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Product Comparison Chart

XProtect® 2022 R1 Video Management Software

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Introduction

As the world's leading provider of open platform IP video management software (VMS), Milestone Systems offers a wide range of VMS products optimized for different types of deployment and usage. This document provides an in-depth comparable outline of Milestone's XProtect® VMS products and the associated clients.

This document is intended as a technical sales tool with two primary purposes:

- To provide an overview of the features that each XProtect product provides
- To support the selection of the optimal product by offering a visible comparison between the various products in the XProtect product range

This document contains several separate comparison charts, for XProtect VMS platform products and for XProtect clients, where each product category has an overview comparison chart, followed by a more detailed and comprehensive chart.

The following XProtect VMS platform products are covered:

- XProtect® Corporate
- XProtect® Expert
- XProtect® Professional+
- XProtect® Express+
- XProtect® Essential+

! XProtect Express and XProtect Professional are not part of this comparison chart as these products entered maintenance mode with 2019 R2, where their final versions were released on June 19, 2019. Click here for more information about XProtect Express and XProtect Professional.

The following XProtect clients are covered:

- XProtect® Smart Client
- XProtect® Web Client
- XProtect® Mobile

The document does not cover XProtect add-on products or Milestone Utilities.

The information in this document only provides basic information. Refer to the individual product specification sheets for a complete listing of all features for a given XProtect product.

Milestone reserves the right to change the product specifications without prior notice.

High-level XProtect VMS product comparison

The table below gives an overview of Milestone's XProtect VMS products and their key capabilities.

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Key Features					
Type of deployment	Single server	Single server	Centrally managed, multi-server	Centrally managed, multi-server	Centrally managed, distributed sites
Licensing	Free	Perpetual	Perpetual	Perpetual	Perpetual
Maximum number IP devices[1] per recording server	8	48	Unrestricted	Unrestricted	Unrestricted
Number of recording servers per system	1	1	Unrestricted	Unrestricted	Unrestricted
Maximum numbers of users	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Customer Dashboard and Connected Services[2]	-	Supported	Supported	Supported	Supported
Alarm Manager	-	Yes	Yes	Yes	Yes
Video out via Milestone Open Network Bridge	-	Yes	Yes	Yes	Yes
Dual authorization (Smart Client users)	-	Yes	Yes	Yes	Yes
Supports XProtect Smart Client, XProtect Web Client and XProtect Mobile	Yes	Yes	Yes	Yes	Yes
Secure HTTPS camera connectivity (on supported devices)	Yes	Yes	Yes	Yes	Yes
Adding devices on HTTPS[3]	Yes	Yes	Yes	Yes	Yes
Single device firmware[4] upgrade	Yes	Yes	Yes	Yes	Yes
Bulk device firmware[4] upgrade				Yes	Yes
Map function	Yes	Yes	Yes	Yes	Yes
Third-party application integration and support for video analytics[5]	Yes	Yes	Yes	Yes	Yes
Built-in Video Motion Detection (VMD) with Auto adjustable VMD sensitivity	Yes	Yes	Yes	Yes	Yes
H.264, MJPEG, MPEG-4, MPEG-4 ASP & MxPEG	Yes	Yes	Yes	Yes	Yes
H.265[6]	Yes	Yes	Yes	Yes	Yes
Adaptive streaming	-	Yes	Yes	Yes	Yes
Direct streaming (mobile server)	-	Yes	Yes	Yes	Yes
Microsoft Active Directory support	Yes	Yes	Yes	Yes	Yes
Kerberos authentication	Yes	Yes	Yes	Yes	Yes
Metadata support	Yes	Yes	Yes	Yes	Yes
Centralized management	Yes	Yes	Yes	Yes	Yes
Flexible event rule engine	Yes	Yes	Yes	Yes	Yes
Hardware accelerated video decoding for Video Motion Detection (Quick sync)	Yes	Yes	Yes	Yes	Yes
Hardware accelerated video decoding for Video Motion Detection (NVIDIA)	-	-	-	Yes	Yes
Hardware accelerated video decoding in the Mobile Server	Yes	Yes	Yes	Yes	Yes
Support for live video play without recording storage	Yes	Yes	Yes	Yes	Yes
Edge Storage and Scalable Video Quality Recording™	-	-	Yes	Yes	Yes
Smart Map functions	-	-	-	Yes	Yes
Media database encryption and digital signing	-	-	-	Yes	Yes
Recording Server communication encryption	Yes	Yes	Yes	Yes	Yes
Management Server communication encryption	Yes	Yes	Yes	Yes	Yes
Mobile Server communication encryption	Yes	Yes	Yes	Yes	Yes
Hot- & cold-failover recording server	-	-	-	Yes	Yes
Evidence Lock	-	-	-	-	Yes
Supports XProtect Smart Wall	-	-	-	Option	Included
Milestone Federated Architecture™	-	-	-	Remote site	Central/ Remote site
Milestone Interconnect™	-	Remote site	Remote site	Remote site	Central/ Remote site

[1] IP device can be an actual camera, video encoders, NVR/DVR, video services or other types of video/audio devices connected to the VMS' recording server. IP cameras or encoders should be included in the Milestone Supported Device List to count as one license per IP device otherwise it will require one license per enabled video channel. Refer Improved license model FAQ for more details and visit https://www.milestonesys.com/community/business-partner-tools/supported-devices/ for licensing requirement of an IP device. Please note that Specific IP device variants may not appear on the Supported Device List but will, however, be treated by Milestone as an IP device included in this list provided their equivalent base model is supported.
[2] Requires active Milestone Care Plus coverage
[3] Applicable for devices integrated through Axis, Bosch, Hikvision, Hanwha, Panasonic and ONVIF drivers (drivers in Legacy Device Pack excluded)
[4] Applicable only for devices integrated through Axis, Bosch, Hanwha and ONVIF drivers (drivers in Legacy Device Pack excluded)
[5] Using Milestone Integration Platform (MIP)
[6] Please check https://www.milestonesys.com/support/resources/system-requirements/ for graphic cards and performance requirements

Detailed XProtect VMS product comparison

The table below gives a detailed listing of all major features in the different XProtect VMS products. The features are organized into categories for increased readability.

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Features					
System components (software modules)					
Recording server	✓	✓	✓	✓	✓
Hot- & cold-failover recording server	-	-	-	✓	✓
Maximum number of IP devices[1] per recording server	8	48	Unrestricted	Unrestricted	Unrestricted
Maximum number of recording servers per system	1	1	Unrestricted	Unrestricted	Unrestricted
Recording server manager	✓	✓	✓	✓	✓
Management Server	✓	✓	✓	✓	✓
Management Server compatible with Microsoft clustering	✓	✓	✓	✓	✓
XProtect Management Server Failover[2]	-	-	-	✓	✓
Management client (dedicated client application for local or remote management)	✓	✓	✓	✓	✓
Event server (for handling of events and alarms)	✓	✓	✓	✓	✓
Failover event server (redundant cluster)	✓	✓	✓	✓	✓
XProtect Mobile (server and client)	✓	✓	✓	✓	✓
DLNA (Digital Living Network Alliance) server	-	✓	✓	✓	✓
XProtect Smart Client	✓	✓	✓	✓	✓
XProtect Web Client	✓	✓	✓	✓	✓
XProtect Smart Client - Player (local playback/export)	✓	✓	✓	✓	✓
Run servers as Windows Services	✓	✓	✓	✓	✓
Available for AWS Cloud Deployment in AWS Marketplace	✓	✓	✓	✓	✓
Licensing					
Licensing[3]	8 IP devices	Perpetual	Perpetual	Perpetual	Perpetual
Distributed operation					
Milestone Interconnect™	-	Remote site	Remote site	Remote site	Central/ Remote site
Milestone Federated Architecture™	-	-	-	Remote site	Central/ Remote site
Remote camera connection via Remote Connection Service	-	-	-	-	✓
Device support					
Support for ONVIF & PSIA compliant devices	✓	✓	✓	✓	✓
Generic device support via Milestone universal driver	✓	✓	✓	✓	✓
Metadata from camera embedded analytics	✓	✓	✓	✓	✓
Number of supported IP devices	11000+	11000+	11000+	11000+	11000+
Secure HTTPS camera connectivity (on supported devices)	✓	✓	✓	✓	✓
Adding devices on HTTPS[4]	✓	✓	✓	✓	✓
Single device firmware upgrade[5]	✓	✓	✓	✓	✓
Bulk device firmware upgrade[5]	-	-	-	✓	✓
Device firmware version listing	✓	✓	✓	✓	✓
Update hardware – refresh option	✓	✓	✓	✓	✓
Video processing					
H.264, MJPEG, MPEG-4, MPEG-4 ASP and MxPEG	✓	✓	✓	✓	✓
H.265[6]	✓	✓	✓	✓	✓
Metadata support	✓	✓	✓	✓	✓
Dual stream (live and recording) per camera	✓	✓	✓	✓	✓
Generic 360 dewarping	✓	✓	✓	✓	✓
Multi-live streaming	-	✓	✓	✓	✓
Adaptive streaming	-	✓	✓	✓	✓
Direct streaming (mobile server)	-	✓	✓	✓	✓
Client video stream down sampling (resolution and FPS) option	✓	✓	✓	✓	✓
Adjustable GOP size (MPEG4/H.264/H.265)	✓	✓	✓	✓	✓

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Send camera pre-alarm images (pre-recording buffer) to recording server	✓	✓	✓	✓	✓
Video recording speed up on motion, event or time schedule	✓	✓	✓	✓	✓
Built-in Video Motion Detection (VMD)	✓	✓	✓	✓	✓
Auto adjustable VMD sensitivity	✓	✓	✓	✓	✓
Hardware accelerated video decoding for VMD (Quick Sync)	✓	✓	✓	✓	✓
Hardware accelerated video decoding for VMD (NVIDIA)	-	-	-	✓	✓
Hardware accelerated video decoding in the Mobile Server	✓	✓	✓	✓	✓
Motion metadata generated during VMD analysis	✓	✓	✓	✓	✓
VMD exclusion zones	✓	✓	✓	✓	✓
Video motion detections per server	All connected cameras				
Audio					
One-way audio - live and recording support	✓	✓	✓	✓	✓
Two-way audio - live support	✓	✓	✓	✓	✓
Two-way audio – recording support	✓	✓	✓	✓	✓
Two-way AAC Audio support	-	✓	✓	✓	✓
Maximum number of supported audio channels	8	48	Unrestricted	Unrestricted	Unrestricted
Playback of audio files on rule	✓	✓	✓	✓	✓
Pan-tilt-zoom (PTZ)					
Preset positions per camera	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Go-to preset on event	✓	✓	✓	✓	✓
Preset patrolling	✓	✓	✓	✓	✓
Combine patrolling and go-to preset on event	✓	✓	✓	✓	✓
Scanning/transition speed	✓	✓	✓	✓	✓
Number of PTZ priority levels for prioritized PTZ control[7]	1	1	3	32,000	32,000
I/O and events					
Hardware configurable events (such as I/O input, motion, tampering, temperature, communication failure)	✓	✓	✓	✓	✓
Motion detection events (VMD in recording server)	✓	✓	✓	✓	✓
System error events (for example disk full)	✓	✓	✓	✓	✓
Manual / User defined events	✓	✓	✓	✓	✓
Generic events from external systems	✓	✓	✓	✓	✓
Event-based device configuration	✓	✓	✓	✓	✓
Event-based notification	✓	✓	✓	✓	✓
Event-based output control	✓	✓	✓	✓	✓
Event-based device start/stop	✓	✓	✓	✓	✓
Event-based matrix control	✓	✓	✓	✓	✓
Flexible event rule engine for definition of actions on events	✓	✓	✓	✓	✓
Bookmark function					
Manual bookmarking (quick bookmarking + bookmarking with details)	-	-	✓	✓	✓
Rule-based bookmarking	-	-	-	✓	✓
Evidence Lock					
Lock video for one or multiple cameras	-	-	-	-	✓
Retrieve overview of locked video sequences	-	-	-	-	✓
Define available retention times	-	-	-	-	✓
Alarm Manager					
Alarm description with work instructions and optional initial owner of alarm	-	✓	✓	✓	✓
Time profiles for alarms	-	✓	✓	✓	✓
View triggered alarms	-	✓	✓	✓	✓
Manage alarms (reassign, change status, comment)	-	✓	✓	✓	✓
Push alarms to users of XProtect Mobile[8]	-	✓	✓	✓	✓
Maximum number of related cameras in alarm preview window	-	15	15	15	15
Number of alarm priority levels	-	32,000	32,000	32,000	32,000
Customizable alarm priority levels, categories, statuses, and result codes	-	✓	✓	✓	✓
Customizable sound notification	-	✓	✓	✓	✓
Alarm handling reporting	-	✓	✓	✓	✓
Alarm logging	-	✓	✓	✓	✓
Recording server, storage and archiving					
Pre-recording buffer in RAM	✓	✓	✓	✓	✓
Video retention time	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Recording capacity per device/day	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Archiving of recordings with network drive support	✓	✓	✓	✓	✓
Online access to archives	✓	✓	✓	✓	✓
Archiving schedules	Hourly	Hourly	Hourly	Hourly	Hourly
Storage definition and retention time per device	✓	✓	✓	✓	✓
Storage definition and retention time that can be applied to individual cameras or common for multiple devices	✓	✓	✓	✓	✓
Multi-stage video storage and data grooming	-	-	-	✓	✓
Storage overview (used vs. available space) of available storage drives	✓	✓	✓	✓	✓
Support for live video play without recording storage	✓	✓	✓	✓	✓
Event on premature deletion of video due to insufficient physical storage	✓	✓	✓	✓	✓
Edge Storage support with flexible retrieval	-	-	✓	✓	✓
Scalable Video Quality Recording™	-	-	✓	✓	✓
Evidence Lock	-	-	-	-	✓
Media database encryption and digital signing	-	-	-	✓	✓
Encryption of communication with connected servers/clients/integrations	✓	✓	✓	✓	✓
Multicast support	-	-	-	✓	✓
Integration					
Plug-in, Protocol, Component integration via MIP SDK	✓	✓	✓	✓	✓
System Configuration via MIP SDK	✓	✓	✓	✓	✓
Device integration through Driver Framework	✓	✓	✓	✓	✓
Metadata integration	✓	✓	✓	✓	✓
Event integration	✓	✓	✓	✓	✓
Event and action rule engine integration via MIP SDK	✓	✓	✓	✓	✓
Video processing service in MIP SDK	✓	✓	✓	✓	✓
Milestone AI Bridge	-	-	-	✓	✓
Support for XProtect Add-on products					
XProtect Access	-	✓	✓	✓	✓
XProtect LPR	-	✓	✓	✓	✓
XProtect Smart Wall	-	-	-	Option	Included
XProtect Transact	-	✓	✓	✓	✓
XProtect Retail	-	✓	✓	✓	✓
XProtect Screen Recorder	✓	✓	✓	✓	✓
Milestone Open Network Bridge	-	✓	✓	✓	✓
DLNA server	-	✓	✓	✓	✓
Management					
Maximum number of clients	Unrestricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Password protected system configuration	✓	✓	✓	✓	✓
Configuration wizards for aided system setup	✓	✓	✓	✓	✓
Device scanning with device model detection	✓	✓	✓	✓	✓
Device replacement wizard	✓	✓	✓	✓	✓
Move device wizard for moving hardware devices (e.g. cameras) between recording servers	-	-	✓	✓	✓
Centralized recording server & device management	✓	✓	✓	✓	✓
Device group support	✓	✓	✓	✓	✓
Management Client profiles	-	-	-	-	✓
Centralized management of XProtect Smart Client application options (Number of supported XProtect Smart Client profiles)	-	-	3	12	Unrestricted
Day length time profile	✓	✓	✓	✓	✓
On-the-fly configuration changes	✓	✓	✓	✓	✓
Scheduled start/stop of devices	✓	✓	✓	✓	✓
Configuration reporting	✓	✓	✓	✓	✓
Built-in backup-restore support	✓	✓	✓	✓	✓
Automatic license activation of online systems	✓	✓	✓	✓	✓
Offline license activation	✓	✓	✓	✓	✓
Add/replace devices without reactivation in offline systems	✓	✓	✓	✓	✓
Customizable access port with NAT support	✓	✓	✓	✓	✓
Device Password Management[9]	-	-	✓	✓	✓
Initial setup of credentials on devices[10]	✓	✓	✓	✓	✓
Current device user handling[11]	-	-	✓	✓	✓

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Network configuration for devices[11]	-	-	✓	✓	✓
System Monitoring					
Customizable dashboard for task / component specific live monitoring	-	-	-	✓	✓
Customizable event trigger thresholds for Normal, Warning and Critical levels	-	-	-	✓	✓
Real-time and historical system status of management server, event server, recording servers and other XProtect servers	-	-	-	✓	✓
Real-time and historical system status of individual cameras	-	-	-	✓	✓
Dedicated System Monitor tab that can be displayed as floating window	-	-	-	✓	✓
XProtect Smart Wall					
Supports XProtect Smart Wall video wall add-on	-	-	-	Option	Included
Number of XProtect Smart Walls and XProtect Smart Wall displays	-	-	-	Unrestricted	Unrestricted
Number of concurrent video streams	-	-	-	Unrestricted	Unrestricted
Maximum number of content positions per display	-	-	-	100	100
Presets for display layouts and camera content	-	-	-	✓	✓
Live video stream content	-	-	-	✓	✓
XProtect Smart Client controlled playback of video	-	-	-	✓	✓
Support for rich video wall content, including maps and Smart Maps, still images, http pages, alarms, texts, bookmarks, system monitor, etc.	-	-	-	✓	✓
Rule-based control of layout and content (including text messages)	-	-	-	✓	✓
System alarms and notification					
Email notification	✓	✓	✓	✓	✓
Multiple notification profiles	✓	✓	✓	✓	✓
SNMP trap	-	-	-	✓	✓
Customer Dashbord[8]	-	✓	✓	✓	✓
User authentication and rights management					
Centralized user management	✓	✓	✓	✓	✓
Tiered management rights	-	-	-	-	✓
Inheritance of user rights	✓	✓	✓	✓	✓
Time schedule-controlled user access to devices and functions	-	-	-	-	✓
Restrict user access by client type (Web Client, XProtect Mobile and Smart Client)	✓	✓	✓	✓	✓
Basic User (XProtect application accounts)	✓	✓	✓	✓	✓
Windows User (local Windows accounts)	✓	✓	✓	✓	✓
Microsoft Active Directory User (central Active Directory accounts)	✓	✓	✓	✓	✓
External identity provider support (OIDC) SSO	✓	✓	✓	✓	✓
Dual authorization (Smart Client users)	-	✓	✓	✓	✓
Dual authorization (Management Client users) [12]	-	✓	✓	✓	✓
Two-step verification (Web and Mobile Client users)	-	-	-	-	✓
Windows NTLM (NT LAN Manager) authentication	✓	✓	✓	✓	✓
Kerberos authentication	✓	✓	✓	✓	✓
Logging					
System and audit logging	✓	✓	✓	✓	✓
Rule logging	✓	✓	✓	✓	✓
Compliance and certification					
FIPS 140-2 compliance	✓	✓	✓	✓	✓
Europrise privacy seal (GDPR ready)	-	-	-	-	✓
Languages (Management Interface)					
Chinese (Simplified)	✓	✓	✓	✓	✓
Chinese (Traditional)[13]	✓	✓	✓	✓	✓
Danish[13]	✓	✓	✓	✓	✓
English	✓	✓	✓	✓	✓
French	✓	✓	✓	✓	✓
German	✓	✓	✓	✓	✓
Italian[13]	✓	✓	✓	✓	✓
Japanese	✓	✓	✓	✓	✓
Korean	✓	✓	✓	✓	✓

XProtect VMS Products	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Portuguese (Brazilian)	✓	✓	✓	✓	✓
Russian[13]	✓	✓	✓	✓	✓
Spanish	✓	✓	✓	✓	✓
Swedish[13]	✓	✓	✓	✓	✓
Turkish[13]	✓	✓	✓	✓	✓

[1] IP device can be an actual camera, video encoders, NVR/DVR, video services or other types of video/audio devices connected to the VMS' recording server. IP cameras or encoders should be included in the Milestone Supported Device List to count as one license per IP device otherwise it will require one license per enabled video channel. Refer Improved license model FAQ for more details and visit https://www.milestonesys.com/community/business-partner-tools/supported-devices/ for licensing requirement of an IP device. Please note that Specific IP device variants may not appear on the Supported Device List but will, however, be treated by Milestone as an IP device included in this list provided their equivalent base model is supported.
[2] Add-on license required.
[3] IP cameras or encoders should be included in the Milestone Supported Device List to count as one license per IP device otherwise it will require one license per enabled video channel. Always refer to https://www.milestonesys.com/community/business-partner-tools/supported-devices/ for licensing requirement of an IP device.
[4] Applicable for devices integrated through Axis, Bosch, Hikvision, Hanwha, Panasonic and ONVIF drivers (drivers in Legacy Device Pack excluded)
[5] Applicable only for devices integrated through Axis, Bosch, Hanwha and ONVIF drivers (drivers in Legacy Device Pack excluded)
[6] Please check https://www.milestonesys.com/support/resources/system-requirements/ for graphic cards and performance requirements
[7] In Essential+ and Express+, ongoing PTZ operations cannot by be interrupted
[8] Requires Milestone Care Plus service coverage
[9] Not supported for all devices. For details read latest Milestone XProtect device pack release notes
[10] This feature is not available for devices with factory default credentials.
[11] Applicable only for devices integrated through the Milestone ONVIF drivers and that are ONVIF Profile T & Q compliant
[12] Users must be members of the administrator role
[13] Installation and user interface localized. Help system and manuals in English only

High-level XProtect client comparison

The table below gives an overview of the different XProtect clients that can be used together with Milestone's XProtect VMS products.

XProtect client	XProtect Mobile	XProtect Web Client	XProtect Smart Client
Key Features			
User platform	Smartphones and tablets	Web browsers	Windows PC
User mobility	High	Medium	Low
Installation required	Yes	-	Yes
User authentication	Yes	Yes	Yes
Dual authorization	-	-	Yes
Two-step verification	Yes	Yes	-
Secure (HTTPS) client-server connection	Yes	Yes	-
Camera search	Yes	Yes	Yes
Generic 360 dewarping	-	-	Yes
View live video	Yes	Yes	Yes
Control PTZ cameras	Yes	Yes	Yes
Advanced PTZ camera control	-	-	Yes
PTZ specific camera icons	-	-	Yes
Alarm handling	Yes	Yes	Yes
Push Notification[1]	Yes	-	-
Interactive maps	-	-	Yes
Smart Map	-	-	Yes
Trigger I/O events	Yes	Yes	Yes
Playback	Single camera	Multi camera	Multi camera
Dedicated Search tab (centralized Search)	-	-	Yes
Evidence Lock	-	-	Yes
Export/share video from one camera	Yes	Yes	Yes
Export video from multiple cameras	-	Yes	Yes
Storyboard function in export	-	-	Yes
Include XProtect Smart Client – Player in export	-	-	Yes
Video Push with audio support	Yes	-	-
Dynamic bandwidth adaptation	Yes	Yes	-
Adaptive streaming	Yes	Yes	Yes
Direct streaming	Yes	Yes	-
Hardware accelerated video decoding	-	-	Yes
Manage access control	Yes	-	Yes
Cameras and view groups	Yes	Yes	Yes

[1] Requires Milestone Care Plus service coverage

Detailed XProtect client comparison

This section provides a detailed comparison between the different XProtect clients, both in relation to each other, and the XProtect VMS platforms. The latter is important because some functionality and support of the clients are determined by the specific XProtect product or product version. The features are organized into categories for increased readability.

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
General view handling															
Number of view layouts	2					2					41				
Maximum view items per view	100					100					100				
Optimized view layouts for 4:3 and 16:9 display ratios	-					-					✓				
Corridor optimized view layouts	-					-					✓				
Optimized view layouts for landscape and portrait displays	✓					-					✓				
Cameras from multiple XProtect servers	-		✓			-		✓			-		✓		
Support for *Shared Views* and *Private Views*	-					✓					✓				
XProtect Smart Wall views	-					-					-			✓	
Images and active HTML pages in views	-					-					✓				
Hotspot and Carousel in views	-					-					✓				
Virtual Matrix in views	-					-					-		✓		
Display bounding boxes based on metadata	-					-					✓				
Full screen mode	✓					✓					✓				
Multi-window functionality with support for full screen or floating windows with synchronized or independent operation	-					-					✓				
Switch to view by number	-					-					✓				
Initial default view[1]	✓					✓					✓				
Camera search	✓					✓					✓				

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Automatic restore views and windows at login			✓					✓					✓		
Live view															
Update on motion only			-					-					✓		
One-way audio support			✓					✓					✓		
Two-way audio support			✓					✓					✓		
Broadcasting audio			-					✓					✓		
Start/stop recording in view			-					-					✓		
Independent playback in live mode			-					-					✓		
Replace cameras in view without changing view setup			-					-					✓		
Send camera to Virtual Matrix			-					-			-		✓		
Share video image			Via locally using installed communication applications (such as email)					-					Print, copy to clip-board and save to file		
Switch to camera by number			-					-					✓		
PTZ support															
Define presets in the client application			-					-					✓		
Define and control patrolling schemes in the client application			-					-					-		✓
View who has PTZ control and time to automatic release			-					-					✓		
Lock PTZ control			-					-					-		✓
Go to preset positions			✓					✓					✓		
Pause patrolling at manual operation			✓					✓					✓		
Immervision Enables® panomorph lens support			-					-					✓		
Joystick support			-					-					✓		
Assign commands to keyboard shortcuts and joy-stick buttons			-					-					✓		
Auxiliary commands (wash and wipe)			-					-					✓		
I/O and events control															
Camera overlay buttons			-					-					✓		
Manually activate events and trigger outputs			✓					✓					✓		
Audio and Playback															
Maximum view items per view			1					Dynamic, 4-18 depending on screen resolution					100		

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Playback mode	Single camera					Multi camera					Multi camera				
Recording search	✓					✓					✓				
Recent history of recording sequences per camera	✓					-					✓				
Time/date search	✓					✓					✓				
Independent playback in playback mode	-					-					✓				
Event/alert list in recording	-					-					✓				
Graphical timeline	✓					✓					✓				
Adjust playback speed	✓					✓					✓				
Single frame step (forward/backward)	✓					✓					✓				
One-way audio support	✓					✓					✓				
Two-way audio support	✓					✓					✓				
Broadcasting audio	-					✓					✓				
Digital zoom	✓					✓					✓				
Share video image	Via locally installed communication applications (such as email)					Single JPG image export					Print, copy to clip-board and save to file				
Print report with comments	-					-					✓				
Privacy masking	-	✓				-	✓				-	✓			
Search															
Dedicated Search tab (centralized Search)	-					-					✓				
Sequence Search	-					-					✓				
Motion Search	-					-					✓				
Bookmark Search	-	✓				-	✓				-	✓			
Alarm Search	-					-					-			✓	
Event Search	-					-					-			✓	
XProtect LPR Search	-					-					-			✓	
People Search[2]	-					-					-			✓	
Vehicle Search[2]	-					-					-			✓	
Location Search[2]	-					-					-			✓	
Multi-category Search and sort results by relevance	-					-					-			✓	
Visualize location of Search result	-					-					-			✓	
Save search templates	-					-					-			✓	
3rd party search support	-					-					-			✓	

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Bookmark function															
Manual bookmarking (quick bookmarking and bookmarking with details)	-		✓			-		✓			-		✓		
Create, edit, and delete bookmarks	-		✓			-		✓					✓		
Instant preview of bookmarks in timeline	-					-					-		✓		
Listing and previewing of bookmarks in Centralized search	-					-					-		✓		
Print bookmark report	-					-					-		✓		
Direct video export of bookmark	-					-					-		✓		
Search and apply filters to bookmarks	-		✓			-		✓			-		✓		
Alarm Manager															
Dedicated Alarm Manager tab that can be displayed as floating window	-					-					-		✓		
Alarm list and alarm preview view items in normal camera views	-					-							✓		
Sort and filtering functions	✓					-							✓		
Instant preview of primary and related cameras	-					-							✓		
Manage alarms (reassign & change status)	-		✓			-		✓			-		✓		
Manage alarms (comment)	-		✓			-		✓			-		✓		
Integration with map function	-					-					-		✓		
Alarm description/work instructions	-		✓			-		✓			-		✓		
Escalation and forwarding handling	-					-					-		✓		
Alarm handing reports with print function	-					-					-		✓		
Alarm location maps in alarm list	-					-					-		✓		
Combined access to live and playback video	-					-					-		✓		
Desktop notification for alarms	-					-					-		✓		
Audio notification at new alarm (configurable per priority level)	-					-					-		✓		
Push Notification[3]	-		✓			-							-		
Map function															
Standard graphical file formats supported for maps	-					-							✓		
Number of linked map layers supported	-					-							Unrestricted		
Video preview	-					-							✓		

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Integrated control of speakers, microphones and output devices	-					-							✓		
Drag-and-drop and point-and-click definition of map elements	-					-							✓		
Integrated PTZ control	-					-							✓		
Real-time system integrity overview and system performance	-					-							✓		
Smart Map function															
CAD and GIS maps support	-					-					-			✓	
Online map services support for Bing, Google and OpenStreetMap	-					-					-			✓	
Offline map services supported for OpenStreetMap	-					-					-			✓	
OpenStreetMap tiles distributed via Milestone map services	-					-					-			✓	
Alarms	-					-					-			✓	
Input devices	-					-					-			✓	
Microphones	-					-					-			✓	
Video preview	-					-					-			✓	
Integrated control of microphones and input devices	-					-					-			✓	
Support for Milestone Federated Architecture	-					-					-			✓	
Integrated PTZ control	-					-					-			✓	
Auto-place devices on map via positioning and direction settings	-					-					-			✓	
Link to standard maps	-					-					-			✓	
Building support	-					-					-			✓	
XProtect Smart Wall															
Supports XProtect Smart Wall video wall add-on	-					-					-			Option	Included
User control of layout and content	-					-					-			✓	
User control playback of video in XProtect Smart Wall	-					-					-			✓	
Local subscription to XProtect Smart Wall views for local display	-					-					-			✓	

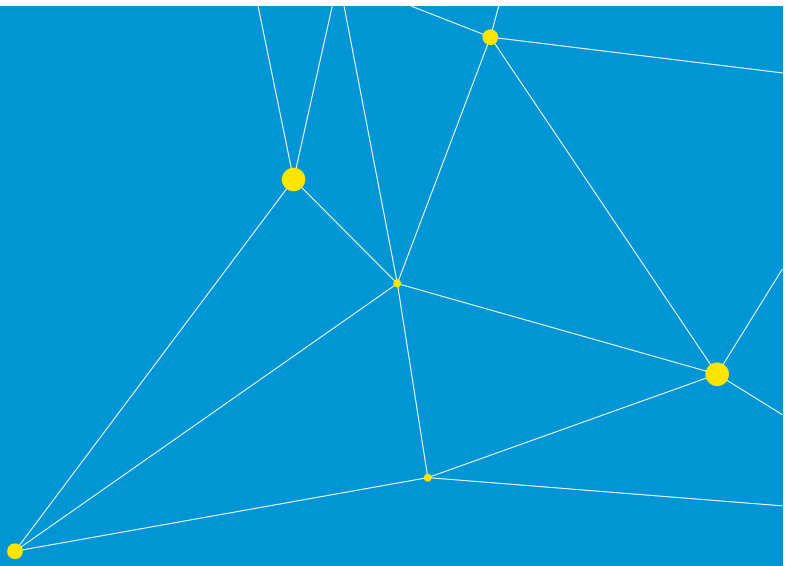
XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Push rich content to XProtect Smart Wall, such as maps, still images, http pages, alarms, bookmarks, system monitor, etc.	-					-					-			✓	
Send manual text messages to XProtect Smart Wall	-					-					-			✓	
Evidence Lock															
Lock video for one or multiple cameras	-					-					-				✓
Retrieve overview of locked video sequences	-					-					-				✓
Export															
Export in still image format (JPEG)	✓					✓					✓				
Export with audio support in media player format (AVI & MKV)	✓					✓					✓				
Export in XProtect format	-					✓					✓				
Server-side export	✓					✓					-				
Storyboard function in export	-					-					✓				
Encrypted export with password protection and digital signing[4]	-					✓					✓				
Verification of digital video signatures in XProtect Smart Client – Player[4]	-					✓					✓				
Prevent Re-export option[4]	-					Always on					✓				
Auto-export of XProtect Smart Client – Player[4]	-					-					✓				
Preserve system defined privacy masks	-	✓				-	✓				-	✓			
Additional export specific privacy masks	-					-					-	✓			
Liftable user-right protected privacy masks	-					-					-	✓			
Direct export to optical media	-					-					✓				
Flexible camera selection for export	-					-					✓				
Bulk export to multiple media formats	-					-					✓				
General and camera specific export comments[4]	-					-					✓				
Pre/post comment slides (media player format only)	-					-					✓				
Video Push															
Video Push	✓					-					-				
Include location metadata with Video Push	✓					-					-				
Audio support	✓					-					-				

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
System Monitoring															
Access real-time and historical system performance information (refer to System Monitor section for the VMS for details)	-					-					-			✓	
Installation															
Run without installation	-					✓					-				
Single step installer (installs client together with server)	-					-					✓				
Initial and update installations from management Server	-					-					✓				
Notify about new updates	✓					-					-				
Smart Connect[3]	-	✓				-					-				
System access															
Auto-login	✓					-					✓				
Dual authorization	-					-					-	✓			
Two-step verification	-			✓		-			✓		-				
Secure (HTTPS) client-server connection	✓					✓					-				
Dynamic bandwidth adaptation with threshold setting	✓					✓					-				
External identity provider support (OIDC) SSO	-					-					✓				
Authorization															
Restrict user access by client type (Web Client, XProtect Mobile and Smart Client)	✓					✓					✓				
Time schedule controlled user access to devices and functions	-			✓		-			✓		-			✓	
Restrict user access by devices (cameras, microphones, I/O devices, etc.)	✓					✓					✓				
Restrict access to live, PTZ control, playback and export	✓					✓					✓				
Restrict access to setup	-					-					✓				

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Personalization															
Application options			✓					-					✓		
Centralized management of application options			-					-			-			✓	
Application theme support			-					-					✓		
Task-oriented tabs			-					✓					✓		
System															
Hardware accelerated video decoding			-					-					✓		
Adaptive streaming	-	✓				-	✓				-	✓			
Direct streaming	-	✓				-	✓					-			
Multi-live streaming			-					-				✓			
Languages (Installation, UI and help function)															
Arabic			✓[5]					✓[5]					✓		
Bulgarian			✓[5]					✓[5]					✓[6]		
Croatian			✓[5]					✓[5]					✓[6]		
Chinese (Simplified)			✓[5]					✓[5]					✓		
Chinese (Traditional)			✓[5]					✓[5]					✓		
Czech			✓[5]					✓[5]					✓		
Danish			✓[5]					✓[5]					✓		
Dutch			✓[5]					✓[5]					✓		
English			✓					✓					✓		
Farsi			✓[5]					✓[5]					✓[6]		
Finnish			✓[5]					✓[5]					✓[6]		
French			✓[5]					✓[5]					✓		
German			✓[5]					✓[5]					✓		
Hebrew			✓[5]					✓[5]					✓[6]		
Hindi			✓[5]					✓[5]					✓[6]		
Hungarian			✓[5]					✓[5]					✓[6]		
Icelandic			✓[5]					✓[5]					✓[6]		
Italian			✓[5]					✓[5]					✓		
Japanese			✓[5]					✓[5]					✓		
Korean			✓[5]					✓[5]					✓		
Norwegian (Bokmål)			✓[5]					✓[5]					✓[6]		
Polish			✓[5]					✓[5]					✓		

XProtect Client	XProtect Mobile					XProtect Web Client					XProtect Smart Client				
Feature set when used with specific XProtect VMS platform	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate	XProtect Essential+	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
Portuguese (Brazilian)			✓[5]					✓[5]					✓		
Russian			✓[5]					✓[5]					✓		
Serbian			✓[5]					✓[5]					✓[6]		
Slovak			✓[5]					✓[5]					✓[6]		
Spanish			✓[5]					✓[5]					✓		
Swedish			✓[5]					✓[5]					✓		
Thai			✓[5]					✓[5]					✓[6]		
Turkish			✓[5]					✓[5]					✓		
Ukrainian			✓[5]					✓[5]					✓[6]		

[1] Initial views created when using the "single computer" installation option
[2] Limited to certain camera models that can perform video analytics and export ONVIF compliant metadata
[3] Requires Milestone Care Plus service coverage
[4] Feature only applicable to exports in XProtect format
[5] XProtect Mobile server localized to same languages as the management interface and documentation is only available in English
[6] Only the user interface is localized; user's manual and online help is not localized



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.