

6SS IVA®-Vehicle Detection was developed to automate Vehicle Surveillance which is becoming more and more critical with each passing day. It enables the detection of Vehicle during day or night, in good or average visibility conditions, with an outstanding accuracy and a very fast processing speed. It can be used in multi-purpose applications, involving public and private roads monitoring, parking lots surveillance, and many more. 6SS IVA®-Vehicle Detection is fully integrated with all Milestone XProtect versions where all the details including Vehicle recordings, Reports and Statistics will be accessed directly from the Smart Client interface.

IVA DATA FLOW

1. CCTV Cameras send RTSP streams to 6SS IVA® Server. The Cameras should support RTSP Protocol
2. 6SS IVA® Vehicle Detection Software performs automated detection of vehicle in video feeds using intelligent video analytics algorithms. The results from the 6SS IVA® Vehicle Detection Server are stored in the SQL database.
3. The Smart Client retrieves data from the SQL database and processes alarms according to the predefined alarm configurations.

*The Recording Server maintains a direct connection with the Smart Client for any Video inquiries.

*Alarm generated from 6SS services to the event server.

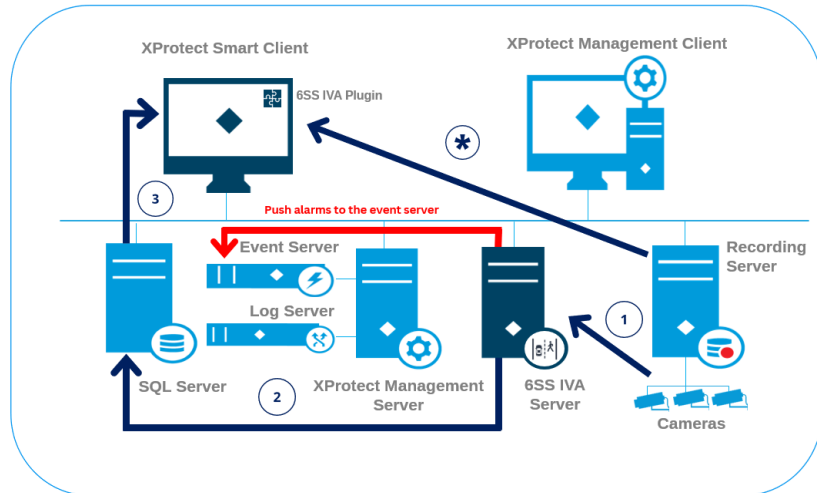


Figure 1 System Architecture

Functionality

6SS IVA® Vehicle Detection is an AI-driven video analytics solution that uses advanced computer vision to detect, classify, and track vehicle activity through existing IP cameras. The system processes RTSP video streams in real time to identify vehicle presence, movements, and behaviors, enabling initiative-taking monitoring and enhanced traffic and security awareness. The software includes a dedicated Vehicle Detection module designed to accurately distinguish vehicles from other objects, reducing false alarms while providing precise movement tracking and activity analysis. It supports the identification of different vehicle types and can generate instant alerts when predefined conditions or rules related to vehicle detection are met, improving response times and operational efficiency. Integrated with the XProtect Plus suite, IVA Vehicle Detection delivers enriched metadata and real-time notifications related to detected vehicles, supporting intelligent search, monitoring, traffic management, and security workflow automation.

Main Benefits

- Cost effective
- User-friendly interface and easy configuration
- High Processing speed saves time and improves efficiency
- Automation of Vehicle surveillance
- High accuracy and recognition rates
- Increased security and safety
- Centralized monitoring through the smart client
- Multiple applications and use cases
- Development team is always available to add custom-tailored features in case needed

Key Features

- Vehicle Color Estimation
- Vehicle Make and Model Estimation
- Direction Detection
- Type Detection (Pedestrian, Truck, Bus, Car and Bike)
- Alarms depending on configuration
- Automatic data retention period handling
- Can handle many fields of view, from close-up footage, to higher up, far range footage
- Customizable dashboards and statistics
- Customizable upon request
- Easy operation
- Flexible filtering functionality
- High detection accuracy
- Multiple detection & classification models and logic-based modules could be applied on top of the detected Vehicle
- One-click data export in Excel and PDF format
- Option to view a playback video for the period when the vehicle was detected
- Seamlessly integrated with all Milestone XProtect versions
- SQL Retention Period
- Support Microsoft SQL Express, Standard, and Enterprise editions
- Uses RTSP Protocol

Additional Features

- Congestion Detection
- Illegal Turn Detection
- Speed Estimation
- Stationary Detection
- Tailgating Detection
- Vehicle Counting
- Vehicle Entry/Exit Counting
- Wrong Way Detection

Applications

- Surveillance of private and public roads
- Security monitoring of parking lots
- Monitoring unusual vehicles behavior (e.g., wrong way, illegal turns, stationary vehicles)
- Collection of statistics regarding vehicles visiting a road or venue (vehicle type, make & color)
- Ensuring speeding laws are followed
- Monitoring roads for traffic jams

Business Value

Keeping track of crowd movement and access is much more effective with the use of an automated computer software. 6SS IVA®-Vehicle Detection can be used in all applications where automatic detection of vehicle is needed especially surveillance, security, and access control. Using this application will assist in reducing the time and manpower needed for manual monitoring which will lead to higher security, increased revenue and benefits, and decreased labor cost.