



**EMC[®] NetWorker[®]
Module for Sybase**

Release 3.0
UNIX Version

Installation Guide

P/N 300-004-708
REV A01

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Published June, 2007

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As part of its effort to continuously improve and enhance the performance and capabilities of its software products, EMC periodically releases new versions of its hardware and software. Therefore, some functions described in this document may not be supported by all revisions of the software or hardware currently in use. The release notes for this product provide the most up-to-date information on product features.

Audience This guide is part of the NetWorker Module for Sybase documentation set, and is intended for use by system administrators during configuration of the NetWorker Module for Sybase software.

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

- ◆ EMC NetWorker software
- ◆ Sybase software

Organization Here is a list of where information is located in this document.

[Chapter 1, "Installation Roadmap,"](#) provides the installation roadmap and the installation checklist that you must review before starting the NetWorker Module for Sybase installation.

[Chapter 2, "Installing on AIX,"](#) describes installation on the AIX platform.

[Chapter 3, "Installing on HP-UX,"](#) describes installation on the HP-UX PA-RISC platform.

[Chapter 4, "Installing on Linux,"](#) describes installation on the Linux platform.

[Chapter 5, "Installing on Solaris,"](#) describes installation on the Solaris SPARC and Solaris AM64 platform.

[Chapter 6, "Licensing and Enabling the Software,"](#) describes enabling and licensing of the software.

Related documentation

Related documents include:

- ◆ *EMC NetWorker Module for Sybase, Release 3.0, UNIX Version, Administration Guide*
- ◆ *EMC NetWorker Module for Sybase, Release 3.0, UNIX Version, Release Notes*
- ◆ *EMC NetWorker Administration Guide* for the appropriate operating system
- ◆ *EMC NetWorker Release Notes* for the appropriate operating system
- ◆ UNIX man pages
- ◆ *EMC Command Reference Guide*
- ◆ *EMC Information Protection Software Compatibility Guide*

Conventions used in this document

EMC uses the following conventions for notes and cautions.

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 configuration.



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 font

In running text:

- Interface elements (for example, button names, dialog box names) outside of procedures
- Items that user selects outside of procedures
- Java classes and interface names
- Names of resources, attributes, pools, Boolean expressions, buttons, DQL statements, keywords, clauses, environment variables, filenames, functions, menu names, utilities
- Pathnames, URLs, filenames, directory names, computer names, links, groups, service keys, file systems, environment variables (for example, command line and text), notifications

Bold

In procedures:

- Names of dialog boxes, buttons, icons, menus, fields
- Selections from the user interface, including menu items and field entries
- Key names
- Window names

In running text:

- Command names, daemons, options, programs, processes, notifications, system calls, man pages, services, applications, utilities, kernels.

Italic

Used for:

- Full publications titles referenced in text
- Unique word usage in text

Bold Italic

Anything requiring extra emphasis

`Courier`

Used for:

- System output
- Filenames
- Complete paths
- command-line entries
- URLs

`Courier, bold`

Used for:

- User entry
- Options in command-line syntax

`Courier, italic`

Used for:

- Arguments used in examples of command-line syntax
- Variables in examples of screen or file output
- Variables in path names

`Courier, bold, italic`

Variables used in a command-line sample

< >	Angle brackets enclose parameter or variable values supplied by the user
[]	Square brackets indicate 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.

This chapter provides an installation roadmap and checklist for installing the NetWorker Module for Sybase software.

This chapter includes the following sections:

- ◆ [Installation roadmap](#)..... 2
- ◆ [Installation checklist](#) 2

Installation roadmap

Use the following roadmap when installing the NetWorker® Module for Sybase (NMS) software on a Sybase server that requires backup and recover services.

1. Go through the “[Installation checklist](#)” on [page 2](#) and make sure that you have all the required documents, installation media, pathnames, variables, and license information before starting the installation.
2. The installation process is different by operating system. Based on the operating system of the computer, install the appropriate NMS software:
 - For AIX: [Chapter 2, “Installing on AIX”](#)
 - For HP-UX PA-RISC: [Chapter 3, “Installing on HP-UX”](#)
 - For Linux: [Chapter 4, “Installing on Linux”](#)
 - For Solaris: [Chapter 5, “Installing on Solaris”](#)

If a previous release of NMS software is already installed, uninstall the software and install NMS, Release 3.0.

3. Enable and register the NMS software. [Chapter 6, “Licensing and Enabling the Software,”](#) provides the instructions.
4. Configure a client resource on the NetWorker server for each client computer.

The *EMC NetWorker Module for Sybase, Release 3.0, UNIX Version, Administration Guide* provides instructions on how to create a NetWorker client.

Installation checklist

Review the following checklist. It includes details about the installation media, the pathnames and variables, and the licensing information you require for installation and configuration.

Installation media

Make sure you have:

- ◆ The CD-ROM from the Media Kit
- ◆ Access to EMC PowerLink (<http://Powerlink.EMC.com>) to download the media kit and documentation

Pathnames and variables

You need the following information before installing the NMS software:

- ◆ The path to NetWorker binaries and the directory where Sybase is installed
- ◆ The path to the Sybase default data directory
- ◆ Environment variables

The *EMC NetWorker Module for Sybase, Release 3.0, UNIX Version, Administration Guide* provides information on the necessary pathnames and variables. Refer to the appropriate chapter for a specific operating system.

License information

When the NetWorker software is installed, it is in a temporary evaluation mode. To run the software and the added features on a permanent mode, you need the following:

- ◆ Evaluation enabler
- ◆ Enabler Certificate

[Chapter 6, "Licensing and Enabling the Software,"](#) provides more information on licensing.

This chapter describes how to install the NMS software in an AIX environment.

This chapter includes the following sections:

- ◆ [Installation requirements](#) 6
- ◆ [Installing the NMS software](#)..... 6
- ◆ [Uninstalling the NMS software](#)..... 8

Installation requirements

To install the NMS software, the Sybase server must be equipped with the following:

- ◆ NetWorker client software, Release 7.4
- ◆ AIX operating system (32-bit and 64-bit), version 5.2 or 5.3
- ◆ ASE server (32-bit and 64-bit) software, version 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1

Files installed during installation

The following files are installed during the installation of the NMS software.

- ◆ NMS binaries and program files that are installed in the `/usr/bin` directory:
 - **nsrsybsv**, the backup program
 - **nsrsybrc**, the recover program
 - **nsrsybcc**, the database consistency check program
 - **nsrsyb**, the backup script the NetWorker software uses during a scheduled backup
 - **nms_config**, a postinstallation configuration script
 - **threshold.sql** file, a sample threshold procedure that can be used to implement transaction log backups to free log space
- ◆ The NMS shared libraries, the `libbms.sl` and `libbms.so`, which are used to connect the Sybase Backup Server with the NetWorker server, are installed in the `/usr/bin` directory.
- ◆ The template file for **nsrsyb**, `nsrsyb.sh`, is installed in the `/etc` directory.
- ◆ The man pages are installed in the `/usr/share/man/man8` directory:
 - **nsrsyb.8**
 - **nsrsybsv.8**
 - **nsrsybrc.8**
 - **nsrsybcc.8**
- ◆ The EMC Software End-User License Agreement (EULA), `nms_eula.5`, is installed in the `/usr/share/man/man5` directory.

Installing the NMS software

To install the NMS software, complete the following tasks:

- ◆ [“Task 1: Access the installation files” on page 6](#)
- ◆ [“Task 2: Install the NMS software” on page 7](#)

Task 1: Access the installation files

Access the installation files from one of the following sources:

- ◆ [“From a local CD-ROM” on page 7](#)
- ◆ [“From the EMC website” on page 7](#)

From a local CD-ROM

To install the NMS software on a Sybase server with a local CD-ROM:

1. Log in as root on the computer running the Sybase server.

2. Insert and mount the CD-ROM on the local drive:

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

3. Locate the directory that contains the LGTONms.rte package.

From the EMC website

Access <http://Powerlink.EMC.com> and download the evaluation version of the NMS software.

1. Log in as root on the computer running the Sybase server.

2. Create a temporary extraction directory by using the following command:

```
# mkdir /usr/tmp/nsr_extract_sybase
```

3. Download the file containing the NMS *evaluation* software to the temporary extraction directory.

4. Uncompress the file in the temporary extraction directory:

```
# gunzip nms_aix_32.tar.gz
```

5. Extract the NMS files from the **tar** file:

```
# tar -xvpf nms_aix_32.tar
```

6. Locate the directory that contains the LGTONms.rte package.

Task 2: Install the NMS software

This section provides the information needed to install the NMS software on an AIX system.

Note: In a non-cluster environment, install and configure the NMS software for each database host computer. In a cluster environment, install and configure the NMS software for each node in the cluster.

To install the NMS software:

1. Start either the command line interface or the AIX System Management Interface Tool (SMIT) GUI program.
2. To install NMS software from the command line interface:

- a. Enter the following command to install the NMS software from the *installp* command line interface:

```
installp -a -d /dir_pathname LGTONms.rte
```

where */dir_pathname* is the complete pathname of the directory, which contains the *LGTONms* package.

- b. Enter the following command to verify that the installation is successful:

```
lslpp -L all | grep -i lgtonms
```

If the *lslpp* command output includes *LGTONms.rte 3.0.0.0*, the installation is successful.

3. To install the NMS software from the SMIT GUI program, enter either of following commands:
 - smit
 - smitty
- c. In the **System Management** list, select **Software Installation and Maintenance**.
- d. In the **Software Installation and Maintenance** list, select **Install and Update Software**.
- e. In the **Install and Update Software** list, select **Install Software**.
- f. In the **INPUT device/directory for software** field in the **Install Software** window, enter the complete pathname of the correct directory.

Note: Do not add LGTONms.rte at the end of the directory pathname.
- g. Click **OK**.
- h. In the message box that prompts whether to continue, click **OK**.
- i. When the installation is complete, click **Done**.
4. Open the **nms_eula.5** man page and review the EMC Software End-User License Agreement (EULA). Accept the terms to continue with the installation.


```
# man nms_eula.5
```

Note: If you do *not* accept the terms of the EULA, uninstall the software. “[Uninstalling the NMS software](#)” on page 8 provides information on uninstalling the software.
5. Create symbolic links to the NMS shared libraries libbm.so and libbms.sl in the \$\$SYBASE/\$\$SYBASE_ASE/lib directory. The pathname to the \$\$SYBASE/\$\$SYBASE_ASE directory is /i18n/sybase/ASE-15_0. Run the **nms_config** script:


```
# nms_config
```
6. Enable and register the NMS software. [Chapter 6, “Licensing and Enabling the Software,”](#) provides instructions.

Uninstalling the NMS software

To uninstall the NMS software:

1. Log in as root on the computer that is running the Sybase server.
2. Verify that *no* Sybase database backups are running.
3. To uninstall the NMS software using the **installp** command line interface, enter the following command:


```
installp -u LGTONms.rte
```
4. To uninstall the NMS software using the SMIT GUI program:
 - a. Start the SMIT GUI program. Enter either of following commands:
 - smit remove
 - smitty remove
 - b. Select **F4=List** to display a list of the installed software packages.

- c. Select the LGTONms.rte package to be uninstalled.
- d. Ensure that the **PREVIEW Only** option is set to **No**.
- e. Press **Enter** to uninstall the NMS software.
- f. Exit the SMIT program.
- g. From the \$SYBASE/\$SYBASE_ASE/lib directory, remove the symbolic link to the NMS shared libraries libbm.so and libbms.sl, by entering the following command:

```
rm libbm.so  
rm libbms.sl
```

This chapter describes how to install the NMS software in an HP-UX environment.

This chapter includes the following sections:

- ◆ [Installation requirements](#) 12
- ◆ [Installing the NMS software](#)..... 12
- ◆ [Uninstalling the NMS software](#)..... 14

Installation requirements

To install the NMS software, the Sybase server must be equipped with the following:

- ◆ NetWorker client software, Release 7.4
- ◆ HP-UX PA-RISC operating system (32-bit and 64-bit): 11.11 (11i version 1) or 11.23 (11i version 2)
- ◆ ASE server software (32-bit and 64-bit): version 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1

Files installed during installation

The following files are installed during the installation of the NMS software.

- ◆ NMS binaries and program files that are installed in the `/opt/networker/bin` directory:
 - **nsrsybsv**, the backup program
 - **nsrsybrc**, the recover program
 - **nsrsybcc**, the database consistency check program
 - **nsrsyb**, the backup script the NetWorker software uses during a scheduled backup
 - **nms_config**, a postinstallation configuration script
 - **threshold.sql** file, a sample threshold procedure that can be used to implement transaction log backups to free log space
- ◆ The NMS shared library, `libbms.sl`, which is used to connect the Sybase Backup Server with the NetWorker server, is installed in the `/opt/networker/lib` directory.
- ◆ The template file for **nsrsyb**, `nsrsyb.sh`, which is installed in the `/etc` directory.
- ◆ The man pages are installed in the `/opt/networker/man/man8` directory:
 - **nsrsyb.8**
 - **nsrsybsv.8**
 - **nsrsybrc.8**
 - **nsrsybcc.8**
- ◆ The EMC Software End-User License Agreement (EULA), `nms_eula.5`, is installed in the `/opt/networker/man/man5` directory.

Installing the NMS software

To install the NMS software, complete the following tasks:

- ◆ [“Task 1: Access the installation files” on page 12](#)
- ◆ [“Task 2: Install the NMS software” on page 13](#)

Task 1: Access the installation files

Access the installation files from one of the following sources:

- ◆ [“From a local CD-ROM” on page 13](#)

- ◆ “From the EMC web site” on page 13

From a local CD-ROM

To install the NMS software on a Sybase server with a local CD-ROM:

1. Log in as root on the computer that is running the Sybase server.
2. Insert and mount the CD-ROM on the local drive:


```
# mount /dev/cd_drivename/mount_point
```
3. Locate the directory that contains the LGTONms.pkg package.

From the EMC web site

Access <http://Powerlink.EMC.com> and download the evaluation version of the NMS software.

1. Log in as root on the computer running the Sybase server.
2. Create a temporary extraction directory by using the following command:


```
# mkdir /usr/tmp/nsr_extract_sybase
```
3. Download the file containing the NMS *evaluation* software to the temporary extraction directory.
4. Uncompress the file in the temporary directory.


```
# gunzip nms_hpux11_32.tar.gz
```
5. Extract the NMS files from the **tar** file.


```
# tar -xvpf nms_hpux11_32.tar
```

Task 2: Install the NMS software

This section provides the information needed to install the NMS software on an HP-UX system that does not contain the software.

Note: In a non-cluster environment, install and configure the NMS software for each database host computer. In a cluster environment, install and configure the NMS software for each node in the cluster.

To install the NMS software:

1. Enter the following command to start the *swinstall* command line interface or GUI program:


```
# swinstall
```
2. Enter the following command to install the NMS software using the *swinstall* command line interface:

```
swinstall -x mount_all_filesystems=false -s
/dir_pathname/LGTONms.pkg NMS
```

where */dir_pathname* is the complete pathname of the directory containing the LGTONms.pkg package.

3. Enter following commands to install the NMS software using the *swinstall* GUI program:

```
swinstall -x mount_all_filesystems=false -i -s
/dir_pathname/LGTONms.pkg NMS
```

- a. From the **Actions** menu, select **Install (analysis)**.
When the system analysis is complete, a "Ready with Warnings" message appears.
 - b. Click **OK**.
4. Open the **nms_eula.5** man page and review the EMC Software End-User License Agreement (EULA). Accept the terms to continue with the installation.

```
# man nms_eula.5
```
- Note:** If you do *not* accept the terms of the EULA, uninstall the software. "[Uninstalling the NMS software](#)" on page 14 provides information on uninstalling the software.
5. Create symbolic link to the NMS shared library libbms.sl in the \$SYBASE/\$SYBASE_ASE/lib directory. The pathname to the \$SYBASE/\$SYBASE_ASE directory is /i18n/sybase/ASE-15_0. Run the **nms_config** script:

```
# nms_config
```
 6. Enable and register the NMS software. [Chapter 6, "Licensing and Enabling the Software,"](#) provides instructions.

Uninstalling the NMS software

To uninstall the NMS software:

1. Log in as root on the computer that is running the Sybase server.
2. Verify that *no* Sybase database backups are running.
3. Enter the following command to start the *swremove* command line interface:

```
swremove NMS
```
4. Enter the following command to start the *swremove* GUI program:

```
swremove -i NMS
```

 - a. From the **Actions** menu, select **Remove (analysis)**.
 - b. When the system analysis is complete, click **OK** to complete the uninstall.
 - c. To confirm the uninstall, click **Yes**.
 - d. From the \$SYBASE/\$SYBASE_ASE/lib directory, remove the symbolic link to the NMS shared library libbms.sl, using the following command:

```
rm libbms.sl
```

This chapter describes how to install the NMS software in a Linux environment.

This chapter includes the following sections:

- ◆ [Installation requirements](#) 16
- ◆ [Installing the NMS software](#)..... 16
- ◆ [Uninstalling the NMS software](#)..... 19

Installation requirements

To install the NMS software in a Linux environment, the Sybase server must be equipped with the following:

- ◆ NetWorker client software, Release 7.4
- ◆ One of the operating systems in [Table 1](#):

Table 1 Operating systems for Linux

Operating system	Version	Database / Tool / API Version
RedHat Linux x86	AS 3.0 or AS 4.0	ASE 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1
SuSE Linux x86	SLES 8 or SLES 9	ASE 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1
RedHat Linux x64 (AMD64/EM64T)	AS 3.0 or AS 4.0	ASE 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1
SuSE Linux x64 (AMD64/EM64T)	SLES 9	ASE 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1

Files installed during installation

The following files are installed during the installation of the NMS software.

- ◆ NMS binaries and program files that are installed in the `/usr/sbin` directory:
 - **nsrsybsv**, the backup program
 - **nsrsybrc**, the recover program
 - **nsrsybcc**, the database consistency check program
 - **nsrsyb**, the backup script the NetWorker software uses during a scheduled backup
 - **nms_config**, a postinstallation configuration script
 - **threshold.sql** file, a sample threshold procedure that can be used to implement transaction log backups to free log space
- ◆ The NMS shared library, `libbms.so`, which is used to connect the Sybase Backup Server with the NetWorker server, is installed in the `/usr/lib` directory.
- ◆ The template file for **nsrsyb**, `nsrsyb.sh`, is installed in the `/etc` directory.
- ◆ The man pages are installed in the `/usr/share/man/man8` directory:
 - **nsrsyb.8**
 - **nsrsybcc.8**
 - **nsrsybrc.8**
 - **nsrsybsv.8**
- ◆ The EMC Software End-User License Agreement (EULA), `nms_eula.5`, is installed in the `/usr/share/man/man5` directory.

Installing the NMS software

To install the NMS software, complete the following tasks:

- ◆ “Task 1: Access the installation files” on page 17
- ◆ “Task 2: Install the NMS files” on page 18

Task 1: Access the installation files

Access the installation files from one of the following sources:

- ◆ “From a local CD-ROM” on page 17
- ◆ “From the EMC website” on page 17

From a local CD-ROM

To install the NMS software on a Sybase server with a local CD-ROM:

1. Log in as root on the computer that is running the Sybase server.
2. Insert and mount the CD-ROM on the local drive.
3. Locate the directory that contains:
 - The lgtonms-3.0-1.i686.rpm package for Linux x86
 - The lgtonms-3.0-1.x86_64.rpm package for Linux x64

From the EMC website

Access <http://Powerlink.EMC.com> and download the evaluation version of the NMS software.

1. Log in as root on the computer that is running the Sybase server.
2. Create a temporary extraction directory:

```
# mkdir /usr/tmp/nsr_extract_sybase
```

3. Download the file containing the NMS *evaluation* software to the temporary extraction directory.

4. Uncompress the file in the temporary directory:

For Linux x86:

```
# gunzip nms_linux86.tar.gz
```

For Linux x64:

```
# gunzip nms_linux_x86_64.tar.gz
```

5. Extract the NMS files from the **tar** file:

For Linux x86:

```
# tar -xvpf nms_linux86.tar
```

For Linux x64:

```
# tar -xvpf nms_linux_x86_64.tar
```

- Locate the directory that contains the lgtonms-3.0-1.i686.rpm or lgtonms-3.0-1.x86_64.rpm package.

Task 2: Install the NMS files

This section provides the information needed to install the NMS software on an Linux system that does not contain the software.

Note: In a non-cluster environment, install and configure the NMS software for each database host computer. In a cluster environment, install and configure the NMS software for each node in the cluster.

To install the NMS software:

1. Enter the appropriate *rpm* command.

- On Linux (AMD64 and EM64T):

- a. To install the software in the default directory:

```
rpm -i --nodeps lgtonms-3.0-1.x86_64.rpm
```

- b. To relocate the software to the same relocation path as the NetWorker client:

```
rpm -i --nodeps lgtonms-3.0-1.x86_64.rpm
```

```
--relocate /usr=NetWorker_base_directory
```

- On Linux (Intel):

- a. To install the software in the default directory:

```
rpm -i lgtonms-3.0-1.i686.rpm
```

- b. To relocate the software to the same relocation path as the NetWorker client:

```
rpm -i lgtonms-3.0-1.i686.rpm
```

```
--relocate /usr=NetWorker_base_directory
```

Note: To relocate the software during the installation, enter the **--relocate** command for only the `/usr` directory, and not for individual subdirectories.

2. To verify that the installation is successful, enter the **rpm -aq** command:

```
rpm -aq | grep -i lgto
```

If the command output includes the following lines, the installation is successful:

- On Linux (AMD64 and EM64T):

```
lgtocln-7.4-1
```

```
lgtonms-3.0-1
```

- On Linux (Intel):

```
lgtocln-7.4-1
```

```
lgtonms-3.0-1
```

Note: If NetWorker server software is also installed on the Linux system, the **rpm -aq** command produces other output lines in addition to these two lines.

3. Open the **nms_eula.5** man page and review the EMC Software End-User License Agreement (EULA). Accept the terms to continue with the installation.

```
# man nms_eula.5
```

Note: If you do *not* accept the terms of the EULA, uninstall the software. [“Uninstalling the NMS software” on page 19](#) provides information on uninstalling the software.

4. Create symbolic link to the NMS shared library libbm.so in the \$\$SYBASE/\$\$SYBASE_ASE/lib directory. The pathname to the \$\$SYBASE/\$\$SYBASE_ASE directory is /i18n/sybase/ASE-15_0. Run the **nms_config** script:

```
# nms_config
```

5. Enable and register the NMS software. [Chapter 6, “Licensing and Enabling the Software,”](#) provides instructions.

Uninstalling the NMS software

To uninstall the NMS software:

1. Log in as root on the computer that is running the Sybase server.
2. Verify that *no* Sybase database backups are running.
3. Enter the following command to remove only the NMS software:

```
rpm -e lgtonms-3.0-1
```

4. Remove both the NetWorker client software and the NMS software by using the following command:

```
rpm -e lgtonms-3.0-1 lgtocInt
```

5. From the \$\$SYBASE/\$\$SYBASE_ASE/lib directory, remove the symbolic link to the NMS shared library, libbms.so.

```
# rm libbms.so
```

This chapter describes how to install the NMS software in a Solaris environment.

This chapter includes the following sections:

- ◆ [Installation requirements](#) 22
- ◆ [Solaris zones support](#)..... 22
- ◆ [Installing the NMS software](#)..... 23
- ◆ [Uninstalling the NMS software](#)..... 24

Installation requirements

To install the NMS software in a Solaris environment, the Sybase server must be equipped with the following:

- ◆ NetWorker client software, Release 7.4
- ◆ One of the following operating systems:
 - Solaris SPARC operating system (32-bit and 64-bit), version 8, 9, or 10
 - Solaris AMD64 operating system (64-bit), version 10
- ◆ ASE server (32-bit and 64-bit) software for Solaris SPARC, version 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0
- ◆ ASE server (64-bit) software for Solaris AMD64, version 12.5.1, 12.5.2, 12.5.3, 12.5.4, 15.0, or 15.0.1

Files installed during installation

The following files are installed during the installation of the NMS software.

- ◆ NMS binaries and program files are installed in the `/usr/sbin` directory:
 - **nsrsybsv**, the backup program
 - **nsrsybrc**, the recover program
 - **nsrsybcc**, the database consistency check program
 - **nsrsyb**, the backup script the NetWorker software uses during a scheduled backup
 - **nms_config**, a postinstallation configuration script
 - **threshold.sql** file, a sample threshold procedure that can be used to implement transaction log backups to free log space
- ◆ NMS shared library, `libbms.so`, which is used to connect the Sybase Backup Server with the NetWorker server, is installed in the `/usr/lib` directory.
- ◆ The template file for **nsrsyb**, `nsrsyb.sh`, is installed under the `/etc` directory.
- ◆ The man pages are installed in the `/usr/share/man/man1m` directory:
 - **nsrsyb.1m**
 - **nsrsybcc.1m**
 - **nsrsybrc.1m**
 - **nsrsybsv.1m**
- ◆ EMC Software End-User License Agreement (EULA), `nms_eula.5`, is installed in the `/usr/share/man/man5` directory.

Solaris zones support

This release of NMS provides Solaris zones support. The NMS software must be installed in the same zone as the NetWorker client. The NMS software can run in both global and whole root zones, and no additional steps are required when installing the NMS software in a global or whole root zone.

Installing the NMS software

To install the NMS software, complete the following tasks:

- ◆ “Task 1: Access the installation files” on page 23
- ◆ “Task 2: Install the NMS files” on page 24

Task 1: Access the installation files

Access the installation files from one of the following sources:

- ◆ “From a local CD-ROM” on page 23
- ◆ “From the EMC website” on page 23

From a local CD-ROM

To install the NMS software on a Sybase server with a local CD-ROM:

1. Log in as root on the computer that is running the Sybase server.
2. Insert and mount the CD-ROM on the local drive:


```
# mount /dev/cd_drivename /mount_point
```
3. Locate the directory that contains the *LGTONms* package.

From the EMC website

Access <http://Powerlink.EMC.com> and download the evaluation version of the NMS software.

1. Log in as root on the computer that is running the Sybase server.
2. Create a temporary extraction directory:


```
# mkdir /usr/tmp/nsr_extract_sybase
```
3. Download the file containing the NMS *evaluation* software to the temporary extraction directory.
4. Uncompress the file in the temporary directory:

For Solaris SPARC:

```
# gunzip nms_solaris_32.tar.gz
```

For Solaris AMD64:

```
# gunzip nms_solaris_amd64.tar.gz
```
5. Extract the NMS files from the tar file:

For Solaris SPARC:

```
# tar -xvpf nms_solaris_32.tar
```

For Solaris AMD64:

```
# tar -xvpf nms_solaris_amd64.tar
```
6. Locate the directory that contains the *LGTONms* package.

Task 2: Install the NMS files

This section provides the information needed to install the NMS software on a Solaris system that does not contain the software.

Note: In a non-cluster environment, install and configure the NMS software for each database host computer. In a cluster environment, install and configure the NMS software for each node in the cluster.

To install the NMS software:

1. Enter the following command to install the NMS software:

```
# pkgadd -d /dir_pathname LGTONms
```

where */dir_pathname* is the complete pathname of the directory, which contains the LGTONms package.

2. If required, set the *MANPATH* environment variable to enable access to the NMS man pages.

The NMS man pages are installed in the same location as the NetWorker client man pages. For example, if the NMS software was relocated to the *relocation_path* directory during installation, set the *MANPATH* environment variable to include the *relocation_path/share/man* pathname.

3. Open the **nms_eula.5** man page and review the EMC Software End-User License Agreement (EULA). Accept the terms to continue with the installation.

```
# man nms_eula.5
```

Note: If you do *not* accept the terms of the EULA, uninstall the software. [“Uninstalling the NMS software” on page 24](#) provides information on uninstalling the software.

4. Create symbolic link to the NMS shared library *libbm.so* in the *\$\$SYBASE/\$SYBASE_ASE/lib* directory. The pathname to the *\$\$SYBASE/\$SYBASE_ASE* directory is */i18n/sybase/ASE-15_0*. Run the **nms_config** script:

```
# nms_config
```

5. Enable and register the NMS software. [Chapter 6, “Licensing and Enabling the Software,”](#) provides instructions.

Uninstalling the NMS software

To uninstall the NMS software:

1. Log in as root on the computer that is running the Sybase server.
2. Verify that *no* Sybase database backups are running.
3. Enter the following command to remove the NMS software:

```
# pkgrm LGTONms
```

4. From the *\$\$SYBASE/\$SYBASE_ASE/lib* directory, remove the symbolic link to the NMS shared library, *libbms.so*, by entering the following commands:

```
# rm libbms.so
```

This chapter explains how to enable the NMS software and features for permanent use. When the NMS software is installed, it is in a temporary evaluation mode with all of the features available. For specific licensing questions, go to <http://Powerlink.EMC.com>.

This chapter includes these sections:

- ◆ [How NMS software is licensed](#) 26
- ◆ [The evaluation process](#) 26
- ◆ [The licensing process](#) 27
- ◆ [Managing licenses](#) 30

How NMS software is licensed

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

Each installation of NetWorker server software must be licensed with a base enabler. 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 NetWorker software is installed and that all of the software and hardware requirements have been met on the computer that will access the NetWorker Management Console.

The evaluation process

You can evaluate the NetWorker software in two ways:

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

Evaluating a new installation

When you first install the NetWorker 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 NetWorker 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 NetWorker 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 27 provides instructions.

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 NetWorker server software is disabled on all NetWorker servers with duplicate enablers.

To enter the temporary enabler code:

1. Start the **NetWorker Management Console** software.
2. Open the **Administration** window:
 - a. In the **Console** window, click **Enterprise**.
 - b. In the left pane, select a NetWorker 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 the NetWorker software, you must purchase and enter a license enabler code, and then authorize it. This licensing process is the same for all editions of NetWorker 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 28
- ◆ “[Task 2: Obtain an authorization code](#)” on page 28
- ◆ “[Task 3: Enter the authorization code](#)” on page 29

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.

To enter the license enabler code:

1. Start the **NetWorker Management Console** software.
2. Open the **Administration** window:
 - a. In the **Console** window, click **Enterprise**.
 - b. In the left pane, click a NetWorker 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 NetWorker software.

Task 2: Obtain an authorization code

Registration of NetWorker software occurs by obtaining an authorization code.

To obtain a unique authorization code:

1. Go <http://Powerlink.EMC.com>.
2. Select **Support > Product Registration and License Keys** and follow the instructions for your product.



IMPORTANT

If the software or feature is *not* authorized by the end of the 45-day registration period, the NetWorker 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 NetWorker 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>.

To avoid an interruption in scheduled backups if you move the NetWorker 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 30 provides information on use of the NetWorker License Manager, and the latest *EMC NetWorker License Manager Installation and Administration Guide*.

To enter the authorization code:

1. Start the **NetWorker Management Console** software.
2. Open the **Administration** window:
 - a. In the **Console** window, click **Enterprise**.
 - b. In the left pane, select a NetWorker 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.

Managing licenses

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

To begin to implement the NetWorker License Manager:

1. Obtain bulk enabler codes. For contact information, go to <http://Powerlink.EMC.com>.
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 *EMC NetWorker License Manager Installation and Administration Guide* provides more information on how to install and use the NetWorker License Manager.