32-bit	Traditional
2000	Windows Server 2003	32-bit	Traditional and snapshot
2000	Windows Server 2003	64-bit	Traditional

NetWorker PowerSnap Module

NetWorker PowerSnap Module software is required *only* if the NetWorker Module for Microsoft SQL Server 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. For more information, refer to the *EMC Legato Software Compatibility Guide*.

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, refer to the *NetWorker Installation Guide*.

The NetWorker software requirements for this NetWorker Module are as follows:

- NetWorker client and server software release 6.0 or later for traditional backups and restores of SQL Server 7.0, or SQL Server 2000 data on Windows 2000.
Note: If the NetWorker Module detects a NetWorker release earlier than 6.0, requests for traditional backups terminate with an error message.
- NetWorker client and server software release 7.0 or later for traditional backups and restores of SQL Server 2000 data on Windows Server 2003.
- NetWorker client and server software release 7.1 or later for snapshot backups and restores of SQL Server 2000 data on Windows Server 2003.

The NetWorker Module can connect to and interact with a NetWorker server running on any supported operating system platform.

NetWorker Module Backward Compatibility

Release 4.1 of the NetWorker Module is backward compatible with release 4.0.1 and earlier, and can successfully restore backups of all types made by these releases of the NetWorker Module.

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*.

Note: During 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 NetWorker and NetWorker Module documentation, references to locations under the installation root use *NetWorker_install_path* in the path statement. For example, the NetWorker Module's log files are located in the *<NetWorker_install_path>\applogs* directory.

Installation Prerequisites

Before installing the NetWorker Module software, verify that the following prerequisites are met:

- The SQL Server host must meet the installation requirements. For details, see ["Installation Requirements" on page 16](#).
- The SQL Server host must have enough disk space available for the NetWorker Module installation:
 - Complete installation (includes NetWorker Module 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, however, 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 the NetWorker Module for Microsoft SQL Server software must be removed before you begin an installation of release 4.1. For instructions see, ["How to Remove a Previous Release of the NetWorker Module" on page 19](#).
- The installation operator must have Windows domain administrator privileges.

How to Remove a Previous Release of the NetWorker Module



Important: Uninstalling the NetWorker Module deletes certain registry settings that may have previously been configured. This includes any pool settings you specified in the NetWorker User for SQL Server Backup Options dialog box. The Backup Options dialog box appears from the Options menu when you select Backup Options from the in the NetWorker User for SQL Server program.

To remove an earlier release of the NetWorker Module for Microsoft SQL Server software:

1. Access the directory on the CD-ROM or hard drive from which you installed the previous NetWorker Module release.
2. Run **setup.exe** to start the NetWorker Module setup program.
3. Click Uninstall, and then click Next.

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

Where to Install the NetWorker Module Software

The NetWorker client software and the NetWorker Module for Microsoft SQL Server 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 NetWorker Module, you must configure the SQL Server host as a client of the NetWorker server.

Installing the NetWorker Server and SQL Server on the Same Computer

To take advantage of NetWorker immediate-save technology, you can 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 in this configuration.

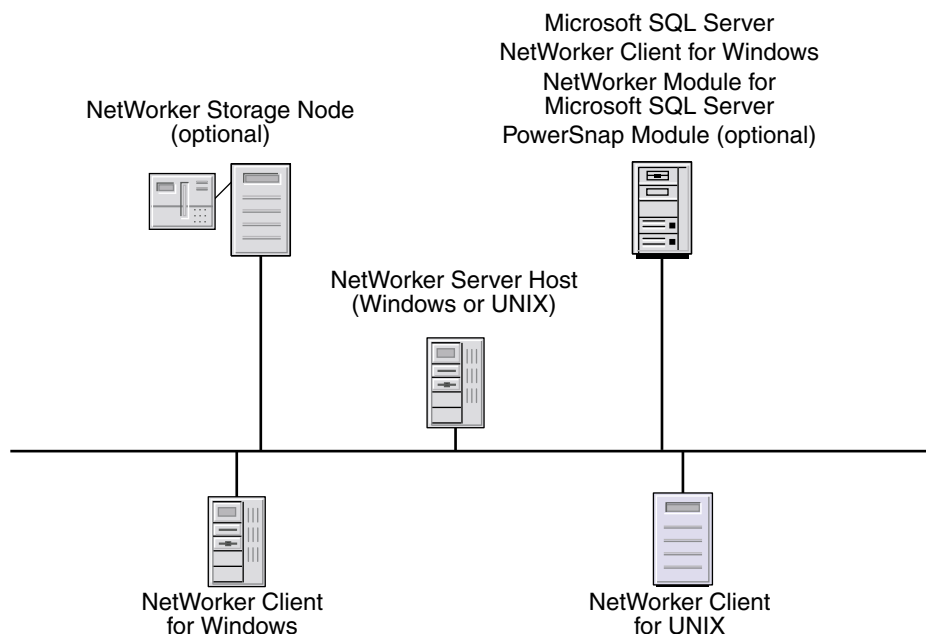
In this configuration, consider using a NetWorker storage node. For instructions on configuring and using a storage node, refer to the *NetWorker Administrator's Guide*.

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

Installing the NetWorker Server and SQL Server on Separate Computers

Typically, the NetWorker server software resides on one computer and the SQL Server software on another, as shown in [Figure 2 on page 20](#).

Figure 2. Example Configuration



Accessing the NetWorker Module Installation Files

This section explains how to access the NetWorker Module installation files from the following locations:

- ["Local CD-ROM" on page 20](#)
- ["Remote CD-ROM" on page 21](#)
- ["LEGATO Web Site" on page 21](#)

Local CD-ROM

To access the NetWorker Module installation files from a local CD-ROM:

1. Log on with administrator privileges to the Windows computer running SQL Server.
2. Load the NetWorker Module CD-ROM in the CD-ROM drive.
3. Start Windows Explorer and select the CD-ROM drive.
4. To complete the installation, see ["Installing the NetWorker Module Software" on page 22](#).

Remote CD-ROM

To access the NetWorker Module installation files from a remote CD-ROM:

1. Load the NetWorker Module CD-ROM in a CD-ROM drive of a Windows computer on the network.
2. On the remote computer, create a shared volume for the CD-ROM drive.
3. Log on with administrator privileges to the Windows computer running SQL Server.
4. On the SQL Server host, map a network drive to the shared volume that was created on the remote system.
5. To complete the installation, see "[Installing the NetWorker Module Software](#)" on [page 22](#).

LEGATO Web Site

To access the NetWorker Module installation files from the LEGATO web site:

1. Request the NetWorker Module software:
 - a. Go to the LEGATO web site (www.legato.com).
 - b. Click the Download link.
 - c. On the Evaluation Software Request page, select NetWorker Module for Microsoft SQL Server from the list. Then select release 4.1 from the list of releases.
 - d. Complete the Evaluation Request form with your contact information and submit it.

A LEGATO Inside Sales Representative will send you an e-mail with a URL to the NetWorker Module download file on the LEGATO FTP site.

2. Access the software:
 - a. Log on with administrator privileges to the SQL Server host.
 - b. Create a temporary directory where you can download the software.
 - c. Click on the URL you received to download the NetWorker Module software to the temporary directory you created.

The *nmsql41_win_x86.exe* (32-bit), or *nmsql41_win_ia64.exe* (64-bit) file appears in the temporary directory.

3. To complete the installation, see "[Installing the NetWorker Module Software](#)" on [page 22](#).

Installing the NetWorker Module Software

To use Microsoft Systems Management Server (SMS) to install the NetWorker Module software, see ["Using SMS 2.0 to Install the NetWorker Module" on page 25](#). To install the NetWorker Module software in a Microsoft cluster, see ["Installing the NetWorker Module Software in a Microsoft Cluster" on page 27](#).

If you plan to use the NetWorker Configuration Wizard to configure NetWorker Module for Microsoft SQL Server scheduled backups, scheduled backups, you must do as follows:

1. Install the NetWorker release 7.2 or later client software.
2. Install the NetWorker Configuration Wizard.
3. Install the NetWorker Module software.

For more detailed information, refer to the *NetWorker, Release 7.2, Release Supplement*.



Important: When upgrading the NetWorker Module from release 4.0.x to 4.1 on Windows Server 2003, the Permissions Wizard runs in the middle of the upgrade process when the former release is being removed. Click on the Permissions Wizard Cancel button to continue with the upgrade.

How to Install the Software

To install the NetWorker Module software:

1. Verify that the target computer satisfies the requirements. For details, see ["Installation Requirements" on page 16](#).
2. Ensure that prerequisites have been met. For details, see ["Installation Prerequisites" on page 18](#).
3. Log on with administrator privileges to the target computer for the NetWorker Module installation.
4. Exit all NetWorker programs.
5. Access the installation files. For instructions, see ["Accessing the NetWorker Module Installation Files" on page 20](#).
6. In Windows Explorer, go to the directory containing the NetWorker Module installation files.

Note: The contents of this directory depends on the source for the NetWorker Module software:

- If you are installing the NetWorker Module software from the CD-ROM, this directory contains *setup.exe*.
 - If you downloaded the NetWorker Module software from the LEGATO web site, this directory contains *nmsql41_win_x86.exe* (32-bit), or *nmsql41_win_ia64.exe* (64-bit).
7. Double-click *setup.exe*, *nmsql41_win_x86.exe*, or *nmsql41_win_ia64.exe*.
 8. In the Welcome dialog box, as shown in [Figure 3 on page 23](#), click Next.

Figure 3. Welcome Dialog Box



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 — Installs the NetWorker Module software and the NetWorker Module for Microsoft SQL Server component of the NetWorker Configuration Wizard.
- Custom — Allows you to install the NetWorker Module software, the NetWorker Module wizard component, or both.

Note: If you opt to install only the NetWorker Module software (without the NetWorker Module wizard component) during the initial installation, you can run *setup.exe* in Maintenance mode later and install the wizard component. For instructions, see "[Maintaining a NetWorker Module Installation](#)" on page 32.

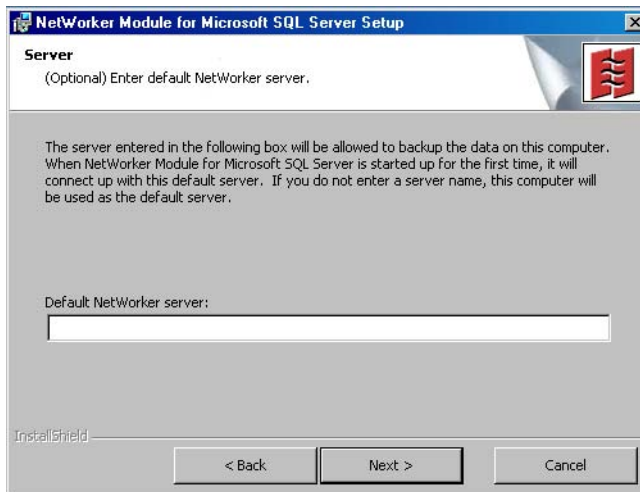
10. If you selected Complete in [step 9](#), skip this step and proceed to [step 11](#).

If you selected Custom, the Custom Setup dialog box appears. To exclude the NetWorker Module for Microsoft SQL Server component of the NetWorker Configuration Wizard from the installation, click the NetWorker Module for Microsoft SQL Server Client Configuration Wizard icon and select "This feature will not be available."

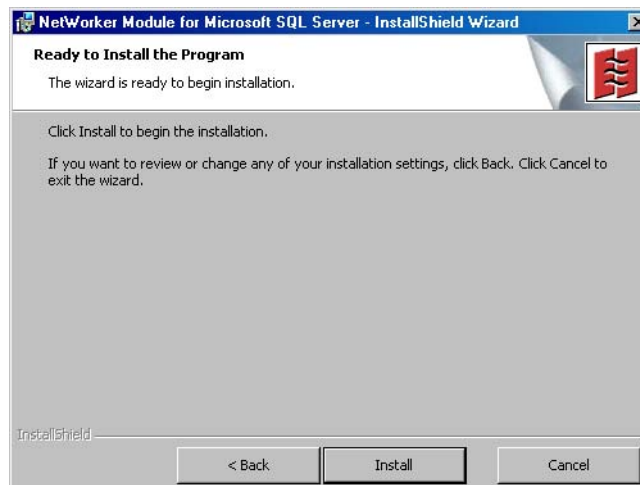
Installation of the NetWorker Module for Microsoft SQL Server component of the NetWorker Configuration Wizard allows you to use the NetWorker Configuration Wizard to configure scheduled backups of SQL server data.

11. In the NetWorker Server dialog box, as shown in [Figure 4 on page 24](#), do *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.

Figure 4. NetWorker Server Dialog Box

12. In the License Agreement dialog box, scroll down to read the license agreement. If you accept the terms, select the appropriate option and click Next.
13. In the Ready to Install the Program dialog box, as shown in [Figure 5 on page 24](#), click Install to begin the installation.

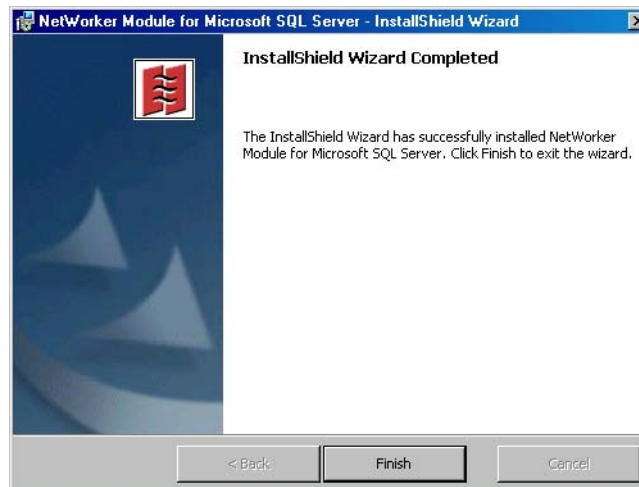
Figure 5. Ready to Install the Program Dialog Box

The setup program does the following:

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

Note: For more information about the NetWorker installation path, see ["NetWorker Installation Path" on page 18](#).

14. In the InstallShield Wizard Completed dialog box, as shown in [Figure 6 on page 25](#), click Finish to exit the wizard.

Figure 6. InstallShield Wizard Completed Dialog Box

Note: If you are installing the NetWorker Module on Windows Server 2003, the InstallShield Wizard Completed dialog box contains the option to launch the NetWorker Module Permissions Wizard.

This option is selected by default. Deselect this option if you do not want to run the Permissions Wizard. For more information, refer to the *NetWorker Module for Microsoft SQL Server Administrator's Guide, Release 4.1*.

Using SMS 2.0 to Install the NetWorker Module

You can use Microsoft Systems Management Server (SMS) Version 2.0 to install NetWorker Module release 4.1 automatically over an entire network. For best results with an SMS installation:

- Set up the SQL Server and SMS software before you install the NetWorker Module. 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 before you install the NetWorker Module.

The NetWorker Module installation consists of three tasks:

- Creation of the NetWorker Module application source directory or directories.
- Creation of the SMS installation package.
- Creation of the job to install or uninstall the NetWorker Module on the client computers.

How to Create the Application Source Directories

To create the NetWorker Module for Microsoft SQL Server application source directory:

1. Create a shared directory on one of the SMS site server's local disks, for example, *nmsql41*.
2. Copy all files from the appropriate directory on the product CD (*MSSQLSVR\4.1\NETWORKR*) to the corresponding shared directory you created for those files on the SMS site server disk.

How to Create 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, you must have PCM 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.pdf* from shared directory you created on the SMS site server. (*Nwmssql.pdf* is a package definition file, not an Adobe Acrobat portable document file.) This file defines a package to install the NetWorker Module as an automated background task requiring 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 you created on the SMS site server in [step 1](#) under "[How to Create the Application Source Directories](#)" on [page 26](#).
8. Click Close to return to the Package Properties dialog box.
 9. Click OK to close the Package Properties dialog box.

How to Create the Install or Uninstall Job

To create the job to install or uninstall the NetWorker Module 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 the NetWorker Module Software in a Microsoft Cluster

The NetWorker Module software can be 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 provides backup and restore capabilities for failover cluster configurations running in a SQL Server version 7.0 or SQL Server 2000 environment.

- If SQL Server 2000 is installed, the module software allows up to 16 named instances to run as virtual servers in the cluster.
- If SQL Server version 7.0 is running, the program supports an active/passive configuration with one virtual server, or an active/active configuration with two virtual servers.



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

How to Install the Software in a Microsoft Cluster

To install the NetWorker Module in an MSCS cluster:

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

Note: Installing the NetWorker Module into the default NetWorker installation directory is recommended.

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). However, 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*.



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

2. Install the NetWorker Module for Microsoft SQL Server 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. For installation instructions, see ["Installing the NetWorker Module Software" on page 22](#).

3. Install the enabler for the NetWorker Module on the NetWorker server. For more information, see ["Chapter 3: Enabling and Registering the Software" on page 36](#).
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*.

Validating the Installation and Initial Configuration

This section provides information about testing and verifying the NetWorker Module software installation. To verify that the NetWorker Module 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 using the NetWorker Module 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 the NetWorker Module

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 NetWorker Module to back up the databases managed by SQL Server, you must configure the NetWorker server to run with the NetWorker Module by creating the following:

- Creating a backup Group resource for scheduled backups of SQL Server. For instructions, see ["How to Create a Backup Group for Scheduled Backups" on page 29](#).
- Creating a Client resource for the client host on which you installed the NetWorker Module. For instructions, see ["How to Create a NetWorker Client" on page 30](#).

For more information, refer to the documents listed in [Table 2 on page 29](#).

Table 2. Reference Documentation

For information on:	Refer to:
Using the NetWorker Administrator program or the NetWorker Configuration Wizard for configuring scheduled backups and adding clients to the NetWorker server.	<i>NetWorker Administrator's Guide</i>
Using the NetWorker Module with the NetWorker server to perform backups and restores.	<i>NetWorker Module for Microsoft SQL Server Administrator's Guide, Release 4.1</i>

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*.

How to Create a Backup Group for Scheduled Backups

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.

How to Create 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.

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 backup group you created.
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 desired command options):

nsrsqlsv

13. Click OK to save the configuration.

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 *Module for Microsoft SQL Server Administrator's Guide*.

Starting a Test Backup

The first NetWorker Module 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.



Important: 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.

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 on 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 backup group you created and click Start in the shortcut menu.
5. When asked if you are sure you want to start the group, click Yes.
6. (Optional) To view the progress of the backup, select the Group Status 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 NetWorker Module 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.

Maintaining a NetWorker Module Installation

After NetWorker Module software is installed, you can run the Setup program in Maintenance mode to repair or remove the existing installation.

How to Run the Setup Program in Maintenance Mode

To run the Setup program in Maintenance mode:

1. Log on with administrator privileges to the target computer.
2. Exit all NetWorker programs.
3. In Windows Explorer, go to the directory containing the NetWorker Module installation files and double-click *setup.exe*, *nmsql41_win_x86.exe*, or *nmsql41_win_ia64.exe*.

Note: For information about accessing the installation files, see "[Accessing the NetWorker Module Installation Files](#)" on page 20.

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 NetWorker Module installation and automatically displays the Program Maintenance dialog box, as shown in [Figure 7 on page 33](#).

Figure 7. 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 NetWorker Module running in 32-bit mode; Modify is not available if running in a 64-bit mode, as 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 NetWorker Module installation. For instructions, see ["How to Repair a NetWorker Module Installation" on page 35](#).
 - **Remove** — Use the Setup program's installation removal function to remove the NetWorker Module software. Alternatively, you can use the Windows Control Panel Add/Remove program to remove the NetWorker Module installation. For instructions, see ["Removing the NetWorker Module Software" on page 35](#).

How to Add Program Features to an Installation

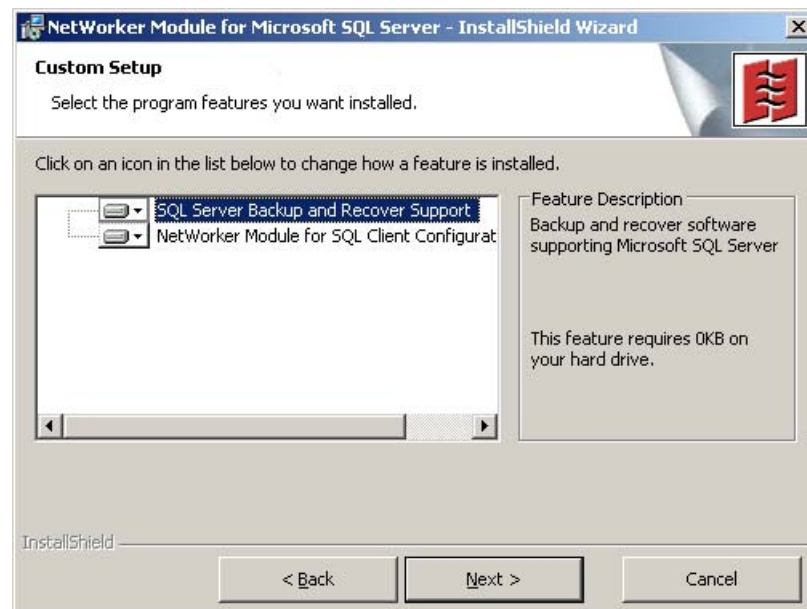
To add program features to an existing NetWorker Module installation:

1. Start the Setup program in maintenance mode. For instructions, see ["How to Run the Setup Program in Maintenance Mode" on page 32](#).
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 you want to install and select "This feature will be installed on local hard drive."

For example, [Figure 8 on page 34](#) shows how to install the SQL Server Backup and Recover Support feature or the Configuration Wizard feature.

Figure 8. Custom Setup Dialog Box



Note: NetWorker Module for Microsoft SQL Server component of the NetWorker Configuration Wizard is available for installation only if you installed the NetWorker release 7.2 or later client software, and then separately installed the NetWorker Configuration Wizard.

4. Click Next. The Server dialog box appears.
5. In the Server dialog box, you can optionally 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 NetWorker Module support for the SQL Server Backup and Recover Support feature or the Configuration Wizard feature, refer to the *NetWorker Module for Microsoft SQL Server Administrator's Guide*.

How to Repair a NetWorker Module Installation

To repair an existing NetWorker Module installation:

1. Start the Setup program in maintenance mode. For instructions, see ["How to Run the Setup Program in Maintenance Mode" on page 32.](#)
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 NetWorker Module files as necessary.

Removing the NetWorker Module Software

You can remove an existing installation of the NetWorker Module software either by using the Setup program, or the Windows Control Panel Add/Remove Programs tool.

Note: When removing the NetWorker Module software from a cluster, you must perform the procedure on each cluster node.

How to Remove an Installation by Using the Setup Program

To remove a NetWorker Module installation by using the Setup program:

1. Start the Setup program in maintenance mode. For instructions, see ["How to Run the Setup Program in Maintenance Mode" on page 32.](#)
2. In the Program Maintenance dialog box, select Remove, and click Next.
3. In the Ready to Remove dialog box, click Remove.

The Setup program removes all NetWorker Module program files and registry settings.

How to Remove an Installation by Using the Control Panel

To remove a NetWorker Module installation by using the Windows Control Panel:

1. Start the Control Panel.
2. From the Control Panel select Add/Remove Programs.
3. From the Add/Remove Programs window, select the NetWorker Module for Microsoft SQL Server, and then click the Remove button.

Chapter 3: Enabling and Registering the Software

This chapter explains how to enable the NetWorker Module software for evaluation or permanent use. The chapter includes the following sections:

- ["How NetWorker Software Is Licensed" on page 36](#)
- ["Evaluating the NetWorker Module Software" on page 37](#)
- ["Licensing the NetWorker Module Software" on page 38](#)
- ["Managing Licenses" on page 41](#)

How NetWorker Software Is Licensed

Licensing NetWorker software means entering 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 bundle 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 NetWorker Modules.

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 NetWorker Module for Microsoft SQL Server 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 NetWorker Module enabler is required for that one host.

Evaluating the NetWorker Module Software

Licensing the NetWorker Module 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 NetWorker Module software will not run beyond an initial evaluation period.

30-Day Evaluation Period

After you install the NetWorker Module 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 NetWorker Module 30-day evaluation period 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.



Important: If you have *not* obtained and entered a permanent enabler code for the NetWorker Module by the end of the evaluation period, you will be unable to back up any more 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.

How to Enter a 45-Day Enabler Code

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 the Registration button.
- 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
- d. Click OK.



Important: 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 NetWorker Module software is disabled on all SQL servers with that same enabler code.

Licensing the NetWorker Module Software

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

- To use the NetWorker Module software permanently, you must purchase a license enabler code and authorize the software within 45 days.
- To run snapshot backups, you must also obtain a NetWorker Module for Microsoft SQL Server PowerSnap Option License.

The following sections explain how to license and authorize NetWorker Module software:

- ["Task 1: Purchase a License Enabler Code" on page 38](#)
- ["Task 2: Enter the License Enabler Code" on page 39](#)
- ["Task 3: Obtain an Authorization Code" on page 39](#)
- ["Task 4: Enter the Authorization Code" on page 40](#)



Important: At the end of the 45-day registration period, if you have not yet authorized the NetWorker Module, 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 LEGATO web site or through a LEGATO representative. For contact information, see ["Licensing and Registration" on page 11](#).

Task 2: Enter the License Enabler Code

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

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.

Task 3: Obtain an Authorization Code

After you enter the license enabler code, you have 45 days to register and authorize the NetWorker Module software so that it is permanently enabled. You can obtain a unique authorization code by registering either on the web site or by fax or e-mail.

Registering on the LEGATO Web Site

You can register and authorize LEGATO products by completing a registration form on the web site at www.legato.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, LEGATO will send you an authorization code by e-mail.

For questions regarding software updates, contact LEGATO Licensing. For contact information, see "[Licensing and Registration](#)" on page 11.

Registering by Fax or E-mail

To register by fax or e-mail:

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. Complete the contact information.

For UNIX:

- a. From the Server menu, select Server Setup.
- b. Enter the information requested and click Apply.

For Windows:

- a. In the Manage Server section, click Set Up Server to open the Server window.
 - b. Select the Company Information tab.
 - c. Enter the information requested and click OK.
4. Print the registration information sheet.

For UNIX:

- a. From the Server menu, select Registration.
- b. From the View menu, select Tabular to place the information in a tabular view.
- c. From the File menu, select Print to print the server information and click Apply.

For Windows:

- a. In the Manage Server section, click Registration to open the Registration window.
 - b. Double-click the product name icon.
 - c. Click Print, and then click OK.
 - d. In the Print dialog box, specify printing preferences and click OK.
5. Send the printed registration information to LEGATO Licensing by fax or e-mail. For fax and e-mail contact information, see "[Licensing and Registration](#)" on page 11.

LEGATO will send you an authorization code to enable the software permanently.

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.

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.



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

- Contact LEGATO Licensing to obtain a new authorization code. LEGATO requires the host ID of the original server as well as the new server.
 - Install and configure the LEGATO License Manager software.
-

Managing Licenses

The LEGATO 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*.