



# Enterprise Level Open Platform Video Management Solutions Tailored for Distinct Verticals

Sophisticated video management systems combining our long-standing expertise in AI, machine learning, cloud computing and virtualisation.



## Intelligence

Powerfully smart, Wavesys WVMS supports almost any camera, and has a wide range of advanced features and a long list of add-ons, enabling more efficient video management than you will ever have encountered before.

### Complete Ecosystem



The software is packed with essential & advanced features to allow you to make the most of your video management system, regardless of how extensive it is

### Time-tested performance



The quality and stability of the software's core has been proved, and is backed up by Wavesys fifteen years of experience and continuous development

### Intuitive and user-friendly



The meticulously designed interface helps users to quickly understand the whole configuration process and start using the software.

### Enterprise ready



With its central server hierarchy, failover, archive replication and many more improvements, it's the ideal system for large-scale solutions

### Camera & Devices



5000+ camera module & 1500+ device.

## Highlights

Wavesys Enterprise WVMS's key integral elements work together to create a cohesive and up-to-date piece of video management software. When it comes to security, we know that every detail is important, and everything is taken care of.



### 64-bit core

Using the full power of hardware for efficient software architecture



### Powerful analytics tools

New modules for advanced video analytics, along with face and licence plate recognition



### Event and Action Manager

Automated video surveillance process using the Alarm and Action manager



### Failover

Constant monitoring of the status of all servers and failover management from the central server



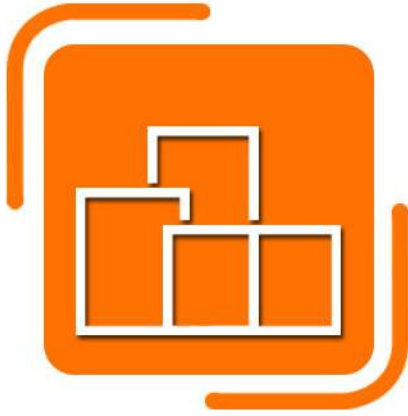
### Archive replication

Advanced mirror recording with scheduled transfers ensures your data is always safe



### Integrations and API

Enhance your video management with a vast range of integration possibilities for third-party software



## Wavesys WVMS Professional

To all the benefits of the high-quality and reliable WavesysVMS core, WVMS adds an intuitive user interface and better functionality. In addition to advanced features, it can use virtually any stream resolution, as well as having no software limitations on remote connections from client and mobile applications.

### WAVESYS WVMS Professional FEATURES

#### Advanced Event & Action Manager

Specify the desired outcome of your video surveillance system's operation. Determine how the software reacts to any event caught on camera and how it learns to process the reactions automatically. Send emails, activate DI/DO, interact with any other software or simply bring the attention of the operator to the camera that requires immediate action from them. The functionality is used in order to get rid of false alarms and to improve the efficiency of your surveillance system, and can be used not only for single events, but also for sets of sequenced events.

#### Maps

Complete overview of all areas where cameras are installed, providing immediate visual verification. All the alerts are integrated with the maps and can be set up so that they can be viewed on the overview as well — meaning you are able to immediately specify the location of the alarm event.

#### Video Content Analysis

Exploit the full potential of your video management system with video content analysis. Not only does this improve the functionality of your surveillance system (the ability to analyse large amounts of data to determine a specific pattern for the exact task you are working on), it also enhances security and safety and can be useful in many other areas of your enterprise, like HR and marketing.

#### Alarm Acknowledgement

Ensure no events are overlooked by the operator. All the alarms must be confirmed by the operator by automatically generating a bookmark of the event in the archive. The operator can make entries in the journal to allow tracking of actions performed with regard to the events.

#### Edge Recording

Synchronise all your data with IP device storage. By doing this, your data will still be recorded by all cameras even if network connection is lost to any of them. Data recorded during this period will be transferred in full to your server as soon as network connection is re-established.



#### Integrations and API

Wavesys offers customisable integration with other software systems in the form of a Wavesys HTTP API.



## Wavesys WVMS Enterprise

Wavesys WVMS Enterprise is a complete surveillance ecosystem solution for enterprises of any size, event house distributed across multiplesites. The software was designed using WVMS as a core, a system whose quality has been proven world wide over the last decade. The new version of the software, Wavesys WVMS Enterprise, not only offers 64 - bit speed and all the necessary tools for setting up an absolute situational alertness system in order to respond quickly to events, but also introduces a central server governance hierarchy for all components.

### WAVESYS WVMS Enterprise FEATURES

#### Video Wall

Get the most out of the video wall in your control room. Wavesys Video Wall offers improved configuration and functionality, as well as the ability to easily manage large - display installations. It is vital for operating large - scale videosurveillance systems, especially where having the ability to easily examine the area and quickly react to alarm events is essential

#### Advanced Health Monitoring

Keep your finger on the pulse of all of your hardware at once, minimising the risk of inconvenient surprises, and keep track of the state of the whole video surveillance system.

#### Failover

Automated recovery of your system in the event of a sudden server failure. Wavesys Global carefully tracks all the servers' operations, and, if any of the servers fails, it quickly activates a spare server to perform the actions that the malfunctioning server was performing prior to failing.

#### Multicast

Make full use of the multicast environment by transmitting to different destination devices (both servers and cameras). The functionality allows for fully integrated work with large enterprise environments using Active Directory or LDAP technology.

#### Organisation Hierarchy

The functionality allows the construction of a more structured hierarchy of system rights and privileges among users with in an organisation. The group's administrator (or sub - admin) rights are also specific for each group, and thus are valid only for the chosen range of cameras and servers.

#### Archive replication

Turn your local recording server into buffer server. In large enterprises, this enables convenient local usage and scheduled or constant data transfer to Central Data Centre, when ever the network is available.



# LPR Module

## Licence Plate Recognition

Wavesys high-precision licence plate recognition software for detecting, registering and analysing vehicle licence plates.

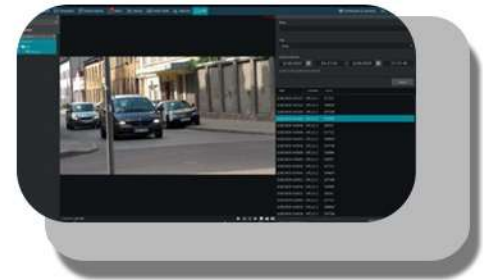
It offers a very high level of reading reliability, an intuitive installation process and great usability.

Wavesys Licence Plate Recognition Software is designed to work with a Wavesys server. The software is ideally suited for vehicle access and traffic control, as well as for law-enforcement applications. We offer multiple customisation possibilities for specific licence plates and different types of vehicles (trains, cargo containers, etc.).

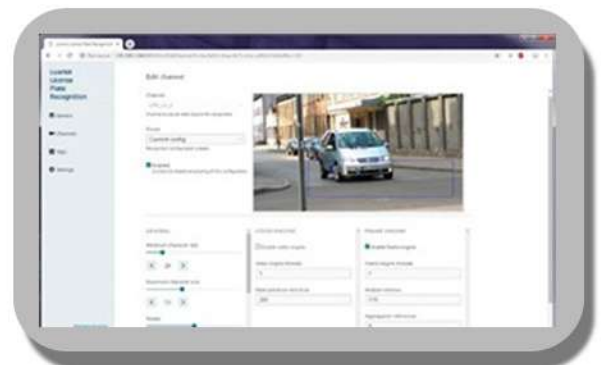
Additional features include an algorithm adaptive to lighting conditions, camera position and recognition area adjustment to optimise system load, as well as supporting local and remote lists of "allowed" and "restricted" numbers

## KEY BENEFITS

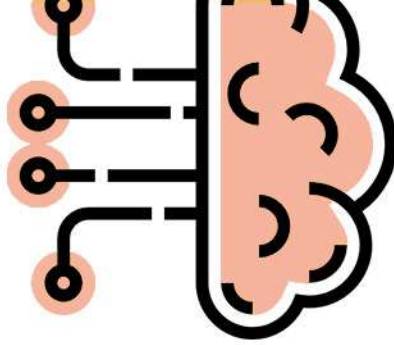
- ✓ Powerful recognition engine with very low error rate
- ✓ A wide selection of supported IP and analogue cameras intuitive user
- ✓ interface for easy setup, monitoring and data retrieval
- ✓ Simultaneous processing of multiple video streams



The Monitor application has an LPR tab to observe and review LPR video and generated events.



Configuring the video stream for LPR is an intuitive and effortless procedure.



# FR Module

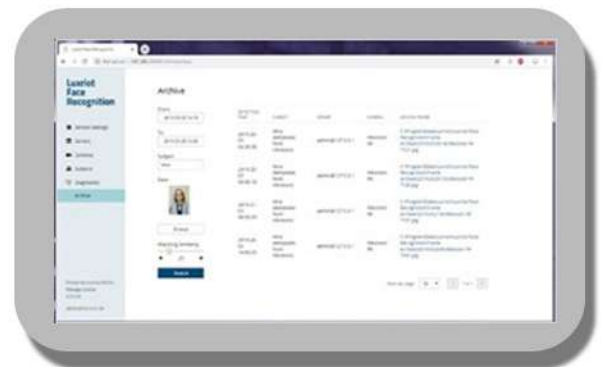
## Face recognition

Wavesys Face Recognition is a biometric application which ensures precise and fast face recognition and matching.

It offers a very high level of reading reliability, an intuitive installation process and great usability. Designed to work with a Wavesys WVMS server, the technology ensures high performance and precision in live face detection, simultaneous multiple face recognition and fast face-matching in one-to-one and one-to-many modes. Wavesys Face Recognition is ideally suited for applications for human resource control, as well as for security and law-enforcement applications. It allows you to analyse both live and recorded video, process streams from multiple Wavesys WVMS servers simultaneously and easily search and browse face images stored on local or central databases. If you want, you can use one of your own databases instead of the default one.



The Monitor application has a Face Recognition tab to observe and review FR video & generated events.



Configuring the video stream to enable face recognition is a self-explanatory and simple procedure.

## KEY BENEFITS

- ✓ A wide selection of supported IP and analogue cameras
- ✓ Intuitive user interface for easy setup, monitoring and data retrieval
- ✓ Simultaneous processing of multiple video streams
- ✓ Flexible action configuration for a vast range of person tags



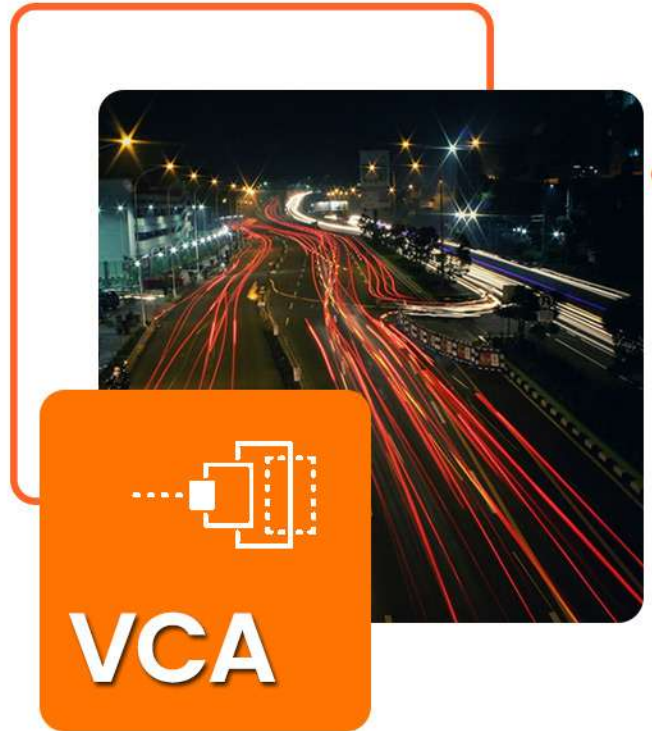
# WVCA Module

## WVCA Video content analytic

**WVCA is a real - time video analytics engine that utilizes advanced image - processing algorithms to turn video into actionable intelligence**

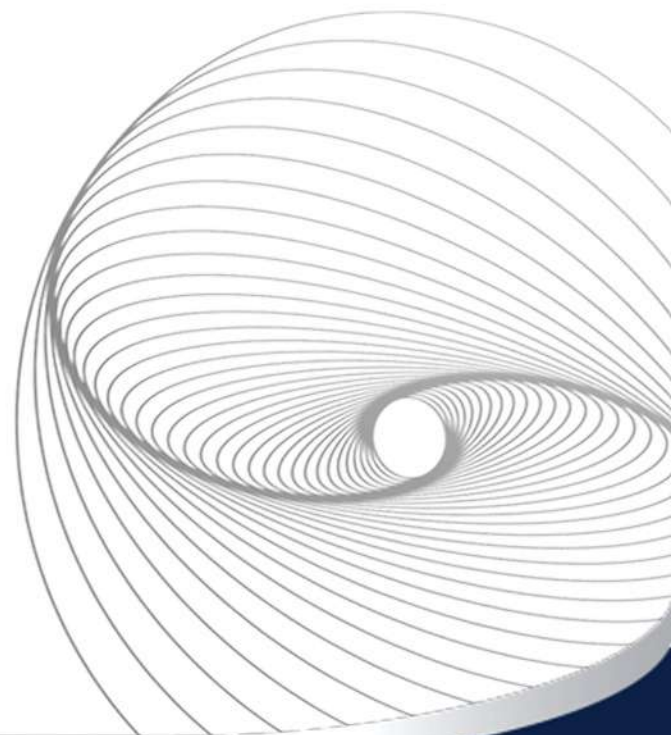
At the core of the product is an advanced object tracking engine that continually tracks moving and stationary targets .The Wavesys WVMS software is highly effective in a wide range of surveillance situations involving people, vehicles and other moving objects. Comprehensive filters ensure that the system can recognise appropriate behaviours characteristic of different kinds of situations surveilled.

The module is suitable for many different market segments and there is no need for further customisation. The WVCA enabled encoder / camera can be used as a stand - alone intruder sensor or the digital out put contact can be set to react to specific triggers.



### KEY BENEFITS

- ✓ Data mining for post - event analysis and data management
- ✓ Automatic adaptation to varying lighting and weather conditions
- ✓ Sensitive tracking, with a low rate of false alarms
- ✓ Analytics stabilisation function for swaying cameras
- ✓ Compatibility with PTZ cameras



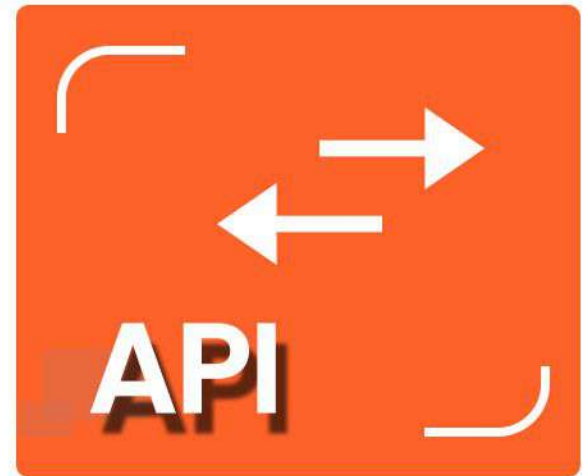
# API Module

## Vast integration possibilities

Wavesys offers customizable integration with third-party software systems, enabling the creation of a single convergent video management solution bringing together multiple subsystems.

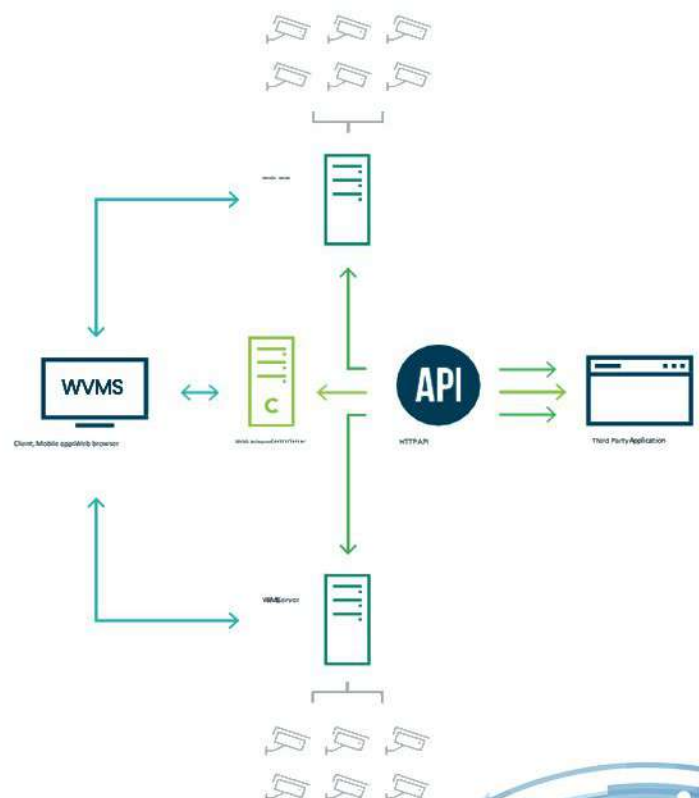
The smooth interaction between Wavesys WVMS ecosystem and third-party software offers virtually limitless possibilities for building a sophisticated video management system combining as many as 100 000 video streams. Wavesys's application programming interface module comes in a form of the cross-platform Wavesys HTTP API.

Wavesys HTTP API is a set of HTTP methods that enable interaction between third-party software and Wavesys WVMS servers. Retrieve live and archived streams in HTML5-compatible format, control PTZ cameras, implement external services and benefit from other important functions. Wavesys's HTTP API allows flexible integration, with no additional Wavesys components required for communication with Wavesys WVMS servers.



## KEY BENEFITS

- ✓ Cross-platform interface
- ✓ HTTP Methods
- ✓ HTML5-compatible video streams
- ✓ Future-proof interface
- ✓ No additional components required





# WVMS Mobile



## Live-stream on the go

Take advantage of this easy-to-use app for Android and iOS to access live and recorded video streams from Wavesys WVMS Server with your smartphone or tablet. Use for free, no matter where you are. gets and Chromecast

With WVMS Mobile you are always in control of the situation. Connect using 3G, 4G or WiFi to livestream from one or multiple cameras, or to play back recorded video. Set up multiple servers, freely adjust stream quality to match your bandwidth and share snapshots in the blink of an eye.

New and exciting features include geotagging, stacking, a panic button, push event notifications, edge recording and live streaming from the phone's camera, not to mention support of wid



The livestreaming function coupled with in-app edge recording makes the app especially useful for law enforcement, allowing users to use smartphones as body-worn cameras.



You can use phones running WVMS Mobile dashcams for fleet vehicles (trucks, delivery cars, taxis, public transport) for a simple and cost-effective vehicle tracking solution.



The same shared code base is used for Mac OS thin client application.



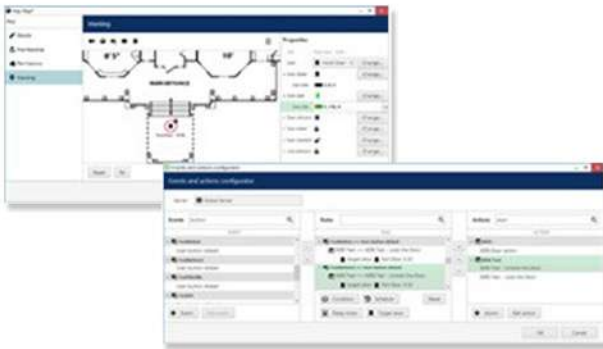
# Access control

## Taking smart security to the next level

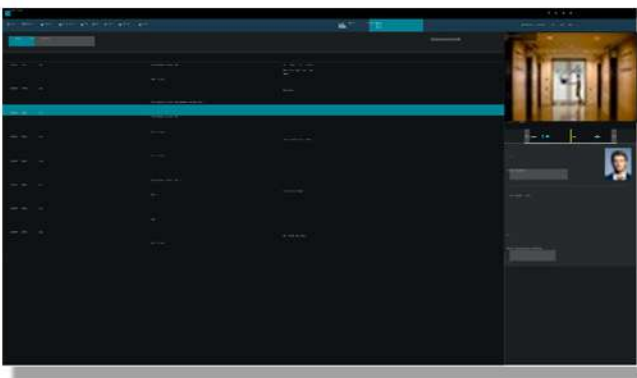
Wavesys solutions allow for seamless integration with third-party access control systems to ensure higher performance and better situational awareness.

The most obvious benefit of integrating video management and access control systems is a much better user experience within a unified interface. But that's just the tip of the iceberg. Due to a higher level of automation, the integrated system itself gains more efficiency. It executes routine operations and deals with emergencies with unsurpassed precision, and much faster than a human operator would. Less human interaction also means a reduced risk of security breaches due to human error or malicious intent.

The integration also enables you to set up proactive scenarios that will operate across the whole system. Using our intuitive configurator, you can define optimal responses to possible events. For instance, you can easily program the system to automatically lock specific doors once it receives notification of unauthorised access, or to carry out a partial lockdown of the facility if a video signal from a critical camera is interrupted. Moreover, by combining access control system events with relevant video footage, you get much richer input for subsequent investigation.



Using a map of the premises helps users to quickly configure access control elements and corresponding actions.



The Monitor application has an Access Control tab to observe and review LPR video and generated events.

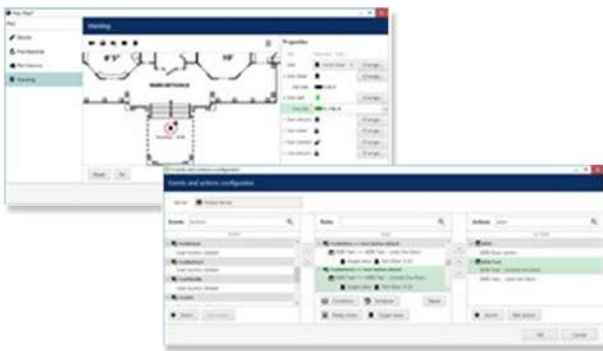


## POS

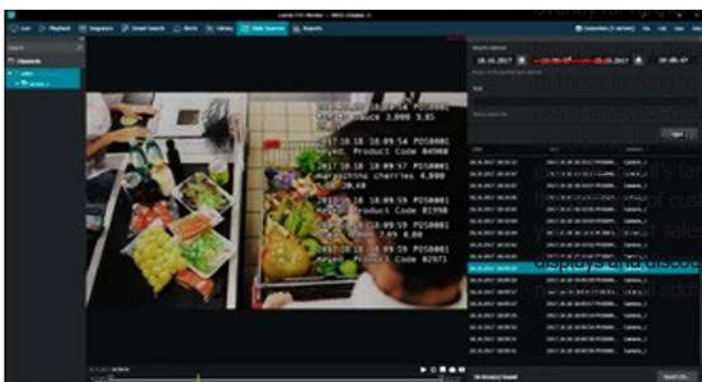
The key to optimizing your retail activity

Keep precise track of point-of-sale activity by integrating your video surveillance system with POS terminals

Whether your aim is monitoring the transactions that take place in a tiny café with just a single terminal, or the transactions of a large supermarket chain, at Wavesys we know an easy and cost-effective way to do it. Our solution enables transaction data overlay on live and recorded video streams coming from any number of IP cameras. The text search function allows you to easily find specific items and individual receipts, and to export the search results into a CSV file. You can also export archived video recordings with POS data overlay for further analysis or investigation.



Using a map of the premises helps users to quickly configure access control elements and corresponding actions.



The Monitor application has a POS tab, enabling users to observe and review POS video and generated events.

Wavesys can offer advanced shopper flow analytics to those looking to optimise their retail operations. Using analytics data to improve customers' experience by reducing queues is the most obvious example, but it's far from the only one. By analysing the patterns of customer flow around your store, you can boost sales by adjusting the placement of displays and discount products. All this without any need to install additional hardware

## Contacts

Wavesys operates globally via an extensive network of partners and installers. We provide 24/7 client support and have offices in the USA and the APAC region, thus covering all world time zones.

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