EMC® NetWorker® Module for DB2

Release 2.1
Multiplatform Version

Installation Guide

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REV A01

EMC Corporation
Corporate Headquarters:
Hopkinton, MA 01748-9103
1-508-435-1000
www.EMC.com

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Preface

As part of an effort to improve and enhance the performance and capabilities of its product lines, EMC periodically releases revisions of its hardware and software. Therefore, some functions described in this document may not be supported by all versions 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 document, please contact your EMC representative.

Audience

This document is part of the EMC NetWorker Module for DB2 (NMDB2) documentation set, and is intended for use by 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.

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

- Backup, recovery, and maintenance of a DB2 client.
- Backup, recovery, and maintenance of a DB2 server.
- Disaster recovery procedures on a DB2 server.

Related documentation

Related documents include:

- *EMC NetWorker Module for DB2 Release 2.1 Multiplatform Version Installation Guide*
- *EMC NetWorker Module for DB2 Release 2.1 Multiplatform Version Release Notes*
- *EMC NetWorker Release 7.3 Multiplatform Version Administration Guide*
- *EMC NetWorker Release 7.2 UNIX and Linux Version Administration Guide*
- *EMC NetWorker Release 7.2 Windows Version Administration Guide*
- *EMC NetWorker Installation Guide*
- *EMC NetWorker Release Notes*
- *EMC NetWorker Command Reference Guide*
- *EMC Information Protection Software Compatibility Guide*
- UNIX man pages

Conventions used in this document

EMC uses the following conventions for special notices.

Note: A note presents information that is important, but not hazard-related.

CAUTION

A caution contains information essential to avoid data loss or damage to the system or equipment.

IMPORTANT

An important notice contains information essential to operation of the software.

Typographical conventions

EMC uses the following type style conventions in this document:

Normal	Used in running (nonprocedural) text for: • Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus) • Names of resources, attributes, pools, Boolean expressions, buttons, DQL statements, keywords, clauses, environment variables, functions, utilities • URLs, pathnames, filenames, directory names, computer names, filenames, links, groups, service keys, file systems, notifications
Bold	Used in running (nonprocedural) text for: • Names of commands, daemons, options, programs, processes, services, applications, utilities, kernels, notifications, system calls, man pages Used in procedures for: • Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus) • What user specifically selects, clicks, presses, or types
Italic	Used in all text (including procedures) for: • Full titles of publications referenced in text • Emphasis (for example a new term) • Variables
`Courier`	Used for: • System output, such as an error message or script • URLs, complete paths, filenames, prompts, and syntax when shown outside of running text
`Courier bold`	Used for: • Specific user input (such as commands)
`Courier italic`	Used in procedures for: • Variables on command line • User input variables
< >	Angle brackets enclose parameter or variable values supplied by the user
[ ]	Square brackets enclose optional values
|	Vertical bar indicates alternate selections - the bar means “or”
{ }	Braces indicate content that you must specify (that is, x or y or z)
...	Ellipses indicate nonessential information omitted from the example

Where to get help

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

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

`http://Powerlink.EMC.com`

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

Your comments

Comments and suggestions about our product documentation are always welcome.

To provide feedback:

1. Go to:

   `http://Powerlink.EMC.com`

2. Click the **Feedback** link.

1 Introduction

This installation guide describes how to install and enable EMC NetWorker Module for DB2 (NMDB2) release 2.1 on a supported UNIX, Linux, or Microsoft Windows operating system that is running DB2 software.

This chapter provides an overview of the NMDB2 installation and configuration, an installation roadmap and checklist, and instructions for updating to NMDB2 release 2.1 from a previous release.

This chapter includes the following sections:

Revision History of this document

Table 1 lists the revision history of this document for NMDB2 rease 2.1 software.

Table 1 Revision history

Date	Description
January 2006	Updated for NMDB2 release 2.1.
August 31, 2007	Updated part number from E6-1792-01 REV A01 to 300-005-697 REV A01. Updated to current EMC template and styles.

Overview of installation and configuration

The NMDB2 software supports the following features that require special installation considerations:

- DB2 backups and restores of DB2 server data.
- Use of the NMDB2 Configuration Wizard for configuration of scheduled DB2 backups.

The following sections describe the installation considerations for each of these features.

After the installation is complete, the software components must be properly configured to enable backup and restore operations. Configuration procedures can be found in the *EMC NetWorker Module for DB2, Release 2.1, Administration Guide*.

DB2 backup and restore considerations

The NMDB2 software works with NetWorker software to provide DB2 backups and restores of:

- DB2 server data on UNIX and Linux
- DB2 server data on Windows

To enable the DB2 backups and restores, the following software must be installed on the DB2 computer:

- NMDB2 software
- NetWorker client software

Note: The NetWorker server software may be installed on the same computer as the DB2 host.

For details on the supported operating systems and installation and configuration requirements of the DB2 host, refer to the appropriate IBM documentation.

Configuration Wizard operation considerations

The NMDB2 Configuration Wizard can be used only on Solaris (SPARC) or Windows 32-bit versions to configure the scheduled DB2 backups.

The NMDB2 Configuration Wizard can be located either on the same computer as the NMDB2 software or on a separate Solaris or Windows computer. A single NMDB2 Configuration Wizard can be used to configure multiple NMDB2 client computers.

To enable the NMDB2 Configuration Wizard:

- The required NetWorker and NMDB2 software must be installed on the appropriate computers. "DB2 backup and restore considerations" on page 10 provides details

  The NMDB2 software installation automatically installs the following wizard client-side components on the NMDB2 client computer:

  - UNIX: libnmdb2dc.*xx*
  - Windows: libnmdb2dc.dll

  Where the value of *xx* is dependent on the operating system. Table 4, "NMDB2 library directories," on page 18 provides a list of the NMDB2 libraries.

- The NetWorker server and client software installed on all hosts (NetWorker server host, DB2 host, wizard computer) must be release 7.2 or later.
- The NetWorker Configuration Wizard release 1.0 (packaged with NetWorker 7.2 or later) must be installed on the Solaris or Windows wizard computer according to the instructions in the EMC NetWorker release notes.

  Note: For the best results, the NMDB2 Configuration Wizard should be installed on the same computer as the NetWorker server.

- A NMDB2 Configuration Wizard component (libdb2wiz.so on Solaris, libdb2wiz.dll on Windows) must be installed separately on the wizard computer according to the instructions in:
  - "How to install on Solaris" on page 22
  - "Task 3: Install the NMDB2 software on Windows" on page 30
- The user that runs the wizard must be:
  - Root user on Solaris, or a member of the Microsoft Windows Administrators group.
  - Part of the NetWorker Administrators group in the NetWorker server configuration.

Installation roadmap

Use the following roadmap when installing the NMDB2 software on each DB2 client or server that requires backup and recover services:

1. Review the "Installation checklist" on page 12 and verify that you have all the required documents, installation media, pathnames, parameters, and license information.
2. Install the NMDB2 software for the computer's operating system.

   Instructions are given in the appropriate chapter:

   - Chapter 2, "Installation on UNIX"
   - Chapter 3, "Installation on Windows"

   Note: "Updating from a previous release" on page 12 provides instructions on how to update from a previous release.

3. Enable and register the NMDB2 software.

   Chapter 4, "Licensing and Enabling the Software" provides instructions.

4. Configure a Client resource on the NetWorker server for each client computer.

   The *EMC NetWorker Module for DB2, Release 2.1, Administration Guide* gives instructions on how to create the NetWorker Client resources.

Installation checklist

Review the following checklist to ensure that you have the required materials for the installation and configuration procedures.

Documents

- Previous release of the *EMC NetWorker Module for DB2 Installation Guide*, as required for uninstalling previous installations.
- *EMC NetWorker Module for DB2 Release 2.1 Release Notes*
- *EMC NetWorker Module for DB2 Release 2.1 Administration Guide*
- *EMC NetWorker Release 7.2 Administration Guide* (or later releases)
- *EMC NetWorker Release 7.3 Administration Guide* (or later releases)

Installation media

- CD-ROM from the EMC Media Kit
- Link to the EMC website if downloading the software.

Pathnames and parameters

- Path to the NetWorker binaries and the directory where NMDB2 software is installed.
- Path to the DB2 default data directory and other data directories.
- Parameters for the NMDB2 software configuration.

The *EMC NetWorker Module for DB2, Release 2.1, Administration Guide* gives more information on the required pathnames and parameters.

License information

- Evaluation Enabler
- Enabler Certificate

NMDB2 release 2.1 has separate license enablers for UNIX (including Linux) and Windows platforms. The license enablers are *not* interchangeable.

Chapter 4, "Licensing and Enabling the Software" provides more information on licensing.

Updating from a previous release

To update to NMDB2 release 2.1 from a previous release:

1. Uninstall the NMDB2 software.

   The appropriate release of the *EMC NetWorker Module for DB2 Installation Guide* provides details.

2. Install the NMDB2 software.

The following sections, appropriate for your platform, provide details:

- "Installation procedures on UNIX" on page 18
- "Installation procedures on Windows" on page 29

3. Enable and register the NMDB2 software.

   Chapter 4, "Licensing and Enabling the Software" gives details.

4. Unset the DB2_VENDOR_INI registry variable. For example:

   - On UNIX:

     ```
     $ db2set DB2_VENDOR_INI=
     ```

   - On Windows:

     ```
     %SystemDrive% db2set DB2_VENDOR_INI=
     ```

5. Restart the database instance.

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Installation on UNIX

This chapter provides instructions for installing and uninstalling NetWorker Module for DB2 (NMDB2) release 2.1 on a supported AIX, HP-UX, Linux, or Solaris computer.

This chapter includes the following sections:

Installation requirements

Ensure that the installation requirements in the following sections are met:

- "NMDB2 requirements" on page 16
- "NMDB2 Configuration Wizard requirements" on page 16

After the installation, if the NetWorker software on the DB2 server is updated and the NetWorker client installation directory is changed to a different location, the NMDB2 software must be uninstalled and reinstalled according to the instructions in this chapter.

NMDB2 requirements

Ensure that the computer with the NMDB2 software is equipped with the following:

- A supported AIX, Linux, HP-UX, or Solaris operating system.
- Approximately 4 MB of available space in the /usr/lib directory and 2 MB in the directory where the NetWorker binaries are to be installed.
- DB2 version 8.*x*
- NetWorker server or client release 7.*x*

  Note: To use the NetWorker Configuration Wizard, NetWorker server or client release 7.2 or later must be installed.

- For double-byte character set (DBCS) support on Solaris only, the NetWorker software for Solaris Simplified Chinese Locale: LGTOzh

NMDB2 Configuration Wizard requirements

The NMDB2 Configuration Wizard can be used on Solaris (SPARC) or Windows *only* to configure scheduled DB2 backups. "Configuration Wizard operation considerations" on page 10 provides more information on the NMDB2 Configuration Wizard.

Note: The NMDB2 Configuration Wizard supports NMDB2 release 2.1 only. You cannot use a release of NMDB2 earlier than release 2.1 to run the wizard. To launch the wizard, you must be logged in as a root user on UNIX platforms or as a member of the Microsoft Windows Administrators group.

To enable the NMDB2 Configuration Wizard, ensure that the following requirements are met:

1. The NetWorker server and client software is installed:
   - NetWorker server release 7.2 or later on the server.
   - NetWorker client release 7.2 or later on the NMDB2 client.

   The *EMC NetWorker Installation Guide appropriate for your platform* provides details on how to install the NetWorker software.
2. The NetWorker Configuration Wizard release 1.0 (packaged with NetWorker 7.2 or later) is installed on the wizard computer.

Note: The NMDB2 Configuration Wizard should be installed on the same computer as the NetWorker server.

The *EMC NetWorker Release Notes* provides details on how to install the wizard.

Files installed during installation

The following NMDB2 software files are installed:

- NMDB2 binaries and programs are installed in the same directory as the NetWorker client executables:
  - nsrdb2sv — NMDB2 backup program
  - nsrdb2ce — NMDB2 Configuration Wizard executable.

  Table 2 shows the NMDB2 binaries and program installation directories.

Table 2 NMDB2 binaries and program installation directories

Operating system	Directory on the local CD-ROM
AIX	/usr/bin
HP-UX	/opt/networker/bin
Linux	/usr/sbin
Solaris	/usr/sbin

- NMDB2 man pages are installed in the same directory as the NetWorker client man pages, as shown in Table 3.

Table 3 NMDB2 man pages

Operating system	NMDB2 man pages	Default directory
AIX	nsrdb2sv.8 nsrdb2.8 nsrdb2ce.8	/usr/share/man/man8
HP-UX	nsrdb2sv.8 nsrdb2.8 nsrdb2ce.8	/opt/networker/man/man8
Linux	nsrdb2sv.8 nsrdb2.8 nsrdb2ce.8	/usr/share/man/man8
Solaris	nsrdb2sv.1m nsrdb2.1m nsrdb2ce.1m	/usr/share/man/man1m

To complete the installation of the NMDB2 Configuration Wizard on the Solaris wizard computer, the library libnmdb2wiz.so (that is included in the LGTOdb2wz package) must be installed. The library is located in the /usr/lib/nsr directory. The wizard can be located on the DB2 server if it is a Solaris computer.

Table 4. lists the directories where the NMDB2 libraries are installed.

Table 4 NMDB2 library directories

Operating system	NMDB2 libraries
aix51n	/usr/lib/libnsrdb2.o /usr/lib/nsr/libnmdb2dc32.o
aix51w	/usr/lib/libnsrdb2.o /usr/lib/nsr/libnmdb2dc.o
hp11ia64	/usr/lib/libnsrdb2.so /opt/networker/lib/libnmdb2dc.so
hp11n	/usr/lib/libnsrdb2.sl /opt/networker/lib/libnmdb2dc32.sl
hp11w	/usr/lib/libnsrdb2.sl /opt/networker/lib/libnmdb2dc.sl
linuxia64	/usr/lib/libnsrdb2.so /usr/lib/nsr/libnmdb2dc.so
linux86	/usr/lib/libnsrdb2.so /usr/lib/nsr/libnmdb2dc32.so
linux86w	/usr/lib/libnsrdb2.so /usr/lib/nsr/libnmdb2dc.so
solaris7n	/usr/lib/libnsrdb2.so /usr/lib/nsr/libnmdb2dc32.so /usr/lib/nsr/libnmdb2wiz.so
solaris7w	/usr/lib/libnsrdb2.so /usr/lib/nsr/libnmdb2dc.so /usr/lib/nsr/libnmdb2wiz.so

Installation procedures on UNIX

To install NMDB2 release 2.1 on a UNIX computer, complete the following tasks:

- "Task 1: Access the installation files on UNIX" on page 18
- "Task 2: Install the NMDB2 software on UNIX" on page 20

Task 1: Access the installation files on UNIX

Access the installation files from one of either a local CD-ROM or the EMC website.

From a local CD-ROM

To access the NMDB2 installation software from a local CD-ROM:

1. Log in as root on the computer that is running the DB2 server software.
2. Insert and mount the NetWorker Module CD-ROM:

```
mount /dev/cd_drivename /mount_point
```

3. Change to the appropriate directory on the CD-ROM, as shown in Table 5.

Table 5 Accessing the correct directory on the local CD-ROM

Operating system	Directory on the local CD-ROM
AIX	/mount_point/db2/aix_32 /mount_point/db2/aix_64
HP-UX	/mount_point/db2/hpux11_32 /mount_point/db2/hpux11_64 /mount_point/db2/hpux11_ia64
Linux	/mount_point/db2/linux_x86 /mount_point/db2/linux_x86_64 /mount_point/db2/linux_ia64
Solaris	/mount_point/volume_label/db2/solaris_32 /mount_point/volume_label/db2/solaris_64

Note: The NMDB2 installation software for Solaris includes both the NMDB2 and NMDB2 Configuration Wizard packages.

From the website

To access the evaluation release of the NMDB2 software from the EMC website:

1. Log in as root on the computer that is running the DB2 server software.
2. Create a temporary installation directory in a local file system with sufficient free disk space (8 MB) to contain and extract the downloaded software. For example:

   ```
   mkdir /usr/nsr_extract_nmdb2
   ```

3. Go to http://Powerlink.EMC.com.
4. Select Home > Support > Downloads and Patches > Downloads D-R > NetWorker Module.
5. Select NetWorker Module for DB2 from the products list and click release 2.1 for the AIX, HP-UX, Linux, or Solaris platform.
6. Uncompress the downloaded software file by using the **gunzip** command, as shown in Table 6.

Table 6 Uncompressing the downloaded software file

Operating system	Command to uncompress the downloaded software file
AIX	gunzip nmdb221_aix_32.tar.gz gunzip nmdb221_aix_64.tar.gz
HP-UX	gunzip nmdb221_hpux11_32.tar.gz gunzip nmdb221_hpux11_64.tar.gz gunzip nmdb221_hpux11_ia64.tar.gz
Linux	gunzip nmdb221_linux_x86.tar.gz gunzip nmdb221_linux_x86_64.tar.gz gunzip nmdb221_linux_ia64.tar.gz
Solaris	gunzip nmdb221_solaris_32.tar.gz gunzip nmdb221_solaris_64.tar.gz

7. Extract the NMDB2 software from the uncompressed download file by using the **tar** command, as shown in Table 7.

Table 7 Extracting the software from the downloaded software file

Operating system	Command to extract the software from the download file
AIX	tar -xvpBf nmdb221_aix_32.tar tar -xvpBf nmdb221_aix_64.tar
HP-UX	tar -xvpBf nmdb221_hpux11_32.tar tar -xvpBf nmdb221_hpux11_64.tar tar -xvpBf nmdb221_hpux11_ia64.tar
Linux	tar -xvpBf nmdb221_linux_x86.tar tar -xvpBf nmdb221_linux_x86_64.tar tar -xvpBf nmdb221_linux_ia64.tar
Solaris	tar -xvpBf nmdb221_solaris_32.tar tar -xvpBf nmdb221_solaris_64.tar

Note: The NMDB2 installation software for Solaris includes both the NMDB2 and NMDB2 Configuration Wizard packages.

8. Remain in the temporary installation directory.

Task 2: Install the NMDB2 software on UNIX

Once you have accessed the software files, you are ready to begin the installation.

To install NMDB2 release 2.1 on a UNIX computer:

1. Ensure that all the installation requirements have been met, as described in "Installation requirements" on page 16.
2. Ensure that you are logged in as the root user on the computer that is running the database server.
3. Ensure that you are in the correct directory, as described in "Task 1: Access the installation files on UNIX" on page 18.

Note: If the installation is *not* started from the correct directory, the installation might fail.

4. Install the software by using the instructions in the appropriate section:
   - "How to install on AIX" on page 21
   - "How to install on HP-UX" on page 21
   - "How to install on Linux" on page 22
   - "How to install on Solaris" on page 22

Note: The NMDB2 Configuration Wizard library named libdb2dc.x is *automatically* installed on the NMDB2 client during the software installation.

5. If the NMDB2 client is on AIX, HP-UX, or Linux, and the NMDB2 Configuration Wizard is on Solaris, ensure that the NMDB2 Configuration Wizard library is installed on the Solaris computer. "How to install on Solaris" on page 22 provides instructions.

6. If the MANPATH environment variable does *not* include the pathname of the directory that contains the NMDB2 man pages, modify the variable to include the correct pathname to enable access to the man pages with the **man** command.

   The NMDB2 man pages are installed in the same location as NetWorker client man pages. For example, if you relocated the NMDB2 software to the relocation_path directory during the installation, ensure that the MANPATH variable includes the following pathname:

   relocation_path/**share**/**man**

7. Enable and register the NMDB2 software. Chapter 4, "Licensing and Enabling the Software" provides instructions.
8. Ensure that the hostname of the computer that is running the wizard is included in the **/nsr/res/servers** file on the NMDB2 client along with the hostnames of all the NetWorker servers authorized to back up the NMDB2 client. The servers file is a text file, which can be modified by using a text editor.
9. Configure the NMDB2 software. The *EMC NetWorker Module for DB2 Administration Guide* provides detailed instructions.

How to install on AIX

To install NMDB2 release 2.1 on an AIX computer that is running DB2 server software, invoke the System Management Interface Tool (SMIT) at the shell prompt.

To install NMDB2 with the SMIT program:

1. Start the SMIT program by typing the following command:

   smit&

2. In the **System Management** list of the main window, select **Software Installation and Maintenance**.
3. In the **Software Installation and Maintenance** list, select **Install and Update Software**.
4. In the **Install and Update Software** list, select **Install and Update from Latest Available Software**.
5. Go to the **Install Software** window.
6. In the **INPUT device/directory for software** text box, type the complete pathname that contains the following package:

   LGTOnmdb2.rte

   Note: Do *not* add the LGTOnmdb2.rte package name at the end of the directory pathname.

7. At the bottom of the list that appears in the **Install Software** window, click **OK**.
8. When prompted to continue, click **OK**.
9. When the installation is complete, click **Done**.

How to install on HP-UX

To install NMDB2 release 2.1 on an HP-UX computer that is running DB2 server software:

1. Type the following commands at the shell prompt:

   # **swinstall**

   The **Specify Source** window is the active window.

2. Follow the on-screen prompts.

3. Check that the **Source Host Name** field displays the correct hostname of the computer where the NMDB2 software is to be installed.
4. Select **Local Directory**.
5. Type the appropriate path in the **Source Depot Path** field:

   /usr/tmp/nsr_extract_nmdb2/*package name*
6. Click **OK**. The **Software Selection** window becomes the active window.
7. In the **Software Selection** window, double-click the line that displays NetWorker Module.
8. Select the appropriate package to be installed:

   LGTOnmdb2.pkg
9. Select the **Actions** menu.
10. Select **Install** from the **Actions** menu to run an install analysis.
11. Click the **Logfile** button to verify that **swinstall** did not find errors in the log file.

    Note: Correct any problems before proceeding with the installation.
12. Click **OK** in the **Install Analysis** window and then click **Yes** in the confirmation dialog box. The **Install** window displays a completion message when the installation is finished.

How to install on Linux

To install NMDB2 release 2.1 on a Linux computer that is running DB2 server software:

1. Type one of the following **rpm** commands at the shell prompt, and resolve any lgtoclnt and glibc dependencies:
   - To install the software in the default directory, type:

     rpm -i lgtonmdb2-2.1-1.i686.rpm
   - To relocate the software to the same relocation path as the NetWorker client, type:

     rpm -i lgtonmdb2-2.1-1.i686.rpm --relocate /usr=*NetWorker_base_directory*

     Note: The software must be installed in the same base directory as the NetWorker client software. The software is *relocatable* during the installation on Linux (*except* on Red Hat Linux 8)—but *only* to the same relocation path as the NetWorker client. For example, if the NetWorker client software is installed in the /disk1 (nondefault) directory, NMDB2 must also be installed in the /disk1 directory.
2. To verify that the installation was successful, type the following command:

   rpm -q -a | grep -i lgtonmdb2

   If the **rpm** command output includes lgtonmdb2-2.1-1, the installation was successful.

How to install on Solaris

To install *either* NMDB2 release 2.1 *or* the NMDB2 Configuration Wizard component or *both* on Solaris, use the appropriate instructions:

1. Verify the *basedir* variable setting in the following file:

   /var/sadm/install/admin/default

   The *basedir* variable in this file can be set to one of three values:

   - If *basedir*=default, the software will be installed in the same directory as the NetWorker client software.
   - If *basedir*=ask, you will be prompted for the name of the base directory where the software will be installed.
   - If *basedir=/dirpath*, the software will be installed in the /dirpath directory. The /dirpath must be the pathname of the NetWorker client software base directory, as determined by this **pkgparam** command:

     ```
     pkgparam LGTOclnt BASEDIR
     ```

   Note: The software must be installed in the same base directory as the NetWorker client software. The software is *relocatable* during the installation on Solaris — but *only* to the same relocation path as the NetWorker client. For example, if the NetWorker client software is installed in the /disk1 (nondefault) directory, the NMDB2 software must also be installed in the /disk1 directory.

2. Type one or both of the following **pkgadd** commands, as appropriate:

   - To install the only NMDB2 software, type this command:

     pkgadd -d /dir_pathname LGTOnmdb2

   - To install the NMDB2 Configuration Wizard component on the Solaris wizard computer, type this command:

     pkgadd -d /dir_pathname LGTOdb2wz

     where /dir_pathname is the complete pathname of the directory that contains the LGTOdb2 or LGTOdb2wz package.

   Note: The Client Configuration Wizard supports NMDB2 release 2.1 only. You cannot use a release of NMDB2 earlier than release 2.1 to run the wizard. To launch the wizard, you must be logged in as a root user on UNIX platforms or as a member of the Microsoft Windows Administrators group.

3. Complete the NMDB2 installation, depending on the *basedir* variable setting in the /var/sadm/install/admin/default file:

   - If *basedir*=default, type **y** when prompted whether to continue the installation.

     The software is installed in the same directory as the NetWorker client software.

   - If *basedir*=ask, perform the following:

     a. Type the result of the **pkgparam LGTOclnt BASEDIR** command when prompted for the pathname of the base directory.

     b. Type **y** when prompted whether to continue the installation.

     The software is installed in the specified base directory.

   - If *basedir=/dirpath*, type **y** when prompted whether to continue the installation.

     The software is installed in the specified /dirpath directory.

   - If an incorrect pathname is typed at the prompt, the installation displays an error and the software is installed in the incorrect directory.

In this case:

a. Uninstall the software by typing the following command:

```
pkgrm LGTOnmdb2
```

b. Reinstall the software by typing the correct pathname at the first **pkgadd** prompt.

- If /dirpath is *not* the base directory where the NetWorker client software is installed, the installation displays an error and the software is installed in the incorrect directory.

  In this case:

  a. Uninstall the software by typing the **pkgrm LGTOnmdb2** command.

  b. Correct the *basedir*=/dirpath in the following file:

  ```
  /var/sadm/install/admin/default
  ```

  c. Reinstall the software.

4. If required, register the NMDB2 Configuration Wizard libraries, as described in Appendix A, "Configuration Wizard Registration."

Install procedures for cluster environments

To configure the NMDB2 software in a cluster environment, you must configure the software for each node in the cluster:

For each each node in a cluster:

1. Install the NMDB2 software.
2. Create a file named DB2_CFG that contains all of the required environment settings.
3. Create a separate Client resource for each physical and virtual hostname.

The *EMC NetWorker Module for DB2 Release 2.1 Administration Guide* provides detailed information on how the configure the NMDB2 software in a cluster.

Uninstall procedures on UNIX

To uninstall DB2 version 2.1 on a UNIX computer, follow the instructions in the appropriate section:

- "How to uninstall on AIX" on page 25
- "How to uninstall on HP-UX" on page 25
- "How to uninstall on Linux" on page 26
- "How to uninstall on Solaris" on page 26

Note: The appropriate *EMC NetWorker Module for DB2 Installation Guide* describes how to uninstall a previous release of the NMDB2 software.

How to uninstall on AIX

Uninstall NMDB2 release 2.1 on AIX by using the SMIT program.

To uninstall NMDB2 with the SMIT program:

1. Log in as root on the computer that is running the database server software.
2. Verify that no database backups are running.
3. Type the following at the command line:

   ```
   smit &
   ```

4. In the **System Management** list of the main window, select **Software Installation and Maintenance**.
5. In the **Software Installation and Maintenance** list, select **Software Maintenance and Utilities**.
6. In the **Software Maintenance and Utilities** list, select **Remove Installed Software**.
7. In the **Software Name** text box, type the following and click **OK**:

   ```
   LGTOnmdb2.rte
   ```

8. When prompted to continue, click **OK**.
9. When the uninstall is complete, click **Done**.

How to uninstall on HP-UX

To uninstall NMDB2 release 2.1 on HP-UX:

1. Log in as root on the system running database server.
2. Verify that no database backups are running.
3. Type the following command at the shell prompt:

   ```
   # swremove
   ```

4. From the **Software Selection** window, select the NMDB2 package that you want to remove.
5. Select **Remove** from the **Actions** window to run an analysis when the **Status** field displays **Ready**.
6. Click the **Logfile** button to check for any error or warning messages. Fix any problems before you continue with the operation.
7. Click **OK** in the **Remove Analysis** window to proceed with the remove operation.
8. Click **Yes** in the **Confirmation** dialog box. The **Remove** window appears showing the status of the removal operation. The **Status** field displays **Completed** when the software removal is finished.
9. To exit from the **swremove** utility, click **Done** in the **Remove** window, and then select **Exit** from the **File** menu in the **Software Selection** window.

How to uninstall on Linux

To uninstall NMDB2 release 2.1 on Linux:

1. Log in as root on the computer that is running the DB2 server software.
2. Verify that no database backups are running.
3. Determine the name of the installed EMC package by typing the following command:

   ```
   rpm -q -a | grep lgto
   ```

4. Type the following command to uninstall the NMDB2 software:

   rpm -e *package_name*

   where *package_name* is the package name determined in step 3.

How to uninstall on Solaris

To uninstall NMDB2 release 2.1 on Solaris:

1. Log in as root on the computer that is running the database server software.
2. Verify that no database backups are running.
3. Type one or both of the following commands, depending on the packages installed:
   - **pkgrm LGTOnmdb2**
   - **pkgrm LGTOdb2wz**
4. Complete the uninstall according to the *basedir* variable setting in the /var/sadm/install/admin/default file:
   - If *basedir*=default in the file, type **y** when prompted.

     The software is uninstalled from the directory containing the NetWorker client software.
   - If *basedir*=ask in the file, type the result of the **pkgparam LGTOnmdb2 BASEDIR** command when prompted for the pathname of the base directory.

     The software is uninstalled from the specified base directory.
   - If *basedir=/dirpath* in the file, type **y** when prompted.

     The software is uninstalled from the specified /dirpath directory.

3 Installation on Windows

This chapter provides instructions for installing and uninstalling NMDB2 release 2.1 on a supported Microsoft Windows 2000 or 2003 computer.

This chapter includes the following sections:

Installation requirements

Ensure that the installation requirements in the following sections are met:

- "NMDB2 requirements" on page 28
- "NMDB2 Configuration Wizard requirements" on page 28

Note: After the installation, if the NetWorker software on the DB2 database server is updated and the NetWorker client installation directory is changed to a different location, the NMDB2 software must be uninstalled and reinstalled according to the instructions in this chapter.

NMDB2 requirements

Ensure that the computer with the NMDB2 software is equipped with the following:

- A supported 32-bit Windows 2000 or 2003 operating system with Service Pack 2 or later.
- DB2 version 8.*x*.
- NetWorker server or client release 7.*x*.

  Note: If you plan to use the NMDB2 Configuration Wizard, you must install NetWorker server or client release 7.2 or later.

- Approximately 6 MB of available space in the directory where the NetWorker binaries are installed.
- A directory, either on the NetWorker server or the computer that is running the database instance, with approximately 1 MB of space for the online documentation files. The Adobe Acrobat Reader software must also be installed.

The current *EMC Information Protection Software Compatibility Guide* provides more information on the supported operating systems, DB2 software, and NetWorker software.

NMDB2 Configuration Wizard requirements

The NMDB2 Configuration Wizard can be used on Solaris (SPARC) or Windows *only* to configure scheduled DB2 backups.

Note: The NMDB2 Configuration Wizard supports NMDB2 release 2.1 only. You cannot use a release of NMDB2 earlier than release 2.1 to run the wizard. To launch the wizard, you must be logged in as a root user on UNIX platforms or as a member of the Microsoft Windows Administrators group.

To enable the NMDB2 Configuration Wizard, ensure that the following requirements are met:

1. The required NetWorker server and client software is installed:
   - NetWorker server release 7.2 or later on the server.
   - NetWorker client release 7.2 or later on the NMDB2 client.

   The *EMC NetWorker Installation Guide* provides details on how to install the NetWorker software.

2. The NetWorker Configuration Wizard release 1.0 (packaged with NetWorker 7.2 or later) is installed on the wizard computer.

Note: It is recommended that the NMDB2 Configuration Wizard be installed on the same computer as the NetWorker server.

The *EMC NetWorker Release Notes* provides further details on how to install the wizard.

Files installed during installation

The NMDB2 software is installed in the same directory as the NetWorker client executables. For example: *%SystemDrive%*\Program Files\Legato\nsr\bin

The following NMDB2 software files are installed:

- nsrdb2sv.exe — NMDB2 backup program
- nsrdb2ce.exe — NMDB2 recover program
- libnmdb2dc.dll — NMDB2 client library
- libnmdb2wiz.dll — NMDB2 Configuration Wizard library
- libnsrdb2.dll — NMDB2 library for backup and restore operations

Installation procedures on Windows

To install NMDB2 release 2.1 on a Windows computer, complete the following steps:

- "Task 1: Optional, uninstall the previous release of NMDB2 software" on page 29
- "Task 2: Access the installation files on Windows" on page 29
- "Task 3: Install the NMDB2 software on Windows" on page 30

Task 1: Optional, uninstall the previous release of NMDB2 software

To uninstall a previous release of the NMDB2 software:

1. Open the directory on the CD-ROM or hard drive from which you installed the previous NMDB2 release.
2. Type **setup.exe** to start the NMDB2 Setup program.
3. Click **Uninstall**, and click **Next**.

Note: When uninstalling the NMDB2 software from a cluster, perform this procedure on each node in the cluster.

Task 2: Access the installation files on Windows

Access the installation files from one of either a local CD-ROM or the EMC website.

From a local CD-ROM

To access the NMDB2 installation software from a local CD-ROM:

1. Log in as Administrator or equivalent on the DB2 server.
2. Insert the NetWorker Module CD-ROM into the CD-ROM drive.

3. Select the CD-ROM drive from the File Manager or Windows Explorer.
4. Change to the **db2\win_x86\networkr** directory.
5. If the System Environment Variable Path does not contain the NetWorker installation directory, add it and restart the database instances.

From the website

To access the *evaluation* release of the NMDB2 software from the EMC website:

1. Log in as Administrator or equivalent on the DB2 server.
2. Create a temporary installation folder in a local file system with sufficient free disk space (8 MB) to contain the downloaded software file.
3. Go to http://Powerlink.EMC.com.
4. Select **Home** > **Support** > **Downloads and Patches** > **Downloads D-R** > **NetWorker Module**.
5. Download the evaluation software to the temporary folder and change to that folder.
6. Extract the downloaded file to the temporary folder.
7. Change to the folder that was created by extracting the downloaded file. For example: networkr
8. If the System Environment Variable Path does not contain the NetWorker installation folder, add it and restart the database instances.

Task 3: Install the NMDB2 software on Windows

Once you have accessed the NMDB2 software files, you are ready to begin the installation. Install the NMDB2 files on the same computer you installed the NetWorker client and the database software.

Note: If you plan to use the NMDB2 Configuration Wizard on 32-bit Windows to configure scheduled NMDB2 backups, you must *first* install the NetWorker server or client release 7.2 or later, and then install the NetWorker Configuration Wizard. You can then install NMDB2. The "NMDB2 Configuration Wizard requirements" on page 28 gives more information on the NMDB2 Configuration Wizard.

To install NMDB2 release 2.1 on a Windows computer that is running DB2 server software:

1. Run the appropriate program from the **networkr** directory to launch the NMDB2 Setup program:
   - If installing from the NetWorker Module CD-ROM, run **setup.exe**.
   - If installing from a file downloaded from the EMC website, run **nmdb221_win_x86.exe**.
2. In the **Setup** dialog box, click **Next**.
3. 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**. The **Setup Type** dialog box appears.
4. In the **Setup Type** dialog box, select one of the following and click **Next**.
   - **Complete** — Allows you to install both NMDB2 and the NMDB2 Configuration Wizard library. If you select this option, continue to step 6.

- **Custom** — Allows you to select either NMDB2 or the NMDB2 Configuration Wizard library, or to select both for installation. If you select this option, the **Custom Setup** dialog box appears.

Note: If you use the **Custom** option to install NMDB2 *only*, you can rerun the Setup program later in maintenance mode to install the NMDB2 Configuration Wizard library by following the instructions in "Maintaining the installation on Windows" on page 32.

5. If you selected **Complete** in the previous step, continue to step 6.

   If you selected **Custom** in the previous step, specify each NMDB2 component to be installed by clicking each icon and selecting the appropriate menu option. Click **Next**.

   For example, to install NMDB2 only without the NMDB2 Configuration Wizard library:

   a. Click the **NMDB2 Module** icon, and select **This feature will be installed on local hard drive**.

   b. Click the **NMDB2 Configuration Wizard** icon, and select **This feature will not be available**.

   c. Click **Next**.

Note: If the NMDB2 Configuration Wizard is located on a separate computer, only install NMDB2 software. Install the NMDB2 Configuration Wizard component on the computer that hosts the wizard.

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

   The Setup program installs the NMDB2 binaries in the same directory as the NetWorker client binaries (the NetWorker_install_path\bin directory) by default.

Note: If the Setup program detects *no* NetWorker client binaries, it displays an error message and exits *without* installing the NMDB2 software.

7. In the **Completing the NMDB2 2.1 Setup** dialog box, click **Finish** to exit the wizard.
8. Verify that the system PATH environment variable includes the NetWorker client installation directory. If required, add the NetWorker client installation directory to the system PATH variable.

Note: Do *not* include any spaces *before* or *after* the NetWorker client directory pathname in the system PATH environment variable. The NetWorker client directory pathname *itself* can contain spaces.

9. Enable and register the NMDB2 software. Chapter 4, "Licensing and Enabling the Software" gives instructions.
10. Ensure that the hostname of the computer that is running the wizard is included in the *NetWorker_install_path***res****servers** file on the NMDB2 client along with the hostnames of all the NetWorker servers authorized to back up the NMDB2 client. The servers file is a text file, which can be modified by using a text editor.
11. If required, register the NMDB2 Configuration Wizard libraries, as described in Appendix A, "Configuration Wizard Registration."

Maintaining the installation on Windows

After the NMDB2 software is installed, you can run the Setup program in maintenance mode to modify, repair, or remove the existing installation.

The following sections describe how to modify, repair, or remove the existing installation:

How to run the setup program in maintenance mode

To run the Setup program in maintenance mode:

1. Ensure that you are logged in as root user on UNIX platforms or as a member of the Microsoft Windows Administrators group.
2. Change to the directory that contains the NMDB2 installation files, as described in "Task 2: Access the installation files on Windows" on page 29, and run the program used to install NMDB2.
3. In the **Welcome** dialog box, click **Next**.

   The Setup program detects the existing NMDB2 installation and displays the **Program Maintenance** dialog box.
4. Select the maintenance task to perform, and click **Next** to proceed to the task:
   - **Modify** — Allows you to add and remove the NMDB2 software components in the existing installation. "How to add and remove NMDB2 components" on page 32 provides details.
   - **Repair** — Allows you to replace missing or corrupted files in the existing NMDB2 installation. "How to repair an NMDB2 installation" on page 33 provides details.
   - **Remove** — Allows you to remove the entire NMDB2 installation, including any installed NMDB2 Configuration Wizard libraries. You can also use the Windows Control Panel Add/Remove program to remove the NMDB2 installation. "Uninstall procedures on Windows" on page 33 provides details.

How to add and remove NMDB2 components

To add and remove components in the existing NMDB2 installation:

1. Start the Setup program in maintenance mode. "How to run the setup program in maintenance mode" on page 32 provides details.
2. In the **Program Maintenance** dialog box, select **Modify** and click **Next**.
3. In the **Custom Setup** dialog box, click the icon of each NMDB2 component and select the appropriate menu option. Click **Next**.
   - To specify that a component is to be installed, click its icon and select **This feature will be installed on local hard drive**.
   - To specify that a component is to be uninstalled, click its icon and select **This feature will not be available**.

Note: The NMDB2 Configuration Wizard library is available for installation only if the NetWorker release 7.2 or later software has been installed. The "NMDB2 Configuration Wizard requirements" on page 28 gives more information about NMDB2 support for the NetWorker Configuration Wizard.

4. In the **Ready to Install** dialog box, click **Install**.

   The Setup program installs NMDB2 binaries in the same directory as the NetWorker client binaries (the NetWorker_install_path\bin directory) by default.

   Note: If the Setup program detects *no* NetWorker client binaries, it displays an error message and exits *without* installing the NMDB2 software.

5. In the **Completing the NMDB2 2.1 Setup** dialog box, click **Finish** to exit the wizard.
6. Restart the Windows system.
7. Ensure that the NMDB2 software is enabled and registered. Chapter 4, "Licensing and Enabling the Software" provides instructions.
8. Ensure that the hostname of the computer that is running the wizard is included in the file *NetWorker_install_path***res****servers** on the NMDB2 client along with the hostnames of all the NetWorker servers authorized to back up the NMDB2 client. The servers file is a text file, which can be modified by using a text editor.
9. If required, register the NMDB2 Configuration Wizard libraries. Appendix A, "Configuration Wizard Registration" describes how to do this.

How to repair an NMDB2 installation

To repair an existing NMDB2 installation:

1. Start the Setup program in maintenance mode. "How to run the setup program in maintenance mode" on page 32 provides details.
2. In the **Program Maintenance** dialog box, select **Repair** and click **Next**.
3. In the **Ready to Install** dialog box, click **Install** to begin the installation. The Setup program reinstalls the NMDB2 software files as required.
4. Restart the Windows system.

Uninstall procedures on Windows

Uninstall NMDB2 release 2.1 on a Windows computer by using either the Setup program or the Add/Remove Programs tool in the Windows Control Panel.

Note: If uninstalling the NMDB2 software from a cluster, perform the uninstall procedure on *each* required node of the cluster.

How to uninstall with the setup program

To uninstall NMDB2 with the Setup program:

1. Log on as Administrator or equivalent on the DB2 server.
2. Ensure that no DB2 database backups are running.
3. Start the Setup program in maintenance mode. "How to run the setup program in maintenance mode" on page 32 provides details.
4. In the **Program Maintenance** dialog box, select **Remove** and click **Next**.
5. In the **Ready to Remove** dialog box, click **Remove** to start the uninstall process.
6. When the completion message appears, click **Finish**.

How to uninstall with the Control Panel

To uninstall NMDB2 with the Control Panel:

1. Log on as Administrator or equivalent on the DB2 server.
2. Ensure that no DB2 database backups are running.
3. From the Windows **Start** menu, select **Control Panel**.
4. In the **Control Panel** dialog box, double-click **Add/Remove Programs**.
5. In the **Add/Remove Programs** dialog box, select **NetWorker Module for DB2** and click **Remove**.
6. When the confirmation message appears, click **Yes**.
7. When the uninstall completes, close the **Control Panel** dialog box.

4

Licensing and Enabling the Software

The chapter includes these sections:

How software is licensed

Software and added features, such as modules, are installed in evaluation mode with all of the features enabled. The licensing of software means entry of enabler and authorization codes on the server for the environment. Without these codes, the software or added features will *not* run beyond the evaluation period.

Each installation of server software must be licensed with a base enabler. This enabler "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. The server enforces the licensing.

Base enablers come in different editions, which enable varying degrees of functionality. Add-on enablers allow a broader scope of features.

The steps in this chapter assume that the software is installed and that all of the software and hardware requirements have been met on the computer that will access the NetWorker Console.

The evaluation process

You can evaluate software two ways:

- By evaluating a new installation of the software on a server.
- By evaluating features on an existing installation.

Evaluating a new installation

When you first install the software, you can evaluate it with all the modules and features for 30 days free without entering any codes.

By the end of the evaluation period, you must purchase, enter, and authorize a base enabler to continue to use the software to back up data. The base enabler is the license that enables the edition purchased.

To continue to use some of the modules and features that were available with the evaluation software, you might need to purchase add-on enablers, depending on the edition of the base enabler.

Evaluating features on an existing installation

If you are evaluating one or more NetWorker Modules or features on an edition of software that has already been installed and enabled, enter a temporary enabler for each module or feature. The temporary enabler is valid for 45 days.

By the end of the evaluation period, you must purchase, install, and authorize the corresponding license enablers to continue to use modules or features you have evaluated.

- "The licensing process" on page 38 provides instructions.
- "Multiplatform licensing" on page 41 provides information on the different features.

Entering a temporary enabler code

CAUTION

The temporary enabler code is valid on only one computer in a network. If you enter the same code on more than one computer in a network, a copy protection violation error occurs and the server software is disabled on all servers with duplicate enablers.

NetWorker server release 7.2.*x* or earlier

To enter the temporary enabler code:

On UNIX

1. Log in as root or as NetWorker administrator on the NetWorker server.
2. Start the **NetWorker Administrator** program:

   ```
   nwadmin &
   ```

3. From the **Server** menu, select **Registration**.

   The **Registration** window opens.

4. Click **Create**.
5. In the **Enabler Code** attribute, enter the enabler code.
6. (Optional) In the **Comment** attribute, enter a description of the license.
7. Click **Apply**.

On Windows

1. Log in with administrator privileges to the NetWorker server.
2. Start the **NetWorker Administrator** program.
3. On the **Configure** tab, click **Registration**.

   The **Registration** window opens.

4. Right-click **Registration** and select **Create**.
5. In the **Create Registration** window, enter the enabler code in the **Enabler Code** attribute.
6. (Optional) In the **Comment** attribute, enter a description of the license.
7. Click **OK**.

NetWorker server release 7.3 or later

To enter the temporary enabler code:

1. Start the **Management Console** software.
2. Open the **Administration** window:
   a. In the **Console** window, click **Enterprise**.
   b. In the left pane, select a server in the **Enterprise** list.
   c. In the right pane, select the application.
   d. From the **Enterprise** menu, click **Launch Application**.

   The **Administration** window is launched as a separate application.

3. From the **Administration** window, click **Configuration**.

4. In the left pane, select **Registration**.
5. From the **File** menu, select **New**.
6. In the **Enabler Code** attribute, type the enabler code.
7. In the **Name** attribute, type the name of the license.
8. (Optional) In the **Comment** attribute, type a description of the license.
9. Click **OK**.

The licensing process

To permanently use software, you must purchase and enter a license enabler code, and then authorize it. This licensing process is the same for all editions of software as well as for individual modules and features.

The license enabler code that you purchase is valid for 45 days, as a registration period. During the registration period, you must obtain and enter a corresponding authorization code.

These sections explain how to enter and authorize the license enabler:

- "Task 1: Enter the license enabler code" on page 38
- "Task 2: Obtain an authorization code" on page 40
- "Task 3: Enter the authorization code" on page 40

Task 1: Enter the license enabler code

Note: To save time when entering multiple licenses, enter the base enabler last. Otherwise, once a base enabler is entered, devices that do not yet have licenses entered could become disabled. Those devices would have to be reenabled manually after their licenses are installed.

NetWorker server release 7.2.*x* or earlier

To enter the license enabler code:

On UNIX

1. Log in as root or as NetWorker administrator on the NetWorker server.
2. Start the **NetWorker Administrator** program:

   ```
   nwadmin &
   ```

3. From the **Server** menu, select **Registration**.

   The **Registration** window opens.

4. If the **Registration** list displays a temporary enabler for the product or feature being licensed, select the enabler and click **Delete**.
5. In the **Registration** window, click **Create**.
6. In the **Enabler Code** attribute, enter the enabler code.
7. (Optional) In the **Comment** attribute, enter a description of the license.
8. Click **Apply**.

Repeat step 1 to step 8 to add any additional enabler codes.

On Windows

1. Log in with administrator privileges to the NetWorker server.
2. Start the **NetWorker Administrator** program.
3. On the **Configure** tab, click **Registration**.

   The **Registration** window opens.
4. If a temporary enabler is listed, right-click the enabler and select **Delete**.
5. In the **Registration** window, right-click **Registration** and select **Create**.
6. In the **Create Registration** window, enter the enabler code in the **Enabler Code** attribute.
7. (Optional) In the **Comment** attribute, enter a description of the license.
8. Click **OK**.

Repeat step 1 to step 8 to add any additional enabler codes.

After you enter a license enabler code, you have 45 days as a registration period to authorize the NetWorker software.

NetWorker server release 7.3 or later

To enter the license enabler code:

1. Start the **Management Console** software.
2. Open the **Administration** window:
   a. In the **Console** window, click **Enterprise**.
   b. In the left pane, click a server in the **Enterprise** list.
   c. In the right pane, click the application.
   d. From the **Enterprise** menu, select **Launch Application**.

   The **Administration** window is launched as a separate application.
3. In the **Administration** window, click **Configuration**.
4. In the left pane, select **Registrations**.
5. From the **File** menu, select **New**.

   The **Create Registration** dialog box appears.
6. In the **Enabler Code** attribute, type the enabler code.
7. In the **Name** attribute, type the name of the license.
8. (Optional) In the **Comment** attribute, type a description of the license.
9. Click **OK**.

The new license is added and appears in the right pane. Repeat step 1 to step 9 to add any additional enabler codes.

After you type a license enabler code, you have 45 days as a registration period to authorize the software.

Task 2: Obtain an authorization code

IMPORTANT

If the software or feature is *not* authorized by the end of the 45-day registration period, the backup function or feature is disabled. However, data that was backed up during the registration period can still be recovered from local devices.

Task 3: Enter the authorization code

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

If the authorization process is successful, the expiration date for the license displays "Authorized - No expiration date." If the authorization is not verified in this way, contact the http://Powerlink.EMC.com website.

To avoid an interruption in scheduled backups if you move the software from one computer to another, or to change the network address of a computer after the software is installed, perform one of the following:

- Obtain a new authorization code. You need the host ID of the original server as well as the new server. The host ID appears in the server's Registration window.
- Install and configure the NetWorker License Manager software. "Managing licenses" on page 42 provides information on use of the NetWorker License Manager, and the latest NetWorker License Manager Installation and Administration Guide.

NetWorker server release 7.2.*x* or earlier

To enter the authorization code:

On UNIX

1. Log in as root or as NetWorker administrator on the NetWorker server.
2. Start the **NetWorker Administrator** program:

   ```
   nwadmin &
   ```

3. From the **Server** menu, select **Registration**.

   The **Registration** window opens.

4. Select the appropriate license.
5. In the **Auth Code** field, enter the authorization code.
6. Click **Apply**.

On Windows

1. Log in with administrator privileges to the NetWorker server.
2. Start the **NetWorker Administrator** program.
3. On the **Configure** tab, click **Registration**.

   The **Registration** window opens.

4. Right-click the appropriate license and select **Edit**.
5. In the **Auth Code** field, enter the authorization code.

6. Click **OK**.

The license is now permanently enabled.

NetWorker server release 7.3 or later

To enter the authorization code:

1. Start the **Management Console** software.
2. Open the **Administration** window:
   a. In the **Console** window, click **Enterprise**.
   b. In the left pane, select a server in the **Enterprise** list.
   c. In the right pane, click the application.
   d. From the **Enterprise** menu, select **Launch Application**.

   The **Administration** window is launched as a separate application.
3. In the **Administration** window, click **Configuration**.
4. In the left pane, select **Registration.**
5. In the right pane, select a license.
6. From the **File** menu, select **Properties**.
7. In the **Auth Code** attribute, type the authorization code for the product. The authorization code is the code assigned to the specified permanent enabler or update enabler code.
8. Click **OK**.

The license is now permanently enabled.

Multiplatform licensing

The client connections that come with a server can be used for only that server platform. An EMC ClientPak® license allows the server to back up clients of different platforms. For example:

- Windows: The client connections that accompany a NetWorker server for Microsoft Windows can be used for Windows client computers only.
- Solaris: The client connections that accompany a server for Solaris can be used for Solaris clients only.
- With ClientPak for UNIX software, other UNIX platforms can be enabled for use with a server for Solaris. ClientPak for UNIX supports all UNIX platforms and is sufficient for all UNIX clients that are backed up by a UNIX or Windows server.

Note: The NetWorker software treats Linux as a separate operating system. A ClientPak for Linux is necessary to back up Linux clients by either UNIX or Windows servers.

Example 1 **Multiplatform licensing scenarios**

A company was using a Linux server to back up Solaris, Linux, and Microsoft Windows clients. It needed two ClientPak licenses, one for Solaris and one for Microsoft Windows. The company added HP-UX and AIX clients, which required the addition of a ClientPak license for UNIX.

As the company grew and needed to add a server, it added a Windows 2000 server, which backed up the existing Windows clients and subsequent Windows 2000 clients without requiring a ClientPak. The company assigned the NetWorker server to a Solaris computer to back up the HP-UX, Solaris, and AIX clients by using a single ClientPak for UNIX.

Additional licenses

This section describes a few of the additional licenses that are required to operate some of the features.

Client connection licenses

Every computer to be backed up in a datazone requires a client connection license, even the server. The client connection license may be one of the licenses that is supplied with the base enabler or purchased separately. A cluster client or NDMP data server requires a special type of client connection license.

Storage nodes

Each storage node requires a storage node license, in addition to its client connection license. A dedicated storage node, which allows the storage node to back up only itself, is licensed separately.

NetWorker Application Modules

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

Cluster clients

For each physical node in a cluster, you must purchase a Cluster Client Connection, which takes the place of one standard client connection. The *EMC NetWorker Administration Guide* provides information on how to license computers in a cluster.

NDMP licensing

NDMP licensing requires one NDMP Client Connection per NDMP data server. The NDMP Client Connection is valid for any supported NDMP data server. The NDMP data server does not require a standard client connection.

Managing licenses

The NetWorker License Manager software provides centralized license management, which enables you to maintain all of an enterprise's licenses from a single computer. With the NetWorker License Manager, you can move software from one computer to another, or change the IP address on an existing server without having to reauthorize the software. The NetWorker License Manager can be installed as an option during the software installation.

To begin to implement the NetWorker License Manager:

1. Obtain bulk enabler codes.
2. Install the NetWorker License Manager software.
3. Configure the NetWorker License Manager software.

4. Configure the NetWorker servers to access the NetWorker License Manager for their licenses.

The latest NetWorker License Manager Installation and Administration Guide provides more information on how to install and use the NetWorker License Manager.

A

Configuration Wizard Registration

This appendix describes the registration requirements for the libraries that are used with the NMDB2 Configuration Wizard.

This appendix contains the following sections:

Registering the wizard libraries on UNIX

The NMDB2 Configuration Wizard libraries must be registered *only* if the NetWorker Configuration Wizard on Solaris is to be used to configure scheduled backups of the NMDB2 client.

Note: The NMDB2 Configuration Wizard supports only NetWorker release 7.2 and later.

The client can be either on the same Solaris computer as the wizard or on a remote UNIX computer.

- If the wizard libraries were installed on a computer that contains NetWorker release 7.1.*x* or earlier, the libraries were *not* registered automatically during the install. They must be registered *manually* after the NetWorker software has been updated to release 7.2 or later.
- If the wizard libraries were installed on a computer containing NetWorker release 7.2 or later software, the libraries were registered *automatically* during the install, and no further action is required.

To enable the NMDB2 Configuration Wizard on Solaris to configure scheduled NMDB2 backups, the following libraries must be registered:

- On the NMDB2 client, the library libnmdb2dc.*xx*, is installed with the NMDB2 software package LGTOnmdb2; where the value of *xx* is is dependent on the operating system.

  Table 4, "NMDB2 library directories," on page 18 lists the NMDB2 libraries.

- On the Solaris computer where the NMDB2 Configuration Wizard is located, the library libnmdb2wiz.so is installed with the LGTOdb2wz package.

To confirm that a library is registered, review the contents of the corresponding resource files in /nsr/res.

- The /nsr/res/nsrwizclnt.res file corresponds to the library libnmdb2dc.*xx*.
- The /nsr/res/nsrwizcon.res file corresponds to the library libnmdb2wiz.so.

If the resource file contains the following line for the plug-in type NMDB2 (showing the release as 2.1), then the corresponding library is properly registered:

```
Library versions: 2.1;
```

If 2.1 is missing from this line in the resource file, the corresponding library is *not* registered. The library must be registered *manually* before the NMDB2 Configuration Wizard can be used to configure scheduled NMDB2 backups.

To manually register a library file, type the appropriate command:

- To register the 32-bit version of the libnmdb2dc32.*xx* library, type this command:

```
"NetWorker_install_path/nsrwizreg" -t NMDB2
-n "NetWorker Module for DB2"
-p "complete_library_path/libnmdb2dc32.xx" -v 2.1
-f nsrwizclnt.res -a
```

- To register the 64-bit version of the libnmdb2dc.*xx* library, type this command:

```
"NetWorker_install_path/nsrwizreg" -t NMDB2
-n "NetWorker Module for DB2"
-p "complete_library_path/libdb2dc.xx" -v 2.1
-f nsrwizclnt.res -a
```

- To register the libdb2wiz.so library, type this command:

```
"NetWorker_install_path/nsrwizreg" -t NMDB2
-n "NetWorker Module for DB2"
-p "complete_library_path/libnmdb2wiz.so" -v 2.1
-f nsrwizcon.res -a
```

For more information on the **nsrwizreg** command, can be found in the following:

- The **nsrwizreg** entry in the EMC NetWorker Command Reference Guide.
- The **nsrwizreg** man page on UNIX.

Registering the wizard libraries on Windows

The NMDB2 Configuration Wizard libraries must be registered *only* if the NetWorker Configuration Wizard is to be used on 32-bit Windows to configure scheduled backups of the NMDB2 client.

Note: The NMDB2 Configuration Wizard supports only NetWorker release 7.2 and later.

The client can be either on the same Windows computer as the wizard or on a remote computer.

- If the wizard libraries were installed on a computer that contains NetWorker release 7.1.*x* or earlier, the libraries were *not* registered automatically during the install. They must be registered *manually* after the NetWorker software has been updated to release 7.2 or later.
- If the wizard libraries were installed on a computer that contains NetWorker release 7.2 or later software, the libraries were registered *automatically* during the install, and no further action is required.

To enable the NMDB2 Configuration Wizard on 32-bit Windows to configure scheduled NMDB2 backups, the following libraries must be registered:

- On the NMDB2 client, the libnmdb2dc.dll library.
- On the 32-bit Windows computer where the NMDB2 Configuration Wizard is located, the libnmdb2wiz.dll library.

To confirm that a library is registered, review the contents of the corresponding resource files in *NetWorker_install_path*\nsr\res.

- The *NetWorker_install_path*\nsr\res\nsrwizclnt.res file corresponds to the libnmdb2dc.dll library.
- The *NetWorker_install_path*\nsr\res\nsrwizcon.res file corresponds to the libnmdb2wiz.dll library.

If the resource file contains the following line for the plug-in type NMDB2 (showing the release as 2.1), then the corresponding library is properly registered:

```
Library versions: 2.1
```

If 2.1 is missing from this line in the resource file, the corresponding library is *not* registered. The library must be registered *manually* before the NMDB2 Configuration Wizard can be used to configure scheduled NMDB2 backups.

To manually register a library file, type the appropriate command:

- To register the libnmdb2dc.dll library, type this command:

```
"NetWorker_install_path\nsrwizreg.exe" -t NMDB2
-n "NetWorker Module for DB2"
-p "complete_library_path\libnmdb2dc.dll" -v 2.1
-f nsrwizclnt.res -a
```

- To register the libnmdb2wiz.dll library, type this command:

```
"NetWorker_install_path\nsrwizreg.exe" -t NMDB2
-n "NetWorker Module for DB2"
-p "complete_library_path\libnmdb2wiz.dll" -v 2.1
-f nsrwizcon.res -a
```

The *EMC NetWorker Command Reference Guide* provides more information on the **nsrwizreg** command.