ACTi
Retail Surveillance Solutions

Retail: Overview

ACTi offers end-to-end Retail security solutions, including loss prevention (shoplifting, vandalism), employee safety assurance and disputes investigation.

The biggest challenge for the retailers is loss prevention. Millions of dollars are lost every year due to shoplifting. ACTi provides both human-assisted video monitoring solutions as well as AI-based fully automatic shoplifting prevention solutions.

One of the easiest way to keep eye on potential shoplifting is to have the live video monitoring screens in the proximity of the employees. That way, the store personnel can keep eye on the blind spots of the store while also taking care of their other tasks. The compact video decoders (ECD-series) allow the live video streams to be displayed in an HDMI panel. When anything suspicious has been detected, it is possible to go to the VMS Workstation to playback the incident.

It is also possible to let artificial intelligence assist with the monitoring. With the Missing Object algorithm inside the camera, it will alert immediately when any of the precious demo items has been removed from the shelf.

Retail: Map

Storage

Office

ATM

Cash Register

Merchandise Area

EAS Gate

Entrance
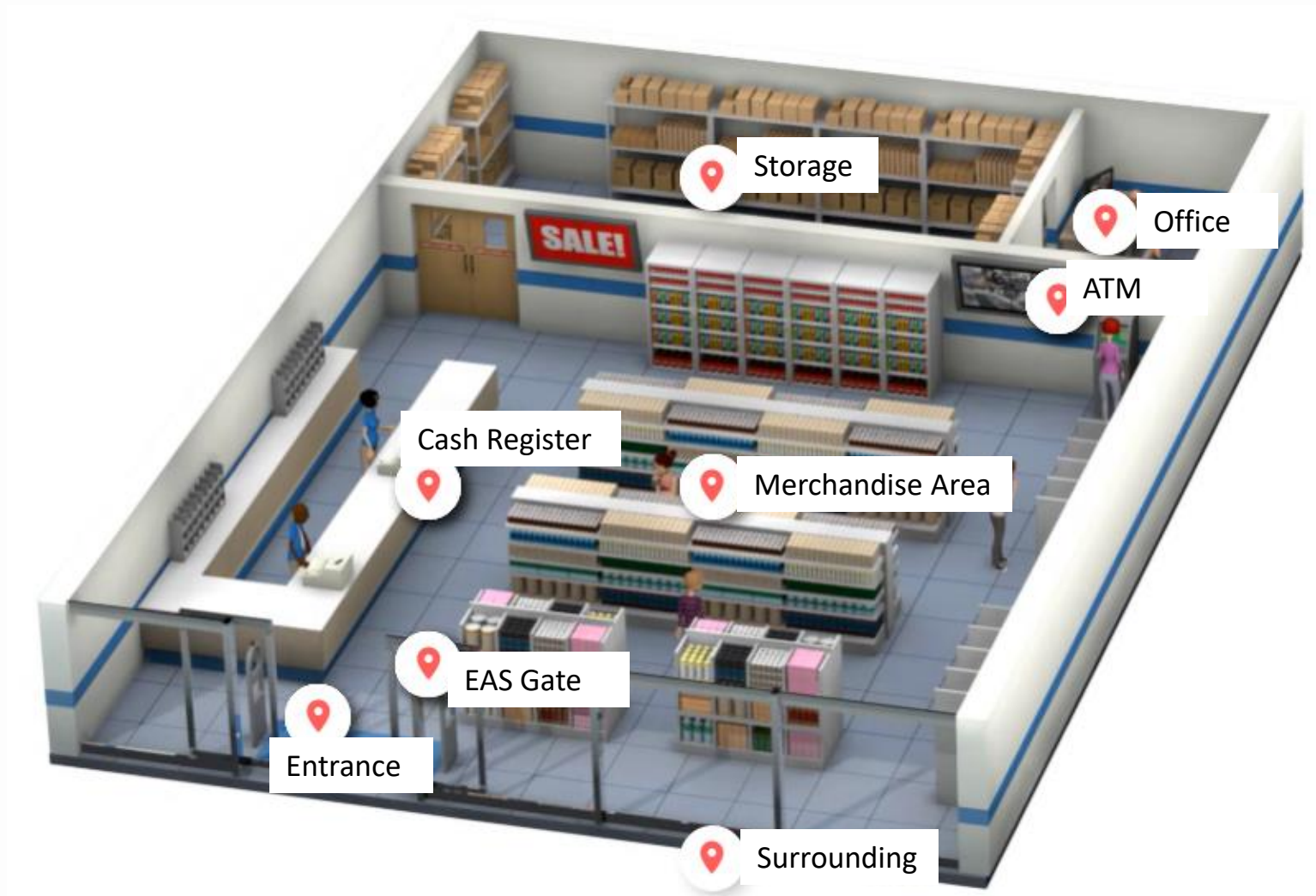
Surrounding

Retail: Applications vs Locations

	Entrance / Gate	EAS Gate	Merchandise Area	ATM	Cash Register	Office	Storage	Surrounding
Theft Detection		Y	Y		Y		Y	
Trespassing Detection			Y				Y	Y
Real-time Suspect Tracking	Y	Y	Y	Y	Y	Y	Y	Y
Disputes Investigation	Y	Y	Y		Y			
Digital Signage			Y		Y			
Unauthorized Access Detection						Y	Y	
Suspicious Items Detection	Y		Y					Y
On-the-Go Surveillance	Y	Y	Y	Y	Y	Y	Y	Y
Safety Assurance	Y	Y	Y	Y	Y	Y	Y	Y
Vehicle Access Control	Y							

Retail: Applications

Theft Detection

Detect possible shoplifting by the help of video surveillance or EAS gate alarm.

Trespassing Detection

Detecting the person entering the area without permission.

Real-time Suspect Tracking

Track the suspect seamlessly by switching between video channels using transparent video overlay buttons in video management system.

Disputes Investigation

Resolve the disputes by using the video and audio playback of the incidents.

Digital Signage

Show predefined digital content on the public monitors with customized layout, based on predefined schedule or event rules.
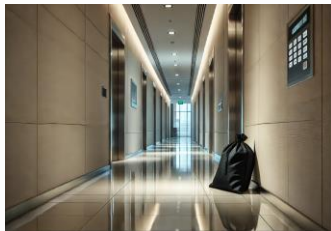
Retail: Applications

Unauthorized Access Detection

Detect the intrusion attempts using video analytics and notify the security personnel.

Suspicious Items Detection

Detect the items that are left unattended to prevent serious security and safety hazards.

On-the-Go Surveillance

Monitor the views from surveillance cameras using a mobile device while walking around the premises, to respond to incidents instantly.

Safety Assurance

Ensure safety of people using video surveillance system.

Vehicle Access Control

The access control at the gate can be done conveniently using ALPR technology.

Theft Detection

Detect possible shoplifting by the help of video surveillance or EAS gate alarm.

Whenever EAS gate triggers an alarm, or the security personnel notices the potential theft using the live video from the surveillance cameras, the incident can be instantly played back to verify once more, and the thief can be stopped just in time.

Solutions

Windows-Based NVR Solution (SF11) *Read*	Windows-Based NVR and Control Center Solution (SF12) *Read*	Cloud-Based NVR Solution (SF13) *Read*	Third Party Application Integrated Solution (SF22) *Read*	Third Party VMS Integrated Solution (SF23) *Read*

Trespassing Detection

Detecting the person entering the area without permission.

When a person enters someone's land or property without permission, it is considered trespassing, and it is illegal. An entry to the premises of the retail during closed hours is always considered trespassing. In some cases the trespassing also occurs during the open hours, by the blacklisted people.

This is based on the **People Enter Area Detection** analytics inside ACTi cameras. Read More.

Solutions

| Windows-Based NVR Solution (SF11) *Read* | Windows-Based NVR and Control Center Solution (SF12) *Read* | Cloud-Based NVR Solution (SF13) *Read* | Third Party Application Integrated Solution (SF22) *Read* | Third Party VMS Integrated Solution (SF23) *Read* |

Real-Time Suspect Tracking

Track the suspect seamlessly by switching between video channels using transparent video overlay buttons in video management system.

Track the suspect using the video management system interface by using the convenient feature of switching the views with 1 click on the video which opens up the next view of the area the suspect is moving towards to. This method works for both live view and playback. By this method it is possible to instantly find out where the suspect is going and dispatch officers to handle the situation immediately.

This is based on the unique **Visual Tracking** feature of ACTi's **NVR 3 and CMS 2**.

Solutions

| Windows-Based NVR Solution (SF11) *Read* | Windows-Based NVR and Control Center Solution (SF12) *Read* | Cloud-Based NVR Solution (SF13) *Read* |

Disputes Investigation

Resolve the disputes by using the video and audio playback of the incidents.

Sometimes there may be arguments between the employees and the customers, especially at the cash register. The disputes could be over the prices, the payment, product returns or other reasons.

This is based on the **NVR 3 or CMS 2** along with audio supported surveillance cameras.

Solutions

Windows-Based NVR
Solution (SF11) *Read*

Windows-Based NVR
and Control Center
Solution (SF12) *Read*

Cloud-Based NVR
Solution (SF13) *Read*

Retail: Applications

Digital Signage

ACTi provides end-to-end solution for effective and real-time communication. Digital signage is able to display various contents such as pre-recorded video, live video streams, images, text and web pages with customized layout.

The digital signage can be used as:

1. General Advertising
2. Notifications, Reminders, Instructions
3. Surveillance Monitoring, Theft Prevention

For General Advertising, Notifications, Reminders, Instructions, the **cloud-based digital signage** is used. For Theft Prevention, the **ECD-series decoders** are used along with ACTi's VMS solution.

Solutions

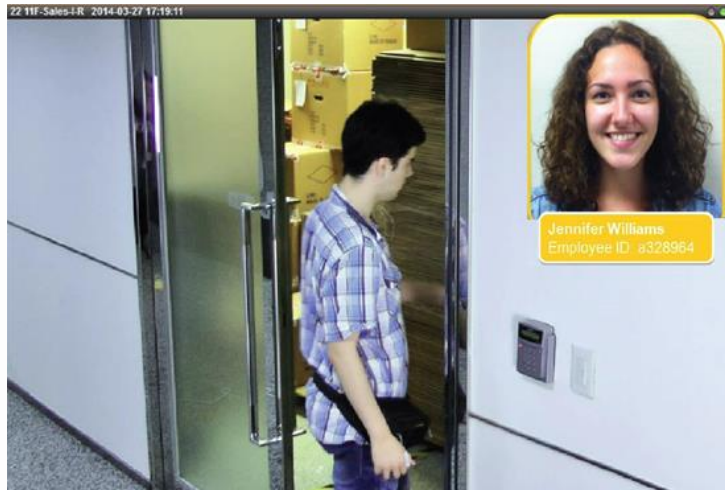| Cloud-based Digital Signage Solution (SF21)   *Read* | Windows-Based NVR Solution (SF11)   *Read* | Windows-Based NVR and Control Center Solution (SF12)   *Read* | Cloud-Based NVR Solution (SF13)   *Read* |

Unauthorized Access Detection

Detect the intrusion attempts using video analytics and notify the security personnel.

Without surveillance videos, it is hard to be sure if the identity shown in the entry log matches the accessing person. Access control integrated with the surveillance system can remarkably prevent the crises and loss resulted from unauthorized access.

This is based on the **Face Recognition** analytics in ACTi's Door Stations.

Solutions

Access Control Solution
(SF20)
Read

Suspicious Items Detection

Detect the items that are left unattended to prevent serious security and safety hazards.

The unattended objects, such as bags, boxes, suitcases, strollers, carts, are considered risk items that should be handled quickly. Those objects can sometimes be accidentally forgotten there. An early detection saves them from being stolen. Rarely, these items could also pose threats as being malicious. They could disguise explosives or other dangerous substances.

This is based on the **Unattended Object Detection** analytics inside ACTi cameras. Read More.
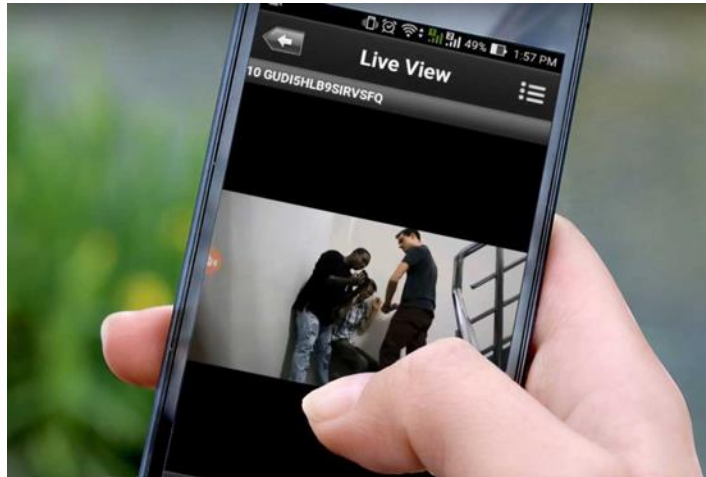
Solutions

Windows-Based NVR Solution (SF11) *Read*

Windows-Based NVR and Control Center Solution (SF12) *Read*

Cloud-Based NVR Solution (SF13) *Read*

Third Party Application Integrated Solution (SF22) *Read*

Retail: Applications

On-the-Go Surveillance

Monitor the views from surveillance cameras using a mobile device while walking around the premises, in order to respond to incidents instantly.

Universal mobile application designed to remotely access NVR, CMS or camera for video playback and management.
Features: Live view and playback, Search video recordings by events, PTZ Control, Google Maps, Activate Digital Output, Playback from camera's memory card

This is based on the **ACTi Mobile Client,** both for Android and iOS. It is free.

Solutions

Windows-Based NVR Solution (SF11) *Read*

Windows-Based NVR and Control Center Solution (SF12) *Read*

Cloud-Based NVR Solution (SF13) *Read*

Retail: Applications

Safety Assurance

Ensure safety of people using video surveillance system.

ACTi provides surveillance solution for ensuring the safety with both overview and details monitoring. By installing a camera with wide viewing angle at the center or the corner of the store, the whole area can be perfectly covered. Meanwhile, the faces of people entering the premises can be captured by the covert camera discreetly installed into the height strip at the entrance.

For large scale projects, ACTi TV Wall enables multiple views to be displayed on different monitors at the same time. Get the complete overview to improve situational awareness and operational efficiency.

Solutions

Windows-Based NVR Solution (SF11) *Read*

Windows-Based NVR and Control Center Solution (SF12) *Read*

Cloud-Based NVR Solution (SF13) *Read*

Third Party Application Integrated Solution (SF22) *Read*

Third Party VMS Integrated Solution (SF23) *Read*

Vehicle Access Control

The access control at the gate can be done conveniently using ALPR technology.

Except for the highest security facilities, most locations can benefit from the automatic gate control without requiring the gate officer to be present all the time. Only the white-listed vehicles can enter the premises. Furthermore, it is possible to set up a blacklist which alerts the security officers instantly when the blacklisted vehicle appears.

This is based on the **ALPR** analytics inside ACTi cameras. Read More.

Solutions

Access Control Solution
(SF20)   *Read*

Recommended Products vs Locations

	Entrance / Gate	EAS Gate	Merchandise Area	ATM	Cash Register	Office	Storage	Surrounding
ALPR Bullet Camera (A426)	Y							Y
Access Control Door Station (R1- R7- series readers/controllers)						Y	Y	
ECD-Series Decoders			Y	Y	Y			
General Surveillance Bullets (3xx, 4xx series)	Y	Y	Y	Y	Y	Y	Y	Y
General Surveillance Domes (91x, 7xx, 8xx series)	Y	Y	Y	Y	Y	Y	Y	Y
Surveillance PTZ (95x/96x/97x Series)	Y	Y	Y	Y	Y	Y	Y	Y

Products vs Management Servers

	Windows NVR (NVR 3)	Access Control Smart Server
ALPR Bullet Camera (A426)	Y	Y
Access Control Door Station (R1- R7- series readers/controllers)		Y
ECD-Series Decoders	Y	Y
General Surveillance Bullets (3xx, 4xx series)	Y	Y
General Surveillance Domes (91x, 7xx, 8xx series)	Y	Y
Surveillance PTZ (95x/96x/97x Series)	Y	Y*

PTZ controls available via NVR interface.

Windows NVR (NVR 3)

NVR 3 is one of the most famous ACTi products – it is a professional and elegant network video recorder platform with wide range of features and extremely reliable performance, available in two editions ([read more](#)).

Feature	NVR 3 Business	NVR 3 Corporate
Maximum Number of Channels	100	200 (Standalone NVR 256)
Free ACTi Camera Channels Included	32	1
Free 3rd Party Camera Channels Included	1	1
CMS Support	No	Yes
POS, Access Control, Network IO Support	No	Yes
eMap	Yes	Yes
Google Map	No	Yes
Embedded Websites within Display	No	Yes
PTZ Control	Yes	Yes
Redundancy Support (N+1, N-to-N)	Yes	Yes
Workstation, Web Client, Mobile Client	Yes	Yes
Display Layouts (maximum grid size)	225	225

Access Control Smart Server

Access Control Smart Server (ACSS) is an easy-to-use access control software for managing **employees and visitors access** through the doors and gates as well as managing **employee attendance**. (read more)

Core Function
Access Control Management Doors, gates, locks, identification of face*, card, ALPR*, tailgating* detection
Attendance Management Work shifts, clock-in, clock-out, late, absent
Visitor management Visitor enrollment for temporary access
Construction site management Temporary sites management
Food ordering management Conveniently manage the employee services
Conference room management Book the available meeting rooms in your company
Customer arrival management Track when the customers arrive to the appointments
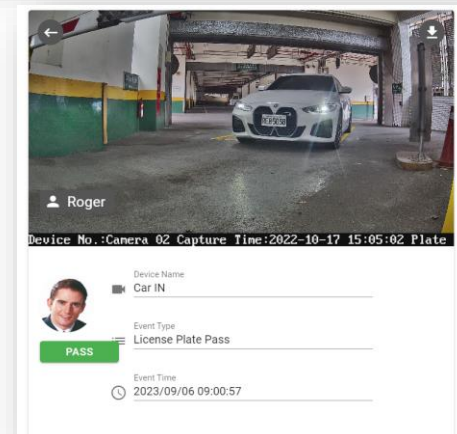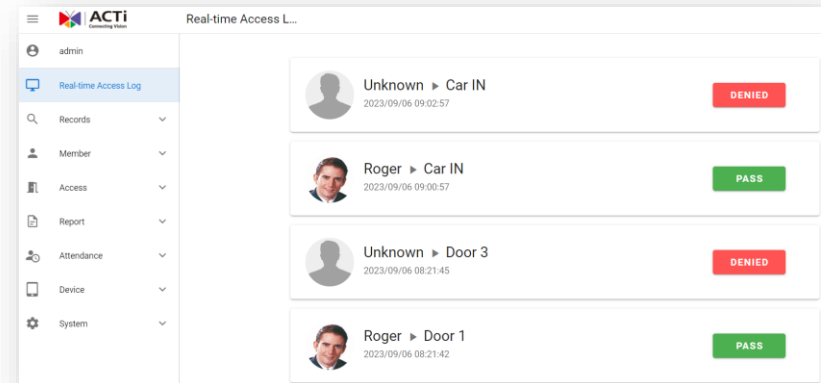
ACTi Deep Learning AI Camera Product Line

Deep learning is a method in artificial intelligence (AI) that teaches computers to process data in a way that is inspired by the human brain. Deep learning models can recognize complex patterns in pictures, text, sounds, and other data to produce accurate insights and predictions.

Model	A426	A826	A952	A956	Q83
Photo					
Type	Zoom Bullet	Zoom Dome	Speed Dome	Speed Dome	Multi-Imager
Resolution	5MP	5MP	8MP	2MP	20MP
Lens	4.4x Zoom	4.4x Zoom	22x Zoom	40x Zoom	4 zoom lenses
Built-in Vehicle Related Analytics	Vehicle Counting, Vehicle Line Crossing Detection, Vehicle Enter Area Detection, Vehicle Incorrect Direction Detection, Vehicle Loitering Detection, Vehicle Tracking, Stopped vehicle detection, License Plate Detection, Automatic License Plate Recognition				

PMAX-0534

Pole Mount with Junction Box, supports 3.25" to 7.0" Poles

A426

5MP Zoom Bullet with D/N, Adaptive IR, Extreme WDR, SLLS, 4.4x Zoom Lens, **Deep Learning AI**
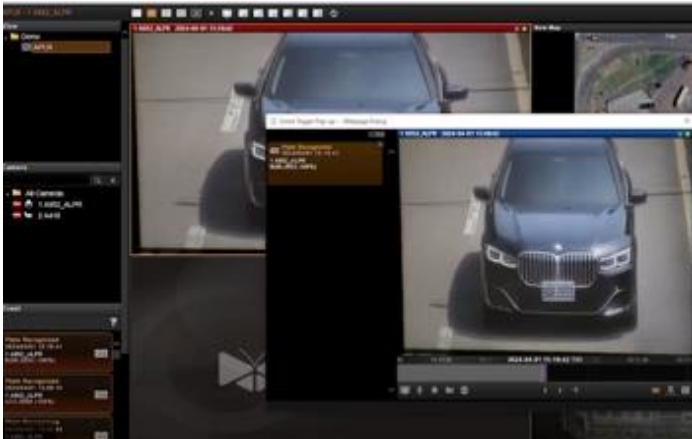
ALPR Camera (A426)

https://www.acti.com/video/v2902

The AI camera can recognize multiple license plates across multiple lanes at the same time.

WATCH THE VIDEO

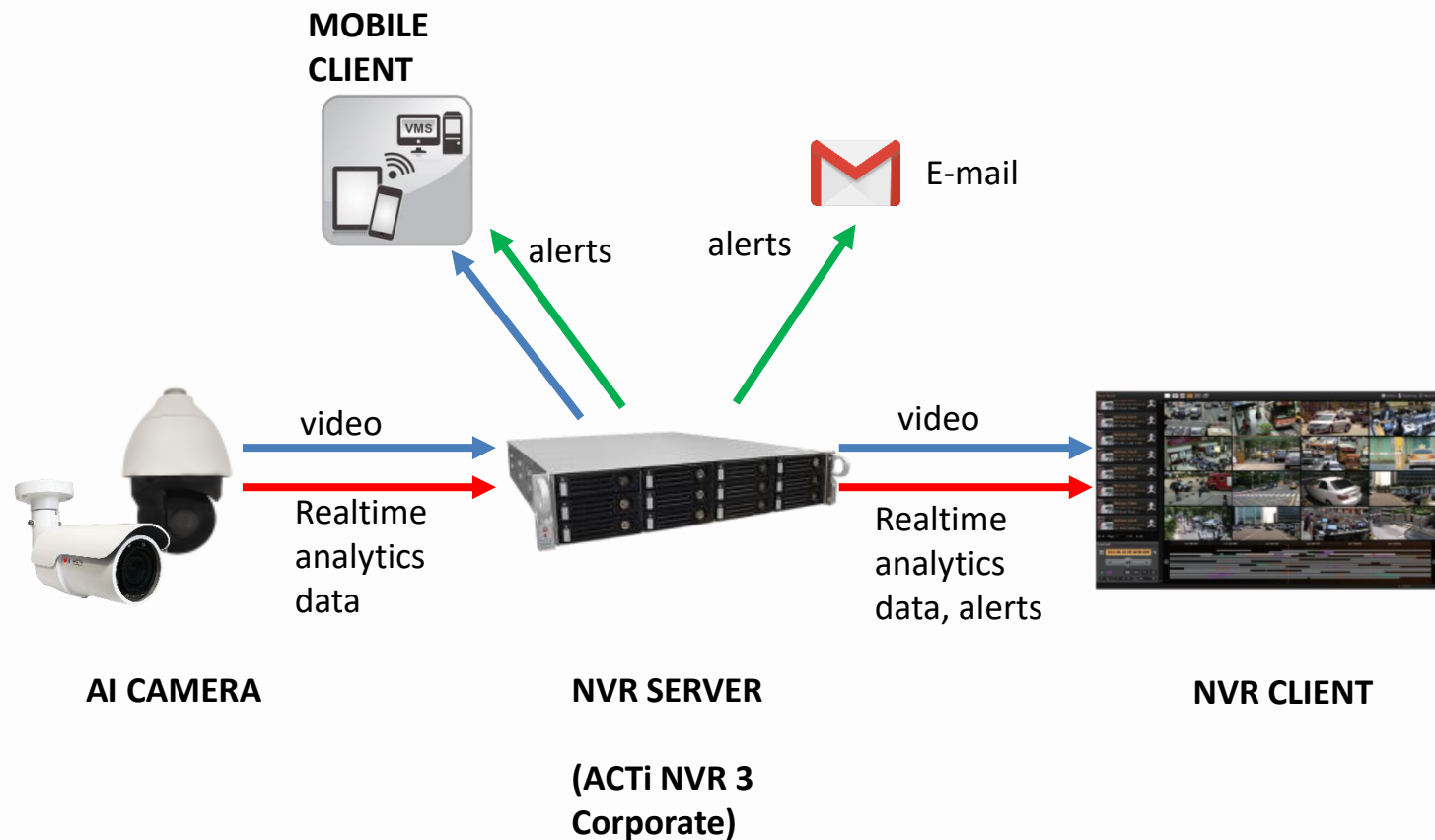## ALPR Camera + NVR 3

https://www.acti.com/video/v2904

ACTi NVR 3 supports the deep learning AI events and metadata. When the blacklisted vehicle is detected, the NVR will display instant alert.

WATCH THE VIDEO

ACTi AI Solution Architecture

MOBILE CLIENT

E-mail

alerts   alerts

video   video

Realtime analytics data   Realtime analytics data, alerts

AI CAMERA   **NVR SERVER**   **NVR CLIENT**

(ACTi NVR 3 Corporate)

ACTi Advantages compared to Server-Based AI Providers

- Hundreds of channels with deep learning analytics can be managed by a single VMS server, using just a common server hardware configuration. The Server-based AI solutions have limited number of channels and require very expensive hardware.

- VMS video recording functionality is much better secured when the VMS does not have the burden of running the analytics that may consume the server resource to its limits.

- Faster response to the events – AI cameras can control the other nearby PTZ cameras for instant response, to get better video coverage of the scene. The analyses that are processed on the VMS side will be too slow for proper response.

- Since the AI features are inside the camera, there are no Analytics related licenses required on the server side. Therefore, the cost of VMS in some cases is up to 10 times lower than the server-side AI solutions.

NVR and CMS Features

ACTi NVR 3 Corporate (and CMS 2) manages the analytics events from the cameras as follows:

1. Set up the analytic rules and thresholds – for example, how big is the crowd, how long time is considered loitering.

2. Receive real-time analytic events from all the cameras and respond by the pre-defined actions, such as send e-mail, instant pop-up of the video channel on the VMS screen and more.

3. Automatically push video to the mobile app of the patrolling security guards.

4. Search by the specific filter rules, bookmarks, thumbnails.

Where to Buy

Via Authorized Resellers

https://www.acti.com/Corporate/WhereToBuy
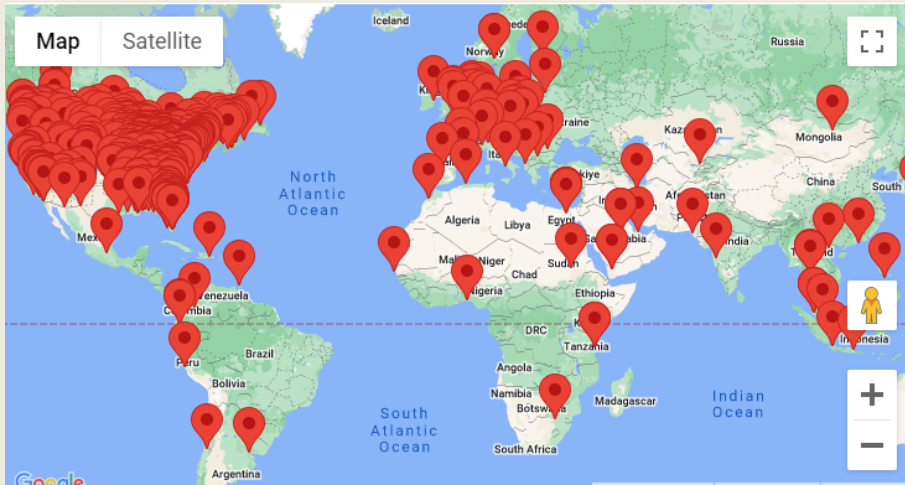
From ACTi Corporation Directly

E-Mail: sales@acti.com

Tel (US): +1-866-410-2284 (Toll Free)

Tel (Non-US): +886-2-2656-2588

Support & Services

Technical Support

- Online Customer Helpdesk - https://www.acti.com/chd

- Phone support

US: +1-866-410-2284 (Toll Free)

Other Regions: +886-2-2656-5200

RMA Services

- Warranty

- Repair services

Training

- Self-learning