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## T.react CIP installation manual 09 - Milestone XProtect Corporate Single Server

### Record of Changes

ECO	Description	Rev	Date
	Released (Milestone XProtect Corporate 2014)	A	2016-04-07
	Editorial updates	B	2017-07-03
	Approved for T.react CIP revision F	C	2019-06-17
	Updated for T.react CIP revision J	D	See frontpage

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## **1 Introduction**

### **1.1 Purpose**

This installation manual explains how to install the Milestone XProtect Corporate in a T.react CIP Single Server installation.

### **1.2 Scope**

This manual is part of the overall T.react CIP system installation flow described in the main installation manual (see [INMMAIN] or [INMENTR] depending on the T.react CIP system to install).

This document describes the basic installation of Milestone XProtect Corporate 2020 R1 in a T.react CIP Single Server installation, where all Milestone XProtect Corporate components are installed on the same Windows Server. However, this manual can also be used if the Milestone Recording Server and Milestone Management Server are installed on separate machines.

The procedures described in this document apply to both virtual and physical server installations.

It is assumed that the reader has a basic knowledge of Windows Server operating systems and Milestone XProtect Corporate.

### **1.3 Application**

This document is intended for T.react CIP installation personnel.

## 2 References

Ref.	Doc. No.	Title
[INMMAIN]	751606-HI	T.react CIP Single-Server Installation Manual
[INMENTR]	1410438-HI	T.react CIP Entry-Level Installation Manual
[INM02]	1034663-HI	T.react CIP Installation Manual 02 - Windows Server
[MILE- INSTALLER]	1032498-004	Milestone XProtect Corporate 2020 R1 installer
[MILESTONE]	768221-QD	MilestoneXProtectCorporate_Administrators_Manual_en-US

## 3 Definitions

Term	Definition
AD	Active Directory (Microsoft)
CIP	Critical Infrastructure Protection
CPU	Central Processing Unit
FTP	File Transfer Protocol
GIT	Generic Installation Tool (Terma)
IP	Internet Protocol
SLC	Software License Code (Milestone)
SQL	Structured Query Language
VMS	Video Management System

## 4 Structures

All illustrations in this document are associated with the numbered bullet above the illustration.

The following writing styles are used in the document:

<b>Text in program</b>	Text found in program being described (typically shown on related illustration) – bold text
<b><i>Button</i></b>	Button in program being described (typically shown on related illustration) – bold + italic text
<i>Key</i>	Keyboard key to be entered – italic text
<b>User entry</b>	Text to entered by the operator – bold + Courier New text

## 5 Prerequisites

- Windows Server installed and configured (see [INM02])
- Windows Server 2019 installation media
- Milestone XProtect VMS Products System Installer (see [MILE-INSTALLER])
- Microsoft .NET 4.7.2 framework offline installer (from Microsoft website)
- License (SLC) for Milestone XProtect VMS

## 6 Customize the server

The following instructions apply regardless if all Milestone XProtect components are installed on the same server or not:

1. Assign a name to the server (optional)
2. Configure one static IP address on the subnet used by the T.react CIP workstation(s), e.g. 172.20.100.105 with netmask 255.255.255.0
3. If an AD is set up, add the server to the installation domain (e.g. **treactcip.com**)
4. If the server is a virtual machine, follow these steps (depending on the physical host):
  - a. Extend to 4 CPU cores (or more) – reserve approximately 3/4
  - b. Extend to 64 GB memory (or more) – reserve all

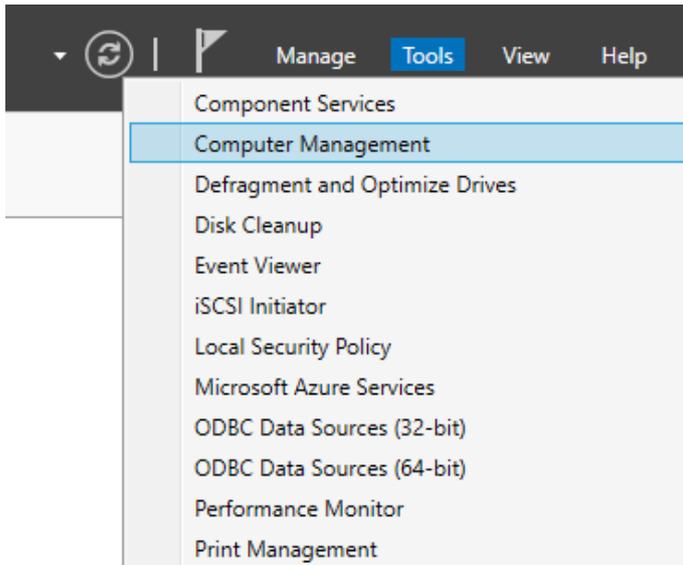
The following additional instructions apply for the server running the Milestone Recording Server component:

5. Configure one static IP address on the subnet used by the cameras, sensors and other hardware installed (e.g. effectors), e.g. 10.0.0.105 with netmask 255.255.255.0.  
It is recommended to configure this IP address on a different Ethernet port than the one used to communicate with the workstations (see step 2 above). However, if only one Ethernet port is available on the server, it is also possible to configure this IP address as a secondary IP address.
6. If the server is a virtual machine, extend the hard disk to meet the customer storage plan.

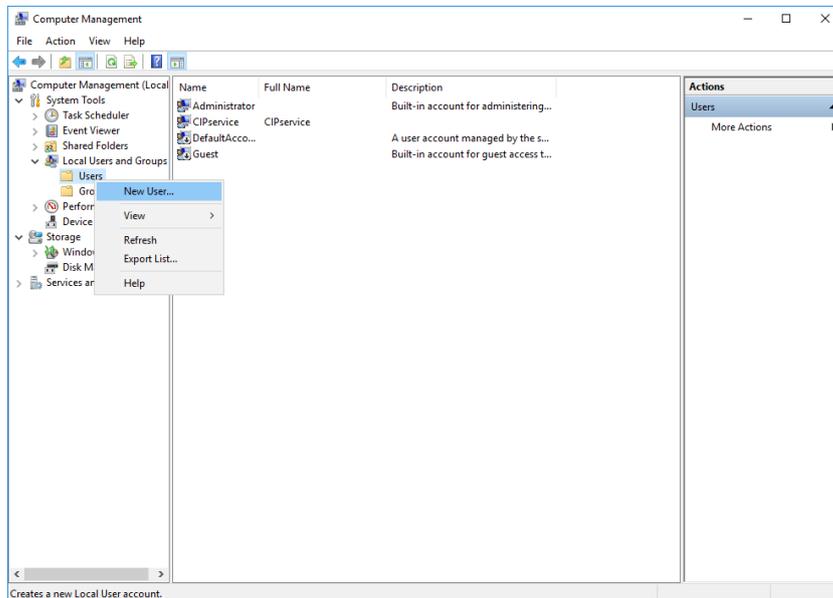
## 7 Create a service user

It is necessary for the GIT services and Milestone services to be run by the same user. A service account with administrative privileges is created for this purpose.

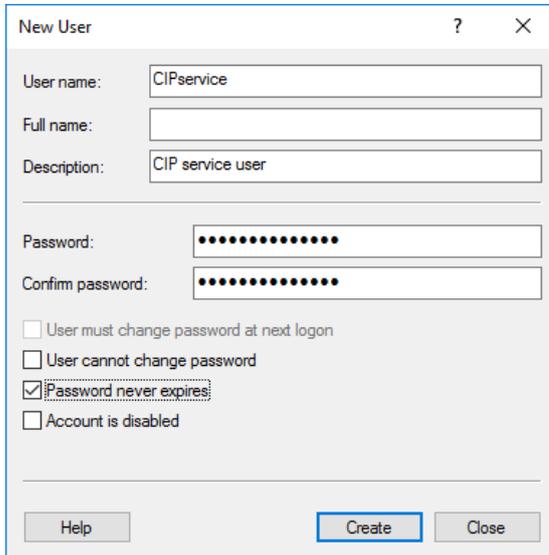
1. Open the Server Manager by clicking on the associated icon in lower left corner of the Windows task bar () and select **Computer Management** in the **Tools** menu



2. Expand **Local Users and Groups**, select **Users**, right-click and select **New User....**



3. Enter **CIPservice** as **User name** and enter **Password**. Ensure that **Password never expires** is checked. Click **Create**



New User

User name: CIPservice

Full name:

Description: CIP service user

Password: .....

Confirm password: .....

User must change password at next logon

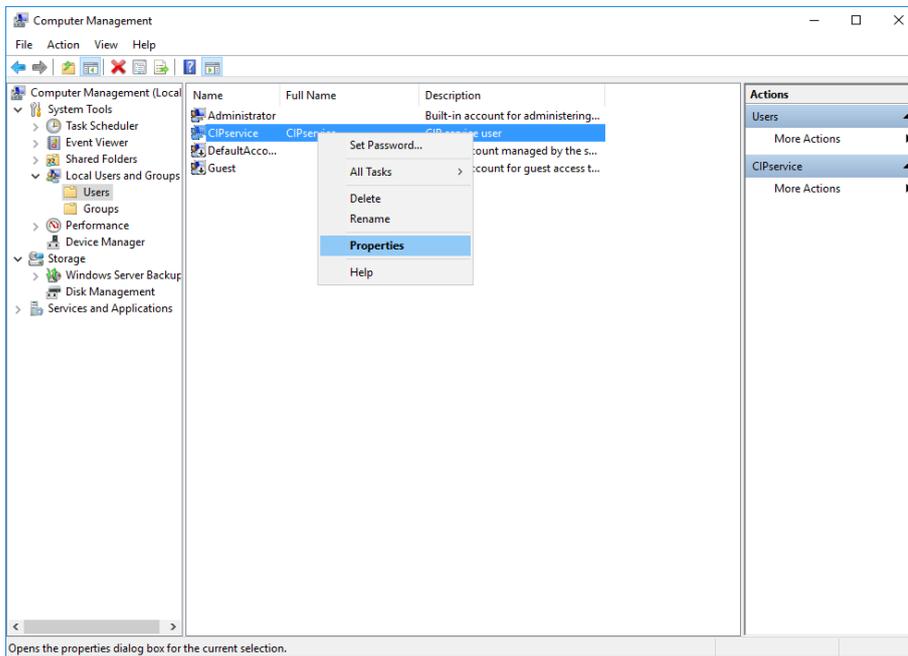
User cannot change password

Password never expires

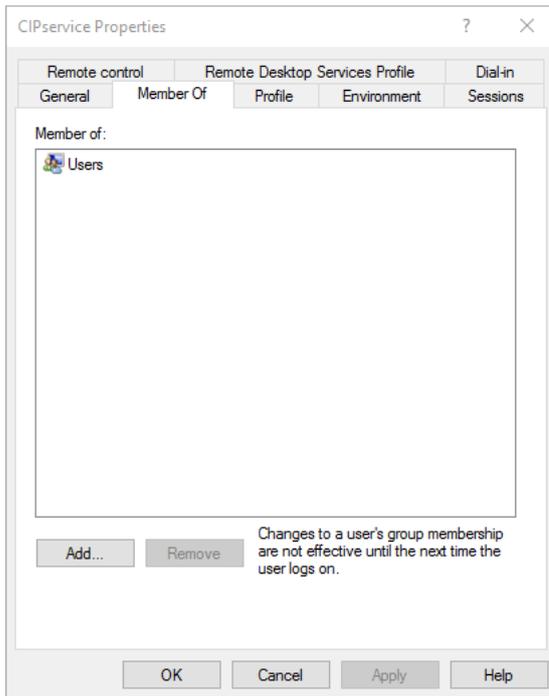
Account is disabled

Help Create Close

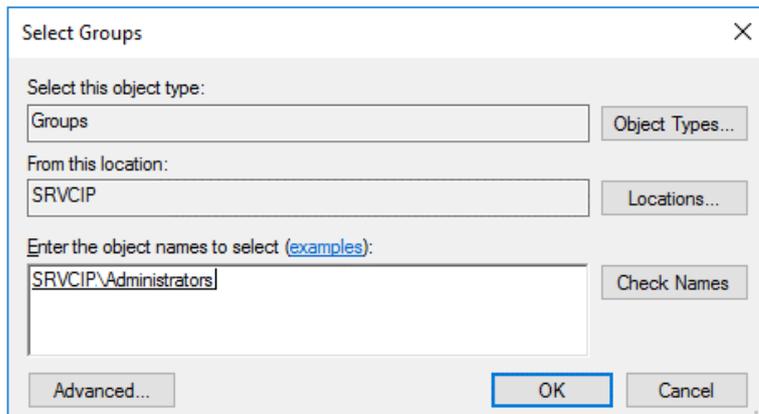
4. Right-click newly created user and select **Properties**



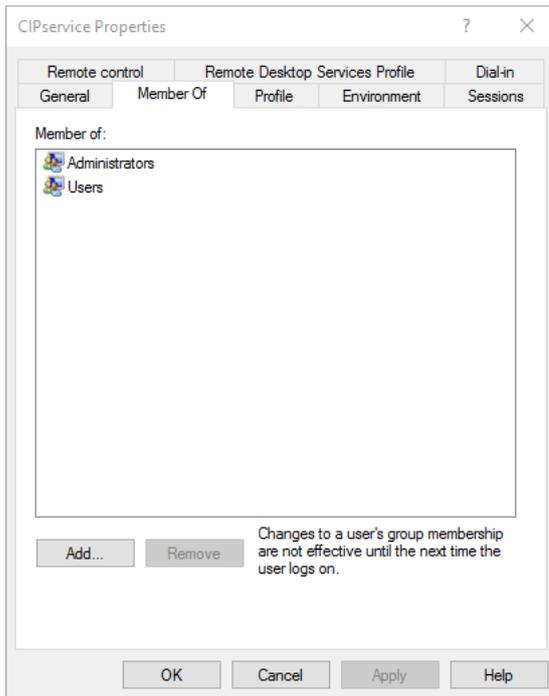
5. Select **Member Of** tab and click **Add**



6. Enter **administrators** in edit field, click **Check Names** and click **OK**



## 7. Click **OK**



## 8. The newly created service user now has administrative rights on the server.

## 8 Configure the disk volume(s) for the video recordings

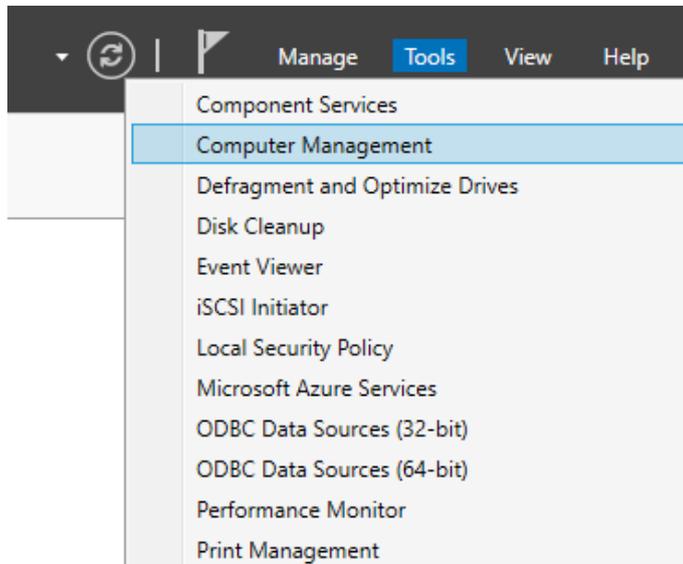
This chapter explains how to configure disk volumes on the server where Milestone Recording Server is to be installed.

The video recordings may be stored on one or several disks, depending on the storage strategy for the T.react CIP installation. It is highly recommended to store the video recordings on a different disk (or disks) than the disk where the Operating System is installed.

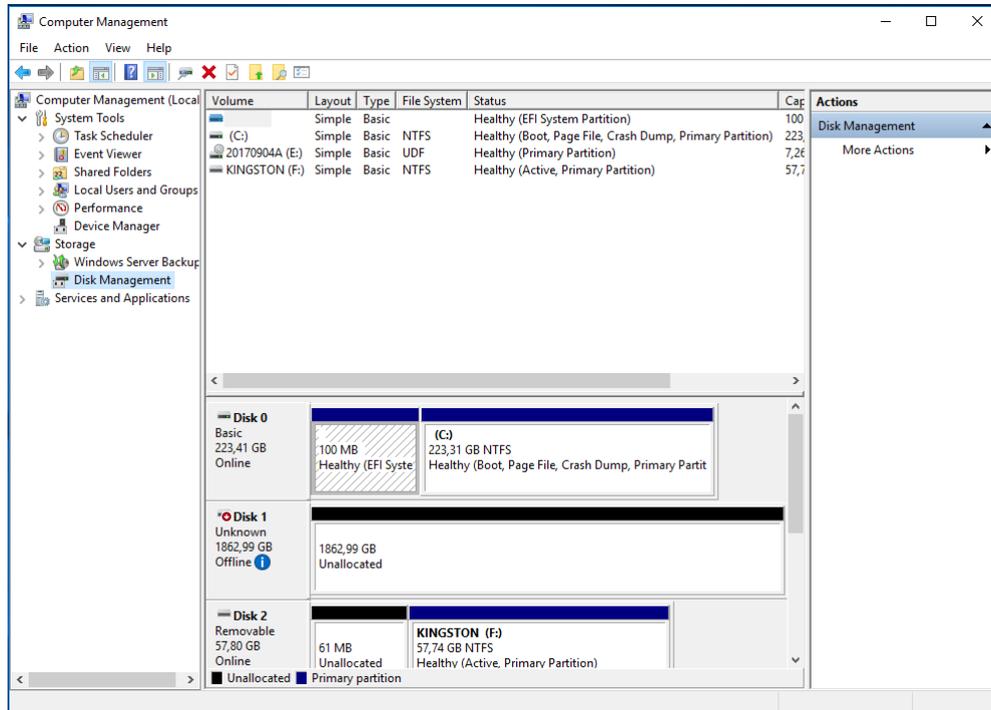
By default, Windows Server 2019 sets all new disks to **Offline** so that only the disk where Windows Server 2019 is installed is visible on the server.

The following steps explain how to set a disk to **Online** and create a volume on that disk to store video recordings from Milestone XProtect VMS:

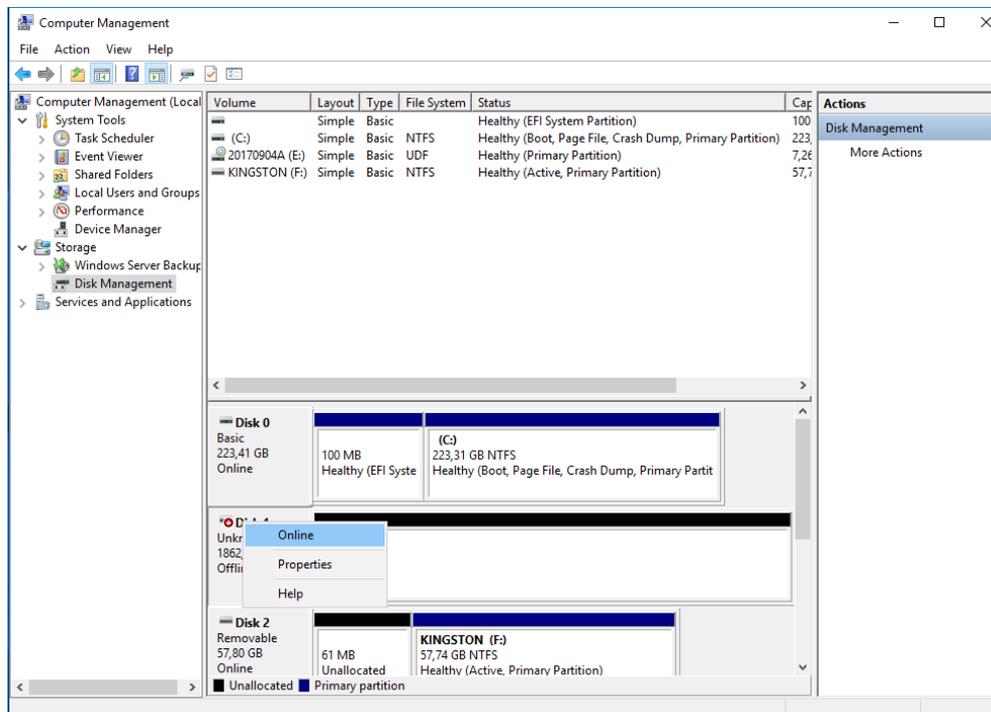
1. Open the Server Manager by clicking on the associated icon in lower left corner of the Windows task bar (  ) and select **Computer Management** in the **Tools** menu



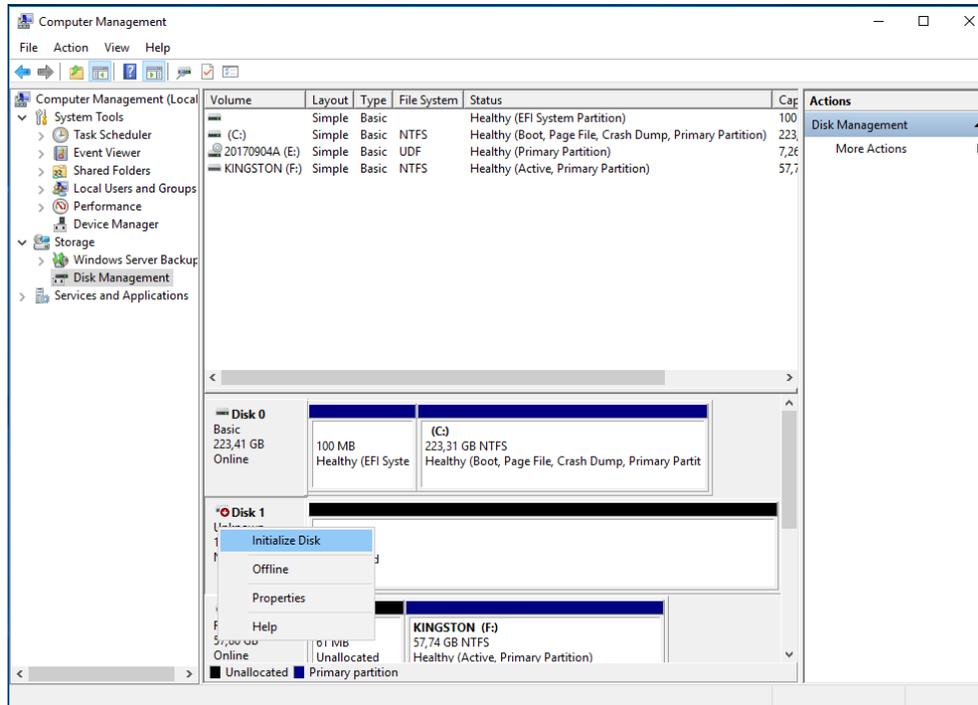
## 2. Go to Disk Management



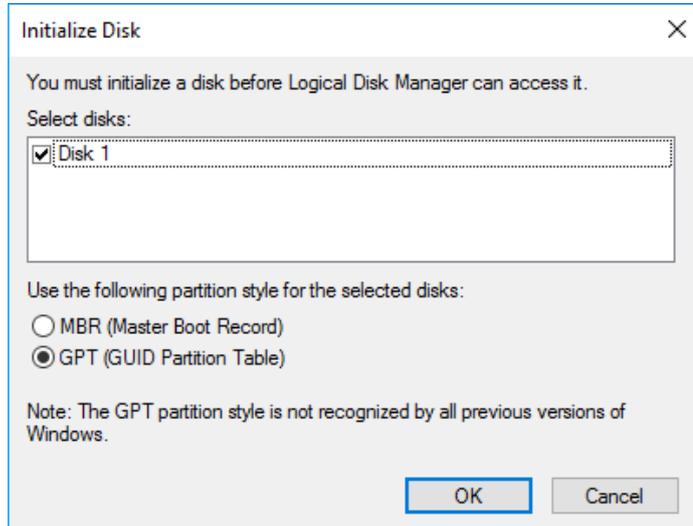
## 3. If the disk is offline, right-click on the disk and select **Online**



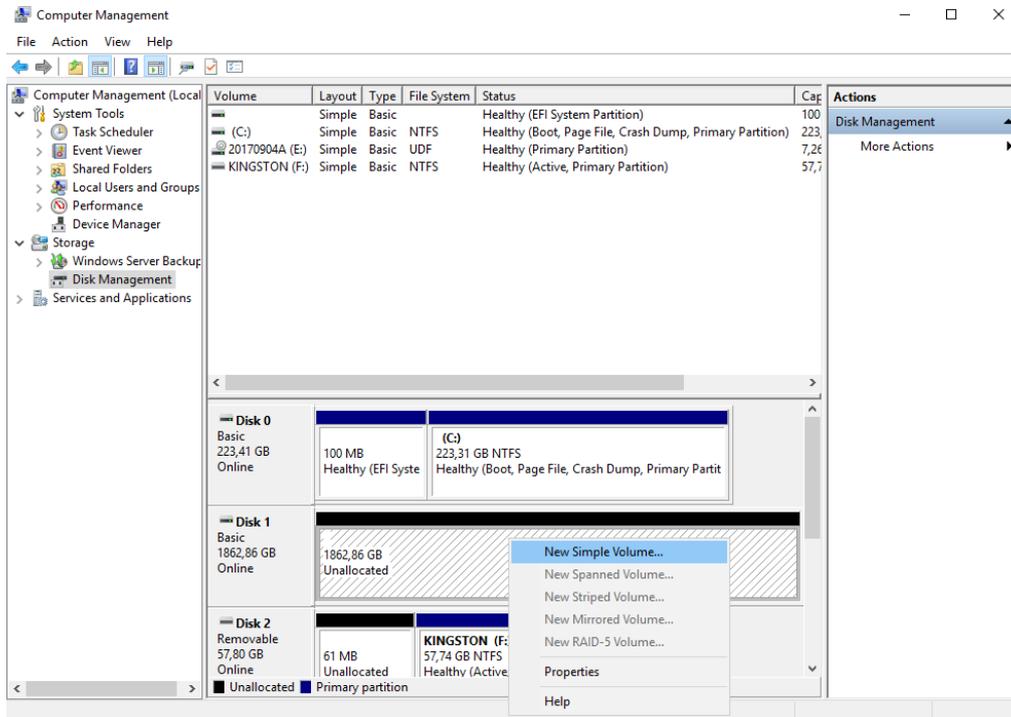
#### 4. Right-click on the disk to install and select **Initialize Disk**



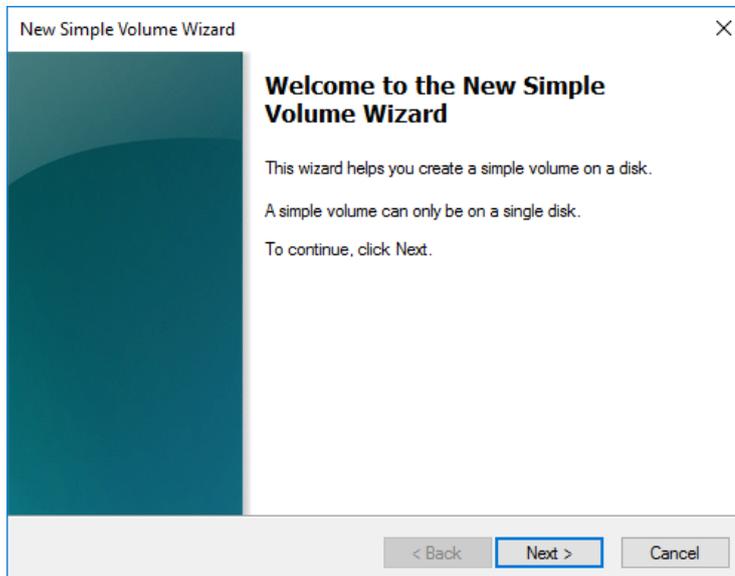
#### 5. Select **GPT** partition style (for disks $\geq$ 2TB) and click **OK**



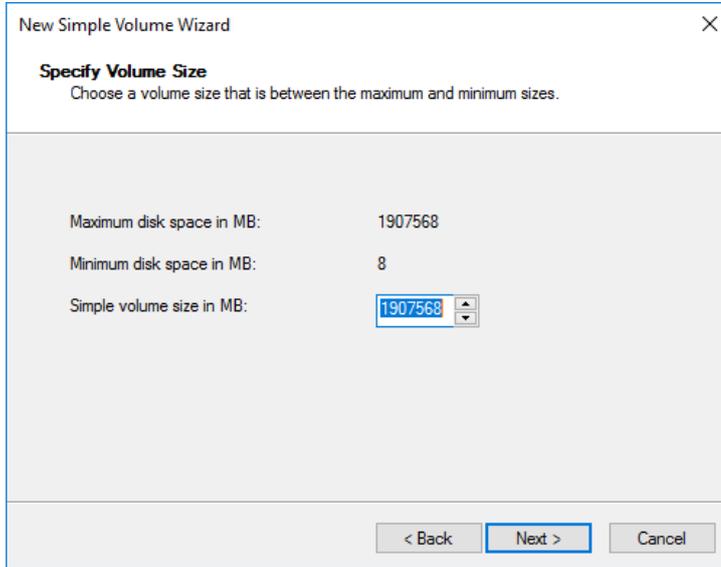
## 6. Right-click on the formatted disk and select the desired volume type (here **New Simple Volume**)



## 7. A wizard starts. Click **Next**



8. Select the size of the volume to create and click **Next**



New Simple Volume Wizard

**Specify Volume Size**  
Choose a volume size that is between the maximum and minimum sizes.

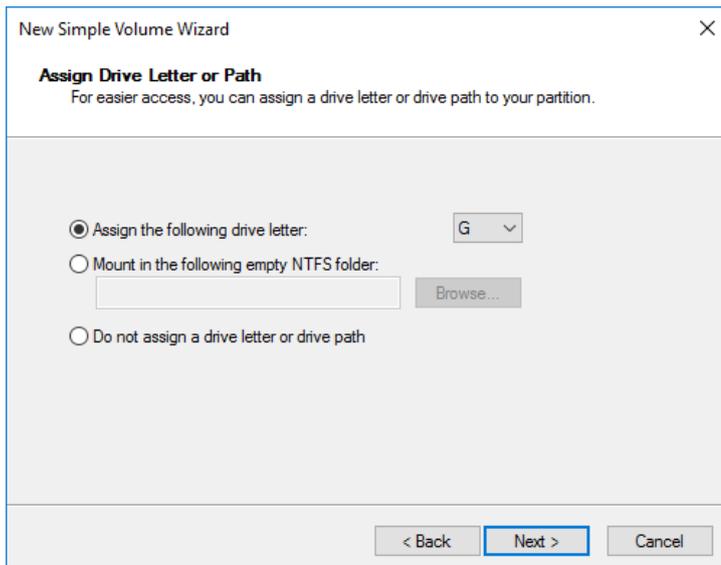
Maximum disk space in MB: 1907568

Minimum disk space in MB: 8

Simple volume size in MB: 1907568

< Back Next > Cancel

9. Select a letter for the volume and click **Next**



New Simple Volume Wizard

**Assign Drive Letter or Path**  
For easier access, you can assign a drive letter or drive path to your partition.

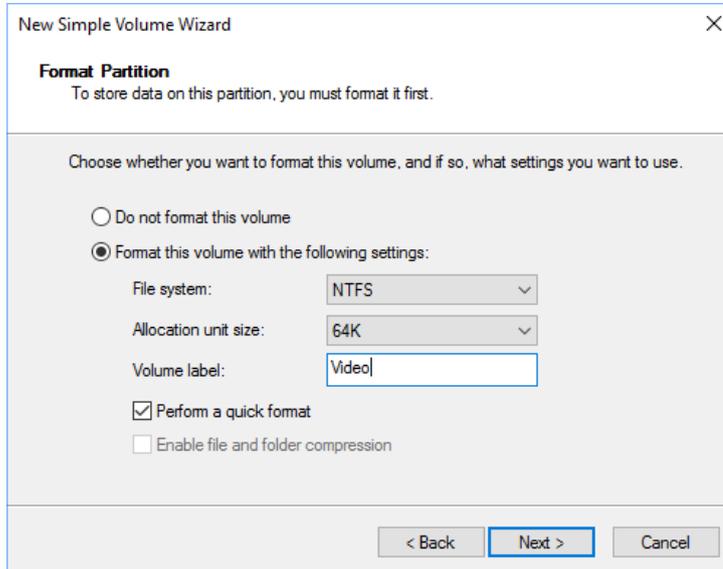
Assign the following drive letter: G

Mount in the following empty NTFS folder: Browse...

Do not assign a drive letter or drive path

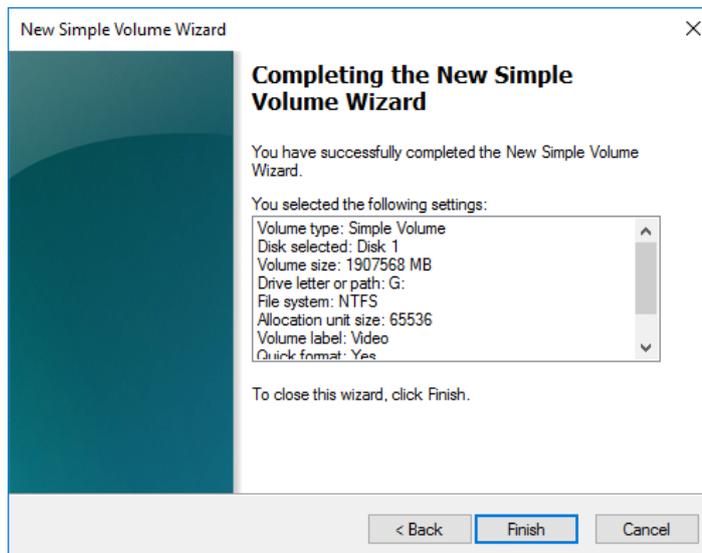
< Back Next > Cancel

10. Select the option to format the volume and choose NTFS as file system, 64K as allocation unit size (for optimal performance of Milestone recordings) and give the volume a name. Click **Next**



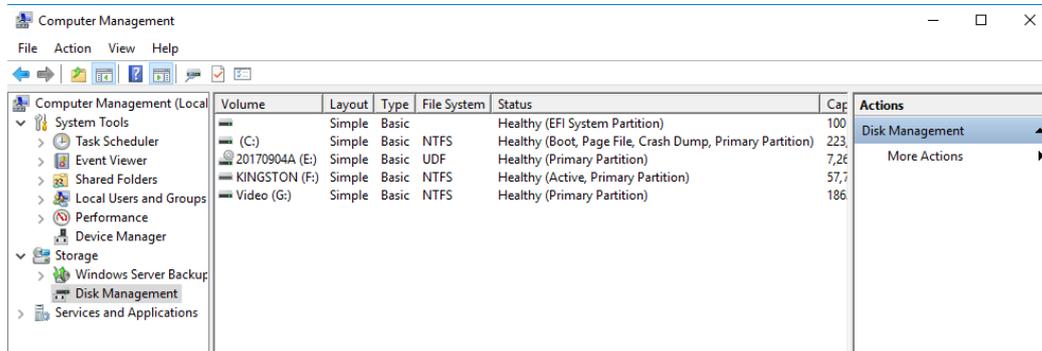
The screenshot shows the 'New Simple Volume Wizard' dialog box at the 'Format Partition' step. The title bar reads 'New Simple Volume Wizard' with a close button (X). Below the title bar, the text 'Format Partition' is displayed, followed by the instruction 'To store data on this partition, you must format it first.' The main area contains the instruction 'Choose whether you want to format this volume, and if so, what settings you want to use.' There are two radio button options: 'Do not format this volume' (unselected) and 'Format this volume with the following settings:' (selected). Under the selected option, there are three dropdown menus: 'File system:' set to 'NTFS', 'Allocation unit size:' set to '64K', and 'Volume label:' with the text 'Video' entered. Below these are two checkboxes: 'Perform a quick format' (checked) and 'Enable file and folder compression' (unchecked). At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a blue border), and 'Cancel'.

11. When the operation is completed, click **Finish**



The screenshot shows the 'New Simple Volume Wizard' dialog box at the 'Completing the New Simple Volume Wizard' step. The title bar reads 'New Simple Volume Wizard' with a close button (X). The main area features a large teal graphic on the left and the text 'Completing the New Simple Volume Wizard' on the right. Below this, it says 'You have successfully completed the New Simple Volume Wizard.' and 'You selected the following settings:'. A list box contains the following settings: 'Volume type: Simple Volume', 'Disk selected: Disk 1', 'Volume size: 1907568 MB', 'Drive letter or path: G:', 'File system: NTFS', 'Allocation unit size: 65536', 'Volume label: Video', and 'Quick format: Yes'. Below the list box, it says 'To close this wizard, click Finish.' At the bottom, there are three buttons: '< Back', 'Finish' (highlighted with a blue border), and 'Cancel'.

12. The new volume is now visible among all the volumes on the server.



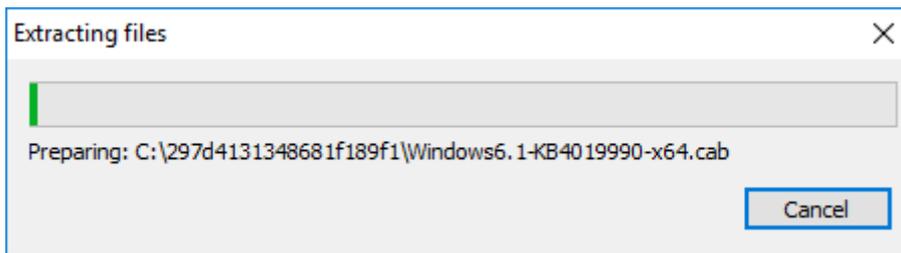
## 9 Install Milestone XProtect Corporate

### 9.1 Install the required .NET frameworks

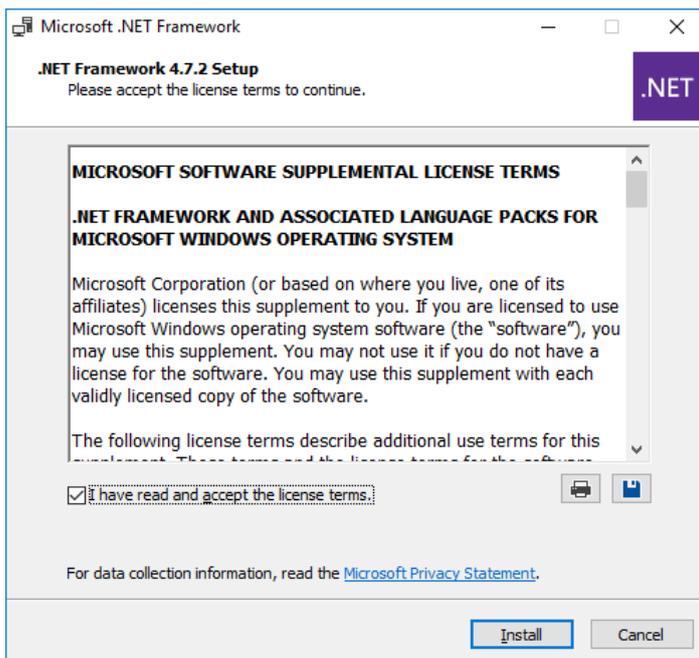
Milestone XProtect VMS 2020 R1 requires the server(s) to have Microsoft .NET Framework 4.7 installed.

#### 9.1.1 Install Microsoft .NET framework 4.7.2

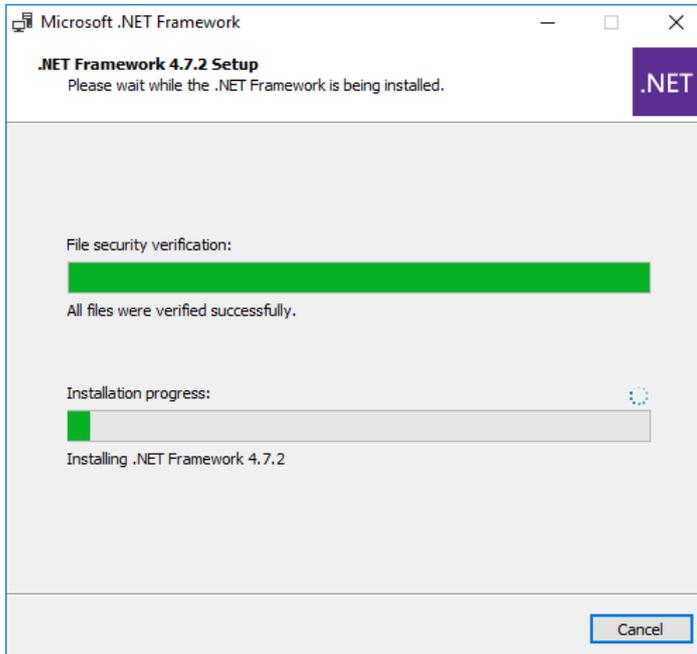
1. Run the Microsoft .NET framework 4.7.2 offline installer



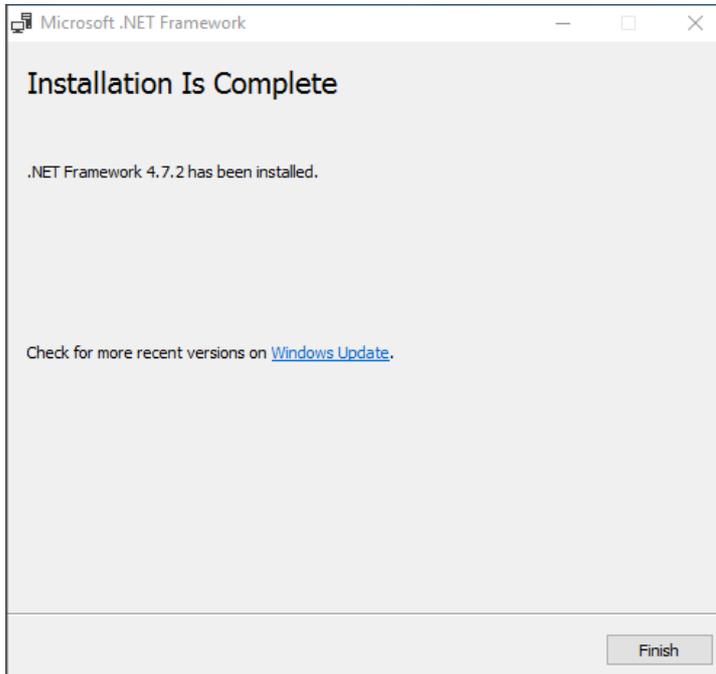
2. Select the checkbox and click **Install**



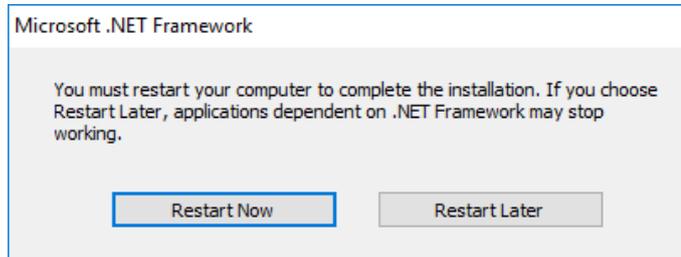
### 3. The installation starts



### 4. When the installation is done, click **Finish**



## 5. Select **Restart Now**



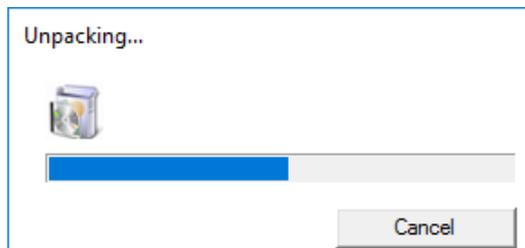
## 9.2 Install Milestone XProtect VMS

The instructions in this section explain the installation of all Milestone XProtect components on the same server.

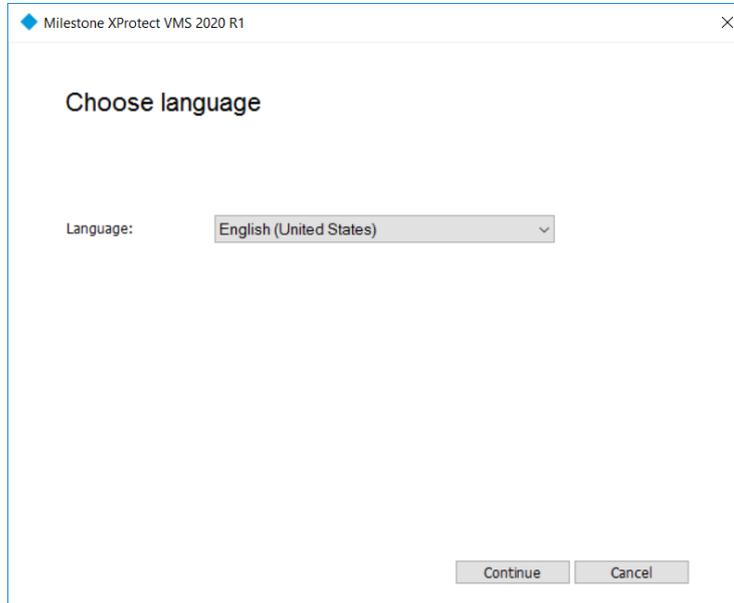
If the Milestone Recording Server component is to be installed on a different server than the other Milestone XProtect components, follow these instructions to install all Milestone XProtect components except the Milestone Recording Server on one server (see step 5 below), then install the Milestone Recording Server component on the other server (see specific instructions in [MILESTONE]).

Ensure that the Milestone license file is accessible from the server.

1. Get [MILE-INSTALLER] and run installer. The install package will now be unpacked



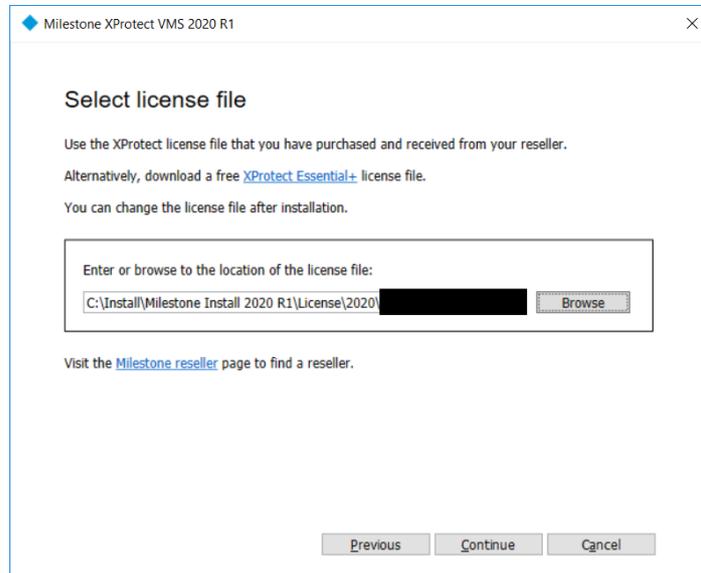
2. Select language (default: English) and click **Continue**



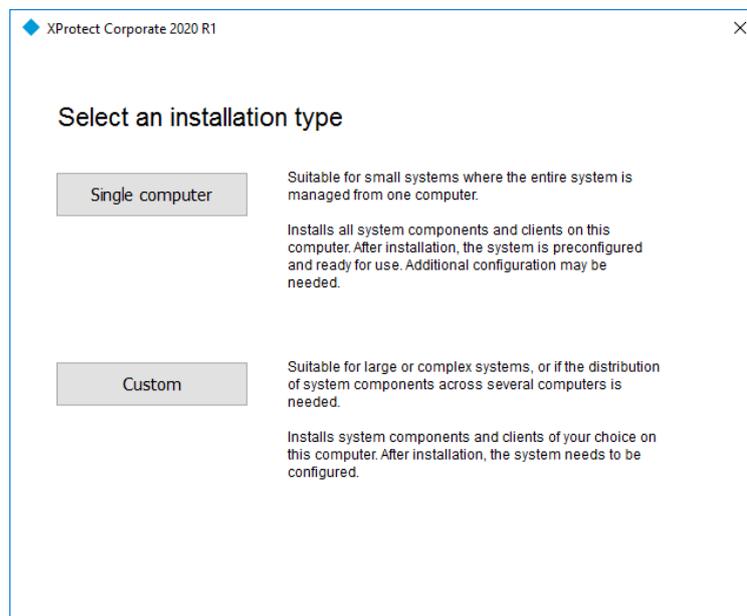
3. Read and accept license agreement. Click **Continue**



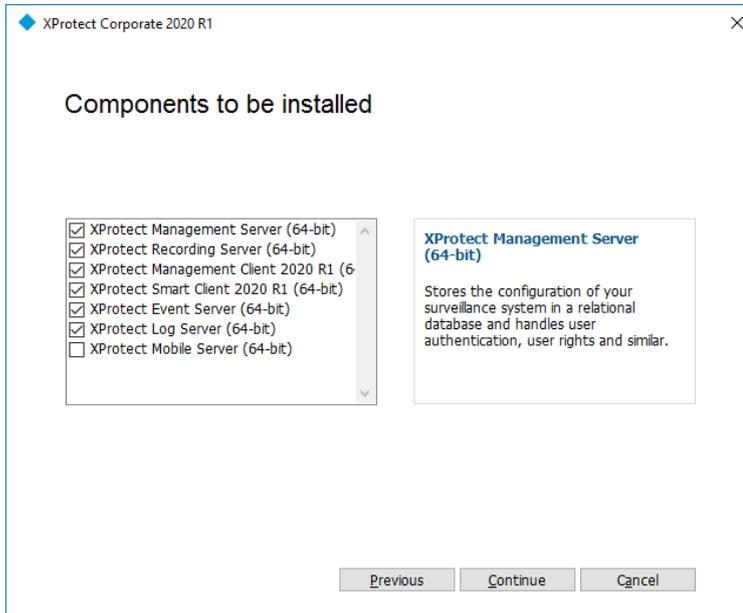
#### 4. Browse to the temporary license file, select it and click **Continue**



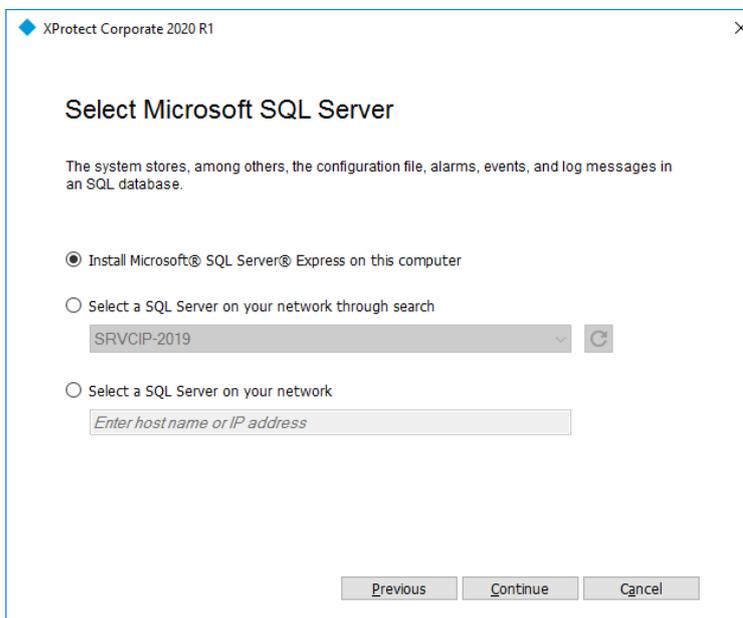
#### 5. Select **Custom** installation



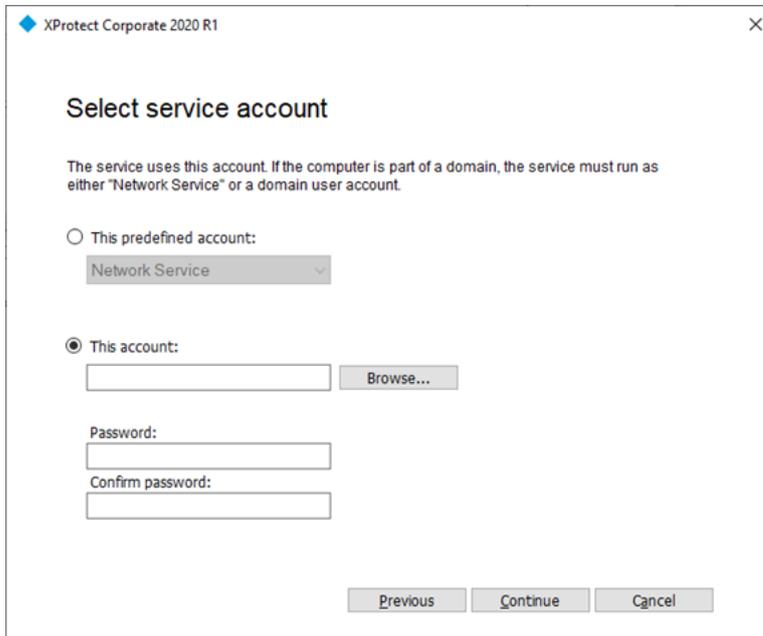
6. Select all components except XProtect Mobile Server and click **Continue**



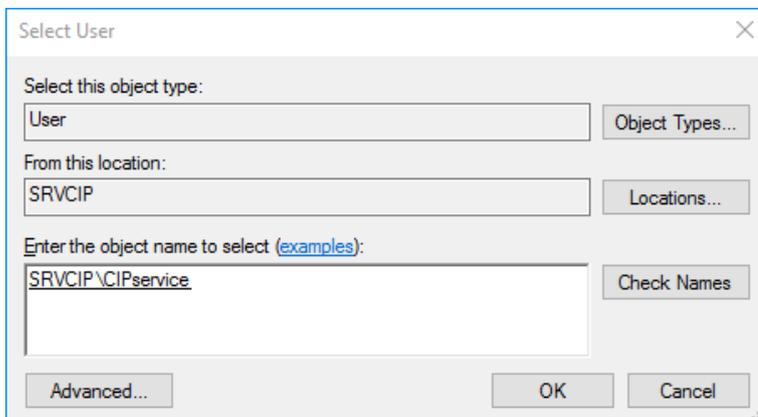
7. Select **Install SQL Server Express on this computer** and click **Continue**



8. Select **This account** and click **Browse**



9. Enter service account created in chapter 7 (**CIPService**), click **Check Names** and click **OK**



- Click **Continue** (it may be necessary to flip back and forth using **Previous** to activate **Continue** button)

XProtect Corporate 2020 R1

### Select service account

The service uses this account. If the computer is part of a domain, the service must run as either "Network Service" or a domain user account.

This predefined account:  
Network Service

This account:  
SRVCIP\CIPService Browse...

Password:  
\*\*\*\*\*

Confirm password:  
\*\*\*\*\*

Previous Continue Cancel

- Select **This account** and click **Browse**

XProtect Corporate 2020 R1

### Select service account for recording server

The service uses this account. If the computer is part of a domain, the service must run as either "Network Service" or a domain user account.

This predefined account:  
Network Service

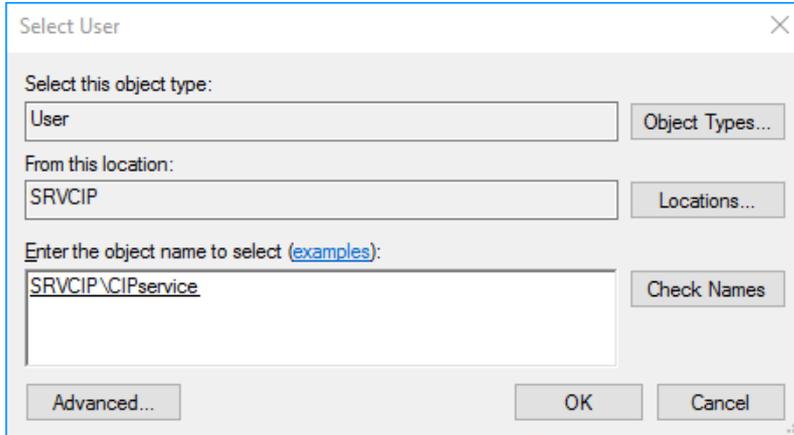
This account:  
Browse...

Password:

Confirm password:

Previous Continue Cancel

12. Enter the service account created in chapter 7, click **Check Names** and click **OK**



Select User

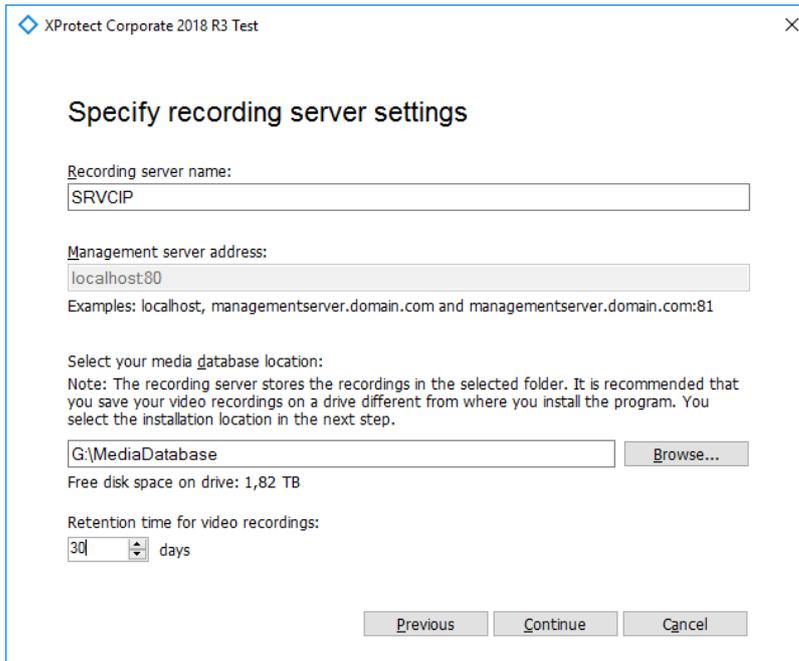
Select this object type:  
User Object Types...

From this location:  
SRVCIP Locations...

Enter the object name to select (examples):  
SRVCIP\CIPservice Check Names

Advanced... OK Cancel

13. Enter a name for the recording server, select the location and retention time for the video recordings. Click **Continue**



XProtect Corporate 2018 R3 Test

### Specify recording server settings

Recording server name:  
SRVCIP

Management server address:  
localhost:80  
Examples: localhost, managementserver.domain.com and managementserver.domain.com:81

Select your media database location:  
Note: The recording server stores the recordings in the selected folder. It is recommended that you save your video recordings on a drive different from where you install the program. You select the installation location in the next step.  
G:\MediaDatabase Browse...

Free disk space on drive: 1,82 TB

Retention time for video recordings:  
30 days

Previous Continue Cancel

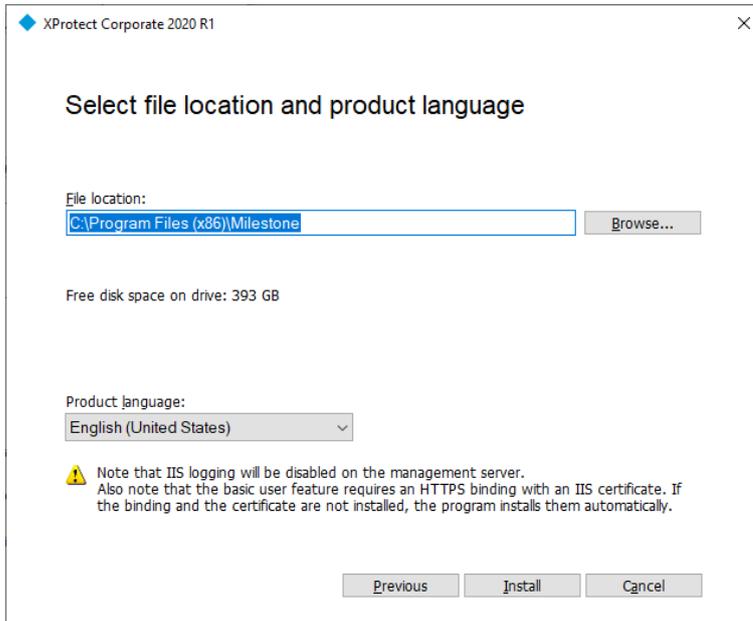
#### 14. Click **Continue**



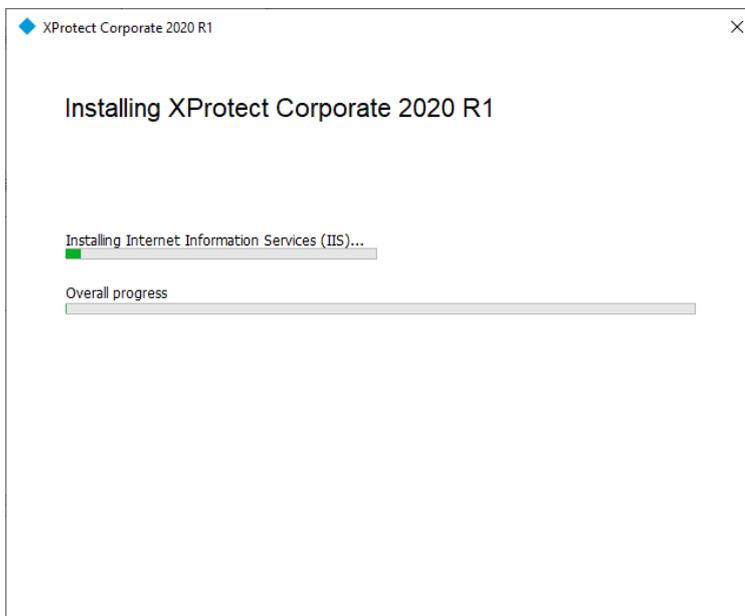
#### 15. Click **Continue**



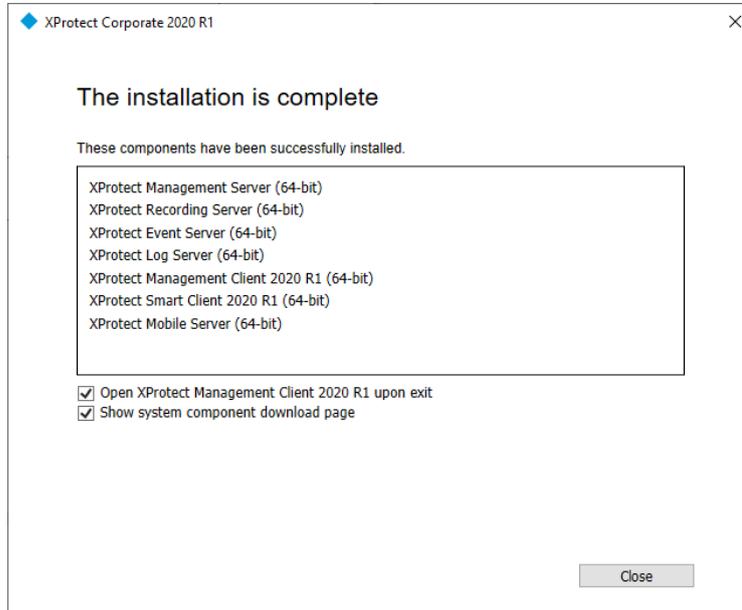
#### 16. Select the install location and the language. Click **Install**



17. The installation of Milestone XProtect Corporate starts



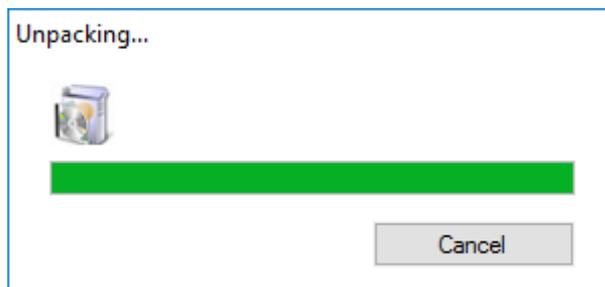
18. When the installation is finished, click **Close**



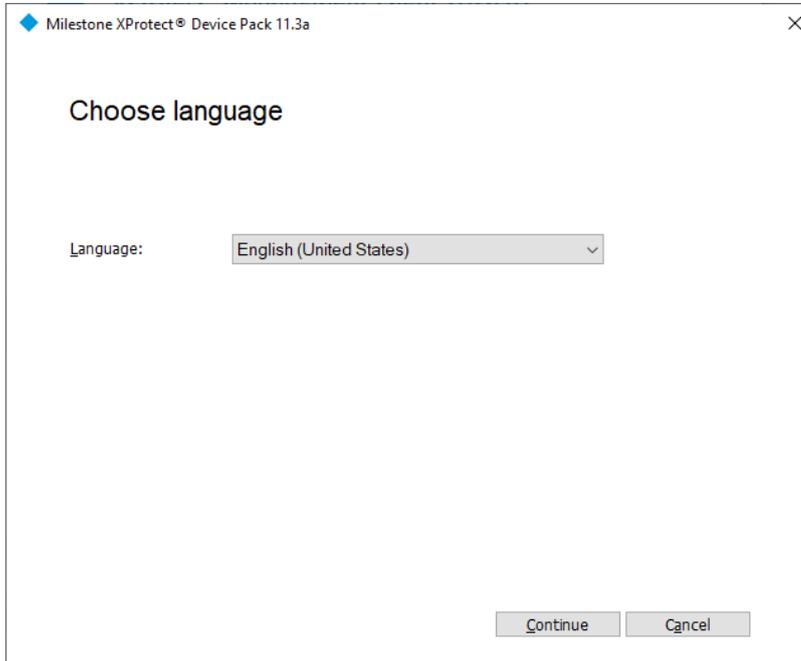
### 9.3 Update Milestone XProtect Device Pack

The device pack delivered by default with the Milestone XProtect software might not support all camera models used in the T.react CIP installation. It is therefore recommended to update the Milestone XProtect Device Pack (to be done on the machine running Milestone Management Server) as explained below:

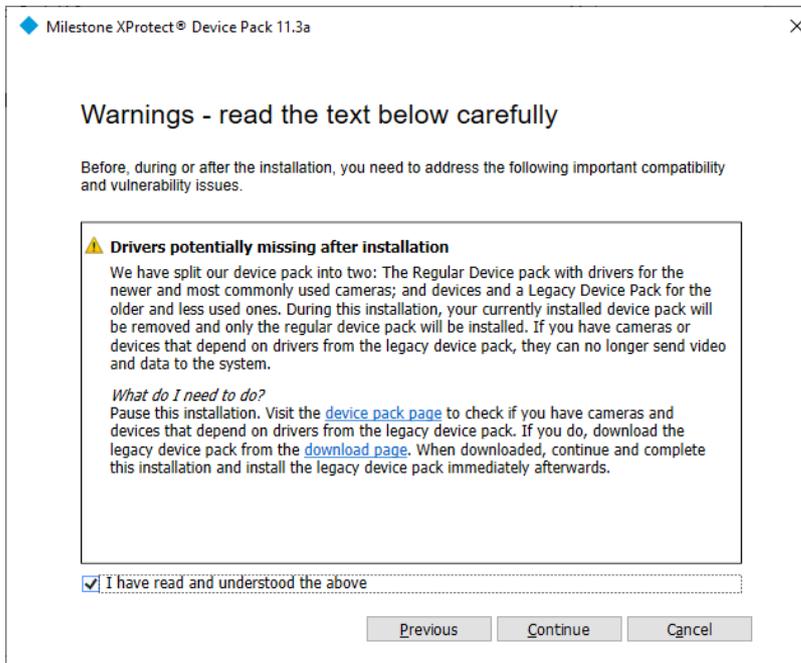
1. Get the latest Milestone XProtect Device pack from the Milestone homepage (<https://www.milestonesys.com/community/business-partner-tools/device-packs/>)
2. Run the installer



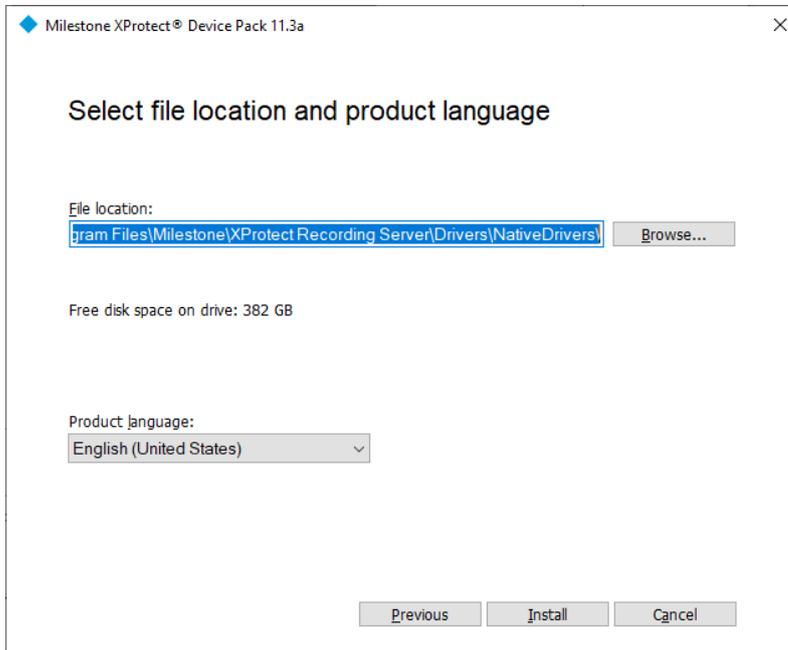
### 3. Click **Continue**



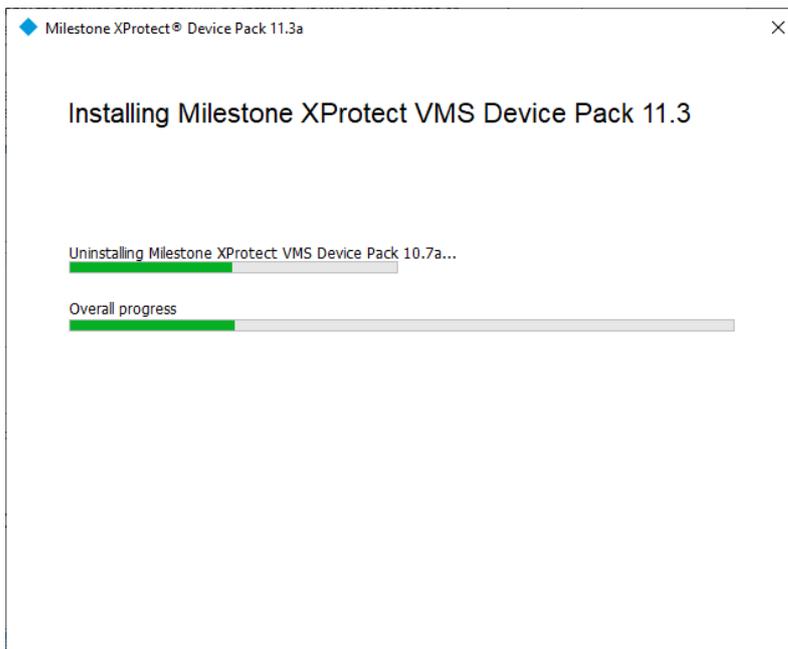
### 4. Read license agreement and accept. Click **Continue**



5. Use default file installation location and language – click **Install**



6. The installer uninstalls the default **Device Pack** (here **Device Pack 10.7b**) and installs the new device pack (here **Device Pack 11.3a**)





7. When the installation is finished, click **Close**

