XProtect® Enterprise 2013

Specification Sheet

Contents

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 2,400 IP cameras, encoders and DVRs from 120 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 a variety of compression methods: MJPEG, H.263, MPEG-4 Pt. 2 Simple Profile and Advanced Simple Profile, H.264/MPEG-4 AVC, and MxPEG
- **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
- **Automatic license activation:**
  Automatic online or offline activation. 30-day camera license grace period.
- **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:**
  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

- **Support for Customer Dashboard**
  Resellers can monitor the health of installed systems with a valid and active SUP, so actions can be taken proactively before the issue becomes a problem for the customer. This offers peace of mind to system owners
- **Evidence collection**
  With the evidence collection mode, recordings are retained even when a camera is deleted from the system or if a hard disk runs out of space

XProtect Enterprise client modules

- **Power of choice:**
  Use any of the three available clients, XProtect Smart Client, XProtect Web Client and Milestone Mobile
- **View live video:**
  Use any client for constant live monitoring
- **View recorded video:**
  Use any client to review incidents
- **Situational awareness:**
  With support for Maps and Alarms, the XProtect Smart Client offers real-time situational awareness
- **Common design:**
  The XProtect clients share common design and basic functionalities, such as camera views, enabling a seamless switch between interfaces as needs require
- **PTZ Control:**
  With any of the clients pan-tilt-zoom (PTZ) cameras can be controlled; therefore, suspicious activity can be investigated
- **Share or export recordings:**
  Export video in native database format and share with external viewers using the XProtect Smart Client Player. Moreover, instantly share exports between Milestone Mobile and XProtect Web Client using a server side export to avoid moving large files through remote connections
- **Output control and event triggering:**
  Use any of the clients to activate system events or trigger outputs on the connected devices
- **Available in 26 languages**
  Use any of the clients in your preferred language from the list of the 26 languages supported.

Detailed Product Features

XProtect Enterprise server modules

XProtect Enterprise server 2013

Management Application
- A 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
- A device scanning feature enables the 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 in few clicks
- Adaptable application behavior guides novice users, while expert users can optimize the application for a more advanced use
- Export and import of system and user configuration data enables a reliable system operation and fast system recovery
- System cloning enables to efficiently clone multiple systems with the same or similar configuration
- The import of offline configuration data enables offline editing of configuration data, including camera and device definitions
- Each time a configuration change is confirmed, automatic system restore points are created enabling an easy rollback to previously defined system configuration points. This also enables the cancelation of undesired configuration changes and restoration of earlier valid configurations
- Automatic configuration wizard helps users to configure the system when the Management Application starts for the first time

Recording Server
- Native 64-bit recording server provides for optimal utilization of available hardware resources
- Evidence Mode preserves recorded video. If no space is available, recording stops rather than deleting older recordings. Recordings from deleted cameras can be viewed in the XProtect Smart Client
- Flexible multi-site, multi-server license structure charged per camera
- Unlimited number of installed cameras with simultaneous recording and live view
- Recording quality depends entirely on camera and video encoder capabilities: no software limitation (30+ frames per second per camera)

- Cameras supporting SSDP, mDNS or ONVIF Discovery added to the local network can automatically be discovered, installed and included in the default Smart Client view
- The Milestone Customer Dashboard allows resellers to take immediate action and fix any problems on a customer's installation for example: a broken camera, hard disk failure, etc.
- 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 different streams for live view and recording, therefore they can each 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, H.263, MPEG-4 Pt. 2 Simple Profile and Advanced Simple Profile, H.264/MPEG-4 AVC, 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, 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 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
- 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
- Copies a Smart Client – Player to all hard drives used for recording and archiving. A Smart Client Project file is also created (when the recording server is shut down), making it simple and easy to access video even if the hard drive is removed from the server

Mobile Server

- Runs as a dedicated service, allowing it to be installed either together with an existing installation or on dedicated hardware for more demanding installations
- Transcodes video so the streams are robust and can adapt to changing connection bandwidth. The server also optimizes the use of available bandwidth to get the best possible stream quality
- Mobile server plugin in the Management Application will give access to the Milestone Mobile server management in order to change default settings and read out miscellaneous status information
- Multiple Milestone Mobile servers can be installed in parallel, offering redundant setups and/or allowing more simultaneous users. They also allow users to connect to a server of their choice
- Can be configured through the tray controller to easily adjust or update settings
- Use either a default-generated certificate for HTTPS encrypting the connection to the Milestone Mobile server or provide your own custom certificate
- All configuration of Video Push is done from the server, so users can download and use the Milestone Mobile client without having to do any configuration
- Supports creating server side export through XProtect Web Client and Milestone Mobile.
- The Milestone Mobile management plugin allows administrators to configure codec used as well as manage ongoing and completed exports
- Automatically installs the XProtect Web Client. No additional setup is needed

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 a choice of dark or light theme
- Installed per default on a 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 play back of recorded video for one or more cameras, while in live and playback mode
- Interactive, multi-layered maps provide the operator with a comprehensive overview of cameras, devices and layouts of an entire surveillance installation
- Seamlessly export video in various formats including video from multiple cameras, with evidence viewer, data logs and user notes included
- When exporting video in AVI or MKV format, the export can be played back in a standard player application. When exporting in MKV format the video is exported in the same format as originally recorded (similar to creating database export), as long as privacy masking is not enabled and video is recorded in H.264, JPEG or MPEG-4, except for MPEG-4 short header mode.
- Quickly gather and refine evidence using Smart Search to locate changes or objects in the video
- With multi-channel, two-way audio, it is easy to communicate with people at gates/entrances or broadcast messages to many people at once
- 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 a 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
- 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
- Create, edit or delete PTZ presets (not possible for PTZ type 2, where PTZ presets are stored in the camera device, and can't be modified from the XProtect software)
- 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
- 360° ImmerVision Enables® 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
- Camera Navigator allows the easy tracking of objects

- Milestone Integration Platform Software Development Kit (MIP SDK) 4.5 plug-in support
- XProtect Smart Client – Player replaces the former viewer application and offers efficient handling of multiple exports
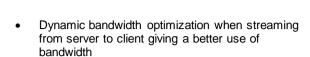
XProtect Smart Client - Player
- Playback recorded or received video and audio evidence
- Has by default a simplified even more user-friendly interface compared to the XProtect Smart Client, including the capability to switch back to the full XProtect Smart Client interface, with almost the same functions as the 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 time-synched cameras 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 or MKV film or in XProtect format
- Export audio recordings in WAV or AVI format
- Audio in MKV export is PCM, and therefore available in a decoded version of what was originally recorded
- Export video digitally zoomed to view area of interest only and to minimize export footprint size
- Re-export evidence in XProtect, AVI or MKV 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
- 360° ImmerVision Enables® panomorph lens technology
- Automatically copied to all hard drives used by the recording server to store recordings and archives

XProtect Web Client
- 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
- Playback video easily including fast/slow playback, single frame step, and jump to date/time with frame preview while adjusting time
- Control PTZ cameras remotely using preset positions

- Dynamic bandwidth optimization when streaming from server to client giving a better use of bandwidth
- Create AVI files or save JPEG images
- Export on the server to avoid moving large video files back and forth. Users can download only the files they need or save them to download when a faster connection is available
- Trigger outputs and events with live view of related camera
- System login using XProtect user name and password
- System login using Microsoft Active Directory user
- Secure connection through HTTPS
- No installation required on the client's computer

Milestone Mobile
- Add login credentials for multiple servers in the Milestone Mobile Client to easily switch between sites or different connection addresses
- Views are inherited from the connected XProtect VMS system. The client automatically obtains the user's private and shared views from the system to be used as camera lists in the Milestone Mobile client
- A view with all cameras is automatically generated allowing the Milestone Mobile client 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
- Digital pinch to zoom enables users to zoom in on a part of the image for closer review and conduct detailed investigation of video when using megapixel or high-definition cameras
- Playback 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 either manually or by selecting predefined presets for quick navigation
- Video Push allows users to use the camera in their mobile device as any other camera in the installation. It is very easy to use and requires no setup in the mobile device
- Trigger outputs and events:
  Users can use their mobile device to trigger outputs connected to the XProtect VMS or trigger user-defined events to have greater control on the go
- Connect securely to the Milestone Mobile server using HTTPS encryption

- Export on the server to avoid moving large video files back and forth. Download only the required files or save them to download later when a faster connection is available

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® 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® 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
- With Milestone Interconnect, XProtect Corporate 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 2013

- 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® 8 Enterprise (64 bit)
  Microsoft Windows 8 Pro (64 bit)
  Microsoft Windows 7 Ultimate (64 bit)
  Microsoft Windows 7 Enterprise (64 bit)
  Microsoft Windows 7 Professional (64 bit)
  Microsoft Windows Server 2012 (64 bit): Standard and Datacenter.
  Microsoft Windows 2008 R2 (64 bit): Standard, Web, High Performance Computing (HPC), Enterprise and Datacenter
  Microsoft Windows Server 2008 (64 bit)
  Microsoft Windows Vista Business (64 bit)
  Microsoft Windows Vista Enterprise (64 bit)
  Microsoft Windows Vista Ultimate (64 bit)

- Software:
  Microsoft .NET 4.5 Framework
  Microsoft .NET 4.0 Framework
  DirectX 9.0 or newer

  All are downloadable from
  http://www.microsoft.com/downloads

XProtect Enterprise clients

XProtect Smart Client 2013 R2 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® 8 Enterprise (32 bit or 64 bit)
  Microsoft Windows 8 Pro (32 bit or 64 bit)
  Microsoft Windows 7 Ultimate (32 bit or 64 bit)
  Microsoft Windows 7 Enterprise (32 bit or 64 bit)
  Microsoft Windows 7 Professional (32 bit or 64 bit)
  Microsoft Windows Server 2012 (64 bit): Standard and Datacenter.
  Microsoft Windows Server 2008 R2 (64 bit): Standard, Web, High Performance Computing (HPC), Enterprise, and Datacenter.
  Microsoft Windows Server 2008 (32 bit or 64 bit)
  Microsoft Windows Server 2003 (32 bit or 64 bit)
  Microsoft Windows Vista Ultimate (32 bit or 64 bit)
  Microsoft Windows Vista Enterprise (32 bit or 64 bit)
  Microsoft Windows Vista Business (32 bit or 64 bit)
  Microsoft Windows XP® Professional (32 bit or 64 bit)

- Software:
  Microsoft .NET 4.0 Framework
  DirectX 9.0
  Windows Help (WinHlp32.exe)

XProtect Web Client 2013 R2

- 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)

- Browsers:
  Microsoft Internet Explorer® 9 or later
  Safari® 5 or later
  Google Chrome™ 16 or later
  Mozilla® Firefox® 11 or later

Milestone Mobile 2013 R2

- Applications available for download in the App Store and Google Play
- Hardware platform:
  Android 2.2 or higher
  or
  iOS 6.0 or higher

Android is a trademark of Google Inc.
App Store is a service mark of Apple Inc.
Apple is a trademark of Apple Inc., registered in the U.S. and other countries.
IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

Miscellaneous

Supported languages

XProtect Enterprise server 2013

- 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 2013 R2 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 and Milestone Mobile

- 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

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 Milestone Mobile

Camera license

- To connect a camera, one 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
- An unlimited number of camera licenses may be purchased
- To extend the installation with additional camera licenses, the SLC is required

Client license

- The XProtect Enterprise client modules: XProtect Smart Client, XProtect Smart Client – Player, XProtect Web Client and Milestone Mobile do not require additional licenses and can be installed and used on any number of terminals