PRO-WATCH® VMS

Video Management System

Pro-Watch VMS Client Viewer

Pro-Watch Intelligent Command

Honeywell's Pro-Watch VMS (video management system) controls multiple sources of video subsystems to collect, manage and present video in a clear and concise manner. Pro-Watch VMS intelligently determines the capabilities of each subsystem across various sites, allowing video management of analog or digital video devices through a unified configuration and viewer. The subsystems can be analog matrix switches or digital/network video recorders allowing both analog or digital input to be viewed on an analog or digital monitor. Users can benefit from using traditional analog systems and IP-network systems at the same time to ensure maximum use of their initial investments. These subsystems range from Honeywell matrix switchers, DVR/NVRs and 3rd party systems. Pro-Watch VMS supports emerging technologies in the industry, like 4K resolution, H.265 smart video compression codec, multi-imager cameras and fisheye cameras. Customers can fully utilize the advantages of superb video quality with 4 times the details over 1080p HD, 30%~50% less storage expense (when compared to H.264 compression), and seamless 180° and 360° surrounding surveillance. Furthermore, Pro-Watch supports the native integration with Honeywell equIP® series, 30 Series and 60 Series IP cameras. The advanced camera features, like "Click & drag" 3D PTZ control, license plate recognition, intelligence events and bounding boxes on objects detected by specific video analytics, help surveillance operators to efficiently protect people, property and services.

Pro-Watch supports VMS redundancy and 1+1/N+M NVR failover features. Once there is a failure on NVR equipment, system database or network, the redundant and failover feature can continue to support the system functions with minimal interruption. Incidents will be reported in a system log for future auditing and reporting.

Control of Pro-Watch VMS can be through a traditional joystick controller, mouse or even through third party interface. The extremely powerful rules engine (Macro's) allows customization of the system to respond and control in the best possible manner for the application.

As an integral part of Pro-Watch Integrated Security Suite, Pro-Watch VMS works seamlessly with access systems in a unified interface, Pro-Watch Intelligent Command, offering intuitive map navigation across sites, buildings and floors, and camera live view pop-up, instant playback and alarm and workflow association, as well as bulk camera firmware update and password modification, which enables customers to obtain situational awareness and manage their facility efficiently. A new Safety Compliance Dashboard for Healthy Buildings KPI's provides ability to view compliance and incidents from a single view.

Pro-Watch VMS is highly scalable so users can easily expand their video surveillance network from small to medium single instances to enterprise level supporting thousands of devices. Additionally, Pro-Watch VMS includes integration with Honeywell's Active Alert® and People Counter video analytics, as well as other Honeywell products and solutions. The feature-rich user interface truly offers a unified management platform across many disparate systems to further embody Honeywell's concept of "Learn One, Know Them All."

MARKET OPPORTUNITIES

Pro-Watch VMS is ideal for facilities requiring at-risk critical infrastructure protection such as airports, seaports, large multi-site commercial buildings, casinos, and other high-profile facilities. It is the perfect client-server video management solution for locations requiring the use of both digital and analog technologies.

The whole Pro-Watch VMS products contain no content or material from any companies or their subsidiaries prohibited under US National Defense Authorization Act (NDAA) Section 889 and can be used as part of video systems which comply with NDAA Section 889.

Honeywell

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Video Management System

FEATURES

Scalable Security System for Flexible Deployment

• A single Pro-Watch Server can support numerous recording sub systems (NVR/DVRs)

• Distributed architecture in the form of multiple Pro-Watch servers in a Parent-Child topology facilitates "Enterprise" style deployment, where Child VMS server Users & Roles, Workstations, Sites, and Partitions can be easily added to Parent VMS server through advanced discovery.

Open Integrated Platform for End-to-End Solution

• Auto-discovery of cameras connected to supported recorders

• 60 series and 30 series cameras, edge storage, multi-imager and explosion-proof camera support

• Support for equIP camera multicast stream reduces camera loading and network loading with live view on multiple clients

• Integration with Honeywell Pro-Watch® Access Control Systems providing an integrated Access Control, Intrusion and Video solution

Redundant Server and Recorder Failover for 24/7 Operational Continuity

• Redundant server option increases system reliability.

• 1+1/N+M Pro-Watch NVR failover and failback automatically or manually. View and playback on one client panel.

Smart Search, Playback and Clip Export for Efficient Forensic Investigation

• Ability to investigate events and alarms by simultaneously viewing alarm video at various stages. For every alarm, users can view the video captured during pre-alarm, on-alarm, post-alarm, and also view live video from the camera which triggered the alarm through a single 2x2 salvo.

• Commentable bookmarks allow users to tag scenes of interest in the timeline to easily return to the scene with multiple cameras' views.

• Search and find video through event view or timeline. Preview search allows viewing a snapshot at various times to quickly narrow the scene of interest.

• Smooth reverse and Synchronous playback across Pro-Watch NVRs for efficient cross-site investigation

• Incident management mode allows creating a package of clips multiple cameras at different times that can be played back sequentially.

Intelligent Analytics for Proactive Threat Detection and Operation Efficiency Boost

• Intelligent events from cameras can be viewed at the alarm panel and trigger event recording on Pro-Watch NVRs for further investigation

• Annotation with bounding boxes on objects detected by IntrusionTrace and LoiterTrace from equIP camera & ADPRO NVR in both live view and playback for visual notification and verification

• Honeywell Video Analytics (HVA) integration with automatic camera stream selection for optimal performance

• Integration with Augmented Vision Face Recognition Analytics from Idemia

• License Plate Recognition event management with rich details and easy report generation for efficient vehicle management with Honeywell VehicleTrace™ enabled cameras

Powerful Desktop Clients for Enhanced Monitoring and Fast Response

• Viewing, creating, saving and naming salvos with up to 8x8 cameras each under My Salvos or Shared Salvos. Support for aspect ratio - 16:9, 4:3 and Stretched for video salvos.

• Surrounding cameras mode with presets, makes following subjects of interest simple and efficient by allowing the nearest camera of interest to be immediately in view

• Quick and responsive alarm actions can be initiated from the preview pane options

• Innovative "One-Click" or "Mouse Drag" 3D PTZ control experience that does away with legacy PTZ controls of continuous clicking

• 360° de-warping "spreads" the distorted fisheye image into natural panoramic and/or multiple tile views. Operators can view and focus on zones of interest on live and recorded video.

• Enriched video viewing experience through intuitive video rendering engine optimizes CPU utilization by altering the video frame rate for low bandwidth throttling.

• GPU rendering support for H.264 and H.265 decoding up to 60 frames per second (1080p camera) with smooth display on 4K monitors reduces the number of workstations needed for monitoring large sites with 30+ cameras

• Control any analog or digital monitor from a single workstation or joystick keyboard. Allows the system to be used as a true analog and digital matrix.

• Ability to play recorded Video together with Audio stream and Ability for Operators to talk to Camera Audio Output through Bi-directional Audio Support

• Monitor control allows controlling all monitors from a single client (Monitor Wall control)

• Remote monitor mode allows sharing and controlling a remote monitor while still viewing locally

Intuitive Graphical User Interface for Efficient Site Management

• Integrated with Pro-Watch Intelligent Command's Web-based maps with drag-and-drop camera setup, easy cross-site navigation and HTML5 live video pop-up and instant playback, allow quick situational response.

• Support for bulk camera firmware upgrade and password modification through Intelligent Command, for simplified device maintenance.

• Feature-rich and user-friendly Client interface to view video from numerous different recorders from a single point

• Operators can log on using their local language and the built-in messaging system allows operators to share video scenes via instant messages

• System Health Dashboard for Video Devices and Healthy Buildings Safety Compliance Dashboard

• Incident Workflow and Standard Operating Procedures for efficient situational response

• Role-based operator privileges

• An extremely powerful macro programming language is available to fully customize actions based on events

• Support for Active Directory user authentication

Effective Privacy Protection Options for Data Privacy Compliance

• Body pixilation and blurring in live view to protect customer and employee privacy from abuse of surveillance data;

• 4-Eye dual user authentication for playback of original video record, for example, with simultaneous logon from two groups of managers and worker' council representatives.

• Selective Unmasking for clip export of selected cameras and date/time with only the face of a person of interest unmasked while other people's faces anonymized.
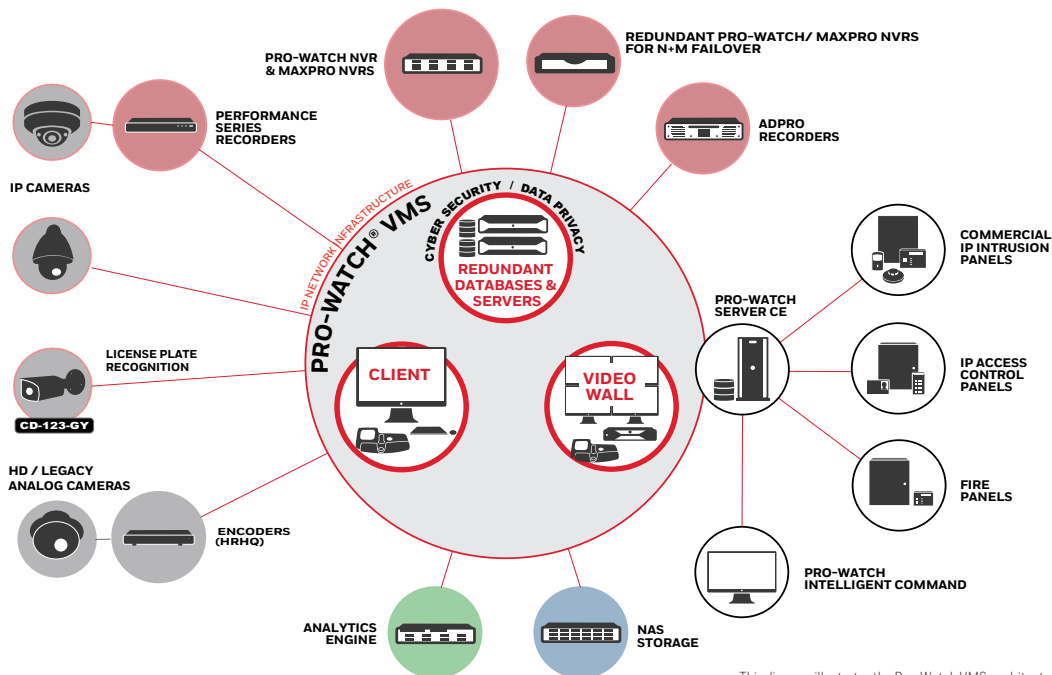
ARCHITECTURE

Pro-Watch VMS is based on client-server architecture for maximum flexibility, customization and integration. It offers one-click migration support from analog matrix systems. The Pro-Watch VMS client enables the monitoring of sites and the configuration of video devices such as cameras, monitors, keyboards, etc. The Pro-Watch VMS server consists of the Pro-Watch VMS framework controller and database, and other core components.

Cyber Security Features

• Full TLS 1.2 encrypted video and data communication from edge devices to all clients - Encrypted database and clip export.

• Enhanced password security – non-recoverable passwords, enforcing complex passwords, password expiry, and no default passwords

• Addressed Unauthenticated/Unauthorized channels

• Secured firewall configuration

• Restricted folder and Registry access to operators

• Secured Assemblies – Digital signing

• Secure communication with the new equIP Cameras using Honeywell proprietary protocol and 30 / 60 Series camera with TLS 1.2 encrypted video streams

• Support for Digest Authentication in multicast stream between camera and Pro-Watch VMS client

PRO–WATCH® VMS

Video Management System

PRO-WATCH NVR & MAXPRO NVRS

REDUNDANT PRO-WATCH/ MAXPRO NVRS FOR N+M FAILOVER

PERFORMANCE SERIES RECORDERS

ADPRO RECORDERS

IP CAMERAS

CYBER SECURITY / DATA PRIVACY

IP NETWORK INFRASTRUCTURE

PRO-WATCH® VMS

REDUNDANT DATABASES & SERVERS

COMMERCIAL IP INTRUSION PANELS

PRO-WATCH SERVER CE

LICENSE PLATE RECOGNITION

CD-123-GY

CLIENT

VIDEO WALL

IP ACCESS CONTROL PANELS

FIRE PANELS

HD / LEGACY ANALOG CAMERAS

ENCODERS (HRHQ)

ANALYTICS ENGINE

NAS STORAGE

PRO-WATCH INTELLIGENT COMMAND

This diagram illustrates the Pro-Watch VMS architecture and associated components.

RECOMMENDED HARDWARE SPECIFICATIONS

PRO-WATCH VMS MINIMUM SERVER SPECS	STANDARD SPEC UP TO 5 CLIENTS	PERFORMANCE SPEC 10 CLIENTS	PREMIUM SPEC 25 CLIENTS AND GREATER
PROCESSOR	Single Intel® Quad Core Xeon E3 1225V3 3.2 GHz S1150	Single Intel® Quad Core Xeon E-2134 3.5 GHz	Dual Intel® 8 Core Xeon's Silver 4110 2.1 GHz
OPERATING SYSTEM	Microsoft Windows® Server 2019 64-bit, Server 2016 64-bit		
COMPUTER TYPE	Server – dual power supply suggested		
SYSTEM MEMORY (RAM)	8 GB	16 GB	32 GB
DVD DRIVE	DVD +/- RW		
DISK	Two separate hard drives or two sets of RAID arrays		
	Disk/RAID set 1 utilizes 10K RPM SATA 150 GB or 10K-15K RPM SCSI 146 GB for Windows operating system, Pro-Watch VMS Server Software, and Microsoft SQL Server software		
	Disk/RAID set 2 utilizes 10K RPM SATA 150 GB or 10K-15K RPM SCSI 146 GB for Pro-Watch VMS database files and Microsoft SQL Server database files		
	Note: If fault tolerance is required, RAID set 1 is RAID 1, 10 or 0+1 and RAID set 2 is RAID 10 or 0+1		
VIDEO ADAPTER	Display Adapter with Video resolution 1024x768 pixels; 32-bit color or higher		
SERIAL PORTS	Only required if serial device are to be connected - Suggested 8 Port MOXA PCI-e serial RS232		
NETWORK CONNECTION	1 Gbit/sec or greater		
VIRTUAL ENVIRONMENT	VM Ware ESXi version 5.5, vSphere and Hyper-V		

PRO-WATCH VMS MINIMUM WORKSTATION SPECS	2 MONITOR WORKSTATION	4 MONITOR WORKSTATION
PROCESSOR	Intel Core i7-8700, 3.2 GHz	
OPERATING SYSTEM	Microsoft Windows® 10 Enterprise 64-bit	
COMPUTER TYPE	Workstation	
SYSTEM MEMORY (RAM)	16 GB	
DVD DRIVE	DVD +/- RW	
DISK	500 GB 7200RPM SATA3	
VIDEO ADAPTER	Integrated Intel UHD graphics 630	Integrated Intel UHD graphics 630 and NVIDIA Quadro P620
NETWORK CONNECTION	1 Gbit/sec or greater	
VIRTUAL ENVIRONMENT	Virtual environment not supported on Client machines	

For detailed recorder versions, hardware and software compatibility please check the following link https://www.security.honeywell.com/resources/partners/hota

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PRO-WATCH VMS RECORDER COMPATIBILITY	
RECORDER MODELS	R670 (CURRENT RELEASE)
PRO-WATCH NVR	Supported
PRO-WATCH VMS (VMS IN VMS)	Supported
MAXPRO NVR	Supported
HEN*3 4K/8MP EMBEDDED NVR	Supported
HEN*4 4K/12MP EMBEDDED NVR	Supported
ADPRO IFT, IFT-E, IFT GATEWAY	Supported

ORDERING	
PRO-WATCH VMS - PART NUMBERS AND LICENSING	
PRO-WATCH VMS - BASE SOFTWARE AND LICENSES	
PWSWVMSEE	Pro-Watch VMS Enterprise Edition Base Software, supports unlimited cameras, redundancy, failover and VMS-in-VMS management, includes (5) view client lic.
PWSWVMSCE	Pro-Watch VMS Corporate Edition Base Software, supports maximum 1536 cameras, redundancy and failover, includes (3) view client licenses
PWSWVMSPE	Pro-Watch VMS Professional Edition Base Software, supports maximum 256 cameras, includes (1) view client license
PWUGPECE	Upgrade Pro-Watch VMS Professional Edition to Corporate Edition
PWUGCEEE	Upgrade Pro-Watch VMS Corporate Edition to Enterprise Edition
PWSWVMSEE-B	Redundant Pro-Watch VMS Enterprise Edition Base Software License
PWSWVMSCE-B	Redundant Pro-Watch VMS Corporate Edition Base Software License
SSAPWVMS	Annual software support agreement - Pro-Watch VMS Base software
SSAPWRED	Annual software support agreement - redundant Pro-Watch VMS software
SSA24PWVMS	Annual 24/7 software support agreement - Pro-Watch VMS base software
SSA24PWRED	Annual 24/7 software support agreement - redundant Pro-Watch VMS software
SSAEUPWVMS	Annual End User 24/7 software support agreement - Pro-Watch VMS base software
SSAEUPWRED	Annual End User 24/7 software support agreement - redundant Pro-Watch VMS software
PRO-WATCH VMS ADD-ON LICENSE	
PWSUCLIP	Pro-Watch VMS Selective Unmasking Clip Export License
PRO-WATCH CLIENT LICENSE – ONE LICENSE PER CONNECTED WORKSTATION (CLIENT APPLICATION CAN RUN MULTIPLE INSTANCES)	
PWSWCL	Pro-Watch View - Single Client License
PWSWCL-B	Redundant Pro-Watch View - Single Client License
MAXPRO INTELLIGENT COMMAND	
HNMINDWRKFL	Maxpro Intelligent Command Incident & Workflow
HNMDASHBOARDS	Maxpro Intelligent Command Safety & Compliance Dashboard
MAXPRO VMS 3RD PARTY ANALYTICS	
HNMANALYTICS	Maxpro Analytics Adaptor License

PRO-WATCH / MAXPRO VMS - HARDWARE	
SERVER AND WORKSTATIONS	
HMSP3	Pro-Watch/MAXPRO VMS Perf.Server,1U, Redundant Power; Windows Server 2016, Xeon E-2134,16GB
HMW7T	Tower Workstation for Pro-Watch /MAXPRO® with four monitor connections
HMW7TM	Mini Workstation for Pro-Watch/MAXPRO with two monitor
HMW6R	2U Rackmount, Workstation for Pro-Watch/MAXPRO with four monitor connections

For more information

buildings.honeywell.com/security

Honeywell Commercial Security

715 Peachtree St. NE
Atlanta, GA 30308
1.800.323.4576
www.honeywell.com

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