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Milestone Systems

XProtect® VMS 2020 R2

System migration guide

from

XProtect Enterprise
XProtect Professional
XProtect Express
XProtect Essential

to

XProtect Corporate
XProtect Expert
XProtect Professional+
XProtect Express+



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Introduction

Milestone Migration Assistant Tool facilitates the migration from these XProtect Professional VMS products:

- XProtect Essential
- XProtect Express
- XProtect Professional
- XProtect Enterprise

to these XProtect VMS products:

- XProtect Express+
- XProtect Professional+
- XProtect Expert
- XProtect Corporate



Only migration from XProtect Professional VMS products version 7.0 or later are supported.

After installing your new XProtect VMS system, the Migration Assistant Tool helps you migrate the XProtect Professional VMS system configuration to the XProtect VMS system.

The XProtect Professional VMS system remains untouched, and recording is not interrupted while using the Migration Assistant Tool.

This guide takes you through:

- What to consider on page 5: Information about migration of the system configuration, reuse of devices, computer hardware, integrations and more
- Pre-migration steps on page 9: Important points to consider before you start the migration
- Migration steps on page 11: Step-by-step process for migration using Milestone Migration Assistant Tool
- Post-migration steps on page 16: How to verify the migration
- Removal of the XProtect Professional VMS system on page 17: Instructions on how to remove the XProtect Professional VMS system when archives have expired

New features available in the XProtect VMS system requires additional configuration to fully take advantage of the migration to XProtect VMS products.

What to consider

Before migrating, ask yourself the following questions:

What gets migrated and what does not?

XProtect VMS is an altogether different platform. You can migrate some of your existing XProtect Professional VMS configuration for reuse in XProtect VMS with the Milestone Migration Assistant Tool.

Gets migrated	How	Does not get migrated	What then...
Cameras and other hardware devices	Milestone Migration Assistant Tool	Camera recording settings	You must reconfigure in XProtect Management Client Detailed XProtect VMS documentation is available on our website (https://doc.milestonesys.com/)
Users		Scheduling, alarms and events, maps	
XProtect Smart Client views		All history of alarms and events are not available because the event server is replaced	

Camera settings are maintained, because they are already stored in the cameras with XProtect Professional VMS. For more information about device packs, see [Can I reuse existing cameras?](#) on page 6

In XProtect VMS, you can group cameras in device groups. One approach for grouping cameras is by camera types because then you can configure common settings for all cameras within a group in one go.

In XProtect VMS, all users must be added to a role. Roles determine which features a user can access. Roles with appropriate permissions must be defined through XProtect Management Client. Once roles are defined, you can add users to the roles from Active Directory, or create basic users.

To ensure compatibility with XProtect VMS products and the features they offer, XProtect Smart Client users must upgrade their XProtect Smart Client to the latest version after the migration.



If you keep the XProtect Professional VMS system running because XProtect Smart Client users need access to old recordings, XProtect Smart Client users must keep the old XProtect Smart Client version.

Can I reuse existing cameras?

Before migrating, you must verify that the XProtect VMS system also supports the cameras used in your XProtect Professional VMS system. You can verify supported hardware on the Milestone website (<https://www.milestonesys.com/supported-devices/>). Because the XProtect VMS system uses a different device pack, Milestone recommends that your cameras have the latest supported camera firmware version installed.

When you verify your cameras, also verify that the required functionality is supported. The use of a different device pack can cause minor differences in the way XProtect VMS supports functionality of some cameras compared to XProtect Professional VMS.

A device pack is automatically included when you install the XProtect system, but Milestone adds support for new devices and firmware versions on an ongoing basis, and releases device packs every two months on average. To get the latest device pack, manually check for newer versions to download and install.

To update your device pack after installation, go to the download section of the Milestone website (<https://www.milestonesys.com/downloads/>) and download the relevant installation file.

If your system uses very old cameras, you may need to download the device pack for legacy devices. For more information, see <https://www.milestonesys.com/community/business-partner-tools/device-packs/>.



For JPEG, XProtect VMS uses a recording frame rate of 5 frames per second, by default, when cameras are added. If you want a higher frame rate, you can configure this in Management Client after cameras are migrated.

For MPEG-4/H.264/H.265, all frames are recorded by default.

Can I reuse existing computers?

The minimum system requirements for running XProtect Professional VMS and XProtect VMS systems differ only slightly. In many cases, you are able to reuse your existing computers.



To reuse existing computers requires that the operating system is Windows 8.1 or Windows Server 2012 or newer.

Information about the minimum system requirements for system components is available on our website (<https://www.milestonesys.com/systemrequirements/>).

For best performance on computers running Smart Client or recording server installations, Milestone recommends to use computers with Intel® and NVIDIA® GPU hardware acceleration capabilities.

The administration interface of XProtect VMS, the Management Client, can be installed on any computer. When migrating to XProtect VMS, you may want to use the occasion to rethink and optimize the way you use your computers.

XProtect VMS is a fully distributed system. As many recording servers as required can run under one management server. You can also install the whole system on a single computer, depending on your needs.

Archiving

Archiving is the automatic transfer of recordings from the default recording storage of a camera to another location. In this way, the number of recordings you are able to store are not limited by the size of the default recording storage.

Different from XProtect Professional VMS, the archiving process in XProtect VMS supports multi-stage storage architecture where the recordings can be archived again and again to new storage areas. You create storages per recording server, and for each camera or camera group, you specify which storage to use.

Archiving is not a requirement when using XProtect VMS. In case the hard disks you have allocated for the live database (default recording storage) are fast enough and able to contain the expected amount of data, the system can run without archiving.

If you are using the archiving feature in your current XProtect Professional VMS system and have allocated disks for this purpose, it is possible to re-use these disks with XProtect VMS, because the disk specifications basically are identical for the two systems. If recording and archiving previously was done to the same disk, you do not need to archive.

For more information about how to configure storage and archiving in XProtect Management Client, see the XProtect VMS documentation website (<https://doc.milestonesys.com/>).

Integrations with other applications

If you have created integrations between your current XProtect Professional VMS system and third-party products, for example, access control systems or fire alarm systems, with MIP SDK, the integrations should be carefully tested before migrating to verify that they will also work with XProtect VMS.

Milestone recommends that you contact your solution provider to review your customized integrations to be used with XProtect VMS.

Virus scanning

It is likely that virus scanning will use a considerable amount of system resources on scanning all the data being recorded or archived. Also, the virus scanning software may temporarily lock each file it scans. For performance reasons, Milestone recommends that you disable any virus scanning of recording databases and archiving locations, if archiving is enabled.

If you already have disabled virus scanning in your Professional VMS system, you should do the same on the new storage resources that you configure in connection with the migration.

How to keep access to a XProtect Professional VMS system



You can no longer add your XProtect Professional VMS servers to your new XProtect VMS system as slave servers. The last XProtect VMS release supporting this is 2019 R1.

To keep access to a running XProtect Professional VMS system from the new XProtect VMS system use the Milestone Interconnect™ feature, by integrating the XProtect Professional VMS system with a XProtect Corporate central site.



Only XProtect Corporate systems can be central sites.

The central site interprets the XProtect Professional VMS system, the remote site, as an advanced camera or multi-channel encoder with edge storage capabilities.

Clients that connect to the central site can view live streams of remote site cameras and play back recordings from remote sites.

On the central site, you can view the status of the interconnected cameras, but to monitor the remote site, you can use remote site events to trigger alarms or other notifications on the central site.

For more information about Milestone Interconnect, go to the Milestone Interconnect website (<https://www.milestonesys.com/solutions/hardware-and-add-ons/milestone-addons/interconnect/>).

Pre-migration steps

If you want to reduce downtime while you migrate, you can install your XProtect VMS system on other computer hardware than your Professional VMS system.

You can do these tasks of the system configuration in advance:

- Configure the storage and archives of the recording servers
- Create device groups
- Create roles

If minimum downtime is essential and you are going to migrate many cameras and other devices, Milestone recommends that you use Milestone Migration Assistant Tool.

Recording is only interrupted from when you start to migrate the XProtect Professional VMS cameras until the XProtect VMS default rules activate the recordings.

1. Download the latest Milestone Migration Assistant Tool from the Milestone website (<https://www.milestonesys.com/downloads/>) and save the file on the computer running XProtect Professional VMS.
2. Milestone recommends that you make notes of your existing XProtect Professional VMS system:
 - Users and their views in XProtect Smart Client
 - Camera names, IP addresses, storage, and so on in Management Application
 - User names and passwords for the cameras
3. Only if you migrate on the same computer hardware, complete this step:
 - In Management Application, select **Server Access** and change the port number to 81 (default is 80).

If downtime is acceptable and your server CPU load is high, you can speed up the installation time by stopping the Professional VMS services temporarily during the installation. You do this in the **Services** node.



XProtect Smart Client is being updated during the migration. Depending on the number of cameras you are going to migrate, expect that your XProtect Smart Client users are not able to log into the system for about 30-60 minutes.

4. Install XProtect VMS.
 1. Locate the installer file and your license file.
 2. Start installation and follow the steps.
 3. When the installation has completed successfully, click **Close**.

5. Verify that your system can run with the Recording Server storage and archiving configuration in the XProtect VMS system or change it.
 1. In Management Client, select the recording server.
 2. Select the **Storage** tab and verify the configuration.
6. Create roles with the wanted permissions and add any new users to them. Users from the XProtect Professional VMS system will be added to the roles during the migration. For more information, see Migration steps on page 11.

When Specifying the rights of the roles, make sure the role gets access to the required cameras, including any PTZ features.

You do it in this way:

1. In Management Client, expand **Security**, right-click **Roles**, and then select **Add Role**.
 2. As a minimum, specify the following:
 - On the **Device** tab, provide access rights to the required cameras
 - On the **PTZ** tab, provide access to PTZ features
 3. Optionally:
 - On the **Overall Security** tab, specify the rights of this role for all current and future cameras in the system. Then you do not need to specify rights on the **Device** tab and **PTZ** tab
 - You can create a **Smart Client Profile** to modify the user interface in XProtect Smart Client, so it reflects their rights. Afterwards, on **Roles > Info** tab, you add this Smart Client Profile to one or more roles
 4. Add users or groups to roles on the **Users and Groups** tab.
7. Specify device groups in the XProtect VMS system.

You can create device groups up front or as part of the **Add Hardware** wizard.

1. Expand **Devices**, right-click **Cameras** and select **Add Device Group**.
2. Create groups as required for your system.

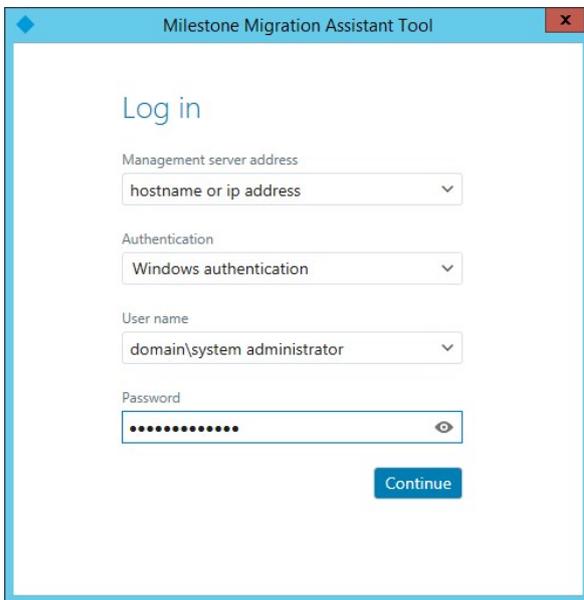
Migration steps

Migrate these items from the XProtect Professional VMS system to the XProtect VMS system using Milestone Migration Assistant Tool:

- Cameras and devices
- Users
- Views

The following steps outline what to do when you run the tool:

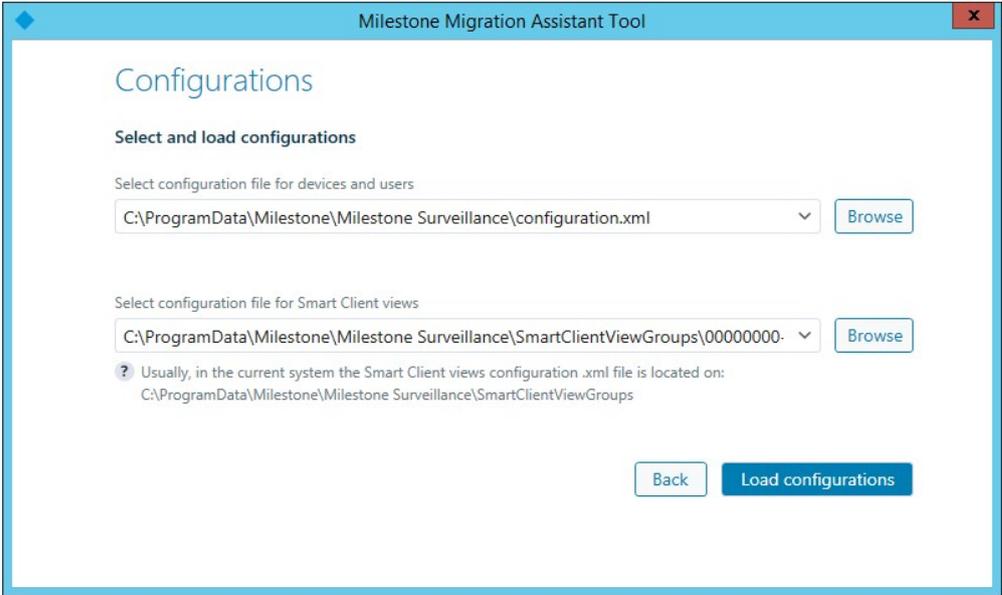
1. Locate the Milestone Migration Assistant Tool file that you downloaded on the computer running XProtect Professional VMS and run it. The login dialog appears.



2. Specify the management server address of the XProtect VMS system that you want to migrate to.
3. Select authentication type, enter user name and password, and then click **Continue**.

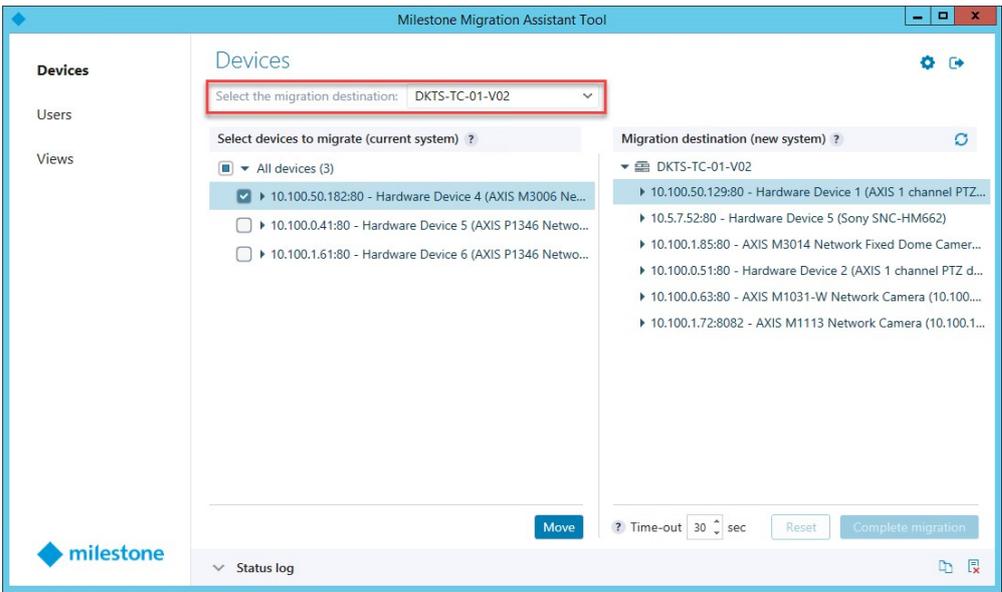
- Click **Yes** to confirm that Milestone Migration Assistant Tool selects the configuration files and click **Load configurations**.

 If you run Milestone Migration Assistant Tool from another computer, you must locate the configuration files by yourself.

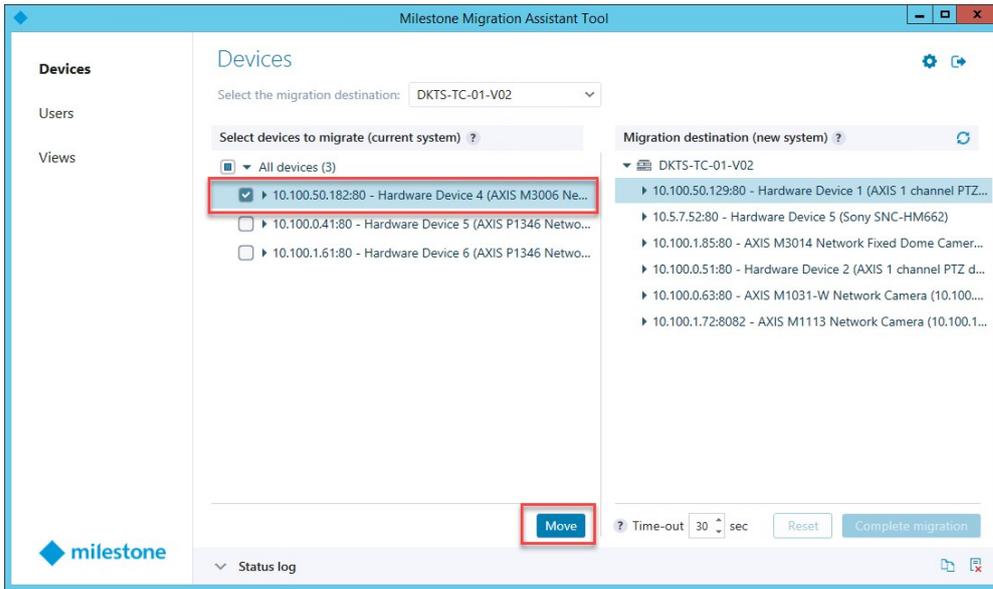


The **Devices** tab appears.

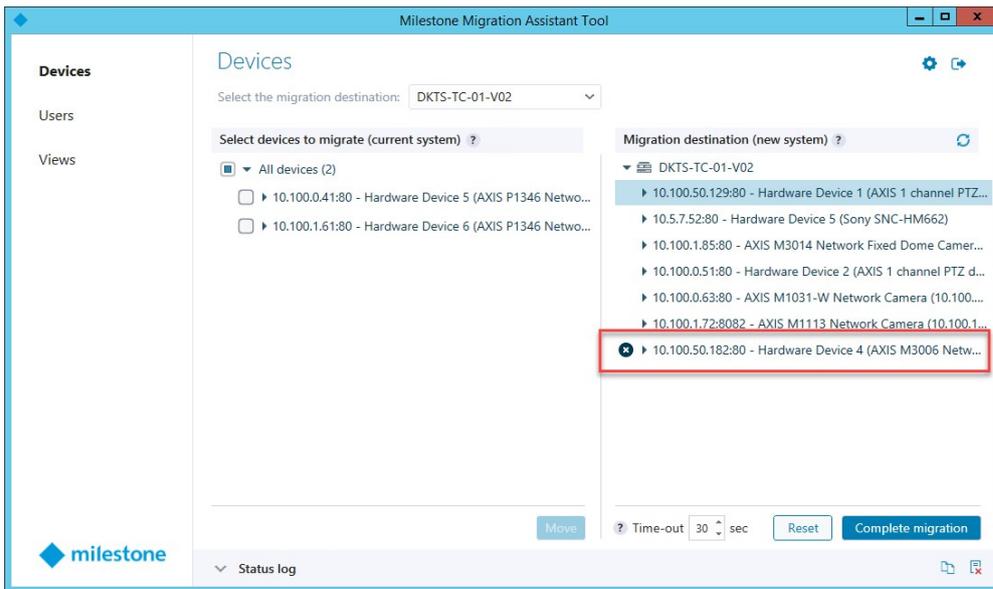
- If you migrate to a system with multiple recording servers, make sure to select the correct recording server.



6. Select the cameras and devices that you want to migrate, and click **Move**.



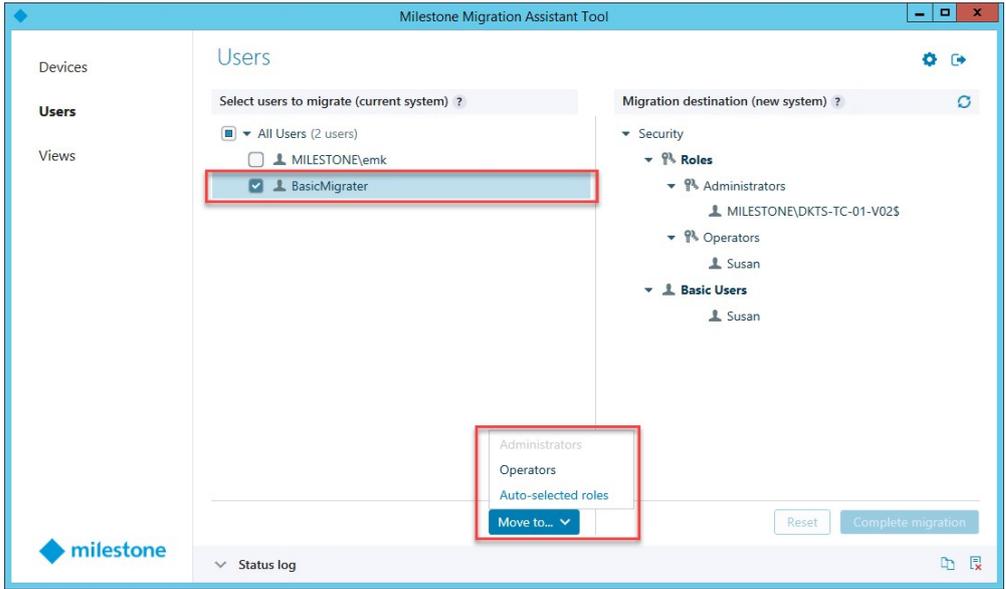
The selected devices are now in the **Migration destination** column.



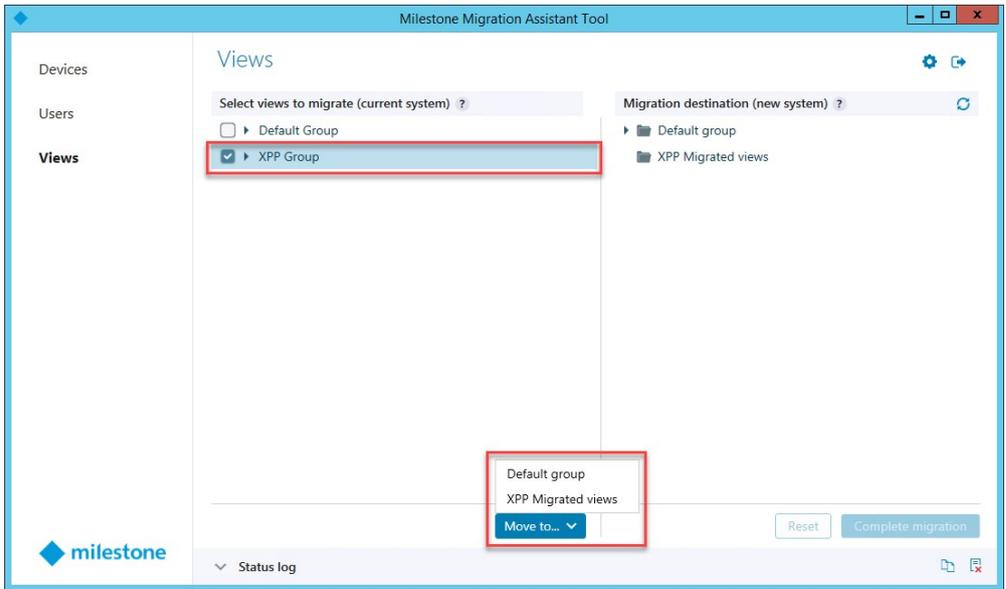
Continue with users and views.

7. Click the **Users** tab. Select the users and click **Move to** the corresponding roles you want to migrate to.

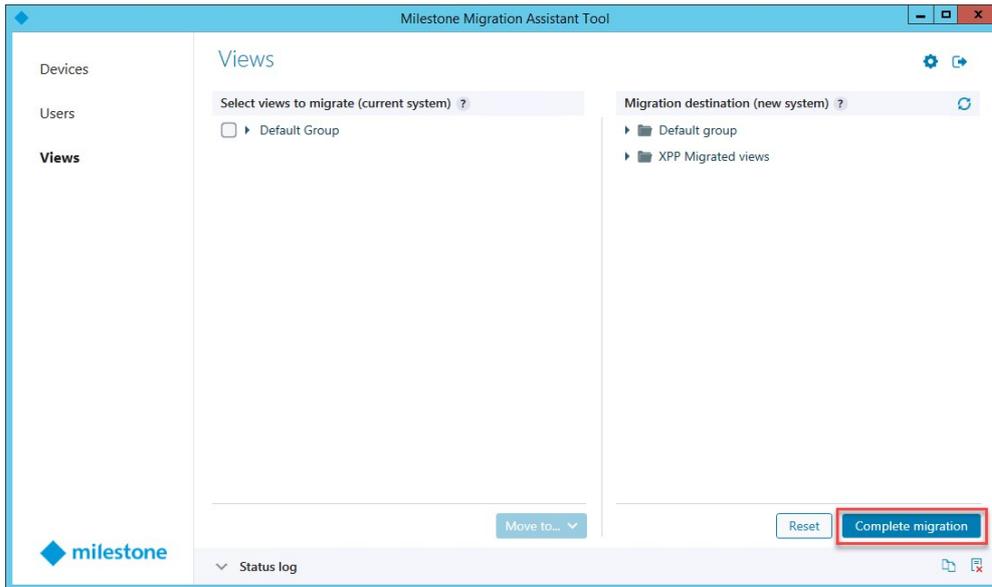
 Only system administrators of the current system can be migrated to the administrative role on the new system.



9. Click the **Views** tab. Select the views and click **Move to** the view group you want to migrate to.



10. Click **Complete migration**.



The migration starts.

11. Verify in the **Status log** at the bottom that the migration completed successfully.

Recording now starts on the XProtect VMS recording server triggered by **Default Record on Motion Rule**.

Close Milestone Migration Assistant Tool.

Post-migration steps

The following steps outline what to do after you completed the migration with Milestone Migration Assistant Tool.

1. Activate licenses.

When you have added the cameras, Milestone recommends that you activate the licenses:

1. Expand **Basics** and select **License Information**.
2. Review the status of your licenses.
3. You can activate licenses online or offline.

2. On the XProtect Professional VMS system, stop the camera feed and recordings:

1. In the Management Application, go to **Scheduling and Archiving**.
2. Change the online schedule for all cameras to **Always off**.

3. Verify that everything works as expected.

1. Log in to XProtect Smart Client as the different users. Use the host name or IP address of your XProtect VMS system and not localhost.
2. Verify that you can see the view groups and the cameras in the views you have migrated from the Professional VMS server for live viewing and playback of new recordings.

4. In XProtect VMS, configure the features that were not migrated:

- Scheduling
- Recording settings
- Rules
- Events and alarms
- Maps

5. Access to old recordings.

The XProtect Professional VMS system is still installed and running, so your users still have access to the XProtect Professional VMS server from XProtect Smart Client.



On a single computer installation, log in to XProtect Smart Client using the XProtect Professional VMS server on port 81.

6. Migration complete.

Removal of the XProtect Professional VMS system

Eventually, the XProtect Professional VMS recording archives become so old that they are automatically deleted. When the last archive has expired, you should do the following to remove the software:

If you installed XProtect VMS on the same computer hardware:

1. On the XProtect VMS management server, go to the administrative installation page and download the Event Server installer.
2. On the XProtect Professional VMS server, go to Windows' **Add/Remove Programs** feature and **Uninstall** the XProtect Professional VMS software.

The XProtect VMS event server is removed. You need to reinstall it:

1. Run the downloaded Event Server installer.
2. After installation you can see the tray icon of the event server. Right click the icon to see the status, to make sure it is running.

If you installed XProtect VMS on new computer hardware:

1. On the XProtect Professional VMS server, go to Windows **Add/Remove Programs** feature and **Uninstall** the XProtect Professional VMS software.
2. Repeat the uninstall step for all recording servers.



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About Milestone

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone Systems enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone Systems is a stand-alone company in the Canon Group. For more information, visit <https://www.milestonesys.com/>.

