

Dell EMC NetWorker

Version 19.1

Licensing Guide

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REV 01

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Preface

As part of an effort to improve product lines, periodic revisions of software and hardware are released. Therefore, all versions of the software or hardware currently in use might not support some functions that are described in this document. The product release notes provide the most up-to-date information on product features.

If a product does not function correctly or does not function as described in this document, contact a technical support professional.

Note

This document was accurate at publication time. To ensure that you are using the latest version of this document, go to the Support website <https://www.dell.com/support>.

Purpose

This document describes how to evaluate and permanently license the NetWorker software. It also helps you determine which of the NetWorker licensing models to use.

Audience

This guide is intended for use by system administrators who are responsible for installing and licensing NetWorker software.

The information in this guide assumes that the NetWorker software is installed and that all the software and hardware requirements have been met on the computer that accesses the NetWorker Management Console interface. These requirements are described in the *NetWorker Installation Guide*.

Revision history

The following table presents the revision history of this document.

Table 1 Revision history

Revision	Date	Description
01	May 20, 2019	First release of this document for NetWorker 19.1.

Related documentation

The NetWorker documentation set includes the following publications, available on the Support website:

- *NetWorker E-LAB Navigator*
Provides compatibility information, including specific software and hardware configurations that NetWorker supports. To access E-LAB Navigator, go to <https://elabnavigator.emc.com/eln/elhome>.
- *NetWorker Administration Guide*
Describes how to configure and maintain the NetWorker software.
- *NetWorker Network Data Management Protocol (NDMP) User Guide*
Describes how to use the NetWorker software to provide data protection for NDMP filers.
- *NetWorker Cluster Integration Guide*
Contains information related to configuring NetWorker software on cluster servers and clients.

- *NetWorker Installation Guide*
Provides information on how to install, uninstall, and update the NetWorker software for clients, storage nodes, and servers on all supported operating systems.
- *NetWorker Updating from a Previous Release Guide*
Describes how to update the NetWorker software from a previously installed release.
- *NetWorker Release Notes*
Contains information on new features and changes, fixed problems, known limitations, environment and system requirements for the latest NetWorker software release.
- *NetWorker Command Reference Guide*
Provides reference information for NetWorker commands and options.
- *NetWorker Data Domain Boost Integration Guide*
Provides planning and configuration information on the use of Data Domain devices for data deduplication backup and storage in a NetWorker environment.
- *NetWorker Performance Optimization Planning Guide*
Contains basic performance tuning information for NetWorker.
- *NetWorker Server Disaster Recovery and Availability Best Practices Guide*
Describes how to design, plan for, and perform a step-by-step NetWorker disaster recovery.
- *NetWorker Snapshot Management Integration Guide*
Describes the ability to catalog and manage snapshot copies of production data that are created by using mirror technologies on storage arrays.
- *NetWorker Snapshot Management for NAS Devices Integration Guide*
Describes how to catalog and manage snapshot copies of production data that are created by using replication technologies on NAS devices.
- *NetWorker Security Configuration Guide*
Provides an overview of security configuration settings available in NetWorker, secure deployment, and physical security controls needed to ensure the secure operation of the product.
- *NetWorker VMware Integration Guide*
Provides planning and configuration information on the use of VMware in a NetWorker environment.
- *NetWorker Error Message Guide*
Provides information on common NetWorker error messages.
- *NetWorker Licensing Guide*
Provides information about licensing NetWorker products and features.
- *NetWorker REST API Getting Started Guide*
Describes how to configure and use the NetWorker REST API to create programmatic interfaces to the NetWorker server.
- *NetWorker REST API Reference Guide*
Provides the NetWorker REST API specification used to create programmatic interfaces to the NetWorker server.
- *NetWorker 19.1 with CloudBoost 19.1 Integration Guide*
Describes the integration of NetWorker with CloudBoost.
- *NetWorker 19.1 with CloudBoost 19.1 Security Configuration Guide*
Provides an overview of security configuration settings available in NetWorker and Cloud Boost, secure deployment, and physical security controls needed to ensure the secure operation of the product.

- **NetWorker Management Console Online Help**
Describes the day-to-day administration tasks performed in the NetWorker Management Console and the NetWorker Administration window. To view the online help, click **Help** in the main menu.
- **NetWorker User Online Help**
Describes how to use the NetWorker User program, which is the Windows client interface, to connect to a NetWorker server to back up, recover, archive, and retrieve files over a network.

Special notice conventions that are used in this document

The following conventions are used for special notices:

NOTICE

Identifies content that warns of potential business or data loss.

Note

Contains information that is incidental, but not essential, to the topic.

Typographical conventions

The following type style conventions are used in this document:

Table 2 Style conventions

Bold	Used for interface elements that a user specifically selects or clicks, for example, names of buttons, fields, tab names, and menu paths. Also used for the name of a dialog box, page, pane, screen area with title, table label, and window.
<i>Italic</i>	Used for full titles of publications that are referenced in text.
Monospace	Used for: <ul style="list-style-type: none"> • System code • System output, such as an error message or script • Pathnames, file names, file name extensions, prompts, and syntax • Commands and options
<i>Monospace italic</i>	Used for variables.
Monospace bold	Used for user input.
[]	Square brackets enclose optional values.
	Vertical line indicates alternate selections. The vertical line means or for the alternate selections.
{ }	Braces enclose content that the user must specify, such as x, y, or z.
...	Ellipses indicate non-essential information that is omitted from the example.

You can use the following resources to find more information about this product, obtain support, and provide feedback.

Where to find product documentation

- <https://www.dell.com/support>

- <https://community.emc.com>

Where to get support

The Support website <https://www.dell.com/support> provides access to product licensing, documentation, advisories, downloads, and how-to and troubleshooting information. The information can enable you to resolve a product issue before you contact Support.

To access a product-specific page:

1. Go to <https://www.dell.com/support>.
2. In the search box, type a product name, and then from the list that appears, select the product.

Knowledgebase

The Knowledgebase contains applicable solutions that you can search for either by solution number (for example, KB000xxxxxx) or by keyword.

To search the Knowledgebase:

1. Go to <https://www.dell.com/support>.
2. On the **Support** tab, click **Knowledge Base**.
3. In the search box, type either the solution number or keywords. Optionally, you can limit the search to specific products by typing a product name in the search box, and then selecting the product from the list that appears.

Live chat

To participate in a live interactive chat with a support agent:

1. Go to <https://www.dell.com/support>.
2. On the **Support** tab, click **Contact Support**.
3. On the **Contact Information** page, click the relevant support, and then proceed.

Service requests

To obtain in-depth help from Licensing, submit a service request. To submit a service request:

1. Go to <https://www.dell.com/support>.
2. On the **Support** tab, click **Service Requests**.

Note

To create a service request, you must have a valid support agreement. For details about either an account or obtaining a valid support agreement, contact a sales representative. To get the details of a service request, in the *Service Request Number* field, type the service request number, and then click the right arrow.

To review an open service request:

1. Go to <https://www.dell.com/support>.
2. On the **Support** tab, click **Service Requests**.
3. On the **Service Requests** page, under **Manage Your Service Requests**, click **View All Dell Service Requests**.

Online communities

For peer contacts, conversations, and content on product support and solutions, go to the Community Network <https://community.emc.com>. Interactively engage with customers, partners, and certified professionals online.

How to provide feedback

Feedback helps to improve the accuracy, organization, and overall quality of publications. You can send feedback to DPAD.Doc.Feedback@emc.com.

CHAPTER 1

Introduction

This chapter includes the following topics:

- [About this guide](#).....16
- [Differences between served and unserved licenses](#)..... 16
- [Supported license configuration](#)20

About this guide

This guide describes the licensing options available in NetWorker 19.1 that you can use to permanently license the NetWorker software. You can download the software from <https://support.emc.com>. NetWorker 19.1 has extended the license-free trial period without requiring a license to 90 days. NetWorker enters evaluation mode for 90 days and a grace period of 30 days is activated automatically (a total of 120 days). NetWorker 19.1 allows you to use a served or unserved license.

The information in this guide assumes that the NetWorker software is installed and that all of the software and hardware requirements have been met on the computer that accesses the NetWorker Management Console (NMC) interface, known as the Console. These requirements are described in the *NetWorker Installation Guide*.

Differences between served and unserved licenses

NetWorker 19.1 allows you to use a served or unserved license. A served license requires installation and configuration of the Dell EMC License Server, also known as the CLP License Server. An unserved license does not require you to install the License Server or open any associated firewall ports to enable communication with the License Server.

The following table demonstrates the differences between served and unserved licenses.

Table 3 Differences between served and unserved licenses

Served license	Unserved license
License Server required	License Server not required
Port/firewall dependency	No port/firewall dependency
License file is generated based on the License Server host	License file is generated based on the NetWorker server host. For more information refer to How to obtain the NetWorker license
License file served multiple NetWorker servers	License file serves only one NetWorker server

Example 1 Difference between license file with served and unserved license

The following images display the capacity and update entitlements based on the served and unserved license:

Example 1 Difference between license file with served and unserved license (continued)**Figure 1** Served capacity entitlement license file

```
#####  
# EMC License File  
# Activation Date: Jun 21, 2018 01:51:15 PM  
# Activated By: System Admin  
# Type: SERVED  
#####  
SERVER testmachine2 INTERNET=10.87.240.72 27000  
VENDOR EMCLM PORT=27001  
USE_SERVER  
INCREMENT NETWORKER_CAPACITY EMCLM 1.0 permanent 2 \  
    VENDOR_STRING="REVISION=15; PRODUCT_LINE=EMC \  
    NetWorker; FEATURE_NAME=NETWORKER_CAPACITY; UOM_CODE=CA; UOM_NAME=Reg  
istered \  
    Capacity in TB; SWID=ELMNET0618VRCCR; PLC=NETWV" \  
    dist_info="ACTIVATED TO EMC-Not For Resale" ISSUER=EMC \  
    ISSUED=21-Jun-2018 NOTICE="ACTIVATED TO License Site Number: \  
    PTA15NOV2007523837" SN=3481606 SIGN="00CA 85E5 AC16 2B8A 6FA5 \  
    7FEE 4344 AC00 B7CA 0F9C 01E5 66D1 36D3 AA0E 8D3A"
```

Example 1 Difference between license file with served and unserved license (continued)

Figure 2 Served update entitlement license file

```
#####  
# EMC License File  
# Activation Date: Jun 21, 2018 01:53:14 PM  
# Activated By: System Admin  
# Type: SERVED  
#####  
SERVER testmachine2 INTERNET=10.87.240.72 27000  
VENDOR EMCLM PORT=27001  
USE_SERVER  
INCREMENT NETWORKER_UPDATE EMCLM 1.0 permanent 1 \  
    VENDOR_STRING="REVISION=15; PRODUCT_LINE=EMC \  
    NetWorker; FEATURE_NAME=NETWORKER_UPDATE;SWID=ELMNET0618VRCR;PLC=NETWV" \  
    dist_info="ACTIVATED TO EMC-Not For Resale" ISSUER=EMC \  
    ISSUED=21-Jun-2018 NOTICE="ACTIVATED TO License Site Number: \  
    PTA15NOV2007523837" SN=3481608 SIGN="0016 4063 6F42 77A7 B0E8 \  
    7C3A F258 4B00 D78B 31EA 1601 C282 E437 DDEF 5BAA"
```

Example 1 Difference between license file with served and unserved license (continued)

Figure 3 Unserved capacity entitlement license file

```
#####
# EMC License File
# Activation Date: Jun 21, 2018 01:49:50 PM
# Activated By: System Admin
# Type: UNSERVED
#####
INCREMENT NETWORKER_CAPACITY EMCLM 1.0 permanent uncounted \
    VENDOR_STRING="HOSTID=10.87.240.75; COUNT=2; REVISION=15; PRODUCT_LINE=EMC \
    NetWorker;
FEATURE_NAME=NETWORKER_CAPACITY_Unserved;UOM_CODE=CA;UOM_NAME=Registered \
    Capacity in TB; SWID=ELMNET06189P8X;PLC=NETWV" \
    HOSTID=INTERNET=10.87.240.75 dist_info="ACTIVATED TO EMC-Not \
    For Resale" ISSUER=EMC ISSUED=21-Jun-2018 NOTICE="ACTIVATED TO \
    License Site Number: PTA15NOV2007523837" SN=3481604 SIGN="009D \
    5E9C 9279 A06D FB7C 3404 228D D700 34D5 42D4 4513 B5CD 06BB \
    AOB8 456B"
```

Example 1 Difference between license file with served and unserved license (continued)

Figure 4 Unserved update entitlement license file

```
#####
# EMC License File
# Activation Date: Jun 21, 2018 01:44:49 PM
# Activated By: System Admin
# Type: UNSERVED
#####
INCREMENT NETWORKER_UPDATE EMCLM 1.0 permanent uncounted \
    VENDOR_STRING="HOSTID=10.87.240.75; COUNT=1;REVISION=15;PRODUCT_LINE=EMC \
    NetWorker;FEATURE_NAME=NETWORKER_UPDATE_Unserved;SWID=ELMNET06189P8X;PLC=N \
    ETWV" \
    HOSTID=INTERNET=10.87.240.75 dist_info="ACTIVATED TO EMC-Not \
    For Resale" ISSUER=EMC ISSUED=21-Jun-2018 NOTICE="ACTIVATED TO \
    License Site Number: PTA15NOV2007523837" SN=3481565 SIGN="0017 \
    AE1D A4DA FB57 9260 AF2E 7AC6 4800 BF6C 3E20 2DA1 CFA4 A1B3 \
    A8D7 7798"
```

Supported license configuration

The following table displays the supported license configuration:

Table 4 Supported license configuration (new installation)

New NetWorker 19.1 installation	Artifact	Base license for new installation
NetWorker 19.1 installation with served license	License file	Served capacity entitlement
NetWorker 19.1 installation with unserved license	License file	Unserved capacity entitlement
NetWorker 19.1 installation with traditional license	Enablers and authorization code	Base enabler

Table 5 Supported license configuration (upgrade path)

Upgrade path from a version earlier than NetWorker 19.1 to NetWorker 19.1	Artifact	Base license for new installation	Post upgrade
NetWorker 8.2.4 upgrade (Traditional license) to NetWorker 19.1 with served license	Enablers and authorization code	Base enabler	Served update entitlement. <hr/> Note After an upgrade, by default update entitlement is enabled for a period of 120 days. Contact the Dell EMC licensing team to get the update license file for permanent licensing.
NetWorker 8.2.4 upgrade (Traditional license) to NetWorker 19.1 with unserved license	Enablers and authorization code	Base enabler	Unserved update entitlement. <hr/> Note After an upgrade, by default update entitlement is enabled for a period of 120 days. Contact the Dell EMC licensing team to get the update license file for permanent licensing.
NetWorker 9.x or NetWorker 18.x upgrade to NetWorker 19.1 with served license.	License file	Served capacity entitlement	NA
NetWorker 9.x or NetWorker 18.x upgrade to NetWorker 19.1 with unserved License	License file	Unserved capacity entitlement	NA
NetWorker 9.x or NetWorker 18.x(Traditional license) upgrade to NetWorker 19.1 (Traditional license)	Enablers and authorization code	Base enabler	NA

CHAPTER 2

Licensing the NetWorker Server

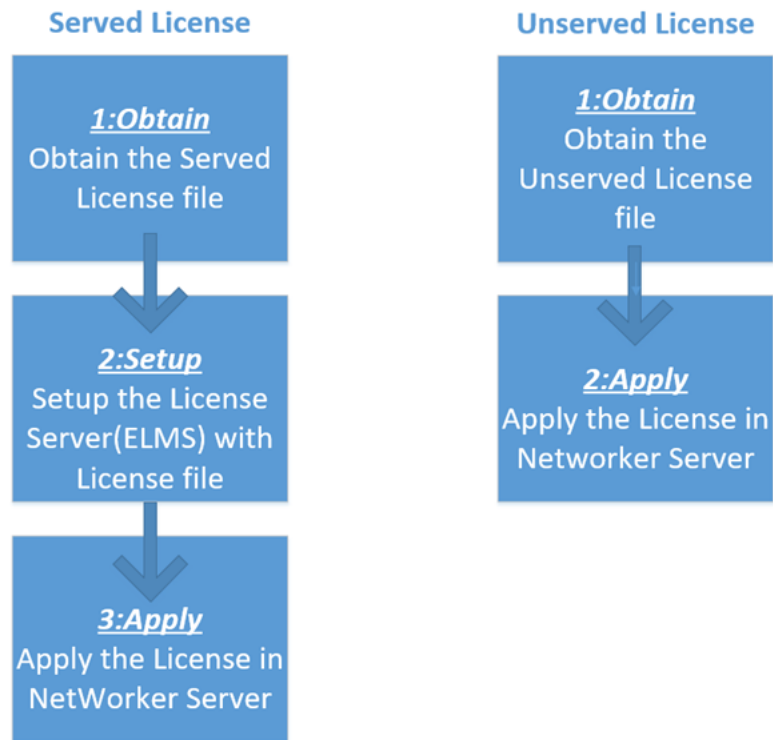
This chapter includes the following topics:

- [Licensing process](#).....24
- [Served license](#).....24
- [Unserved license](#).....25
- [Obtain the license server and NetWorker server IP address](#).....25
- [How to obtain the NetWorker license](#).....25
- [Installing the Dell EMC license server \(served licenses only\)](#).....27
- [Managing the Dell EMC License Server \(served licenses only\)](#).....30
- [Applying NetWorker 19.1 license](#).....35
- [Upgrading NetWorker license](#).....39

Licensing process

The following diagram represents the licensing process for both served and unserved licenses.

Figure 5 Licensing process (served and unserved)



Served license

To license the NetWorker server using a served license:

- Obtain the served license file. The topic [How to obtain the NetWorker license](#) provides more information.
- Set up the license server. The topic [Installing the license server \(served licenses only\)](#) provides more information .
- Apply the license. The topic [NetWorker 19.1 new installation with served license](#) provides more information.

Unserviced license

To license the NetWorker server using a unserved license:

- Obtain the unserved license file. The topic [How to obtain the NetWorker license](#) provides more information.
- Apply the license. The topic [NetWorker 19.1 new installation with unserved license](#) provides more information.

Obtain the license server and NetWorker server IP address

Whether you are using a served or unserved license, you must obtain the IP address of the License Server and/or the NetWorker Server and provide this information to Dell EMC Licensing. For a served license, you can use the `lmutil lmhostid` command to determine the License Server's IP. For an unserved license, you can use the operating system commands `ifconfig` or `ipconfig`.

Locating the License Server IP address

After installing the Dell EMC License Server software, use the following procedures to determine the License Server IP address.

On Windows:

1. Go to **Start > Run**.
2. Type `cmd` and click **OK** to open a command prompt.
3. At the `C:\>` prompt, type `C:\Program Files\EMCLicenseServer\lmutil" lmhostid -internet -v4`, and then press **Enter**.

On Linux:

1. Open a command shell.
2. At a shell prompt, type `lmutil lmhostid -internet -v4`, and then press **Enter**.

Locating the NetWorker Server IP address

After installing the NetWorker Server software, use the following procedures to determine the NetWorker Server IP address.

On Windows:

1. Go to **Start > Run**.
2. Type `cmd` and click **OK** to open a command prompt.
3. At the `C:\>` prompt, type `ipconfig`, and then press **Enter**.

On Linux:

1. Open a command shell.
2. At the shell prompt, type `ifconfig`, and then press **Enter**.

How to obtain the NetWorker license

This section provides information on how to obtain the NetWorker license for the following scenarios:

- New installation for NetWorker 19.1 license file (both served and unserved license)
- Update entitlement/upgrade for NetWorker 19.1 license file (both served and unserved license)

- Conversion from served to unserved license

New installation for NetWorker 19.1 license file (both served and unserved license)

Visit <https://licensing.emc.com/> to activate your software.

You will need the following details to complete the activation:

- Dell EMC Sales Order number or the LAC number. You obtain these details from the LAC letter that you receive from Dell EMC after the order fulfillment.
- If served license needs to be generated, you will need the IP address and the hostname of the license server to complete the activation.
- If unserved license needs to be generated, you will need the IP address and the hostname of the NetWorker server to complete the activation.

Update entitlement/upgrade for NetWorker 19.1 license file (both served and unserved license)

As soon as the upgrade is complete, raise a service request to get the Dell EMC licensing team engaged to assist you in generating the update file.

To open a service request:

- Contact Dell EMC live support team by calling:
 - US Toll Free 800-782-4362 and selecting option 4.
 - This team is available 24/7 to help you create your service requests only.
 - International Toll Free numbers are found at [EMC support page](#).

In the service request, mention the following details for quicker resolution:

- Host ID of the NetWorker server that has been upgraded.
- If served license type is required, the IP address and the hostname of the license server.
- If unserved license type is required, the IP address and the hostname of the NetWorker server.

Conversion from served to unserved license

Visit the software licensing central <https://licensing.emc.com/> to change the license type from served to unserved by performing a Rehost and then selecting the type as Unserved in the drop down page of Step3: Enter Rehost details and select the type as Unserved.

You will need the following details to complete this process:

- IP address and the hostname of the license server using which the served license was generated.
- IP address and the hostname of the NetWorker server for which the unserved license needs to be generated.

Conversion from traditional based licensing to capacity based licensing

Customers on current support can migrate from the product based model to the capacity based model. This would give them access to all NetWorker products at no

extra cost. The customer should work with their Dell/EMC sales account team to start the process.

Installing the Dell EMC license server (served licenses only)

After you install the NetWorker software, if using a served license you must install the Dell EMC License Server to enable the Dell EMC Licensing Solution. Installation packages for the License Server are available from the same download location as the NetWorker software.

Before you begin

Ensure that you install the License Server on a system that is accessible to all datazones that will require access to the License Server.

If you do not install the License Server during the NetWorker software installation, you can install this server later. If NetWorker does not detect the license and an `nsrd` check does not discover any licenses, NetWorker enters evaluation mode for 90 days and grace period of 30 days is activated automatically. You can install the License Server at any time during the evaluation period to enable the Dell EMC Licensing Solution.

Review this section for basic instructions about how to install the License Server on a Windows or Linux 64-bit platform. Use the *License Server Installation and Administration Guide* for complete License Server installation and setup instructions.

Note

Installation of the License Server on a NetWorker Virtual Edition (NVE) appliance is not supported.

Install the license server (Windows 64-bit platform)

After you complete the NetWorker 19.1 installation, install the License Server from the 64-bit Windows package. For the license server package name for Windows, refer to table 9.

Before you begin

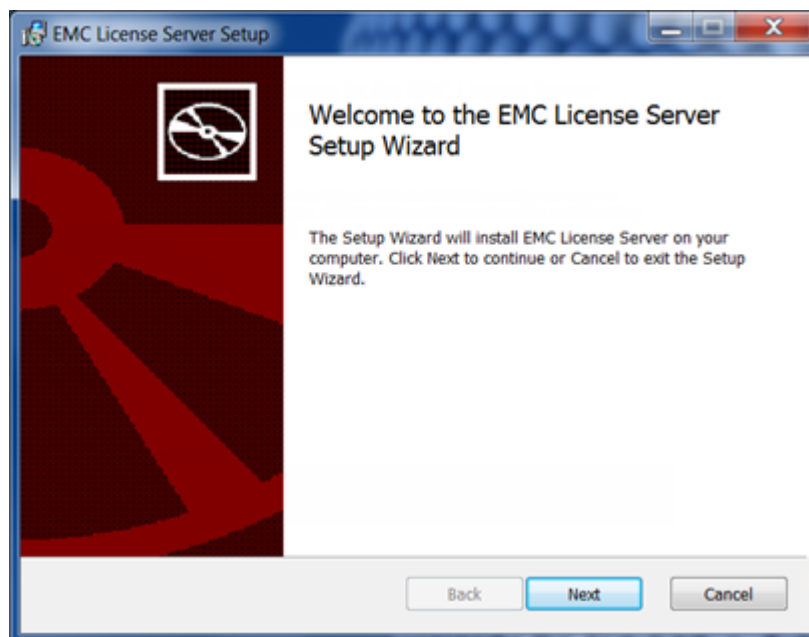
During the NetWorker installation, do not select the option to install the NetWorker License Manager software. To use the Dell EMC Licensing Solution, the NetWorker License Manager is not required.

If using a served license, the License Server is required for new and upgraded installations of NetWorker 19.1, even if you plan on using traditional enabler-based licensing.

Procedure


1. Download the Windows 64-bit installation package from the same location that you downloaded the NetWorker software from.
2. Start the Dell EMC License Server Setup wizard. For example, open the `EMC_LicenseServer_3.4.0_x64_installer.msi` file.

The following figure displays the Dell EMC License Server Setup Wizard.

Figure 6 Dell EMC license Server Setup Wizard

3. Click **Next** to review and accept the License agreement.
4. Leave the destination folder for the installation of the Dell EMC License Server software as `\EMC License Server`.
5. Click **Next**, and then click **Finish** to complete the wizard.

Results

When the installation completes, a shortcut for the **LMTOOLS** utility  appears on your desktop. **LMTOOLS** allows you to manage the License Server. To complete the setup and configuration, perform the steps in the sections [Set up the served license file](#) and [LMTOOLS configuration on Windows](#).

Install the license server (Linux 64-bit platform)

After you complete the NetWorker 19.1 installation, install the License Server from the 64-bit Linux package. For the license server package name for Linux, refer to table 9. If using a served license, the License Server is required for new and upgraded installations of NetWorker 19.1, even if you plan on using the traditional enabler-based licensing model. For more information on license server package for Linux, refer to table 9.

Before you begin

On the License Server, create a folder called `/opt/emc/licenses`, and copy the license file that you obtain from Dell EMC Licensing to this folder.

Note

During the NetWorker 19.1 installation, do not install the NetWorker License Manage package, `lgtolicm`. The NetWorker License Manager is not required to use the Dell EMC Licensing Solution.

Procedure

1. Download the Linux 64-bit installation package from the same location that you downloaded the NetWorker software from.

2. Log in to Linux as `root` or as a user with `sudo` privileges.
3. At the command prompt, type the following command to install the package, using the appropriate package version. For example:

```
/opt/emc # rpm -v -i /tmp/
emclenseserver-3.5.0-1.x86_64_lsb.rpm
```

4. To confirm that the installation was successful perform the following steps:
 - a. Type `ls /opt/emc/emclenseserver/`
 - b. In the directory listing output, verify that the following files were extracted:
 - `EMCLM`
 - `lmgrd`
 - `lmutil`
 - `Readme.txt`

Note

After you install the License Server software on a Linux platform, the following error might appear: `"-bash: ./lmgrd: No such file or directory"`. This error occurs because a library file is missing, typically the `ld-lsb-x86-64.so.3` library file. If the library file does not exist on your system or, the incorrect version is installed, you must install the correct package. To verify which package the library file belongs to, you can run an `rpm` query if `rpm` packages are on your system. For example, type `rpm -qf /lib64/ld-lsb-x86-64.so.3 lsb-4.0-22.3.1.x86_64`. After you install the package that contains the required library file, the License Server should start.

Set up the served license file

The license file that you obtain from Dell EMC Licensing contains information about the license entitlement type (a Capacity or Update Entitlement), whether the license is served, and, if applicable, the License Server configuration. Dell EMC Licensing populates the file with this information after you provide the details and requirements for your environment. It is recommended that you do not edit the license file. Doing so can corrupt the file, which makes it unusable by the License Server and the NetWorker Server.

Before you begin

It is recommended that you obtain the license file before you install the License Server. When using a served license and you install the License Server before obtaining the license file, record the server hostname/IP and port number because you must provide this information to Dell EMC Licensing to populate the file with these details. If the default port 27000 is unavailable, select an open port that can be used for communication between the License Server and the NetWorker software. It is recommended that, at a minimum, you keep ports 27000 and 27001 open.

Procedure

1. If you have not already obtained the license file from Dell EMC Licensing, contact Dell EMC Licensing to obtain the file.

A license file with a Capacity Entitlement looks similar to the following example for a served license.

Figure 7 Sample license file with Capacity Entitlement

```
#####
# EMC License File
# Activation Date: Dec 10, 2015 10:52:23 AM
# Activated By: EMC
# Type:SERVED
#####
SERVER WIN-2HAGHD62MFO INTERNET=10.31.225.161 27000
VENDOR EMCLM
USE_SERVER
INCREMENT NETWORKER_CAPACITY EMCLM 1.0 permanent 5 \
  VENDOR_STRING=REVISION=15;SWID=ELMRL749P8J02C;PLC=NETWV \
  dist_info="ACTIVATED TO CHEVRON" ISSUER=EMC ISSUED=10-Dec-2015 \
  NOTICE="ACTIVATED TO License Site Number: PTA10NOV20151373569" \
  SN=2605002 SIGN="00AF 20A9 22D8 184B B86E 404E 7FB2 C000 EA16 \
  15C2 B3DC 0C8F 4197 A12E 3933"
```

2. When using a served license, create a directory in the location where you installed the License Server.

For example, on the License Server, create the following directories:

- On Windows: C:\Program Files\EMC License Server\elms \licenses
- On Linux: /opt/emc/licenses

Note

On Linux, you might be required to complete this step before you install the License Server package.

3. Copy the license file to the License Server directory that you previously created. Do not rename the license file. To apply the license in the NetWorker server, follow the steps in the section [NetWorker 19.1 new installation with served license](#).

Note

If you use FTP on Linux, ensure that the file permissions do not change.

Managing the Dell EMC License Server (served licenses only)

After you install the License Server and set up the license file on the License Server and the NetWorker Server, you must complete the configuration by starting the License Server.

Review this section for information about the basic steps for License Server management setup on Windows and Linux platforms. Use the *License Server Installation and Administration Guide* for complete License Server management instructions.

Managing the License Server (Windows)

You can start and manage the License Server by using the LMTOOLS utility on Windows.

Procedure

1. Open the **LMTOOLS** icon on your desktop.
2. On the **Service/License File** tab, select **Configuration using Services**.
3. Browse to the **Config Services** tab.
4. In the **Path to the lmgrd.exe file** field:

- a. To browse to the location of `lmgrd`, click **Browse**.
- b. Select the file.

For example, browse to `C:\Program Files\EMC License Server`, and then select `lmgrd`.

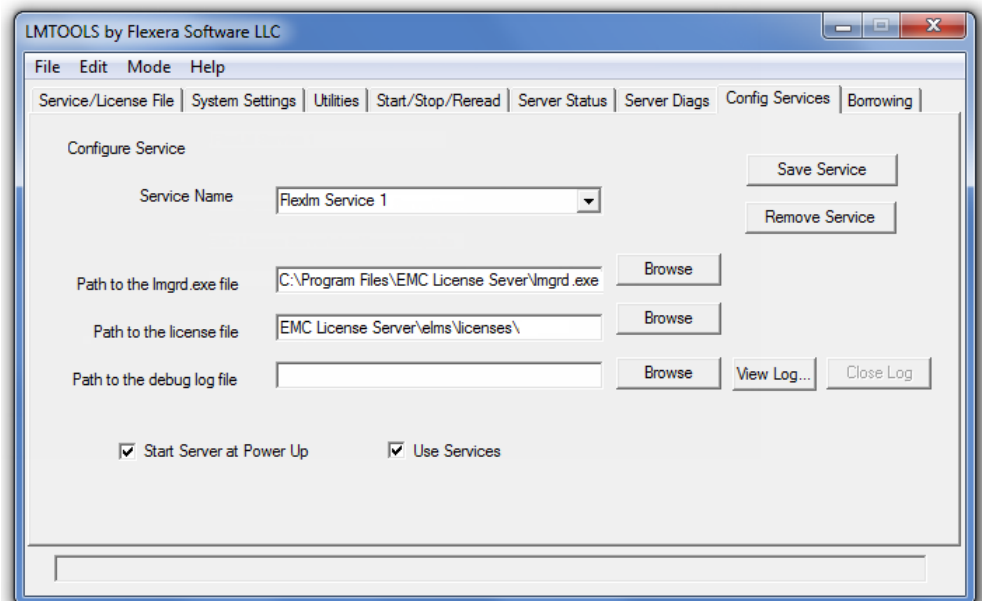
5. In the **Path to the license file** field:

- a. To browse to the location of the license file on the Dell EMC License Server, click **Browse**.
- b. Select the file.

For example, browse to `C:\Program Files\EMC License Server\elms\licenses`, and then select the license file.

The following figure displays the location of the license file on the Dell EMC License Server.

Figure 8 Config Services tab in LMTOOLS



The license file contains information about the License Server, such as the host address/IP and the port that is used for communication, information on the type of licenses, and the amount of capacity purchased.

6. Select **Use Services** and **Start Server at Power Up**, and then click **Save Service**.
7. Browse to the **Start/Stop/Reread** tab, and select **Start Server**.
8. Exit the **LMTOOLS** utility.

Results

After startup, the **Flexlm Service 1** service is shown as **Running** in the **Windows Task Manager**.

To change the **Flexlm Service 1** Startup type to **Automatic**, in **Windows Task Manager**, click the **Services** tab, and then click **Services**.

Manage the License Server (Linux)

On Linux, you can manage and start the License Server with the `lmgrd` command.

Before you begin

Before you run the `lmgrd` command, ensure that you complete the following tasks:

- Create the `/opt/emc/licenses` for the license file and the `/opt/emc/emclicenseserver/logs` directory for the log files.
- Add the license file that you received from Dell EMC Licensing to the `/opt/emc/licenses` directory.

Procedure

1. To start the License Server, at the command prompt, type `lmgrd`.

```
# ./lmgrd -l /opt/emc/emclicenseserver/logs/lmgrd.log -c /opt/emc/licenses
```

2. To manage the License Server, type the `lmgrd` command with the following arguments:

```
lmgrd [-c license_file_list] [-l [+]debug_log_path] [-2 -p] [-local] [-x lmdown] [-x lmremove] [-z] [-v] [-help]
```

The following table provides information about the arguments that you can use with the `lmgrd` command. The section [Lmutil application](#) provides more information on available arguments.

Table 6 `lmgrd` arguments

Argument	Description
<code>-c license_file_list</code>	Directs use of the specified license files.
<code>-l [+]debug_log_path</code>	Writes debugging information to file <code>debug_log_path</code> . This option uses the letter l , not the numeral 1 . Prefixing <code>debug_log_path</code> with the <code>+</code> character appends logging entries. Use the <code>-l</code> option before other options to log all debugging information to <code>debug_log_path</code> .
<code>-2 -p</code>	Restricts use of the <code>lmdown</code> , <code>lmreread</code> , <code>lmremove</code> , <code>lmswitch</code> , <code>lmswitchr</code> , and <code>lmnewlog</code> utilities, to a license administrator who is, by default, root. If there is a UNIX group called <code>lmadmin</code> , use is restricted to members only of that group. If root is not a member of this group, root does not have permission to use any of the mentioned utilities. If <code>-2 -p</code> is used

Table 6 lmgrd arguments (continued)

Argument	Description
	when starting <code>lmgrd</code> , no Windows user can shut down the License Server with <code>lmdown</code> or use the <code>lmswitch</code> , <code>lmswitchr</code> , and <code>lmnewlog</code> utilities.
<code>-local</code>	Restricts the <code>lmdown</code> and <code>lmreread</code> commands so they can run only from the same system where <code>lmgrd</code> is running.
<code>-x lmdown</code>	Disables the <code>lmdown</code> command so no user can run <code>lmdown</code> . If <code>lmdown</code> is disabled, stop <code>lmgrd</code> with the <code>kill pid</code> command, or stop the <code>lmgrd</code> and vendor daemon processes through the Windows Task Manager or Windows service. On Linux, ensure that the <code>kill</code> command does not have a <code>-9</code> argument.
<code>-x lmremove</code>	Disables the <code>lmremove</code> command (no user can run <code>lmremove</code>).
<code>-z</code>	Run in foreground. The default behavior is to run in the background. If you specify <code>-l debug_log_path</code> , no windows are used. If you do not specify the <code>-l</code> argument, separate windows are used for <code>lmgrd</code> and each vendor daemon.
<code>-v</code>	Displays the <code>lmgrd</code> version number and copyright, and then exits.
<code>-help</code>	Displays usage information, and then exits.
<code>-reuseaddr</code>	Allows the server to explicitly bind to a same port, which remains in <code>TIME_WAIT</code> state after the server restarts or crashes.

Start the License Server without a license file

If you have not obtained a license file, you can start the License Server by using the `lmgrd` command. When you add a license file, you can also run a command to re-read the file.

Procedure

1. To start the License Server without copying a license file to the license directory, from a command prompt, type the following command:

```
#./lmgrd -l
/opt/emc/emclikenseserver/logs/lmgrd.log -c
/opt/emc/licenses
```

2. To view the log file, type the following command:

```
/opt/emc/emclikenseserver # cat /opt/emc/emclikenseserver/
logs/lmgrd.log
```

3. To view what is running as the License Server, type the following command:

```
/opt/emc/emclikenseserver # ps -aef | grep lmgrd
```

4. After you obtain a license file, copy the file to the license directory, `/opt/emc/licenses`.

5. To reread the license file, type the following command:

```
#lmutil lmstat -a -c /opt/emc/licenses
```

```
#lmutil lmreread -c /opt/emc/licenses
```

lmutil application

In addition to `lmgrd`, you can use the `lmutil` application to manage some aspects of the License Server. This application is available on all platforms.

lmutil application arguments

The following table provides a list of the valid arguments for most `lmutil` utilities.

Table 7 lmutil arguments

Argument	Description
<code>-c <license_file_path></code>	Most <code>lmutil</code> utilities need the path to the license file. This is specified with the <code>-c license_file_path</code> argument.
<code>-help</code>	Displays usage information and exits.
<code>-v</code>	Displays the version of the utility and exits.
<code>-verbose</code>	Displays a longer description for errors that are found.

For the first argument of a `lmutil` command, you can specify one of the following utilities:

- `lmdown`—gracefully stops a license server system (manager and vendor daemon)
- `lmhostid`—calculates a hostid to identify a system or user
- `lmreread`—instructs the license server system to reread license and option files, and start new vendor daemons
- `lmstat`—displays the status of a license server system
- `lmswitch`—controls license server log location and size
- `lmver`—displays the version of a FLEXnet executable

The following table provides more information about the most common or useful commands that are helpful for troubleshooting License Server issues.

Table 8 Useful lmutil commands

Command	Purpose
<code>lmutil lmhostid</code>	Obtains the MAC address system information from the current system. A MAC address is a valid node-locking choice (HOSTID=) and can also be used in the SERVER line of a license file to identify the License Server. If multiple MAC addresses are listed by the command, use the first one. For example: <code>lmutil lmhostid</code> Verify the MAC address with its use in any license files. If the MAC address does not match any of the relevant uses, a mistake might have been made when the system information was entered for license activation.

Table 8 Useful lmutil commands (continued)

Command	Purpose
<code>lmutil lmreread</code>	Forces the License Server to instruct the Dell EMC vendor daemon to reread the license file for changes. Use this command if new or changed license files are made available. This command allows the License Server and the Dell EMC vendor daemon to continue to run and to update the internal cache of the license features from newly updated license files. For example: <code>lmutil lmreread -vendor EMCLM</code>
<code>lmutil lmstat</code>	Use this command to determine the running status of the License Server <code>lmgrd</code> . For example: <code>lmutil lmstat -a</code>
<code>lmutil lmdown</code>	When you provide the name of the license file that you used to start the License Server, this command gracefully shuts down the License Server and Dell EMC vendor daemon. To ensure that the proper processes are terminated, specify the license file name. You might be asked to confirm the shutdown before proceeding. For example: <code>lmlmutil lmdown -c <license_file_list></code>

Applying NetWorker 19.1 license

This section describes how to apply the NetWorker served, unserved, and traditional licenses.

NetWorker 19.1 new installation with unserved license

The following section provides an overview of the steps that are required to activate the Unserved Licenses in a new installation of NetWorker.

Before you begin

Obtain the license file from Dell EMC Licensing. For a new installation of NetWorker, this file contains a Capacity Entitlement. You can obtain an unserved Capacity Entitlement file after you provide Dell EMC Licensing with the License Server host/IP information and the required capacity.

Procedure

1. On the NetWorker server, launch the NMC **Administration** window, right-click the server, and then select **Properties** from the list. The **Server Properties** window appears.

- a. Select the **Licensing** tab.
 - b. In the **CLP license text** field, click **Browse**.
 - c. Navigate to the location of the license file, and select the license file.
 - d. Click **Validate license**. The **Validate license** button will be disabled until the contents are validated. You can check the status by using the `nsrlic -C` command.
2. In the **Server Properties** window, on the **Licensing** tab, ensure that the following fields have the correct values, and then click **OK**.
 - Solution ID
 - CLP SWID
 3. In the **NMC Administration** window, click **Server**, and then select **Registrations**. Confirm that the right pane displays an entry for CLP Capacity License that indicates the **Authorized -No expiration date**.

NetWorker 19.1 new installation with served license

The following section provides an overview of the steps that are required to activate the Served Licenses in a new installation of NetWorker.

Before you begin

Obtain the license file from Dell EMC Licensing. For a new installation of NetWorker, this file contains a served Capacity Entitlement. You can obtain the file after you provide Dell EMC Licensing with the License Server host/IP information and the required capacity. If using a served license and you cannot use the default port of 27000 for communication between NetWorker and the License Server, you must also provide the port number. Dell EMC Licensing requires this information to create the license file.

Procedure

1. If using a served license, download the License Server package for the appropriate platform from the same location that you downloaded the NetWorker software from. If using an unserved license, skip to step five.
2. Install the Windows or Linux 64-bit License Server package. You can install the License Server in the same location as the NetWorker Server. The following table provides the package name for each OS version.

Table 9 Package names for OS versions

OS	Package name
Windows	EMC_LicenseServer_3.4.0_x64 installer.msi
	<p>Note</p> <p>This license server package is applicable prior to NetWorker 19.1. This license server can license NetWorker 9.x to NetWorker 19.1 server.</p>

Table 9 Package names for OS versions (continued)

OS	Package name
RHEL 5 and SuSE 11	emclenseserver-3.4.1-2.x86_64_1sb.rpm Note This license server package is applicable prior to NetWorker 19.1. This license server can license NetWorker 9.x to NetWorker 19.1 server
RHEL 6,7 and SUSE 11, 12	emclenseserver-3.5.0-1.x86_64_1sb.rpm Note This license server package is applicable prior to NetWorker 19.1. This license server can license NetWorker 9.x to NetWorker 19.1 server.
Windows server 2012/ 2012 R2/ 2016	DellEMC_LicenseServer_3.6.0_x64.msi Note Recommended package for NetWorker 19.1.
RHEL 6,7, CentOS 7 variants, SUSE Linux Enterprise versions 11 and 12	dellmclenseserver-3.6.0-0.x86_64_1sb.rpm Note Recommended package for NetWorker 19.1.

3. In the location that you installed the License Server, copy the license file to the following directory:

Note

Do not rename the license file.

- On Windows: C:\Program Files\EMC License Server\elms\licenses
- On Linux: /opt/emc/licenses

Note

On Linux, you might be required to complete this step before you install the License Server package.

4. Complete the License Server configuration, and then start the License Server:
- On Windows, use **LMTOOLS** or the command-line interface. An icon for **LMTOOLS** appears on the desktop after the License Server installation.

- On Linux, use the `lmgrd` command-line utility.
5. On the NetWorker server, launch the NMC **Administration** window, right-click the server, and then select **Properties** from the list. The **Server Properties** window appears.
 - a. Select the **Licensing** tab.
 - b. In the **CLP license text** field, click **Browse**.
 - c. Navigate to the location of the license file, and select the license file.
 - d. Click **Validate license**. The **Validate license** button will be disabled until the contents are validated. You can check the status by using the `nsrlic -C` command.
 6. In the **Server Properties** window, on the **Licensing** tab, ensure that the following fields have the correct values, and then click **OK**.
 - CLP license server (served license only)
 - CLP License Server Port (served license only)
 - Solution ID
 - CLP SWID

Note

CLP refers to the Dell EMC License Server.

7. In the NMC **Administration** window, click **Server**, and then select **Registrations**. Confirm that the right pane displays an entry for CLP Capacity License that indicates the **Authorized -No expiration date**.

Additions to the NSR RAP resource

After you complete the License Server installation and setup, the NSR Resource Access Protocol (RAP) resource is populated with the License Server information. The following figure provides an example of the information.

Figure 9 NSR RAP resource

```

Command: Select [Next] Prev Edit Create Delete Options Quit
1 of 1 (on deb-win2012r2.nncdns.com)

type: NSR;
name: deb-win2012r2.nncdns.com;
version: NetWorker 9.1.0.2.Build.43 CLP Capacity License;
comment: ;
parallelism: 32;
manual save: [Enabled] Disabled ;
ACL passthrough: [Enabled] Disabled ;
save session distribution: [max sessions] target sessions ;
public archives: Enabled [Disabled];
accept new sessions: [Yes] No ;
accept new recover sessions: [Yes] No ;
volume priority: [NearLine Priority] SmartMedia Priority ;
SmartMedia save mount: volume by name [volume by characteristics];
CLP license text: SERVER Deb-Win2012R2 INTERNET-10.63.98.66 27000, UENDOR EMCLM, USE_SERVER;
CLP License server: Deb-Win2012R2;
CLP License server port: 27000;
Solution ID: "ELMNET0916NDK2:deb-win2012r2.nncdns.com";
CLP SWID: ELMNET0916NDK2;
CLP UOM: 1;
CLP refresh: Yes [No];
refresh license conformance re Yes [No];
device sharing mode: no sharing [maximal sharing];
WORM pools only hold WORM tape [Yes] No ;
WORM tapes only in WORM pools: [Yes] No ;
Job inactivity timeout: 0;
Jobsdb retention in hours: 72;
administrator: "group=Administrators,host=deb-win2012r2.nncdns.com",
"user=administrator,host=deb-win2012r2.nncdns.com",
"user=system,host=deb-win2012r2.nncdns.com";

contact name: ;
company: ;
street address: ;
city/Town: ;
state/province: ;
zip/postal code: ;
country: ;
phone: ;
fax: ;
email address: ;
server OS type: Windows NT Server on Intel;
site-id: ;
support email address: ;
purchase date: ;
product serial number: ;
datazone pass phrase: ;
Keep Incomplete Backups: Yes [No];
UMMS enable: [Yes] No ;
UMMS user name: UMMSuser;
UMMS user password: *****;
UMMS port: 8000;
Authentication Service port: 9090;
Authentication Service database: "C:\Program Files\EMC NetWorker\nsr\authc-server\toncat\data";
Authentication Proxy port: 7999;
Disable RFS Clone: Yes [No];

Keys: tab=next return=do command [a-z]=that command ^H=help

```

The attributes that are identified in the graphic (for example, CLP License server and CLP License server port) are populated from the license file stored in the NetWorker server host's `/nsr/lic/` directory and from queries of the License Server. These attributes are updated each time that you check out a license. Then Solution ID and CLP SWID are read from a license that is checked out from the License Server and not from the license file on the NetWorker server.

NetWorker 19.1 new installation with traditional license

To apply the traditional licensing follow the steps in the topic [Apply an evaluation enabler code](#).

Upgrading NetWorker license

This section provides information on how to upgrade the NetWorker licenses.

NetWorker 8.2.4 upgrade (Traditional license) to NetWorker 19.1 with served update entitlement license file

Before you begin

Ensure that the 8.2.4 (traditional licensing) is upgraded successfully.

Procedure

1. Upgrade to NetWorker 19.1.
2. Follow the steps mentioned in the topic [NetWorker 19.1 new installation with served license](#) using update entitlement license file.

Note

After an upgrade, by default update entitlement is enabled for a period of 120 days. Contact the Dell EMC licensing team to get the update license file for permanent licensing.

NetWorker 8.2.4 upgrade (Traditional license) to NetWorker 19.1 with unserved update entitlement license file

Before you begin

Ensure that the 8.2.4 (traditional licensing) is upgraded successfully.

Procedure

1. Upgrade to NetWorker 19.1.
2. Follow the steps mentioned in the topic [NetWorker 19.1 new installation with unserved license](#) using update entitlement license file.

Note

After an upgrade, by default update entitlement is enabled for a period of 120 days. Contact the Dell EMC licensing team to get the update license file for permanent licensing.

NetWorker 9.x or NetWorker 18.x upgrade to NetWorker 19.1 with served license

To upgrade from NetWorker 9.x or NetWorker 18.x to NetWorker 19.1 with served license, no action has to be performed.

In the NMC **Administration** window, click **Server**, and then select **Registrations**. Confirm that the right pane displays an entry for CLP Capacity License that indicates the **Authorized -No expiration date**.

NetWorker 9.x or NetWorker 18.x upgrade to NetWorker 19.1 with unserved license

To upgrade from NetWorker 9.x or NetWorker 18.x to NetWorker 19.1 with unserved license, no action has to be performed.

In the NMC **Administration** window, click **Server**, and then select **Registrations**. Confirm that the right pane displays an entry for CLP Capacity License that indicates the **Authorized -No expiration date**.

APPENDIX A

Additional Information About NetWorker Licensing

The Appendix includes the following topics:

- [About the traditional enabler-based licensing model](#)..... 42
- [The evaluation process](#).....43
- [License process flow](#).....46
- [Permanently license the NetWorker software](#).....47
- [Product licenses](#).....53

About the traditional enabler-based licensing model

You can download and evaluate NetWorker software and added features, such as modules, from the Dell EMC Online Support website at <https://support.emc.com>. The software can be evaluated for 90 days without an enabler code or license. [The evaluation process](#) on page 43 provides information.

To permanently use the NetWorker software with the traditional enabler-based licensing model, you must license the software on the Dell EMC Licensing website and apply the supplied licensing key to the NetWorker server. The license key includes permanent enabler codes and corresponding authorization (auth) codes. [Permanently license the NetWorker software](#) on page 47 provides information. Additionally, the *Dell EMC Software Price Guide: Open Storage Software* provides more details.

Base enabler

Each installation of NetWorker server software must be licensed with a server enabler, called a base enabler. This enabler activates the software and validates the use of a particular bundle of features, such as a specified number of clients and devices. All license keys are entered and stored on the NetWorker server, which enforces the licensing.

Base enablers come in different editions that enable varying degrees of functionality. Add-on enablers allow a broad scope of additional features.

NOTICE

You cannot delete the base enabler. You can use the `nsrccap` command-line utility to upgrade or downgrade the base enabler. However, after you upgrade or downgrade a base enabler, you cannot restore to the original lower function base enabler. You must obtain a new base enabler from Dell EMC Licensing. For example, if you upgrade from Work Edition to Power Edition but then regress to Work Edition, the original Work Edition base enabler is invalid. You must obtain a new Work Edition base enabler from Dell EMC Licensing.

The following tips apply to the base enabler:

- As soon as the base enabler is entered, the evaluation mode ends. A function that was available during a 90-day evaluation mode must be specifically enabled with either an evaluation or permanent enabler.
- When entering a group of enablers, always type the base enabler last to avoid disabling features that require a license that is separate from the base enabler.

Evaluation enabler

Evaluation enablers are free and must be applied on the NetWorker server. An evaluation enabler extends the evaluation period for an additional 45 days. The evaluation enabler cannot be extended or permanently enabled. It must be removed from the production environment before or on its expiry date.

[Evaluation enabler](#) provides more information.

Update enabler

An update enabler is necessary to move from an existing major NetWorker release to a newer major NetWorker release.

Updating within a minor release, for example, from NetWorker 8.2 SP1 to NetWorker 8.2 SP2, does not require an update enabler.

If an update enabler is required, the NetWorker software automatically adds the required update enabler code to its configuration. The update enabler expires after 90 days. You must contact Dell EMC Licensing within 90 days to permanently authorize the update enabler.

NOTICE

If the authorization (auth) code for the update enabler code is not applied within 90 days, the NetWorker server software is disabled. Entering an auth code enables the software even if the update enabler code has expired.

View the update enabler alert

An alert message is generated 45 days before a NetWorker update enabler code expires. This alert remains until the NetWorker update enabler is authorized.

To view the license alert, use one of the following methods:

- In the NetWorker **Administration** window:
 1. Click **Monitoring**.
 2. Select the **Alert** tab.
- In the **Console** window, click **Events**.
- At the command prompt, type `nsrwatch`.

A colored icon within the alert message indicates that the update enabler will expire within 45 days. The message appears daily up to and including the day of the update enabler code expires.

Before the end of the evaluation period, contact your authorized reseller, or the Dell EMC sales team to obtain your update authorization code.

By the end of the evaluation period, you must permanently license the software to continue using modules or features that you have evaluated. If you do not permanently authorize the update enabler before its expiry, your backups might be impacted. [Permanently license the NetWorker software](#) on page 47 provides information.

The evaluation process

Dell EMC NetWorker software and added features, such as modules, can be downloaded and evaluated for free from the Dell EMC support website or the media kit.

You can evaluate NetWorker software in two ways:

- [Evaluating a new installation of NetWorker software](#)
- [Evaluating features of an existing NetWorker installation](#)

By the end of the evaluation period, you must permanently license the NetWorker software to continue using modules or features that you have evaluated. [Permanently license the NetWorker software](#) on page 47 provides information.

Evaluate a new installation of NetWorker software

When you first install the NetWorker software, you can evaluate the software with all the modules and features for 90 days without entering any enabler codes or licenses.

[Obtain evaluation enabler extensions](#) on page 44 provides information about extending the evaluation period for an additional 30 days.

Evaluating features of an existing NetWorker installation

If you are evaluating one or more NetWorker modules or features on an edition of NetWorker software that has already been installed and licensed, perform the following steps:

Procedure

1. Contact your Dell EMC sales representative or your authorized reseller who will place an EVAL order on your behalf. As a result of the activation of your Eval License Authorization Code (LAC) number, you will obtain a temporary license key.
2. On the NetWorker server, type an evaluation enabler code for each module or feature to be evaluated. [Apply an evaluation enabler code](#) on page 44 provides information.

Obtain evaluation enabler extensions

Evaluation enablers are free and must be applied on the NetWorker server. A grace period allows you to extend the evaluation period for an additional 15 days. The grace period cannot be extended or permanently enabled. After the evaluation period and the grace period, the enabler must be removed from the production environment before or on its expiry date.

To obtain entitlement extensions and the resulting evaluation enablers, do one of the following:

- Contact your Dell EMC sales representative or your authorized reseller who will place an EVAL order on your behalf.
- Refer to the media kit for Dell EMC Information Protection and Availability Product Families.

Apply an evaluation enabler code

Use the following procedure to apply an evaluation enabler on the NetWorker server.

Procedure

1. Start the **NetWorker Management Console** software.
2. Open the **Administration** window:
 - a. In the **Console** window, click **Enterprise**.
 - b. In the left pane, from the **Enterprise** list, select the name of a NetWorker server.
 - 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. Optional. In the **Comment** attribute, type a description of the license.
8. Click **OK**.

View the evaluation enabler alert

An alert message is generated 30 days before a NetWorker evaluation enabler code expires. The alert remains until the NetWorker software has been authorized or the evaluation enabler has been deleted.

To view the license alert, use one of the following methods:

- In the NetWorker **Administration** window:
 1. Click **Monitoring**.
 2. Select the **Alert** tab.
- In the **Console** window, click **Events**.

The following color-coded icons appear with the alert message:

- A yellow icon indicates that the enabler will expire within 30 days. The message displays the yellow icon until 10 days prior to the evaluation enabler code expiration.
- A red icon indicates that the enabler will expire within 10 days. The message displays the red icon up to and including the day of the enabler code expiration.

Delete an enabler code

You can delete a license enabler code at any time, whether or not it has been permanently authorized. The license is *not* removed when the software is uninstalled.

NOTICE

You cannot delete the enabler code that enables the basic NetWorker software, called the base enabler. You can use the `nsrcap` command-line utility to upgrade or downgrade the base enabler. However, after you have upgraded or downgraded a base enabler, you cannot return to the original lower function base enabler. You must obtain a new base enabler from Dell EMC Licensing.

For example, if you upgrade from Work Edition to Power Edition but then regress to Work Edition, the original Work Edition base enabler is invalid. You must obtain a new Work Edition base enabler from Dell EMC Licensing.

To delete an enabler code:

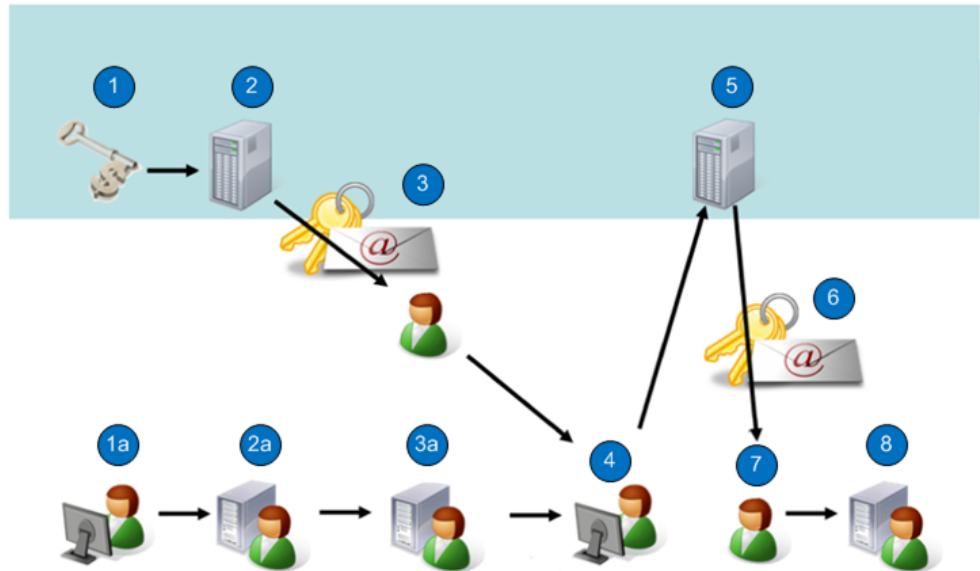
1. In the **Administration** window, click **Configuration**.
2. Click **Registrations**.
3. Right-click the name of the license that you want to delete, and then select **Delete**.
4. Click **Yes** to confirm the deletion.

License process flow

To permanently use the NetWorker software to back up and recover data, you must license the software. The licensing process is the same for all NetWorker software editions, and for the individual modules and features.

The following figure illustrates the licensing process flow.

Figure 10 NetWorker license process flow



During the NetWorker licensing process:

1. Dell EMC verifies the customer purchase order. The SysAdmin downloads the NetWorker software from the Dell EMC Online Support Site.
2. Dell EMC generates a License Authorization Code (LAC) letter and emails it to the customer. SysAdmin installs the NetWorker software in evaluation mode.
3. The SysAdmin receives an email with the LAC and obtains the host ID of the NetWorker server.
4. The SysAdmin applies the host ID and LAC to activate certificates.
5. Dell EMC Licensing generates the certificates and allows you to save a copy of the certificate or sends it as an email to the address of your choice.
6. The SysAdmin receives an email that includes the enablers and authorization codes.
7. The SysAdmin applies the enablers and authorization codes for permanent NetWorker licensing.

The NetWorker license process consists of the following basic steps:

1. Download and install the software for evaluation.
2. Purchase the required NetWorker product, options, and modules from Dell EMC or an authorized partner. The purchase order for the software lists the requested NetWorker product, options, and modules. Dell EMC sends a LAC certificate by email in response to the valid purchase order.

NOTICE

If no evaluation period is required, the first and second steps can be performed together.

3. At the Dell EMC Licensing site:
 - a. Open the activation menu.
 - b. Type the LAC and the host ID of the NetWorker server to obtain the software license certificate.

Note

Dell EMC Licensing confirms the license activation by email and gives you access to your permanent entitlements online. You can also have the certificate sent to an email address of your choice or print and save the certificate in a PDF. The product license activation letter contains the license key (permanent enabler codes and auth codes).

4. Apply the license key on the NetWorker server.

Permanently license the NetWorker software

To license the NetWorker software, perform the following tasks.

Install the NetWorker software for evaluation, if required

If this is a new installation, install the NetWorker software according to the instructions in the *NetWorker Installation Guide*.

Installing the NetWorker software provides complete access to all NetWorker features for an evaluation period of 90 days.

Send the purchase order

Send the NetWorker product customer purchase order list to Dell EMC or an authorized partner.

The purchase can include a variety of products, such as a NetWorker server, client packages, storage node packages, database modules, and deduplication.

Review the License Authorization Code letter

Upon receipt of a valid purchase order, Dell EMC sends a License Authorization Code (LAC) letter by email to the specified customer contact. The information in the LAC letter is used to activate the software license certificate. The NetWorker server's host ID is also required for the activation.

Review the LAC letter, which contains the following information:

- A LAC that you use to activate the product license keys. A license key consists of permanent enabler codes and authorization (auth) codes.
- Instructions for activating the software and obtaining the license keys.
- Software download instructions, in case the NetWorker software has not yet been downloaded in evaluation mode.
- A list of the purchased NetWorker products, along with their SKU and revision numbers.

- The end user site name and address, which was specified when the purchase order was entered.
- Contacts for licensing and support information.

NOTICE

Do not confuse a LAC with an auth code. LACs are used in Dell EMC Licensing to obtain and activate the license key. A LAC enables you to obtain an auth code, but it is the combined application of permanent enabler and auth codes in NetWorker software that permanently licenses the software.

Obtain the host ID of the NetWorker server

The host ID is required during the software authorization process. It identifies where the NetWorker server is installed.

To ensure that Dell EMC Licensing receives accurate information, use the host ID value is displayed in the NetWorker Registration window. The host ID is an 8-character alphanumeric code that always appears in lowercase, for example, abab1234.

The customer, preferably a NetWorker system administrator, should perform the following steps.

Procedure

1. Log in to the NetWorker Management Console, and connect to the NetWorker server.
2. Select **NetWorker Administration**.
3. In the **Administration** window, click **Configuration**.
4. In the navigation tree, right-click **Registrations**.
5. In the **Registrations** area of the screen, right-click the NetWorker evaluation license (or any NetWorker license). The **Properties** window appears.
6. Note the alphanumeric host ID number.

Activate the software license certificate

The customer, preferably a NetWorker system administrator, should perform the following steps.

If you have the License Authorization Codes (LAC) letter, use the hyperlink in the letter to open the license activation landing page, which automatically populates the LAC number. You can then move directly to step 6. If you do not have the LAC letter, perform all the following steps.

Procedure

1. Go to the Dell EMC Online Support website at:
<http://support.EMC.com>
This site requires that you have a registered account. If you do not have an account, follow the New Member Registration steps.
2. Under **Service Center**, select **Get and Manage Licenses**.
3. On the **Manage Licenses** page, select **NetWorker** from the list of products.
The **Dell EMC Licensing** page appears.

4. Click **Activate Licenses**, and then click **Advanced Search**.
5. Type the Purchase Order (PO) Number or Sales Order Number, and then click **Search Entitlements**.
6. Choose the entitlements/model numbers that you want to activate.
7. Click **Start Activation Process**.
The **Activation** page displays.
8. You can create a host, or search for an existing host:
 - a. If you are creating a host, in the **Machine Name** field, type the name of the host where you want to activate your licenses.
Host names and locking IDs must be unique for each parent company.
 - b. If you use an existing host or activate an add-on product on an existing host, select an existing host to activate your LAC.
9. Activate to the registered site on the order:
 - a. Move to another registered site, or add a site.
 - b. Click **Next**.
10. In the **Locking ID** field, type the NetWorker server host ID that you obtained in the [Obtain the host ID of the NetWorker server](#) task.
11. Click **Finish**.

Product license activation letter

After the software license certificate is activated in Dell EMC Licensing, Dell EMC emails the product license activation letter by email to the registered user.

The letter contains the following information:

- List of the purchased products, their part numbers, quantities, and version levels.
- Site information
- Parent company information
- The License Authorization Code (LAC)
- NetWorker host ID
- License key, which consists of permanent enablers and authentication (auth) codes.
After you apply the enabler and matching auth code in the NetWorker Console interface, these codes permanently license the NetWorker software.
- Contacts for licensing, a NetWorker Licensing Help section, and support information

Download the NetWorker license key

You can install the license key on a local NetWorker server, a remote NetWorker server, or a NetWorker License Manager system.

Procedure

1. Go to the Dell EMC Online Support site (registration required) at: <http://support.emc.com>.
2. Under **Service Center**, select **Get and Manage Licenses**.

3. On the **Manage Licenses** page, select **NetWorker** from the list of products, and then follow the instructions for your product.

If the License Authorization Code (LAC) number has not yet been entered, activated, and associated with the host ID, before you proceed to the next step, follow the instructions in the email received from Dell EMC Licensing.
4. On the **Dell EMC Licensing** page, select **Download Enabler codes**. The **Search for Downloading Enabler Codes** page appears.
5. In the **%HostID** field, type the NetWorker server host ID number that you obtained in the [Obtain the host ID of the NetWorker server](#) task.
6. Click **Search**. The **Search for Downloading Enabler Codes** page appears, which displays the list of hosts that match the search criteria.
7. Select the host ID that matches the criteria. The **Download** page appears.
8. Click **Download Enablers** and perform the following:

- a. Click **Download CSV** and save the file.

The CSV file contains the enabler codes and the information related to them, including part descriptions, part numbers, and auth codes.

You can import this file into Excel so you can search and sort the contents:

- Format: *host ID.csv*
- Example: df010b3f.csv

- b. Click **Download nsradmin** and save the file:

- Format: *host ID_date.nsradmin*
- Example: df010b3f_20080814.nsradmin

- c. Click **Download ReadMe** and save the file.

The readme file describes the process and how to use nsradmin to load the enablers:

- Format: *ReadMe_host ID_date.txt*
- Example: *ReadMe_df010b3f_20080814.txt*

Results

As additional licenses are added to a host profile, they will be included in future downloads.

Delete all the evaluation enabler codes, if required

If your evaluation requirements extend beyond 30 days, you might have installed some evaluation enablers.

Before the license key is applied on the NetWorker server to permanently license the software, you should delete all the evaluation enablers except the base enabler. The evaluation enabler cannot be permanently authorized.

Procedure

1. Use the nsradmin command to save all of your old enabler codes in a text file.

For example, from a command prompt, type the following command:

```
echo print type : NSR license | nsradmin > saved_enablers.txt
```

2. In the **Administration** window, click **Configuration**.
3. Click **Registrations**.
4. Right-click the enabler code that you want to delete, and then select **Delete**.

Remove all of the old enablers from the NetWorker software. You can delete an evaluation enabler code at any time. The license is *not* removed when the software is uninstalled.

5. Click **Yes** to confirm the deletion.
6. When prompted, repeat the license deletion task. This repetition prevents accidental license deletion.

You cannot delete the following enablers:

- NetWorker update enabler
- Base enabler

The base enabler code enables the basic NetWorker software and can only be upgraded or downgraded. [Upgrade or downgrade the base enabler, if required](#) on page 51 provides details.

Upgrade or downgrade the base enabler, if required

If a base enabler is already installed on a NetWorker server for extended evaluation, an error message appears when you attempt to install a new base enabler.

While you cannot uninstall the base enabler, you can upgrade or downgrade it.

Use the following procedure to upgrade or downgrade the base enabler.

Procedure

1. On the NetWorker server, open a command prompt.
2. At the command prompt, type the following at the command:

```
nsrccap -u base_enabler_code -a authorization_code
```

Apply the license key on the NetWorker server

Apply the license key on the NetWorker server to complete the licensing process. The product license activation email provides license keys, which consists of permanent enablers and authorization codes.

NOTICE

If you installed evaluation enablers that are not yet expired, to license the NetWorker software permanently you must apply the license key.

The recommended way to install NetWorker license keys is to automatically import and install them from the license key file, which is provided by Dell EMC Licensing.

If you cannot automatically import and install the license keys, you can manually install them.

Use the following procedure to import and apply the NetWorker license keys from Dell EMC Licensing directly to a NetWorker server or a NetWorker License Manager system.

Procedure

1. Log in to the NetWorker server with a user that has administrator access for Windows hosts, or root access for LINUX hosts.
2. Download the license key files.
3. Ensure that no NetWorker backups are running.
4. Run the following `nsradmin` commands from a command prompt, in the directory where the license key file is located. You can run the `nsradmin` command from any NetWorker client, storage node, or server:

- To install the NetWorker license keys on a local NetWorker server, type:

```
nsradmin -i license_key_file > output_file
```

- To install the NetWorker license keys on a remote NetWorker server, type:

```
nsradmin -i license_key_file -s server_name > output_file
```

- To install the NetWorker license keys on a NetWorker License Manager system, type:

```
nsradmin -i license_key_file -s server_name -p 390115 >
output_file
```

5. Open and review the `output_file` for success or failure messages to ensure that the NetWorker licenses have been properly installed:

- **Successful entry message:**

If the first attempt to load a license was successful, an entry similar to the following one appears in the output file:

```
C:\PROGRA~1\Legato\nsr\bin\std>nsradmin -i infile
created resource id
25.0.0.20.96.108.23.72.137.69.168.135(1) Current query
set updated resource id
25.0.0.20.96.108.23.72.137.69.168.135(2)
```

- **Failed entry message:**

- This entry in the output file indicates that the license already exists in NetWorker and you can ignore the message:

```
C:\PROGRA~1\Legato\nsr\bin\std>nsradmin -i infile
create failed: A license enabler already exists with
enabler code xxxxxx-xxxxxx-xxxxxx
Current query set
updated resource id
25.0.0.20.96.108.23.72.137.69.168.135(3)
```

If the `nsradmin` command has previously been used to install licenses on a host, failure messages might be generated for NetWorker licenses that already exist.

- This entry in the output file indicates that the NetWorker server processes are not running on the system: `C:\PROGRA~1\Legato\nsr\bin\std>nsradmin -i infile pasb-tomp 39078:nsradmin: RPC error: Program not registered (severity 4, number 15)`

To work around this issue, start the NetWorker processes on the NetWorker server.

Product licenses

NetWorker software and added features, such as modules, can be downloaded and evaluated for free from the Dell EMC Online Support website or the media kit. The software can be evaluated for 90 days without an enabler code or license. A grace period allows you to extend the evaluation period for an additional 10 days for each added feature.

To permanently use the NetWorker software, you must license the software on the Dell EMC Licensing site and apply the supplied licensing key on the NetWorker server. The license key includes permanent enabler codes and corresponding authorization (auth) codes.

The Dell EMC Software Price Guide: Open Storage Software provides additional detailed licensing information.

NetWorker 45-Day evaluation enabler codes

The following table lists the 45-day temporary evaluation enabler codes for NetWorker products. These codes can be used to extend the evaluation period on NetWorker server products.

These codes can be used to extend the evaluation period on NetWorker server products for customers that wish to evaluate the NetWorker software and available modules and features. These codes can also be used for Dell EMC field internal testing and demonstration purposes.

If your NetWorker software is purchased and licensed, you can use these codes to evaluate the rest of the Dell EMC family of products. If more than one enabler code is listed for a part number, any of the codes can be used.

Consider the following points:

- These enabler codes cannot be permanently authorized. To permanently authorize NetWorker products, you must purchase new enabler codes, which can then be authorized.
- Each evaluation enabler code can be entered on only one computer on the network. If a code is entered on more than one computer on the same network, a copy violation error occurs and the NetWorker server software is disabled.
- Case is important when entering enabler codes.

Table 10 NetWorker 45-day evaluation enabler codes

Product	Model code	Description	Usage	Temporary enabler
Atmos	456-101-709	Atmos on Premise Option 1 TB	Enables backup to an onsite Atmos cloud device up to 1 TB.	ce7650-922a17-bcfb94
	456-101-710	Atmos on Premise Option 5 TB	Enables backup to an onsite Atmos cloud device up to 5 TB.	d16b53-902d12-bff49b

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-101-711	Atmos on Premise Option 10 TB	Enables backup to an onsite Atmos cloud device up to 10 TB.	59e3db-19a59a-374d23
	456-101-712	Atmos on Premise Option 25 TB	Enables backup to an onsite Atmos cloud device up to 25 TB.	60d8e2-259ca1-0e4c2a
	456-101-713	Atmos on Premise Option 50 TB	Enables backup to an onsite Atmos cloud device up to 50 TB.	e8506a-ac1429-86c5b2
	456-101-714	Atmos on Premise Option Tier 6	Enables backup to an onsite Atmos cloud device up to 100 TB.	f9437b-b4053f-9d8043
Archive	456-005-006	NetWorker Archive Module Windows	Enables file-level archiving on supported Windows platforms in the datazone. Available for Network and Power Editions.	3b26bd-fcc784-9ca901 3a21bc-ffc67b-9da800 Licensed one per backup server.
	456-004-622	NetWorker Archive Module UNIX	Enables file-level archiving on supported UNIX platforms in the datazone. Available for Network and Power Editions.	9c991e-5d58e1-2207e6 da5f5c-9f261d-0c8ba0 Licensed one per backup server.
	456-004-960	NetWorker Archive Module NetWare	Enables file-level archiving on supported NetWare platforms in the datazone. Available for Network and Power Editions.	160698-dbe25e-cfe75c Licensed one per backup server.
	456-005-476	NetWorker Archive Module Linux	Enables file-level archiving on supported Linux platforms in the datazone. Available for Network and Power Editions.	9c991e-5d58fc-0ee4e6 Licensed one per backup server.
Data Deduplication with Avamar	456-101-595	NetWorker Client for Data Deduplication Quantity 25	Enables deduplication backups of physical clients.	db5f5d-872721-95e9a1
Note These licenses do not include support for virtualization.	456-101-596	NetWorker Client for Data Deduplication Quantity 100	Enables deduplication backups of physical clients.	382aba-9fc479-80cd02
	456-101-597	NetWorker Virtual Edition Client for Data Deduplication	Enables deduplication backups of virtual clients. Licenses one client per ESX server.	9da81f-6159e0-decbe7

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-100-484	NetWorker Agent for Data Deduplication	Enables a deduplication metadata backup to an advanced file type device.	a29324-605ee7-c7d1e8
Data Deduplication with Data Domain	456-102-513	NetWorker Data Domain Device Type	Enables the NetWorker Data Domain Device Type that features DD Boost. Capacity enablement is not required for evaluation.	2126a3-6add66-a1eb6b a0a522-ed5ce5-2065ea
DiskBackup Option	456-100-697	NetWorker DiskBackup Option Tier 1 1 TB	Enables up to 1 TB of backup data to be written by a storage node to a disk file within a file system.	8abb0c-4c76d0-52e6d0 0a3b8c-ccf650-d26950
	456-100-698	NetWorker DiskBackup Option Tier 2 5 TB	Enables up to 5 TB of backup data to be written by a storage node to a disk file within a file system.	c27344-873c07-488988
	456-100-699	NetWorker DiskBackup Option Tier 3 10 TB	Enables up to 10 TB of backup data to be written by a storage node to a disk file within a file system.	ca7b4c-8e340f-509190
	456-100-700	NetWorker DiskBackup Option Tier 4 25 TB	Enables up to 25 TB of backup data to be written by a storage node to a disk file within a file system.	f24374-b10c37-78b9b8
	456-100-701	NetWorker DiskBackup Option Tier 5 50 TB	Enables up to 50 TB of backup data to be written by a storage node to a disk file within a file system.	fa4b7c-b8043f-80c140 8bbc0d-4f77cf-53ebd1 2011a2-e6dc65-49526a a19223-615de6-c8deeb a29324-605ee7-c7d1e8
Virtual Tape Library (VTL)	450-000-598	NetWorker 3rd party VTL 10 TB Capacity	For non-Dell EMC VTLs.	838e7a-b97f7f-2790c9
	450-000-599	NetWorker Bundle for Data Domain 10 TB Capacity	Enables the configuration of Data Domain storage as a VTL. Note Do not use this enabler when you configure the Data Domain appliance by using CIFS/NFS.	da5123-622613-815da0
	456-100-704	NetWorker Virtual Tape Library 5 TB Capacity Add-on	Increases NetWorker VTL capacity by 5 TB. Adding this license to the	e05462-a61e25-66a7aa

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<p>base NetWorker Dell EMC Disk Library 10 TB Capacity Frame license increases support for VTL capacity up to 15 TB.</p> <hr/> <p>Note</p> <p>Use this license only to add incremental capacity above the 10 TB capacity that is included in 457-100-038 and 457-100-013.</p> <hr/>	
	456-100-042	NetWorker Virtual Tape Library 10 TB Capacity Add-on	<p>Increases NetWorker VTL capacity by 10 TB. Adding this license to the base NetWorker Dell EMC Disk Library 10 TB Capacity Frame license increases support for VTL capacity up to 20 TB.</p> <hr/> <p>Note</p> <p>Use this license only to add incremental capacity above the 10 TB capacity that is included in 457-100-038 and 457-100-013.</p> <hr/>	88bc0a-4176cd-0e4fd2
	456-100-043	NetWorker Virtual Tape Library 25 TB Capacity Add-on	<p>Increases NetWorker VTL capacity by 25 TB. Adding this license to the base NetWorker Dell EMC Disk Library 10 TB Capacity Frame license increases support for VTL capacity up to 35 TB.</p> <hr/> <p>Note</p> <p>Use this license only to add incremental capacity above the 10 TB capacity that is included in 457-100-038 and 457-100-013.</p> <hr/>	013783-ddff46-87c84b
	456-100-705	NetWorker Virtual Tape Library 50 TB Capacity Add-on	<p>Increases NetWorker VTL capacity by 50 TB. Adding this license to the base NetWorker Dell EMC</p>	4efad0-23a893-d41514

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<p>Disk Library 10 TB Capacity Frame license increases support for VTL capacity up to 60 TB.</p> <hr/> <p>Note</p> <p>Use this license only to add incremental capacity above the 10 TB capacity that is included in 457-100-038 and 457-100-013.</p> <hr/>	
Dell EMC Disk Library (EDL)	The EDL appliance is no longer available.			
Documentum	The NetWorker Module for Documentum (NMD) software is no longer available.			
Dynamic Drive Sharing (DDS)	456-004-678	DDS for Windows, UNIX, and Linux (Universal)	<p>Enables the NetWorker software to recognize shared drives. DDS enables the NetWorker software to ignore shared drives that are in use and to route backups or recoveries to other available shared drives.</p> <p>License per tape drive for all operating systems.</p>	<p>50d5d2-38ac8a-ebc31a</p> <p>51d6d3-3fad89-eace1b</p> <p>d25754-be2e08-654e98</p> <p>b8bd3a-5044e0-0d5582</p>
NetWorker Modules	456-100-595	NetWorker Module for Microsoft SQL Server Windows Client	Enables protection of Microsoft SQL Server databases on supported Windows platforms.	203ba2-eadc6b-11516a
	456-004-725	NetWorker Module for SAP on Oracle UNIX Client	Enables protection of SAP on Oracle databases on supported UNIX platforms.	79fefb-3385a4-050bc3fb787d-b1075a-7b8c41
	456-004-726	NetWorker Module for SAP on Oracle Linux Client	Enables protection of SAP on Oracle databases on supported Linux platforms.	d25754-9a2e0a-74ba98ca4f4c-823612-649e90
	456-005-031	NetWorker Module for SAP on Oracle Windows Client	Enables protection of SAP on Oracle databases on supported Windows platforms.	9e8520-6e5aec-55a6e4
	456-101-780	NetWorker Module for Databases and Applications UNIX Client	Enables backups of Oracle, DB2, Informix, or Lotus Notes applications on UNIX operating systems.	<p>5edbe0-aa9aa7-03f924</p> <p>dc595e-141825-8574a6</p> <p>5cd9de-9498a5-05fb26</p> <p>dd5a5f-2b1926-847da7</p> <p>de5b60-2a1a27-837ea4</p>

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-101-779	NetWorker Module for Databases and Applications Windows, Linux Client	Enables backups of Oracle, DB2, Informix, or Lotus Notes applications on Windows and Linux operating systems.	4ed5d0-9aaa97-33f014
	456-100-633	NetWorker Module for Microsoft Applications (NMM)	Enables VSS backups of SQL, Exchange, SharePoint, Hyper-V, or DPM applications.	63fee5-099faa-6a9c29 e17863-8b1d24-e419ab
	456-100-632	NetWorker Module for Meditech License	Enables Meditech backups with Dell EMC CLARiion and Dell EMC Symmetrix storage systems.	8b960d-c477d2-a846d1 8e9510-db6ad1-ad5fd4 0e1590-5bea51-2dde54 8f8a11-d86bd6-ac5ad5 0f0a91-58eb56-2cdb55
NetWorker Modules	456-100-595	NetWorker Module for Microsoft SQL Server Windows Client	Enables backups of MS SQL databases on supported Windows platforms.	2a31ac-e4d661-075b70
	456-004-563	NetWorker Module for Oracle on OpenVMS Alpha Client Tier 1	Enables backups of Oracle on a supported OpenVMS Alpha Workgroup Server.	7f8401-617bc1-566bc5
	456-004-564	NetWorker Module for Oracle on OpenVMS Alpha Client Tier 2	Enables backups of Oracle on a supported OpenVMS Alpha Departmental Server.	fb787d-9d0745-d2e441
	456-004-565	NetWorker Module for Oracle on OpenVMS Alpha Client Tier 3	Enables backups of Oracle on a supported OpenVMS Alpha Enterprise Server.	79fefb-1f85bb-ac61c3
	456-010-506	NetWorker Module for Oracle on OpenVMS Integrity Server SGL Client	Enables backups of Oracle databases on supported OpenVMS Integrity platforms.	1c199e-fcd864-f18b66
	456-004-617	NetWorker Module for SNMP	Enables backups of SNMP on supported UNIX and Windows clients.	3fc4c1-01bb87-95b405 3e25c0-02ba84-7da604
	456-100-042	NetWorker Virtual Tape Library 10 TB Capacity Add-on	Enables the increase of NetWorker VTL Capacity by 10 TB in both 457-100-038 and 457-100-013.	Temporary enablers are not required. Contact Dell EMC Licensing to purchase appropriate entitlement licenses.

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<p>Note</p> <p>Adding this license to the base NetWorker Dell EMC Disk Library 10 TB Capacity Frame license will increase support for VTL capacity up to 20 TB.</p>	
NetWorker OpenVMS	456-004-537	NetWorker OpenVMS Client for Alpha Tier 1 Quantity 5	Enables NetWorker client functionality on five supported OpenVMS Alpha Workgroup Servers.	1d1d9f-e5d967-f0bc67
	456-004-539	NetWorker OpenVMS Client for Alpha Tier 2 Quantity 1	Enables NetWorker client functionality on one supported OpenVMS Alpha Departmental Server.	e76b69-ab1329-3eeaad
	456-004-542	NetWorker OpenVMS Client for Alpha Tier 3 Quantity 1	Enables NetWorker client functionality on one supported OpenVMS Alpha Enterprise Server.	e9696b-ad152b-3cf0b3
	456-010-504	NetWorker Client for OpenVMS on Integrity Server Single Pro	Enables NetWorker client functionality on a supported OpenVMS HP Integrity (Itanium) Server. Order one license for each CPU in the Integrity Server. One license per CPU/socket; not per core.	6dedef-3189b7-a00d37
	457-000-128	NetWorker OpenVMS Client for VAX Tier 1	Enables NetWorker client functionality on one supported OpenVMS VAX Workgroup Server.	NA
	457-000-131	NetWorker OpenVMS Client for VAX Tier 2	Enables NetWorker client functionality on one supported OpenVMS VAX Departmental Server.	NA
	457-000-134	NetWorker OpenVMS Client for VAX Tier 3	Enables NetWorker client functionality on one supported OpenVMS VAX Enterprise Server.	NA
NetWorker OpenVMS	457-000-119	NetWorker OpenVMS Storage Node Alpha Tier 1 Quantity 1	Enables NetWorker storage node functionality on OpenVMS Alpha Workgroup Servers. The license bundle consists of:	121794-c0ee52-cbec58

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<ul style="list-style-type: none"> • NetWorker Client on OpenVMS for Alpha Server. • NetWorker OpenVMS storage node for Alpha Servers. This option is licensed per processor; not core. It is compatible with Network and Power Editions. It provides full storage node functionality. Dedicated storage node functionality unavailable. <hr/> <p>Note This license supports only Alpha hardware.</p>	
	457-000-122	NetWorker OpenVMS Storage Node Alpha Tier 2 Quantity 1	<p>Enables NetWorker storage node functionality on OpenVMS Alpha Departmental Servers. The license bundle consists of:</p> <ul style="list-style-type: none"> • NetWorker client on OpenVMS for Alpha Server. • NetWorker OpenVMS storage node for Alpha Servers. This option is licensed per processor; not core. It is compatible with Network and Power Editions. It provides full storage node functionality. Dedicated storage node functionality unavailable. <hr/> <p>Note This license supports only Alpha hardware.</p>	838005-537fcd-5a1cc9

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	457-000-125	NetWorker OpenVMS Storage Node Alpha Tier 3 Quantity 1	<p>Enables NetWorker storage node functionality on OpenVMS Alpha Enterprise Servers.</p> <p>The license bundle consists of:</p> <ul style="list-style-type: none"> • NetWorker Client on OpenVMS for Alpha Server • NetWorker OpenVMS storage node for Alpha Servers. <p>This option is licensed per processor; not core. It is compatible with Network and Power Editions. It provides full storage node functionality. Dedicated storage node functionality is unavailable.</p> <hr/> <p>Note</p> <p>This license supports only Alpha hardware.</p> <hr/>	828704-507ec2-5b1dc8
	457-000-502	NetWorker OpenVMS Storage Node for Integrity Server Single Pro Quantity 1	<p>Enables NetWorker storage node functionality on OpenVMS Integrity Servers.</p> <p>The license bundle consists of:</p> <ul style="list-style-type: none"> • NetWorker Client for OpenVMS on Integrity Server. • NetWorker OpenVMS storage node for integrity Servers. <p>This option is licensed per processor; not core. It is compatible with Network and Power Editions. It provides full storage node functionality. Dedicated storage node functionality is unavailable.</p>	010683-d1fd43-d49b4b

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<hr/> Note This item supports Integrity hardware only. <hr/>	
NetWorker Snapshot Management	456-105-048	NetWorker Snapshot Management 1TB	Enables snapshot backups of up to 1 TB.	6ef5f0-788ab3-f1cf34 ef6a71-fb0b34-704db5 6feaf1-7b8bb4-f0ca35 e8736a-e2142d-6b52b2
	456-105-049	NetWorker Snapshot Management 2TB	Enables snapshot backups of up to 2 TB.	160d98-93e25b-99275c 978219-1063dc-18a5dd 170299-90e35c-98225d 908b12-196cd5-13aada
	456-105-050	NetWorker Snapshot Management 5TB	Enables snapshot backups of up to 5 TB.	1e05a0-aada63-a11f64 9fba21-295be4-209de5 1f3aa1-a9db64-a01a65 98831a-1064dd-1ba2e2
	456-105-051	NetWorker Snapshot Management 10TB	Enables snapshot backups of up to 10TB.	061d88-85f24b-89374c 879209-0673cc-08b5c d 071289-86f34c-88324d 809b02-0f7cc5-03baca
	456-105-052	NetWorker Snapshot Management 25TB	Enables snapshot backups of up to 25 TB.	0e1590-9cea53-912f54 8f8a11-1f6bd4-10add5 0f0a91-9feb54-902a55 88930a-0674cd-0bb2d 2
	456-105-053	NetWorker Snapshot Management 50TB	Enables snapshot backups of up to 50 TB.	362db8-b7c27b-b9077c b7a239-3443fc-3885fd 3722b9-b4c37c-b8027d b0ab32-3d4cf5-338afa
	456-105-054	NetWorker Snapshot Management 100TB	Enables snapshot backups of up to 100 TB.	3e25c0-4eba83-c1ff04 bf5a41-cd3b04-407d85 3fdac1-4dbb84-c0fa05 b8a33a-3444fd-3b8282
SnapImage Module	457-000-173	NetWorker SnapImage for Windows and Solaris	Enables high speed backups of large quantities of smaller	Contact Dell EMC Sales

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<p>files on supported Microsoft Windows and Solaris operating systems. The SnapImage bundle consists of:</p> <ul style="list-style-type: none"> • 1 NDMP Client Connection Tier 1 license • SnapImage Module Client license <hr/> <p>Note</p> <p>In NetWorker 8.1 on Windows, the block based backup feature provides more functionality than the SnapImage Module product.</p>	
	456-004-617	NetWorker SNMP Module	<p>Enables SNMP traps and system management framework on Windows and UNIX NetWorker servers. This module is:</p> <ul style="list-style-type: none"> • Available for Network and Power Editions. • Licensed one per backup server. 	a7ac29-6953ef-7c6ced
Storage Nodes	456-101-769	NetWorker Power Edition Storage Node for Windows/Linux	Enables a NetWorker Power Edition Storage Node for Windows or Linux.	1b189d-cbe765-f8a661
	456-005-474	NetWorker Network Edition Storage Node for Linux	Enables a storage node for an environment with NetWorker Server Network Edition, which will be installed on a Linux host.	bdba3f-95391f-6f9d87 bdba3f-95391f-6f9d87 3fc4c1-17bb99-e91a05 3d3abf-15b99f-ef1c07 3e3bc0-14ba9e-e81f04 bebb40-943a1e-689e84 bdba3f-95391f-6f9d87
	456-010-511	NetWorker Network Edition Storage Node for Solaris	Enables a storage node for an environment with NetWorker Server Network Edition, which will be installed on a Solaris host.	1d1a9f-f5d97a-e8ee67
	456-004-659	NetWorker Network Edition Storage Node for UNIX	Enables a storage node for an environment with NetWorker Server Network	9c991e-4a58f9-696ae6 9b981d-4b67f8-6a65e1

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			Edition, which will be installed on a UNIX host.	1c199e-cad879-e9eb66 1d1a9f-f5d97a-e8ee67 9d9a1f-7559fa-686fe7
	456-001-665	NetWorker Network Edition Storage Node for UNIX Quantity 5	Enables a Storage Node for an environment with NetWorker Server Network Edition, which will be installed on a UNIX host. This item includes 5 storage nodes licenses.	9d9a1f-7559fa-686fe7
Storage Node	456-004-660	NetWorker Network Edition Storage Node for Windows	Enables a storage node for an environment with NetWorker Server Network Edition, which will be installed on a Windows host.	6aefec-389618-ddbd30 68edea-3e941a-c3a732 e96e6b-b91599-4239b3 69eeeb-399519-c2ba33 ea6f6c-b81698-5d3ab0
	456-005-475	NetWorker Power Edition Storage Node for Linux	Enables a storage node for an environment with NetWorker Server Power Edition, which will be installed on a Linux host.	a0a522-765cf8-0a78ea 2025a2-f6dc78-8af96a 2126a3-f1dd7b-8bc86b a1a623-715dfb-0b49eb bf4441-973b19-699b85
	456-010-512	NetWorker Power Edition Storage Node for UNIX	Enables a storage node for an environment with NetWorker Server Power Edition, which will be installed on a UNIX host.	eb686d-bb1787-5c3fb1 ec696e-ba0886-5f3cb6 6be8ed-3b9707-dcbc31 6ce9ee-3a8806-dfa336 ed6a6f-a50985-5e25b7
	456-005-123	NetWorker Power Edition Storage Node for UNIX	Enables a storage node for an environment with NetWorker Server Power Edition, which will be installed on a UNIX host.	eb686d-bb1787-5c3fb1 ec696e-ba0886-5f3cb6 6be8ed-3b9707-dcbc31 6ce9ee-3a8806-dfa336 ed6a6f-a50985-5e25b7
	456-005-124	NetWorker Power Edition Storage Node for Windows	Enables a storage node for an environment with NetWorker Server Power Edition, which will be installed on a Windows host.	ee6b70-a40a84-5926b4 6deaef-258905-dea637 6eebf0-248a04-d9a134 6ff4f1-278b03-d8a035 ef7471-a70b83-5823b5

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-101-768	NetWorker Network Edition Storage Node for UNIX	Enables a NetWorker Network Edition Storage Node for UNIX.	7efb00-547ac6-5f4dc4
	456-101-767	NetWorker Network Edition Storage Node for Windows/Linux	Enables a NetWorker Network Edition Storage Node for Linux or Windows.	191e9b-c9e55b-c6a063
	456-101-770	NetWorker Power Edition Storage Node for UNIX	Enables a NetWorker Power Edition Storage Node for UNIX.	7dfaff-5579c7-5842c7
Autochanger Modules	456-004-603	NetWorker Autochanger Software Module 1-9 slots	Enables an autochanger that has 9 slots or fewer.	78f3fa-3284a0-12d6c2 f8737a-b20420-925542 f9707b-b50523-932843 79f0fb-3585a3-13a7c3 7bf6fd-3787dd-eda9c1
	456-004-606	NetWorker Autochanger Software Module 1-16 slots	Enables an autochanger that has 16 slots or fewer.	0f0691-c2eb59-b89e55 18139a-cbe4ea-b3af62 1f2aa1-f2dbd3-888865 98931a-4b646a-3330e2 ce5b50-812a17-573094
	456-001-624	NetWorker Autochanger Software Module 1-20 slots	Enables an autochanger that has 20 slots or fewer.	7bf6fd-2a87de-3318c1 7af1fc-2986a1-3219c0 fb767d-aa075e-b39b41 e46f66-b31037-58f0ae 64efe6-3390b7-d8772e
	456-004-602	NetWorker Autochanger Software Module 1-32 slots	Enables an autochanger that has 32 slots or fewer.	1a0d9c-fde653-f87960 4cc7ce-2fa826-fc9416 4dc4cf-30a925-fd9d17 55dcd7-38a19d-61231f 3225b4- d5cec0-966b78 b3a235-564f4f-17e9f9
	456-001-633	NetWorker Autochanger Software Module 1-40 slots	Enables an autochanger that has 40 slots or fewer.	878209-6273d2-3f11cd 868d08-6172d5-3e10cc 060d88-e1f255-be934c 070289-e2f352-bfae4d 808b02-6b7cdb-3426ca

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-004-607	NetWorker Autochanger Software Module 1-64 slots	Enables an autochanger that has 64 slots or fewer.	b9b044-83c5fe-028b8a 1b169d-9ee7d7-8c9161 59d0db-5ca59c-d54e23 9b961d-1e6757-0c10e1 64f1e6-6790ad-e1402e
	456-004-635	NetWorker Autochanger Software Module 1-128 slots	Enables an autochanger that has 128 slots or fewer.	000b82-43fcf2-abbe4a 010883-44fdf1-aab34b 020984-45fef0-a5b448 818803-c47d71-2a32cb f66178-39023c-c654bc
	456-004-636	NetWorker Autochanger Software Module 1-256 slots	Enables an autochanger that has 256 slots or fewer.	44d1c7-07b085-014e0e 0b068c-cef7e7-bcad51 0c078f-cfe8e6-bf5256 c45147-873005-81cf8e
	456-004-762	NetWorker Autochanger Software Module 1-400 slots	Enables an autochanger that has 400 slots or fewer.	0209fb-3afef0-a61048 838e7a-b97f7f-2790c9 030efa-39ffff-a71149 1d14e0-1fd965-193167
	456-004-763	NetWorker Autochanger Software Module 1-512 slots	Enables an autochanger that has 512 slots or fewer.	030efa-39ffff-a71149
Autochanger Modules	456-004-764	NetWorker Autochanger Software Module 1-700 slots	Enables an autochanger that has 700 slots or fewer.	1d14e0-1fd965-193167
	456-004-638	NetWorker Autochanger Software Module Unlimited slots	Enables an autochanger that has any number of slots.	da5123-622613-815da0 838e7a-b97f7f-2790c9 0209fb-3afef0-a61048
	456-001-624	NetWorker Workgroup Edition Autochanger Software Module 1-20 slots	Enables an autochanger that has 20 slots or fewer.	7bf6fd-2a87de-3318c1
	456-004-602	NetWorker Workgroup Edition Autochanger Software Module 1-32 slots	Enables an autochanger that has 32 slots or fewer.	1a0d9c-fde653-f87960
	456-004-603	NetWorker Workgroup Edition Autochanger Software Module 1-9 slots	Enables an autochanger that has 9 slots or fewer.	78f3fa-3284a0-12d6c2 f8737a-b20420-925542 f9707b-b50523-932843

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
				79f0fb-3585a3-13a7c3 7bf6fd-3787dd-eda9c1
	456-004-606	NetWorker Workgroup Edition Autochanger Software Module 1-16 slots	Enables an autochanger that has 16 slots or fewer.	0f0691-c2eb59-b89e55
	457-100-004	NetWorker Autochanger Slot Upgrade from 1-9 to 1-16 slots	Upgrades an existing 1-9 slot autochanger license to support 16 slots.	8e8510-416ad6-4acad4
	457-100-005	NetWorker Autochanger Slot Upgrade from 1-16 to 1-20 slots	Upgrades an existing 1-16 slot autochanger license to support 20 slots.	6de4ef-2489b7-adaa37
	457-100-006	NetWorker Autochanger Slot Upgrade from 1-20 to 1-32 slots	Upgrades an existing 1-20 slot autochanger license to support 32 slots.	0d048f-f0e957-cd4957
	457-100-007	NetWorker Autochanger Slot Upgrade from 1-32 to 1-40 slots	Upgrades an existing 1-32 slot autochanger license to support 40 slots.	cd444f-b82917-0d0897
	457-100-008	NetWorker Autochanger Slot Upgrade from 1-40 to 1-64 slots	Upgrades an existing 1-40 slot autochanger license to support 64 slots.	0d048f-90e957-cd4f57
	457-100-009	NetWorker Autochanger Slot Upgrade from 1-64 to 1-128 slots	Upgrades an existing 1-64 slot autochanger license to support 128 slots.	8f9a11-d26bd1-4bccd5
	457-100-010	NetWorker Autochanger Slot Upgrade from 1-128 to 1-256 slots	Upgrades an existing 1-128 slot autochanger license to support 256 slots.	0e0591-d1ea56-ca4c54
	457-100-075	Autochanger Slot Upgrade from 1-256 to 1-400 slots	Upgrades an existing 1-256 slot autochanger license to support 400 slots.	020985-55fe42-d65148
	457-100-076	Autochanger Slot Upgrade from 1-400 to 1-512 slots	Upgrades an existing 1-400 slot autochanger license to support 512 slots.	090089-ccf54b-d14753
Autochanger Modules	456-004-638	NetWorker Autochanger Software Module Unlimited slots	Enables the configuration of Data Domain storage as a VTL. Note Do <i>not</i> use this enabler when the Data Domain appliance is configured using CIFS/NFS.	da5123-622613-815da0

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
NetWorker Virtual Edition Client	456-100-676	NetWorker Virtual Edition Client Connection	<p>Enables the backup of all virtual clients of a physical host with the NetWorker software.</p> <hr/> <p>Note</p> <p>Supported on all operating systems.</p> <hr/>	<p>8bba0d-4f77d0-1109d1 f44376-b60039-7ae7be 74c3f6-3680b9-fa663e f54077-b9013a-7be2bf 75c0f7-3981ba-fb633f</p>
Client Connections	456-100-691	NetWorker Client Quantity 5	<p>Enables the backup of 5 hosts with the NetWorker software.</p> <hr/> <p>Note</p> <p>Supported on all operating systems.</p> <hr/>	979b19-5f93d3-a0119f
	456-100-692	NetWorker Client Quantity 25	<p>Enables the backup of 25 hosts with the NetWorker software.</p> <hr/> <p>Note</p> <p>Supported on all operating systems.</p> <hr/>	<p>db5f5d-872721-95e9a1 3131b3-edcd77-42e77b 70f2f2-2a8c02-d8e43a f17173-ad0d81-596cbb fc6e7e-a6f845-b4a046</p>
	456-100-693	NetWorker Client Quantity 100	<p>Enables the backup of 100 hosts with the NetWorker software.</p> <hr/> <p>Note</p> <p>Supported on all operating systems.</p> <hr/>	<p>382aba-9fc479-80cd02 77e4d7-63d771-728f97 e46666-c3109e-447eae e9696b-c8152f-9788b3 c45646-e3300d-74b18e</p>
NetWorker NDMP Client Connection	456-004-689	NetWorker NDMP Client Connection Tier 1	<p>Enables the backup of a Tier 1 Dell EMC Celerra or non-Dell EMC NAS system using the NDMP protocol.</p> <hr/> <p>Note</p> <p>Each tier is defined in the <i>Dell EMC Hardware Compatibility Guide</i>.</p> <hr/>	<p>81ac03-457dd9-45f5cb 230aa5-ffdf75-a5f169 002f82-c2fc5a-c47b4a 81ac03-457dd9-45f5cb 6dc0ef-3189a9-4cfc37 6ec1f0-308aa8-4bff34</p>
	456-004-690	NetWorker NDMP Client Connection Tier 2	<p>Enables the backup of a Tier 2 Dell EMC Celerra or non-Dell EMC NAS system using the NDMP protocol.</p>	<p>56f9d8-18a2a95b6c1c 230aa5-ffdf75-a5f169 002f82-c2fc5a-c47b4a 81ac03-457dd9-45f5cb 6dc0ef-3189a9-4cfc37</p>

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			<p>Note</p> <p>Each tier is defined in the <i>Dell EMC Hardware Compatibility Guide</i>.</p>	6ec1f0-308aa8-4bff34
	456-004-691	NetWorker NDMP Client Connection Tier 3	<p>Enables the backup of a Tier 3 Dell EMC Celerra or non-Dell EMC NAS system using the NDMP protocol.</p> <p>Note</p> <p>Each tier is defined in the <i>Dell EMC Hardware Compatibility Guide</i>.</p>	d07f52-922c27-d1e39a 230aa5-ffdf75-a5f169 002f82-c2fc5a-c47b4a 81ac03-457dd9-45f5cb 6dc0ef-3189a9-4cfc37
	456-004-692	NetWorker NDMP Client Connection Tier 4	<p>Enables the backup of a Tier 4 Dell EMC Celerra or non-Dell EMC NAS system using the NDMP protocol.</p> <p>Note</p> <p>Each tier is defined in the <i>Dell EMC Hardware Compatibility Guide</i>.</p>	50ffd2-12aca7-51621a 230aa5-ffdf75-a5f169 002f82-c2fc5a-c47b4a 81ac03-457dd9-45f5cb 6dc0ef-3189a9-4cfc37 6ec1f0-308aa8-4bff34
NetWorker Dedicated Storage Node	456-010-513	NetWorker Network Edition Dedicated Storage Node for Solaris Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server Network Edition, which will be installed on a Solaris host.	46c3c8-1cb296-d87a0c
	456-004-826	NetWorker Network Edition Dedicated Storage Node for UNIX Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Network Edition, which will be installed on a UNIX host.	c54247-9d3117-5ff88f 888d0a-6574e2-1aab2d 080d8a-e5f462-9a2a52 44c1c6-12b094-de780e 45c2c7-1db197-df790f
	456-004-824	NetWorker Network Edition Dedicated Storage Node for Windows Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Network Edition, which will be installed on a Windows host.	ec776e-ba082c-66d9b6 4ad1cc-23b6a0-c4f110 cb564d-a0373f-457391 ec776e-ba082c-66d9b6 6cf7ee-3a88ac-e65836
NetWorker Dedicated Storage Node	456-010-514	NetWorker Power Edition Dedicated Storage Node for Solaris Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with	c84d4a-9e3410-5af592

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			Power Edition, which will be installed on a Solaris host.	
	456-004-827	NetWorker Power Edition Dedicated Storage Node for UNIX Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Power Edition, which will be installed on a UNIX host.	c74c49-9f3311-59f68d 898e0b-6275e1-1bb6d3 090e8b-e2f561-9b3753 c74c49-9f3311-59f68d 47ccc9-1fb391-d9770d
	456-004-825	NetWorker Power Edition Dedicated Storage Node for Windows Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Power Edition, which will be installed on a Windows host.	e8736a-be1430-7addb2 4bd6cd-20b7bf-c5f011 d44f56-b92036-4e789e 6ef5f0-248aae-e05a34 6feaf1-278ba9-e14735 ee7570-a40a2e-60dbb4
	456-004-828	NetWorker Network Edition Dedicated Storage Node for Linux Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Network Edition, which will be installed on a Linux host.	51c8d3-3aad89-95c31b 8a8f0c-6376e0-04b9d0 0a0f8c- e3f660-8438506 51c8d3-3aad89-95c31b
	456-004-829	NetWorker Power Edition Dedicated Storage Node for Linux Quantity 7	Enables a dedicated storage node for an environment with NetWorker Server with Power Edition, which will be installed on a Linux host.	171c99-f4e343-df0e5d 8b880d-6077ff-05b8d1 0b088d- e0f77f-8539515 bd8dd-0ba7bf-47b521
	456-101-772	NetWorker Network Edition Dedicated Storage Node for UNIX Edition	Enables a NetWorker Network Edition dedicated storage node for UNIX.	3431b6-d9c07c-e1f87e
	456-101-774	NetWorker Power Edition Dedicated Storage Node UNIX Edition	Enables a NetWorker Power Edition dedicated storage node for UNIX.	3330b5-d8cf7d-e2fb79
NetWorker Server	456-005-471	NetWorker Server Workgroup Edition Linux Edition	Enables a NetWorker Server with Workgroup Edition, which will be installed on a Linux host.	969518-5162c6-2dfddc
	456-004-987	NetWorker Server Workgroup Edition Windows Edition	Enables a NetWorker Server with Workgroup Edition, which will be installed on a Windows host.	51dbd3-10ad99-cfcb1b 2e26b0-f9ca7d-81c374
	456-101-237	NetWorker Server Network Edition Linux Edition	Enables a NetWorker Server with Network Edition, which	

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
			will be installed on a Linux host.	
	456-101-240	NetWorker Server Workgroup Edition Linux Edition	Enables a NetWorker Server with Workgroup Edition, which will be installed on a Linux host.	979a19-5263c1-2cfcdd 171a99-d2e341-ac7d5d 161598-d1e246-ad7c5c 909312-5b6cc8-27f3da 969518-5162c6-2dfddc
NetWorker Server	456-101-236	NetWorker Server Network Edition Windows Edition	Enables a NetWorker Server with Network Edition, which will be installed on a Windows host.	232da5-ecdf6f-10aa69 939d15-5c6fdf-a244d9 1b159d-d4e767-18d261
	456-005-472	NetWorker Server Network Edition Linux Edition	Enables a NetWorker Server with Network Edition, which will be installed on a Linux host.	9c9f1e-5558fc-0e73e6
	456-004-984	NetWorker Server Network Edition Windows Edition	Enables a NetWorker Server with Network Edition, which will be installed on a Windows host.	232da5-ecdf6f-10aa69
	456-101-243	NetWorker Server Power Edition Linux Edition	Enables a NetWorker Server with Power Edition, which will be installed on a Linux host.	cc554e-85280c-7e8496 ca534c-873612-7c8290 4bd4cd-04b78d-fd0611 4cd5ce-05a88c-fe0516 cb544d-84370d-7d8791
	456-101-242	NetWorker Server Power Edition Windows Edition	Enables a NetWorker Server with Power Edition, which will be installed on a Windows host.	f66578-b30229-ad4bbc fb6e7d-b40740-81b841 71e0f3-3e8da4-26cf3b afa231-784be6-e752f5 f16073-be0d24-a640bb
	456-005-473	NetWorker Server Power Edition Linux Edition	Enables a NetWorker Server with Power Edition, which will be installed on a Linux host.	cb544d-84370d-7d8791
	456-005-139	NetWorker Server Power Edition Windows Edition	Enables a NetWorker Server with Power Edition, which will be installed on a Windows host.	f16073-be0d24-a640bb
NetWorker Server	456-100-631	NetWorker Server Upgrade from Network	Enables an upgrade to an existing NetWorker Server with Network Edition to the	f16073-be0d24-a640bb

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
		to Power Edition Linux Edition	Power Edition in a Linux environment. Power Edition provides additional functionality over the Network Edition, specifically: <ul style="list-style-type: none"> • Support for cluster technology • Support for more devices • Twice the number of streams compared to the Network Edition 	
NetWorker VMware Protection	456-105-038	NetWorker VMware Protection Tier 1, qty 1	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 1 for 1-5 CPUs.	54cbd6-16a099-dfe11e d54857-99211a-5e679f d64958-98221b-59609 c
	456-105-039	NetWorker VMware Protection Tier 2, qty 1	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 2 for 6-10 CPUs.	5cc3de-1d98a1-e7d926 dd405f-a21922-665fa7 5dc0df-2299a2-e6d827 de4160-a31a23-6158a4
	456-105-040	NetWorker VMware Protection Tier 3, qty 1	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 3 for 11-25 CPUs.	5cc3de-1d98a1-e7d926 dd405f-a21922-665fa7 de4160-a31a23-6158a4
	456-105-041	NetWorker VMware Protection Tier 4, qty 1	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 4 for 26-50 CPUs.	4cd3ce-0ba891-d7e916 cd504f-942912-566f97 4dd0cf-14a992-d6e817 ce5150-952a13-516894
	456-105-042	NetWorker VMware Protection Tier 5, qty 1	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 5 for 50+ CPUs.	74ebf6-3280b9-ffc13e f56877-bd013a-7e47bf 75e8f7-3d81ba-fec03f f66978-bc023b-7940bc
	456-105-043	NetWorker VMware Protection Tier 1, qty 5	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 1 for 1-5 CPUs.	JTBLCNCY- TCEMT7NY- CAC55RNX W4M3BB78-5RPB1V9J- 656FACVC WCN37BPA-61QB5VRL- 6W7FEFC4

Table 10 NetWorker 45-day evaluation enabler codes (continued)

Product	Model code	Description	Usage	Temporary enabler
	456-105-044	NetWorker WMware Protection Tier 2, qty 5	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 2 for 6-10 CPUs.	JPB4JN4V-T8CMR7EX-BNCA3RXR W8MK5BFB-5WRB3VH K-6R6YCCL3 W0LK9AY9-5MNAYV1H -615Y8C4B
	456-105-045	NetWorker WMware Protection Tier 3, qty 5	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 3 for 11-25 CPUs.	JKALGMVW-T4CMP76W-BJKS1R6Q WCN37BPA-61RB5VRL -6W7FEFC2 W4M3BB78-5RNB1V9J -656FACVA
	456-105-046	NetWorker WMware Protection Tier 4, qty 5	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 4 for 26-50 CPUs.	JFA4NMLJ-TOEMM6XV-BXK9YRET WGNK1BYM-65TB7W1 M-6H7YGF41 WQPJWCFF-6DQBBW HP-790YLFL1
	456-105-047	NetWorker WMware Protection Tier 5, qty 5	Enables VMware protection capabilities for 1 ESX server physical CPU. Tier 5 for 50+ CPUs.	JB9LLMCK-SVEMK6NT-BSJRWNNS WLP33C7L-69TB9W9N -6M0FJFV0 WVQ2YCPN-6HQBDW RQ-7D1FNEC0

APPENDIX B

Troubleshooting and Best Practices

The Appendix includes the following topics:

- [License Conformance Summary](#) 76
- [Knowledge base articles](#) 78
- [How to contact Dell EMC Licensing or provide feedback](#) 78

License Conformance Summary

In the course of using NetWorker software to protect enterprise data, users add clients, modules, and devices as needed. A summary report of the current license information for any given NetWorker server can be helpful.

A summary report enables users to determine several things. For example:

- Which or how many products or features have been enabled
- Which or how many licenses have been purchased and authorized
- Which or how many of the licenses have been used and how many are still available
- How many additional licenses might be needed
- Whether the number of licenses conforms to the number of licenses in use

From the Console, you can request a License Conformance Summary report that shows relevant information about the NetWorker-related product licenses that have been purchased or are being evaluated.

In NetWorker 9.0.1 and later, capacity entitlement is manually assigned. The License Conformance report will show only the capacity entitlements that the administrator has assigned to the individual NetWorker server.

The information is presented in a tabular form that displays installed products, licenses that are in conformance, and which additional licenses, if any, must be obtained to close conformance gaps.

In addition to product and license information, the summary displays certain details about the environment and the software version that the NetWorker server is running.

Displaying the License Conformance Summary

Follow this procedure to display the License Conformance Summary and review licensing information.

Procedure

1. In the main Console window, on the taskbar, click **Enterprise**.
2. In the navigation tree, highlight a host and in the right pane, right-click **NetWorker**, and then select **Launch Application**.

The **NetWorker Administration** window appears.

3. On the taskbar, click the **Configuration**.
4. On the toolbar, select **Configuration > License Conformance Summary**.

The **License Conformance Summary** appears.

5. Click **OK** or **Cancel** to exit the summary.
6. You can also display the License Conformance Summary in the server's navigation tree. Right-click **Registrations** and select **License Conformance Summary**.

License Conformance Summary details

The License Conformance Summary provides the following information:

- Server and environment information:

- **NetWorker Server:** Name of the NetWorker server.
 - **Version:** NetWorker software release and build number.
 - **Full Conformance:** Possible values are **Yes**, **No**, or, if in evaluation mode, **Eval**.
 - **Base License:** Possible values include:
 - The NetWorker edition that is installed
 - Eval indicates evaluation mode.
 - Yes or No indicates whether an authorization code has been applied to the license.
 - Disabled indications that the server has been disabled.
 - **Operating System:** Operating system installed on the NetWorker server.
 - **Report Date:** Date and time when the summary was created.
- License related information is displayed in the following columns:
 - **License:** Type of license. For example, Storage Node, Client, module name.
 - **Number Used:** How many licenses of this type have been used.
 - **Number of Licenses:** How many licenses of this type are installed and not expired on the server. While the license is in evaluation mode, the number displayed is the maximum number possible for the license type.
 - **% Conformance:** Degree to which the number of licenses purchased is less than or equal to the number used. For DiskBackup Option and Virtual Tape Library, this might be blank, because more than one device can be created for each license of these license types.
 - **Notes:** Additional information, specific to the license type, provided by the system. For example, the capacity of a DiskBackup license.
 - A checksum (five groups of generated alphanumeric characters) is listed at the bottom of the summary if the summary contents are valid. Users may ignore this line.
 - For the DiskBackup Option (DBO) and the Virtual Tape Library (VTL) frames license types, the Number Used is the number of DBO devices or VTL jukeboxes that the user has created. The Number of Licenses is the number of DBO licenses or VTL frame licenses that are installed. DBO and VTL are the only license types for which the Number Used can exceed the Number of Licenses. This is because more than one device can be created for each license of this type.
 - The License Conformance Summary is not available for use with the NetWorker License Manager software.
 - The License Conformance Summary supports the standard Console table functions, such as Print and Export.
 - A time-stamped snapshot License Conformance Summary is sent to the */nsr/logs* directory at the start of each quarter.
 - The NetWorker server updates license information only once daily, at noon. Changes made after noon will be reflected in the next day's update.
 - License Conformance is a new attribute for the server (nsr) resource.
 - License Conformance Checksum is a new attribute used by the system to maintain the integrity of the summary.

When viewing the License Conformance Summary, consider the following:

- For the DiskBackup Option (DBO) and the Virtual Tape Library (VTL) frames license types, the Number Used is the number of DBO devices or VTL jukeboxes

that the user has created. The Number of Licenses is the number of DBO licenses or VTL frame licenses that are installed. DBO and VTL are the only license types for which the Number Used can exceed the Number of Licenses. This is because more than one device can be created for each license of this type.

- The License Conformance Summary is not available for use with the NetWorker License Manager software.
- The License Conformance Summary supports the standard Console table functions, such as Print and Export.
- A time-stamped snapshot License Conformance Summary is sent to the */nsr/logs* directory at the start of each quarter.
- The NetWorker server updates license information only once daily, at noon. Changes made after noon will be reflected in the next day's update.
- License Conformance is a new attribute for the server (nsr) resource.
- License Conformance Checksum is a new attribute used by the system to maintain the integrity of the summary.

Knowledge base articles

The Dell EMC Online Support site provides access to knowledge base articles to troubleshoot common licensing issues with NetWorker 9.0 and earlier releases.

You can access licensing-related knowledge base articles directly at <https://support.emc.com/kb/463810>.

How to contact Dell EMC Licensing or provide feedback

Contact Dell EMC support team under the following circumstances.

- If error messages appear in the output file or you want to provide feedback.
- If you cannot determine the reason for a failure or experience problems with updating the NetWorker license, open a Service Request on support.emc.com.

To contact Dell EMC Licensing to obtain the required entitlement, use the following contact information:

- Open a service request.
- Visit [_https://support.emc.com/service-center/](https://support.emc.com/service-center/) to:
 - Use the Live chat feature between the hours of 3.00 AM and 7.00 PM Eastern.
- Contact Dell EMC's live support team by calling 800-782-4362, option 4, option 4 at any time.