# ACTi Utility Surveillance Solutions

Utility: Overview
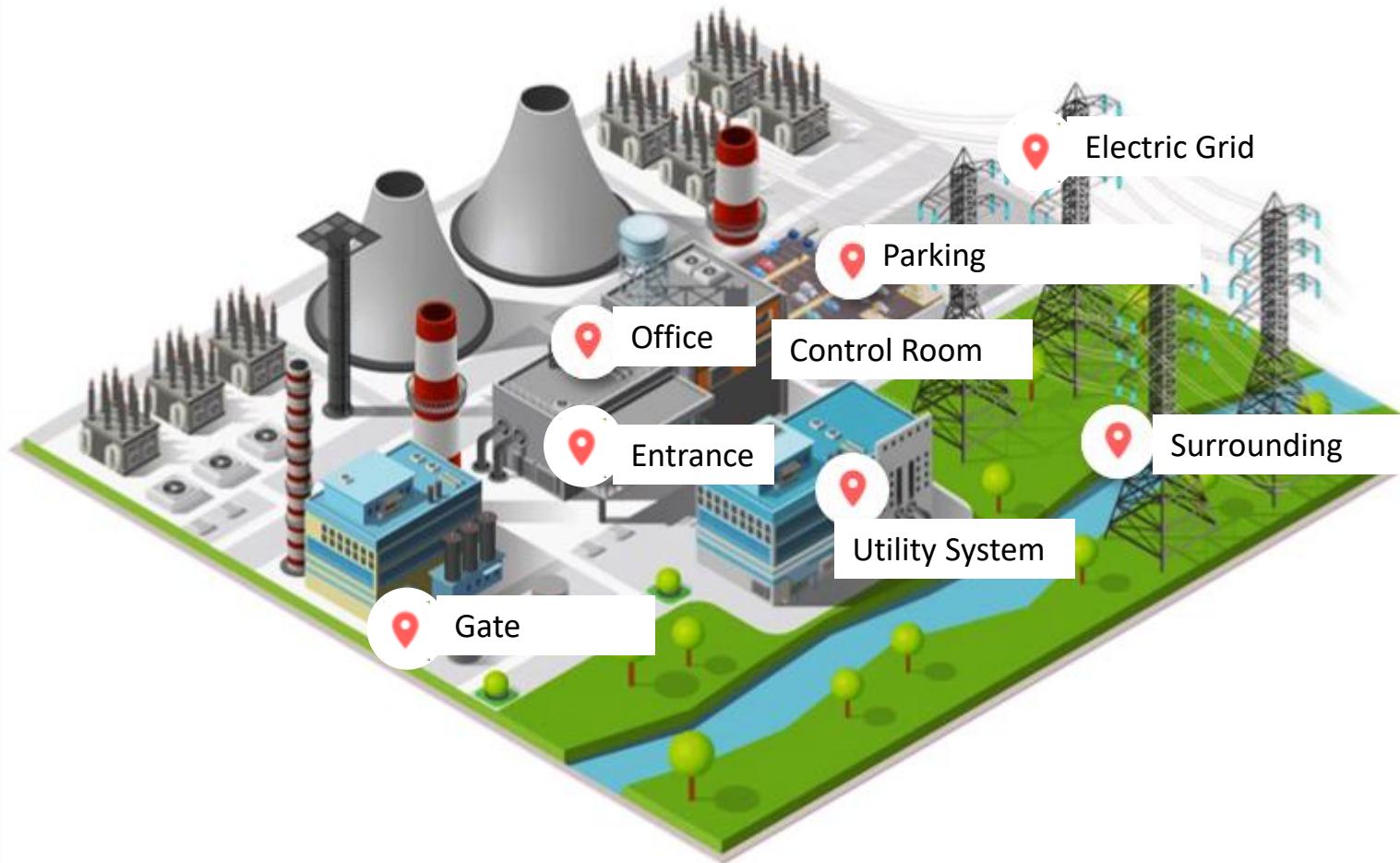
ACTi's end-to-end utility solutions are designed to prevent trespassing, vandalism and ensure the safety of employees. The solutions consist of application-driven cameras, analytics, and the integration with access control, alarm or various critical systems.

As utilities are important infrastructures that connect to numerous people's lives. The major security related challenges are usually vandalism, terrorism and explosion.

Utilities are important infrastructures that connect to numerous people's lives. The major security related challenges are usually vandalism, terrorism and explosion. To prevent trespassing and ensure the safety of employees, ACTi's end-to-end utilities surveillance solution consists of IP cameras, video management system, video analytics, access control, alarm system, malfunction monitoring and much more.

Utility: Applications vs Locations

	Entrance	Gate	Utility System	Office	Control Room	Electric Grid	Surrounding	Parking
Unauthorized Access Detection	Y	Y	Y	Y	Y			
Tailgating Detection	Y	Y	Y	Y	Y			
Real-time Suspect Tracking	Y	Y	Y	Y	Y	Y	Y	Y
Vehicle Access Control		Y						Y
Intercom Service	Y	Y	Y	Y	Y			Y
Trespassing Detection							Y	
Suspicious Items Detection	Y	Y	Y	Y	Y	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
Equipment Status Monitoring			Y		Y			

Utility: Applications

Unauthorized Access Detection

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

Tailgating Detection

Detect tailgating at the entrance of restricted area by comparing the detected head count with number of presented access credentials.

Real-time Suspect Tracking

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

Vehicle Access Control

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

Intercom Service

Interact with other individuals by local voice-based communication system.

Utility: Applications
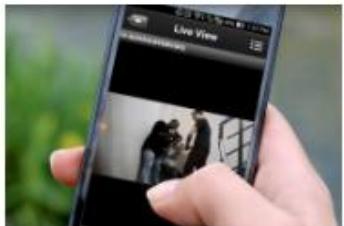
Trespassing Detection

Detecting the person entering the area without permission.

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.

Equipment Status Monitoring

Monitor the health or the temperature of the equipment for instant actions.

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Jennifer Williams
Employee ID a328964
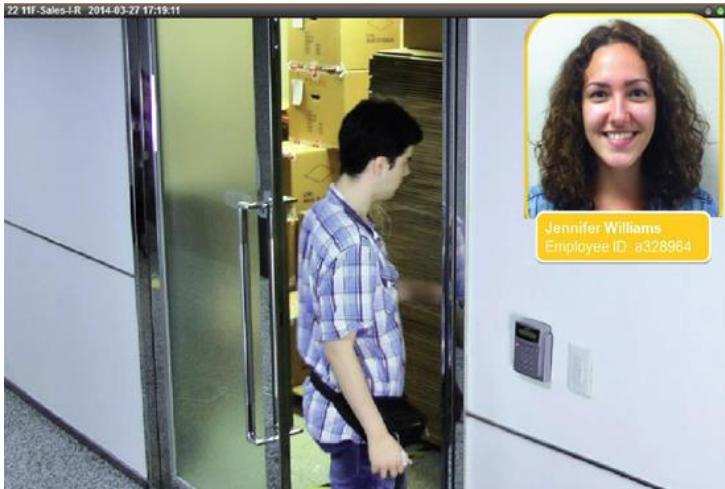
Unauthorized Access Detection

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*

Tailgating Detection

Detect tailgating at the entrance of restricted area by comparing the detected head count with number of presented access credentials.

Whenever the RFID card is swiped, the system will count the number of the actual entries. When mismatched, the system will create the alarm. This prevents both tailgating and piggybacking.

This is based on the **People Counting** analytics and **RFID** technology. Read More.

Solutions

Access Control Solution (SF20)   *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*

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

Intercom Service

Interact with other individuals by local voice-based communication system.

There will be voice access points as intercoms in various locations across the Utility, such as gates and entrances, loading area, parking lot and others. The employees and the visitors can talk to the security staff immediately using that feature.

This is based on the **NVR 3 or CMS 2** along with intercom devices such as **Q950**.

Solutions

Windows-Based NVR Solution (SF11) *Read*

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

Cloud-Based NVR Solution (SF13) *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. There are places that are restricted for strangers nearly all the time, such as the whole territory of the Utility plant. There are also some places that are open for anyone during daytime but are closed at night due to safety reasons. Entering those areas at night would be considered trespassing.

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*

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 or suspicious devices are considered risk items that should be handled quickly. Those objects can sometimes be accidentally forgotten there. 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*

Utility: 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*

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_

Equipment Status Monitoring

Monitor the health or the temperature of the equipment for instant actions.

There are two ways to receive the health information about the monitored equipment - either by observing its appearance using the optical or thermal cameras, or by receiving the health status data over the IP network.

This is based on the **Network Modules** for status data transmission or **Thermal Cameras.**

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*

Recommended Products vs Locations

	Entrance	Gate	Utility System	Office	Control Room	Electric Grid	Surrounding	Parking
Thermal Cameras (VMGB-370, VMGB-371)	Y	Y	Y			Y	Y	
Intercom (Q950)	Y	Y	Y	Y	Y			Y
ALPR Bullet Camera (A426)		Y						Y
Access Control Door Station (R1- R7- series readers/controllers)	Y	Y	Y	Y	Y			
People Counter for Tailgating prevention (Q963)	Y	Y	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

Products vs Management Servers

	Windows NVR (NVR 3)	Access Control Smart Server
Thermal Cameras (VMGB-370, VMGB-371)	Y	Y
Intercom (Q950)	Y	
ALPR Bullet Camera (A426)	Y	Y
Access Control Door Station (R1- R7- series readers/controllers)		Y
People Counter for Tailgating prevention (Q963)	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
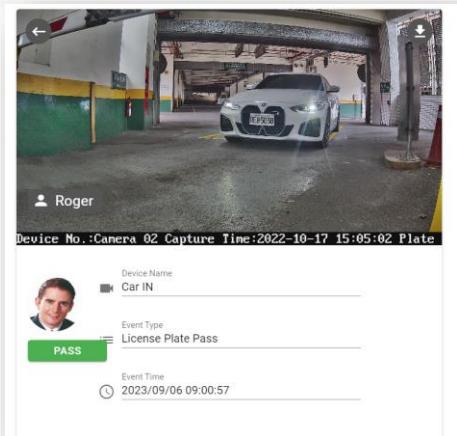
Conference room management
Book the available meeting rooms in your company

Customer arrival management
Track when the customers arrive to the appointments
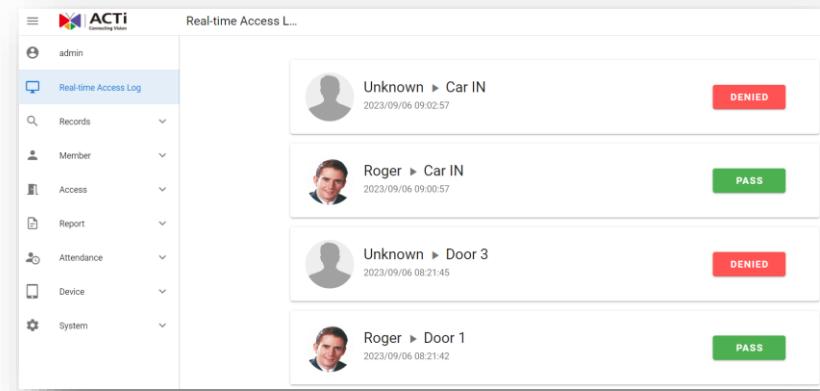
ACTi Deep Learning AI Camera Product Line

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				

A426 Utility Installation

PMAX-0534

Pole Mount with Junction Box, supports 3.25" to 7.0" Poles
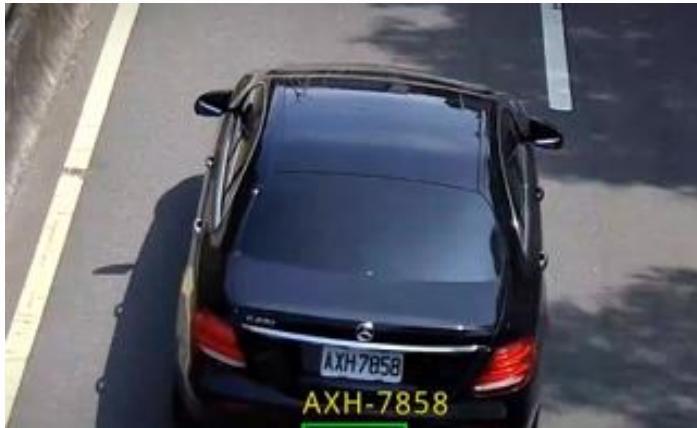
A426

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

ALPR Camera (A426)
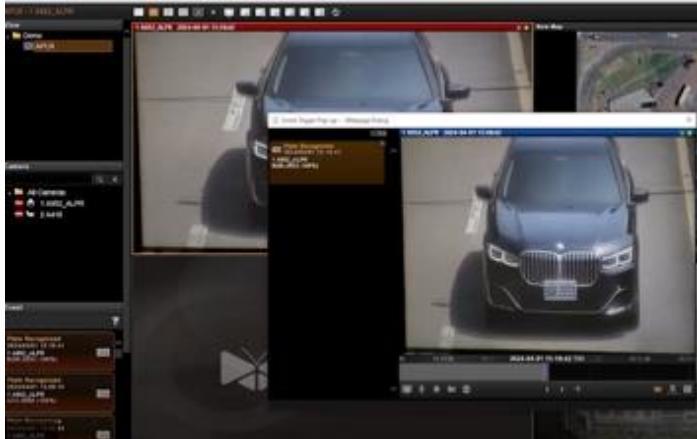
The AI camera can recognize multiple license plates across multiple lanes at the same time.

WATCH THE VIDEO

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

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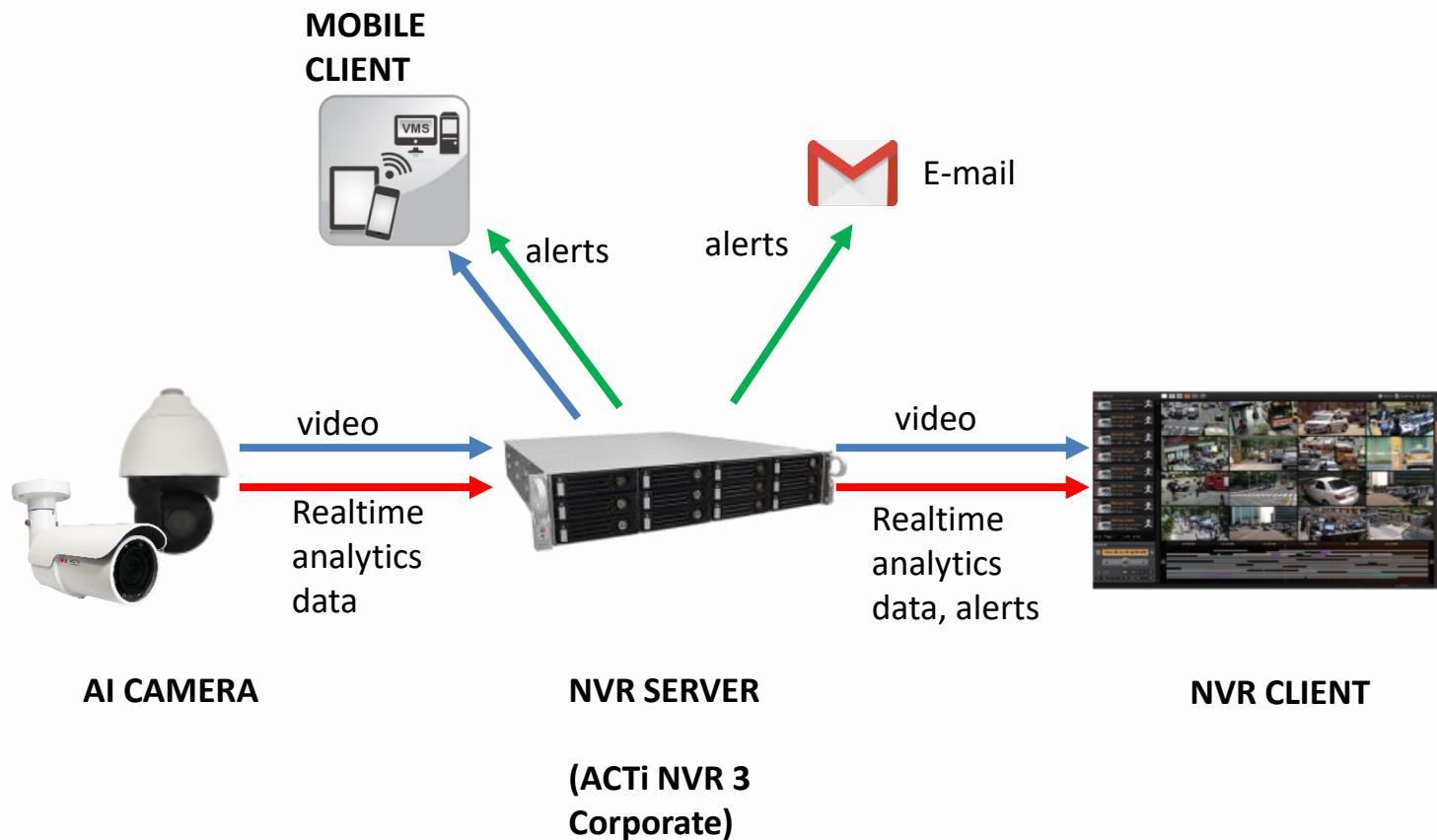
ACTi NVR 3 supports the deep learning AI events and metadata. When the blacklisted vehicle is detected, the NVR will display instant alert.

WATCH THE VIDEO

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

ACTi AI Solution Architecture

MOBILE CLIENT

VMS

E-mail

alerts   alerts

video

Realtime analytics data

video

Realtime analytics data, alerts

AI CAMERA

NVR SERVER

(ACTi NVR 3 Corporate)

NVR CLIENT

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
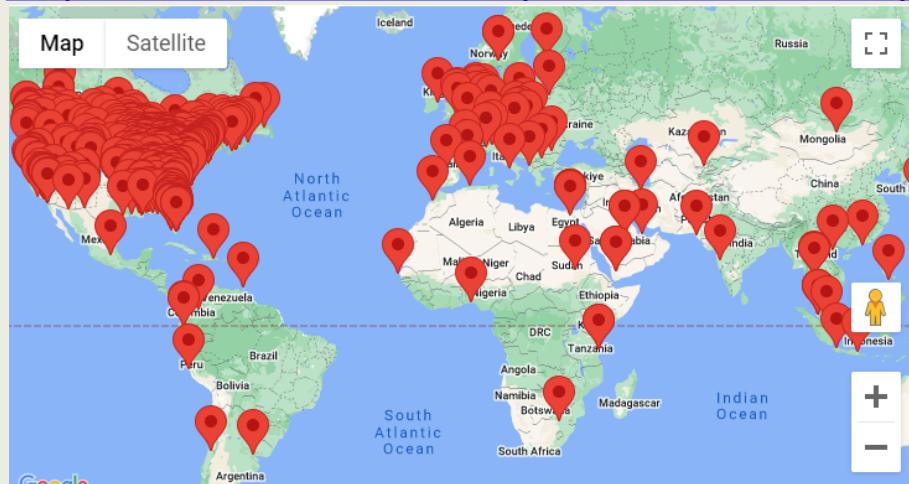
From ACTi Corporation Directly

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