

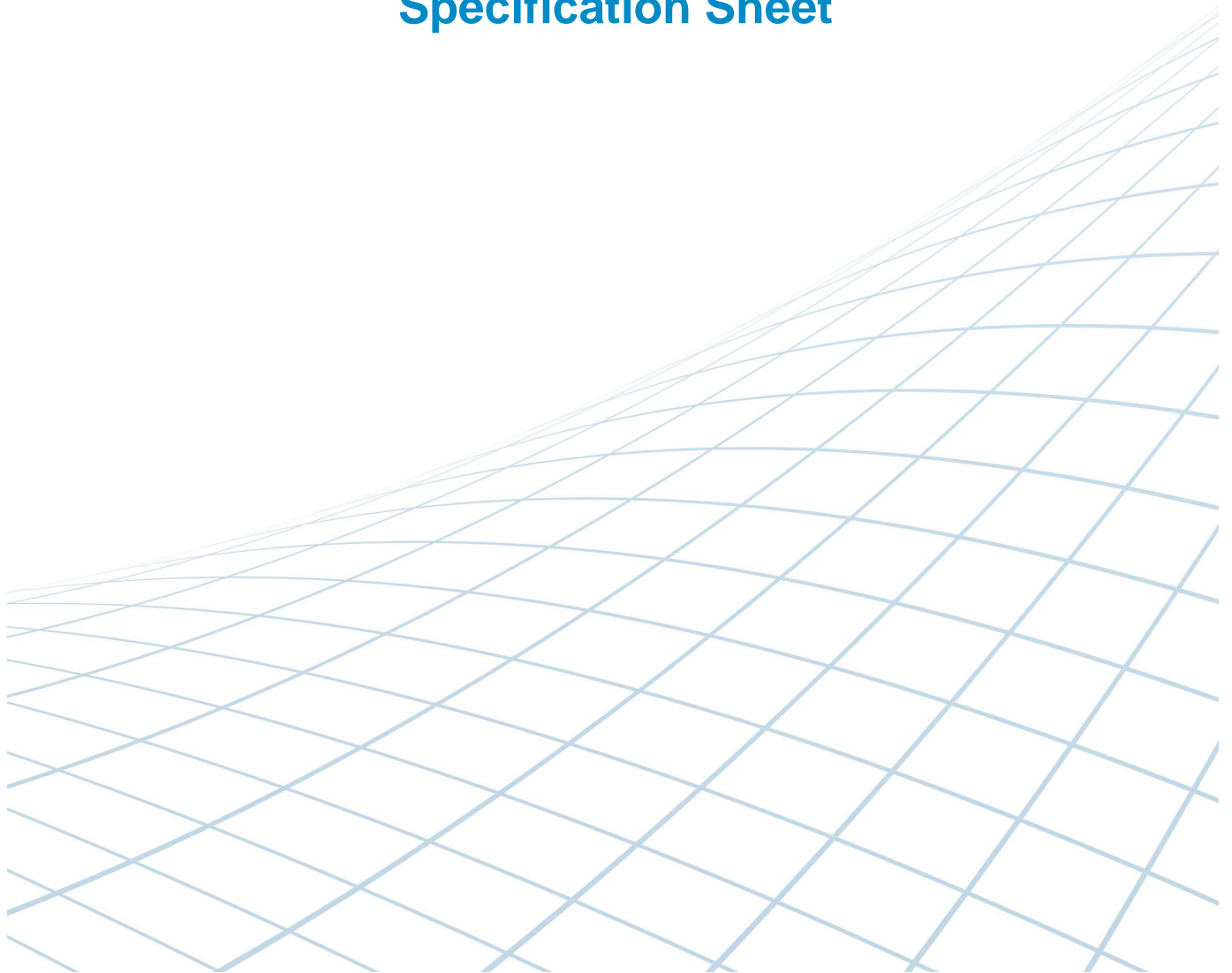


milestone

The Open Platform Company



**XProtect™ Corporate 3.0
and
XProtect™ Smart Wall 1.0
Specification Sheet**





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Feature Overview

Key Features

- **Limitless multi-server and multi-site solution:**
XProtect Corporate supports an unlimited number of cameras, servers, sites and users allowing you to grow your installation according to your needs.
- **Centralized management:**
Full configuration of all devices, Recording Servers and users from a central manager console connected to the Management Server holding all configuration settings in a Microsoft SQL database
- **Intuitive map function:**
Multilayered map environment provides interactive access and control of the complete surveillance system, at-a-glance overview of the system integrity, and seamless drag-and-drop integration with the new Smart Wall product option
- **Smart Wall – add-on video wall product option:**
Flexible and hardware agnostic video wall option that is seamlessly integrated with XProtect's management and Smart Client environments
- **High availability - Recording Failover Server:**
A redundancy option that provides standby support for recording servers with automatic synchronization to ensure maximum uptime and minimize the risk of lost recording data
- **Versatile rule system:**
Set up scheduled or event-driven camera and output actions with numerous options including support for time profiles.
- **Multicast support:**
Send one video stream to multiple Smart Clients. The infrastructure must support IGMP to reach remote networks.
- **Multistreaming support:**
Establish two independent streams from a supported camera to the Recording Server with different resolutions, encodings and frame rates, for example a video stream optimized for live view and another optimized for recording.
- **Archiving - Optimized Recording Storage:**
Unique data storage solution that combines superior performance and scalability with cost efficient long-term video storage

Additional Main Features

- **Automatic camera discovery:** Enables fast discovery of more than 400 different IP-based video cameras and encoders from over 30 different vendors,
- **System configuration wizards:** Guides the user through the process of adding cameras, defining rules, storage areas and archive areas.
- **Built-in Video Motion Detection:** Independent of camera model supporting unlimited number of cameras simultaneously per server.
- **Multiple language support:**
Let operators use the system in their native language with support for 19 different languages
- **Multi-channel, two-way audio:**
Communicate with people at gates/entrances or broadcast messages to many people at once with multi-channel, two-way audio
- **Fast evidence export:**
Quickly deliver authentic evidence to public authorities by exporting video to various formats, including video from multiple cameras in encrypted native database format with viewer included
- **Thorough audit logs:**
Full awareness of the system and user activity with comprehensive audit logs
- **Configure access privileges:**
Ensure system consistency and global user management with single sign-on Microsoft® Active Directory credentials and control privileges and allowed camera actions.
- **Fisheye camera support:**
Supports 360° cameras with split views and digital PT Z

Integration Options

- XProtect's Open Software Development Kit (SDK) makes it possible to video enable your business processes, through seamless integration of third party applications, such as video analytics, access systems, etc.
- Compatible with XProtect Transact that integrates video surveillance with ATM or POS cash register systems for managing loss prevention and fraud.
- Compatible with XProtect Central for alarm overviews and operational status in larger video surveillance installations.
- Integrate with access control systems, alarms, gates, building management systems, etc. using hardware I/O, internal events and TCP/IP events
- Create, import and use HTML pages for navigation between views or to trigger a Smart Wall preset
- Develop third party plug-ins for the Smart Client to expand with new functionality



Detailed Product Features

Recording Server/Failover Server

System

- Simultaneous digital multi-channel MJPEG, MPEG4, MPEG-4 ASP, MxPEG and H.264 video recording of IP cameras and IP video encoders without any software limitations on number of cameras per server
- A failover server can be on standby for a single or a group of recording servers, with automatic synchronization of recordings back to the original recording server once it is back online
- Two-way audio, transmitting client microphone input to remote speakers attached to IP devices
- Route traffic between multiple connected cameras and multiple clients requesting live view, playback and export
- Multicast one video stream to all Smart Clients. The infrastructure must support Internet Group Management Protocol (IGMP) to reach remote networks
- Multistream can establish two independent streams from a camera to the XProtect Corporate recording server with different resolutions, encodings and frame rates, dependent on camera capabilities
- Secure high speed recording database holding JPEG images or MPEG4, MPEG-4 ASP, MxPEG or H.264 streams
- Record 30+ frames per second per camera, limited only by hardware
- Recording quality depends entirely on camera and video encoder capabilities - no software limitations
- Multiple storage areas allow individual storage paths per camera. Recording capacity is limited only by disk space
- Importing pre-alarm images recorded in camera or video encoder
- Built-in, real-time, camera independent motion detection
- The recording server runs as a Windows service under local system account or optional local Windows user or Microsoft active directory account with run-as-a-service privileges
- Port forwarding enables clients to access the recording servers from outside a Network Address Translation (NAT) firewall
- Support for both IPv4 and IPv6 addressing

PTZ

- 'Pass-thru' control of manual Pan-Tilt-Zoom (PTZ) operation from clients with user priority
- Execute rule-based go-to preset position on events and patrolling
- Resume patrolling after manual session timeout

I/O and Events

- Support for devices with one or more input and output ports
- Powerful rule processing engine for execution of start and stop actions triggered by events or time profiles

Archiving

- Archive video data multiple times per day while recording is active, without data loss
- Scheduled archiving allows moving video data from a fast disk system to be copied to either a slower disk system or to a network drive. The archived data is still online and available for clients

Setup and Management

- Install the recording server from a web page on the management server. The recording server is completely managed from the management server and configuration changes are applied online while recording is in operation
- Local recording server configuration is available for system restart during periods where the management server is inaccessible
- Recording server manager is available in the local console notification area (icon tray) for status messages, start/stop of the service, and change of network settings

Client Access

- Facilitate client access
- Clients are authenticated and authorized at the management server, and use a session-limited access token to log on to the recording server

Alerting and Notification

- Flexible alert system activated by rules
- The system acts as an SNMP (Simple Network Management Protocol) agent that can generate an SNMP trap as a result of a rule activation.

Logs

- Logging of system, event, audit, rule and alert entries to the management server at regular intervals with local caching during offline scenarios



Management Server and Client

System

- Management server for initial client logon, system configuration and logging
- Manager for remote administration of recording servers, devices, security, rules & alerts and logging
- All configuration and logs from the entire system are stored in a centralized Microsoft SQL database and accessed by the management server only
- Management server manager is available in the local console notification area (icon tray) for status messages and to start/stop the service
- The management server runs as a Windows service under local system account or optional local Windows user or Microsoft active directory account with run-as-a-service privileges
- To register and validate your licenses, the system offers easy-to-use online activation via the Internet and alternatively, offline activation via e-mail for closed surveillance networks
- Support for both IPv4 and IPv6 addressing

Recording Servers

- Authorize installed recording servers for use with the system
- Configure multiple primary storage areas for device recording
- Set up multiple archiving schemes with individual storage area, scheduling and pre-configured retention time, setting how long to store data in the primary storage area and how long it should be retained in the archive before deletion

Devices

- Wizard for automatic scanning IP network ranges for new devices including automatic model detection
- Wizard for assisted discovery of single devices with automatic or manual model detection
- Enable and disable devices – very useful if they are down for maintenance
- Add a device or a group of devices to a storage area and set individual storage limitations by time or disk space
- Apply a video archiving scheme per camera level to save data on a remote or less expensive disk system
- Adjust brightness, color level, compression, maximum bit rate, resolution and rotation per camera or camera group
- Set frames per second for streamed JPEG and MPEG-4 and bit rate mode, and priority for MPEG-4 cameras
- Select and configure multiple streams for a camera to be used for live viewing and recording. Each stream can be in different video format, FPS, resolution and quality
- Optional preview window for immediate verification of video settings per camera or for a group of cameras
- Assign camera shortcut number for easy operation by clients

- Define multiple PTZ preset positions on the server
- Import PTZ (Pan-Zoom-Tilt) preset positions from cameras
- Define multiple PTZ patrolling schemes with adjustable wait time between shifts and customizable transitions with disabling of motion detection to avoid false alarms
- Run multiple patrolling schedules per camera per day. For example, different for day/night/weekend
- PTZ scanning on supported devices. View or record while moving slowly from one position to another
- Configure device events like motion detection with pre- and post-buffers, or input signal behavior options
- Fine-tune motion detection sensitivity per camera and exclude multiple zones for areas of no interest to avoid false alarms

Rules, Time Profiles, Alerts & Notifications

- Powerful Microsoft Outlook[®]-style rule system supports unlimited number of rules
 - Rule actions are triggered by event, time interval or a combination of event and time. Rules can optionally be stopped by event or after a certain time
 - Time profiles with reoccurring time selection and expire condition supporting unlimited number of time profiles
 - Trigger events:
 - Plug-ins: Motion started, motion stopped
 - Hardware: Audio falling, audio passing, audio rising, images received, input activated, input changed, input deactivated, motion started (HW), motion stopped (HW), tampering, temperature, video lost
 - Built-in: Communication error, communication started, communication stopped, feed overflow started, feed overflow stopped, live client feed requested, live client feed terminated, output activated, output changed, output deactivated, PTZ manual session started, PTZ manual session stopped, recording started, recording stopped, settings changed, settings changed error
 - Recording server: Archive available, archive unavailable, database disk full, database repair, database storage area available, database storage area unavailable, failover started, failover stopped
 - User-defined events: Allow clients and third-party systems to trigger a rule.
 - Start actions: Start recording, start feed, set live frame rate, set recording frame rate, start patrolling, pause patrolling, move to PTZ preset position, move to default PTZ preset position, set output, send notification, make log entry, generate alert, start plug-in, stop plug-in, apply settings on device, send matrix command
 - Stop actions: Stop recording, stop feed, restore live frame rate, restore recording frame rate, stop patrolling, resume patrolling, move to PTZ preset position, move to default PTZ preset position, set output, start plug-in, stop plug-in, apply settings on device, send matrix command
- Smart Wall start & stop actions (requires XProtect Smart Wall product option); Set Smart Wall to preset layout, Set Smart Wall monitor layout and camera content



- Time profiles with reoccurring time selection and expire condition supporting unlimited number of time profiles
- Multi-recipient customizable e-mail notification with image and/or AVI attachment of incidents
- Define custom alerts for use with third-party systems

Logging

- Logs of system, event, audit, rule and alert entries are consolidated from all recording servers at regular intervals
- Each log file has adjustable size and time limitations to avoid overloading the database

Security

- Authenticate client access to recording servers based on Microsoft active directory or local Windows user accounts
- Authenticate client access to XProtect Enterprise 6.x and newer Master and Slave servers based on Microsoft active directory or basic user accounts
- Authorize client access privileges per Microsoft active directory or local Windows user account/group
- Authorization roles control user access to:
 - Device: visibility of devices, live view, playback, AVI export, JPEG export, database export, sequences, smart search, input status, output control.
 - PTZ: PTZ control, PTZ priority, PTZ preset control
 - Application: manager, Smart Client/Remote Client, live/playback/setup, status API, service registration API
 - View groups privileges
 - Enterprise Servers: Basic or Windows authentication details
 - Privileges for the map feature and Smart Wall access & control
- Session-limited token system with auto-refresh grants access for clients to recording servers and devices



XProtect Smart Client

Live view

- View live video or playback 1-100 camera recordings per PC-monitor/view from the same or different servers simultaneously
- Live view digital zoom allows full view recordings while the operator digitally can zoom in to see details
- Supports 32 different view layouts optimized for 4:3 and 16:9 display ratios
- Centralized storage of shared and private camera views, enables coherent access views across the system
- Update 'On Motion Only' optimizes CPU usage by allowing motion detection to control whether the image should be decoded and displayed or not. The visual effect is a still image in the view until motion is detected
- Multiple computer monitor support provides a main window and any number of either floating windows or full screen views
- Hotspot function lets you work in detail with a camera selected from a view containing multiple cameras
- Carousel function allows a specified view to rotate between pre-defined cameras that are not necessarily present in the view at the same time. Operator can select default or custom display time for each camera and is able to manually switch to the next or previous camera in the carousel list
- Matrix function views live video from multiple cameras in any view layout with customizable rotation paths, remotely controlled by computers sending Matrix remote commands
- Send Matrix remote commands to display live video remotely on computers running the Matrix Monitor or the Smart Client with Matrix
- Advanced video navigation includes fast/slow playback, jump to date/time, single step and video motion search
- Import static or active HTML maps for fast navigation to cameras and to provide a good overview of premises
- Hide HTML page toolbar in HTML page views
- Activate Matrix via graphical maps of premises using JavaScript or integrate with centralized access control systems
- The operator can assign outputs, PTZ presets and views as actions to joystick buttons and as keyboard shortcuts. The actions are grouped to optimize overview.
- Two-way audio support lets the Smart Client listen to live and recorded audio from a camera's microphone and outgoing audio to the camera's speaker, as well as transmitting operator microphone input to one or multiple camera speakers.

PTZ

- Control PTZ cameras by using;
 - PTZ preset positions
 - PTZ Point-and-Click control
 - PTZ zoom to a defined rectangle

- Take manual control of a PTZ camera that is running a patrolling scheme. After a timeout with no activity the camera reverts to its scheduled patrolling scheme.
- Fisheye camera (Grandeye™/IPIX™) support for 1x2 or 2x2 'Quad View' for viewing all 360° at once

I/O & Events

- Manually trigger output port relay operation, for example control of gates
- Manually trigger events by activating a server-defined event from a list
- Audible alerts can be activated by motion detection or event occurrence per camera

Playback

- Quick overview of recorded sequences, events and alerts
- Smart Search lets you quickly search selected areas in the recorded video for motion. Within a camera image, you can mark single or multiple areas
- Graphical timeline displays a scrollable view of recorded sequences by variable time spans for an excellent graphical overview of recorded images
- Playback view digital zoom allows the operator to digitally zoom in to see details in the recorded video

Map Function

- Build-in map function in the XProtect Smart Client that provides intuitive overview of the system and offers integrated access to all system components
- Map images can be in standard graphical file formats incl. jpg, gif, png, tif, etc.
- Any number of layered maps – City, street, building, room, etc.
- Easy drag-and-drop and point-and-click definition of: cameras, servers, microphones, speakers, I/O devices, hot-zones for map hierarchies, camera view-zones and PTZ camera presets position view zones
- Hot-zones enables intuitive navigation between different map levels
- Depiction of camera view-zones on map, with clickable PTZ zones for instant PTZ control
- Instant camera preview on 'mouse over'
- Integrated control of speakers, microphones, and events and output I/O control, including: doors, gates, light, access control systems etc.
- Real-time status monitoring indication from all system components including cameras, I/O devices, system servers, etc.
- Graphical at-the-glance visualization of the system status through color coding
- Hierarchical propagation of status indications to higher ordered maps
- Different level of status indications available (warning and errors)
- System performance data for cameras and servers including camera resolution, FPS, network usage, disk space, etc.



Export and Print

- Export in native database format; including a stand-alone Recording Viewer application for instant and easy viewing by authorities
- Encryption & password protection option for exported recordings and files in the native database format
- Create AVI files or save JPEG images
- Print incident reports including image, surveillance details and free-text user comments

Setup and Management

- Install the Smart Client from a web page on the management server
- Notification about new updates at logon

Authentication

- System logon uses Microsoft active directory or local Windows user account
- Use current Windows logon for authentication
- Auto-logon and auto-restore views

System

- Support for both IPv4 and IPv6 addressing
- Support for multicast streams with automatic switch to unicast if the network becomes unreliable

XProtect Remote Client

Live view and Playback

- View live video for 1-16 cameras simultaneously from the same or different servers
- Playback of up to 9 recorded videos with date, alert sequence or time searching
- Advanced video navigation including fast/slow playback, jump to date/time, single step and video motion search
- Individual views can be user-defined in various layouts: view or playback camera images from multiple servers simultaneously in the same view
- Shared views can be managed centrally via the server with admin/user rights and user groups
- Import static or active HTML maps for fast navigation to cameras and good premises overviews
- Control output port relay operation, like control of gates
- Quick overview of sequences with detected motion and preview window

I/O & Events

- Quick overview of events/alerts

PTZ

- Control PTZ cameras remotely, also using preset positions
- Remote PTZ Point-and-Click control
- Remote PTZ zoom to a marked rectangle
- Take manual control over a PTZ camera that runs a patrolling scheme; after a timeout with no activity the camera reverts to its scheduled patrolling.
- Fisheye camera (Grandeye™/IPIX™) support for 1x2 or 2x2 'Quad View' for viewing all 360° at once
- Optional video compression in streaming from server to client gives better use of bandwidth

Export

- Create AVI files or save JPEG images
- Print incident reports with free-text user comments

Authentication

- System logon using XProtect user name and password
- System logon using Microsoft active directory user accounts

System

- Thin browser based client that does not require any software installation



XProtect Smart Wall Add-On Product Option

System

- Hardware agnostic - runs on standard servers and displays, no special Video Wall hardware or network configurations required
- Flexible and seamlessly scalable – supports any numbers of Smart Walls with any number and any combination of monitors at any location

Management

- Management of Smart Wall fully integrated with XProtect Corporate's management client
- Intuitive Smart Wall builder enables easy definition of numbers of Smart Walls, size and position of individual monitors
- Smart Wall presets provides powerful control of the layout (camera grid) and actual camera content
- All user actions are subject to assignment of user rights

Control

- Dynamic user control of Smart Wall layout and content through manual drag-and-drop of cameras and views into the Smart Wall via the Smart Client
- Automatic event driven control of Smart Wall layout and content based on rules, such as motion detection, I/O, integrated 3rd party applications, time, or video analytics events
- Layout control enables instant insertion of a camera in a specific monitor and position, changes of the Smart Wall monitor layout, setting of all (or some) of the monitors in the Smart Wall to a predefined layout and set of camera feeds
- Intuitive integration with the map function enables easy drag-and-drop of cameras in to the Smart Wall from the map

View

- Individual Smart Client users can view Smart Wall views as a part of the available view selection, which enables Smart Wall to be used as an operator collaboration tool



Minimum System Requirements

XProtect Corporate Servers

XProtect Corporate Recording / Failover Servers 3.0

- **HW Platform:**
Minimum 2.4 GHz CPU and 1 GB RAM (2.4 MHz dual core processor and 2 GB RAM or more recommended)
Minimum 1 GB disk space available, excluding space needed for recordings
- **OS:**
Microsoft® Windows® XP Professional¹ (32 bit or 64 bit*), Windows Server 2003 (32 bit or 64 bit*), Windows Server 2008 (32 bit or 64 bit*), Windows Vista™ Business (32 bit or 64 bit*), Windows Vista Enterprise (32 bit or 64 bit*) and Windows Vista Ultimate (32 bit or 64 bit*)
- **Software:**
Microsoft .NET 3.5 Framework SP1, or newer

XProtect Corporate Management Server 3.0

- **HW Platform:**
Minimum 2.4 GHz CPU and 1 GB RAM (2 GB RAM or more recommended)
Minimum 1 GB disk space available, excluding space needed for SQL database and system configuration and logging data
- **OS:**
Windows Server 2003 (32 bit or 64 bit) and Windows Server 2008 (32 bit or 64 bit)
N.B. Please note that the support for Windows XP is discontinued with the release 3.0 of XProtect Corporate
- **Software:**
Microsoft .NET 3.5 Framework SP1, or newer
Internet Information Server (IIS) 6.0, or newer
Microsoft SQL Express² 2005/2008 Server or Microsoft SQL 2005/2008 Server (local/networked)

XProtect Corporate Clients

XProtect Smart Client 4.0 and Smart Wall

- **HW Platform:**
Minimum 2.4 GHz CPU, 1 GB RAM (more powerful CPU and higher RAM recommended for Smart Clients and Smart Walls running high number of cameras and multiple views and displays)
- **Graphics Card:**
AGP or PCI-Express, minimum 1024 x 768 (1280 x 1024 recommended), 16 bit colors
- **OS:**
Microsoft Windows XP Professional (32 bit or 64 bit*), Windows Server 2003/2008 (32 bit or 64 bit*), Windows Vista Business (32 bit or 64 bit*), Windows Vista Enterprise (32 bit or 64 bit*) and Windows Vista Ultimate (32 bit or 64 bit*)
- **Software:**
DirectX 9.0 or newer required to run Playback Viewer application
Microsoft .NET 3.5 Framework SP1, or newer

XProtect Remote Client 3.6

- **HW Platform:**
Minimum 2.4 GHz CPU, RAM 1 GB (2 GB or higher recommended on Microsoft Windows Vista)
- **OS:**
Microsoft Windows XP Professional (32 bit or 64 bit*)
Windows Server 2003/2008 (32 bit or 64 bit*), Windows Vista Business (32 bit or 64 bit*), Windows Vista Enterprise (32 bit or 64 bit*) and Windows Vista Ultimate (32 bit or 64 bit*)
- **Software:**
DirectX 9.0 or newer required to run Playback Viewer application
Microsoft Internet Explorer 6.0, or newer, 32 bit version required

XProtect Management Client 3.0

- **HW Platform:**
Minimum 2.4 GHz CPU, 1 GB RAM
(2 GB or higher recommended on Microsoft Windows Vista)
- **OS:**
Microsoft Windows XP Professional (32 bit or 64 bit*) and Windows Server 2003/2008 (32 bit or 64 bit*), Windows Vista Business (32 bit or 64 bit*), Windows Vista Enterprise (32 bit or 64 bit*) and Windows Vista Ultimate (32 bit or 64 bit*)
- **Software:**
Microsoft .NET 3.5 Framework SP1, or newer
DirectX 9.0, or newer

*) Running as a 32 bit service/application

¹) Limited by Windows Operating System to 10 concurrent, incomplete outbound TCP connection attempts.

²) Note: SQL Express only recommended for smaller installations with less than 500 devices



Miscellaneous

Supported Languages

XProtect Smart Client 4.0

- English, Arabic, Simplified Chinese, Traditional Chinese, Czech, German, Danish, Spanish, French, Hungarian, Italian, Japanese, Korean, Dutch, Polish, Russian, Swedish, Turkish and Slovak

XProtect Remote Client 3.6

- English, German, French, Spanish, Simplified Chinese, Japanese, Italian, Danish, and Swedish

XProtect Corporate Management Client 4.0

- English

XProtect Smart Wall 1.0

- Operator interface:
English, Arabic, Simplified Chinese, Traditional Chinese, Czech, German, Danish, Spanish, French, Hungarian, Italian, Japanese, Korean, Dutch, Polish, Russian, Swedish, Turkish and Slovak
- Management interface:
English

Licensing Structure

Base Server License

- An XProtect Corporate Base Server license is mandatory for installing the product
- The Base Server license contains:
 - One Management Server license
 - Unlimited numbers of Recording Servers / Failover Servers licenses
 - Unlimited numbers of Smart Clients and Remote Clients licenses

Camera Channel 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.
- Camera Licenses can be purchased in any numbers. To extend the installation with additional Camera Licenses, the Base Server License number (SLC) is required when ordering.

Smart Wall Application License

- XProtect Smart Wall is an add-on product to XProtect Corporate and subject to separate licensing.
- The XProtect Smart Wall Application License permits connection of unlimited numbers of Smart Walls (incl. physical displays) and camera feeds.