MAXPRO® VMS

Video Management System

MAXPRO VMS Client Viewer 2x2

Honeywell's MAXPRO VMS (video management system) controls multiple sources of video subsystems to collect, manage and present video in a clear and concise manner. MAXPRO 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. MAXPRO 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, MAXPRO supports the native integration with Honeywell equIP® 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.

MAXPRO has database redundant and 1+1/N+M NVR failover features for unforeseen/maintenance scenarios in enterprise and critical infrastructure applications. 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.
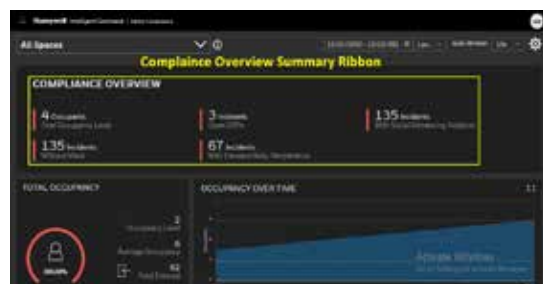
Control of MAXPRO VMS can be through a traditional joystick controller, mouse or even through third party interface. The extremely powerful rules engine (Macro's) allows customization of the system to respond and control in the best possible manner for the application.

MAXPRO intelligent Command

With MAXPRO VMS R670 a new Intelligent Command Web Client is introduced, offering intuitive map navigation across sites, buildings and floors, and camera live view pop-up, instant playback and alarm indication on maps, as well as bulk camera firmware and password updates, a new System Health Dashboard for Video Devices such as Recorders and Cameras 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.

MAXPRO 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, MAXPRO VMS includes integration with Honeywell's Pro-Watch® security management system, 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

MAXPRO 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.

Honeywell

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FEATURES

Scalable Security System for Flexible Deployment

- A single MAXPRO Server can support numerous recording sub systems (NVR/DVRs)
- Distributed architecture in the form of multiple MAXPRO 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
- Honeywell H.265, 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 MAXPRO 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 MAXPRO 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.

ARCHITECTURE

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

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 MAXPRO 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
- 360º 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
- Ability to play recorded Video together with Audio stream and Ability for Operators to talk to Camera Audio Output through Bi-directional Audio Support

Cyber Security Features

- Enhanced password security – non-recoverable passwords, enforcing complex passwords, password expiry, and no default passwords
- Addressed Unauthenticated/Unauthorized channels
- Secured firewall configuration
- Secured Web client – enabled HTTPS and TLS 1.2, and protection from CSRF and XSS attacks
- Restricted folder and Registry access to operators
- Secured Assemblies – Digital signing
- Secure communication with Honeywell 30 Series, 60 Series and equIP model cameras
- Support for Digest Authentication in multicast stream between camera and MAXPRO VMS client

- 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.
- 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

- 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.
- System Health Dashboard for Video Devices and Healthy Buildings Safety Compliance Dashboard
- Incident Workflow and Standard Operating Procedures for efficient 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
- 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

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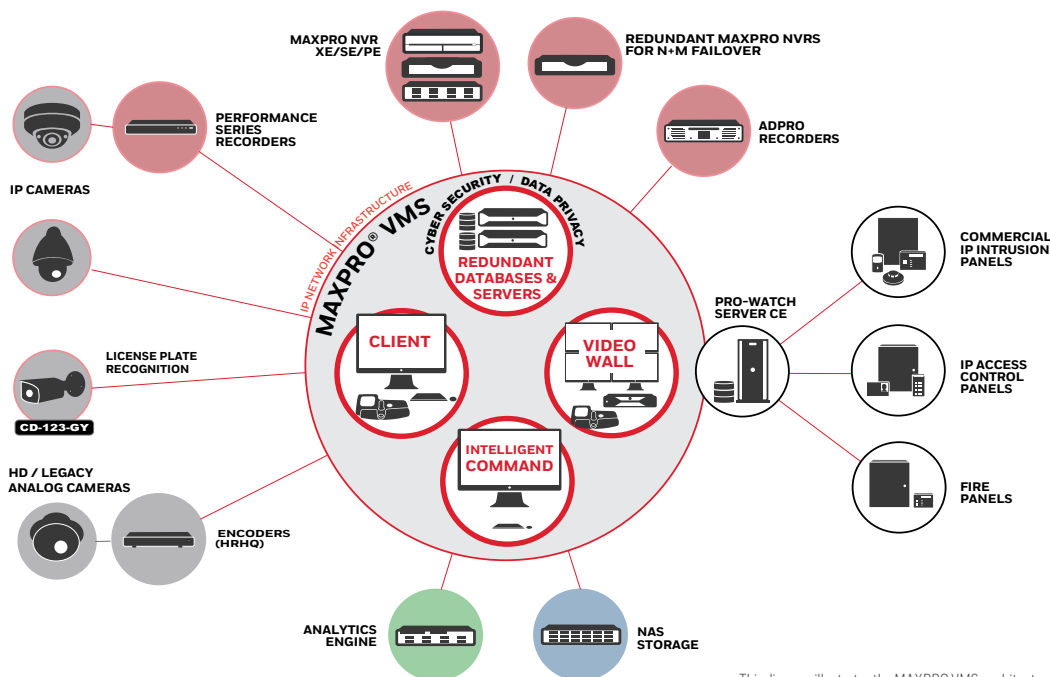
This diagram illustrates the MAXPRO VMS architecture and associated components.

RECOMMENDED HARDWARE SPECIFICATIONS

MAXPRO 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, MAXPRO 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 MAXPRO 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		

MAXPRO 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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ORDERING	

MAXPRO VMS - PART NUMBERS AND LICENSING

MAXPRO VMS - BASE SOFTWARE AND LICENSES	
HNMSWVMS	VMS Base Software includes: MAXPRO VMS, SQL 2019 Express, includes Licenses for One (1) MAXPRO VIEW Client, with 64-channel interface to MAXPRO NVR Series, IP Engine, Enterprise NVR, MAXPRO-Net and VideoBloX Matrix Switch. (Add "-B" to P/N for redundant server licenses)
HNMSWVMS-B	Redundant MAXPRO VMS Base Software License
SSAHNMVMS	Annual software support agreement - MAXPRO VMS Base software
SSAHNMRED	Annual software support agreement - redundant MAXPRO VMS software
SSA24HNMVMS	Annual 24/7 software support agreement - MAXPRO VMS base software
SSA24HNMRED	Annual 24/7 software support agreement - redundant MAXPRO VMS software
SSAEUHNMVMS	Annual End User 24/7 software support agreement - MAXPRO VMS base software
SSAEUHNMRED	Annual End User 24/7 software support agreement - redundant MAXPRO VMS software

MAXPRO CLIENT LICENSE – ONE LICENSE PER CONNECTED WORKSTATION (CLIENT APPLICATION CAN RUN MULTIPLE INSTANCES) (ADD "-B" TO P/N FOR REDUNDANT SERVER LICENSES)	
HNMSWCL	MAXPRO View - Single Client License

MAXPRO VMS BASE CHANNEL LICENSE (ADD "-B" TO P/N FOR REDUNDANT SERVER LICENSES)	
HNM64	Additional 64 Base Channels
HNM128	Additional 128 Base Channels
HNM192	Additional 192 Base Channels
HNM256	Additional 256 Base Channels
HNM384	Additional 384 Base Channels
HNM448	Additional 448 Base Channels
HNM512	Additional 512 Base Channels

MAXPRO VMS WITH ACTIVE ALERT® VIDEO ANALYTICS - ONE LICENSE PER ANALYTICS CHANNEL	
HNMHVAB	HVA - Base Package
HNMHVAS	HVA - Standard Package
HNMHVAP	HVA - Premium Package
HNMHVASI	HVA - Smart Impressions
HNMHVAPC	HVA - People Counter

MAXPRO VMS SERVER FAILOVER SOLUTION	
NFHALAN	Neverfail Server Failover Management

MAXPRO VMS LITE - PART NUMBERS AND LICENSING

MAXPRO VMS LITE - BASE SOFTWARE AND LICENSES	
HNMSWVMSLT	MAXPRO VMS Lite Software includes: MAXPRO VMS, SQL 2019 Express, includes Licenses for One (1) MAXPRO VIEW Client, with 64-channel interface to MAXPRO NVR Series, IP Engine, Enterprise NVR, MAXPRO-Net and VideoBloX Matrix Switch. Expandable up to a maximum of three Clients and 128 Channels. No third party adapter support. (Add "-B" to P/N for redundant server licenses)
SSAHNMVMSL	Annual software support agreement - MAXPRO VMS Lite software
SSA24HNMVMSL	Annual 24/7 software support agreement - MAXPRO VMS Lite software
SSAEUHNMVMSL	Annual End User 24/7 software support agreement - MAXPRO VMS Lite software

MAXPRO VMS LITE BASE CHANNEL LICENSE - ONE LICENSE PER VIDEO INPUT	
HNM64	Additional 64 Base Channels

MAXPRO VMS LITE UPGRADE	
HNMUG	Upgrade MAXPRO VMS Lite to MAXPRO VMS

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

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

MAXPRO VMS VERSION RECORDER COMPATIBILITY							
RECORDER MODELS	R670 BXXX CURRENT RELEASE	R600 BXXX PRIOR RELEASE	R560 B573 PRIOR RELEASE	R500 B512 PRIOR RELEASE	R470 B46 PRIOR RELEASE	R450 B455 PRIOR RELEASE	R410 B424 PRIOR RELEASE
MAXPRO NVR	✓	✓	✓	✓	✓	✓	✓
MAXPRO VMS (VMS IN VMS)	✓	✓	✓	✓	✓	✓	✓
HEN*2 EMBEDDED NVR	✓	✓	✓	✓	✓	✓	✗
HEN*3 4K/8MP EMBEDDED NVR	✓	✓	✓	✓	✓	✗	✗
HEN*4 4K/12MP EMBEDDED NVR	✓	✓	✓	✓	✓	✗	✗
ADPRO IFT, IFT-E, FASTTRACE 2E, IFT GATEWAY	✓	✓	✓	✗	✗	✗	✗

✓ Supported   ✗ Not Supported

For more information

buildings.honeywell.com/security

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