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# Safer and Smarter Cities Require Data-Driven Public Safety

## Hitachi Video Analytics for public safety and security provides comprehensive, accurate insights and alerts to help protect communities, buildings and critical infrastructure.

### Hitachi Video Analytics is a Force Multiplier for Public Safety

Today's digital revolution allows video data to be transformed into intelligent information that can be used for the security and safety of people, assets and buildings, as well enterprise operations and revenue-generating applications. The industry's leading real-time video analytics solution, Hitachi Video Analytics (HVA) makes this transformation a reality. Its holistic approach to surveillance, operational efficiency and business intelligence addresses privacy concerns, while delivering continuous visibility of data for decision-makers to act quickly and make smarter decisions.

The HVA suite offers a wide range of security and safety analytics for public safety and security operations. By delivering superior video verification of breaches in real time, HVA optimizes videos from remotely monitored sites to enhance visibility for operators and improve event detection (See Table 1).

HVA also supports enterprise applications for private and public operations. Consider a plant seeking to monitor and improve manufacturing output, a retailer interested in seeking information on shoppers' buying habits, or a city looking to invest in a new transportation system. In each scenario, the intelligent data that HVA generates can be used for revenue decision-making.

HVA delivers on the promise of unified video surveillance, with easy setup and configuration and highly accurate real-time event detections. Its distributed architecture offers unlimited scalability and one of the lowest false-positive alarm rates in the industry: These are critical factors for facilitating large-scale deployments to thousands of distributed remote sites, without being forced to increase the number of security staff.

For example, the intelligent data collected can be used to prevent crimes or increase efficiencies in city infrastructure, as well as other public and private organizations. The possibilities of insight are limitless. HVA offers a solution for intelligent data that leads to faster and smarter decisions.

### Video Quality and Reliability are Critical to Surveillance

High-quality digital surveillance cameras are ubiquitous. As growing concerns from the public spur greater need for security and safety controls, more cameras are being used to capture events in our communities.

Applying analytics to surveillance video is only part of the solution; the other part is ensuring video analytics are reliable and can accurately detect what they need to detect. Weather elements can cause poor image quality, which is one of the reasons that video analytics fail. HVA ensures a stable and clear image by applying all types of environmental filters as needed to counter rain or snow, fog or wind, sleet and most other conditions.

Another reason systems fail is the inability to distinguish between a real alarm and a false one. Unlike most video analytics that offer only a single algorithm for all video content analysis applications, HVA uses unique, next-generation algorithms specific to each application. This approach includes 3D algorithms, advanced particle tracking and noise filtering, delivering extremely low false-positive rates and unparalleled analysis.

| Public Safety | Business Intelligence | Traffic and Operational Intelligence |
|---|---|---|
| • Intrusion Detector<br>• Object Detector<br>• Facial Matching and Detection<br>• Activity Visualizer | • Activity Visualizer<br>• People Counter 3-D<br>• Queue Detector | • Direction Controller<br>• License Plate Recognizers<br>• Parking Space Analyzer<br>• Traffic Analyzer<br>• Vehicle Counter |

Table 1. Hitachi Video Analytics

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### Intrusion Detection

HVA's intrusion-detection capabilities sense when people, animals, cars and other objects enter properties, buildings, perimeters and other critical areas. Alerts can be triggered when a person walks from the green zone into the red zone.

### Object Detection

HVA can be configured to generate an alarm if it detects a dangerous object within a targeted area or a scene in which a static object has been added, removed or left unattended for a certain period of time. To enhance viewing, perspective and background (for example, static, outdoor and so forth), modes are all user configurable. A state-of-the-art image stabilizer delivers sharp images under lighting conditions that would have previously been considered too iffy for capturing sharp still images.

### Accurate People Counting

HVA provides an accurate count of individuals as they walk into a zone or facility. Results can be separated based on the direction that people enter or leave the targeted area. Multiple people can be tracked and counted at the same time in multiple directions.

### Detailed Traffic Analysis

HVA can count the number of trucks, cars, busses and bikes in up to four lanes. Vehicle counting can be conducted for an unlimited amount of directions. This capability can configure multiple monitoring time intervals to identify traffic volume, transportation trends and motion patterns, and then render informed decisions.

## Hitachi video analytics integrates with the following video management systems :

- Genetec
- Milestone Systems
- Siemens
- GeoVision
- Syac
- Cisco
- OnSSI
- Dallmeier
- Exacq Technologies
- AxxonSoft
- Alnet Systems
- Guetebruck
- Frequentis
- SeeTec
- Netavis

### Facial Matching and Detection

HVA collects the faces appearing in video streams and applies highly precise algorithms to achieve unparalleled success rates for facial detection. HVA can also extract the time and place when a face was detected, and report results in seconds.

### License Plate Recognizers

License plate recognition can be used for both private and public deployment. It can be used in surveillance applications to find stolen cars or offenders that are on wanted lists (black lists). Once a plate of interest is detected, a series of actions can trigger police notification. It is also designed to operate in high-speed environments and is commonly used for barrier-access-control parking environments. Vehicles on the white list will be granted access, and those that are denied will trigger an alarm. This application recognizes plates from more than 130 countries and cross-references them with the local databases.

### Activity Visualization

The HVA activity visualizer empowers users to recognize well-traveled paths, identify popular locations and pinpoint frequently visited areas. It can also analyze lines to detect overcrowding and sound an alarm if the number of people standing in line has reached the user-defined queue length.

## Now is the Time for Smarter Public Safety

As urban centers grow at increasingly accelerated rates, police, businesses and organizations need to find ways to create safer, smarter and more efficient public spaces. Traditional video surveillance for safety and security alone no longer offers the needed benefits for the congested cities of today. To gain the full value of video surveillance and enable faster, smarter security decisions, Hitachi Video Analytics transforms your surveillance data into actionable intelligence.

## Take the Next Step →

To learn more about Hitachi Video Analytics, visit our HVA webpage or send us an email to request more information.

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