

HAW-S Series

Network Video Recorder –
Standard Edition



Overview

Ready-to-run, easy-to-use, network video recorder for monitoring systems with up to 288 cameras

Scalable from 16 to 40 channels, this simple, easy-to-use network video recorder supports monitoring systems with up to 288 cameras, which is ideal for common applications such as retail and banks.

The HAW-S Series is the first 4K-ready NVR appliance from Sony with 4K recording and playback capability. It's ideal for use with Sony 4K cameras, supporting unique image output functions like Intelligent Cropping. Recording 4K image data with four times the resolution of Full HD, the HAW-S Series supports more effective, efficient video monitoring by providing excellent situational awareness plus the ability to recognise fine details in a scene and quick, accurate searches.

Multiple users can simultaneously and securely access live or recorded video via their smartphone or tablet from any location. In addition remote PC clients can securely access system functions via a web browser, with no need to install application software.

Multi-vendor support allows easy expansion through the addition of a growing choice of third party cameras and other

devices to create a powerful, versatile monitoring system. Regular software updates give monitoring professionals the reassurance of top-flight performance and the addition of new features to expand system capabilities even further.

Monitoring workflow is enhanced with support for a wide range of smart analytical and automation functions. Supplied with all server functions pre-installed, the all-in-one HAW-S Series is ready to use 'out of the box' without requiring any additional application software installing. The hardware-based appliance gives integrators and installers the reassurance of guaranteed operational performance and stability, simplifying system design. A redundant disk array (RAID) further assures reliable operation and integrity of recorded data.

Note

The SOW-S and SOW-E Series network video management software and HAW-S and HAW-E Series network video recorders are not compatible with each other and cannot be used in the same system.

Features

Compatible with Sony 4K cameras

Sony 4K cameras provide powerful new ways to get the whole picture, allowing detailed analysis of specific areas in a scene, together with a wide-area situational overview. They offer a range of video output functions, including Intelligent Cropping and Multi Tracking, plus Evidence Shot, high resolution still image capture that's ideal for evidence.

The HAW-S Series supports the video output functions unique to Sony 4K cameras, including a single real-time 4K/30 fps video stream and Intelligent Cropping that provides a Full HD overview video plus up to four VGA close-up video streams at the same time.

Multi-client access via smartphone or PC

Multiple users can simultaneously and securely access live or recorded video via their smartphone or tablet from any location. In addition remote PC clients can securely access system functions via a web browser*, with no need to install application software.

Live images captured with a smartphone or tablet by on-site staff can be transferred to the system, shared among users in the operations room and recorded to the central server. This supports timely monitoring of events, even in extreme environments where installing cameras is difficult.

* Web browser supports limited functions, while client application software installed on a PC supports full system functions.

See the complete picture

Multiple monitors can be easily controlled by a single operator. The monitors are allocated to different tasks - such as viewing cameras images, a site map or alarm list - giving a single operator a complete overview and status of the entire system.

All-round awareness

Interactive, multi-layered maps offer a situational overview plus control of cameras and other integrated systems. Icons are displayed in a map image showing the location of each camera: operators can instantly view live video by clicking on an icon. When an alarm event occurs, the associated camera icon is displayed prominently, helping the operator understand the situation and take appropriate action.

Highly reliable, redundant RAID HDD system

The HAW-S Series employs a highly resilient RAID disk array, providing excellent system reliability and redundancy.

Specifications

System components (software modules)

Recording Server	Yes
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Number of connected cameras per system	288
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Maximum number of cameras per recording server	32
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Recording Server manager	Yes
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Management Application (local management)	Yes
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Event Server (for handling of events and alarms)	Yes
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NVMS Mobile Client	Yes
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Network Video Management System Smart Client	Yes
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Network Video Management System	Yes
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Web Client	
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Network Video Management System	
Smart Client - Player (local playback/export)	Yes

Device support

Support for ONVIF™ compliant devices	Yes
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Generic device support via universal driver	Yes
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Number of IP device brands supported via dedicated device integration	152
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Number of supported IP camera models	5.136
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Number of supported video encoder models	363
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Number of dedicated IP input/output models	14
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Number of supported DVRs	75
Number of supported IP audio devices	10
Number of supported perimeter detectors	18
Secure HTTPS camera connectivity (on supported devices)	Yes

Video processing

H.264, MJPEG, MPEG-4, MPEG-4 ASP and MxPEG support	Yes
Dual stream (live and recording) per camera	Yes
Client video stream down sampling (resolution and FPS) option	Yes
Send camera pre-alarm images (pre-recording buffer) to recording server	Yes

Video recording speed
up on motion, event or
time schedule

Yes

Built-in Video Motion
Detection (VMD)

Yes

Auto adjustable VMD
sensitivity

Yes

Motion metadata
generated during VMD
analysis

Yes

VMD exclusion zones

Yes

Video motion
detections per server

All connected cameras

Audio

One-way audio
support

Yes

Two-way audio
support

Yes

One-way audio
recording

Yes

Maximum number of

supported audio channels	32
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Pan-tilt-zoom (PTZ)

Preset positions per camera	25
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Go-to preset on event	Yes
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Preset patrolling	Yes
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Combine patrolling and go-to preset on event	Yes
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Number of PTZ priority levels for prioritized PTZ control	1
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I/O and events

Hardware configurable events (such as I/O input,motion,tampering,temperature,communication failure)	Yes
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Motion detection events (VMD in Recording Server)	Yes
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System error events (for example disk full)	Yes
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Manual / User defined events	Yes
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Event-based notification	Yes
Event-based output control	Yes
Event-based device start/stop	Yes

Alarm Manager

View triggered alarms	Yes
Number of alarm priority levels	32000
Customizable alarm priority levels	Yes
Customizable alarm categories	Yes
Alarm handling reporting	Yes
Alarm logging	Yes
Redundancy option for high availability	Yes

Storage and archiving

Video retention time	Unlimited
Recording capacity	>1 TB

per device/day

Archiving of recordings	Yes
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Archiving to network drives	Yes
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Dynamic archiving (disk spanning)	Yes
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Online access to archives	Yes
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Archiving schedules	Hourly
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Automatic storage distribution	Yes
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Storage definition and retention time per device	Yes
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Storage overview (used vs. available space) of available storage drives	Yes
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Support for Add-on products

Supports Screen Recorder	will be supported
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Supports ONVIF

Bridge	Yes
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Management

Automatic initial configuration wizard	Yes
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Configuration wizards for aided system setup	Yes
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Automatic camera discovery	Yes
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Device scanning with device model detection	Yes
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On-the-fly configuration changes	Yes
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Run servers as Windows Services	Yes
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Scheduled start/stop of devices	Yes
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System configuration restore points	Yes
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Export and import of configuration data	Yes
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Offline license activation	Yes
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Viewing clients

Maximum number of clients	20
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Customizable access port with NAT support	Yes
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Single step installer (installs Smart Client together with server)	Yes
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Alarms and notification

Email notification	Yes
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SMS notification	Yes
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User authentication and rights management

Basic User (XProtect application accounts)	Yes
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Windows User (local Windows accounts)	Yes
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Dual authorization	Yes
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(Smart Client users)

Logging

System logging	Yes
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Event logging	Yes
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Audit logging	Yes
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Languages (Management Interface)

English	Yes
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French	Yes
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German	Yes
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Japanese	Yes
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Spanish	Yes
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General view handling (Client)

Number of view layouts	2 (Mobile/Web Client), 41 (Smart Client)
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Maximum view Items per view	100 (Smart/Web/Mobile Client)
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Optimized view layouts for 4:3 and	Yes (Smart Client)
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16:9 display ratios

Corridor optimized view layouts	Yes (Smart Client)
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Optimized view layouts for landscape and portrait displays	Yes (Smart/Mobile Client)
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Cameras from multiple servers	Yes (Smart/Web/Mobile Client)
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Support for Shared Views and Private Views	Yes (Smart/Web/Mobile Client)
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Images in views	Yes (Smart Client)
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Active HTML pages in views	Yes (Smart Client)
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Hotspot in views	Yes (Smart Client)
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Carousel in views (controllable)	Yes (Smart Client)
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Virtual Matrix in views	Yes (Smart Client)
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Full screen mode	Yes (Smart/Web/Mobile Client)
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Display views as floating window	Yes (Smart Client)
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Display views on	Yes (Smart Client)
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multiple monitors	Yes (Smart Client)
Advanced multi window support with synchronized or independent operation	Yes (Smart Client)
Switch to view by number	Yes (Smart Client)
Initial default view	Yes (Smart/Web/Mobile Client)
Camera search	Yes (Smart/Web/Mobile Client)
Automatic restore views and windows at login	Yes (Smart/Web/Mobile Client)
Live view (Client)	
Update on motion only	Yes (Smart Client)
One-way audio support	Yes (Smart Client)
Start recording in view	Yes (Smart Client)
Independent playback in live mode	Yes (Smart Client)

Replace cameras in view without changing view setup	Yes (Smart Client)
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Share video image	Yes (Smart/Mobile Client)
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Switch to camera by number	Yes (Smart Client)
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PTZ support (Client)

Define presets in the client application	Yes (Smart Client)
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View who have PTZ control and time to automatic release	Yes (Smart/Web/Mobile Client)
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Go to preset position	Yes (Smart/Web/Mobile Client)
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Pause patrolling at manual operation	Yes (Smart/Web/Mobile Client)
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Grandeye 360° Quad View	Yes (Smart Client)
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Immervision Enables® panomorph lens support	Yes (Smart Client)
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Joystick support	Yes (Smart Client)
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Assign commands to keyboard shortcuts and joystick buttons	Yes (Smart Client)
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Auxiliary commands (wash and wipe)	Yes (Smart Client)
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I/O and events control (Client)

Camera overlay buttons	Yes (Smart Client)
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Manually activate events and trigger outputs	Yes (Smart/Web/Mobile Client)
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Playback (Client)

Maximum view items per view	1 (Mobile/Web Client), 100 (Smart Client)
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Playback mode	Multi Camera(Smart/Web Client), Single Camera(Mobile Client)
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Recording search	Yes (Smart/Web/Mobile Client)
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Recent history of recording sequences per camera	Yes (Mobile Client)
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Time/date search	Yes (Smart/Web/Mobile Client)
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Independent playback in playback mode	Yes (Smart Client)
Event/alert list in recording	Yes (Smart Client)
Graphical timeline	Yes (Smart Client)
Adjust playback speed	Yes (Smart/Web/Mobile Client)
Single frame step (forward/backward)	Yes (Smart/Web/Mobile Client)
One-way audio support	Yes (Smart Client)
Digital zoom	Yes (Smart/Web/Mobile Client)
Share video image	Yes (Smart/Web/Mobile Client)
Print report with comments	Yes (Smart Client)
Privacy masking	Yes (Smart/Web/Mobile Client)

Smart Search (Client)

Smart Search based on VMD analysis	Yes (Smart Client)
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Sequence Explorer (Client)

Listing of sequences	Yes (Smart Client)
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Listing of time intervals	Yes (Smart Client)
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Dedicated Sequence Explorer tab that can be displayed as floating window	Yes (Smart Client)
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Alarm Manager (Client)

Alarm list and alarm preview view items in normal camera views	Yes (Smart Client)
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Sort and filtering functions	Yes (Smart Client)
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Instant preview of primary and related cameras	Yes (Smart Client)
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Map function (Client)

Standard graphical file formats supported for maps	Yes (Smart Client)
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Number of linked map	64 (Smart Client)
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layers supported

Video preview	Yes (Smart Client)
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Drag-and-drop and point-and-click definition of map elements	Yes (Smart Client)
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Integrated PTZ control	Yes (Smart Client)
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Export (Client)

Export in still image format (JPEG)	Yes (Smart/Web/Mobile Client)
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Export in media player format (AVI)	Yes (Smart/Web/Mobile Client)
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Export with audio in media player format (AVI)	Yes (Smart Client)
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Export with audio in media player format (MKV)	Yes (Smart Client)
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Export in Network Video Management System format	Yes (Smart Client)
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Server side export	Yes (Smart/Web Client)
Encrypted export with password	Yes (Smart Client)
Digital signing of exported video	Yes (Smart Client)
Re-export prevention	Yes (Smart Client)
Auto-export of Smart Client – Player	Yes (Smart Client)
Preserve system defined privacy masks	Yes (Smart/Web/Mobile Client)
Additional export specific privacy masks	Yes (Smart Client)
Direct export to optical media	Yes (Smart Client)
Flexible camera selection for export	Yes (Smart Client)
Bulk export to multiple media formats	Yes (Smart Client)
General and camera specific export comments	Yes (Smart Client)

Pre/post comment slides (media player format only)	Yes (Smart Client)
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Verification of digital video signatures in Smart Client – Player	Yes (Smart Client)
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Video Push (Client)

Video Push	Yes (Mobile Client)
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Installation (Client)

Run without installation	Yes (Web Client)
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Optional browser plug-ins for enhance viewing performance	Yes (Web Client)
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Single step installer (installs client together with server)	Yes (Smart Client)
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Initial and update installations from Management Server	Yes (Smart Client)
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System access (Client)

Auto-login	Yes (Smart/Mobile Client)
Secure (HTTPS) client-server connection	Yes (Mobile/Web Client)
Dynamic bandwidth adaptation	Yes (Mobile/Web Client)
Bandwidth threshold	Yes (Mobile/Web Client)

Authorization (Client)

Restrict user access by devices (cameras, microphones, I/O devices, etc.)	Yes (Smart/Web/Mobile Client)
Restrict access to live view	Yes (Smart/Web/Mobile Client)
Restrict access to PTZ	Yes (Smart/Web/Mobile Client)
Restrict access to playback	Yes (Smart/Web/Mobile Client)
Restrict access to export	Yes (Smart/Web/Mobile Client)
Restrict access to setup	Yes (Smart Client)

Personalization (Client)

Application options	Yes (Smart/Mobile Client)
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Centralized management of application options	Yes (Smart/Web Client)
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Application theme support	Yes (Smart Client)
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Task oriented tabs	Yes (Smart Client)
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Toggle between Advanced mode and Simplified mode. Default mode: A – Advanced, S - Simplified	Yes (Smart Client)
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System (Client)

Hardware accelerated video decoding (Intel Quick Sync video)	Yes (Smart Client)
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Languages (Installation, UI and help function) (Client)

Arabic	Yes (Smart/Web/Mobile Client)
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English	Yes (Smart/Web/Mobile Client)
French	Yes (Smart/Web/Mobile Client)
German	Yes (Smart/Web/Mobile Client)
Japanese	Yes (Smart/Web/Mobile Client)
Spanish	Yes (Smart/Web/Mobile Client)
Turkish	Yes (Smart/Web/Mobile Client)

System (Hardware)

Form Factor	2U
Dimension (HxWxD)	88.2 x 440 x 391.2 mm
RAID	RAID0, RAID1, RAID3, RAID5, RAID10, RAID1E, RAID30, RAID50, RAID6
Number of HDD Drives	6 Drives (3.5")
PSU	250W (Single)
Drive Type	SATA (6G/s), Hot Swappable
AC input	100-240V, 50-60Hz

Interface (Hardware)

Ethernets	2x Gigabit Ethernet (RJ45) 10Base-T/100Base-Tx/1000Base-T, Auto negotiation
Audio	Line-out
USB2	2x USB2.0 (2x Rear)
USB3	4x USB3.0 (2x Front, 2x Rear)
HDMI	1x HDMI (max. resolution: 1920x1200)
VGA	1x HD15 (max. resolution: 1920x1200)
Display Port	N/A

Software (System Requirements)

Support OS	Windows Embedded Standard 7 Runtime (WS7P)
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Computer running Mobile Server (System Requirements)

CPU	Intel® Pentium® 4, 2.4 GHz
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RAM	Minimum 4 GB
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Network	Ethernet 100 Mbit
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Graphics Adapter	Onboard GFX, AGP, or PCI-Express, minimum 1024 x 768, 16-bit color
Hard Disk Space	Minimum 10 GB free hard disk space available (When using server-side export additional storage space is needed)
Operating system	Microsoft® Windows® 10 Pro (64 bit)* Microsoft Windows 10 Enterprise (64 bit)* Microsoft Windows 8 Pro (64 bit) Microsoft Windows 8.1 Enterprise (64 bit) Microsoft Windows 8.1 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 Server 2012 R2 (64 bit): Standard and Datacenter Microsoft Windows Server 2008 R2 (64 bit): Standard, Web, High Performance Computing (HPC),

Enterprise, and Datacenter

Software	Microsoft® .NET 4.5.1 Framework
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Computer running Smart Client, Smart Client - Player and Smart Wall - Using Software Decoding (System Requirements)

CPU	Intel® Core™2 Duo
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RAM	Minimum 1 GB
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Network	Ethernet 100 Mbit
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Graphics Adapter	Onboard GFX, AGP or PCI-Express, minimum 1280 x 1024, 16-bit colors, DirectX 9.0 or newer
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Hard Disk Space	1 GB free
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Operating system	Microsoft® Windows® 7 Professional SP1 (32-bit or 64-bit) * Microsoft® Windows® 7 Enterprise SP1 (32-bit or 64-bit) * Microsoft® Windows® 7 Ultimate SP1 (32-bit or 64-bit) * Microsoft® Windows® 8 Pro (32-bit or 64-bit) Microsoft® Windows® 8 Enterprise (32-bit or 64-bit) Microsoft® Windows® 8.1 Pro (32-bit
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or 64-bit)
 Microsoft® Windows® 8.1 Enterprise
 (32-bit or 64-bit)
 Microsoft® Windows® 10 Pro (32-bit
 or 64-bit)
 Microsoft® Windows® 10 Enterprise
 (32-bit or 64-bit)

Operating system
 (contd)

Microsoft® Windows® Server 2008
 R2 (32-bit or 64-bit): Standard,
 Web, High Performance
 Computing (HPC), Enterprise, and
 Datacenter
 Microsoft® Windows® Server 2012
 (32-bit or 64-bit): Standard and
 Datacenter
 Microsoft® Windows® Server 2012
 R2 (32-bit or 64-bit): Standard and
 Datacenter
 Microsoft® Windows® 7 and Server
 2008 R2 are only supported on
 physical PC's not on virtual
 machines

Software

Microsoft® .Net 4.5.1 Framework
 Requires Operating System and
 Graphic Adaptor support for
 DirectX 9.0 or newer

Computer running Smart Client, Smart Client - Player and Smart Wall - Using Hardware (System Requirements)

CPU	Intel CPU supporting Intel QuickSync, Intel GPU enabled in BIOS
RAM	Minimum 1 GB
Network	Ethernet 100 Mbit
Graphics Adapter	AGP or PCI-Express, minimum 1280 x 1024, 32-bit colors, DirectX 11.0 or newer
Hard Disk Space	1 GB free
Operating system	<p>Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)</p> <p>Microsoft® Windows® 8.1 Enterprise (32-bit or 64-bit)</p> <p>Microsoft® Windows® 10 Pro (32-bit or 64-bit)</p> <p>Microsoft® Windows® 10 Enterprise (32-bit or 64-bit)</p> <p>Microsoft® Windows® Server 2012</p> <p>(32-bit or 64-bit): Standard and Datacenter</p>

Microsoft® Windows® Server 2012 R2 (32-bit or 64-bit): Standard and Datacenter

Software

Microsoft® .Net 4.5.1 Framework
Requires Operating System and Graphic Adaptor support for DirectX 11.0 or newer

Computer running Web Client (System Requirements)

CPU

Intel Core2 Duo, 2.0 GHz
Intel Core i3-5010U 2.1 Ghz*

RAM

1 GB
4 GB*

Network

Ethernet 100Mbit / WiFi 2Mbit

Graphics Adapter

AGP or PCI-Express, minimum 1280 x 1024, 16 bit colors

Hard Disk Space

500 MB free

Operating System

Any capable of running the below browsers

Microsoft Internet Explorer® 9 or later**

Safari® 5 or later**

Browser	Google Chrome™ 16 or later Google Chrome™ 48 or later (recommended)* Mozilla® Firefox® 11 or later Mozilla® Firefox® 43 or later (recommended)*
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Device running Mobile Client (System Requirements)

RAM	2GB*
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Operating System	Android 5.0 or higher iOS 9.2 or higher
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Network	2G/3G (4G or WiFi)*
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Notes

*	Required for using Direct Streaming
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**	Not supported when using Direct Streaming
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Gallery

