SOLUTIONS

Asura Technologies

Security solutions based on image and video analytics for general security, surveillance, ITS, and parking industries

Overview

Who we are

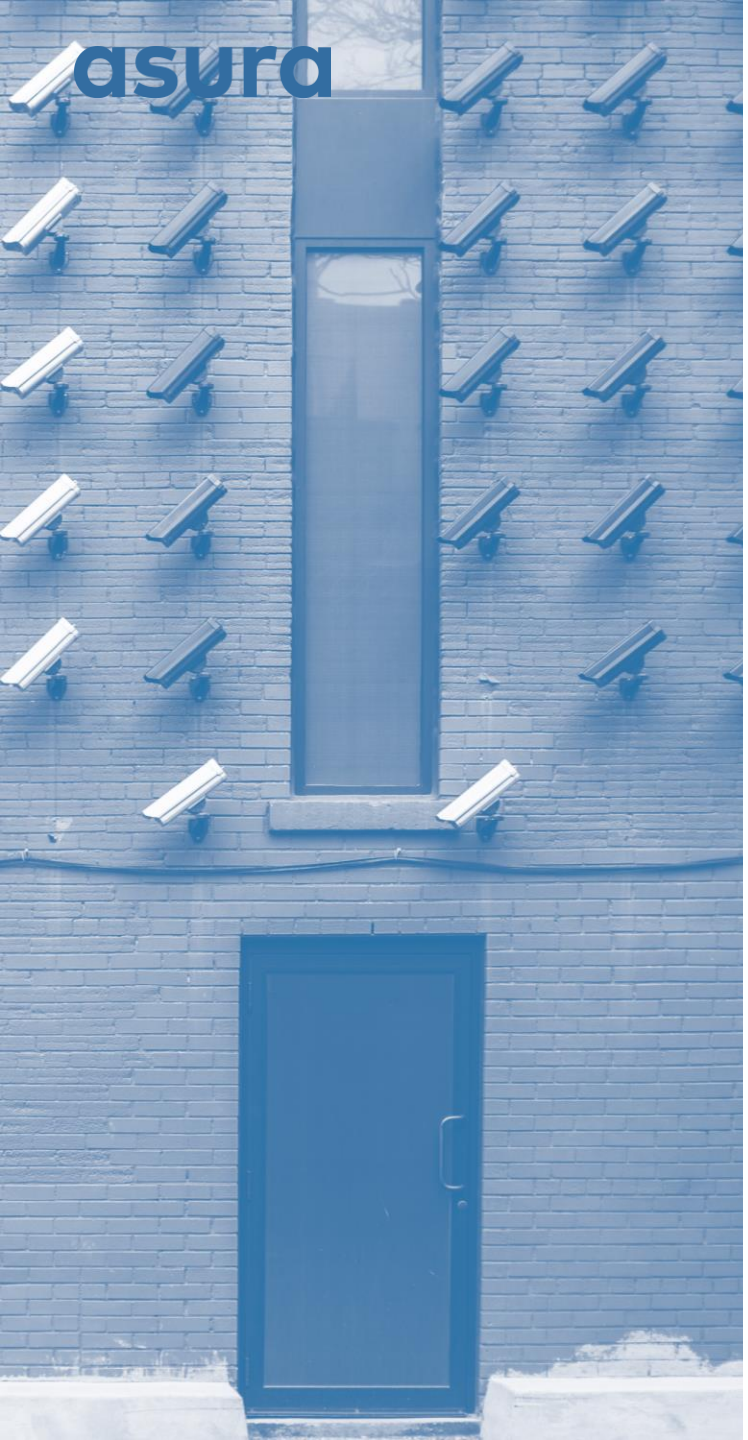
Asura Technologies is driven by a single mission: to create easy to integrate, camera-vendor independent data collection systems based on video analytics technology for security, surveillance, parking and traffic management industry. We are dedicated to developing innovative technology based on customer insight to provide the highest level of user experience and maximal efficiency.

What we do

Application development: we create turn-key solutions that do not require complex programming for integration.

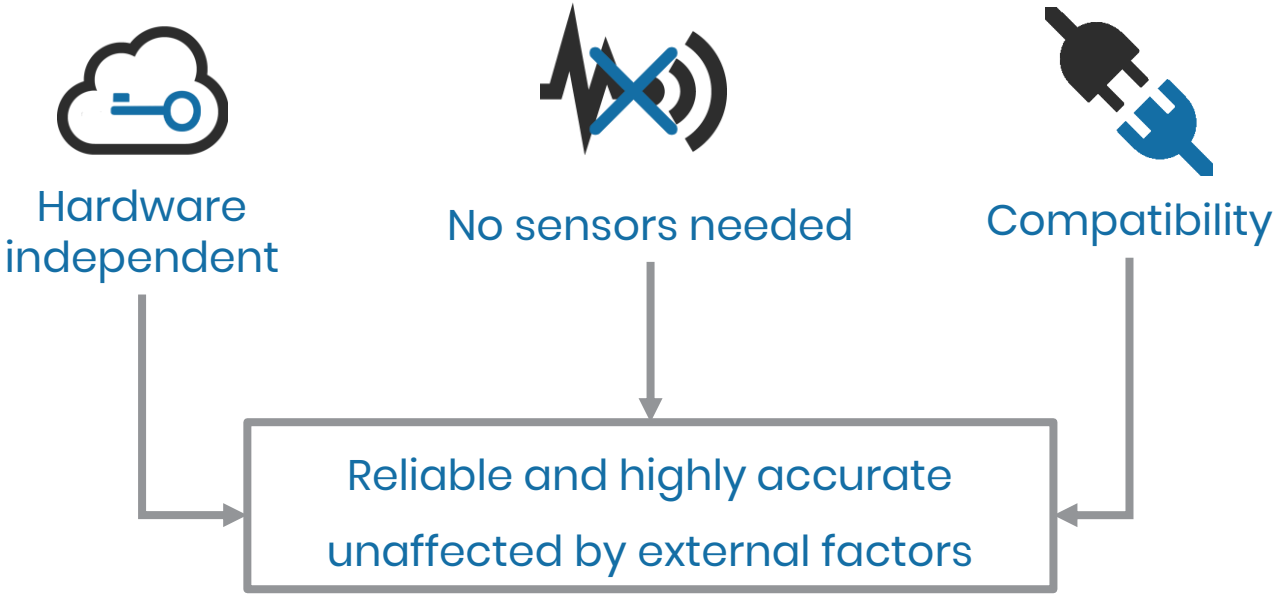
R&D - computer vision: we find new ways to solve existing security problems using AI related technologies and deliver solutions for new challenges.

Integration: We enable our technology on demand in any preferred system.



Advantages of video analytics

With eliminating external sensors, the level of your system's interoperability raises and the validation of data becomes more accessible.



Awards

Asura Recognition Unit (ARU) was a Special Mention at the Innovation Awards at Intertraffic Amsterdam 2018.

Intertraffic INNOVATION AWARD 2018 Special Mention

Solutions

Asura Recognition Unit (ARU)

ARU is a plug and play application to enable LPR, MMR and traffic analytics technology in any new or existing traffic or parking data collection system. It is enabled on fixed and mobile platforms (vehicle mounted) with additional optional applications.

AI SHIELD

The AI SHIELD System is a special technology that can detect and classify dangerous objects like weapons, symbols and different other patterns that can appear in case of terror attack or other security incidents. It can track an undefined amount of image channels and provide automatic warning to prevent damages and loss.

aru LICENSE PLATE RECOGNITION

aru MAKE & MODEL RECOGNITION

aru MOVE

aru ACCESS CONTROL EXTENSION

AI SHIELD

What is ARU?

Asura Recognition Unit (ARU) is a data collection software using machine learning enhanced video analytics for complete vehicle identification. It's modular design allows matching the desired identification and authentication requirements as well as the budget constraints of a given task or project. ARU can be used on various fields of parking and traffic management:

- Parking and Access control
- Surveillance and VMS solutions
- Traffic and law enforcement
- Tolling and ITS

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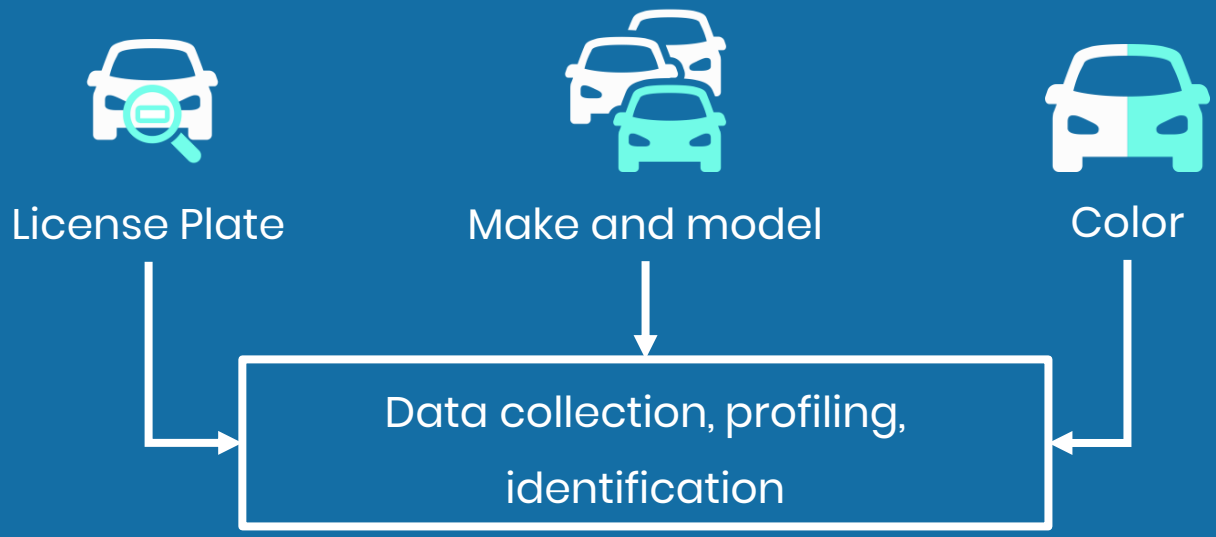
Complete vehicle identification

Asura Recognition Unit (ARU) collects all recognizable data of the monitored vehicles from visual input using advanced video analytics. This feature enables effective application of ARU in ITS, vehicle access control, parking and other security and surveillance related fields.



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Features

Vehicle recognition and identification

License Plate Recognition

Make and Model Recognition

Color recognition and classification

Traffic analytics and extra features

Vehicle direction (wrong way)

Multi-lane reading (with one camera)

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Applications

ASURA MMR

aru MAKE & MODEL RECOGNITION

MMR is the video analytics expansion working with ARU LPR to provide the Make, Model and Color of vehicles beside the license plate information.

ARU MOVE

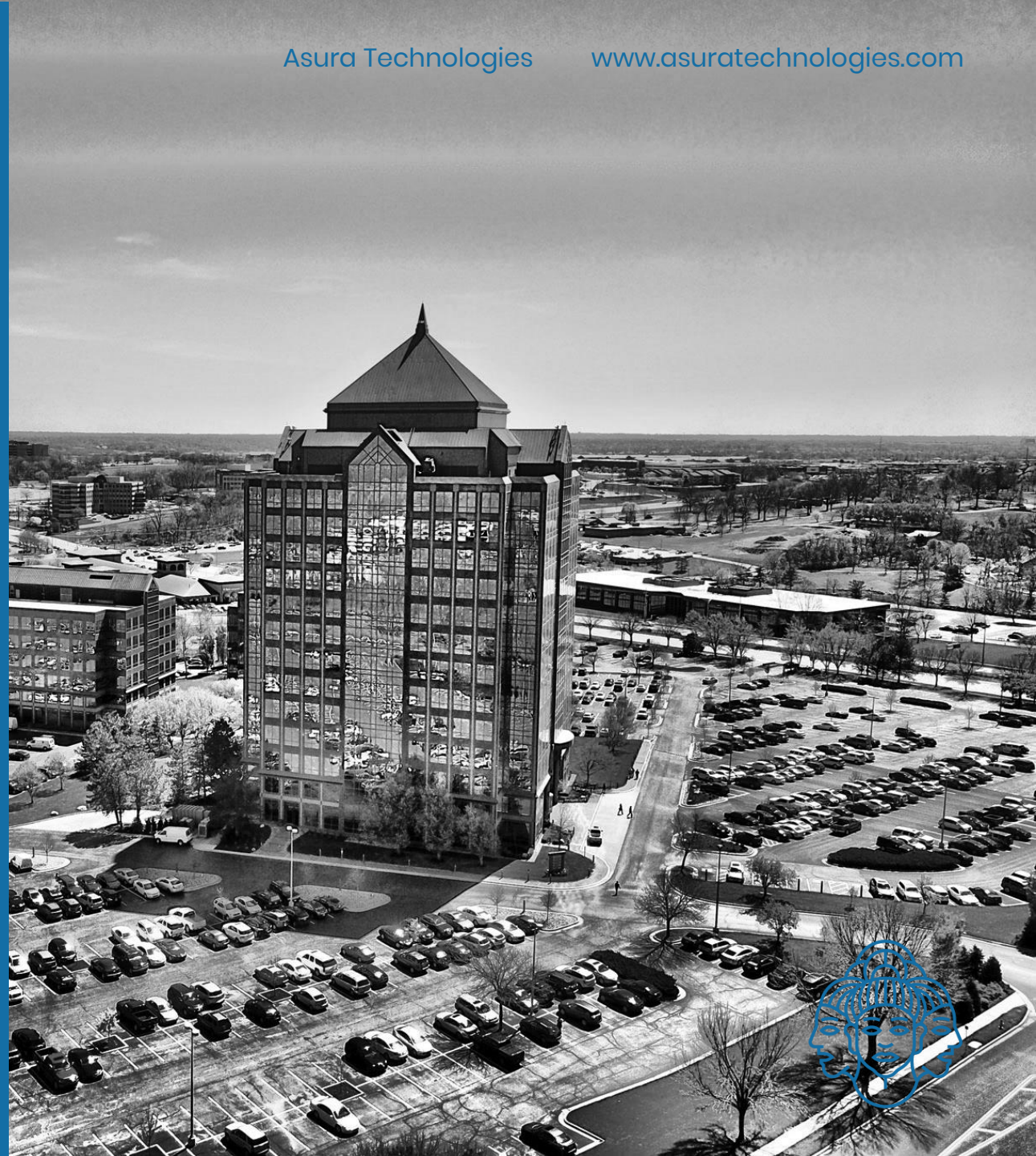
aru MOVE

Mobile LPR solution for cameras mounted on vehicles reading license plates while in motion. Applicable in parking and law enforcement.

ARU ACE (Access Control Extension)

aru ACCESS CONTROL EXTENSION

Extension package for ARU LPR. Enables permission controls and I/O device control (e.g. barrier or gate).



Application fields

Traffic management

Automatic traffic monitoring for traffic violations, vehicle counting, visual reference for law enforcement using LPR, MMR and other video analytics based traffic data collection technologies

ITS | Tolling | Traffic and law enforcement

Security & surveillance

Automatic weapon and other (custom) object detection, suspicious behavior and incident detection, automatic alerts triggered by incidents.

Access control | CCTV | VMS/NVR/DVR | General reporting

Parking and access control

Automatic identification using LPR or other visual characteristics of the monitored vehicles.

Vehicle access control | P.A.R.C.S. | PMS | Gate-less/barrier-less parking

Traffic management

ITS and Traffic enforcement

Capturing vehicles and collecting data in free flow mode based on video analytics. No trigger device or sensors are needed. Not relying on external sensors will save money and resources right at installation and during maintenance as well.

Tolling

Provide license plate data to road toll applications real-time for vehicle recognition. The multiple image source feature of ARU enables the processing of images created by sensors using triggers for vehicle detection. In such cases images are uploaded by the camera into a folder (usually on FTP) for processing.

Security and surveillance

General reporting

In case of gateless (barrier-less) or access control-based solutions ARU can save event results in a database. These can later be exported daily or on a user-defined custom time-period basis. Results are saved into excel files by default and reports can be generated for custom vehicle groups created earlier, managed easily through the GUI (black, white or custom lists).

CCTV, DVR and VMS

ARU can fit with any CCTV camera as IP cameras are supported directly – standard IP video stream (http or rtsp) is integrated. Adding an image source for processing is easy. Pick your choice of CCTV camera from a pre-set list or look up and enter the URL of the video stream.

ARU can also be integrated with VMS systems seamlessly. Using either the database including the vehicles by license plate registration number and country or retrieving the data pushed automatically to the application via an API under TCP protocol is an economical solution to enhance VMS with LPR.

Parking & access control

Vehicle access control

Creating security centers based on LPR – with access control – are the essentials of setting up vehicle entry and exit points. Our technology allows you to secure and monitor areas previously left unprotected such as parking lots, condominiums' access points, university-, hospital- and government facilities with passing traffic.

Parking enforcement

With ARU you can process images taken and uploaded from a handheld/mobile device onto a processing server. Licensing schemes of Asura lets you use your own server with on-premise license or have Asura host LPR as a service and provide you the results by pushing the data to your business application.

Gate-less/barrier-less parking

No need for loops or other triggering devices/sensors to detect vehicles. ARU is fully capable of reading license plates and capture the vehicles' image in free flow mode. Due to its high accuracy, no gates or barriers are necessary.

ADVANTAGES

Plug & Play

LPR integration made as easy as an application

Integrating an LPR software usually means a lot of development. ARU can integrate without allocating significant resources, that results in saving both time and money.

Camera-vendor independent

Any camera regardless of manufacturer

ARU can work with any IP camera or image source that provides sufficient image quality. Manage your risk with vendors more effectively than ever.

98%+ globally

Top rate LPR reading: 98%+ recognition rate in over 110 countries

Recognition rate is maximized due to innovative video analytics technology based on machine learning.

What is AI SHIELD?

AI SHIELD is a set of visual data collection engines and video analytics software to detect threat on video surveillance systems. An AI enhanced system for multilateral recognition of different sources of threat: AI SHIELD detects dangerous objects, motion and other visual data that can indicate potential terrorist or other attacks. It can be applied in various fields of video surveillance.

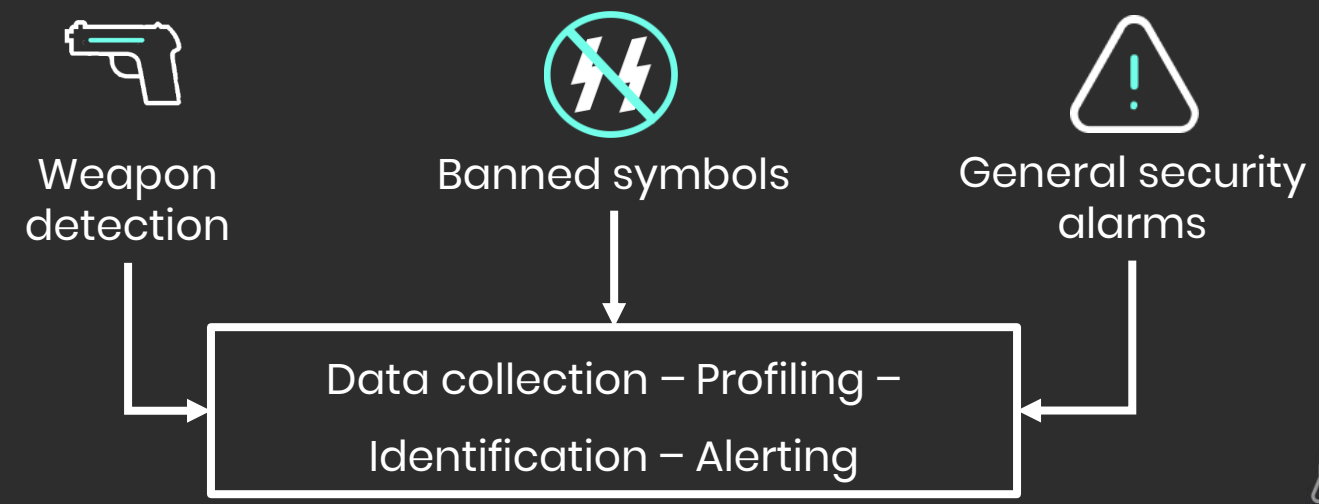
AI SHIELD

- VMS software
- CCTV cameras
- General surveillance

AI SHIELD

COMPLEX THREAT DETECTION

Detection of threats is not always enough. Prevention and taking effective action requires a multilateral analytic and alarm system. AI Shield, the video analytics system developed by Asura is capable of analyzing images, video streams or other visual input to classify and distinguish between different threat-levels.



Features

Weapon Detection and Classification

Weapon detection and classification on real-time surveillance camera stream or recorded footage (pointed/edged weapons, small firearms, machine guns, rifles, heavy guns, etc.)

Symbol detection and recognition

Recognition of banned or other symbols associated with certain groups posing potential threat as well as discriminatory signs and symbols (e.g. the symbols listed at fare.org).

Other threat alarms

Combining the most outstanding threats with general, existing alarms like smoke, fire and other pattern detection to classify and verify different levels of threats and security breaches.

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Video surveillance with AI SHIELD

Combining AI SHIELD features with general surveillance technologies can be highly efficient for tracking down threats (suspects) and enforcing law and stadium rules.

AI SHIELD – ALERT

People counting and tracking – LOCALIZE

Face Recognition – IDENTIFY

Advantages

Camera-vendor independent

Any camera regardless of manufacturer

The analytics system can work with any IP and analogue camera or image source that provides a sufficient image quality. You can manage your risk with vendors more effectively than ever.

Integration-readiness

Asura Technologies will integrate it for you

We deliver the software integrated into various VMS systems. In case you have a different one, we deliver a turn-key solution – no need to waste time, resources and effort on the integration.

Real-time alerts

The system alerts real time for prevention

Detecting a shooting after it happens leaves no opportunity for efficiently taking action or prevention. AI SHIELD system detects potential threat before an incident happens. Tracking back the security incidents becomes a secondary function behind prevention.

Applications

Sport events

Complete identification multiplies the effectiveness of incident detection, identification and retracing. Operates even in crowded environments.

High security facilities

Banks, embassies, airports, educational, governmental and law enforcement facilities, etc.

Crowded events, demonstrations

Surveillance cameras and mobile solution – the latter works on cameras mounted on vehicles as well.

Acts of terrorism, Alerts

The system works seamlessly using new or already established infrastructure like general security- or surveillance camera footage. Connects to CCTV/VMS systems to identify terrorist threat: detects and identifies weapons to automatically alarm authorities.

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R&D: upcoming software features

General security:

Motion analysis for classification and threat detection

Other threat detection analytic systems

Traffic:

Detecting traffic violations (red lamp, forbidden U-turn, speeding, etc.)

Speed measurement based on video stream

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Why choose Asura?

To create leaner and budget-conscious security systems

Plug 'n Play: user friendly setup enables your engineers and developers to set up the application fast and work more efficiently

Camera agnostic: the hardware independent technology not relying on external sensors allows the delivery of cost-effective solutions.

Video analytics: implemented triggering based on video analytics will allow you to save the cost of additional hardware equipment.

Complete identification solutions through combining video analytics, computer vision and AI technology.

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