

Velocity Vision 5.1 Video Management Software

Product Comparison Chart

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Introduction

As the world's leading provider of open platform IP video management software (VMS), Hirsch offers a wide range of VMS products optimized for different types of deployment and usage. This document provides an in- depth comparable outline of Hirsch's Velocity Vision® VMS products and the associated clients.

This document is intended as a technical sales tool with two primary purposes:

- To provide an overview of the features that each Velocity Vision product provides
- To support the selection of the optimal product by offering a visible comparison between the various products in the Velocity Vision product range

This document contains several separate comparison charts, for Velocity Vision VMS platform products and for Velocity Vision clients, where each product category has an overview comparison chart, followed by a more detailed and comprehensive chart.

The following Velocity Vision VMS platform products are covered:

- Velocity Vision Enterprise
- Velocity Vision Professional
- Velocity Vision Advanced
- Velocity Vision Standard

The following Velocity Vision clients are covered:

- Velocity Vision Smart Client
- Velocity Vision Web Client
- Velocity Vision Mobile

The document does not cover Velocity Vision Extensions or Hirsch Utilities.

The information in this document only provides basic information. Refer to the individual product specification sheets for a complete listing of all features for a given Velocity Vision product.

Hirsch reserves the right to change the product specifications without prior notice.

High-level Velocity Vision VMS product comparison

The table below gives an overview of Hirsch's Velocity Vision VMS products and their key capabilities.

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Key Features				
Type of deployment	Single server	Centrally managed, multi-server	Centrally managed, multi-server	Centrally managed, distributed sites
Licensing	Perpetual	Perpetual	Perpetual	Perpetual
Maximum number IP devices ¹ per recording server	48	Unrestricted ⁷	Unrestricted ⁷	Unrestricted ⁷
Number of recording servers per system	1	Unrestricted ⁷	Unrestricted ⁷	Unrestricted ⁷
Maximum numbers of users	Unrestricted ⁷	Unrestricted ⁷	Unrestricted ⁷	Unrestricted ⁷
Customer Dashboard and Connected Services ²	Supported	Supported	Supported	Supported
Alarm Manager	√	√	√	√
Video out via Hirsch Open Network Bridge	√	✓	√	✓
Dual authorization (Smart Client users)	√	√	√	√
Supports Velocity Vision Smart Client, Velocity Vision Web Client and Velocity Vision Mobile	√	√	√	✓
Secure HTTPS camera connectivity (on supported devices)	✓	√	√	√
Adding devices on HTTPS ³	✓	√	✓	√
Single device firmware ⁴ upgrade	√	√	√	√
Bulk device firmware ⁴ upgrade	-	-	√	√
Map function	√	✓	√	√
Third-party application integration and support for video analytics ⁵	√	✓	√	√
Built-in Video Motion Detection (VMD) with Auto adjustable VMD sensitivity	√	√	√	√
H.264, MJPEG, MPEG-4, MPEG-4 ASP & MXPEG	√	√	√	✓
H.265 ⁶	✓	1	√	✓
Adaptive streaming/playback	✓	√	√	√

Direct streaming (mobile server)	√	✓	✓	✓
Microsoft Active Directory support	✓	✓	√	√
External identity provider support (OIDC) SSO	√	√	√	√
Metadata support	✓	√	√	✓
Centralized management	√	√	√	✓
Flexible event rule engine	✓	√	√	✓
Hardware accelerated video decoding for Video Motion Detection (Quick sync)	√	✓	✓	√
Hardware accelerated video decoding for Video Motion Detection (NVIDIA)	-	-	√	√
Hardware accelerated video decoding in the Mobile Server	√	✓	√	√
Support for live video play without recording storage	✓	✓	√	√
Edge Storage and Scalable Video Quality Recording™	-	✓	√	√
Smart Map functions	-	-	√	√
Media database encryption and digital signing	-	-	√	√
Recording Server communication encryption	√	✓	√	√
Management Server communication encryption	√	√	√	√
Mobile Server communication encryption	✓	√	√	√
Velocity Vision Management Server Failover	-	-	Requires license	Requires license
Hot- & cold-failover recording server	-	-	√	√
Evidence Lock	-	-	-	√
Velocity Vision Incident Manager	Requires license	Requires license	Requires license	√
Supports Velocity Vision Smart Wall	-	-	Requires license	✓
Hirsch Federated Architecture™	-	-	Remote site	Central/Remote site
Hirsch Interconnect™	Remote site	Remote site	Remote site	Central/Remote site

¹ IP device can be an actual camera, video encoders, NVR/DVR, video services or other types of video/audio devices connected to the VMS' recording server. IP cameras or encoders should be included in the Hirsch Supported Device List to count as one license per IP device otherwise it will re- quire one license per enabled video channel. Refer Improved license model FAQ for more details and visit https://portal.hirschsecure.com/ for licensing requirement of an IP device. Please note that Specific IP device variants may not appear on the Supported Device List but will, however, be treated by Hirsch as an IP device included in this list provided their equivalent base model is supported.

Detailed Velocity Vision VMS product comparison

The table below gives a detailed listing of all major features in the different Velocity Vision VMS products. The features are organized into categories for increased readability.

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Features				
System components (software modules)				
Recording server	√	√	√	√
Hot- & cold-failover recording server	-	-	√	√
Maximum number of IP devices ¹ per recording server	48	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Maximum number of recording servers per system	1	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Recording server manager	√	√	√	1
Management Server	√	✓	✓	√
Management Server compatible with Microsoft clustering	√	√	V	√
Management client (dedicated client application for local or remote management)	√	√	√	✓
Event server (for handling of events and alarms)	√	√	✓	√
Failover event server (redundant cluster)	√	√	√	1
Velocity Vision Mobile (server and client)	√	√	√	✓
Velocity Vision Smart Client	√	√	√	√

² Requires active Hirsch SSA coverage

³ Applicable for devices integrated through Axis, Bosch, Hikvision, Hanwha, Panasonic and ONVIF drivers (drivers in Legacy Device Pack excluded)

 $^{^4}$ Applicable only for devices integrated through Axis, Bosch, Hanwha and ONVIF drivers (drivers in Legacy Device Pack excluded)

⁵ Using Hirsch Integration Platform (MIP)

 $^{^{6}}$ Please check $\underline{\text{https://portal.hirschsecure.com/}}$ for graphic cards and performance requirements

 $^{^7\,\}mathrm{Depending}$ on system configuration

Velocity Vision Web Client	√	√	√	✓
Velocity Vision Smart Client - Player (local playback/export)	√	√	√	√
Run servers as Windows Services	✓	✓	√	√
Available for AWS Cloud Deployment in AWS Marketplace	√	√	√	√
Licensing			l	
Licensing ²	Perpetual	Perpetual	Perpetual	Perpetual
Distributed operation		l	l	
Hirsch Interconnect™	Remote site	Remote site	Remote site	Central/ Remote site
Hirsch Federated Architecture™	-	-	Remote site	Central/ Remote site
Remote camera connection via Remote Connection Service	-	-	-	√
Device support				
Support for ONVIF & PSIA compliant devices	✓	√	√	√
Generic device support via Hirsch universal driver	✓	✓	√	√
Metadata from camera embedded analytics	✓	1	√	√
Number of supported IP devices	11000+	11000+	11000+	11000+
Secure HTTPS camera connectivity (on supported devices)	√	✓	√	√
Adding devices on HTTPS ³	√	√	√	√
Single device firmware upgrade ⁴	✓	√	√	✓
Bulk device firmware upgrade ⁴	-	-	√	✓
Device firmware version listing	✓	√	√	✓
Update hardware – refresh option	✓	√	√	√
Video processing		ı	1	1
H.264, MJPEG, MPEG-4, MPEG-4 ASP and MxPEG	✓	√	1	✓
H.265 ⁵	✓	√	√	√
Metadata support	✓	√	√	√
Dual stream (live and recording) per camera	✓	√	√	√

Generic 360 dewarping	√	√	√	√
Multi-live streaming	√	✓	√	✓

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Adaptive streaming/playback	√	√	√	√
Direct streaming (mobile server)	✓	√	√	√
Client video stream down sampling (resolution and FPS) option	√	√	√	√
Adjustable GOP size (MPEG4/H.264/H.265)	√	√	√	√
Send camera pre-alarm images (pre-recording buffer) to recording server	✓	√	√	√
Video recording speed up on motion, event or time schedule	√	√	√	√
Built-in Video Motion Detection (VMD)	✓	✓	√	✓
Auto adjustable VMD sensitivity	√	√	√	√
Hardware accelerated video decoding for VMD (Quick Sync)	√	✓	✓	√
Hardware accelerated video decoding for VMD (NVIDIA)	-	-	✓	√
Hardware accelerated video decoding in the Mobile Server	✓	√	✓	✓
Motion metadata generated during VMD analysis	√	√	1	√
VMD exclusion zones	✓	1	√	√
Video motion detections per server		All connecte	ed cameras	
Audio				
One-way audio - live and recording support	√	√	√	✓
Two-way audio - live support	✓	√	√	√
Two-way audio – recording support	✓	√	√	√
Two-way AAC Audio support	✓	√	√	√
Maximum number of supported audio channels	48	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵

Pan-tilt-zoom (PTZ)				
Preset positions per camera	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Go-to preset on event	✓	✓	√	√
Preset patrolling	✓	√	√	√
Combine patrolling and go-to preset on event	✓	√	√	√
Scanning/transition speed	✓	✓	√	√
Number of PTZ priority levels for prioritized PTZ control ⁶	1	3	32,000	32,000
/O and events			'	
Hardware configurable events (such as I/O nput, motion, tampering, temperature, communication failure)	√	✓	√	✓
Motion detection events (VMD in recording server)	√	✓	✓	√
System error events (for example disk full)	✓	✓	√	√
Manual / User defined events	✓	✓	√	√
Generic events from external systems	✓	√	√	√
Event-based device configuration	✓	✓	√	√
Event-based notification	✓	√	√	√
Event-based output control	✓	✓	√	✓
Event-based device start/stop	✓	√	√	√
Event-based matrix control	✓	√	√	√
Flexible event rule engine for definition of actions on events	√	✓	✓	✓
Bookmark function			'	
Manual bookmarking (quick bookmarking + bookmarking with details)	-	✓	✓	√
Rule-based bookmarking	-	-	√	√
Sharing functionality			1	
Sharing bookmarks between Mobile Clients	-	√	√	✓
Sharing a link to camera's live video stream between Mobile Clients	-	√	✓	✓
Evidence Lock				

Lock video for one or multiple cameras	-	-	-	√
Retrieve overview of locked video sequences	-	-	-	✓
Define available retention times	-	-	-	√

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Alarm Manager				
Alarm description with work instructions and optional initial owner of alarm	✓	√	✓	✓
Time profiles for alarms	√	√	√	✓
Manage role-based alarms	√	√	✓	✓
View triggered alarms	√	√	✓	✓
Manage alarms (reassign, change status, comment)	✓	√	√	√
Push alarms to users of Velocity Vision Mobile ⁷	✓	√	√	✓
Maximum number of related cameras in alarm preview window	15	15	15	15
Number of alarm priority levels	32,000	32,000	32,000	32,000
Customizable alarm priority levels, categories, statuses, and result codes	√	√	✓	✓
Customizable sound notification	√	✓	√	✓
Alarm handling reporting	√	√	√	✓
Alarm logging	✓	√	✓	✓
Recording server, storage and archiving				
Pre-recording buffer in RAM	√	✓	✓	✓
Video retention time	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Recording capacity per device/day	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Archiving of recordings with network drive support	✓	√	√	√
Online access to archives	✓	✓	✓	✓
Archiving schedules	Hourly	Hourly	Hourly	Hourly

Storage definition and retention time per device	√	✓	√	✓
Storage definition and retention time that can be applied to individual cameras or common for multiple devices	✓	√	✓	√
Multi-stage video storage and data grooming	-	-	√	✓
Storage overview (used vs. available space) of available storage drives	√	√	√	√
Support for live video play without recording storage	√	✓	√	√
Event on premature deletion of video due to insufficient physical storage	√	✓	√	√
Edge Storage support with flexible retrieval	-	✓	√	✓
Scalable Video Quality Recording™	-	√	√	✓
Evidence Lock	-	-	-	√
Media database encryption and digital signing	-	-	√	✓
Encryption of communication with connected servers/clients/integrations	√	✓	√	√
Multicast support	-	-	√	√
Integration options				
Plug-in, Protocol, Component integration via MIP SDK and API	√	√	√	√
System Configuration via MIP SDK and REST API	✓	√	√	√
Live and playback Video streaming via WebRTC	✓	✓	√	√
Device integration through Driver Framework	✓	✓	✓	√
Metadata integration	✓	√	√	√
Event and alarm integration via MIP SDK, REST API (beta), and WebSocket	√	✓	✓	√
Event and action rule engine integration via MIP SDK	√	✓	√	√
Video processing service in MIP SDK	✓	√	√	√
Hirsch Al Bridge for Analytics integrations	✓	√	√	✓
Webhooks	✓	√	√	✓
Support for Velocity Vision Extensions		1	1	

Velocity Vision Access	Requires license	Requires license	Requires license	Requires license
Velocity Vision LPR	Requires license	Requires license	Requires license	Requires license
Velocity Vision Smart Wall	-	-	Requires license	✓
Velocity Vision Transact	Requires license	Requires license	Requires license	Requires license
Velocity Vision Retail	Requires license	Requires license	Requires license	Requires license

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Velocity Vision Screen Recorder ⁸	✓	√	√	✓
Velocity Vision Incident Manager	Requires license	Requires license	Requires license	√
Velocity Vision Management Server Failover	-	-	Requires license	Requires license
Hirsch Open Network Bridge	✓	✓	✓	✓
Velocity Vision Rapid REVIEW	Requires license	Requires license	Requires license	Requires license
Velocity Vision Hospital Assist	Requires license	Requires license	Requires license	Requires license
Maximum number of clients	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵	Unrestricted ¹⁵
Password protected system configuration	✓	√	√	✓
Configuration wizards for aided system setup	✓	√	√	✓
Device scanning with device model detection	✓	√	√	✓
Device replacement wizard	✓	√	√	✓
Management Client device search filter	✓	✓	√	✓
Move device wizard for moving hardware devices (e.g. cameras) between recording servers	-	√	✓	√
Centralized recording server & device management	√	√	√	√
Device group support	✓	√	√	✓
Management Client profiles	-	-	-	√
Centralized management of Velocity Vision Smart Client application options (Number of				

supported Velocity Vision Smart Client profiles)	-	3	12	Unrestricted ¹⁵
Day length time profile	1	√	√	✓
On-the-fly configuration changes	√	√	√	✓
Scheduled start/stop of devices	1	√	√	✓
Configuration reporting	√	√	√	✓
Built-in backup-restore support	√	√	√	√
Automatic license activation of online systems	√	√	√	√
Offline license activation	√	√	√	√
Add/replace devices without reactivation in offline systems	√	√	√	√
Customizable access port with NAT support	1	√	√	✓
Device Password Management ⁹	-	√	√	√
Initial setup of credentials on devices ¹⁰	√	✓	√	√
Current device user handling ¹¹	-	√	✓	√
Network configuration for devices ¹¹	-	√	✓	✓
Customizable dashboard for task / component specific live monitoring	-	-	√	√
Customizable event trigger thresholds for Normal, Warning and Critical levels	-	-	√	✓
Real-time and historical system status of management server, event server, recording servers and other Velocity Vision servers	-	-	1	✓
Real-time and historical system status of individual cameras	-	-	√	√
Dedicated System Monitor tab that can be displayed as floating window	-	-	√	√
Supports Velocity Vision Smart Wall video wall	-	-	Requires license	√
Number of Velocity Vision Smart Walls and Velocity Vision Smart Wall displays	-	-	Unrestricted ¹⁵	Unrestricted ¹⁵
Number of concurrent video streams	-	-	Unrestricted ¹⁵	Unrestricted ¹⁵
Maximum number of content positions per display	-	-	100	100
Presets for display layouts and camera content	-	-	√	√
Live video stream content	-	-	√	✓

Velocity Vision Smart Client controlled playback of video	-	-	√	√
Support for rich video wall content, including maps and Smart Maps, still images, http pages, alarms, texts, bookmarks, system monitor, etc.	-	-	V	√
Rule-based control of layout and content (including text messages)	-	-	√	√

Velocity Vision VMS Products	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
System alarms and notification	<i>y</i> 01		<i>></i> _	<i></i>
Email notification	√	√	√	√
Multiple notification profiles	✓	✓	√	✓
SNMP trap	-	-	√	√
Customer Dashboard ⁷	√	√	√	√
User authentication and rights management				
Centralized user management	√	√	√	√
Tiered management rights	-	-	-	√
Inheritance of user rights	✓	√	√	√
Time schedule-controlled user access to devices and functions	-	-	-	√
Restrict user access by client type (Web Client, Velocity Vision Mobile and Smart Client)	√	✓	√	✓
Basic User (Velocity Vision application accounts)	✓	1	1	✓
Windows User (local Windows accounts)	√	1	√	√
Microsoft Active Directory User (central Active Directory accounts)	√	√	√	✓
External identity provider support (OIDC)	√	✓	✓	√
Dual authorization (Smart Client users)	√	√	✓	√
Dual authorization (Management Client users) ¹²	√	✓	√	✓

Two-step verification (Web and Mobile Client users)	-	-	-	√
Windows NTLM (NT LAN Manager) authentication	√	√	✓	√
Kerberos authentication	✓	√	√	√
Biometry support in Mobile Clients	√	√	√	√
MDM (Mobile Device Management) support in Mobile Client	√	√	√	√
Logging				
System and audit logging	✓	√	✓	√
Rule logging	√	√	√	√
Compliance and certification				
FIPS 140-2 compliance	√	√	√	√
GDPR ready ¹⁴	-	-	✓	✓
Languages (Management Interface)				
Chinese (Simplified)	✓	√	√	✓
Chinese (Traditional) ¹³	✓	√	✓	√
Danish ¹³	√	√	√	√
English	√	√	√	√
French	√	√	√	√
German	√	√	√	√
Italian ¹³	√	√	√	√
Japanese	√	√	√	√
Korean	✓	√	√	1
Portuguese (Brazilian)	√	√	✓	✓
Russian ¹³	✓	√	√	√
Spanish	√	√	✓	✓
Swedish ¹³	√	√	✓	1
Turkish ¹³	√	√	√	√

¹ IP device can be an actual camera, video encoders, NVR/DVR, video services or other types of video/audio devices connected to the VMS' recording server. IP cameras or encoders should be included in the Hirsch Supported Device List to count as one license per IP device otherwise it will require one license per enabled video channel. Refer Improved license model FAQ for more details visit https://portal.hirschsecure.com/ for licensing requirement of an IP device. Please note that Specific IP device variants may not appear on the Sup-

ported Device List but will, however, be treated by Hirsch as an IP device included in this list provided their equivalent base model is supported.

- ² IP cameras or encoders should be included in the Hirsch Supported Device List to count as one license per IP device otherwise it will require one license per enabled video channel. Always refer to https://portal.hirschsecure.com/ for licensing requirement of an IP device.
- ³ Applicable for devices integrated through Axis, Bosch, Hikvision, Hanwha, Panasonic and ONVIF drivers (drivers in Legacy Device Pack excluded)
- ⁴ Applicable only for devices integrated through Axis, Bosch, Hanwha and ONVIF drivers (drivers in Legacy Device Pack excluded)
- ⁵ Please check https://portal.hirschsecure.com/ for graphic cards and performance requirements
- ⁶ In Essential+ and Standard, ongoing PTZ operations cannot be interrupted
- ⁷ Requires Hirsch SSA service coverage
- ⁸ One device license required per screen recorder used
- ⁹ Not supported for all devices. For details read latest Hirsch Velocity Vision device pack release notes
- 10 This feature is not available for devices with factory default credentials.
- 11 Applicable only for devices integrated through the Hirsch ONVIF drivers and that are ONVIF Profile T & Q compliant
- ¹² Users must be members of the administrator role
- ¹³ Installation and user interface localized. Help system and manuals in English only
- ¹⁴ Velocity Vision Enterprise is a GDPR ready product. It is built on privacy by default principles, and it enables customers to make their video management software GDPR compliant by following our Privacy Guide and Hardening Guides.
- ¹⁵ Depending on system configuration

High-level Velocity Vision client comparison

The table below gives an overview of the different Velocity Vision clients that can be used together with Hirsch's Velocity Vision VMS products.

Velocity Vision client	Velocity Vision Mobile	Velocity Vision Web Client	Velocity Vision Smart Client
Key Features			
User platform	Smartphones and tablets	Web browsers	Windows PC
User mobility	High	Medium	Low
Installation required	√	-	✓
User authentication	✓	✓	✓
Dual authorization	-	-	√
Two-step verification	✓	✓	-
Secure (HTTPS) client-server connection	✓	✓	-
Camera search	✓	✓	✓
Generic 360 dewarping	-	-	✓
View live video	✓	✓	✓
Control PTZ cameras	√	✓	✓
Advanced PTZ camera control	-	-	✓
PTZ specific camera icons	-	-	√
Alarm handling	✓	✓	√

Push Notification ¹	✓	-	-
Interactive maps	-	-	✓
Smart Map	√	-	✓
Trigger I/O events	√	√	✓
Playback	Single camera	Multi camera	Multi camera
Dedicated Search tab (centralized Search)	-	-	✓
Evidence Lock	-	-	√
Velocity Vision Incident Manager	-	-	√
Export/share video from one camera	√	✓	✓
Export video from multiple cameras	-	√	✓
Storyboard function in export	-	-	✓
Include Velocity Vision Smart Client – Player in export	-	-	✓
Video Push with audio support	√	-	-
Dynamic bandwidth adaptation	√	√	-
Adaptive streaming	√	✓	✓
Adaptive playback	-	-	√
Direct streaming	✓	√	-
Hardware accelerated video decoding	-	-	✓
Manage access control	√	-	✓
Cameras and view groups	✓	✓	√

¹ Requires Hirsch SSA service coverage

Detailed Velocity Vision client comparison

This section provides a detailed comparison between the different Velocity Vision clients, both in relation to each other, and the Velocity Vision VMS platforms. The latter is important because some functionality and support of the clients are determined by the specific Velocity Vision product or product version. The features are organized into categories for increased readability.

Velocity Vision Client	Velocity Vision Mobile				Velocity Vision Web Client			Velocity Vision Smart Client				
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
General view handling												
Number of view layouts		2				2				41		
Maximum view items per view		100			100			100				
Optimized view layouts for 4:3 and 16:9 display ratios	-			-			✓					
Corridor optimized view layouts		-			-			✓				
Optimized view layouts for landscape and portrait displays		√				-				√		
Cameras from multiple Velocity Vision servers	-		√		-		√		-		√	
Support for Shared Views and Private Views		-				✓				✓		
Velocity Vision Smart Wall views	-			-			- Requires license ✓					
Images and active HTML pages in views		-			-			✓				
Hotspot and Carousel in views		-				-				✓		

Virtual Matrix in views	-	-	✓
Display bounding boxes based on metadata	-	-	✓
Full screen mode	✓	✓	✓
Multi-window functionality with support for full screen or floating windows with synchronized or independent operation	-	-	✓
Switch to view by number	-	-	✓
Initial default view ¹	✓	✓	✓
Camera search	✓	✓	✓
Automatic restore views and windows at login	✓	✓	✓
Live view			
Update on motion only	-	-	✓
	I .	1	I .

Velocity Vision Client	Velocity	Vision Mo	obile		Velocity \	/ision Web	Client		Velocity \	/ision Sm	art Client	
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
One-way audio support		,	/				/			✓		
Two-way audio support		,	/			V	/				✓	
Broadcasting audio			-			·	/				✓	
Start/stop recording in view			-			-					✓	
Independent playback in live mode			-		-			✓				
Replace cameras in view without changing view setup	-				-			✓				
Send camera to Virtual Matrix			-		-			✓				
Share video image			form communi such as email)	cation	-			Print, copy to clipboard and save to file				
Switch to camera by number			-								✓	
PTZ support												
Define presets in the client application			-						✓			
Define and control patrolling schemes in the client application			-		-			- 🗸		√		
View who has PTZ control and time to automatic release					-			✓				
Lock PTZ control	-				-			- ✓				
Go to preset positions		,	/				/				✓	
Pause patrolling at manual operation		,	✓			V	/			√ √ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓		

Immervision Enables® panomorph lens support	-	-	√
Joystick support	-	-	✓
Assign commands to keyboard shortcuts and joystick buttons	-	-	✓
Auxiliary commands (wash and wipe)	-	-	✓
I/O and events control			
Camera overlay buttons	-	-	✓
Manually activate events and trigger outputs	✓	✓	✓
Audio and Playback			
Maximum view items per view	1	Dynamic, 4-18 depending on screen resolution	100
Playback mode	Single camera	Multi camera	Multi camera
Recording search	✓	✓	✓
Recent history of recording sequences per camera	✓	-	✓
Time/date search	✓	✓	✓
Independent playback in playback mode	-	-	✓
Event/alert list in recording	-	-	✓

Velocity Vision Client	Veloci	ty Vision Mobile	e		Velocit	y Vision Web Cli	ent		Velocity	Velocity Vision Smart Client			
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	
Graphical timeline		✓	,			✓					√		
Adjust playback speed		√				✓					√		
Single frame step (forward/backward)		√				✓					✓		
One-way audio support	√				√			✓					
Two-way audio support	✓				✓			✓					
Broadcasting audio		-			✓			✓					
Digital zoom		√			√			✓					
Share video image	Via loca	lly installed commun (such as em		lications	Single JPG image export			Р	Print, copy to clipboard and save to file				
Print report with comments		-			-			✓					
Privacy masking		✓			✓						✓		
Search													
Dedicated Search tab (centralized Search)							✓						
Sequence Search		-				-					✓		

Motion Search	-	-	√
Bookmark Search	✓	✓	√
Alarm Search	-	-	- ✓
Event Search	-	-	- ✓
Velocity Vision LPR Search	-	-	- ✓
People Search ²	-	-	√
Vehicle Search ²	-	-	√
Location Search ²	-	-	✓
Multi-category Search and sort results by relevance	-	-	- 🗸
Visualize location of Search result	-	-	- ✓
Save search templates	-	-	- ✓
3 rd party search support	-	-	√ ·
Bookmark function			
Manual bookmarking (quick bookmarking and bookmarking with details)	✓	✓	✓
Create, edit, and delete bookmarks	✓	✓	✓
Instant preview of bookmarks in timeline	-	-	√
Listing and previewing of bookmarks in Centralized search	-	-	✓
Print bookmark report	-	-	\checkmark

Direct video export of bookmark	-	-	√
Search and apply filters to bookmarks	✓	✓	√

Velocity Vision Client	Velocity V	ision Mo	bile		Velocity Vis	city Vision Web Client Velocity Vision Smart Client						
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Sharing functionality												
Sharing bookmarks between Mobile clients		√				-				-		
Sharing a link to camera's live video stream between Mobile Clients		V				-				-		
Alarm Manager												
Dedicated Alarm Manager tab that can be displayed as floating window	-					-		✓				
Alarm list and alarm preview view items in normal camera views	-				-				✓			
Sort and filtering functions		V	,		-				✓			
Instant preview of primary and related cameras		-			-				✓			
Manage alarms (reassign & change status)		√	,		✓					✓		
Manage alarms (comment)		√	*			✓				✓		
Integration with map function		-				-				✓		
Alarm description/work instructions	✓					✓				✓		
Escalation and forwarding handling	-				-					✓		
Alarm handing reports with print function		-			-				✓			
Alarm location maps in alarm list		-			-				✓			
Combined access to live and playback video		-				-				✓		

Desktop notification for alarms	-	-	V
Audio notification at new alarm (configurable			· ·
per priority level)	-	-	✓
Push Notification ³	✓	-	-
Emergency alert ³	✓	-	-
Map function			
Standard graphical file formats supported for maps	-	-	✓
Number of linked map layers supported	-	-	Unrestricted ⁷
Video preview	-	-	✓
Integrated control of speakers, microphones and output devices	-	-	✓
Drag-and-drop and point-and-click definition of map elements	-	-	✓
Integrated PTZ control	-	-	✓
Real-time system integrity overview and system performance	-	-	✓
Smart Map function			
CAD maps support		-	- ✓

Velocity Vision Client	Velocity '	Vision Mo	bile		Velocity \	/ision Web	Client		Velocity \	Vision Sm	art Client											
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard Velocity Vision Advanced		Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Standard Velocity Vision Advanced Velocity Vision Professional		Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise										
GIS maps support		-	,	/							√											
Online map services support for Bing, Google and OpenStreetMap		-		-					-		✓											
Offline map services supported for OpenStreetMap		-		/	-			-		√												
OpenStreetMap tiles distributed via Hirsch map services		-	✓			-		-		√												
Camera and camera clusters		-	_	/						√												
Alarms		-		-	-			-		√												
Input/output devices		-		-	-				-		✓											
Microphones		-		-		-			-		√											
Video preview		-		-		-			-		✓											
Integrated control of microphones and input devices		-		-		-		-				-		-		-		-		-		
Support for Hirsch Federated Architecture		-		_		-			-		✓											
Integrated PTZ control		-		-		-			-		✓											

Auto-place devices on map via positioning and direction settings	- ✓	-	-	√
Link to standard maps	-	-	-	√
Building support	-	-	-	√
Velocity Vision Smart Wall				
Supports Velocity Vision Smart Wall video wall	-	-	-	Option Included
User control of layout and content	-	-	-	√
User control playback of video in Velocity Vision Smart Wall	-	-	-	√
Local subscription to Velocity Vision Smart Wall views for local display	-	-	-	✓
Push rich content to Velocity Vision Smart Wall, such as maps, still images, http pages, alarms, bookmarks, system monitor, etc.	-	-	-	√
Send manual text messages to Velocity Vision Smart Wall	-	-	-	✓
Evidence Lock and video restrictions				
Evidence lock video for one or multiple cameras	-	-	-	√
Retrieve overview of locked video sequences	-	-	-	√
Video restrictions	-	-	-	√

Velocity Vision Client	Velocity	Vision Mo	bile		Velocity Vision Web Client				Velocity Vision Smart Client			
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision <mark>Enterprise</mark>	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Incident Manager												
Velocity Vision Incident Manager			-			-			Requ	ires license		✓
Export	J											
Export in still image format (JPEG)	✓				✓				✓			
Export with audio support in media player for- mat (AVI & MKV) – individual files (containing one video sequence)	✓				✓				√			
Export with audio support in media player format (MP4 & MKV) – combined file (containing several combined video sequences)	-				-				✓			
Export in Velocity Vision format			-		✓				√			
Server-side export		`	/		✓							
Storyboard function in export			-		-				✓			
Adaptive View in Velocity Vision format			-		-				✓			
Encrypted export with password protection and digital signing ⁴			-		√				✓			

Verification of digital video signatures in XProtect Smart Client – Player ⁴	-	✓	✓
Prevent Re-export option ⁴	-	Always on	✓
Auto-export of Velocity Vision Smart Client – Player ⁴	-	-	✓
Preserve system defined privacy masks	✓	✓	✓
Additional export specific privacy masks	-	-	✓
Liftable user-right protected privacy masks		-	✓
Direct export to optical media	-	-	✓
Flexible camera selection for export	-	-	√
Bulk export to multiple media formats	-	-	√
General and camera specific export comments ⁴		-	√
Pre/post comment slides (media player format only)	-	-	✓
Video Push			
Video Push	√	-	-
Include location metadata with Video Push	√	-	-
Audio support	✓	-	-
System Monitoring			
Access real-time and historical system performance information (refer to System Monitor section for the VMS for details)		-	-

Velocity Vision Client	Velocity Vision Mobile Velocity Vision Web Client Velocity Vision Smart Client						art Client					
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise	Velocity Vision Standard	Velocity Vision Advanced	Velocity Vision Professional	Velocity Vision Enterprise
Installation												
Run without installation		-				٧	/				-	
Single step installer (installs client together with server)		-				-					V	
Initial and update installations from management Server		-			-				✓			
Auto-update Client		٧	/		-				-			
Smart Connect ³		V	/		-				-			
System access												
Auto-login		V	/						✓			
Dual authorization	-					-			✓			
Two-step verification	- ✓					- ✓					-	
Secure (HTTPS) client-server connection	1				√			-				
Dynamic bandwidth adaptation with threshold setting		·	,		✓			-				

External identity provider support (OIDC) SSO	√	√	✓
Biometry support	✓	-	-
MDM (Mobile Device Management) support	✓	-	
Authorization			
Restrict user access by client type (Web Client, Velocity Vision Mobile and Smart Client)	√	√	✓
Time schedule-controlled user access to devices and functions	- ✓	- ✓	- ✓
Restrict user access by devices (cameras, microphones, I/O devices, etc.)	✓	✓	1
Restrict access to live, PTZ control, playback and export	✓	✓	✓
Restrict access to setup	-	-	✓
Personalization			
Application options	√		✓
Centralized management of application options	-	-	- ✓
Application theme support	-	-	√
Task-oriented tabs	-	✓	✓
Multiple task-oriented tabs	-	-	✓
System			
Hardware accelerated video decoding	-	-	1

Adaptive streaming	✓	✓	✓
Adaptive playback	-	-	✓

Velocity Vision Client	Velocity \	/ision Mc	bile		Velocity Vision Web Client				Velocity Vision Smart Client			
Feature set when used with specific Velocity Vision VMS platform	Velocity Vision Standard	Velocity Vision Advanced	Advanced Velocity Vision Professional Velocity Vision Standard Advanced Velocity Vision Professional Velocity Vision Velocity Vision Velocity Vision Standard Velocity Vision Velocity Vision Velocity Vision Velocity Vision Velocity Vision Velocity Vision				Velocity Vision Professional	Velocity Vision Enterprise				
Direct streaming		V	/			·	′				-	
Multi-live streaming		-								,	/	
Languages (Installation, UI and help function)												
Arabic	√5				√5					,	/	
Bulgarian		√	' 5		√5				√6			
Croatian		✓	′ 5		√5				√6			
Chinese (Simplified)		√	75		√5				√			
Chinese (Traditional)		√	75		√5				√			
Czech		√	75		√5					,	/	
Danish		√	75			√	5			,	/	
Dutch	√5					√	5			,	/	
English		V	/		✓				✓			
Farsi		✓	75		√5				√6			
Finnish		√	75			√	75		√6			

French	√5	√5	✓
German	√5	√5	✓
Hebrew	√5	√5	√6
Hindi	√5	√5	√6
Hungarian	√5	√5	√6
Icelandic	√5	√5	√6
Italian	√5	√5	√
Japanese	√5	√5	√
Korean	√5	√5	√
Norwegian (Bokmål)	√5	√5	√6
Polish	√5	√5	✓
Portuguese (Brazilian)	√5	√5	✓
Russian	√ 5	√ 5	✓
Serbian	√5	√5	√6
Slovak	√5	√5	√6
Spanish	√5	√5	✓
Swedish	√5	√5	✓
Thai	√5	√5	√ 6
Turkish	√5	√5	√
Ukrainian	√5	√5	√6

¹ Initial views created when using the "single computer" installation option

 $^{^2}$ Limited to certain camera models that can perform video analytics and export ONVIF compliant metadata

³ Requires Hirsch SSA service coverage

⁴ Feature only applicable to exports in Velocity Vision format

⁵ Velocity Vision Mobile server localized to same languages as the management interface and documentation is only available in English

 $^{^{\}rm 6}$ Only the user interface is localized; user's manual and online help is not localized

⁷ Depending on system configuration