



EMC® NetWorker™
Module for MEDITECH
Release 1.0

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 revisions of the software or hardware currently in use. For the most up-to-date information on product features, refer to your product release notes.

If a product does not function properly or does not function as described in this document, please contact your EMC representative.

Audience This guide is part of the EMC NetWorker Module for MEDITECH documentation set, and is intended for use by system, NetWorker, and storage administrators during installation and setup of the product. Operators who schedule and monitor backups may also find this guide helpful.

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

- ◆ EMC NetWorker, version 7.3 or later
- ◆ MEDITECH MAGIC OSAL platform
- ◆ EMC CLARiiON and CLARiiON Management software

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

- ◆ Chapter 1, “Introduction,” provides information about the NetWorker Module for MEDITECH application and related documentation.
- ◆ Chapter 2, “Installation Requirements,” provides information about installation prerequisites and system requirements.

- ◆ Chapter 3, “Installation,” provides installation instructions, files installed, and uninstall procedures.

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

EMC uses the following type style conventions in this guide:

bold

- User actions (what the user clicks, presses, or selects)
- Interface elements (button names, dialog box names)
- Names of keys, commands, programs, scripts, applications, utilities, processes, notifications, system calls, services, applications, and utilities in text

italic

- Book titles
- New terms in text
- Emphasis in text

Courier

- Prompts
- System output
- Filenames
- Pathnames
- URLs
- Syntax when shown in command line or other examples

Courier, bold

- User entry
- Options in command-line syntax

Courier italic

- Arguments in examples of command-line syntax
- Variables in examples of screen or file output
- Variables in pathnames

<>

Angle brackets for parameter values (variables) supplied by user.

[]

Square brackets for optional values.

|

Vertical bar symbol for alternate selections. The bar means or.

...

Ellipsis for 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 WebSupport on Powerlink. To open a case on EMC WebSupport, you must be a WebSupport customer. Information about your site configuration and the circumstances under which the problem occurred is required.

For information about software patches, technical documentation, support programs, sales, and licensing, go to:

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Comments and suggestions about our product documentation are always welcome.

To provide feedback:

1. **Go to:**

<http://softwaresupport.EMC.com>

2. **Click the Documentation link.**

3. **Click the “Technical Publications Customer Survey” link at the top of the page to comment on a particular guide.**

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

- ◆ About this guide..... 1-2
- ◆ About the NetWorker Module 1-3
- ◆ Related documentation 1-4

About this guide

The information in this guide enables you to install and configure the EMC® NetWorker™ Module for MEDITECH software in your environment. This guide assumes that you have MEDITECH applications installed and that your environment relies on EMC CLARiiON® systems for storage.

You can refer to the product documentation for MEDITECH and EMC CLARiiON for individual system information.

This guide provides the following:

- ◆ NetWorker Module for MEDITECH system requirements
- ◆ Software installation prerequisites
- ◆ Installation instructions
- ◆ Uninstall steps

About the NetWorker Module

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

With this NetWorker Module, you can:

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

The NetWorker Module for MEDITECH supports MEDITECH installations with EMC CLARiiON 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 lifted from the MEDITECH servers.

For a complete description of the module and its features, see the *EMC NetWorker Module for MEDITECH Administrator's Guide*.

Related documentation

This guide assumes that you are familiar with the MEDITECH systems and applications that are supported. It also assumes that you have EMC CLARiiON systems installed and configured for MEDITECH data storage. Please refer to each product's documentation for information and procedures.

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

- ◆ *EMC NetWorker Module for MEDITECH Administrator's Guide, release 1.0*
- ◆ *EMC NetWorker Module for MEDITECH Release Notes, release 1.0*
- ◆ *EMC NetWorker Installation Guide, release 7.3*
- ◆ *EMC NetWorker Administrator's Guide, release 7.3*

**Installation
Requirements**

This chapter describes the software requirements and procedures necessary before performing a NetWorker Module for MEDITECH installation. It includes the following sections:

- ◆ Installation roadmap 2-2
- ◆ System requirements 2-3
- ◆ Data storage guidelines..... 2-6

Installation roadmap

The following section provides an overview of the steps necessary to install the NetWorker Module for MEDITECH software. Third-party software should be installed and configured according to the manufacturer's requirements. Please 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 host and CLARiiON Storage systems. See the respective product documentation for details.
- ◆ Install and configure a NetWorker environment, version 7.3 or later. See the *EMC NetWorker for Windows Installation Guide* for information.
- ◆ The NetWorker Module for MEDITECH client communicates with the MEDITECH hosts and CLARiiON 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 2-3 for required software.
- ◆ Install the NetWorker Module for MEDITECH on the proxy host.

System requirements

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

General requirements

The following are general NetWorker software installation requirements:

- ◆ Do not include an underscore character (_) in Windows computer names.
- ◆ Microsoft Windows Installer 2.0 (**msiexec.exe**) is included with the NetWorker release 7.3 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.
- ◆ Install Shield requires that the entire installation program must be put into memory, even if you intend to install a single NetWorker software component.

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 Administrator's Guide*.

MEDITECH requirements

The NetWorker Module supports the following MEDITECH versions:

- ◆ For MAGIC P7.1 users, the MAGIC utility subrevisions P7.1.53 and later are required.
- ◆ For MAGIC P8.1 users, the MAGIC utility subrevisions P8.1.11 and later are required.

To view version information, open the MAGIC Console and select **System Management >System Information**. Revision information is in the **OSREV** field.

Operating system requirements

The NetWorker Module supports all language versions of the following Microsoft Windows operating system:

- ◆ Windows 2003 Server, with latest service packs installed

Proxy host software requirements

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

- ◆ Windows Server 2003, with latest service packs.
- ◆ 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 FLARE™ 19. Refer to your EMC CLARiiON Compatibility Guide for system requirements and supported software versions.
 - EMC PowerPath®, version 4.4.0 or later
 - EMC Solutions Enabler, version 6.2 or later
 - Navisphere® Host Agent
 - Navisphere CLI
 - Navisphere ADM Snap
- ◆ 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.

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

- ◆ Windows .NET 2.0 Framework. If the .NET Framework is not present, the NetWorker Module installation will download and install it automatically.
- ◆ FLARE 19 on EMC CLARiiON models that support SAN Copy sessions.
- ◆ NetWorker client software, version 7.3 or later.
- ◆ Install NetWorker QuickFix LGTpa87371. Contact your EMC Support Representative for the quick fix kit and instructions.

- ◆ The following is configured through Navisphere Manager:
 - The clone LUNs are mounted on the proxy host. The proxy host will not perform a discovery to identify the LUNs.
 - A storage group is created that includes all of the clone LUNs.
 - SAN Copy™ sessions are created for all clone LUNs that require IDR backups.

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

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 Microsoft Windows* for more information about NetWorker system and storage requirements.

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. If the server is more active or less active, adjust this estimate accordingly.

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.

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. If the server is more active or less active, adjust this estimate accordingly.

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.

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. If the server is more active or less active, adjust this estimate accordingly.

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 Administrator's Guide*.

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

- ◆ Installing on Windows 20033-2
- ◆ Uninstalling the NetWorker Module3-3

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.

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

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 2-3.
2. Log on to the target host with administrator privileges.
3. Access the directory that contains the NetWorker Module for MEDITECH software installation images.
4. Run **setup.exe** or the **nmmedi_10.exe** file. The Install Shield Wizard starts and the **Welcome** screen is displayed.
5. Click **Next**. The **License Agreement** page is displayed.
6. Select the **I accept the terms in the license agreement** option and click **Next**. The **Ready to Install** page is displayed.
7. Click **Install**.

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**.

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.

This glossary contains terms related to disk storage subsystems. Many of these terms are used in this manual.

A

- adapter** Card that provides the physical interface between the director and disk devices (SCSI adapter), director and parallel channels (Bus & Tag adapter), director and serial channels (Serial adapter).
- ad hoc backup** A backup that a user requests from the client. The user specifies the files, file systems, and directories to backup.
- administrator** The person who installs, configures, and maintains the NetWorker software.
- array** See "storage array."

B

- backup** An operation that saves data to a volume.
- backup cycle** The period of time from one level full backup to the next level full backup.
- backup volume** A volume used to store backup data.
- bootstrap** A save set that is essential for NetWorker disaster recovery. A bootstrap is composed of two components that reside on the NetWorker server: the media and the resource. The bootstrap also

provides information that is essential for recovering the client file index.

browse policy A policy that determines how long backed up data is available for quick access. See also "retention policy."

C

cache Random access electronic storage used to retain frequently used data for faster access by the channel.

client A computer, workstation, or file server whose data can be backed up or recovered. See also "Client resource."

client file index A database that tracks every database object, file, or file system that is backed up. The NetWorker server maintains a single client index file for each client.

Client resource Identifies the save sets to be backed up on a client. The Client resource also specifies information about the backup, such as the schedule, browse policy, and retention policy for the save sets. Multiple Client resources can be configured for one client computer. For example, you could create one Client resource to back up business data and another to back up operating system files. See also "client."

clone A reliable copy of backed up data. Unlike volumes created with a simple copy command, clone volumes can be used in exactly the same way as the original backup volume. Single save sets or entire volumes can be cloned.

coherency group A user-defined grouping of MEDITECH hosts that will be backed up at the same time. Coherency groups are defined within the NetWorker Module for MEDITECH interface and are referenced when creating a NetWorker save set.

Console server NetWorker servers and clients are managed from the NetWorker Console server. The Console server also provides reporting and monitoring capabilities for all NetWorker processes.

D

data availability Access to any and all user data by the application.

data retention policy	See "retention policy."
data segment	A unit of data that can be backed up and recovered. For CLARiiON systems, this is called a LUN. See also "Logical Unit (LUN)."
device	<ol style="list-style-type: none">1. A storage unit that reads from and writes to backup volumes. A storage unit can be a tape device, optical drive, autochanger, or file connected to the NetWorker server or storage node.2. When dynamic drive sharing (DDS) is enabled, refers to the access path to the physical drive.
directed recovery	A recovery method used to recover data that originated on one computer to another computer.
directive	Instructions to take special actions on a given set of files for a specified client during a backup.
drive	When dynamic drive sharing (DDS) is enabled, refers to the physical backup object, such as a tape drive, disk, or file. See also "device."
E	
expiration date	The date when a volume changes from read/write to read-only.
expired save set	A save set that has reached its browse time and is no longer browsable.
F	
failover	Relocating a cluster resource to its redundant (backup) component, either because of a hardware or software failure or for administrative purposes.
file index	See "client file index."
full backup	See "level."
G	
group	A client or group of clients configured to back up files to the NetWorker server at a designated time of day.

H

host ID A serial number that uniquely identifies a computer.

I

inactivity timeout The number of minutes to wait before a client is considered to be unavailable for backup.

insertion time The time that the save set record was most recently introduced into the save set database.

I/O device An addressable input/output unit, such as a disk device.

J

Java A high-level programming language. The Java Virtual Machine (JVM) enables the same, unmodified Java program to run on most computer operating systems.

Java Virtual Machine (JVM) An execution environment for interpreting the Java programming language. Each operating system runs a unique JVM to interpret Java code.

L

label A NetWorker assigned label that uniquely identifies a volume. Templates can be used to define label parameters.

level A measurement that determines how much data is saved during a scheduled or ad hoc backup.

A full (f) backup backs up all files, regardless of whether they have changed. Levels one through nine [1-9] backup files that have changed since the last lower numbered backup level. An incremental (incr) backup backs up only files that have changed since the last backup.

license enabler A code that is required to run a feature or product.

License Manager (LLM) An application that provides a central point for managing product licenses.

Logical Unit (LUN) A logical unit of storage on a CLARiiON system.

M

managed applications A program that can be monitored and/or administered from the Console server.

manual backup See "ad hoc backup."

media The physical storage medium, such as magnetic tape, optical disk, or file system to which backup data is written.

mirrored pair A logical volume with all data recorded twice, once on each of two different physical devices.

N

NetWorker administrator A user who can add to or change the configuration of the NetWorker server, media devices, and libraries. NetWorker administrators must have their usernames included in the NetWorker server Administrator list.

NetWorker Console server See "Console server."

NetWorker server The computer running the NetWorker server software, which contains the client configuration information and provides backup and recovery services to the clients on the same network.

NetWorker storage node See "storage node."

P

policy A set of constraints that specify how long data is available for recovery. Each Client resource has a browse policy and a retention policy.

R

recover To restore files from a backup volume to a client disk.

recyclable save set A save set whose browse and retention policies have expired. Recyclable save sets are removed from the media database.

recyclable volume	A volume whose data has passed both its browse and retention policies and is now available to be relabeled.
remote device	A storage device that is attached to a storage node.
remote procedure call (RPC)	The protocol that the NetWorker server uses to perform client requests over a network.
resource	A component that describes the NetWorker server or its clients. Clients, devices, schedules, groups, and policies are all NetWorker resources. Each resource has attributes that define its properties.
retention policy	Determines how long backup data is available for recovery, though not necessarily immediate recovery. See also "browse policy."
retry mechanism	The action NetWorker software performs when client operations fail. This situation might occur when the rate of transmission is either low or nonexistent.

S

SAN Copy	An EMC software feature that enables the copying of data from one location to another.
save	The command that backs up client files and makes entries in the online index.
save set	A group of files or a file system that is backed up on storage media.
snapshot	A point-in-time copy of data created during an instant backup.
storage array	A configuration element in the NetWorker Module for MEDITECH interface that enables the proxy server to communicate with the CLARiiON systems that store MEDITECH data.
storage node	A storage device physically attached to another computer whose backup operations are controlled by the NetWorker server.

V

- volume**
1. The physical storage medium, such as magnetic tape, optical disk, or file system to which backup data is written.
 2. An identifiable unit of data storage that may reside on one or more computer disks.

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