

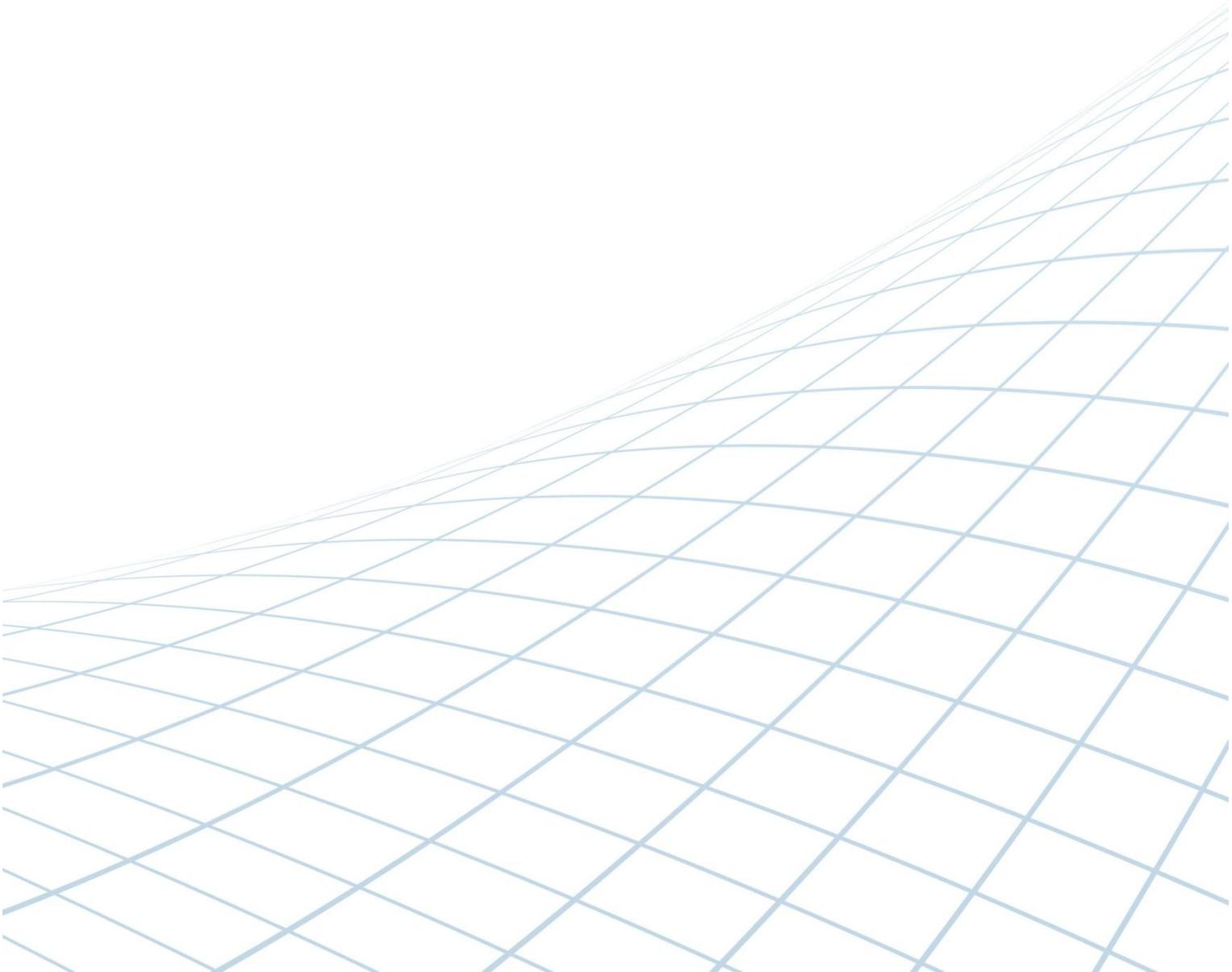


milestone

The Open Platform Company



# XProtect<sup>®</sup> NVR 2 Specification Sheet





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## Feature Overview

### XProtect NVR server modules

- **Open platform:**  
Open application programming interface (API)/software development kit (SDK), supports seamless integration with third-party applications
  - **Single-server video surveillance solution:**  
Unlimited recording of video from eight or 16 IP cameras or IP video encoders with analog cameras
  - **Wide IP camera and device support:**  
Supports more than 1,500 IP cameras and encoders from 100 different manufacturers
  - **ONVIF™ and PSIA compliant:**  
Supports ONVIF™ and PSIA compliant cameras and devices
  - **Optimized recording storage management:**  
Unique data storage and archiving solution that combines superior performance and scalability and cost-efficient, long-term video storage
  - **Wide compression technology support:**  
Supports the new compression methods; MPEG4 ASP, MxPEG and H.264, as well as to MJPEG and MPEG4
  - **Dual streaming:**  
Hardware use is optimized with two independent, configurable video streams, one for live viewing and one for recording. No client side configuration needed
  - **System configuration wizards:**  
Guide the user through the process of adding cameras, configuring video and recording, adjusting motion detection and configuring user settings
  - **Built-in video motion detection:**  
Independent of camera model and supports eight or 16 cameras simultaneously
  - **Automatic license activation:**  
Automatic online activation with a 30-day camera license grace period. No need to keep track of license keys because the system gathers and handles all information automatically
  - **Privacy masking:**  
Enables administrators to define privacy masks for individual cameras to hide areas in the camera view that must not be visible or recorded in order to comply with local legislation
  - **XProtect Mobile server component:**  
Allows you to view live and recorded video from XProtect NVR on a mobile device or in a browser of your choice using XProtect Web Client. The XProtect Mobile 2 server component is preinstalled on the XProtect NVR
- XProtect® Transact:**  
Links live video with transaction data and is preloaded on XProtect NVR. The XProtect Transact installer is available for installation on the desktop of your XProtect NVR. In order to activate this add-on product, you need to buy an XProtect Transact license. Please see the Getting Started Guide for XProtect Transact.

### XProtect NVR client modules

#### XProtect Web Client

- A simplified, intuitive web-based client application for viewing, playing back and sharing video. XProtect Web Client provides instant access to the most commonly used surveillance functions, and it is quick to learn and simple to operate for users of all levels

#### XProtect Mobile Client

- View and control your video system from almost anywhere on your smartphone or tablet with XProtect Mobile. Designed by Milestone, it is an application that can be downloaded for free from Google Play and the App Store™

#### XProtect Smart Client

- An easy-to-use client application that provides intuitive control over security installations. It gives seamless access to live and recorded video, instant control of cameras and connected security devices, and a comprehensive overview of recordings. Available in 26 languages, XProtect Smart Client has an adaptable user interface that can be optimized for individual operators' tasks and adjusted according to specific skills and authority levels. See a detailed features list later in this document.



## Detailed Product Features

### XProtect NVR server modules

#### Management Application

- Single Management Application provides consolidated single-point access to XProtect NVR server
- System configuration wizards guide the user through the process of adding cameras, configuring video and recording, adjusting motion detection and configuring user settings
- Automated device discovery enables fast discovery of camera devices using methods such as Universal Plug and Play, broadcast and IP range scanning
- Smart bulk configuration option allows changes to the settings across multiple devices simultaneously and in a few clicks
- Adaptable application behavior guides novice users, while expert users can optimize the application for efficient use
- Export/import of system and user configuration data allows for reliable system operation and fast system recovery. System cloning enables efficient rollout of multiple systems with the same, or similar, configuration
- Automatic system restore points are created each time a configuration change is confirmed. Enables easy rollback to previously defined system configuration points and enables cancellation of undesired configuration changes and restoration of earlier valid configurations

#### Recording server

- Auto-detect camera models during setup
- Supports up to eight or 16 installed cameras and simultaneous recording and live view of all the cameras
- Recording quality depends entirely on camera and video encoder capabilities: no software limitation (30+ frames per second per camera)
- Dual streams from cameras can be individually optimized on compression, resolution and frame rate, meeting recording and live monitoring requirements
- Bandwidth is optimized with multi-streaming by splitting a single camera video stream to differentiated streams for live viewing and recording, where each can be optimized independently with respect to frame rate and resolution
- Simultaneous digital multi-channel video and audio recording and live viewing (relaying)
- Connectivity to cameras, video encoders and selected digital video recorders (DVRs) supporting MJPEG, MPEG4, MPEG4 ASP, H.264 and MxPEG

- Recording technology: secure high-speed database holding JPEG images or MPEG4 and MxPEG streams including audio
- Unlimited recording capacity with multiple archives possible per day
- Hourly to daily database archiving with optional automatic move to network drive saves storage capacity on the local server – with images still available transparently for playback
- Start recording on event
- Authenticate access based on local Microsoft® Windows user account or XProtect® user name and password
- Authorize access privileges per local Windows user account, XProtect user profile or grant full access
- Audit logs of exported evidence by user and file
- Audit logs of client user activity by time, locations and cameras
- Local console management of the Recording Server accessible from the notification area
  - Start and stop Recording Server service
  - Access to Recording Server configuration settings
  - Access to Recording Server help system
  - View system status and log information
  - Built-in web server for download and launch of clients and plug-ins
- Remote access for XProtect Smart Client and XProtect Web Client
- User profiles control access to: live view, pan-tilt-zoom (PTZ) , PTZ presets, output control, events, listen to microphone, talk to speaker, manual recording, playback, AVI export, JPG export, XProtect (database) export, sequences, Smart Search and audio. As well as set up views and edit private views and shared public views
- Client initiated start of recording based on pre-defined recording time or manual stop and access privileges
- Start cameras on live view requests from clients
- Built-in, real-time camera independent motion detection; fully adjustable sensitivity, zone exclusions, recording activation with frame rate speed up and alert activation through email
- Two-way audio enables integrated control of microphones and speakers connected to IP devices
- Flexible notification (sound and email), triggered by time or event
- PTZ preset positions, up to 25 per camera
- Absolute and relative PTZ positioning



## XProtect NVR client modules

### XProtect Smart Client

- Dedicated task-oriented tab for the Sequence Explorer, in addition to the traditional Live and Playback tabs
- Application theme support with choice of dark or light theme
- Installed per default on XProtect NVR for local viewing and playback of video and audio
- Start recording on cameras for a predefined time (default five minutes). Subject to privileges set by administrator
- Support for native 64-bit operating systems
- Independent playback capability allows for instant playback of recorded video for one or more cameras, while in live and playback mode
- Live view digital zoom allows zoomed-out recordings while the operator can digitally zoom in to see details
- “Update on Motion Only” optimizes CPU use by letting motion detection control whether or not the image should be decoded and displayed. The visual effect is a still image in the view until motion is detected
- Shared and private camera views offer 1x1 up to 10x10 layouts in addition to asymmetric views
- Views optimized for both 4:3 and 16:9 screen ratios
- Hotspot function for working in detail with a camera selected from a view containing multiple cameras
- Carousel function allows a specified view to rotate between predefined cameras with individual timing and order with multiple appearances. Carousel function can be controlled allowing the operator to pause the carousel function and to switch to previous or next camera
- Overlay buttons provide intuitive control of cameras, camera-integrated devices and other integrated systems directly from the camera view
- Cameras’ built-in audio sources available in live and in playback
- Separate pop-up window displaying sequences and time intervals in thumbnail previews, the Sequence Explorer gives a visual overview of recorded video combined with smooth navigation
  - Presents recorded sequences for individual cameras, or all cameras in a view
  - Available in both live and playback modes
  - Smooth navigation with sliding preview and “drag-and-throw” function for video thumbnails
  - Instant playback of video sequences
- Application options allow users to adapt the layout and personalize the application according to their preferences
- IPIX technology for PTZ in 360° recorded images

- 360° ImmerVision Enables<sup>®</sup> panomorph lens technology removes blind spots and tracks, detects and analyzes the entire area in live or playback mode
- Control PTZ cameras by using;
  - PTZ preset positions
  - PTZ point-and-click control
  - Overlay buttons
  - PTZ zoom to a defined rectangle
  - Video overlaid PTZ control
  - Virtual joystick function
  - Joystick
- Milestone Integration Platform Software Development Kit (MIP SDK) 3.6 plug-in support
- XProtect<sup>®</sup> Smart Client – Player has the same look and feel as XProtect Smart and offers efficient handling of multiple exports
- Display alarms from all security devices and systems in the alarm list
- Multi-channel audio, receive sound from multiple input sources
- Seamlessly export video in various formats, including video from multiple cameras with evidence viewer, data logs and user notes
- Supports 26 languages

### XProtect Smart Client - Player

- Playback of recorded or received video and audio evidence
- Same user-friendly interface and almost identical functions as XProtect Smart Client
- Instant one-click playback for easy viewing of exported video evidence
- Advanced second-level investigation tools make it easy to refine exported video and re-export the most essential evidence
- The project tool allows users to merge video exports or archives from two different locations or XProtect systems together into one new export
- View up to 100 cameras time-synched during playback
- Scrollable activity timeline with magnifying feature
- Instant search on recordings based on date/time and activity/alarm
- Smart Search lets you quickly search selected areas of camera images for motion
- Evidence can be generated as a printed report, a JPEG image, an AVI film or in XProtect format
- Export audio recordings in WAV or AVI format
- Export video digitally zoomed to view area of interest only and to minimize export footprint size
- Re-export evidence in XProtect format with the XProtect Smart Client - Player for instant, easy viewing by authorities
- Encryption and password protection option for exported recordings and files
- Ability to add comments to exported evidence, also encrypted
- De-interlacing of video from analog cameras
- IPIX technology for PTZ in 360° recorded images
- 360° ImmerVision Enables<sup>®</sup> panomorph lens technology



### **XProtect Web Client 1.0**

- View live video from up to 100 cameras simultaneously
- Access XProtect Smart Client views through the browser and avoid advanced setup
- Shared views can be managed centrally via the server with administrator/user rights and user groups
- Easy video playback including fast/slow playback, single frame step, and jump to date/time with frame preview while adjusting time
- Control PTZ cameras remotely, also using preset positions
- Dynamic bandwidth optimization when streaming from server to client gives better use of bandwidth
- Create AVI files or save JPEG images
- Export on the server to avoid moving large video files back and forth. Only download needed files or save them for downloading when on a faster connection
- System login using XProtect user name and password
- System login using Microsoft Active Directory user
- Secure connection through HTTPS
- No installation needed on client computer

### **XProtect Mobile 2.0**

- Add login credentials for multiple servers in XProtect Mobile to easily switch between sites or different connection addresses
- Views are imported from the connected XProtect video management software (VMS) system. The client automatically obtains the user's private and shared views from the system to be used as camera lists in XProtect Mobile
- A view with all cameras is automatically generated, allowing XProtect Mobile to be used when no views are set up. It also provides a quick way of searching through cameras
- Cameras can be viewed in full screen to take better advantage of the device's screen. It is also possible to search through cameras in a view while in full screen by swiping left or right
- Conduct detailed investigation of video when using megapixel or high-definition cameras by allowing users to zoom in on a part of the image for closer review
- Play back recordings from the database and select a specific time or recorded sequence to start playback, step through recordings and select a playback speed
- View recordings from the database while keeping an eye on what is currently happening. The client displays a live picture-in-picture frame of the same camera when in playback mode. The picture-in-picture can be moved by dragging and double-tapping will return to live view
- Control PTZ cameras with XProtect Mobile either manually or by selecting predefined presets for quick navigation

- Within the client you can take a snapshot of a camera image from either live or playback view. The snapshot can be saved on the device's local storage or shared by email or MMS
- Use your mobile device's camera as a camera in your XProtect VMS. Easy to use and requires no setup in the mobile device
- Use your mobile device to trigger outputs connected to the XProtect VMS, or trigger user-defined events to have greater control while on the go
- Connect securely to the XProtect Mobile server using HTTPS encryption

### **Integration options**

- XProtect's open MIP SDK makes it possible to incorporate video in your business processes through seamless integration of third-party applications, such as video analytics and access control
- Compatible with XProtect Transact, an add-on product that directly links video with transaction data from point-of-sale (POS) or automated teller machines (ATMs). Transactions and corresponding video can be monitored live or viewed later to identify shrinkage, fraud or simply validate a transaction
- Compatible with XProtect<sup>®</sup> Central, enabling alarm central organizations and system integrators to manage and monitor alarms from a set of independent XProtect installations. XProtect Central provides continuous monitoring of alarm status from XProtect servers, video surveillance cameras and external devices
- Compatible with XProtect Screen Recorder, an add-on function that enables XProtect VMS to inconspicuously capture screen recordings of any Microsoft Windows-based PC or POS terminal. Captured screen recordings are managed just like camera recordings and can therefore be viewed in live and playback mode, and exported for evidence
- Integrate with systems such as, access control, alarms, gates and building management using hardware input/output (I/O) and internal events



## Minimum System Requirements

### XProtect NVR clients

#### XProtect Smart Client 7.0b and XProtect Smart Client – Player

If you install XProtect Smart Client on a machine other than XProtect NVR:

- Hardware platform:  
CPU: Intel Core2™ Duo, minimum 2.4 GHz or higher (more powerful CPU recommended for XProtect Smart Clients running a high number of cameras)  
RAM: Minimum 2 GB (higher RAM recommended for XProtect Smart Clients running high number of cameras)  
Network: Ethernet (100 Mbit or higher recommended).  
HDD: Minimum 1 GB free  
Graphics Adapter: AGP or PCI-Express, minimum 1024 x 768 (1280 x 1024 recommended), 16 bit colors
- Operating system:  
Microsoft Windows XP Professional (32 bit or 64 bit), Windows Server 2003 (32 bit or 64 bit), Windows Server 2008 R1/R2 (32 bit or 64 bit), Windows Vista Business (32 bit or 64 bit), Windows Vista Enterprise (32 bit or 64 bit), Windows Vista Ultimate (32 bit or 64 bit), Windows 7 Professional (32 bit or 64 bit), Windows 7 Enterprise (32 bit or 64 bit) and Windows 7 Ultimate (32 bit or 64 bit)
- Software:  
Microsoft .NET 4.0 Framework  
DirectX 9.0.  
Windows Help (WinHlp32.exe)

#### XProtect Web Client 1.0a

- Hardware platform:  
CPU: Intel Core2™ Duo, minimum 2.4 GHz or higher (more powerful CPU recommended for XProtect Web Clients running a high number of cameras or multiple instances)  
RAM: Minimum 2 GB (higher RAM recommended for XProtect Web Clients running a high number of cameras or multiple instances)  
Network: Any connection to the XProtect Mobile server (10 Mbit or higher recommended)  
Screen: WXGA or higher recommended (1280 x 720), 16-bit colors  
HDD: Minimum 1 GB free on machine where the XProtect Mobile server is installed (needed for exports)
- Microsoft Internet Explorer® 9 or later
- Safari® 5 or later
- Google Chrome™ 16 or later
- Mozilla® Firefox® 11 or later

#### XProtect Mobile Client 2.0a

- Please see XProtect Mobile specification sheet on our website:  
<http://www.milestonesys.com/Software/XProtect-Clients/XProtect-Mobile/>

## Miscellaneous

### Supported languages

#### XProtect NVR server 2.0

- English, Simplified Chinese, Traditional Chinese, Danish, French, German, Italian, Japanese, Portuguese (Brazil), Russian and Spanish
- Administrator's Getting Start Guide is available in English, Simplified Chinese, Traditional Chinese, Danish, French, German, Italian, Japanese, Portuguese (Brazil), Russian and Spanish
- The XProtect Express help system is available in English, Simplified Chinese French and Portuguese (Brazil)

#### XProtect Smart Client 7.0b and XProtect Smart Client – Player

- English, Arabic, Bulgarian, Simplified Chinese, Traditional Chinese, Czech, Danish, Dutch, Finnish, French, German, Hebrew, Hindi, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Russian, Slovak, Spanish, Swedish, Thai and Turkish
- The XProtect Smart Client Help System and User's Manual are available in all languages except Bulgarian, Finnish, Hebrew, Hindi, Hungarian, Slovak and Thai