

Technical Release Notes

XProtect[®] Video Management Software 2021 R1

Available June 29, 2021



These release notes cover the following XProtect® products and clients:

XProtect® Corporate 2021 R1

XProtect® Expert 2021 R1

XProtect® Professional+ 2021 R1

XProtect® Express+ 2021 R1

XProtect® Essential+ 2021 R1

XProtect® Smart Client 2021 R1

XProtect® Web Client 2021 R1

XProtect® Mobile 2021 R1

XProtect® Software Manager 2021 R1

New in XProtect VMS products 2021 R1

Licensing per enabled channels

XProtect VMS products 2021 R1 introduce an improvement in the licensing model allowing more enabled channels per device than previously. Some devices now require one device license per enabled channel. The license requirements for a device can be found in the Milestone Supported Device List.

When installing 2021 R1, a warning will be shown if the amount of device licenses used by the system will be affected by the improvement in licensing. In this case, the warning provides a link to a report including those devices which will require more than 1 device license. The warning also provides an option to cancel the installation.

Increased number of supported device channels

The number of supported device channels has increased from 16 channels to 512 channels for the ONVIF driver, from 64 channels to 512 channels for the Universal Drivers, and from 1 channel to unlimited number of channels for the MIP Driver Framework.

ONVIF driver update

The current ONVIF (one-channel) driver has been modified to support up to 512 channels per device. This means that all ONVIF conformant devices can be added to the VMS with the existing ONVIF driver effective of DP 11.5 and XProtect version 2021 R1 and later, regardless of the number of channels. For XProtect versions released before 2021 R1, the ONVIF driver will still support 1-channel devices only. The current ONVIF16 (16-channels) driver has not been changed. It will remain in the upcoming Device Packs for backward compatibility but will no longer be updated with new functionality.

Universal driver update

A new Universal512 driver is now available, supporting devices with up to 512 channels.

Change in administration and functionality of basic user accounts

User management for the concept of basic users has been changed. When a VMS administrator creates a new basic user, a temporary password is set. It is recommended that the administrator checks the box *Force basic user to change password on next login*. The user will be redirected to a change password

page when the user tries to login the first time. Rules for password complexity can be configured by the VMS administrator.

If a user forgets his or her password, then the VMS administrator can set a new temporary password, again selecting the *Force basic user to change password on next login* checkbox.

A user can change his or her password at any time by clicking the *Change Password* link in the client login dialog. This is available in all clients. The administrator does not have access to a password set by the user.

A user will be temporarily locked out if the wrong password given more than N login attempts. The VMS administrator can lock a user account by changing the Status field on the basic user from Active to Locked. The administrator can also unlock a user account by setting status to Active.

When logging into a XProtect VMS system, you may see a warning stating that the system is not secure. Because this release is about securing the communication between system components, the client applications consider any system without a certificate non-secure. This also includes any previous version, for example if you are using the latest version of XProtect Smart Client with a previous version of the XProtect VMS system.

Device firmware update using the Management Client

It is now possible to update device firmware through the Management Client. This new feature allows you to update the firmware for a single device only or for several devices of the same brand/model together. There is a new wizard for bulk firmware update available in the Maintenance menu of the Management Client.

The new feature makes it easier for the VMS administrators to maintain the latest device firmware when a new firmware is available.

The single firmware update is available for all XProtect products.

Bulk firmware update is available only for XProtect Expert and XProtect Corporate.

Supported drivers are Axis, Bosch, Hanwha and ONVIF.

Note: This feature also depends on the current firmware version of the device. Some old versions do not support a firmware update from XProtect.

Smart Map improvements

Smart Map can now cluster map items of different types. This allows easier overview on systems with many devices in one location. Zooming out will combine map items to clusters and zooming in will break the clusters apart until at the lowest zoom levels items are shown individually. Smart Map now combines individual cameras and other devices into clusters to maintain easy and straightforward navigation and visualization when zooming out.

In addition to the existing support for displaying camera icons directly on the map, this release adds support for:

- Input devices. Display input devices such as door sensors and doorbells directly on Smart Map for an even better overview.
- Microphones. Reduce time to action and listen to audio directly from the Smart Map.
- Alarms. React immediately when the alarms marked as blinking red circles on the Smart Map, is it now possible to acknowledge the alarm with a right-click.
- Milestone Map Server. Smart Map now comes with a free Milestone Map Server. The default Open Street Map service is available in Smart Map again in both the Smart Client and the Management Client.

Media database repair improvements

Improving stability on the media database is an ongoing process. In this release we have improved the repair time for a corrupted media database.

By moving detailed information from low level index files to higher level files, we have limited the number of files we need to read for repairing the database.

When limiting the number of file reads needed, we will save time and make the repairing go faster.

The amount of time saved will depend on the size of the database and where the files are located, but we have seen up to 50% saved time on our tests.

Below is an example of a test performed.:

A media database on a local disk containing 100.000 tables that are all corrupted, showed these results:

2020 R3: 1641 seconds

2021 R1: 884 seconds

In this case we saw an improvement of repair time on 46% compared to earlier version.

Changes and solved issues

Changes compared to XProtect VMS Products 2020 R3

- Prior to XProtect VMS Products 2021 R1, when changing the hostname of the computer running the management server, the management server was not able to start again. The management server and any other components running on that machine could be fixed manually or by re-installing the VMS. Starting from the 2021 R1 product release, all servers running on a computer that got a new hostname can be re-configured by doing a registration using the Server Configurator.
- Server Configurator is now backwards compatible. Since there is only one server configurator installed on a machine, the Server Configurator needs to be able to handle all versions of installed components. We do not support the case in which an older component is installed on top of newer components. Hence, it is ensured that the Server Configurator is always the same version or newer than the other components on the machine.

Changes compared to XProtect Management Client 2020 R3

- System monitor now shows the status for failover recording servers. If the failover server has issues with SSL due to certificate problems or it cannot authorize with the authorization server, that is shown in system monitor.
- The generic de-warping feature has been expanded with an option to specify the appropriate degrees for the device's horizontal field of view (FOV). This enables an improved de-warping experience for a wider range of devices. The default FOV has been changed to 180 degrees.
- There is a new tab, Remote recorder, in the Management Client for configuring credentials for connections to a remote recorder device. Such devices can be used as an edge storage for a group of cameras. Currently this option is only implemented for the Axis Video Recorder S3008.
- The Menu bar has been changed. The *Edit* menu has been removed and a new menu *Maintenance* has been added.
- An IP version filter has been added in *Express scan* result screen in the *Add Hardware* dialog. This makes it possible to distinguish IPv6 addresses from IPv4 addresses of the same device. By default, only IPv4 addresses are shown.
- A new time rule is available that can run specifically when in failover, or not in failover. This makes it possible to lower the resolution and frame rate when running on a failover recording server. The rule is not limited to changing these two settings but can be used for general changes as most other rules.

- In connection with failover, it was possible to get multiple states on different devices from the data collector. This resulted in system monitor showing incorrect information for cameras. This has been fixed.
- If a hardware was first detected with one driver, it was not possible to detect it with another driver if you wanted to change driver. This has been changed so it does not get stuck on first driver but is reset to pick another driver if needed.

Changes compared to Recording Server 2020 R3

The ProxyServer now supports load balancing by automatically launching a new instance when there are many devices connected via the same driver to the Recording Server. This increases overall performance. By default, the splitting happens for each 100 video channels connected through the same driver.

Auto-splitting is available for drivers released in DP 11.5 and newer.

Changes compared to XProtect Smart Client 2020 R3

- A limit on 50 devices per search has been removed from the Search tab. This allows greater flexibility when doing searches across the entire VMS. The Administrator can enforce a limit in Smart Client Profiles.
- Smart Client no longer has dedicated warning if attempting logging in to legacy systems, log in will fail in the same manner as if no server was at the address.
- Looping alarm sound. The behavior of looping alarm sounds has been changed. In an environment with multiple XProtect Smart Clients, is it now possible to acknowledge the alarm on one XProtect Smart Client, so the looping alarm sound will stop on all XProtect Smart Clients.

Changes compared to XProtect Web Client 2020 R3

- Encryption options have been added to export of investigations export.
- Digital signing now happens automatically when exporting video.
- Audio permissions are now requested upon microphone usage.
- One time export - export investigations link usage has been limited to 1 time download. The export link expires after the first download (in previous versions it did not expire).
- Investigation retention time added, and investigations are automatically deleted after it expires.

Changes compared to XProtect Mobile 2020 R3

- Timeline and timeline preview for Android has been fixed. A problem could cause the application to freeze, causing playback to become unresponsive.

Changes compared to Software Manager 2020 R3

No changes.

Downloads and documentation

The XProtect VMS 2021 R1 software, release notes, administrator manual, and the XProtect Smart Client user manual are all available for download via the following link:

<https://www.milestonesys.com/support/resources/download-software/>

Feature compatibility

Please refer to [XProtect Product Comparison Chart](#)

Localization

Please refer to <https://www.milestonesys.com/support/tools-and-references/supported-languages/>

System requirements

Please refer to <https://www.milestonesys.com/SystemRequirements>

Product availability

XProtect VMS Products 2021 R1 is available **June 29, 2021**.



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 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 is a stand-alone company in the Canon Group.