

EVMS9900

ENTERPRISE VIDEO MANAGEMENT SOFTWARE

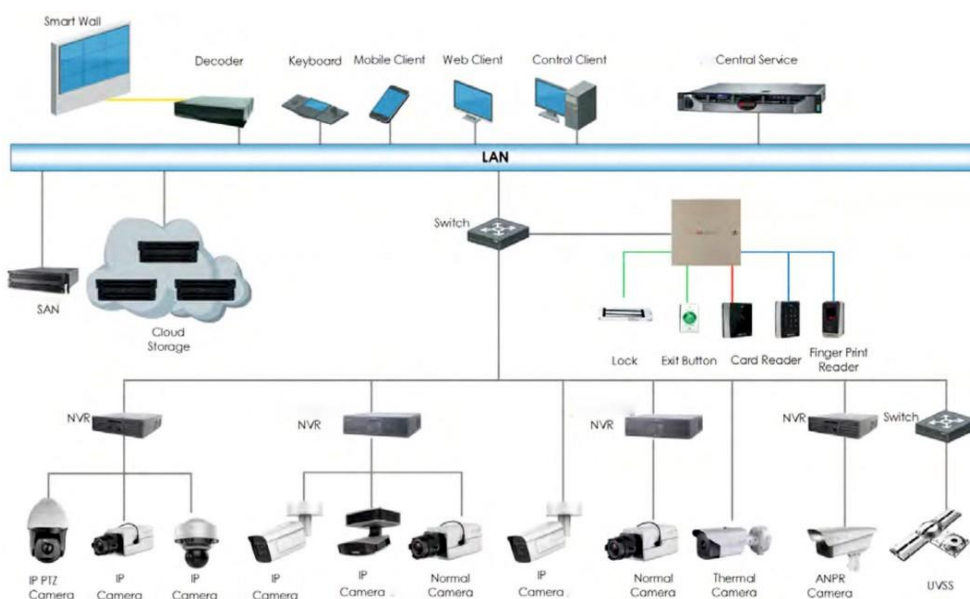
Salient Features

Introduction

VMS software is flexible, scalable, reliable and powerful central video system. It provides central management, information sharing, convenient connection and multi-service cooperation. It is capable of managing devices, live view, storage and playback, VCA playback, and alarm linkage.



System Architecture



Features:

VMS

- Provides normal and hot spare installation mode
- Provides unified authentication service for clients & servers
- Provides centralized management for users, roles, permissions, surveillance devices, alarm device and servers
- Provides log management and statistics function with logs for login access, system settings, Admin/user activity, video exception events etc.
- Scalable for medium and large-sized projects
- Watchdog and health monitoring support
- Service manager for system health monitoring with configuration support for auto optimization on high usage
- Streaming gateway: A VMS component that forwards and distributes audio and video data
- Open Architecture: Supports integration of third party network cameras, network video recorders, encoders etc. through ONVIF protocol, as well as non-proprietary workstation, server hardware, non-proprietary network infrastructure and non-proprietary storage. SDK/API available for third party integration.
- Standard ONVIF Protocol - Profile S, G, T, M supported
- Supports up to 128 channels live view, video recording, full duplex audio recording in independent server
- Continuous operation: Supports continuous recording live view. In the event of failover inbuilt redundancy/high availability enables uninterrupted and unattended operation with a response time of less than 30 seconds. Selected cameras can be automatically switched to backup NVR/storage device in event of failure.
- Multiple devices can be added: network cameras, analogue cameras, video encoders, NVRs, microphones etc. Seamless Management of Digital Audio, Video and Data across the LAN/WAN through secured access.
- Customizable Interface: Supports one-click access, drag-drop, context menu shortcut keys, tile patterns, customizable GUI etc.
- Scalability: Add multiple recording channels on licensed server. No restriction for adding servers in the system. Client-Server/Storage architecture is scalable.
- Fully distributed solution, designed for limitless multi-site and multiple storage installations.
- Channel license based live viewing, recording, playback and management of IP cameras scalable up to 100,000 channel licenses.

- Built-in smart IP search tool- Enable automatic network scan to search device IP supported by UPnP or ONVIF
- Pre-buffer and Post buffer recordings supported up to 10 minutes
- Automatic/Manual close of video streaming.
- Supports centralized management of all devices, storage and users with a secure and flexible rule-based system with powerful management interface for all systems across multiple sites.

Control Client & Web Client

- Configuration client has access to the VMS via IP address or domain name and supports central management of all cameras, multiple workstations, Multiple recording servers, storage and users.
- Flexible license activation methods: online activation and offline activation
- Startup wizard guides you through basic operations including:
 - Adding encoding devices
 - Setting recording schedule
 - Configuring event parameters
- Live view and audio/video playback of recorded video supported in Web client and Control VMS Client
- PTZ control
- Supports alarm trigger settings
- Enable connection with multiple VMS servers and workstation
- Managing system users with password and role based access rights for authority and camera viewing
- Standard ONVIF™ protocol
- Remote site's central management
- Three adding modes for remote sites available
 - By specifying the remote site's IP address or domain name
 - Adding remote site registered to the Central System.
- Simultaneous remote view: Up to 10 users supported through control web client
 - By importing in a batch
 - Select the alarms configured on the remote site to receive in the Central System.
 - Back up the remote site's database in the Central System manually or regularly.
 - Synchronize the changed resources in the Central System (newly added cameras, deleted cameras, and name changed cameras) with the remote site.
- Encoding device management:
 - Multiple devices can be added: network cameras, network speed domes, video encoders, NVRs, etc
 - Create passwords for detected inactive online devices
 - The password strength of the added device can be checked by the system for security notification
- Six adding modes for encoding devices available
 - By detecting the online devices
 - By specifying the device IP address or domain name

- By specifying an IP segment
- By specifying a port segment
- By importing in a batch
- Customized dashboard supported - Drawings/Maps GIS Layer/ OSM Layer/JPEG file format
- Dashboard capability to show online /offline camera count.
- Customized Video Matrix Grid for Live & Playback of Video & Events.
- Health monitoring with uptime and downtime statistics and storage used and available statistics with report log support.
- ANR Automatic Network Replenishment: Automatically store video recordings into camera's SD card when network is disconnected or any other communication failure between camera and VMS. Once the network is restored the video recordings will be sent back to storage server through VMS by ONVIF G profile.
- Recording Server manageable:
 - Add Hybrid Storage Area Network (Hybrid SAN) or Cloud Storage Server as Recording Server
 - Add Hybrid SAN or Cloud Storage Server by IP address Provides WAN access
- Provides searching the video files stored in Cloud Storage Server
- Access to the VMS via IP address or domain name through supported browsers Internet Explorer 10/11 and above, Chrome 61 and above, Firefox 57 and above, Safari 11 and above (running on Mac OS X 10.3/10.4)
- Remotely configure the Hybrid SAN or Cloud Storage Server via a web browser
- One-touch configuration for setting the Hybrid SAN storage
- Hybrid SAN N+1 hot spare
- Event based recording enabled for motion detection, analytics based and alarm based trigger
- Provide ANR function
- Streaming Server manageable:
 - Add Streaming Server by IP address
- Smart wall manageable:
 - Four adding modes for decoding devices available:
 - By detecting the online devices
 - By specifying the device IP address or domain name
 - By specifying an IP segment
 - By specifying a port segment
 - Provides WAN and LAN access
 - Add smart wall and link decoding output with the window
 - Manage encoding devices (cameras, alarm inputs, and alarm outputs) by areas

Recording

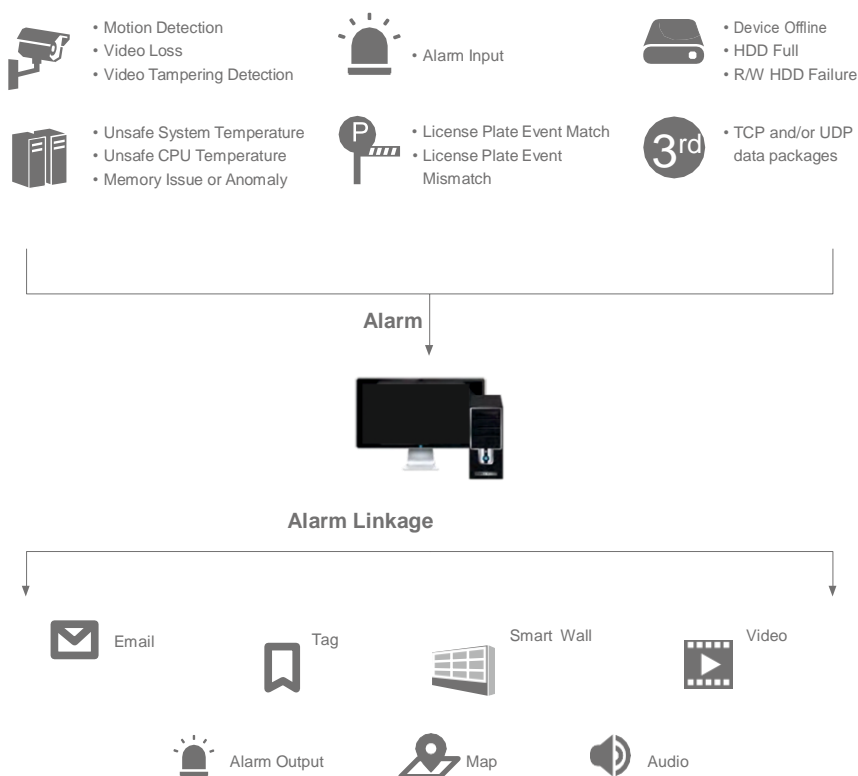
- Two storage methods for storing the video files
- Encoding Device: DVR/NVR/ network camera (SD card);
- Storage Quota Management: Enables customizable storage retention based on cameras, cluster, regions and other parameters

- Recording Server: Hybrid SAN or Cloud Storage Server
- Recording compression H.265+/H.265, H.264, MPEG4 or MJPEG supported
- Resolution & frame rate encoding capability selectable from lowest (CIF) to full HD up to 4K @ 5FPS to 30FPS.
- For remote site's cameras, store video files in the Central System's Hybrid SAN or Cloud Storage Server
- Continuous recording, event triggered recording, and command triggered recording.
- Custom recording schedule: All-Day Time-Based Template, All-Day Event-Based Template, and Custom Template
- Automatic archiving based on schedule and automatic recording deletion based of FIFO after disk full.
- Supports video locking by authorized user only
- Custom recording schedule: Full, Schedule recording, Motion detection recording, external/internal hardware or software events/ trigger based
- Multiple storage option enables video files storage in the multiple paths- local storage, central system's hybrid SAN, NAS or cloud storage server
- Custom recording: Simultaneous audio & video in same file, video only.
- Custom storage: Recording storage used for recording video feeds, Video retention rules, archive/Backup rules and storage limits etc. The recorded storage shall process the recordings and playback the video streams.
- Picture storage: Store the images (including passing vehicles and triggered alarms) on the VMS server's HDD

Events & Alarms

- Detect system-related events: camera events, alarm input events, encoding device exceptions, and server exceptions:
- Camera events: Motion, Video Tampering, Video Loss, etc.
- Device alarm input events
- Device exceptions: Device Offline, HDD Full, HDD Read / Write Error, etc.
- Event based export of Video in specific time period.
- Mainboard Temperature, Bad Disk, Disk Loss, etc.
- Create a generic event rule to analyze the received TCP and/or UDP data packages, and trigger events
- Detect camera alarms, alarm input alarms, encoding device exception alarms, server exception alarms, ANPR alarms, generic alarms, and remote site alarms
- In the Central System, detect camera alarms configured on remote site
- Support to save event as alarm when editing event
- Set linkage actions for event and alarm respectively and view cameras on alarm only.
- View matrix adjustment to accommodate alarms
- Send emails to notify users of configured event
- Event alert with Live view screen and push to action on event recording playback
- Send emails to notify users of configured alarm information with email template configurable
- Set arming template for the events: All-Day Time-based Template, All-Day Event-BasedTemplate, and Custom Template
- Set alarm priority: high, medium, low, and custom level

- Set alarm category: true, false, to be acknowledged, and to be verified
- Set multiple alarm linkage actions: trigger pop-up image, audible warning (voice text is supported), PTZ linkage, map linkage, alarm output linkage, smart wall linkage, recording linkage and alarm notification
- Supports Event based playback and event based timeline with event flags/dots mapped with timeline
- Integration with third party gateway for SMS and call when event alerts is triggered
- Lock IP address for configurable duration when reaching the configured failed password attempts
- Set the min. password strength
- Set the max. password age
- Lock the Control Client after a time period of inactivity



Live view

- View real-time video from the cameras on the current site or cameras imported from a remote site
- PTZ control; 256 presets/16 patrols/ 1 pattern
- Manual recording
- Capture
- Instant playback
- Digital zoom
- Two-way audio
- Switch between main stream or sub-stream
- Display live view parameters.
- Turn on/off the audio in live view; adjust the volume



- Set the window division
- POS Live View
- Capture Feature - Take Snapshots from Live or Playback Video
- Able to Schedule recording and manually control recording functions
- Display transaction data alongside corresponding video
- Picture in picture mode supports simultaneous live view and playback
- Live View: Supports dual streams automatic switchable between main stream and sub-stream at matrix and full screen mode. Various video resolutions and bit rate qualities configurable.
- Transaction information video overlay / separate display
- Tour & Sequencing: Enable touring view of multiple cameras. Allows selectable dwell time / interval for display of each camera from selected cameras sequence.

Playback

- Play back the recorded video of the cameras on the current site and cameras imported from a remote site
- Playback by files/ timeline with option of common timeline with camera sync
- Playback for up to 16 cameras
- Playback navigation with recorded data, camera list, timeline supported in list/tree view
- Image settings and improvement supported during playback
- Download the recordings for backup
- Pause/play & skip forwards/backwards
- Live View and Play back simultaneous operation in side by side windows
- Playback frame-by-frame
- Single-frame backward
- Slow forward/fast forward
- Turn on/off the audio in playback; adjust the volume
- Video clipping and capture
- VCA event based video search & playback
- Playlist support with date wise files
- Set the window division Digital zoom
- Display video parameters
- Customize playback speed
- Select storage location and stream type for playback

Control Client

- GPU hardware decoding
- Receive alarm
- Access to VMS via IP address
- Log in with the domain user
- The user account will be frozen after 5 failed password attempts
- Live view

- View real-time video from the cameras on current site or cameras imported from remote site
- PTZ control; 256 presets/ 8 patrols/1 pattern
- PTZ control lock/unlock
- Set virtual presets
- Public view and private view
- Camera auto-switch/View auto-switch
- Manual recording
- Capture
- Live view on smart wall- array of multiple monitors all displaying connected video feed
- Instant playback
- Custom window division
- Fisheye expansion modes: Fisheye, Panorama, PTZ, etc.
- Auxiliary screen preview
- Digital zoom
- Two-way audio
- Turn on/off the audio in live view; adjust the volume
- Camera status detection
- Arming control
- Switch the live view stream to main stream or sub-stream
- Live view on smart wall

Alarm center

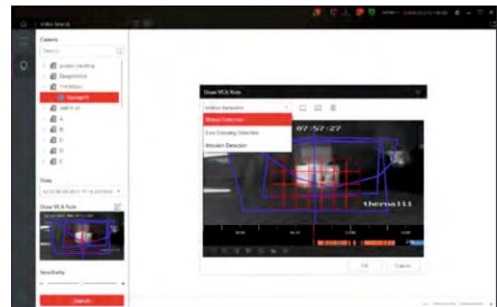
- Display alarm info including alarm time, alarm name, alarm status, etc.
- Display system alarm info including time and description
- View the live video or images from the related camera
- Play the alarm related video on smart wall.
- Add a tag to the alarm information
- Acknowledge the alarm with a text description
- Arming control for alarms
- Clear alarms manually
- Enable/disable the alarm audio
- Enable/disable alarm triggered pop-up window
- Push notification of event alert via SMS and email to authorized users. Report management enables event based recording, viewing, tracking, exporting related audio & video clip etc. and customized reports
- Search LPR alarms
- Search event log files and alarm log files and report generation in PDF/excel format with graphical and tabular representation

ANPR control

- View live video of ANPR cameras, and the license plate displays.
- Search logs of vehicle license plate recognized by the camera and the related vehicle passing information

Video search

- Search the video clip by tag, lock, segment or interval
- Search in storage location in Main Storage or Auxiliary Storage
- Search the transaction event by inputting the keywords in POS information
- Search the ATM event by inputting the card number that is contained in the ATM information
- Set VCA rules to search the video where a VCA event occurs
- Play back the searched video clip
- Download the searched video clip
- Search video files stored on local devices or Recording Server
- People counting statistic
- Heat map statistic
- Health monitoring
- Status overview including camera status, remote site status, decoding device status, VMS status, Recording Server status, and Streaming Server status
- Download and export the searched audio/video clip compatible with multiple media players in formats like avi/.mp4/.wmv. The media files can be saved on CD, DVD, USB drive, external storage etc.
- Selective search based on time, date, video source, camera and image region. Supports search for more than one camera simultaneously.
- Selective search based on time, date, video source, camera and image region
Search results options: Displayed as both a clickable timeline and a series of thumbnail images
- Detailed status page of cameras, encoding devices, remote site, decoding device, Recording Servers, and Streaming Servers



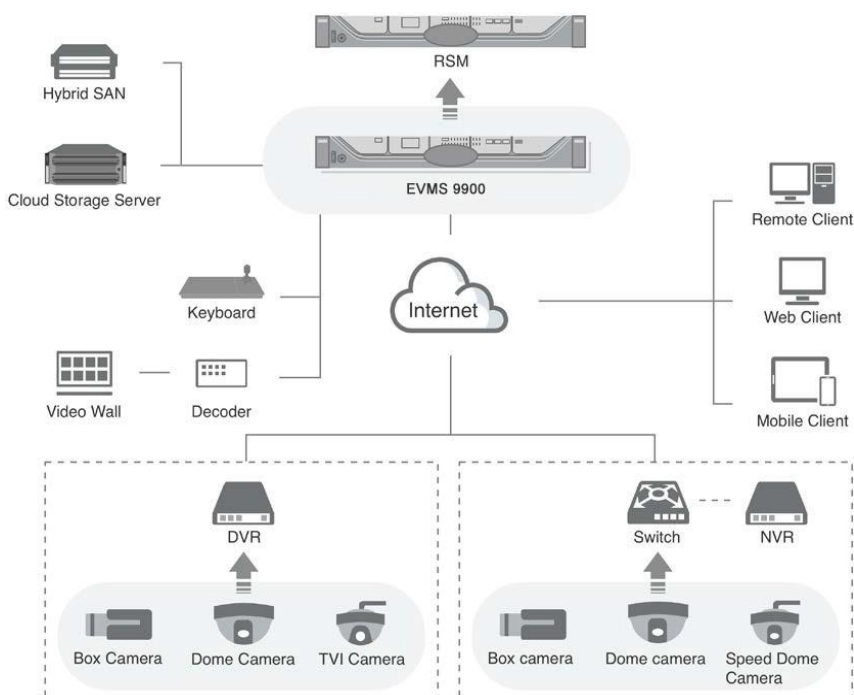
Desktop Client

- GPU hardware decoding
- Receive alarm
- Access to VMS via IP address
- Log in with the domain user
- The user account will be frozen after 5 failed password attempts
- Live view, Playback, Map control, Alarm center, ANPR control, Video search
- People counting statistic
- Heat map statistic, Health monitoring, Tools, Download center
- Log search, System settings

Mobile Client

- Access to the VMS via IP address
- Log in with normal user or domain user
- Log in with HTTP / HTTPS or RTSP or RTSP over HTTP streaming protocol to view & manage individual IP cameras directly
- Add/remove cameras to/from My Favorites
- Supports Android and iOS for live view and archived video
- Search cameras in different sites
- Live view
- User authentication for remote streaming and User account locking after 5 failed password attempts
- Video from the cameras and central remote management for multiple sites in same network or over internet
- Set 1/4/9/16 window division
- PTZ control
- Turn on/off the audio in live view
- Set the video quality
- Manual recording Capture
- Two-way audio
- Digital zoom
- Fisheye dewarping

Typical Application



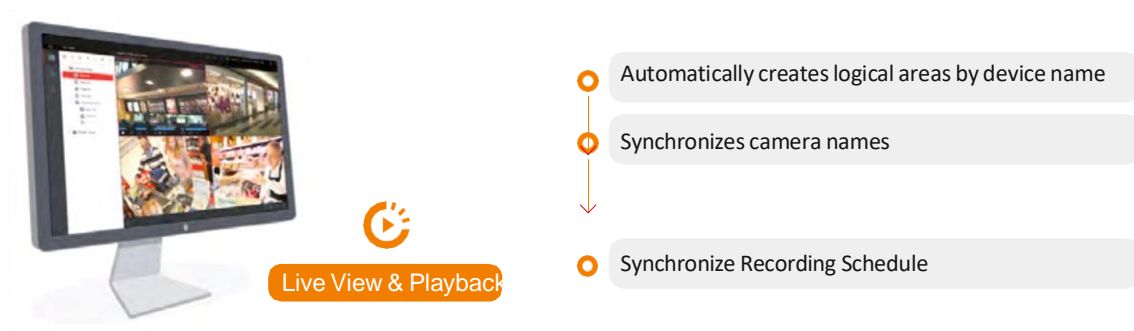
Advantages

Easy Set Up

Install the system in minutes! Single installation package design helps reduce the install time to minutes. Allows central addition & management of cameras recording storage and clients

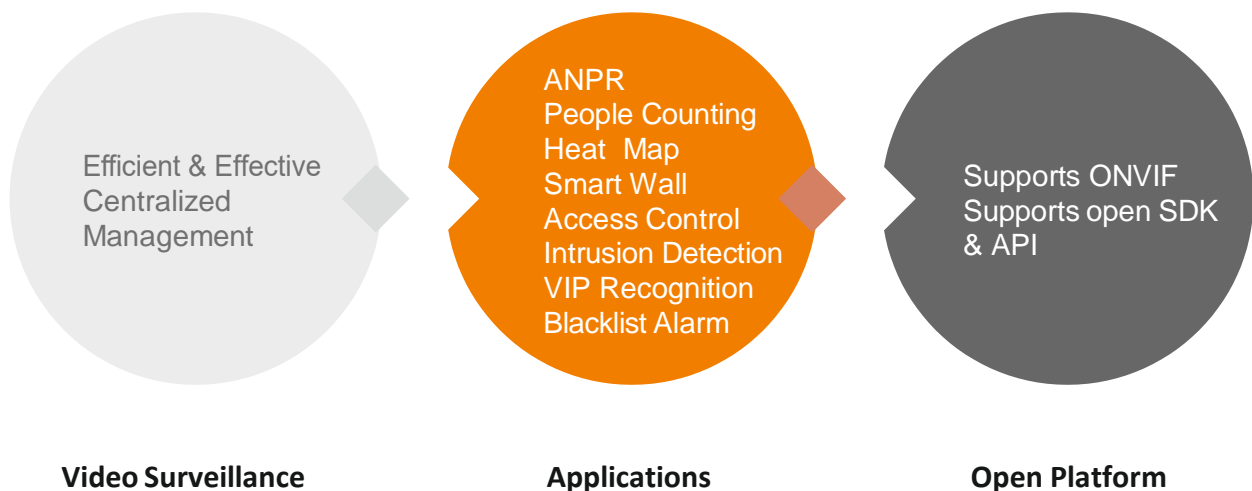
Easy Configuration

- One-step addition for DVRs, NVRs, and IP Cameras
- One-step configuration automatically detects devices and allows quick Live Viewing and Playback of video
- One-step configuration replication for IP cameras



Unified Platform

EVMS9900 is a unified platform that blends video surveillance, access control, ANPR, POS, and 3rd-party system integration into one highly efficient solution



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