



**EMC<sup>®</sup> NetWorker<sup>®</sup>**  
**Module for MEDITECH**  
Release 2.0

**Installation Guide**  
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*As part of an effort to improve and enhance the performance and capabilities of its product line, EMC from time to time releases revisions of its hardware and software. Therefore, some functions described in this document may not be supported by all releases 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 guide is part of the EMC NetWorker Module for MEDITECH documentation set. The information in this guide enables system administrators to install and configure the EMC<sup>®</sup> NetWorker<sup>™</sup> Module for MEDITECH software. This guide assumes that MEDITECH applications are installed and that your environment relies on EMC CLARiiON<sup>®</sup> systems or EMC Symmetrix<sup>®</sup> systems for storage.

Refer to the product documentation for MEDITECH, EMC CLARiiON, or EMC Symmetrix for individual system information.

### **Related Documentation**

Please refer to the following documentation for NetWorker and NetWorker Module for MEDITECH information:

- ◆ *EMC NetWorker Module for MEDITECH Administration Guide Release 2.0*
- ◆ *EMC NetWorker Module for MEDITECH Release Notes Release 2.0*
- ◆ *EMC NetWorker Installation Guide Release 7.3.x or 7.4.x*
- ◆ *EMC NetWorker Administration Guide Release 7.3.x or 7.4.x*

## Conventions used in this guide

EMC uses the following conventions for notes and caution 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. The caution may apply to hardware or software.**

## Typographical conventions

### Typographical conventions

EMC uses the following type style conventions in this document:

Normal	Used in running (nonprocedural) text for: <ul style="list-style-type: none"> <li>Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus)</li> <li>Names of resources, attributes, pools, Boolean expressions, buttons, DQL statements, keywords, clauses, environment variables, functions, utilities</li> <li>URLs, pathnames, filenames, directory names, computer names, filenames, links, groups, service keys, file systems, notifications</li> </ul>
<b>Bold</b>	Used in running (nonprocedural) text for: <ul style="list-style-type: none"> <li>Names of commands, daemons, options, programs, processes, services, applications, utilities, kernels, notifications, system calls, man pages</li> </ul> Used in procedures for: <ul style="list-style-type: none"> <li>Names of interface elements (such as names of windows, dialog boxes, buttons, fields, and menus)</li> <li>What user specifically selects, clicks, presses, or types</li> </ul>
<i>Italic</i>	Used in all text (including procedures) for: <ul style="list-style-type: none"> <li>Full titles of publications referenced in text</li> <li>Emphasis (for example a new term)</li> <li>Variables</li> </ul>
<code>Courier</code>	Used for: <ul style="list-style-type: none"> <li>System output, such as an error message or script</li> <li>URLs, complete paths, filenames, prompts, and syntax when shown outside of running text</li> </ul>
<b><code>Courier bold</code></b>	Used for: <ul style="list-style-type: none"> <li>Specific user input (such as commands)</li> </ul>
<i><code>Courier italic</code></i>	Used in procedures for: <ul style="list-style-type: none"> <li>Variables on command line</li> <li>User input variables</li> </ul>

< >	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.





# Installation Requirements

This chapter includes the following sections:

- ◆ [Installation roadmap](#) ..... 11
- ◆ [System requirements](#) ..... 12
- ◆ [Data storage guidelines](#)..... 15

## About this EMC NetWorker Module

The EMC® NetWorker® Module for MEDITECH is used in conjunction with EMC CLARiiON and EMC Symmetrix storage systems and NetWorker software to schedule, create, and manage either local backups or remote replicas of MEDITECH application data. Taking advantage of the MEDITECH APIs, the NetWorker software is fully integrated with the MEDITECH application to enable scheduled NetWorker save set backups and also to create disaster recovery replicas of the data without interrupting the application.

This NetWorker Module can:

- ◆ Create local or remote replicas of MEDITECH data
- ◆ Back up MEDITECH data to NetWorker servers and storage nodes
- ◆ Recover to the main host from any generation of the backup data

The NetWorker Module for MEDITECH supports MEDITECH MAGIC and Client Server installations with CLARiiON or Symmetrix storage systems. Because the backup and mirroring processes have been moved to the backup server and the SAN, the resource demands of full database copying, complete resynchronizations, and multiple sequential writes have been removed from the MEDITECH servers. Backups and restores can be done in a quick and predictable time frame.

The *EMC NetWorker Module for MEDITECH Administration Guide* provides complete information about this module.

## Installation roadmap

Third-party software should be installed and configured according to the manufacturer's requirements. Refer to each product's documentation for information and procedures.

The following tasks should be performed before proceeding with the NetWorker Module for MEDITECH installation:

- ◆ Install and configure the MEDITECH ISB utilities on the MEDITECH servers. Contact your MEDITECH representative for directions and support.
- ◆ Install and configure EMC storage systems. See the respective product documentation for details.
- ◆ Install and configure a NetWorker environment, release 7.3.3 or 7.4.x. See the *EMC NetWorker Installation Guide* for information.
- ◆ The NetWorker Module for MEDITECH client communicates with the MEDITECH hosts and EMC storage systems from a proxy host. The proxy is a NetWorker client with access to MEDITECH systems' clone LUNs. Install supporting software on the proxy host. See ["System requirements" on page 12](#) for required software.
- ◆ Install the NetWorker Module for MEDITECH on the proxy host.

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## System requirements

The NetWorker Module for MEDITECH client communicates with the MEDITECH hosts and EMC storage systems from a proxy host. Make sure that the system requirements are met before installing the module.

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### General requirements

The following are general NetWorker software installation requirements:

- ◆ Do not include an underscore character ( \_ ) in Microsoft Windows computer names.
- ◆ NetWorker 7.3.3 or later, or 7.4 or later.
- ◆ Microsoft Windows Installer 2.0 (**msiexec.exe**) is included with the NetWorker software. If the target computer has an older version of the Windows Installer, it will be updated and a reboot will be required during the NetWorker software installation or update.
- ◆ InstallShield requires that the entire installation program be put into memory, even if you intend to install a single NetWorker software component.

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**Note:** NetWorker software does not support locales (defined by the operating system) or code sets that remap special characters. Depending on the file system, special characters may include the slash (/), backslash (\), colon (:), or period(.). For example, *De\_DE.646* is an unsupported locale. For more information, refer to the *EMC NetWorker Administration Guide*.

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### MEDITECH requirements

The NetWorker Module supports the following MEDITECH versions:

- ◆ For MAGIC OSAL P7.1 users, the MAGIC utility subrevisions P7.1.53 and later are required.
- ◆ For MAGIC OSAL P8.1 users, the MAGIC utility subrevisions P8.1.11 and later are required.
- ◆ MAGIC OSAL P9.0 users, the MAGIC utility subrevisions P9.0.30 and later are required.
- ◆ For MEDITECH CS users, version 5.4 or later is required with MEDITECH ISB Utilities, version 3.0.

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## Operating system requirements

The NetWorker Module supports the following Microsoft Windows operating systems:

- ◆ Windows 2003 Server R2 (x86), Standard or Enterprise Editions, English.
- ◆ Windows 2003 Server (x86), Standard or Enterprise Editions, English.

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## Proxy host software requirements for communication with CLARiiON

Communication between the CLARiiON system and the proxy host should be enabled on the SAN. The following software must be installed on the proxy host before the NetWorker Module for MEDITECH is installed.

- ◆ CLARiiON supported HBA Fibre Channel Host Adapter (Storport Miniport Driver).
- ◆ The following EMC software must be installed. The versions of each must be compatible with the version of EMC FLARE® installed. Refer to your EMC CLARiiON Compatibility Guide for system requirements and supported software versions.
  - EMC PowerPath®, version 4.5 or later
  - EMC Solutions Enabler, version 6.4.2 or later
  - EMC Navisphere® Host Agent
  - Navisphere CLI
  - EMC SnapView™ Clone software for ISB operations
  - EMC SANCopy™ for IDR operations
- ◆ Java Virtual Machine (JVM) 1.4 or later. Once the JVM is installed, you must append the system environment variable to reference the JVM path.

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**Note:** This is required to run Navi CLIs. The version of Navisphere that you are running will determine the necessary JVM.

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- ◆ Windows .NET 2.0 Framework. If the .NET Framework is not present, the NetWorker Module installation will download and install it automatically.
- ◆ NetWorker client software, release 7.3.3 or later, or release 7.4 or later.

- ◆ The following is configured through Navisphere Manager:
  - Creation of a storage group is that includes all of the clone LUNs.
  - SANCopy sessions are created for all clone LUNs that require IDR backups.

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**Note:** Do not initialize the physical disks on the proxy host that belong to the clone LUN.

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### Proxy host software requirements for communication with Symmetrix

Communication between the Symmetrix system and the proxy host should be enabled on the SAN. The following software must be installed on the proxy host before the NetWorker Module for MEDITECH is installed.

- ◆ The following EMC software must be installed for EMC Symmetrix 8000 systems. Refer to your EMC Symmetrix Compatibility Guide for system requirements and supported software versions.
  - EMC PowerPath, version 4.5 or later
  - EMC Solutions Enabler, version 6.4.2 or later
  - EMC TimeFinder<sup>®</sup> Mirror for ISB operations
  - EMC SRDF/DM<sup>®</sup> Synchronous for IDR operations
- ◆ Windows .NET 2.0 Framework. If the .NET Framework is not present, the NetWorker Module installation will download and install it automatically.
- ◆ NetWorker client software, release 7.3.3 or later, or release 7.4 or later.

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### Array hardware requirements

The following are required on the EMC storage system with which the NetWorker Module communicates.

- ◆ EMC DMX-4 microcode 5771 or later
- ◆ EMC DMX-3 microcode 5771 or later
- ◆ EMC DMX 800, 1000, 2000, 3000 microcode 5670 or later
- ◆ EMC Symmetrix 8000 microcode 5566 or later
- ◆ EMC CLARiON FLARE 19, 22, 24, or 26. FLARE 24 or later is recommended.

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## Data storage guidelines

Data backup and restore processes can require a significant amount of space to be successful. Space requirements are dependant upon your storage policies. The following sections are general guidelines for determining the amount of storage you should have available. See the *EMC NetWorker Installation Guide* for more information about NetWorker system and storage requirements.

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### Space needed for save set data

Assume that a NetWorker server handling 300 clients across 30 groups generates 1,000 save sets per week.

Such a server typically generates about 0.30 MB of save set media database information per week. Adjust this estimate to meet your server's activity level.

To estimate the total space required for save set reporting data, multiply the weekly amount by the number of NetWorker servers that the NetWorker Console software monitors and then by the number of weeks in the save set retention policy.

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### Space needed for backups

Assume that a NetWorker server handling 300 clients across 30 groups and generating 1,000 save sets per week produces approximately 0.20 MB of backup data per week. Adjust this estimate to meet your server's activity level.

To estimate the total space required for save group completion data, multiply the weekly amount by the number of NetWorker servers that Console software monitors, and then by the number of weeks in the completion data retention policy.

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## Space needed for save set output

Assume that a NetWorker server handling 300 clients across 30 groups and generating 1,000 save sets per week produces approximately 0.25 MB of save set output messages per week. Adjust this estimate to meet your server's activity level.

To estimate the total space required for save set output, multiply the weekly amount by the number of NetWorker servers that Console software monitors, and then by the number of weeks in the save set output retention policy.

If the disk space is insufficient, control the amount of space required by reducing the time range for the data retention policies. For more information about data retention policies, refer to the *EMC NetWorker Administration Guide*.



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This chapter includes these sections:

- ◆ [Installing on Windows 2003 .....](#) 18
- ◆ [Uninstalling the NetWorker Module .....](#) 20

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## Installing on Windows 2003

The NetWorker client software and the NetWorker Module for MEDITECH must both be installed on the proxy host. It is recommended that the NetWorker server software reside on a separate machine. After you install the NetWorker Module for MEDITECH software, you must configure the proxy host as a client of the NetWorker server.

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### Accessing the NetWorker Module installation files

You can access the NetWorker Module for MEDITECH installation files from two locations:

- ◆ Local or remote CD
- ◆ EMC NetWorker website

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### Installing the NetWorker Module

Perform the following steps to install the NetWorker Module for MEDITECH software:

1. Verify that the target host meets all of the system requirements. For information, see [“System requirements” on page 12](#).

2. Log in to the target host with administrator privileges.

3. Access the directory that contains the NetWorker Module for MEDITECH software installation images.

4. Run the **nmmedi20\_win\_x86.exe** file.

The InstallShield Wizard starts and the **Welcome** screen appears.

5. Click **Next**.

The **License Agreement** page appears.

6. Select the **I accept the terms in the license agreement** option and click **Next**.

The **Ready to Install** page appears.

7. Click **Install**.

8. When the install program completes, click **Finish**.

---

## Upgrading the module

The NetWorker Module for MEDITECH install program automatically determines if a previous version resides on a machine.

Perform the following to upgrade the software:

1. Start the **nmmedi20\_win\_x86.exe** program.
2. Perform the upgrade as directed.

The configuration file for the module, **mediconfig.xml**, is updated automatically when the module is started. The upgrade will retain earlier configurations.

## Uninstalling the NetWorker Module

To remove a NetWorker Module for MEDITECH software installation, use the Windows **Add/Remove Programs** tool:

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

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**Note:** Uninstalling the NetWorker Module for MEDITECH software does not remove the configuration file. The module can be uninstalled and reinstalled without requiring you to re-create the configuration.

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The chapter includes these sections:

- ◆ How software is licensed ..... 22
- ◆ The evaluation process ..... 23
- ◆ The licensing process ..... 25
- ◆ Multiplatform licensing ..... 28
- ◆ Managing licenses ..... 30

## 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 Console.

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### MEDITECH Module specifics

A NetWorker Client license and a NetWorker Module for MEDITECH license must be purchased for each MEDITECH host and for each NetWorker proxy host.

For example, the following licenses are required to support five MEDITECH hosts and one proxy host.

Five MEDITECH hosts:

- ◆ Five NetWorker Client licenses
- ◆ Five NetWorker Module for MEDITECH licenses

One NetWorker Module for MEDITECH proxy host:

- ◆ One NetWorker Client license
- ◆ One NetWorker Module for MEDITECH license

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## 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.

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### 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.

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### 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 25](#) provides instructions.
- ◆ [“Multiplatform licensing” on page 28](#) provides information on the different features.

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## 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.

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 25](#)
- ◆ [“Task 2: Obtain an authorization code” on page 26](#)
- ◆ [“Task 3: Enter the authorization code” on page 26](#)

---

### 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 **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 .

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 30](#) provides information on use of the NetWorker License Manager, and the latest NetWorker License Manager Installation and Administration Guide.

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. A ClientPak<sup>®</sup> license allows the server to back up clients of different platforms. For example:

- ◆ The client connections that accompany a NetWorker server for Microsoft Windows can be used for Windows client computers only.
- ◆ The client connections that accompany a server for Solaris can be used for Solaris clients only.

With a ClientPak for UNIX, other UNIX platforms can be enabled for use with a server for Solaris. The ClientPak for UNIX supports all UNIX platforms. The ClientPak for UNIX is sufficient for all UNIX clients (backed up by a UNIX or Windows server).

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**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.

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### 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.

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## Update enablers

To update existing software to a major release, an update enabler is necessary. Update enablers are required for any major software upgrade from release 4.0 and later, including the current release. To use the NetWorker License Manager, the server must be release 5.0 or later.

With a first-time purchase of software, a one-year update agreement may be included. After a year, an update enabler may be acquired with a new update agreement purchase.

---

## 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 MEDITECH database on two hosts, two NetWorker Module for MEDITECH 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 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.

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