



NBMR For Windows

Bare Machine Recovery for NetWorker

Installation and Licensing Guide

Version 9.6.1 released April 2024

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1 Overview

This document describes the Installation and Licensing of the Bare Machine Recovery for NetWorker (NBMR) product.

NBMR installation uses the standard Microsoft Windows Installer MSIEXEC so enabling NBMR to be installed, re-configured or removed from any supported Windows platform.

Please refer to this web page <https://www.cristie.com/support/matrix/> to determine the latest OS and Dell EMC NetWorker™ client/server support for NBMR Version 9.6.1.

Important note regarding Windows Service Pack level:

For correct operation the NBMR product components requires the Microsoft VC++ 2015-2022 redistributable to be installed on the host system. This component is installed automatically by the suite installer.

NBMR installation is available in English only.

Before NBMR can be used it must also be correctly licensed. Cristie provides a 30 day trial license with the product.

1.1 Document conventions

The following typographical conventions are used throughout this guide:

<code>/etc/passwd</code>	represents command-line commands, options, parameters, directory names and filenames
<code>Next ></code>	used to signify clickable buttons on a GUI dialogue
Note:	describes something of importance related to the current topic



2 NBMR Installation and Removal

The Windows setup program allows all components of NBMR to be selectively installed or un-installed. This group of components is referred to here as the **NBMR Suite**.

It is possible to install individual components using dedicated setup programs. For example this may be required at a later date to update individual suite components. However, in normal practice, it is recommended to use the suite installer as discussed in the following sections.

The Windows installation suite consists of the following components:

- **NBMR (Bare Machine Recovery for NetWorker)** - Install on the machine to be protected by NBMR.
- **CRISP (Cristie Recovery ISO Producer)** - Install on any suitable host machine. A tool used to create a bootable WinPE5, WinPE10 or WinPE11 based Disaster Recovery environment in conjunction with the appropriate NBMR fileset below.
- **CRISP WinPE5, WinPE10 or WinPE11 Fileset for Disaster Recovery**- Install on the same machine as CRISP above. Used in conjunction with CRISP to create the Disaster Recovery ISO/USB flash drive. Boot this ISO/USB flash drive on Windows recovery targets. Unfortunately Cristie Software Ltd. is unable to provide the Disaster Recovery ISO directly to Customers because of Microsoft WinPE5, WinPE10 or WinPE11 Licensing restrictions.

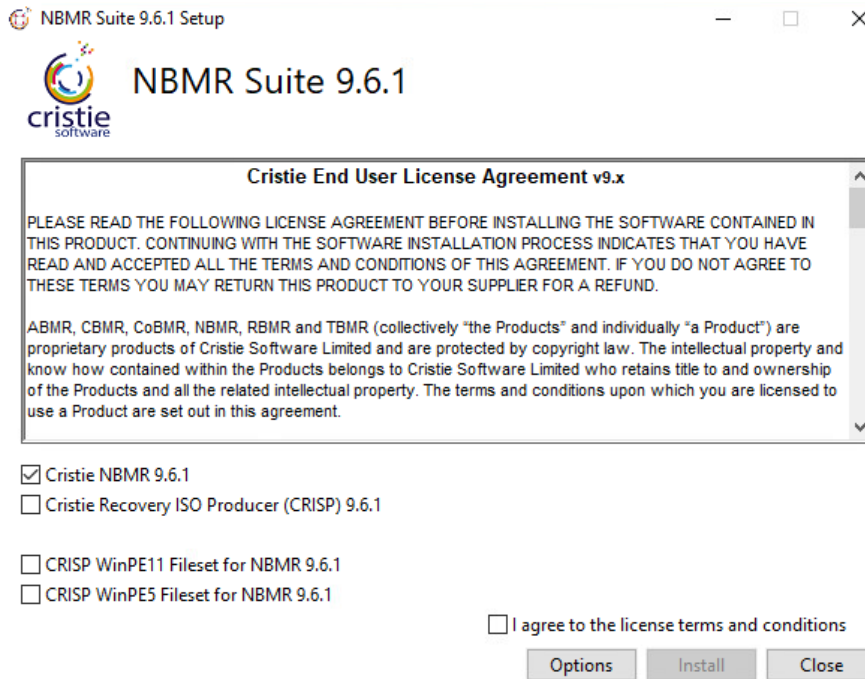
2.1 Install the NBMR components

Prior to attempting an installation of NBMR, Cristie recommends that the NBMRCFG.EXE program is added to the Windows Defender/Antivirus exclusion list. This executable program file will be found in the NBMR install folder - normally C:\Program Files\Cristie\NBMR unless changed. This will significantly speed up the installation of NBMR.

To install NBMR components run the suite setup program `SetupNBMRSuite961.exe` from the command line or click on the setup program from within Windows Explorer. This will then display the opening dialogue of the installation sequence.

Note: The NBMR installation requires that the User login account running the installation has Administrator privilege.





You will then be offered a selection of suite components to install as shown. So now select one or more components to install. These options are now discussed in more detail.

2.1.1 Install NBMR

NBMR requires both the Dell EMC NetWorker™ client and the extended client to be installed prior to running the installation. The installation operation will be disabled if either client is not detected on the system. A warning message will be displayed in this case.

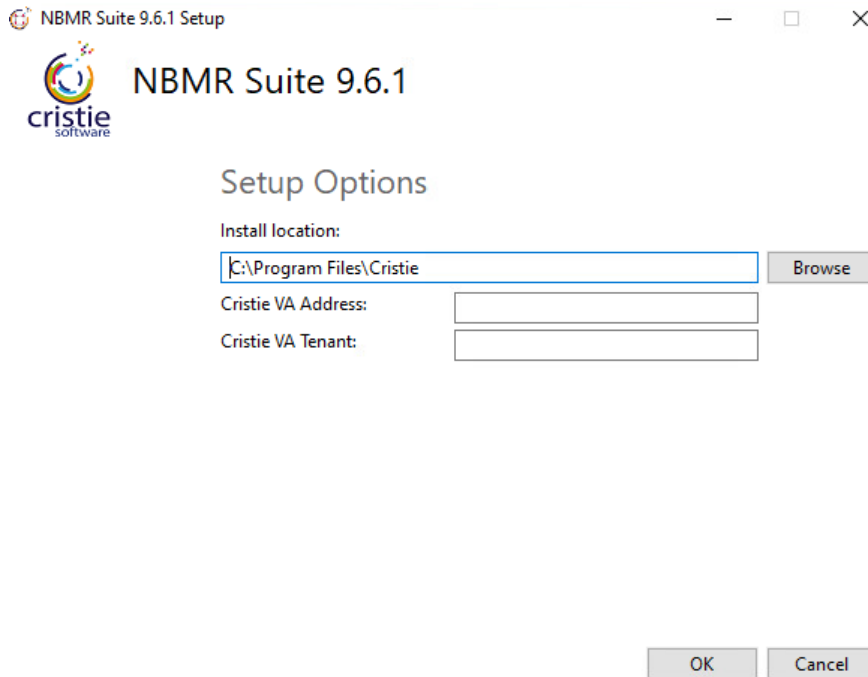
There are a few options that can be configured prior to the installation. Click [Options](#) to open the options dialogue. You may then select a different installation folder.

Note: Cristie Software Ltd. recommends the default folder locations are used. It is a requirement that any non-default folder(s) selected must always be on the same partition as the Windows folder.

Note: NBMR can only be installed on the same partition as the Windows OS itself.

If you intend to manage this installation of NBMR with the Cristie Virtual Appliance (Cristie VA) then enter its IP address and Tenant; otherwise leave these entries blank.

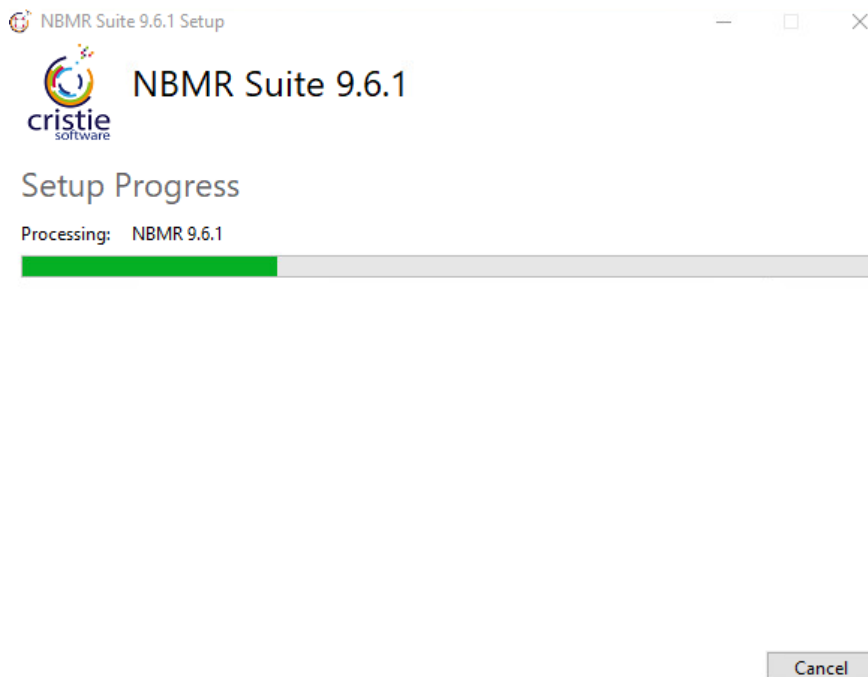




Click **OK** to save your changes.

Select the **Cristie NBMR Version 9.6.1** tick-box option. If you are happy to accept the terms and conditions in the license agreement, also select **I agree the terms to the license terms and conditions** and then click **Install**. Note if an earlier version of the product is already installed then the NBMR agent component will be upgraded.

If not already installed the Microsoft VC++ 2015-2022 redistributable will be installed prior to the NBMR component.

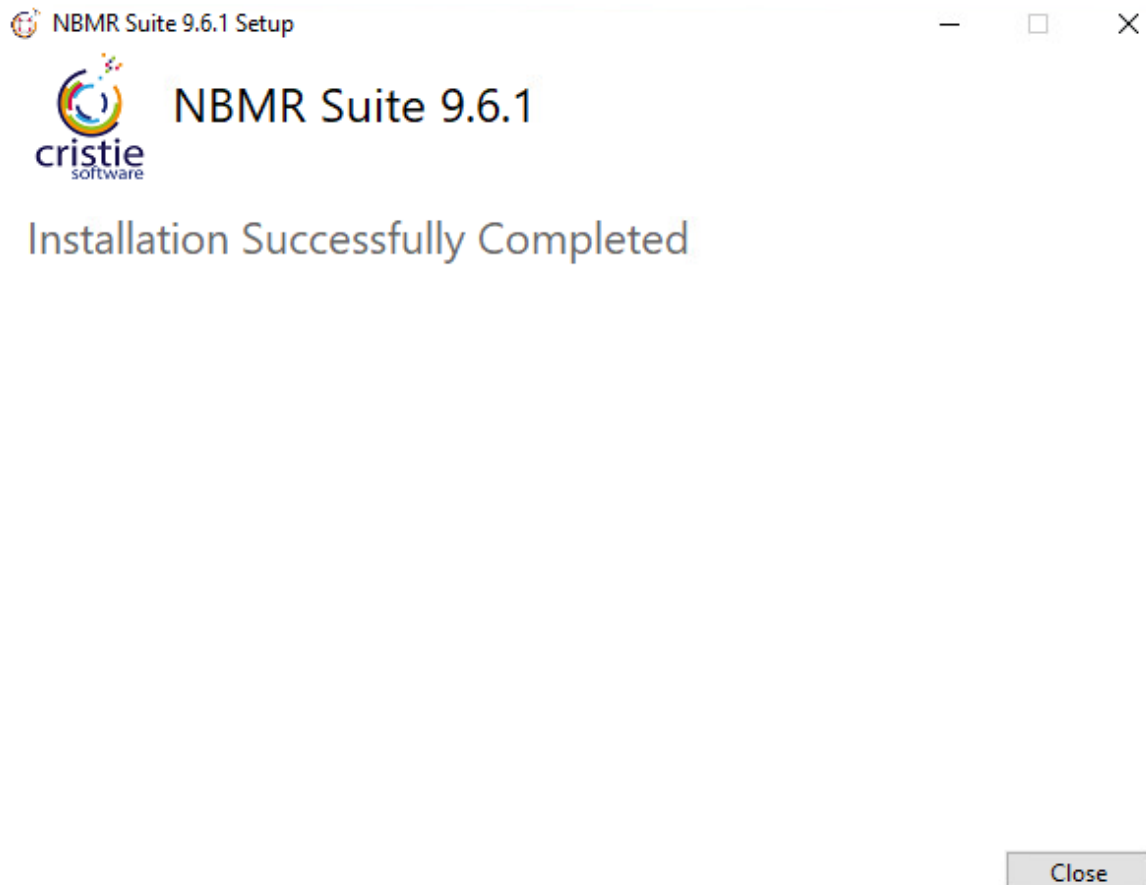


Note: The final phase of the NBMR installation is to capture the system configuration of



the host machine and this could take a considerable amount of time. During this activity the SystemState files and file hard-links are captured and stored. This process requires traversing the Windows file system and could take perhaps 30 minutes or more. Note that if this process takes longer than 1 hour it will be cancelled to allow the installation to complete. In this case the configuration should be run post-install either manually using the Start menu option or by script when convenient.

Successful completion is confirmed by the following dialogue. Select [Close](#) to exit.

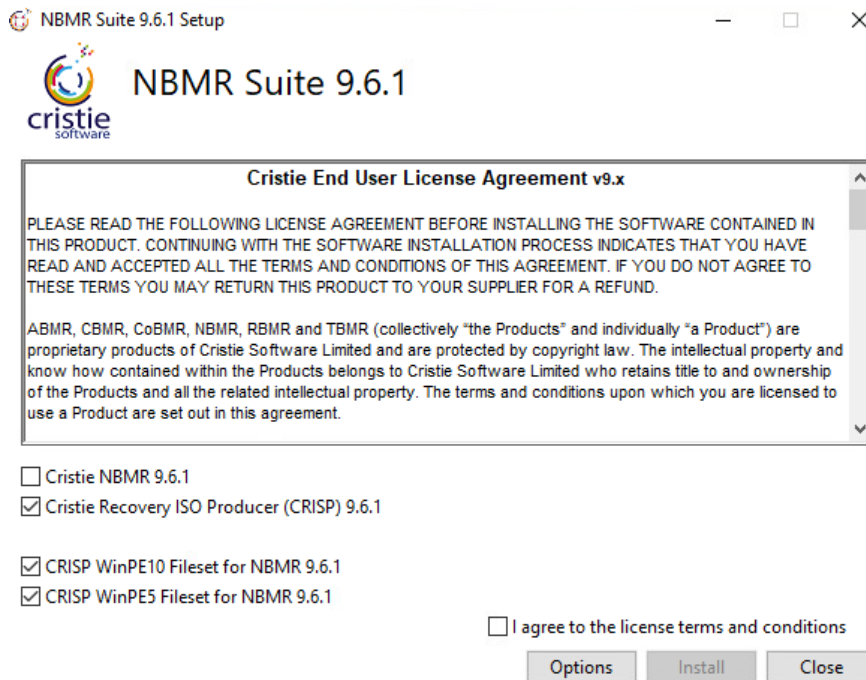


Note: Please take careful note of the post installation instructions.

2.1.2 Install CRISP and the NBMR fileset

First select the CRISP WinPE filesets you want to install. WinPE5, WinPE10 and/or WinPE11 can be selected. Note the installer allows any combination to be installed. You may also choose to deselect all filesets in which case only CRISP will be installed.

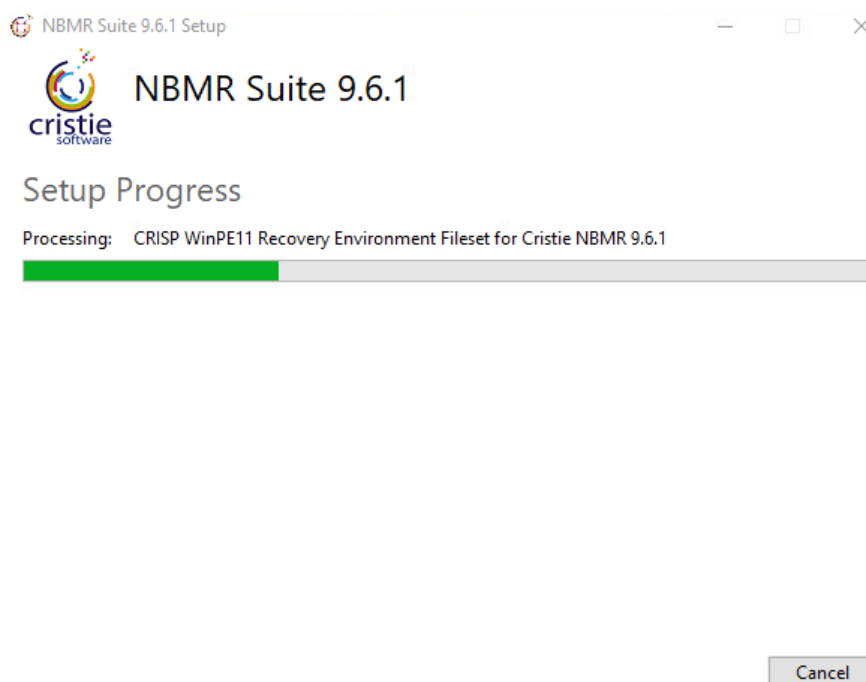




There is one option that can be configured prior to the installation. Click [Options](#) to open the options dialogue. You may then select a different installation folder. The VA fields are not relevant for the Install of CRISP and the fileset options.

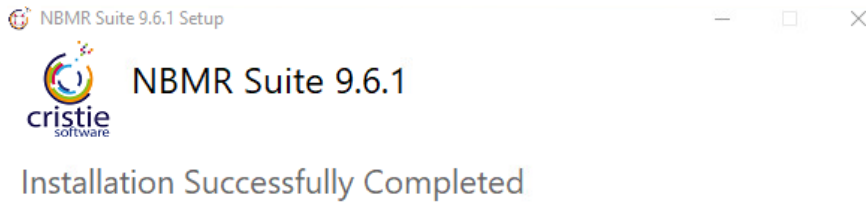
Note: Cristie Software Ltd. strongly recommends the default folder location is used.

If you are happy to accept the terms and conditions in the license agreement, select **I agree the terms to the license terms and conditions** and then click [Install](#). Note if an earlier version of the product is already installed then the CRISP and/or fileset component (s) will be upgraded.



Successful completion is confirmed by the following dialogue. Select [Close](#) to exit.





Note: If you wish to build a recovery ISO/USB flash drive for Windows 2016 or later support, please use the WinPE10 or WinPE11 based fileset in conjunction with CRISP. Although the WinPE5 version of the fileset can be used it does not provide dissimilar hardware drivers for recovery to vSphere or other cloud platforms. The WinPE10 or WinPE11 versions do.

Refer to the [CRISP User Guide](#) for more detailed information.

2.1.3 Silent Install

If you need to install NBMR repeatedly with the same options, you can install it from the command line without operator interaction.

There are 2 approaches to this. Either run the suite installer silently (the recommended method) or extract the stand-alone component installers and run those individually and silently.

In both cases ensure you have the correct Dell EMC NetWorker™ client installed prior to running the installation. Otherwise the silent install will fail - silently!

Running the Suite Installer Silently

This is the recommended method because it ensures the components are installed in the correct sequence with the correct options. The syntax for running the suite setup silently is:

```
C:\SetupNBMRSuite961.exe /quiet /log "C:\Temp" SuiteInstallDir="C:\Program Files\Cristie" VAADDRESS="xxx.xxx.xxx.xxx" VATENANCY="root"
```

This installs all the NBMR agent components to the standard folder **C:\Program Files\Cristie** and creates an installation log in the **C:\Temp** folder. Obviously you may change the installation and/or folder as required. **Note the parameter names shown above are case sensitive.**



The **VAADDRESS** parameter allows the product to be silently installed when a remote Cristie VA is in use. Please specify the IPv4 address in this case. Similarly the **VATENANCY** option allows a VA tenant to be supplied. These are optional parameters and can be omitted when a VA is not in use.

Running the Component Installers Silently

You should only choose this method of installing NBMR when running the suite installer silently is, for example, incompatible with any deployment software in use.

To prepare for this each component's stand-alone setup program SetupNBMR.msi must be first be obtained from Cristie Software Ltd.. This will usually be sourced from where you downloaded the suite installer.

Note: 32-bit agent installations are not supported.

Run the silent setup on the command line, for example:

```
C:\temp\SetupNBMR.msi /quiet
```

The command will select all of the default values that have been specified for the installation. You may change some of the default values by adding parameters to the command line. For example,

```
C:\SetupNBMR.msi /quiet INSTALLLOCATION="%systemdrive%\Cristie\NBMR" /log C:\Temp\Install.log
```

The INSTALLLOCATION property in the above example is overridden from its default value and an install log will be created in C:\Temp. **Note the parameter names shown above are case sensitive.**

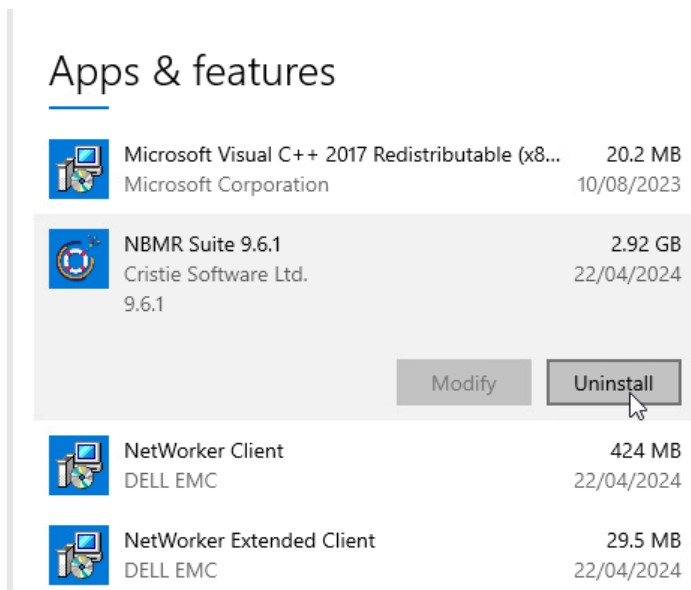
2.2 Uninstalling NBMR components

There are two options available for uninstalling NBMR. You can choose to either uninstall all or selected components.

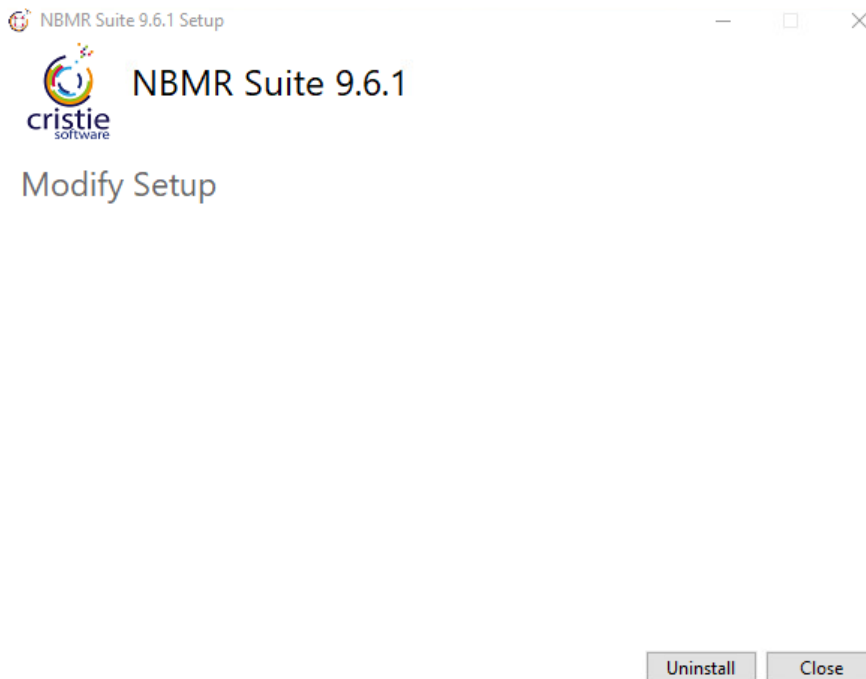
2.2.1 Uninstall all components

To remove all installed components select NBMR from the Windows **Control Panel -> Programs and Features** (or **Apps and Features** on Windows 10/Windows 2019 or later) option.



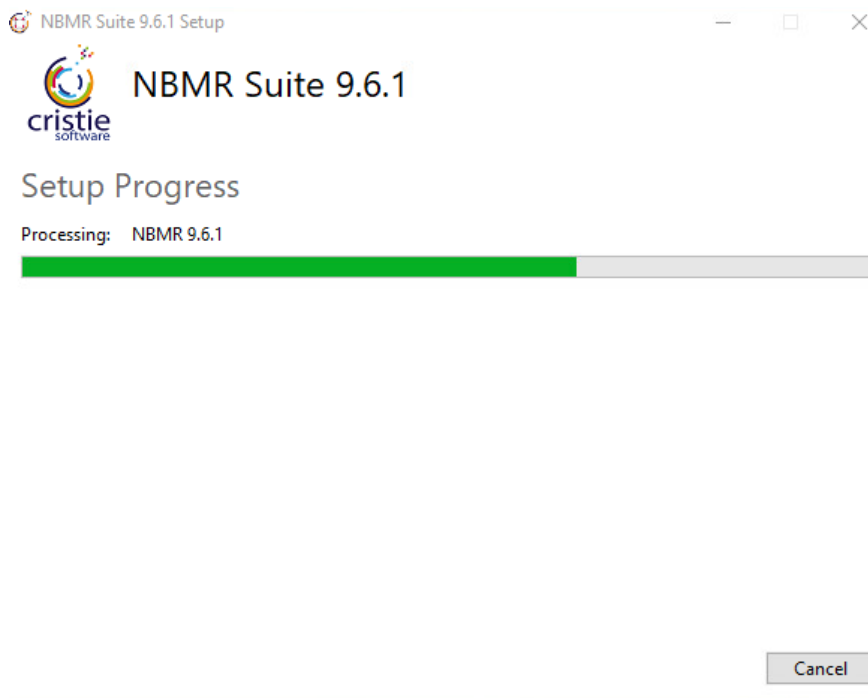


Then select **Uninstall** as shown.

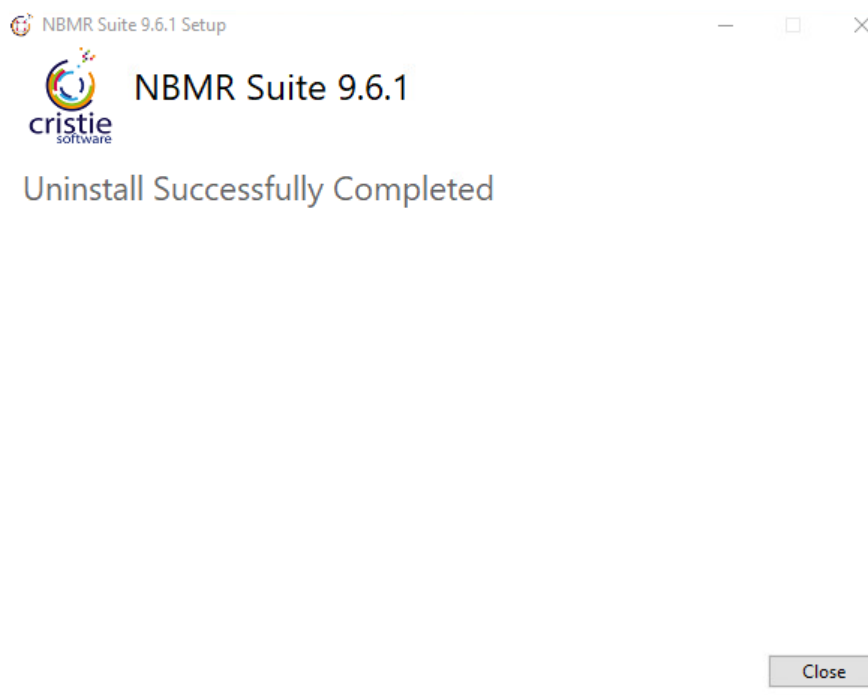


Select **Uninstall** and all installed components will be uninstalled.





Successful removal is signified with this dialogue.



Press [Close](#) to exit.

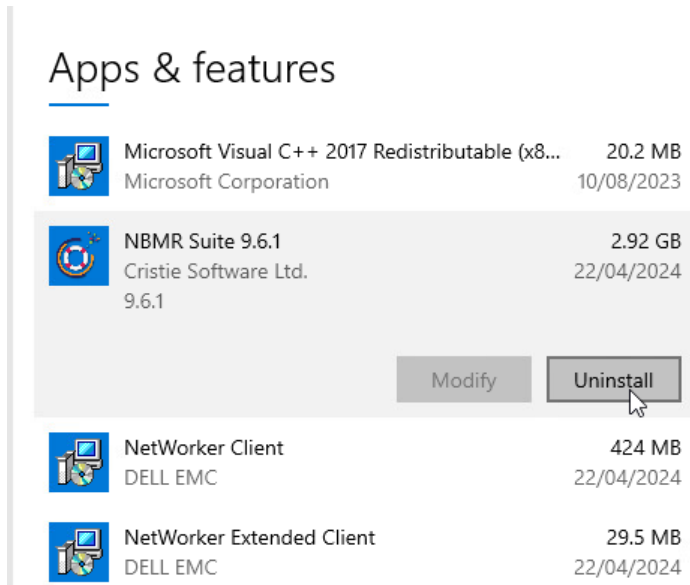
2.2.2 Uninstalling selected components

To remove a selected component only choose the required item from the list of installed programs in the Windows **Control Panel -> Programs and Features** (or **Apps and Features** on Windows 10/Windows 2019 or later).

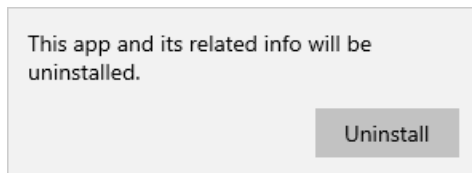
Note: This method is not recommended. Please use the ['Uninstall all components'](#) option where possible.



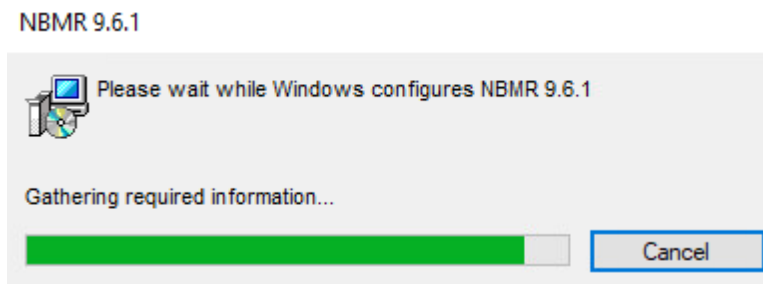
In the following example the NBMR agent is going to be uninstalled but all other product components will be left installed.



Click **Uninstall** and a confirmation message will be displayed.



Select **Uninstall** to begin the uninstall process.



2.2.3 Silent Uninstall

If you need to uninstall NBMR repeatedly with the same options, you can uninstall it from the command line without operator interaction.

As for silent install there are 2 approaches to this. Either run the suite installer silently (the recommended method) or extract the stand-alone component installers and run those individually and silently.

Running the Suite Uninstaller Silently

This is the recommended method because it ensures the components are uninstalled in



the correct sequence and with the correct options. The syntax for running the suite setup silently in uninstall mode is:

```
C:\SetupNBMRSuite961.exe /quiet /uninstall /log "C:\temp\uninstall.log"
```

This uninstalls all the NBMR agent components and creates an uninstall log in the **C:\temp** folder. The installation must have been previously performed by the suite.

Running the Component Uninstallers Silently

This is currently not supported.



3 Product Licensing

When first installed, NBMR may be used for a trial period of 30 days. During that period NBMR is fully functional. If the software is subsequently un-installed and later re-installed on the same system, the 30 day period continues from the date of the first installation. If the 30-day period has already expired then the software will no longer function.

If you wish to use the software beyond the trial period, you must register and purchase a license from Cristie Software Ltd.. Alternatively, and in special circumstances, Cristie Software Ltd. may extend the license period if you wish to trial the software beyond that period.

If you purchase the product, then a license activation code will be made available on the Cristie Licensing Portal. This code will enable you to fully activate the product.

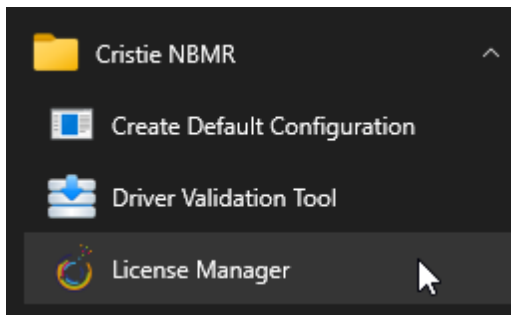
NBMR can also be activated with a **Rental** license code. This allows the software to run normally up to a pre-configured expiration date whereupon it will cease to function.

The following sections discuss this in more detail.

3.1 Trial License

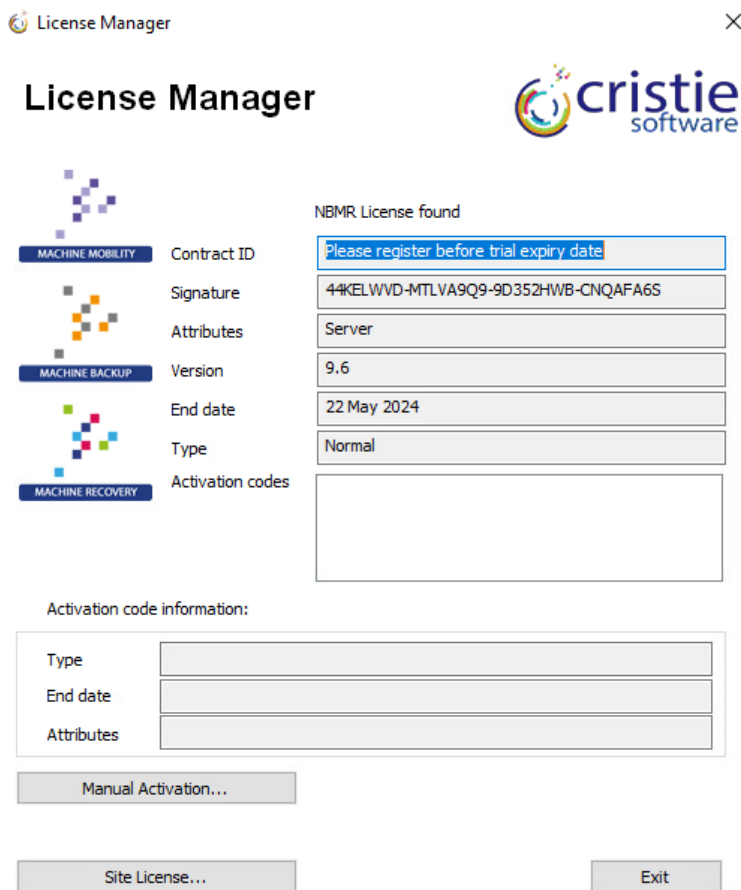
A 30-day trial license commences from the date of installation. The NBMR configuration file generator (**NBMRCfg.exe** - referred to as the **plugin** in the following discussion) will not run after this period expires.

You may use the **License Manager** to add or inspect license details at any time. Select this from the **Start** menu shortcut:



Clicking the shortcut will display the **License Manager**. This shows the current Cristie product (**NBMR** in this case), the installed host System signature, system attributes, the product version, the trial end date, license type and a list of current activation codes (if any).





The NBM configuration file generator will become active again as soon as a full license has been purchased from Cristie Software Ltd. and the new activation code entered via the License Manager.

3.2 Full License

A Full license entitles the Customer to product support and upgrades for the duration of the maintenance period.

Note: The software will continue to function beyond the maintenance expiry date, but the Customer will not be eligible for support and upgrades.

To upgrade from the trial license to a full license, you need to apply for a full license activation code either via the Cristie Licensing Portal website or via the product License Manager. In either case you will need to first register an account on the Cristie Licensing Portal (located at <https://portal.cristie.com/login>). A Contract ID will be created and provided to you when you purchase a license.

These are the various codes used in the Cristie licensing process:

Contract ID: A 4-digit number supplied by Cristie Software Ltd. Sales during the license purchase process.

Agreement Number: Same as *Contract ID* at the moment.

Contract Code: 35-character contract code obtained from the Cristie Licensing Portal

Activation Code: 35-character support activation code obtained from the Cristie



Licensing Portal

In special circumstances a 'site license' may be issued by Cristie Software Ltd. for customers that order a significant number of product licenses. Please contact your Cristie sales representative if you wish to discuss this service.

The product can be activated either **manually** (direct Internet access not required) or by using the Cristie Virtual Appliance (Cristie VA) if you have one. Manual activation requires a Cristie Licensing Portal account.

Note: this discussion assumes that NBMR is already installed on a Customer production machine.

3.2.1 Setting up a Cristie Licensing Portal account

To setup a new account on the Cristie Licensing Portal follow the following steps. To do this you will need your 4-digit Contract ID and contract setup password. These will be provided by email from Cristie Software Ltd. when you purchase a product license.

Note: Your Contract ID may have been supplied to you as your contract Agreement Number. In that case please use your Agreement number in place of the Contract ID throughout.


1. On a machine that has Internet access run a suitable browser such as Microsoft Edge and then navigate to the Cristie Licensing Portal web page at <https://portal.cristie.com/login>.



The image shows the login and registration interface of the Cristie Software Licensing Portal. It features the Cristie Software logo at the top left. Below the logo are two input fields: 'Email' and 'Password', each with a small eye icon for visibility toggling. Underneath the input fields are four buttons: 'Login' (blue), 'Reset Password' (red), and 'Register' (dark blue). The 'Register' button is highlighted with a light blue background.

Select **Register** to create a new account. Enter your new account details (note this is an example):






Register

Username	<input type="text" value="Cristie User"/>
Email	<input type="text" value="test@cristie.com"/>
New Password	<input type="password" value="*****"/>
Confirm New Password	<input type="password" value="*****"/>
Password Reset Question	<input type="text" value="Mother's maiden name"/>
Password Reset Answer	<input type="password" value="*****"/>
Contract/Agreement No	<input type="text" value="4"/>
Contract Password	<input type="password" value="*****"/>

Then click [Register](#). If successful the following is shown.



Register

✔ Registration successful

At this point you may now log in to the Cristie Licensing Portal using the E-mail ID and password setup in the previous step.

3.2.2 Manual activation

Manual activation allows you to activate your license using your 35-digit **License Activation Code** only. This code is obtained from your Cristie Licensing Portal account, but indirectly from the NBMR host by using a second system with access the portal. Use this activation method if your NBMR host does not have Internet access.

The steps involved in activating using the Cristie Licensing Portal are as follows. This discussion assumes your contract is already setup on the Cristie Licensing Portal.

1. Run the License Manager on the installed host machine first and make a note of the system signature code. This code uniquely identifies the host machine.



License Manager ×

License Manager

MACHINE MOBILITY

MACHINE BACKUP

MACHINE RECOVERY

NBMR License found

Contract ID	Please register before trial expiry date
Signature	44KELWVD-MTLVA9Q9-9D352HWP-CNQAFA6S
Attributes	Server
Version	9.6
End date	22 May 2024
Type	Normal
Activation codes	


Activation code information:

Type	
End date	
Attributes	

Manual Activation...

Site License... Exit

- On a machine that has Internet access run a suitable browser such as Microsoft Edge and navigate to the Cristie Licensing Portal web page at <https://portal.cristie.com/login>. Use your existing Login credentials or create a new account. The following is the Login web page.



Email

Password

Login

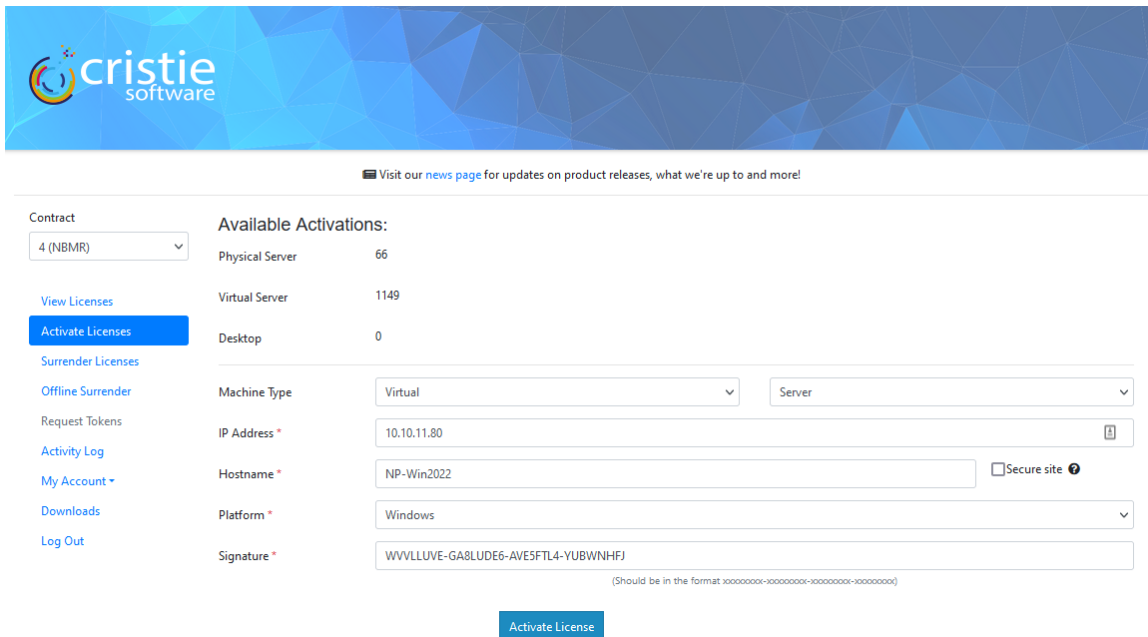
Reset Password

Register

Once logged in select the **Activate License** menu option and enter the following details:

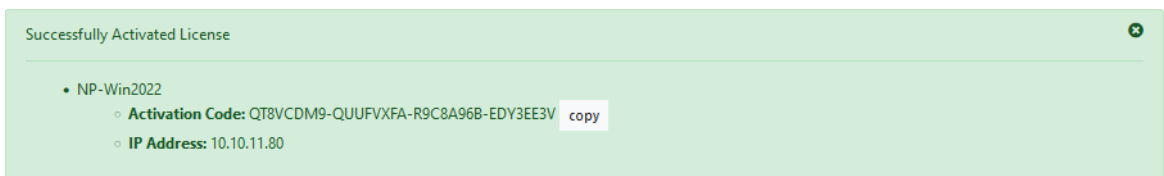
- select the correct **Contract ID** - this will automatically select the correct product, but please check. This ID may have been supplied to you as the contract 'Agreement Number' - please use this instead as the Contract ID.
- select the correct **Machine Type** - i.e. physical or virtual and then server or desktop.
- select the correct Operating System (**OS**) - Windows in this case
- enter the system **Signature** as obtained from the License Manager (see above)
- we recommend you enter your system's **IP address** and **hostname**

- add any comments you feel are relevant



The screenshot shows the Cristie Software license activation page. At the top left is the Cristie Software logo. Below it is a navigation menu with links: View Licenses, Activate Licenses (highlighted in blue), Surrender Licenses, Offline Surrender, Request Tokens, Activity Log, My Account, Downloads, and Log Out. The main content area is titled 'Available Activations:' and shows a table with columns for 'Contract' (4 (NBMR)) and 'Available Activations:'. The table lists: Physical Server (66), Virtual Server (1149), and Desktop (0). Below the table are several input fields: Machine Type (Virtual), Server (Server), IP Address (10.10.11.80), Hostname (NP-Win2022), Platform (Windows), and Signature (WVLLUVE-GA8LUDE6-AVE5FTL4-YUBWNHFJ). A 'Secure site' checkbox is also present. At the bottom of the form is an 'Activate License' button.

Then click [Activate License](#). A pop-up dialogue will be shown providing the License Activation code:



The screenshot shows a green pop-up dialog titled 'Successfully Activated License'. It contains a list of items for 'NP-Win2022':

- Activation Code: QT8VCDM9-QUUFVXFA-R9C8A96B-EDY3EE3V (with a copy icon)
- IP Address: 10.10.11.80

There is no need to remember this code (unless perhaps you are activating the host system at the same time). This and any other code can be retrieved at a later time by reselecting [View Licenses](#) to show your contract code. Select your **Contract ID** and then click [View Activations](#) to see a list of all product activations for that contract.



Contract Contract Code VAD4Q3M5-BH6PN377-C4E7LFVM-N4J2R5EL
 Maintenance Start Date 31 December 2012 Maintenance End Date 31 December 2024
 Product NBMR

View Licenses

Activate Licenses

Surrender Licenses

Offline Surrender

Request Tokens

Activity Log

My Account ▾

Downloads

Log Out

Show Customer Info

License Details

Type	Licenses Purchased	Activations Allowed	Activations Available
Physical Server	1000	1000	66
Virtual Server Packs	1000	4000	1149
Desktop	0	0	0

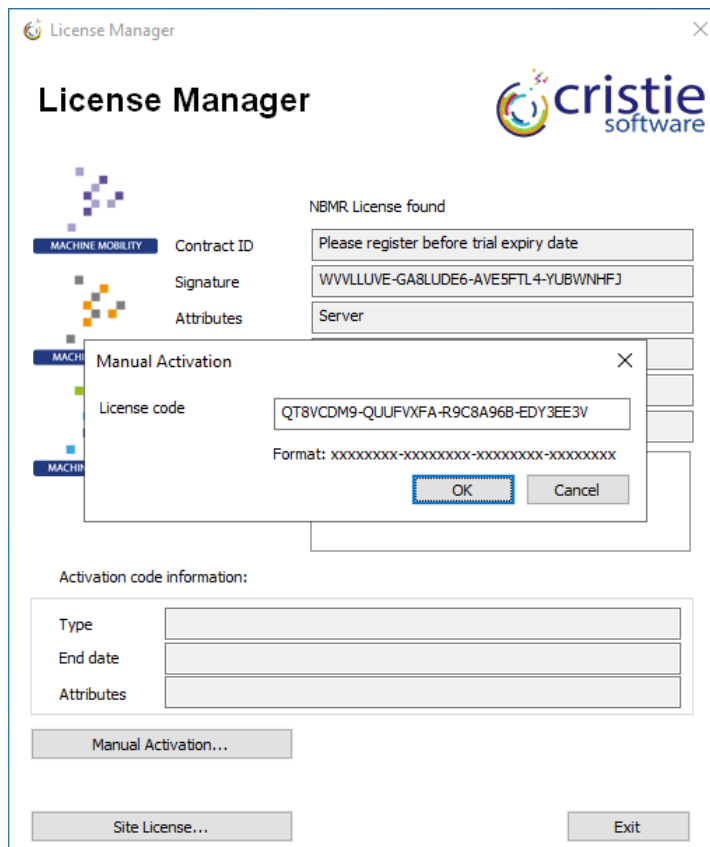
Activation Details Your active licenses are shown here. [export activations](#)

Filter activations

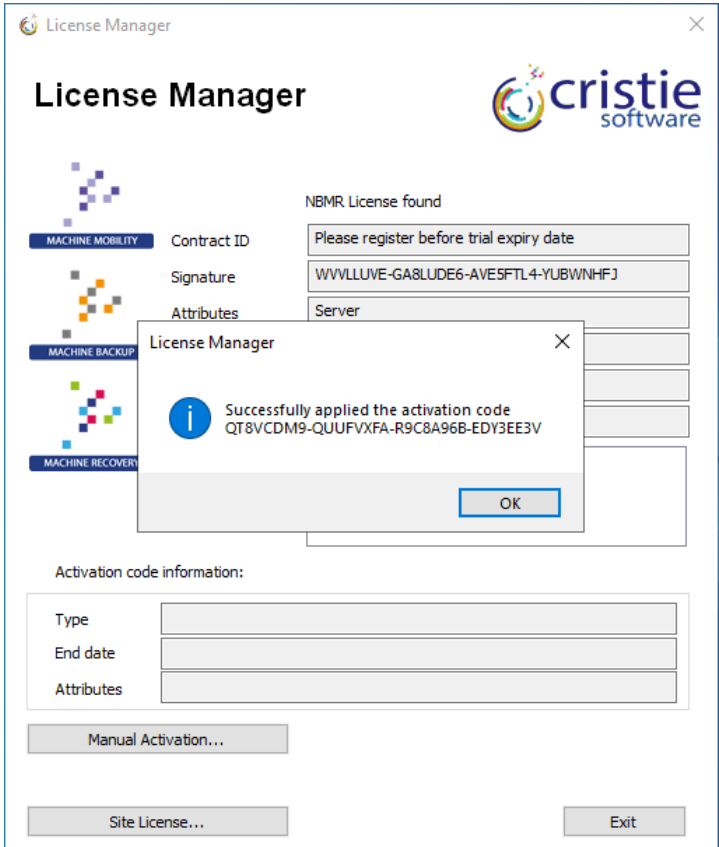
Hostname	Type	Activation code	Comment	Timestamp
NP-Win2022	Virtual Activation	QT8VCDM9-QUUFVXFA-R9C8A96B-EDY3EE3V	Obtained by Nigel VIA the Licensing Portal	21 February 2023
localhost:4200	1 token	Y9BLEYDZ-JMLRURRT-8SYHX8EJ-P56SDCRH	Obtained VIA Virtual Appliance (localhost:4200) by user - administrator.	27 January 2023

You will need to make a note of the new **Activation Code** corresponding to your machine activation. See the highlighted codes above for an example.

- Using the License Manager on the NBMR host system click **Manual Activation...** and enter the above activation code using the displayed dialogue. You may copy and paste the code using the standard Windows mouse shortcuts or right-click features to do this if you wish. Add the **License Activation Code**.



Now click **OK** to activate the license.



At this point your NBMR product is fully licensed and activated with a contract maintenance end date.



License Manager ×

License Manager

MACHINE MOBILITY

MACHINE BACKUP

MACHINE RECOVERY

NBMR License found

Contract ID	4
Signature	44KELWVD-MTLVA9Q9-9D352HWP-CNQAFA6S
Attributes	Server
Version	9.6
End date	31 December 2024
Type	Normal
Activation codes	7HUC4J6F-ZY28MTF4-CYRUGMH7-3Y6KJ4PE

Activation code information:

Type	Product activation
End date	31 December 2024
Attributes	Server - Virtual

[Manual Activation...](#)

[Site License...](#)
[Exit](#)

4 Cristie Technical Support

If you have any queries or problems concerning your Bare Machine Recovery for NetWorker product, please contact Cristie Technical Support. To assist us in helping with your enquiry, make sure you have the following information available for the person dealing with your call:

- NBMR Version Number
- Installed OS type and version
- Any error message information (if appropriate)
- Description of when the error occurs
- All Cristie log files relating to the source or recovery machine. This is very important to help us provide a quick diagnosis of your problem

Contact Numbers - Cristie Software (UK) Limited

Technical Support	+44 (0) 1453 847 009
Toll-Free US Number	1-866-TEC-CBMR (1-866-832-2267)
Knowledgebase	kb.cristie.com
Forum	forum.cristie.com
Sales Enquiries	sales@cristie.com
Email	support@cristie.com
Web	www.cristie.com

Support Hours

05:00 to 17:00 Eastern Standard Time (EST) Monday to Friday

Out-of-Hours support available to customers with a valid Support Agreement - Severity 1 issues* only

UK Bank Holidays** classed as Out-of-Hours - Severity 1 issues only.

*Severity 1 issues are defined as: a production server failure, cannot perform recovery or actual loss of data occurring.

**For details on dates of UK Bank Holidays, please see www.cristie.com/support/

Cristie Software Ltd. are continually expanding their product range in line with the latest technologies. Please contact the Cristie Sales Office for the latest product range.

