



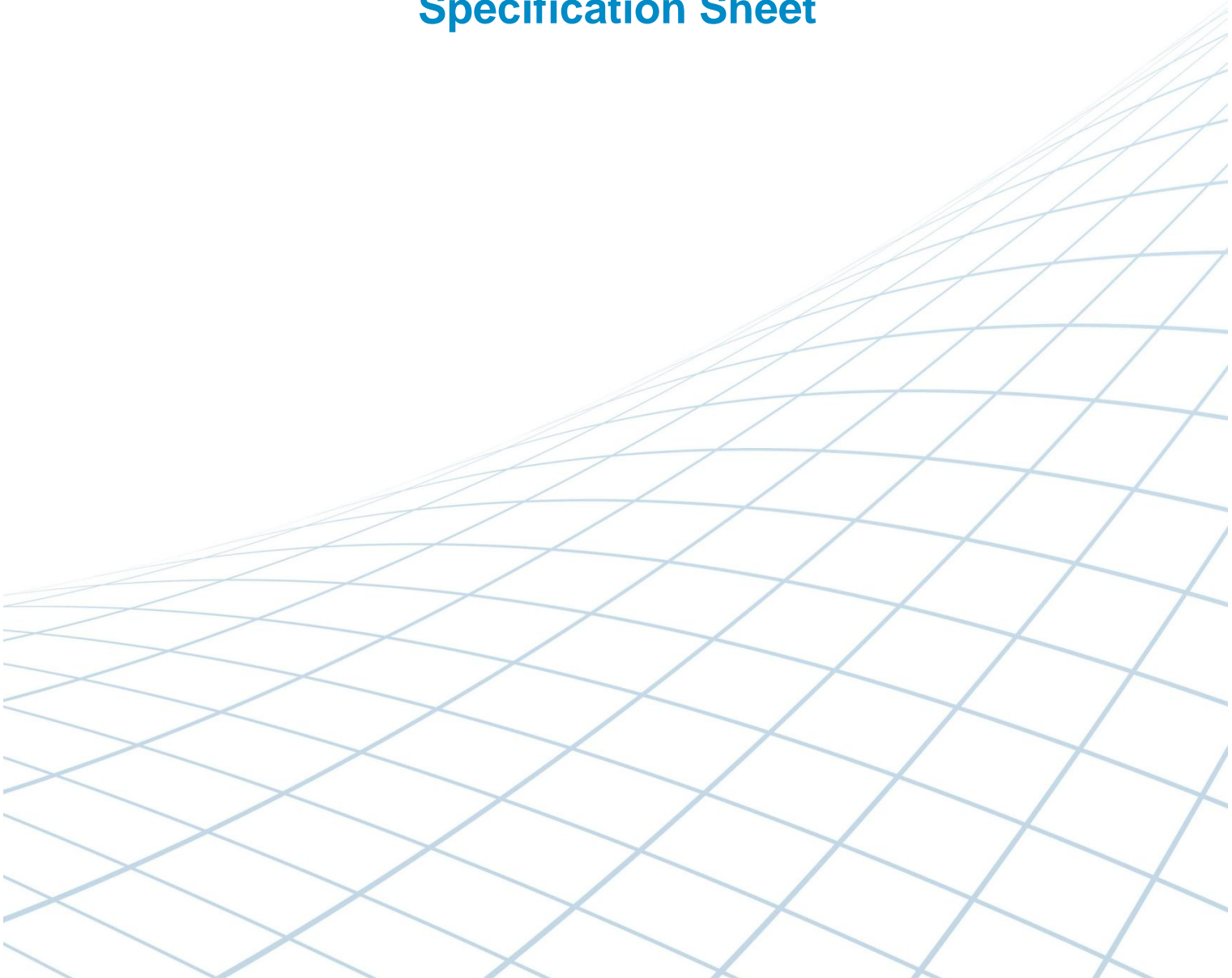
milestone

The Open Platform Company



# **XProtect<sup>®</sup> Enterprise 8.1**

## **Specification Sheet**





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## Feature Overview

### XProtect Enterprise server modules

- **Open platform:**  
Open application programming interface (API)/software development kit (SDK) support seamless integration with third-party applications
- **Multi-server and multi-site video surveillance solution:**  
Unlimited recording of video from IP cameras, IP video encoders and selected digital video recorders (DVRs) with analog cameras
- **Wide IP camera and device support:**  
Supports more than 1,500 IP cameras, encoders and DVRs 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 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 users
- **Built-in video motion detection:**  
Independent of camera model and supporting up to 64 cameras simultaneously per server
- **Automatic license activation:**  
Automatic online or offline activation. 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:**  
The privacy masking capability 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
- **Easier installation:**  
Quickly start the installation with a few mouse clicks – all languages and applications in one installer (Management Application supports 11 languages). You can even add components to or remove them from your installation at a later time
- **Supported by the Software Manager:**  
Deploy XProtect Enterprise centrally via the Software Manager utility

### XProtect Enterprise client modules

- **Map:**  
Interactive, multi-layered maps provide the operator with a comprehensive overview of cameras, devices and layouts of an entire surveillance installation
- **Alarm Manager:**  
Alarms are consolidated from all security devices and systems for immediate visual verification of alarms
- **Camera Navigator:**  
The Camera Navigator provides more consistent and comprehensive visual verification, ensuring easier object tracking in geographically complex security locations.
- **360° panomorph lens technology:**  
Removes blind spots and allows operators to track, detect and analyze the entire area in live or playback mode. Only one camera license required for the 360° panomorph lens
- **Overlay buttons:**  
Intuitive control of cameras, camera-integrated devices and other integrated systems directly from the camera view
- **Multi-channel, two-way audio:**  
Communicate with people at gates/entrances or broadcast messages to many people at once
- **Independent playback:**  
Instant and independent playback function allows you to independently play back recorded video from one or more cameras, while in live view or playback mode
- **Sequence Explorer:**  
Displays sequences and time intervals in thumbnail previews and gives a visual overview of recorded video combined with smooth navigation
- **Smart Search**  
Quickly gather and refine evidence by searching for changes or objects in the video
- **Fast evidence export:**  
Seamlessly export video in various formats, including video from multiple cameras, with evidence viewer, data logs and user notes included
- **Multiple language support:**  
Supports 26 languages



## Detailed Product Features

### XProtect Enterprise server modules

#### XProtect Enterprise server 8.1

##### Management Application

- Single Management Application provides a consolidated single point of access to XProtect Enterprise Recording Servers
- System configuration wizards guide the user through the process of adding cameras, configuring video and recording, adjusting motion detection and configuring users
- 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 simultaneous changes to the settings across multiple devices and in 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 for efficient rollout of multiple systems with the same, or similar, configuration
- Import of offline configuration data enables offline editing of configuration data, including camera and device definitions
- Automatic system restore points are created each time a configuration change is confirmed. Enables easy rollback to previously defined system configuration points and enables cancelation of undesired configuration changes and restoration of earlier valid configurations

##### Recording Server

- Auto-detect camera models during setup
- Flexible multi-site, multi-server license structure charged per camera
- Unlimited number of installed cameras; simultaneous recording and live view of up to 64 cameras per server
- 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 optimized individually 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 view 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 DVRs supports 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 Microsoft Active Directory user account, or XProtect username and password
- Authorize access privileges per Microsoft Active Directory user account/group, 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, edit private views and edit shared public views
- Client-initiated start of recording based on predefined 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 or SMS
- Two-way audio enables integrated control of microphones and speakers connected to IP devices
- On predefined events Matrix remote commands are automatically sent to display live video remotely on computers running XProtect Smart Client with Matrix Plug-in
- Flexible notification (sound, email and SMS) and camera patrolling scheduling, triggered by time or event
  - PTZ preset positions, up to 50 per camera
  - Absolute and relative PTZ positioning
  - PTZ go-to preset position on events
  - Combine PTZ patrolling and go-to positions on events
  - Set multiple patrolling schedules per camera per day: i.e. different for day, night and weekend
  - PTZ scanning on supported devices: viewing or recording while moving slowly between PTZ positions
  - Video motion detection-sensitive PTZ patrolling among selected presets allows sending of wipe and wash commands to supported PTZ models



## XProtect Enterprise client modules

### XProtect Smart Client

- Dedicated task-oriented tabs for the Sequence Explorer and Alarm Manager, in addition to the traditional Live and Playback tabs
- Application theme support with choice of dark or light theme
- Installed per default on Recording Server 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
- Multiple computer monitor support with a main window and any number of either windowed or full screen views
- 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
- Matrix function to view live video from multiple cameras through the Image Server in any view layout with customizable rotation path, remotely controlled by XProtect Smart Clients or Recording Servers sending Matrix remote commands
- Send Matrix remote commands to display live video remotely on computers running XProtect Smart Client with Matrix Plug-in
- 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 to their particular preferences
- 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
- IPIX technology for PTZ in 360° recorded images
- 360° ImmerVision Enables® panomorph lens technology
- Camera Navigator allows easy tracking of objects
- Milestone Integration Platform Software Development Kit (MIP SDK) 3.6 plug-in support
- XProtect Smart Client – Player replaces the former viewer application and offers efficient handling of multiple exports

### XProtect Smart Client - Player

- Playback 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
- 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® panomorph lens technology



### XProtect Web Client

- 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

### Integration options

- XProtect's open SDK makes it possible to incorporate video in your business processes through seamless integration of third-party applications, such as video analytics and access systems
- Compatible with XProtect<sup>®</sup> Retail, an add-on investigation tool for performing advanced data analysis. Based on transaction data from point-of-sale (POS) or automated teller machines (ATMs), XProtect Retail links data with corresponding video from relevant cameras
- Compatible with XProtect<sup>®</sup> Transact that directly links video with transaction data from POS or 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), internal events and TCP/IP events



## System Requirements

### XProtect Enterprise server modules

#### XProtect Enterprise Server 8.1a

- **Hardware platform:**  
CPU: Intel® Pentium® 4, 2.4 GHz or higher (Core™ 2 recommended)  
RAM: Minimum 2 GB (4 GB or more recommended)  
Minimum 10 GB free hard disk space available, excluding space needed for recordings  
Ethernet: 1 *Gigabit* recommended  
HDD: E-IDE, PATA, SATA, SCSI, SAS (7200 RPM or faster)  
Onboard GFX, AGP or PCI-Express, minimum 1024 x 768, 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 or newer  
Windows Help (WinHlp32.exe)
- All are downloadable from  
<http://www.microsoft.com/downloads>

### XProtect Enterprise clients

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

- **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 and multiple views and displays)  
RAM: Minimum 2 GB (higher RAM recommended for XProtect Smart Clients running high number of cameras and multiple views and displays)  
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 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)
- **Browser:**  
Microsoft Internet Explorer® 9 or later  
Safari® 5 or later  
Google Chrome™ 16 or later  
Mozilla® Firefox® 11 or later

\*Running as a 32 bit service/application



## Miscellaneous

### Supported languages

#### XProtect Enterprise server 8.1a

- 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 Enterprise 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

#### XProtect Web Client 1.0a

- English

### Licensing structure

#### Base server license

- An XProtect Enterprise base server license is mandatory for installing the product. The product may be installed on an unlimited number of computers designated as master servers per software license code (SLC). The product may be installed on an unlimited number of slave server computers per designated master server using the same SLC
- The base server license contains the XProtect Enterprise server module and XProtect Mobile server, plus the client modules XProtect Smart Client, XProtect Smart Client – Player, XProtect Web Client and XProtect Mobile

#### Camera license

- To connect to a camera, a license per camera channel is required. In total, for all copies of the product installed under this license, the product may only be used with as many cameras as you have purchased camera licenses for
- Video encoders and DVRs connected to multiple analog cameras require a camera license per channel to operate
- I/O devices require a camera license per I/O device
- Camera licenses can be purchased in any number. To extend the installation with additional camera licenses, the SLC is required when ordering

#### Client license

- The XProtect Enterprise client modules: XProtect Smart Client, XProtect Smart Client – Player, XProtect Web Client and XProtect Mobile are not licensed and can be installed and used on any number of terminals